



SIMATIC PCS 7

Novedades v9.1

¡Bienvenidos!
Hora de Inicio 16:00
15 de Junio de 2021

TEAMS

Silenciar micrófono. La sesión será grabada

Está grabando Informe a todos de que se les está grabando.

Política de privacidad Descartar

Abandonar

SIMATIC PCS 7

Novedades v9.1

¡Bienvenidos!
Hora de Inicio 16:00
15 de Junio de 2021

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La sesión va a ser grabada

Se ruega silenciar micrófono

01:14

Zona de registro y próximos Webinars

Si está interesado puede registrarse en alguno de los próximos Webinars en:

<https://siemens.es/workshops>

SIEMENS - Webinars 2021

SOLICITUD DE ASISTENCIA

En primer lugar, queremos agradecer su interés por participar en alguno de los Webinars 2021 que hemos previsto para el próximo semestre.

.....

Podrá indicar 1 único Webinar / Registro, pudiendo realizar tantos registros como Nº de Webinars a los que desea asistir.

.....

LEY DE PROTECCIÓN DE DATOS

Los datos que nos aporte en el momento de su registro se incorporarán en la Base de datos de SIEMENS, S.A. para los siguientes fines:

- Gestión integral del evento o la campaña referidos, así como el envío de información sobre eventos o campañas similares del responsable.
- El envío de información sobre otros productos y servicios.

Legitimación: Consentimiento del interesado.

Destinatarios: No se cederán datos a terceros, salvo obligación legal.

Derechos: Acceder, rectificar, suprimir los datos y otros derechos, como se explica en la información adicional.

* Obligatorio

1. Indique el Webinar para el que solicita el registro. *

- 03/11/20 - Webinar - SIMATIC Ecosystem. Completa Solución de Automatización para la Industria 4.0. Horario: 16:00-17:00 h
- 06/11/20 - Webinar - SIMATIC Ecosystem. Completa Solución de Automatización para la Industria 4.0. Horario: 09.30-10.30 h

1. Indique el Webinar para el que solicita el registro.

Selecciona la respuesta ^

- 24/11/20 - Webinar - TIA Portal Ecosystem. Concepto y aplicación en la I4.0 Horario: 16.00-17.00 h
- 27/11/20 - Webinar - TIA Portal Ecosystem. Concepto y aplicación en la I4.0 Horario: 09.30-10.30 h
- 01/12/20 - Webinar - Eficiencia Energética enfocada al uso de variador de velocidad. Horario: 16:00-17:00 h
- 04/12/20 - Webinar - Eficiencia Energética enfocada al uso de variador de velocidad. Horario: 09.30-10.30 h
- 09/12/20 - Webinar - Ejemplos de digitalización en instrumentación. Horario: 16:00-17:00 h
- 11/12/20 - Webinar - Ejemplos de digitalización en instrumentación. Horario: 09:30-10:30 h
- 15/12/20 - Webinar - SIMATIC Drive Controller basado en S71500T: Solución ultra compacta Horario: 16:00-17:00 h
- 18/12/20 - Webinar - LOGO! 8.3. El Mini PLC de siempre, ahora con conexión a la nube !!! Horario: 09.30-10.30 h

Zona de Registro

Pregunta nº 13.- Temáticas de interés

<https://siemens.es/workshops>

13. Ruego nos indique aquellas otras temáticas que le gustaría tuvieramos en cuenta a la hora de programar nuevos Webinars

Escriba su respuesta



* Obligatorio

Intereses

- Arquitectura PCS7
- Comunicaciones, ciberseguridad,
- COMUNICACIONES, TIA PORTAL, VARIADORES Y SERVOS
- Configuración PCS7
- Digitalizacion
- HMI Wincc PCS7
- Logistica

SIEMENS - Webinars 2021

SOLICITUD DE ASISTENCIA

En primer lugar, queremos agradecer su interés por participar en alguno de los Webinars 2021 que hemos previsto para el próximo semestre.

.....

Podrá indicar 1 único Webinar / Registro, pudiendo realizar tantos registros como Nº de Webinars a los que

orarán en la Base de datos de SIEMENS, S.A.

envío de información sobre eventos o

gal.

como se explica en la información adicional.

...



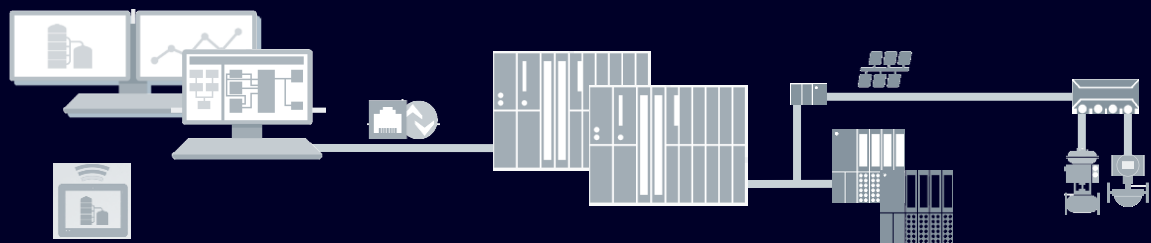
SIMATIC PCS 7

Novedades v9.1

SIMATIC PCS 7

Wide range of expansion options

| | | | | | | |
|--|---|---|--|--|---|--|
| <p>Information Management</p>  | <p>Life Cycle & Services</p>  | <p>Integrated Engineering</p>  | <p>Plant Asset Management</p>  | <p>APC Optimization</p>  | <p>Energy Management</p>  | <p>Batch Automation</p>  |
|--|---|---|--|--|---|--|



SIMATIC PCS 7

| | | | | | | |
|--|---|---|--|---|--|--|
| <p>Simulation FAT/OTS</p>  | <p>Integrated Switchgear</p>  | <p>Integrated Package Units</p>  | <p>Integrated Field devices</p>  | <p>Safety Integrated</p>  | <p>Integrated Telecontrol</p>  | <p>Route Management</p>  |
|--|---|---|--|---|--|--|

| SIMATIC PCS 7 V9.1

Hardware highlights

SIMATIC ET 200SP HA – portfolio additions

What's new with SIMATIC PCS 7 V9.1

SIMATIC ET 200SP HA – Goes Failsafe!

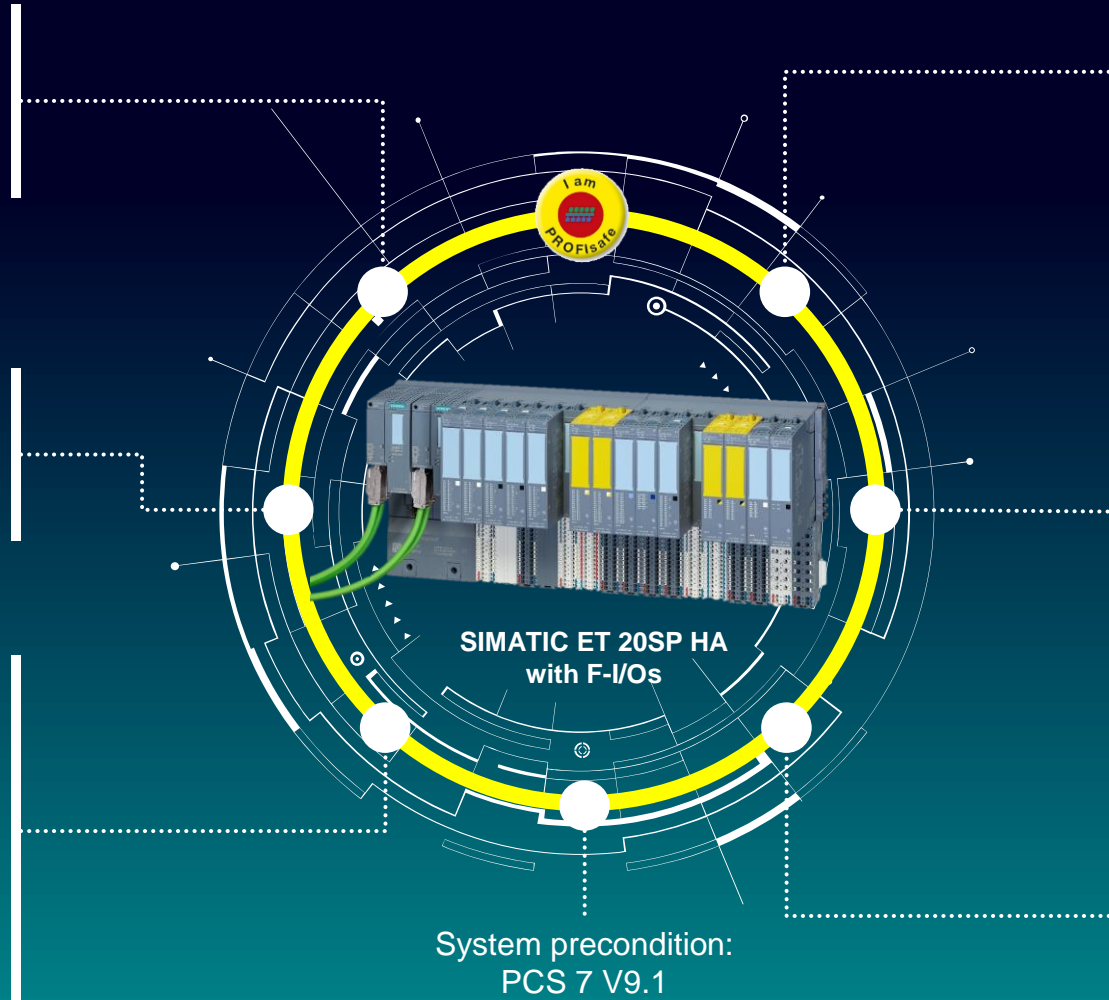
Failsafe I/O modules at a glance

Combination of Standard I/O and Failsafe I/O modules in one ET 200SP HA station
Failsafe I/O modules expand the range of ET 200SP HA system

Functional safety certified by **TÜV Süd** in accordance with **IEC 61508**.
Designed for safety-related use up to **SIL 3 / Cat.4 / Ple**.

Highest robustness for harsh environments:

- -40°..+70° C
- Conformal coating
- NE21 conform
- Operation up to 2,000 m
- Installation of I/O modules up to Ex zone 2



Safety-related communication via latest **PROFIsafe** profile.

Range of Failsafe I/O modules:
(2/4 channels, 20 mm wide)

- F-DI 16x 24 VDC
- F-DQ 10x 24 VDC
- F-AI 8x I 2-/4-wire HART

Improved diagnostics (e.g. Identification data I&M) including PCS 7 Asset Management.

SIMATIC ET 200SP HA – Goes Intrinsically Safe!

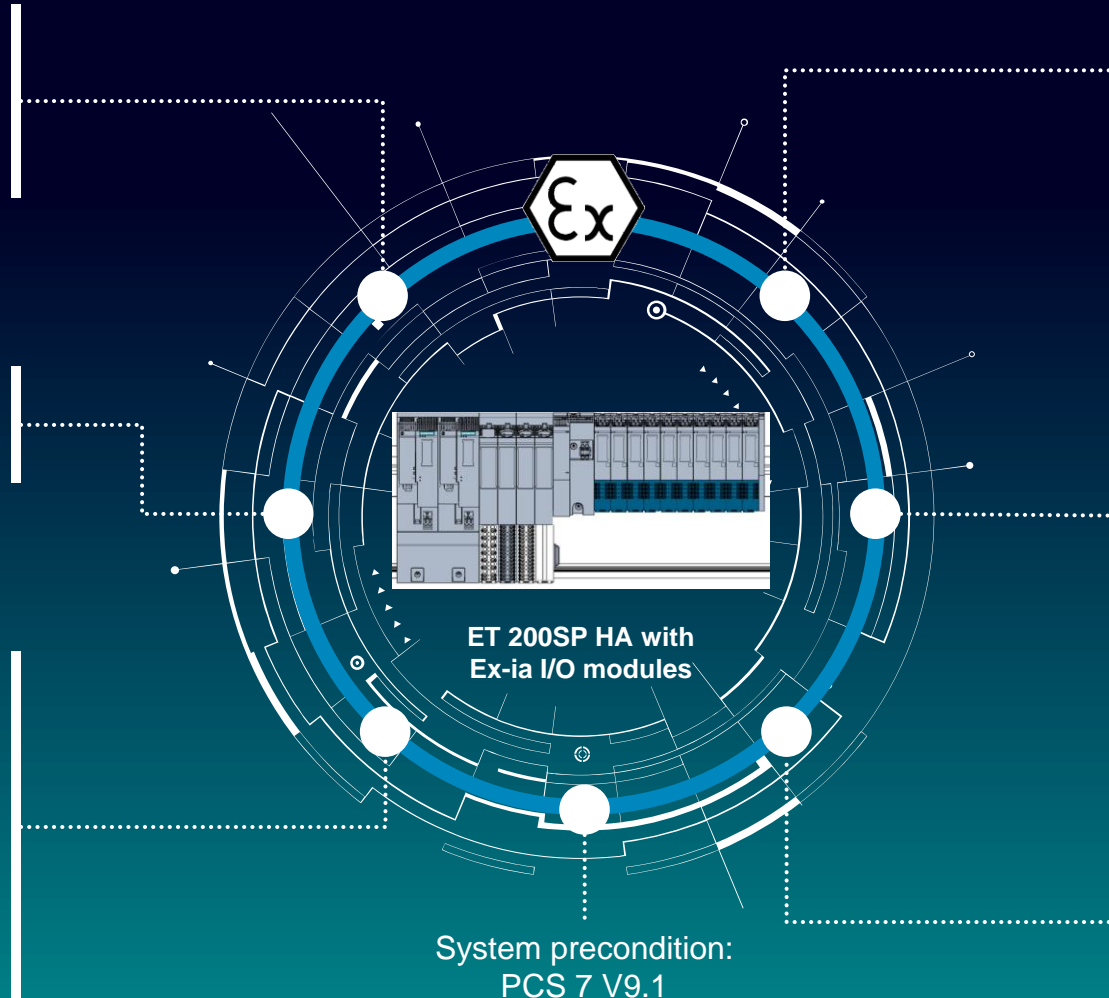
Intrinsically Safe I/O modules at a glance

Combination of Standard I/O and Intrinsically Safe I/O modules in one ET 200SP HA or ET 200SP station
Intrinsically Safe I/O modules expand the range of ET 200SP HA system

IECEx certified by **DEKRA** in accordance with **IEC 60079**.
(FM/UL in Step 2)

Highest robustness for harsh environment:

- -40°..+70° C
- Conformal coating
- NE21 conform
- Operation up to 2,000 m
- Installation of I/O modules up to Ex zone 2



Power module:

- 0.8 A up to 60° C
- 0.6 A for up to 70° C

Full range of Ex-ia I/O modules:
(2/4 channels, 20 mm wide)

- Ex-DI 4x NAMUR
- Ex-DQ 2x 17.4 V DC/27 mA (54 mA)
- Ex-DQ 2x 23.1 V DC/20 mA
- Ex-AI 2x I 2-wire HART
- Ex-AI 4x TC/2xRTD 2-/3-/4-wire
- Ex-AQ 2x I HART

“Built-in barriers”
reduce wiring-effort, space and costs:
Ex-ia protection for connection up to Ex zone 1/0

SIMATIC ET 200SP HA – Goes Galvanically Isolated

New analog cards with high channel-to-channel isolation

AI 4x I 2-/4-wire HART ISOL

AQ 4x I HART ISOL

Parallel A/D and D/A conversion for very fast signal processing and robustness

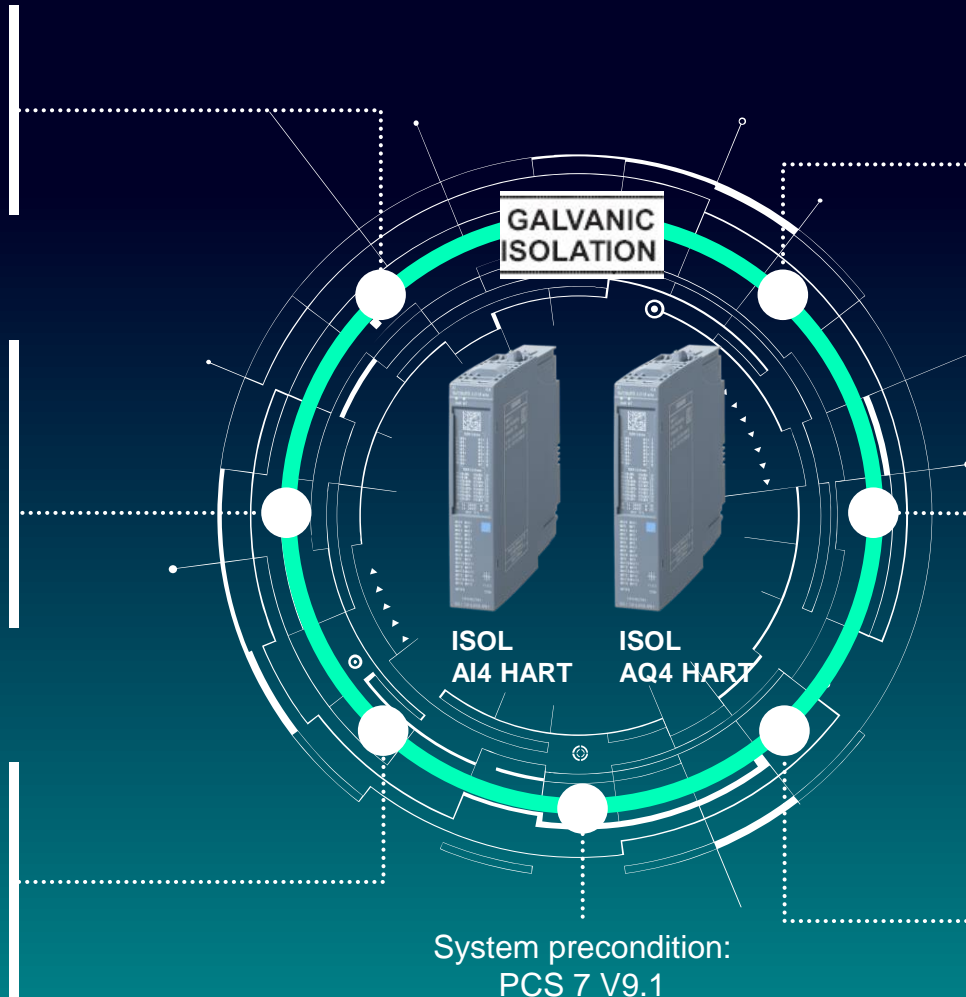
Single channel isolation ensures availability and accuracy

- 4x **galvanically isolated** analog inputs or outputs
- Potential difference **250 V AC** (Channel-to-Channel) and **125 V AC** (Channel-to-Backplane)

“Built-in isolators” reduce wiring-effort, space and costs



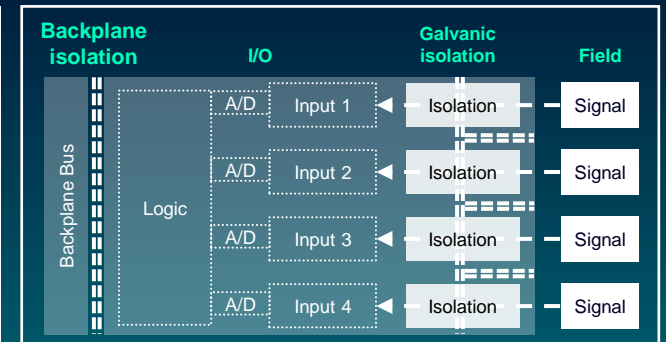
~\$90 per isolator



System precondition:
PCS 7 V9.1

Highest robustness for harsh environment

- -40° ..+70° C
- Conformal coating
- NE21 conformity
- operation up to 4,000 m
- Installation up to Ex zone 2



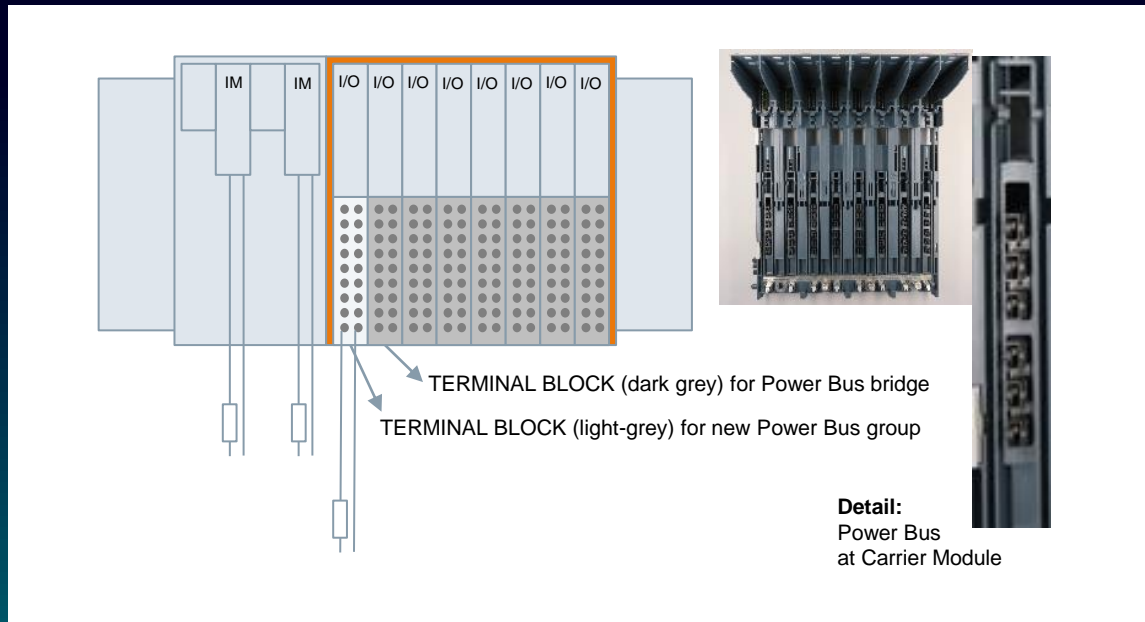
Isolation to decouple floating potentials between sensors
(Best for external powered 4-wire transmitters)

SIMATIC ET 200SP HA – Accessories

Carrier Module 8-fold **without** Power Bus

8-fold carrier with Power Bus ✓

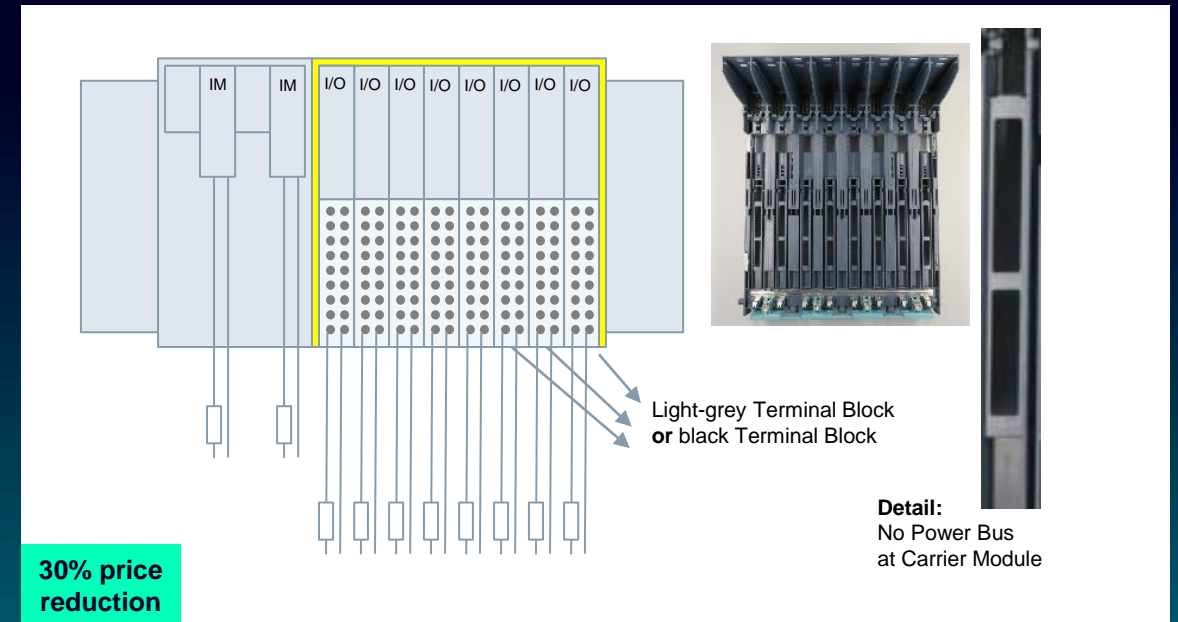
6DL1193-6GC00-8NN0



- One power feed at light-grey terminal block per Power Bus group
- Power transmitted to next I/O card by clamps of Carrier module
- Advantage: Less cabling and less fusing

8-fold carrier **without** Power Bus ✓

6DL1193-6GC00-8NN0



- Carrier without Power Bus clamps
- Each I/O card has to be individually powered
- Use of “light” or “black” terminal blocks only
- Advantage
 - Reduced price due to reduced material and manufacturing cost
 - Individual fusing of each I/O module

SIMATIC ET 200SP HA – Accessories

Carrier Module 8-fold **without** Power Bus

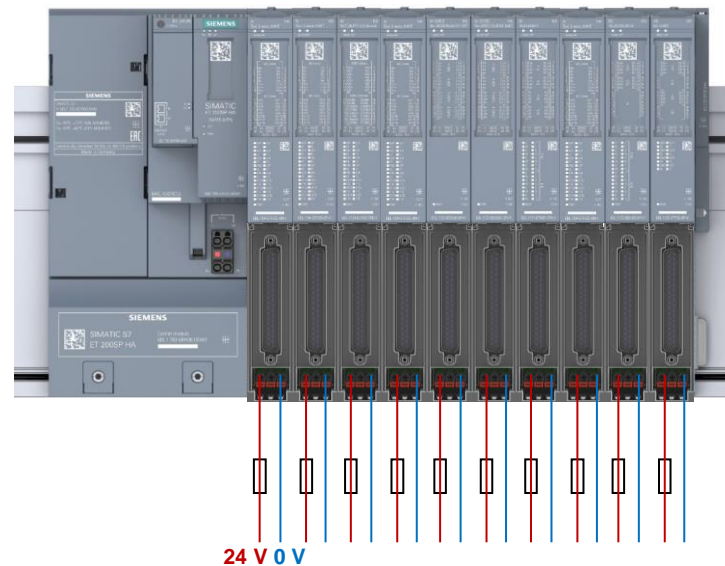
8-fold carrier **without** Power Bus ✓ 6DL1193-6GC00-8NN0



~30% price reduction

Individual Power Supply feed in for each IO Module for highest availability

Application example with new D-SUB TB



SIMATIC ET 200SP HA – Accessories

D-SUB Terminal Block for fast wiring and simple field connection

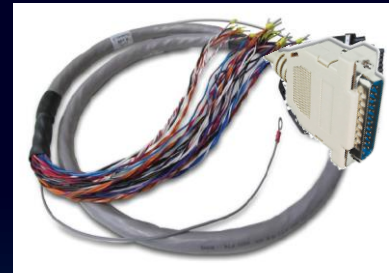
TB32 D-SUB Single

6DL1193-6TC00-0DH0

- Type H0
- Fast connection of process signals and load supply at the terminal block
- D-SUB Terminal Block with 32x I/O connections
- Single-Terminal Block **without** Power Bus
- Current carrying capacity per pin (D-SUB) 2 A
- Pluggable connector for 24 V load supply
- Compatible with all available base carriers
- Supported ET 200SP HA I/O Modules:
 - AI 16x I HART, AI-DI16/DQ16x 24 V DC HART
 - AI 16x TC/8XRTD (temperature compensation not supported)
 - AQ 8x I HART
 - DI 16x 24 V DC, DI 32x 24 V DC, DI 16x NAMUR
 - DQ 16x 24 V DC/0.5A, DQ 32x 24 V DC/0.5 A
 - FDI 16x 24 V DC, F-DQ 10x 24 V DC/2 A

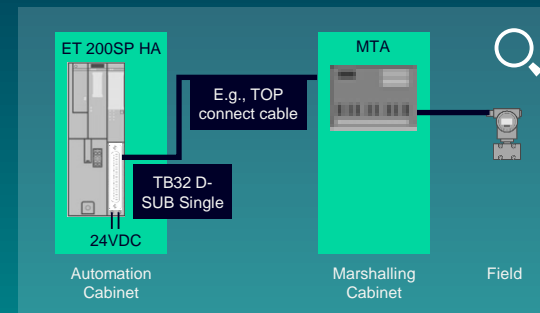
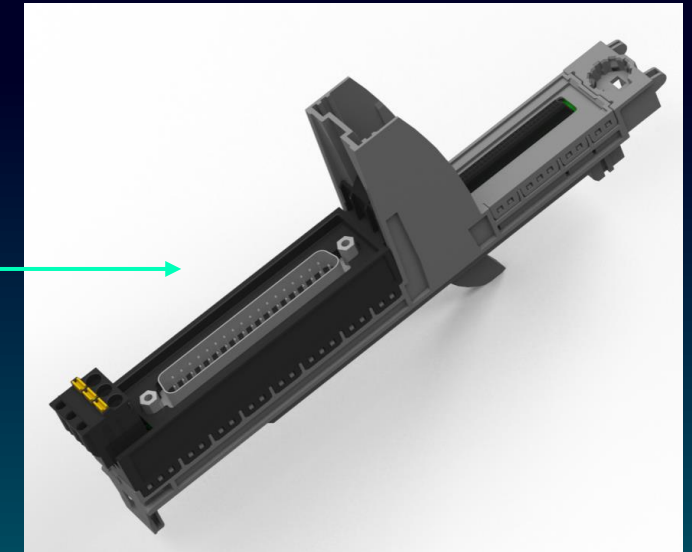
SIMATIC TOP Connect Cable

- Pre-assembled D-SUB to ferruled flying leads cable
- Cable length: 3 m, 5 m and 8 m
- 32x wire with 0.14 mm²



D-SUB signal cabling
(e.g., pre-assembled cable)

24 V DC powering



Usecase #migration: Fast switchover without touching field wire.

Usecase #greenfield: Fast and error-free connection of wiring boards and marshalling terminals.

| SIMATIC IPC

What's new with SIMATIC PCS 7 V9.1

Rack IPC – Next Generation “E”

... SIMATIC IPC 647E/847E

High Performance

- Intel Xeon/Core i (8. Gen. – Coffee Lake)
- **>68% performance increase vs. 847D**
- Fast DDR4 Memory up to **128 GB** Standard and 64 GB ECC RAM (847D: DDR3, 32 GB max.)
- SSDs up to 2TB capacity
- M.2 Flash Memory NVMe, PCIe Lane up to 1TB
- Process Historian Hardware configuration possible

Compatibility and Security

- Windows 10 Enterprise 2019 LTSC
- Windows Server 2019 Standard Edition
- TPM 2.0 (optional)

Life Cycle

- Innovation cycle approx. 3 – 4 years
- Active lifecycle of 5 – 6 years
- Repair/spare parts for at least 5 years



Virtualization

First Step of Microsoft Hypervisor (Hyper-V) Support based on Windows Server 2019 Standard Edition with PCS 7 V9.1. (minimum Hardware configuration required)

Lots of Extensions

- 2 PCI + 2 PCIe or 4 PCIe (647E)
- 3 PCI + 8 PCIe (847E)
- 3 channel Multi-Monitoring on board
- 3x Gigabit Ethernet onboard
- Interfaces (USB 3.1, DP 1.4)

Availability and Robustness

- RAID 1 and 5 configuration
- Hardware RAID Controller with SAS HDD
- ECC RAM
- Redundant Power Supply incl. Diagnosis

BOX and Panel IPC – Next Generation “E”

... SIMATIC IPC 427E/627E and 477E/677E

+ More user-friendly

- New enclosure concept (LEDs, drives)
- Easy modification

+ Latest technology and top system performance

- Intel Core i processors (“Coffee Lake”/8th Generation)
- DDR4 memory, up to 64 GB
- USB 3.1 Gen 2 and Type C
- M.2 NVMe SSD internal (PCIe 3.0 x4)
- 3x graphics interfaces with support for 4K monitors
- Windows 10 Enterprise 2019 LTSC
- Windows Server 2019 Standard Edition (64bit)

+ Greater flexibility and security

- 3x Gigabit Ethernet onboard
- 2x PCIe x16, x4 or 1x PCIe x16 and 1x PCI
- TPM 2.0 (optional)



IPC627E



IPC677E

| PROFINET

What's new with SIMATIC PCS 7 V9.1

PROFINET

Technology Benefits and Enhancements



Availability



IE/PB Link HA

6GK1411-5BB00

- S2-device with H-CiR/MRP (PA ready)
- New use case: Single PB-slaves attached to an H-System¹

Improvement



PN/PN Coupler

6ES7158-3AD10-0XA0

- S2-device 1000 bytes process image spaces (each direction: Read and write)
- 1440 bytes process image space in non redundant case
- MRP
- Galvanic isolation

Flexibility



PROFINET over IWLAN on SCALANCE W700

6GK57 ...

- Up to 8 PN-devices behind an iFeature WLAN client
- S2 and R1 Redundancy supported with FW from V6.5.0 up

Reliability



Y-Switch SCALANCE XF-200(BA) DNA

Coming with next HSP

- Y-Switch Redundancy
- Supported with FW from V4.2 up

¹ Not for modular PROFIBUS Slaves (e.g., Remote I/O's)

PROFINET Network Infrastructure ... Products Update



SCALANCE XC2xx/XB2xx/XF2xx

Coming with next HSP

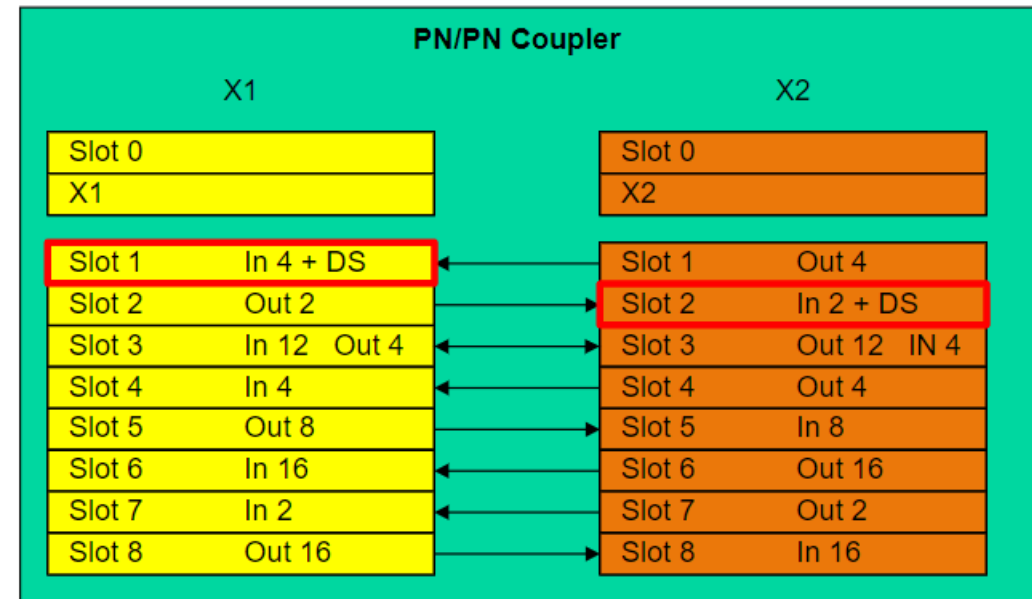
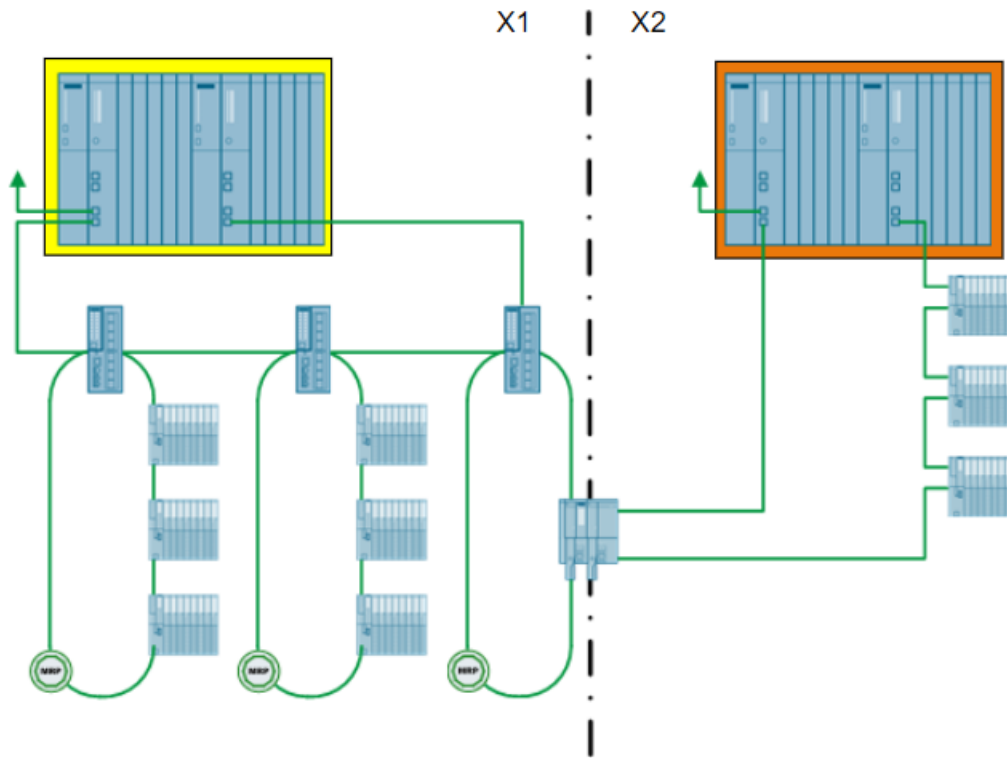
- Firmware update V4.2
- MRP-I (MRP-Interconnection)
- Additional small improvements



SCALANCE SC6xx

- Successor for existing solutions with ServiceBridge for PROFINET
- Configuration via Web Based Management only

PROFINET Network Infrastructure ... PN/PN Coupler V4.2

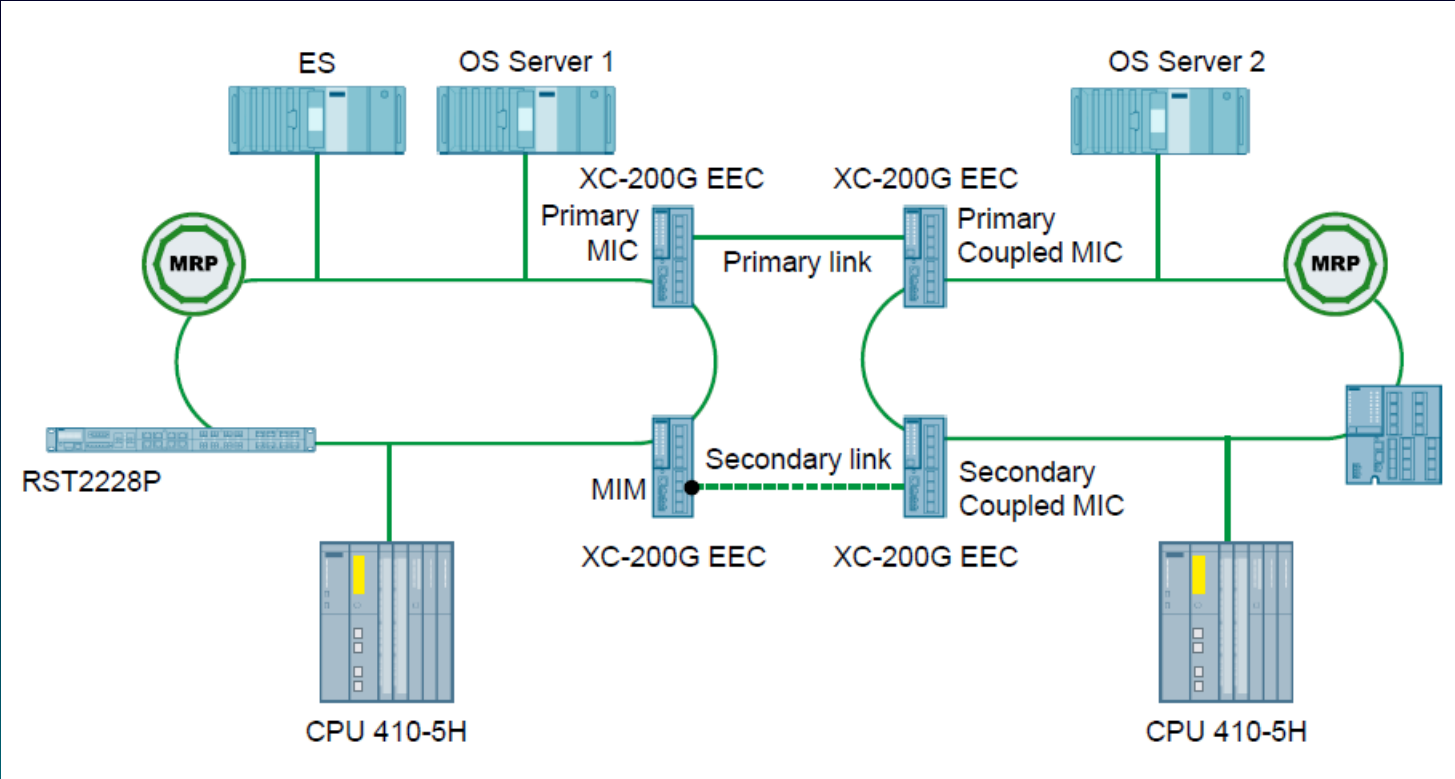


DS – Data status byte

Values:

- 0x40: There is no valid coupling partner of the module input data in the other subnet.
- 0x60: The IO controller in the other subnet is in STOP state.
- 0x80 Valid user data received from coupling partner

PROFINET Network Infrastructure ... MRP Interconnection (MRP-I)

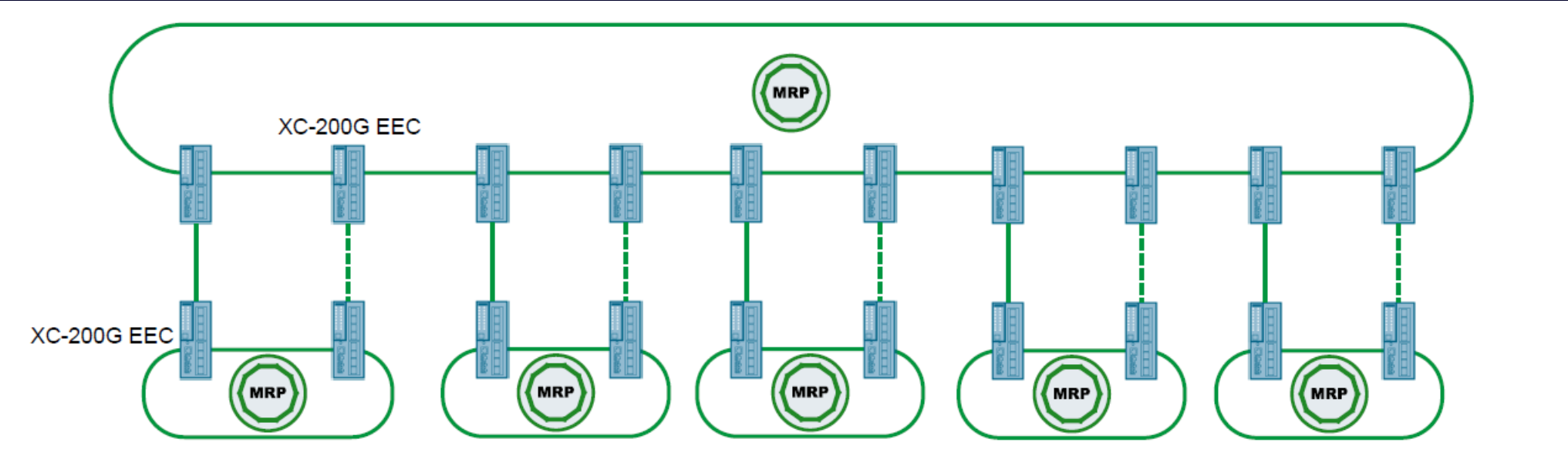


- reconfiguration time is less than 200ms

- Blocked mode

MIM –Media Redundancy Interconnection Manager
MIC –Media Redundancy Interconnection Client

PROFINET Network Infrastructure ... MRP Interconnection (MRP-I)



| SIMATIC PCS 7 V9.1

Software highlights

SIMATIC PCS 7 – Plant Generator

Efficient Engineering

Features

- Control – Template-based Import/Export using predefined CMT/EMT templates
 - Generating control modules for process plants on sensors and actuator level
 - Modifying variants of control modules
 - Generating equipment modules respectively equipment phases on group control level
- Support of spreadsheet engineering using the familiar Excel SW
- Exchanging CMT type relations of CM instances

Key Benefits

- Efficiency – Generating CMs/EMs completely from scratch Providing an easy-to-use import/export tool
- Interoperability – Excel (csv file) as well as SimaticML (XML) support
- Flexibility – Modifying/Updating support
- Useable with existing Import-Export Assistant (IEA) License



The collage illustrates the workflow of the SIMATIC PCS 7 Plant Generator. It features several key elements:

- Generate/Import Dialog:** A screenshot showing the 'Delete at target' checkbox.
- Technological list editor:** A screenshot of the 'View' menu with 'Technological list editor' selected, showing a tree view of objects.
- Data Table:** A screenshot of a table with columns for 'Attribute', 'A', 'B', and 'Status'. The table contains data for various control modules.
- Central Diagram:** A circular diagram with four arrows forming a loop, representing the core processes:
 - Generating control modules
 - Generating equipment modules
 - Changing version
 - Renaming
- File Icons:** Icons for XML and Excel files, indicating data exchange capabilities.
- Process Diagram:** A small schematic diagram showing a control loop with a motor (M) and a sensor (B).
- Spreadsheet:** A screenshot of an Excel spreadsheet with columns for object names and IDs.

SIMATIC PCS 7 Plant Automation Accelerator

What's new with SIMATIC PCS 7 PAA V3.1

Fast and error-free engineering with SIMATIC PCS 7 Plant Automation Accelerator V3.1

Data synchronization



Equipment Module Types

Control Module Types

Equipment Modules

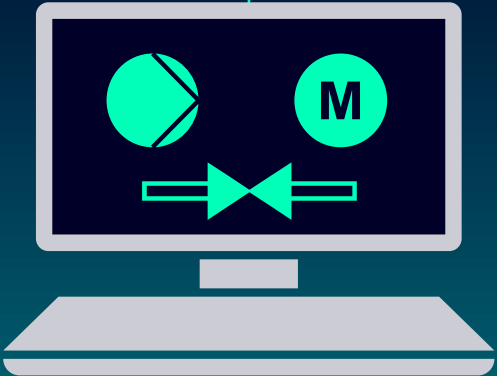
Control Modules

Interlock Logic

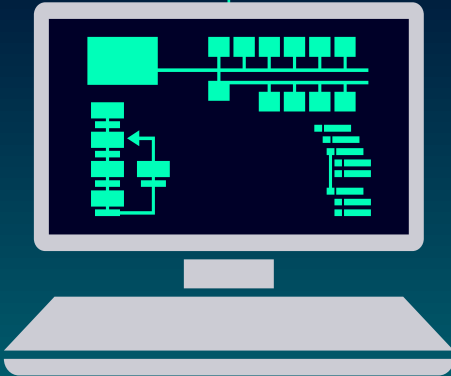
Technological Hierarchy

Hardware Configuration

Symbol Table



**SIMATIC PCS 7
PA Accelerator**



SIMATIC PCS 7

SIMATIC PCS 7 Plant Automation Accelerator V3.1

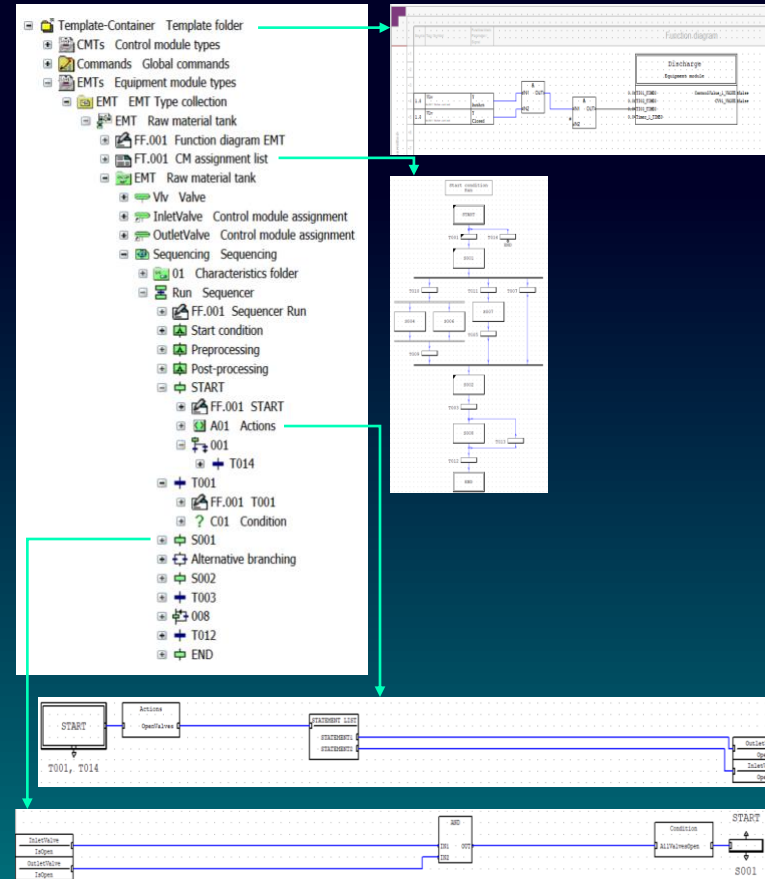
Technological engineering for PCS 7 sequences

Technological engineering for PCS 7 sequences

- Graphical documentation of sequencer topology
- Graphical detail documentation of steps and transitions
- Interactive reports allow graphical engineering
- Data exchange with SIMATIC PCS 7
- Usage of status and commands
- Graphical representations of language elements

Benefits

- Shorter project times
- Structured overview
- Reduction of engineering effort



FUP – Logic around EM
No changes to PAA V2.1

FUP – overview/topology

- Show only steps, transitions with Name and Comment
- Additionally simultaneous and alternative branches, jumps and loops

FUP – detail

- Each step and transition has an own FUP
- Global status and commands are used
- Status and commands of CM roles are used
- Standard functions and language elements can be easily used and connected via symbol bar

SIMATIC PCS 7 V9.1 – APL & IL

What's new with SIMATIC PCS 7 V9.1



Room for new perspectives SIMATIC PCS 7 V9.1

More flexibility, scalability, availability, safety and security in process automation

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- Advanced Process Graphics V9.0.2
55" monitor support and 4K Ultra HD high resolution Quad view w/o additional HW
- Advanced Process Library
 - Condition Monitoring Library integrated in APL
 - New Status Browser filter options for APL function blocks
- Industry Library
 - Specific functions enabling a consistent and ISA-88 compliant engineering and operating concept including batch integration
 - Function-based control and monitoring logic of individual control elements

Ablaufsteuerung **Gemeinsame Funktionen**

Bezeichner: **Teilanlage1** Betriebsart: **Automatik** ...

Zustand: **Laut** Simulation: **Aus** ...

Freigabe:

Belegt:

Technische Einrichtungen

| # | Element | Steuerung | CMs |
|---|----------|-----------|-------------------------------------|
| 1 | EQM1_EPH | Bereit | <input checked="" type="checkbox"/> |
| 2 | EQM2_EPH | Bereit | <input checked="" type="checkbox"/> |
| 3 | EQM3_EPH | Bereit | <input checked="" type="checkbox"/> |

Betriebsart: **Automatik** ...

Baustein

0,00 °C
0,00 bar
0,00 m³

Restlaufzeit Rein: 0 d 1 h 0 m

Restlaufzeit Steril: 0 d 1 h 0 m

Bildbaustein 1

Tankstatus

Name: ST1501
Gruppe: Gruppe1
Typ: GT_I
Prozessstatus: undefiniert
Qualitätsstatus: undefiniert

Materialstatus

Betriebsart: Hand
Material: [0]
Menge: 100.000 m³
Chargenname:
Chargen ID: 0

Funktionskontrolle

Betriebsart: **Ein** Zustand: **Laut**

Aktive Funktion: **Func1** Überwachung: **Wartzeit läuft**

Überlagerung: **Idie** Fehlerspeicher:

Bearbeitungszustand

| # | Element | Zustand | Funktion |
|---|--------------------|-------------|----------------|
| 1 | MotReuLARRev | Gestoppt | Stopp |
| 1 | -AnwRst1 / AnwRst1 | - | -AnwRst1? |
| 2 | MotLi | Gestoppt | - |
| 3 | MotSpdCL | Gestoppt | Stopp |
| 4 | VVnVL | - | Schließen |
| 5 | VVnDS | Geschlossen | - |
| 5 | -Sitzanbg_Oben | - | *Sitzanbg_Oben |
| 5 | -Sitzanbg Unten | - | - |
| 6 | VVL | - | - |
| 7 | VVS | - | - |

Nur Elemente der aktiven Funktion anzeigen

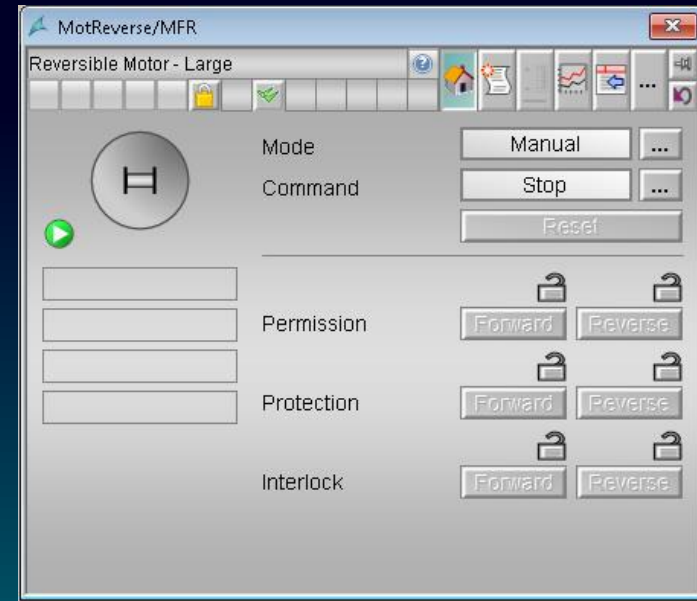
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SIMATIC PCS 7 APL V9.1

New Features Extended Interlock Functionality

- extended interlocking for both commands
- MotSpdL, MotSpdCL, VlvMotL, VlvAnL, VlvPosL



SIMATIC PCS 7 APL V9.1

New Features Tag Browser

- Filter on Block Internal Simulation
- Filter on Internal Error
- Filter on Group Error

PCS 7 measuring point browser

Selection of states :

Selection of areas:

All None

IL
 APL

| BlockName | Type | State | Area |
|------------------------------|---------|---------------------|------|
| 1 AnalogMonitoring/MonAnalog | MonAnL | Internal simulation | APL |
| 2 Motor_Lean/Motor | MotL | Group error | APL |
| 3 PIDControl_Lean/PID | PIDConL | Internal error | APL |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |

Ready Data loaded 1:47:53 PM

SIMATIC Management Console and Lifecycle

What's new with SIMATIC PCS 7 V9.1

SIMATIC PCS 7 V9.1

SMMC & SIMATIC myExpert

SIMATIC Management Console

On-site, software administration and system inventory, including:

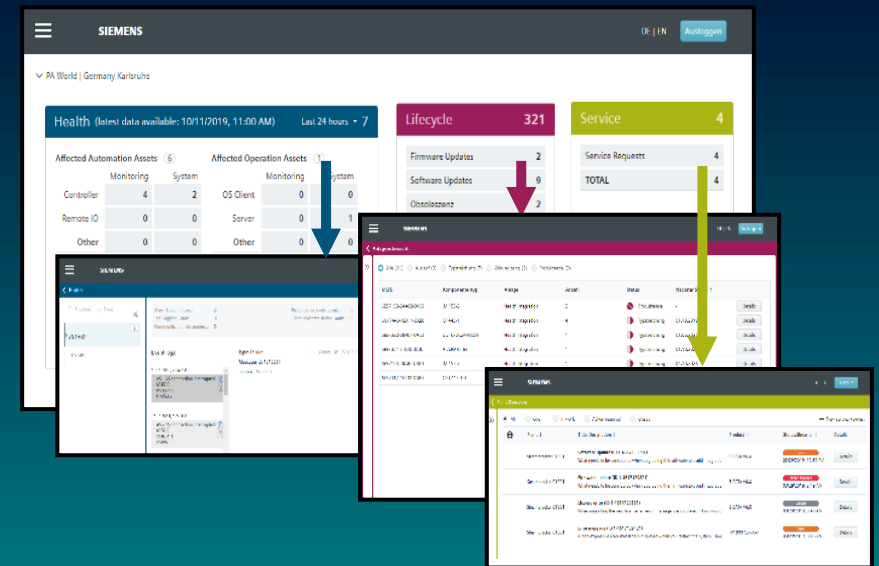
- Inventory management
 - Automatic inventory export to MS Excel/iBase
 - Compares installed HW with latest version released
- Software administration
 - Centralized MS Windows update installation
 - Gathering MS Defender security events from all administered computers
 - Version comparison for installed Software/Firmware
- Data provider for PCS myExpert



SIMATIC PCS myExpert

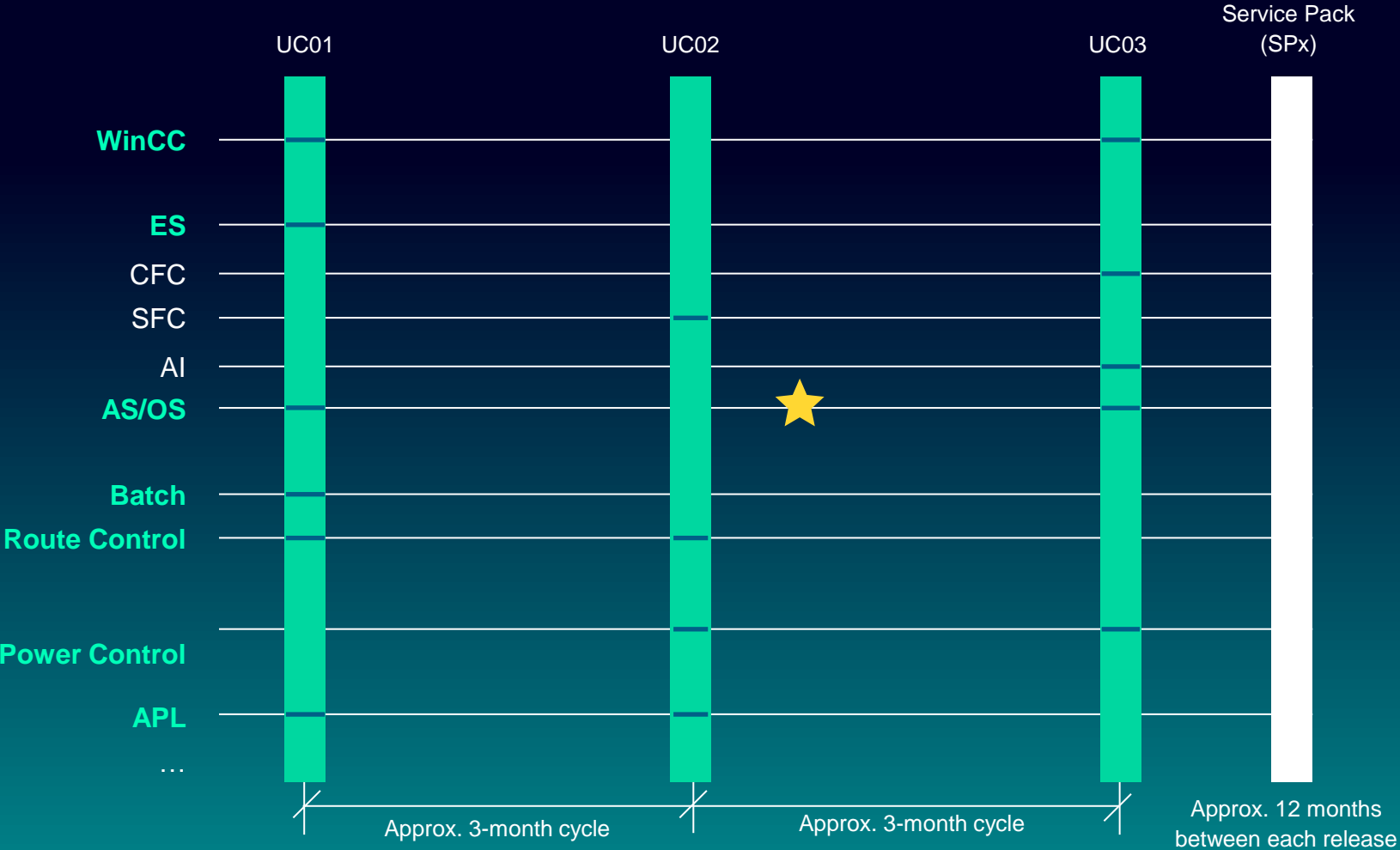
Cloud-based dashboard for Health & Lifecycle status of DCS system components on one or multiple sites, including:

- Health
- Lifecycle
- Service



SIMATIC PCS 7 V9.1 Update Collections (UC)

Update synchronization



During planned update collection release (UCxx), all PCS 7 component updates will be provided together via the PCS 7 update-collection setup.

★ If urgent (e.g., emergency shutdown of a customer plant, etc.) a patch could be delivered to the customer.

There is no change in handling the service packs (SPx).

SIMATIC PCS 7 V9.1 – Operator System

What's new with SIMATIC PCS 7 V9.1

SIMATIC PCS 7 V9.1 Operator System

Changing operator without changing the current process screen

Features

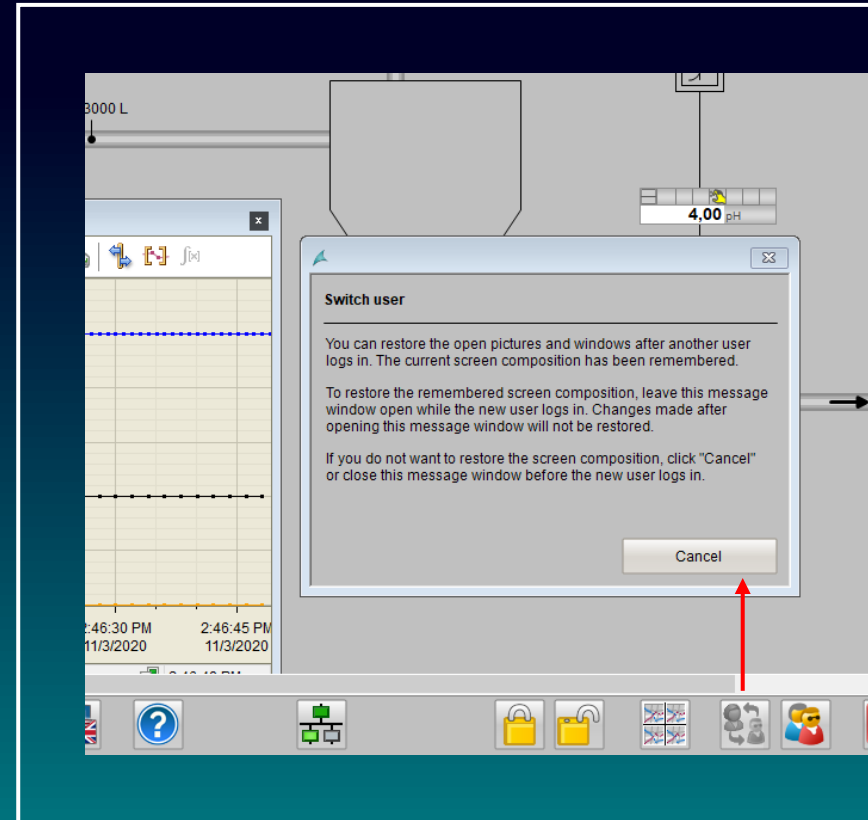


- In some cases it makes sense that the process control shall continue with the currently opened process display after an operator change
 - E.g., if an operator with higher user rights shall log on to improve the process for a given time
- The operator with the “higher user rights” can log in and the current process display remains open
- The original operator can then log back in to the same screen and continue working

Key Benefits



- Fast transfer of a current process situation to an expert with the corresponding user rights
- Rapid handling of critical situations



SIMATIC PCS 7 V9.1 Operator System

Clear indication of the existence of hidden and locked alarms in the Overview Area

Features

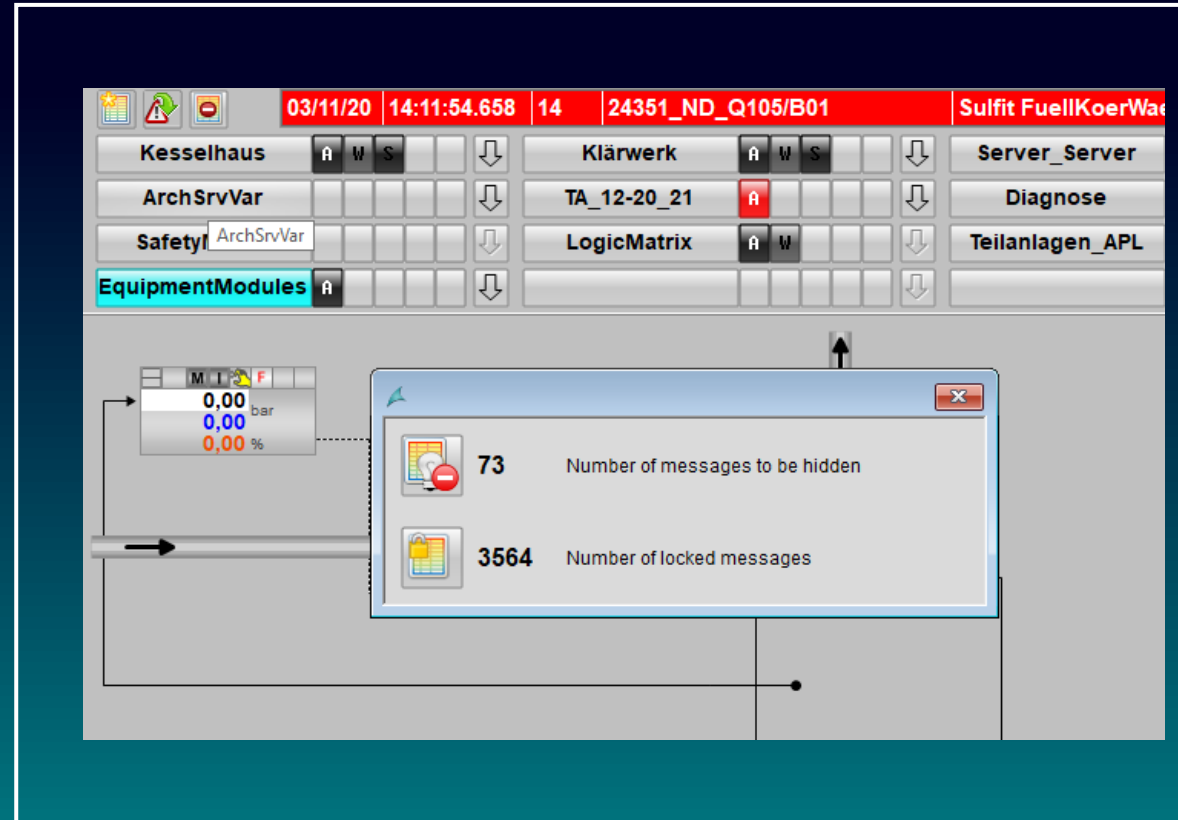


- A symbol object in the PCS 7 Overview Area will indicate the existence of locked or hidden alarms
- It becomes colored as soon as one or more alarms are locked or hidden
- The user can open an overview window displaying the quantity of the currently locked and hidden alarms
- A click on the icon at the quantity field will open the related list

Key Benefits



- Convenient operator information about currently suppressed and locked alarms
- Quick access to the relevant alarm list



SIMATIC PCS 7 V9.1 Operator System

User-defined message filters with write protection

Features

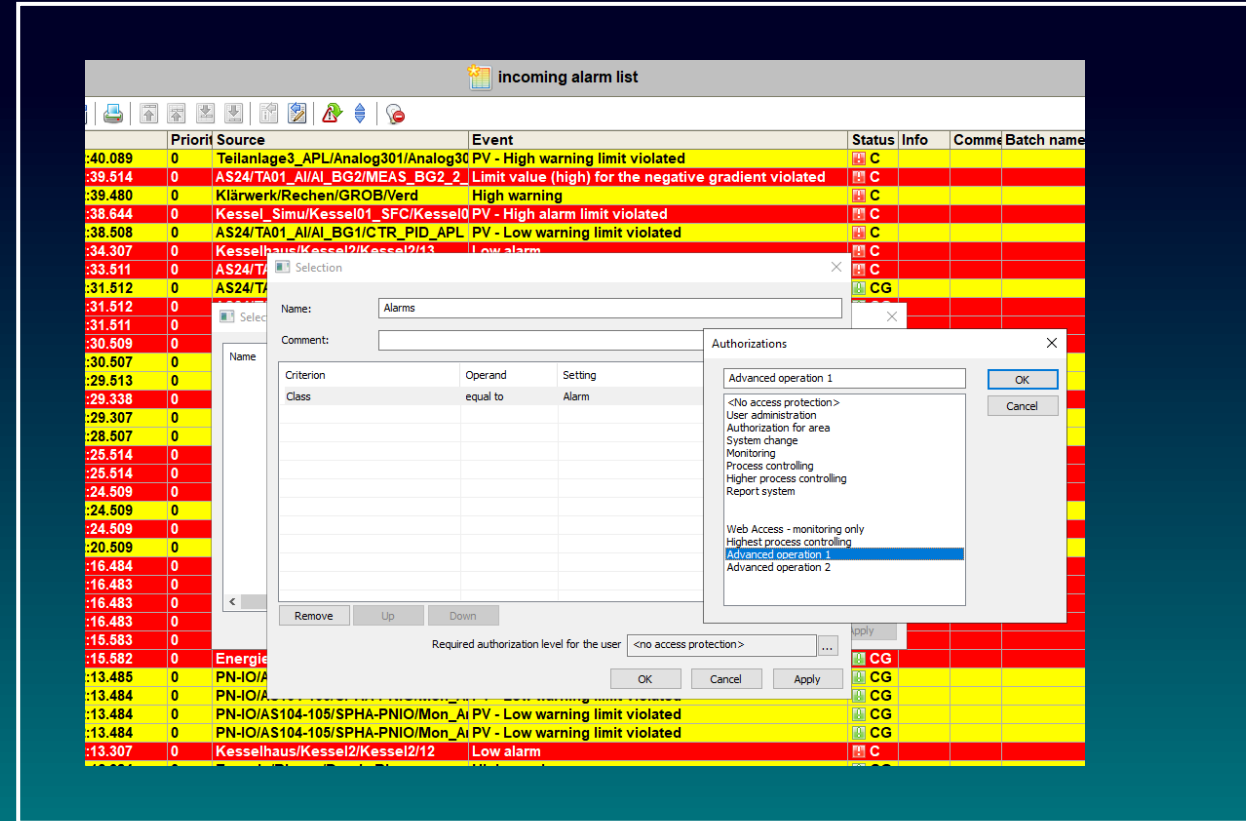


- The system supports user-defined message filters which can only be changed if the user has the appropriate user right
- The user who creates the message filter can also set the user rights to configure/modify this filter

Key Benefits



Improved protection of user-defined message filters



SIMATIC PCS 7 V9.1 Operator System

Manual Alarm Hiding Dialog

Features



- To increase traceability, the function for manual hiding of alarms supports the input of the reason for hiding
- By a dialog, the operator specifies the cause of the alarm from a predefined list, which is provided in a combo box
- If necessary, he can also enter a comment

Key Benefits



- Conformity of the alarm system with the requirements of IEC 62682
- Improved traceability of an alarm suppression measure

| Date | Time | Priorit | Source | Event | Status |
|----------|--------------|---------|--------------------------------|----------------------------------|--------|
| 03/11/20 | 15:05:53.538 | 0 | AS24/TA01_AIIAI_BG1/MEAS_BG1_1 | PV - Low alarm limit violated | CG |
| 03/11/20 | 15:05:52.533 | 0 | AS24/TA01_AIIAI_BG1/MEAS_BG1_3 | PV - High alarm limit violated | C |
| 03/11/20 | 15:05:51.539 | 0 | AS24/TA01_AIIAI_BG2/MEAS_BG2_3 | PV - High alarm limit violated | C |
| 03/11/20 | 15:05:51.537 | 0 | AS24/TA01_AIIAI_BG1/MEAS_BG1_3 | PV - High warning limit violated | C |
| 03/11/20 | 15:05:50.535 | 0 | AS24/TA01_AIIAI_BG2/MEAS_BG2_3 | PV - High warning limit violated | C |
| 03/11/20 | 15:05:03.539 | 0 | AS24/TA01_AIIAI_BG2/MEAS_BG2_4 | High alarm | CG |
| 03/11/20 | 15:05:03.536 | 0 | AS24/TA01_AIIAI_BG1/MEAS_BG1_4 | High alarm | CG |
| 03/11/20 | 15:05:02.284 | 0 | Kesselhaus/Kess | Hide manually | CG |
| 03/11/20 | 15:05:00.534 | 0 | AS24/TA01_AIIAI_E | | CG |
| 03/11/20 | 15:05:00.532 | 0 | AS24/TA01_AIIAI_E | | CG |
| 03/11/20 | 15:04:54.533 | 0 | AS24/TA01_AIIAI_E | | CG |
| 03/11/20 | 15:04:53.538 | 0 | AS24/TA01_AIIAI_E | | CG |
| 03/11/20 | 15:04:49.536 | 0 | AS24/TA01_AIIAI_E | | CG |
| 03/11/20 | 15:04:48.533 | 0 | AS24/TA01_AIIAI_E | | CG |
| 03/11/20 | 15:04:01.166 | 0 | 24353_NK_P405/B | | CG |
| 03/11/20 | 15:03:50.307 | 0 | Kesselhaus/Kess | | CG |
| 03/11/20 | 15:03:45.307 | 0 | Kesselhaus/Kess | | CG |
| 03/11/20 | 15:03:45.306 | 0 | Kesselhaus/Kess | | CG |
| 03/11/20 | 15:03:37.307 | 0 | Kesselhaus/Kess | | CG |
| 03/11/20 | 15:03:36.306 | 0 | Kesselhaus/Kess | | CG |
| 03/11/20 | 15:03:35.307 | 0 | Kesselhaus/Kess | | CG |
| 03/11/20 | 15:03:30.306 | 0 | Kesselhaus/Kess | | CG |
| 03/11/20 | 15:03:26.307 | 0 | Kesselhaus/Kessel2/Kessel2/16 | High alarm | CG |
| 03/11/20 | 15:03:26.306 | 0 | Kesselhaus/Kessel2/Kessel2/15 | High alarm | CG |
| 03/11/20 | 15:03:25.535 | 0 | AS24/TA01_AIIAI_BG1/MEAS_BG1_4 | PV - High alarm limit violated | CG |
| 03/11/20 | 15:03:24.531 | 0 | AS24/TA01_AIIAI_BG2/MEAS_BG2_4 | PV - High alarm limit violated | CG |
| 03/11/20 | 15:03:23.533 | 0 | AS24/TA01_AIIAI_BG1/MEAS_BG1_4 | PV - High warning limit violated | CG |
| 03/11/20 | 15:03:23.535 | 0 | Kesselhaus/Kessel2/Kessel2/17 | High warning | CG |

SIMATIC PCS 7 V9.1 Operator System

Acknowledgement of alarms with forced comments and/or electronic signature

Features



For each message class it can be configured whether a comment and/or an electronic signature must be entered by the operator before acknowledging a message of this message class.

Key Benefits



Optimal handling of alarms with focus on product quality e.g., in the pharmaceutical industry.

The screenshot displays the SIMATIC PCS 7 V9.1 Operator System interface. The top window is titled "Configure the PCS 7 message system" and shows a table for configuring message classes. The table has columns for Message cl., Message, Importance, Acknowledged, Flashing, Abbreviation, Display col., Forced commenting, Electronic signature, and ID. The bottom window shows an "Incoming alarm list" with columns for Date, Time, Source, Event, Status, Info, Comment, Batch name, and Area. A dialog box titled "Electronic Signature - Identity Verification" is open, requiring a user name and password. Another dialog box titled "Acknowledgment" is also visible, with a text field for a comment.

| Message cl. | Message | Importance | Acknowledged | Flashing | Abbreviation | Display col. | Forced commenting | Electronic signature | ID |
|-------------|---------------|---------------|-------------------------------------|-------------------------------------|--------------|--------------|-------------------------------------|-------------------------------------|----|
| 1 | Alarm - oben | 1 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 1 | Came in | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 1 |
| 2 | Alarm - unt. | 2 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 1 | Came in | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 2 |
| 3 | Warnung ... | 3 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 2 | Came in | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 19 |
| 4 | Warnung ... | 4 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 2 | Came in | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 20 |
| 5 | Toleranz ... | 5 | <input type="checkbox"/> | <input type="checkbox"/> | T | Came in | <input type="checkbox"/> | <input type="checkbox"/> | 37 |
| 6 | Toleranz ... | 6 | <input type="checkbox"/> | <input type="checkbox"/> | T | Came in | <input type="checkbox"/> | <input type="checkbox"/> | 38 |
| 7 | PLC proces... | AS-Lettec... | 7 | <input checked="" type="checkbox"/> | S | Came in | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 56 |
| 8 | PLC proces... | AS-Lettec... | 9 | <input checked="" type="checkbox"/> | F | Came in | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 56 |
| 9 | OS proces... | OS-Lettec... | 8 | <input checked="" type="checkbox"/> | S | Came in | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 56 |
| 10 | Preventiv... | Vorbeugen... | 12 | <input checked="" type="checkbox"/> | M | Came in | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 56 |
| 11 | Process m... | Prozessme... | 13 | <input checked="" type="checkbox"/> | P | Came in | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 56 |
| 12 | Operating... | Betriebsme... | 14 | <input checked="" type="checkbox"/> | P | Came in | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 56 |
| 13 | Request fo... | Bedienanf... | 15 | <input type="checkbox"/> | O | Came in | <input type="checkbox"/> | <input type="checkbox"/> | 56 |
| 14 | Operator m... | Bedienmel... | 16 | <input type="checkbox"/> | O | Came in | <input type="checkbox"/> | <input type="checkbox"/> | 56 |
| 15 | Status Mes... | Statusmeld... | 17 | <input type="checkbox"/> | C | Came in | <input type="checkbox"/> | <input type="checkbox"/> | 56 |
| 16 | Status Mes... | Statusmeld... | 18 | <input type="checkbox"/> | H | Came in | <input type="checkbox"/> | <input type="checkbox"/> | 56 |
| 17 | OS proces... | OS-Lettec... | 10 | <input checked="" type="checkbox"/> | F | Came in | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 56 |
| 18 | OS proces... | OS-Lettec... | 11 | <input checked="" type="checkbox"/> | F | Came in | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 56 |
| 19 | System pr... | System me... | 19 | <input checked="" type="checkbox"/> | | Came in | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 56 |
| 20 | System pr... | System me... | 20 | <input checked="" type="checkbox"/> | | Came in | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 56 |
| 21 | System pr... | System me... | 21 | <input checked="" type="checkbox"/> | | Came in | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 56 |
| 22 | Operator m... | Operator m... | 22 | <input type="checkbox"/> | | Came in | <input type="checkbox"/> | <input type="checkbox"/> | 56 |

SIMATIC PCS 7 V9.1 Operator System

Comments of operating messages should not be changeable

Features



- The comments of operating messages can no longer be overwritten
- Only additional comments can be added
- 4,000 characters per operating message are possible

Key Benefits



Validation-safe commenting of operator actions.

The screenshot displays the 'operation list' window in the SIMATIC PCS 7 V9.1 Operator System. The window contains a table with columns for Date, Time, Priority, Source, and Operation. A dialog box titled 'Comment on Message' is open over the table, showing fields for Number (1003107), Date (03/11/20), and Time (15:35:59.457). The dialog also has a 'New comment:' field and a 'Previous comments:' field. The 'Previous comments:' field contains the following text: '=== 'OHIO' on SERVER152, 03/11/20 15:38:34.560 ===', 'New user comment2', '=== 'OHIO' on SERVER152, 03/11/20 15:35:59.457 ===', '- Operation: Hide manually, message number = 679477254', '- Reason: No operator action can be taken', '- Comment:', and 'User Comment1'. The dialog has 'OK' and 'Cancel' buttons.

| Date | Time | Priorit | Source | Operation |
|----------|--------------|---------|----------------------------------|--|
| 03/11/20 | 15:35:59.457 | 0 | AS24/TA01_AI/AI_BG1/MEAS_BG1_1 | OHIO: Hide Manually Warning, Warning High on SERVER152 |
| 03/11/20 | 15:08:27.148 | 0 | Info/Status_Server/Server/S154 | OHIO: Acknowledgment AS Leittechnik-Meldungen, Störung o |
| 03/11/20 | 14:42:57.708 | 0 | S7-Programm(43_44)@(2)/Rack1_1 | OHIO: Acknowledgment AS Leittechnik-Meldungen, Fehler on S |
| 03/11/20 | 14:42:57.703 | 0 | | OHIO: Acknowledgment AS Leittechnik-Meldungen, Fehler on S |
| 03/11/20 | 14:42:57.639 | 0 | Teilanlage3_APL | High on SERVER130 |
| 03/11/20 | 14:42:44.748 | 0 | Info/Status_Serv | dungen, Störung o |
| 03/11/20 | 14:02:28.918 | 0 | Info/Status_Serv | dungen, Störung o |
| 03/11/20 | 14:01:53.379 | 0 | Info/Status_Serv | dungen, Störung o |
| 03/11/20 | 14:01:53.378 | 0 | Info/Status_Serv | on CLIENT223-VM |
| 03/11/20 | 13:58:39.304 | 0 | Info/Status_Serv | on CLIENT208 |
| 03/11/20 | 13:56:41.266 | 0 | SNMP_SERVER | dungen, Störung o |
| 03/11/20 | 12:17:23.205 | 0 | Info/Status_Serv | dungen, Störung o |
| 03/11/20 | 12:17:23.204 | 0 | Info/Status_Serv | dungen, Störung o |
| 03/11/20 | 12:17:23.204 | 0 | Info/Status_Serv | on SERVER136 |
| 03/11/20 | 12:17:23.203 | 0 | Info/Status_Serv | on SERVER136 |
| 03/11/20 | 12:02:02.049 | 0 | Teilanlage3_APL | High on SERVER130 |
| 03/11/20 | 11:54:34.676 | 0 | PN-IO/AS104-105 | Low on SERVER139 |
| 03/11/20 | 11:54:34.647 | 0 | PN-IO/AS104-105 | SERVER139 |
| 03/11/20 | 11:54:34.642 | 0 | PN-IO/AS104-105 | SERVER139 |
| 03/11/20 | 11:54:34.594 | 0 | PN-IO/AS104-105 | SERVER139 |
| 03/11/20 | 11:54:34.589 | 0 | PN-IO/AS104-105 | SERVER139 |
| 03/11/20 | 11:54:32.775 | 0 | PN-IO/AS104-105 | Low on SERVER139 |
| 03/11/20 | 11:54:32.732 | 0 | PN-IO/AS104-105 | SERVER139 |
| 03/11/20 | 11:54:32.728 | 0 | PN-IO/AS104-105 | SERVER139 |
| 03/11/20 | 11:54:32.668 | 0 | PN-IO/AS104-105 | SERVER139 |
| 03/11/20 | 11:54:32.664 | 0 | PN-IO/AS104-105/SPHA-PNIO/Mon AI | OHIO: Acknowledgment Alarm, Alarm Low on SERVER139 |

SIMATIC PCS 7 V9.1 Operator System

OPC UA access – Protection of process tags

Features



- Protection of process tags against data misuse by external applications such as OPC UA clients
- Therefore it will be configurable per OS tag if the tag is read-only or even invisible for OPC access

Key Benefits



Increased plant security.

The screenshot shows the SIMATIC Manager interface with a table of process tags. The table has columns for Hierarchy, Chart, Block, I/O name, OS, WinCC connection, Tag name, Data type, Write-protected, and Invisible. The 'Write-protected' and 'Invisible' columns are circled in red.

| | Hierarchy | Chart | Block | I/O name | OS | WinCC connection | Tag name | Data type | Write-protected | Invisible |
|----|-------------------|-------|-------|----------|----|------------------|---------------|------------|--------------------------|--------------------------|
| 1 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | L_LIM | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | H_LIM | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | MBA | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | MBE | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | FAKTOR | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | START | OS | S7-Programm(12) | ArchSrvVar... | BOOL | <input type="checkbox"/> | <input type="checkbox"/> |
| 7 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | BA_ID | OS | S7-Programm(12) | ArchSrvVar... | DWORD | <input type="checkbox"/> | <input type="checkbox"/> |
| 8 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | BA_NA | OS | S7-Programm(12) | ArchSrvVar... | STRING[32] | <input type="checkbox"/> | <input type="checkbox"/> |
| 9 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | STEP_NO | OS | S7-Programm(12) | ArchSrvVar... | DWORD | <input type="checkbox"/> | <input type="checkbox"/> |
| 10 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | IN1 | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 11 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | IN2 | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 12 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | IN3 | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 13 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | IN4 | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 14 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | IN5 | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 15 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | IN6 | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 16 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | IN7 | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 17 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | IN8 | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 18 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | IN9 | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 19 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | IN10 | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 20 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | GStart | OS | S7-Programm(12) | ArchSrvVar... | BOOL | <input type="checkbox"/> | <input type="checkbox"/> |
| 21 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | QMBA | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 22 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | QMBE | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 23 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | A1 | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 24 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | A2 | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 25 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | A3 | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 26 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | A4 | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 27 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | A5 | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 28 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | A6 | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 29 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | A7 | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 30 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | A8 | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |
| 31 | ArchSrvVar-K-AS12 | Plan3 | MELD1 | A9 | OS | S7-Programm(12) | ArchSrvVar... | REAL | <input type="checkbox"/> | <input type="checkbox"/> |

SIMATIC PCS 7 V9.1 Operator System

Operation messages will always include the name of the operator station

Features



All kinds of operation messages shall contain the name of the operator station by default.

Key Benefits



Increased traceability of an operating action.

| Date | Time | Priority | Source | Operation |
|----------|------------|----------|------------------------------------|---|
| 02/11/20 | 16:59:18.7 | 0 | Teilanlage11_APL/C410/Regler1110/C | Operator1: Acknowledgment 2, Warnung - unten on EP177 |
| 02/11/20 | 16:59:18.7 | 0 | Teilanlage11_APL/C411/Regler1111/C | Operator1: Acknowledgment 1, Alarm - unten on EP177 |
| 02/11/20 | 16:59:18.7 | 0 | Teilanlage11_APL/C411/Regler1111/C | Operator1: Acknowledgment 2, Warnung - unten on EP177 |
| 02/11/20 | 16:59:18.7 | 0 | Teilanlage11_APL/C412/Regler1112/C | Operator1: Acknowledgment 1, Alarm - unten on EP177 |
| 02/11/20 | 16:59:18.7 | 0 | Teilanlage11_APL/C412/Regler1112/C | Operator1: Acknowledgment 2, Warnung - unten on EP177 |
| 02/11/20 | 16:59:18.7 | 0 | Teilanlage11_APL/C413/Regler1113/C | Operator1: Acknowledgment 1, Alarm - unten on EP177 |
| 02/11/20 | 16:59:18.7 | 0 | Teilanlage11_APL/C413/Regler1113/C | Operator1: Acknowledgment 2, Warnung - unten on EP177 |
| 02/11/20 | 16:59:18.7 | 0 | Teilanlage11_APL/C414/Regler1114/C | Operator1: Acknowledgment 1, Alarm - unten on EP177 |
| 02/11/20 | 16:59:18.7 | 0 | Teilanlage11_APL/C414/Regler1114/C | Operator1: Acknowledgment 2, Warnung - unten on EP177 |
| 02/11/20 | 16:59:18.7 | 0 | Teilanlage11_APL/C415/Regler1115/C | Operator1: Acknowledgment 1, Alarm - unten on EP177 |
| 02/11/20 | 16:59:18.7 | 0 | Teilanlage11_APL/C415/Regler1115/C | Operator1: Acknowledgment 2, Warnung - unten on EP177 |
| 02/11/20 | 16:59:39.6 | 0 | ET200M/S2_R6_K3 | Operator1: Acknowledgment 1, Alarm - oben on EP177 |
| 02/11/20 | 16:59:39.6 | 0 | ET200M/S2_R6_K3 | Operator1: Acknowledgment 2, Warnung - oben on EP177 |
| 02/11/20 | 16:59:39.6 | 0 | ET200M/S2_R6_K4 | Operator1: Acknowledgment 1, Alarm - oben on EP177 |
| 02/11/20 | 16:59:39.6 | 0 | ET200M/S2_R6_K4 | Operator1: Acknowledgment 2, Warnung - oben on EP177 |
| 02/11/20 | 16:59:39.6 | 0 | ETH_Komm/Senden | Operator1: Acknowledgment 1, Alarm - oben on EP177 |
| 02/11/20 | 16:59:39.6 | 0 | ETH_Komm/Senden | Operator1: Acknowledgment 2, Warnung - oben on EP177 |
| 02/11/20 | 16:59:59.0 | 0 | Arch1/Kurz_Z2 | Operator1: Acknowledgment 1, Alarm - oben on EP177 |
| 02/11/20 | 16:59:59.0 | 0 | Arch1/Kurz_Z2 | Operator1: Acknowledgment 2, Warnung - oben on EP177 |
| 02/11/20 | 17:00:05.5 | 0 | Arch1/Kurz_Z4 | Operator1: Acknowledgment 1, Alarm - oben on EP177 |
| 02/11/20 | 17:00:05.5 | 0 | Arch1/Kurz_Z4 | Operator1: Acknowledgment 2, Warnung - oben on EP177 |
| 02/11/20 | 17:00:13.1 | 0 | Arch1/Lang_Z2 | Operator1: Acknowledgment 1, Alarm - oben on EP177 |
| 02/11/20 | 17:00:13.1 | 0 | Arch1/Lang_Z2 | Operator1: Acknowledgment 2, Warnung - oben on EP177 |
| 02/11/20 | 17:00:22.1 | 0 | Arch1/Lang_Z4 | Operator1: Acknowledgment 1, Alarm - oben on EP177 |
| 02/11/20 | 17:00:22.1 | 0 | Arch1/Lang_Z4 | Operator1: Acknowledgment 2, Warnung - oben on EP177 |
| 02/11/20 | 17:00:40.2 | 0 | Arch1/Kurz_Z1 | Operator1: Acknowledgment 1, Alarm - oben on EP177 |
| 02/11/20 | 17:00:40.2 | 0 | Arch1/Kurz_Z1 | Operator1: Acknowledgment 2, Warnung - oben on EP177 |
| 02/11/20 | 17:00:51.7 | 0 | Arch1/Kurz_Z3 | Operator1: Acknowledgment 1, Alarm - oben on EP177 |

| SIMATIC BATCH

What's new with SIMATIC PCS 7 V9.1

SIMATIC PCS 7 V9.1 SIMATIC BATCH

Batch Web Client with actually logged-in user

Features



Complete Audit Trail for Web Client actions.

Key Benefits



Improved FDA compliance by batch operation tracking according to actually logged-in user.

SIMATIC PCS 7 ≤ V9.0

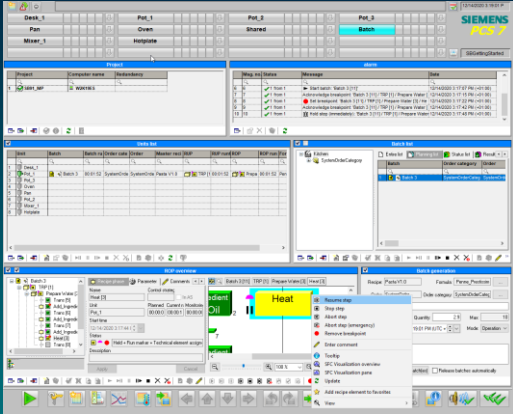
Anonymous action tracking as “WebClientUser”

| Action: | | | |
|---------|-------------------------|---------------|---------------|
| ID | Action | Login | Processed by |
| 1 | Hold step (immediately) | WebClientUser | WebClientUser |
| 2 | Resume step | WebClientUser | WebClientUser |

SIMATIC PCS 7 V9.1

Action tracking according to logged in user as on regular OS clients

| Action: | | | |
|---------|-------------------------|-------|--------------|
| ID | Action | Login | Processed by |
| 1 | Hold step (immediately) | op1 | Operator 1 |
| 2 | Resume step | op2 | Operator 2 |



SIMATIC PDM – SIMATIC PCS 7 MS

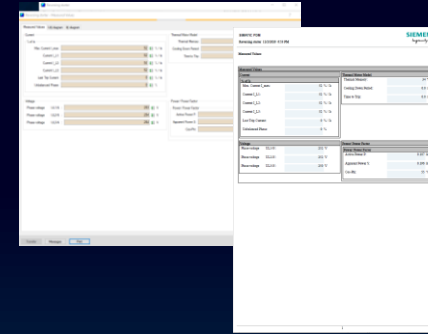
What's new with SIMATIC PCS 7 V9.1

SIMATIC PDM V9.2

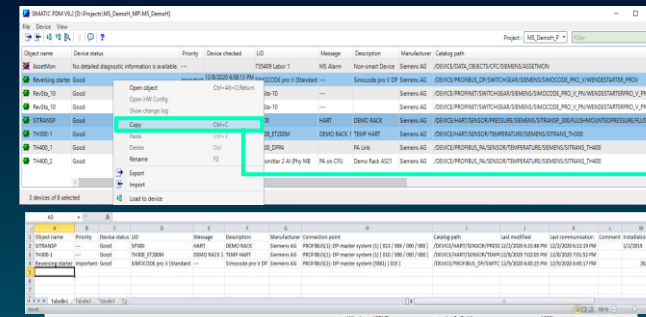
The best process device management tool

New features as a result of customer experience and application of the latest integration technologies

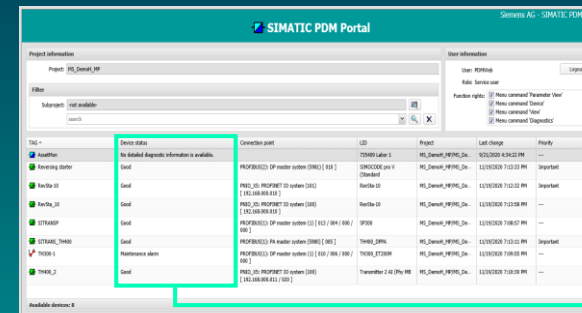
- Verification of the signatures of FDI device packages increases the security of device integration
- Export of contents from the process device plant view to office applications enables better tracking of service actions
- The print function for online dialogs in pdf files enables device-specific documents for protocols and certificates regardless of device type and manufacturer
- Device type independent use of the PA profile diagnostics for PROFIBUS and PROFINET field devices for a better interaction with the PCS 7 Maintenance Station
- Many small changes in display and usage improve the use and handling of SIMATIC PDM



Print of device specific dialogues



Export of device information to csv files



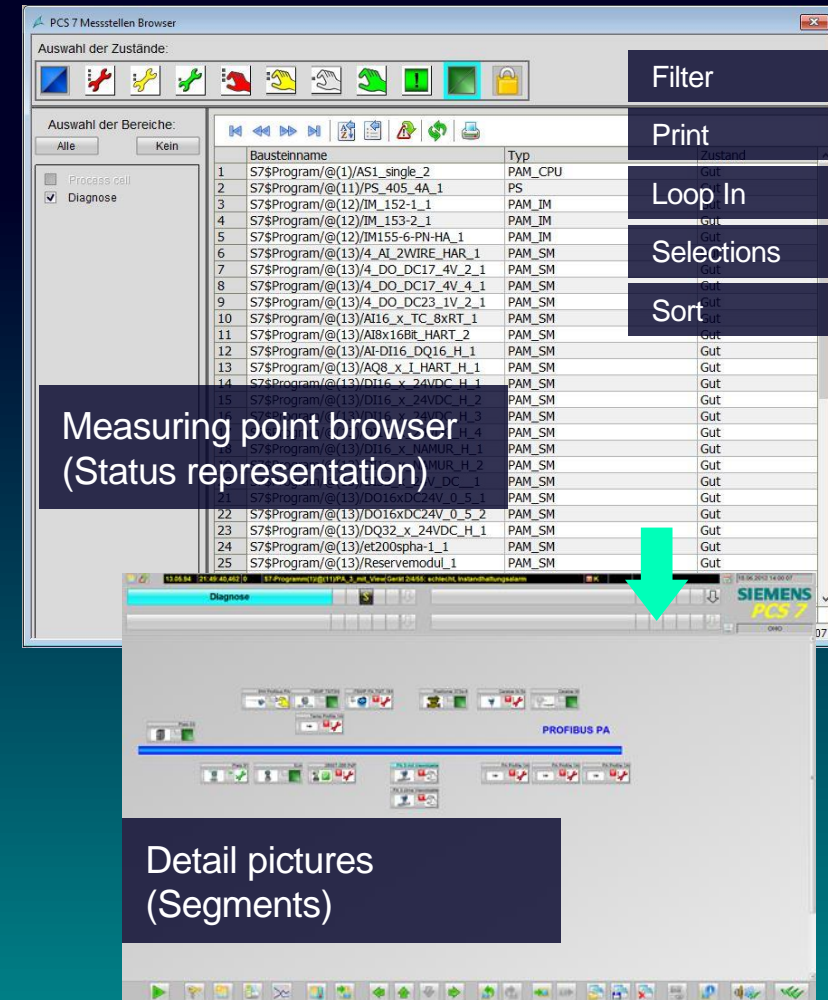
More information in the SIMATIC PDM portal view

Maintenance Station

Use of the SIMATIC PCS 7 Measuring Point Browser

The measuring point browser is an online overview of the maintenance status of the components and devices monitored by the maintenance station

- Same functionality as the SIMATIC PCS 7 measuring point browser in process operation
- With filter and search functions related to the Maintenance Status :
 - Diagnostic status
 - Operating mode
 - Status of maintenance/service
 - Configuration change status
 - Priority
- “Loop In” function for finding (image selection) the devices representation in the segments picture



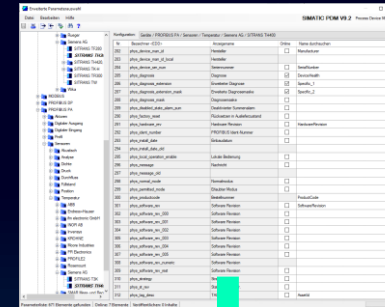
Maintenance Station

Selective reading of Parameterization Data

Selective reading of dynamic parameters increases data acquisition performance

- Dynamic parameters of field devices can be read in a separate and faster cycle than static parameters
- Selection via “Online – Parameter data (Field device, selected)”
- An unrestricted number of parameters can be selected for each field device type
- Parameters that can be read directly from the field device can be selected
- Functionality is independent of device type and manufacturer
- Static parameters can be synchronized with the “Field device project synchronization” function
- The combination of parameter reading functions¹ is very effective and performant for data recording

1 – Acyclic, cyclic and synchronization



SIMATIC PDM

- Select device type
- Select parameters
- Assign browse name¹



Maintenance Station

- Configure filter
- Parametrize function

```

=Siemens" ParamViewMember="True" Label="Manufacturer" Type="Byte" BrowseName="manufacturer_id"
=Siemens TH300" ParamViewMember="True" Label="Product Name" Type="Byte" BrowseName="device_type"
=7NCS212-0N00" ParamViewMember="True" Label="Order Number" Type="String" BrowseName="var_dis"
=0" ParamViewMember="True" Label="Final Assembly Number" Type="UInt32" BrowseName="final_assemb"
=01.02" ParamViewMember="True" Label="Hardware Revision" Type="String" BrowseName="hardware_rev"
=01.01.04" ParamViewMember="True" Label="Firmware Revision" Type="String" BrowseName="firmware_rev"
=Siemens" ParamViewMember="True" Label="EDD Version" Type="String" BrowseName="phys_device_desc"
=Siemens" ParamViewMember="True" Label="Distributor" Type="Byte" BrowseName="private_label_distrib"
=YSN/32000915" ParamViewMember="True" Label="Fabrication Number" Type="String" BrowseName="fabr"
=Sensor 1" ParamViewMember="True" Label="Primary Variable" Type="Byte" BrowseName="loc_pv_code"
=Sensor 1" ParamViewMember="True" Label="Secondary Variable" Type="Byte" BrowseName="loc_sv_code"
=Not used" ParamViewMember="True" Label="Tertiary Variable" Type="Byte" BrowseName="loc_tv_code"
=Electronics Temperature" ParamViewMember="True" Label="Quaternary Variable" Type="Byte" BrowseName="
=Resistance Potentiometer" ParamViewMember="True" Label="Class" Type="Byte" BrowseName="sensor_cl"
=0...2200 Ohm" ParamViewMember="True" Label="Type" Type="Byte" BrowseName="sensor_type" Name="s
=4 Wire" ParamViewMember="True" Label="Sensor Connection" Type="Byte" BrowseName="sensor_connect"
=Standard" ParamViewMember="True" Label="Connection Method" Type="Byte" BrowseName="sensor_conn"
=0.00" ParamViewMember="True" Label="Damping" Type="Single" BrowseName="t_damping_value" Name
=0.00" ParamViewMember="True" Label="Lower Limit" Type="Single" BrowseName="t_lower_sensor_l
=2200.00" ParamViewMember="True" Label="Upper Limit" Type="Single" BrowseName="t_upper_sens
=25.00" ParamViewMember="True" Label="Minimum Measuring Span" Type="Single" BrowseName="t_u
=ohm" ParamViewMember="True" Label="Unit" Type="Byte" BrowseName="t_digital_units" Name="t_digital
    
```

SIMATIC PDM

- Export as XML file
- Export file always contains all parameters of a field device
- Browse Name as attribute for each parameter

SIMATIC PCS 7 Process Historian & Information Server

What's new with SIMATIC PCS 7 V9.1

Process Historian (PH) & Information Server (IS)

Advantages with further functionality

Features

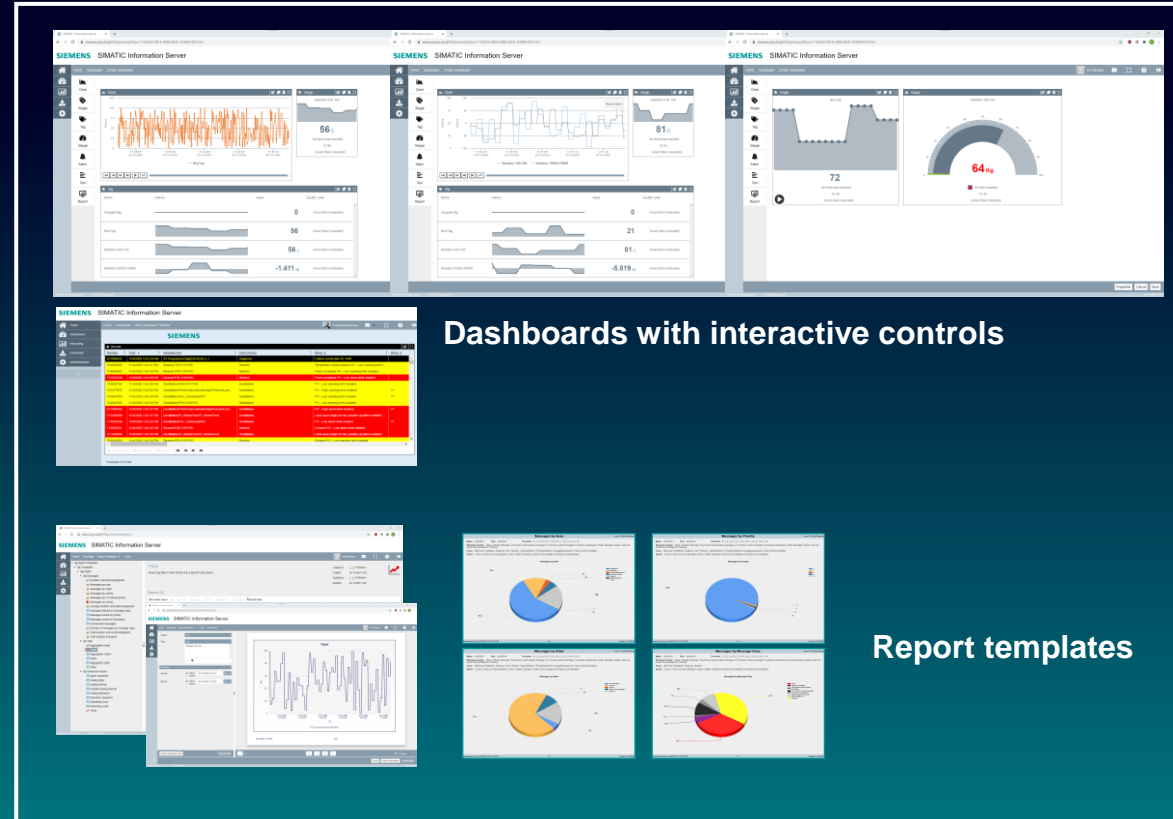


- Update to MS SQL Server 2017
- IS: Improved overall user interaction and new dashboards with interactive controls
- IS: New templates for alarm management reports (ISA 18.2)

Key Benefits



- Improved interaction & performance
- New report templates
- Dashboards with interactive controls



Dashboards with interactive controls

Report templates

Step 1: PH/IS 2020 is only released for new installations and in single configuration

Step 2: PH upgrade (2014 to 2020) and PH redundancy are planned to be released with PH 2020 SP1 in autumn 2021

Process Historian (PH) & Information Server (IS)

Advantages with further functionality

Features

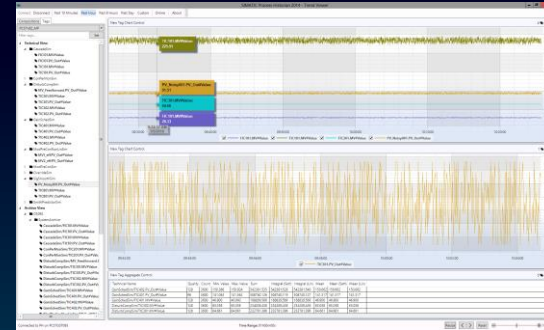


- IS: New design of IS Excel addin for bulk engineering (supported: 64 bit, Office 2019, Office 365)
- PH: Trend Viewer application
- Support of modern web based online documentation system (PUD manager)

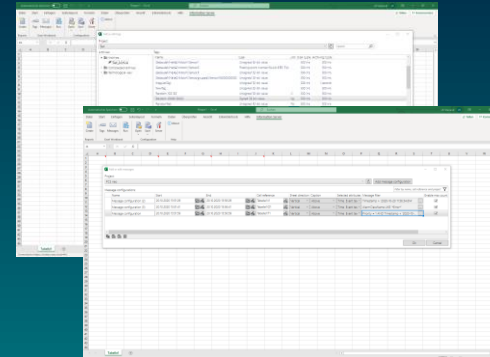
Key Benefits



- PH Trend Viewer for installation and monitoring
- IS Excel addin: New interface for bulk engineering



PH Trend Viewer



IS Excel addin

SIMATIC PCS 7 V9.1 – Security

What's new with SIMATIC PCS 7 V9.1

Industrial Security in SIMATIC PCS 7 V9.1

New operating systems

Features



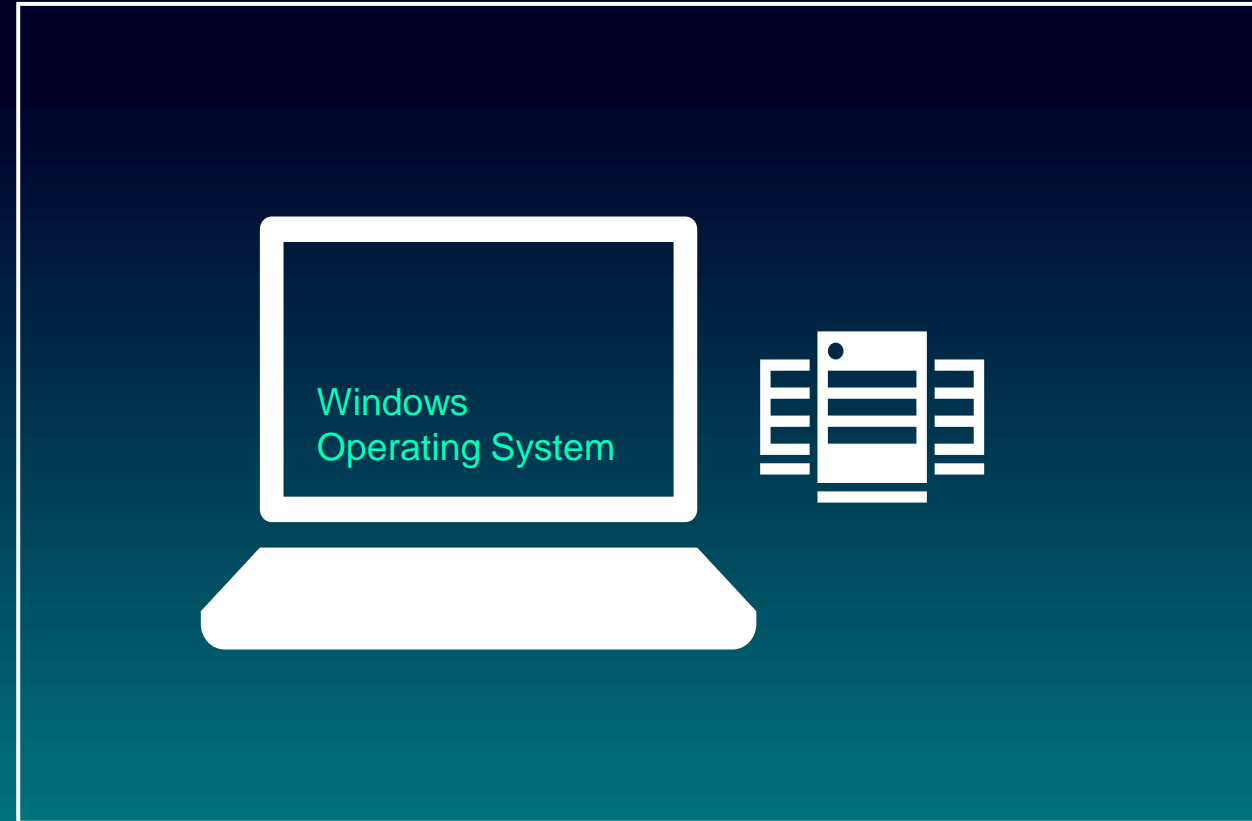
Support of Microsoft Windows operating systems

- Windows 10 Enterprise 2019 LTSC
- Windows Server 2019 Standard

Key Benefits



- Supported operating systems also in regards of security updates and hotfixes
- Continuously improved security features by Microsoft e.g., Windows Defender Antivirus



SIMATIC PCS 7 V9.1

Antivirus Solution based on integrated Microsoft Windows Defender Antivirus

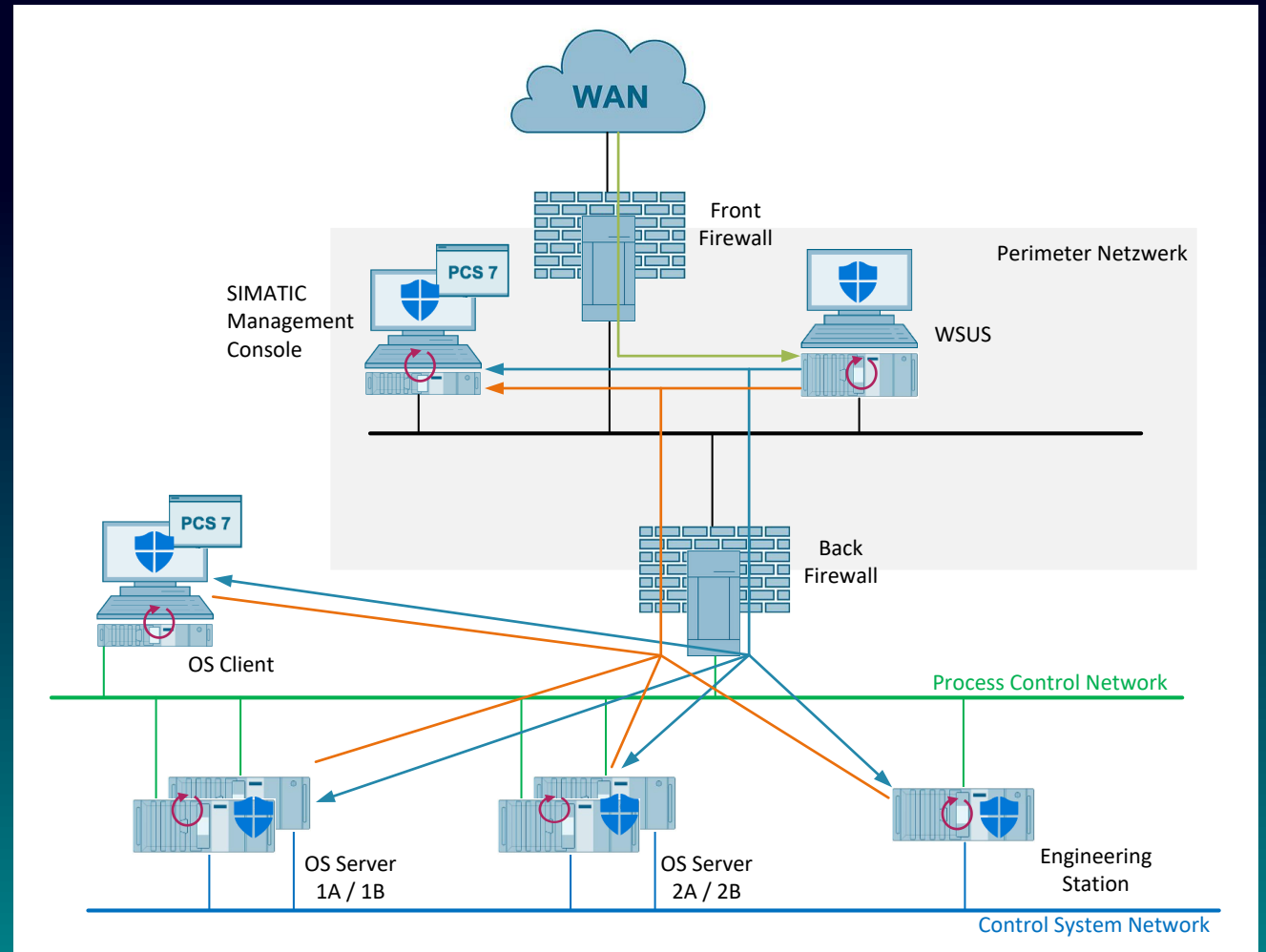
- + Integrated antivirus solution provided with Microsoft operating system
→ No additional licenses required
- + Ongoing virus protection based on Microsoft Windows Defender Antivirus
- + Automatic download of Defender definition updates based on WSUS¹
(WSUS already used for operating system updates)
- + SIMATIC Management Console collects Defender Antivirus events from all computers
- + Reduced hardware footprint and maintenance costs
 - No additional update server for antivirus software required
 - Existing WSUS used for Defender updates
 - Reduced effort for firewall configuration

.....

Definition update sequence

- ➔ Definition updates are downloaded from the Internet to the WSUS
- ➔ Clients download automatically new Defender definition updates on a daily basis
- ➔ Important Windows Defender events will be available on SIMATIC Management Console
- ➔ After successful download: Clients install the Defender definition updates automatically (no reboot required)

¹ WSUS – Windows Server Update Services



Industrial Security in SIMATIC PCS 7 V9.1

Supported Firewalls

Features



- Automation Firewall NG (Next Generation) based on Palo Alto Networks Firewall as system tested solution for front and back firewall (successor to the SecureGuard firewall)
- SCALANCE SC6xx-2C as system tested firewall for remote OS client stations and for bridged connections between different CSNs (most actual firmware V2.1.1 and later required)

Key Benefits



- Next Generation firewall with data analyses at the application level. This process filters malware out of network-based communication
- SCALANCE SC with state of the art security for industrial environments

Industrial Security in SIMATIC PCS 7 V9.1

Backup & Recovery

Features



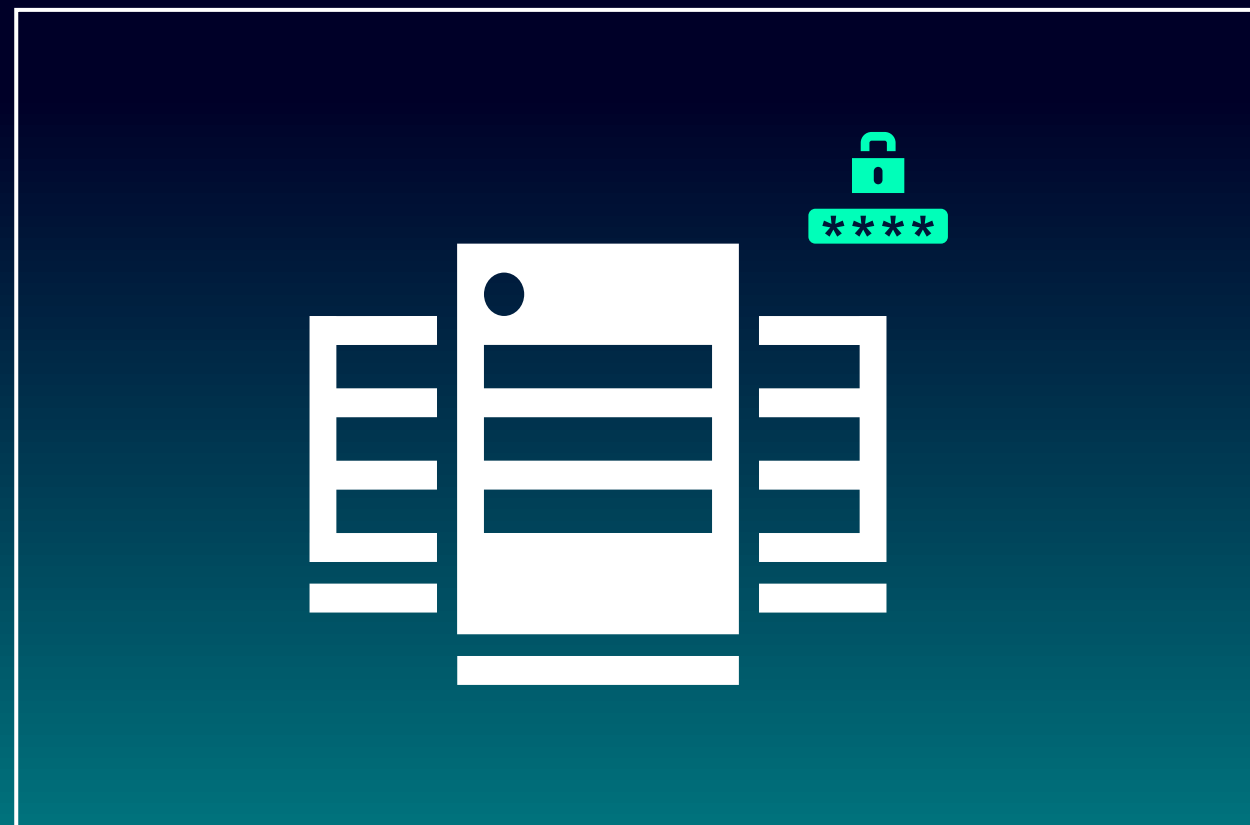
- SIDS Backup & Restore – Professional (SIMATIC DCS/SCADA Infrastructure) is a system tested backup & restore solution
- Easy setup of PCS 7 compliant backup plans
- Backup Recovery Verification Tests

<https://support.industry.siemens.com/cs/ww/en/sc/4784>

Key Benefits



- Turn key solution with holistic support approach covering all hard- and software components
- State of the art backup and recovery solution for virtualized and non-virtualized environments



Industrial Security in SIMATIC PCS 7 V9.1

IEC 62443 Certification

Features



- Annual IEC 62443-3-3 / -4-1 recertification with TÜV Süd
<https://new.siemens.com/global/en/products/automation/topic-areas/industrial-security/certification-standards.html>

Key Benefits



- Ensure that the IEC requirements are furthermore fulfilled with the new SIMATIC PCS 7 version
- Continuously improvement of SIMATIC PCS 7 based on regularly reviews

CERTIFICATE
No. Q4B 076903 0003 Rev. 00

Holder of Certificate: Siemens AG
DF TI QM
Östliche Rheinbrückenstr. 50
76187 Karlsruhe
Germany

Certification Mark:

Scope of certificate: Secure Product Development Lifecycle - Product Lifecycle Management Reference Process for Division of Digital Factory (DF) and Process Industries and Drives (PD)

The Certification Body of TÜV SÜD Product Service GmbH certifies that the company mentioned above has established and is maintaining a management system which meets the requirements of the listed standards. The results are documented in a report. See also notes overleaf.

Report No.: SK99768C
Valid until: 2021-07-26
Date: 2018-07-30 (Christian Dirmeier)

Page 1 of 3
TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

CERTIFICATE
No. Z2 067801 0002 Rev. 00

Holder of Certificate: Siemens AG
DI PA AE
Östliche Rheinbrückenstr. 50
76187 Karlsruhe
GERMANY

Production Facility(ies): 067801

Certification Mark:

Product: Industrial Control Systems and Components
Model(s): SIMATIC PCS 7
Parameters: Process Control System
Tested according to: IEC 62443-4-1:2018
IEC 62433-3-3:2013/COR1:2014

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. See also notes overleaf.

Test report no.: SK90104C
Valid until: 2024-09-08
Date: 2019-09-09 (Christian Dirmeier)

Page 1 of 1
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| SIMATIC PCS 7 V9.1 – PUD

What's new with SIMATIC PCS 7 V9.1

SIMATIC PCS 7 V9.1

Modern Content Delivery Portal for PCS 7 Documentation

Features

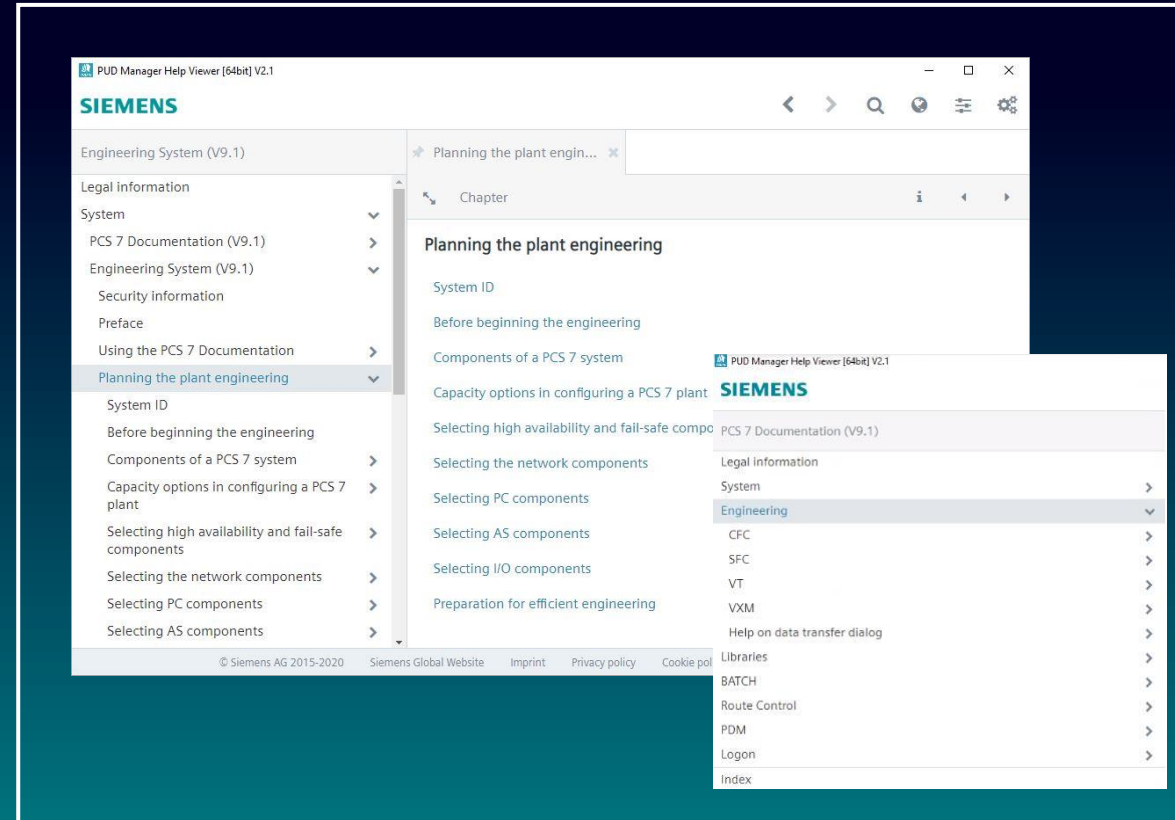


- **Complete** scope of documentation in **one system**
- Allows Search on complete documentation
- User-friendly look & feel
- Extended functionality
 - Tabs allowing the user to open several help topics next to each other
 - Pinning of individual tabs

Key Benefits



- Complete documentation in modern look & feel
- “Find instead of Search” in all documents
- Effective usage of help possibilities





SIMATIC PCS 7

Novedades v9.1

| Contacto

Published by Siemens, S.A.

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