## **SIEMENS**

# SIMATIC PCS 7 V9.1

Your next step toward increased plant availability and long-term productivity

In process plants, the distributed control system is the starting point for optimizing productivity. Your DCS monitors and controls all production processes with the help of powerful controllers and distributed I/Os. As a result, a high-performance DCS directly increases the efficiency of your operations.

Since the launch of SIMATIC PCS 7 Version 9, Siemens has been opening up new perspectives for plant owners and operators. With an innovative and robust hardware platform based on PROFINET and numerous software enhancements, we bring digitalization right down to the field level. Now Siemens is taking the next step by releasing Version 9.1 of our proven control system. With SIMATIC PCS 7 V9.1, you not only benefit from higher availability and safer plant performance – you also chart your plant on a sustainable course for the future. The new version offers you better visibility into the scope and condition of your installed components as well as the capability for proactive lifecycle management. Additionally, built-in support for the latest Microsoft operating systems (Windows 10 Enterprise LTSC 2019 and Windows Server 2019) enhances cybersecurity and increases reliability. 

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SIMATIC PCS 7 V9.1 takes every facet of safety into account

Safety is a key – and complex – issue for everyone in the process industries. It has many facets, ranging from process and plant safety to HSE (Health, Safety and Environment) issues and IT security.

### Hardware innovations for failsafe applications and explosion-hazard areas

With SIMATIC PCS 7 V9.1, you can rely on the powerful SIMATIC ET 200SP HA distributed I/O system for failsafe applications. The new failsafe modules are based on SIMATIC Safety Integrated and are designed to the same form factor as the standard modules. They are certified by TÜV SÜD for safety applications up to SIL 3. SIMATIC ET 200SP HA is therefore suitable for demanding applications in the process industries where high availability and PROFINET redundancy are essential.

In addition, intrinsically safe I/O modules for use in hazardous areas will soon be available for the SIMATIC ET 200SP HA. Separate Ex isolators with corresponding wiring and large space requirements are no longer needed. The I/O modules can be installed in up to ATEX zone 2 and provide intrinsically safe circuits for field devices up to zone 0. The explosion-proof modules offer channel diagnostics, on-line changes and are approved for ambient temperatures from -40 to +70 °C.

#### Protection at the management and operational levels

As operating system support ends, plant owners and operators face increased security risks due to the lack of security-relevant updates. As a result, newly discovered vulnerabilities are not addressed and can be exploited unhindered by cybercriminals. Version 9.1 supports Windows Server 2019 Standard Edition 64 Bit and Windows 10 Enterprise 2019 LTSC 64 Bit, and is compatible with our current Industrial Workstations (IPCs). This ensures that the latest Microsoft updates will be conveniently available for installation via the Microsoft Windows Server Update Service (WSUS). Windows Defender Antivirus has also been released for SIMATIC PCS 7 V9.1. Together with our holistic industrial security concept (Defense in Depth), this ensures the greatest possible protection against security vulnerabilities.



# Proactive life cycle management: efficiency for decades to come

A process plant must be kept up-to-date over the course of its long operating life. This is particularly important for the distributed control technology within the plant. With Version 9.1 of SIMATIC PCS 7, upgrade strategies can be implemented efficiently and safely.

Systematically inventoried and always up-to-date Plant performance is directly affected by the interaction of equipment across the entire facility, which makes it vital to know the status of all hardware and software in use. But how do you keep track of hundreds of devices? With the SIMATIC Management Console (SMMC) integrated in SIMATIC PCS 7 and our Update Services, you get a detailed and up-to-date picture of the status of your automation infrastructure (both hardware and software). This improves your ability to proactively manage the lifecycle of your existing SIMATIC PCS 7 plant. The SMMC provides a convenient inventory of your installed base (including switches, controllers, I/O modules and field devices) and an efficient way to compare the version level of each system against the latest hardware and software updates. With the new webbased SIMATIC PCS myExpert application, this information is standardized, clearly displayed and monitored - even across multiple plants. Microsoft Windows updates are also managed via SMMC, as are all Microsoft Defender events from all SIMATIC PCS 7 stations.



#### Convenient monitoring of package units

To provide an even more holistic view of your plant, Version 9.1 also offers insight into the condition of critical machines and package units (PU) such as centrifuges, dryers and weighing stations. The new SIMATIC Plant Asset Maintenance Station (PAM Station) is primarily designed to manage information from PU maintenance, diagnostics and condition monitoring. The status of each connected PU as well as the intelligent field devices is displayed in SIMATIC PCS 7 with clear operating screens and icons.



Generating added value from data with the right IT solution

Another key to more efficient plant management lies in previously unused process data, tags, alarms and batch data at runtime and from the past. With SIMATIC PCS 7 Process Historian, this information can be archived and evaluated centrally and in real time. In addition to standard database interfaces such as ODBC, OLE DB and ADO.NET, data can now also be processed via OPC UA, which enables simple and standardized integration of third-party systems. The archived data is visualized via the Information Server. Based on Microsoft Reporting Services, individual and target group-specific reports can be created intuitively using interactive dashboards.

Accessing and evaluating such large quantities of historical data for plant optimization requires a high-performance archiving, reporting and backup system. With SIMATIC DCS/ SCADA Infrastructure, Siemens offers you a comprehensive IT solution consisting of hardware, software and customized services – so nothing is left to chance. After all, in the event of a failure, the right disaster recovery strategy plays a central role in resuming production and preventing data loss.

# Future-proof and efficient plant engineering

Structured and systematic plant modeling in engineering further boosts productivity and ensures sustainable plant operation.

Automation information: standardized and reusable With its object-oriented type and instance concept, SIMATIC PCS 7 has long allowed you to define master templates from which an almost unlimited number of instances can be derived. These types and templates reduce testing and maintenance efforts during modeling and comply with the general requirements of the ANSI/ISA ISA-88 and 106 standards. Changes made to the master template can be synchronized with each instance, making it easier to adapt to new or changing requirements.

SIMATIC PCS 7 V9.1 also comes with an updated master data library. The updateable and future-proof Advanced Process Library (APL) includes a variety of ready-made, standardized and system-tested types such as Control Module Types (CMT) and Equipment Module Types (EMT). Their technological connections and ability to create variants make the CMTs in particular even more powerful as compared to the original function block templates. Existing module types can be automatically converted to CMTs.

### Contemporary engineering: specific tools and consistent data flow

CMTs speed up the process of bulk engineering, which significantly reduces the risk of errors. Engineering can be performed using the SIMATIC PCS 7 Technological List Editor, a Microsoft Excel-based editor that requires no system-specific knowledge. In addition, the SIMATIC PCS 7 Plant Automation Accelerator (PAA) creates the basis for fully integrated planning and documentation of plant automation projects. With the new version, process sequential controls and their corresponding types can be planned even more comprehensively and intuitively. Consistent matching of types and instances between planning and automation can be accomplished bidirectionally.



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