



SIEMENS

Ingenuity for life



Room for new
perspectives

SIMATIC PCS 7 V9.0:
More flexibility in
process automation

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A new view of process automation

Plants in the process industry have to satisfy increasingly tougher demands in terms of flexibility, scalability, availability and security – while still offering maximum sustainability and protection of investment. Digitalization is opening up entirely new perspectives within these complicated and competing demands.

Step by step, SIMATIC PCS 7 V9.0 is paving the way toward digital transformation for the process industry. With its hardware and software innovations, the new version of the proven process control system is making it safer and easier to plan your start on the path to digitalization.





Digitalization needs communication all the way to the field

Because plants have lifecycles of up to 30 years, modernization is an important topic in the process industry. But how can you make plants from the last millennium economically fit for the digital future?

The list of benefits that digitalization has to offer is long: shorter product development times, continuous efficiency improvements, more flexible production approaches, higher availability, optimized plant maintenance and sound decisions based on real-time data. In order for real and virtual production to converge over the entire lifecycle, data integration across all levels and process steps is absolutely necessary. Flexible and powerful communication networks from the field to the control level provide the physical basis.



From proven to future-proof: PROFINET





The basis for the digital enterprise

SIMATIC PCS 7 V9.0 relies on PROFINET – and for good reasons: The era of big data demands – and the world’s leading industrial Ethernet standard provides – powerful, real-time communication all the way to the field. And significantly reduced time and effort for cabling means flexible, easy-to-scale network structures as well as massive cost savings throughout the entire lifecycle.

These benefits are also reflected in the SIMATIC PCS 7 V9.0 hardware innovations. The especially compact and highly available devices support PROFINET, and provide much more room in planning and operating plants.



From a major all-rounder to a compact pro: SIMATIC ET 200SP HA



Highly available and scalable peripheral system

A compact design, flexible connection options and high availability thanks to redundant PROFINET connections: The decentralized SIMATIC ET 200SP HA peripheral system is perfectly tailored to the requirements of the process industry today and in the digital plant of tomorrow.

The new SIMATIC ET 200SP HA concept combines flexibility with maximum availability and even more compact dimensions. Its new design enables the use of up to 56 peripheral modules per station.

An especially high channel density of up to 32 channels on a 22.5-mm-wide module maximizes economy in the control panel. After all, available space in a plant is in short supply.

The SIMATIC ET 200SP HA has a highly scalable structure that makes it possible to precisely align expansions in the control panel with actual needs and allows for standardization. Thanks to the fixed wiring, this can be done very conveniently. The ability to connect and disconnect modules during operation specifically ensures high plant availability. As a result, stations can be expanded with no plant downtime.

A change in perspective when connecting field devices

While integrating and exchanging field devices always used to be a very complex process, these steps are now easier than ever. To ensure efficient transfer of familiar plant concepts to the digital world, we have developed the SIMATIC Compact Field Unit (CFU) decentralized line of peripherals. The CFU connected via PROFINET combines the easy handling of known 4 to 20 mA systems with the benefits of the digital field bus technology.

SIMATIC CFU is connected directly to the control system via PROFINET. Connected devices are automatically addressed and easily integrated via standardized communication profiles. The process that used to take more than 30 minutes has thus been shortened to less than 60 seconds. That's how Plug & Produce works.

Thanks to a decentralized approach for installing the SIMATIC CFU, the classic control panels are no longer necessary, which significantly reduces the number of cables and terminal points as well as the amount of planning and documentation work. The bottom line: the SIMATIC CFU is setting new standards in flexibility.

From central
to decentral:
SIMATIC CFU



Leading edge through new developments



SIMATIC CPU 410 E Controller for smaller SIMATIC PCS 7 applications

The CPU 410 E is a controller designed specifically for process automation with SIMATIC PCS 7. Its robust, powerful hardware makes it flexible to use, even under demanding conditions. Two PROFINET interfaces communicate all the way to the field.

PROFINET Y Switch Enables the redundant layout of PROFINET installations

The PROFINET Y Switch – SCALANCE XF204-2BA DNA – can be easily and flexibly integrated into the corresponding automation systems. It enables the connection of so called S2 devices to a high-availability R1 system. The device can also be installed near hazardous material. This effectively reduces downtimes.





Software innovations

SIMATIC PCS 7 V9.0 also provides more room for perspectives with its software innovations. Enhanced functionalities and intelligent features increase efficiency, safety and flexibility. Here are just a few examples of the numerous software innovations:

With **SIMATIC BATCH**, the engineering workflows for equipment modeling and recipe design can now be broken down – for even greater flexibility.

The **SIMATIC Management Console** simplifies the administration and management of the installed hardware and software components.

SIMATIC PDM V9.1 provides access to PROFINET networks and components during commissioning.

You can find detailed information about all innovations and new developments at usa.siemens.com/pcs7.

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