SIEMENS

Version 8.1

Realize your full potential with the new version of SIMATIC PCS 7

Performance you trust

siemens.com/simatic-pcs7

Answers for industry.

More than 70 new features, new possibilities: SIMATIC PCS 7 V8.1

Today, process industries face many challenges, whether it is the pressure of trying to reduce plant costs, global competition or environmental demands. So, managers, operators, as well as engineers, are always looking for ways to reduce time to market, operate their plant more effectively, and improve the availability of their plant.

As a result, the diverse set of users have different requirements regarding a process control system, for example, performance or user-friendliness. That is why Siemens answers with the SIMATIC PCS 7 control system, Version 8.1. It offers innovation and experience.
Take a look at the new features and the new possibilities that await you.

SIMATIC PCS 7

• significantly reduces engineering and commissioning times

• improves everyday performance in operation

• makes the application and maintenance of automation assets even simpler and more efficient

Your key to improved competitiveness

› Increased engineering performance

- Reduced commissioning times for new projects to shorten time to market
- Improved engineering flexibility for keeping the system running

› Efficient plant operation

- Reduced operator workload for better plant operational performance
- Improved asset utilization and increased plant availability
- Continuous production optimization for higher product quality

› Cost-efficient use of automation assets

- Improved cabinet space utilization with the new IO series
- Detailed diagnostics in the field helps increase plant availability
- Adapting the controller performance during runtime offers maximum application flexibility
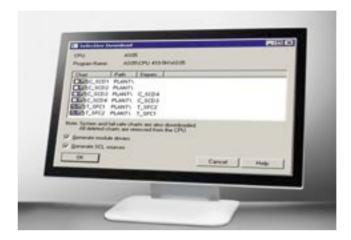
› Increased engineering performance

Whether you're working on a new project, upgrading or expanding existing projects, or looking to merge plants, we realize you are faced with many challenges. SIMATIC PCS 7 can offer you solutions depending on your needs.

Selective Download:
improved engineering quality

With Selective Download, individual changes to the project can be loaded one by one. The project itself remains up-to-date, resulting in:

- Less engineering time, lower costs and higher operational security
- Improved engineering quality
- Protection against potential damage and downtimes through minimized risks of last-minute bugs

Selective Download

SIMIT Simulation Framework

SIMIT Simulation Framework:
faster commissioning and enhanced project security

V8.1 allows you to benefit from SIMIT. As a result, you can be sure that every single function is connected to the proper actuators and sensors within the system; long before the actual start of production.

Key advantages include:

- Clear planning and a virtual test phase instead of potentially costly trials and errors
- Engineering quality
- Reduced engineering costs
- Reduced start-up times to only a third of the time

Type Change In Run:
easier maintenance and upgrade

Type Change In Run enables installation of new versions of single functional blocks in operation, providing:

- Enhanced flexibility of the whole system
- Time and cost savings for changes and improvements

Multiple library version support:
greater lifecycle flexibility

V8.1 offers more flexibility over the entire lifecycle of a plant. Operating the plant with different library versions allows:

- An easier way to merge plants
- Active support of parallel operations with standard libraries and central color schemes for libraries

› Efficient plant operation

Operational performance at any plant must meet two demands – operate effectively in order to produce quality for its customers, and be able to improve production continuously.

Advanced Process Graphics at a glance

With our Advanced Process Graphics (APG), operators have all the information to monitor a plant's status and performance at all times. APG includes:

- Comprehensive overview of all key functions
- Intuitive graphics display
- Efficient monitoring for safe and efficient plant operation

Advanced Process Graphics

New Condition Monitoring

New Condition Monitoring function blocks: integrated condition monitoring of mechanical components

The onboard Condition Monitoring Library of SIMATIC PCS 7 is a unique tool. Its new function blocks help diagnose mechanical components from the central system as part of an integrated system. Core functions include:

- Predictive maintenance through constant monitoring of the status of mechanical components
- Prevention of repairs and downtime

Model Predictive Control 10x10 function block: optimization the smart way

Our Advanced Process Library (APL) offers a whole toolbox to assist with the control of a plant's processes. E.g., the new Model Predictive Control function block MPC 10x10, provides:

- Efficient control of very complex processes by utilizing a large number of input and output formats
- Integral control across various contributing processes, rather than controlling one unit at a time

Model Predictive Control

› Cost-efficient use of automation assets

The reliability of the components is essential for efficient automation and key to the sustainable performance of the entire plant.

Online System Expansion Card limit upgrade: greater flexibility of CPU

Dimensioning of CPU 410 is achieved individually via the System Expansion Card (SEC). With the upgrade of the SEC, you can add functions at any time during plant operation. The flexibility of the CPU 410 allows for:

- Reduced effort and cost savings through long-term flexibility
- Compatibility with older controllers

CPU 410 with System Expansion Card (SEC)

SIMATIC ET 200SP

SIMATIC ET 200SP: reduced installation cost

Our new distributed periphery ET 200SP marks a milestone in technological advancement.

Key features include:

- Minimal space requirements
- Connectivity without tools
- Modular, flexible technology
- Investment protection through long-time support in addition to spare parts and repair service availability

Active Field Distributor (AFDiS) diagnostics: higher plant availability

New diagnostics for the Active Field Distributor include:

- Improved maintenance with immediate identification and localization of malfunctions and maintenance needs
- Optimum operational fieldbus availability

Active Field Distributor

› More highlights

The engineering, operation, or maintenance of a control system comes with many challenges. Our new version of SIMATIC PCS 7 takes significant steps to face those challenges more easily and efficiently.

- **Extended system architecture**

  Version 8.1 is best equipped for large projects, for example, the merging of control rooms. Version 8.1 offers the ability to use even more Operator System (OS) and Web client via one single server. The higher number of process objects per OS server saves hardware costs and increases efficiency for your operators.

- **Process Historian and Information Server**

  The Process Historian provides higher data availability through full backup of the complete long-term archived data. Complete redesigned Information Server offers better usability by creating the plant reporting.

- **SIMATIC BATCH**

  The block icons and faceplates in new APL design make the batch creation more comfortable. Batch can now be created, released and started in one step. Multiple usage of an SFC within one unit reduces the number of SFC types, thus reducing engineering effort.

- **PROFINET (CPU second Ethernet interface)**

  The CPU 410 is now equipped with additional Ethernet interface. This offers the capability to connect the automation system directly to plant and fieldbus, thus reducing investment cost and spare parts.

- **Maintenance Station / SIMATIC PDM**

  Diagnosis of individual field devices can now be done from any control unit, thanks to the new version of our Process Device Manager (PDM). Maintenance personnel can gain complete control regardless of their location.

- **Integration of comfort panel**

  The new library for comfort panel provides higher integration of auxiliary plants and easy support of local operation.

There's more to it:

siemens.com/simatic-pcs7

Get more information about SIMATIC PCS 7!

› **How to increase engineering performance**

› **How to operate plant efficiently**

› **How to use automation assets effectively**

SIMATIC PCS 7 V8.1 – at a glance!

Siemens provides automation and drive products with industrial security functions that support the secure operation of plants or machines. They are an important component in a holistic industrial security concept. With this in mind, our products undergo continuous development. We therefore recommend that you keep yourself informed with respect to our product updates and that you use only the latest versions. Please find further information on this subject at: http://support.automation.siemens.com. You may also register for a product-specific newsletter at this address.

To ensure the secure operation of a plant or machine it is also necessary to take suitable preventive action (e.g. cell protection concept) and to integrate the automation and drive components into a state-of-the-art holistic industrial security concept for the entire plant or machine. Any third-party products that may be in use must also be taken into account. Please find further information at: http://www.siemens.com/industrialsecurity

Follow us on:
www.twitter.com/siemensindustry
www.youtube.com/siemens