

The image features a Siemens logo in the top left corner. The background is a photograph of an industrial facility with large pipes and machinery. Overlaid on this is a complex, semi-transparent digital interface representing the SIMATIC PCS 7 system. This interface includes various labels such as 'OS Server, Batch Server, Maintenance Server, Process Historian', 'OS Client 427D', 'Industrial Ethernet', 'Standard Automatic Control system', 'PROFINET', 'ET 200M, EX10, HART', 'ET 200SP', 'PROFIBUS DP', 'EIPB Link', 'DIPPA Koppler', and 'AFD'. It also shows a network diagram with nodes and connections, and some specific equipment labels like 'E-2103' and 'T100'.

SIEMENS

Tomorrow's technology – delivered today

SIMATIC PCS 7 Process Control System for Process OEMs

[siemens.com/simatic-pcs7](https://www.siemens.com/simatic-pcs7)

6 key values for process OEMs

Process and plant design

Innovative & efficient design

- High degree of standardization in automation concept, faster prototype design of independent process units
- Meet industry standards and regulations
- Flexible configuration and changes in answer to customer's requirements

100% knowhow protection

- Secure intellectual properties
- Easy reusability
- Technological process knowhow of end user's application can be easily integrated into OEM's unit application with 100% know-how protection of OEM's and end user's parts

Engineering/ Commissioning

Digital twin

- Process and technology simulation
- Faster commissioning times and cost savings
- Improve engineering quality, avoid failures, protect asset damage

Easy integration and faster startup in real plant

- Easy integration of process OEM built units into overall DCS automation architecture of the end customer's plant
- Effective and smooth system startup of the real plant with already tested units and functions

Operation/ Services

Intelligent automation for process optimization

- Independent OEM units offer high quality process data analytics and support ongoing online optimization of all units and the overall technological process and operation
- Efficient operation
- High plant availability

Remote operation & maintenance

- Predictive maintenance
- Modifications, updates, upgrades and functional changes and extensions of all OEM units during operation along with technological trends and market requirements
- Global service & support

Added value for the complete lifecycle of a plant

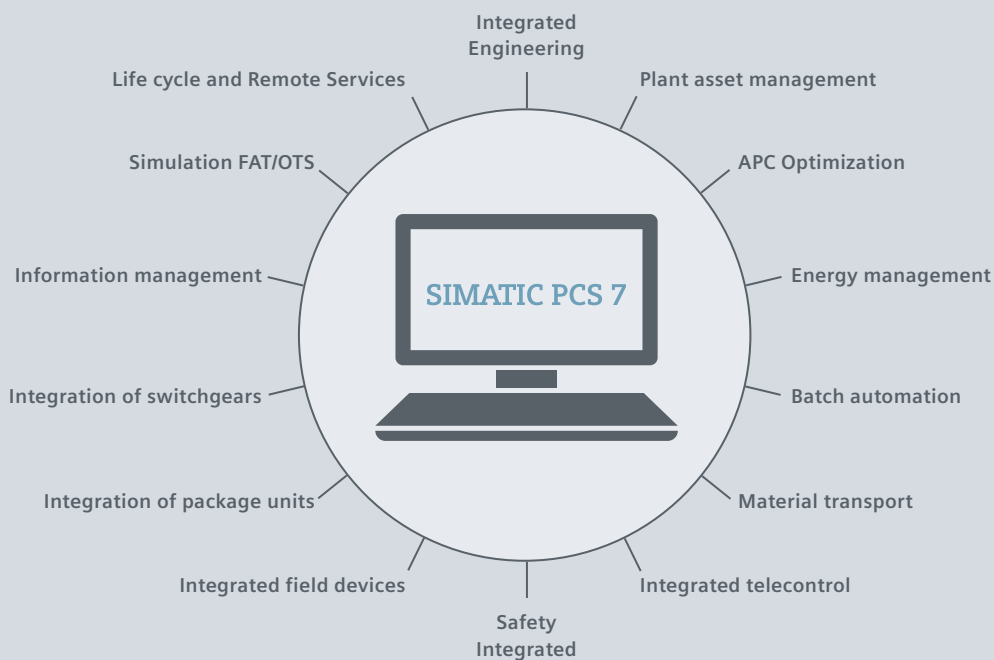
With today's dynamic markets, process equipment manufacturers are challenged to rapidly evolve their technology and deliver innovative solutions to succeed in global competition. End customers expect high quality and high performance equipment, efficient automation functions, ergonomic user interfaces, easy integration in overall digital plant structures, and meeting the industrial regulations and standards. Moreover, they need sustainable solutions while reducing their total cost of ownership.

Automation systems as the brain of plants create added value beyond the costs of the equipment. Being the global leader in automation systems, Siemens offers a comprehensive portfolio of tailor made solutions, from sensors to

controls and monitoring to IT systems. Siemens covers the complete lifecycle of a plant with innovative products, solutions and technological know-how, from the design and engineering phase to installation and commissioning, and to operation and maintenance. The Siemens offer helps equipment builders to reach their individual targets.

The distributed control system SIMATIC PCS 7 is the proven and perfect solution for process equipment control with a variety of features and functions. It is the key component to Plant Wide Automation and the Siemens answer to meet the challenges on the way to Industrie 4.0 so plant owners can secure their invest for the future.





Process and plant design

OEMs are familiar with these challenges: Improve design and engineering efficiency to reduce time and costs; realize evolutionary equipment optimization with the help of innovative automation functions; 100% know-how protection and reuse of intelligent technological properties in order to remain competitive. Siemens knows your needs and requirements from longstanding experience in the process industry. Learn, how SIMATIC PCS 7 supports your daily business needs.

Process and plant design

SIMATIC PCS 7 fulfills all your requirements with best in class engineering environment and toolsets.

Highly standardized automation engineering for faster prototype design

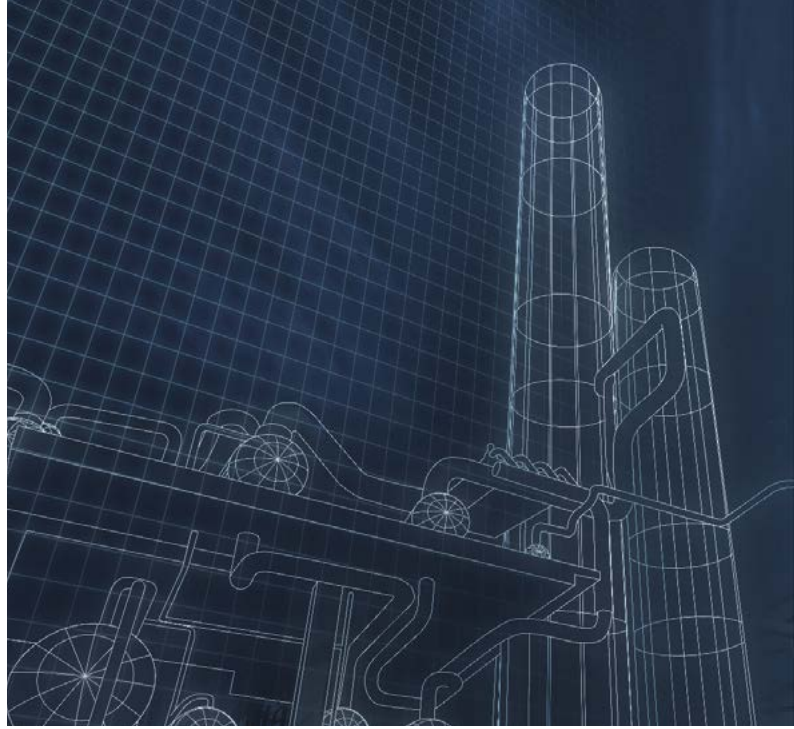
- Comprehensive industry proven Advanced Process Library and Industry Library set the standards for usability and functionality of independent process units, thus ensuring a uniform design and reduction of project-specific content as well as project costs
- Advanced Process Graphics display important process information in a clear, simple and task-oriented structure to take appropriate measures quickly

Meeting industry standards and regulations

- SIMATIC PCS 7 supports requirements of individual industries for standards and regulations based on various functions and features, e.g. fulfilling FDA 21 Part 11 regulation by electronic signature and track & trace functionally; realizing a safety system according to IEC 61508 up to SIL 3 etc.

Flexible configuration and changes to meet customer requirements

- SIMATIC PCS 7 is one system for all plant types (from 100 to 100,000 I/Os; including standard, fault tolerant, and safety applications), which are able to expand the system anytime to match the demands of the respective automation task. SIMATIC PCS 7 also offers scalable functionality via options (e.g. SIMATIC Batch, Power-Control, MES)
- Modular design and automatic update of changes in all related automation functions minimizes reengineering load due to requirement changes



Engineering and commissioning

100% know-how protection

Process know-how is essential for every process equipment supplier. Protecting this profound knowledge properly is the best way to differentiate from the competition.

Secure intellectual properties

- Technological process know-how of process OEM can be easily integrated into end customer's application by using templates and customized libraries
- Specific process know-how remains in each owner's property (program source will not be delivered to the final application)
- 100% know-how protection by authorized access for customized libraries

Easy reusability

- Fully developed automation concept can be easily integrated & reused in OEM's applications and projects by simple copy & modify

The steadily increasing pressure on project schedules and profitability goals in automation requires shorter setup and startup times for installation and commissioning of process units in the complete plant. In addition, the integration in higher level system should seamlessly working with all the necessary data communication.

Digital twin

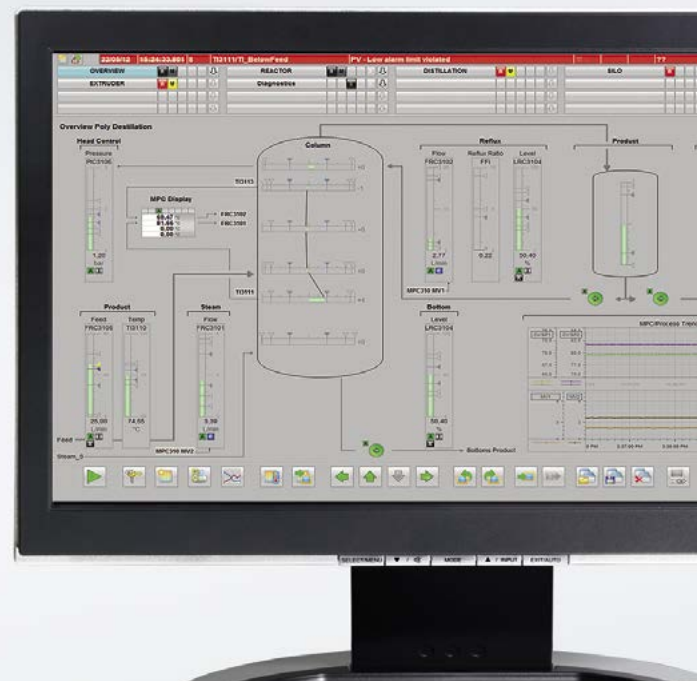
In today's digital world, the right tools are needed to outperform the competition. The SIMIT Simulation Framework is the new lever for profitable industry digitalization.

Process and technology simulation

- The SIMIT Simulation Framework allows virtual simulation, testing and pre-commissioning of all automation and technological functions, process and equipment simulation with application library, training of process engineers and plant operators

Faster commissioning time and saves cost

- With SIMIT Simulation Framework commissioning and engineering can be sped up by using a virtual plant environment long before production. Nearly all design and functional errors can be detected prior to on-site commissioning which reduces commissioning time and cost up to 50%



Operation and services

Improved engineering quality, reduced failures and protection of assets against damage

- Thanks to SIMATIC's easy handling, the usual scope of testing can be extended. Simulations run parallel to engineering, which leads to higher engineering quality. Virtual commissioning helps efficiently to define and clarify specifications with operators and partners. This avoids re-engineering and conflict issues and leads to higher customer satisfaction.

Easy integration and faster startup in real plant

With virtual commissioning and modular design and test tools commissioning time can be shortened up to 30%. The open structure of SIMATIC PCS 7 is the gateway to the complete system.

Easy integration and shorter commissioning time

- Open architecture with standard interface enables integration of process package units into the entire production system simple and easy

Effective and smooth system startup of the real plant

- CFC online with simulated/forcing values
- With Selective Download, individual changes to the project can be loaded one by one. The project itself remains up-to-date

Future-oriented SIMATIC PCS 7 is equipped with an optimized user interface and reliable control functions, enabling OEMs to deliver best in class performances with their process units. SIMATIC PCS 7 offers high availability and integrated safety to ensure continuous operation and protection of all valuable asset, thus avoiding damage to people, machines, and environments. As a long term industry partner, Siemens supports the entire life cycle of a plant's automation system. The global presence of Siemens supports system upgrades, expansions, and modernizations, and also offers spare parts, services and more worldwide.

Intelligent automation for process optimization

To improve productivity and optimize production, real time analysis of process units and their operation data is essential. This is enabled by intelligent automation functions.

Efficient operation

- With Advanced Process Graphics, operators have all the information to monitor a plant's status and performance at all times.
- New Condition Monitoring function blocks help diagnose mechanical components from the central system as part of an integrated system



High plant availability and safety

- The flexible, scalable redundancy can be defined separately for each architecture layer, controller, fieldbus and I/O device, and matched to the field instrumentation.
- Execution of basic process control functions and safety functions in a single controller. With the SIMATIC Safety Matrix, SIMATIC PCS 7 enables simple configuration and safety lifecycle management.

High quality process data analytics and online optimization

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

Remote operation & maintenance

Wherever and how long your equipment is in place, Siemens will support you to increase value throughout the entire life cycle.

Predictive maintenance

- Asset management by Maintenance Station enables preventive and predictive diagnostics, maintenance, and service of the individual production unit
- Reduce unplanned downtime and efficient use of maintenance investment

Secure remote service and system upgrade

- SIMATIC PCS 7 Web server enables secure access to your equipment's control and diagnostic data in critical situations or for remote maintenance
- Hardware and software modifications, updates, upgrades and functional changes and extensions of all OEM units during running plant

Global support

- Siemens' products, solutions and services are available worldwide. Experts assist OEMs and plant owners on site when needed

There's more to it:

siemens.com/simatic-pcs7

Experience SIMATIC PCS 7!

- Efficient plant engineering
 - Intuitive plant operation
 - Secure Remote Service
- and more



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