Operational Excellence: Intuitive operations and efficient engineering

SIMATIC PCS 7 – Performance you trust
Systematic delivery of requirements

Providing continuous operation and consistent product quality while reducing plant costs are only a few of the many challenges faced by the process industry today. The control system plays a central role in meeting these industry challenges. The DCS enhances the user functionality with intuitive operation and enable you to increase production. Given the growing complexity of today’s processes and the expanding range of tasks for engineers, operators and maintenance staff, the importance of productivity is more important than ever. The challenge is that, each group of users has different requirements for the process control system, for example, speed, performance, or usability.

Siemens SIMATIC PCS 7 process control system enables you to respond to those challenges. It combines continuous innovation with years of experience and fulfills the expectations of all user groups.

SIMATIC PCS 7
- Enables continuous, safe operation
- Can be scaled to meet any requirements
- Ready for the future
SIMATIC PCS 7 enables continuous and safe operation

Plant shutdowns considerably reduce the economic efficiency of process plants.
- Redundantly configured automation components ensure maximum plant availability
- Online expansions and updates shorten or prevent downtimes within planned upgrades or modernization
- Integrated safety concepts ensure continuous operation of your plants and protection of people, machines and the environment
- Meets the highest IT security requirements for protection against unauthorized access to your production facilities

SIMATIC PCS 7 can be scaled to meet any requirements

From laboratory automation, to small and medium-sized production plants with flat system architectures, all the way to large production complexes based on client-server architectures with virtually an unlimited number of I/O signals:
- Thanks to its flexibility and scalability, SIMATIC PCS 7 optimally adapts to your needs.

SIMATIC PCS 7 is ready for the future

A key requirement in process automation is the digitization of the production plant and thus the complete acquisition and use of information in a consistent data model for:
- Lifecycle engineering and plant management
- Simulation
- Virtualization or mobile applications
- Energy-efficient operation
- Remote maintenance
- Predictive maintenance
- Remote services

SIMATIC PCS 7 process control system – Version 8.2 is available!
SIMATIC PCS 7 V8.2 – Highlights of the new version

Mobile plant monitoring

SIMATIC PCS 7 Web
SIMATIC PCS 7 Web can be used to operate and monitor a plant via Intranet or Internet. Extensive configuration options enable individualized and secure online access to the operator control and monitoring level of the production plant. This enables remote control room concepts to be realized.

Use of mobile devices
The new version expands the integration of mobile devices for plant monitoring even further. You can now display key production figures, trend or alarm information on smartphones or tablets—regardless of the operating system.

Process Device Manager
SIMATIC PDM Process Device Manager enables plant-wide access to all field devices. Diagnostics, maintenance, parameter assignment, configuration and commissioning can now be performed from mobile terminal devices with standard web browsers or from any plant computer. No additional installation work is needed to turn both office computers and mobile devices into service stations for field devices.
Efficient plant engineering

Logic Matrix
The new Logic Matrix feature simplifies the engineering and operational visibility of trip and interlocking logic in the production plant based on the cause-effect principle. The Logic Matrix scales to support small to large configurations and bulk data can be handled with automated interconnection rules. Logic Matrix can also be efficiently edited within Microsoft Excel.

Sequential Function Chart engineering
The calculations and comparison functions of Sequential Function Chart (SFC) are now performed at a central location in the SFC Editor. This helps the plant personnel to analyze the process faster and better than before. In addition, SFC engineering is simplified. This minimizes errors and reduces the time needed for configuration.

Bulk engineering
Version 8.2 significantly expands the access to engineering data for example, the technological objects with detailed logic and related documents for SIMATIC PCS 7 projects. This reduces the time and effort to create PCS 7 documentation.
**Lifecycle Management**

- To keep the process control system up-to-date with the latest technology with minimal effort, Siemens provides a Software Update Service (SUS) for SIMATIC PCS 7. This service supports the use of the new Windows 10 operating system on your control system. SIMATIC PCS 7 V8.2 runs under Windows 10 and Server 2012.

- The SIMATIC Management Console makes it possible to create an inventory of the SIMATIC PCS 7 hardware and software components as well as all versions at the press of a button. This enables fast analysis and downloading of updates.

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**Intuitive plant operations**

**Optimal operator guidance**

- The new Logic Matrix ensures greater efficiency not only for engineering, but also for plant operation: Based on the cause-effect principle, it maps the status information and interlocks of the plant, and thereby presents the complex relationships in simplified form.

- The new process tag browser allows an even faster and more targeted search for process tags with the associated plant status information.

- The new Operator Trend View enables a convenient compilation of trend curves. The operator can use it to obtain an overview of the process sequence faster than before, thereby allowing the plant to be monitored more easily and the processes to be optimally managed.

- The group view of the process tags allows faster and more intuitive operation by plant personnel and simplifies recurring operating sequences.

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**Reduction of the lifecycle costs**
**Load management**

In order to avoid load peaks in electrical power usage, SIMATIC PCS 7 now offers integrated monitoring of all energy-related consumption data for the entire plant. The load management functions for controlling consumers such as drives are now part of the technology library and can be easily implemented. Plant operation is therefore maintained within the contractually agreed purchasing conditions, and targeted optimization of the energy consumption is achieved.

**TeleControl technology**

For widely distributed plants, such as those that occur in the oil and gas industry (e.g. pipelines) or in water management, the integration of remote stations is implemented in the process control system via remote control systems such as TeleControl. Remote stations can now be equipped with the new SIMATIC RTU3030C. This remote control unit is largely self-sufficient with its own power supply and features minimal energy consumption as well as on-demand communication. In order to meet requirements in terms of increased availability, out-stations can also be configured redundantly.
The information provided in this brochure contains merely general descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.

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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. Consequently, we recommend that you regularly inform yourself of any updates to our products and use only the current versions. You will find information at:

http://support.automation.siemens.com

You can register there to receive a product-specific newsletter.

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