



SIEMENS

Ingenuity for life



The background of the advertisement features a wall-mounted Siemens switchgear unit, which is highlighted with a glowing cyan outline. To the right, a Siemens SIPROTEC control panel is visible, featuring a large screen and a keypad with various colored buttons (yellow, green, red, blue). The scene is overlaid with digital graphics, including binary code (0s and 1s) and glowing cyan lines that suggest a network or data flow. In the upper left, there are faint, glowing icons of computer monitors displaying charts and graphs. The overall aesthetic is modern and technological, emphasizing the integration of physical hardware with digital services.

Power Control Integration Services

Switchgear integration –
using synergies efficiently

siemens.com/pcis

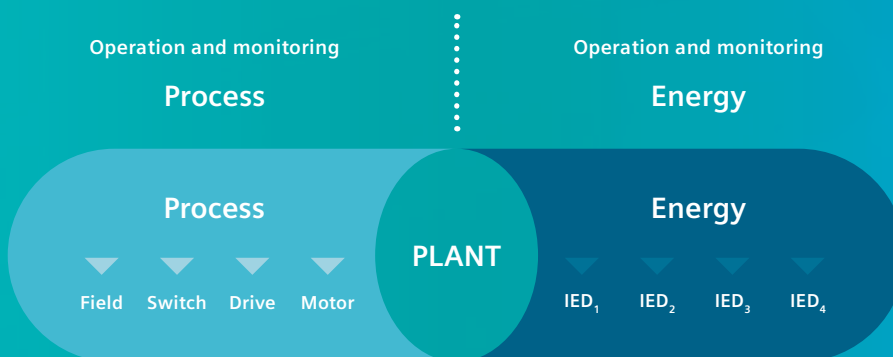
Using synergies efficiently: combining substation automation and process automation in a single control system

Integrated solution

In many industrial plants, the medium-voltage power supply switchgear must be integrated in the overall automation system.

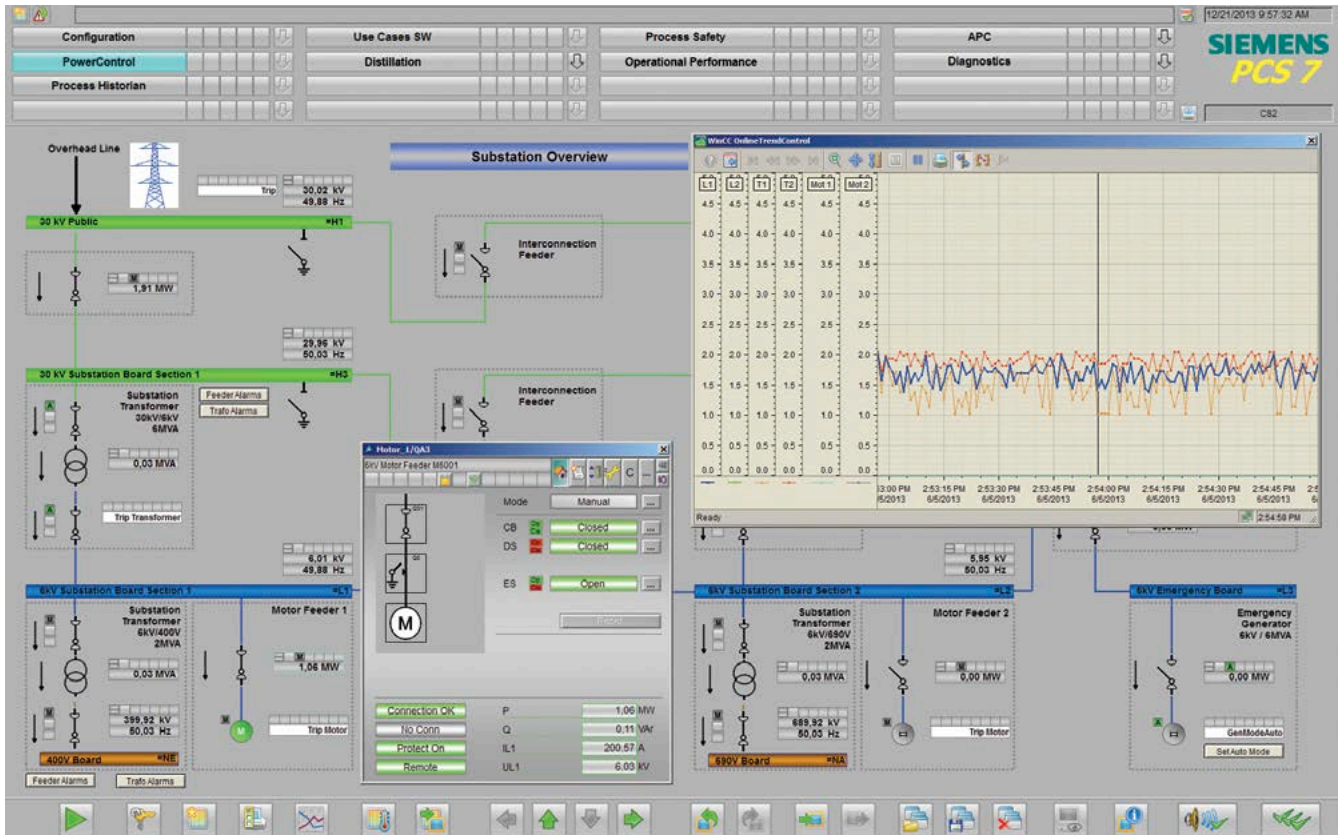
Power Control Integration Services enable the homogeneous integration of electrical switchgear featuring devices for protection and control functions (intelligent electronic devices, IEDs) in the SIMATIC PCS 7 process control system based on the IEC 61850 standard.

This significantly increases the entire plant's degree of integration.



Two worlds, one control system

Power Control Integration Services combine process automation with the automation of electrical switchgear for medium voltage in a single control system.



Example of a plant display for medium-voltage switchgear with trend window and a faceplate from a medium-voltage motor

Separate automation systems for power supply and the real process? Not necessary!

With SIMATIC PCS 7 PowerControl, you integrate the automation of your switchgear in the process control system, thus bringing the two worlds together.

You benefit from simpler plant structures with more transparency, increase the plant's degree of integration, and achieve tremendous cost savings throughout the entire lifecycle of your plant.

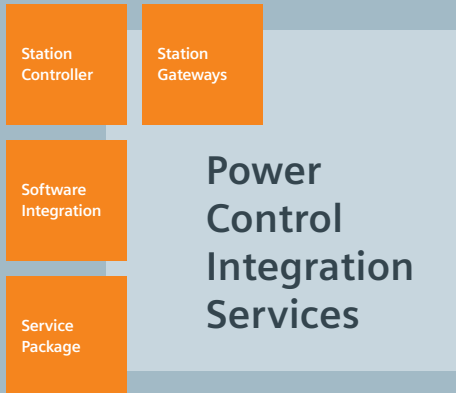
In many industrial plants, large electrical consumers with high energy requirements – such as large drives, heavy-duty fans, pumps, etc. – are in use.

Their integration takes place via medium-voltage switchgear that control, switch, and automate the individual consumers by means of devices for protection and control functions (IEDs) based on the IEC 61850 standard.

SIMATIC PCS 7 PowerControl enables the homogeneous integration of switchgear in the SIMATIC PCS 7 process control system, thus creating a uniform system platform for process and power supply.

The platform is freely scalable, from the simple visualization of protection devices in small systems to the highly available integration of electrical consumers in large systems.

Power Control Integration Services – transparent and efficient



With Power Control Integration Services, we support you through the entire process of integrating your IEC 61850-compliant components.

Our services range from consulting and an innovative product offering to integration in the control system.

Station gateway

The station gateway enables the direct integration of up to 128 IEC 61850-compatible field devices in SIMATIC PCS 7.

Communication between the AS 400 systems and IEDs takes place via the gateway.

To increase availability, the gateway can also be used in a redundant configuration.

The PCS 7 Add-on PowerControl Library can also be used for the consistent, end-to-end integration of IEDs all the way to the operator station.



Station controller

The station controller is used for medium-sized plants without an S7 automation system.

The station controller package includes an industrial PC, an S7 software controller (WinAC RTX), and the station controller software.

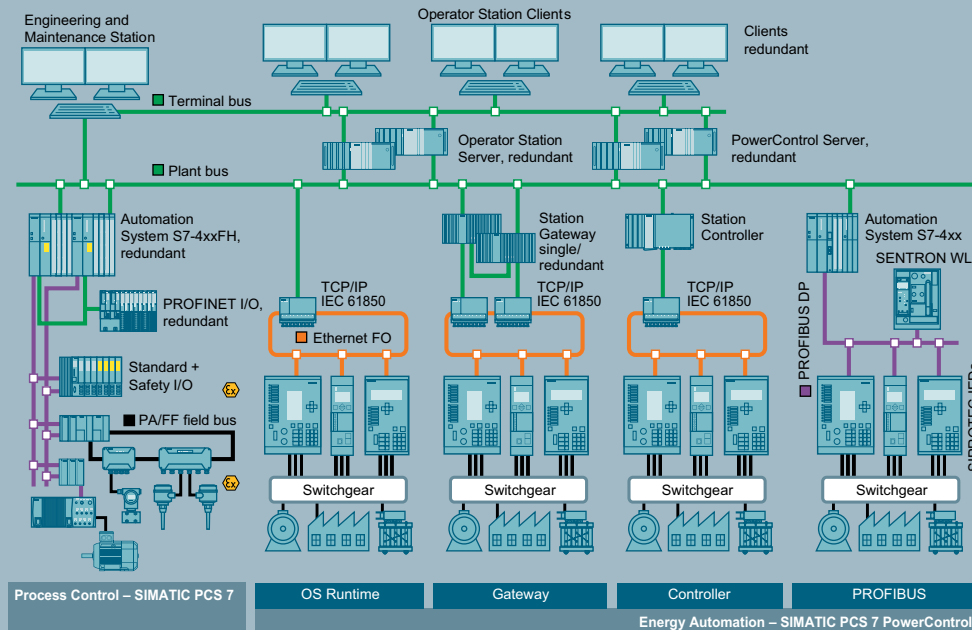
This package supports both types of IEC standard communication:

- IEC 61850 MMS Client/Server
- IEC 60870-5-104 Master/Slave

With this solution as well, an OS connection can be implemented with the aid of the PCS 7 PowerControl Library.



Twice as powerful thanks to innovative system components



Process control system and station control system

Software integration

Direct SIMATIC S7 IED communication

IEC 61850-compatible block libraries are also available for direct communication between a SIMATIC PCS 7 AS or SIMATIC S7 PLC* and a small number of IEDs. These libraries also enable OS connection via a PCS 7 PowerControl Library.

Direct OS IED communication

IEDs can be integrated directly in SIMATIC WinCC via a separate IEC 61850 communication channel. Direct WinCC communication is not compatible with the PCS 7 PowerControl Library.



Service package

We can advise you beforehand on the optimal design of your system architecture.

In addition, maintaining service capability is a basic prerequisite for the long-term availability of system functions. These functions depend on proper technical support and the assured availability of spare parts.

With our service package for Power Control Integration Services, these important components are available to you as an integral part of our offering.



*Now also available for S7-1500 based on the TIA Portal

The benefits for your applications

Diverse connection options

Power Control Integration Services offer flexible integration in existing small plants via software as well as performance-oriented integration in existing systems using additional hardware.

This is done independently of the manufacturer of the protection devices by applying the IEC 61850 standards.



Easy integration

The combination of gateway, controller, and software library in conjunction with the SIMATIC PCS 7 PowerControl Library permits the easy and consistent integration of IEDs from the field level to the operator station.

Furthermore, both switchgear and protection devices from Siemens and devices from third-party manufacturers can be integrated.

Professional service concept

To ensure the serviceability of your plant, we offer you a professional service concept that is optimally tailored to your individual needs in terms of the long-term availability of technical support and spare parts.



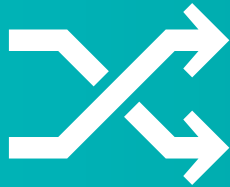
Benefit from Power Control Integration Services

Efficient



Cost-effective solution based on standard components (Industrial Ethernet)

Flexible
usage



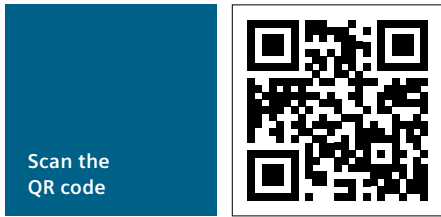
Scalable and flexible,
from just a few devices to several hundred

Lifecycle-
oriented



Long-term protection of serviceability through assured spare parts availability and technical support

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