

The background image shows two men in a control room. An older man with glasses and a beard, wearing a light blue button-down shirt, is pointing at a computer monitor. A younger man with dark hair, wearing a checkered shirt, is looking at the screen with a smile. The monitor displays a complex industrial automation interface with various data points, graphs, and a 3D model of a plant. The background is a blurred view of an industrial facility with pipes and structures.

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Ingenuity for life

SIMATIC PCS 7 Plant Automation Accelerator

Integration of automation planning and control
in one central database.

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Maximum data consistency from the planning phase through to the automation control system

Global competition, dynamic market requirements, environmental compatibility and statutory regulations: the pressure from international competition is constantly growing, and the field of plant engineering is no exception. That is why both plant designers and operators are giving a great deal of consideration to faster times-to-market, growing quality demands, increased engineering efficiency and improved workflows. For one thing is clear: processing costs always need to be cut and project costs significantly reduced.

Better workflow in plant engineering

The workflow in the engineering of processing plants continues to present a challenge: a lot of people are involved, there are many different data formats and many interfaces. Due to all of this often causes transmission errors, system conflicts and thus greater demands on time and budgets. In general information is lost when data is exchanged among different disciplines, or manual corrections have to be made.

Engineering with consistent data management

An integrated view across all planning phases plus entirely and consistent planning data are key factors for success. Standardized data management with central data storage for planners and plant owners increases the

flexibility within the total process, enables parallel execution of tasks, and helps toward saving time and reducing costs.

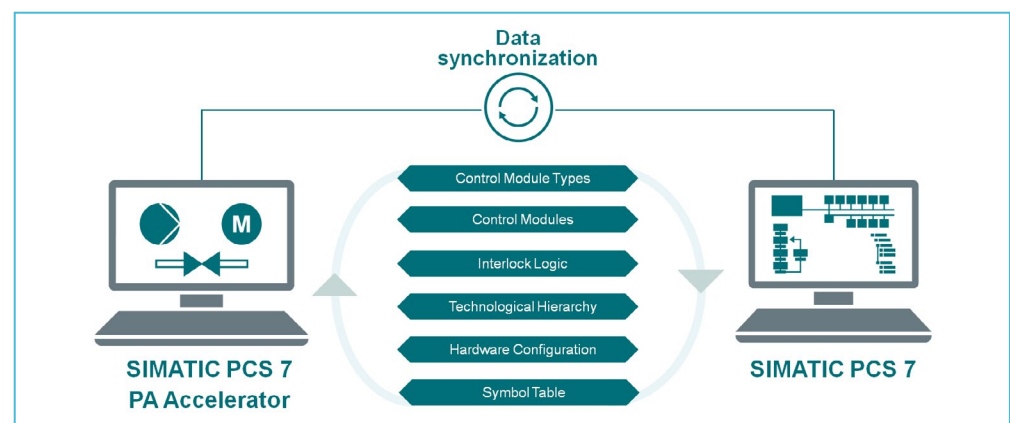
All of this is made possible by the SIMATIC PCS 7 Plant Automation Accelerator. The entire planning data for a project is present in its central data model without any duplication. In addition, all data of the planning objects from different disciplines are available directly, with consistent content, and at all times, for example for the planning of plants, E&C systems and automation systems. It is irrelevant whether Engineers are located close together or are part of a global project team from different countries: The database is always the same – without exception.

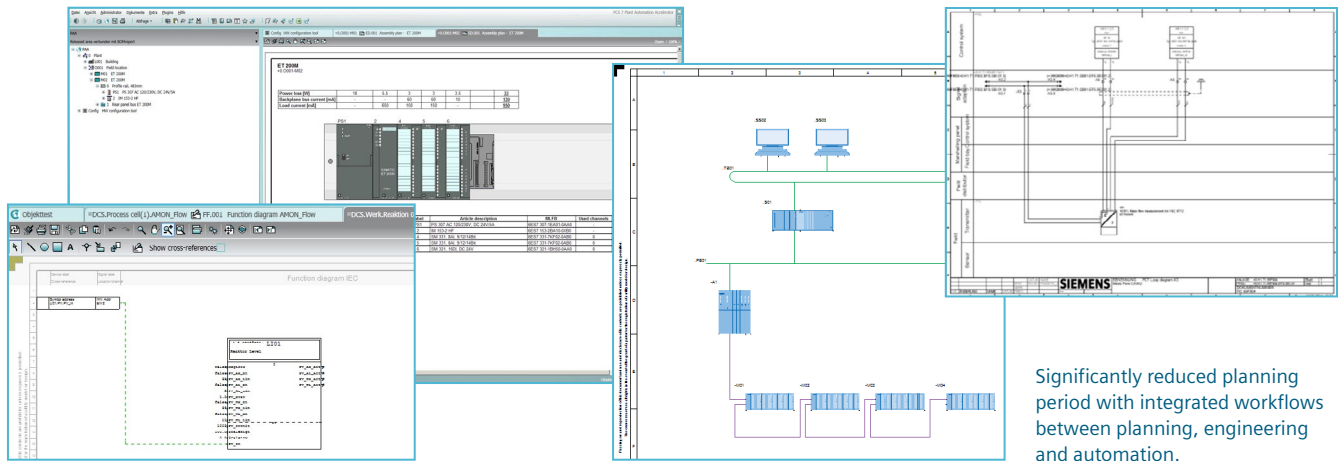
Integration of automation planning and control system

The SIMATIC PCS 7 Plant Automation Accelerator is the first completely integrated solution for the planning and documentation of plant projects.

Customers benefit in particular from consistent engineering without system conflicts between automation planning and the control system. The object-oriented approach of the Simatic PCS 7 Plant Automation Accelerator enables users to work on a central data platform, guaranteeing completely integrated planning based on an electronic workflow – from plant engineering through to automa-

Faultless data transfer
by a central
data management





tion. This workflow ranges from the planning of quotations – including bills of material – and the automatic generation of control data from the electrical plans of the Siemens Simatic PCS 7 process control system, through to controlled mass data engineering and direct as-is documentation of the plant. This modular engineering approach raises overall project efficiency and minimizes risks.

Furthermore, the high level of standardization and simple configuration save time and costs in engineering during the implementation phase. Simple synchronization between planning and engineering avoids duplicate input and interface losses and reduces project durations.

Integration of plant design, engineering and control system

The SIMATIC PCS 7 Plant Automation Accelerator also holds a number of benefits in store for existing COMOS users: COMOS customers with an existing or planned COMOS installation can purchase the "Integration Layer", thereby acquiring the option of using all available functionalities for fully integrated engineering with COMOS and SIMATIC PCS 7 by using the SIMATIC standard objects supplied. With the corresponding COMOS licenses, data can be transferred from process design as well as from basic and detail engineering to the control system and vice versa. Combinations can also be compiled with other COMOS modules. The Integration Layer can also be used in multi-user mode in an existing COMOS installation.

The next step toward the digital process plant

SIMATIC PCS 7 Plant Automation Accelerator bridges the digital gap between plant planning and control system with SIMATIC PCS 7, and thus also extends to the operating phase: it permits totally integrated engineering through all planning phases of an industrial plant with a reduced number of interfaces. The complete plant structure is generated from the engineering data in the control

system at the touch of a button. This simplifies automation engineering and reduces the time required enormously. In the reverse direction, changes to the automation functions during operation (such as the replacement of field devices) can be directly fed back to the planning software. The database in the engineering tool is thus updated immediately, together with the complete plant documentation.

In this way, the SIMATIC PCS 7 Plant Automation Accelerator provides the requirements for more confident decision-making and for more efficient processes throughout the plant – thus making a contribution to a sustained improvement in competitiveness.

Your benefits at a glance:

- Significantly reduced planning times with integrated workflows between planning, engineering and automation
- Planning projects in the bid and engineering phases together with return documentation during commissioning help to minimize the time and cost involved as there is no need for customizing and the system is supplied with standard documents
- Shorter project durations thanks to consistent and simple data synchronization between engineering and automation
- Increased plant availability thanks to error-free data transfer and system documentation that is always up-to-date
- Increased engineering efficiency and cost benefits thanks to optimal change management
- Out-of-the box SIMATIC PCS 7 engineering
- Less work thanks to the reusability of hardware configurations
- Simple configuration of the SIMATIC PCS 7 topology
- Consistent as-is documentation of software and hardware throughout the entire lifecycle
- Reusability of the as-is documentation for migrations, plant extensions and new-builds

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Customer is responsible to prevent unauthorized access to its plants, systems, machines and networks. Systems, machines and components should only be connected to the enterprise network or the internet if and to the extent necessary and with appropriate security measures (e.g. use of firewalls and network segmentation) in place.

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