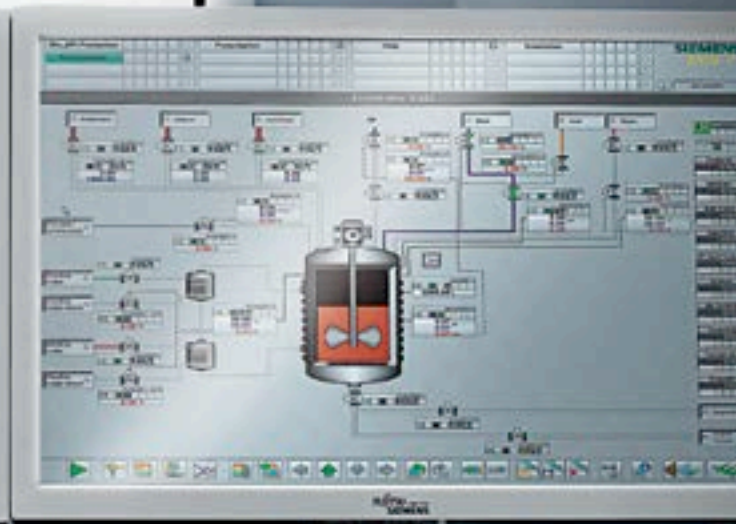
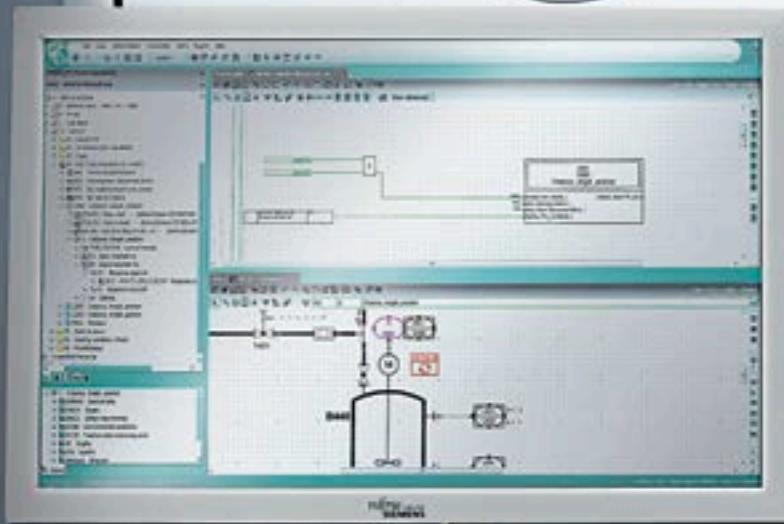
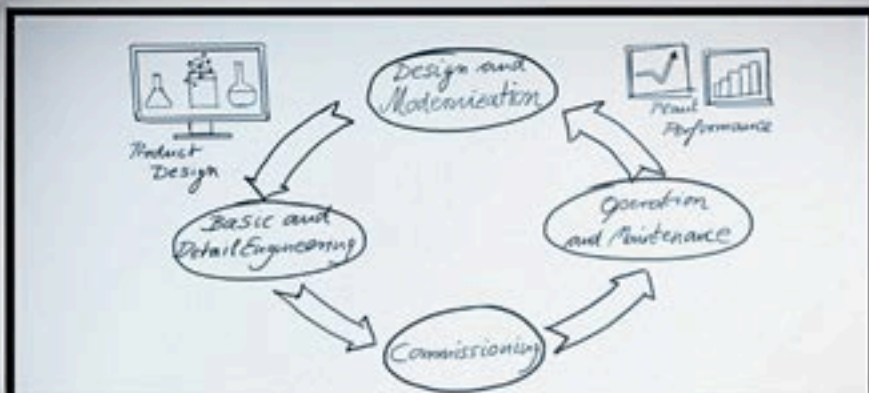


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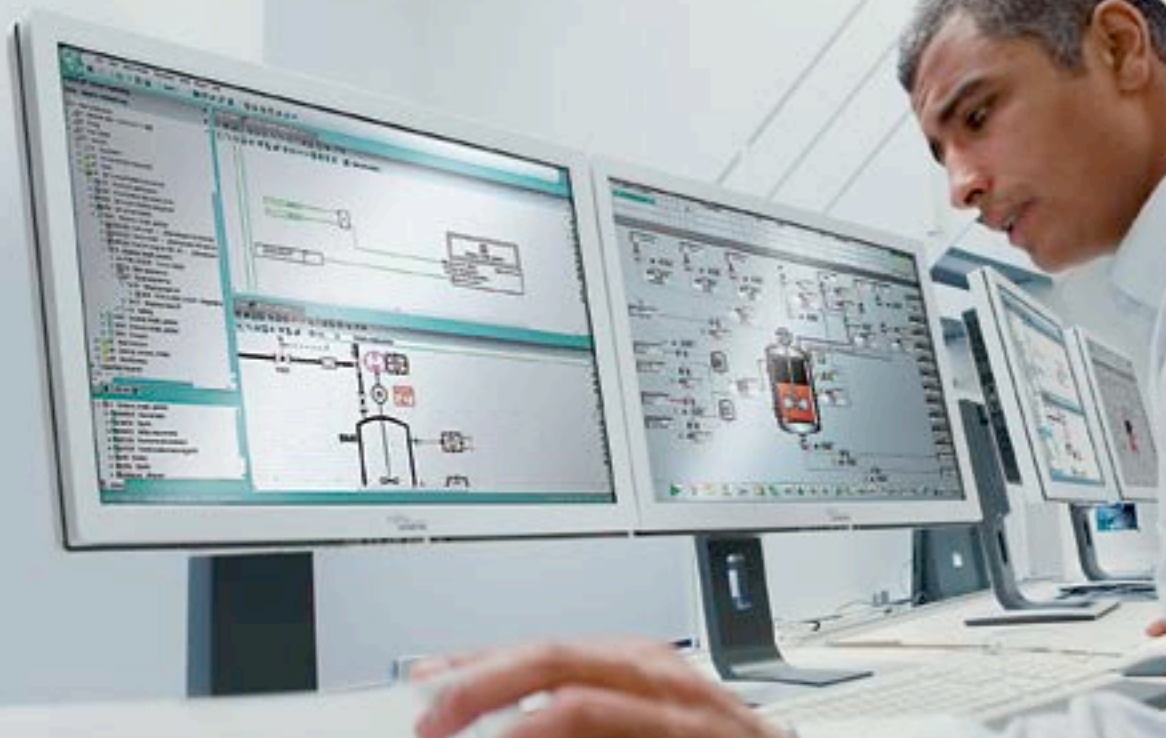
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## Integrated engineering with COMOS and SIMATIC PCS 7

Added value throughout the entire plant lifecycle: Maximum data consistency from planning through automation up to operation.

Answers for industry.

# Secure your competitive edge with integrated engineering



Global competition, dynamic market requirements, environmental compatibility, and statutory regulations: International competitive pressures are growing where plant engineering is concerned. Questions which plant planners and operators have to ask themselves nowadays include: How can I launch my product faster on the market with greater quality but at a lower cost? How can I make my engineering cheaper and faster but with a better planning quality? And how can I simplify sequences and procedures at the same time? Because one thing is very clear: implementation times must be shortened, and project costs reduced.

## **Improved workflow in plant engineering**

The workflow associated with the engineering of process plants is a challenge, and will remain so: There are many involved persons, many different data formats, and many interfaces which frequently result in transmission errors and system gaps, and thus in increased time/cost overheads. Information is often lost during data exchange between two tools, or must be subsequently improved manually.

## **Planning with totally integrated data management**

Decisive for success are an integrated view throughout all planning phases as well as continuous and consistent planning data. Uniform data management with central data storage for plant planners and owners increases the flexibility within the total process, enables parallel execution of tasks, and helps toward saving time and reducing costs.

# Faster on the market. Foster profits.

In order to face the increasing global competitive pressures in the process industry it is becoming increasingly important to execute workflows in parallel, thus shortening the time-to-market.

## One database for all

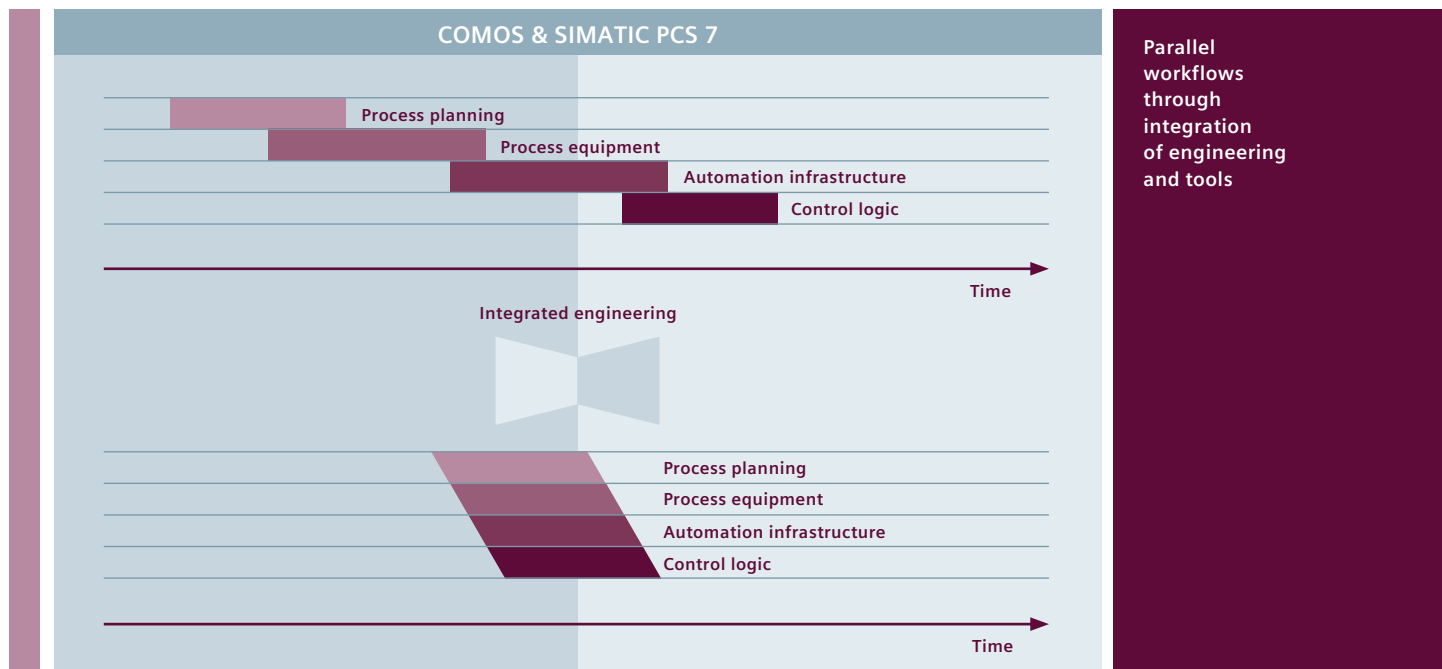
The basis for integrated engineering is a data model in which all planning data of a project exists exactly once. In addition, all data on the planning objects of the facilities is available directly, with consistent content, and at all times, for example for the planning of plants, pipelines, EI&C systems, instrumentation, and automation systems. It is irrelevant whether planners are located close together or are part of a global project team from different countries: The database is always the same – without exception.

## Parallelization with COMOS and SIMATIC PCS 7

Planning and engineering using the COMOS software solution in conjunction with the SIMATIC PCS 7 process control system enable data from the engineering and automation functions to be combined. This significantly reduces time and costs across the entire lifecycle, and thus secures decisive competitive advantages.

## Simple product selection with the PIA Life Cycle Portal

Our PIA Life Cycle Portal also makes a contribution toward holistic and simplified engineering: This tool utilizes the engineering data in COMOS and automatically suggests the appropriate field devices from Siemens for every measuring point.



Parallel workflows through integration of engineering and tools

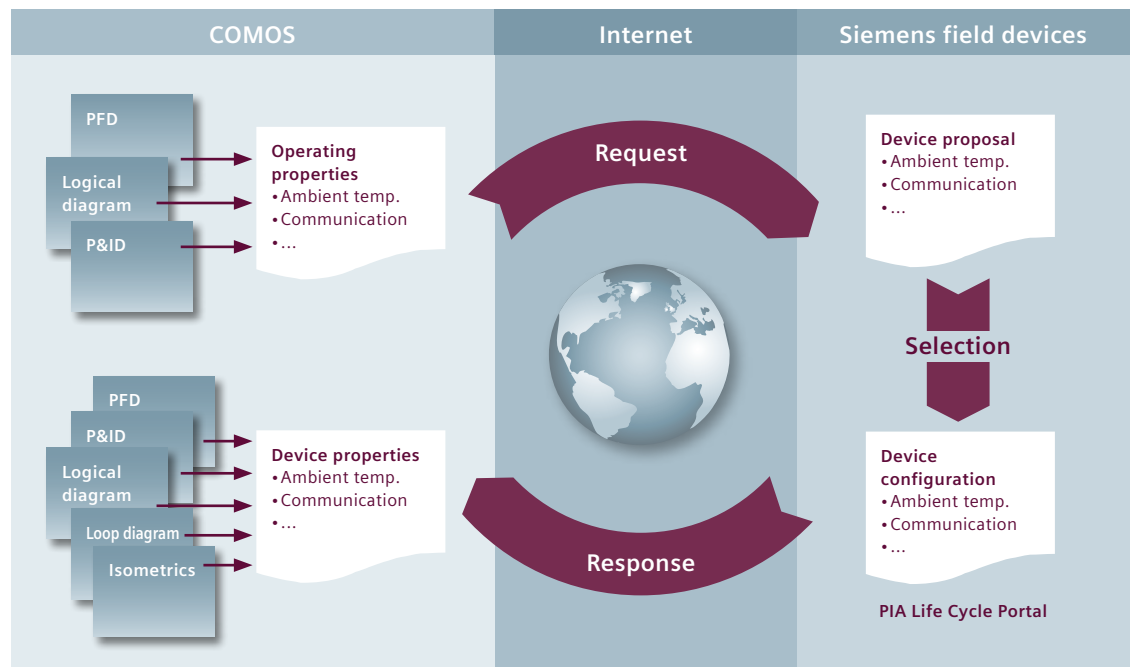
# On the one hand: Efficient process management with COMOS

How do I increase the efficiency of my plants for the complete lifecycle? How can I successfully handle ever shorter innovation cycles? How can I deal with increasingly complex data quantities? These are the questions plant planners and owners have to ask themselves nowadays. With COMOS we can give you the answers.

**One database for uninterrupted information flow**  
We are the only provider worldwide to offer the process industry a software solution for holistic management of plant projects – from planning through operation and modernization up to decommissioning. COMOS makes sure that planners and operators can access the entire project-relevant data at any time, throughout all company levels and project phases. This has become possible through the consistent object orientation of our pioneering software solution. In addition, COMOS also manages the complete plant documentation. It thus provides the basis for more confident decision making and more efficient processes – therefore making a contribution to sustained improvements in competitiveness.

**Automatic and faster configuration**  
The PIA Life Cycle Portal is a tool for selection, configuration, engineering, and ordering of devices for process instrumentation and analysis. The planning data created in COMOS is automatically transferred to the PIA Life Cycle Portal. This online configurator suggests the appropriate field devices for every measuring point. This means you can conveniently compare the preconfigured devices and also carry out fast and simple configuration. As a result of the unique integration with COMOS you profit from tested, high-quality field device properties which are available for all system components at all times.

Workflow for integrated engineering with COMOS and Siemens field devices



# On the other hand: Efficient operation of process plants with SIMATIC PCS 7

Our pioneering SIMATIC PCS 7 distributed process control system is based on proven, standard automation components and offers maximum availability and reliability.

## Scalable and flexible

As a result of the seamless integration in Totally Integrated Automation, users profit from an unbroken range of optimally matched system components for consistent automation of the entire production process. The SIMATIC PCS 7 control system with its unique, scalable architecture and outstanding system properties is an ideal basis for cost-effective implementation and economical operation of process plants.

## Central engineering system

SIMATIC PCS 7 utilizes a central engineering system, offers optimally matched tools, and allows user-friendly, graphics-based operation. The powerful engineering tools for the application software, hardware components, and communication functions are called from a central project manager (SIMATIC Manager).

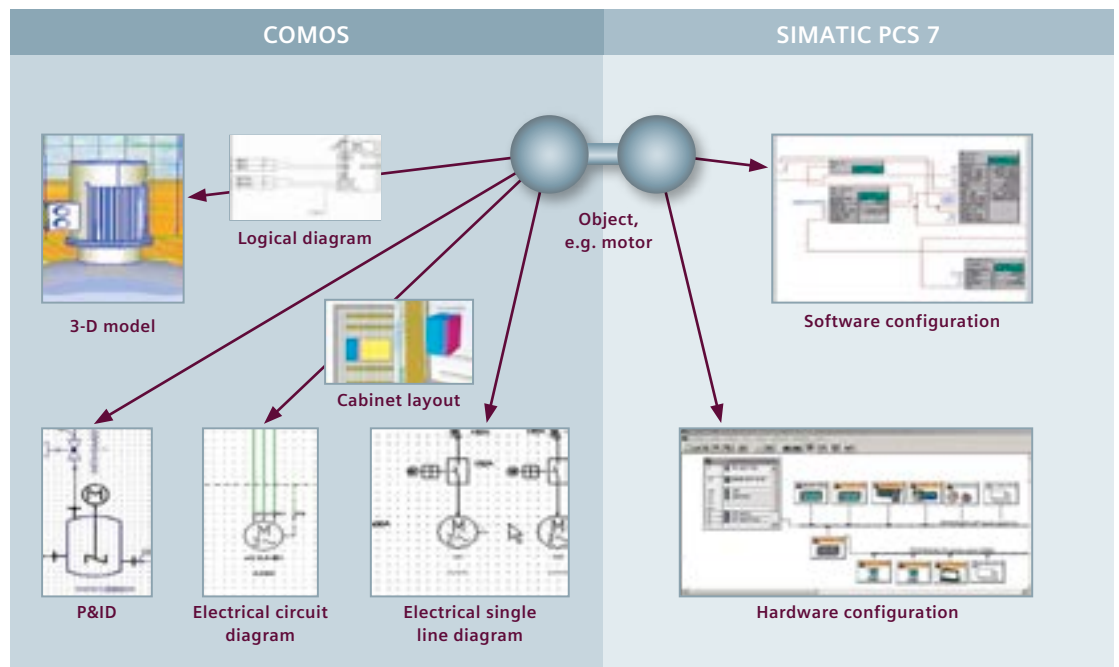
SIMATIC PCS 7 permits totally integrated data management and thus an integrated workflow for the automation program.



# A bridge between two worlds: Integrated engineering with COMOS and SIMATIC PCS 7

Efficiency and a high degree of flexibility are decisive requirements for plant engineering: Tools must allow and support a variety of planning processes as well as different industry or company-specific planning methods. That is the reason why totally integrated data management is so important: It incases the flexibility of the complete process, allows parallelization of the planning steps, and reduces costs.

Consistent  
exchange of  
configurations  
and structures  
between  
COMOS and  
SIMATIC PCS 7



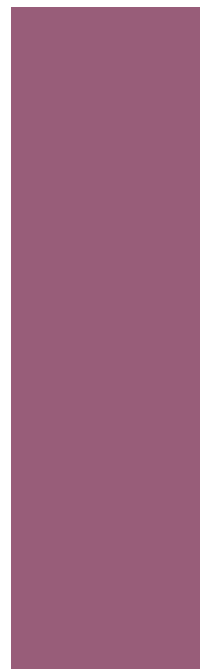
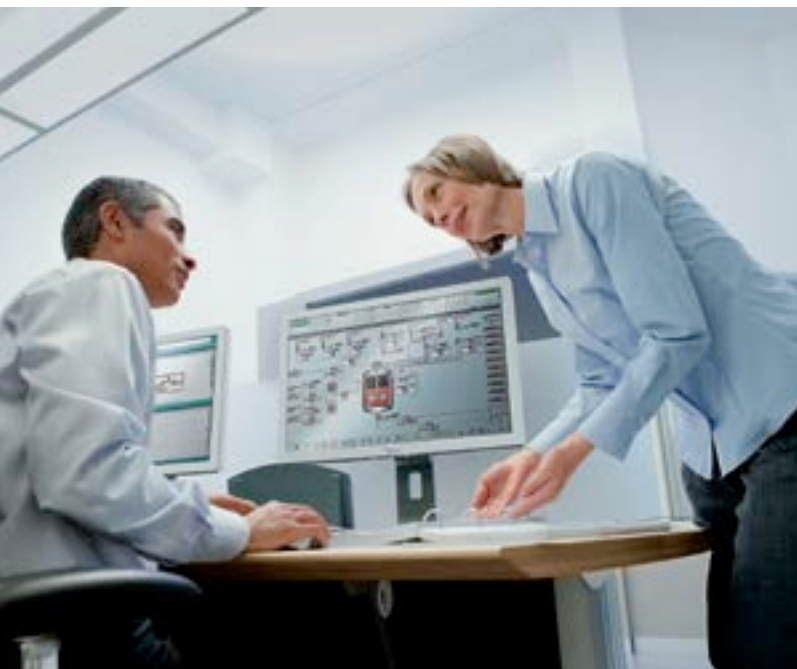
### **Bridging the gap between engineering and automation**

Integrated engineering with COMOS and SIMATIC PCS 7 bridges the gap between plant planning and process automation, and thus to the operating phase: It permits holistic integrated engineering throughout 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 simply by pushing a button. This simplifies automation engineering, and enormously reduces time. In the reverse direction, changes to the automation functions during operation (such as the replacement of field devices) are transferred from SIMATIC PCS 7 to COMOS. The database in the engineering tool is thus updated immediately, together with the complete plant documentation.

Thus integrated engineering provides the requirements for increased reliability when making decisions and for more efficient processes – and makes a contribution to sustained improvements in competitiveness.

### **Benefits at a glance**

- Data exchange between COMOS and SIMATIC PCS 7 is simple and error-free
- Complete integration of all processes during plant planning and operation
- Automated engineering for SIMATIC PCS 7 hardware & software
- Up-to-date plant documentation at all times simply by pressing a button
- Integrated cross-disciplinary planning shortens the planning times
- Optimum change management simplifies engineering processes and reduces engineering costs



Find out more:

[www.siemens.com/comos-pcs7](http://www.siemens.com/comos-pcs7)

## Learn more about successful integrated engineering:

- › As reference: Integrated engineering at Sanofi-Aventis
- › As videos: How industries profit from integrated engineering

Integrated engineering with COMOS and SIMATIC PCS 7 – take a look!



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