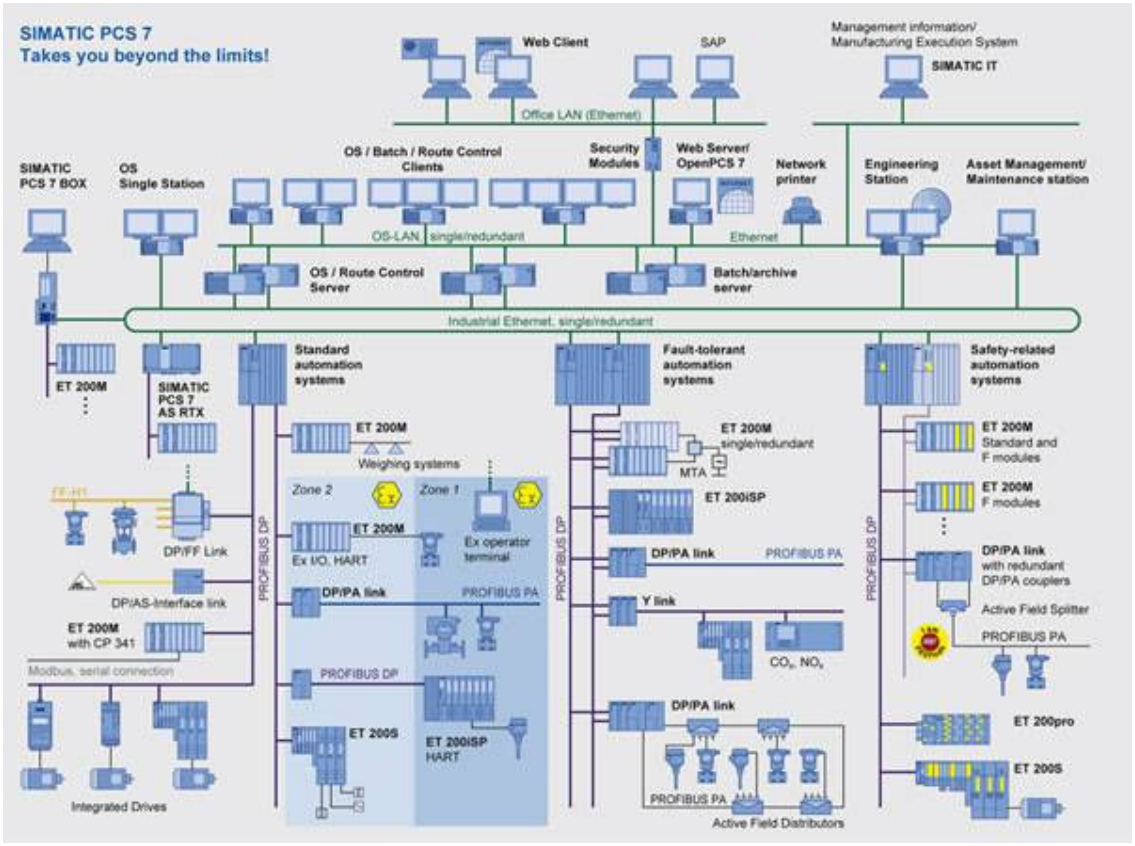
Totally Integrated Automation with SIMATIC PCS 7

The SIMATIC PCS 7 process control system is a significant component of Totally Integrated Automation (TIA), the unique basis offered by Siemens for uniform and customized automation in all sectors of the production, process and hybrid industries. Using TIA, Siemens is the only company able to offer uniform automation technology on one single platform for all applications of process automation, starting with input logistics, covering production or primary processes as well as downstream (secondary) processes, up to output logistics. This is suitable for optimization of all operating sequences of an entire company, i.e. from the ERP (Enterprise Resource Planning) level and MES (Management Execution System) level to the control level, right down to the field level.



The advantages of Totally Integrated Automation, in particular the uniform data management, communication and configuration, are already evident during planning and engineering, but also during installation and commissioning, everyday operation as well as maintenance, repairs and modernization.

Uniform data management means that all software components access a common database. Within a project, inputs and modifications are therefore only necessary at one point. This reduces the work required, and simultaneously avoids potential faults.

Benefits

With its pioneering design, modular and open architecture based on state-of-the-art SIMATIC technology, consistent application of industrial standards, and the I&C functionality paired with high-performance, the SIMATIC PCS 7 process control system allows cost-effective implementation and economical operation of I&C plants in all phases of their lifecycle and with consideration of all aspects: from planning, engineering, commissioning, training, through operation, maintenance and repair, up to expansion and refurbishment. In the process, SIMATIC PCS 7 combines high-performance and reliability with simple and safe operation and maximum convenience.

You primarily profit from Totally Integrated Automation with the SIMATIC PCS 7 process control system through:

- Calculable development, implementation and lifecycle costs
- Minimization of engineering overhead
- Facilities for process optimization
- Adaptability to changing requirements
- Advantages resulting from the use of standard SIMATIC components, such as:
    - Low hardware and engineering costs
    - Proven quality and stability
    - Simple, fast definition and selection of system components
    - Low costs for spare parts
    - Short delivery times for spare parts and expansion components
    - Global availability
    - Savings in logistics, maintenance and training costs

Function

SIMATIC PCS 7 is a modern process control system that can be used alone or in combination with other systems, e.g. SIMATIC, SIMOTION or drive systems, as a consistent and homogenous overall system. Its popularity is increasing along with the demand for seamlessly integrated universal automation engineering solutions, which is determined by sustained competition and price pressure, the demand for increasingly flexible production plants and the need for increased productivity.

Totally Integrated Automation with SIMATIC PCS 7 combines consistent data management, communication and configuration with outstanding system properties and high performance. This guarantees that the typical demands placed on a process control system are comprehensively satisfied, and that you are perfectly equipped for future requirements:

- Simple and reliable process control
- User-friendly operation and visualization, also using the Internet
- Powerful, fast and consistent system-wide engineering
- System-wide online modifications
- System openness at all levels
- Flexibility and scalability
- Redundancy at all levels
- Safety-related automation solutions
- Extensive fieldbus integration
- Flexible solutions for batch processes

- Efficient control of material transport
- Asset management for I&C equipment (diagnostics, preventive maintenance and repairs)
- Direct interface with the IT world
- Advanced security concept for safeguarding the I&C system.

Flexibility and scalability

As a result of its modular architecture based on selected hardware and software components from the standard SIMATIC range, SIMATIC PCS 7 can be applied effectively in small and large plants alike. It allows easy expansion or system modification to enable customers to meet the changing production requirements of their facility. SIMATIC PCS 7 is scalable from a small single system consisting of approx. 160 process tags (motors, valves, PID controllers), such as might be used for a laboratory system or a test center, up to a distributed multi-user system with client/server architecture and approx. 60,000 process tags, such as might be used for automation of a very large production plant or for groups of connected facilities.