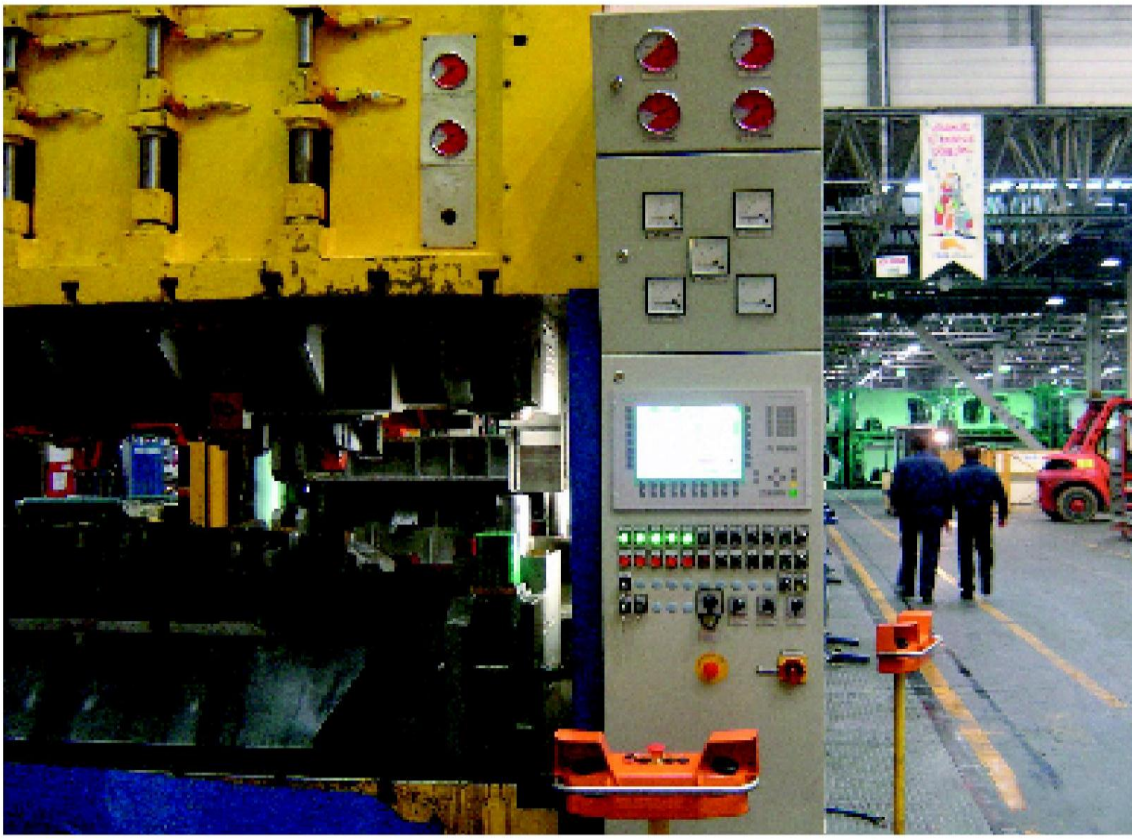
pres

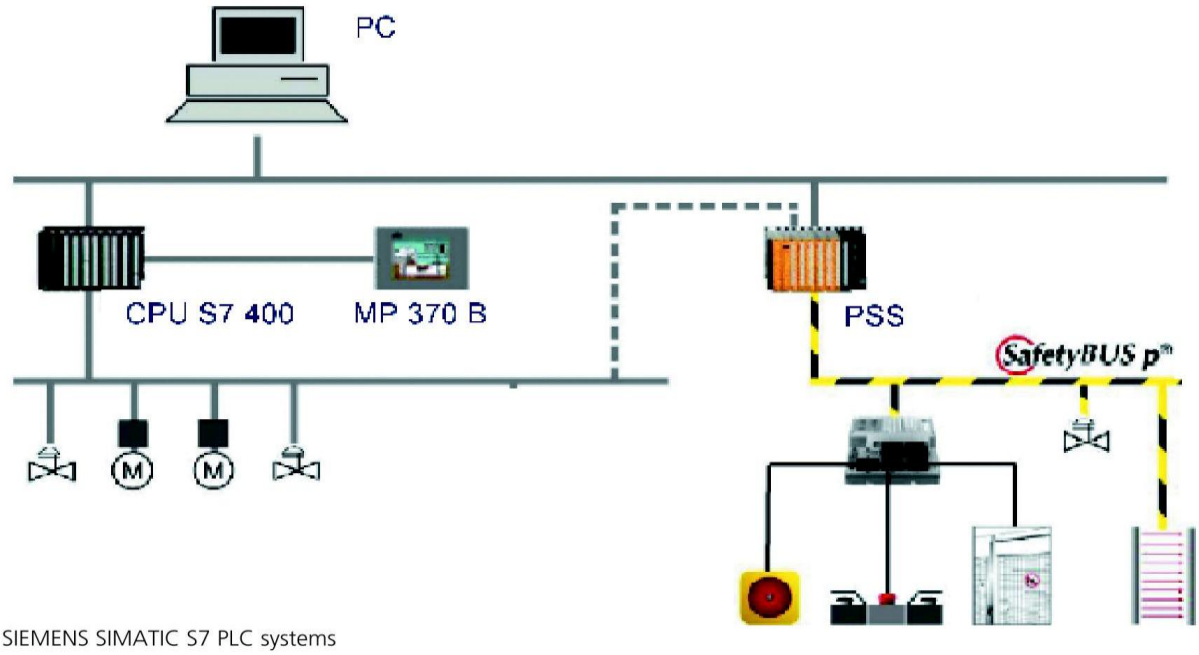


800 Ton Hydraulik Pres

HIGHLITES

- System
- Motion Control
- Grafic Design
- Auxilary Functions
- Recipe Handling Alarm & Diagnostic

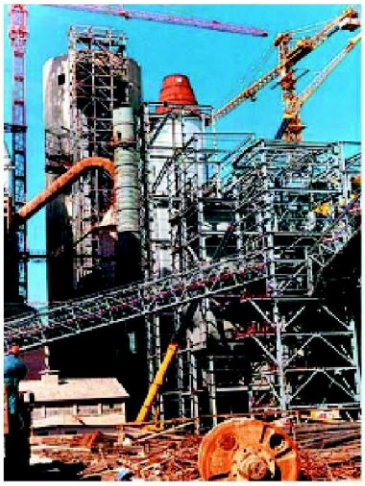
Integreted Structions

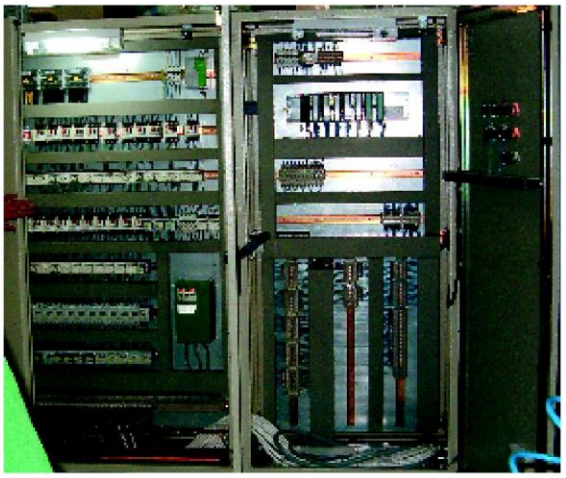


- SIEMENS SIMATIC S7 PLC systems
- European Standarts Security Equipments
- Control & Visualization Comfort
- Easy Error Handling
- Energie Saving
- Easy Production

2000 Ton Hydraulic Pres

plant APPLICATIONS





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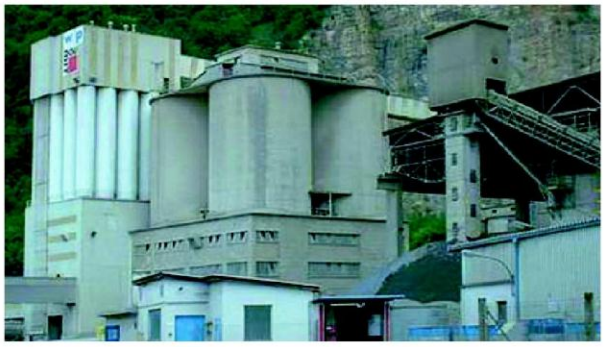
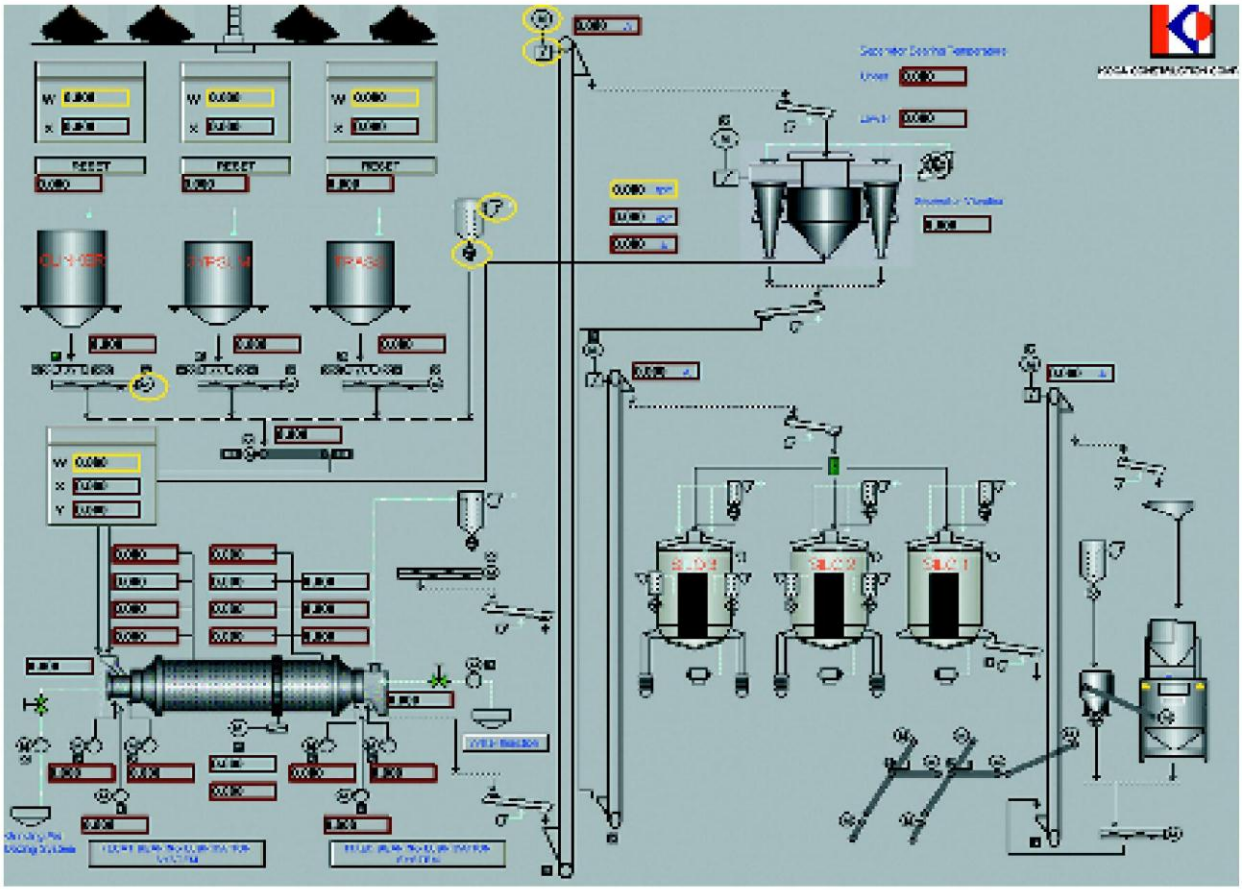
cement TECHNOLOGIES

Clinker is extracted from the clinker storage and sent to feed bins for further proportioning with gypsum and additives before passing the finishing mill. Clinker enters the finishing mill to be ground into a fine gray powder: **CEMENT!**

This highly energy consuming process needs automation and optimization to ensure today's quality demands.



Finished cement is stored in large concrete silos. It can be loaded directly into trucks or packaged in bags for delivery on standard pallets. Among the functions required to run a cement plant, the processing of the deliveries represents one of the main tasks. As the dispatching facilities are usually also employed for the weighing and loading/unloading procedures of materials received from external supplies, these systems must also support the processing of feedstock deliveries. Modern dispatching systems offer all-out logistical support and make the dispatching process transparent to the operators.



Clinker Storage & Grinding

Clinker is extracted from the clinker storage and sent to feed bins for further proportioning with gypsum and additives before passing the finishing mill. Clinker enters the finishing mill to be ground into a fine gray powder: cement!
This highly energy consuming process needs automation and optimization to ensure today's quality demands.

Cement Silos & Dispatching

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Drives

The drives of a cement plant are links between the electrical and the mechanical equipment. As these equipments usually come from different suppliers, they have different technical requirements. Thus drives are necessary to achieve the best drive efficiency to attain the optimum. To assure a reliable operation over many years, auxiliary items such as spare parts are also to be considered.
Not only the right kind of drive, but also the correct size of the drives is important for a consistent operation.

Seperator & Fan

The Seperator fan is propelled a constant speed motor with damper.

Seperator

The speed setting of the separator drive must be exact and quick. The high inertia of the separator requires a four-quadrant drive, allowing regenerative operation during speed variations or a single quadrant drive with braking resistor. The overload capability of the converter must be designed for the application.

Industrial Mobile Communication

- Production data are always available up-to-date during the complete processing of an order, meaning that notes and the copying of data are superfluous.
- No additional software is required on the office PCs in the case of terminal server solutions, making additional training of employees unnecessary.
- Maintenance work can be optimally synchronized with the handling of orders.
- High availability of the Web access is achieved since the Web server is integrated in the controller, and mobile display of data is also possible.

Network solutions with IMC.This means that information can be provided quickly, reliably and easily at the right place and at the right time.

Mobile communication is encountered in all areas of a company. The increasing variety of mobile information technology products is also leading to an increased use in automation technology, and therefore also in production plants.

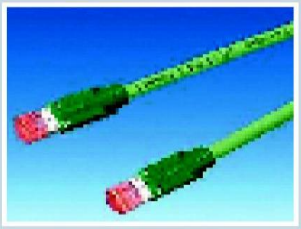
Supplementing the conventional wired solutions, wireless communication is advancing further and further into industryAs a result of this uniform IT functionality, global communication in the automation world is possible, together with problemfree interfacing to the planning and office environment.Industrial Wireless LAN (IWLAN) is the industrial version of the IEEE 802.11standard at 2.4 GHz and 5 GHz with data transfer rates up to 54 Mbit/s. The standard can be supplemented without being changed. This allows joint operation of IWLAN products and standard office components in one radio network. Industrial application can be assessed by means of three criteria – reliable, rugged, secure.The reliability of a radio transmission is achieved through the reservation of a bandwidth and cyclic transmission.

The rugged design which is dustproof and splashproof with IP65 degree of protection allows installation at a position optimal for radio reception, even outside the control cabinet.Application of the latest security mechanisms such as WPA and IEEE 802.11i means that criminal access to radio networks is practically impossible.GSM, HSCSD, GPRS and UTMS and at the right time with flexibility and mobility.

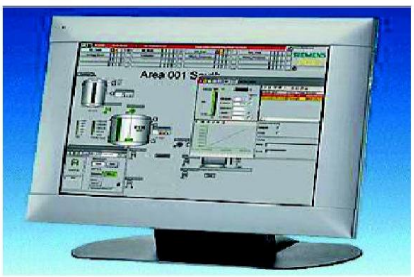
automation

Wireless or Cable Communication

- To implement a management system for these productive sections rather than just having an operator control system. This will increase productivity and improve quality.
- To install a totally integrated process control system, not only distributed PLCs and visualisation systems.
- To reduce unexpected and undesirable production disturbances due to electrical problems and a Lack of appropriate information.



Netwoking Systems



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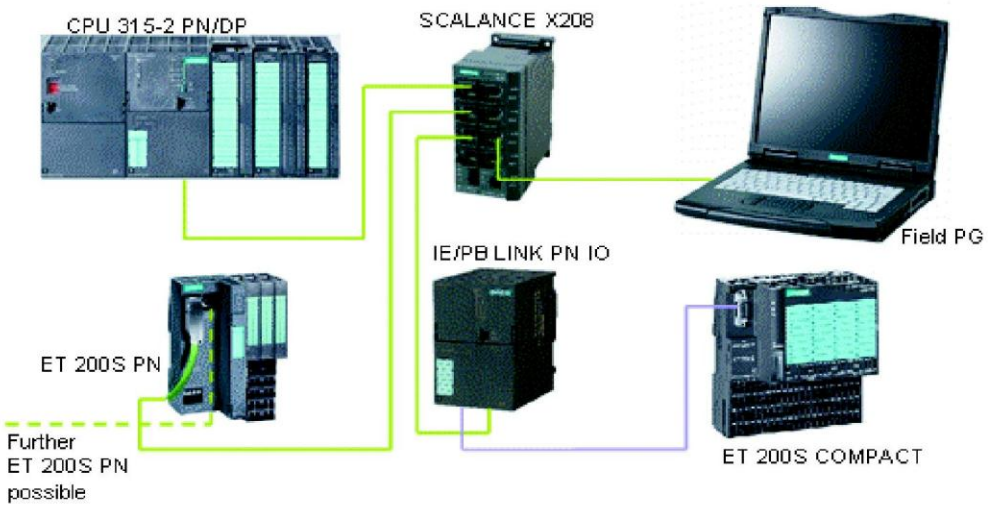
PROFINET IO system



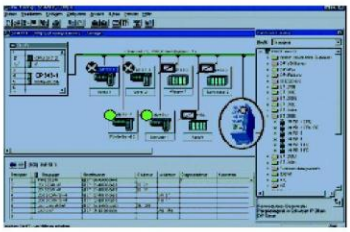
Uniform communication from the field level up to the control level is currently one of the most important demands placed on automation.Standardized connection systems,uniform network management, IT access mechanisms and comprehensive diagnostics facilities mean that savings can be expected in all phases of planning, commissioning and operation. The advantages provided by rugged fieldbuses and by the standardized IT functionality of Ethernet should be utilized for uniform communication. PROFIBUS International (PI) has defined PROFINET as a comprehensive standard which opens up new facilities forthe field level:

- IT integration
- Distributed automation
- Utilization of Industrial Wireless LAN
- Real-time.

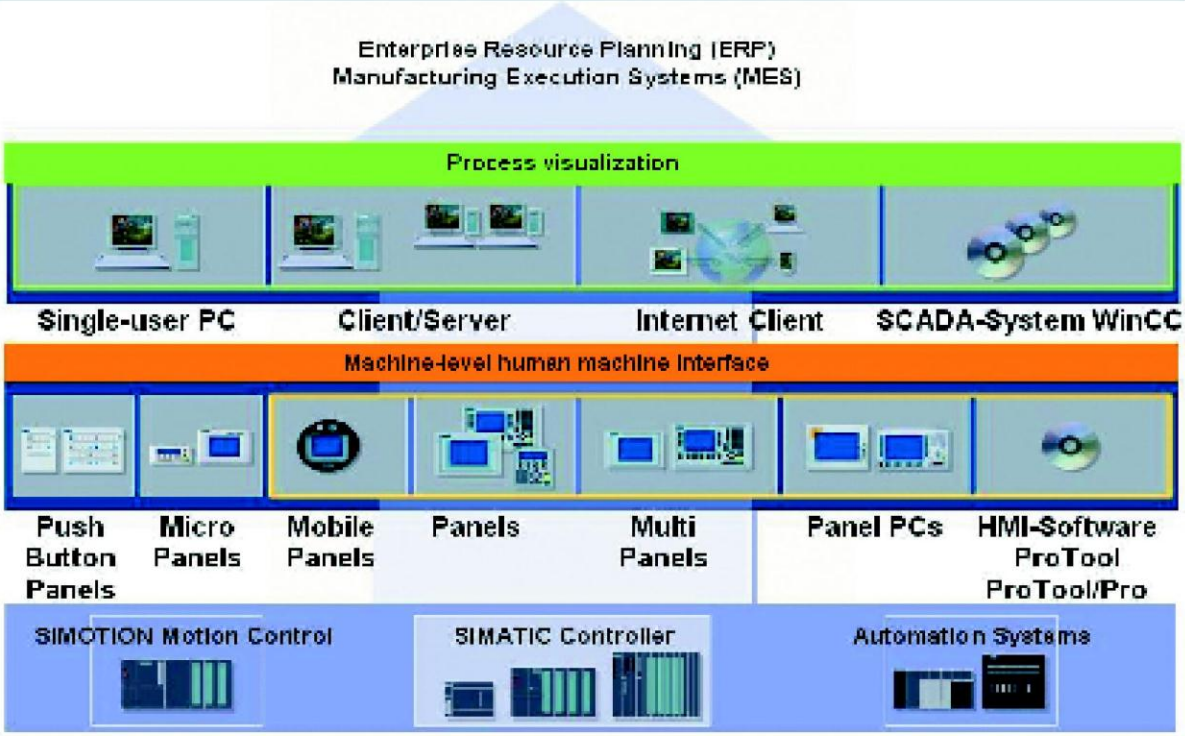
PROFINET is the open and cross-vendor Industrial Ethernet standard for all automation levels and applications.
PROFINET features:

- Real-time capability
- Incorporation of distributed field devices
- Isochronous motion control applications
- Industry-compatible installation and network engineering
- Simple network administration and diagnostics with IT services
- Security for protection against unauthorized access and data manipulation
- Efficient cross-vendor engineering for distributed automation structures
- Fail-safe communication.

PROFINET is therefore a solution for all applications and sectors associated with production and process automation. Wireless communication is no problem for PROFINET when using the SCAL ANCE W industrial wireless L AN components.
increased production mobility and flexibility, so that mobile or remote participants or inaccessible plant sections can be linked to PROFINET in a transparent, wireless manner. The industrial WLAN is characterized by the so-called bandwidth reservation between defined participants.The WLAN standard is expanded in that e.g. the bandwidth is reserved between an IO-Controller and an IODevice in a PROFINET application in order to also carry out the high-performance I/O communication via the wireless medium.



The entire world of human machine interfacing: SIMATIC HMI



Operator Control and Monitoring

Operator control and monitoring is provided through the Simatic Windows Control Center (WIN CC). Windows XP is used as the operating system platform for all control system functions. One of the most significant advantages of the system is the early recognition and avoidance of disturbances, as this is crucially important for increasing productivity.

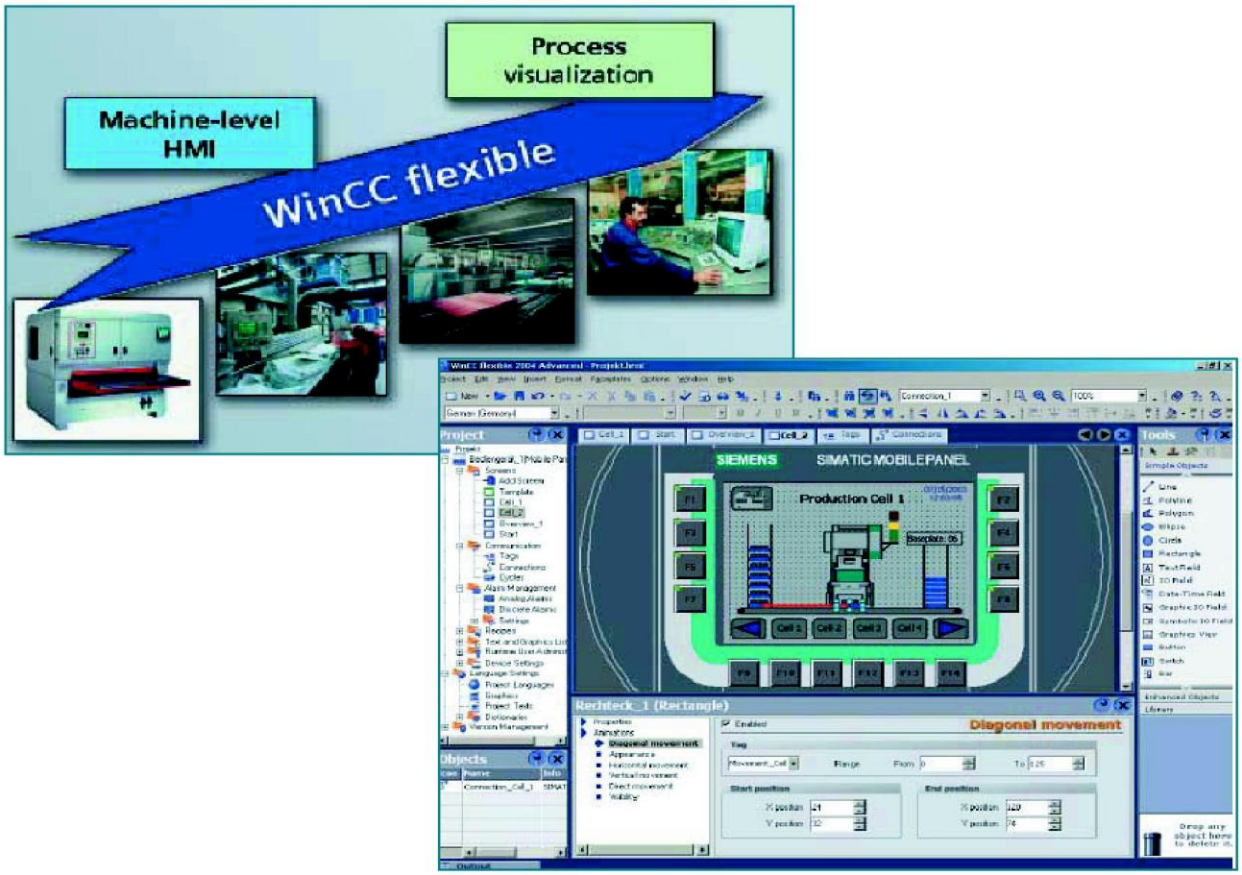
The product guidance software influences the technological processes and, by early recognition of errors and a punctual recovery of the disturbances, downtimes are minimised. Messages regarding disturbances are only displayed once in the control room and must be acknowledged by the user.

The large diagnostic possibilities achieved by special diagnostic functions and status call (display of the available disturbances and warnings within a technological group) facilitate the work of the users, electricians and service engineers substantially.

Automation

- Main PLC is the Master with CPU Siemens S7-400.
- Remote PLC and Remote I/Qs shall be connected to the Main PLC over Profibus and/or Wireless LAN (must be selected on the configuration).
- On the Remote I/Q's System there are Digital and Analog I/Q's,which is coming from each Sensors.
- Main PLC will be connected to PC Visualization system. The Visualization System controls all Operation Systems.
- From the Control-Center the set Values, Actual Values, Alarms and Events can be seen and controlled.
- The System control can be performed as Manually and Automatically. Manuel control is performed directly and Automatic control is performed by the Software.

automation



WinCC flexible Advanced – Clear due to task-oriented windows

- **Implement on a flexible basis**

  Provide operator access close to the process and/or machine level For applications on panels and PCs (using a single software solution)

  Connectivity to a wide variety of automation solutions Worldwide deployment (multiple languages available)

- **Highest configuration efficiency**

  Convenient user interface Intelligent tools Reusable screen modules (faceplates) Multilingual configurations

- **Innovative HMI concepts**

  Plant-wide access to tags and screens Distributed HMI stations Local control room solutions Link to the Office world

- **Web enabled Service and Diagnostics**

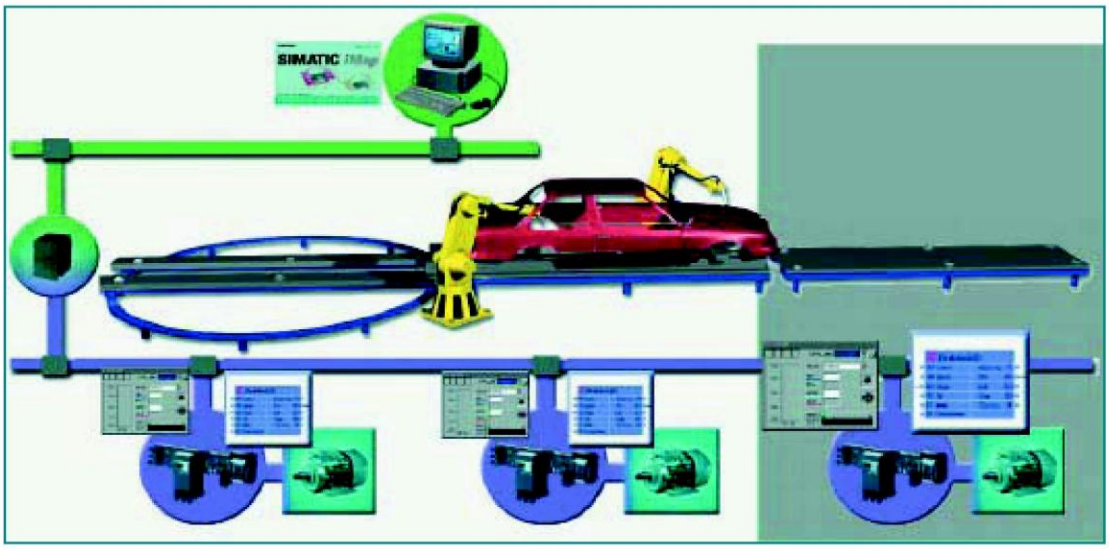
  Automatic e-mail dispatch Remote control of HMI stations Remote diagnostics and download

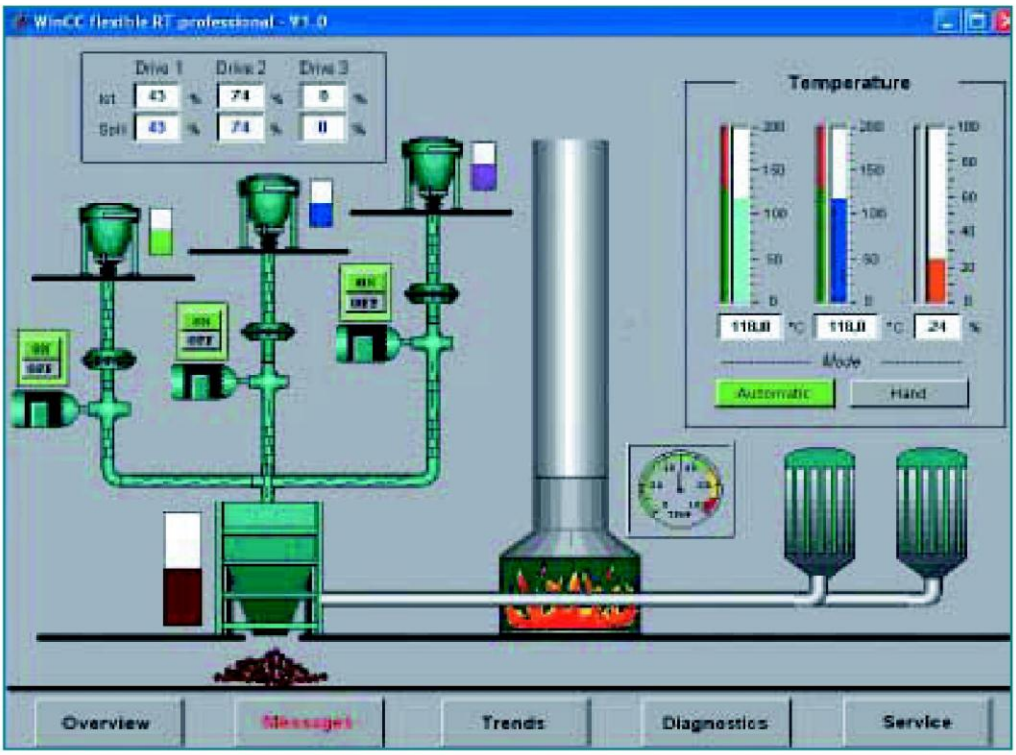
- **Part of Totally Integrated Automation**

  Can be integrated with in SIMATIC STEP 7,SIMATIC iMap and SIMOTION

- **Leverage prior Siemens investment while implementing new technologies**

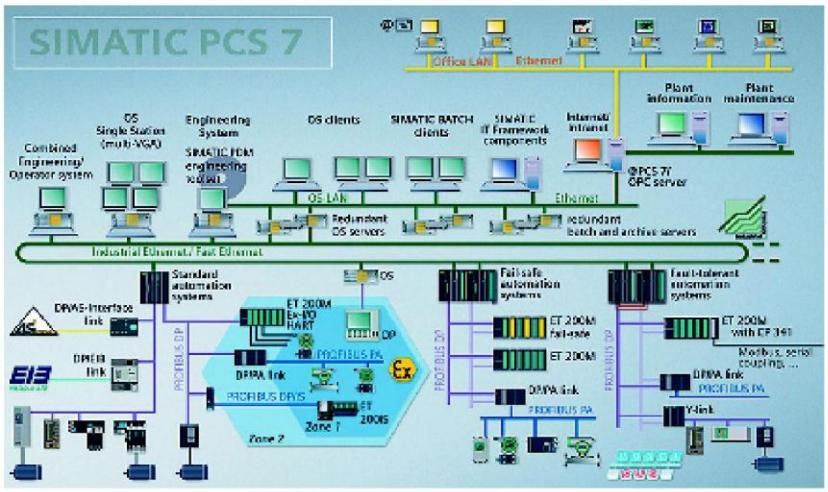
  Use existing ProTool configuration data



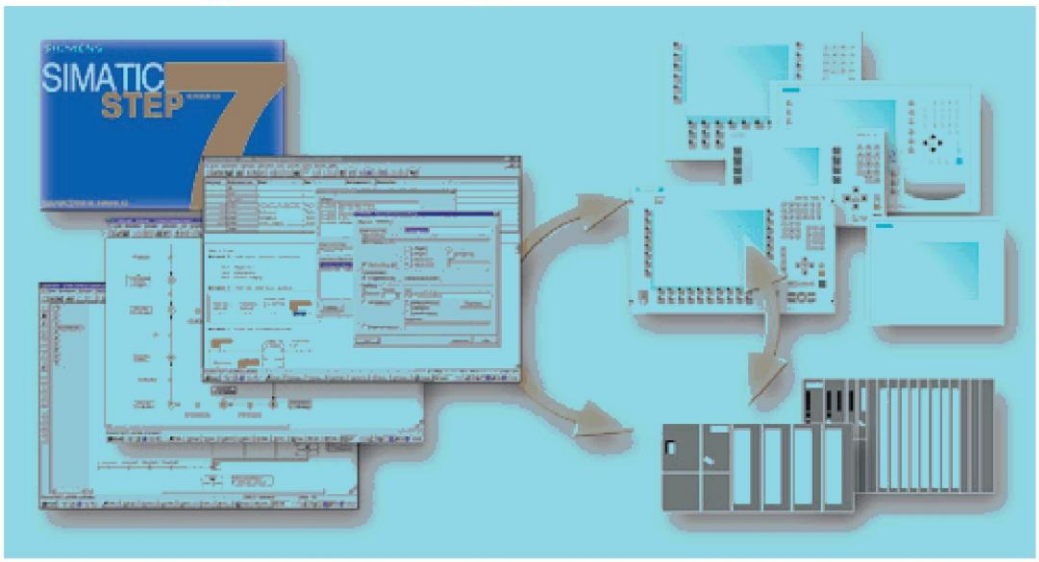


WinCC **fl**exible Runtime – Furnace representation

automation



Increasing Availability



- Selective and fast process diagnostics in plants and machines that are controlled and monitored by SIMATIC S7 / WinAC and SIMATIC WinCC
- Reduced downtimes, increased machine and plant availability

  A universal and standardized diagnostics concept for different SIMATIC components with diagnostics by means of standard pictures
- No additional confi guration effort for the diagnostics functionality due to automatic generation of diagnostics-relevant parts for the controllerand HMI
- Unloading the controller with regard to memory required and program execution times

Configuration

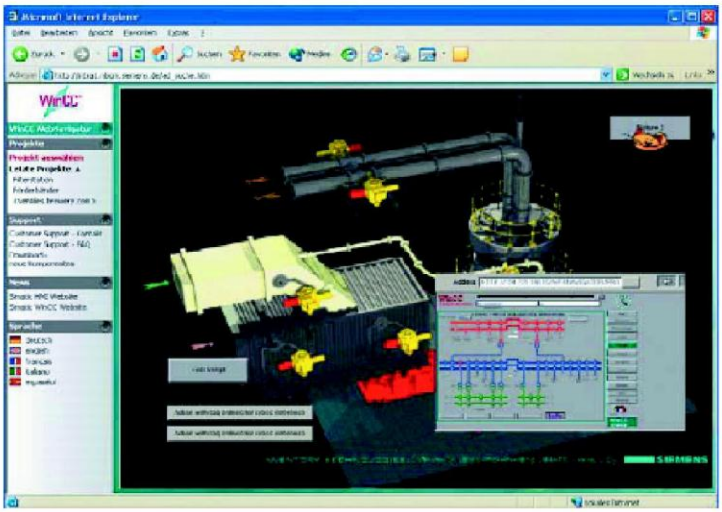
Easy modification due to online configuration.

Configuring WinCC is very convenient and easy to follow thanks to the object-oriented user interface. The percentage of logic errors experienced by configuring engineers therefore falls dramatically.Additions and changes may still be necessary during commissioning. Online configuration in Graphics Designer during ongoing process control WinCC tag simulator without affecting background processing.If the alteration is to be valid (for example changing the screen selection) it is simply a case of saving the object. The next time the original screen is selected, the system will automatically load the new version.Using the runtime button in the Graphics Designer, you can test the changed screen straight away.

WinCC provides excellent support for commissioning engineers in this respect thanks to the online configuration facility.

In practical terms, this means that when the system is running the corresponding editor can run in a second window and engineers can carry out specific alterations to their applications without having to leave process control and (initially).

Scalable Plant Configurations



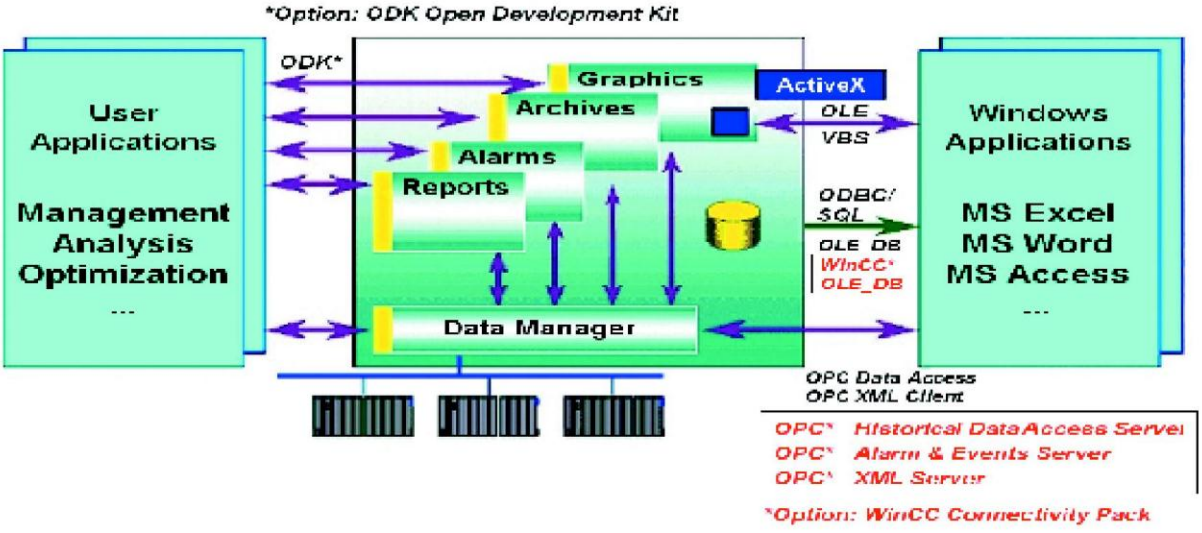
Key benefits

- Operating and monitoring over long distances with up to 50 clients at the same time
- Rapid update rates due to eventdriven communications
- Clients tailored in an optimum way for Operating & Monitoring, evaluation, service & diagnostics
- Thin-client solutions on different platforms (PC, local Operator Panels, mobile PDA)
- Web and terminal clients can be added at any time
- Minimal maintenance costs due to central software administration
- Normally application of configuration data for the Web without changing it
- Increased security by separating WinCC and Web servers
- Individual access permissions with cross-plant user management
- High security standards

automation

Some application examples for scada

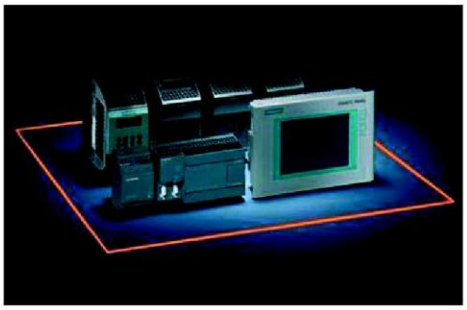
Interfaces in WinCC Functions



Industrial automation systems

With SIMATIC, Siemens provides the future-proof answer to the continuously increasing requirements posed on modern machinery and plants in the manufacturing and process industry. An integrated system to resolve a very diverse range of automation tasks most efficiently- flexibly and economically.

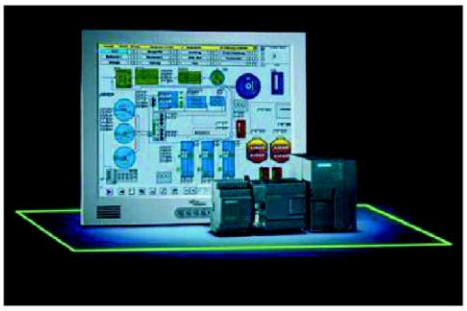
SIMATIC is a core component of totally integrated automation, the uniquely integrated product and system range for automation for every application in any industry.



Fully enclosed HMI-devices

Thanks to their rugged aluminum enclosures the IP65 rated devices are protected all around against dust and water jets in order to be mounted directly on a support arm/pedestal.

The attachment interface supports mounting systems from many manufacturers (incl. the VESA standard for flat screens). The removal of the back wall is very simple, providing easy access to the ports and card slots of the Multi Panel. Special cables or connectors are not necessary.



User Interface

Using WinCC standards, you can create custom configured user interfaces for any application - for safe process control and optimizing your entire production:

Comprehensive range of configurable standard objects

- Pushbuttons, Check-and Radio-Boxes and Sliders
- Grafical objects (Vector- and Bitmap formats)
- Tube objects (any path can be depicted)
- Application and picture windows
- OLE-Objects, ActiveX- controls (e.g.alarm, trend, table controls)
- Media Control (Animated GIFs, AVIs,support of .NET and XAML)
- Input- Output fields, text lists
- 2D and 3D bars, status and group displays
- Centrally changeable objects (faceplates)

Online Language switching

In projects that have been created for several target languages you can switch between the languages online during runtime

Menus and toolbars

Windows elements like menus and toolbars can be integrated into the WinCC user interface. These new user interface elements can be utilized in screens and screen windows, be configured "fixed" or movable, and be operated in the familiar Windows manner.

Applying of the Windows settings to the runtime application:

Concerning their depiction, all WinCC Controls and Windows objects (buttons, scroll bars) within WinCC can be changed over together with the Windows settings. In doing so, a central color palette can be assigned to central design settings, which of course can be individually customized afterward. Especially the Vista style effects hover, glass, shadows, and transparency offer many possibilities.Altogether, this enables a project-specific look & feel to be created for the user interface.