

HMI Software



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Introduction

Overview

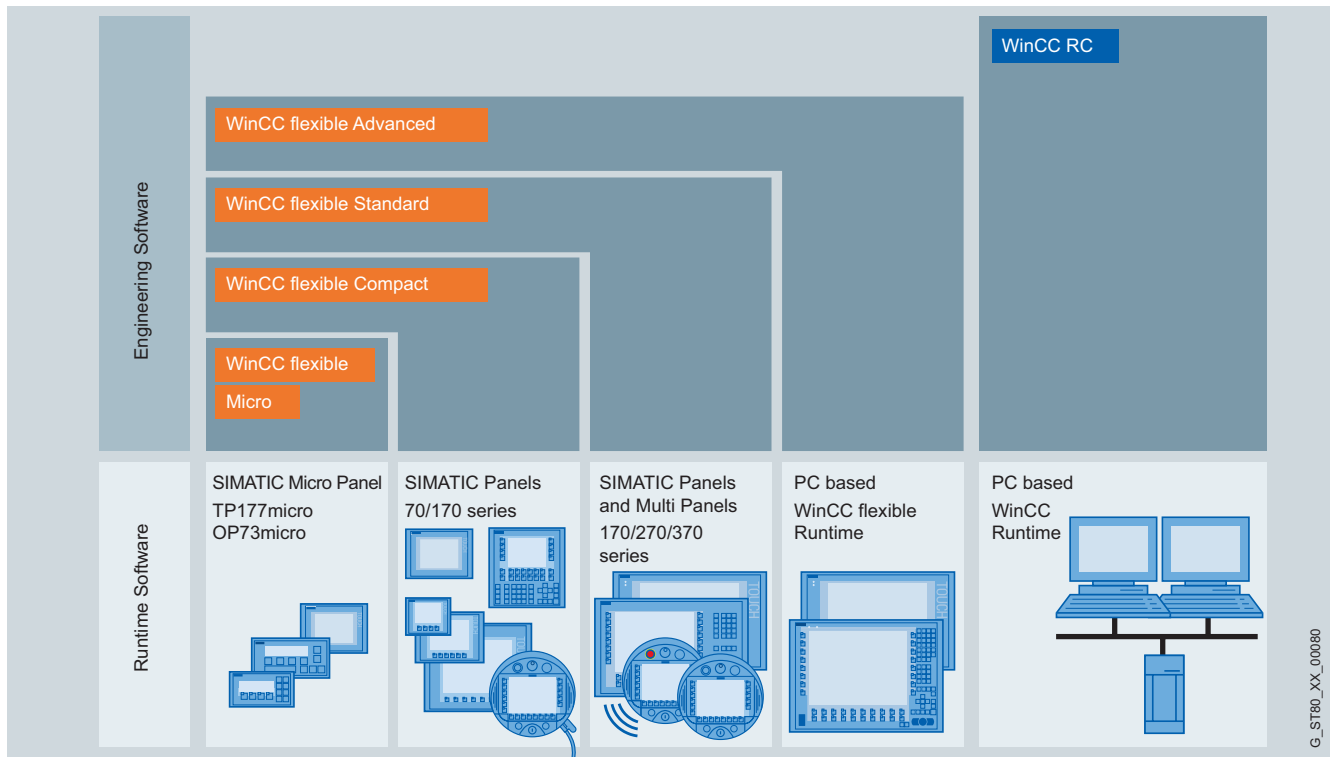
With the SIMATIC WinCC flexible and SIMATIC WinCC product families, SIMATIC HMI offers visualization and configuration software for the complete scope of applications:

- SIMATIC WinCC flexible covers *applications directly at the machine ranging from* PC-based HMI solutions for single-user systems based on WinCC flexible Runtime through to the SIMATIC HMI operator panels. For configuration the WinCC flexible Runtime for PCs as well as SIMATIC HMI devices, the WinCC flexible family also offers the integrated and scalable configuration tools WinCC flexible Micro, WinCC flexible Compact, WinCC flexible Standard and WinCC flexible Advanced.
- SIMATIC WinCC is the *process visualization or SCADA system* (PC-based HMI system) for visualizing and controlling processes, production flows, machines and plants in all sectors – from the simple single-user system through to the distributed multi-user system with redundant servers and remote solutions with Web clients. WinCC is, at the same time, the information hub for company-wide vertical integration (process visualization and platform for IT and business integration).

SIMATIC WinCC flexible

is the consistent further development of the SIMATIC HMI software products. WinCC flexible offers an essential hub for applications close to the machine (until now this has been covered by the ProTool family) with respect to configuration efficiency and new automation concepts. For process-oriented plant and mechanical engineering as well as series production of machines, SIMATIC WinCC flexible also offers:

- Further productivity improvements (configuration efficiency) when creating HMI projects
- Implementation of innovative TCP/IP and web-based automation and HMI concepts
- Increase of the availability of the machines and systems through new service concepts
- Safe, flexible and world-wide access to process data
- Configuration of SIMATIC HMI devices



Overview (continued)

Changing from the ProTool family to WinCC flexible is possible by simply using the same or converting the old configuration data.

SIMATIC WinCC will remain the process visualization system for plant monitoring with single or multiple station solutions and the platform for IT & Business integration under Windows 2000, XP Professional and Windows Vista.

The next step will be to use WinCC flexible also as the platform for integrating the SIMATIC WinCC visualization system. As is the case today for ProTool V6 projects, WinCC V6 projects will then also be compatible.

SIMATIC WinCC flexible ES engineering software

- Newly developed family of configuration systems with WinCC flexible Micro/Compact/Standard/Advanced for SIMATIC operator panels, the HMI part of SIMATIC C7 as well as for the PC-based visualization software WinCC flexible RT
 - SIMATIC Micro Panels
 - SIMATIC Basic Panels
 - SIMATIC Mobile Panels
 - SIMATIC Panels of the 70/170/270 series as well as C7-635 and C7-636
 - SIMATIC Multi Panels of the 170/270/370 series
 - SIMATIC WinCC flexible RT
- Executable under Windows XP Professional/VISTA Business, Ultimate
- Expanded integration into Totally Integrated Automation (TIA): STEP 7, SIMOTION
- Maximum configuration efficiency thanks to preconfigured objects, modular system, intelligent tools and mass data processing
- Optionally expandable with functions for version administration and logging changes (WinCC flexible/ChangeControl)

SIMATIC WinCC flexible Runtime visualization software

- Modular PC-based HMI solution for single-user systems directly at the machine (further development of ProTool/Pro RT)
- Executable under Windows XP Professional/VISTA Business, Ultimate
- Basic package providing a cost-effective means of getting started in respect of visualization, signaling and logging. can be expanded specifically with option packages
- Flexible expansion possible with VB scripts and customized ActiveX controls created with OPP (Open Platform Program)
- Can be integrated into innovative automation solutions based on TCP/IP networks
- Expanded service concepts with remote operation, diagnostics and administration over the intranet and Internet as well as e-mail communication (using options)
- Can be expanded with WinCC flexible/Audit for recording operations in an audit trail
- Central, system-wide user management based on the SIMATIC Logon option

SIMATIC WinCC process visualization system

- PC-based operator control and monitoring system for visualizing and operating processes, production flows, machines and plants in all sectors - with the simple single-user station through to distributed multi-user systems with redundant servers and cross-location solutions with Web clients. WinCC is the information hub for company-wide vertical integration (process visualization and platform for IT & business integration).
- For universal use thanks to solutions for all sectors, e.g. conforming to FDA 21 CFR Part 11, and multiple languages for worldwide use
- All HMI functions on-board with industry-standard functions for signaling and acknowledging events, archiving of messages and measured values, logging of all process and configuration data, user administration and visualization (WinCC basic software).
- Configuring is easy and efficient using object libraries, modular systems, tools for mass data processing and online loading of changes
- Company-wide, flexible client/server structures with operator stations on the Web, distributed servers and data integrity thanks to redundancy
- Easy to integrate over standard interfaces such as OPC (OLE for Process Control), WinCC OLE-DB, VBA (Visual Basic for Applications), VB script, C-API (ODK)
- Integration platform in the company thanks to the Historian functionality integrated into WinCC based on the Microsoft SQL Server 2005, standard and programming interfaces and tools and clients for evaluation
- Modular expansion with options and add-ons as well as individual function expansions with VB Script, Visual Basic for Applications, C-API (ODK) and integration of ActiveX elements
- Integral component of Totally Integrated Automation (TIA): Increases productivity, minimizes engineering outlay, reduces lifecycle costs

Introduction

Overview (continued)

	<i>SIMATIC WinCC flexible Runtime</i>	<i>SIMATIC WinCC</i>
Area of application	HMI software designed primarily for use in in-process applications in (series) machine production	Process visualization software for controlling and monitoring both simple and complex automation solutions
Configurations	<p>Single-user system, usually based on a panel PC</p> <p>Support of simple distributed operating stations in TCP/IP networks</p> <p>Innovative service concepts featuring e-mail, remote control, monitoring and administration via intranet/Internet</p>	<p>Single- and multi-user system as well as distributed systems</p> <p>Internet capability using the WinCC/Web Navigator option</p> <p>Data integrity with redundant solutions</p> <p>Integrated Historian functionality</p> <p>Processing of high quantity frameworks</p>
Strategies	Integrated solution system taking in both operator panels and PC-based operator stations running WinCC flexible Runtime	High-quality SCADA functionality and integration platform for ERP/MES solutions based on the integrated Historian functionality (IT & business integration)
Configuring	<p>An integrated family of configuration tools for integrated solutions</p> <p>Fast configuration due to preconfigured objects and referenced image blocks</p> <p>Table-based editors for efficient mass data processing</p> <p>Intelligent tools to simplify the configuration of complex tasks, e.g., user guidance, automatic compilation</p>	<p>Flexibility thanks to individual dynamization options</p> <p>Object library and function block technology (incl. referencing)</p> <p>Efficient configuration of mass data thanks to configuration tool</p> <p>Simple configuration of control system applications, text library for signaling system</p> <p>Online loading of changes in active projects</p>
Functional scope	<p>HMI basic functionality can be expanded using option packages</p> <p>Standard functions can be expanded quickly and easily using VB scripts</p>	<p>High-performance and comprehensive SCADA functionality</p> <p>Standard functions can be expanded quickly and easily using VB scripts and C scripts</p> <p>Integral component of the PCS 7 process control system</p>
Openness/expansion capability	<p>Custom made solutions based on ActiveX controls are possible (Open Platform Program)</p> <p>Access to runtime display objects using VB scripts</p>	<p>Can be expanded with open Windows interfaces for integration into a factory-/company-wide information system</p> <p>Standard SQL database with WinCC OLE DB Provider</p> <p>C-APIs (ODK), access to the COM object model of WinCC RT using VB script and WinCC CS using VBA</p> <p>OPC: Access to WinCC RT data using OPC DA, OPC HDA and OPC A&E (connectivity pack)</p> <p>Extensive range of options and add-ons</p>

SIMATIC ProAgent process diagnostics software

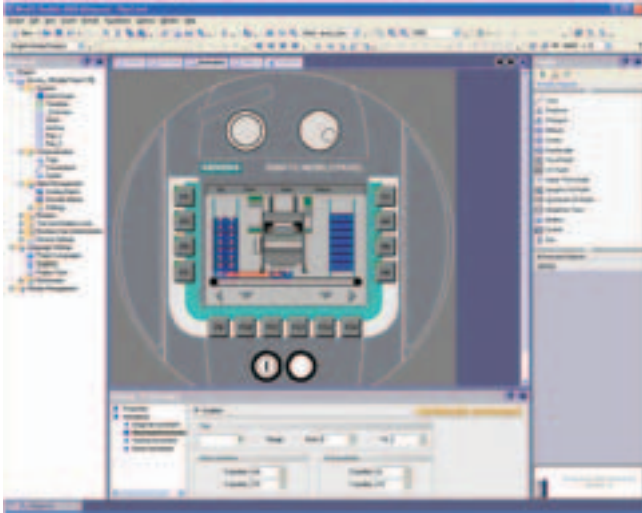
- Process diagnostics software for fast, targeted fault diagnosis in plants and machines for SIMATIC S7 and SIMATIC HMI
- A standardized diagnostics concept for various SIMATIC components:
Optimized interaction between STEP 7 engineering tools and SIMATIC HMI
- Standardized user interface
- Integral component of Totally Integrated Automation (TIA):
Increases productivity, minimizes engineering outlay, reduces lifecycle costs
- ProAgent
 - provides optimum support for plant and machine personnel in respect of troubleshooting and fault rectification
 - increases plant availability
 - reduces downtimes
- No further configuration overhead for diagnostics functionality
- Frees up PLC capacity with regard to memory and program execution time
- No special operator know-how is required thanks to clearly comprehensible indication of the cause of error

HMI Software

SIMATIC WinCC flexible engineering software

SIMATIC WinCC flexible ES

Overview



- Integrated family of *engineering tools* for configuring SIMATIC HMI Operator Panels, the operating device of SIMATIC C7 units, SIMOTION/SINUMERIK Panel PCs as well as the PC-based visualization software WinCC flexible Runtime.
- Runs under Windows XP Professional/Windows VISTA Business, Ultimate
- *Current version:*
 - SIMATIC WinCC flexible 2008 Advanced
 - SIMATIC WinCC flexible 2008 Standard
 - SIMATIC WinCC flexible 2008 Compact
 - SIMATIC WinCC flexible 2008 Micro

Benefits

- The integrated configuration software reduces training, maintenance and service overhead and protects the customer's investments
- Minimized engineering overhead and reduction of lifecycle costs thanks to Totally Integrated Automation (TIA)
- Minimized configuration overhead due to reuse of scalable and dynamizable objects
- Intelligent tools for efficient and simple configuration:
 - Wizard for defining the basic structure of the HMI project
 - Table-based editors simplify the generation and processing of similar types of object, e.g. for tags, texts, or alarms.
 - Complex configuration tasks such as the definition of paths of motion or the creation of the fundamental operator prompting are simplified by means of graphical configuration.
- Comprehensive support of multi-language configurations for worldwide use
 - Selectable views for entering configuration data in several languages
 - System and user-specific text lexicons
 - Export/import of language-dependent texts
- Investment protection due to
 - Import of the configuration from the configuration tools of the ProTool family
 - Import of static screen contents and tags from WinCC V6.2

Application

SIMATIC WinCC flexible Micro/Compact/Standard/Advanced are innovative engineering tools for configuration SIMATIC HMI devices, the operating component of SIMATIC C7 devices, the SIMOTION/SINUMERIK Panel PCs, and the PC-based visualization system WinCC flexible Runtime.

Various target systems can be configured depending on the selected product:

- *WinCC flexible Micro*
 - Micro Panels: OP 73micro, TP 170micro, TP 177micro
- *WinCC flexible Compact*
 - Micro Panels: OP 73micro, TP 170micro, TP 177micro
 - Mobile Panels: Mobile Panel 170, Mobile Panel 177
 - Basic Panels: KTP 400 Basic, KTP 600 Basic, KTP 1000 Basic, TP 1500 Basic
 - 70 series Panels: OP 73, OP 77A, OP 77B
 - 170 series Panels: TP 170A, TP 177A, TP 170B, TP 177B, OP 170B, OP 177B
 - 170 series Multi Panels: MP 177
 - C7 devices: C7-635 (Touch/Key)
- *WinCC flexible Standard*
 - Micro Panels: OP 73micro, TP 170micro, TP 177micro
 - Mobile Panels: Mobile Panel 170, Mobile Panel 177, Mobile Panel 277
 - Basic Panels: KTP 400 Basic, KTP 600 Basic, KTP 1000 Basic, TP 1500 Basic
 - 70 series Panels: OP 73, OP 77A, OP 77B
 - 170 series Panels: TP 170A, TP 177A, TP 170B, TP 177B, OP 170B, OP 177B,
 - 270 series Panels: TP 270, TP 277, OP 270, OP 277
 - 170 series Multi Panels: MP 177
 - 270 series Multi Panels: MP 270B, MP 277
 - 370 series Multi Panels: MP 370, MP 377
 - C7 devices: C7-635 (Touch/Key), C7-636 (Touch/Key)
- *WinCC flexible Advanced*
 - Micro Panels: OP 73micro, TP 170micro, TP 177micro
 - Mobile Panels: Mobile Panel 170, Mobile Panel 177, Mobile Panel 277
 - Basic Panels: KTP 400 Basic, KTP 600 Basic, KTP 1000 Basic, TP 1500 Basic
 - 70 series Panels: OP 73, OP 77A, OP 77B
 - 170 series Panels: TP 170A, TP 177A, TP 170B, TP 177B, OP 170B, OP 177B
 - 270 series Panels: TP 270, TP 277, OP 270, OP 277
 - 170 series Multi Panels: MP 177
 - 270 series Multi Panels: MP 270B, MP 277
 - 370 series Multi Panels: MP 370, MP 377
 - C7 devices: C7-635 (Touch/Key), C7-636 (Touch/Key)
 - Standard PC
 - SIMATIC Panel PC: Panel PC IL 70, Panel PC IL 77, Panel PC 477/477B, Panel PC 577/577B, Panel PC 670, Panel PC 677/677B, Panel PC 870, Panel PC 877
 - SIMOTION Panel PC: P012K, P012T, P015K, P015T, PCR, PCR-Touch
 - SINUMERIK Panel PC: HT8, OP08T, OP010, OP012, TP012, OP015, TP015, OP015A

For configuring panels released after the start of delivery of WinCC flexible 2008, an HSP (Hardware Support Package) is required that can be downloaded free of charge via the following link:

<http://www.siemens.com/wincc-flexible-hsp>

HMI Software

SIMATIC WinCC flexible engineering software

SIMATIC WinCC flexible ES

Design

The engineering tools of the SIMATIC WinCC flexible range are based on one another. The available editors largely depend on the respectively configured target systems and their functions. A more comprehensive engineering tool such as WinCC flexible Standard also offers the facilities of the smaller engineering tools, e.g. WinCC flexible Compact or Micro.

Upgrading of a smaller engineering tool to a larger one is possible using a Powerpack. An exception is WinCC flexible Micro.

The scope of functions of the WinCC flexible engineering tools already includes project support for the Runtime options available for SIMATIC Panels or WinCC flexible Runtime, independent of the RT licenses purchased. Separate licensing is required for the target system in order to use the configured Runtime options.

Function

Integration into automation systems

- Integration into SIMATIC STEP 7/SIMOTION
 - Management of HMI projects within the SIMATIC Manager
 - Shared use of communication settings and process point definitions, i.e., symbols and messages
 - Display of the HMI configuring objects in the SIMATIC Manager
 - Transfer of configuring data via MPI/PROFIBUS/Ethernet using routing

Configuration interface

- Innovative engineering tools based on the latest SW technology, Microsoft.NET
- Comprehensive and fast access to editors and project data via Workbench applications
- Adaptive user interface of engineering tools depending on configured target system
- User-definable user interface settings, e.g., layout, toolbars, object defaults

Project handling

- Device-independent configuration data can be used on a variety of target systems without the need for conversion; the interface adapts to the functional possibilities of the device currently configured.
- Cross-device utilization of common configuration data (e.g., text library) in multi-device projects
- Wizard-assisted definition of basic structure of HMI projects (e.g., display layout, operator prompting)

Screen editor with extensive options for efficient and fast screen configuration

- Generation of interconnected screen objects via Drag&Drop, e.g., tags for the creation of input/output fields with process interfacing or buttons with screen selection function
- Templates for the definition of global screen objects and functions (comparable with the Slide Master in MS PowerPoint)
- User-friendly editor for the creation of image blocks with defined external interface from screen objects
- Graphics-based configuration of motion paths
- Layer technology with up to 32 layers
- Tools for the Align, Rotate and Mirror functions

Import/export

- of texts for translation
- of tags, links and messages
- Generation of variable lists for importing from controller programming tools

Tabular editors

- Quick and easy generation and modification of configuration objects of the same type, e.g., variables, texts or messages, in tabular editors
- Intelligent defaults, depending on previously configured data, e.g., automatic upcounting of addresses when generating consecutive variables
- Modification of properties by means of easy access to Properties dialog without excessive user intervention ("Always on Top")
- Simultaneous modification of common object properties

Object-based data management with user-friendly search and edit options

- Cross-reference list with direct access to all objects, e.g. for editing or selection
- Search for objects in entire project
- Central reassignment of variables
- Text search and replace functions

Project documentation

- Selective project documentation printout or save to file (rtf, htm, tif, txt)

Libraries for predefined/user-defined configuration objects

- Large number of scalable and dynamizable screen objects included in scope of delivery
- Size-scalable WMF-format graphics for industrial applications included in scope of delivery
- Preview function for library objects
- Storage of all engineering objects in library, e.g., blocks and even entire displays or variables; picture blocks can be created on a customer- or project-specific basis by combining simple screen objects. Changes to these picture blocks can be made centrally (block definition).

Language support

- Multilingual project creation (max. 32 languages) in editors thanks to selectable views
- Automatic translation on basis of system- and user-specific dictionaries in central text library
- Central management of language-specific texts and graphics in libraries
- Edit, export and import of texts for translation
- Language-specific graphics

Visual Basic Script support

- IntelliSense function for fast programming of access to runtime objects
- Simple creation of control sequences in script code;
- Script debugging in Simulator and WinCC flexible Runtime

Graphics-based configuration of operator prompting

- Simple operator prompting concept based on hierarchical menu tree

HMI Software

SIMATIC WinCC flexible engineering software

SIMATIC WinCC flexible ES

Function (continued)

Test and startup support

- Simulation of HMI projects on engineering PC
- Jump to error cause based on alarm messages in the Compiler
- Advanced ProSave service tool for all operating systems supported by WinCC flexible

Scheduler for the definition of all global tasks

- Configuration of global system functions or time-driven events

ChangeControl (option)

- Version management of project versions with rollback
- Logging of configuration changes, e.g., for regulated industries

Default runtime data in engineering tools

- Users and passwords
- Recipe data records

Migration of existing HMI projects

- Complete data transfer in projects for ProTool/Pro RT as well as 170, 270 and 370 Series control units
- Conversion of configuring data on TP/OP27, e.g. to OP 277, and on TP/OP37, e.g. to MP 377
- Conversion of OP3 or OP7/OP17 configuring data to OP 73 or OP 77B/OP 177B
- Transfer of WinCC V6.2 project components (static picture components and tags only)

Compatibility

- Integrated upward compatibility Further processing of WinCC flexible configuration data with future versions without loss of data
- Integrated downward compatibility: Creation of configuration data for older versions of WinCC flexible engineering tools.

System requirements (minimum requirements)	WinCC flexible Engineering Software
Operating system	Windows XP Professional SP2/SP3 (32-bit), Windows Vista Business, Ultimate (32-bit) Additionally for SIMATIC WinCC flexible Micro: Windows XP Home SP2/SP3
Processor	Pentium 4 (or comparable) processor running at 1.6 GHz or faster
Resolution	1024 x 768 or higher
Main memory (RAM)	≥ 1 GB, ≥ 512 MB for WinCC flexible Micro
Hard disk (free memory space)¹⁾	≥ 2 GB ²⁾ ≥ 1.2 GB for WinCC flexible Micro ³⁾
DVD drive	for software installation

¹⁾ In addition to the space needed by WinCC flexible, Windows also requires space on the hard disk;

e.g., for the swap file. The following formula has proven itself in the past:
The size of the swap file = 3 x the size of the RAM.

For further information, refer to your Windows documentation

²⁾ When installing one language. 200 MB are additionally required for each further language. In the case of different partitions for system and configuration: System partition approx. 700 MB, project partition approx. 1.3 GB.

³⁾ When installing one language. 80 MB are additionally required for each further language. In the case of different partitions for system and configuration: System partition approx. 600 MB, project partition approx. 600 MB.

Options

SIMATIC WinCC flexible/ChangeControl

WinCC flexible/ChangeControl enables consistent backup of configuration data. Delivered customer projects, approved reference states or development stages are managed in a database. Changes to project data can be integrated without problem into the version management using new versions. A rollback is possible at any time.

The history of changes can be verified down to the last detail for applications requiring interruption-free proof for the complete life cycle of a product.

Note:

For further information, refer to "WinCC flexible ES options".

HMI Software

SIMATIC WinCC flexible engineering software

SIMATIC WinCC flexible ES

4

Ordering data	Order No.	Order No.	
WinCC flexible 2008 Advanced D Floating license, on DVD incl. license key, includes: <ul style="list-style-type: none"> • Engineering software for configuring WinCC flexible Runtime on basic PCs/Panel PCs as well as Micro Panels, Basic Panels and 70/170/270/370 series Panels incl. C7-635/636 • SW for WinCC flexible/ChangeControl engineering option¹⁾ • Simulation software for WinCC flexible Runtime as well as Micro Panels, Basic Panels and 70/170/270/370 series Panels incl. C7-635/636 • Native drivers • Electronic documentation (.pdf) in German, English, French, Italian, Spanish, simplified Chinese, traditional Chinese, Korean, Japanese 	6AV6 613-0AA51-3CA5	WinCC flexible 2008 Standard D Floating license, on DVD without license key, includes: <ul style="list-style-type: none"> • Native drivers • Electronic documentation (.pdf) in German, English, French, Italian, Spanish, simplified Chinese, traditional Chinese, Korean, Japanese 	6AV6 612-0AA51-3CA5
WinCC flexible 2008 Standard D Floating license, on DVD incl. license key, includes: <ul style="list-style-type: none"> • Engineering software for configuring Micro Panels, Basic Panels and 70/170/270/370 series Panels incl. C7-635/636 • SW for WinCC flexible/ChangeControl engineering option¹⁾ • Simulation software for Micro Panels, Basic Panels and 70/170/270/370 series Panels incl. C7-635/636 • Native drivers • Electronic documentation (.pdf) in German, English, French, Italian, Spanish, simplified Chinese, traditional Chinese, Korean, Japanese 	6AV6 612-0AA51-3CA5	WinCC flexible 2008 Micro D Floating license, on DVD without license key, includes: <ul style="list-style-type: none"> • Engineering software for configuration of Micro Panels • Electronic documentation (.pdf) in English, German, French, Italian, Spanish 	6AV6 610-0AA01-3CA8
WinCC flexible 2008 Compact D Floating license, on DVD incl. license key, includes: <ul style="list-style-type: none"> • Engineering software for configuring Micro Panels, Basic Panels and 70/170 series Panels incl. C7-635 • SW for WinCC flexible/ChangeControl engineering option¹⁾ • Simulation software for Micro Panels, Basic Panels and 70/170 series Panels incl. C7-635 	6AV6 611-0AA51-3CA5	WinCC flexible/ChangeControl for WinCC flexible 2008 Compact/Standard/Advanced ¹⁾³⁾ Floating license, option, license key only	6AV6 613-6AA01-3AB5
Power Packs SIMATIC WinCC flexible Power Packs Single license, license key only <ul style="list-style-type: none"> • WinCC flexible 2008 Standard to 2008 Advanced D 6AV6 613-2CD01-3AD5 • WinCC flexible 2008 Compact to 2008 Advanced D 6AV6 613-2BD01-3AD5 • WinCC flexible 2008 Compact to 2008 Standard D 6AV6 612-2BC01-3AD5 			
Software Update Service Software Update Service SIMATIC WinCC flexible ²⁾⁴⁾ <ul style="list-style-type: none"> • WinCC flexible Advanced D 6AV6 613-0AA00-0AL0 • WinCC flexible Standard D 6AV6 612-0AA00-0AL0 • WinCC flexible Compact D 6AV6 611-0AA00-0AL0 			
Upgrades SIMATIC ProTool to SIMATIC WinCC flexible 2008 <ul style="list-style-type: none"> • ProTool/Lite to WinCC flexible 2008 Compact D 6AV6 611-3AA51-3CE5 • ProTool to WinCC flexible 2008 Standard D 6AV6 612-3AA51-3CE5 • ProTool/Pro to WinCC flexible 2008 Advanced D 6AV6 613-3AA51-3CE5 			

D) Subject to export regulations: AL: N and ECCN: 5D992B1

¹⁾ A separate license for WinCC flexible/ChangeControl must be purchased for each engineering station.

²⁾ For a period of 12 months and for a fixed price, the customer is automatically provided with all upgrades and service packs for each installed WinCC flexible engineering system or option. The contract is automatically extended by a further year unless canceled up to 12 weeks prior to expiration.

³⁾ The ChangeControl option has not been released for integrated operation with STEP 7.

⁴⁾ Original delivery note or Certificate of License (CoL) from previous WinCC flexible Micro required

HMI Software

SIMATIC WinCC flexible engineering software

SIMATIC WinCC flexible ES

Ordering data	Order No.	Order No.	
Upgrades (continued)		Versions for China/Taiwan/Korea/Japan (continued)	
SIMATIC WinCC flexible 2004/2005/2007 to SIMATIC WinCC flexible 2008 <ul style="list-style-type: none"> Upgrade to WinCC flexible 2008 Compact, incl. ChangeControl option¹⁾ D 6AV6 611-0AA51-3CE5 Upgrade to WinCC flexible 2008 Standard, incl. ChangeControl option¹⁾ D 6AV6 612-0AA51-3CE5 Upgrade to WinCC flexible 2008 Advanced, incl. ChangeControl option¹⁾ D 6AV6 613-0AA51-3CE5 Upgrade to WinCC flexible 2008 Micro⁴⁾ D 6AV6 610-0AA01-3CE8 		WinCC flexible 2008 ASIA Advanced (continued) D 6AV6 613-0AA11-3CA5 <ul style="list-style-type: none"> SW for WinCC flexible/ChangeControl engineering option¹⁾ Simulation software for WinCC flexible Runtime as well as Micro Panels, Basic Panels and 70/170/270/370 series Panels incl. C7-635/636 Native drivers Electronic documentation (.pdf) in German, English, French, Italian, Spanish, simplified Chinese, traditional Chinese, Korean, Japanese 	
SIMATIC WinCC flexible ASIA 2004/2005/2007 to SIMATIC WinCC flexible ASIA 2008 <ul style="list-style-type: none"> Upgrade to WinCC flexible 2008 ASIA Standard, incl. ChangeControl option¹⁾ D 6AV6 612-0AA11-3CE5 Upgrade to WinCC flexible 2008 ASIA Advanced, incl. ChangeControl option¹⁾ D 6AV6613-0AA11-3CE5 		Documentation (must be ordered separately) User Manual WinCC flexible Communication <ul style="list-style-type: none"> German 6AV6 691-1CA01-3AA0 English 6AV6 691-1CA01-3AB0 French 6AV6 691-1CA01-3AC0 Italian 6AV6 691-1CA01-3AD0 Spanish 6AV6 691-1CA01-3AE0 	
Versions for China/Taiwan/Korea/Japan		WinCC flexible Micro User Manual	
WinCC flexible 2008 ASIA Standard D 6AV6 612-0AA11-3CA5 <p>Floating license, on DVD incl. license key, includes:</p> <ul style="list-style-type: none"> Engineering software for configuring Micro Panels, Basic Panels and 70/170/270/370 series Panels incl. C7-635/636 Simulation software for Micro Panels, Basic Panels and 70/170/270/370 series Panels incl. C7-635/636 Native drivers Electronic documentation (.pdf) in German, English, French, Italian, Spanish, simplified Chinese, traditional Chinese, Korean, Japanese 		<ul style="list-style-type: none"> German 6AV6 691-1AA01-3AA0 English 6AV6 691-1AA01-3AB0 French 6AV6 691-1AA01-3AC0 Italian 6AV6 691-1AA01-3AD0 Spanish 6AV6 691-1AA01-3AE0 	
WinCC flexible 2008 ASIA Advanced D 6AV6 613-0AA11-3CA5 <p>Floating license, on DVD incl. license key, includes:</p> <ul style="list-style-type: none"> Engineering software for configuring WinCC flexible Runtime as well as Micro Panels, Basic Panels and 70/170/270/370 series Panels incl. C7-635/636 		User Manual WinCC flexible Compact/Standard/Advanced <ul style="list-style-type: none"> German 6AV6 691-1AB01-3AA0 English 6AV6 691-1AB01-3AB0 French 6AV6 691-1AB01-3AC0 Italian 6AV6 691-1AB01-3AD0 Spanish 6AV6 691-1AB01-3AE0 	
		SIMATIC HMI Manual Collection B 6AV6 691-1SA01-0AX0 <p>Electronic documentation, on DVD</p> <p>5 languages (English, French, German, Italian, Spanish); contains: all currently available user manuals, manuals and communication manuals for SIMATIC HMI</p>	

B) Subject to export regulations: AL: N and ECCN: EAR99S

D) Subject to export regulations: AL: N and ECCN: 5D992B1

¹⁾ A separate license for WinCC flexible/ChangeControl must be purchased for each engineering station.

²⁾ Original delivery note or Certificate of License (CoL) from previous WinCC flexible Micro required

More information

Additional information is available in the Internet under:

<http://www.siemens.com/wincc-flexible>

Note:

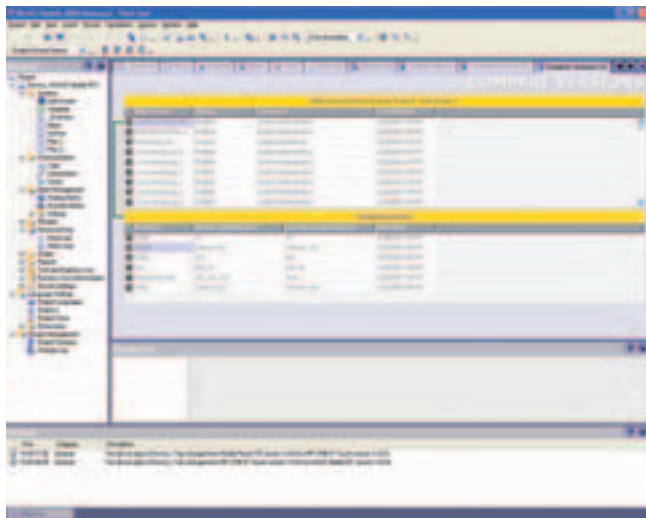
Do you require specific modification or extension to the products described here? You will find information about the Open Platform Program for the creation of user-specific functions and controls for WinCC flexible under "Customized Products".

HMI Software

SIMATIC WinCC flexible ES options

WinCC flexible /ChangeControl

Overview



- Options for the versioning of configuration data and for tracing configuration changes (e.g. as verification in regulated sectors)
- For the engineering tool SIMATIC WinCC flexible Compact/Standard/Advanced
- One license is required for each configuration computer

Benefits

- Consistent backup of configuration data
 - Delivered versions, approved reference states or development stages are managed in a database.
 - Changes to project data can be integrated without problem into the version management using new versions. A rollback is possible at any time.
- Tracing of configuration changes
 - The history of changes can be verified down to the last detail for applications requiring interruption-free proof for the complete life cycle of a product.

Application

- In machine/special machine construction for project management, e.g. delivered customer versions and their modifications
- For saving of intermediate states during complex new developments or expansions, with rollback facility
- During work for specific orders as basis for calculating costs for modifications
- In regulated sectors as proof of state of plants or machines and any modifications made to them

Function

- Integral GUI for management of project versions (version tree with main line and secondary lines for modified project versions)
- Comparison function for determination of differences between two project versions, i.e. between the current version and a saved version
- Modification log can be activated/deactivated and shows who carried out modifications, and when/which. Modification reasons can be entered as comments.

Ordering data

Order No.

WinCC flexible/ChangeControl for WinCC flexible 2008 Compact/Standard/Advanced¹⁾

Floating License, option, license key only

D **6AV6 613-6AA01-3AB5**

D) Subject to export regulations: AL: N and ECCN: 5D992B1

¹⁾ The ChangeControl option has not been released for integrated operation with STEP 7.

More information

Note:

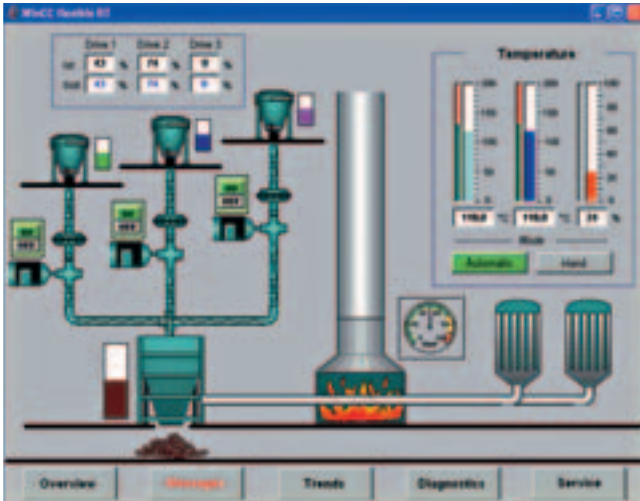
Do you need a specific modification or option for the products described here? Then look up "Customized products", where you will find information about the Open Platform Program for the creation of user-specific functions and controls for WinCC flexible.

HMI Software

SIMATIC WinCC flexible runtime software

SIMATIC WinCC flexible RT

Overview



- *PC-based visualization software* for single-user systems directly at the machine
 - Runs under Windows XP Professional and Windows Vista Business/Ultimate
 - *current version*: SIMATIC WinCC flexible 2008 Runtime with 128, 512, 2048 or 4096 PowerTags
- SIMATIC WinCC flexible Runtime is configured with the SIMATIC WinCC flexible Advanced configuration software.

Benefits

- Optimum price/performance ratio thanks to individually scalable system functionality
- Functions for all visualization tasks: Operator functions, graphical and trend displays, signaling system, log system, archiving (option), recipe management (option), Audit Trail (option), process fault diagnostics (option)
- Flexible runtime functionality thanks to Visual Basic scripts
- Innovative service concepts with remote operation, diagnostics and administration via intranet and Internet as well as e-mail communication to increase availability (option)
- Support for simple distributed automation solutions based on TCP/IP networks at the machine level (option)

Application

SIMATIC WinCC flexible Runtime is the high-performance visualization software for simple visualization tasks at machine level. It can be used as a single-user solution for all automation applications in manufacturing automation, process automation and building services automation.

SIMATIC WinCC flexible Runtime can be used in combination with the following operator panels:

- SIMATIC Panel PCs
 - PC IL 70/77
 - Microbox 420
 - Panel PC 477
 - Panel PC 577
 - Panel PC 670/677
 - Panel PC 870/877
- SIMOTION Panel PCs
 - P012, P015
 - PCR, PCR-Touch
- SINUMERIK Panel PCs
 - HT8; OP08T
 - OP010, OP012, OP015
 - TP012, TP015, OP015A
- Standard PCs with resolutions (W x H in pixels) of:
 - 640 x 480, 800 x 600, 1024 x 768, 1280 x 1024, 1600 x 1200

Design

SIMATIC WinCC flexible Runtime is available as a software package with 128, 512, 2048 or 4096 PowerTags. The term PowerTags is used exclusively to identify process variables and range pointers that have a process link to the controller. Variables without process link, constant limit values of variables, and messages (up to 4000 bit-triggered messages) are also available for additional system performance.

The range of functions of WinCC flexible Runtime includes the centralized HMI components for visualizing and reporting, and it can be expanded to suit requirements and costs by using optional packages.

SIMATIC WinCC flexible Runtime is configured with the SIMATIC WinCC flexible Advanced configuration software.

HMI Software

SIMATIC WinCC flexible runtime software

SIMATIC WinCC flexible RT

Function

Visualization via Windows-compliant user interface

made up of parameterizable screen objects and image blocks created on a project-specific basis:

- Numeric and alphanumeric input/output fields
- Static text and graphic display plus vector graphics
- Dynamizable graphics from HMI symbol library
- Bar graph, trend curve graph with scroll and zoom function as well as read line
- Signal-specific text and graphic lists
- Buttons and switches for operator-process communication
- Editing fields for process values (signals)
- Analog display, slider as example for further screen objects
- Project-specific image blocks created from system basic objects
- Graphic displays for various standard graphic formats, e.g., bitmaps, .jpg, .wmf

Alarms and messages

- Discrete alarms and analog messages as well as event-driven Alarm-S/Alarm-D message procedure with SIMATIC S7
- Freely-definable message classes for definition of acknowledgment response and display of message events

Archiving of alarms and process values ¹⁾

- Archiving in files (e.g. CSV file) and ODBC databases
- Online evaluation of process value archives and alarm logs
- Evaluation of process value archives and alarm logs using standard Microsoft tools such as Excel

Recipes ¹⁾

- Generation of data records for machine or production data
- Display or entry of data records via a configurable screen object or via process images when distributed within the project
- Transmission of data records from or to the PLC
- Import/export for data records from/to CSV files

Documentation of process data, alarm events and recipes

- Time- or event-driven report output
- User-definable layout

Flexible expansion of system function using Visual Basic script

Language support for multilingual projects

- Up to 16 online languages (incl. Asian and Cyrillic)
- Language-dependent texts and graphics
- Language selection during runtime

User-oriented access protection according to requirements of regulated sectors

- Authentication with user ID and password
- User-group-specific rights
- Central system-wide user administration based on SIMATIC Logon ¹⁾
- Monitoring of changes by operators in runtime operation ¹⁾
- Recording of operator actions in an Audit Trail ¹⁾

PLC link for a wide variety of PLCs on-board

- Simultaneous connection using several protocols: OPC Client or SIMATIC HMI HTTP protocol are additive, i.e. can be used in conjunction with other PLC links
- Communication via native drivers and standard OPC channel

Open communication between HMI systems and with higher-level systems ¹⁾

- OPC server
- Sm@rtAccess for communication between HMI systems based on Ethernet networks, or via the intranet/Internet:
- Read and write access to variables; WinCC flexible Runtime or SIMATIC Panels make data (variables) available to other SIMATIC HMI systems or Office applications.
- A SIMATIC HMI system can be used to control or monitor another system remotely; entry level for client/server configurations for distributed operator stations or for solutions with headend or control room.

Sm@rtService for remote control, diagnostics and administration via intranet and Internet ¹⁾

- Display and control of process images on remote PC or Panel
- Sending of e-mails on demand or event-driven
- System diagnostics visualized via device-specific HTML pages

¹⁾ Option for SIMATIC WinCC flexible Runtime; separate runtime licenses must be purchased

HMI Software

SIMATIC WinCC flexible runtime software

SIMATIC WinCC flexible RT

Function (continued)

System requirements	WinCC flexible Runtime
Operating system	Windows XP Professional SP2/SP3 (32-bit) Windows XP embedded ¹⁾ Windows Vista Business (32-bit) Windows Vista Ultimate (32-bit)
Processor⁴⁾	
• Minimum	Windows XP: 300 MHz Windows Vista: 1 GHz
• Recommended	Windows XP: ≥ Pentium III, 500 MHz Windows Vista: ≥ 1 GHz
Graphics	
• Minimum	SVGA
• Resolution	640 x 480 to 1600 x 1200
RAM²⁾	
• Minimum	Windows XP: 128 MB Windows Vista: 1 GB
• Recommended	Windows XP: ≥ 512 MB Windows Vista: ≥ 1 GB
Hard disk (free memory space)³⁾	≥ 250 MB

¹⁾ Only for enabled platforms (e.g. Panel PC 477). You can get information from your Siemens contact.

²⁾ RAM requirements are determined primarily by the size of the graphics used.

³⁾ Without taking archives into account.
In addition to the space needed by WinCC flexible, Windows also requires space on the hard disk; e.g., for the swap file. The following formula has proven itself in the past: The size of the swap file = 3 x the size of the RAM. For further information, refer to your Windows documentation

⁴⁾ More powerful systems (Pentium 4 and higher) may be required in order to use options

Options

SIMATIC WinCC flexible /Archives

- Archiving of alarms and process values
 - Archiving in files (e.g. CSV file) or ODBC databases
 - Online evaluation of process value archives and alarm logs
 - Evaluation of process value archives and alarm logs using standard Microsoft tools such as Excel

SIMATIC WinCC flexible /Recipes

- Generation and management of data records for machine or production data
 - Display or entry of data records via a configurable screen object or via process images when distributed within the project
 - Transmission of data records from or to the PLC
 - Import/export for data records from/to CSV files

Options (continued)

SIMATIC WinCC flexible /Audit

- Recording of operator actions in an Audit Trail
- The ChangeControl option supports users in respect of plant validation.
- Can be checked using security mechanism if changes are made subsequently.
- Simplified compliance with GMP directives

SIMATIC WinCC flexible /SIMATIC Logon

- Central plant-wide user management
- Set up or block users plant-wide and across applications
- The central user management with SIMATIC Logon uses the Windows mechanisms

SIMATIC WinCC flexible /Sm@rtAccess

- Flexible solution for access to process data from any location
- Communication between different SIMATIC HMI systems

SIMATIC WinCC flexible /Sm@rtService

- Remote maintenance and servicing of machines and plant via Internet/intranet
- Event-driven sending of e-mails
- System diagnostics visualized via device-specific html pages

SIMATIC WinCC flexible /OPC Server

- Incorporation of automation components from different vendors into a single automation concept
- Communication for data exchange between HMI systems and/or higher-level control system
- Communication with applications from different vendors, e.g. MES, ERP or applications in the office sector

Note:

For further information, refer to "SIMATIC WinCC flexible RT options".

SIMATIC WinCC flexible /ProAgent

- Precise and rapid process fault diagnostics in plant and machines for SIMATIC S7 and SIMATIC HMI
- Standardized diagnostics concept for various SIMATIC components
- No further configuration overhead for diagnostics functionality
- Frees up PLC capacity with regard to memory and program execution time

Note:

For further information, refer to "SIMATIC ProAgent process diagnosis software".

HMI Software

SIMATIC WinCC flexible runtime software

SIMATIC WinCC flexible RT

Integration

SIMATIC WinCC flexible Runtime supports linking to:

Protocol	PC interfaces
SIMATIC S5 via AS511 (TTY)	
S5-90U	COM1/COM2 ¹³⁾
S5-90U	
S5-100U (CPU 100, 102, 103)	
S5-115U (CPU 941, 942, 943, 944, 945)	
S5-135U (CPU 928A, 928B)	
S5-155U (CPU 946/947, 948)	
SIMATIC S5 via PROFIBUS DP¹⁾	
S5-95U/L2-DP master	CP 5512 ²⁾ CP 5611 A2 ²⁾
S5-115U (CPU 941, 942, 943, 944, 945)	
S5-135U (CPU 928A, 928B)	
S5-155U (CPU 946/947, 948)	
SIMATIC S7 via PPI	
S7-200	CP 5512 ²⁾ CP 5611 A2 ²⁾ CP 5621 ¹⁾ CP 5613 A2 CP 5614 A2 PC/PPI adapter ³⁾
SIMATIC S7 via MPI	
S7-200 (except CPU 212) ⁴⁾	CP 5512 ²⁾ CP 5611 A2 ²⁾ CP 5621 ¹⁾
S7-300	
S7-400	CP 5613 A2 CP 5614 A2
WinAC Basis (V3.0 and higher)	PC/MPI adapter ⁶⁾
WinAC RTX	PC adapter USB ⁶⁾ Teleservice V6.1
SIMATIC S7 via PROFIBUS DP⁵⁾	
S7-215 ⁴⁾	CP 5512 ²⁾ CP 5611 A2 ²⁾ CP 5621 ¹⁾
S7-300 CPUs with integr. PROFIBUS interface	CP 5613 A2 CP 5614 A2
S7-300 with CP 342-5	
S7-400 CPUs with integr. PROFIBUS interface	
S7-400 with CP 443-5 or IM 467	
WinAC Basis (V3.0 and higher)	
WinAC RTX	
SIMATIC S7 via Ethernet (TCP/IP)	
S7-200 with CP 243-1	CP 1612 ⁷⁾ CP 1613 A2
S7-300 CPUs with integral Ethernet interface	
S7-300 with CP 343-1	
S7-400 CPUs with integral Ethernet interface	
S7-400 with CP 443-1	
WinAC Basis (V3.0 and higher)	
WinAC RTX	
SIMATIC S7 via integrated interface	
WinAC Basis (V2.0 and higher)	Internal system interface
WinAC RTX	
SIMATIC 505 NITP	
SIMATIC 500/505 RS 232/RS 422	COM1/COM2

Protocol	PC interfaces
SIMATIC 505 via PROFIBUS DP	
SIMATIC 545/555 with CP 5434	CP 5512 ²⁾ CP 5611 A2 ²⁾
SIMOTION⁸⁾	
SINUMERIK⁹⁾	
PLCs from other manufacturers	
Allen Bradley (DF1/DH485)	COM1/COM2
Allen Bradley (Ethernet)	CP 1612 ⁷⁾
GE Fanuc (SNP/SNPX)	COM1/COM2
LG GLOFA GM	COM1/COM2
Mitsubishi (FX/MP4)	COM1/COM2
Modicon (Modbus)	COM1/COM2
Modicon (Modbus TCP/IP)	CP 1612 ⁷⁾
OMRON (Link/Multilink)	COM1/COM2
OPC (Client + Server)¹⁰⁾¹²⁾	
Data Access V2.0 + V1.1 (COM) / V1.0 (XML) client only	CP 1612 ⁷⁾
HTTP communication for data exchange between SIMATIC HMI (client + server)¹¹⁾¹²⁾	CP 1612 ⁷⁾

- 1) WinCC flexible Runtime is passive (DP slave); the function block required for the link is included in the scope of delivery of WinCC flexible
- 2) For Microbox 420/427 and Panel PC 477/677 via internal MPI/DP interface
- 3) Only point-to-point to S7-200; no configuration download, operating systems: Windows 2000/XP; Order number: 6ES7 901-3CB30-0AX0
- 4) Constraint with regard to baud rate for S7-200; see Catalog ST 70
- 5) WinCC flexible RT is active; communication with S7 functions
- 6) Only point-to-point to S7-300/-400; No configuration download, operating systems: Windows 2000/XP; Order number: 6ES7 972-0CA23-0XA0 (COM) or 6ES7 972-0CB20-0XA0 (USB)
- 7) For MicroBox 420 and Panel PC 477/577/677/877 via internal Ethernet interface
- 8) For further information, see Catalog PM 10
- 9) "SINUMERIK HMI copy license OA" option required; for further information, see Catalog NC 60
- 10) OPC Client is included in scope of delivery, the "WinCC flexible/OPC Server for WinCC flexible Runtime" license is required for the OPC Server option
- 11) "WinCC flexible/Sm@rtAccess for WinCC flexible Runtime" license required
- 12) OPC and HTTP communication are additive, i.e. can be used in conjunction with the PLC links listed above
- 13) Via PC cable with integrated level converter RS 232/TTY; Order number: 6ES5 734-1BD20

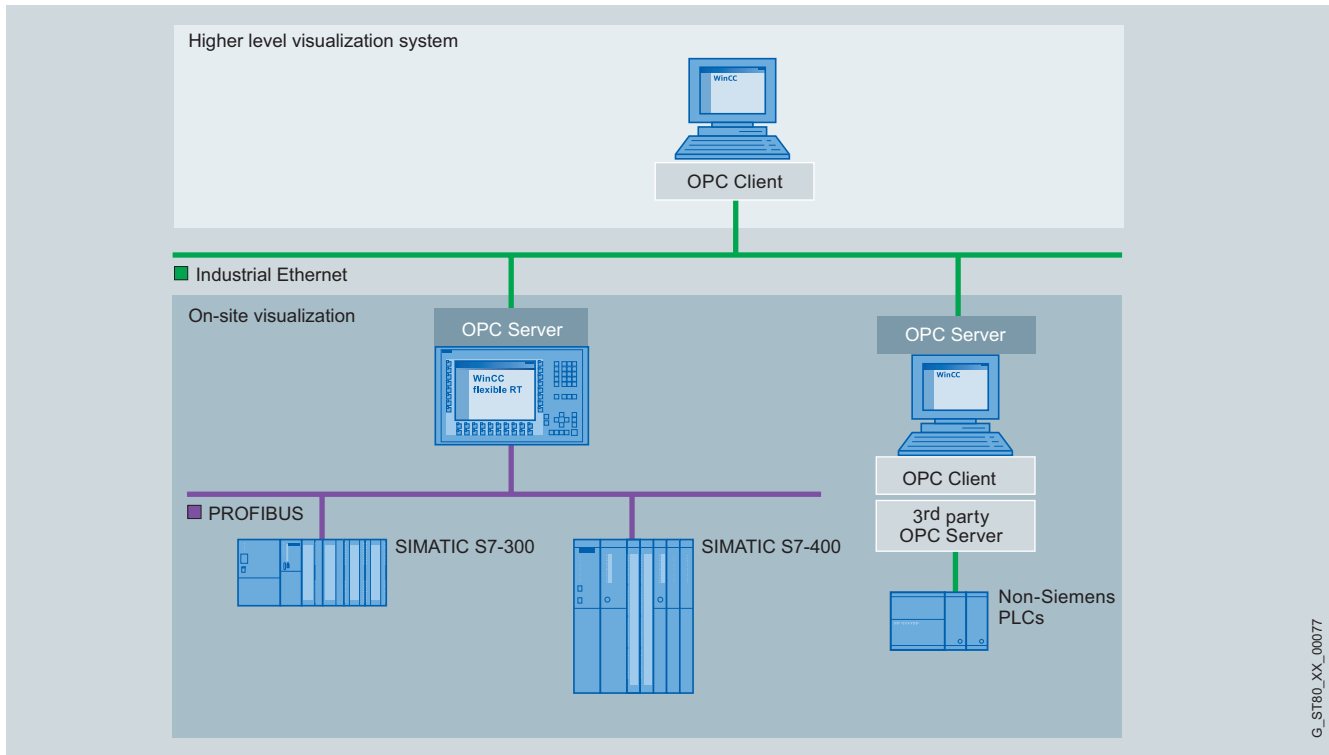
Application note

In parallel with each and every PLC link, WinCC flexible Runtime supports the use of the OPC Client channel; this enables, for example, connection to an SNMP OPC Server for the purpose of visualizing the data stored there. The SNMP OPC Server provides a means of monitoring network components of any type (e.g. switches) which support the SNMP protocol. For further information, see Catalog IK PI.

Note:

For further information, see "HMI devices/System interfaces"

Integration (continued)



SIMATIC WinCC flexible Runtime application example

Technical specifications

Type	SIMATIC WinCC flexible RT
	The specifications are maximum values
Screens	500
• Fields per screen	400
• Variables per screen	400
• Static text	30.000
• Graphics objects	2.000
• Complex objects per display (e.g. bars)	40
• Trends	800
• Graphics lists ¹⁾	500
• Text lists ¹⁾	500
• Number of entries in symbol tables	3.500
Variables	4.096 ³⁾
Messages bit-triggered / analog	4.000 / 500
• Message text (number of characters)	80
• Number of process values per message	8
• Size of message buffer	1.024
• Pending message events	500

¹⁾ Together only 500 text and graphics lists

²⁾ Dependent on memory medium used

³⁾ Dependent on number of licensed PowerTags

⁴⁾ Options for SIMATIC WinCC flexible Runtime

Type	SIMATIC WinCC flexible RT
Archives⁴⁾	100
• Archivable data	Process data, messages
• Max. number of entries per archive (incl. sequence archive)	500.000
• Archive types	Short-term archive, sequence archive (max. 400 per archive)
• Data storage format	CSV (C omma S eparated V ariable), RDB (R untime D ata B ase), interface to ODBC database (database not included in scope of delivery)
Recipes⁴⁾	1,000
• Elements per recipe	2,000 ³⁾
• Data records per recipe	5,000 ²⁾
Password protection	
• User rights	32
• Number of user groups	50
Visual Basic scripts	200
Online languages, max.	16

HMI Software

SIMATIC WinCC flexible runtime software

SIMATIC WinCC flexible RT

Technical specifications (continued)

Type	SIMATIC WinCC flexible RT
Communication	
SIMATIC S7 MPI interface/ PROFIBUS DP interface	
• Number of connectable stations, max.	Depending on the scope of the configuration (communication) from the point of view of WinCC flexible Runtime, as many as 8 connections are possible
SIMATIC S7 PPI interface	
• Number of connectable stations, max.	1 from viewpoint of WinCC flexible Runtime

Type	SIMATIC WinCC flexible RT
Communication (continued)	
SIMATIC S5 PROFIBUS DP interface	
• Number of connectable stations, max.	1 from viewpoint of WinCC flexible Runtime
Multi-protocol operation	Yes, OPC Client or SIMATIC HMI HTTP protocol are additive, i.e. can be used in conjunction with other PLC links

Ordering data

Order No.

SIMATIC WinCC flexible 2008 Runtime	
for PC systems; incl. SW for PC systems options ¹⁾ Single license, on CD-ROM incl. licensing, for:	
• 128 PowerTags (RT 128)	D 6AV6 613-1BA51-3CA0
• 512 PowerTags (RT 512)	D 6AV6 613-1DA51-3CA0
• 2048 PowerTags (RT 2048)	D 6AV6 613-1FA51-3CA0
• 4096 PowerTags (RT 4096)	D 6AV6 613-1GA51-3CA0

Power Packs

SIMATIC WinCC flexible 2008 Runtime	
Single license, only license key for PowerTags, from	
• 128 to 512 PowerTags	D 6AV6 613-4BD01-3AD0
• 128 to 2048 PowerTags	D 6AV6 613-4BF01-3AD0
• 512 to 2048 PowerTags	D 6AV6 613-4DF01-3AD0
• 128 to 4096 PowerTags	D 6AV6 613-4BG01-3AD0
• 512 to 4096 PowerTags	D 6AV6 613-4DG01-3AD0
• 2048 to 4096 PowerTags	D 6AV6 613-4FG01-3AD0

Upgrades

SIMATIC ProTool/Pro RT to SIMATIC WinCC flexible 2008	
• ProTool/Pro Runtime 128 PowerTags to WinCC flexible 2008 Runtime 128 PowerTags ²⁾	D 6AV6 613-3BB51-3CE0
• ProTool/Pro Runtime 256 PowerTags to WinCC flexible 2008 Runtime 512 PowerTags ²⁾	D 6AV6 613-3CD51-3CE0
• ProTool/Pro Runtime 512 PowerTags to WinCC flexible 2008 Runtime 512 PowerTags ²⁾	D 6AV6 613-3DD51-3CE0
• ProTool/Pro Runtime 2048 PowerTags to WinCC flexible 2008 Runtime 2048 PowerTags ²⁾	D 6AV6 613-3FF51-3CE0

Upgrades (continued)

SIMATIC WinCC flexible 2004/2005/2007 Runtime to SIMATIC WinCC flexible 2008 Runtime	
• Upgrade to SIMATIC WinCC flexible Runtime 2008 PowerTags incl. Runtime Options for:	D 6AV6 613-1XA51-3CE0
- WinCC flexible /Sm@rtAccess	
- WinCC flexible /Sm@rtService	
- WinCC flexible /OPC server	
- WinCC flexible /Archives	
- WinCC flexible /Recipes	
- WinCC flexible /ProAgent	
- WinCC flexible /Audit	
• Upgrade of the SIMATIC WinCC flexible Panel options:	D 6AV6 618-7XX01-3AF0
- WinCC flexible /Sm@rtAccess for SIMATIC Panel	
- WinCC flexible /Sm@rtService for SIMATIC Panel	
- WinCC flexible /OPC server for SIMATIC Multi Panel	
- WinCC flexible /ProAgent for SIMATIC Multi Panel	
- WinCC flexible /Audit for SIMATIC Panel	

Documentation (must be ordered separately)

User Manual WinCC flexible Runtime	
• German	6AV6 691-1BA01-3AA0
• English	6AV6 691-1BA01-3AB0
• French	6AV6 691-1BA01-3AC0
• Italian	6AV6 691-1BA01-3AD0
• Spanish	6AV6 691-1BA01-3AE0
User Manual WinCC flexible Communication	
• German	6AV6 691-1CA01-3AA0
• English	6AV6 691-1CA01-3AB0
• French	6AV6 691-1CA01-3AC0
• Italian	6AV6 691-1CA01-3AD0
• Spanish	6AV6 691-1CA01-3AE0

D) Subject to export regulations: AL: N and ECCN: 5D992B1

¹⁾ Runtime licenses for WinCC flexible Runtime options must be purchased separately for each target system.

²⁾ each including a single license WinCC flexible /Archives and WinCC flexible /Recipes

HMI Software

SIMATIC WinCC flexible runtime software

SIMATIC WinCC flexible RT

Ordering data	Order No.	Order No.	
<i>Documentation (must be ordered separately)</i> (continued)		<i>Communication via PROFIBUS</i> (continued)	
SIMATIC HMI Manual Collection Electronic documentation, on DVD 5 languages (English, French, German, Italian, Spanish); contains: all currently available user manuals, manuals and communication manuals for SIMATIC HMI	B 6AV6 691-1SA01-0AX0	SIMATIC Net Edition 2007 PB S7-5613 Software for S7 communication, incl. PG and FDL protocol, OPC server and NCM PC; runtime software, software and electronic manual on a USB stick, license key on diskette, Class A, for 32-bit Windows XP Professional SP1, 2; Windows 2003 Server SP1, R2, SP2; Windows Vista Business/Ultimate for CP 5613, CP 5613 A2, CP5613 FO, CP 5614, CP5614 A2; German/English <ul style="list-style-type: none"> • Single license for 1 installation • Software Update Service for one year, with automatic extension; requirement: Current software version • Upgrade S7-5613 from V6.4 to S7-5613 Edition 2007 • Upgrade S7-5613 from V6.0, V6.1, V6.2 or V6.3 to S7-5613 Edition 2007 	6GK1 713-5CB70-3AA0 6GK1 713-5CB00-3AL0 6GK1 713-5CB00-3AE0 6GK1 713-5CB00-3AE1
<i>Communication via Industrial Ethernet</i>			
CP 1613-A2 PCI card (32 bit) for connecting a PG/PC to Industrial Ethernet (communications software must be ordered separately)	6GK1 161-3AA01		
SIMATIC Net Edition 2007 IE S7-1613 Software for S7 and open communication, incl. PG/OP communication, OPC server and NCM PC; up to 120 connections, runtime software, software and electronic manual on CD-ROM, license key on a USB stick, Class A, for 32-bit Windows XP Professional SP1, 2; Windows 2003 Server SP1, R2, SP2; Windows Vista Business/Ultimate for CP 1613/CP 1613 A2/CP 1623; German/English <ul style="list-style-type: none"> • Single license for 1 installation • Software Update Service for one year, with automatic extension; requirement: Current software version • Upgrade S7-1613 from V6.4 to S7-1613 Edition 2007 • Upgrade S7-1613 from V6.0, V6.1, V6.2 or V6.3 to S7-1613 Edition 2007 	6GK1 716-1CB70-3AA0 6GK1 716-1CB00-3AL0 6GK1 716-1CB00-3AE0 6GK1 716-1CB00-3AE1		
<i>Communication via PROFIBUS</i>			
CP 5613-A2 PCI card (32-bit) for connecting a PC to PROFIBUS (communications software must be ordered separately).	6GK1 561-3AA01		
CP 5614-A2 PCI card (32-bit) for connecting a PC to PROFIBUS (communications software must be ordered separately).	6GK1 561-4AA01		
CP 5611-A2 PCI card (32-bit) for connecting a PG/Notebook to PROFIBUS or MPI (communications software included in WinCC flexible).	6GK1 561-1AA01		
CP 5611 MPI Comprising CP 5611 A2 (32-bit) and MPI cable, 5 m	A 6GK1 561-1AM01		
CP 5621 PCI Express X1 card (32-bit) for connecting a PG/PC to PROFIBUS or MPI	T 6GK1 562-1AA00		
PC/PPI adapter RS 232, 9-pin; male with RS 232/PPI converter, max. 19.2 kbit/s	6ES7 901-3CB30-0XA0		
PC/MPI adapter RS 232, 9-pin; male with RS 232/MPI converter	6ES7 972-0CA23-0XA0		
PC adapter USB For use with Windows 2000/XP	6ES7 972-0CB20-0XA0		
A) Subject to export regulations: AL: N and ECCN: EAR99H		D) Subject to export regulations: AL: N and ECCN: 5D992B1	
B) Subject to export regulations: AL: N and ECCN: EAR99S		T) Subject to export regulations: AL: 5A002A1A2 and ECCN: 5A002A1A2	

More information

Additional information is available in the Internet under:

<http://www.siemens.com/wincc-flexible>
Note:

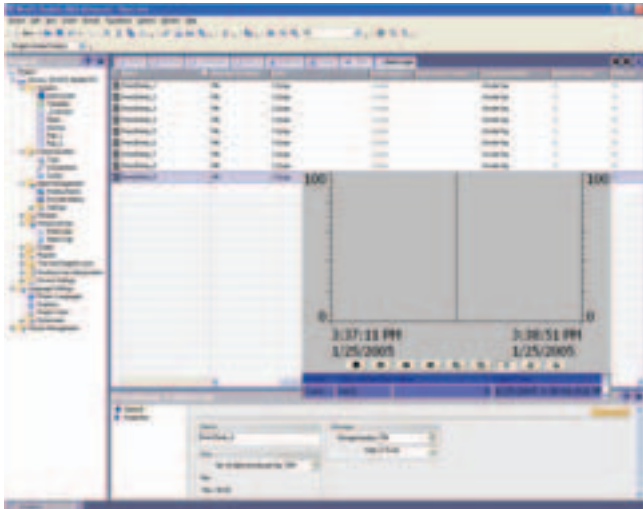
Do you need a specific modification or option for the products described here? Then look up "customer-specific products", where you will find information about the Open Platform Program for the creation of user-specific functions and controls for WinCC flexible.

HMI Software

SIMATIC WinCC flexible RT options

WinCC flexible /Archives

Overview



- Option for SIMATIC WinCC flexible Runtime for archiving process values and messages
- Archiving of process values and messages supports the acquisition and processing of process data from an industrial plant or machine. Evaluation of the archived process data provides information about the operating states of the plant or machine
- One license is required per operator station (no license is required for Simatic Panels/Multi Panels)

Benefits

- Message and process value archives permit foresighted diagnostics which prevents downtimes
- Early detection of danger or fault states
- Increase in product quality and productivity thanks to regular evaluation of process value and message archives

Application

- Further use of archives for evaluation and long-term archiving
- Record of repeated fault states
- Optimization of maintenance cycles
- Ensured quality standards
- Control of quality as well as production capacity utilization
- Documentation of process sequence

Function

- Time-controlled as well as manual or process-controlled swapping out of process data and messages for long-term archiving
- During runtime, swapped out data are read in and selectively analyzed using WinCC flexible Runtime
 - Presentation and evaluation of archived process data based on a configurable trend display. Reading of the values is facilitated by a read line.
 - Presentation and evaluation of archived alarms based on a configurable alarm view.
 - User-friendly navigation in the archives
- External evaluation of the archives using MS standard tools
- Various archive types are supported: sequence and short-term archives
- Archiving of process values and messages on external, Windows-supported storage media
 - CSV files
 - RDB files
 - ODBC databases (e.g. MS Access)
- Power standard functions permit user-friendly and flexible utilization of the archives

Technical specifications

Type	WinCC flexible /Archives
	The specifications are maximum values
Execution platform	SIMATIC WinCC flexible Runtime
Archives	100
• Archivable data	Process values, messages
• Cyclical trigger for archiving process values (variables)	1 s
• Max. number of entries per archive (incl. sequence archive)	500.000 ¹⁾
• Archive types	<ul style="list-style-type: none"> • Circulating archive • Sequence archive (max. 400 per archive)
• Data storage format	CSV (C omma S eparated V ariable), RDB (R untime D ata B ase) and interface to ODBC database (database not included in scope of delivery)

¹⁾ Dependent on memory medium used

Ordering data

Order No.

WinCC flexible/Archives for WinCC flexible 2008 Runtime ¹⁾	D	6AV6 618-7ED01-3AB0
Single License, license key only		
WinCC flexible/Archives+ Recipes for WinCC flexible 2008 Runtime ¹⁾	D	6AV6 618-7GD01-3AB0
Single License for each option, license key only		

D) Subject to export regulations: AL: N and ECCN: 5D992B1

¹⁾ One license is required for each operator station.
A license is not required for the engineering system for configuring the runtime option.

More information

Note:

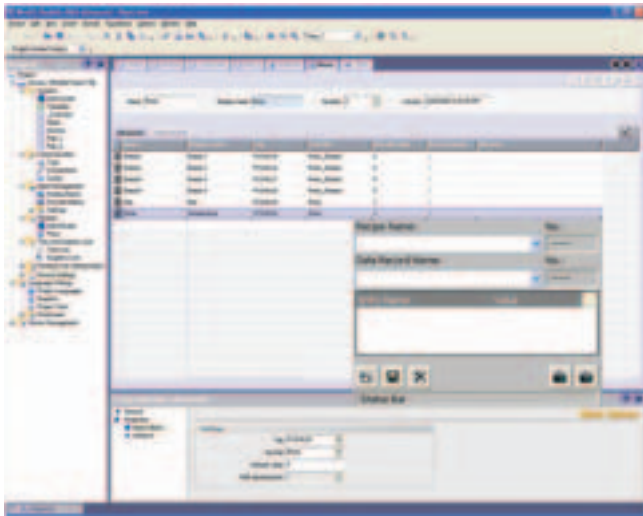
Do you need a specific modification or option for the products described here? Then look up "Customized products", where you will find information about the Open Platform Program for the creation of user-specific functions and controls for WinCC flexible.

HMI Software

SIMATIC WinCC flexible RT options

WinCC flexible /Recipes

Overview



- Option for SIMATIC WinCC flexible Runtime for managing data records in recipes that contain related machine or production data
- The data in a data set can be transferred, for example, from the control unit to the PLC to switch production to a different product variant
- One license is required per operator station (no license is required for SIMATIC Panels/Multi Panels)

Benefits

- Generation and management of machine parameters and production data on the basis of data sets, and exchange with the automation equipment, e.g. with the machine
- Clear tabular representation of data elements with support of a configurable graphic object, or representation in technical relationships for several process graphics
- Simple operator prompting using standard functions
- Export/import of data sets for further processing with other tools (e.g. MS Excel)

Application

- Assignment of plant/machine parameters in the production industry
- Batch-oriented production, e.g. in the food or plastics industry

Function

- Input of data sets (e.g. operating parameters for a machine, production data for a plastics processing machine) in WinCC flexible Runtime, their storage, and passing on to the PLC
- Display and input of data sets using a configurable graphics object, or distributed among several process displays within the project
- Data set elements are coupled to the process using direct linking of the variables
- Transmission of data records from or to the PLC
- Powerful interfaces permit synchronized exchange of data with the PLC
- Saving of data sets on local media or on remote data servers via networks
- Import/export of data sets as CSV files
- Logging of data sets, e.g. as batch report/shift report
- Convenient and flexible management of data sets using powerful standard functions

WinCC flexible recipes and the associated data sets are conveniently created using a separate editor in the WinCC flexible Advanced engineering tool, and assigned default data. A configurable table object is used to display the data during runtime. Furthermore, the individual data set elements can also be directly output for several process displays on the basis of standard input/output boxes. The data can therefore be clearly presented for the operator in technological layers.

HMI Software

SIMATIC WinCC flexible RT options

WinCC flexible /Recipes

Technical specifications

Type	WinCC flexible/Recipes
	The specifications are maximum values
Execution platform	SIMATIC WinCC flexible Runtime
Recipes	1000
• Entries per recipe	2000 ¹⁾
• Data records per recipe	5000 ²⁾
• User data length in bytes per data record	8000 KB ²⁾

¹⁾ Dependent on number of licensed PowerTags

²⁾ Dependent on memory medium used

Ordering data

	Order No.
WinCC flexible/Recipes for WinCC flexible 2008 Runtime¹⁾ Single License, license key only	D 6AV6 618-7FD01-3AB0
WinCC flexible/Archives+ Recipes for WinCC flexible 2008 Runtime¹⁾ Single License for each option, license key only	D 6AV6 618-7GD01-3AB0

D) Subject to export regulations: AL: N and ECCN: 5D992B1

¹⁾ One license is required for each operator station.
A license is not required for the engineering system for configuring the runtime option.

More information

Note:

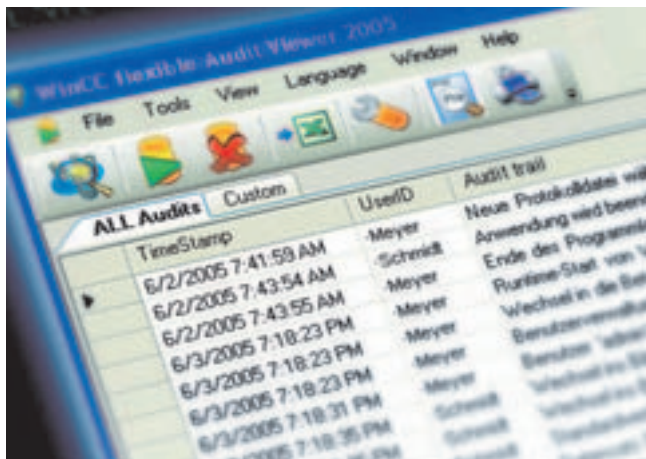
Do you need a specific modification or option for the products described here? Then look up "Customized products", where you will find information about the Open Platform Program for the creation of user-specific functions and controls for WinCC flexible.

HMI Software

SIMATIC WinCC flexible RT options

WinCC flexible /Audit

Overview



- Option for SIMATIC WinCC flexible Runtime as well as SIMATIC Panels for recording operations in an audit trail, and electronic signature
- The audit trail features a safety mechanism that indicates subsequent manipulation.
- An easy-to-use configuration option included as standard in WinCC flexible enables you to set:
 - The operator actions to be recorded in the audit trail during runtime
 - The important operator actions requiring electronic signature/comments during runtime
- The audit option combined with the WinCC flexible ES ChangeControl option supports the user with plant validation
- Available for the following SIMATIC HMI systems: TP/OP270, TP/OP277, MP 270B, MP 277, MP 370, MP 377, WinCC flexible Runtime
- A license is required for every operator control unit (panel or PC)

Benefits

- Audit supports the user in meeting special quality requirements, e.g.,
 - Production plant requiring validation according to 21 CFR Part 11 FDA²⁾
 - In respect of traceability according to EU 175/2002³⁾
- Entries in the audit trail are allocated to individual users. This ensures that responsibilities can be clearly identified
- The audit trail, stored as a CSV file¹⁾, can be checked via a security mechanism to find out if subsequent changes have been made
- For particularly important user actions, e.g., starting production or loading new recipes, electronic signatures and comments can be configured and then called up and logged during runtime
- Restrictions:
 - WinCC flexible/Audit cannot be used in combination with Asiatic character sets on panels

1) CSV Comma Separated Values

2) The FDA (Food and Drug Administration) is the American public health body

3) 21 CFR Part 11- law on plant validation

Technical specifications

Type	WinCC flexible/Audit
Archive for Audit Trail use on the Panel	<ul style="list-style-type: none"> • Plug-in flash memory card on the panel • In the higher-level PC (memory medium) connected to the panel via Ethernet
Archive for Audit Trail use of WinCC flexible Runtime	On the PC (storage medium)
Execution platform	
SIMATIC Panels	Mobile Panel 277, TP/OP 270, TP/OP 277
SIMATIC Multi Panels	MP 270B, MP 277, MP 370, MP 377
PCs	SIMATIC WinCC flexible Runtime

Ordering data

Order No.

WinCC flexible/Audit for SIMATIC Panel Single License, license key only	D	6AV6 618-7HB01-3AB0
WinCC flexible/Audit for WinCC flexible Runtime 2008 Single License, license key only	D	6AV6 618-7HD01-3AB0

D) Subject to export regulations: AL: N and ECCN: 5D992B1

More information

Note:

Do you need a specific modification or option for the products described here? Then look up "Customized products", where you will find information about the Open Platform Program for the creation of user-specific functions and controls for WinCC flexible.

Overview



- Option for connecting PCs with SIMATIC WinCC flexible Runtime and SIMATIC Panels to central user administration.
- Creates user administration on a central computer to which one or more WinCC flexible stations can be connected over Ethernet.
- With each logging-on/off of a user on one of the connected stations, SIMATIC Logon checks whether a user password has been created and that the required privileges exist.
- SIMATIC Logon for WinCC flexible supports the user in combination with the /Audit and /ChangeControl options in meeting requirements in accordance with FDA 21 CFR Part 11 and EU178.
- Licensing:
SIMATIC Logon (basic license) and SIMATIC Logon Remote Access (3-pack license) for connection of 3 WinCC flexible stations to a central user administration. Additional stations can be connected by using further SIMATIC Logon Remote Access licenses (3-pack/10-pack).

Benefits

- Centralized configuration on one PC of all access authorizations of a distributed system avoids unnecessary travel times. Time-consuming multiple configurations for each individual local station become unnecessary. Accordingly, changes of user can be easily configured from a central location
- All access data apply throughout the plant on every connected station. Additional access data on local subsystems is no longer necessary.

Design

SIMATIC Logon and SIMATIC Logon Remote Access are installed on a central station.

The following WinCC flexible stations are connected to the central station via Ethernet network:

- PCs with WinCC flexible Runtime
- SIMATIC Panels from the 170 series or higher (panels with Ethernet interface)

Licensing

The following licenses are required:

- SIMATIC Logon basic license
- SIMATIC Logon Remote Access license (3-pack license 10-pack license); more than one SIMATIC Logon Remote Access license can be installed.

The number of connectable stations depends on the SIMATIC Logon Remote Access licenses used. This number is the total of the connections provided by the individual licenses. As an example: Two installed licenses for 10 enable the connection of 20 stations to the central station.

Function

Configuration

In the first step, the following data must be saved in the user administration of WinCC flexible on every WinCC flexible station in the plant:

- Required user groups with associated user privileges
- IP address, port number, Windows domain of the central station on which the central user administration is stored.

All user groups are configured with the same names in the central user administration. All users are created here, and have automatic access to the connected WinCC flexible stations in accordance with the relevant user group.

If the connection fails between the central station with SIMATIC Logon and a WinCC flexible station, the operation is handled through an "emergency user" which must first be preconfigured locally.

Intervals for password aging and regulations for the structure of a password are defined according to the configuration on the central station and then also apply to all decentrally connected WinCC flexible stations or the respective users.

HMI Software

SIMATIC WinCC flexible RT options

WinCC flexible /SIMATIC Logon

Technical specifications

Type	SIMATIC Logon for WinCC flexible
Execution platform	
SIMATIC Panels	Mobile Panel 177 PN; Mobile Panel 277, TP/OP 177B PN/DP, TP/OP 277
SIMATIC Multi Panels	MP 177, MP 277, MP 377
PCs	WinCC flexible Runtime

More information

Note:

Do you need a specific modification or addition to the products described here? Then take a look under "Customer-specific products". There, we provide information on the Open Platform Program for creating your own functions or Controls for WinCC flexible.

Ordering data

Order No.

SIMATIC Logon V1.4.1 Basic license; single license for 1 installation, 7 languages (German, English, Spanish, Italian, Chinese, Japanese); type of delivery: License Key Disk, Certificate of License, Terms and Conditions	6ES7 658-7BX41-2YA0
SIMATIC Logon Remote Access for WinCC flexible (3 Clients) Remote access for 3 WinCC flexible 2008 clients; single license for 1 installation; type of delivery: License Key Disk, Certificate of License, Terms and Conditions	6ES7 658-7BA00-2YB0
SIMATIC Logon Remote Access for WinCC flexible (10 clients) Remote access for 10 WinCC flexible 2008 clients; single license for 1 installation; type of delivery: License Key Disk, Certificate of License, Terms and Conditions	6ES7 658-7BB00-2YB0

Overview

- Option for SIMATIC WinCC flexible Runtime plus SIMATIC Panels for communication between various SIMATIC HMI systems.
- Available for the following SIMATIC HMI systems:
 - Mobile Panel 177 PN, Mobile Panel 277
 - TP 177B PN/DP, OP 177B PN/DP
 - TP 270, TP 277, OP 270, OP 277
 - MP 177, MP 270B, MP 277, MP 370, MP 377
 - WinCC flexible Runtime
- Communication between HMI systems is established on the basis of Ethernet networks, or via the intranet/Internet:
 - Read and write access to variables;
 - WinCC flexible Runtime or SIMATIC Panels make data (variables) available to other SIMATIC HMI systems or Office applications.
 - A SIMATIC HMI system can be used to control or monitor another system remotely;
 - entry level for client/server configurations for distributed operator stations or for solutions with headend or control room.
- Local operation, visualization and data processing is as possible as plant-wide access to information or central archiving of process data. Integrated information flows ensure an overview of the status of all processes.
- Licensing:
 - The license "WinCC flexible/Sm@rtAccess for Panel" or "WinCC flexible/Sm@rtAccess for WinCC flexible Runtime" must be installed on both the server and client HMI device.
 - Server applications are the options Sm@rtServer, HTTP Server and SOAP-Server. Client applications are the screen object Sm@rtClient display, and the utilization of the communication driver SIMATIC HTTP protocol.
 - No license is required on the client system for access to a Sm@rtServer using the application Sm@rtClient.EXE or the Microsoft Internet Explorer. A license is also not required for the engineering system for configuring the runtime option.

Benefits

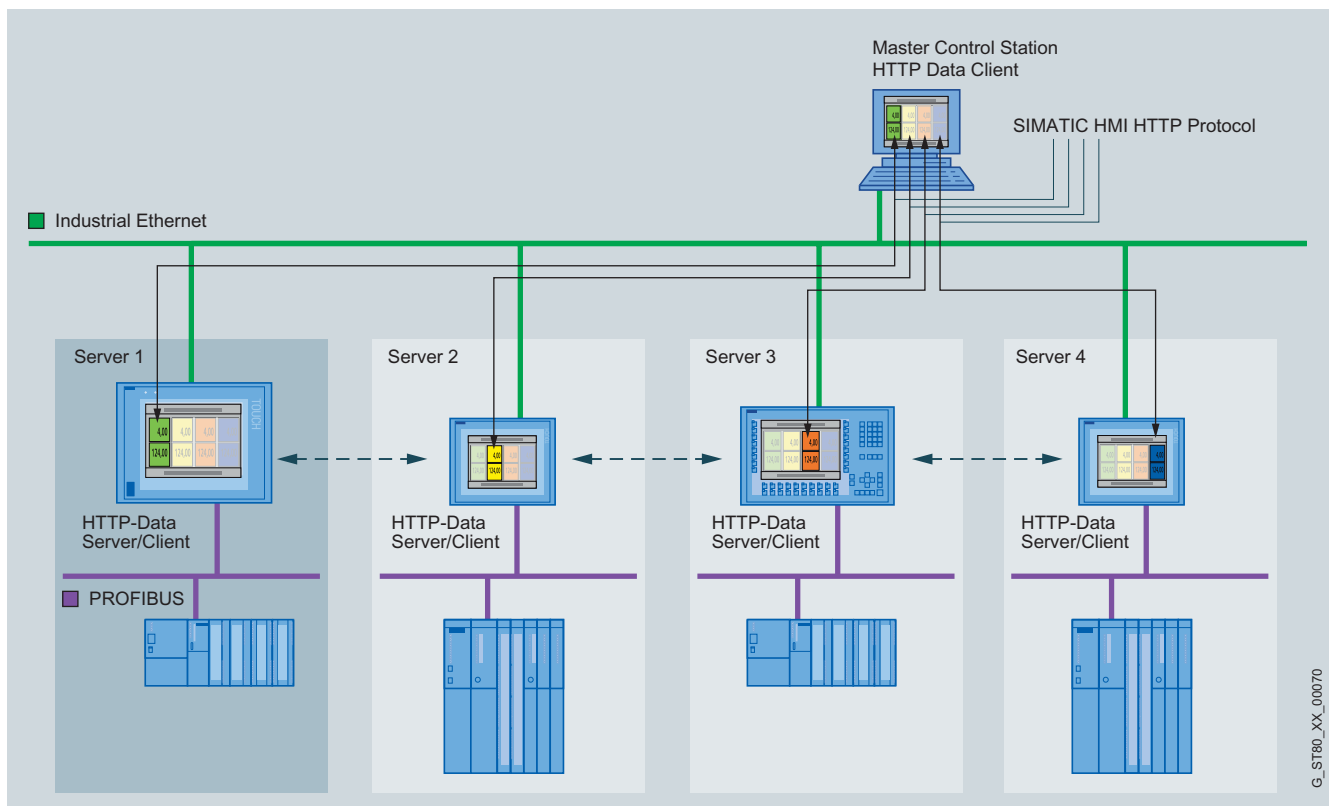
- Flexible solution for location-independent access to HMI systems and process data
- Reduction in load on fieldbuses: WinCC flexible Runtime as well as SIMATIC Panels permit a control system, for example, to access the process data. The sensitive field level is not loaded by the control level as far as the communications requirements are concerned.

The requirements are processed by WinCC flexible Runtime and the SIMATIC Panels.

- Simple, fast configuration of communications relationships using the WinCC flexible engineering software

Application

- Use of HMI systems at machine level as data servers for higher-level automation components such as control systems or office systems. For example, process values from various machines can be output in a master display.
- Control and monitoring of spatially distributed machines with several operator stations by just one operator
- Operator control and monitoring of HMI systems at machine level from a central station (e.g. the master station of a production line, or from a control room)



Communication between HMI systems using Industrial Ethernet: use of HMI systems at machine level as data servers for higher-level automation components

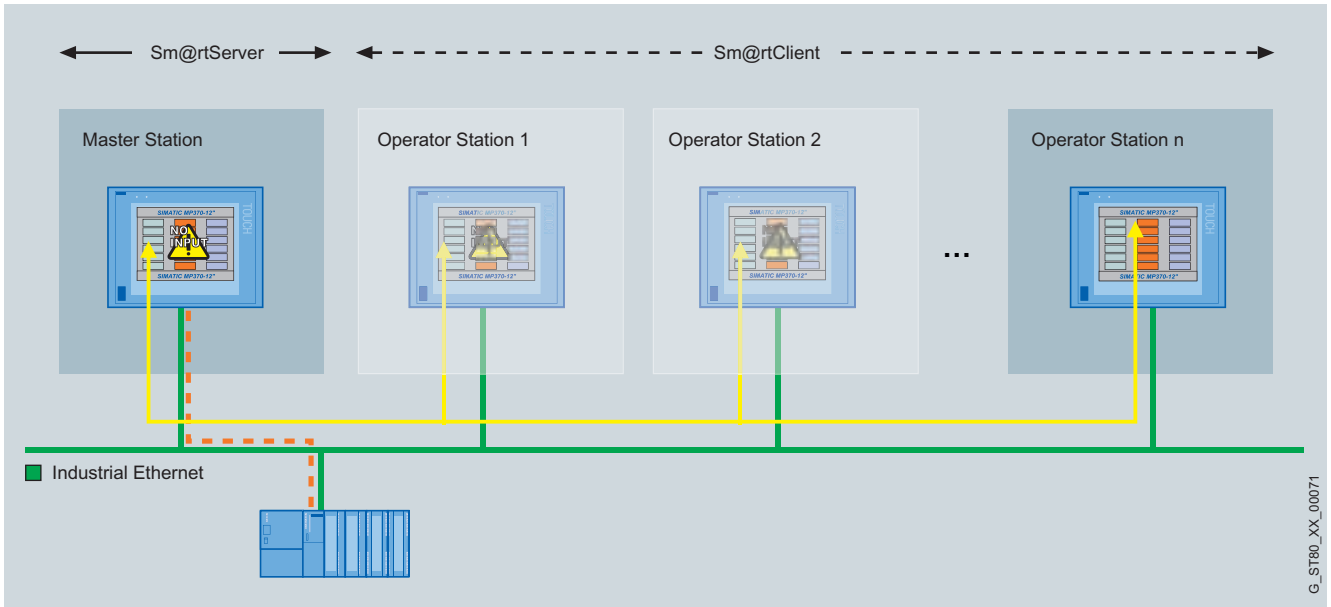
HMI Software

SIMATIC WinCC flexible RT options

WinCC flexible /Sm@rtAccess

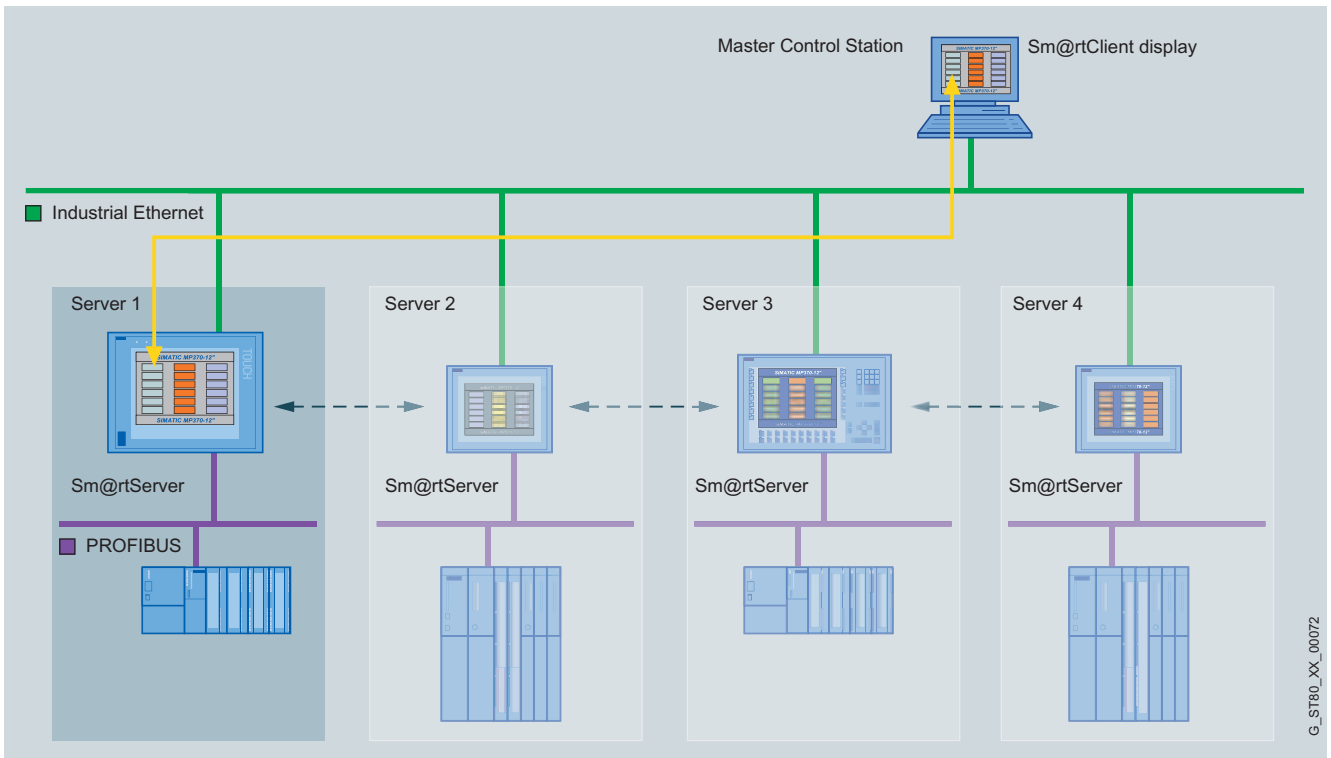
Application (continued)

4



G_ST80_XX_00071

Application of Sm@rtClient concept: coordinated operation of several operator stations



G_ST80_XX_00072

Application of Sm@rtClient display: operator control and monitoring of HMI systems used at machine level from a central station

Function

Communication between *different SIMATIC HMI systems* or between *the units of a machine or plant* is carried out via Industrial Ethernet or intranet/Internet on the basis of Sm@rtAccess.

Possible communication relationships:

- Reading and writing the variables of a SIMATIC HMI system on the basis of an HTTP protocol
 - Reading and writing the variables of different HMI systems
 - Simple configuring of variables in the HMI client configuration using browsers in the WinCC flexible engineering tool
 - Reading and writing the variables of an HMI system using standard applications such as MS Excel. Communication is made possible by embedding a script in the application, on the basis of the SOAP protocol (Simple Object Access Protocol) superimposed by HTTP
- Remote control of an operator station; the HMI application and communication with the PLC are via the master station. In the case of spatially distributed machines/plants (which require a larger number of operator panels), so-called Sm@rtClients can be activated from here which are then assigned access to the master station and thus to the process. Access procedures guarantee that only one operator system can actively access the process at a time.
 - A configurable graphic object (Sm@rtClient display) embedded in process displays represents the screen of the associated HMI system (Sm@rtServers)
 - Powerful standard functions permit convenient and flexible operation of the display

Password protection can be optionally activated for access to variables or for remote operation of an HMI system.

Technical specifications

Type	WinCC flexible /Sm@rtAccess
	The specifications are maximum values
Execution platform	
• SIMATIC Panels	Mobile Panel 177 PN, Mobile Panel 277, TP/OP 177B PN/DP, TP/OP 270, TP/OP 277
• SIMATIC Multi Panels	MP177, MP 270B, MP 277, MP 370, MP 377
• PCs	WinCC flexible Runtime
Sm@rtAccess SIMATIC HMI HTTP protocol	
Number of connections for one client	
• Mobile Panel 177 PN, TP/OP 177B PN/DP, MP 177 as HTTP server	4
• Mobile Panel 277, TP/OP 270, TP/OP 277, MP 270B, MP 277, MP 370, MP 377 as HTTP server	8
• for WinCC flexible Runtime	16
Sm@rtAccess Sm@rtClient concept	
Number of Sm@rtClients that can connect to a Sm@rtServer at the same time ^{1) 2)}	
• Mobile Panel 177 PN, TP/OP 177B PN/DP, M177 as Sm@rtServer	2 clients
• Mobile Panel 277, TP/OP 270, TP/OP 277, MP 270B, MP277 as Sm@rtServer	3 clients for 6" devices 2 clients for 8" and 10" devices
• MP 370, MP 377 as Sm@rtServer	3 clients for 12" devices 2 clients for 15" devices 1 client for 19" devices
• for WinCC flexible Runtime as Sm@rtServer	5 clients
Number of Sm@rtClient displays per screen	
• for Panels/Multi Panels	1
• for WinCC flexible Runtime	2

¹⁾ Including 1 Service Client

²⁾ The Sm@rtServer and the WinCC flexible/Pro Agent option cannot be used simultaneously on TP/OP/MP 270/370. Parallel operation of the runtime options ProAgent, Sm@rtAccess and Sm@rtService is possible in the context of the MP 277 8" and 10" devices, Mobile Panel 277 as well as the MP 377. Limitation: a maximum of 2 clients can be connected simultaneously to a Sm@rtServer.

HMI Software

SIMATIC WinCC flexible RT options

WinCC flexible /Sm@rtAccess

Ordering data	Order No.
WinCC flexible /Sm@rtAccess for SIMATIC Panel¹⁾ D Single license, license key only	6AV6 618-7AB01-3AB0
WinCC flexible /Sm@rtAccess for WinCC flexible 2008 Runtime¹⁾ B Single license, license key only	6AV6 618-7AD01-3AB0

B) Subject to export regulations: AL: N und ECCN: EAR99S

D) Subject to export regulations: AL: N und ECCN: 5D992B1

¹⁾ The license must be installed on the server and on the client HMI device. Server applications are the options Sm@rtServer, HTTP-Server and SOAP-Server. Client applications are the screen object Sm@rtClient display, and the utilization of the communication driver HTTP protocol. A license is not required for the engineering system for configuration the runtime option.

More information

Note:

Do you need a specific modification or option for the products described here? Then look up "Customized products", where you will find information about the Open Platform Program for the creation of user-specific functions and controls for WinCC flexible.

HMI Software

SIMATIC WinCC flexible RT options

WinCC flexible /Sm@rtService

Overview

- Option for SIMATIC WinCC flexible Runtime and SIMATIC Panels for remote maintenance and servicing of machines/plant via the Internet/intranet
- Available for the following SIMATIC HMI systems:
 - Mobile Panel 177 PN, Mobile Panel 277
 - TP 177B PN/DP, OP 177B PN/DP
 - TP 270, TP 277, OP 270, OP 277
 - MP 177, MP 270B, MP 277, MP 370, MP 377
 - WinCC flexible Runtime
- Licensing
The "WinCC flexible/Sm@rtService for Panel" license or "WinCC flexible/Sm@rtService for WinCC flexible Runtime" license must be installed on the operator panels that use one of the following options/functions: Sm@rtServer, HTML pages (mini-Web server), e-mail.
The remote service PC and engineering system do not require a license for configuration the runtime option.

Benefits

- Fast elimination of faults or downtimes and thus increased productivity by means of global access to machines/systems by the service and maintenance personnel
- Avoids the need for site visits

Application

- Remote maintenance and servicing of machines and plants via Internet/Intranet
- Calling of system information, control of target systems, and updating of data sets via Internet/Intranet
- Automatic sending of e-mails to experts for fast elimination of faults

Function

Remote operator control and monitoring of SIMATIC HMI systems using Industrial Ethernet and/or via the Intranet/Internet

Microsoft Internet Explorer V6.0 SP1 or higher is sufficient for accessing an HMI system.

Remote control of an operating station;

the HMI application and communication with the controller takes place via the HMI system. Using Sm@rtService, the HMI systems in the machines/systems can be serviced remotely. An access process ensures that only one operator (either locally at the machine or remotely via Internet Explorer) can actively access the process at one time.

Integrated Web Server to process standard HTML pages
The following functions can be accessed from the homepage:

- Starting and stopping the HMI runtime for maintenance
- Remote access to recipe data sets, passwords and information specific to the HMI system
- Access the HMI system files via a file explorer
- Download configuration data via the Intranet/Internet
- Supplement with own HTML pages

Sending e-mails to maintenance personnel via SMTP server (Simple Mail Transfer Protocol)

- Events that trigger an e-mail:
 - Reporting of a message class
 - Configurable standard functions: Changing the value of a variable, pressing a function key, scripts, etc.
- Possible e-mail content
 - Subject
 - Message text with process variables
 - Date/Time
- The optional use of e-mail/SMS gateways enables access to standard networks (external service provider required)

Standard functions make maintenance and service functionality easier. WinCC flexible allows you to quickly and easily configure maintenance and service functions.

Password protection can be activated as an option for accessing the HMI system. Different passwords may be configured for different functions.

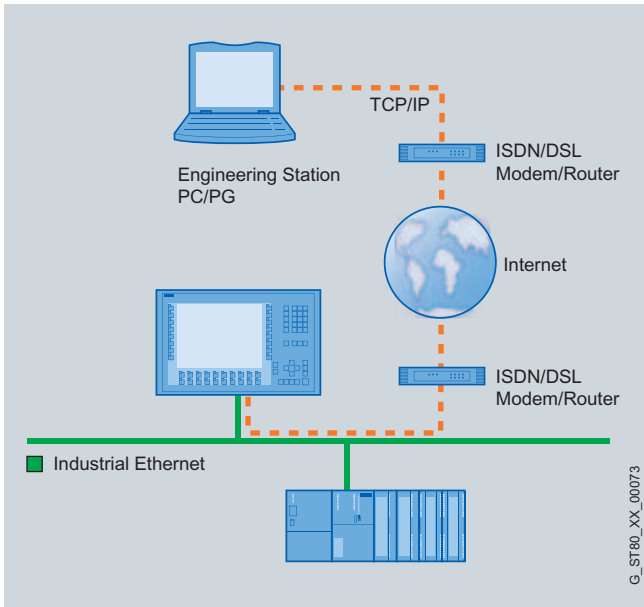
HMI Software

SIMATIC WinCC flexible RT options

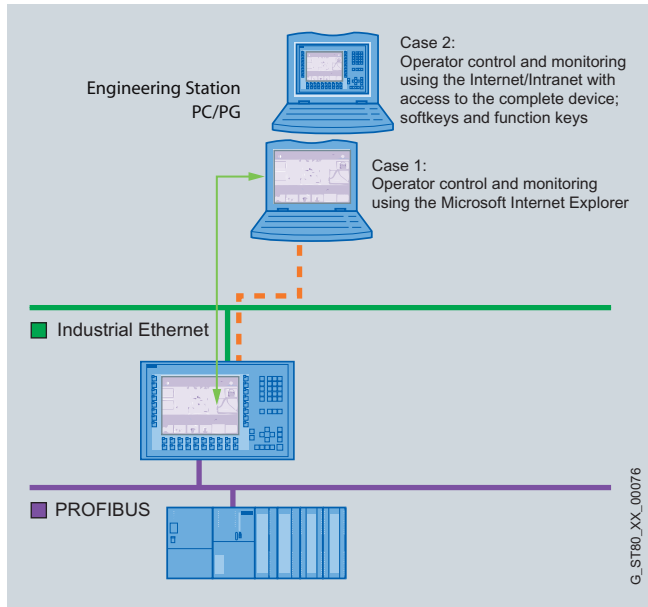
WinCC flexible /Sm@rtService

Function (continued)

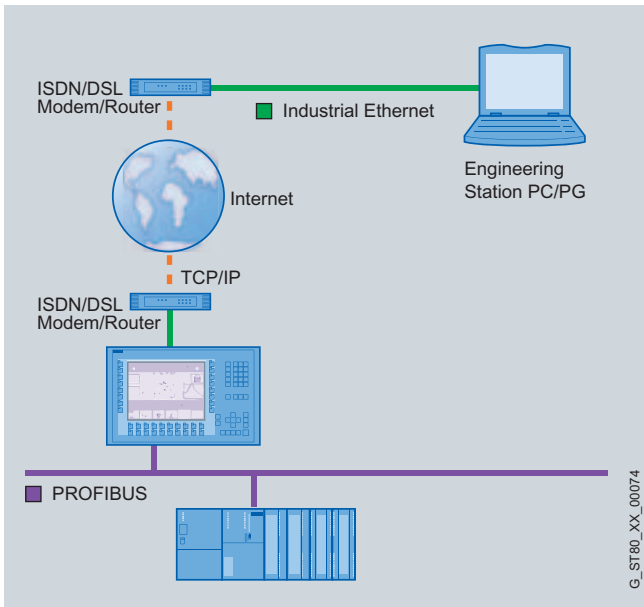
4



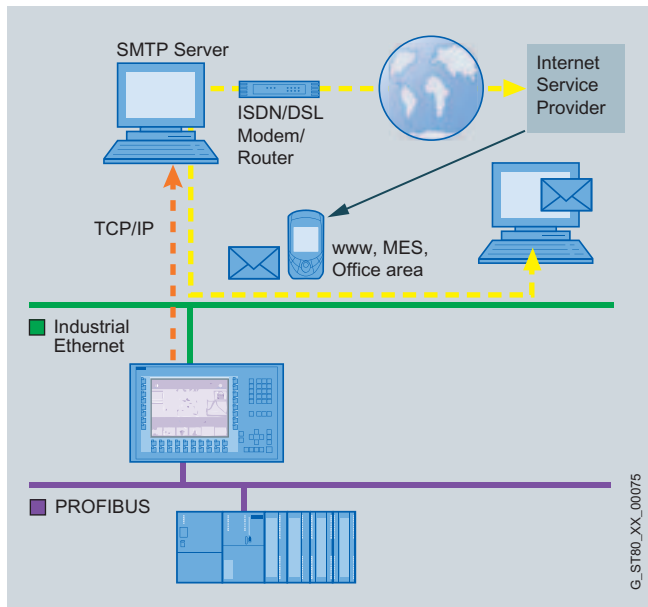
Remote operator control and monitoring of SIMATIC HMI systems using Industrial Ethernet and/or via the Intranet/Internet



Remote operator control and monitoring of SIMATIC HMI systems using Industrial Ethernet and/or via the Intranet/Internet



Remote operator control and monitoring of SIMATIC HMI systems using Industrial Ethernet and/or via the Intranet/Internet



Sending e-mails to maintenance personnel via SMTP server (Simple Mail Transfer Protocol)

HMI Software

SIMATIC WinCC flexible RT options

WinCC flexible /Sm@rtService

Technical specifications

Type	WinCC flexible /Sm@rtService
Execution platform	
• SIMATIC Panels	Mobile Panel 177 PN, Mobile Panel 277, TP 177B PN/DP, OP 177B PN/DP, TP/OP 270, TP/OP 277
• SIMATIC Multi Panels	MP 177, MP 270B, MP 277, MP 370, MP 377
• PCs	SIMATIC WinCC flexible Runtime
Sm@rtService¹⁾	
Remote access via	Internet Explorer V6.0 SP1 and higher
HTML pages	
• for Panels/Multi Panels	HTML V1.1 (no support for ActiveX, Java, ASP)
• for WinCC flexible Runtime	HTML V1.1
Sending e-mails	<ul style="list-style-type: none"> • via SMTP server • Subject, message texts with 250 characters of text per e-mail; date/time of message, message no.

¹⁾ The Sm@rtServer and the WinCC flexible/ProAgent option cannot be used simultaneously on TP/OP/MP 270/370. Parallel operation of the runtime options ProAgent, Sm@rtAccess and Sm@rtService is possible in the context of the MP 277 8" and 10" devices, Mobile Panel 277 as well as the MP 377. Limitation: a maximum of 2 clients can be connected with a Sm@rtServer.

Ordering data

Order No.

WinCC flexible/Sm@rtService for SIMATIC Panels¹⁾	D	
Single license, license key only		6AV6 618-7BB01-3AB0
WinCC flexible/Sm@rtService for WinCC flexible Runtime 2008¹⁾	D	
Single license, license key only		6AV6 618-7BD01-3AB0

D) Subject to export regulations: AL: N and ECCN: 5D992B1

¹⁾ The "WinCC flexible/Sm@rtService for Panel" license or "WinCC flexible/Sm@rtService for WinCC flexible Runtime" license must be installed on the operator panels that use one of the following options: Sm@rtServer, HTML pages, e-mail. The remote service PC and engineering system do not require a license for configuration the runtime option.

More information

Note:

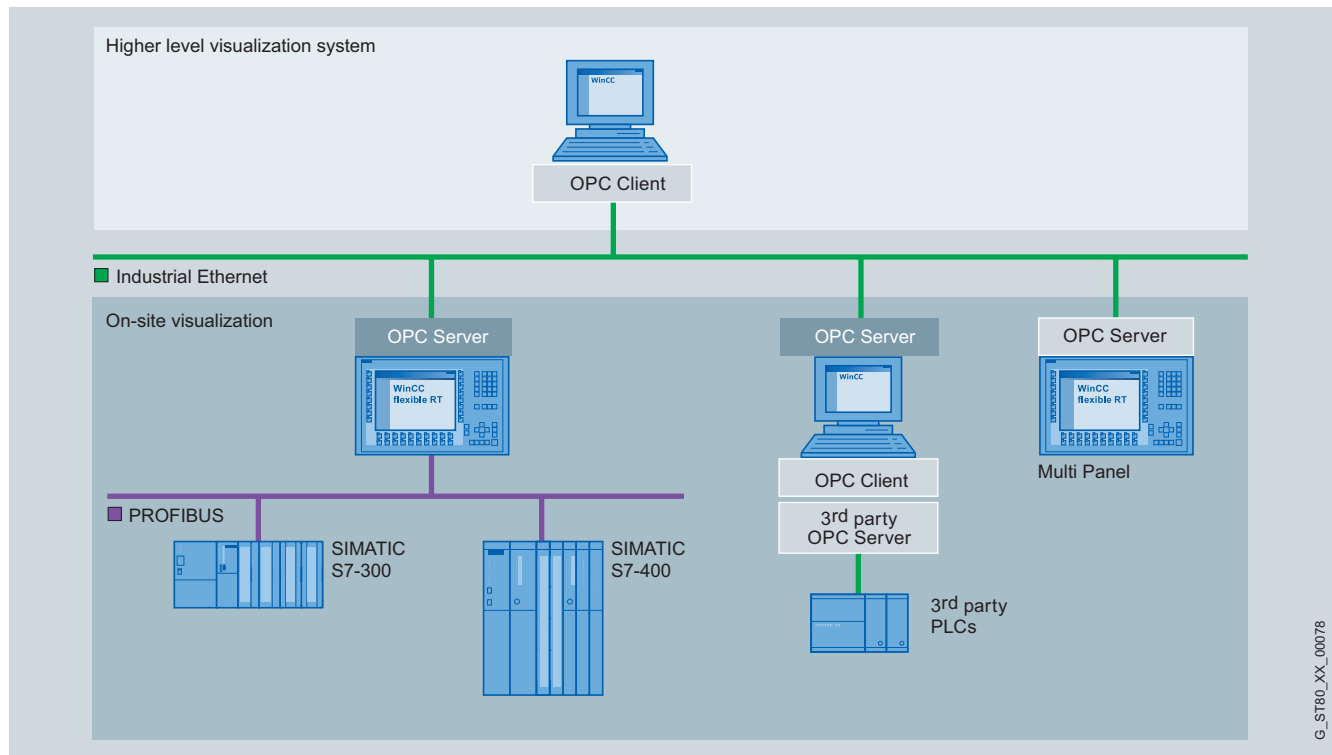
Do you need a specific modification or option for the products described here? Then look up "Customized products", where you will find information about the Open Platform Program for the creation of user-specific functions and controls for WinCC flexible.

HMI Software

SIMATIC WinCC flexible RT options

WinCC flexible /OPC Server

Overview



- Option for SIMATIC WinCC flexible Runtime as well as Multi Panels for communication with applications from different vendors (e.g. MES, ERP, or applications in the office sector)
- Available for the following SIMATIC HMI systems:
 - MP 270B, MP 277, MP 370, MP 377 (use of OPC on XML basis)
 - WinCC flexible Runtime (use of OPC based on DCOM)
- One license is required for each operator station.

Benefits

- Incorporation of automation components from different vendors into an automation concept
- Saving of development costs through communication between automation systems based on a homogeneous, uniform protocol
- Reduction in load on fieldbuses: WinCC flexible Runtime as well as SIMATIC Panels permit a control system, for example, to access the process data. The sensitive field level is not loaded by the control level as far as the communications requirements are concerned. The requirements are processed by WinCC flexible Runtime and the SIMATIC Panels.

Application

OPC (OLE for Process Control) is a standardized, open, uniform and multi-vendor software interface. OPC is based on the Windows technology of COM (Component Object Model), DCOM (Distributed COM) or on XML.

Windows-based systems such as SIMATIC Panel PC or SIMATIC Multi Panels are used for tasks at the machine and process levels, and can communicate with all OPC-compatible applications via Ethernet using TCP/IP and OPC. WinCC flexible Runtime or the SIMATIC Multi Panel (OPC server) provide data for one or more OPC clients. As a result, local visualization and data processing are possible to the same extent as plant-wide calling of information or archiving of process data. Uniform flows of information guarantee an overview of the status of all processes.

Communication with OPC-compatible applications from different vendors (e.g. MES, ERP, or applications in the office sector) is possible.

OPC Foundation

Additional information is available in the Internet under:

<http://www.opcfoundation.org>

HMI Software

SIMATIC WinCC flexible RT options

WinCC flexible /OPC Server

Function

- Use of a visualization system as a data server (OPC server) for higher-level automation components such as control systems or office systems
 - OPC-XML server for multi panels
 - OPC server (DCOM) for WinCC flexible Runtime
- The WinCC flexible engineering system can conveniently select a desired OPC item from the variables function of the OPC server using an OPC browser (component of the OPC server). To do this, the OPC server must be started and must be accessible for the engineering system.

Technical specifications

Type	WinCC flexible/OPC Server
	The specifications are maximum values
Execution platform	
• SIMATIC Multi Panels	MP 270B, MP 277, MP 370, MP 377
• PCs	SIMATIC WinCC flexible Runtime
OPC server	
• XML server for Multi Panels	Supports the OPC XML Data Access specification V1.0 ¹⁾
• DCOM server for WinCC flexible Runtime	Supports the OPC Data Access specification V1.0a and V2.0
• Number of connections that an OPC server can accommodate	8

¹⁾ Data access via XML has a functional scope that is similar to OPC Data Access. A software adapter is required that must be installed on the OPC client PC to enable DCOM-based OPC clients to access the OPC XML server without any modification. The software adapter is supplied with WinCC flexible Engineering and Runtime.

Ordering data

	Order No.
WinCC flexible/OPC Server for SIMATIC Multi Panels¹⁾ D	
Single license, license key only	6AV6 618-7CC01-3AB0
WinCC flexible/OPC server for WinCC flexible Runtime 2008¹⁾ D	
Single license, license key only	6AV6 618-7CD01-3AB0

D) Subject to export regulations: AL: N and ECCN: 5D992B1

¹⁾ A license is required for each operator station.
The engineering system does not require a license for configuration the runtime option.

More information

Note:

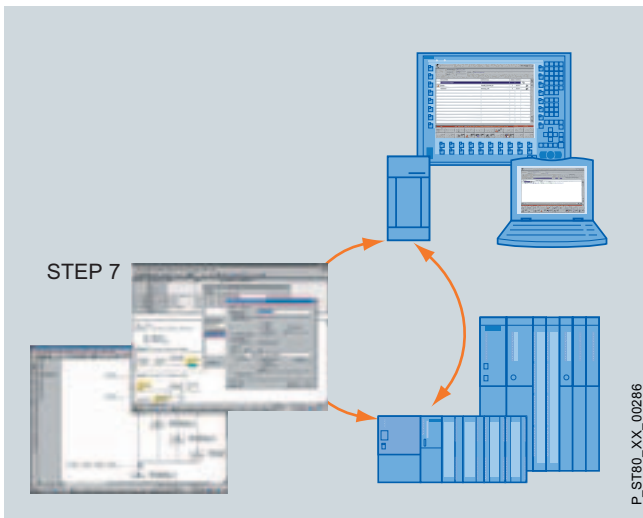
Do you need a specific modification or option for the products described here? Then look up "Customized products", where you will find information about the Open Platform Program for the creation of user-specific functions and controls for WinCC flexible.

HMI Software

SIMATIC WinCC flexible RT options

WinCC flexible /ProAgent

Overview



- Targeted and rapid process diagnostics in plants and machines for SIMATIC S7 and SIMATIC HMI
- Standardized diagnostics concept for various SIMATIC components
- No further configuration overhead for diagnostics functionality
- Frees up PLC capacity with regard to memory and program execution time

Note:

For further information, refer to "SIMATIC ProAgent process diagnostics software".

Ordering data

Order No.

WinCC flexible /ProAgent

Software option package for process diagnostics based on S7-PDIAG V5.3 and higher, S7-HighGraph V5.3 and higher, S7-GRAPH V5.3 and higher; functional enhancement for SIMATIC WinCC flexible; electronic documentation in English, French, German, Italian and Spanish

- **WinCC flexible /ProAgent for SIMATIC Panels¹⁾** D **6AV6 618-7DB01-3AB0**
Runtime license (Single License) executable on: TP/OP 270, Mobile Panel 277, TP/OP 277, MP 270B, MP277, and MP 377
- **WinCC flexible /ProAgent for WinCC flexible Runtime 2008¹⁾** D **6AV6 618-7DD01-3AB0**
Runtime license (Single License)

D) Subject to export regulations: AL: N and ECCN: 5D992B1

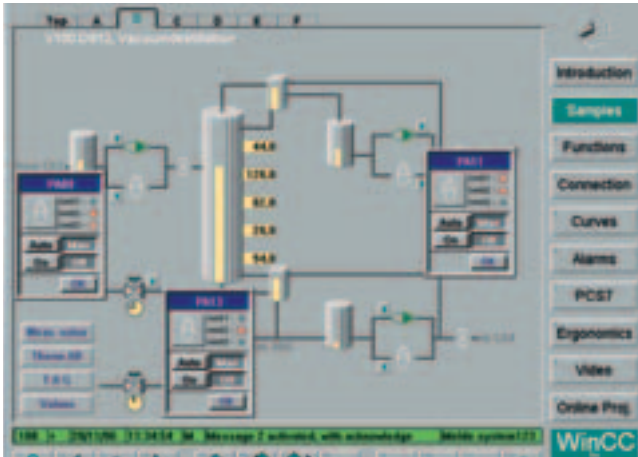
¹⁾ One license is required for each operator station.
The engineering system does not require a license for configuring the runtime option.

More information

Note:

Do you need a specific modification or option for the products described here? Then look up "Customized products", where you will find information about the Open Platform Program for the creation of user-specific functions and controls for WinCC flexible.

Overview



- PC-based operator control and monitoring system for visualizing and operating processes, production flows, machines and plants in all sectors - from the simple single-user station through to distributed multi-user systems with redundant servers and cross-location solutions with Web clients. WinCC is the information hub for corporation-wide vertical integration.
- The basic system configuration (WinCC basic software) includes industry-standard functions for signaling and acknowledging events, archiving of messages and measured values, logging of all process and configuration data, user administration and visualization.
- The WinCC basic software forms the core of a wide range of different applications. Based on the open programming interfaces, a wide range of WinCC options (from Siemens Industry Automation) and WinCC add-ons have been developed (by Siemens-internal and external partners).
- WinCC can be operated with every PC that meets the given HW requirements. The product range of the SIMATIC Panel PC and SIMATIC Rack PC is available in particular for the industrial usage of WinCC systems. SIMATIC PCs stand out due to their powerful PC technology, are designed for round-the-clock operation, and can be operated in both harsh industrial environments and office areas.

Current versions:

- **SIMATIC WinCC V7.0:**
Executable with
 - Windows VISTA 32-bit Ultimate, Business and Enterprise
 - Windows XP Professional
 - Windows 2003 Server and Windows 2003 Server R2
 Contains the Microsoft SQL Server 2005 SP2
- **SIMATIC WinCC V6.2 SP2:**
Executable with
 - Windows XP Professional
 - Windows 2000 Professional
 - Windows Server 2003 and Windows Server 2003 R2
 Contains the Microsoft SQL Server 2005 SP1

Benefits

- All-purpose
 - Solutions for all sectors
 - Multilingual for worldwide usage
 - Can be integrated into all automation solutions
- All HMI functions on board
 - User administration
 - Operator control and monitoring
 - Reporting, acknowledging, and archiving of events
 - Acquisition, compression and archiving of measured values (incl. long-term backup)
 - Logging and documenting of process and configuration data
- Can be configured simply and efficiently
 - Configuration wizards let the user focus on the essentials
 - In the picture by means of cross-reference lists and screen property displays
 - Configuration of multilingual applications
 - Configuring tool for configuring bulk data
- Universally scalable
 - Expandable from single station to client-server configurations
 - Increased availability by means of redundant servers
 - Process visualization via the web with the WinCC WebNavigator
- Open standards for simple integration
 - Efficient real-time database MS SQL Server 2005
 - Open for application modules with ActiveX controls
 - Visual Basic for Applications for individual expansions
 - OPC for cross-vendor communication
- Process visualization with Plant Intelligence
 - Integrated high-performance Historian on the basis of the Microsoft SQL Server 2005
 - Integrated evaluation functions for the online analysis (statistical process control)
 - Production optimization with the help of diverse options
- Expandable using options and add-ons
 - Options for scalable configurations
 - Options for increasing the availability
 - Options for IT & business integration
 - Options for SCADA expansions
 - Options for validation in accordance with FDA 21 CFR Part 11
- Part of Totally Integrated Automation
 - Direct access to the tag and message configuration of the SIMATIC control system
 - Integrated diagnostic functions for increasing productivity

HMI Software

SCADA system SIMATIC WinCC

SIMATIC WinCC

Benefits (continued)

Innovations of V7.0

Innovated runtime user interface

- New graphical options such as transparency, color gradients, shades, and much more
- Central management of switching between graphic designs
- Central management of switching between color palettes
- New graphical objects: combo boxes, list boxes, text fields with multiple lines, multimedia control and much more

New, revised runtime controls

- An unlimited number of alarms can be displayed in Alarm Control
- User-specific filter options in Alarm Control
- Identical, expanded layout for messages, trend curves, tables and UserArchive Control

New, centrally modifiable graphic objects/faceplates

- New, easy to configure faceplates with the option of centralized modification.
- Can be used and configured on a cross-project basis in the Graphics Designer

Additional configuration options

- Can run as service and is thus suitable for use in existing IT server environments.
- The standard client without Microsoft SQL Server installation reduces the installation costs and the hardware requirements
- Revised and simplified WinCC setup with one-click installation option

Improved support for multi-language projects

- New, central editor for importing and exporting all WinCC texts
- New filter mechanisms in the text library for simplified management of texts

SIMATIC Logon centralized user administration (included in the scope of supply)

... and more

Application

SIMATIC WinCC is designed for visualization and operation of processes, manufacturing cycles, machines and plants. With its powerful process interface, especially to the SIMATIC family, and the secure data archiving, WinCC enables highly available solutions for the process control.

The sector-neutral basic system enables universal usage in all automation applications. Sector-specific solutions can, for example, be implemented using WinCC options (e.g. FDA options for the pharmaceutical industry) and sector-specific add-ons (e.g. for the water industry).

Design

SIMATIC WinCC is available as a complete package and as a runtime package with 128, 512, 2048, 8192, 65536, 102400, 153600, 262144 PowerTags¹⁾. PowerTags are data points that are connected to controllers or other data sources over a WinCC channel. Up to 32 alarms can be obtained from one data point. Moreover, internal tags without coupling are available for additional system performance. In addition WinCC also contains 512 archive tags. Individual archive licenses can be obtained for greater quantity structures.

Licenses for a multi-user configuration

The system software with the required number of PowerTags and additionally the option WinCC/server must be installed on the server. In the basic configuration, an RT128 license is sufficient for the clients. In order to configure on clients, an RC128 license is required.

¹⁾ V6: 128, 256, 1024, 8192, 65536 PowerTags

Function

The powerful configuration functions of SIMATIC WinCC contribute to a reduced engineering and training overhead and lead to a more flexible use of personnel and greater operational reliability. Whoever is familiar with Microsoft Windows can also operate the WinCC Explorer, the central switching point of WinCC.

In combination with other SIMATIC components, the system is also equipped with auxiliary functions such as process diagnostics and maintenance. All SIMATIC engineering tools work together in the configuration of the functions.

SIMATIC WinCC offers a complete basic functionality for process visualization and operation. To this end WinCC has a number of editors and interfaces that can be used to individually configure this functionality according to the respective application. Expansions of a WinCC station for control tasks are also possible with minimal engineering effort.

Function (continued)

WinCC editors	Task or configurable runtime functionality
WinCC Explorer	Central project management for the quick access to all project data and central settings
WinCC Graphics Designer	Graphics system for user-defined visualization and operation via pixel-graphic objects
WinCC Alarm Logging	Signaling system for detecting and archiving events with display and control options according to DIN 19235; freely selectable message classes, message display and logging
WinCC Tag Logging	Process archiving for the acquisition, compression and storage of measured values, e.g., presentation in trend and table format as well as further processing
WinCC Report Designer	Reporting and logging system for time and event-controlled documentation of messages, operator inputs and current process data in the form of user reports or project documentation in an arbitrary layout
WinCC User Administrator	Tool for user-friendly administration of users and authorizations
WinCC Global Script	Processing functions with limitless functionality by means of the use of VBScript and ANSI-C

Interfaces

	Task or configurable runtime functionality
Communication channels	For communication with subordinate controls (SIMATIC protocols, PROFIBUS DP, PROFIBUS FMS, DDE and OPC server included in the scope of delivery)
Standard interfaces	For the open integration of other Windows applications via WinCC, WinCC-OLE-DB, ActiveX, OLE, DDE, OPC, etc.)
Programming ports	For the individual access to data and functions of WinCC and for the integration in user programs with VBA, VB Script, C-API (ODK), C-Script (ANSI-C)

Integration

Integration in company-wide solutions (IT and business integration)

WinCC is strictly based on Microsoft technology, which provides for the greatest possible compatibility and integration ability. ActiveX and .net ¹⁾ controls support technology and sector-specific expansions. Cross-manufacturer communication is also a simply exercise. The reason: WinCC can be used as an OPC client and server, and in addition to access to current process values, it also supports standards such as OPC HDA (Historical Data Access), OPC Alarm & Events, and OPC XML Data Access. Just as important: Visual Basic for Applications (VBA) for user-specific expansions of the WinCC Graphics Designer and Visual Basic Scripting (VBS) as an easy-to-learn, open runtime language. If desired, professional application developers can also use ANSI-C. And the access to the API programming interfaces is really simple with the Open-Development-Kit ODK.

WinCC integrates a powerful and scalable Historian function based on the Microsoft SQL Server 2005 in the basic system. Thus the user is given all possibilities: from high-performance archiving of current process data, to long-term archiving with high data compression, through to a central information turntable in form of a company-wide Process Historian. With the help of the option Central Archive Server, this can be created within the framework of a WinCC solution. Versatile clients and tools for evaluation, the open interfaces, special options (Connectivity Pack, Connectivity Station, IndustrialDataBridge) provide the basis for an effective IT and business integration.

¹⁾ Only supported by WinCC V7.0

Integration in automation solutions

WinCC is an open process visualization system and offers the option of connecting the most diverse control systems.

Released communication software

Only communication software with the listed (or higher) product versions should be used. Corresponding SIMATIC NET upgrades are available for the upgrading of older versions.

HMI Software

SCADA system SIMATIC WinCC

SIMATIC WinCC

Integration (continued)

Number of connectable controls

For the number of the connectable controls via Industrial Ethernet CP 1613, the following applies for a message frame length of 512 bytes:

Type of coupling	Number of nodes
SIMATIC S5 Ethernet Layer 4 + TCP/IP	up to 60
SIMATIC S7 Protocol Suite	up to 64
SIMATIC 505 Ethernet Layer 4 + TCP/IP	up to 60

Via PROFIBUS, a maximum of 8 controls with CP 5611 and a maximum of 44 controls with CP 5613 can be connected. With approx. 10 or more controls, the usage of Industrial Ethernet is recommended.

Mixed mode with different controls

With their multi-protocol stack, the communications processors CP 1613 and CP 5613 allow for the parallel operation of two protocols, e.g. for the mixed operation of different controls via a bus cable. WinCC supports the operation of two similar interface boards only in connection with the channels SIMATIC S5 Ethernet Layer 4 (2 x CP 1613), SIMATIC S7 Protocol Suite (2 x CP 1613, 2 x CP 5613) as well as PROFIBUS DP (4 x CP 5613; each CP 5613 max. 122 slaves). In addition to communication over industrial Ethernet CP 1613 or PROFIBUS CP 5613, one CP 5611 for communication with SIMATIC S7 via MPI can be used in each case.

Client-server communication

The communication between the clients and the server is achieved using the TCP/IP protocol. The construction of a separate PC-LAN is recommended. For small projects with correspondingly small message frame advent, a SIMATIC NET Industrial Ethernet can be used for both process communication (WinCC/Server ↔ PLC) and for the PC-PC communication (WinCC/client ↔ WinCC/server)

Channel-DLL PROFIBUS DP

In accordance with the PROFIBUS standard, DP/slaves are always permanently assigned to a DP master; i.e. a second WinCC station (DP/master) cannot access the same controls (DP/slave) This means that a redundant operation of two WinCC stations is not possible with the use of the PROFIBUS DP coupling.

Connection to controls from other manufacturers:

For the connection of controls from other manufacturers, OPC (OLE for Process Control) is recommended.

Current notes and information about OPC servers from various suppliers can be found at:

<http://www.opcfoundation.org>

WinCC supports the standards:

- OPC Data Access 1.1
- OPC Data Access 2.05a
- OPC Data Access 3.0
- OPC XML Data Access 1.01 (Connectivity Pack/Connectivity Station)
- OPC HDA 1.2 (Connectivity Pack/Connectivity Station)
- OPC A&E 1.1 (Connectivity Pack/Connectivity Station)

Integration (continued)

Coupling overview

Protocol	Description
SIMATIC S7	
SIMATIC S7 Protocol Suite	Channel DLL for S7 functions via MPI, PROFIBUS or Ethernet Layer 4 + TCP/IP
SIMATIC S5	
SIMATIC S5 Ethernet Layer 4	Channel DLL for S5 Layer 4 communication + TCP/IP
SIMATIC S5 Programmer Port AS511	Channel DLL and driver for serial communication with S5 via AS511 protocol to programmers port
SIMATIC S5 Serial 3964R	Channel DLL and driver for serial communication with S5 via RK512 protocol
SIMATIC S5 PROFIBUS-FDL	Channel DLL for S5-FDL
SIMATIC 505	
SIMATIC 505 Serial	Channel DLL and driver for serial communication with 505 via NITP/TBP protocol to SIMATIC 535/545/555/565/575
SIMATIC 505 Ethernet Layer 4	Channel DLL for 505 Layer 4 communication
SIMATIC 505 TCP/IP	Channel DLL for 505 TCP/IP communication
Non-Siemens controllers (from WinCC V7.0)	
Allen Bradley Ethernet IP	Channel DLL and drivers for communication with Allen Bradley ControlLogix controllers via Ethernet TCP/IP with Ethernet IP protocol
Modbus TCP/IP	Channel DLL and drivers for communication with Modiconix controllers via Ethernet TCP/IP with Modbus TCP/IP protocol
Cross-manufacturer	
Windows DDE	Channel DLL for DDE communication, WinCC can acquire data from DDE server applications.
OPC client ¹⁾	Channel DLL for OPC communication, WinCC can acquire data from OPC server applications.
OPC server	Server applications for OPC communication; WinCC provides process data for OPC client
PROFIBUS FMS	Channel DLL for PROFIBUS FMS
PROFIBUS DP	Channel DLL for PROFIBUS DP

¹⁾ Application note:

The parallel usage of the OPC client channel allows, for example, the connection to an SNMP-OPC server for visualization of the data contained there. The SNMP-OPC server enables monitoring of any network components (e.g. switch) that support the protocol SNMP. You can find more information under SIMATIC NET Communications Systems/SNMP OPC Server.

HMI Software

SCADA system SIMATIC WinCC

SIMATIC WinCC

Integration (continued)

Communication components for PG/PC for SIMATIC (for WinCC V7.0)

Industrial Ethernet	SIMATIC S5 Ethernet Layer 4	SIMATIC S5 TCP/IP	SIMATIC S7 Protocol Suite	SIMATIC 505 Ethernet Layer 4	SIMATIC 505 TCP/IP ¹⁾	Order No.
WinCC – channel DLL						
SIMATIC S5 Ethernet Layer 4 Channel DLL for S5 Layer 4 communication + TCP/IP	●	●				Included in the basic package
SIMATIC S7 Protocol Suite Channel DLL for S7 functions			●			Included in the basic package
SIMATIC 505 Ethernet Layer 4 Channel DLL for 505 Layer 4 communication				●		Included in the basic package
SIMATIC 505 TCP/IP¹⁾ Channel DLL for 505 TCP/IP communication					●	Included in the basic package
Communication components for extension of the OS/OP						
CP 1612 PCI card for connecting a PG/PC to Industrial Ethernet (SOFTNET-S7 or SOFTNET-S7 Lean communications software must be ordered separately)		●	●		●	6GK1 161-2AA00
SOFTNET-S7 2007²⁾ communications software for S7 functions (max. 64 connections)		●	●			6GK1 704-1CW70-3AA0
SOFTNET-S7 Lean 2007²⁾³⁾ Communications software for S7 functions (max. 8 connections)		●	●			6GK1 704-1LW70-3AA0
• For Windows XP/2003 Server Vista 32 bit						
CP 1613 PCI card for connecting a PG/PC to Industrial Ethernet (S7-1613 communications software must be ordered separately)	●	●	●	●	●	6GK1 161-3AA00
CP 1613 A2 PCI card (32-bit) for connecting a PG/PC to Industrial Ethernet (S7-1613 communications software required)	●	●	●	●	●	6GK1 161-3AA01
CP 1623 PCI Express card (32-bit) for connecting a PG/PC to Industrial Ethernet (S7-1613 communications software required)	●	●	●	●	●	6GK1 162-3AA00
S7-1613 2007²⁾ communications software for S7 functions and S5/505 Layer 4 communication with TCP/IP	●	●	●	●		6GK1 716-1CB70-3AA0
• For Windows XP/2003 Server/ Vista 32 bit						

- System coupling is possible

¹⁾ Via any interface board with NDIS 3.0 interface; no separate communications software required

²⁾ Upgrade packages, see order data

³⁾ SOFTNET-S7 Lean 2007 included in the scope of supply of WinCC V7.0

Integration (continued)

Communication components for PG/PC for SIMATIC (for WinCC V7.0)

PROFIBUS	SIMATIC S5 PROFIBUS FDL	SIMATIC S7 Protocol Suite	PROFIBUS DP	PROFIBUS FMS	Order No.
<i>WinCC – channel DLL</i>					
SIMATIC S5 PROFIBUS FDL Channel DLL for S5-FDL	●				Included in the basic package
SIMATIC S7 Protocol Suite Channel DLL for S7 functions		●			Included in the basic package
PROFIBUS DP Channel DLL for PROFIBUS DP			●		Included in the basic package
PROFIBUS FMS Channel DLL for PROFIBUS FMS				●	Included in the basic package

Communication components for extension of the OS/OP

CP 5611 A2 PCI card (32 bit) for the connection of PG/PC to PROFIBUS or MPI (communications software included in the WinCC basic package)		●			6GK1 561-1AA01
CP 5621 PCI Express X1 card (32-bit) for connecting a PG/PC to PROFIBUS or MPI		●			6GK1 562-1AA00
CP 5512 PCMCIA card (Cardbus 32 bit) for the connection of PG/PC to PROFIBUS or MPI (communications software included in WinCC basic package)		●			6GK1 551-2AA00
PC/MPI adapter RS 232, 9-pin, pins with RS 232/MPI converter max. 19.2 Kbit/s		●			6ES7 972-0CA23-0XA0
CP 5613 A2 PCI card (32 bit) for connecting a PC to PROFIBUS (S7-5613 communications software or DP-5613 or FMS-5613 required)	●	●	●	●	6GK1 561-3AA01
S7-5613 2007¹⁾ Communications software for S7 functions + FDL • For Windows XP/2003 Server/Vista 32 bit	●	●			6GK1 713-5CB70-3AA0
DP-5613 2007¹⁾ Communication software for DP-Master + FDL • For Windows XP/2003 Server/Vista 32 bit	●		●		6GK1 713-5DB70-3AA0
FMS-5613 2007¹⁾ Communication software for PROFIBUS-FMS + FDL • For Windows XP/2003 Server/Vista 32 bit	●			●	6GK1 713-5FB70-3AA0

- System coupling is possible

¹⁾ See ordering data for upgrade package

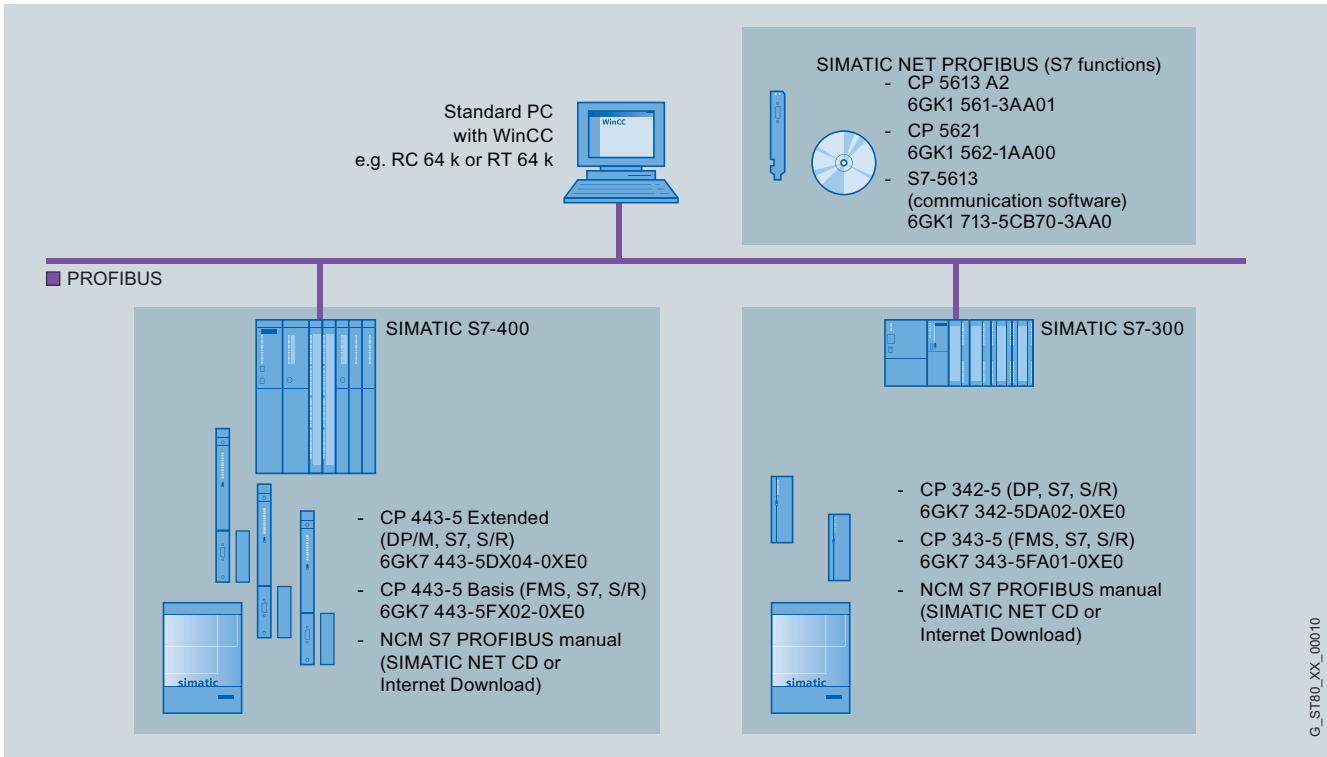
HMI Software SCADA system SIMATIC WinCC

SIMATIC WinCC

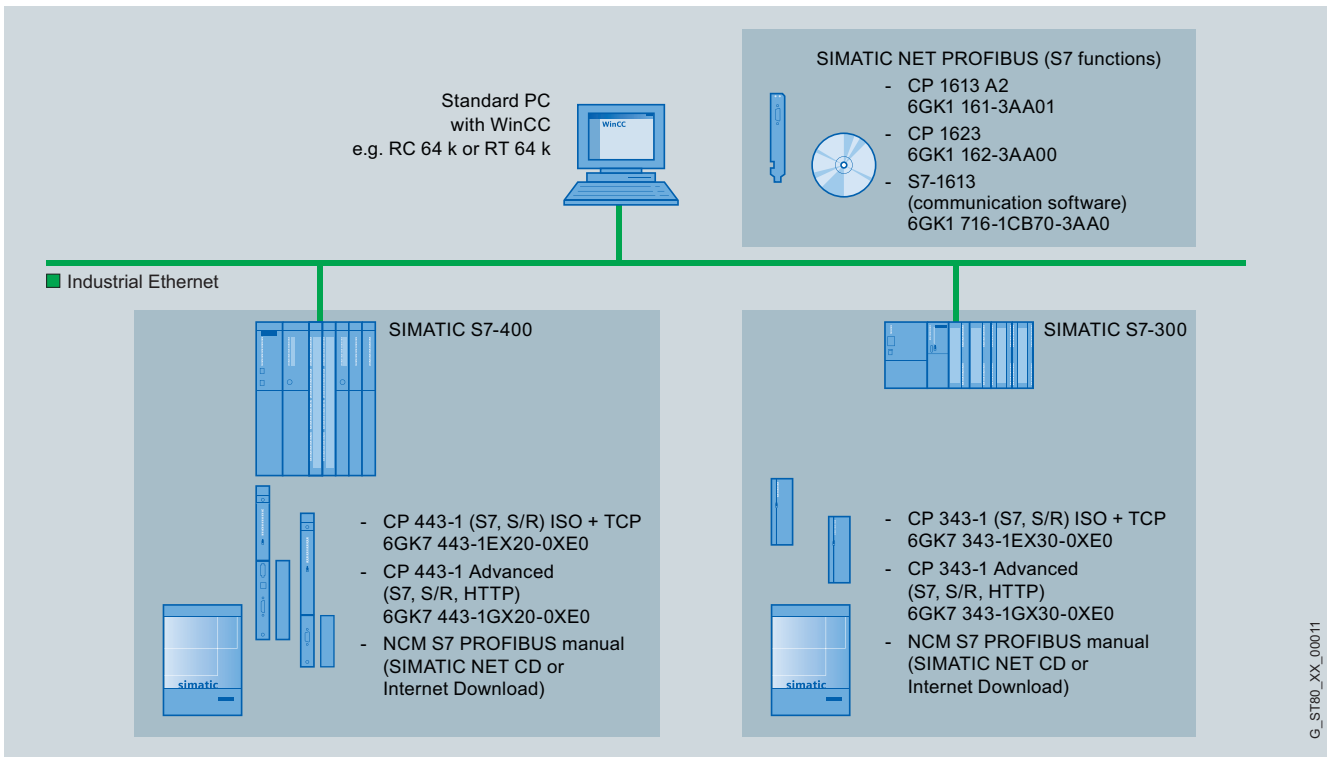
Integration (continued)

Communication examples

4



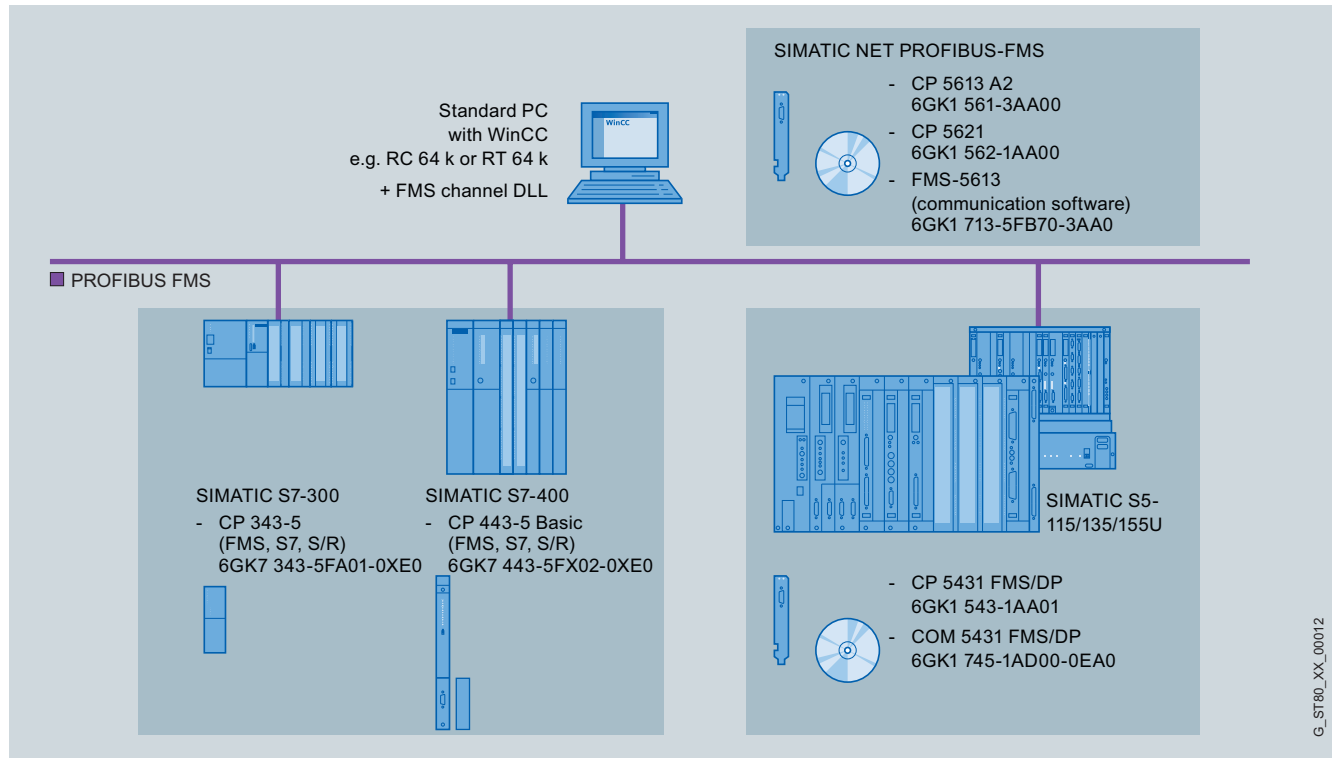
WinCC single-user system: PROFIBUS with S7 communication



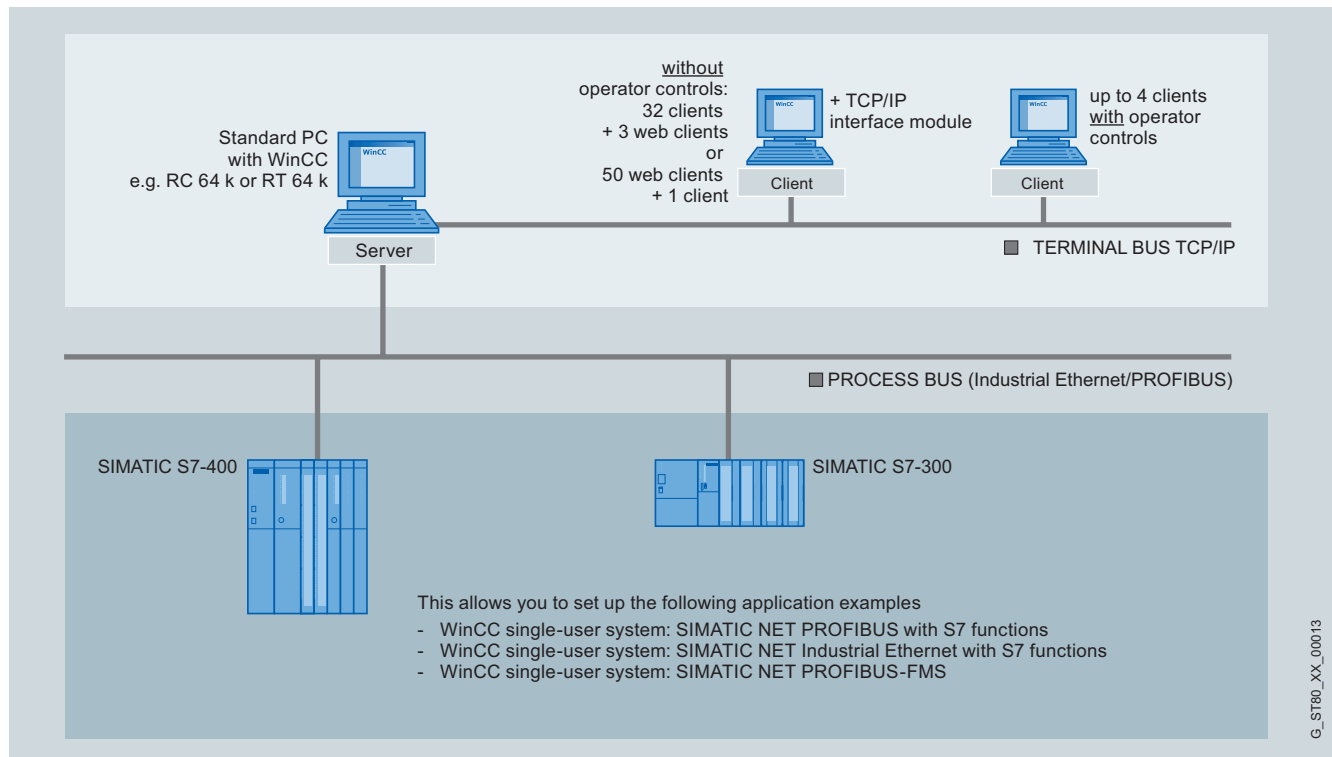
WinCC single-user system: Industrial Ethernet with S7 communication

Integration (continued)

Communication examples (continued)



WinCC single-user system: PROFIBUS FMS



WinCC multi-user system with operable server

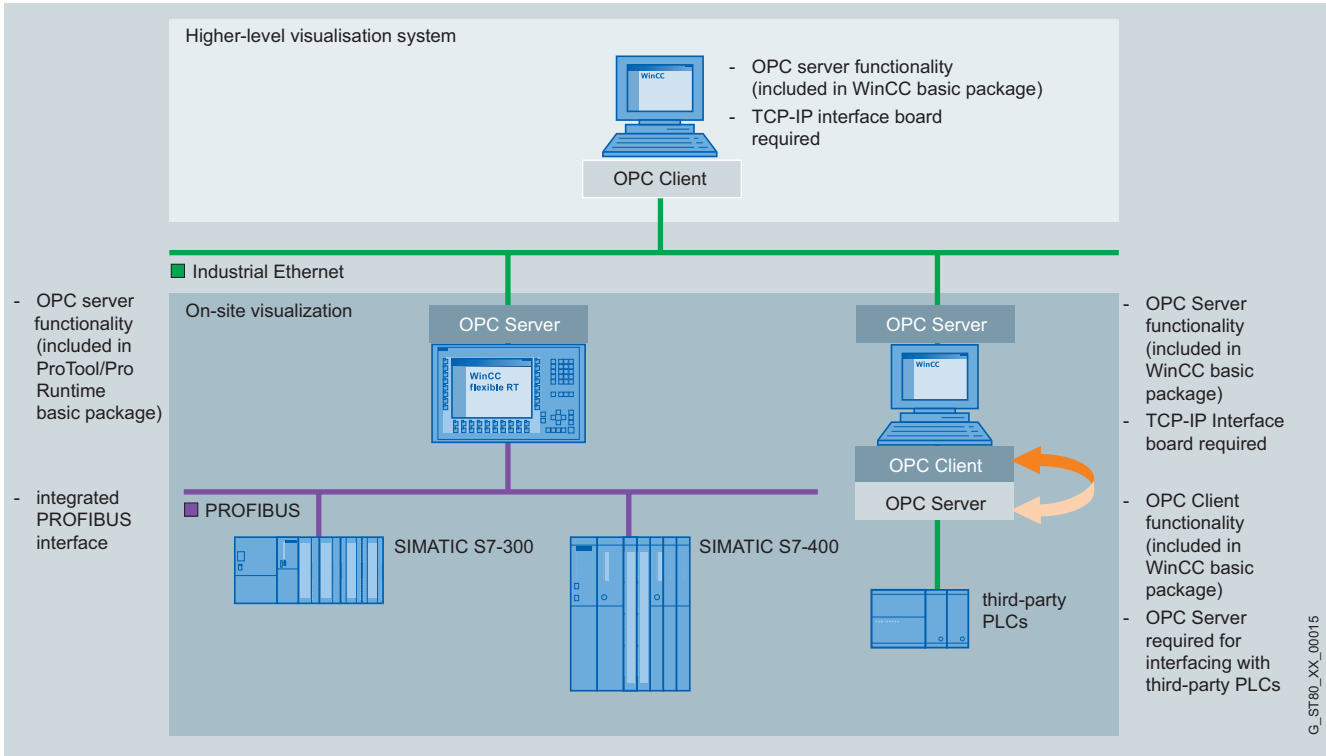
HMI Software SCADA system SIMATIC WinCC

SIMATIC WinCC

Integration (continued)

Communication examples (continued)

4



G_ST180_XX_00015

OPC link

Technical specifications

Type	SIMATIC WinCC V7.0	SIMATIC WinCC V6.2 SP2
Operating system	<ul style="list-style-type: none"> Windows VISTA Ultimate, Business and Enterprise Windows XP Professional SP2 Windows 2003 Server SP2 and Windows 2003 Server R2 SP2 	<ul style="list-style-type: none"> Windows XP Professional SP2 Windows 2000 Professional SP4 Windows Server 2003 SP2 Windows Server 2003 R2 SP2
PC hardware requirements		
Processor type¹⁾		
<ul style="list-style-type: none"> Minimum 	Single-user station/server: Pentium 3, 1 GHz ²⁾ Central Archive Server: Pentium 4, 2.5 GHz Client: Pentium 3, 800 MHz ²⁾ WebClient/DataMonitor Client: Pentium III, 600 MHz ²⁾	Single-user station/server: Pentium III, 1 GHz Central Archive Server: Pentium 4, 2 GHz Client: Pentium III, 600 MHz
<ul style="list-style-type: none"> Recommended 	Single-user station/server: Pentium 4, 2.5 GHz ²⁾ Central Archive Server: Pentium 4 or Dual Core, 3 GHz Client: Pentium 4, 2 GHz ²⁾ WebClient/DataMonitor Client: Pentium III, 1 GHz	Single-user station/server: Pentium 4, 2 GHz Central Archive Server: Pentium 4, 2.5 GHz Client: Pentium III, 1 GHz WebClient/DataMonitor Client: Pentium III, 1 GHz
RAM		
<ul style="list-style-type: none"> Minimum 	Single-user station/server: 1 GB ²⁾ Central Archive Server: 2 GB Client: 512 MB ²⁾ WebClient/DataMonitor Client: 256 MB ²⁾	Single-user station: 512 MB, server: 1 GB Central Archive Server: 1 GB Client: 512 MB WebClient/DataMonitor Client: 256 MB
<ul style="list-style-type: none"> Recommended 	Single-user station/server: 2 GB ²⁾ Central Archive Server: ≥ 2 GB Client: 1 GB ²⁾ WebClient/DataMonitor Client: 512 MB ²⁾	Single-user station: ≥ 1 GB, server: > 1 GB Central Archive Server: ≥ 2 GB Client: 512 MB WebClient/DataMonitor Client: 512 MB
Graphics card		
<ul style="list-style-type: none"> Minimum 	16 MB, 800 x 600 ²⁾	16 MB, 800 x 600
<ul style="list-style-type: none"> Recommended 	32 MB, 1280 x 1024 ²⁾	32 MB, 1280 x 1024
Hard disk		
<ul style="list-style-type: none"> Minimum 	Single-user station/server: 20 GB Client: 5 GB Central Archive Server: 40 GB WebClient/DataMonitor Client: 5 GB	Single-user station/server: 20 GB Client: 5 GB Central Archive Server: 40 GB WebClient/DataMonitor Client: 5 GB
<ul style="list-style-type: none"> Recommended 	Single-user station/server: 80 GB Client: 20 GB Central Archive Server: 2 x 80 GB WebClient/DataMonitor Client: 10 GB	Single-user station/server: 80 GB Client: 20 GB Central Archive Server: 2 x 80 GB WebClient/DataMonitor Client: 10 GB
<ul style="list-style-type: none"> Hard disk (free memory space for installation) 		
<ul style="list-style-type: none"> - Minimum 	Server: >1.5 GB Client: 1.5 GB	Server: 1.5 GB Client: 1 GB
<ul style="list-style-type: none"> - Recommended 	Server: >10 GB Client: >1.5 GB	Server: >10 GB Client: >1.5 GB
CD ROM/DVD ROM/diskette drive/USB interface	for software installation	for software installation

¹⁾ An AMD system with comparable performance can also be used

²⁾ Hardware requirement when using Microsoft XP Professional

HMI Software

SCADA system SIMATIC WinCC

SIMATIC WinCC

Technical specifications (continued)

Type	SIMATIC WinCC	Type	SIMATIC WinCC
Functionality/quantity structure			
Number of messages	150.000	PowerTags	256 K ³⁾
• Message text (number of characters)	10 x 256	Trends	
• Alarm log	> 500,000 messages ¹⁾	• Trend views per image	25
• Process values per message	10	• Trends per trend view	80
• Constant load of messages, max.	Central Archive Server: 100/sec Server/single-user station: 10/s	User administration	
• Message burst, max.	Server/single-user station: 2,000/10 s every 5 min	• User groups	128
Archives		• Number of users	128
• Archive data points	Max. 120,000 per server ²⁾	• Authorization groups	999
• Archive types	Short-term archive with and without long-term archiving	Configuration languages	5 European (Eng., Fr., Ger., It., Sp.), 4 Asian (simpl.+trad. Chi/ Kor/Jpn) ⁵⁾
• Data storage format	Microsoft SQL Server 2005	Protocols	
• Measured values per second, max.	Server/single-user station: 5,000/s	• Message sequence reports (simultaneously)	1 per server/single-user station
User archive		• Message archive reports (simultaneously)	3
• Archives and views	500 each	• User reports	System-limited ¹⁾
• Product consisting of data record and column per user archive	320.000	• Report lines per group	66
• Fields per user archive	500	• Variables per report	300 ⁵⁾
Graphics system		Multi-user system	
• Number of screens	System-limited ¹⁾	• Server	12
• Number of objects per screen	System-limited ¹⁾	• Clients for server with operator station	4
• Number of controllable fields per screen	System-limited ¹⁾	• Clients for server without operator station	32 clients + 3 WebClients or 50 WebClients + 1 client

¹⁾ Dependent on the available storage space

²⁾ Dependent on the number of licensed archive variables

³⁾ Dependent on number of licensed PowerTags

⁴⁾ Asian versions for Version 7 SP1 or higher

⁵⁾ The number of variables per report is dependent on process communication performance

Ordering data

Order No.

SIMATIC WinCC system software V7.0

Runtime packages on DVD

Language/script versions:
DE/EN/FR/IT/ES; with license for

- 128 PowerTags (RT 128)
 - 512 PowerTags (RT 512)
 - 2048 PowerTags (RT 2048)
 - 8192 PowerTags (RT 8192)
 - 65536 PowerTags (RT 65536)
 - 102400 PowerTags (RT 102400)
 - 153600 PowerTags (RT 153600)
 - 262144 PowerTags (RT 262144)
- Incl. 512 archive tags each

- 6AV6 381-2BC07-0AX0**
- 6AV6 381-2BD07-0AX0**
- 6AV6 381-2BE07-0AX0**
- 6AV6 381-2BH07-0AX0**
- 6AV6 381-2BF07-0AX0**
- 6AV6 381-2BJ07-0AX0**
- 6AV6 381-2BK07-0AX0**
- 6AV6 381-2BL07-0AX0**

Order No.

SIMATIC WinCC system software V7.0 (continued)

Complete packages on DVD

Language versions:
DE/EN/FR/IT/ES; with license for

- 128 PowerTags (RC 128)
- 512 PowerTags (RC 512)
- 2048 PowerTags (RC 2048)
- 8192 PowerTags (RC 8192)
- 65536 PowerTags (RC 65536)
- 102400 PowerTags (RT 102400)
- 153600 PowerTags (RT 153600)
- 262144 PowerTags (RT 262144)

- 6AV6 381-2BM07-0AX0**
- 6AV6 381-2BN07-0AX0**
- 6AV6 381-2BP07-0AX0**
- 6AV6 381-2BS07-0AX0**
- 6AV6 381-2BQ07-0AX0**
- 6AV6 381-2BT07-0AX0**
- 6AV6 381-2BU07-0AX0**
- 6AV6 381-2BV07-0AX0**

Ordering data (continued)	Order No.	Order No.	
SIMATIC WinCC V7.0 PowerPacks		SIMATIC WinCC Upgrade/Comprehensive Support	
For upgrading from:		SIMATIC WinCC V7 upgrade¹⁾	
Runtime packages		For upgrading the RT version	
• 128 to 512 PowerTags	6AV6 371-2BD07-0AX0	• from V6.0 to V7.0	B 6AV6 381-2AA07-0AX4
• 128 to 2048 PowerTags	6AV6 371-2BE07-0AX0	• from V6.2 to V7.0	B 6AV6 381-2AA07-0AX3
• 128 to 8192 PowerTags	6AV6 371-2BK07-0AX0	For upgrading the Client RT version	
• 128 to 65536 PowerTags	6AV6 371-2BF07-0AX0	• from V6.0 to V7.0	B 6AV6 381-2BC07-0AX4
• 512 to 2048 PowerTags	6AV6 371-2BG07-0AX0	• from V6.2 to V7.0	B 6AV6 381-2BC07-0AX3
• 512 to 8192 PowerTags	6AV6 371-2BL07-0AX0	For upgrading the RC version	
• 512 to 65536 PowerTags	6AV6 371-2BH07-0AX0	• from V6.0 to V7.0	B 6AV6 381-2AB07-0AX4
• 2048 to 8192 PowerTags	6AV6 371-2BM07-0AX0	• from V6.2 to V7.0	B 6AV6 381-2AB07-0AX3
• 2048 to 65536 PowerTags	6AV6 371-2BJ07-0AX0	SIMATIC WinCC Comprehensive Support²⁾³⁾	
• 8192 to 65536 PowerTags	6AV6 371-2BN07-0AX0	Software Update Service for WinCC basic software and options:	
• 65536 to 102400 PowerTags	6AV6 371-2BP07-0AX0	• 1 license	6AV6 381-1AA00-0AX5
• 102400 to 153600 PowerTags	6AV6 371-2BQ07-0AX0	• 3 licenses	6AV6 381-1AA00-0BX5
• 153600 to 262144 PowerTags	6AV6 371-2BR07-0AX0	• 10 licenses	6AV6 381-1AA00-0CX5
Complete packages		SIMATIC WinCC V6.2 SP2 system software	
• 128 to 512 PowerTags	6AV6 371-2BD17-0AX0	Runtime packages on CD-ROM	
• 128 to 2048 PowerTags	6AV6 371-2BE17-0AX0	Language/script versions: DE/EN/FR/IT/ES; with license for	
• 128 to 8192 PowerTags	6AV6 371-2BK17-0AX0	• 128 PowerTags (RT 128)	6AV6 381-1BC06-2AX0
• 128 to 65536 PowerTags	6AV6 371-2BF17-0AX0	• 256 PowerTags (RT 256)	6AV6 381-1BD06-2AX0
• 512 to 2048 PowerTags	6AV6 371-2BG17-0AX0	• 1024 PowerTags (RT 1024)	6AV6 381-1BE06-2AX0
• 512 to 8192 PowerTags	6AV6 371-2BL17-0AX0	• 8192 PowerTags (RT 8192)	6AV6 381-1BH06-2AX0
• 512 to 65536 PowerTags	6AV6 371-2BH17-0AX0	• 65536 PowerTags (RT 65536)	6AV6 381-1BF06-2AX0
• 2048 to 8192 PowerTags	6AV6 371-2BM17-0AX0	Incl. 512 archive tags each	
• 2048 to 65536 PowerTags	6AV6 371-2BJ17-0AX0	Complete packages on CD-ROM	
• 8192 to 65536 PowerTags	6AV6 371-2BN17-0AX0	Language versions: DE/EN/FR/IT/ES; with license for	
• 65536 to 102400 PowerTags	6AV6 371-2BP17-0AX0	• 128 PowerTags (RC 128)	6AV6 381-1BM06-2AX0
• 102400 to 153600 PowerTags	6AV6 371-2BQ17-0AX0	• 256 PowerTags (RC 256)	6AV6 381-1BN06-2AX0
• 153600 to 262144 PowerTags	6AV6 371-2BR17-0AX0	• 1024 PowerTags (RC 1024)	6AV6 381-1BP06-2AX0
SIMATIC WinCC V7.0 Archive		• 8192 PowerTags (RC 8192)	6AV6 381-1BS06-2AX0
• 1500 archives	6AV6 371-1DQ17-0AX0	• 65536 PowerTags (RC 65536)	6AV6 381-1BQ06-2AX0
• 5000 archives	6AV6 371-1DQ17-0BX0	Incl. 512 archive tags each	
• 10000 archives	6AV6 371-1DQ17-0CX0		
• 30000 archives	6AV6 371-1DQ17-0EX0		
• 80000 archives	6AV6 371-1DQ17-0GX0		
• 120000 archives	6AV6 371-1DQ17-0JX0		
SIMATIC WinCC V7.0 Archive PowerPacks			
For upgrading archiving from:			
• 1500 to 5000 archive tags	6AV6 371-1DQ17-0AB0		
• 5000 to 10000 archive tags	6AV6 371-1DQ17-0BC0		
• 10000 to 30000 archive tags	6AV6 371-1DQ17-0CE0		
• 30000 to 80000 archive tags	6AV6 371-1DQ17-0EG0		
• 80000 to 120000 archive tags	6AV6 371-1DQ17-0GJ0		

¹⁾ According to licensing provisions, 1 upgrade package must be ordered for each WinCC station

²⁾ Comprehensive Support runs for 1 year. The contract is automatically extended by 1 more year unless canceled 3 months prior to expiration. According to licensing provisions, 1 Comprehensive Support package must be ordered for each WinCC station.

³⁾ Requires the current software version

B) Subject to export regulations: AL: N and ECCN: EAR99S

HMI Software

SCADA system SIMATIC WinCC

SIMATIC WinCC

Ordering data (continued)

Order No.

SIMATIC WinCC V6.2 SP2 ASIA system software

Runtime packages on CD-ROM

Language versions: English/simplified and traditional Chinese/Korean/Taiwanese/Japanese; with license for

- 128 PowerTags (RT 128)
- 256 PowerTags (RT 256)
- 1024 PowerTags (RT 1024)
- 8192 PowerTags (RT 8192)
- 65536 PowerTags (RT Max)

6AV6 381-1BC06-2AV0
6AV6 381-1BD06-2AV0
6AV6 381-1BE06-2AV0
6AV6 381-1BH06-2AV0
6AV6 381-1BF06-2AV0

Incl. 512 archive tags each

Complete packages on CD-ROM

Language versions: English/simplified and traditional Chinese/Korean/Taiwanese/Japanese; with license for

- 128 PowerTags (RC 128)
- 256 PowerTags (RC 256)
- 1024 PowerTags (RC 1024)
- 8192 PowerTags (RC 8192)
- 65536 PowerTags (RC Max)

6AV6 381-1BM06-2AV0
6AV6 381-1BN06-2AV0
6AV6 381-1BP06-2AV0
6AV6 381-1BS06-2AV0
6AV6 381-1BQ06-2AV0

Incl. 512 archive tags each

SIMATIC WinCC V6.2 PowerPacks

For upgrading from:

Runtime packages

- 128 to 256 PowerTags
- 128 to 1024 PowerTags
- 128 to 8192 PowerTags
- 128 to 65536 PowerTags
- 256 to 1024 PowerTags
- 256 to 8192 PowerTags
- 256 to 65536 PowerTags
- 1024 to 8192 PowerTags
- 1024 to 65536 PowerTags
- 8192 to 65536 PowerTags

6AV6 371-1BD06-2AX0
6AV6 371-1BE06-2AX0
6AV6 371-1BK06-2AX0
6AV6 371-1BF06-2AX0
6AV6 371-1BG06-2AX0
6AV6 371-1BL06-2AX0
6AV6 371-1BH06-2AX0
6AV6 371-1BM06-2AX0
6AV6 371-1BJ06-2AX0
6AV6 371-1BN06-2AX0

Complete packages

- 128 to 256 PowerTags
- 128 to 1024 PowerTags
- 128 to 8192 PowerTags
- 128 to 65536 PowerTags
- 256 to 1024 PowerTags
- 256 to 8192 PowerTags
- 256 to 65536 PowerTags
- 1024 to 8192 PowerTags
- 1024 to 65536 PowerTags
- 8192 to 65536 PowerTags

6AV6 371-1BD16-2AX0
6AV6 371-1BE16-2AX0
6AV6 371-1BK16-2AX0
6AV6 371-1BF16-2AX0
6AV6 371-1BG16-2AX0
6AV6 371-1BL16-2AX0
6AV6 371-1BH16-2AX0
6AV6 371-1BM16-2AX0
6AV6 371-1BJ16-2AX0
6AV6 371-1BN16-2AX0

¹⁾ According to licensing provisions, 1 upgrade package must be ordered for each WinCC station.

Order No.

SIMATIC WinCC V6.2 Archive

- 1500 archives
- 5000 archives
- 10000 archives
- 30000 archives
- 80000 archives
- 120000 archives

6AV6 371-1DQ16-2AX0
6AV6 371-1DQ16-2BX0
6AV6 371-1DQ16-2CX0
6AV6 371-1DQ16-2EX0
6AV6 371-1DQ16-2GX0
6AV6 371-1DQ16-2JX0

SIMATIC WinCC V6.2 Archive PowerPacks

For upgrading archiving from

- 1500 to 5000 archive tags
- 5000 to 10000 archive tags
- 10000 to 30000 archive tags
- 30000 to 80000 archive tags
- 80000 to 120000 archive tags

6AV6 371-1DQ16-2AB0
6AV6 371-1DQ16-2BC0
6AV6 371-1DQ16-2CE0
6AV6 371-1DQ16-2EG0
6AV6 371-1DQ16-2GJ0

SIMATIC WinCC V6.2 upgrade¹⁾

For upgrading the RT version

- from V5.x to V6.2 SP2 B
- from V6.x to V6.2 SP2 B
- from V5.x ASIA to V6.2 SP2 ASIA B
- from V6.x ASIA to V6.2 SP2 ASIA B

6AV6 381-1AA06-2AX4
6AV6 381-1AA06-2AX3
6AV6 381-1AA06-2AV4
6AV6 381-1AA06-2AV3

For upgrading the RC version

- from V5.x to V6.2 SP2 B
- from V6.x to V6.2 SP2 B
- from V5.x ASIA to V6.2 SP2 ASIAB
- from V6.x ASIA to V6.2 SP2 ASIAB

6AV6 381-1AB06-2AX4
6AV6 381-1AB06-2AX3
6AV6 381-1AB06-2AV4
6AV6 381-1AB06-2AV3

SIMATIC WinCC documentation (to be ordered separately)

SIMATIC WinCC V6 Communication Manual

Communication manual for process communication and OPC communication from WinCC V6

- German
- English

6AV6 392-1CA06-0AA0
6AV6 392-1CA06-0AB0

B) Subject to export regulations: AL: N and ECCN: EAR99S

Ordering data (continued)	Order No.	Order No.	
Communication via Industrial Ethernet		Communication via Industrial Ethernet (continued)	
SOFTNET-S7 Edition 2007 Software for S7 and S5-compatible communication, incl. OPC server, PG/OP communication and NCM PC; up to 64 connections, single license for 1 installation, runtime software, software and electronic manual on CD-ROM, license key on USB stick, Class A, for 32-bit: Windows XP Professional, Windows 2003 Server, VISTA Ultimate/Business; for CP 1612; German/English		S7-1613 Edition 2007 Software for S7 and S5-compatible communication, incl. OPC server, PG/OP communication and NCM PC; up to 120 connections, single license for 1 installation, runtime software, software and electronic manual on CD-ROM, license key on USB stick, Class A, for 32-bit: Windows XP Professional, Windows 2003 Server, Windows VISTA Ultimate/Business; for CP 1613, CP 1613 A2, CP1623; German/English	
<ul style="list-style-type: none"> • Single license for 1 installation 	D 6GK1 704-1CW70-3AA0	<ul style="list-style-type: none"> • Single license for 1 installation 	D 6GK1 716-1CB70-3AA0
<ul style="list-style-type: none"> • Upgrade package for SIMATIC NET Edition 2006 	D 6GK1 704-1CW00-3AE0	<ul style="list-style-type: none"> • Upgrade package for SIMATIC NET Edition 2006 	D 6GK1 716-1CB00-3AE0
<ul style="list-style-type: none"> • Upgrade package for SIMATIC NET V6.0, V6.1, V6.2 and Edition 2005 	D 6GK1 704-1CW00-3AE1	<ul style="list-style-type: none"> • Upgrade package for SIMATIC NET V6.0, V6.1, V6.2 and Edition 2005 	D 6GK1 716-1CB00-3AE1
SOFTNET-S7 Lean Edition 2007 (included in the scope of delivery of WinCC V7.0) Software for S7 and S5-compatible communication, incl. OPC server, PG/OP communication and NCM PC; up to 8 connections, single license for 1 installation, runtime software, software and electronic manual on CD-ROM, license key on USB stick, Class A, for 32-bit: Windows XP Professional, Windows 2003 Server, VISTA Ultimate/Business; for CP 1612; German/English		Communication via PROFIBUS	
<ul style="list-style-type: none"> • Single license for 1 installation 	D 6GK1 704-1LW70-3AA0	CP 5611 A2	6GK1 561-1AA01
<ul style="list-style-type: none"> • Upgrade package for SIMATIC NET Edition 2006 	D 6GK1 704-1LW00-3AE0	PCI card (32 bit) for connecting a PG/PC to PROFIBUS (communications software included in the WinCC basic package)	
<ul style="list-style-type: none"> • Upgrade package for SIMATIC NET V6.0, V6.1, V6.2 and Edition 2005 	D 6GK1 704-1LW00-3AE1	CP 5621	T 6GK1 562-1AA00
CP 1613 A2	6GK1 161-3AA01	PCI Express card (32-bit) for connecting a PG/PC to PROFIBUS (communications software included in the WinCC basic package)	
PCI card (32 bit) for the connection of PG/PC to Industrial Ethernet (communications software must be ordered separately)		CP 5611 MPI	A 6GK1 561-1AM01
CP 1623	Q 6GK1 162-3AA00	Comprising CP 5611 A2 and MPI cable, 5 m	
PCI Express card (32 bits) for connecting a PG/PC to Industrial Ethernet (communications software must be ordered separately)		CP 5621 MPI	T 6GK1 562-1AM00
		Comprising CP 5621 (32-bit) and MPI cable, 5 m	
		CP 5512	6GK1 551-2AA00
		PCMCIA card (CARDBUS 32 bit) for the connection of a PG/notebook to PROFIBUS or MPI (communications software included in WinCC basic package)	
		PC/MPI adapter	6ES7 972-0CA23-0XA0
		RS 232, 9-pin; male with RS 232/MPI converter, max. 19.2 Kbit/s	
		CP 5613 A2	6GK1 561-3AA01
		PCI card (32-bit) for connecting a PC to PROFIBUS (communications software must be ordered separately).	

A) Subject to export regulations: AL: N and ECCN: EAR99H

D) Subject to export regulations: AL: N and ECCN: 5D992B1

Q) Subject to export regulations: AL: N and ECCN: 5A991X

T) Subject to export regulations: AL: 5A002A1A2 and ECCN: 5A002A1A2

HMI Software

SCADA system SIMATIC WinCC

SIMATIC WinCC

Ordering data (continued)

Order No.

Communication via PROFIBUS (continued)

S7-5613 Edition 2007

Software for S7 Communication incl. PG/OP protocol, FDL, OPC server; runtime software, software and electronic manual on CD-ROM, license key on USB stick, Class A, for 32-bit: Windows XP Professional, Windows 2003 Server, Windows VISTA Ultimate/Business; for CP 5613 A2; German/English

- Single license for 1 installation D **6GK1 713-5CB70-3AA0**
- Upgrade package for SIMATIC NET Edition 2006 D **6GK1 713-5CB00-3AE0**
- Upgrade package for SIMATIC NET V6.0, V6.1, V6.2 and Edition 2005 **6GK1 713-1CB00-3AE1**

DP-5613 Edition 2007

Software for DP protocol incl. PG/OP communication, FDL, OPC server, runtime software, software and electronic manual on CD-ROM, license key on USB stick, Class A, for 32-bit: Windows XP Professional, Windows 2003 Server, Windows VISTA Ultimate/Business; for CP 5613 A2; German/English

- Single license for 1 installation D **6GK1 713-5DB70-3AA0**
- Upgrade package for SIMATIC NET Edition 2006 D **6GK1 713-5DB00-3AE0**
- Upgrade package for SIMATIC NET V6.0, V6.1, V6.2 and Edition 2005 **6GK1 713-1DB00-3AE1**

- A) Subject to export regulations: AL: N and ECCN: EAR99H
 D) Subject to export regulations: AL: N and ECCN: 5D992B1
 H) Subject to export regulations: AL: N and ECCN: 7A994A

Order No.

Communication via PROFIBUS (continued)

FMS-5613 Edition 2007

Software for FMS protocol incl. PG/OP communication, FDL, OPC server, runtime software, software and electronic manual on CD-ROM, license key on USB stick, Class A, for 32-bit: Windows XP Professional, Windows 2003 Server, Windows VISTA Ultimate/Business; for CP 5613 A2; German/English

- Single license for 1 installation D **6GK1 713-5FB70-3AA0**
- Upgrade package for SIMATIC NET Edition 2006 D **6GK1 713-5FB00-3AE0**
- Upgrade package for SIMATIC NET V6.0, V6.1, V6.2 and Edition 2005 D **6GK1 713-5FB00-3AE1**

Hardware for process control functions

DCF-77 receiver

for time synchronization

- DCF77 (Europe) **2XV9 450-1AR14**
- GPS (worldwide) H **2XV9 450-1AR13**

Multi-VGA

- 2 screens A **6ES7 652-0XX03-1XE0**
- 4 screens A **6ES7 652-0XX03-1XE1**

Note:

For further information about process control options, see Catalog ST PCS 7

More information

WinCC language versions

SIMATIC WinCC is also offered in simplified Chinese, traditional Chinese, Korean and Japanese especially for Asian markets. These WinCC versions are intended for machine manufacturers, plant constructors and exporters who supply the regions of China, Taiwan, Korea and Japan.

WinCC ASIA includes all familiar WinCC functions and offers in addition the configuration user interface in the respective national language and English. The online Help is available in simplified Chinese, traditional Chinese, Korean, Japanese and English. A Chinese, Korean, Japanese or multilingual Windows operating system is required for operation.

WinCC ASIA is delivered on a separate DVD which contains all of the above mentioned language versions. The corresponding documentation can be obtained from the national subsidiaries in China, Korea, Taiwan and Japan.

The runtime licenses are language-neutral. The English handling program (Automation License Manager – ALM) is executable under the Chinese, Korean and Japanese Windows versions.

Additional information is available in the Internet under:

<http://www.siemens.com/wincc>

Separate configurators are available for PC hardware:

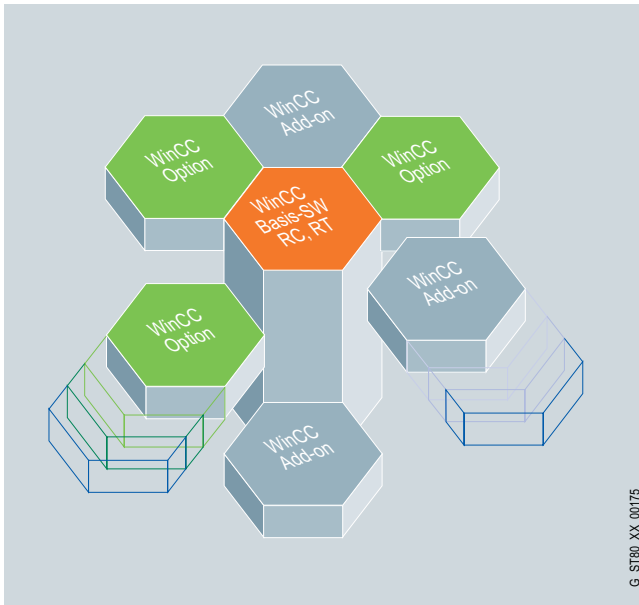
- SIMATIC Panel PC 577B
- SIMATIC Panel PC 677B (server operating system available soon)
- SIMATIC Rack PC 547B (preconfigured also with server operating systems)
- SIMATIC Rack PC 847B (preconfigured also with server operating systems)

HMI Software

SCADA system SIMATIC WinCC

WinCC options

Overview



- The universal WinCC basic software is the basis for modular expansions. These functional expansions can be obtained in the form of WinCC options and as WinCC Premium add-ons.
- WinCC options are created by WinCC Development and are Siemens Industry Automation products. You can obtain support from our Advisory Services and via the central hotline.

Options for scalable plant configurations

- WinCC/Server
 - To set up a powerful client/server system
- WinCC/Web Navigator
 - To control and monitor plants via the Internet, in-house intranet or LAN
- WinCC/Central Archive Server (CAS)
 - For configuring a central archive server

Options for increasing the availability

- WinCC/Redundancy;
 - For increased system availability through redundancy
- SIMATIC Maintenance Station
 - For system-integrated diagnostics and system-based asset management
- WinCC/ProAgent
 - For reliable process diagnostics

Options for IT and Business Integration – Plant Intelligence

- - WinCC/DataMonitor
 - For display and analysis of current process states and historical data on office PCs with standard tools
- WinCC/DowntimeMonitor
 - For the detection and analysis of standstill times for machines and systems
- WinCC/ProcessMonitor
 - Management information system and quality analysis
- WinCC/Connectivity Pack
 - Access to WinCC archive via OPC HDA, OPC A&E, OPC XML Server and WinCC OLE-DB/OLE-DB
- WinCC/Connectivity Station
 - Gateway to WinCC server data over OPC HDA, OPC A&E, OPC XML server and WinCC OLE-DB /OLE-DB from independent computers
- WinCC/IndustrialDataBridge
 - Configurable link to databases and IT systems

Options for SCADA expansions

- WinCC/User Archives
 - To manage data sets in user archives

Options for sector-specific expansions

- SIMATIC BATCH (for WinCC)
 - WinCC in combination with the SIMATIC BATCH products offers the solution for implementation of batch processes in accordance with ISA S88.
 - Batch processes which place heterogeneous demands on the interfacing of different types of PLC, such as S7-400/300, S5 and third-party PLCs, are automated using SIMATIC BATCH (for WinCC).
- WinCC/ChangeControl
 - Change and version management
 - Generation of audit trails for engineering
- WinCC/Audit
 - Change management
 - Generation of audit trails for engineering and runtime
- SIMATIC Logon
 - Central management of WinCC users, plant-wide (to CFR 21 Part 11)

Options for individual system expansions

- WinCC/IndustrialX
 - For the creation of customized WinCC ActiveX objects in a VB development environment and .net.
- WinCC/ODK
 - For the use of open programming interfaces (Open Development Kit)

Options for comprehensive support

- WinCC/Comprehensive Support
 - Extensive support package; contains current updates/ upgrades for WinCC basic software and options.

More information

WinCC options

Additional information is available in the Internet under:

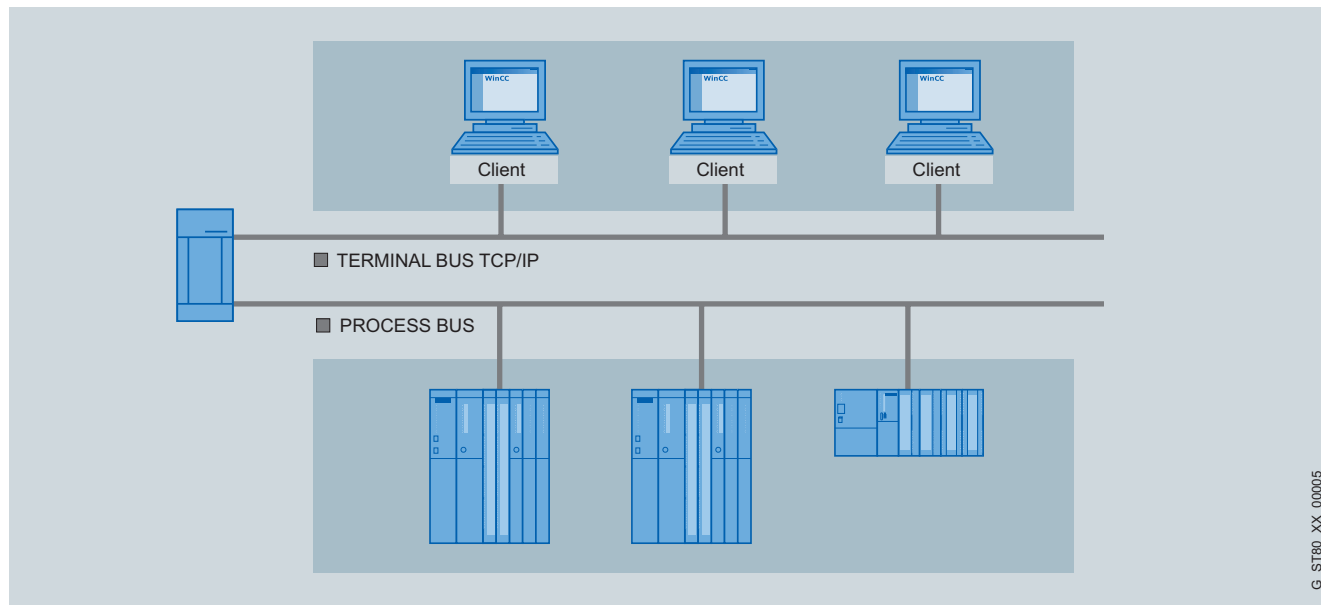
<http://www.siemens.com/wincc/options>

HMI Software

SCADA system SIMATIC WinCC

WinCC/Server

Overview



G_ST80_XX_00005

- Option for SIMATIC WinCC, which permits the configuration of a powerful client/server system
- One of the following operating systems must be available to install the option on the server: Windows Server 2003 (for V6) or Windows Server 2003 R2 (for V6.2). Up to 3 clients can be connected when using Windows XP Professional.
- A number of coordinated HMI stations can be operated in a single group with networked automation systems
- Client/server solution:
 - One server can supply up to 32 connected clients with process and archive data, messages, images and reports
 - Depending on the size of the plant, up to 12 servers and 32 clients can be used
- Requirement: Network connection (TCP/IP) between the server PC and the connected clients¹⁾
- One license is required for each server.

¹⁾ One of the following operating systems is installed on one WinCC server:
Windows 2000 Server, Windows 2000 Advanced Server, Windows Server 2003 or Windows Server 2003 R2.
Up to 3 clients with Windows XP Professional.

Application

In a complex plant, WinCC can also be configured as a distributed system according to requirements:

- Functional distribution (e.g. message servers, archive servers, etc.) or
- Distribution according to the physical plant structure (e.g. body-in-white, paintshop, etc.)

Function

Each client can access more than one server at a time. Clients can also be used for configuration on the server.

A configuration of WinCC clients as a central Web server – as a distributed system if required – with an overview of all server projects in the system is also possible.

Only the smallest runtime license RT128 is required for the clients, or if configuring is also to be handled on the client, the smallest complete license RC128 is sufficient. This makes it possible to configure inexpensive operator and configuration stations in a network.

Benefits

- Plant-wide scalability from the single-user system to the client/server solution
- Significantly higher quantity framework, relieving the individual servers and better performance due to distributing the complete application or tasks over several servers
- Low-cost configuration on the client is possible (the minimum RC license is sufficient)

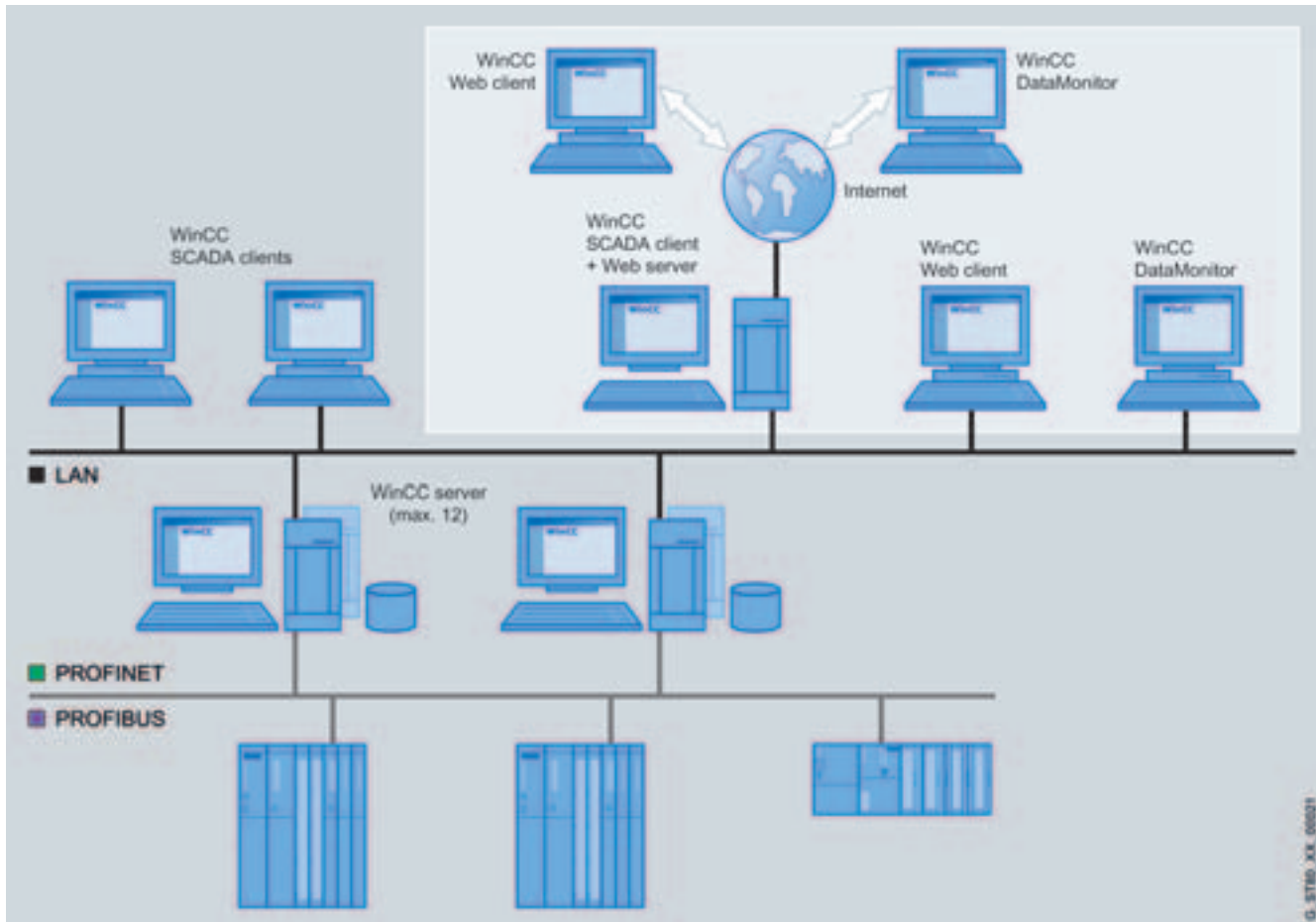
Ordering data

- WinCC/Server**
- for WinCC V7.0
 - for WinCC V6.2

Order No.

6AV6 371-1CA07-0AX0
6AV6 371-1CA06-2AX0

Overview



- Option for SIMATIC WinCC for operator control and monitoring of plants via the Internet, in-house intranet or LAN
- Configuration from:
 - a Web server with the SIMATIC WinCC software as a single-user, client or server version and a Web client that enables operator control and monitoring of a current WinCC project via an Internet browser with ActiveX support. The WinCC basic system does not have to be installed on the client computer
- Licensing:
 - A license is required in order to use the Web Server.
 - Licenses are available for access to the Web Server by 3, 10, 25 or 50 clients.
 - Low-cost Web Navigator Diagnostics licenses are available for remote diagnostics via a number of distributed Web Servers.

Highlights:

- Installation of the Web Server – in distributed systems – also on a WinCC Client;
 - Access to up to 12 subordinate WinCC stations (servers) possible
 - Web Clients offer common views of data on various WinCC Servers
 - If you are using WinCC/Redundancy, the Web Clients will also transfer via the subordinate WinCC Servers (requires WinCC Client running as Web Server).
 - Separating the Web functionality from the WinCC data servers makes the overall system safer and more scalable in respect of load. Integrated user management with WinCC V6:
 - The configured WinCC operator authorizations are taken into account on the Web Client.
- Access to user archives
- VB scripts are supported in the same way as the new objects and RT functions in WinCC V6
- User-friendly services and tools for distributing customized objects (controls, files) to Web Clients can be supplied for use as an integration platform. These components can then also be integrated into cross-Web/Server navigation.
- Distribution of load across a number of Web Servers in order to run several hundred Web Clients in a single system; Web Clients are distributed across Web Servers automatically.

HMI Software

SCADA system SIMATIC WinCC

WinCC/Web Navigator

Benefits

- Operator control and monitoring across long distances and on different platforms (PC, local panel, mobile PDA)
- Large configurations with up to 50 operator stations
- Fast updating rates thanks to event-driven communication
- Optimally tailored clients for operating and monitoring, analysis, service and diagnostics
- Acceptance of configuration data for the web, generally without changes
- Minimum maintenance costs thanks to centralized software administration
- High security standards and availability
 - Increased security due to separation of WinCC server and web server (web server in secure environment)
 - Support for commonly used security mechanisms (routers, firewalls, proxy servers)
 - Access authorization and user administration

Innovations of V7.0

- Version 7 supports Microsoft Internet Explorer Version 7.0, including tabbed browsing. A new license is not required for separate tabs.
- With the WinCC Web Viewer, the process screens can be displayed on the Web Client independently of the Internet Explorer. Settings for the client are made on the client itself.
 - Address, user name and password.
 - Runtime language, disable keys, hotkey property sheets.
 - Start screen, menu and toolbars, Windows attributes.
 - Activate monitor keyboard, <Ctrl> <ALT> , automatic logout.
- The WinCC Web Viewer can also be used in conjunction with the MS Terminal Service.
- The Web Navigator client can also be used over WLAN with the Panel PC 12. (Recommended hardware: Scalance W788-1PRO Access Point, Scalance W746-1PRO Ethernet Client Module).
- From version 7 on, the web navigator can also be operated in "view only" mode and is thus used as tool for operating and navigating only via WinCC screens by means of Internet Explorer.
- The cursor for View only mode can be selected according to individual requirements.
- Web server logins and logouts are recorded in the alarm and audit archive.
- There is a gadget available for the VISTA operating system in which selected WinCC process screens can be displayed. The gadget does not require any additional Web Navigator license. The Web Navigator server can be selected direct using the gadget.
- Security is increased by adjustable automatic logout. If an automatic logout is to take place, an absolute or inactive time period can be set.
- Runtime in the web client can be terminated by means of scripting.

Application

Apart from the typical application of the Web Navigator in the WAN field (**Wide Area Network**), the Web Navigator can also be used for extremely cost-effective solutions. This particularly includes applications that have a widely distributed structure (water/sewage, oil and gas), or in which there is only sporadic accessing of process information (buildings management).

The Web Navigator also supports vertical integration, i.e. a networked IT landscape with company-wide data flow between the planning and operational levels of a company. The only tool that is required for direct access to up-to-date process information is a standard browser.

The Web server can have its own direct process connection. Alternatively coupling is possible by means of OPC or a Web server subordinate to a WinCC client. This not only increases reliability, but also reduces the data traffic within the system.

In addition to the standard Web navigator license, a so-called diagnostics client exists which basically has the same functions but which is particularly suitable for the following applications:

- Remote diagnostics/operation by several unmanned WinCC stations
- Central control rooms with multiple Web server support through a single user interface
- Power users who require guaranteed access to the server at any time, regardless of how many users are already logged on

Design

Licenses for the Web Navigator

The Web Navigator Client software can be installed as many times as required without the need for a license.

- Server-based licensing;
a license is required in order to use the Web Navigator Server. Licenses are available for simultaneous access to the Web Server by 3, 10, 25 or 50 clients.
- Diagnostics client licensing;
for optimum-cost access by one or a small number of Web Navigator Clients to numerous Web Servers (e.g., for the purpose of diagnostics). This client license provides guaranteed access to Web Servers at any time. In respect of function there is no difference compared with regular Web Navigator Clients and the two can be mixed.

Web Navigator Clients can:

- Access a number of different Web servers or
- Access data on a number of higher-level WinCC stations simultaneously via a remote Web server

On the server side, only one Web Navigator Diagnostics Server license or, alternatively, one Standard Web Navigator license is required.

Alternatively, a number of Web Navigator Servers with the same WinCC project can be combined to create a "server farm". This means that it is possible for several hundred Web Clients to have access to the same database. The service ensures that the clients accessing are distributed evenly across all servers. If a server fails the Web Client is automatically forwarded to the next available server.

In order to use this functionality you will need to install a Web Load Balancing license on the Web Servers involved. Each Load Balance package contains 2 licenses.

An inexpensive expansion option for Web Load Balancing is available for redundant WinCC stations on which the Web Navigator is also installed. For this purpose, you need to install a Web Load Balancing Step Up license on the web servers involved. Each Step Up package contains 2 licenses.

Thin Client solutions

The Web Navigator can also run under Windows 2003 terminal services. A Windows 2003 Server (or higher) operating system is required. This makes it possible to connect SIMATIC Thin Clients as visualization stations to WinCC, for example.

For this purpose, the Windows terminal services must be installed on the PC on which the Web Client is installed. A Windows 2003 Server (or higher) operating system is required. Up to 25 Thin Clients can be connected to one terminal server.

Applications:

- Mobile devices
- Handhelds
- Rugged on-site visualizations

Hybrid configuration

WebNavigator and DataMonitor Clients can be mixed in a single system.

Function

The Web Configurator (Wizard) makes setting up and configuring a Web Navigator Server very easy. WinCC process screens to be visualized via the Internet are created as usual using WinCC Graphics Designer. Under normal circumstances the project can be worked on locally without modification. The Web Publishing Wizard optimizes the screens for transmission and display on the Internet. A standard browser is all that is required to display WinCC process screens on the Web Client. The MS Internet Explorer is used depending on the Web Navigator version used (tip: start the Internet Explorer in full-screen mode with the start parameter "-k").

The operator on the Web Client is integrated in the central WinCC user administration and can operate and monitor the system according to the configured access rights. The Web Navigator supports all standard security mechanisms that can be used for applications on the Internet, e.g. routers, firewalls and proxy servers.

HMI Software

SCADA system SIMATIC WinCC

WinCC/Web Navigator

4

Ordering data	Order No.	Ordering data	Order No.
WinCC/Web Navigator V7.0; for WinCC V7.0 <ul style="list-style-type: none"> • Base Pack (3 client licenses) • 10 client licenses • 25 client licenses • 50 client licenses 	6AV6 371-1DH07-0AX0 6AV6 371-1DH07-0BX0 6AV6 371-1DH07-0CX0 6AV6 371-1DH07-0DX0	WinCC/Web Navigator (continued)	
WinCC/Web Navigator PowerPacks V7.0 <ul style="list-style-type: none"> • From 3 to 10 clients • From 10 to 25 clients • From 25 to 50 clients 	6AV6 371-1DH07-0AB0 6AV6 371-1DH07-0BC0 6AV6 371-1DH07-0CD0	V6.2 SP2 ASIA; for WinCC V6.2 SP2 ASIA <ul style="list-style-type: none"> • Base Pack (3 client licenses) • 10 client licenses • 25 client licenses • 50 client licenses 	6AV6 371-1DH06-2AV0 6AV6 371-1DH06-2BV0 6AV6 371-1DH06-2CV0 6AV6 371-1DH06-2DV0
WinCC/Web Navigator Diagnostics Client <ul style="list-style-type: none"> • for WinCC V7.0 	6AV6 371-1DH07-0EX0	WinCC/Web Navigator PowerPacks	
WinCC/Web Navigator Diagnostics Server <ul style="list-style-type: none"> • for WinCC V7.0 	6AV6 371-1DH07-0FX0	V6.2 (for ASIA variants as well) <ul style="list-style-type: none"> • From 3 to 10 clients • From 10 to 25 clients • From 25 to 50 clients 	6AV6 371-1DH06-2AB0 6AV6 371-1DH06-2BC0 6AV6 371-1DH06-2CD0
WinCC/Web Navigator Upgrade V6.0 to V7.0 <ul style="list-style-type: none"> • For 3 clients • For 10 clients • For 25 clients • For 50 clients 	6AV6 371-1DH07-0AX4 6AV6 371-1DH07-0BX4 6AV6 371-1DH07-0CX4 6AV6 371-1DH07-0DX4	WinCC/Web Navigator Diagnostics Client <ul style="list-style-type: none"> • for WinCC V6.2 SP2 • for WinCC V6.2 SP2 ASIA 	6AV6 371-1DH06-2EX0 6AV6 371-1DH06-2EV0
V6.2 to V7.0 <ul style="list-style-type: none"> • For 3 clients • For 10 clients • For 25 clients • For 50 clients 	6AV6 371-1DH07-0AX3 6AV6 371-1DH07-0BX3 6AV6 371-1DH07-0CX3 6AV6 371-1DH07-0DX3	WinCC/Web Navigator Diagnostics Server <ul style="list-style-type: none"> • for WinCC V6.2 SP2 for WinCC V6.2 SP2 ASIA 	6AV6 371-1DH06-2FX0 6AV6 371-1DH06-2FV0
V6.x to V7.0 <ul style="list-style-type: none"> • For Web Navigator Diagnostics Client • For Web Navigator Diagnostics Server 	6AV6 371-1DH07-0EX4 6AV6 371-1DH07-0FX4	WinCC/Web Navigator Upgrade V1.x on V6.2 SP2 <ul style="list-style-type: none"> • For 3 clients • For 10 clients • For 25 clients • For 50 clients 	6AV6 371-1DH06-2AX4 6AV6 371-1DH06-2BX4 6AV6 371-1DH06-2CX4 6AV6 371-1DH06-2DX4
WinCC / Web Load Balancing V7.0 <ul style="list-style-type: none"> • Load Balancing • Load Balancing Step Up 	6AV6 371-1DH07-0JX0 6AV6 371-1DH07-0FJ0	V6.x on V6.2 SP2 <ul style="list-style-type: none"> • For 3, 10, 25, 50 clients¹⁾ • For Web Navigator Diagnostics Client • For Web Navigator Diagnostics Server 	6AV6 371-1DH06-2XX3 6AV6 371-1DH06-2EX3 6AV6 371-1DH06-2FX3
WinCC/Web Navigator V6.2 SP2; for WinCC V6.2 SP2 <ul style="list-style-type: none"> • Base Pack (3 client licenses) • 10 client licenses • 25 client licenses • 50 client licenses 	6AV6 371-1DH06-2AX0 6AV6 371-1DH06-2BX0 6AV6 371-1DH06-2CX0 6AV6 371-1DH06-2DX0	V6.x ASIA to V6.2 SP2 ASIA <ul style="list-style-type: none"> • For 3, 10, 25, 50 clients¹⁾ 	6AV6 371-1DH06-2XV3
		WinCC / Web Load Balancing V6.2 <ul style="list-style-type: none"> • Load Balancing • Load Balancing Step Up 	6AV6 371-1DH06-2JX0 6AV6 371-1DH06-2FJ0

B) Subject to export regulations: AL: N and ECCN: EAR99S

¹⁾ incl. upgrade for diagnostics client, diagnostics server, Load Balancing and Load Balancing StepUp

More information

System requirements – web server

For WinCC/Web Navigator V 7.0

- Windows Vista (Business, Enterprise and Ultimate)
- Windows XP Professional Service Pack 2 (max. 3 clients)
- Windows Server 2003 SP2 and Windows Server R2 SP2
- Internet Explorer V6.0 SP1 or SP2 as well as Internet Explorer V7.0.
- Microsoft SQL Server 2005 SP2 (scope of supply of WinCC)
- WinCC basic system V7.0

For WinCC/Web Navigator V6.2 SP2

- Windows 2000 Professional Service Pack 4 (max. 3 clients)
- Windows XP Professional or Service Pack 2 (max. 3 clients)
- Windows Server 2003 SP2 or Windows Server 2003 R2 SP2
- Internet Explorer 6.0 SP1, SP2 or 7.0 (without multitabbing)
- Microsoft SQL Server 2005 SP1 (scope of supply of WinCC)
- WinCC basic system V6.2 SP2

System requirements – web client

For WinCC/Web Navigator V7.0

- Windows Vista (Business, Enterprise and Ultimate)
- Additional operating systems include Microsoft Windows Vista 32bit HomeBasic and HomePremium
- Windows XP Professional Service Pack 2 (max. 3 clients)
- Windows Server 2003 SP2 and Windows Server R2 SP2
- Windows Server 2003 terminal services
- Windows XP embedded (only when using Panel PC 477)
- Internet Explorer V6.0 SP1 or SP2 as well as Internet Explorer V7.0

For WinCC/Web Navigator V6.2 SP2

- Windows XP Professional Service Pack 2
- Windows 2000 Professional Service Pack 4
- Windows Server 2003 SP2 or Windows Server 2003 R2 SP2
- Windows Server 2003 terminal services
- Windows XP embedded (only when using Panel PC 477)
- Internet Explorer 6.0 SP1, SP2 or 7.0 (without multitabbing)

WinCC Web Navigator V6.2 SP2 ASIA

(requires SIMATIC WinCC V6.2 SP2 ASIA)

The functions included in this version differ from the standard version of WinCC/Web Navigator V6.2 SP2 as follows:

- This version does not allow an Asian Web Navigator client to access a non-Asian server and vice versa.

HMI Software

SCADA system SIMATIC WinCC

WinCC/Central Archive Server (CAS)

Overview

Central data management, reliable, high-performance archiving and central backup mechanisms form the basis of a Process Historian solution: Integration in the SCADA world, data interfaces for access to archived data and analysis functions are the component parts.

The option CAS was designed for this purpose and is used to export the archived data of all servers in the system to a computer and manage it. Integration of CAS in the WinCC world means that the data remains available for the WinCC clients as well as for the WinCC standard interfaces.

WinCC/CAS contains all licenses for the central archive server including 1500 archive tags. The number of archive tags can be increased to 120000 using PowerPacks or further WinCC archives.

Benefits

- Central data management of all archived alarms and process values
- Integrated back-up system for the archive data
- Transparent access to the data from all WinCC clients and over the open interfaces
- Integrated Web viewer for analyzing data

Function

Both the process value archive and alarm log are created on the separate WinCC servers and transferred to CAS when individual database segments have been closed.

With "Store&Forward", when the network is interrupted between the WinCC server and CAS, data will be reliably transferred as soon as the network is operating again.

Data access is transparent for display and analysis and is still possible through the standard WinCC clients. For the clients, it is of no consequence whether the data are on the WinCC server or already on CAS. Data saved in CAS can also be viewed using the Web viewer included in the package.

The data of the distributed WinCC system can also be accessed through the familiar interfaces (OPC DA, OPC A&E, OPC HDA and Ole-DB) with the help of the Connectivity Pack or the Connectivity Station. In this manner, the data saved in CAS can be efficiently transferred to higher-level systems or used for the purposes of analysis.

Ordering data

Order No.

WinCC/CAS V7.0 basic packages

- WinCC/CAS V7.0

6AV6 371-1DQ17-0XX0

WinCC/CAS upgrade

- V6.2 to V7.0

6AV6 371-1DQ17-0XX3

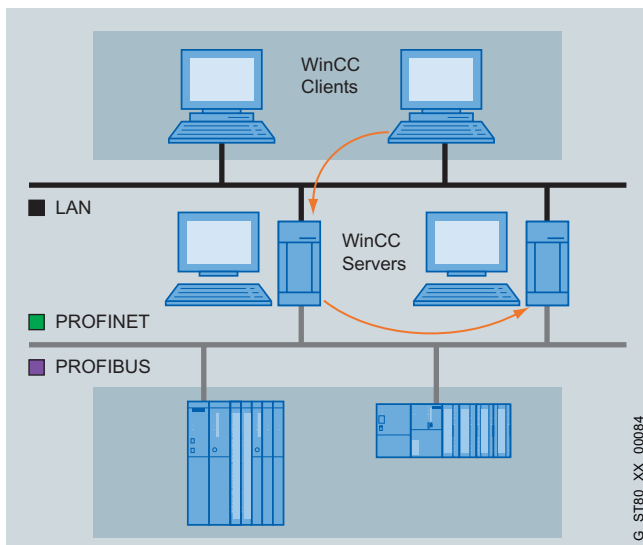
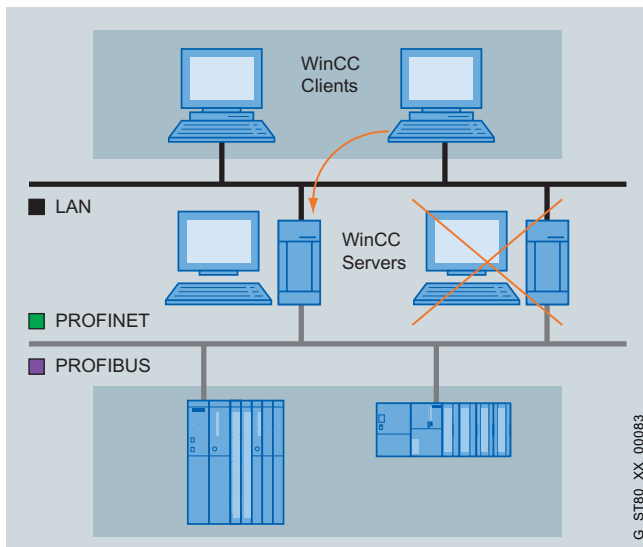
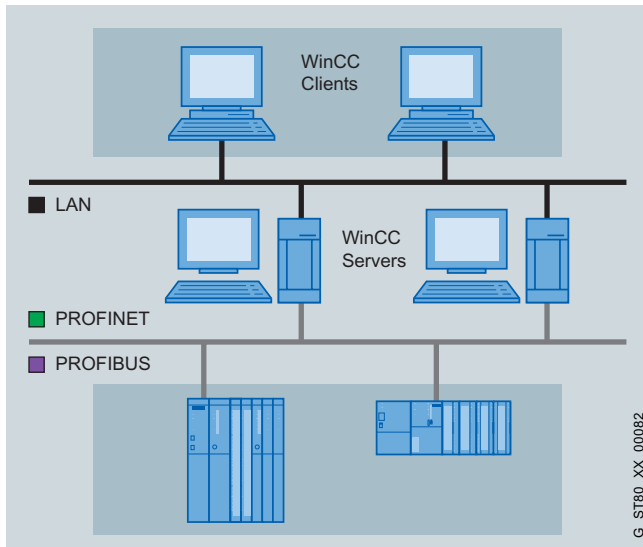
WinCC/CAS V6.2 SP2 basic packages

- WinCC/CAS V6.2 SP2
- WinCC/CAS V6.2 SP2 ASIA

6AV6 371-1DQ16-2XX0

6AV6 371-1DQ16-2XV0

Overview



- Option for SIMATIC WinCC, supporting the parallel operation of two interfaced WinCC single-user systems or process data servers for mutual monitoring
- If one of the two server PCs or one of the two WinCC stations fails, the second one will take over control of the entire system. Once the failed server or station is restored to operation, the content of all the message and process value archives are copied to it.
- One WinCC/Redundancy package is required for each redundant pair of servers.

Benefits

- Increased system availability with continuous data integrity
- Automatic changeover of client in the event of failure of a server or failure of the communication to a server
- Continuous operator control and visualization thanks to automatic client changeover to the intact server
- Automatic updating of all archives in the background after rectification of the fault

Function

Normally, two WinCC stations or process data servers run in parallel. Each station has its own process connection and its own data archives. WinCC/Redundancy ensures automatic matching of system and user archive data.

If one of the two server computers or WinCC stations fails, the second will take over the archiving of messages and process data, thereby ensuring seamless data integrity. In client/server mode, the clients are automatically switched from the failed server to the redundant partner. This ensures continuous plant visualization and operation on every operator station.

When the failed partner resumes operation, all process values, messages and data archived during the fail period are automatically matched with the partner. This process runs in the background and does not affect plant continuity. Once this is complete, two equivalent servers/stations will be available again.

Communication with the SIMATIC S7 PLC can also be configured with redundancy (an H Series SIMATIC S7 is required) by plugging in two communication modules and configuring two communication paths (S7-REDCONNECT software package). The use of failsafe H Series SIMATIC S7 PLCs can, if required, further increase availability at control level.

Ordering data

Order No.

WinCC/Redundancy

- for WinCC V7.0
- for WinCC V6.2

6AV6 371-1CF07-0AX0

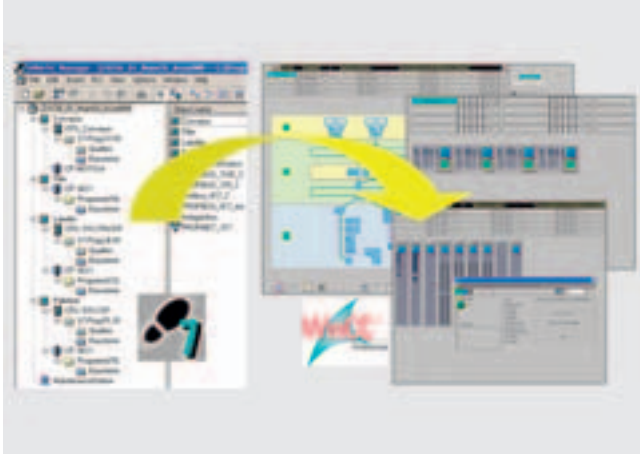
6AV6 371-1CF06-2AX0

HMI Software

SCADA system SIMATIC WinCC

SIMATIC Maintenance Station

Overview



System-integrated plant asset management system

- Automatic generation of a maintenance view in WinCC from the STEP 7 hardware configuration
- Plant-wide visualization of all automation components from the management level to the field level in ready linked, hierarchically arranged WinCC displays
- Mapping of central and distributed SIMATIC S7 components, PROFIBUS and PROFINET networks as well as associated bus nodes
- Ethernet network components and industrial PCs can be integrated through SIMATIC NET SNMP OPC Server
- Display of device status with group status generation in overview and detail displays
- The device statuses "Maintenance required" and "Maintenance request" are supported for status-based maintenance
- Provision of uniform faceplates showing detailed information for all components displayed
- Display of the device identification data (electronic rating plate)
- Integrated display of the status of the request

Benefits

- Reducing down times:
 - problems in the plant are detected sooner due to the uniform presentation and clear overview of all information that is important for maintenance.
- Avoiding downtimes:
 - support of condition-based maintenance.
- Reduced maintenance costs:
 - optimization of the flow of information between production and maintenance by submitting maintenance requests and presenting the status of requests.
- Transparency and traceability:
 - all procedures are based on messages and can therefore be archived and traced.
 - a comprehensive database is generated that can be analyzed with WinCC functions or external tools.
- Scalability:
 - support of WinCC single-user stations and client/server configurations.
 - the SIMATIC Maintenance Station can be added to an existing WinCC project.
- Consistency:
 - The maintenance view is generated from the control project and is consistent with it.
- Flexibility in selection of devices:
 - use of the PROFIBUS and PROFINET standards for device interfacing.
 - an additional proxy concept allows devices to be displayed that are not included in the STEP 7 hardware configuration or that do not support the standard diagnostics of PROFIBUS/PROFINET.

Application

The SIMATIC Maintenance Station is a tool for the diagnosis and maintenance of machines and plants. This is an option package for STEP 7 V5.4 and WinCC V6.2 or V7.0 that generates a WinCC maintenance view for a STEP 7 project/multi-project.

Design

The SIMATIC Maintenance Station is available in various different packages:

- **Basic package:**
Contains all the tools needed to configure a Maintenance Station and a license for the display of 100 devices.
- **Powerpacks:**
For larger quantities, powerpacks are available with licenses for 100, 500 or 1000 devices. These can be added to the existing licenses and can be combined as required.

In this context, devices can be:

- AS systems
- Distributed devices (PROFIBUS / PROFINET)
- PCs
- Network components
- Asset proxies

Requirements for configuring a SIMATIC Maintenance Station

- STEP 7 license (V5.4 upwards)
- WinCC RC license (V6.2 or V7.0)
- The SIMATIC NET licenses required for the plant configuration

Requirements for operation of a SIMATIC Maintenance Station

- The WinCC licenses (V6.2 or V7.0) complying with the plant configuration

Function

Hierarchic visualization of plant components in WinCC

- Generation of a WinCC picture tree for hierarchic display of the plant components.
- Automatic creation and linking of displays, equipment symbols, status indicators, faceplates and the required variables.
- Presentation of the detailed data in faceplates with selectable views.
- Easy navigation in the plant using the WinCC Picture Tree Manager.
- Generated pictures can be enhanced using the WinCC Graphic Designer.
- Switchover between a WinCC SCADA project and the picture tree of the SIMATIC Maintenance Station can be configured using standard WinCC functions.

Display of the current status of the plant and its components

- Clearly understandable status displays through the use of uniform symbols.
- Display of no-fault status, fault, maintenance requirement and maintenance request
- Display of status of request for submitted repair requests.
- Display of order status.
- Display of the alarm status of the components.

Display of the identification data of the plant components

- Display of the identification data available for a device in the faceplate for the device.
- Automatic loading of the data available in the configuration into the maintenance station.
- Reading of the "Identification & Maintenance functions (I&M¹⁾)" in accordance with the PROFIBUS International specification.
- Export²⁾ of I&M data for all devices in the form of an XML file.

Displaying alarms

- Loading of system error messages from STEP 7. STEP 7 provides the messages in 5 languages³⁾, translation into additional languages is possible in STEP 7.
- Display of the most recent message in a message line.
- Presentation of the active/archived messages of the selected device in the faceplate.

Calling the STEP 7 hardware configuration

- The STEP 7 hardware configuration can be opened for a selected device using a button in the faceplate. STEP 7 and the project must be installed on the maintenance station for this purpose.

¹⁾ The Maintenance Station 2007 supports reading of I&M data for PROFIBUS devices with C1 channel access.

²⁾ The I&M data loaded from the configuration are exported.

³⁾ For Siemens components that are included in the STEP 7 hardware catalog. In the case of components that are integrated in STEP 7 using GSD files, the GSD files must support the relevant languages.

HMI Software

SCADA system SIMATIC WinCC

SIMATIC Maintenance Station

Technical specifications

Hardware requirements

System	Clock frequency	Main memory	Free hard disk space
Engineering station	2.8 GHz	1 GB	15 GB
Maintenance Station Stand-alone / WinCC-Station "Single-user Workstation"	2.8 GHz	1 GB	15 GB
Maintenance Station Server / WinCC Server	2.8 GHz	1 GB	15 GB
Maintenance Station Client / WinCC Client	2.8 GHz	512 MB	3 GB

Software requirements

System	Operating system
Engineering station "ES"	Windows XP Professional SP2 Windows Server 2003 SP1
Maintenance Station Stand-alone / WinCC-Station "Single-user Workstation"	Windows XP Professional SP2 Windows Server 2003 SP1
ES with Maintenance Station Stand-alone	Windows XP Professional SP2 Windows Server 2003 SP1
Maintenance Station Server / WinCC Server	Windows Server 2003 SP1
Maintenance Station Client / WinCC Client	Windows XP Professional SP2 Windows Server 2003 SP1

Requirements for the integration of devices

Type	Integration	Comment
SIMATIC S7 controllers / I/O		
• S7-300 ¹⁾	Yes	
• S7-400	Yes	
• WinAC	Yes	
Distributed devices		
• ET 200	Yes	PROFIBUS DP and PROFINET IO according to STEP 7 hardware catalog
• PROFIBUS standard slaves	Yes	Integration using a GSD file
• PROFINET standard devices	Yes	Integration using a GSD file
Network components		
Ethernet network components	Yes	SIMATIC NET SNMP OPC Server and MIB also required
PROFINET network components	Yes	
PROFIBUS diagnostic repeater	Yes	
Personal Computer		
PC/Industrial PC	Yes	SIMATIC NET SNMP OPC Server also required
Drives		
Drives with PROFIBUS connection	Yes	For integrating devices designed to the PROFIDRIVE profile, Drive ES SIMATIC (V5.4 SP1 or higher) is required
Drives with PROFINET connection	Yes	For integrating devices designed to the PROFIDRIVE profile, Drive ES SIMATIC (V5.4 SP1 or higher) is required
Accessory devices		
Devices not configured in STEP 7 Hardware Config	Yes	Integrated via function block (asset proxy)

¹⁾ With S7-300, PROFIBUS/PROFINET systems are supported if they are connected to the internal CPU interfaces

Ordering data	Order No.
SIMATIC Maintenance Station 2007 SP1	
Software for implementation of a plant-oriented asset management system	
Basic package with engineering software (Floating License) and Runtime License for 100 devices	D 6ES7 840-0WD00-0YA0
Powerpack 100 Runtime License for 100 additional devices	D 6ES7 840-0WD10-0YD0
Powerpack 500 Runtime License for 500 additional devices	D 6ES7 840-0WD20-0YD0
Powerpack 1000 Runtime License for 1000 additional devices	D 6ES7 840-0WD30-0YD0
Basic demo package 2007 SP1	D 6ES7 840-0WD00-0YA7

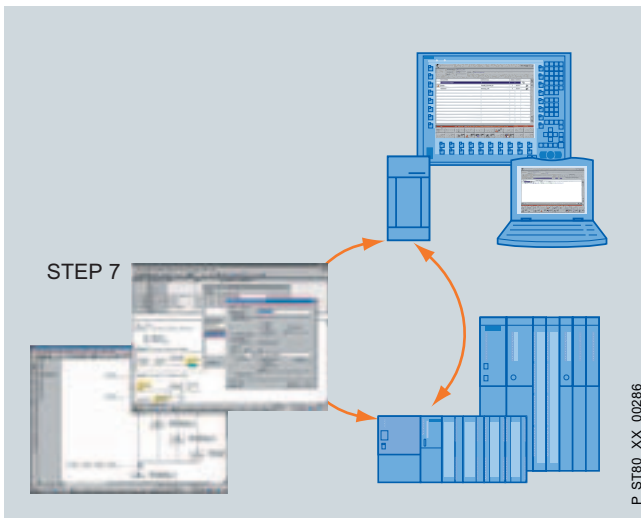
D) Subject to export regulations: AL: N and ECCN: 5D992B1

HMI Software

SCADA system SIMATIC WinCC

WinCC/ProAgent

Overview



- Precise and rapid process fault diagnostics in plants and machines for SIMATIC S7 and SIMATIC HMI
- Standardized diagnostics concept for various SIMATIC components
- No further configuration for diagnostics functionality
- Reduces PLC memory and processor usage

Ordering data

Order No.

SIMATIC WinCC/ProAgent

- V6.0 SP4; for WinCC V7.0 and V6.2

6AV6 371-1DG06-0EX0

SIMATIC WinCC/ProAgent Upgrade

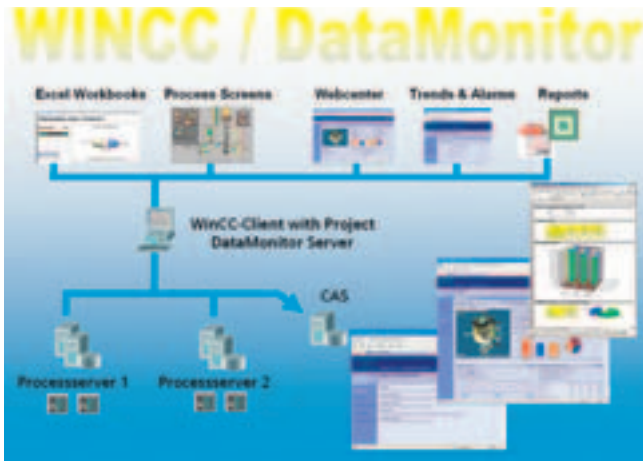
- to SIMATIC WinCC/ProAgent V6.0 SP4

6AV6 371-1DG06-0EX4

Note:

For further details, see "SIMATIC ProAgent process diagnostics software".

Overview



- The WinCC/DataMonitor is a component of WinCC Plant Intelligence and is used for displaying and evaluating current process statuses and historical data on office PCs with standard tools such as Microsoft Internet Explorer or Microsoft Excel. The DataMonitor Client is supported by a web server with current and historic process data and alarms. All staff ranging from machine operators to corporate managers can use the DataMonitor to obtain information.
- DataMonitor is a suite of Internet-capable tools:
 - Process Builder – Tool for simple visualization and navigation through WinCC screens using Internet Explorer (view only)
 - Trends and Alarms – Internet Explorer-based display tool (tables and graphs) for WinCC archive as well as for relocated data
 - Excel Workbooks – Protocol tool that integrates WinCC archives and online values into MS Excel and supports online analysis
 - Published Reports – Event- or time-driven execution of Excel or PDF reports for the output of process data and analysis results
 - Web center – Individual configuration of Internet pages and summary of information within a portal in terms of WinCC applications
- DataMonitor does not require manual client installation because it loads the required components from the web server. Additional administration is unnecessary as a result.
- There is no installation required on the client for the Web-center, Trends and Alarms functions.
- Licenses for simultaneous access by 1, 3, 10, 25 or 50 DataMonitor clients. Any combination of DataMonitor and Web Navigator licenses can be used for an application.

Benefits

- Information can be compiled online individually during runtime via the Internet/intranet.
- Efficiently monitor and analyze production lines.
 - Display and evaluation of current process states and historical data on remote office PCs with standard tools such as Microsoft Internet Explorer or Excel.
 - Easy access to production data via the intranet or Internet
 - Quick ascertainment of the production situation
 - Use of standard products
- Easily collect and distribute information.
 - Automated report creation
 - No additional configuration effort through direct use of images from the WinCC project
 - No training required for standard products
 - Easy exchange of configuration data
- Substantiate decisions with reports.
 - Evaluation via ready-made templates for special analyses of the business processes (e.g. reports, statistics)
 - Make bottlenecks transparent
 - Individual views for user and situation
 - Relative and absolute timeframe for information generation
- View production status anywhere and anytime.
 - Individual views of information in production
 - View the process and system operation
 - Historical data can be compiled online individually

Highlights

- Access to the lower-level servers when installing the DataMonitor server on a WinCC Client with separate project.
- Tag logging archive tags can be accessed by means of the web center function without changing the WinCC configuration system.
- Installation of the DataMonitor web center function on a WinCC file server

Connections to

- Dedicated Internet pages can be created for displaying the data. For this purpose, the following tools which can be integrated in the Internet sites are available.
 - Bar diagram, pie chart, trend curve display
 - Process value table and statistics functions for the process values
 - Alarms, hit list for alarms
 - Message text display for individual message texts, message display, selection list of created reports
 - Links to internal and external pages
 - Display of graphics in jpg format
 - Visualization of the WinCC process screens without installation download
- The analyses can be made with relative or absolute time specification. This enables comparisons of identical time periods on different days.
- Reports generated with Excel or the WinCC Report Designer can be made available on the DataMonitor server or e-mailed automatically to the relevant group of people.
- Connections can be established to WinCC Runtime, the central archive server, and swapped-out archives

HMI Software

SCADA system SIMATIC WinCC

WinCC/DataMonitor

Benefits (continued)

Innovations of V7.0

- DataMonitor
 - Supports Internet Explorer V 7.0 including tabbed browsing.
 - The Client is enabled for VISTA Home Basic and Home Premium.
 - User-friendly web interface for all DataMonitor functions.
- DataMonitor/ProcessScreens
 - The cursor for the "view only" mode can be selected as required.
- DataMonitor/Web center
 - Enhanced user management for the web center in order to assign individual Internet pages and created reports to specific user groups.
 - Integrating WinCC process screens on Internet pages without installation download
 - Representation of preprocessed process data
 - A search function facilitates the management of connections to the WinCC Server.
 - Swapped out archives can be connected and evaluated in the DataMonitor web center.
 - Automatic pre-assignment of the colors for representation in the value display tools.
 - Web center pages possible via pull-down box or list.
 - Expansion of the display area (MenuHide function)
 - Layout, web center pages can be deleted.
- DataMonitor/Reports
 - Excel reports created offline can be loaded onto the DataMonitor server and are thus available to selected user groups.

Function

- All tools are fully Internet-compatible and, therefore, support access via any type of connection (LAN, GSM, radio, modem, Internet, etc.)
- All popular security mechanisms such as login/password, firewalls, encryption, etc. are supported
- Users can combine the available tools at will. Licensing only takes into account simultaneous access to one Web server
- For display purposes, screens from the WinCC project can be used or special overview displays configured. Animations, scripts, navigation and access rights remain valid
- The WinCC/DataMonitor supports a display function only (local access to the process sequence is prevented)
- Company-wide Excel reports, which contain historical and current process values, can be stored centrally for general access (reports, statistics). However, local queries to meet individual requirements can be compiled and executed online. Plot and tabular representation are supported for archive data already swapped out
- Created reports can be planned so that they are automatically distributed by email after creation
- Pre-made elements make the assembly of individual web pages easier for evaluating information
- Individual information compilation on one or more Internet pages with the option of branching to other detail pages
- Pre-made Internet pages for trend and alarm display enable an ad-hoc entry to Internet data evaluation
- An higher-level navigation feature provides a common framework for the various tools

Ordering data

Order No.

WinCC/DataMonitor V7.0 for WinCC V7.0

- 1 client license
- 3 client licenses
- 10 client licenses
- 25 client licenses
- 50 client licenses

6AV6 371-1DN07-0LX0

6AV6 371-1DN07-0AX0

6AV6 371-1DN07-0BX0

6AV6 371-1DN07-0CX0

6AV6 371-1DN07-0DX0

WinCC/DataMonitor PowerPacks V7.0

- From 1 to 3 clients
- From 3 to 10 clients
- From 10 to 25 clients
- From 25 to 50 clients

6AV6 371-1DN07-0LA0

6AV6 371-1DN07-0AB0

6AV6 371-1DN07-0BC0

6AV6 371-1DN07-0CD0

WinCC/DataMonitor, Upgrade

- from V6.0 to V7.0
- from V6.2 to V7.0
- from V6.x to V6.2 SP2
- from V6.x ASIA to V6.2 SP2 ASIA

6AV6 371-1DN07-0XX4

6AV6 371-1DN07-0XX3

6AV6 371-1DN06-2XX3

6AV6 371-1DN06-2XV3

WinCC/DataMonitor V6.2 SP2 for WinCC V6.2 SP2

- 1 client license
- 3 client licenses
- 10 client licenses
- 25 client licenses
- 50 client licenses

6AV6 371-1DN06-2LX0

6AV6 371-1DN06-2AX0

6AV6 371-1DN06-2BX0

6AV6 371-1DN06-2CX0

6AV6 371-1DN06-2DX0

WinCC/DataMonitor V6.2 SP2 ASIA for WinCC V6.2 SP2 ASIA

- 1 client license
- 3 client licenses
- 10 client licenses
- 25 client licenses
- 50 client licenses

6AV6 371-1DN06-2LV0

6AV6 371-1DN06-2AV0

6AV6 371-1DN06-2BV0

6AV6 371-1DN06-2CV0

6AV6 371-1DN06-2DV0

WinCC/DataMonitor, PowerPacks V6.2

- From 1 to 3 clients
- From 3 to 10 clients
- From 10 to 25 clients
- From 25 to 50 clients

6AV6 371-1DN06-2LA0

6AV6 371-1DN06-2AB0

6AV6 371-1DN06-2BC0

6AV6 371-1DN06-2CD0

Overview



The entry point to SIMATIC Plant Intelligence can be through options for the SIMATIC WinCC process visualization system. The WinCC/DowntimeMonitor is a component of WinCC Plant Intelligence and is used for monitoring the efficiency and performance of individual machine modules, subsystems and production lines. The combined elements to be monitored are designated as equipment. Using the WinCC/DowntimeMonitor, the machine data management software, standstill time can be recorded and analyzed centrally in production. For individual devices, machines or entire production lines, the specific parameters can be determined this way. Integration into WinCC ensures complete transparency of all machine and plant data as a basis for optimizing the plant's productivity.

The process values are read directly from WinCC and are connected with the respective analysis function.

- The SIMATIC WinCC DowntimeMonitor can be installed on a WinCC single station, WinCC Server or WinCC Client with project, and consists of an Engineering Client as well as a Runtime User interface.
- All engineering operations are performed using a graphic Engineering Client. The Engineering Client is called up from the WinCC Explorer.
- SIMATIC WinCC DowntimeMonitor provides ActiveX control elements. These are used for displaying the determined parameters and the progress of the various status over a certain time period. These controls are integrated in WinCC process images for presenting results.
- The recorded data is stored in an online database set and can be moved to an offline database set.
- The basic package consists of the Engineering and Runtime software and 5 licensed equipment units. Other licenses are available for up to 25, up to 50, 100 and up to 200 equipment units.

Benefits

- Recording failure times, localizing causes and reasons for failure times, and monitoring of equipment efficiency.
- Weak-point analysis in production processes and recording of undesirable process activities.
- Basis for decision making based on performance indicators.
- Identification of the events that lead to cost-intensive failures.
- Entry point for an extended downtime analysis with upgrade options in the MES software SIMATIC IT.
- Identification of speed and quality losses.
- Complete transparency for all machines as basis for optimizing the plant's productivity. Faults and bottlenecks are prevented to increase availability.
- Derivation of specific parameters (KPI - Key Performance Indicators).
- Integration of respective display instruments (controls) in WinCC process images.
- Can be utilized for individual machines or even complete production plants.
- Distribution of evaluations to various people over the web.

HMI Software

SCADA system SIMATIC WinCC

WinCC/DowntimeMonitor

Function

- Creation of a time model by defining various time categories as a basis for the KPI calculation for elements (equipment) to be evaluated.
- Creation of equipment, as central components for the evaluation by dividing the system into individual groups.
- Creation of a Reason Tree for detailed display of reasons for downtimes.
- Allocation of the system status in the controller to the time categories and Reason Trees defined in the DowntimeMonitor.
- Storing the system status for calculating and presenting Key Performance Indicators.
- The following pre-defined Key Performance Indicators are available: Availability, change-over, cycle time, failure time loss, duration, effective performance, maintenance, Mean Time Between Assist (MTBA), Mean Time Between Failures (MTBF), Mean Time To Assists (MTTA), Mean Time To Repair (MTTR), failure time frequency, Overall Equipment Effectiveness (OEE), performance rate, production duration, quality rate, speed loss, Total Efficient Equipment Performance (TEEP), utilization.
- Integration of three new controls, Gantt View, KPI View and Table View, in WinCC for the display of results for one or more equipment units.
- The WinCC DowntimeMonitor Gant View presents the equipment status development within a certain time period.
- The WinCC DowntimeMonitor KPI View shows the distribution of failure times and the Key Performance Indicators in a trend, bar, segmented bar charts or Pareto chart using historical data.
- The WinCC DowntimeMonitor Table View shows raw data for failure times and analyzes it in the selected time period. The user can utilize these control elements to enter, change, distribute or combine and comment on failure times manually.
- The controls can be displayed on intranet or Internet using the option WinCC/Web Navigator.

Ordering data

Order No.

WinCC/DowntimeMonitor V1.0 SP1 for WinCC V6.2 SP2 and WinCC V6.2 SP2 ASIA

- 5 equipment units
- 25 equipment units
- 50 equipment units
- 100 equipment units
- 200 equipment units

6AV6 372-1DB06-2BX0
6AV6 372-1DB06-2DX0
6AV6 372-1DB06-2FX0
6AV6 372-1DB06-2HX0
6AV6 372-1DB06-2KX0

WinCC/DowntimeMonitor Powerpacks V1.0

- From 5 to 25 equipment units
- From 25 to 50 equipment units
- From 50 to 100 equipment units
- From 100 to 200 equipment units

6AV6 372-1DB06-2BD0
6AV6 372-1DB06-2DF0
6AV6 372-1DB06-2FH0
6AV6 372-1DB06-2HX0

Overview



The entry point to SIMATIC Plant Intelligence can be through options for the SIMATIC WinCC process visualization system. The WinCC/ProcessMonitor is a component of WinCC Plant Intelligence and is used for collecting, manipulating, evaluating, and storing process values. Integrating the ProcessMonitor into WinCC ensures complete transparency of all machine and plant data as a basis for optimizing the plant's productivity. The process values are read directly from WinCC and are connected with the respective analysis function.

- The SIMATIC WinCC ProcessMonitor can be installed on a WinCC single station, WinCC Server or WinCC Client with project, and consists of an Engineering Client as well as a Runtime User interface.
- All engineering operations are performed using a graphic Engineering Client. The Engineering Client is called up from the WinCC Explorer.
- SIMATIC WinCC Process Monitor provides ActiveX control elements that can be used for displaying historical data originating from a user-definable time period and from various data sources. These controls are integrated in WinCC images for presenting the aggregated and stored data in the Process-Monitor.
- The recorded data is stored in an online database set and can be moved to an offline database set.
- The basic package contains 50 KPI. Further licenses are available in levels of up to 250 and 1500 KPI.

Benefits

- Targeted analysis and interpretation of messages for working out optimization strategies.
- Targeted analysis and interpretation of process value histories during production to increase quality.
- Identification of major disturbances and weak points.
- Decision making based on customer-specific performance indicators.
- Identification of the events that lead to cost-intensive failures.
- Detection of undesirable process activities.
- Entry point for an extended process analysis with upgrade options in the MES software SIMATIC IT.

HMI Software

SCADA system SIMATIC WinCC

WinCC/ProcessMonitor

Function

- Storage and presentation of process data that is prepared using pre-defined, user-defined, and context-dependent statistic calculation operations.
- Utilization of limit value monitoring for measured values in WinCC; above, below, within, or outside the limits.
- The following pre-defined statistic calculations are available: Mean value, standard deviation in time period, variance, maximum in time period, minimum in time period, highest value in time period, highest value with time data, minimum value with time data, difference between minimum and maximum value, total over a certain time period.
- Calculation of customer-specific individual **Key Performance Indicators** with VBS (Visual Basic Scripting).
- Integration of the three other controls, that is Trend View, XY Trend View, and Message Analyzer in WinCC for displaying data from WinCC Tag Management, WinCC Tag Logging, and WinCC Alarm Logging
- The WinCC ProcessMonitor Trend View provides up to 64 values from WinCC or ProcessMonitor. Display of the various time intervals (Overlay Trend) or alternatively different process values can be chosen over the same time interval (Standard Trend).
- The WinCC ProcessMonitor XY Trend View: Display of dependencies of two different tags. Data sources are the Process-Monitor and WinCC Taglogging.
- Filtering, analysis and display of WinCC messages in the Message Analyzer. The results are displayed in a bar chart based on algorithm-based calculations.
- The controls can be displayed on intranet or Internet using the option WinCC/Web Navigator.
- Ad-hoc analyses for process data stored in the Process Monitor or in the WinCC Tag Logging archive (from the ProcessMonitor and WinCC Tag Logging) are possible. Calculations can be defined for the runtime, the results of which are output in the control.

Ordering data

Order No.

WinCC/ProcessMonitor V1.0 SP1 for WinCC V6.2 SP2 and WinCC V6.2 SP2 ASIA

- 50 KPI
- 250 KPI
- 1500 KPI

6AV6 372-1DA06-2BX0

6AV6 372-1DA06-2DX0

6AV6 372-1DA06-2FX0

WinCC/ProcessMonitor Powerpacks V1.0

- From 50 to 250 KPI
- From 250 to 1500 KPI

6AV6 372-1DA06-2BD0

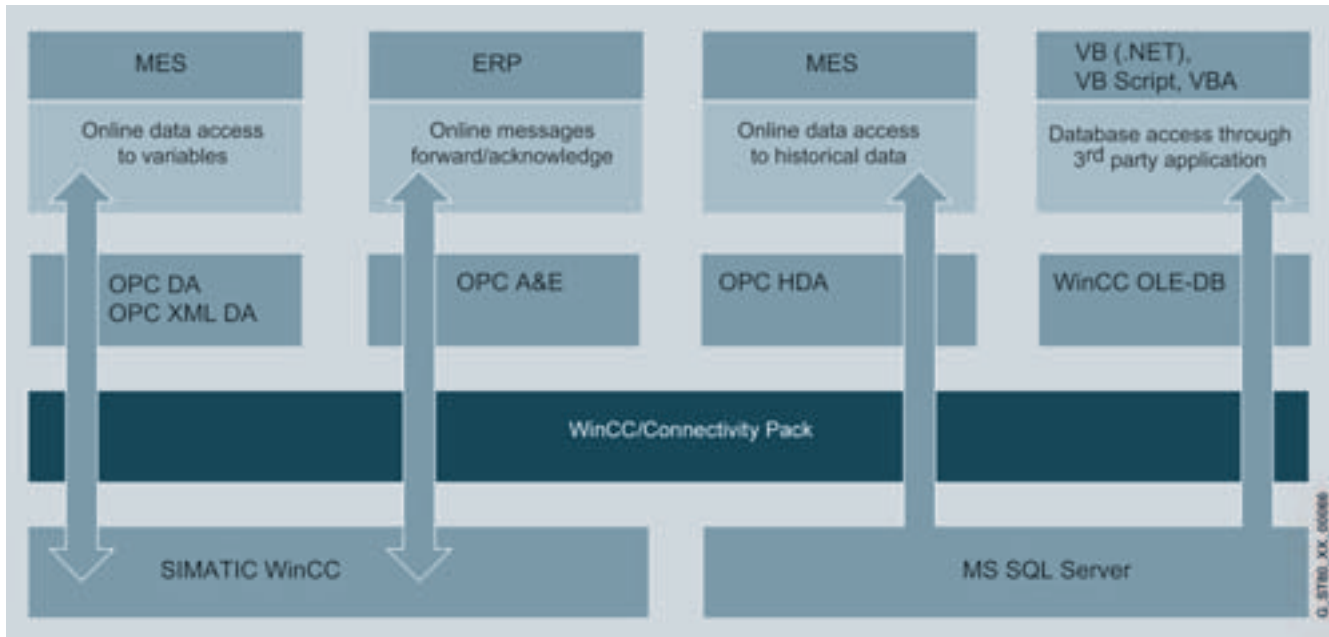
6AV6 372-1DA06-2DF0

HMI Software

SCADA system SIMATIC WinCC

WinCC/Connectivity Pack &
WinCC Connectivity Station

Overview



Cross-vendor communication in the automation sector has always been of primary importance for WinCC. This is even more true for the release of preprocessed production data for higher-level information systems (e.g., MES = Management Execution System, ERP = Enterprise Resource Planning or Office packages = MS Excel, MS Access etc.). WinCC features integrated OPC Data Access and OPC XML DA servers for access to all online values in the system and makes open interfaces available for access to historical WinCC data.

- The Connectivity Pack includes OPC XML DA 1.01, OPC HDA 1.20 (Historical Data Access), OPC A&E 1.10 (Alarm & Events) and a WinCC OLE-DB interface which even allows remote computers without WinCC to access WinCC archive and alarm data
- The function of the OPC servers (XML DA, HDA and A&E) is assured by the WinCC/Connectivity Pack. In order to access data in the database via WinCC OLE-DB/OLE-DB, you will also need a license for the WinCC/Connectivity Pack
- A Connectivity Pack license is required for every WinCC system to be accessed
- When the Connectivity Station is used, an additional ConnectivityPack license does not have to be installed on the WinCC systems that are accessed. The Connectivity Station functions autonomously and does not require a WinCC installation on the computer
- Access to WinCC archive and alarm data from a computer without installed WinCC basic system license or WinCC option via the interfaces of the Connectivity Pack or Connectivity Station requires a WinCC/Client Access license on the client side (see also "WinCC/Client Access License")
- Connectivity Station Option for WinCC V6.2 and higher

Benefits

- Access to variables, historical WinCC data, alarm data and user archives from any computer
- Options for analyzing and evaluating process data with specialist tools or user-defined applications (e.g., via Visual-Basic)

Function

As an OPC HDA server, WinCC makes historical data from the WinCC archive system available to other applications. An OPC HDA client (e.g. a reporting tool) can define the time interval for the required data by entering a start and end time. OPC HDA servers also support the generation of a variety of aggregate functions on the server itself (e.g. standard deviation, variance, mean values, integral values, etc.), thereby helping to relieve the load on the network, as only preprocessed data are transmitted.

OPC A&E servers are used to forward WinCC messages (along with all associated process values) to any client at production or enterprise control level. Filter mechanisms and subscriptions ensure that only selected modified data are transmitted. Acknowledgement is of course also supported.

The WinCC OPC XML DA server makes cross-platform communication between Windows and non-Windows systems possible, even via the Internet. This enables read and write WinCC online values (external and internal WinCC variables) to be exchanged with non-Siemens systems.

HMI Software

SCADA system SIMATIC WinCC

WinCC/Connectivity Pack & WinCC Connectivity Station

Function (continued)

WinCC OLE-DB makes standardized and user-friendly access to WinCC archive data possible (MS SQL Server 2005). In exactly the same way as access via the OPC HDA and OPC A&E interfaces, access via the WinCC OLE DB provider makes all WinCC archive data available along with the associated process values and message/user texts. The WinCC OLE-DB provider also supports analysis functions such as minimum, maximum, message hit list, etc.

The WinCC Connectivity Station was designed as a stand-alone gateway to WinCC server data. It supports access to WinCC server data over the OPC channels described as well as those for process values (not alarms) over OLE DB. Access to WinCC data is transparent, i.e. independent of which server of a redundant pair is active or whether data have already been transferred to the central archive server.

Connectivity Station

If no visualization is required at a station, any Windows computer with access to WinCC via OPC and OLE-DB can be configured via the Connectivity Station. This permits access to WinCC stations with server packages from a central computer without WinCC installation. The WinCC stations can be accessed via the following interfaces:

- OPC interfaces of the Connectivity Station
- OLE DB interface of the Connectivity Pack

The two access variants are autonomous access options with different ranges of functions.

OPC interfaces of the Connectivity Station

The Connectivity Station provides interfaces via which you can access the following using an OPC-Client.

- OPC-DA-Server: tags, e.g. process values
- OPC-HDA-Server: archived process values
- OPC-A&E-Server: alarms

Licensing

You require the "WinCC Connectivity Station" license in order to utilize the OPC interfaces of the Connectivity Station on a computer without WinCC installed.

If you only use the OPC interfaces of a WinCC installation, you only need the "Connectivity Pack" license.

The following table shows the combinations:

	New: WinCC-independent installation with Connectivity Station	Standard installation: OPC with WinCC
OPC DA	"WinCC Connectivity Station" license	No license required
OPC HDA	"WinCC Connectivity Station" license	"WinCC Connectivity Pack" license
OPC A&E	"WinCC Connectivity Station" license	"WinCC Connectivity Pack" license

The Connectivity Station is planned over NCM PC Manager or SIMATIC Manager. In Version 7, the Connectivity Station does not run as service.

Ordering data

Order No.

WinCC/Connectivity Pack & WinCC/Connectivity Station

Basic packages

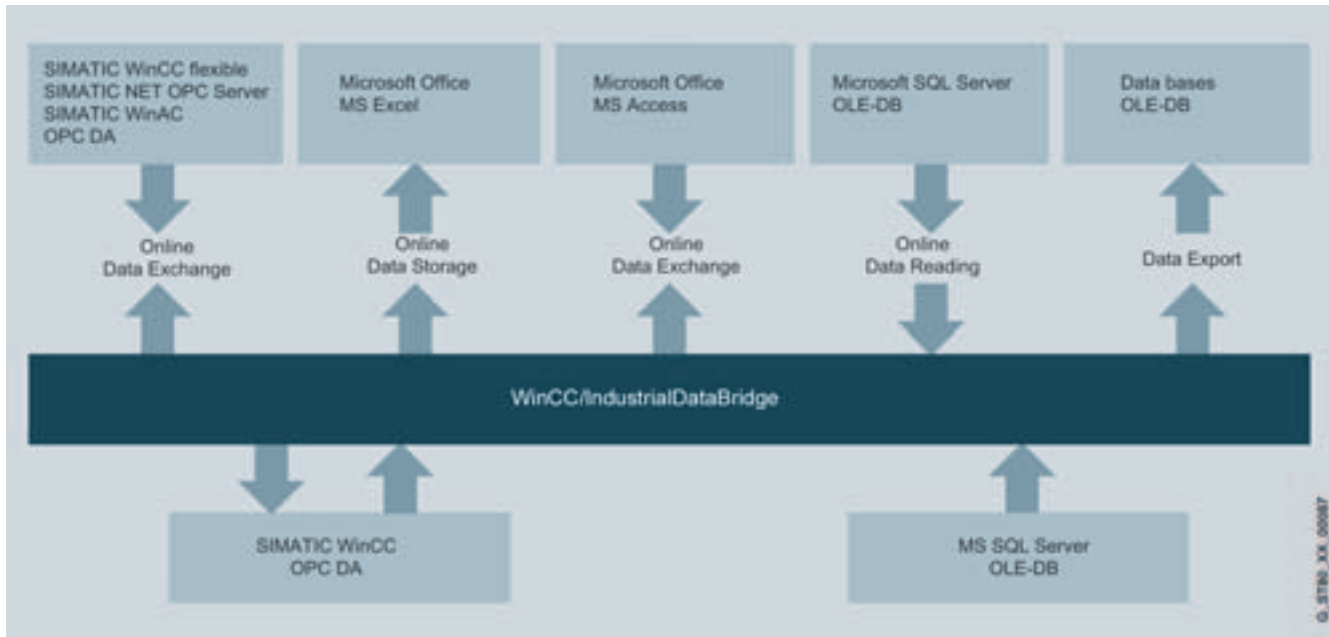
- | | |
|---|----------------------------|
| • WinCC/Connectivity Pack V7.0 ¹⁾ | 6AV6 371-1DR07-0AX0 |
| • WinCC/Connectivity Station V7.0 ¹⁾ | 6AV6 371-1DR17-0AX0 |
| • WinCC/Connectivity Pack V6.2 SP2 | 6AV6 371-1DR06-2AX0 |
| • WinCC/Connectivity Station V6.2 SP2 | 6AV6 371-1DR16-2AX0 |

Upgrade¹⁾

- | | |
|--|----------------------------|
| • WinCC/Connectivity Pack V6.x -> V6.2 SP2 | 6AV6 371-1DR06-2AX3 |
|--|----------------------------|

¹⁾ Upgrades from V6.x to V7.0 are included in the WinCC V7 upgrades

Overview



- The WinCC/IndustrialDataBridge option uses standard interfaces in order to connect the automation world with the world of IT and ensure two-way information flow. Typical examples of such interfaces are OPC in the field of automation and SQL database interfaces in the world of IT.
- For example, SIMATIC WinCC with its OPC DA server interface is the data source and an external database is the data destination.
- In addition to access to WinCC variables, access to messages, process values and user archive data (in the WinCC database) is also supported.
- As a stand-alone application with its standard interfaces, such as OPC DA and OLE-DB, WinCC/IndustrialDataBridge can be also be used in conjunction with SIMATIC NET and SIMATIC WinAC, for example.
- Option from WinCC V6
- The IndustrialDataBridge can be integrated into WinCC and can also be used in stand-alone mode (not in conjunction with WinCC)

Benefits

- Connecting the automation level with the IT world
- Integration of systems from different manufacturers via a host of standard interfaces (including OPC, OLE-DB, Office formats)
- Simple configuration with standard software without programming and thus at low cost
- High-performance data transfer between several systems simultaneously

Design

The software comprises a configuration environment and a runtime environment. The different data interfaces are integrated via software modules. In each case, one module is required as the data source and one module as the data destination. The different modules can be combined in any way.

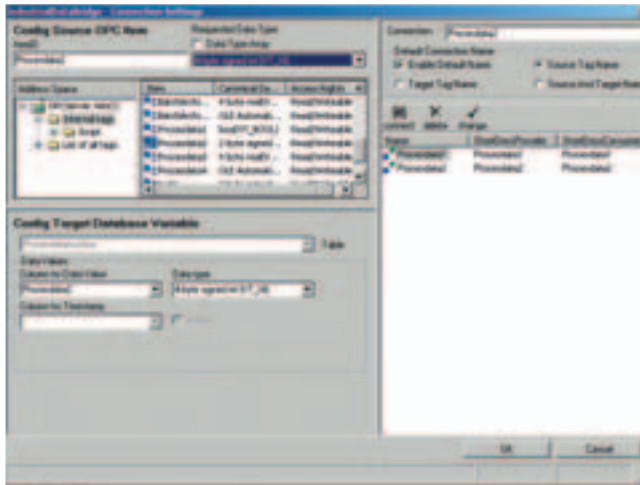
The connections between data source and data destination are created in the configuration environment. In the runtime environment, the IndustrialDataBridge establishes the connection autonomously and transfers the data of the linked variables.

HMI Software

SCADA system SIMATIC WinCC

WinCC/IndustrialDataBridge

Function



- IndustrialDataBridge establishes a link between the source and destination interfaces and transfers data on the basis of a change in value, once a configurable period of time has elapsed or when a specific event occurs.
- IndustrialDataBridge exchanges data between automation systems from different vendors, e.g., via OPC. The connection of OPC servers via IndustrialDataBridge enables communication between a variety of devices, data sources and data destinations. The OPC international interface standard is the key to open systems both now and in the future. Thanks to IndustrialDataBridge, OPC data exchange can already be supported.
- WinCC supports access to variables, tag logging, alarm logging and user archive data.
- Storage of process data in Office formats such as Excel or Access. Databases can also be integrated for the archiving of larger aggregates.
- One of the features of IndustrialDataBridge is a Send/Receive interface supporting data transfer to SIMATIC S5/S7 stations or other Send/Receive-compatible devices.
- IndustrialDataBridge enables SCADA and control systems from different vendors to be linked via the OPC interface. Communication via RFC1006 or Send/Receive is also supported.
- SQL databases are available as data destinations for production data acquisition. Data can be transferred from the data source on an event-driven basis with the OPC module or sent directly from the PLC with the Send/Receive module.
- Cyclic data archiving can be implemented via the OPC Data Access, WinAC ODK or Send/Receive data sources and the SQL database data destinations. On the database side, various transmission mechanisms are supported.

Interfaces:

The table below shows the possible data sources and destinations:

Provider (data sources)	Consumer (data destinations)
<ul style="list-style-type: none"> MS Access MS SQL server MySQL ODBC (new) Oracle 8i, 9i and 10i OPC Data Access V2 Send/Receive WinAC Send/Receive WinCC OLE DB WinCC UserArchive 	<ul style="list-style-type: none"> CSV, TXT MS Access MS SQL server MySQL ODBC (new) Oracle 8i, 9i and 10i MS Excel OPC Data Access Server (internal) OPC Data Access V2 Send/Receive WinAC Send/Receive WinCC UserArchive

Ordering data

Order No.

WinCC/IndustrialDataBridge V7.0, option for WinCC V7.0

for data exchange with databases and OPC servers, language versions: German/English

- with 128 tags
- with 512 tags
- with 2048 tags
- with 10000 tags

6AV6 371-1DX07-0AX0

6AV6 371-1DX07-0BX0

6AV6 371-1DX07-0CX0

6AV6 371-1DX07-0DX0

WinCC/IndustrialDataBridge PowerPack V7.0

- from 128 to 512 tags
- from 512 to 2048 tags
- from 2048 to 10000 tags

6AV6 371-1DX07-0AB0

6AV6 371-1DX07-0BC0

6AV6 371-1DX07-0CD0

WinCC/IndustrialDataBridge upgrade

from V6.1 to V7.0

6AV6 371-1DX07-0XX4

WinCC/IndustrialDataBridge V6.1, option for WinCC V6.2

for data exchange with databases and OPC servers, language versions: German/English

- with 128 tags
- with 512 tags
- with 2048 tags
- with 10000 tags

6AV6 371-1DX06-1AX0

6AV6 371-1DX06-1BX0

6AV6 371-1DX06-1CX0

6AV6 371-1DX06-1DX0

WinCC/IndustrialDataBridge PowerPack V6.1

- from 128 to 512 tags
- from 128 to 2048 tags
- from 128 to 10000 tags
- from 512 to 2048 tags
- from 512 to 10000 tags
- from 2048 to 10000 tags

6AV6 371-1DX06-1AB0

6AV6 371-1DX06-1AC0

6AV6 371-1DX06-1AD0

6AV6 371-1DX06-1BC0

6AV6 371-1DX06-1BD0

6AV6 371-1DX06-1CD0

HMI Software

SCADA system SIMATIC WinCC

WinCC/Client Access License (CAL)

Overview

- For a system on which WinCC (WinCC basic system or WinCC Option) has not been installed, WinCC data can be accessed through the interfaces of the options WinCC/Connectivity Pack, WinCC/Connectivity Station or WinCC/IndustrialData Bridge.
- For any number of systems (multi-processor systems) without WinCC (WinCC basic system or WinCC Option), WinCC data can be accessed through the interfaces of the options WinCC/Connectivity Pack, WinCC/Connectivity Station or WinCC/IndustrialDataBridge with one WinCC/Client Access License (CAL) per processor. One CAL must be purchased for each processor of the WinCC system.
- Option only for WinCC V6

Function

With the integrated MSSQL Server, WinCC V6 offers an excellent basis for integrated data management and diverse methods of integration into modern IT structures.

Access to the data available in WinCC requires the relevant license on all accessing computers - the WinCC Client Access License. The WinCC/CAL is installed on these accessing systems along with a WinCC basic package or a WinCC option. On all other systems, a WinCC/CAL must be obtained separately. It allows users to further process WinCC data with their own tools and make them available to other users and applications. Use of the "Per Processor License" allows access by any number of computers to this WinCC system.

Ordering data

Order No.

WinCC/Client Access License

6AV6 371-1ES06-0AX0

For client access to historical WinCC data

WinCC/Client Access License per processor

6AV6 371-1ES06-0CX0

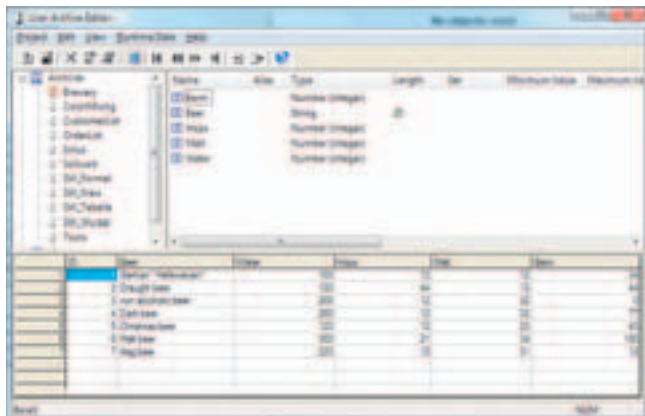
For access to historical WinCC data; any number of clients per processor

HMI Software

SCADA system SIMATIC WinCC

WinCC/User Archives

Overview



- Option for SIMATIC WinCC for managing data sets in user archives that contain related data.
- WinCC and its automation partners (e.g. a SIMATIC S7 controller) write these data sets and exchange them if required.
- A license is only required for the server (or single-user system).

The WinCC/User Archives option can also be used in the context of the WinCC/Web Navigator (see also WinCC/Web Navigator option).

Benefits

- Storing and managing of any user data in data sets
- Flexible display using ActiveX controls
- Simple linking of data set fields to the process via direct tag linking
- Import/export functions for further processing with other tools (e.g. MS Excel)

Function

- Input of parameter sets (e.g. operating parameters of a machine) in WinCC, storage of the sets in the user archive, and forwarding to the automation level
- Continuous acquisition of production parameters by the automation system and forwarding of the parameters to WinCC at the end of the shift
- Acquisition of batch data
- Specification of production parameters
- Management of warehousing data

WinCC user archives are created and assigned data in a user-friendly way using a dedicated editor. Special ActiveX controls are used for displaying data from the user archives at runtime.

Data sets and fields from user archives are linked to the process via direct tag linking.

Import and export functions support read-in/out of data via external applications (e.g. MS Excel). Freely selectable filter criteria allow clear representation of data sets.

WinCC provides functions for free organization of the data storage in the user archives that affect archives, data sets and fields. Archives can thus be generated, opened, closed, or reset, and data sets or field contents can be read, written or overwritten.

Sequence archives can accommodate batch data, shift production data, or also product quality data, and meet legal obligations for verification thanks to gap-free recording.

Ordering data

Order No.

WinCC/User Archives

- for WinCC V7.0
- for WinCC V6.2

6AV6 371-1CB07-0AX0

6AV6 371-1CB06-2AX0

Overview

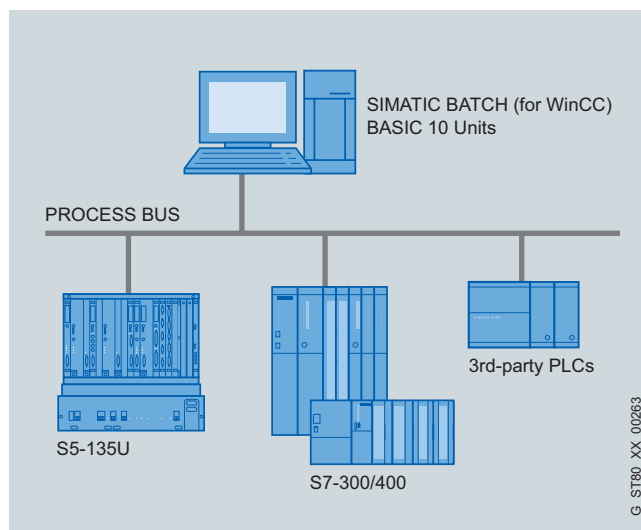
- WinCC in connection with the SIMATIC BATCH product range offers a solution for the implementation of batch processes in accordance with ISA S88.
- SIMATIC BATCH (for WinCC) is of particular interest where different PLCs such as S7-400/300, S5 or non-Siemens PLCs are to be used in a BATCH system.
- SIMATIC BATCH (for WinCC) is offered as a bundle that includes the SIMATIC BATCH components as well as the WinCC components.
- SIMATIC BATCH (for WinCC) contains the software for SIMATIC BATCH including options, as well as for SIMATIC WinCC including options. These products are released for any combinations.
 - SIMATIC BATCH (for WinCC) includes the licenses SIMATIC BATCH Server (10 units¹⁾, SIMATIC BATCH BATCH CC, and SIMATIC BATCH Recipe.
 - All other SIMATIC BATCH and SIMATIC WinCC products require the purchase of the relevant license or licenses.

¹⁾ Units are the number of subsystems that can be operated with this license.

Current versions:

- SIMATIC BATCH (for WinCC) V7.0 SP1
 - WinCC V6.2 SP2
 - SIMATIC BATCH V7.0 SP1

Configuration



SIMATIC BATCH (for WinCC)

Benefits

- SIMATIC BATCH (for WinCC) supports the user in the implementation of batch processes in accordance with ISA S88
- Modular architecture with flexible scalability and optimal adaptation to plant size and individual requirements, especially with regard to the use of PLCs such as SIMATIC S7-400/300, SIMATIC S5 and non-Siemens devices
- High availability via redundant system configurations provides protection against loss of batch data
- Cross-subsystem recipes with significant simplification of recipe management
- Hierarchical recipes in accordance with ISA S88.01 for the creation of recipes oriented toward process engineering
- Storage, archiving and extensive logging of batch data in XML format
- Formula support
- Validation in accordance with 21 CFR Part 11 is significantly simplified by functions such as Audit Trail (change log), versioning of recipes, recipe operations and formulas, electronic signature and access protection.

Application

SIMATIC BATCH (for WinCC) has been designed for:

- Batch processes in the WinCC environment in accordance with ISA S88
- Users of S7-300, S7-400, S5 or non-Siemens controllers
- Users of STEP 5/STEP 7

HMI Software

SCADA system SIMATIC WinCC

SIMATIC BATCH (for WinCC)

Design

SIMATIC BATCH (for WinCC) ships with the following 3 software components and licenses:

- SIMATIC BATCH Server for 10 units
- SIMATIC BATCH Recipe system (Floating License)
- SIMATIC BATCH CC (Floating License)

The following SIMATIC BATCH options can be used to expand or configure a plant or the relevant licenses can be purchased:

- SIMATIC BATCH Recipe system (Floating License)
- SIMATIC BATCH Planning (Floating License)
- SIMATIC BATCH CC (Floating License)
- SIMATIC BATCH Library
- SIMATIC BATCH Hierarchical Recipe
- SIMATIC BATCH Formula
- SIMATIC BATCH Power Packs (20, 40, 100, unlimited)

The following basic products and SIMATIC WinCC options can be used to expand or configure a plant or the relevant licenses can be purchased.

- SIMATIC WinCC RT/RC (incl. Power Packs)
- SIMATIC WinCC/Server
- SIMATIC WinCC/Redundancy
- SIMATIC WinCC/Archives (incl. Power Packs)
- SIMATIC Logon

All previously listed software components including options of SIMATIC BATCH and SIMATIC WinCC are supplied with the product SIMATIC BATCH (for WinCC). In addition, supplementary components for configuring the interfaces between WinCC and SIMATIC BATCH are included in the basic package. The use and compatibility of WinCC and SIMATIC BATCH is only guaranteed for the software versions that come with SIMATIC BATCH (for WinCC).

Function

The functions of SIMATIC BATCH (for WinCC) are based on the SIMATIC BATCH range of products. SIMATIC BATCH (for WinCC) includes the following licenses or functions:

- SIMATIC BATCH Server for 10 units
- SIMATIC BATCH CC (BATCH Control Center)
- SIMATIC BATCH Recipe System (recipe editor)

It can be used to run a SIMATIC BATCH project with 10 subsystems on a single-user station or a client/server combination (Batch Client and Batch Server).

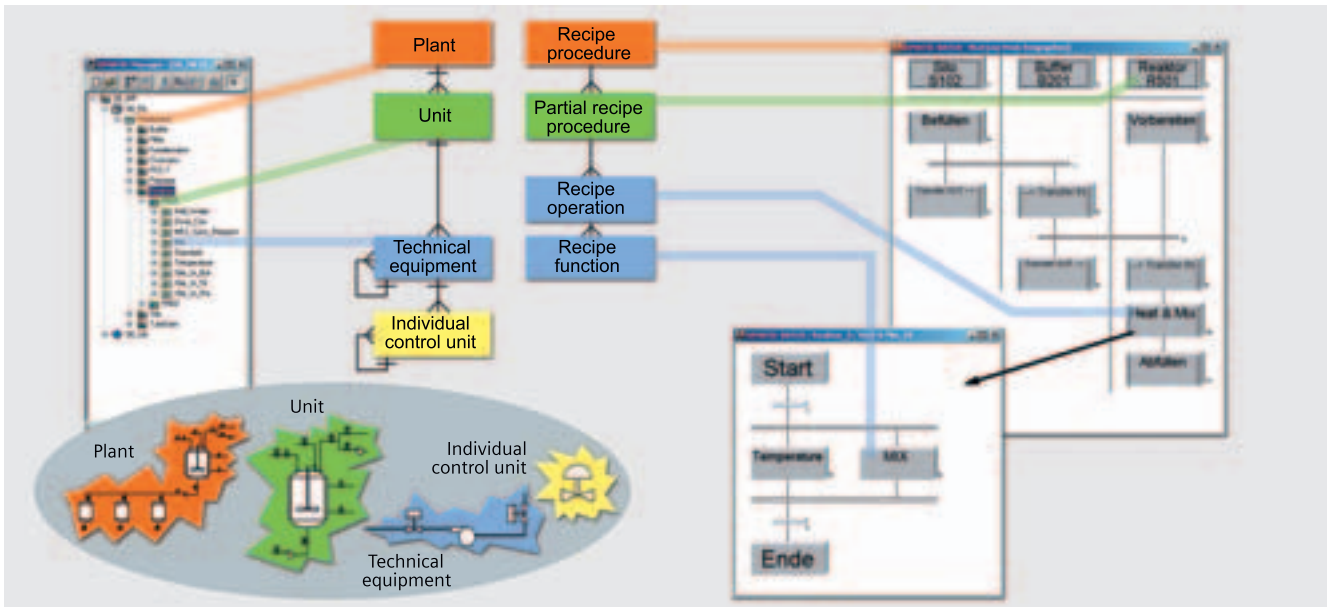
The capacity of the Server Basic Packages with 10 units can be expanded to 20, 40, 100 or unlimited units using SIMATIC BATCH PowerPacks.

SIMATIC BATCH CC offers powerful functions for the following tasks:

- Reading in and updating the plant data of the basic automation
- Defining user privileges for all functions, for clients or subsystems
- Definition of material names and codes
- Managing master recipes and starting the recipe editor
- Management of libraries with recipe elements (library operations)
- Editing of formula categories and management of associated formulas (parameter sets)
- Creation of batches with master recipes
- Starting of batch processing and controlling of batches
- Monitoring and diagnostics of batch processing
- Recording and archiving of recipes and batch data

Function (continued)

SIMATIC BATCH Hierarchical Recipes enables the creation hierarchical recipes in accordance with ISA-88:



The hierarchical recipe structure is mapped on the plant module as follows:

- Recipe procedure for controlling the process or the production in a plant
- Partial recipe procedure for controlling a process step in a plant unit
- Recipe operation/function to implement the process engineering task/function in a technical facility

SIMATIC BATCH *Separation*, *Procedures* and *Formulas* offers powerful functions for the following tasks:

The flexibility achieved by recipes which are independent of plant units can be increased even further if the procedure and parameter sets (formulas) are separated from one another. Various master recipes can be created by linking several formulas using a recipe procedure. This enables central modification of procedures. The formula structure is determined by the formula category defined by the user.

Compatibility

In respect of compatibility, please note that only the SIMATIC WinCC and SIMATIC BATCH versions included in the product package are compatible with each other. Only predecessor products of the product bundle SIMATIC BATCH (for WinCC) are upward compatible, not single components of the product range SIMATIC WinCC and SIMATIC BATCH.

Integration

A detailed description of how to integrate SIMATIC Batch in WinCC appears in the interface description "SIMATIC BATCH Configuration Guide".

Ordering data

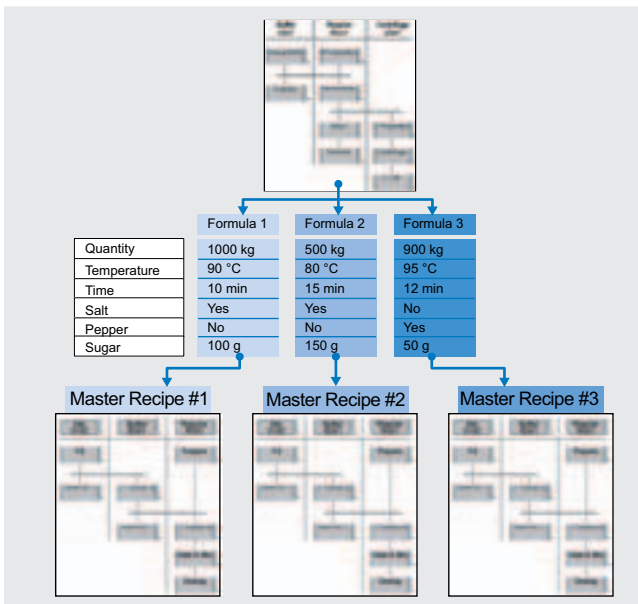
SIMATIC BATCH (for WinCC)

Software bundle for the creation of recipes and control of batch processes in accordance with ISA S88 based on SIMATIC BATCH.

- SIMATIC BATCH Server 10 units
- SIMATIC BATCH Recipe system (Floating License)
- SIMATIC BATCH CC (Floating License)

Order No.

6ES7 657-1SA07-0YA0

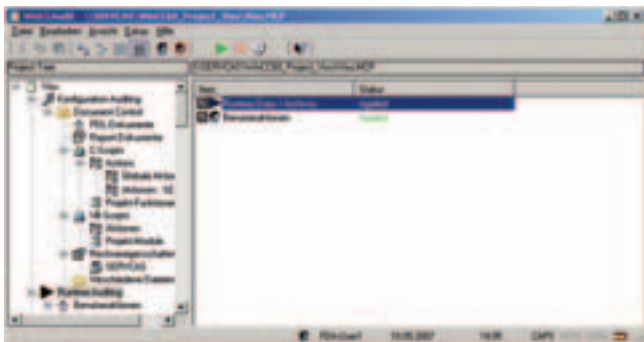


HMI Software

SCADA system SIMATIC WinCC

WinCC/ChangeControl & WinCC/Audit

Overview



- 4** *WinCC/ChangeControl* is used to *trace engineering changes* in a tamper-proof long-term audit trail database, called the audit trail for short. All changes are automatically entered in the engineering system in the audit trail. This enables all the changes to be traced that have been made, to deduce the causes and minimize downtimes on the system. To begin tracing at a defined project status, a project version definition is provided that contains all data and files of a WinCC project version. The project version definition naturally provides the ability to reactivate earlier project versions. Document management is also provided, which manages and archives intermediate status for system graphics, reports or user files and stores change information of the user. An audit viewer with helpful filter functions can be used for quickly and simply evaluating the audit trail, exporting it to an Excel sheet or printing it out.
- WinCC/Audit* Includes the full functionality of *WinCC/ChangeControl* and is also used for *tracing all operations*. All operations are automatically recorded in the audit trail at RT.
- Licensing:** To configure which change information from the project should be recorded in the audit trail, the *WinCC/ChangeControl RC* or *WinCC/Audit RC* package is required. "RC" stands for Runtime and Configuration. It is required on the station that is to be configured and also includes an RT license. For recording an audit trail, one *WinCC/Audit RT* license is required per WinCC station (Client/Server).
- The *WinCC/Audit* or *WinCC/ChangeControl* and SIMATIC Logon options support users in respect of plant validation and meet the requirements of FDA CFR 21 Part 11. A declaration of conformity (White Paper) offers proof of this.

Benefits

- Quick and easy traceability configuration
- Gap-free and automated recording of engineering changes and operator actions in an audit trail
- Reduction in plant downtimes thanks to fast analysis of the gap-free recorded audit trail information
- Logging of defined WinCC project status with all database information and files of the application
- Gap-free documentation of the project version definition procedures with version number, user and comments
- Complete tracing support by WinCC single and multi-station systems, single and multi-project solutions, Client/Server architecture
- Extensive reduction in engineering outlay in order to meet the requirements of FDA 21 CFR Part11 & EU 178/2002
- Compliance with the requirements of the Food and Drug Administration (FDA) for the food, beverages and tobacco industries

Design

WinCC/ChangeControl and *WinCC/Audit* consist of five components:

- The audit editor for configuration the audit trail content
- The project version definition for logging WinCC projects
- Document management for automatic archiving and versioning of WinCC plant mimics, scripts, reports, and project-specific documents, and the recording of the associated change information
- The audit viewer for visualizing, exporting and printing WinCC and WinCC flexible audit trails. The viewer is available as an executable program under Windows, as well as OCX with WinCC Runtime.
- The audit trail, which tracks all changes in respect of both engineering and plant operation in a separate SQL database. The audit trail can be set up as a central audit trail for a number of projects or even just for a single project.

WinCC/ChangeControl and *WinCC/Audit* support both single-user and multi-user systems, client/server architectures and even the WinCC redundancy system. No redundant audit trail is created however.

Function

WinCC/ChangeControl

WinCC/ChangeControl is a functional subset of WinCC/Audit. WinCC/ChangeControl is for tracing engineering changes in the engineering phase or in online operation. All change data is recorded in an audit trail.

There are two types of engineering changes:

- those that change the WinCC database or are executed through the WinCC Explorer, such as e.g. changes to tag management or creating a user group,

and those

- limited to changing files, the so-called document administration.

The document management manages system images, scripts and log layouts and customer-specific documents and stores respective intermediate versions as backups. All of these documents or files are subject to a change process, i.e. documents can be booked out for processing, booked in for finalization and intermediate versions can be retrieved from backup storage with a rollback function.

The project version definition as a component of WinCC/ChangeControl archives WinCC projects and creates reproducible project status or defined start-time points for starting tracing.

An audit trail is also provided with information on who has created which project version or which version has been reproduced or deleted.

Configuring the audit trail, the project version definition and the document management is simple, quick and comfortable.

The audit trail data is visualized from WinCC, as well as from WinCC flexible via the audit viewer, an executable program under Windows. The data can also be evaluated with the audit viewer OCX in Runtime by WinCC however. Users select the desired view of the audit trail information via filters or selection criteria and can export the data to an Excel file or print it on a printer. Audit trail information is tamper-proof and can thus not be modified or deleted. An export function can be used to swap out the audit trail to an XML file or to archive it.

WinCC/Audit

WinCC/Audit has all of the functionality off WinCC/ChangeControl and is also used for tracing user operations in RT operation. Tracing can be used for determining who, when and what conditions the machine has undergone. In addition to recording operator activities, the audit trail also records the starting and modifying of recipes or user logs. At specific objects or events, such as function buttons or sliders, the user can also record activities of an individual nature such as e.g., pressing a function button, moving sliders and other actions with a so-called audit entry function in the audit trail.

A WinCC/ChangeControl RC license or a WinCC/Audit RC license is required for configuring the audit trail. One RT license is required for each station (client/server) to be monitored. One RC license always includes one RT license.

Ordering data

Order No.

WinCC/ChangeControl RC

For the configuration of the audit trail incl. RT

- V7.0, for WinCC V7.0¹⁾

6AV6 371-1DV27-0AX0

- V6.2, for WinCC V6.2 and WinCC V6.2 SP2

B

6AV6 371-1DV26-2AX0

WinCC/Audit RC

For the configuration of the audit trail incl. RT

- V7.0, for WinCC V7.0¹⁾

6AV6 371-1DV17-0AX0

- V6.2, for WinCC V6.2 and WinCC V6.2 SP2

B

6AV6 371-1DV16-2AX0

WinCC/Audit RT

Creation of the audit trail in RT

- V7.0, for WinCC V7.0¹⁾

6AV6 371-1DV07-0AX0

- V6.2, for WinCC V6.2 and WinCC V6.2 SP2

B

6AV6 371-1DV06-2AX0

Upgrades

V6.x to V7.0¹⁾

- for WinCC/ChangeControl RC, WinCC/Audit RC and WinCC Audit RT

6AV6 371-1DV07-0AX4

V6.x to V6.2

- for WinCC/Audit RC and WinCC Audit RT

B

6AV6 371-1DV06-2AX3

B) Subject to export regulations: AL: N und ECCN: EAR99S

¹⁾ Expected start of delivery for Version V7.0: 09/2008

More information

Information about FDA can be found in a White Paper: Declaration of conformity of SIMATIC WinCC to FDA21 CFR Part 11.

Additional information is available in the Internet under:

http://www.siemens.com/automation/hmi/html_76/products/software/wincc/fda01.htm

HMI Software

SCADA system SIMATIC WinCC

SIMATIC Logon

Overview



- **SIMATIC Logon (SL)** for WinCC is a software option package supporting the central administration of all WinCC users on a plant-wide basis. The central user management with SL uses the Windows mechanisms and is to be installed on all participating WinCC stations. The user management actions such as logging in and out are automatically supplied in the audit trail of WinCC/Audit and WinCC/ChangeControl by SL.
- The WinCC/Audit or WinCC/ChangeControl and SIMATIC Logon options support users in respect of plant validation and meet the requirements of FDA CFR 21 Part 11. A declaration of conformity (White Paper) offers proof of this.

Benefits

- Central, system-wide user management
- Conforms with the requirements of the Food and Drug Administration (FDA) for the pharmaceuticals and food processing industry

Design

The SIMATIC Logon Service can be used for the central user management of a number of WinCC stations. Operation in a Windows Workgroup or even in a domain is possible.

Function

SIMATIC Logon

Users receive a unique user ID, user name and password. This information is stored encrypted at a central point (for SIMATIC Logon in the Windows user management). Functions such as changing the password, automatic logoff after a predefined time and lockout after several incorrect entries of a password ensure maximum security of operation.

In the case of the SIMATIC Logon, user administration is integrated into the security system and user administration of MS Windows.

To meet in particular the Food and Drug Administration (FDA) requirements for the pharmaceuticals and food processing industry, all user and administrator actions, such as log in, log out, password changes, incorrect password inputs, and creating and deleting users, are recorded with timestamp in a secure database or are available in the audit trail of WinCC/Change Control or WinCC/Audit.

In addition, SIMATIC Logon allows setting up new users online, plant-wide and across applications, or blocking existing users. SIMATIC Logon also supports electronic signature.

Ordering data

SIMATIC Logon V1.4-SP1

Central user management for WinCC V6.2 and WinCC V7.0 Runtime license for an operator station¹⁾

¹⁾ SIMATIC Logon V1.4 included in scope of supply of WinCC V7.0

Order No.

6ES7 658-7BX41-2YA0

More information

Information on FDA can be found in a White Paper: Declaration of conformity of SIMATIC WinCC for FDA21 CFR Part 11.

Additional information is available in the Internet under:

http://www.siemens.com/automation/hmi/html_76/products/software/wincc/fda01.htm

Overview



- WinCC/IndustrialX makes it easier to develop a solution for a visualization task by allowing customized objects to be standardized
- A license must be installed on each development computer (current version of Visual Basic must be installed on the development computer)

Benefits

- Easy creation using configuration wizards
- Quick entry due to the use of standards: ActiveX technology, creating with the aid of Visual Basic
- Central creating and changing of object displays of the same type (typing) saves time and money
- Configuring of intelligent, sector-specific objects (graphic illustration and logical processing) with know-how protection
- Can be used in versatile ways: in WinCC screens and other Windows applications (e.g. Internet Explorer, Excel)

Innovations of V7.0

Support of Visual Studio 2005 (.NET)

Application

IndustrialX controls create standardized presentations and allow flexible customization to the requirements of a wide range of applications, e.g. applications in the chemical, glass or paper manufacturing industries.

Function

- Configuring intelligent, industry-specific objects (graphic illustration and logical processing) with know-how protection
- Automatic object supply with WinCC data structures (templates)
- Creation of Web Navigator-compatible, customer-specific ActiveX components with active process data supply
- Integration into WinCC via structure names

Ordering data

Order No.

WinCC/IndustrialX

- V7.0; for WinCC V7.0 and V6.x

6AV6 371-1EL17-0AX0

HMI Software

SCADA system SIMATIC WinCC

WinCC/ODK

Overview

WinCC/ODK (Open Development Kit)

- WinCC option for utilization of the exposed programming interfaces that can be used to access data and functions of the WinCC configuration and WinCC runtime system
- The interfaces are designed as "C-Application Programming Interface" (C-API)
- Scope of delivery:
 - CD-ROM with examples
 - Voucher for a one-day intensive workshop

Benefits

- Individual system expansions via an open standard programming language
- Access to data and functions of the WinCC configuration and runtime system
- Development of your own applications and add-ons for the WinCC basic system

Innovations of V7.0

Support for Visual Studio 2005 (.NET)

Function

The API functions are configuration and runtime functions, and include:

- MSRTCreateMsg: Creates a message
- DMGetValue: Gets the value of a variable
- PDLRTSetProp: Sets the object properties in a display

They can be used in the following places:

- within WinCC, for example in global scripts or as part of C actions in the Graphics Designer,
- in Windows applications in the programming language C (the current version of Microsoft Visual C++ is necessary as a development environment for WinCC).

Ordering data

Order No.

WinCC/ODK

- V7.0; for WinCC V7.0 and V6.x

6AV6 371-1CC07-0AX0

WinCC/ODK upgrade

- to V7.0

6AV6 371-1CC07-0AX4

HMI Software

SCADA system SIMATIC WinCC

WinCC/Comprehensive Support

Overview

- With Comprehensive Support, WinCC offers an SUS (Software Update Service) as a comprehensive support package.
- The overall package includes the latest updates/upgrades for WinCC incl. options.
- The WinCC user receives a contract at the beginning and update products are sent automatically for a period of 12 months. The contract is automatically extended by a further year unless canceled up to 12 weeks prior to expiration.
- WinCC Comprehensive Support has to be purchased for each WinCC System (single-user system, server, client). In order to ensure that users of multiple systems can gain access to WinCC Comprehensive Support at a competitive price, in addition to the package with one license, a discounted package with 3 and 10 licenses is available.

Benefits

- Automatic distribution of current upgrades and service packs for WinCC ensures that the latest WinCC version is always available

Ordering data

WinCC/Comprehensive Support¹⁾²⁾

Automatic delivery of current updates/upgrades for WinCC basic software and options
Valid for

- 1 license
- 3 licenses
- 10 licenses

Order No.

6AV6 381-1AA00-0AX5

6AV6 381-1AA00-0BX5

6AV6 381-1AA00-0CX5

1) Comprehensive support runs for one year. The contract is automatically extended by a further year unless canceled 3 months prior to expiry.

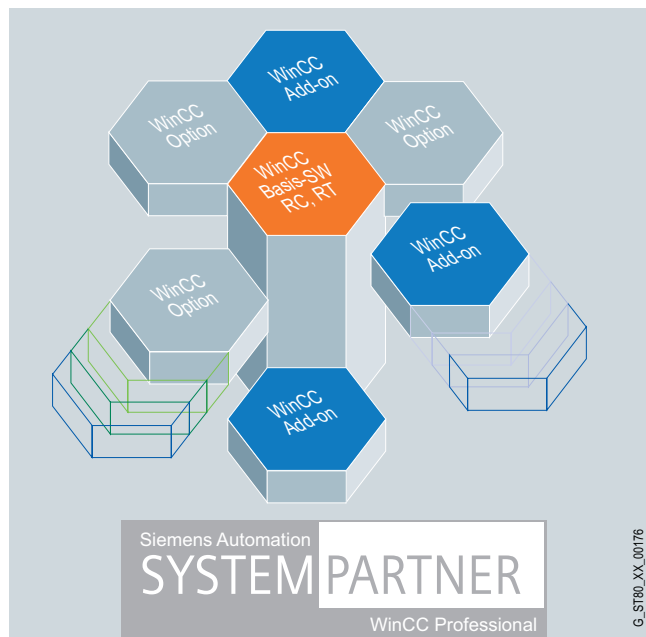
2) Requires the current software version

HMI Software

SCADA system SIMATIC WinCC

WinCC Premium Add-on and partner management

Overview



WinCC Premium Add-ons – Solutions for all sectors and technologies

The basic system is designed to be independent of any specific technology or industrial sector, to be modular and flexibly expandable and to permit not only simple single-user applications in machine construction, but also complex multi-user solutions or even distributed systems with several servers and clients in plant engineering. WinCC Premium Add-ons are supplementary products that have been created by competent partners working in the specific sectors and technologies and represent interesting expansions for WinCC.

WinCC Premium Add-ons are not IA (Siemens Industry Automation) products, but the products of partners who are committed to complying with certain quality features and boundary conditions. The Premium Add-ons are checked, for example, in the Siemens Test Center for their compatibility with the basic WinCC system and supported in the first instance by the central Hotline. As they are important application- and sector-specific add-on products for SIMATIC WinCC, they are marketed jointly by Siemens and the respective add-on suppliers. The WinCC Premium Add-on products can be found on the Internet (see Further Information) and in the "Online WinCC Premium Add-on Catalog".

Premium Add-ons for Connectivity:

- *PM OPEN IMPORT system software* for importing WinCC flexible archives into the WinCC system.
- *PM OPEN EXPORT system software* for exporting WinCC data to local storage media or storage media released in the network.
- *PM OPEN TCP/IP system software* permits bidirectional exchange of WinCC data (tags, messages) with one or more computers that communicate using the TCP/IP protocol.
- *Historian CONNECT ALARM system software* permits importing of messages and alarms from WinCC and WinCC flexible into the SIMATIC IT Historian.
- *WinCC OPC Alarm & Event Client* is used to transfer alarms and messages from any OPC A&E server complying with the specification to the WinCC signaling system.

Premium Add-on for process management:

- *PM CONTROL system software* is a recipe system for user-friendly generation and modification of recipes.
- *PM QUALITY system software* is an archive system for the administration of job and batch-related production and process data.

Premium Add-on for sector products:

- *B.Data energy management system* is a modular and cross-sector energy management and plant information system for industrial power companies.
- *SIMATIC WinCC powerrate* provides the basis for continuous reduction of the power consumption, and thus also of the energy costs.
- *Sm@rtlib HVAC function library* offers control and component blocks for heating, ventilation and air-conditioning systems.
- *ACRON for WinCC/PCS 7* is used for long-term archiving and logging of process data for small to medium-sized plants, specifically in the water supply and treatment industry.

Premium Add-on for configuration tools:

- *DCC TranslationEditor* for translating multilingual projects with in-built security, convenience and globalization features.

Premium Add-on for diagnostics and maintenance:

- *Management System Alarm Control Center* for transmitting fault messages via various communication paths, such as GSM, LAN, e-mail.
- *PM MAINT system software* is a tool for the maintenance of production plants.
- *PM ANALYZE system software* for analysis of fault and operating messages, as well as process values.
- *ShutDown WinCC system software* terminates the WinCC Runtime software in the event of a power failure, minimizes plant downtimes, and increases data integrity.
- *System diagnostics instrumentation and control* for reading out the status of the instrumentation and control.

Overview (continued)

Competent partners

With SIMATIC HMI, you not only get excellent products to suit your requirements, but we will also support you with selecting a partner for your automation solution. In our global network of Siemens Automation Solution Providers you will always find competent partners in your neighborhood. In addition, we implement and support the Siemens-internal WinCC Competence Centers and the WinCC Professionals external system integrators on the basis of WinCC customer- and industry-specific and economic solutions.

WinCC Competence Centers

Mannheim

Emphasis on process management

- Sector-independent solutions and products in the fields: Production, environmental protection, maintenance and diagnostics
- Connectivity tools, system integration, connection to SAP R/3
- Support of FDA validation and WinCC ODK
- Support for advanced users with application of ODK and VBA

Stuttgart

Emphasis on production technology

- Solutions for maintenance management
- Web-based solutions with WinCC

Erlangen

Emphasis on process automation

- MES connectivity
- Plant information, maintenance, batch and quality management
- Web-based solutions with WinCC
- Customized database interfacing

Nuremberg

Solutions in the Oil & Gas, Metal & Mining, Pulp & Paper sectors

- Network and security
- Microsoft Certified
- Migration from COROS to WinCC
- Customized expansions also for WinCC flexible
- Web solutions
- Customized workshops, e.g. training for VBS, VBA, C-

Barcelona

Emphasis on production automation and logistics

- Solutions for integration of WinCC into MES and ERP
- Development of WinCC add-ons

Nice

Solutions in the food and beverages sector, pharmaceuticals and process engineering

- Batch processes
- Migration of SIMATIC TI, Teleperm M and PCS systems to WinCC
- Customized expansions
- FDA support
- Migration of TI systems

More information

WinCC Competence Center

Additional information is available in the Internet under:

<http://www.siemens.com/winCC/competencecenter>

Siemens Solution Partner Automation

Additional information is available in the Internet under:

<http://www.siemens.com/automation/solutionpartner>

WinCC Premium Add-on

Additional information is available in the Internet under:

<http://www.siemens.com/winCC/addons>

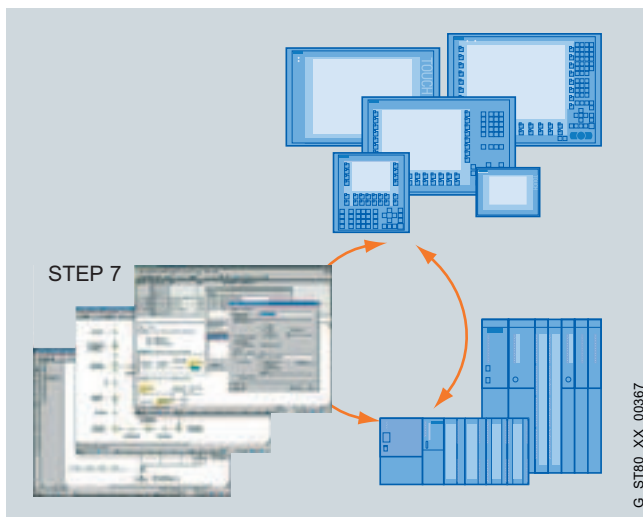
HMI Software

SIMATIC ProAgent process diagnostics software

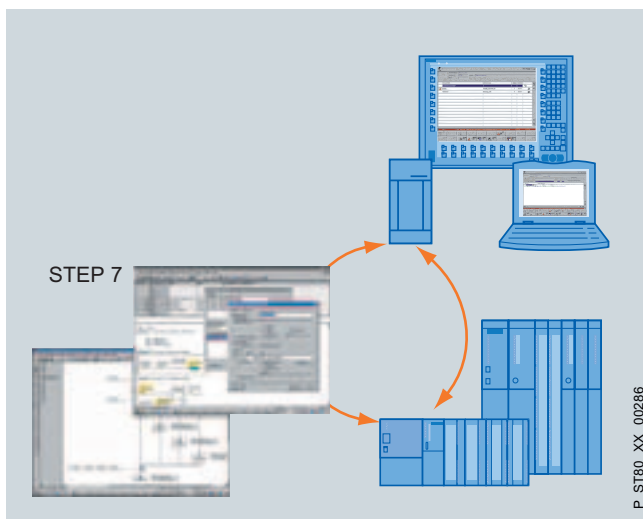
SIMATIC ProAgent

Overview

- Process diagnostics software for quick, selective fault diagnostics in plants and machines for SIMATIC S7 and SIMATIC HMI
- A standardized diagnostics concept for various SIMATIC components:
Optimum interaction between STEP 7 engineering tools and SIMATIC HMI
- Standard user interface



Process fault diagnostics with ProAgent for ProTool and WinCC flexible/ProAgent as well as the STEP 7 engineering tools



Process fault diagnostics with WinCC/ProAgent and the STEP 7 engineering tools

Benefits

- Integral component of Totally Integrated Automation (TIA): increases productivity, minimizes the engineering outlay, reduces the lifecycle costs
- ProAgent:
 - Provides optimum support for plant and machine personnel in respect of troubleshooting and fault rectification
 - Increases plant availability
 - Reduces downtimes
- No further configuration overhead for diagnostics functionality
- Frees up PLC capacity with regard to memory and program execution time
- No special operator know-how is required thanks to clearly comprehensible indication of the cause of error

Application

Increased productivity is being achieved more and more by cutting costs. In this context, the focus is increasingly on maintenance. The emphasis here is on rectifying faults as quickly and efficiently as possible. Ideally, the operating personnel should also perform part of the maintenance tasks. The operating personnel are on-site, they are familiar with the procedures and can intervene quickly. This saves time and reduces costs. It is precisely here that ProAgent can assist operating personnel in identifying faults quickly, in particular in the automotive and machine tool industries.

In the event of a process fault, process fault diagnosis with SIMATIC ProAgent will provide information about the location and cause of that fault and support personnel with troubleshooting.

The ProAgent solution has been optimized specifically for use with SIMATIC S7-300/S7-400 and SIMATIC WinAC. It can be used in combination with the S7-PDIAG, S7-GRAPH and S7-HiGraph¹⁾ STEP 7 engineering tools. The ProAgent option package features standard displays that are updated with process-specific data during runtime.

¹⁾ Process diagnostics with S7-HiGraph in combination with TP/OP/MP270/277, MP370/377 as well as with C7636 and PC RT systems.

HMI Software

SIMATIC ProAgent process diagnostics software

SIMATIC ProAgent

Function

- Context-sensitive diagnostics initiation due to process error message
 - Output of operands with symbols and comment
 - Switching is possible between LAD, STL and signal list
 - Supporting fault rectification with direct process access when using the motion display
 - Output of the faulty operands directly in the message including address, symbol and comment¹⁾
 - Consistency test in RT:
Inconsistent diagnostic units are marked with icons. This permits quick locating of faults regarding configured data in the commissioning phase.
 - Direct, unit-related entry point in the diagnostic display from user displays by using ProAgent functions
 - Unit or message-related entry to STEP 7 (LAD/STL/FD editor, S7-GRAPH, HW CONFIG (upon system error messages)), supported fully automatically²⁾
 - Unit or message-related entry to STEP 7), supported fully automatically³⁾
 - Graphic display of step sequences (overview display)⁴⁾
- ¹⁾ In combination with TP/OP/MP 270/277, MP370/377, C7 636, WinCC/ProAgent as of V6.0, and WinCC flexible/ProAgent
- ²⁾ WinCC/ProAgent as of V5.5 and as of WinCC flexible 2007/ProAgent on PC RT
- ³⁾ Only WinCC/ProAgent as of V5.5
- ⁴⁾ As of WinCC flexible 2007/ProAgent, WinCC/ProAgent as of V5.6 in combination with S7-GRAPH as of V5.1 (OCX is delivered as of S7-GRAPH 5.1)

Standardized user interface with standard displays

- Message display
- Unit overview
- Diagnostics detail display
- Motion display
- Sequencer operating display

The displayed image contents are related to the previously selected units or messages. This means that the proper context-sensitive diagnostics display can be called up based on a message or a selected technological unit.

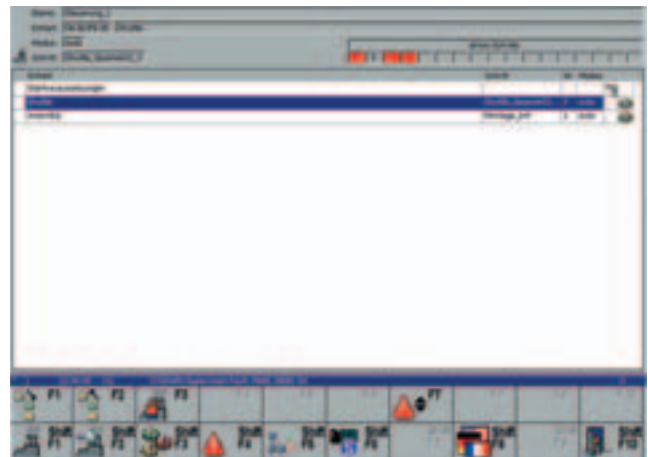
Message display

All of the existing process messages are shown in the message display. Context-sensitive branching to other diagnostic displays is also possible with a selected message. The operating personnel can also take the message directly from the erroneous operands and react immediately without having to perform any other operations on the HMI device. WinCC flexible allows this function on the Windows CE-based devices /TP/MP 270/277, MP370/377 and on PC Runtime systems. The function is available as of version 6.0 for WinCC/ProAgent.

Unit overview

The units overview displays all technological units and the respective sub-units (system/machine components) in table form. In this display, the user is able to recognize, for example, which operating mode or which status the respective unit is in. The operating mode can be changed by the user if required.

Faulty units are marked with attributes.



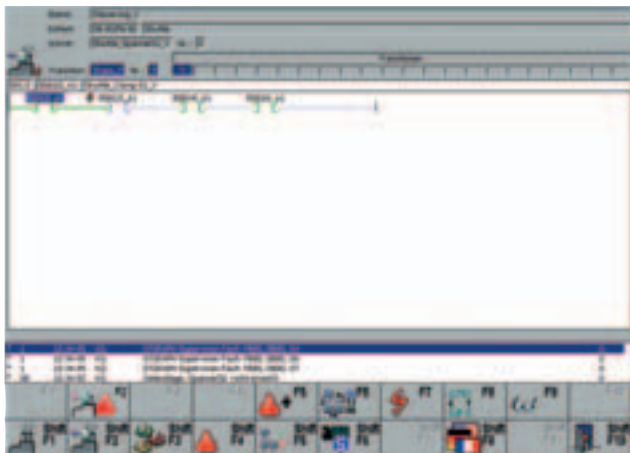
HMI Software

SIMATIC ProAgent process diagnostics software

SIMATIC ProAgent

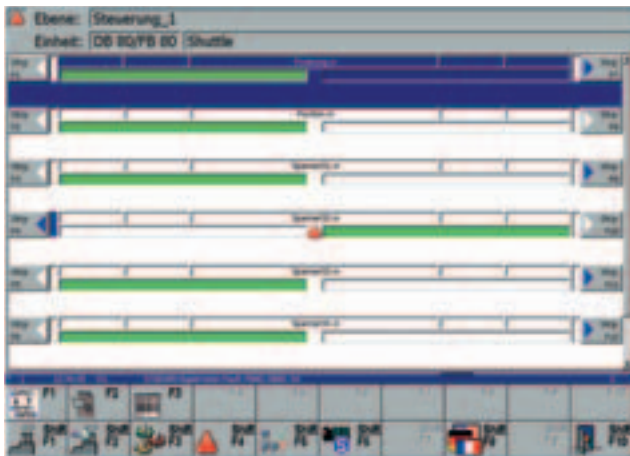
Function (continued)

Diagnostics detail display



The diagnostic detail display shows the faulty operands at the time of origination of a process error. As an option, current status information can also be displayed. The diagnostics results are either displayed in a ladder diagram (LAD), statement list (STL), or in a clearly arranged signal list overview. The output of the operands depends on the display format with symbols and comments from the S7 symbol table. Only the operands that cause the fault are displayed and marked with a highlighted attribute. Switching to a display that calls up the current status of all operands in the controller is also possible.

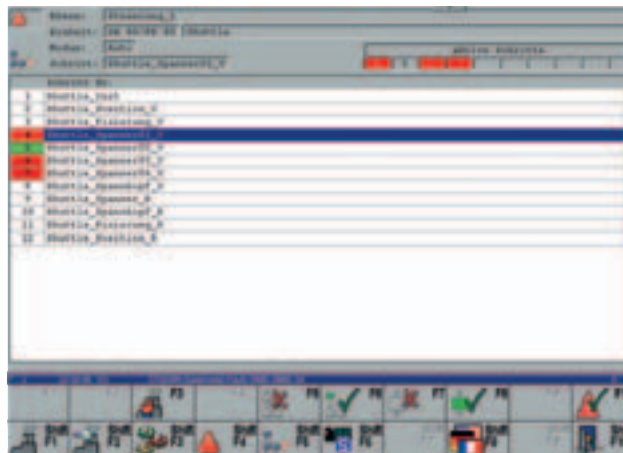
Motion display



The motion display is used for supported fault rectification. Every motion line contains a comment line that describes the motion (e.g. x-axis), two actions for implementing the motion, response concerning the actuation of a motion and information on the respectively achieved end positions (max. 16).

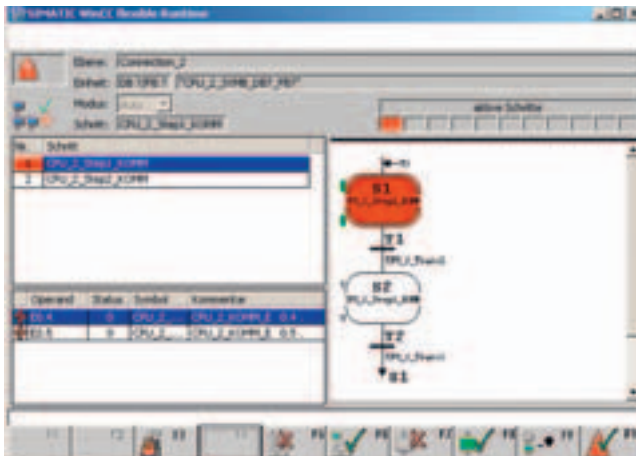
The motion itself is controlled with softkeys on the side of SIMATIC Panels and Multi Panels. For time-critical motions, the actuation can be done directly through inputs of the controller (depending on the capabilities of the target hardware: 24 V direct keys, DP direct keys via PROFIBUS).

Sequencer operating display



The sequencer operating display supports sequencer control. This makes functions such as initializing and acknowledging sequencers, activating/deactivating individual steps and operating mode settings possible analog to the status/control in S7-GRAPH. The steps are output to a list with step number/name. Attributes for identifying an active/faulty step give the operating personnel an overview of the current status of the step sequence.

Sequencer diagnostic display



WinCC flexible/ProAgent and WinCC/ProAgent¹⁾ also offer capabilities for graphic monitoring and sequencer diagnostics. This gives the user the ability to monitor active/faulty steps as well as the fault cause, e.g. faulty transition conditions, simultaneously on the HMI device.

¹⁾ WinCC/ProAgent as of V5.6 in combination with S7-GRAPH as of V5.1 (OCX is delivered as of S7-GRAPH 5.1)

Technical specifications

	WinCC/ProAgent	WinCC flexible /ProAgent
Interfaces		
• Can be used in conjunction with programmable controllers	SIMATIC S7: S7-300/S7-400; WinAC	SIMATIC S7: S7-300/S7-400; WinAC
• Types of connection	SIMATIC S7 Protocol Suite: MPI, PROFIBUS DP, Industrial Ethernet, TCP/IP	SIMATIC S7 Protocol Suite: MPI, PROFIBUS DP, PROFINET IO, Industrial Ethernet, TCP/IP
Functionality		
Modification of HMI diagnostics data management in RT	WinCC/ProAgent V6.0 and higher	No
Unit overview	Yes	Yes
Message display	Yes	Yes
Sequencer operating display	Yes	Yes
Diagnostics detail display	Yes	Yes
• Display STL/LAD/signal list	Yes/Yes/Yes	Yes/Yes/Yes
• Display of operands with symbol and comment	Yes	Yes
Criteria analysis	When fault occurs/current status/can be archived	When fault occurs/current status
Motion display		
• Number of viewable movements	6	6
• Directions of motion	2	2
• Number of viewable end positions per movement	16	16
Documentation		
In electronic format	de/en/fr; included in scope of delivery	de/en/fr/it/es; included in scope of delivery
Requirements		
HMI software	WinCC V6.2 (ProAgent V6.0 + SP4)	WinCC flexible 2008
Operating system: Configuration	<i>WinCC/ProAgent V6.0 + SP4:</i> Windows 2000 + SP3, Windows XP + SP2, Windows Server 2003 + SP1	Windows XP SP2/SP3 Windows Vista Business Windows Vista Ultimate
Operating system Runtime	<i>WinCC/ProAgent V6.0 + SP4:</i> Windows 2000 + SP3, Windows XP + SP2, Windows Server 2003 + SP1	<i>WinCC flexible/ProAgent for SIMATIC Panels:</i> <i>WinCC flexible/ProAgent for WinCC flexible Runtime:</i> Windows XP SP2/SP3 Windows Vista Business Windows Vista Ultimate
STEP 7	V5.3 and higher	V5.3 and higher
• S7-GRAPH	V5.3 and higher	V5.2 + SP3 and higher
• S7-PDIAG	V5.1 and higher	V5.1 and higher
• S7-HiGraph	No	V5.3 and higher
Type of delivery (one license is required for each target hardware)	CD-ROM/ Runtime license	Runtime license

HMI Software

SIMATIC ProAgent process diagnostics software

SIMATIC ProAgent

Ordering data	Order No.
<p>SIMATIC WinCC/ProAgent</p> <p>Software option package for process error diagnosis based on S7 GRAPH V5 and higher and S7 PDIAG V5 and higher, functional enhancement for SIMATIC WinCC, electronic documentation in English, French and German; functions and standard screens for use on a PC (resolution 1024 x 768 pixels) and Panel PC 577/677/877 15" (resolution 1024 x 768 pixels) in English, French and German, runtime license (single license)</p> <p>WinCC version:</p> <ul style="list-style-type: none"> • V7.0, V6.2 (ProAgent V6.0 SP4) <p>Upgrade</p> <ul style="list-style-type: none"> • to V6.0 (SP4) 	<p>6AV6 371-1DG06-0EX0</p> <p>6AV6 371-1DG06-0EX4</p>
<p>SIMATIC WinCC flexible/ProAgent</p> <p>Software option package for process error diagnosis based on S7 PDIAG V5.1 and higher, S7 GRAPH V5.2 + SP3 and higher; S7 HiGRAPH V5.3 and higher. Functional enhancement for SIMATIC WinCC flexible; electronic documentation in English, French, German, Italian and Spanish</p> <ul style="list-style-type: none"> • WinCC flexible/ProAgent for SIMATIC Panels D Runtime license (Single License) executable on TP/OP/MP 270/277, MP 370/377 • WinCC flexible /ProAgent for WinCC flexible Runtime D Runtime license (single license) 	<p>6AV6 618-7DB01-3AB0</p> <p>6AV6 618-7DD01-3AB0</p>
<p><i>Documentation (must be ordered separately)</i></p>	
<p>SIMATIC HMI Manual Collection B</p> <p>Electronic documentation, on CD-ROM</p> <p>5 languages (English, French, German, Italian, Spanish); contains: all currently available user manuals, manuals and communication manuals for SIMATIC HMI</p>	<p>6AV6 691-1SA01-0AX0</p>

B) Subject to export regulations: AL: N and ECCN: EAR99S

D) Subject to export regulations: AL: N and ECCN: 5D992B1