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SIMATIC
WinCC Open Architecture

Answers for industry.

SIMATIC SCADA system WinCC Open Architecture

Nowadays, vendor- and platform-independent SCADA systems are in demand which enable scalable solutions and unlimited global access over the web – and even over native iOS and Android user interfaces. SIMATIC WinCC Open Architecture combines all these requirements in one system.

Scalability
- Support of the existing plant's expansion at anytime
- Solutions for all industries
- Investment protection

Efficiency
- Reduced time-to-market
- Minimized downtimes
- Reliable decision basis for increased productivity

Innovation
- Rapid access – 24/7
- Flexible availability of plant data
- Intuitive and safe operation

Partner and support
- Global support according to highest quality standards

Openness
- Easy integration in the IT world
- Fast integration of existing hardware

Requirements of the future

The requirements imposed on modern SCADA systems exceed far beyond classical operating and monitoring tasks. The rapid pace of globalization and increasing mobility call for systems capable of use around the world which permit mobile access to plant information at any time, in any location. If they are to meet the growing demands made on modern infrastructure, SCADA systems have to enable expansion at any time without giving rise to technological discontinuity or forcing projects back to the drawing board.

At the same time the data volume of modern industrial plants is continuously growing, entailing increasing requirements placed upon the employed SCADA systems. Vast data volumes have to be managed and archived in the long term.

Fit for the future with SIMATIC WinCC Open Architecture

From field level to control station, from machine to company head office - SIMATIC WinCC Open Architecture is flexibly scalable.

High availability, reliable information, fast interaction and user-friendliness are guaranteed in every situation. Configurations can be made without any process disruption. Profitability, efficiency and security are thus always harmoniously balanced.

Ideas can be implemented in new applications quickly and easily. At the same time, the SCADA system can be developed independently in-house with its own product branding.

Increase your performance with SIMATIC WinCC Open Architecture

Efficient

With the various customizing facilities you can quickly adapt the visualization of your plant to suit current market requirements. This enables you to effortlessly implement new processes and ideas - without stretching to technical limits.The consistent object orientation enables an efficient and simple engineering.

Innovative

SIMATIC WinCC Open Architecture is successfully in use in many industries and is constantly developed further. In addition numerous options emphasize the innovative strength of the SCADA system.

The native mobile User Interface stands for mobility. It is a fully functional HMI for iOS and Android devices and provides the same functionality as a native client with additional resolution independent representation for optimal use with mobile devices. A representation of your plant in a web browser is possible with the Ultralight Client - without any installation and additional engineering.

The WinCC OA OPERATOR App enables operation and visualization of a WinCC OA project via iPhone and iPad.

The VIDEO option offers the native integration of video management functions in WinCC Open Architecture and enables the operator a common and central operation of Video and SCADA functionalities.

A web-based reporting using the standardized reporting interface SOAP (Simple Object Access Protocol) is implemented in WinCC Open Architecture.

Scalable

Modern systems are subject to constant change and new demands. SIMATIC WinCC Open Architecture is adaptable and grows with the necessary extensions, without coming up against limits. SIMATIC WinCC Open Architecture scales to requirements - from the small single-site system for machine operation to the networked, redundant high-end system.

Open

The open concept of SIMATIC WinCC Open Architecture allows integration of a wide variety of components. From the automation level right up to operation and management level, the system allows finely tuned solutions. WinCC Open Architecture is platform-independent and available for Windows, Linux, iOS and Android.

WinCC Open Architecture can be integrated into the established workflow, existing systems are unaffected.

Solution Partner & Support

Certified WinCC OA partners are worldwide on your hand as qualified solution provider for your individual SCADA project.

In order to ensure high quality standards to end-customers, the WinCC OA partners pass a certification program comprised of various training courses.

Moreover, Siemens offers global support and a wide range of trainings according to highest quality standards.
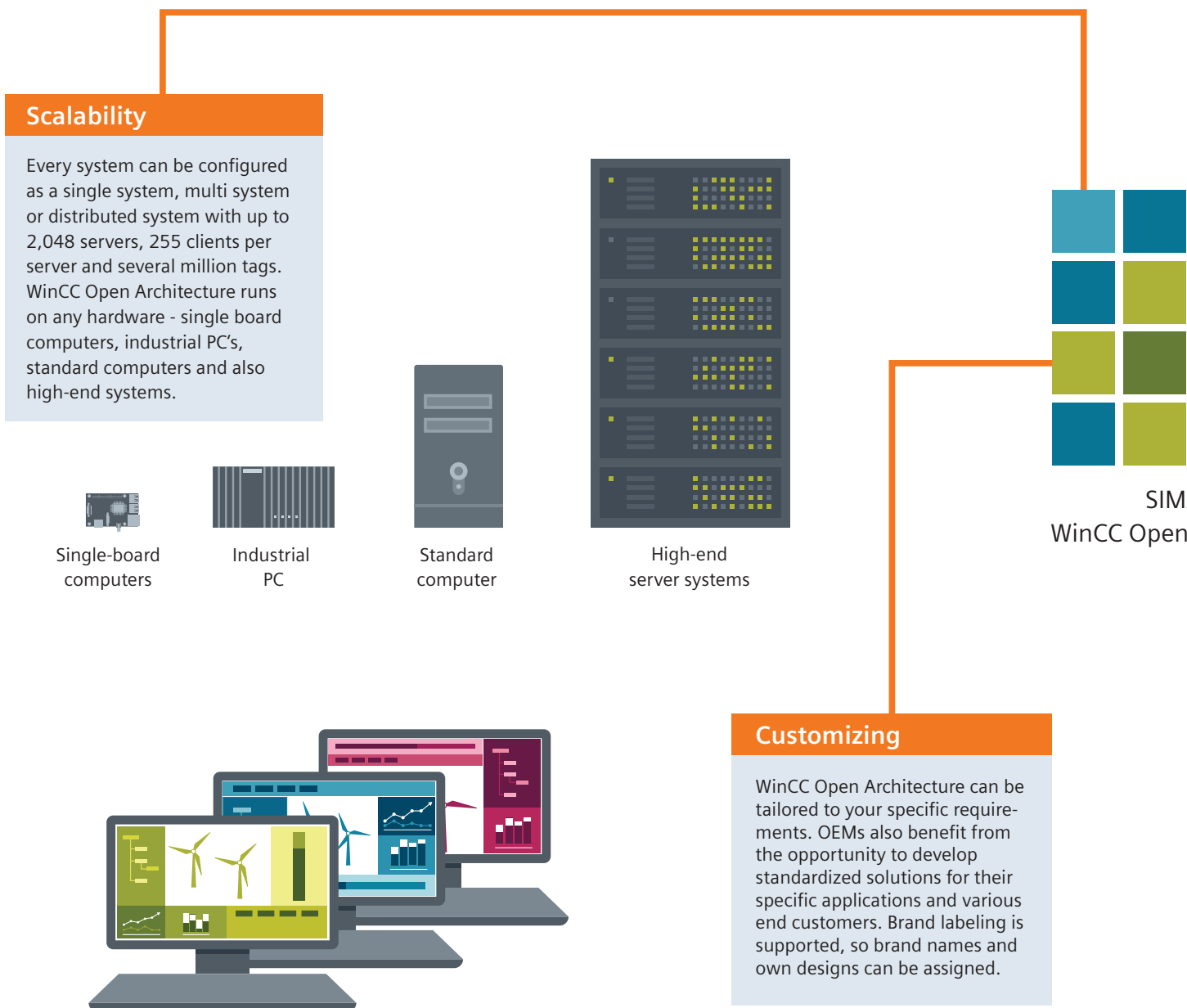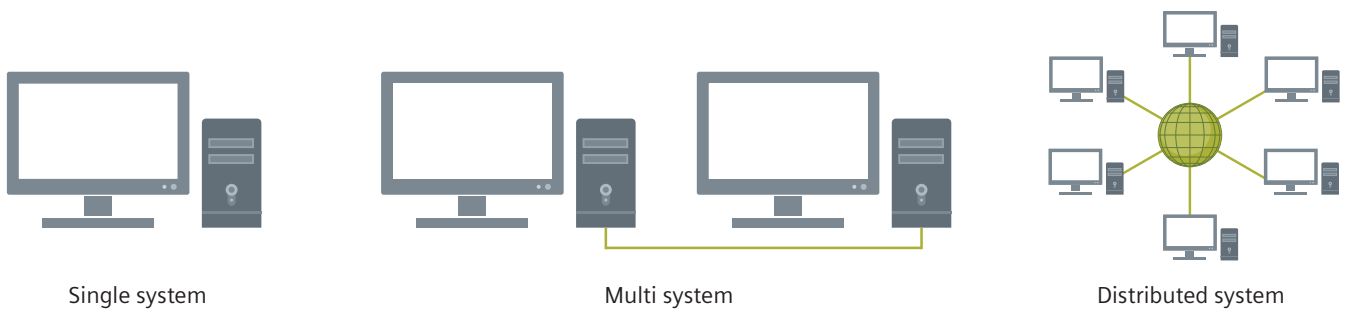
Mobile solutions:
WinCC OA OPERATOR for iOS devices   Native User Interface for iOS devices   Native User Interface for Android devices

SIMATIC WinCC Open Architecture
The SCADA system without limits

Single system

Multi system

Distributed system

Scalability

Every system can be configured as a single system, multi system or distributed system with up to 2,048 servers, 255 clients per server and several million tags. WinCC Open Architecture runs on any hardware - single board computers, industrial PC's, standard computers and also high-end systems.

Single-board computers

Industrial PC

Standard computer

High-end server systems

SIMA
WinCC Open

Customizing

WinCC Open Architecture can be tailored to your specific requirements. OEMs also benefit from the opportunity to develop standardized solutions for their specific applications and various end customers. Brand labeling is supported, so brand names and own designs can be assigned.

Independent

WinCC Open Architecture is fully platform independent and available for Windows, Linux, iOS and Android.
Furthermore it is device independent, so you can use it on any client, such as desktop PC, tablet or smartphone.

Responsive design

Windows

Linux

Web UI

iOS & Android

Platform independent

Archiving

High-performance archiving of historical data enables complete traceability of system status. The system offers two different archiving solutions - archiving in value archives and archiving in an Oracle database.

Value Archives

Oracle

Efficient engineering

WinCC Open Architecture provides efficient engineering, for example through a consistent object orientation, mass configuration or wizards.
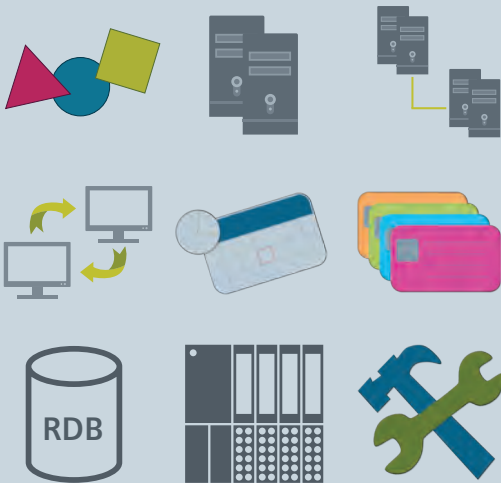
ATIC
Architecture

Connectivity

WinCC Open Architecture offers a wide range of drivers: SIMATIC S7, S7-1200, S7-1500, XML, OPC UA, TCP/IP, Modbus, IEC 60870-5-101/104, DNP3, SINAUT, IEC 61850/61400, BACnet, Ethernet/IP, S-Bus, ...
Data can be exchanged with all common archiving- and database systems.

XML

.txt

SQL

.xls

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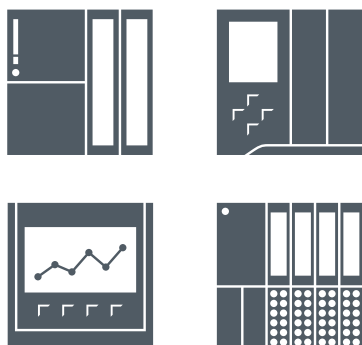
SIMATIC WinCC OA Options

WinCC OA Video

WinCC OA Options

WinCC OA Reporting

SIMATIC WinCC Open Architecture is expandable with numerous options.
The industry-specific functions are proof of the development's marketability. These functions were developed during the course of various projects and have now been incorporated as options within the product.

WinCC OA Distributed Systems
connects several autonomous WinCC OA systems
WinCC OA Redundancy
for Hot-Stand-By switch over to the redundant server
WinCC OA Disaster Recovery Center
2x2 Redundancy for highest availability
WinCC OA Scheduler
Timer and event programs with simple graphic configuration
WinCC OA VIDEO
Native integration of video management functions
WinCC OA RDB
Archiving of values and alarms in an Oracle database
WinCC OA DB Logger
writing of free selectable data from WinCC OA in an external relational database such as MsSQL
WinCC OA Reporting
Reporting tool to analyze WinCC OA data by using a third party tool such as BIRT, Crystal Reports or MS Excel
WinCC OA CommCenter
Remote alarms and remote information via SMS and e-mail
WinCC OA Recipe
Recipe management for parameter sets and set point lists
WinCC OA GIS
Depiction of standardized maps of cartographic information systems (GIS)
WinCC OA BACnet
integrated BACnet conform online-/offline engineering solution for building automation
WinCC OA S7 AdvancedLib
Industry independent object library, aligned to the SIMATIC object library
WinCC OA Maintenance
for the recording of operating hours, operating cycles, alert handling and notepad function
WinCC OA AMS
Maintenance management tool for efficient planning, management, realization and control of reactive and preventive maintenance

Efficiency

SIMATIC WinCC Open Architecture relies consistently on object orientation for process images and the database structure. This enables efficient and simple engineering. Systematic and considered use of the object-oriented characteristics results in a significantly change to the engineering process.

Scalability

Whether your application requires a single-board computer, a Nanobox IPC, a small single-user system or a distributed and redundant high-end system with 10 million tags and more, SIMATIC WinCC Open Architecture is scalable. It can be configured as a distributed system with up to 2,048 servers and 255 clients per server.

Innovation

SIMATIC WinCC Open Architecture meets the common industry standards, such as SIL3 according to IEC61508, FDA or ISO 9001. It is constantly developed further and therefore you are up-to-date any time with SIMATIC WinCC Open Architecture.

Openness

Due to the customizing possibilities, the comprehensive drivers to connect to the automation level as well as the platform independence, you always have the choice!

All-purpose – Solutions for all industries and technologies

Due to its particular system properties, SIMATIC WinCC Open Architecture meets the highest requirements. You can find this SCADA system in nearly every industry. From tunnel control to water- and gas supply grids up to the European Research center CERN.

- **Traffic and Transportation** (Tunnel, rail, road, ship, underground, airport)
- **Oil and Gas** (Gas transport networks, gas storage, natural gas exploration, gas processing plant, control system for oil & gas pipelines, tank farm management, refinery production management & optimization)
- **Energy** (Supervisory system for power plants, district heating, power distribution, power generation, wind farm, solar energy)
- **Water** (Water distribution networks, waste water treatment-/ purification plants, water locks)
- **Building automation** (HVAC (Heating, ventilation, air condition, cooling), facility management, IBMS (Integrated Building Management System) for large-/ geographical distributed buildings, ICMS (Integrated City Management System)
- **Research** (Research & development center)

You can find more information in the Reference Center:

www.siemens.com/automation/references

Find out more:

www.siemens.com/wincc-open-architecture

Learn everything about SIMATIC WinCC Open Architecture

SIMATIC WinCC OA - take a look!

Siemens offers automation and drive products with industrial security functions which support safe plant or machine operation. They essentially contribute to the realization of a holistic industrial security concept.

Our products are continuously advanced under this aspect. We therefore recommend you to regularly inform yourself on updates of our products and to only use the respectively current versions. Relevant information is available at: http://support.automation.siemens.com.

You can also subscribe to a product-specific newsletter via this link.

Moreover, safe system or machine operation necessitates the implementation of suitable protective measures (e.g. cell protection concept) and the integration of all automation and drive components in a holistic state-of-the-art industrial security concept for the entire system or machine. Also third-party products have to be taken into account in this context. Further information is available at: www.siemens.com/industrialsecurity