SIMATIC WinCC Open Architecture is part of the
SIMATIC HMI family and designed for applications with
a high requirement for customerspecific adaptations,
large scale and high complexity as well as projects
with special requirements on system prerequisites
and customized functionality.

WinCC Open Architecture demonstrates its performance
particularly well with networked and redundant high-end
control systems. From field level to control station, from
machine to company head office – consistent, high-per-
formance communication is guaranteed. High availability,
reliable information, fast interaction and user-friendliness
are guaranteed in every situation. Application changes
can be made without any process disruption. Profitability,
efficiency and security are thus always harmoniously
balanced.

WinCC Open Architecture demonstrates its reliability in a
multitude of business-critical applications. 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.

The specific features of this system enable WinCC Open
Architecture to satisfy the highest requirements, particu-
larly with regard to traffic solutions, building automation
and public power supply (energy, water, oil and gas, etc.).

The highlights SIMATIC WinCC Open Architecture
include:
• Object orientation enables efficient engineering and
  flexible system expansion
• Distributed systems up to 2,048 servers
• Scalable – from small single-user systems to distribu-
ted, redundant high-end systems with more than 10
  million tags
• Platform-independent and available for Windows,
  Linux, iOS and Android
• Hot standby redundancy and Disaster Recovery
  System ensure the highest levels of system reliability
  and availability
• SIL3 certified to IEC 61508
• Platform for customer-specific solutions
• Extensive range of drivers and connection options:
  SIMATIC S7, S7-1200, S7-1500, XML, OPC, OPC UA,
  TCP/IP, Modbus, IEC 60870-5-101/104, DNP3,
  IEC 61850/61400, Ethernet/IP

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SIMATIC WinCC Open Architecture

**Scalable**

The flexible data point concept means that this scalable and expandable SCADA system is especially suited to systems that are required to handle large quantities of data up to 10 million data points. Basis for the complete system is a high-performance and modular expandable system architecture, thereby ensuring maximum system availability. Depending on the performance requirement, WinCC Open Architecture can run on one or more computers – with distributed managers in the latter case. The client/server architecture enables the system to be adapted to suit requirements. This concept also enables the system to operate at all levels. Windows, Linux, iOS and Android operating systems are supported.

**Efficient**

WinCC Open Architecture relies consistently on object orientation for process images and the database structure. This enables efficient and simple mass engineering and swift creation of projects with a number of parallel developments. Systematic and considered use of the object-oriented characteristics results in a change to the engineering process. In comparison with conventional methods, savings of up to 70% can often be made on engineering costs.

**Innovative**

WinCC Open Architecture has been more than 30 years on the market and is being constantly developed further. It meets miscellaneous industry standards, such as SIL3 according to IEC61508, it is FDA compliant and ISO 9001 certified. In addition numerous options such as VIDEO, multi-touch, responsive design or web-based reporting emphasize the innovative strength of the SCADA system.

**Open**

Various drivers provide the connection to the automation level. In WinCC Open Architecture multiple drivers can operate in parallel. This can be the same type or different types. Here are the key drivers listed: SIMATIC S7, Modbus, Ethernet/IP, SSI, IEC 60870-5-101, -104, DNP3, SINAUT, OPC Client & Server (DA, A&E), OPC UA Client & Server (DA, AC, HDA), SNMP, BACnet, API.

**Special functions & Add-ons in SIMATIC WinCC Open Architecture:**
- Reporting: Web based reporting with SOAP interface
- WinCC OA mobile UI: Native client for iOS and Android devices
- WinCC OA OPERATOR: App to control and monitor via smartphone and tablet-PC
- Ultralight Client UX: Client for desktop applications based on HTML5 technology
- Web Client: A fully-functional client that operates via a web browser
- VIDEO for the native integration of video management systems
- Disaster Recovery System (2x2 Redundancy)
- GIS Viewer allows the visualisation of system objects on a map
- Advanced Maintenance Suite (AMS) for efficient maintenance management
- BACnet for centralised building control systems