



DESIGO™ INSIGHT OPEN

SIMATIC S7

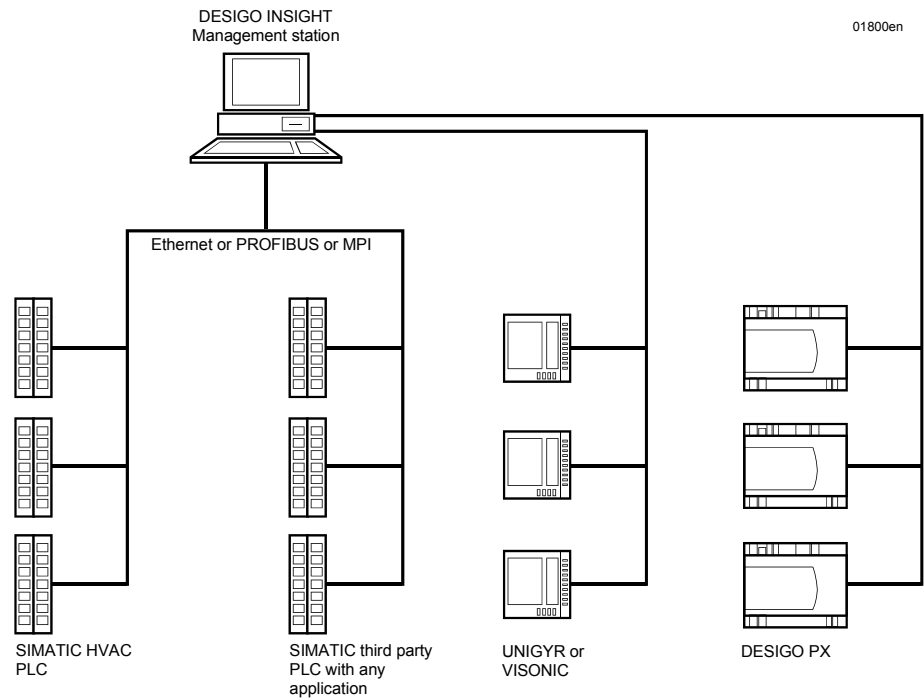
The INSIGHT OPEN SIMATIC S7 solution provides standard integration for the communication and exchange of information between the SIMATIC S7 PLC and the DESIGO INSIGHT management station. At the heart of the solution is OPC.

Function

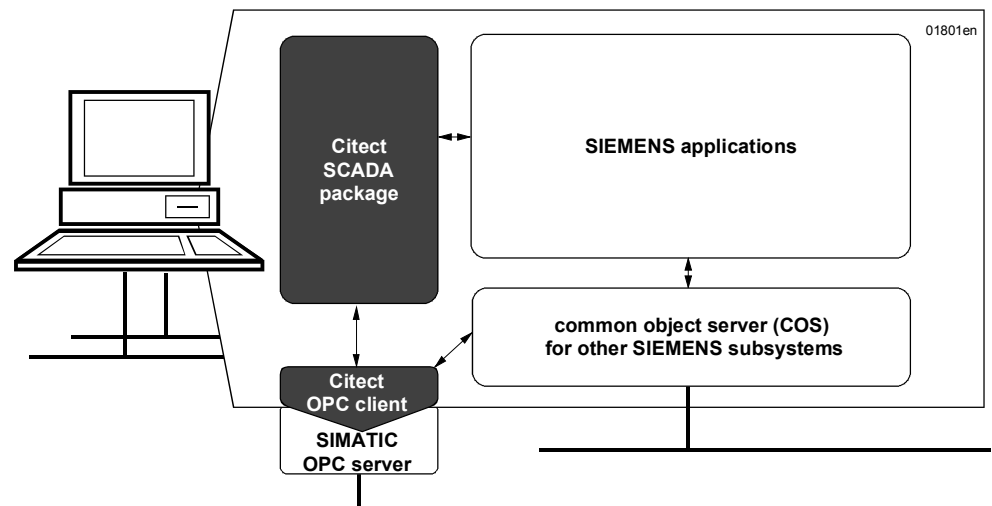
The SIMATIC S7 solution offers the following features:

- DESIGO INSIGHT is a modern Windows-based management station, featuring practical building management applications such as Trend Viewer, Alarm Viewer, Plant Viewer, Object Viewer and a variety of configuration and engineering tools.
- The open architecture of DESIGO INSIGHT allows a wide range of integration options.
- SIMATIC S7 offers modularity, free programmability and high performance even for complex and time-critical applications.
- The SIMATIC OPC server from Siemens A&D provides access to network data without specialized SIMATIC know-how.
- Based on the standard interface OPC 2.0.
- Supports the following bus systems: Ethernet, PROFIBUS, MPI.
- Third-party SIMATIC interface for easy integration of any SIMATIC application (process automation, motion control etc.).
- SICLIMAT HVAC library and tools for efficient engineering of HVAC, heat generation and chiller applications, electrical distribution and supply of liquid and gaseous media.

System topology



Internal topology



Communication

The SIMATIC S7 solution uses an OPC server and a SIMATIC communication card. The communication card and the OPC server are available for:

- Ethernet (Protocol TCP/IP (RFC1006) or ISO)
- PROFIBUS
- MPI (proprietary SIMATIC bus system based on RS 485)

With Ethernet or PROFIBUS, integration into existing network structures is possible.

Overview: SIMATIC bus systems

Criterion \ Bus system	ETHERNET	PROFIBUS	MPI
Cost	0	+	++
Topology, flexibility	++	+	-
Performance	++	+	0
Customer benefits	++	+	-

Engineering for SIMATIC third-party integration

- Engineering and commissioning of the controller is carried out by third-party engineering personnel.
- The interface data is specified (manually or with SIMATIC tools).
- Import of the interface data specification with the INSIGHT OPEN Import Tool
- Engineering and commissioning of INSIGHT as standard.
- Data communication and overall functioning are checked together with the third-party supplier.
- The influence of the management station on the third-party application software is limited to the specified interface; no additional software installation on the third-party controller is required.

Engineering for SIMATIC HVAC applications

- Engineering and commissioning of the application with the SICLIMAT engineering tool and the SICLIMAT HVAC library.
- Data export from the engineering database.
- Data import into DESIGO INSIGHT with import tool.
- Easy commissioning of the HVAC functions: proven and established HVAC library.
- Engineering and commissioning of DESIGO INSIGHT as standard.
- Easy commissioning of the DESIGO INSIGHT data: automatic generation of the DESIGO INSIGHT data via database import and export.
- Local operator panel or Web-based operation possible without additional engineering (plug-and-play).

Technical data

Communication

Communication standard	OPC with COM/DCOM
Bus systems	Ethernet (IEEE 802-3) PROFIBUS (IEC 61158/EN 50170) MPI (Proprietary bus system)

Performance

Number of alarms	Max. 1000
Number of tags	Max. 4000
SIMATIC PLCs per DESIGO INSIGHT management station	Max. 31
DESIGO INSIGHT management stations	Max. 3
Sampling rate for alarms	< 2 sec
Sampling rate for variables in graphics	< 1 sec

System requirements

DESIGO INSIGHT OPEN	V1.1 BL 45 or higher, V2.1 or higher
SIMATIC PLC	SIMATIC S7-300 / S7-400

SICLIMAT application library

HVAC, heat generation, chiller control, electrical distribution, piped services (liquid media and gases)