

SICLIMAT™ X

HVAC runtime software for SIMATIC S7

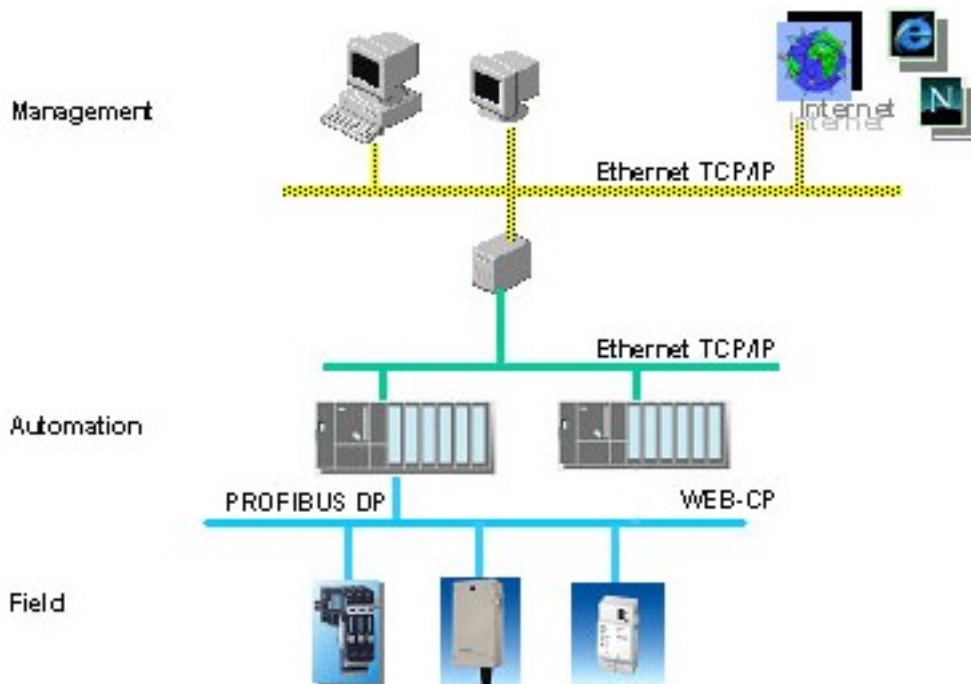
Block library for building automation and control using SIMATIC S7 automation stations. An engineering tool creates an application-specific application based on this library. This block library allows for efficient plant engineering based on tests, documented and maintained standards.

Use

Supported system environment:

Hardware platform	<ul style="list-style-type: none">• SIMATIC S7-300 and SIMATIC S7-400
Local operator panel	<ul style="list-style-type: none">• SICLIMAT TP 177
WEB-based operation	<ul style="list-style-type: none">• S7-WEB
Manage systems / Management stations	<ul style="list-style-type: none">• DESIGO INSIGHT• SICLIMAT X• SCADA systems
Communication	<ul style="list-style-type: none">• PROFIBUS• Field bus: PROFIBUS-DP• Ethernet• SIMATIC MPI
Engineering	<ul style="list-style-type: none">• SIMATIC STEP 7 or SICLIMAT engineering tool

Configuration



SICLIMAT S7 runtime software supports employment of SIMATIC S7 as a controller in building automation and control. It also supports connection on the field and management levels.

Performance features

General features: • Tested blocks.

- Documented functionality.
- Maintained, continuously expanded and, as needed, updated standards.
- Defined software structure through engineering guidelines and tool use.
- Scope and functionality of the applications can be expanded on a modular basis.
- Training measures, hotline as well as maintained, error-corrected libraries help in creating, expanding and modifying the generated applications.

Functionality: • Input/output functions per VDI 3814.

- Control functions for heating, ventilating and air conditioning technology.
- Base functions for general process technology.
- Optimization functions.
- Operating, monitoring, signaling and surveillance functions.
- Integrated interface to operate / monitor and signal.
- Interface to communicate with building automation and control systems.
- Peer-to-peer function to other controllers / automation stations.

Scaling: • Scalable functionality through standard or Lite blocks.

- Licenses are scalable depending on the number of licenses.
- Upgrade licenses for a higher number of data points available.
- See technical data for more details on scaling.

Features

Using the SICLIMAT block libraries means:

- Future-oriented through continuous maintenance and extension.
- On-going adaptation to new SIMATIC components.
- Use of all SIMATIC signal components (input/output components).
- Use of SIMATIC S7-300 CPUs as of CPU 312.
- Open thanks to standardized, documented interfaces.
- Modular software concept allows for extensions.
- Safety through tested, quality-assured software blocks.
- Standardized software structure makes it easier to extend and change.
- Engineering guidelines and / or engineering tools prevent a "jungle" in the software.
- Default safety and operating philosophy.
- Documented block functionality.
- Training offering at SBT training center.
- Comprehensive service offering.

Engineering via SICLIMAT X Engineering Manager

The SICLIMAT AS engineering tool (EM) is available for the packages SICLIMAT **Lite blocks** and SICLIMAT **Standard blocks**. The tools graphically engineers and tests automation software using SICLIMAT blocks. In addition to automation software, it automatically and consistently generates engineering data for operating/monitoring and management systems.

Engineering via SIMATIC S7 Manager

The package SICLIMAT **Lite blocks** may also be used with the STEP 7 AWL SIMATIC engineering tool. It generates the automation software. The engineering data for operating/monitoring and management systems are also entered here. Engineering using the STEP 7 AWL is the preferred solution for smaller plants.

Ordering

Standard blocks package

When ordering, please specify the quantity, product name, and type code. A basic license is required for each CPU using SICLIMAT standard software.

Basic licenses

<i>Type</i>	<i>Order number</i>
SICLIMAT S7 standard blocks runtime license for 1 CPU without connection to X-OS for up to 40 data points.	6FLRT-HLK-40
SICLIMAT S7 standard blocks runtime license for 1 CPU without connection to X-OS for up to 125 data points.	6FLRT-HLK-125
SICLIMAT S7 standard blocks runtime license for 1 CPU without connection to X-OS for an unlimited number of data points.	6FLRT-HLK-ALL

Upgrade licenses

<i>Type</i>	<i>Order number</i>
SICLIMAT S7 standard blocks upgrade runtime license for 1 CPU without connection to X-OS from 40 data points to 125 data points.	6FLUPG40-125
SICLIMAT S7 standard blocks upgrade runtime license for 1 CPU without connection to X-OS from 40 data points to an unlimited number.	6FLUPG40-ALL
SICLIMAT S7 standard blocks upgrade runtime license for 1 CPU without connection to X-OS from 125 data points to an unlimited number.	6FLUPG125-ALL

Update

<i>Type</i>	<i>Order number</i>
Update license to migrate S5 to S7 or exchange S7	6FLUPDATE-S7

Lite blocks package

When ordering, please specify the quantity, product name, and type code. One of the three licenses is required for each CPU using SICLIMAT Lite software.

Basic license

<i>Type</i>	<i>Order number</i>
SICLIMAT S7 Lite blocks for 1 CPU with up to 40 data points.	6FL4214-4ND40-0AB0
SICLIMAT S7 Lite blocks for 1 CPU with up to 125 data points.	6FL4214-4ND41-0AB0
SICLIMAT S7 Lite blocks for 1 CPU unlimited number of data points.	6FL4214-4ND42-4AB0

Upgrade licenses

<i>Type</i>	<i>Order number</i>
SICLIMAT S7 Lite blocks upgrade runtime license for 1 CPU without connection to X-OS from 40 data points to 125 data points.	6FL4214-4ND43-0AD0
SICLIMAT S7 Lite blocks upgrade runtime license for 1 CPU without connection to X-OS from 125 data points to unlimited number of data points.	6FL4214-4ND44-0AD0
SICLIMAT S7 Lite blocks upgrade runtime license for 1 CPU without connection to X-OS from 40 data points to unlimited number of data points.	6FL4214-4ND45-0AD0

Engineering package HVAC Lite Library

Starter package HVAC Lite with library, sample projects, block description and engineering guideline on data carrier including runtime license HVAC Lite for one CPU with max. 40 data points.

<i>Type</i>	<i>Order number</i>
HVAC Lite Library engineering package	6FL4214-4ND47-0AA0

Technical data

	Type	Standard package	Lite package
	Basic hardware		
	SIMATIC S7	S7-300, S7-400	S7-300
	CPU	CPU 314...318 CPU 412...417	CPU 312...317 (S7-400 on request)
Functionality	Signal components	All	All
	Input/output functions	Yes	Yes
	Control functions	Yes	Yes
	Optimization functions *	TSP, HZO, LZO, HLO, HX	TSP
Operating and monitoring	SICLIMAT TP 177	Yes (from V1.0)	Yes (from V1.0)
	S7-WEB	Yes	No
Management level	SCADA system	Yes	No
	DESIGO INSIGHT	Yes	Yes
Communication	SICLIMAT X-OS	Yes	No
	PROFIBUS-DP for ET200	Yes	Yes
	PROFIBUS-DP network adapters DP-xxx-link	LON, P-bus, MOD-Bus,	P-bus
	Peer-to-peer SIMATIC	Yes	No
	Operating and monitoring via S7-OPC server	Yes	Yes
Engineering	Distributed automation as	DP master	DP slave
	With SIMATIC STEP 7	No	Yes
	With SICLIMAT X EM	Yes	Yes

*Optimization functions : TSP = Time switch, HZO,LZO: Heating, ventilation optimization (optimized Start/Stop), HLO = Peak load optimization, HX = HX-diagram optimized operation