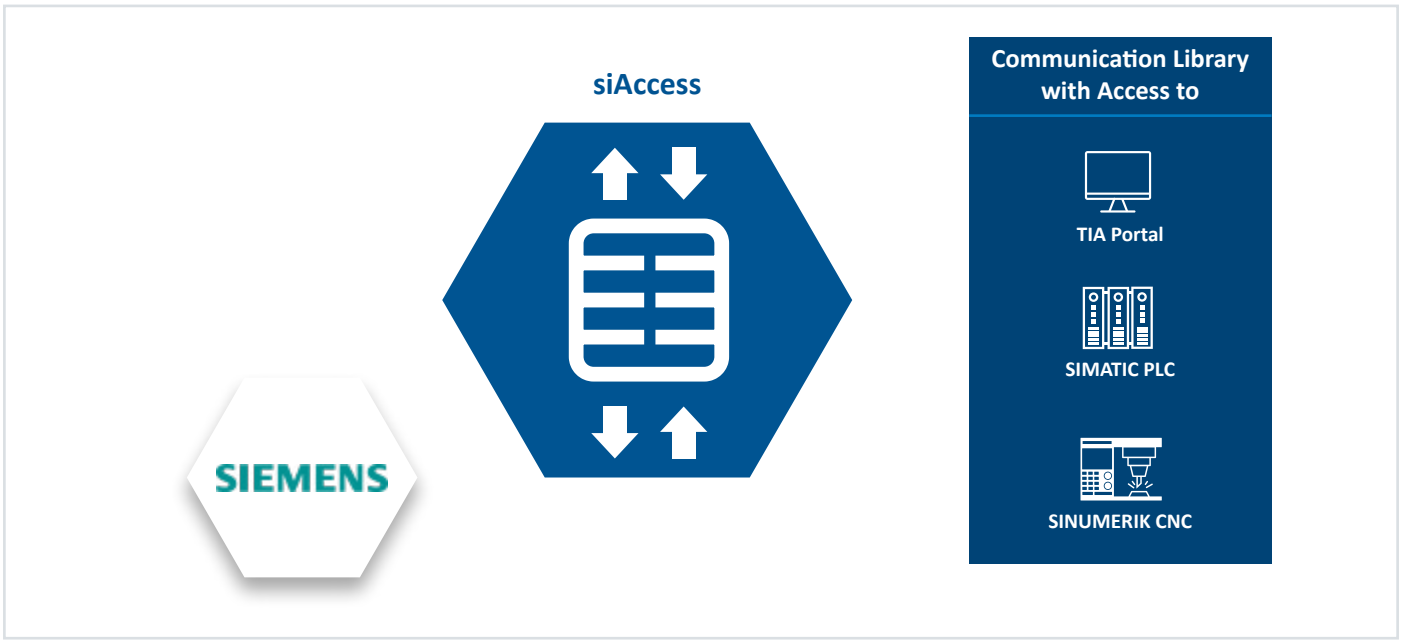
siAccess

Communication library for Siemens PLCs and CNCs

- **Access data of Siemens PLCs and CNCs in your application**
- **Clearly documented programming interface**
- **Corresponding sample applications**



Access data of Siemens PLCs

- Wide range of supported Siemens PLCs
- Support of optimized data blocks in Siemens S7-1200 and S7-1500 controllers
- Access the different data areas (DB, I, Q, M, T, C, P) with high data throughput
- Implements multiple communication paths to the PLCs

Access data of Siemens CNCs

- Wide range of supported Siemens CNCs
- Access NC variables, NC program, alarms, tool data and more information of the CNC
- Comfortable browsing of variables and GUDs
- NC Trace functionality to capture high-speed NC data in real time for precise machine analysis, troubleshooting, and performance optimization

Get symbolic variable information from the PLC project

- Load symbolic variable information offline direct from the TIA Protal project file
- Load symbolic variable information offline direct from the STEP-7 project file
- Browse symbolic variable information online with support for partial (optimized) or full data retrieval from Siemens S7-1200 and S7-1500 controllers

Supports multiple operating systems and programming languages

- Runs on Windows, Linux Intel/AMD and Linux ARM
- Supports 32-bit and 64-bit processor architectures
- Use C/C++, C# or Java programming language
- Additional operating systems on request

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Technical Data	
Supported PLCs	S7-200, S7-300, S7-400, S7-400H, S7-1200, S7-1500, S7-1500S, S7-1500SP, S7-PLCSIM Advanced
Supported CNCs	SINUMERIK 810D PL, SINUMERIK 828D, SINUMERIK 840D PL, SINUMERIK 840D SL, SINUMERIK ONE, Create MyVirtual Machine
Communication Paths	**S7-TCP/IP Plus:** Allows to read optimized data blocks in the S7 and using secured communication. Ethernet communication with the S7 (PN und IE CPUs). Connect to S7-1200, S7-1500, S7-1500S, S7-1500SP PLC and SINUMERIK ONE CNC controllers and Create MyVirtual Machine and S7-PLCSIM Advanced applications using the TCP/IP. **S7-TCP/IP:** Ethernet communication with the S7 (PN und IE CPUs) or of Ethernet CPs (CP 243-1, CP 343-1, CP 443-1). Connect to S7-200, S7-300, S7-400, and S7-400H PLCs and SINUMERIK 840D SL and 828D CNC controllers using the TCP/IP. **S5-TCP/IP:** Ethernet communication with Ethernet CPs (CP 1430 TCP, Softing S5-TCP/IP 100, Vipa CP 143 TCP/IP) or S5-LAN (DELTA LOGIC, Softing, Prozess-Informatik) Connect to S5 PLCs and using the TCP/IP. **S7-PB:** MPI / PP I/ PROFIBUS communication with the S7 using NetLink PRO compact (DELTA LOGIC, Softing, Helmholz), NetLink PRO (DELTA LOGIC, Helmholz), NL 50-MPI (Hilscher, Softing) or CIFX (Hilscher). CIFX only supported on Windows. Connect to S7-200, S7-300, S7-400 and S7-400H and SINUMERIK 840D pl, 828D, 810D pl CNC controllers using the MPI / PPI / PROFIBUS communication of the S7. **S7-PC/CP:** Siemens device driver (“Set PG/PC interface”) communication. Only supported on Windows. Connect to S7-200, S7-300, S7-400, and S7-400H PLCs and SINUMERIK 840D sl, SINUMERIK 840D pl, 828D, 810D pl CNC controllers using the Siemens device driver.
AddOns	**S7-Symbolic STEP-7:** Extract symbolic variable information of Siemens STEP-7 projects. Only supported on Windows. **S7-Symbolic TIA Portal:** Extract symbolic variable information of TIA Portal projects. TIA Portal 21 is supported. **SINUMERIK:** Access to variables defined in the SINUMERIC NC controllers. NC Trace functionality
Operating Systems	Windows 10, 11: Windows Server 2016, 2019, 2022, 2025: The library is available as dynamic link library (.dll) Linux Intel/AMD (with glibc >= 2.29): The library is available as dynamic link library (.so) Linux ARM (with glibc >= 2.17): The library is available as dynamic link library (.so)
Processors	Intel/AMD 32-bit and 64-bit x86 and AMD64 processors (Windows and Linux) ARM 32-bit and 64-bit processors (Linux). ARM 32-bit is build with soft float.
Programming Languages	siAccess is written in C++ and provides a C API. Applications can be written in C/C++, C# or Java.
Trial Version	Maximum runtime: 2 hours after first use
Licensing	Subject to the license terms. For redistribution of the siAccess library a separate redistribution agreement is needed.

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Scope of Delivery	
Software	Installation package available for download
Documentation	User Guide as part of the installation package

License	Variants	Order Number	Update Rights (Order Number)
S7-TCP/IP PLUS	Windows	LBA-XX-040010	LMA-XX-040110
	Linux Intel/AMD	LBA-XX-040011	LMA-XX-040111
	Linux ARM	LBA-XX-040012	LMA-XX-040112
S7-TCP/IP	Windows	LBA-XX-040020	LMA-XX-040120
	Linux Intel/AMD	LBA-XX-040021	LMA-XX-040121
	Linux ARM	LBA-XX-040022	LMA-XX-040122
S5-TCP/IP	Windows	LBA-XX-040030	LMA-XX-040130
	Linux Intel/AMD	LBA-XX-040031	LMA-XX-040131
	Linux ARM	LBA-XX-040032	LMA-XX-040132
S7-PB	Windows	LBA-XX-040040	LMA-XX-040140
	Linux Intel/AMD	LBA-XX-040041	LMA-XX-040141
	Linux ARM	LBA-XX-040042	LMA-XX-040142
S7-PC/CP	Windows	LBA-XX-040050	LMA-XX-040150
S7-Symbolic STEP-7	Windows	LBA-XX-040060	LMA-XX-040160
S7-Symbolic TIA Portal	Windows	LBA-XX-040070	LMA-XX-040170
	Linux Intel/AMD	LBA-XX-040071	LMA-XX-040171
	Linux ARM	LBA-XX-040072	LMA-XX-040172
SINUMERIK	Windows	LBA-XX-040080	LMA-XX-040180
	Linux Intel/AMD	LBA-XX-040081	LMA-XX-040181
	Linux ARM	LBA-XX-040082	LMA-XX-040182

Additional Products and Services	
SSZ-ZZ-991038	Premium-Support HP3-8
	SDEX Suite

Your local Softing contact:

http://industrial.softing.com

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