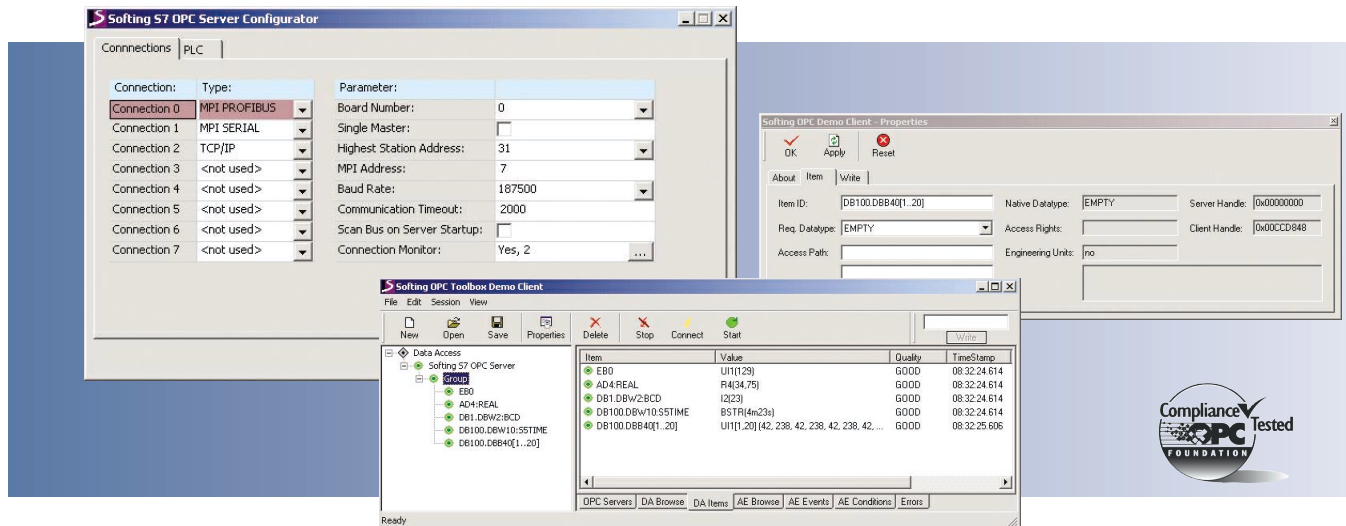


S7 OPC Server

Industrial
Automation

Fast and Easy Access to S7 Controllers



Description

The S7 OPC Server provides fast and easy access to data in SIMATIC C7, M7 as well as S7-200®, S7-300®, and S7-400® controllers. With any OPC compliant client application, you can access all I/O data, data blocks, markers, timers and counters in multiple controllers at the same time. Modifying the control program is not necessary nor do you need any specific knowledge of the running S7 program. Access is performed simply by using the familiar STEP7 semantics.

The S7 OPC Server features an easy-to-use Configurator for specifying the communication connections. To assist you in commissioning, the Configurator automatically scans all S7 controllers that are accessible in a network. Interfacing with S7 controllers is implemented via PROFIBUS or Ethernet or over the serial interface by using the MPI or PPI protocol. The Server continuously monitors the connections to the controllers for all communication types. It detects any interruption of the connection and automatically reestablishes the communication as soon as the physical connection is restored. Thanks to the intelligent grouping of read and write requests, the OPC Server continually optimizes the data throughput. The Diagnostic Client, which is included in the scope of delivery, provides a commissioning tool for monitoring the communication connection between the OPC Client and OPC Server as well as between the OPC Server and the controller. A sample OPC Client and the demo version of the Softing OPC ActiveX Control allow a productive use of the Server immediately after installation.

Special Features:

- Interfacing via PROFIBUS, Ethernet and serial interface using MPI and PPI within one Server
- Cost-saving access to SIMATIC C7, M7 and S7 appropriate to your facilities
- Parallel communication with multiple CPUs simultaneously
- Continuous monitoring of the connections to the controllers
- High performance through the dynamic optimization of the throughput
- STEP7-compliant data formatting
- Automatically created OPC name space by import of STEP7 projects
- User-friendly dialog boxes for time-saving commissioning
- OPC Diagnostic Client and demo clients already included in the delivery

Connection via PROFIBUS

The S7 OPC Server is suited for use in existing PROFIBUS DP networks with S7 controllers as the DP masters. The Server is directly connected to the integrated PROFIBUS interface or the MPI interface on board of the controller. The S7 OPC Server supports all Softing PROFIBUS cards (ISA, PCI, PCcard or PC/104) and the PROFIBUS/Ethernet gateway FG-300 PB.



Connection via TCP/IP

For connection via Ethernet, you can use any standard Ethernet PC card. On the controller side, you need a CP 343-1 communication processor from Siemens for S7-300® or CP 443-1 for S7-400®. As an alternative in particular when you want to implement simultaneous communication with multiple S7 controllers-you can use the multi-channel PROFIBUS/Ethernet gateway FG-300 PB from Softing for interfacing. In this case, you do not need an additional communication processor. Each PROFIBUS channel of the FG-300 PB is connected to the integrated PROFIBUS interface of an S7 controller.

Connection via Serial Interface

Using the Softing RS232 MPI adapter, the S7 OPC Server can communicate with single or networked S7-300® and S7-400® controllers over the PC's serial interface.

Access to one or more networked S7-200® controllers is performed over the serial PC interface and the PPI adapter from Softing.

Technical Data

Communication type	<ul style="list-style-type: none"> ■ Access to the process data of S7-300® and S7-400® controllers via PROFIBUS, Ethernet or via serial PC interface (MPI protocol) ■ Access to the process data of S7-200® controllers via serial PC interface (PPI protocol)
OPC Specification	Data Access 1.0a und 2.05
Implementation types	OutProc server, InProc server, service
OPC data types	VARIANT data types UI1, I1, UI2, I2, UI4, I4, R4, R8, BSTR, BOOL as well as arrays of these data types
S7 data types	BOOL, BYTE, CHAR, STRING, WORD, INT, BCD, S5TIME, DATE, DWORD, DINT, REAL, TIME, TIME_OF_DAY and arrays of these data types
OPC Interfaces	All mandatory interfaces according to Data Access Specification 2.05, dynamic name space with STEP7 semantics for OPC item names
Hardware requirements	Windows-compatible PC with one-processor system. For communication via PROFIBUS Softing PROFBoard ISA, PROFBoard PCI, PROFCard, PROF104 or (except with Windows 98) FG-300 PROFIBUS or FG-100 PROFIBUS Ethernet Standard Ethernet card for PC, Siemens CP 343-1 for S7-300®, CP 443-1 for S7-400® or Softing FG-300 PB resp. FG-100 PB Serial MPI Softing RS232 MPI adapter Serial PPI Softing PPI adapter
Operating systems	Windows 98/ME/NT 4/2000/XP with current Service Packs (status: December 2002)
Documentation	Online help in German and English
Demo version	Full functionality, one session time limited to 15 minutes

Order Number

OPC-S7	S7 OPC Server, software-based copy protection
OPC-S7/USB	S7 OPC Server, USB copy protection hardlock
OPC-S7/PAR	S7 OPC Server, parallel port copy protection hardlock
OPC-S7-ISA	S7 OPC Server with PROFBoard ISA interface board
OPC-S7-PCI	S7 OPC Server with PROFBoard PCI interface board
OPC-S7-PCCARD	S7 OPC Server with PROFCard
RS232-MPI-ADAPTER	Adapter for serial coupling to S7-300® and S7-400® controllers
PPI-ADAPTER	Adapter for serial coupling to S7-200® controllers

S7, STEP7 and SIMATIC are trademarks of Siemens AG

Softing AG

Industrial Automation
 Richard-Reitzner-Allee 6
 85540 Haar, Germany

Phone: +49 (89) 4 56 56-340

Fax: +49 (89) 4 56 56-399

www.softing.com

info.automation@softing.com

Softing

North America, Inc.

102 State Street
 Newburyport, MA 01950

Phone: +1(978) 499 9650

Fax: +1(978) 499 9654

www.softing.us

info.usa@softing.com