

IBH Link UA

The compact OPC UA server for S5- and S7-PLC





- OPC UA Server for easy connection to MES, ERP and SAP systems and visualizations
- OPC UA Client functions for S7 PLC to connect to external
 OPC UA server systems
- ◆ 4 Ethernet Ports with Firewal → clean separation of machine and supervision level
- Scalable security levels through exchange of digitally signed certificates
- ▶ Connection to S7-PLCs over S7 TCP/IP or IBH Link S7++
- ▶ Connection to S5-PLCs over IBH Link S5++
- Comfortable configuration with the free of charge IBH OPC UA Editor,
 Siemens STEP7 or the TIA Portal
- ▶ Handles up to 31 projects simultaneously
- Administration via web browser
- Historical Data
- Alarms & Conditions
- MQTT implementation
- AWS Greengrass / AWS IoT implementation
- Azure IoT Hub implementation
- **▶ IBM Watson IoT implementation**



www.ibhsoftec.com/IBH-Link-UA-Eng



Product number #3200



The IBH Link UA is an OPC UA Server/ Client module with integrated firewall for the SIMATIC S5, S7-200, S7-300, S7-400, S7-1200, S7-1500 and LOGO! (Ethernet versions) PLC. It is a compact unit for DIN rail mount with four Ethernet ports and a 24V power supply.

The configuration of the IBH Link UA is made with the free IBH OPC Editor, the Original Siemens STEP7 or the TIA Portal. There is no need for other special software. Thus, the IBH Link UA can be seamlessly integrated into the PLC

project. The IBH Link UA can handle up to 31 STEP7 and / or TIA projects simultaneously.

The definition of the variables will be transferred from the programming tool to the IBH Link UA via Ethernet. The attributes of the variables (f.i. write protection or limits) will be defined directly within the PLC project. This allows symbolic access to variables and data block structures.

The communication to the S5 and S7 PLC is established over Ethernet. If the PLC has no Ethernet port, our well known gateways IBH Link S7++ or IBH Link S5++ can be used. There are three Ethernet Ports for machine level on the IBH Link UA and one Ethernet Port for the supervision level. On the supervision level only OPC access is allowed. Between both levels there is a firewall integrated. The configuration of the Ethernet ports can be made using a standard web browser.

OPC Client functions can also be called directly within the PLC program to allow communication with PLCs of other manufacturers via OPC UA. Therefore, handling blocks in STL are provided, which use PUT/GET functions for the communication with the IBH Link UA.



IBH OPC UA IoT 2040



- OPC UA Server for easy connection to MES, ERP and SAP systems & visualizations
- ▶ OPC UA Client functions for data exchange between different OPC UA Servers
- Integrated SoftPLC for data preprocessing
- > 2 Ethernet Ports with Firewall for clean separation of machine and supervision level
- ▶ Scalable security levels through exchange of digitally signed certificates
- ▶ Connection to S7-PLCs over S7 TCP/IP or IBH Link S7++
- ▶ Connection to S5-PLCs over IBH Link S5++
- Comfortable configuration with the free of charge IBH OPC UA Editor,
 Siemens STEP7 or the TIA Portal
- ▶ Handles up to 31 projects simultaneously
- Administration via web browser
- Historical Data
- Alarms & Conditions
- **▶ MQTT** implementation
- **▶ AWS Greengrass / AWS IoT implementation**
- **▶** Azure IoT Hub implementation
- **▶ IBM Watson IoT implementation**



www.ibhsoftec.com/IBH-OPC-UA-iot2040-Eng



Product number #3206



A microSD card with the OPC UA server/client with IBHsoftec fire-wall is available for the Siemens Gateway IoT2040 (6ES7647-0AA-00-1YA2). By simply plugging the preconfigured microSD card from IBHsoftec, the IoT2040 becomes an OPC UA server/client for Siemens PLCs. This solution integrates SIMATIC S5, S7-200, S7-300, S7-400, S7-1200, S7-1500 and Logo! (Ethernet versions) Controllers into the OPC UA world.

The configuration of the IBH OPC UA Server/Client is made with the

free IBH OPC Editor, the Original Siemens STEP7 or the TIA Portal. There is no need for other special software. Thus, the OPC UA Server/Client can be seamlessly integrated into the PLC project.

The communication to the S5 and S7 PLC is established over Ethernet. If the PLC has no Ethernet port, our well known gateways IBH Link S7++ or IBH Link S5++ can be used. There is one Ethernet Port for machine level and one Ethernet Port for the supervision level. On the supervision level only OPC access is allowed. Between both levels there is a firewall integrated. The configuration of the Ethernet ports can be made using a standard web browser.

One of the advantages of the IBHsoftec solution is, that it supports Client and Server functions simultaneously. This allows data exchange between different OPC UA Servers.



IBH OPC UA Server/Client





- OPC UA Server for easy connection to MES, ERP and SAP systems and visualizations
- OPC UA Client functions data exchange between different OPC UA Servers
- Integrated SoftPLC for data preprocessing
- > Scalable security levels through exchange of digitally signed certificates
- ▶ Connection to S7-PLCs over S7 TCP/IP or IBH Link S7++
- Connection to S5-PLCs over IBH Link S5++
- ▶ Comfortable configuration with the free of charge IBH OPC UA Editor, Siemens STEP7 or the TIA Portal
- ▶ Handles up to 31 projects simultaneously
- Administration via web browser
- Historical Data
- ▶ Runs on Windows XP, Vista, Windows 7, Windows 8, Windows 10
- Alarms & Conditions



www.ibhsoftec.com/IBH-OPC-UA-Server-Eng



OPC UA Server/Client for the SIMA-TIC S5, S7-200, S7-300, S7-400, S7-1200, S7-1500 and LOGO! (Ethernet versions) PLC.

The configuration of the IBH OPC UA Server/Client is made with the free IBH OPC Editor, the Original Siemens STEP7 or the TIA Portal. There is no need for other special software. Thus, the IBH OPC UA Server/Client can be seamlessly integrated into the PLC project. The IBH OPC UA Server/Client can handle up to 31 STEP7 and / or TIA projects simultaneously.

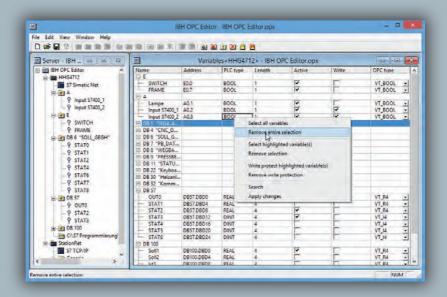
The definition of the variables will be transferred from the programming tool to the IBH OPC UA Server/Client via Ethernet. The attributes of the variables (f.i. write protection or limits) will be defined directly within the PLC project. This allows symbolic access to variables and data block structures.

The communication to the S5 and S7 PLC is established over Ethernet. If the PLC has no Ethernet port, our well known gateways IBH Link S7++ or IBH Link S5++ can be used.

One of the advantages of the solution from IBHsoftec is, that the IBH OPC UA supports Client and Server functions simultaneously. This allows data exchange between different OPC UA Servers. For example control systems and other equipment with OPC UA servers from different manufacturers can exchange data with each other. The configuration of the client functions can be made using a standard web browser.

OPC Server

Product number #1150



IBH OPC Server: easy automation

With the IBH OPC Server a visualization application can be linked to any SIMATIC PLC (including Ethernet enabled LOGO!) and IBHsoftec SoftPLCs.

- ▶ Windows® 10 support
- ▶ Reach your goals with just a few clicks
- ▶ Adopt the symbolic addressing of you PLC-program
- ▶ Many different communications like TCP/IP, H1, serial, USB possible ...
- Full featured demo version available for free



www.ibhsoftec.com/IBH-OPC-Server-Eng



IBH Link S5++

Product number #20284

Cost efficient Ethernet-PLC-Gateway for the communication between PC and SIMATIC S5 PLC.



- Driver for STEP 5 from V7.16 included
- Access of S7-HMI-Devices via RFC1006
- **Programming functionalities for HMI-Applications**
- **API for HMI-Applications included**
- Configuration via USB possible
- **FETCH/WRITE** protocol supported



www.ibhsoftec.com/IBH-Link-S5-PP-Eng

IBH Link S7++





Product number S7++ #20266
Product number S7++ HS #20268

Cost efficient Ethernet-PROFIBUS-Gateway for programming, drive configuration, for communication between PC and Siemens PLCs, inter-PLC communication and FDT applications

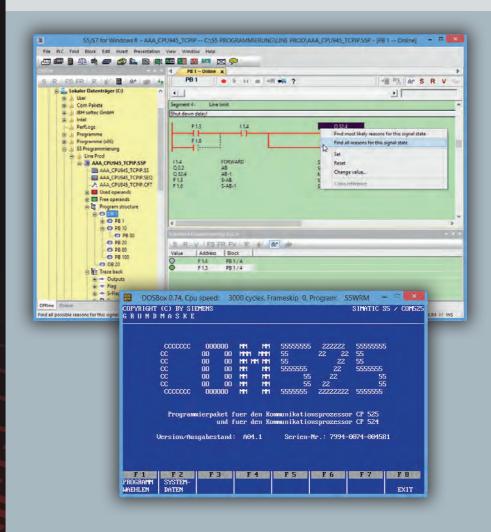
- CommDTM for FDT container available for free
- Master Class 2 for acyclic services (DPV1)
- Read the diagnostic buffer via web browser
- PROFIBUS-Slave Diagnostic
- Online to SIMATIC S5 via SINEC L2
- Configuration via web browser
- ▶ IPv6 support
- Configuration via NetPro
- **▶** Windows® 10 support
- > STEP 7 (32-Bit and 64-Bit) support
- **▶** Time synchronisation
- **▶** PROFIBUS diagnostic
- Setting of slave Parameter via DPV1
- Data set routing
- Drive configuration
- Integration within the TIA portal
- **▶** DHCP
- ▶ S7 routing via RFC1006

- ▶ Fetch/Write via RFC1006
- **▶** PLC-PLC communication
- Process data access with other PLC, Windows and Linux
- Support for STARTER, S7-PCT, PDM, LifeList
- Setting and diagnostic of field devices with TCI
- Up to 16 parallel PC connections at the same time
- Up to 32 parallel MPI / DP connections at the same time
- Automatic bus profile detection
- **▶** PG-connector
- ► RJ45 Ethernet (10/100) with autonegotiation
- Diagnostic LEDs
- Power supply from the MPI / DP interface (S7++ only)
- **▶** External 24V supply possible



www.ibhsoftec.com/IBH-Link-S7-PP-HS-Eng

S5 for Windows®





www.ibhsoftec.com/S5W-Eng



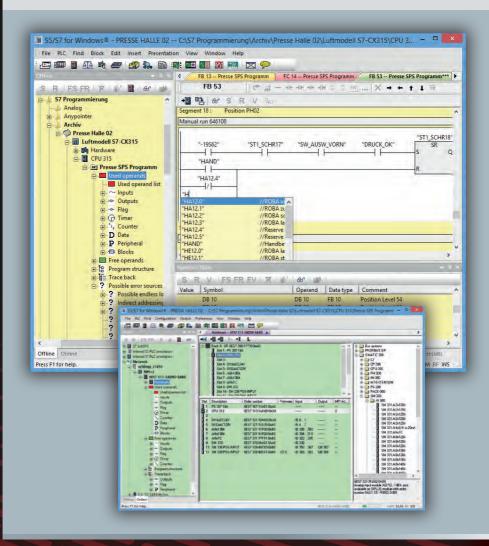
Product number #10018

Programming tool designed for programming the Siemens PLC family SIMATIC S5 with STEP 5

- ▶ Windows® 10 support
- ▶ Can be combined with S7 for Windows® or runs stand-alone
- Multiple segments can be shown in the status display
- Statement List (STL), Function Block Diagram (SFC) and Ladder Diagram (LAD) presentations
- Projects are compatible to the original Siemens programming tool
- STEP'5-projects can be edited directly without im-/export
- **▶** Integrated S5-Simulation
- Comfortable block comparison (BlockDiff)
- **▶** Emulator to call original COM-Packages
- ▶ Online on SIMATIC S5 via SINEC L2 with the IBH Link S7++
- Graphical Step Sequence Programming
- ▶ Fully automated debugging without program adaption
- Oscilloscope feature
- OsciCAM®: analyze motion processes through synchronisation of previously recorded videos and process signals
- Statusrecorder: dynamic procedures can be explored by subsequently analysis of the block status frame by frame
- LogView: graphical representation and synchronisation of measurements
- IntelliSense: intelligent input assistance
- ▶ Driver for Siemens USB S5/S7 Prommer available



S7 for Windows®





www.ibhsoftec.com/S7W-Eng



Product number #10020

Programming tool for the SIMATIC S7-300 and S7-400 series

- ▶ Windows® 10 support
- ▶ Can be combined with S5 for Windows® or runs stand-alone
- ▶ Complete S7 instruction set implemented in the presentations Statement List (STL), Function Block Diagram (SFC) and Ladder Diagram (LAD)
- > Status of variable views and symbolic tables
- > STEP7-projects can be edited directly without im-/export
- **▶** Conversion from S5- to S7-programs
- **▶** Integrated S7-Simulation
- Comfortable block comparison (BlockDiff)
- Fully automated debugging without program adaption
- Oscilloscope feature
- OsciCAM®: analyze motion processes through synchronisation of previously recorded videos and process signals
- ▶ Statusrecorder: dynamic procedures can be explored by subsequently analysis of the block status frame by frame
- LogView: graphical representation and synchronisation of measurements
- ▶ IntelliSense: intelligent input assistance
- ▶ Hardware configuration
- Hardware catalogue can be extended with GSD-files
- ▶ Hardware catalogue can be updated over internet
- Driver for Siemens USB S5/S7 Prommer available



SoftPLC S7-315/S7-416





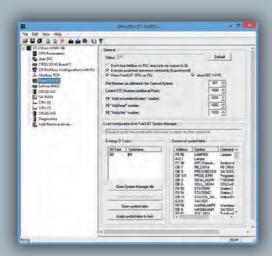
www.ibhsoftec.com/SoftPLC-416-Eng



Product number S7-315 #1300 Product number S7-416 #1302

SoftPLC S7

The IBH SoftPLC S7-315 / S7-416 executes a program in the same manner as a hardware PLC. The advantage of executing a PLC program this way is, that the PLC status can be displayed in real time. Since the Soft PLC behaves like an original SIMATIC PLC, the programming tools S7 for Windows® and STEP 7 can be used. The SoftPLC allows process monitoring, operation and control from one hardware unit. The use of the SoftPLC is especially useful if a PC for data collection, process visualization, programming, or any other reason needs to be used anyway. A SoftPLC solution eliminates the need for a hardware PLC and the corresponding communication processor.

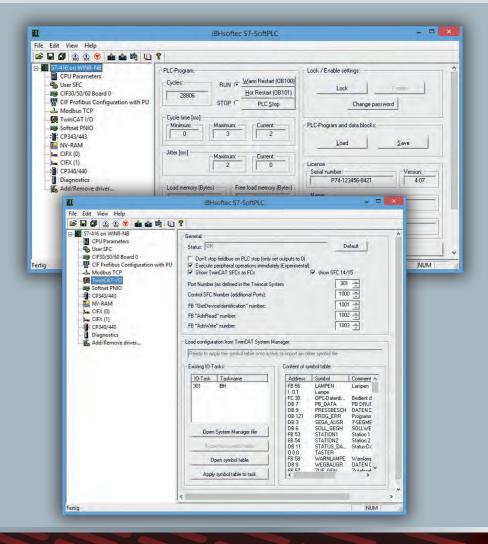


Supported Fieldbussystems

Fieldbus card/-system	Hilscher	Beckhoff
Lightbus	-	√
PROFIBUS	√	1
PROFINET I/O	✓	-
Interbus	✓	1
DeviceNet	✓	1
AS-i	✓	✓
CANopen	✓	1
sercos	√	1
EtherCAT	√	1



SoftPLC S7-315/S7-416





www.ibhsoftec.com/SoftPLC-416-Eng



Product number S7-315 #1300 Product number S7-416 #1302

SoftPLC S7

- **▶** Windows® 10 support
- Access to the field bus (e.g. PROFIBUS-DP, PROFINET, EtherCAT, etc...) with field bus master cards from Hilscher and Beckhoff or with standard I/O boards.
- ▶ Direct access with S7 for Windows®, OPC Server, STEP 7 or DLL
- Online functions possible using ISO-on-TCP (RFC1006), Modbus TCP, IBHNet driver or PROFIBUS
- ▶ PLC-PLC communication with various Ethernet protocols
- ▶ CP 343/443 emulation
- ▶ I/O monitor
- Display the diagnostic buffer without programming tool
- For our OEM-Customers the company Hilscher Gesellschaft für Systemautomation mbH provides our PLC kernel on the netX 500 Chip
- ▶ For our OEM-Customers a Windows CE version is available
- Also available as a pure Simulation PLC

SoftPLC S5-943/S5-945

Product number S5-943 #1204 Product number S5-945 #1206

The SoftPLC is also available as S5 version. Since the SoftPLC behaves like an original SIMATIC PLC, the programming tools S5 for Windows® and STEP5 can be used. Access to the field bus (e.g. PROFIBUS-DP, PROFINET, EtherCAT, etc...) can be made with field bus master cards from Hilscher and Beckhoff or with standard I/O boards.



www.ibhsoftec.com/SoftPLC-945-Eng

\$7/\$5-Interfaces

USB-S7 Adapter MPI, DP, PPI #20218

For S7-200, S7-300 oder S7-400

- Integrated LCD-Display shows the transmisson rate and MPI/ DP address
- Membrane keypad for the adapter configuration
- ▶ Powered by the PC, no power supply necessary



www.ibhsoftec.com/USB-S7-Adapter-C-Eng



IBH USB-S5-Adapter #20220

- ▶ Driver for S5 for Windows® and STEP 5 from V7.16 included
- ▶ Powered by the PC, no power supply necessary



www.ibhsoftec.com/IBH-USB-S5-Adapter-Eng

IBH S5-Current loop converter #2020

- ▶ For a serial connection between a PLC and a S5-PLC
- Fits the following PLCs: 90U, 95U, 100U, 101U, 115U, 135U und 155U



www.ibhsoftec.com/IBH-RS232-S5-Adapter-Eng





Constant Current Adapter for the IBH S5-Current loop converter #2042, #2044, #2046, #2048

For PLCs, that are not supplying the loop current (2 x 20mA), the Constant Current Adaptor is required to establish a connection.



www.ibhsoftec.com/\$5-Interface-Eng



USB S5/S7 Prommer (Siemens) #2008

 The USB S5/S7 Prommer works together with S5/S7 for Windows®, STEP5 and STEP7. 64 Bit Driver for S5/S7 for Windows® available



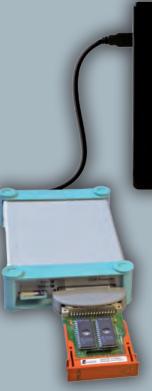
www.ibhsoftec.com/USB-S5S7-Prommer-S-Eng



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USB S5/S7 Prommer

64 Bit Driver for the programming tool S5/S7 for Windows®





- **▶** S5 EPROM Modules
- **▶** S5 EEPROM Modules
- S5 Memory Cards
- S7 Memory Cards
- S7 Micro Memory Cards



www.ibhsoftec.com/USB-S5S7-Prommer-S-Eng



S7-CX315/317 SD

Product number CX315 #3022 Product number CX317 #3024

S7 compatible PLC for the complete Beckhoff CX8000 series



The S7-CX SD cards turn an embedded PC of the Beckhoff CX8000 series into a S7 compatible PLC and allow the use of the reliable and flexible Beckhoff hardware.

- ► Including S7 for Windows® (Kit-Version)
- **▶** STEP7 compatible
- **▶** Full retentivity
- **▶** Ethernet CP
- **▶** EtherCAT
- Web server
- Modbus TCP Master / Slave

The S7-CX315 SD / S7-CX317 SD can be used with the complete CX8000 series. Next to EtherCAT, the fieldbus systems PROFIBUS, CANopen, RS232/RS485, PROFINET RT, EtherNet/IP and Sercos III are directly available on the device.



www.ibhsoftec.com/S7-CX315-SD-Eng





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