

A large industrial factory with a curved conveyor belt system, various machinery, and workers in the background. In the foreground, a hand holds a tablet displaying a menu of software products.

The World of S5/S7

- ▶ S5/S7 for Windows®
- ▶ IBH Link UA
- ▶ IBH Link
- ▶ OPC
- ▶ SoftPLC



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 Firewall → 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.ibhsofttec.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

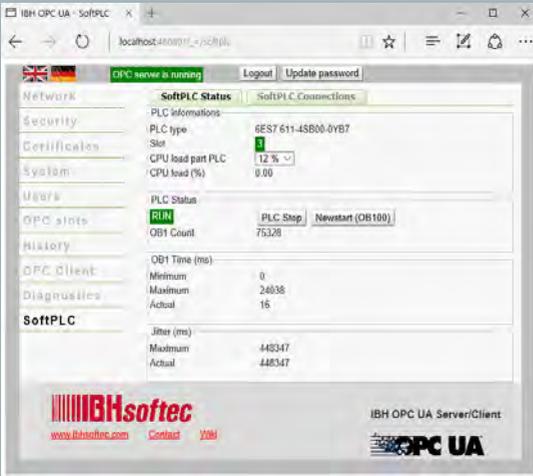


- ▶ OPC UA Server for easy connection to MES, ERP and SAP systems and visualizations
- ▶ OPC UA Client functions data exchange between different OPC UA Servers
- ▶ Integrated SoftPLC for data preprocessing
- ▶ Scalable security levels through exchange of digitally signed certificates
- ▶ Connection to 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.ibhsofttec.com/IBH-OPC-UA-Server-Eng

Product number #1180



OPC UA Server/Client for the SIMATIC 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.

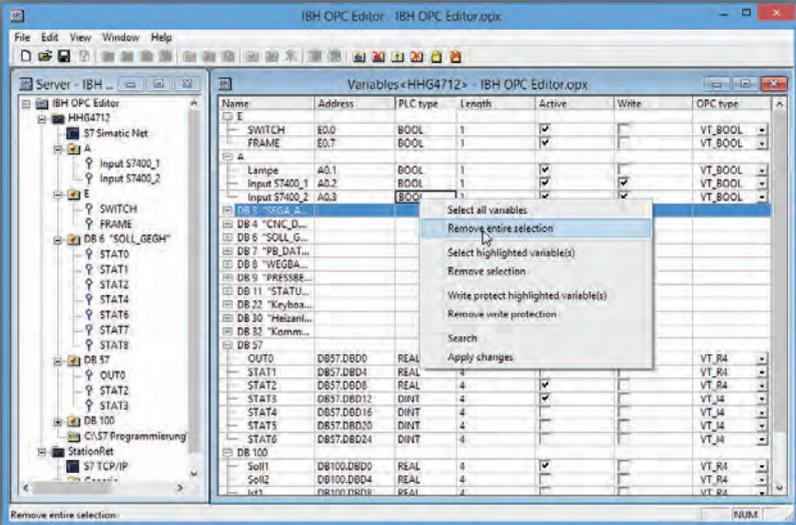
The definition of the variables will be transferred from the programming tool to the IBH OPC UA Server/Client via Ethernet. The attributes of the variables (f.i. write protection or limits) will be defined directly within the PLC project. This allows symbolic access to variables and data block structures.

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 your 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.



- ▶ Standard-TCP/IP protocol
- ▶ Direct access with S5 for Windows®
- ▶ 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++



Home | Configuration | Diagnostics | Change Password

Connected PROFIBUS Devices:

Address	Status	Type	Manufacturer
1	M ?	---	---
2	M	6GK7 342-5DA00-0XE0	---
3	S	IL PB BK DPV1 (DIP)	Phoenix Contact
4	M	6ES7 151-8AB01-0AB0	Original Siemens Equipment

S7 Diagnostics:

Serial number: S C-B3WE94862011
Station name: IM151 PN/DP Demo Project
Module name: IM151-B PN/DP CPU
Plant designation: Demonstration
Location designation: Development dept.
Operating mode: RUN
Module time: Montag, 30. Januar 2012 12:59:40
Diagnostic buffer: Event 5/10

Mode transition from STARTUP to RUN
Samstag, 26. Januar 2012 11:33:40

Startup information:
- Time for time stamp at the last backed up power on
- Single processor operation
Current/last startup type:
- Warm restart triggered via MPI, last power on backed up
Permissibility of certain startup types:
- Manual warm restart permitted
- Automatic warm restart permitted
Last valid operation or setting of automatic startup type at power on:
- Warm restart triggered via MPI, last power on backed up
Previous operating mode: No voltage
Requested operating mode: No voltage (PK 68)
Event entering state

10	S	MOVDRIVE DPP21MCH41	SEW-EURODRIVE
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The IBH Link S7++ is a gateway from Ethernet to MPI/PROFIBUS (Class 2 Master), available inside the connector housing, or for DIN rail mount.



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

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

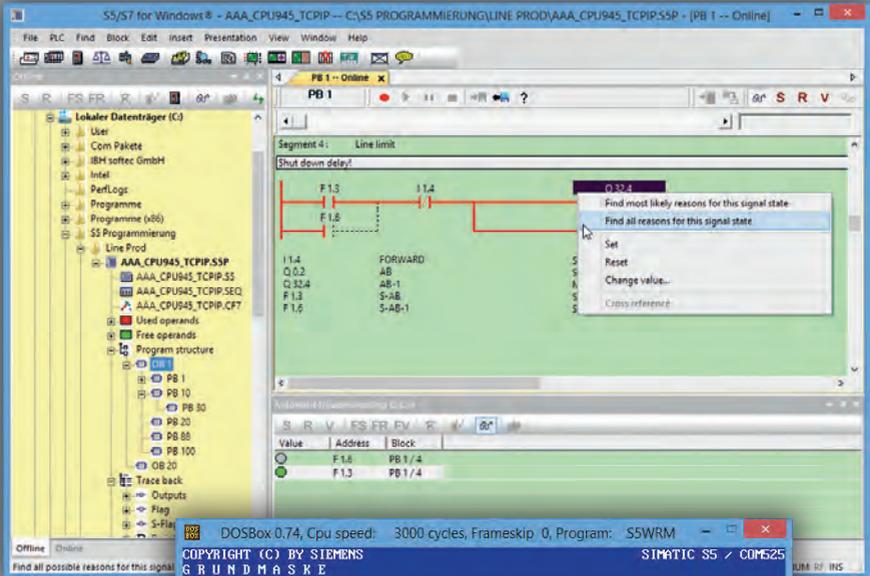
Cost efficient Ethernet-PROFIBUS-Gateway for programming, drive configuration, for communication between PC and Siemens PLCs, inter-PLC communication and FDT applications

- ▶ 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®



DOSBox 0,74, Cpu speed: 3000 cycles, Frameskip 0, Program: S5WRM

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GRUNDMSKE

SIMATIC S5 / COM525

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CCCCCCC 000000 MM MM 55555555 222222 55555555
GC 00 00 MM MM 55 22 22 55
CC 00 00 MM MM 55 22 55
CC 00 00 MM MM 55555555 22 55555555
CC 00 00 MM MM 55 22 55
CC 00 00 MM MM 55 22 55
CCCCCCC 000000 MM MM 55555555 22222222 55555555
    
```

Programmierpaket fuer den Kommunikationsprozessor CP 525
und fuer den Kommunikationsprozessor CP 524

Version/Ausgabestand: A04.1 Serien-Nr.: 7994-0074-004581

F 1	F 2	F 3	F 4	F 5	F 6	F 7	F 8
PROGRAMM WAEHLLEN	SYSTEM- DATEN						EXIT



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