

Software and Drivers

- OPC Server Ethernet
- OPC Server MPI / PPI
- OPC Router
- DDE Server Ethernet
- DDE Server MPI / PPI
- NetSpector
- Drivers and DLLs for Windows
- Shared Objects for Linux
- Virtual ComPort VCOM
- INAT TwinCAT PLC Communicator
- VersionWorks

for

- ▶ S7 / S5
- ▶ Remote I/O
- ▶ Modicon
- ▶ Allen-Bradley

OPC Server Ethernet

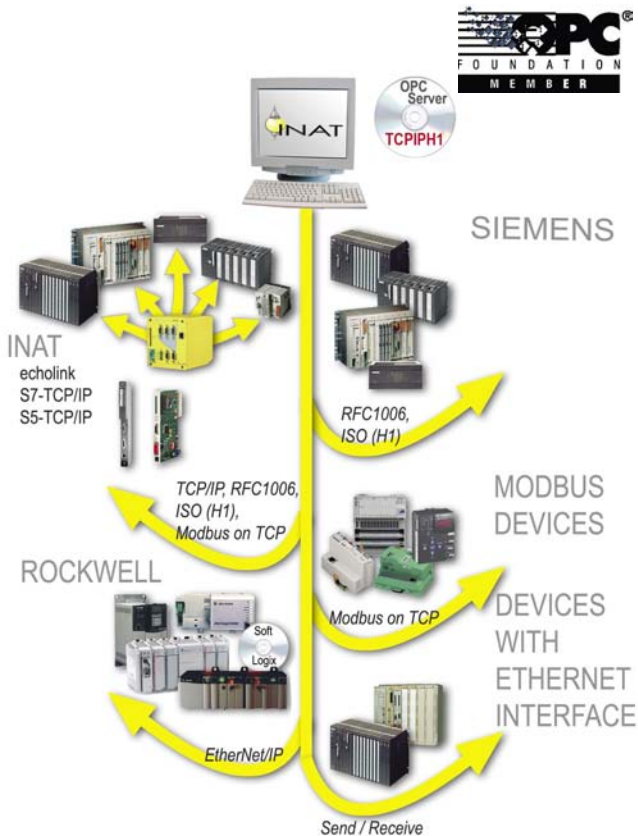
OPC communications via Ethernet to Siemens, Wago, Schneider Electric, Rockwell Automation et al.

Quick and secure access to visualizations, data bases and control systems with OPC interface.

AREAS OF APPLICATION

- Universal Server for all visualizations based on OPC specification versions 1.x and 2.05
- Measurement data logging, data archiving, operating data logging, statistics
- No limitation of number of connections, no limitation of number of tags
- Link your visualization system to a heterogeneous network TCP/IP, ISO on TCP (RFC1006), ISO (H1), Modbus on TCP, EtherNet/IP* (Allen-Bradley)
- Access to Ethernet devices from INAT, Siemens, Rockwell Automation*, Wago, Schneider Electric, Beckhoff et al.
- **NEW:** Easy Import of Step 7 symbolic names directly from the Step 7 project
- Send / Receive for communications via the socket interface (raw data)
- Easy implementation with symbolic addressing (Alias Browsing)
- Supported Item syntax: INAT, Siemens, Applicom, Wonderware
- Works with NetLink and IBHLink (see page 68)
- Static and dynamic tags
- Standards: OPC DA 1.x, OPC DA 2.0 - 2.05, DDE, FastDDE, AdvancedDDE, CF Text
- High reliability, requires less system resources

OPC Server TCPIPH1



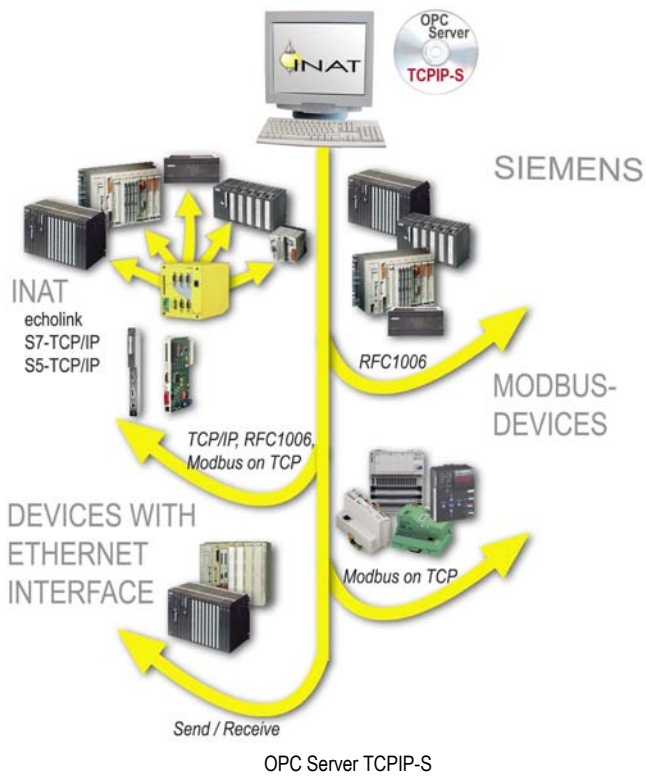
- For INAT and Siemens CPs
- For Allen-Bradley Logix PLCs*
- For several Modbus on TCP coupler / controllers
- Including ISO on TCP (RFC1006)
- Including INAT ISO (H1) driver

Transport protocols:	TCP/IP, TCP/IP with ISO on TCP (RFC1006), TCP/IP with PLC Header, ISO (H1)
Application protocols:	S7 Protocol, S5-AP, Modbus on TCP, EtherNet/IP*, Send / Receive, NetLink
For:	<p>INAT: S7-TCP/IP, S5-TCP/IP, echolink (e.g. with S5-95U)</p> <p>Siemens: Simatic PLCs with Ethernet Interface</p> <p>Rockwell Automation: Allen-Bradley Logix PLCs with EtherNet/IP Interface*</p> <p>Other: Devices with Modbus on TCP Interface, Devices with Send / Receive Interface</p> <p>Overview see page 6</p>
Operating systems:	Windows 98 / ME / NT / 2000 / XP / 2003
	Order numbers:
Single user license	100-3100-01
USB Dongle	990-3100-03
Upgrade	100-3100-Upg

All-in-one Ethernet OPC Server assists application development by providing all hardware / protocol combinations from the outset.

* EtherNet/IP functionality can be supplied ex quarter II/05

OPC Server TCPIP-S



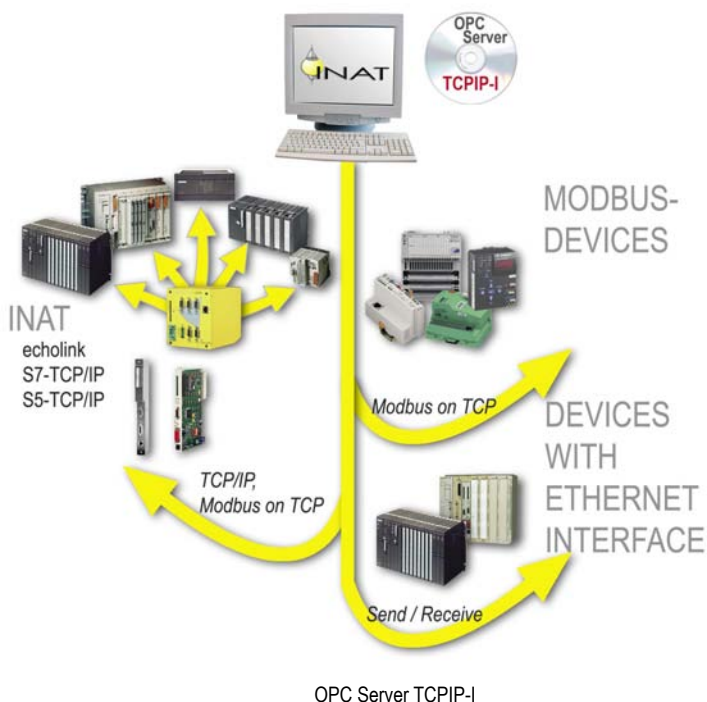
- For Siemens and INAT CPs
- For several Modbus on TCP coupler / controllers
- Including ISO on TCP (RFC1006)

Transport protocols:	TCP/IP, TCP/IP with ISO on TCP (RFC1006), TCP/IP with PLC Header
Application protocols:	S7 Protocol, S5-AP, Modbus on TCP, Send / Receive, NetLink
For:	<p><u>INAT:</u> S7-TCP/IP, S5-TCP/IP, echolink (e.g. with S5-95U)</p> <p><u>Siemens:</u> Simatic PLCs with Ethernet Interface for TCP/IP and/or RFC1006</p> <p><u>Other:</u> Devices with Modbus on TCP Interface, Devices with Send / Receive Interface</p> <p>Overview see page 6</p>
Operating systems:	Windows 98 / ME / NT / 2000 / XP / 2003
Order numbers:	
Single user license	100-3120-01
USB Dongle	990-3120-03
Upgrade	100-3120-Upp

First testing, then licensing
 At www.inat.de a 72h version of all OPC Servers is available

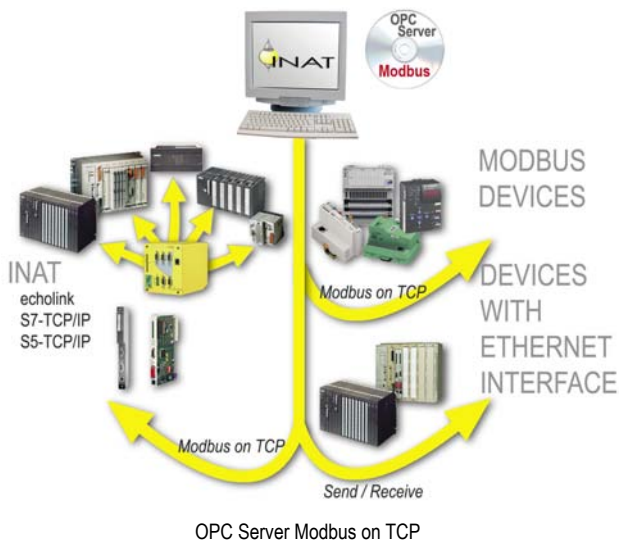
OPC Server TCPIP-I

- For INAT CPs
- For several Modbus on TCP coupler / controllers



Transport protocols:	TCP/IP, TCP/IP with PLC Header
Application protocols:	S7 Protocol, S5-AP, Modbus on TCP, Send / Receive, NetLink
For:	<p><u>INAT:</u> S7-TCP/IP, S5-TCP/IP, echolink (e.g. with S5-95U)</p> <p><u>Other:</u> Devices with Modbus on TCP Interface, Devices with Send / Receive Interface</p> <p>Overview see page 6</p>
Operating systems:	Windows 98 / ME / NT / 2000 / XP / 2003
Order numbers:	
Single user license	100-3150-01
USB Dongle	990-3150-03
Upgrade	100-3150-Upp

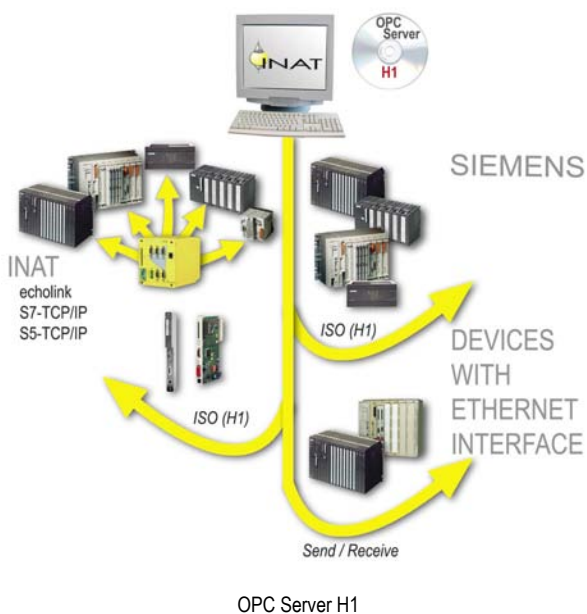
OPC Server Modbus on TCP



- For several Modbus on TCP coupler / controllers
- For INAT CPs (**ONLY** Modbus and Send / Receive communications!)

	Transport protocol:	TCP/IP
	Application protocols:	Modbus on TCP, Send / Receive, NetLink
	For:	<p><u>INAT:</u> S7-TCP/IP, S5-TCP/IP, echolink (e.g. with S5-95U)</p> <p><u>Modbus on TCP Interfaces:</u> All interfaces, that support the following Modbus on TCP function codes:</p> <p>01 Read coil 02 Read discrete input 03 Read holding register 04 Read input register 15 Write multiple coils 16 Write multiple registers</p> <p><u>Other:</u> Devices with Send / Receive Interface</p> <p>Overview see page 6</p>
	Operating systems:	Windows 98 / ME / NT / 2000 / XP / 2003
		Order numbers:
	Single user license	100-3140-01
	USB Dongle	990-3140-03
	Upgrade	100-3140-Upg

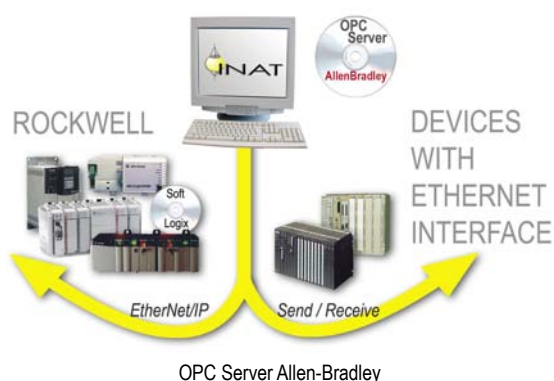
OPC Server H1



- For INAT and Siemens CPs
- Including INAT ISO (H1) driver

	Transport protocols:	ISO (H1)
	Application protocols:	S7 Protocol, S5-AP, Send / Receive
	For:	<p><u>INAT:</u> S7-TCP/IP, S5-TCP/IP, echolink (e.g. with S5-95U)</p> <p><u>Siemens:</u> Simatic PLCs with Ethernet Interface for ISO (H1)</p> <p><u>Other:</u> Devices with Send / Receive Interface</p> <p>Overview see page 6</p>
	Operating systems:	Windows 98 / ME / NT / 2000 / XP / 2003
		Order numbers:
	Single user license	100-3110-01
	USB Dongle	990-3110-03
	Upgrade	100-3110-Upg

OPC Server Allen-Bradley



- For Allen-Bradley Logix PLCs (Rockwell Automation)
- Can be supplied ex quarter II/05

Transport protocol:	TCP/IP
Application protocols:	EtherNet/IP, Send / Receive
For:	<p><u>ControlLogix:</u> CP 1756-ENBT</p> <p><u>CompactLogix:</u> CPU 1769-L32E, CPU 1769-L35E (EtherNet/IP onboard), CP 1761-NET-ENI</p> <p><u>FlexLogix:</u> CP 1788-ENBT</p> <p><u>DriveLogix:</u> CP 20-COMM-E</p> <p><u>SoftLogix</u></p> <p><i>other types on request!</i></p> <p><u>Other:</u> Devices with Send / Receive Interface</p>
Operating systems:	Windows 98 / ME / NT / 2000 / XP / 2003
	Order numbers::
Single user license	100-3160-01
USB Dongle	990-3160-03
Upgrade	100-3160-Upg

All OPC Servers at a glance

Supported transport protocols and application protocols

Supported Protocols	INAT OPC Server					
	TCPIPH1 (100-3100-01)	TCPIP-S (100-3120-01)	TCPIP-I (100-3150-01)	Modbus on TCP (100-3140-01)	H1 (100-3110-01)	Allen-Bradley (100-3160-01)
TCP/IP	✓	✓	✓	✓	—	✓
TCP/IP with ISO on TCP (RFC1006)	✓	✓	—	—	—	—
TCP/IP with PLC Header	✓	✓	✓	—	—	—
ISO (H1)	✓	—	—	—	✓	—
S7 Protocol	✓	✓	✓	—	✓	—
S5-AP	✓	✓	✓	—	✓	—
Modbus on TCP	✓	✓	✓	✓	—	—
EtherNet/IP	✓	—	—	—	—	✓
Send / Receive	✓	✓	✓	✓	✓	✓
NetLink	✓	✓	✓	✓	—	—

Supported Ethernet CPs and CPUs

INAT OPC Server		TCPIPH1	TCPIP-S	TCPIP-I	Modbus on TCP	H1	Allen-Bradley
Ethernet CPs and CPUs							
Siemens	CP 443-1	✓	✓	—	—	✓	—
	CP 443-1 Advanced	✓	✓	—	—	✓	—
	CP 443-1 IT	✓	✓	—	—	✓	—
	CP 443-1 ISO	✓	—	—	—	✓	—
	CP 443-1 TCP	✓	✓	—	—	—	—
	CP 343-1 Lean	✓	✓	—	—	—	—
	CP 343-1	✓	✓	—	—	—	—
	CP 343-1 IT	✓	✓	—	—	—	—
	CP 343-1 PN	✓	✓	—	—	—	—
	CP 343-1 ISO	✓	—	—	—	✓	—
	CP 343-1 TCP	✓	✓	—	—	—	—
	CP 243-1	✓	✓	—	—	—	—
	CP 243-1 IT	✓	✓	—	—	—	—
	CP 1430	✓	✓	—	—	✓	—
	CP 1430 TCP	✓	✓	—	—	—	—
	CP 1430 ISO	✓	—	—	—	✓	—
	CP 1430 TF	✓	—	—	—	✓	—
	CP 143	✓	—	—	—	✓	—
INAT	S7-TCP/IP	✓	✓	✓	✓	✓	—
	S5-TCP/IP	✓	✓	✓	✓	✓	—
	S5-H1	✓	—	—	—	✓	—
	echolink	✓	✓	✓	✓	✓	—
Schneider, Wago, Beckhoff et al.	<u>Modbus on TCP Interfaces:</u> All Interfaces, that support the following Modbus on TCP function codes: 01 Read coil 02 Read discrete input 03 Read holding register 04 Read input register 15 Write multiple coils 16 Write multiple registers	✓	✓	✓	✓	—	—
Rockwell	SoftLogix	✓	—	—	—	—	✓
	CPU 1769-L35E (CompactLogix)	✓	—	—	—	—	✓
	CPU 1769-L32E (CompactLogix)	✓	—	—	—	—	✓
	1761-NET-ENI (CompactLogix)	✓	—	—	—	—	✓
	1756-ENBT (ControlLogix)	✓	—	—	—	—	✓
	1788-ENBT (FlexLogix)	✓	—	—	—	—	✓
	20-COMM-E (DriveLogix)	✓	—	—	—	—	✓
Hilscher	NetLink	✓	✓	✓	✓	—	—
IBHsoftec	IBHLink	✓	✓	✓	✓	—	—

OPC Server MPI / PPI

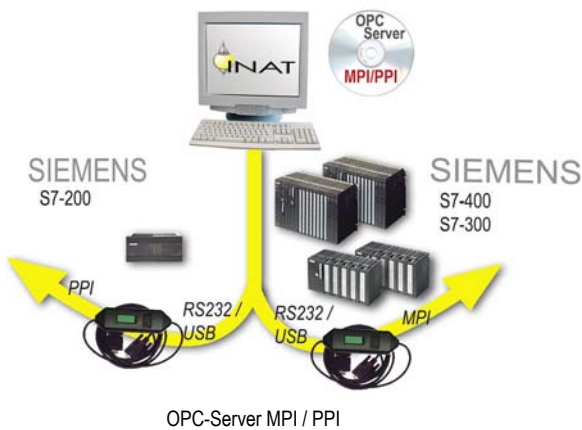
S7-400 ◀ for
S7-300 ◀
S7-200 ◀



Cost-effective solution for direct access to process data
via USB or RS232 interface of the PC.

AREAS OF APPLICATION

- Universal Server for all clients based on the OPC specification versions 1.x and 2.05
- Measurement data logging, data archiving, operating data logging, statistics
- **NEW:** Easy Import of Step 7 symbolic names directly from the Step 7 project
- Easy implementation with symbolic addressing (Alias Browsing)
- Provides MPI bus
- Hardware modifications of the PC or the PLC are unnecessary
- Easy licensing via license confirm code or dongle (see page 8)
- Static and dynamic tags
- Standards: OPC DA 1.x, OPC DA 2.0 - 2.05, DDE, FastDDE, AdvancedDDE, CF Text



OPC Server MPI / PPI

Protocols:	MPI, PPI
For:	Siemens S7-400, S7-300, S7-200
Operating systems:	Windows 98 / ME / NT / 2000 / XP / 2003
	Order numbers:
Single user license	100-3300-01
USB Dongle	990-3300-03
Upgrade	100-3300-Upg

MPI / PPI adapter



RS232 – MPI / PPI adapter, 187,5 KBaud



RS232 + USB – MPI / PPI adapter, 12 MBaud



USB – MPI / PPI adapter, 12 MBaud

- RS232 and/or USB – MPI / PPI adapter
- Length 3 m

RS232 – MPI / PPI adapter, 187,5 KBaud
with integrated LCD display;
RS232, 9 pin D-sub female, up to 115,2 KBaud –
MPI / PPI, 9 pin D-sub male, up to 187,5 KBaud
Order number: 400-9359-MPI

RS232 + USB – MPI / PPI adapter, 12 MBaud
with integrated LCD display and membrane keys;
RS232, 9 pin D-sub female, up to 115,2 KBaud –
MPI / PPI, 9 pin D-sub male, 12 MBaud or:
USB, USB-A female, USB 1.0 –
MPI / PPI, 9 pin S-sub male, up to 12 MBaud
Order number: 400-9352-MPI

USB – MPI / PPI adapter, 12 MBaud
with integrated LCD display and membrane keys;
USB, USB-A-male, USB 1.0 –
MPI / PPI, 9 pin D-sub male, up to 12 MBaud
Order number: 400-9352-USB

Licensing your OPC Server

There are two methods for delivery and licensing the OPC Server

1. Delivery

- Download at www.inat.de the fastest and least expensive form of delivery. All Servers run for 72 hours after every start or restart. There are virtually no restrictions for testing. After successful test, install the Server at the final hardware and license it as described under point 2.
- CDROM delivery (with or without dongle)
On the CDROM you will find your desired Server together with the so called authorization code. If you want to license your Server via code (see point 2 „Licensing“), you have to communicate to us this authorization code.

2. Licensing

- With USB dongle
you ordered is the easiest form of licensing. The Server is portable and permanently licensed. You don't have to deal with authorization codes.
- With the license confirm code
after successful tests with the unlicensed test version install the Server at the final hardware location. Select „Help“ in the menu and there select „Licensing“. There you will find a license request code. Please submit the authorization code together with the license request code and you will receive the license confirm code from us. This code has to be entered in the appropriate field in the license window. The Server is licensed.



Several possibilities for licencing the OPC Server

Updating and Upgrading your OPC Server

INAT OPC Servers are improved and extended with helpful features on a regular basis. At the Download Area of the INAT website, the current version of the OPC Servers is available. If you are already licensee of a OPC Server licence and want to use the latest version by replacing it with your earlier version, please determine, if it is an Update or an Upgrade.

Update

Updates are free. If the version number of your OPC Server begins with the same number as the version number of the current version on the INAT Web Site, it is an Update. Example:

Your Server:	3.00.06
Current Server:	3.01.06

To Update, install the OPC Server (proceed as normal) and use the existing dongle or your existing license confirm code for licensing your Server.

Upgrade

Upgrades are not free. If the version number of your OPC Server begins with another number than the version number of the current version in the Internet, it is an Upgrade. Example:

Your Server:	2.05.06
Current Server:	3.01.06

To Upgrade, install the OPC Server (proceed as normal). You will then receive the new license confirm code or a new dongle from us.

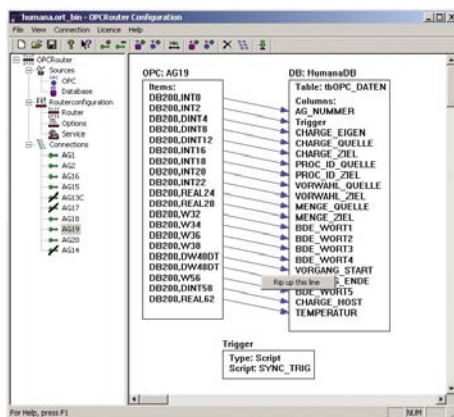
Take into account, that with Upgrades, the existing dongle or license confirm code can **NO LONGER** be used



OPC coupling between PLCs and data bases as well as between PLCs and PLCs.

AREA OF APPLICATION

- Data archiving, operating data logging, management of recipes
- Event controlled data transfer via Trigger
- Coupling:
 - OPC ↔ OPC
 - OPC ↔ Data base
 - Data base ↔ OPC
 - Data base ↔ Data base
- Communication of automation components via Ethernet
- Diagnosis of connections via Internet / Intranet in the form of dynamic HTML sites
- VB Script interface for user-defined transmission events and odd-on

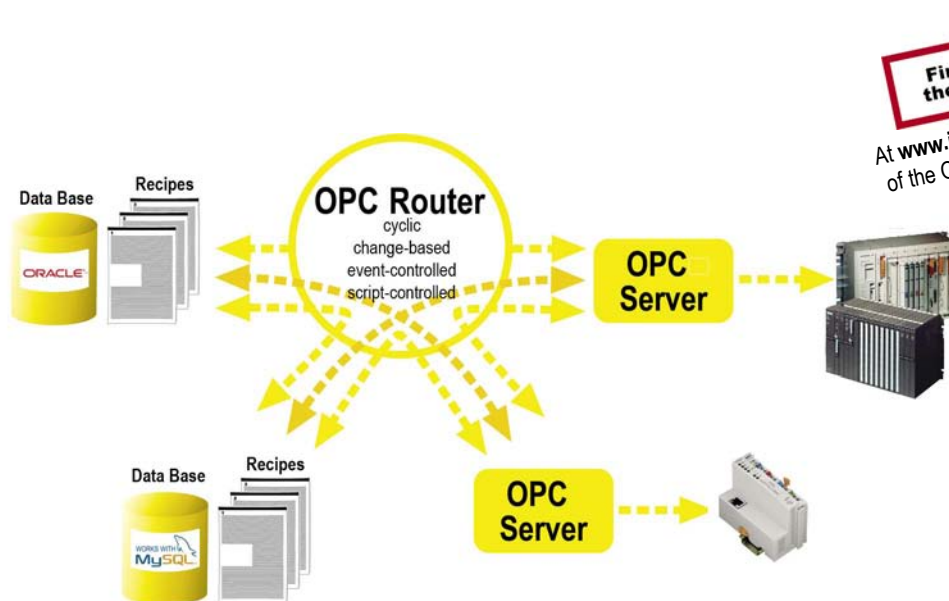


OPC Router

OPC Router

- Includes 1 runtime license and configuration software

Supported data bases:	all data bases, that support the ADO interface e.g. Oracle, MySQL, MS SQL, Access etc.
Trigger:	Timer Trigger, Asynchronous Trigger, Bit Trigger, VB Script
Operating systems:	Windows NT / 2000
Order number:	500-8000-01



First testing, then licensing
At www.inat.de a demo version of the OPC Router is available

Coupling between OPC Servers and Data bases

for

- ▶ S7 / S5
- ▶ Dez. E/A
- ▶ Modicon
- ▶ Allen-Bradley

DDE Server Ethernet

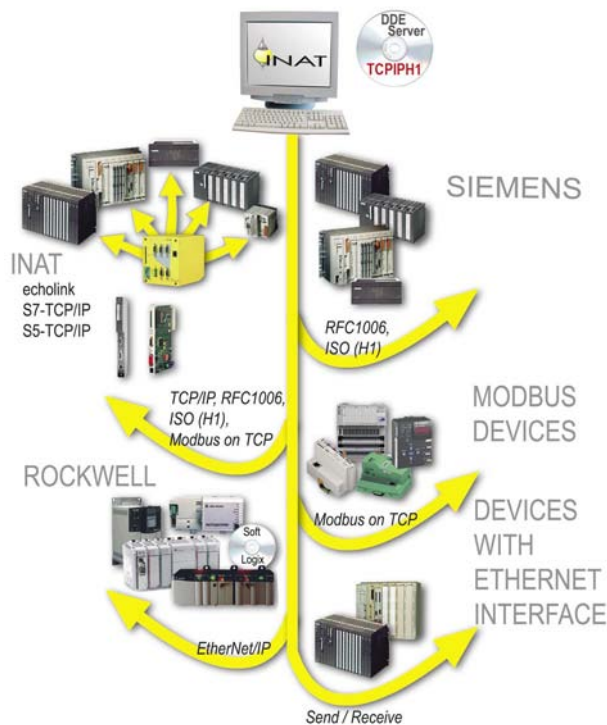
DDE communications via Ethernet to
Siemens, Wago, Schneider Electric,
Rockwell Automation et al.

Quick and secure coupling with visualizations (e.g. Wonderware Intouch), data bases and control systems with DDE- and SuiteLink interface.

AREA OF APPLICATIONS

- Coupling to Wonderware Intouch via SuiteLink
- Measurement data logging, data archiving, operating data logging, statistics
- Link your visualization system to a heterogeneous network TCP/IP, ISO on TCP (RFC1006), ISO (H1), Modbus on TCP, EtherNet/IP* (Allen-Bradley)
- **NEW:** Easy Import of Step 7 symbolic names directly from the Step 7 project
- Send / Receive for communications via the socket interface (raw data)
- Easy implementation with symbolic addressing (Alias Browsing)
- Supported Item syntax: INAT, Siemens, Applicom, Wonderware
- Works with NetLink and IBHLink (see page 68)
- Static and dynamic tags
- Standards: SuiteLink, DDE, FastDDE, CF-Text
- High reliability, requires less system resources
- No limitation of number of connections, no limitation of number of tags

DDE Server TCPIP1



All-in-one Ethernet DDE Server assists application development by providing all hardware / protocol combinations from the outset.

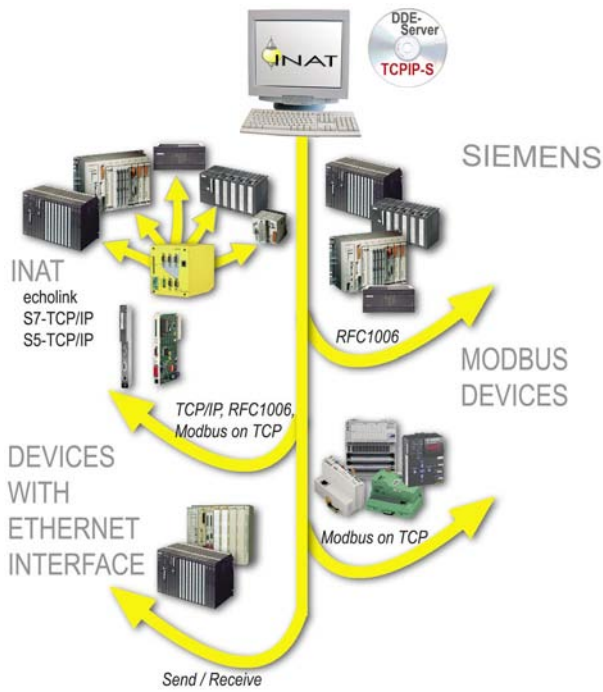
- For INAT and Siemens CPs
- For Allen-Bradley Logix PLCs*
- For several Modbus on TCP coupler / controllers
- Including ISO on TCP (RFC1006)
- Including INAT ISO (H1) driver

Transport protocols:	TCP/IP, TCP/IP with ISO on TCP (RFC1006), TCP/IP with PLC Header, ISO (H1)
Application protocols:	S7 Protocol, S5-AP, Modbus on TCP, EtherNet/IP*, Send / Receive, NetLink
For:	<p>INAT: S7-TCP/IP, S5-TCP/IP, echolink (e.g. with S5-95U)</p> <p>Siemens: Simatic PLCs with Ethernet Interface</p> <p>Rockwell Automation: Allen-Bradley Logix PLCs with EtherNet/IP Interface*</p> <p>Other: Devices with Modbus on TCP Interface, Devices with Send / Receive Interface</p> <p>Overview see page 14</p>
Operating systems:	Windows 98 / ME / NT / 2000 / XP / 2003
Single user license	100-3050-01
USB Dongle	990-3050-03
Upgrade	100-3050-Upg

* EtherNet/IP functionality can be supplied ex quarter II/05



DDE Server TCPIP-S

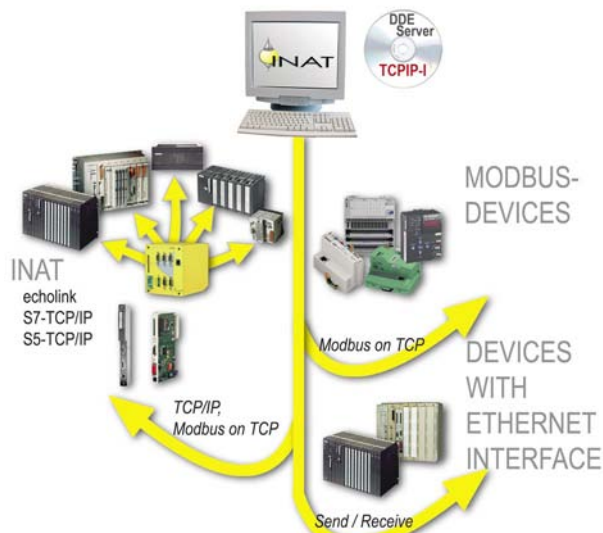


DDE Server TCPIP-S

- For Siemens and INAT CPs
- For several Modbus on TCP coupler / controllers
- Including ISO on TCP (RFC1006)

Transport protocols:	TCP/IP, TCP/IP with ISO on TCP (RFC1006), TCP/IP with PLC Header
Application protocols:	S7 Protocol, S5-AP, Modbus on TCP, Send / Receive, NetLink
For:	<u>INAT:</u> S7-TCP/IP, S5-TCP/IP, echolink (e.g. with S5-95U) <u>Siemens:</u> Simatic PLCs with Ethernet Interface for TCP/IP and/or RFC1006 <u>Other:</u> Devices with Modbus on TCP Interface, Devices with Send / Receive Interface Overview see page 14
Operating systems:	Windows 98 / ME / NT / 2000 / XP / 2003
	Order numbers:
Single user license	100-3070-01
USB Dongle	990-3070-03
Upgrade	100-3070-Upg

DDE Server TCPIP-I



DDE Server TCPIP-I

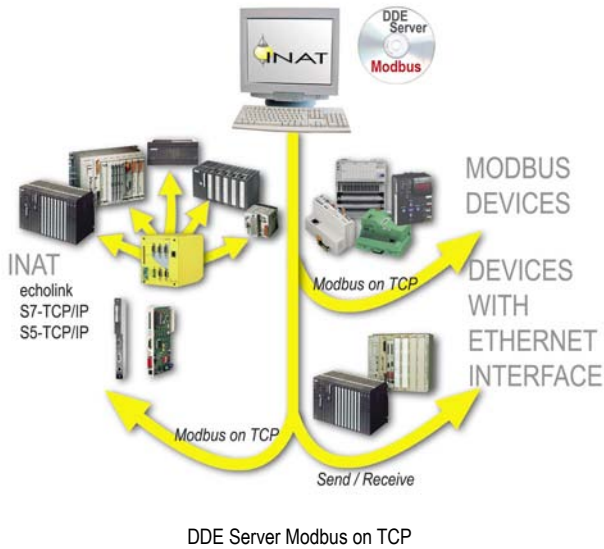
- For INAT CPs
- For several Modbus on TCP coupler / controllers

Transport protocols:	TCP/IP, TCP/IP with PLC Header
Application protocols:	S7 Protocol, S5-AP, Modbus on TCP, Send / Receive, NetLink
For:	<u>INAT:</u> S7-TCP/IP, S5-TCP/IP, echolink (e.g. with S5-95U) <u>Other:</u> Devices with Modbus on TCP Interface, Devices with Send / Receive Interface Overview see page 14
Operating systems:	Windows 98 / ME / NT / 2000 / XP / 2003
	Order numbers:
Single user license	100-3080-01
USB Dongle	990-3080-03
Upgrade	100-3080-Upg

First testing, then licensing
At www.inat.de a 72h version of all DDE Servers is available

DDE Server Modbus on TCP

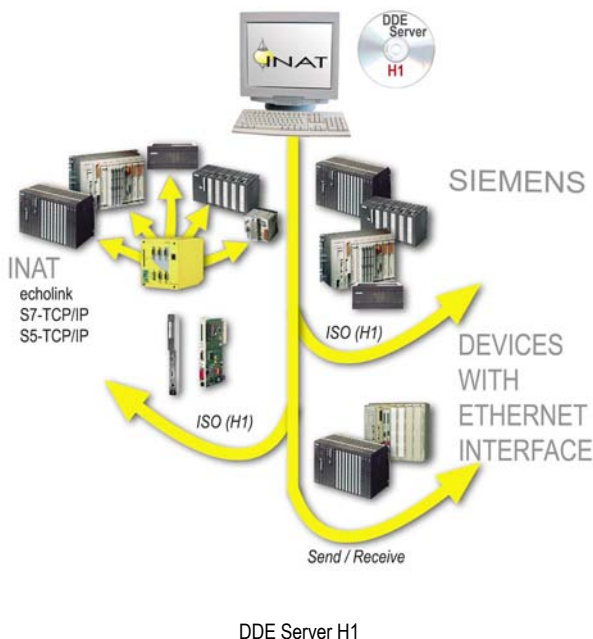
- For several Modbus on TCP coupler / controllers
- For INAT CPs (**ONLY** Modbus and Send / Receive communications!)



	Transport protocol:	TCP/IP
	Application protocols:	Modbus on TCP, Send / Receive, NetLink
	For:	INAT: S7-TCP/IP, S5-TCP/IP, echolink (e.g. with S5-95U) Modbus on TCP Interfaces: All interfaces, that support the following Modbus on TCP function codes: 01 Read coil 02 Read discrete input 03 Read holding register 04 Read input register 15 Write multiple coils 16 Write multiple registers Other: Devices with Send / Receive Interface Overview see page 14
	Operating systems:	Windows 98 / ME / NT / 2000 / XP / 2003
		Order numbers:
	Single user license	100-3090-01
	USB Dongle	990-3090-03
	Upgrade	100-3090-Upg

DDE Server H1

- For INAT and Siemens CPs
- Including INAT ISO (H1) driver



	Transport protocol:	ISO (H1)
	Application protocols:	S7 Protocol, S5-AP, Send / Receive
	For:	INAT: S7-TCP/IP, S5-TCP/IP, echolink (e.g. with S5-95U) Siemens: Simatic PLCs with Ethernet Interface for ISO (H1) Other: Devices with Send / Receive Interface Overview see page 14
	Operating systems:	Windows 98 / ME / NT / 2000 / XP / 2003
		Order numbers:
	Single user license	100-3060-01
	USB Dongle	990-3060-03
	Upgrade	100-3060-Upg



DDE Server Allen-Bradley

- For Allen-Bradley Logix PLCs (Rockwell Automation)
- Can be supplied ex quarter II/05

	Transport protocol:	TCP/IP
	Application protocols:	EtherNet/IP, Send / Receive
	For:	<p><u>ControlLogix:</u> CP 1756-ENBT</p> <p><u>CompactLogix:</u> CPU 1769-L32E, CPU 1769-L35E (EtherNet/IP onboard), CP 1761-NET-ENI</p> <p><u>FlexLogix:</u> CP 1788-ENBT</p> <p><u>DriveLogix:</u> CP 20-COMM-E</p> <p><u>SoftLogix</u></p> <p><i>other types on request!</i></p> <p><u>Other:</u> Devices with Send / Receive Interface</p>
	Operating systems:	Windows 98 / ME / NT / 2000 / XP / 2003
		Order numbers:
	Single user license	100-3095-01
	USB Dongle	990-3095-03
	Upgrade	100-3095-Upg

All DDE Servers at a glance

Supported transport protocols and application protocols

Supported Protocols	INAT DDE Server					
	TCPIPH1 (100-3050-01)	TCPIP-S (100-3070-01)	TCPIP-I (100-3080-01)	Modbus on TCP (100-3090-01)	H1 (100-3060-01)	Allen-Bradley (100-3095-01)
TCP/IP	✓	✓	✓	✓	—	✓
TCP/IP with ISO on TCP (RFC1006)	✓	✓	—	—	—	—
TCP/IP with PLC Header	✓	✓	✓	—	—	—
ISO (H1)	✓	—	—	—	✓	—
S7 Protocol	✓	✓	✓	—	✓	—
S5-AP	✓	✓	✓	—	✓	—
Modbus on TCP	✓	✓	✓	✓	—	—
EtherNet/IP	✓	—	—	—	—	✓
Send / Receive	✓	✓	✓	✓	✓	✓
NetLink	✓	✓	✓	✓	—	—

Supported Ethernet CPs and CPUs

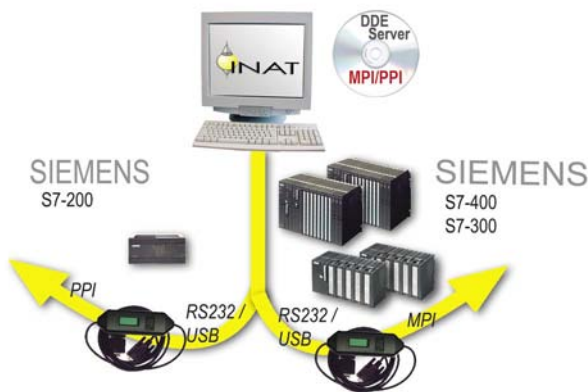
INAT DDE Server		TCPIPH1	TCPIP-S	TCPIP-I	Modbus on TCP	H1	Allen-Bradley
Ethernet CPs and CPUs							
Siemens	CP 443-1	✓	✓	—	—	✓	—
	CP 443-1 Advanced	✓	✓	—	—	✓	—
	CP 443-1 IT	✓	✓	—	—	✓	—
	CP 443-1 ISO	✓	—	—	—	✓	—
	CP 443-1 TCP	✓	✓	—	—	—	—
	CP 343-1 Lean	✓	✓	—	—	—	—
	CP 343-1	✓	✓	—	—	—	—
	CP 343-1 IT	✓	✓	—	—	—	—
	CP 343-1 PN	✓	✓	—	—	—	—
	CP 343-1 ISO	✓	—	—	—	✓	—
	CP 343-1 TCP	✓	✓	—	—	—	—
	CP 243-1	✓	✓	—	—	—	—
	CP 243-1 IT	✓	✓	—	—	—	—
	CP 1430	✓	✓	—	—	✓	—
	CP 1430 TCP	✓	✓	—	—	—	—
	CP 1430 ISO	✓	—	—	—	✓	—
	CP 1430 TF	✓	—	—	—	✓	—
CP 143	✓	—	—	—	✓	—	
INAT	S7-TCP/IP	✓	✓	✓	✓	✓	—
	S5-TCP/IP	✓	✓	✓	✓	✓	—
	S5-H1	✓	—	—	—	✓	—
	echolink	✓	✓	✓	✓	✓	—
Schneider, Wago, Beckhoff et al.	<u>Modbus on TCP Interfaces:</u> All Interfaces, that support the following Modbus on TCP function codes: <i>01 Read coil</i> <i>02 Read discrete input</i> <i>03 Read holding register</i> <i>04 Read input register</i> <i>15 Write multiple coils</i> <i>16 Write multiple registers</i>	✓	✓	✓	✓	—	—
Rockwell	SoftLogix	✓	—	—	—	—	✓
	CPU 1769-L35E (CompactLogix)	✓	—	—	—	—	✓
	CPU 1769-L32E (CompactLogix)	✓	—	—	—	—	✓
	1761-NET-ENI (CompactLogix)	✓	—	—	—	—	✓
	1756-ENBT (ControlLogix)	✓	—	—	—	—	✓
	1788-ENBT (FlexLogix)	✓	—	—	—	—	✓
	20-COMM-E (DriveLogix)	✓	—	—	—	—	✓
Hilscher	NetLink	✓	✓	✓	✓	—	—
IBHsoftec	IBHLink	✓	✓	✓	✓	—	—

**Cost-effective solution for direct access to process data
via USB or RS232 interface of the PC.**

AREAS OF APPLICATION

- Universal Server for all clients based on the OPC specification versions 1.x and 2.05
- Measurement data logging, data archiving, operating data logging, statistics
- **NEW:** Easy Import of Step 7 symbolic names directly from the Step 7 project
- Easy implementation with symbolic addressing (Alias Browsing)
- Provides MPI bus
- Hardware modifications of the PC or the PLC are unnecessary
- Easy licensing via license confirm code or dongle (see page 8)
- Static and dynamic tags
- Standards: SuiteLink, DDE, FastDDE, CF-Text

DDE Server MPI / PPI



DDE Server MPI / PPI

Protocols:	MPI, PPI
PLCs:	Siemens S7-400, S7-300, S7-200
Operating systems:	Windows 98 / ME / NT / 2000 / XP / 2003
Order numbers:	
Single user license	100-3350-01
USB Dongle	990-3350-03
Upgrade	100-3350-Upg

MPI / PPI adapter



RS232 – MPI / PPI adapter, 187,5 KBAud



RS232 + USB – MPI / PPI adapter, 12 MBaud



USB – MPI / PPI adapter, 12 MBaud

- RS232 and/or USB – MPI / PPI adapter
- Length 3 m

RS232 – MPI / PPI adapter, 187,5 KBAud

with integrated LCD display;
RS232, 9 pin D-sub female, up to 115,2 KBAud –
MPI / PPI, 9 pin D-sub male, up to 187,5 KBAud
Order number: 400-9359-MPI

RS232 + USB – MPI / PPI adapter, 12 MBaud

with integrated LCD display and membrane keys;
RS232, 9 pin D-sub female, up to 115,2 KBAud –
MPI / PPI, 9 pin D-sub male, 12 MBaud or:
USB, USB-A female, USB 1.0 –
MPI / PPI, 9 pin S-sub male, up to 12 MBaud
Order number: 400-9352-MPI

USB – MPI / PPI adapter, 12 MBaud

with integrated LCD display and membrane keys;
USB, USB-A-male, USB 1.0 –
MPI / PPI, 9 pin D-sub male, up to 12 MBaud
Order number: 400-9352-USB

Licensing your DDE Server

There are two methods for delivery and licensing the DDE Server

1. Delivery

- Download at www.inat.de the fastest and least expensive form of delivery. All Servers run for 72 hours after every start or restart. There are virtually no restrictions for testing. After successful test, install the Server at the final hardware and license it as described under point 2.
- CDROM delivery (with or without dongle)
On the CDROM you will find your desired Server together with the so called authorization code. If you want to license your Server via code (see point 2 „Licensing“), you have to communicate to us this authorization code.

2. Licensing

- With USB dongle
you ordered is the easiest form of licensing. The Server is portable and permanently licensed. You don't have to deal with authorization codes.
- With the license confirm code
after successful tests with the unlicensed test version install the Server at the final hardware location. Select „Help“ in the menu and there select „Licensing“. There you will find a license request code. Please submit the authorization code together with the license request code and you will receive the license confirm code from us. This code has to be entered in the appropriate field in the license window. The Server is licensed.



Several possibilities for licensing the DDE Server

Updating and Upgrading your DDE Server

INAT DDE Servers are improved and extended with helpful features on a regular basis. At the Download Area of the INAT website, the current version of the DDE Servers is available. If you are already licensee of a DDE Server licence and want to use the latest version by replacing it with your earlier version, please determine, if it is an Update or an Upgrade.

Update

Updates are free. If the version number of your DDE Server begins with the same number as the version number of the current version on the INAT Web Site, it is an Update. Example:

Your Server:	3.00.02
Current Server:	3.00.06

To Update, install the DDE Server (proceed as normal) and use the existing dongle or your existing license confirm code for licensing your Server.

Upgrade

Upgrades are not free. If the version number of your DDE Server begins with another number than the version number of the current version in the Internet, it is an Upgrade. Example:

Your Server:	2.05.06
Current Server:	3.00.06

To Upgrade, install the DDE Server (proceed as normal). You will then receive the new license confirm code or a new dongle from us.

Take into account, that with Upgrades, the existing dongle or license confirm code can **NO LONGER** be used



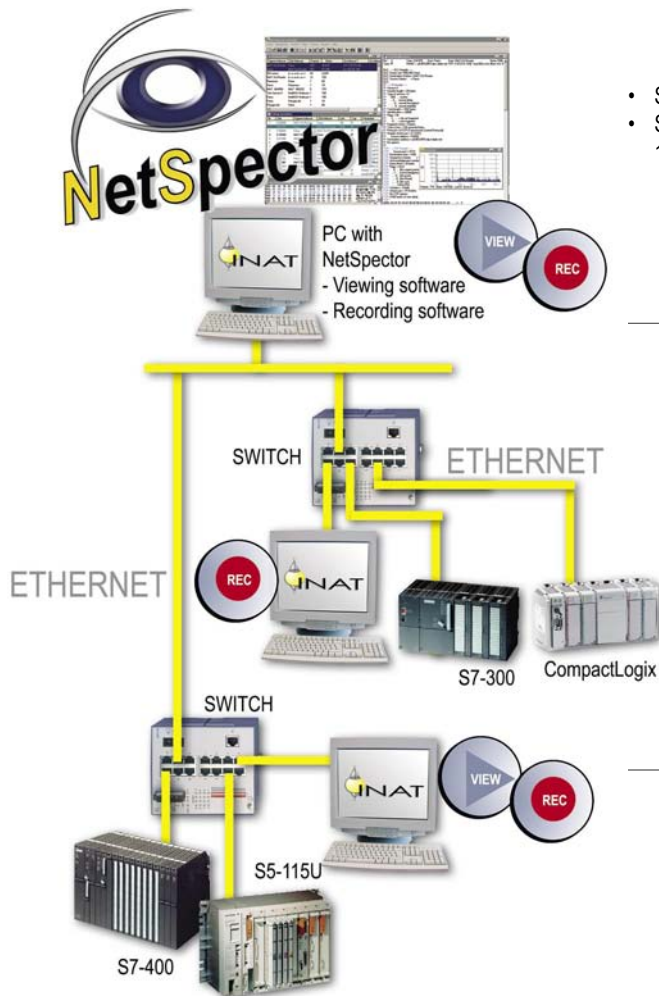
**Network analysis in switched Ethernet.
Implementing and professional control of networks with remote agent solution.**

AREA OF APPLICATION

- Analysis of switched networks with modular modules: Record unit and View unit can be used autonomously
- Analysis of data traffic in 10 / 100 / 1.000 Mbps LANs
- Comprehensive search functions for quick locating of specific frame samples
- Frame details are presented in HEX and ASCII from layer 2 up to layer 7
- Filter functions for specific analysis of certain stations and frame types
- Decodes TCP/IP, ISO (H1), ISO on TCP (RFC1006), S7 Protocol, S5-AP, Modbus and EtherNet/IP
- Trigger functions for analysis of recurrent errors
- Easy licensing with license confirm code, optional hardware lock (dongle)

**Protocol Analyzer
for switched
Ethernet**

NetSpector Features

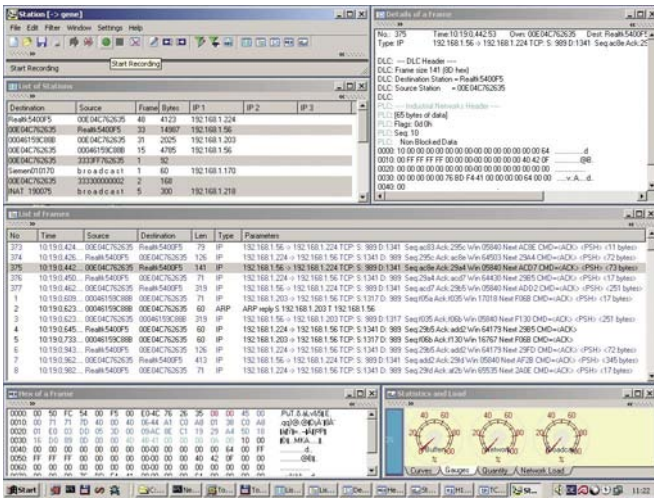


- Software solution for Windows PCs
- System requirements: Pentium II, 128 MB RAM, 1 GB hard disc capacity, standard Ethernet adapter

Transport protocols:	TCP/IP, TCP/IP with ISO on TCP (RFC1006), TCP/IP with PLC Header, ISO (H1)
Application protocols:	S7 Protocol, S5-AP, Modbus on TCP, EtherNet/IP, Send / Receive, IPV4, IPV6, VLAN, PPPoE, ARP, RARP, ICMP, SNMP, NETBEUI, NetBIOS (TCP), DNS, BOOTP
Operating systems:	Windows 98 / ME / NT / 2000 / XP / 2003

Network analysis in switched networks with INAT NetSpector

NetSpector Licenses

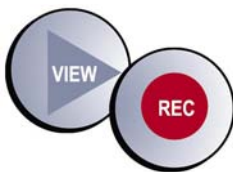


Detailed information such as protocol window

		Order numbers:
NetSpector Single user license, Software Confirm Code: Record and View Unit run on the same PC in parallel		100-2265-01
NetSpector Single user license, Dongle: Record and View Unit run on the same PC in parallel		100-2265-02
NetSpector Network license, Software Confirm Code: Including 1 x View License (Software Confirm Code) Including 5 x Record License for Windows and Linux (Software Confirm Code)		100-2268-01
NetSpector Network license, Dongle: Including 1 x View License (Dongle) Including 5 x Record License for Windows and Linux (Software Confirm Code)		100-2268-02
NetSpector Suite: Including 10 x View License (Dongle) Including 100 x Record License for Windows and Linux (Software Confirm Code)		100-2268-08

Add-on modules for NetSpector network license

- Viewer License modules can only be used with existing network license



NetSpector Add-on modules

		Order numbers:
1 x View License with Software Confirm Code		100-2268-03
1 x Viewer License with Dongle		100-2268-04
1 x Record License		100-2268-05
50 x Record License		100-2268-06
100 x Record License		100-2268-07

NetSpector Accessories



NetSpector Complete mobile solution

NetSpector Complete mobile solution

- NetSpector single user license installed on a Pentium Notebook
- Operating system (2000 or XP) selectable
- With Dongle

Order number:	100-2200-01
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Bundle: NetSpector + Training



INAT Competence Center in Nuremberg

- Bundle: NetSpector license + training
- 2 day training: troubleshooting with INAT NetSpector (see page 31)
- In the INAT Competence Center in Nuremberg or as in-house training at yours

Operating systems:	Windows 98 / ME / NT / 2000 / XP
Order number:	
Single user license + Training, 1 person	100-2290-01
Training a piece	100-2290-02

for

- ▶ TCP/IP + ISO (H1)
- ▶ S7 communication
- ▶ S5 communication

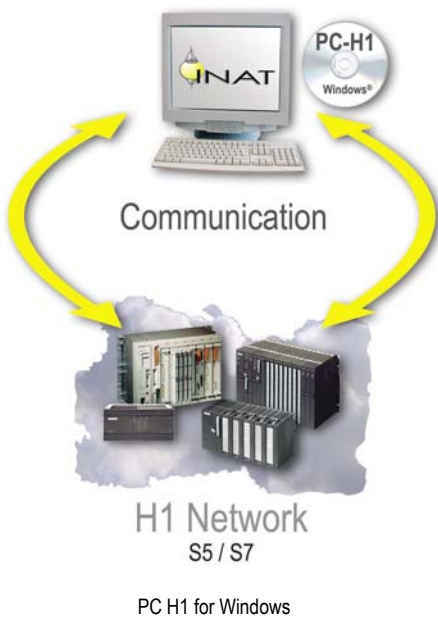
Driver and DLLs for Windows

Programming of own
applications to
S7 and S5 PLCs

Language-independent libraries for programming communication applications to S7 and S5 PLCs via TCP/IP and MPI/PPI.

AREAS OF APPLICATION

- Quick and economic programming of applications
- Language-independent libraries (DLLs)
- Optimized program routines for communications with S7 and S5 PLCs



PC H1: ISO (H1) driver and software interface

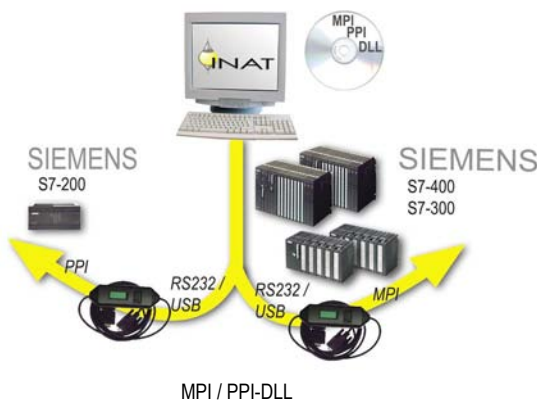
- Easy linking of industrial PCs and other compatible PCs to a ISO (H1) LAN for communications with S7 and S5 PLCs
- Routines for Send/Receive and Fetch/Write
- Easy application, as designed as language-independent library (so called DLL)
- Works with standard Ethernet adapter
- Including test programs

Operating systems:	Windows 98 / ME / NT / 2000 / XP / 2003
PLC access:	Data blocks, Flags, In-/Outputs, Periphery, Counter, Timer, System data
	Order numbers:
Single user license	100-4500-01
Upgrade	100-4500-Upg

First testing, then licensing

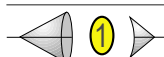
At www.inat.de a 10h version of PC-H1 is available

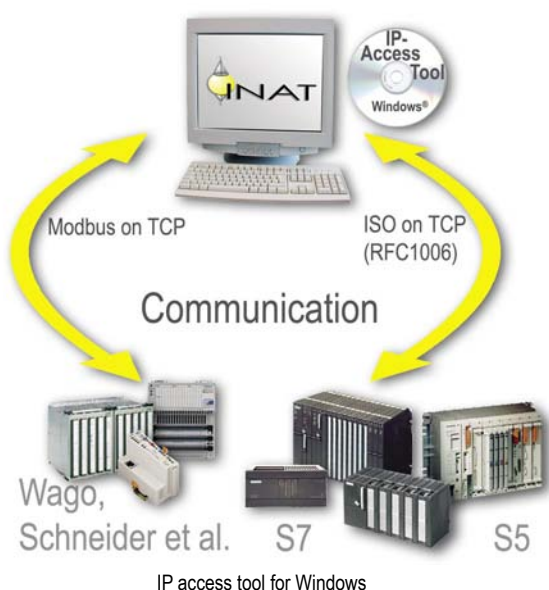
MPI / PPI-DLL



- Access to S7 via MPI / PPI adapter
- Routines for Fetch/Write
- Easy application, as designed as language-independent library (so called DLL)
- Synchronous and asynchronous modus
- Including development tools for MPI bases applications to S7-400 and S7-300
- Inclusive development tools for PPI bases applications to S7-200
- Including sample programs for the access to S7 via MPI / PPI

Operating systems:	Windows 98 / ME / NT / 2000 / XP / 2003
PLC access:	Data blocks, Flags, In-/Outputs, Periphery, Counter, Timer, System data
	Order numbers:
Single user license	100-3380-01
Company license per company location	100-3381-01





- Access to S7 and S5 via Ethernet
- Access to devices with Modbus on TCP (e.g. Schneider Modicon)
- Routines for Send/Receive and Fetch/Write
- Easy application, as designed as language-independent library (so called DLL)
- Works with NetLink and IBHLink
- Several programming models such as multithreading, multitasking or polling are executable at the same time
- Works with standard TCP/IP of the operating system
- Including development tools for ISO on TCP (RFC1006)
- Including sample programs for access to S7 / S5 as source code

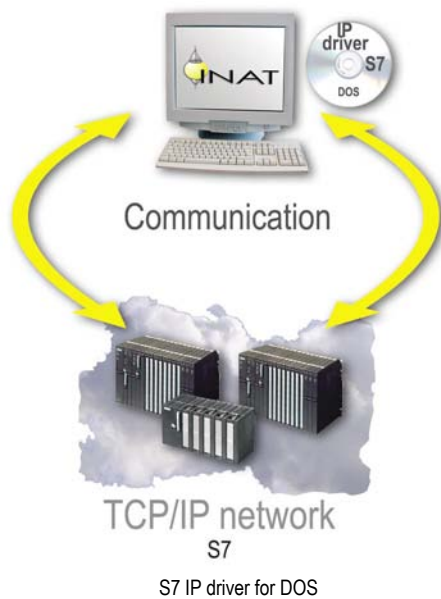
Operating systems:	Windows 98 / ME / NT / 2000 / XP / 2003
Connections:	<ul style="list-style-type: none"> • any number of connections, even from several tasks • active and passive
PLC access:	Data blocks, Flags, In-/Outputs, Periphery, Counter, Timer, System data
	Order numbers:
Single user license	100-3010-02
Company license per company location	100-3010-01

IP access tool for Windows CE



- Access to S7 and S5 via Ethernet
- Access to devices with Modbus on TCP (e.g. Schneider Modicon)
- Routines for Send/Receive and Fetch/Write
- Easy application, as designed as language-independent library (so called DLL)
- Several programming models such as multithreading, multitasking or polling are executable at the same time
- Works with standard TCP/IP of the operating system
- Including development tools for ISO on TCP (RFC1006)
- Including sample programs for access to S7 / S5 as source code

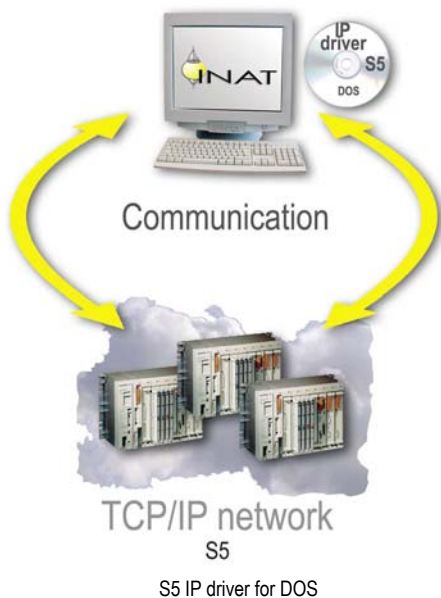
Operating systems:	Windows CE 4 SP2
Supported Hardware:	ARM V.4 X 86
Connections:	<ul style="list-style-type: none"> • any number of connections, even from several tasks • active and passive
PLC access:	Data blocks, Flags, In-/Outputs, Periphery, Counter, Timer, System data
	Order numbers:
Single user license	100-3045-02
Company license per company location	100-3045-01



- Easy linking of „embedded DOS applications“ to a TCP/IP LAN for communications with S7 PLCs
- Inclusive development tools for ISO on TCP (RFC1006)
- Inclusive sample programs for the access to S7 as source code

Operating systems:	DOS DOS-Extender RT Kernel 31/16 Phar Lab
	Order number:
Single user license	100-3030-01

S5 IP driver for DOS



- Easy linking of „embedded DOS applications“ to a TCP/IP LAN for communications with S5 PLCs
- Inclusive development tools for ISO on TCP (RFC1006)
- Inclusive sample programs for the access to S5 as source code

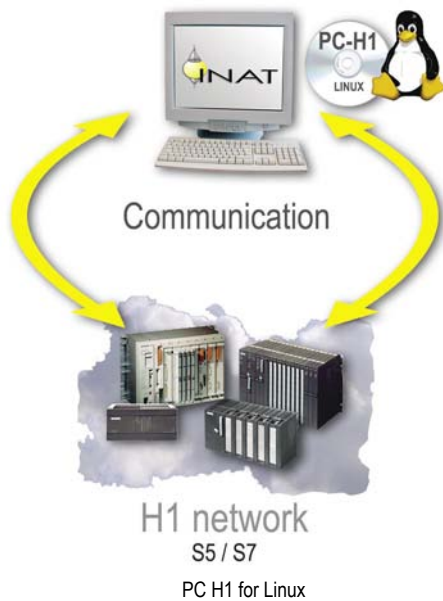
Operating systems:	DOS DOS-Extender RT Kernel 31/16 Phar Lab
	Order number:
Single user license	100-3020-01

Shared Objects for Linux

Language-independent libraries for programming communication applications
to S7 and S5 PLCs via TCP/IP and MPI/PPI.

AREAS OF APPLICATION

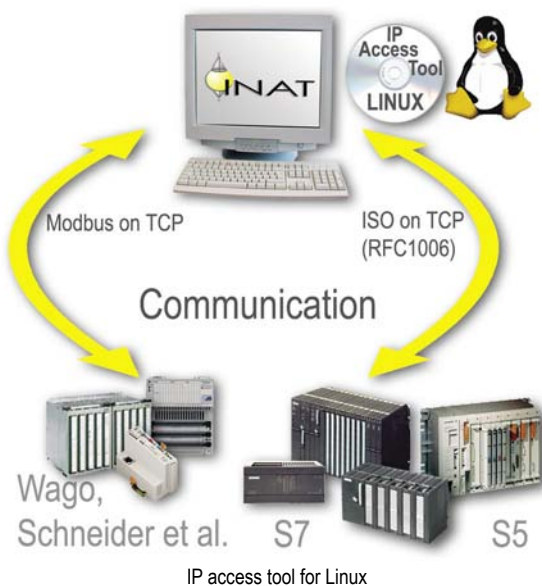
- Quick and economic programming of communication applications
- Optimized program routines for communications with S7 and S5 PLCs



PC H1 for Linux: ISO (H1) driver and software interface

- Easy linking of industrial PCs and other compatible PCs to a ISO (H1) LAN to communicate with S7 and S5 PLCs
- Routines for Send/Receive and Fetch/Write
- Easy application as designed as shared objects
- Works with every Linux Ethernet adapter
- Including test programs

Operating system:	Linux
PLC access:	Data blocks, Flags, In-/Outputs, Periphery, Counter, Timer, System data
	Order numbers:
Single user license	100-4540-01
Upgrade	100-4540-Upp



IP access tool for Linux

- Access to S7 and S5 via Ethernet
- Access to devices with Modbus on TCP (e.g. Schneider Modicon)
- Routines for Send/Receive and Fetch/Write
- Easy application, as designed as language-independent library (so called DLL)
- Works with NetLink and IBHLink (see page 68)
- Several programming models such as multithreading, multitasking or polling are executable at the same time
- Works with standard TCP/IP of the operating system
- Including development tools for ISO on TCP (RFC1006)
- Including sample programs for access to S7 / S5 as source code

Operating system:	Linux
Connections:	• any number of connections, even from several tasks • active and passive
PLC access:	Data blocks, Flags, In-/Outputs, Periphery, Counter, Timer, System data
	Order numbers:
Single user license	100-3040-02
Company license per company location	100-3040-01

Linux Hotline*:

We provide assistance
all around Linux



* € 1,49 / min; 60/1 pulse

for

- ▶ S5
- ▶ S7
- ▶ AEG
- ▶ Scanner, Printer

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Virtual ComPort VCOM

Serial PLC programming
via TCP/IP and ISO (H1)

**Serial communication is redirected to the Ethernet adapter.
Programming Siemens S7 and S5 via TCP/IP without Softnet.**

AREAS OF APPLICATION

- Enables programs, that normally access to the serial interface, to communicate via network
- Programming the S7 and S5 with Step 7 and Step 5 via TCP/IP and ISO (H1) without Softnet
- Programming PLCs, that are serially connected to echolink:
 - ⇒ S7 PLCs (S7-400, S7-300) with Step 7
 - ⇒ S5 PLCs with Step 5
 - ⇒ AEG PLCs with AKF 250
 - ⇒ TI505 PLCs with TISOFT

Virtual ComPort (VCOM)

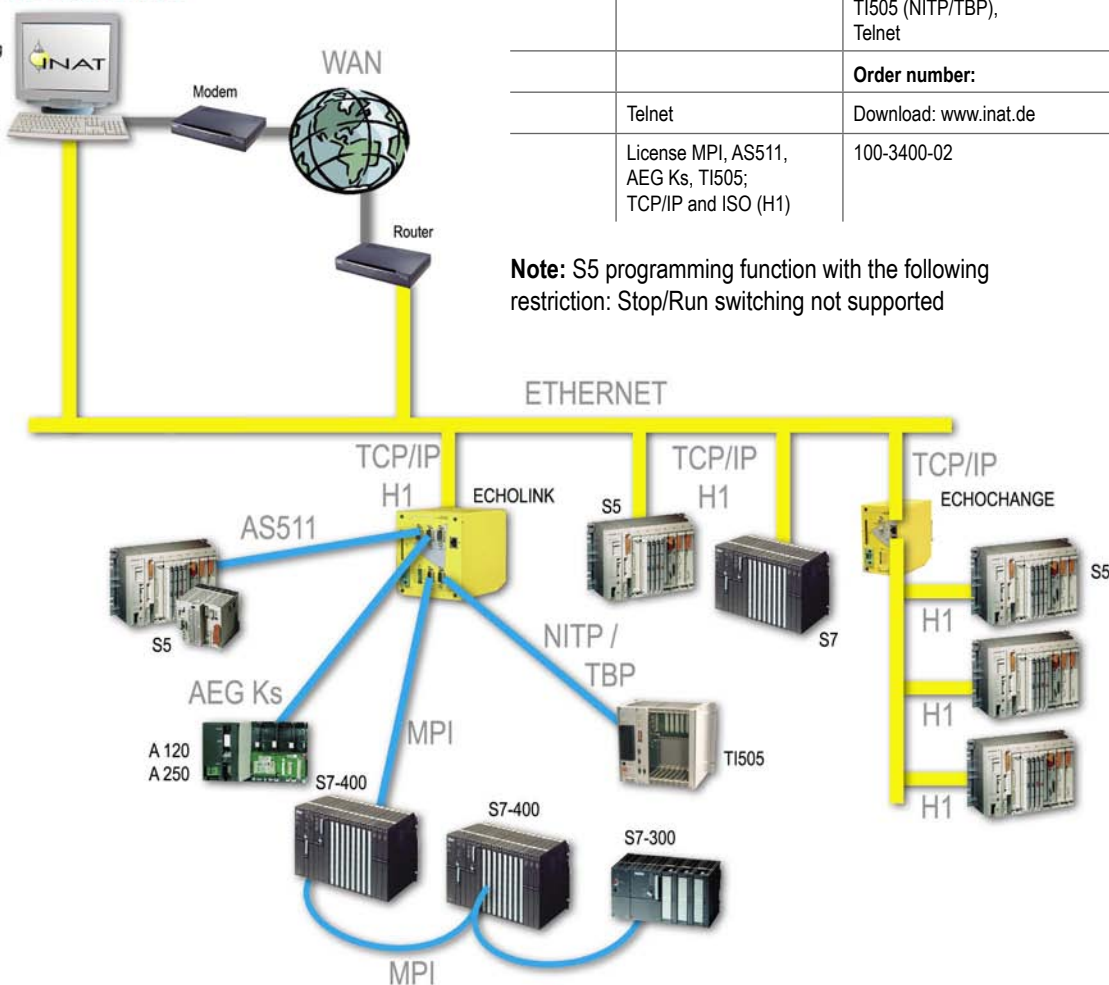
**First testing,
then licensing**

At www.inat.de a 10h version
of VCOM is available

**Programming,
Remote maintenance**

PG/PC with
- VCOM
- Programming
software

- Step 7
- Step 5
- AKF 250
- TISOFT



- Included in the scope of supply of INAT Hardware

Operating systems:	Windows NT / 2000 / XP
Serial protocols:	MPI, AS511, AEG Ks, TI505 (NITP/TBP), Telnet
	Order number:
Telnet	Download: www.inat.de
License MPI, AS511, AEG Ks, TI505; TCP/IP and ISO (H1)	100-3400-02

Note: S5 programming function with the following
restriction: Stop/Run switching not supported

Automatic redirection of the serial communication to the Ethernet adapter



Connects the TwinCAT PLC
to Siemens and Rockwell
PLCs

INAT TwinCAT PLC Communicator

TCP/IP + ISO (H1) ◀ for
S7 communication ◀
S5 communication ◀



Active access of the TwinCAT PLC to Siemens and Allen-Bradley PLCs
via TCP/IP (ISO on TCP) and ISO (H1)

AREAS OF APPLICATION

- Communication of the TwinCAT PLC with Simatic S7 and S5 PLCs via Ethernet (via TCP/IP and/or ISO (H1))
- Communication of the TwinCAT PLC with Allen-Bradley PLCs via EtherNet/IP (available ex quarter II/05)
- Easy access using PLC handling blocks
- Read data from Siemens- and Rockwell Allen-Bradley PLCs
- Write data to Siemens- and Rockwell Allen-Bradley PLCs
- Access to data blocks, Flags, Periphery, Counter, Timer etc.
- Comfortable parameterization software
- Connection to Simatic S7 PLCs via the cost-effective IBHLink / NetLink adapters (see page 68)

**First testing,
then licensing**

At www.inat.de a 72h version of the
PLC Communicator is available

INAT TwinCAT PLC Communicator



Communication of the TwinCAT PLC with Siemens and Rockwell

Communication:	Fetch active, Write active
Transport protocols:	<u>Siemens:</u> TCP/IP, TCP/IP with ISO on TCP (RFC1006), TCP/IP with PLC Header, ISO (H1) <u>Rockwell Allen-Bradley:</u> TCP/IP
Application protocols:	<u>Siemens:</u> S7 Protocol, S5-AP, NetLink <u>Rockwell Allen-Bradley:</u> EtherNet/IP
Access to:	<u>Siemens:</u> Data blocks, Flags, Inputs, Outputs, Periphery, Counter, Timer, Ext. data blocks, ext. Periphery <u>Rockwell Allen-Bradley:</u> Single tags (SINT, INT, DINT, REAL), Arrays (SINT, INT, DINT, REAL), Whole structures
	Order numbers:
Single user licence	100-5800-01
USB Dongle	990-5800-03
Upgrade	100-5800-Upg

VersionWorks

Data saving for S7 / S5 and
all other
project planning data

**Universal data management for automation technology.
Central project data storage.**

AREAS OF APPLICATION

- Automatic file backup via LAN:
 - ⇒ PLC (as well as Soft PLC), visualization PC, robot controllers, CNC etc.
 - ⇒ Recipes, scheduled values and parameters
 - ⇒ any files via network release or FTP
- Central project data storage with user administration
- Version management for S7 / S5 programs, Intouch, WinCC, Kuka, ABB, E-CAD, Documentation etc.

VersionWorks Highlights

A Universal Version Control and Change Management System for all project data in automation technology

- All PC-based data types such as SIMATIC S5 and S7, Sinumerik 840D, Schneider, Rockwell, OPs, ABB, KUKA and Adept robots, WinCC, InTouch, Indramat, E-CAD, Microsoft Word etc. are supported

Data backup with detailed detection of changes

- Automatic, scheduled data backup via LAN:
 - ⇒ PLC programs (including Soft PLC), SCADA or HMI PC, robot controllers, NC, etc.
 - ⇒ Recipes, set values and parameters (for S7: according to selected words or variables)
 - ⇒ Any files of shared network resources or via FTP
 - ⇒ Backup and test report via E-Mail
- Support for the creation of manual program backups for non LAN accessible devices

Documented change process in accordance with ISO 900x and FDA 21 CFR11

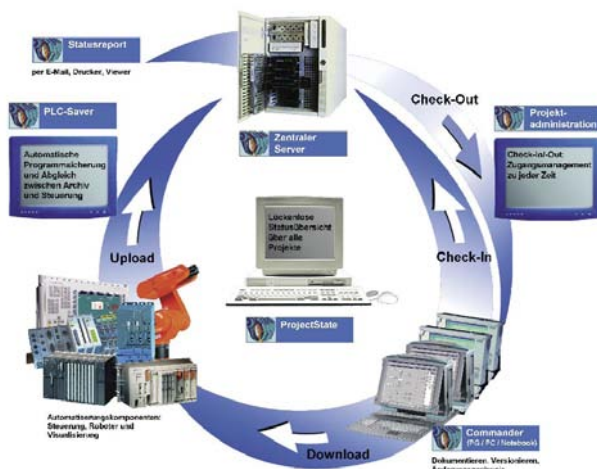
- Automatic device backups and verification, user and access management, central data storage, change documentation, change notice and automated editor support ensure a work procedure that complies with ISO 900x and FDA 21 CFR 11.

Life-cycle management

- From development, through commissioning, optimization, alterations and maintenance – a proven and continuous support for all phases of a project

Central data storage with user and access management

- Separate user administration with account policies (similar to Windows NT/2000 user accounts, but extended to the requirements of VersionWorks)
- Fully automatic file and directory management for copying procedures to and from the VersionWorks server
- The source and target project directory are unique. The system always knows the target storage address for project data, both on the client and on the VersionWorks server. There is absolutely no possibility of copying to the wrong destination
- Project data can never be overwritten by someone else
- The project data can be filed according to a production-based system topology. Project folders can be equipped with any number of components of different data types



VersionWorks: The closed loop central for project data

VersionWorks Commander Stand Alone

- Single user's packet for S7, S5 and universal binary: document, archive, detection of changes
- Licence: 1 User (Stand alone)

	Order number:	500-9020-01
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VersionWorks Client/Server Module

- VersionWorks Server, including 10 Clients + User
- Project administration, management of users and components

	Order number:	
License: 1 Client/Server Basic module		500-9040-01



Function modules

	Order numbers:	
PLC-Saver for S5-S7, H1-TCP/IP-L2, FTP, UNC, including 10 Devices		500-9200-01
Components types: PLC, HMI-SCADA, MS-Office, universal		500-9050-0X

VersionWorks Suite

- Project administration, management of users and components, Project status, PLC Saver, all types of components
- License: 1 Server, unlimited number of clients, user, devices

	Order number::	500-9500-01
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Welcome in the Automation Valley Northern Bavaria

WHY AUTOMATION VALLEY?

Automation technology is one of the most effective and innovative industry sectors. That applies to Germany in general and for Northern Bavaria in particular. Compared to other regions, Northern Bavaria has a leading position. For this reason the „Automation Valley Northern Bavaria“ was developed.

WHAT IS THE AUTOMATION VALLEY NORTHERN BAVARIA?

Northern bavarian companies and institutions involved in automation technology. The initiative is coordinated by the chambers of commerce and industry in Bayreuth, Nuremberg and Würzburg-Schweinfurt as well as by the „Innovationsoffensive Ostbayern“ (Eastern Bavarian Innovation Offense).

WHAT ARE THE TARGETS OF THE INITIATIVE?

The initiative „Automation Valley Northern Bavaria“ aims to intensify the cooperation of vendors and users and to press ahead with the economic infrastructure.

- ⇒ Creation of networks between companies
- ⇒ Extension of the regional R&D competence
- ⇒ Initiation of trendsetting cooperation projects, for example in the range of R&D, production, marketing and international distribution
- ⇒ Arrangements for location marketing (e.g. at exhibitions or in the media)
- ⇒ Coordination of regional activities in automation technology

**You want to find out more?
www.automation-valley.de**

