



**User Manual**

# **ABC-CPU Systems**

**Online Functions**

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Virchowstraße 19/19a

D-90409 Nuremberg

Fon +49 911-394 800-0

Fax +49 911-394 800-99

<mailto:mail@abcit.eu>

<http://www.abcit.eu/>

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# 1. Online Functions

## 1.1 ABC X-CPU-2 S5-Programming interface

### 1.1.1 SIMATIC NET

The ABC-CPU software supports the following functions:

- The STEP5 programming package is supported.
- Programming is implemented serially or using Ethernet TCP/IP.

#### 1.1.1.1 Serial

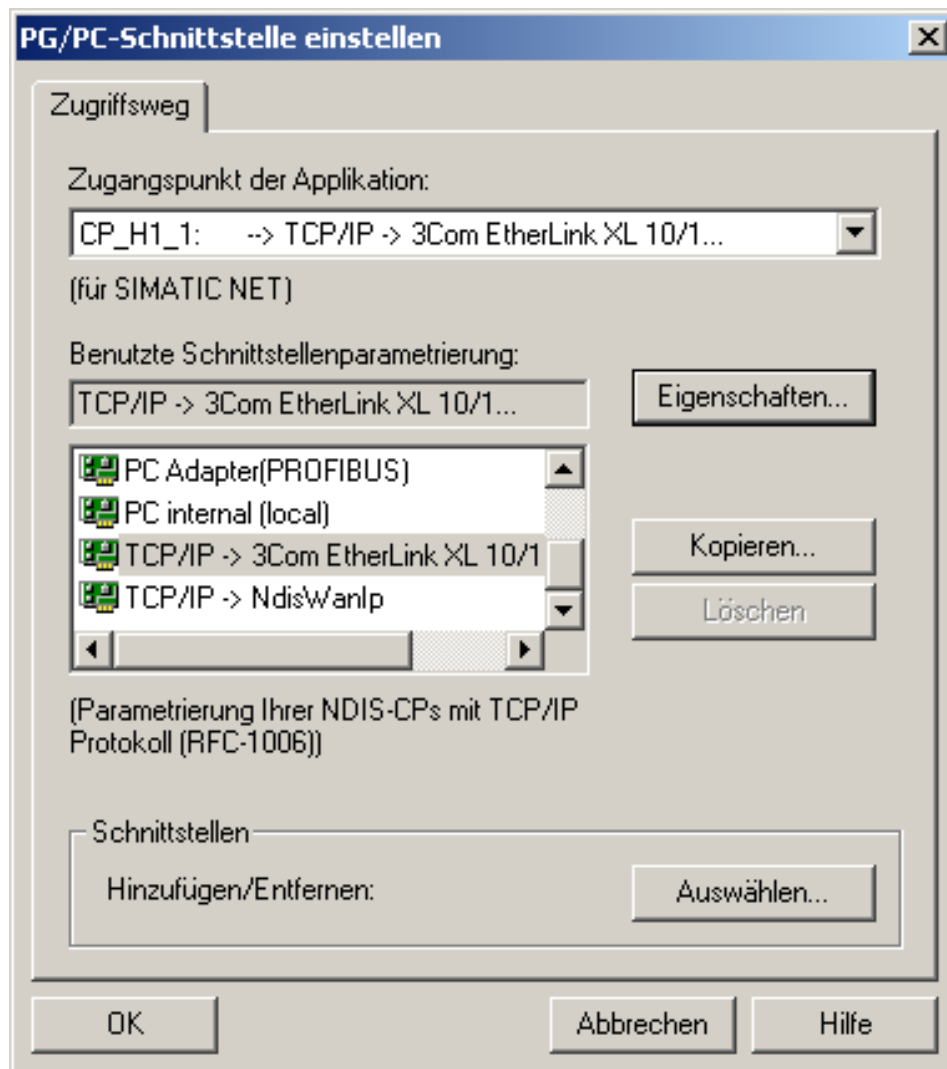
For serial communication using STEP 5, no other additional settings are required when using SIMATIC NET.

### 1.1.1.2 Ethernet TCP/IP

SIMATIC NET must be installed on the PG for programming via Ethernet TCP/IP. This is a component of the most recent STEP5/STEP7 packages.

The following setting must be made for programming via Ethernet:

The access point **CP\_H1\_1**: must be entered in the Windows control panel under PG/PC interface. The Ethernet card to be communicated is selected with TCP/IP.



*TCP/IP -> „Network card“*

## 1.1.2 SIMATIC STEP 5

The ABC-CPU software supports the following functions:

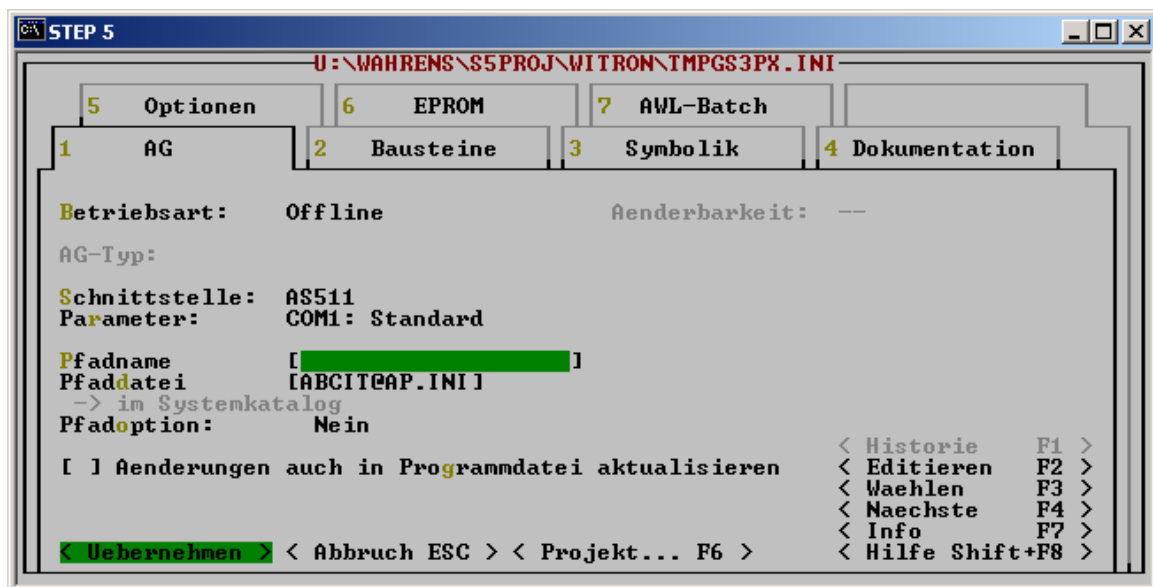
- The STEP5 programming package is supported.
- Programming is implemented serially or using Ethernet TCP/IP.

### 1.1.2.1 Serial

A standard programming cable from Siemens or an alternative is to be used for programming the STEP5 interface (TTY) via multi-port cable. (The multi-port cable is a component of the delivery package).

The serial AS511 communication uses standard transfer parameters that are set both in STEP 5 and on the ABC-CPU.

A bus path is not required



*File->Projects->Settings->AG*

### 1.1.2.2 Ethernet TCP/IP

The TCP/IP address is entered in hexadecimal format. The Ethernet address defined in the figure is converted as follows:

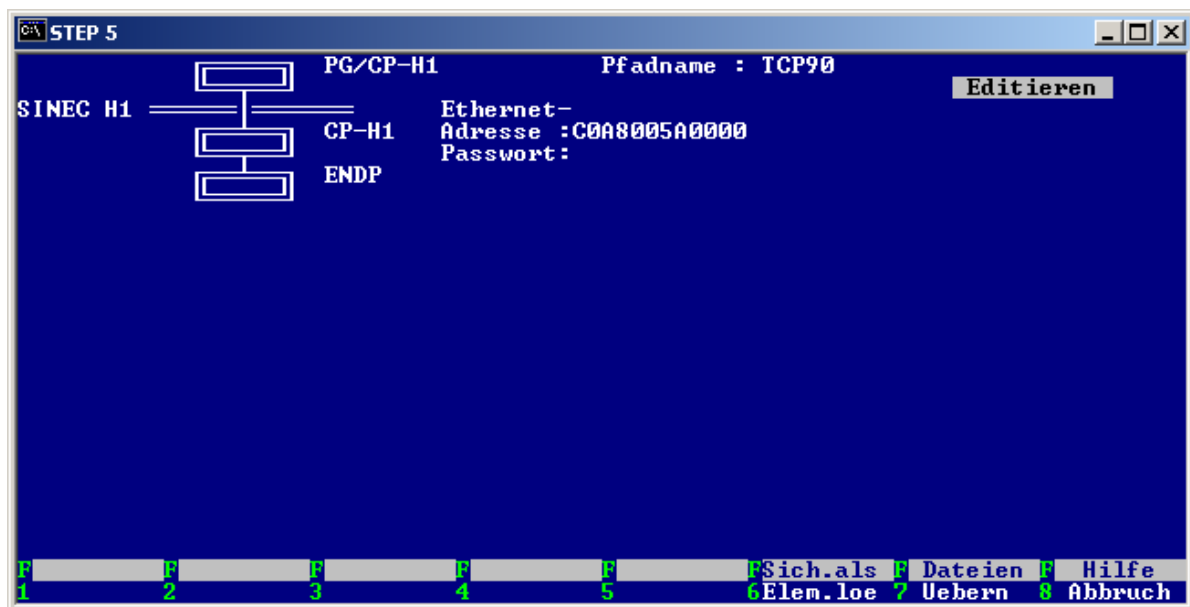
The following example shows how a connection can be established with the first CP (ETH1 default IP address 192.168.0.90). ?????

A bus path must be created in STEP5 under editor bus path.

C0A8005A0000 corresponds to the TCP/IP address 192.168.0.90

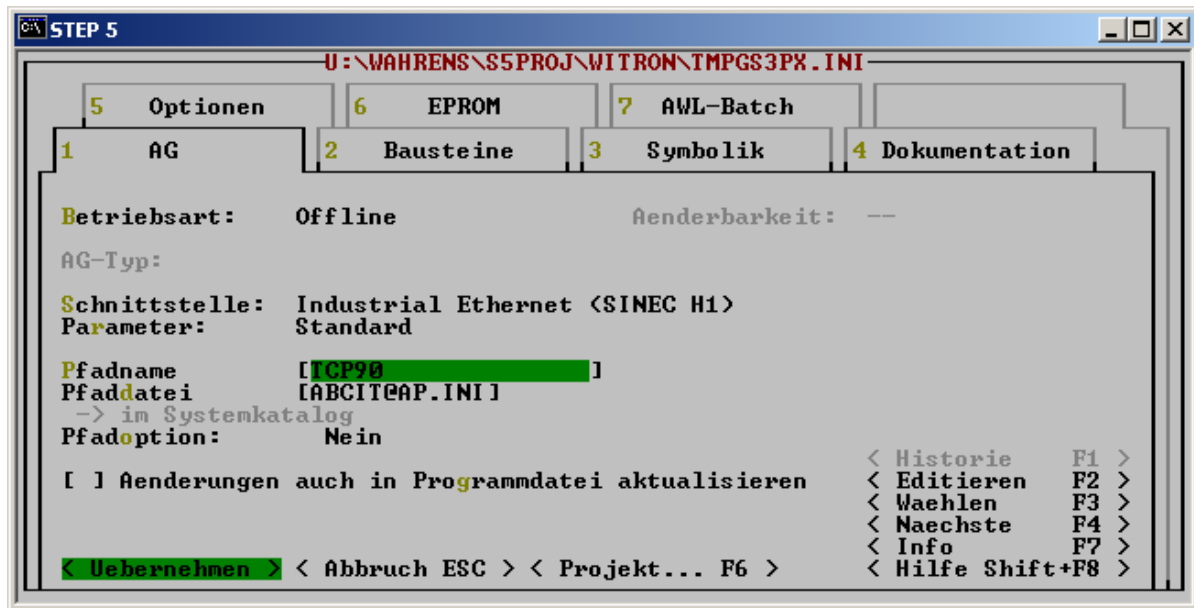
C0	192.
A8	168.
00	0.
5A	90

The last four digits of the path must be zero.



Editor->Bus Paths

The **Industrial Ethernet (SINEC H1)** interface and the path name of the bus path with the IP address must be selected under Set project. The operating mode can then be selected online.



*File->Projects->-Settings->AG*



## 1.2 ABC X-CPU-2 S7-Programmierschnittstelle

### 1.2.1 SIMATIC NET

The ABC-CPU software supports the following functions:

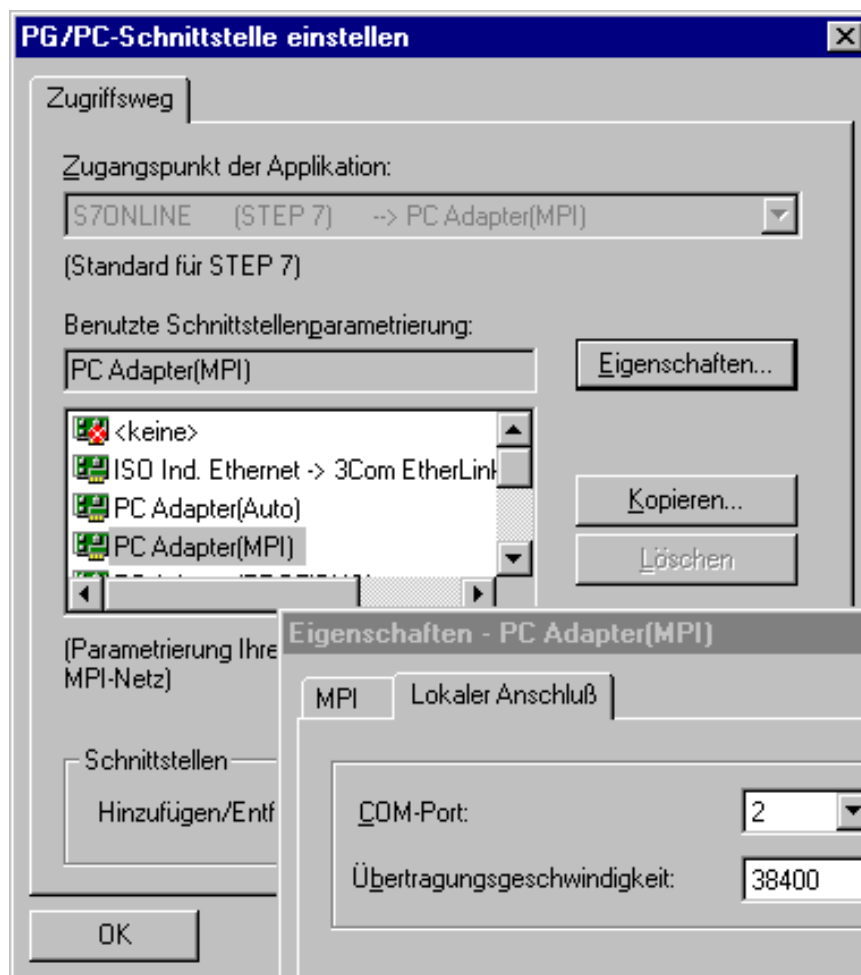
- The programming packages STEP7 from version 5 are supported.
- Programming is implemented serially or using Ethernet TCP/IP.

#### 1.2.1.1 Serial

A null modem cable is to be used for programming the STEP7 interface (COM1) via multi-port cable. (The multi-port cable is a component of the delivery package).

The null modem cable must be connected with the programming device and the multi-port cable (COM1).

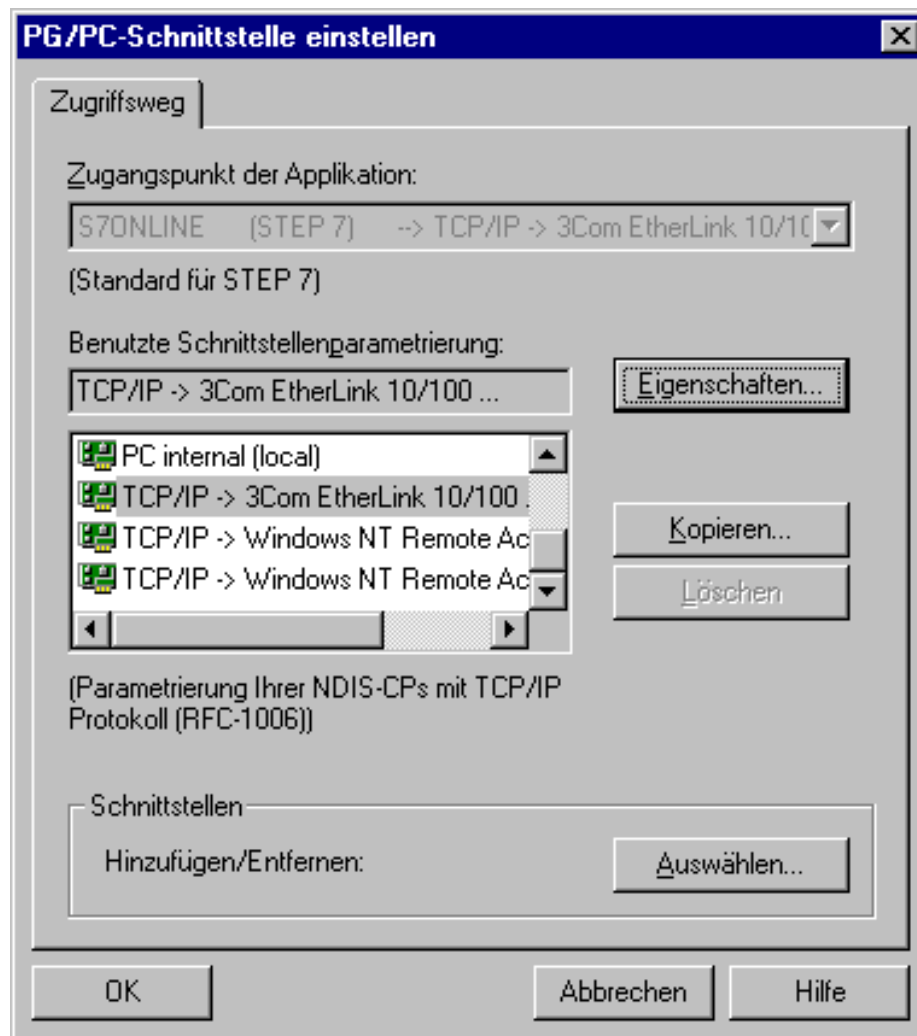
The PG/PC interface must be set to PC adapter (MPI) with the transfer speed 38,400.



*PC-Adapter (MPI) ->Local connection with 38400Kbaud*

### 1.2.1.2 Ethernet TCP/IP

TCP/IP and the Ethernet card to be communicated must be selected for the programming.



*TCP/IP -> „Network card“*

## 1.2.2 SIMATIC Manager

### 1.2.2.1 STEP 7

Online functions: version V5.1/V5.2

<i>Status</i>	<i>Function</i>
Integrated	Block management
Integrated	Accessible stations
Integrated	Copy RAM to ROM
---	Load user program on memory card
---	Save project on memory card
---	Fetch project from memory card
Integrated	Display force values
Integrated	View/control variable
---	Hardware diagnostics
Integrated	Module status
Integrated	Operating status
Integrated	Reset
Integrated	Set time
Integrated	View block
Integrated	Break pint bar
---	Interpretation of system data blocks (SDBs)

### 1.2.2.2 CFC

Online Functions: Basic STEP 7

<i>Status</i>	<i>Function</i>
Integrated	Online, general

### 1.2.3 WinCC

Online Funktionen:

*Status*

*Function*

Integrated

Online, general