TELE-BOOK (TB) user manual

(english)

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TELE-BOOK (TB)

1 Description

The TELE-Network devices were developed especially for the remote maintenance of plc-systems. This means that the device is geared completely to industrial necessity, from its mechanical configuration to its handling. The compatibility of the TELE-Network devices with the original programming tools of the respective plc-manufacturer has highest priority. Their connection mechanics, pin seizure, and electrical data meet the specifications of the respective controls. Thus, users can work directly and without special adapters with the normal cables of the devices they want to connect, like for example PGs and control units.

All TELE-Network devices have the same hardware structure. The complete electronics are integrated in a metal casing.

The operation of these remote maintenance units is only allowed if a supervising person is present who can intervene in the installation at any time. Please do not intervene in running programmes without visual communication or control.

Before installing the TELE-LINK-Network devices, please connect them by all means with earthing PE at the casing or at the screw terminal!

Please read the user´s manual closely before installing the device. There is no responsibility taken for damages due to incorrect connection or handling.

1.1 Special to TELE-BOOK

The TELE-BOOK devices can by means of a plugged PCMCIA modem, operated directly on the telephone connection of the Telekom and at each PBX. Furthermore, these devices are also suitable for use with a mobile phone through the variable PCMCIA interface. Simply replace the PCMCIA modem through a mobile-specific GSM PCMCIA card, connect to the phone and the whole world is availeble.

1.2 Performance features

- compatible to all SIMATIC S5 controllers
- compatible to SIMATIC-S7-300/400 controllers
  (Connection PLC-TELE with S7 via MPI / PPI cable or PC adapter)
- compatible to SIMATIC S7-200 controllers
  (Connection PLC-TELE with S7 via MPI / PPI cable or PPI adapter)
- ONLINE in a few seconds at the customers with the PLC
- Suitable for industry and CE compliant
- Integrated HIGH SPEED Modem (TELE-LINK and TELE-PROFessional)
- PCMCIA insertion for PCMCIA cards (TELE-BOOK, TELE-PROFessional optional)
- Can be operated with all original and compatible programming devices
- Second PG interface for parallel operation on site (integrated multiplexer)
  Selectable either multiplex operation to operate a second PG / PC / operating device / ... or as connection for second PLC / CP for L1 / L2 / H1 / ... switchable from PG-TELE to PLC 1 or PLC 2 or CP
  only possible for S5-operation
- supports operation at H1, L1 and L2 regarding bus selection
- supports the operation of KOR / MUX Siemens, as well as PG-BUS
- Operating software stored in flash memory, easy software update in this way
- Devices checking module, checks all device functions and the voltage supply
- Electronics galvanically isolated to the telephone network and the external power supply, as well as to control of the programming device
- Compact device in a metal case:
  280 x 170 x 55 mm (TELE-LINK and TELE-PROFessional)

233 x 162 x 39 mm (TELE-BOOK)
- 24V/DC supply (TELE-BOOK can also be used in cars because 12-36V/DC)
- simple installation in the switch cabinet (TELE-LINK and TELE-PROFessional)
- robust steel case with mounting flange
- power supply 24V/DC or 230V/AC (24V 350mA power adapter)
- EMC-compliant circuit construction
- easy handling through menu navigation and LCD display in plain text
- easy and quick configuration through the menu item "Initial configuration"
- one device for multiple controls:
  Siemens S5 & S7
  AEG
  Allen Bradley
  Bosch
  Mitsubishi
  Klöckner Moeller
  GE Fanuc
  Selectron
  Tele-Mechanique Premium TSX57
- safe data transfer through several times hedged special data protocol
  e.g. blocks are only transferred to the PLC when they are checked for correctness
- all PG functions are practicable via telephone line or mobile phone (TELE-BOOK)
- PG-PG-coupling is possible
- worldwide use is possible with the option "connection to GSM network"
- At multistage password levels is available a high policy
- Optimization of telephone costs by callback function
- Integrated telephone directory for 197 phone numbers in the TELE-device, hence quick and easy selection to the desired target system
- worldwide compatible with all TELE-Network devices
- software updates and options are transferable via telephone line
- free update and hotline service
- possible additional options:
  fault message via fax
  Transferring data to a superordinated PLC
  Transferring data to PC server
  Data transfer Scall, Quix, SMS message (standard in the Siemens devices)
  printer port
  L2-BUS interface
  Configuration of control devices (eg Siemens OPs / PCS / ...)
  (OP's standard in the Siemens devices)
  CAN-BUS interface
  Interbus-S interface
  Picture transmission (digital camera)

1.3 U.S. FCC Rules respect to versions with U.S. modem

This equipment complies with Part 68 of the FCC Rules. On the soldering side of this equipment is a label that contains, among other information, the FCC Registration Number and Ringer Equivalence Number (REN) for this equipment. You must, upon request, provide this information to your telephone company.

This equipment uses RJ12 plugs.

An FCC compliant telephone cord and modular plug are provided with this equipment. This equipment is designed to be connected to the telephone network or promises wiring using a compatible modular jack which is part 68 compliant. See installation instructions for details.

The REN is useful to determine the quantity of devices you may connect to your telephone line and still have all those devices ring when your telephone number is called. In most, but not all areas, the sum of the REN´s of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices you may connect to your line, as determined by the REN, you should contact your local telephone company to determine the maximum REN for your calling area.

If your telephone equipment causes harm to the telephone network, the Telephone Company may discontinue your service temporarily. If possible, they will notify you in advance. But if

advance notice is not practical, you will be notified as soon as possible. You will be informed of your right to file a complaint with the FCC.

Your telephone company may make changes in ist facilities, equipment, operations or procedures that could affect the proper functioning of your equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.

If you experience trouble with this telephone equipment, please contact your dealer of this tele-network device, the telephone number is known by yourself, for information on obtaining service or repairs. The telephone company may ask that you disconnect this equipment from the network until the problem has been corrected or until you are sure that the equipment is not malfunctioning.

This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs.

2 System requirements

2.1 Operating system (s)

- Windows 98 + SE
- Windows ME/NT/2000
- Windows XP
- Windows Vista
- Windows 7

2.2 Software

- PLC - programming software (eg PG2000, Step © 7, Step © 5, S7/S5 for Windows, Microwin)
- Tele - Manager software (for configuration of the Tele-Network Device)
- Win - TeleProf (optional as a replacement for the Tele-Prof in the office)

2.3 Hardware

- 9-pin serial COM port. (on the computer)
- X4/X5 TTY interface on the S5-PLC
- RS485 interface on the S7 PLC
- TAE connector box of the Telekom (N-coded), generally 3x box:
  NFN <=> Substation (modem, fax), telephone, Substation (depending on the variant)
- ISDN connection (S0-Bus) Euro-ISDN (DSS1) or National-ISDN (1TR6) (depending on the variant)
- GSM-Network (depending on the variant)
- 230V Power supply voltage for the included 24V - AC plug adapter
- or 24V DC with 350mA minimum load current

3 Installation

An dem TELE-BOOK-Gerät befindet sich auf der Rückseite die möglichen Anschlüsse für die Inbetriebnahme.

Einmal der PCMCIA-Steckplatz zum Anschluss des PCMCIA-Modems bzw. der PCMCIA-GSM-Karte, rechts daneben der Anschlussstecker für den AG-Anschluss, ferner zwei Anschlussbuchsen für den PG-Anschluss (9pol. V24, 15pol. TTY) und die Spannungsversorgung.

ACHTUNG: Es darf immer nur einer der zwei PG-Anschlüsse belegt werden!

Auf der Frontseite befindet sich der EIN/AUS-Schalter, der zum Ändern des Betriebszustandes ca. 1 Sekunde gedrückt werden muss. Daneben folgt die Anzeige und 5 Funktionstasten zur Bedienung.

3.1 PCMCIA modem connection (only with version-H)

When inserting and ejecting the PCMCIA card please note, the card can only be changed if the device is off.

Eject:

PCMCIA header with ejector: By pressing the black lever eject the card pushed out about 1 cm from the insertion slot. Now you can remove it safely.

PCMCIA header without ejector: Pull out the PCMCIA card simply from the bay.

Insert:

Insert the card with the terminal block first into the PCMCIA slot. Do not force! If the card can not be inserted more than 6 cm, the card must be rotated.

PCMCIA header with ejector: The card is fully inserted, when the card snaps into the slot with a click and the eject lever is fully visible.

PCMCIA header with ejector: Insert the card until it engages noticeably in the contacts and is firmly inserted into the socket.

you can insert at any time a PCMCIA network card . However, this requires a minimum operating system version OS V0.42 and Firmware V7.94. The parameters are configured in the web server in menu item "Network". For more information, please visit the Documentation section **"Example of UMTS-coupling".**

ATTENTION:
For damages caused by improper use, we assume no responsibility.

3.2 PG-Connection

If the device is defined as PG-TELE, the connection or programming cable which is normally designed for the Siemens-control, is now either plugged in the 15pin D-SUB-socket or 9pin D-SUB-socket right next to it is connected to the serial interface of the PC with a 9pin 1to1 cable.

The 9pin and 15pin D-SUB-sockets right next to it are not used in this setting.

3.3 AG-connection

If the device is defined as AG-TELE, the optional connection cable (interface cable V24 => TTY) is plugged into the 9-pin D-SUB connector and connected with the programming interface of the Siemens control. In contrast to PG-TELE, either a programming system on site can be connected to the free 15-pin D-SUB connector or to the free 9-pin D-SUB connector. This means that not only the controller by phone can access from outside the controller, but also on-site staff with its parallel programming tool.

3.4 Power connection

For the power supply to the device is either the included AC adapter or an existing local power supply with min. 24V DC 350mA power connected to the 3-pin green plug. In the included AC plug adapter the power poles are marked with colored sleeves.

The PLUS-pole with the color "red", the MINUS pole with the color "blue". Connect the POSITIVE pole of the left screw terminal and the NEGATIVE pole on the right (outer) screw terminal. The middle connector is used to ground and must be connected to PE.

4 Control elements

4.1 Keys

Key	Designation	Description
ON OFF	ON / OFF	Turn the device on and off (press and hold 1 second)
↵	ENTER	Menu change / confirm entry
⇦	LEFT	Return to previous screen / cancel input (Input will not be saved)
⇨	RIGHT	Call submenu
⇧	UP	Selecting a menu item / increase a value
⇩	DOWN	Selecting a menu item / decrease a value

ATTENTION:
If the TELE-Network device is no longer respond to key inputs, then this can have several reasons:

• The communication between two devices can be so bad that the priority of the keyboard input will be downgraded, because based on the telephone line, the integrated modem must repeat the blocks sent so many times. As soon as a sane data throughput is ensured again, the keyboard will proceed normally.

• You have a phone connection with a device whose integrated modem is no longer works correctly, then your device is trying again to build up a data traffic with the other device. Because this is not possible, the device reacts as in the above case, only be that he is not longer cancels itself. In this case, simply remove the phone plug from the TAE box so that the connection is interrupted. If you wait long, because the keystrokes are quite slow but still been processed, you can check under INFO REMOTE VERSION if you get displayed no any version there. This is typical for this defect.

• You sit at the AG TELE and it is conducted a status block or variable over the telephone line, so will be the keyboard input of this device not allowed in order to prevent an impairment of the status process. Once the status function on the PG-TELE is canceled, the device can be operated again.

5 Implementing

5.1 Initial Configuration / Quickstart

After the device screwed into the cupboard or placed on the table, at first place the grounding to

the casing on the right side of the device by means of a cable shoe. Afterwards on the back of the phone cable is plugged into the correct socket and finally connected the voltage at the green connector. After the device is powered up and the display shows "not connected", you can now begin the initial Configuration.

To configure the TELE-Network devices quickly and safely, in the menu tree. a special menu item is provided There is the menu item "Initial Configuration", whose menu structure is shown below.

Initial Configuration

Language:

German
English

Type of the device

AG-S5-TELE
PG-TELE
AG-S5-KOR/MUX
AG-S7 300/400
AG-S7 200 9K6
AG-S7 200 19K2
AG-S5-F-TYPE

Dial mode

Sound
Pulse

Extension unit operation

Yes
No

Official Selection:

0,1,2,3,4,5,6,7,8,9,!,“,“,/,>,#,X,W,*

Number of rings before answering:

0,1,2,3,4,5

Busy tone detection operation

Yes
No

PCMCIA-Modem type

With the keys Down / Up can be scrolled through the menu tree. By confirming with the Enter key the corresponding menu item is selected. With the keys Down / Up can be changed the setting. Through the ENTER key the adjusted value is acknowledged and saved.

LANGUAGE:

- German Menu navigation in German language
- English Menu navigation in English language

DEVICE TYPE:

- AG-S5-TELE — The device is at the PLC control and is connected to this.
- PG-TELE — The device is at the programming device and is connected to this.
- AG-S5-KOR/MUX — The device is not directly connected to the PLC, but over a SIEMENS Multiplexer (PG-BUS-dialing), over a coordinator (eg 923 C) or the IBX-bus (Bus system of PI with PG-BUS-dialing) (Special type of PLC-TELE)
  Attention: In this mode the integrated multiplexer is not active!
- AG-S7 300/400 — The appliance is in the S7-300/400 CPU.
- AG-S7 200 9K6 — The device is at the S7-200 and communicates with 9600 baud
- AG-S7 200 19K2 — The device is at the S7-200 and communicates with 19200 baud
- AG-S5-F-TYPE — The device is at the S5 controller, but a F-control

Dial mode

- Sound — The device dials with the modern DTMF system, which means it sound when you select a melody sequence.
- Pulse — The device dials about the pulse system, which means, when you dial you can hear clacking a relay.

EXTENSION UNIT:

- Yes — This unit sits in an extension unit and requires an identifier, specific digit to get an office.
- No — This device has a direct seat at disposal, or it is sitting in a private exchange and the connection remains companies internally.

OFFICIAL DIAL

Means of these possible identifiers, the office access can be enabled: 0,1,2,3,4,5,6,7,8,9,!,“,“,/,>,#,X,W,*

NUMBER OF RINGS

- = 0 **ATTENTION:**
  This setting means that the modem does not pick up self-sufficient. The modem must causes pick up manually through the menu item "pick up"" .

- = 1-5 Modem picks up after the adjusted number of rings.

BUSY TONE DETECTION

- Yes The device is checking before dialing whether the line is idle or busy

- No The device dials without to check the line that it takes This option is better because it gives telephone systems whose free character equal to the busy tone and so not select the device.

PCMCIA-Modem type

With this menu item, the PCMCIA modem card plugged into the device is adjusted to initialize the modem card properly and to ensure safe data transmission.

The following modem cards are currently supported:

Cart name	Setting	Type
Elsa MicroLink 28800	Elsa-MicroLink	TAE-Modem
Megahertz	Megahertz	TAE-Modem
PSION DACOM Gold Card Global 33K6 and 56 K with GSM	GoldCard	TAE-Modem
Ericson GH688	Elsa-MicroLink	GSM-Modem
Motorola GSM	Motorola GSM	GSM-Modem
Nokia DTP-2	Nokia DTP-2	GSM-Modem
Siemens GSM	Siemens GSM	GSM-Modem
Dr. Neuhaus Furycard 19.2 (DUO)	Siemens GSM	GSM-Modem
Smart ClipperCom	Smart Clipper	GSM-Modem
GVC extern	GVC extern	V24 Card with ext. Modem

It can be used the following Siemens mobiles phones:

E 10 D for D-network
S 10 D for D-network
S 10 Aktive for D-network
S11 E for E-network

All of the above Siemens mobile phones work with the PCMCIA card Series 10

The Siemens designation of the card is:
Siemens E10 S10 active 511 PC-Card
And the connecting cable between mobile phone and PCMCIA card is:
0030 LIFAR L36880-N1201-A11 WE number 78783

NOT use the PC cable to the mobile phones (PC COM1 or COM2 [RS232] on mobile phone)!
After all these points have been entered, the TELE-Network device is ready for use. By

repeated passing through the menu, the parameters can be checked again and optionally changed.

Further can be used the newer mobile phones from Siemens, eg. S25, C35, or from Nokia (6150, 5110). Here in the TELE-Network device is plugged a Com-card for the PCMCIA port. This card makes the PCMCIA port to a serial interface, so that the mobile phone can be connected directly via its connection cable (to PC) at the TELE-BOOK/PROF It is then selected in the TELE-Network device either the GSM or the Nokia Siemens DTP-2 card.

Attention:
The operation of these remote maintenance devices is only allowed if a supervisory person is present who can intervene at any time in the facility, because in running programs must not be interfered without visual communication or control.

Connect the TELE-Network devices before commissioning with grounding PE to the casing or screw clamp!

For damage caused by incorrect connection or handling no liability is assumed.

5.2 Using the PLC-VCOM

(The PLC-VCOM is only needed if your module is not connected via the 9 pin COM port to the computer. For products with USB, Ethernet connection, etc., the PLC-VCOM is required)

1. Start the PLC - VCOM application (If it has not already started yet).

2. Click in the main window of the PLC-VCOM, in the status area “configure”. The configuration wizard will start.

3. It lists all the found modules / cables and the additional information’s such as IP address and MAC address of the module.

4. Choose the desired MPI cable and click „OK“ to go on.

5. If the connection is established the chosen cable is shown in the section state and on the left side you can see the status connected.

6. It also displays, the PLC-VCOM the IP address for the module and the IP address of the computer which is connected to the module.

If you have any promlems with the use of PLC-VCOM software, go to the chapterPLC – VCOM and look there for operating instructions.

5.3 Programming software to use with direct access

After you have adjusted and connected the PLC-VCOM or the programming adapter to the COM-port on your computer, you will be able to connect with your programming software to the PLC and work with it.

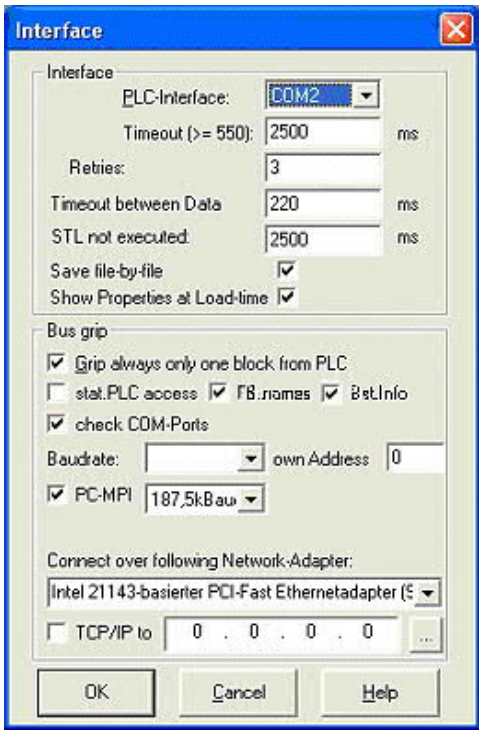
How you have to adjust your programming software is described in the following points:

5.3.1 PG2000 für S7 (V5.10)

1. Start the PG 2000 software by using the desktop link or by using the application entry in the start menu.

2. Choose from "View" => "S7-300/400"

In the menu “Options“ click “Interfaces“..



3. A dialog appears, in which you are able to set the “AG-Interface” (COM-port) in the section “Interfaces”.

4. Configure the baud rate in the section “Bus access“ to “19,2k“. Below change the value for PC - MPI to “187,5kBaud“.

5. Save your configuration by pressing “OK“.

6. Now the software is ready to establish a connection to the PLC

Click the symbol “Open“ and afterwards press “PLC”.

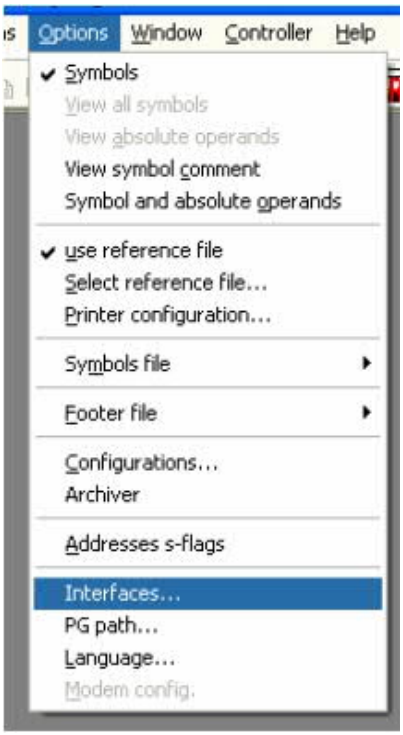
Alternative you can click:
„File“ => „Open“ => „PLC“

The connection between PG 2000 and the PLC is now established.

A new window appears. Now you can edit the blocks in the PLC.

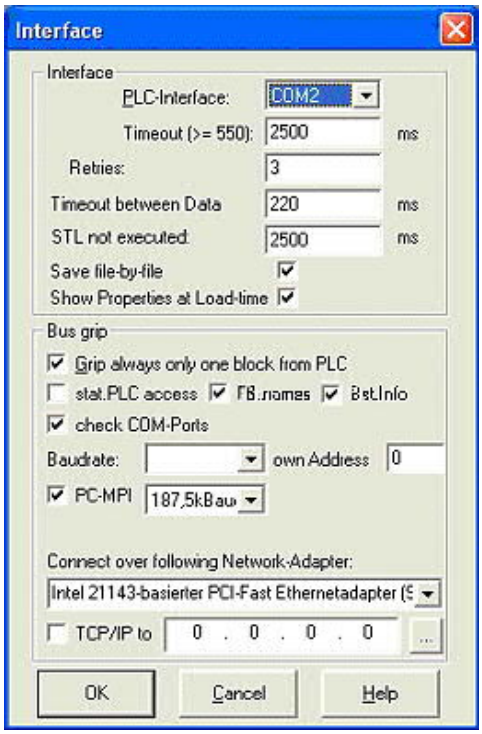
5.3.2 PG2000 für S5 (V5.10)

1.Start the PG 2000 software by using the desktop link or by using the application entry in the start menu.



2. Choose from menu "View" => "S5 155U-90 ..."

In the menu “Options“ click “Interfaces“.



3. A dialog appears. In the section “Interface“ you can configure the “PLC – Interface“ (COM – Port).

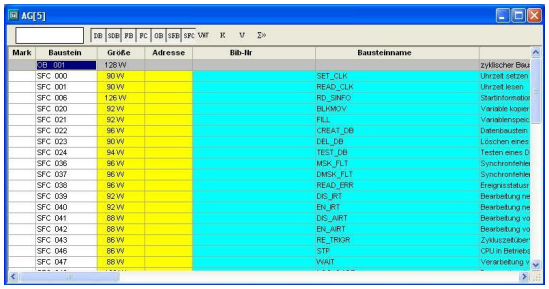
4. Set in the section "Bus grip" the tick "Grip allways only one block from PLC", "FB-names", "Bst. Info" and "check "COM-Ports"

5. Save your configuration by pressing “OK“.

6. Now the software is ready to establish a connection to the PLC.

Click the symbol “Open“ and afterwards press “PLC”.

Alternative you can click “File“ - “Open“ - “PLC“.



The connection between PG 2000 and the PLC is now established.

A new window appears. Now you can edit the blocks in the PLC.

5.3.3 PSet PG/PC interface

This step is required for the following software:
=> TIA-Portal
=> SIMATIC Step© 7 Manager
=> Windows Control Center (WinCC) (v6.0)
=> Windows Control Center flexible 2004 (WinCC flexible) (v5.2.0.0)
=> ProTool/Pro (v6.0 + SP2)
=> Microwin 3.2

1. Open the system configuration by using the start menu.

2. Click on „Set PG/PC interface“.

3. A Dialog with a list box named “Interface Parameter Assignment Used:” appears. This box should offer following entries

- TIC ETH/USB(MPI) or TIC ETH/USB.MPI.1
- TIC ETH/USB(Profibus) or TIC ETH/USB.Profibus.1
- TIC ETH/USB(PPI) or TIC ETH/USB.PPI.1

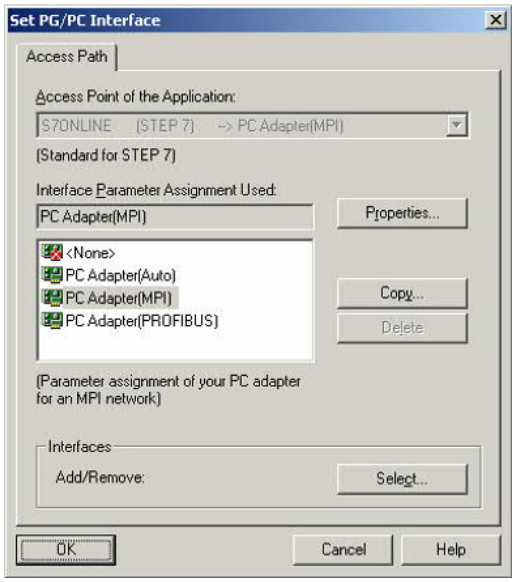
or some “TCP/IP” entries

If this is the case, please continue with the step MPI settings or Profibus settings.

If so not please install the "TIC-driver" on this PC and after a restart this entries must exist. If you want to install the

TCP/IP-driver follow the link.

5.3.3.1 TCP/IP RFC1006 Communication



4. Press "Select" to add the RFC1006 required elements to the PG / PC - interface configuration.

5. In the dialog "Select", choose" TCP / IP" and click on "Install".

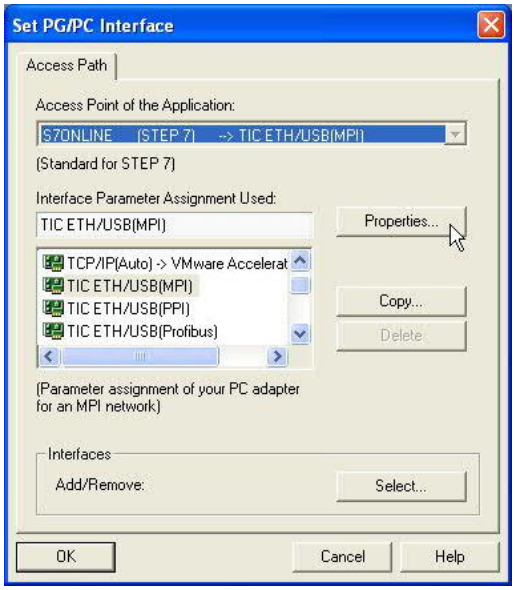
6. After successful installation, click "Close".

7. Back to the “Set PG/PC interface“ dialog you will now find the desired entries called “PC - Adapter(Auto)“ (not supported), “PC - Adapter(MPI)“ and “PC - Adapter(PROFIBUS)“. Now you are able to configure the bus.

If you want to use the “MPI“communication type go ahead with step MPI setting .

The settings for "PROFIBUS" is explained in Profibus setting .

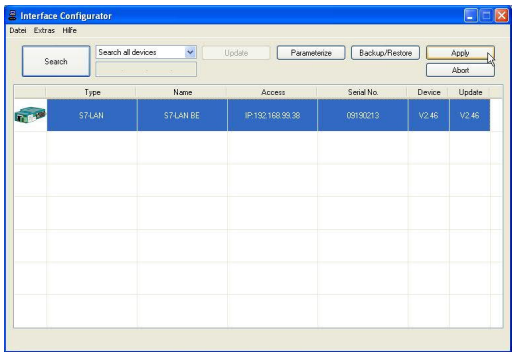
5.3.3.2 MPI setting



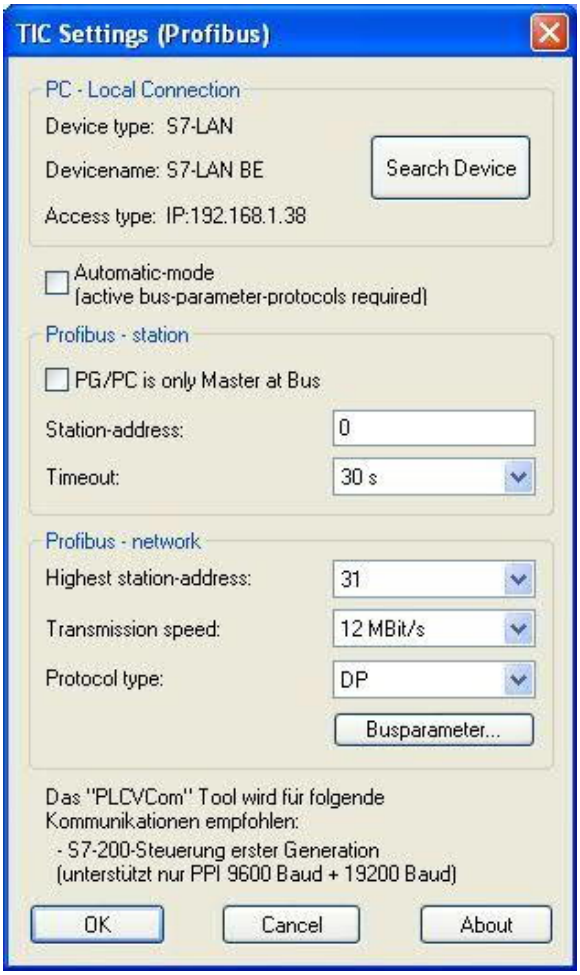
7. Select "TIC ETH/USB(MPI)" and click "Properties".

8. Open the properties dialog

9. Is the device-type is not identical with your used device, search for your device with "Search Device". Select the device in the result windows and click on the button "Apply".

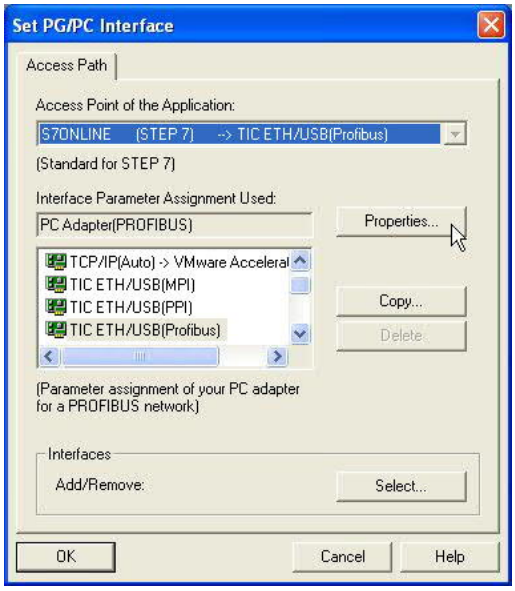


10. Activate the "Automatic-mode" when you will be shure, that the connected PLC sends cyclic bus-parameter-protocols. When not please configure the bus by hand.



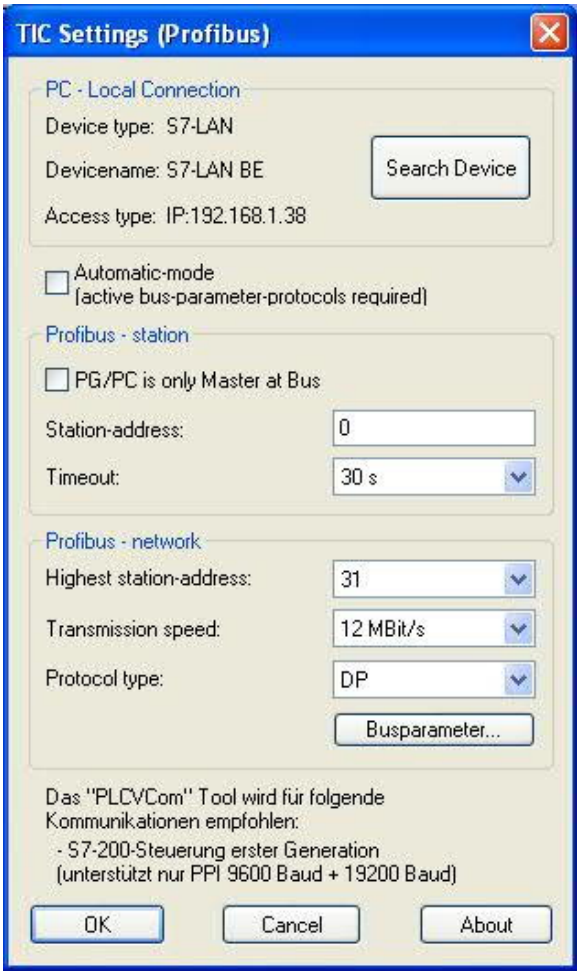
11. Save your configuration with „OK“ and close the „Set PG/PC–interface“ dialog with „OK“.

5.3.3.3 Profibus setting

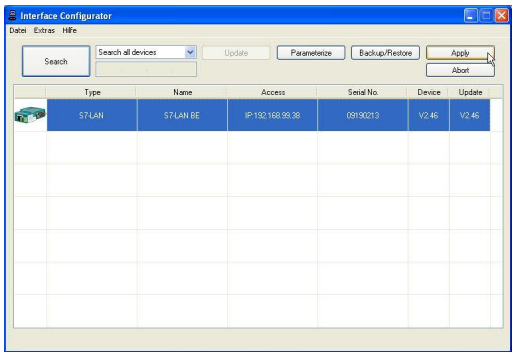


12. Mark the entry „TIC ETH/USB(PROFIBUS)“ and click on „Properties“.

13. Open the properties dialog



14. Is the device-type is not identical with your used device, search for your device with "Search Device". Select the device in the result windows and click on the button "Apply".

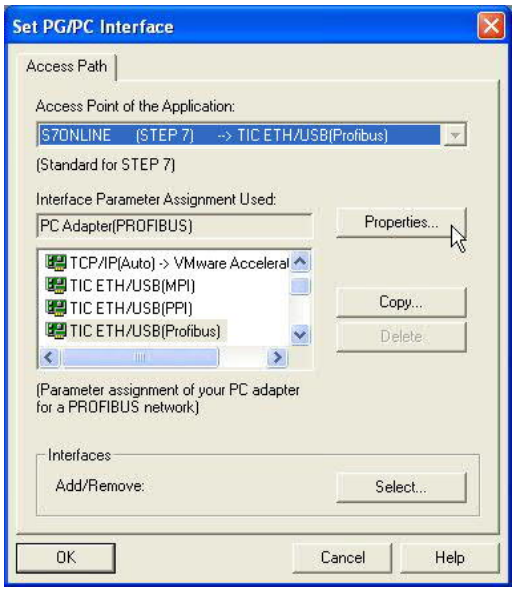


15. Activate the "Automatic-mode" when you will be shure, that the connected PLC sends cyclic bus-parameter-protocols. When not please configure the bus by hand.

16. Save your configuration with „OK“ and close the „Set PG/PC–interface“ dialog with „OK“.

5.3.3.4 TCP/IP RFC1006 setting

17. For this kind of communication you only have to install the corresponding software.



18. If you want to use ProTool/Pro RunTime you can set the "PG/PC Interface" by selecting the entry "DPSONLINE". Therefore you have to select "Access Point of Application" and configure it as described above. The easiest way is to use the S7-LAN/MPI-LAN/MPI-USB-driver which supports USB and LAN products.

The interface configuration for these programs is finished.
Continue with the software which you want to use:

=> SIMATIC Step© 7 Manager (v5.2 + SP1)
=> Windows Control Center (WinCC) (v6.0)
=> Windows Control Center flexible 2004 (WinCC flexible) (v5.2.0.0)
=> ProTool/Pro (v6.0 + SP2)
=> Microwin 3.2

5.3.4 SIMATIC Step© 7 Manager (v5.2 + SP1)

Configurate the interface as described in Set PD/PC-Interface.

1. Klick in the drop - down menu "target system" on "Display Accessible Nodes".

2. If you can see the list with possible Bus-devices, a communication over the cable has taken place. "Direct" connected devices will be shown, also the conditions if it is an "active" or "passive" assembly.

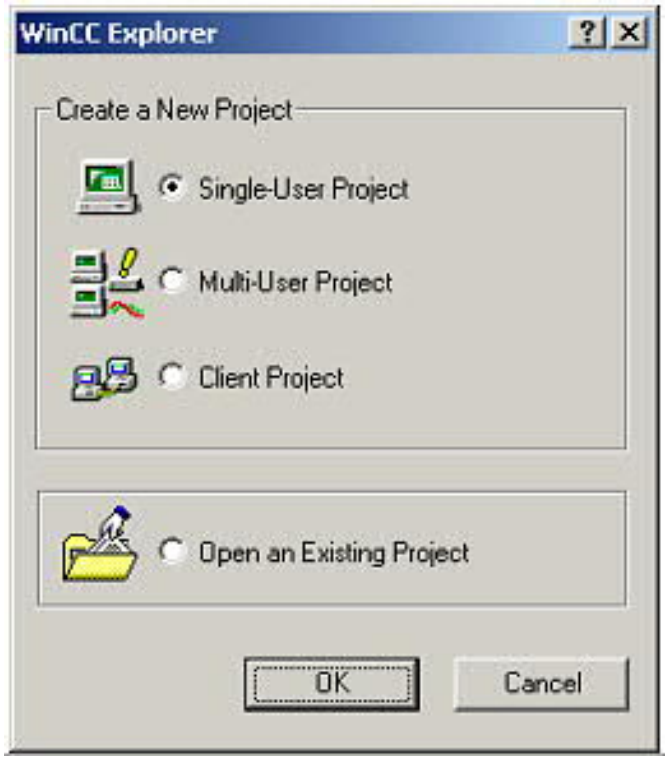
3. In this window you can edit each assembly with his blocks.

5.3.5 Windows Control Center (WinCC) (v6.0)

Configurate the interface as described in Set PD/PC-Interface.

1. Start WinCC by using the desktop link or the program entry in the start menu.

2. Choose „New” in the menu „File” or click on the white („letter”) symbol to start a new project.

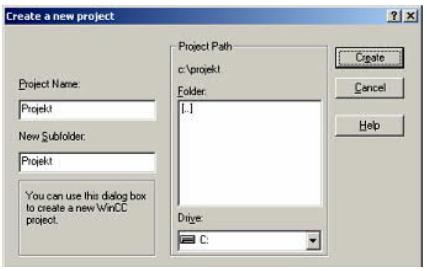


3. The next dialog offers you several project types “Single-User Project”, “Multi-User Project” and “Client Project”.

The next steps are the describing for the “Single- User Project”.

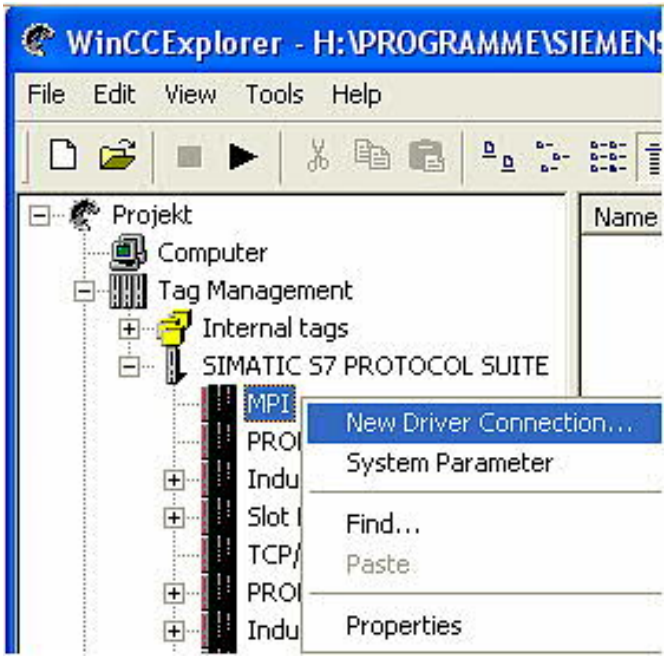
4. “OK” leads you to a new dialog. Type in the “Project Name” and the “Subfolder” of the project path.

The chosen configuration is confirmed with “Create”.



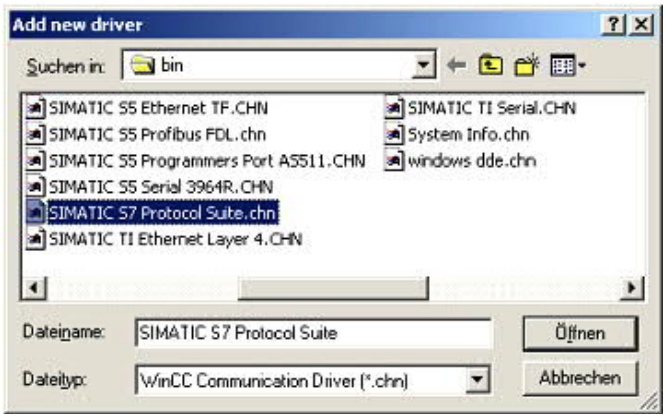
To use one of the other options please go ahead and read in the manual of WinCC software.

5. Please wait until the project is created. The project content will be shown in the left part of the main window.



6. For a proper working communication with the PLC there must be defined how the software has to communicate with the PLC

Therefore you have to right-click on “Tag Management” it opens the context menu. Choose “New Driver Connection … “.



7. In the „Add new driver“ dialog select the driver which fits to your PLC

For a S7 PLC choose „SIMATIC S7 Protocol Suite.chn“.

If you want to use an other PLC please inform yourself first, which driver fits with your PLC.

It is very important that the selected driver fits with the PLC otherwise the connection cannot be established..

8. You should see now in the Explorer under the branch “Tag Management” the branch “SIMATIC S7 PROTOCOL SUITE”. Expand the branch and many protocols for various compounds will appear.

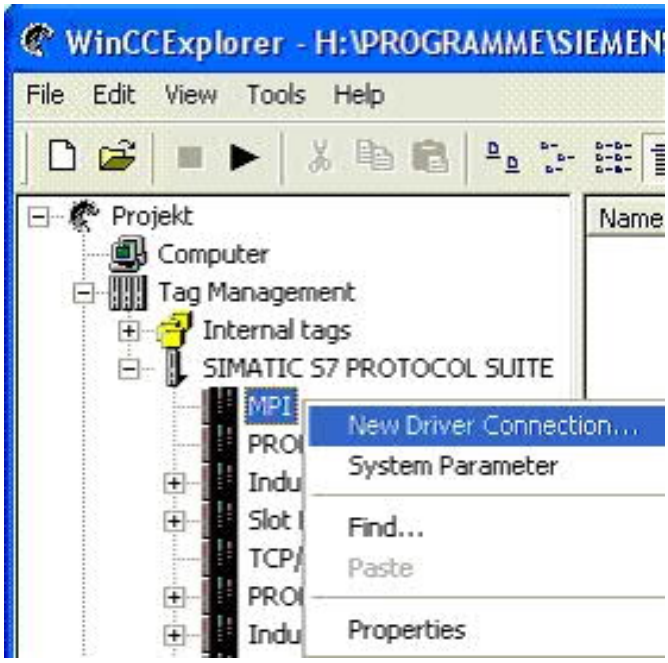
The General way of proceeding a new connection is to:

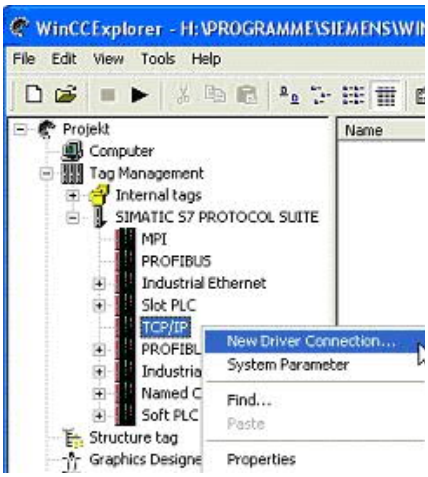
Right-click on the desired connection (MPI - > Picture: “MPI“, TCP/IP - > Picture: “TCP/IP“). A context menu opens. Click on „New Driver Connection…”.

This manual describes the connection configurations:

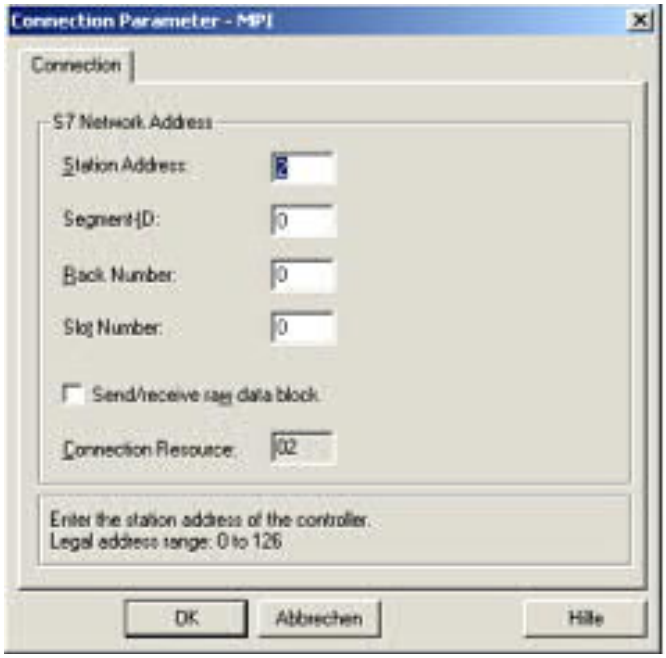
- for „MPI„ (MPI-II-cable, MPI-USB-cable, S7-USB-modul, S7-LAN-modul and MPI-LAN-cable)
- for „TCP/IP„ (only S7-LAN-modul and MPI-LAN-cable).

MPI **TCP/IP**





5.3.5.1 MPI Configuration



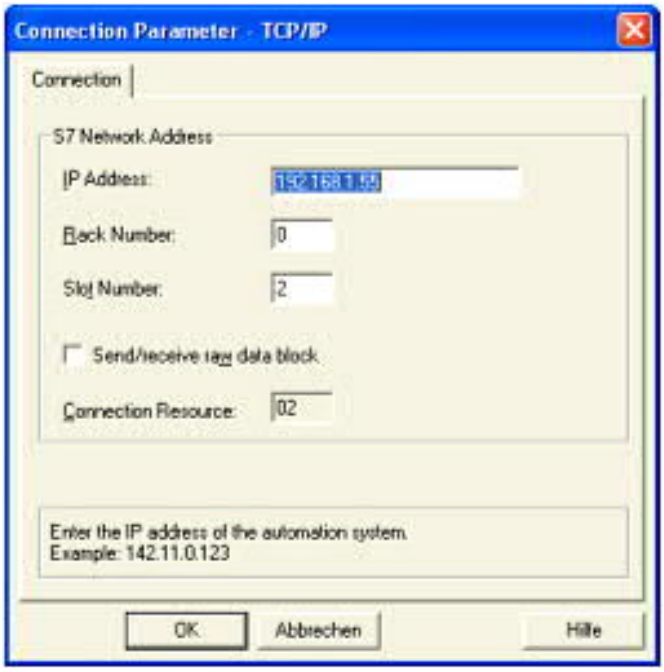
5.3.5.2 TCP/IP Configuration

9. Now you are able to type in the name of the connection. With a click on “Configuration“ a new dialog will appear. Now you are able to set the properties of the connection.

Set up the station address of the PLC (in this example "2“).

Confirm with "OK" until you are back to the main window.

Read further "Communication and fault diagnosis “ .



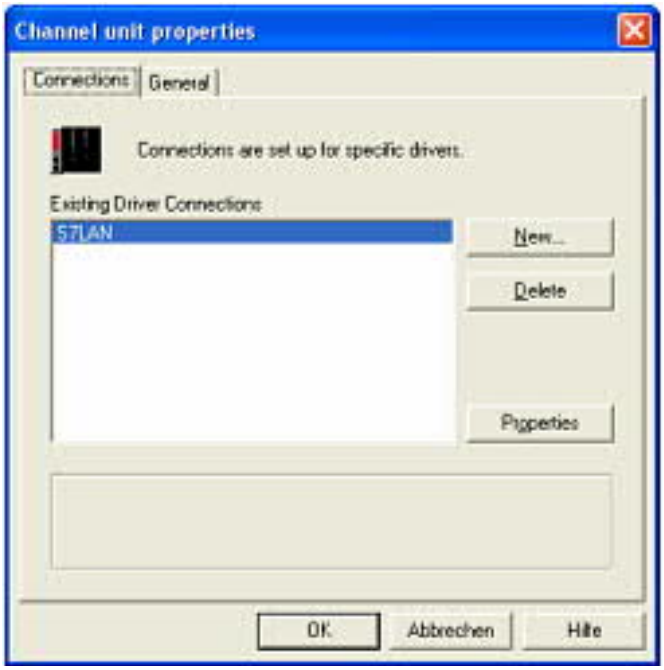
10. A dialog appears where you can configure the connection parameters.

Set up the IP - Address of the module and configure the rack number as well as the slot number.

Confirm this configuration by clicking “OK”.

Example configuration:
IP - address 192.168.1.55
Rack - Number: 0
Slot - Nr.: 2

11. With a right-click on the new connection you can start the properties dialog. In this dialog please click on properties.



12. In this “Channel unit properties” you are able to see all “available connections”.

Choose the latest created connection and click again on „Properties”.

Now you can see all the variables which has been created for this connection.

In fact this connection is a new connection so there should not be any variable in the list.

To add a new variable click on „New”.

13. Now you are able to set up the name of the variable and different more properties.

In our example, we assign the following values:

Name: „S7LAN_MW0“
Data type : „unsigned 16 - Bit value“
Length: „2“
Address: „MW0“
Format adaptation: „WordToUnsignedWord“

Click on „Choose” beside the Address to define the address from the variable.
Example configuration: The data area from the variable is set to „Mark“ and the address is set to „Word”. The edit box „MW“ is set to „0”.

14. Confirm all open dialogs with „OK“ until you reach the main window.

15. The connection needs to know which network interface card it should be used to send data via the Ethernet. Open the “System parameters“dialog from the context menu (right-click on TCP/IP).

16. Choose from the registry card „Unit“ and set the “logical device name“ to your network interface card (usually the name of the NIC begins with a „TCP/IP - > „).

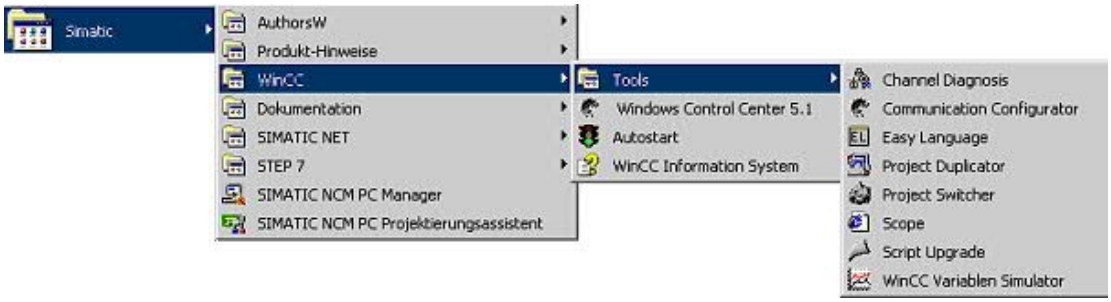
17. Confirm with „OK“.

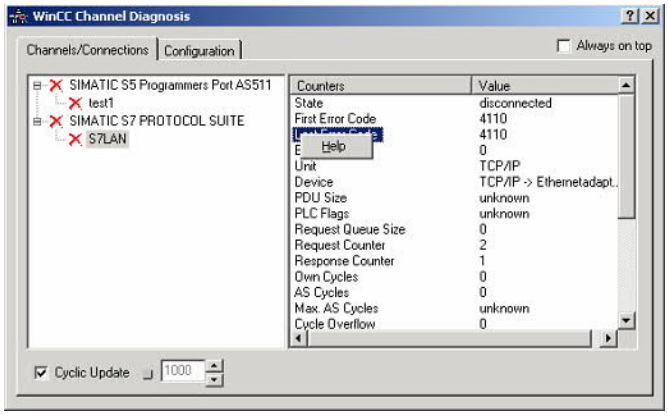
18. Now you are able to start the communication. Stop it by clicking on .

5.3.5.3 Communication and fault diagnosis

To clean up errors faster the WinCC Software offers a tool named "Channel Diagnosis”. This tool analyses all connections from your WinCC software. For demonstration purposes please stop the last started connection from your WinCC explorer.

19. Start the software "Channel Diagnosis“ by using your link in the start menu.

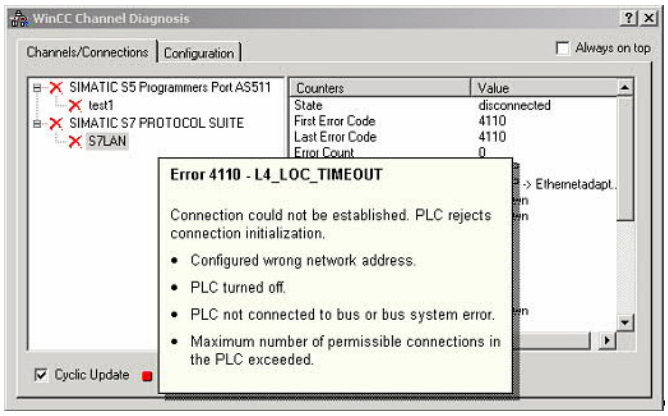




20. The tool could not detect a running connection so it marked the connection/s with a red ‘X’ (registry card "Channels/Connections“).

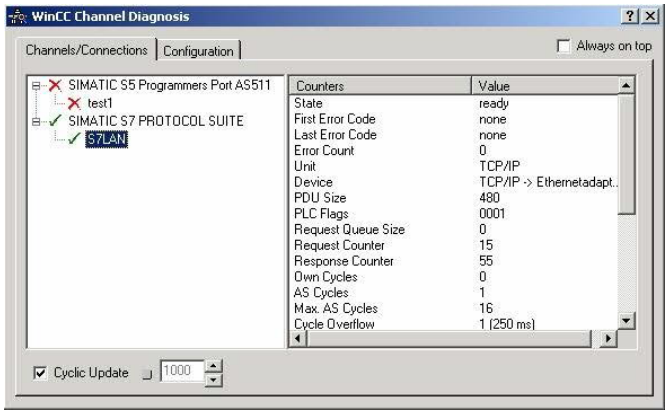
Click on the last created, not active connection (with the red ‘X’) and some informations from the connection will appear in the right part of the dialog.

One of these counters is called "Last Error Code“.



21. If you take a right-click on the error value a window opens with “Help”.

Click on the “Help” window and a yellow window appears (tooltip) with detailed error descriptions.



22. Lets see what happens if the connection runs properly. Start the connection from your WinCC Explorer.

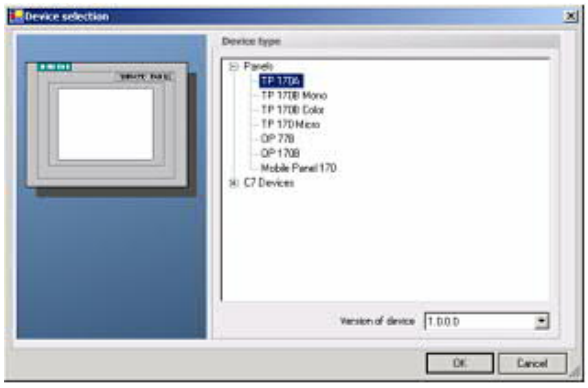
The "Channel Diagnosis“dialog marks the connection with a green hook if everything worked out.

5.3.6 Windows Control Center flexible 2004 (WinCC flexible) (v5.2.0.0)

Please make sure that the interface configuration is correct as described in PD/PC-Set interface

1. Start the WinCC flexible 2004 software by using the desktop link or the program entry in the start menu.

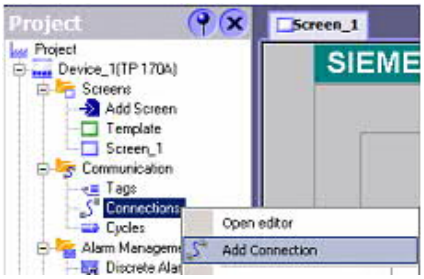
2. First you need to select “Create an empty project” on your first page.



3. In the "Device selection“mark the used operator panel (example: "TP 170A“)

confirm with "OK“.

4. After the project has been created right-click in the project window on “Connections“of the sub menu “Communication“.

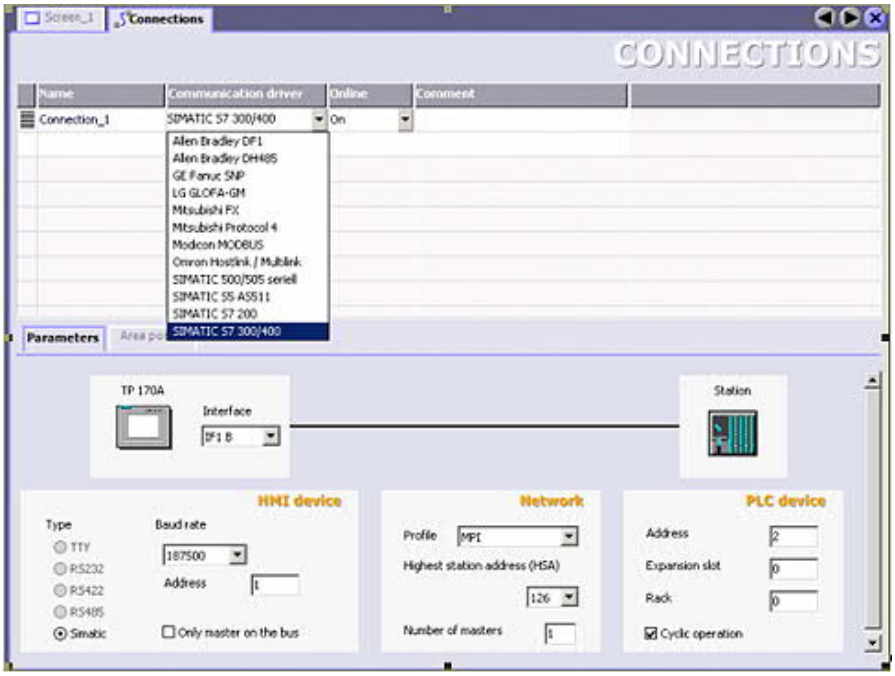


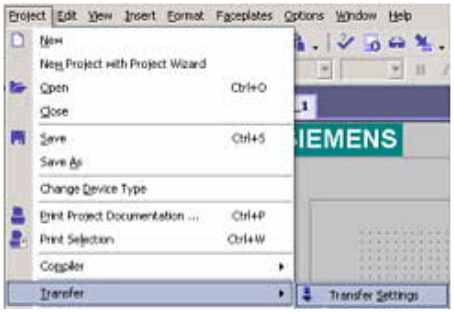
In the context menu click on “Add Connection“.

5. A new configuration window “Connections” opens in the right part of the main window. This offers you different setting options.

Important for the connection is:

=> the communication driver (set up which PLC you are using (example: "SIMATIC S7 300/400“))
=> the Baud rate (Set this on "187 500")
=> the address of the terminal (HMI) (in this example "1“)
=> the Profile ("MPI“ for example)
=> the Highest Station Address (HSA) (e.g. "126“)
=> the address of the PLC (e.g. "2“)



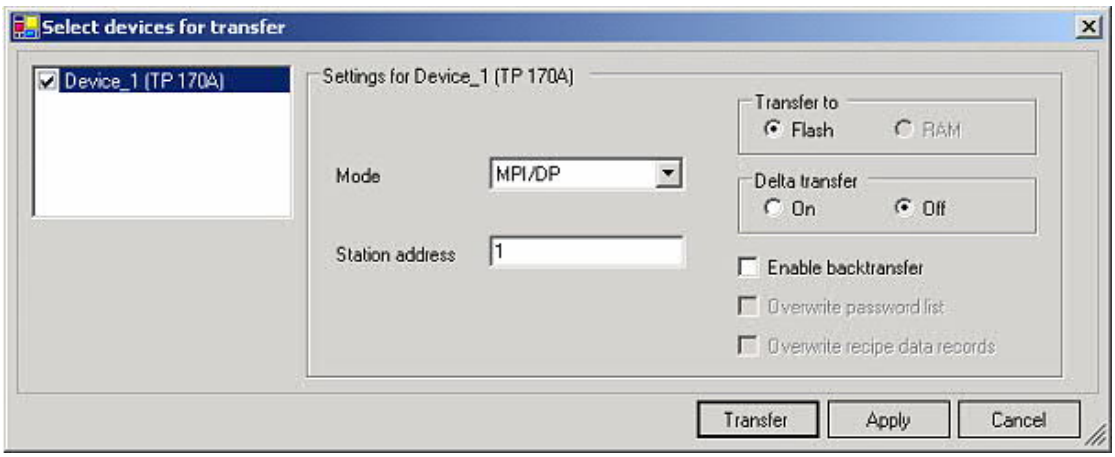


6. Now you can start with your work.

If you have finished work you can transfer this project to the panel by reading the next steps.

7. Choose „Transfer Settings“ from the sub menu „Transfer”.

8. In the new dialog change the „Mode“ to „MPI/DP“ and set the „Station address“ of the operator panel (e.g. „1“). If desired you can switch the „Delta transfer“ to „On” (in this example we set it „Off”).



9. Press the button „Transfer“ to start communication with the terminal. Your project is about to be transferred.

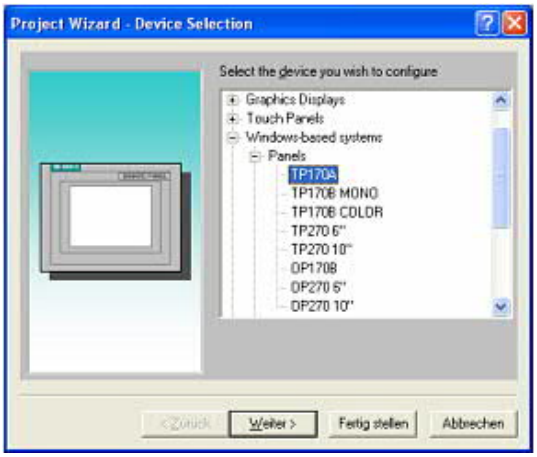
The WinCC flexible software is now able to communicate with your operator panel.

5.3.7 ProTool/Pro v6.0 SP2

Please be sure that the interface configuration is correct as described in PD/PC-set interface

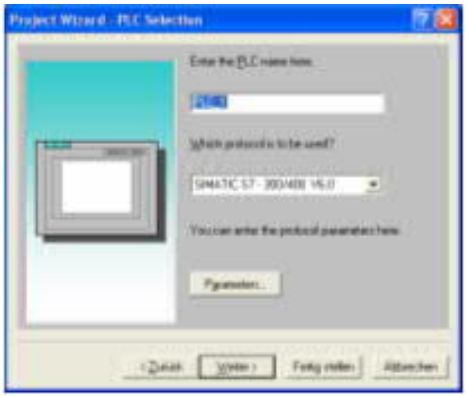
1. Start ProTool/Pro by using the desktop link or program entry in the start menu.

2. Choose from the menu „File“ the sub menu „New“ or click on the right symbol.



3. The next dialog askes you which operator panel you are using.

Mark the used panel (e.g. „TP 170A“)

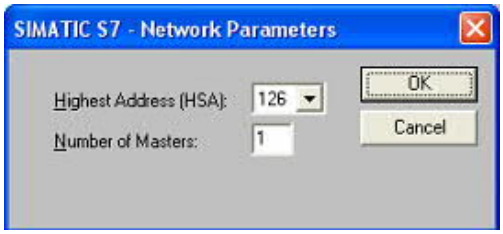


4. „Next“ leads you to a new dialog. Type in the specfic fields the name of the PLC device and choose the used PLC in the driver selection (e.g. „SIMATIC S7 – 300/400 V6.0“).

5. Via „Parameter...“ you are calling an configuration dialog from the chosen PLC driver

Set up the station address of the panel (example „1“) and of the PLC (example „2“).

Leave the point "Interface" in the standard configuration. In the sector „Net parameter“ choose the interface which uses your module on the PLC (e.g. „MPI“). Configure the baud rate to „187.5“.



6. The button „More ...“ leads you to a small dialog where the „Highest Station Address“ should be configured to „126“. Set up the „Number of masters“ (e.g. „1“)

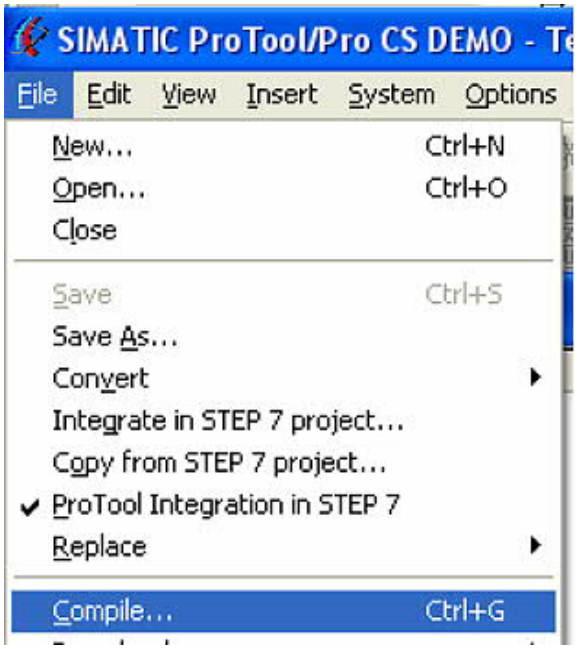
7. confirm with „OK“ until you got back to the „Control Selection“.Go on with „Next“.

8. In the main window start the Transfer Settings dialog by clicking on „File“ „Transfer“ „Settings...“. Choose „MPI / PROFIBUS DP“ from the listbox and type in the station address of the operator panel (e.g. „1“).

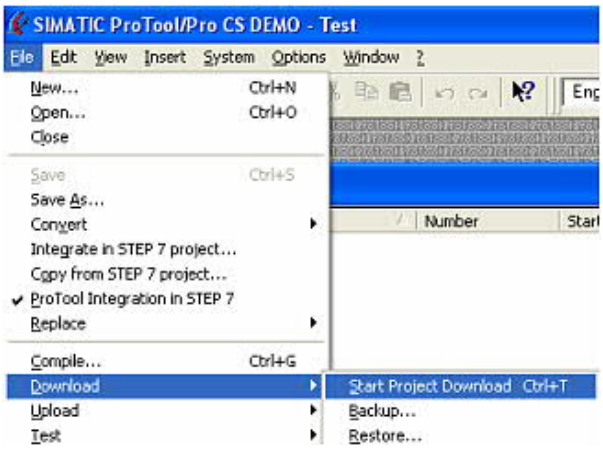
Confirm with „OK“.

and start with your work

If you have finished working on this project you can go on with the next steps.



9. If you want to transfer you project to the panel you have to generate the project first. This can be done with a click on „File“ -„Compile“.



10. To transfer the project just click on „File“ „Download“ „Start Project Download“ or click on the right symbol .

Please wait while the project is transferred.

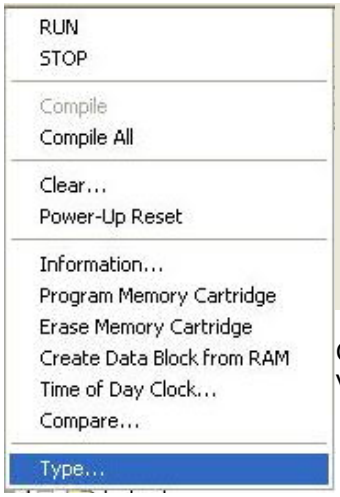
The communication between the operator panel is now established.

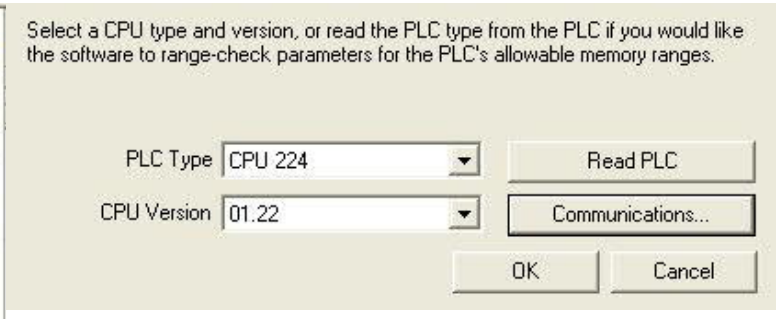
5.3.8 Microwin v3.2 (only for S7 200)

Please be sure that the interface configuration is correct as described in PD/PC-set interface

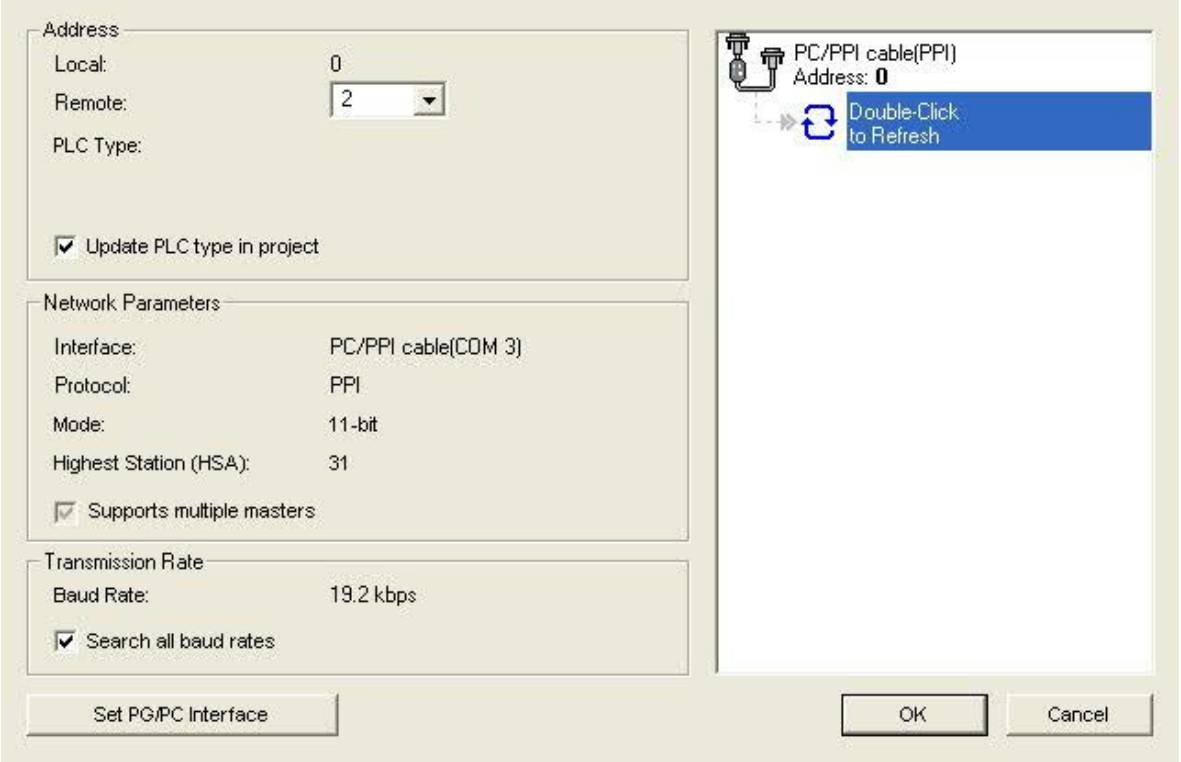
1. Start Microwin using the desktop link or program entry in the Start menu.

2. Click on „Type“ in the menu „PLC





Configure the „PLC Type“ (e.g. „CPU 224“) as well as the „CPU Version“ (e.g. „01.22”) to the dialog.



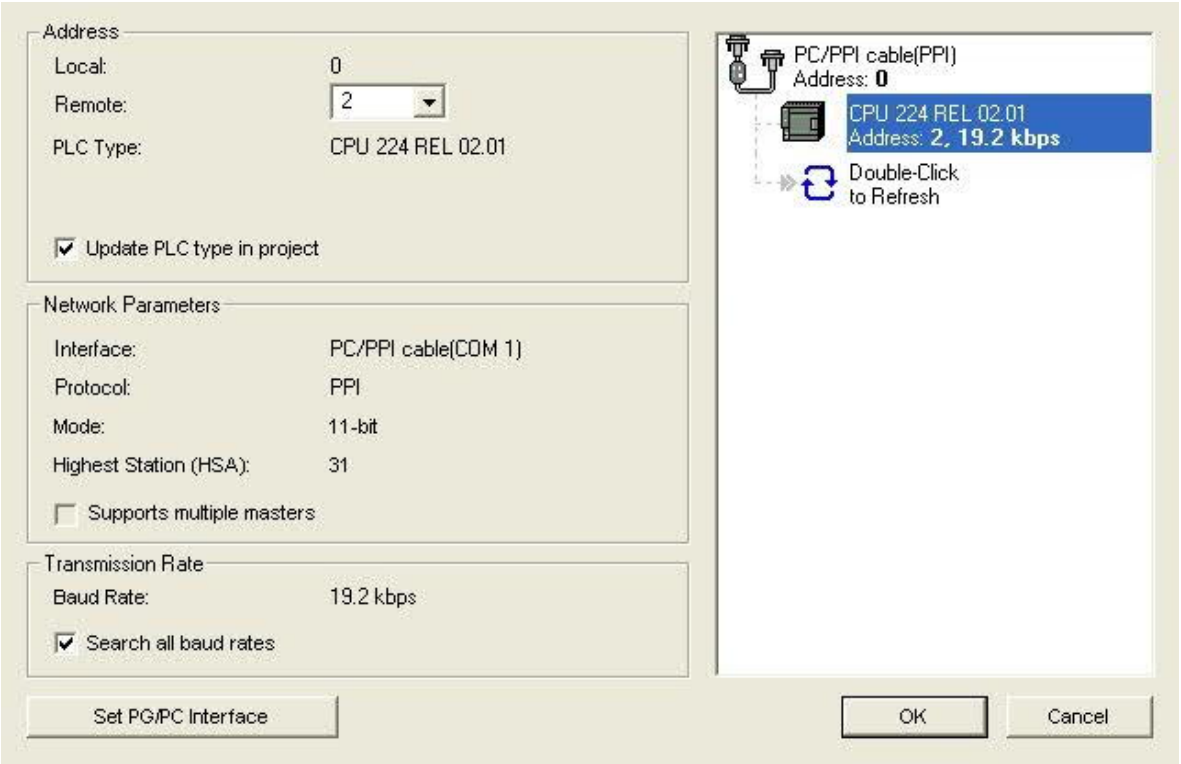
3. Click on „Communications...” to start the next dialog.

In the sector „Address” set up the „Remote” listbox with the station address of the PLC (e.g. „2”).

If you skipped the point b („ PD/PC-set interface“) you can configure the PG/PC interface with a click on „Set PG/PC interface“.

4. In the right part of the dialog double click on the blue arrow symbol to test the communication with the PLC.

5. The sector „Address“ should be updated and displays the „PLC Type”. Also the CPU of the PLC is displayed in the right part of the dialog.



6. Confirm with „OK“ until you get back to the main window.

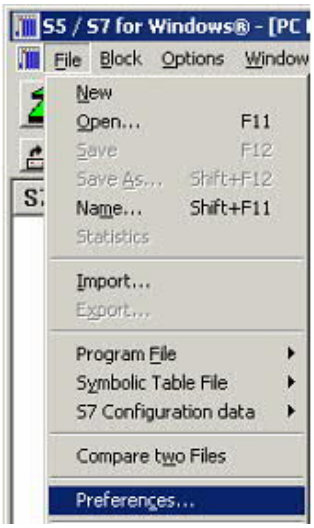
The communication with the PLC ist now established.

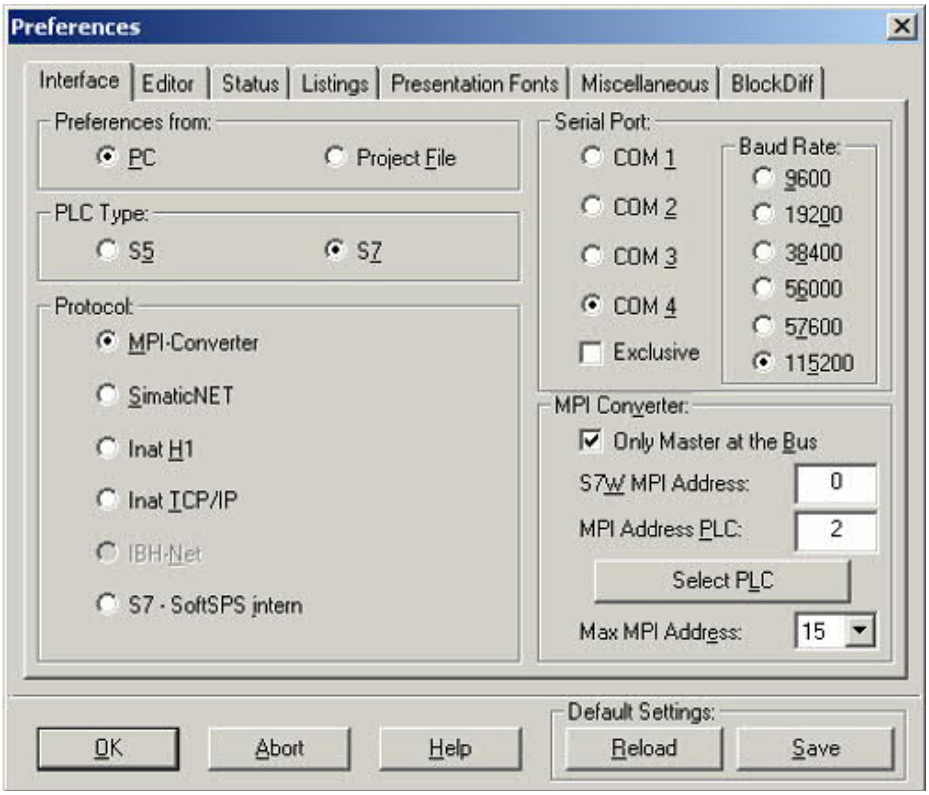
5.3.9 S7 for Windows v5.02

1. Start the „S7 for Windows” software by using the link on your desktop or use the link in your start menu (standard is „Programs\S7 for Windows\S7 for Windows“)

2. Choose File - >Preferences... to configure the communication configuration between the computer and the PLC.

A new dialog appears which provides to set up a lot of configuration data about the communication with your PLC.



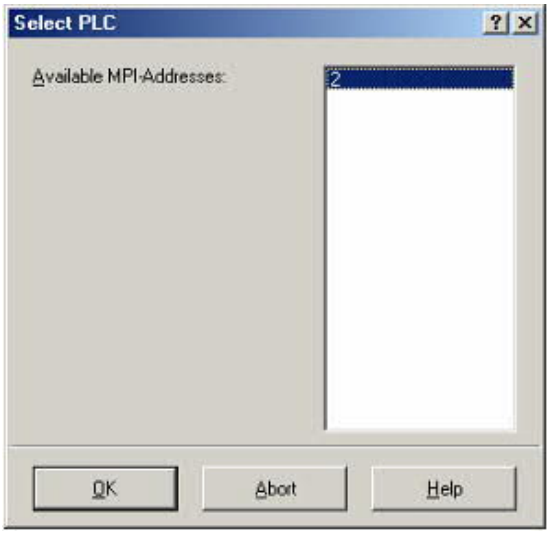


3. Choose the first registry card „Interface“ (standard) and set up the configuration data as descriped below:

=> Area: „Preferences from:“ =>PC
=> Area: „PLC Type:“ => S7
=> Area: „Protocol:“ => MPI - Umsetzer
=> Area: „Serial Port:“ => Choose the virtual COM port which has been created by PLC - VCom (e.g. „COM 4”).
=> Area: „Baud Rate“ => Choose the speed you want to use at the bus (e.g. „115200“)
=> Area: „MPI Converter:“

- Activate the checkbox „Only Master at the Bus“ if you have only one PLC in the bus.
- Leave the fields „ S7W MPI Address“ and „MPI Address PLC“ as it is.
- The number in the listbox „Max MPI Address“ must be higher than the PLC with the highest station address in your MPI bus. Otherwise every PLC which is higher than this number will not been seen (e.g. if there is only one PLC in your bus „15“ is more than enough).

4. After the software is configured , please click „Select PLC” in the area „MPI Converter“. A new dialog appears where you can select the desired PLC



5. The dialog displays all the PLCs that can be found in your MPI bus.

Select the desired one and confirm with „OK”.

6. Close the preferences dialog by pressing the „OK“ button.

7. Back in the main window press the „PC Block List“ button for testing the new established communication configuration.

8. Please wait a moment for the software to read the desired blocks from the PLC. The blocks will be displayed in the listbox below the menu bar (see picture to the right).

The communication between the software and your PLC is established.

5.3.10 SIMATIC Step© 5 Manager

1. Start your SIMATIC Step© 5 Manager by using the desktop link or the application entry in the start menu.

2. in the "File" menu , in submenu "project" you can the "Setting" dialog open.

3. In the tab "AG" configure the used PLC interface (example: "AS511").

Below that, you can set the COM port (example: "COM3").

4. with "F3" change, the "operating mode" to "online".

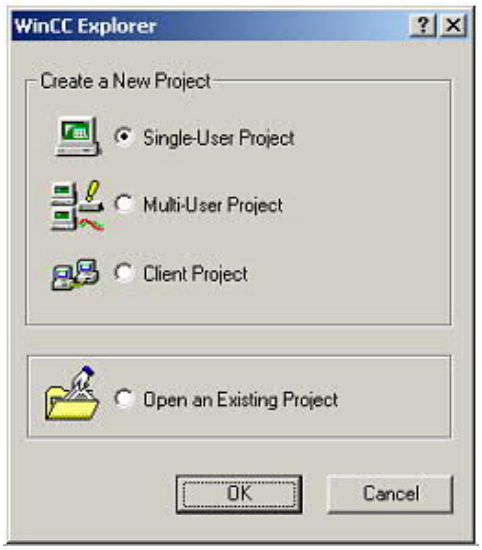
The window should display the "AG-type"

5. The connection with the PLC is successfully established when the "operating mode" changes to "Online."

5.3.11 Windows Control Center (WinCC) (v6.0)

1. Start WinCC by using the desktop link or the program entry in the start menu.

2. Choose „New" in the menu „File" or click on the white („letter") symbol to start a new project.

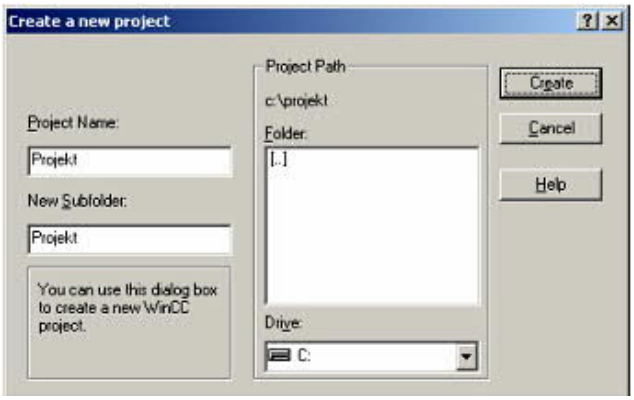


3. The next dialog offers you several project types „Single - User Project", „Multi - User Project" and „Client Project".

The next steps are describing the „Single - User Project".

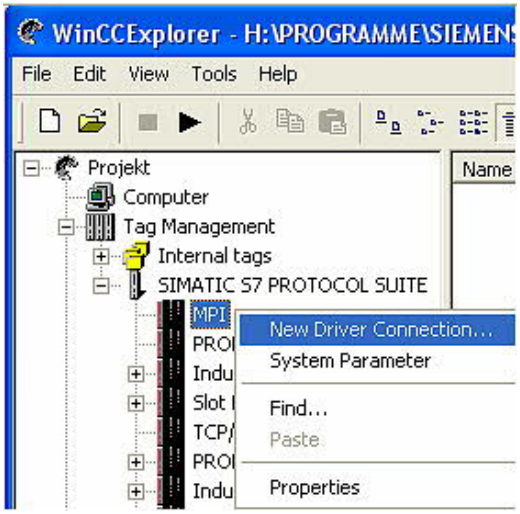
4. OK" leads you to a new dialog. Type in the „Project Name" and the „Subfolder" of the „Project Path"

With „Create" the chosen configuration is confirmed.



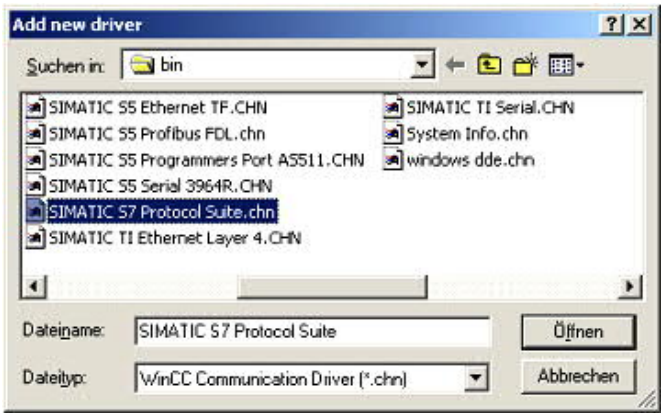
If you want to use one of the other options, please read this further in the manual of the WinCC software.

5. Please wait until the project is created. Afterward the project content is shown in the left part of the main window.



6. For a proper working communication with the PLC there must be defined how the software has to communicate with the PLC

Therefore right click on „Tag Management“ to open the context menu. Choose „Add New Driver ...“.

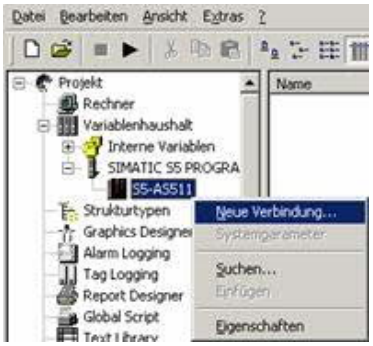


7. In the dialog „Add new driver“ select the driver which fits to your PLC

For a S5 PLC, you can choose the file SIMATIC S5 Programmers Port AS511.chn.

If you are using a different PLC please inform yourself which driver fits with your PLC.

It is important that the chosen driver fits with the PLC otherwise the connection cannot be established.



8. In the explorer you should see into the variable manager the branch "SIMATIC S5 PROGRAMMERS PORT".
Expand the branch and the protocols for several connections will appear

Right click on the desired connection „S5-AS511“. A context menu opens. Click on „New Connection…”.

9. Now you are able to type in the name of the connection. With a click on „Configuration“ a new dialog will appear.

Set up the station address of the PLC (in this example „3“).

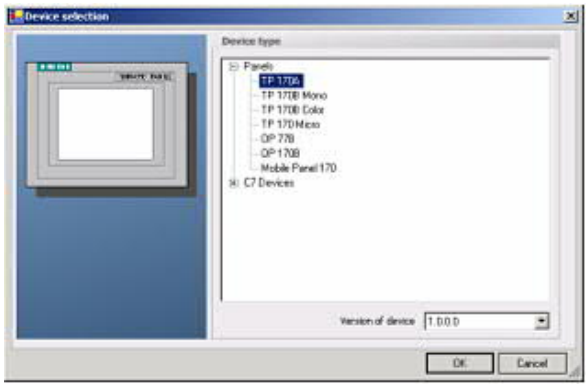
10. Confirm with "OK" until you are back to the main window.

11. Now you can with ▶ start the communication and with ■ this end it again.

5.3.12 Windows Control Center flexible 2004 (WinCC flexibel) (v5.2.0.0)

1. Start the WinCC flexibel 2004 software by using the desktop link or the program entry in the start menu.

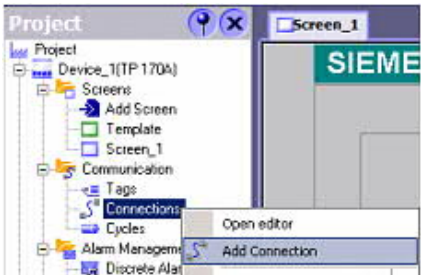
2. At first click on „Create an empty project“ in the „Start page“.



3. In the „Device selection“mark the used operator panel (example: „TP 170A“)

confirm with „OK“.

4. After the project has been created right click in the project window on „Connections“ of the sub menu „Communication“.

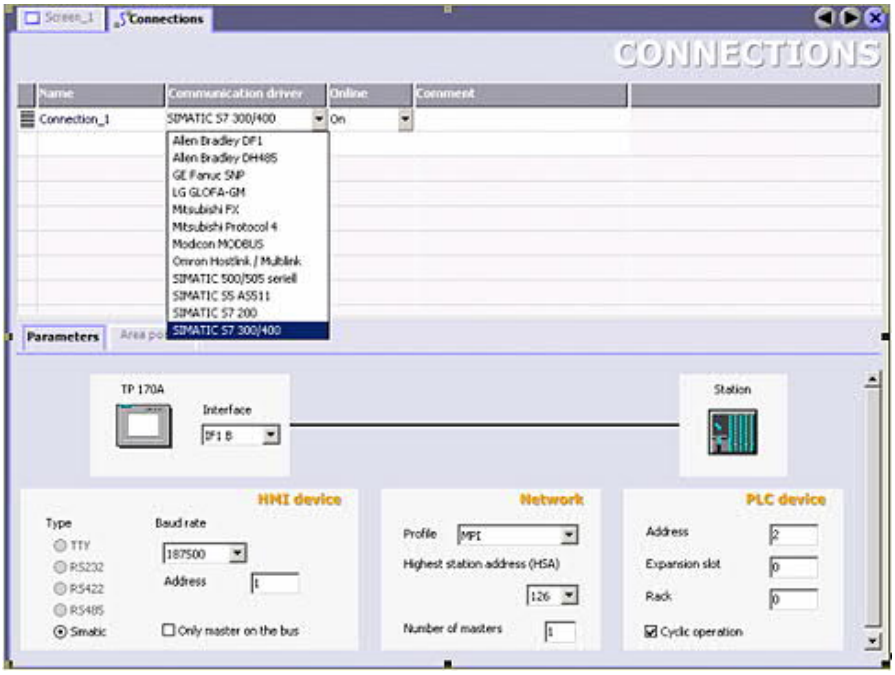


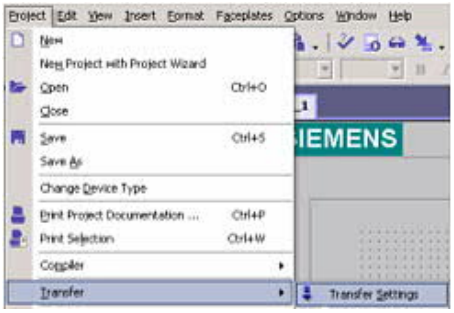
In the context menu click on „Add Connection“.

5. Right in the main window appears the new tab "Connections" where you are different settings options.

Important for the connection are:

=> the communication driver (set up which PLC you are using
(eg: „SIMATIC S5 AS511“)
=> select the used "CPU - type" (eg "S5 95U")
=> configure the interface parameters in the section "terminal"
(eg: baud rate „9600“, Parity„even“, Data bits „8“, Stop bits „1“).



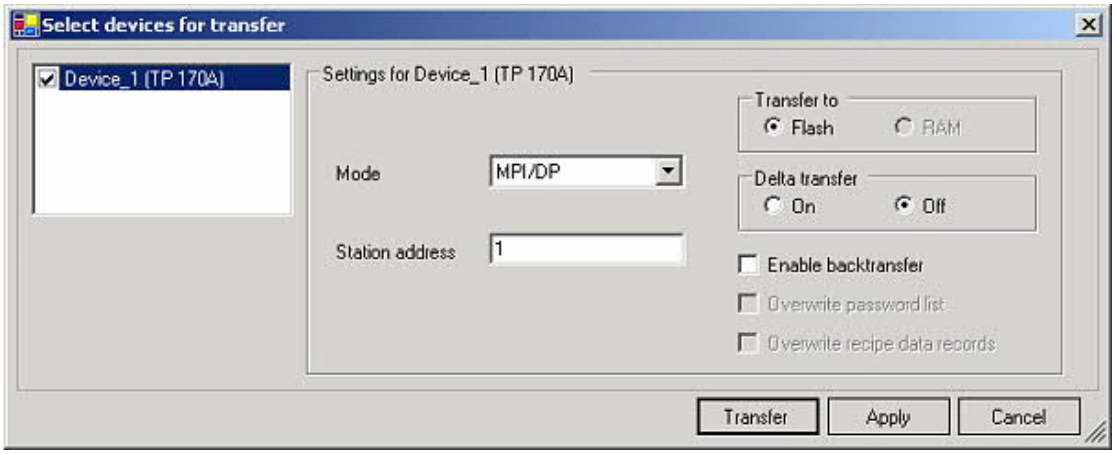


6. Now you can start with your work.

If you have finished work you can transfer this project to the panel by reading the next steps.

7. Choose „Transfer Settings“ from the sub menu „Transfer”.

8. In the new dialog change the „Mode“ to „serial“ and set the „Station address“ of the operator panel (e.g. „1“). Please set the baud rate to "19200". The "Delta transfer" is not supported by the S5-LAN. Turn them so "Off".



9. Press the button „Transfer“ to start communication with the terminal. Your project is about to be transferred.

The communication with the operator terminal is so successfully established .

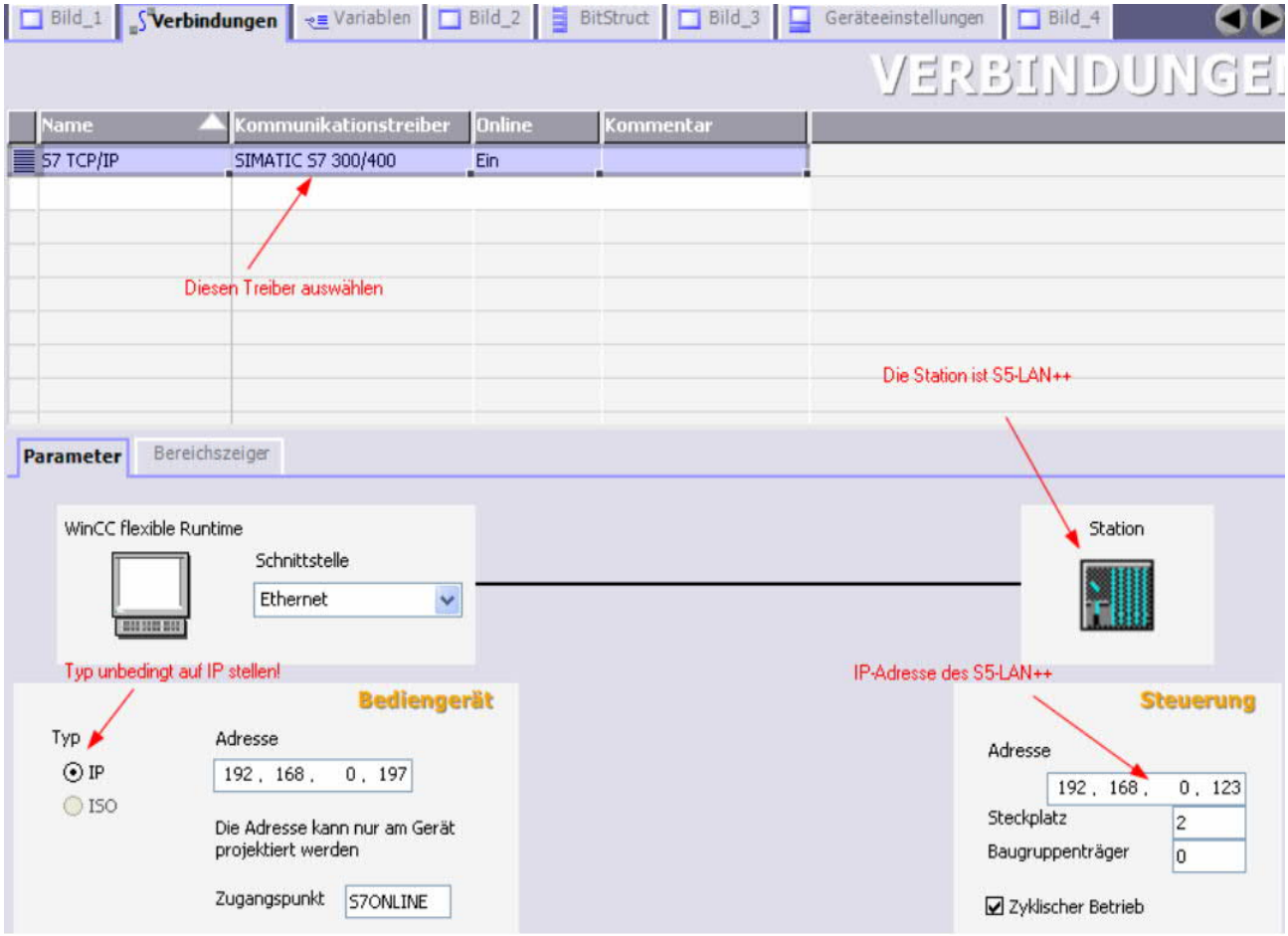
5.3.13 Communication WinCC flexible with S5-LAN++

S5-LAN++ behaves like a CP 343-1 or as an HMI ProfiNet connection. So you use the same configuration as when you are connected to the Simatic S7 300/400 with TCP/IP.
Here's a short guide for setting WinCC Flexible:

1. Select in the S5-LAN++ as S5/S7 server port 102!
This port is usually by default setting ready at 102.

2. Select for a communication driver in the WinCC flexible SIMATIC S7 300/400 as shown in the picture. For the PLC you enter the IP address of the S5-LAN++. The Typ select to „IP“. Rack- and Slotnumber is for the usage with S5-LAN++ not significant.

Just enter the default data: Rack 0, Slot 2.



3. Please note that the access point (S7ONLINE) is set correctly.

The attitude you take in the Control Panel under "Set PG/PC Interface".

Make sure that an adapter with TCP / IP support is selected.

4. Addressing

The conversion from S5-float (KG-format) to S7-float (IEEE 754) is automatic in both directions. It is important to use a variable type of IEEE 754.

The addressing of memory bits, inputs, outputs, timers and counters is the same for S5 and S7. However, there are differences in the data blocks. Addressing at the data blocks has been adapted to the S7.

For example:
DB10 DW 10 (S5) is addressed with DB10.DBW20 (S7). The background is that the S7 principle addresses in byte. If you want to read a single byte, for e.g. DB10.DL4 (S5), so you have to address DB10.DBB8. It is therefore necessary: even byte address = DL, odd address = DR in DB of the S5.

Here are some examples of address:

Simatic S5	Simatic S7	Format
MB 11	MB 11	Byte
MW 20	MW 20	Word
DB10 DW 9	DB10 DBW 18	Word
DB10 DW 60	DB10 DBW120	Word
DB10 DL 3	DB10 DBB 6	Byte
DB10 DR 3	DB10 DBB 7	Byte
DB10 DD 25	DB10 DD 50	DWord
DB10 DD 35	DB10 DD 70	Real

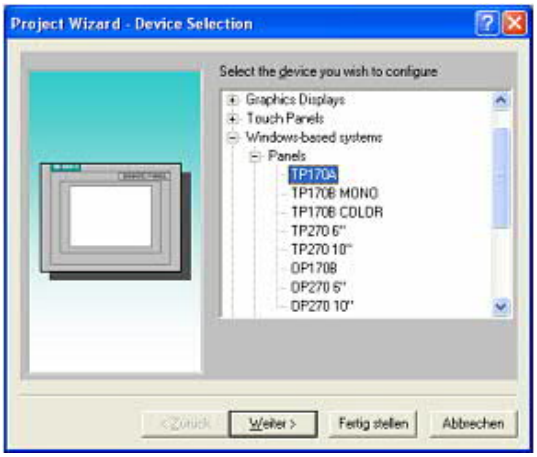
How can we address a DX (for e.g. extended DB135)

Must be for e.g. a DX addressed in a CPU 135, then the following rule applies:
DB-number 1-255 = DB, DB-number > 255 = DX.

5.3.14 ProTool/Pro v6.0 SP2

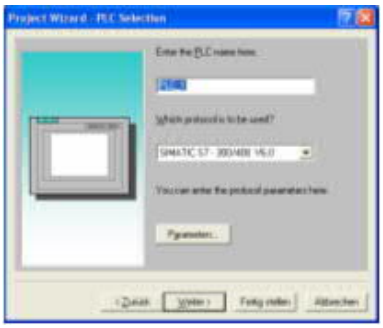
1. Start ProTool/Pro by using the desktop link or program entry in the start menu.

2. Choose from the menu „File“ the sub menu „New“ or click on the right symbol.



3. The next dialog askes you which operator panel you are using.

Mark the used panel (e.g. „TP 170A“)



4. „Next“ leads you to a new dialog. Type in the specfic fields the name of the PLC device and choose the used PLC in the driver selection (e.g. „SIMATIC S5 – AS511 V6.0“)

5. Via „Parameter...“ you are calling an configuration dialog from the chosen PLC driver

Select the used "CPU type" and the "interface" to which the terminal is connected (eg "IF1 A").

Furthermore you configure the parameters of the interface ("type", "bits", "Parity", "Stop Bits", "baud rate").

7. confirm with „OK“ until you got back to the „PLC Selection“.Go on with „Next“.

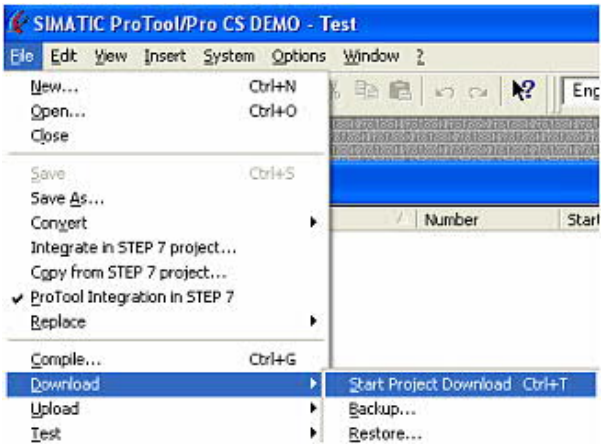
8. In the main window start the Transfer Settings dialog by clicking on „File“ „Transfer“ „Settings...“. Coose„Seriall“ and the COM interface of the operating terminal (e.g.: „COM1“). set the baud rate to "19200".

Confirm with „OK“.

and start with your work

If you have finished working on this project you can go on with the next steps.

9. If you want to transfer you project to the panel you have to generate the project first. This can be done with a click on „File“ -„Compile“.



10. To transfer the project just click on „File“ „Download“ „Start Project Download“ or click on the right symbol .

Please wait while the project is transferred.

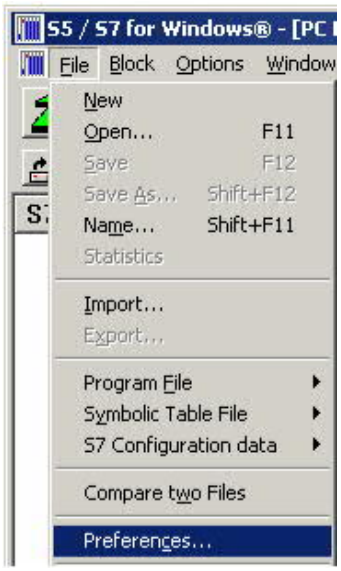
The communication between the operator panel is now established.

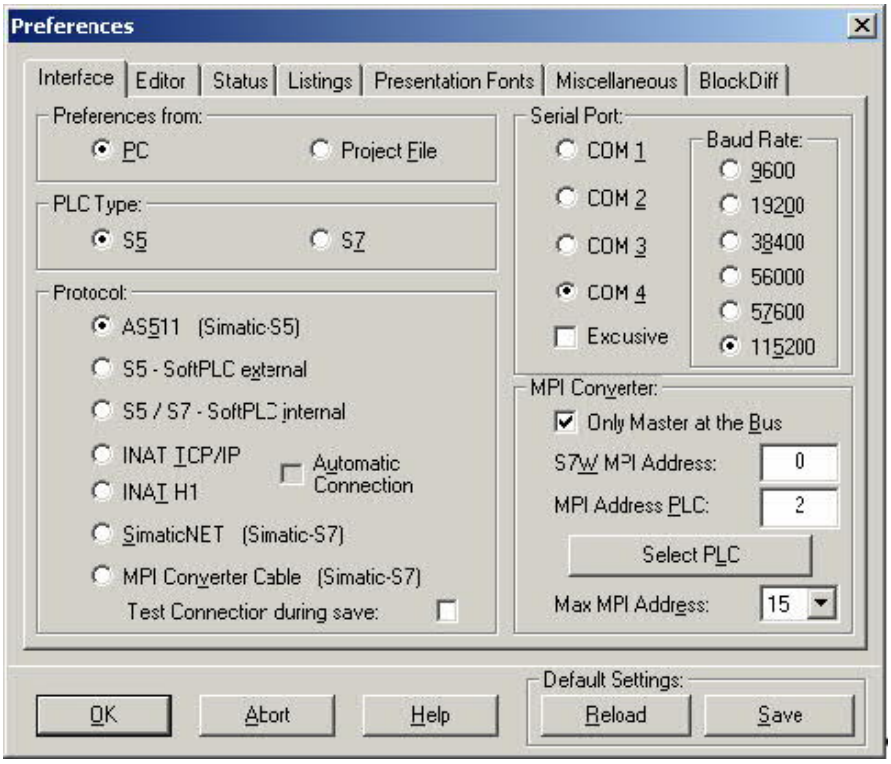
5.3.15 S5 for Windows v5.02

1. Start the “S5 for Windows” software by using the link on your desktop or use the link in your start menu (standard is “Programs\S5 for Windows\S5 for Windows“)

2. Choose File - >Preferences... (top left in the menu bar) to configure the communication configuration between the computer and the PLC.

3. A new dialog appears which offers the possibility to set up a lot of configuration data about the communication with your PLC.

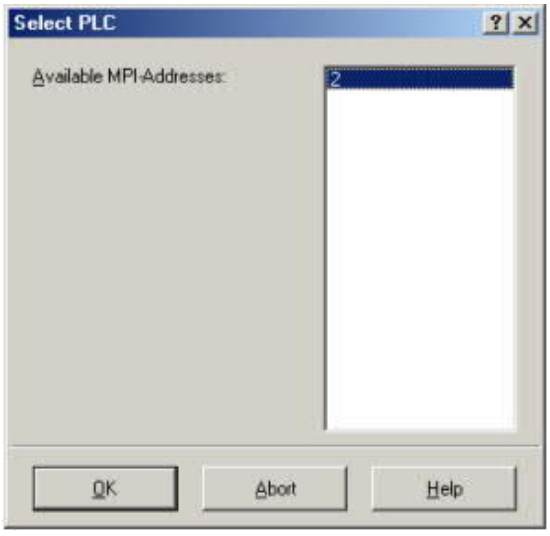




4. Choose the first registry card „Interface“ (standard) and set up the configuration data as descriped below:

=> Interface Settings from : „PC“
=> PLC type: „S5“
=> Protocol: „AS511 (Simatic - S5“)
=> Serial Port: Select here the COM port for the AG-access
=> Baud Rate: Choose the speed you want to use at the bus

4. 5. After the software is configured , click “Select PLC” in the area “MPI Converter“. A new dialog appears where you can select the desired PLC



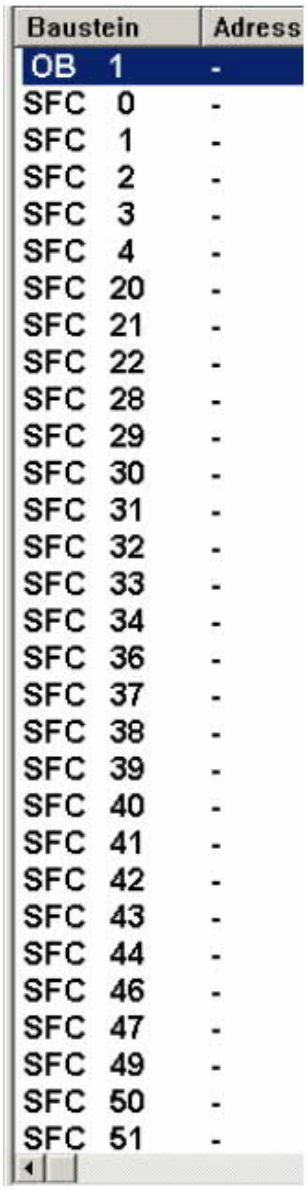
5. In this dialog you can see all PLC´s which are connected to your PC.

Choose from the list box (left) the desired station (the PLC) and confirm with "OK". (In the example "2")

6. Close the preferences dialog by pressing the „OK“ button.

7. Back in the main window press the „PC Block List“ button for testing the new established communication configuration.

8. 9. Please wait a moment for the software to read the desired blocks from the PLC. The blocks will be displayed in the listbox below the menu bar (see picture to the right).



The communication between the S5 for Windows and the PLC is now established.

6 Configuration

6.1 Menu Tree

Messages

Hang Up

Select subscriber

Selection of one of the possible 197 subscriber entries and the dial to

Edit subscriber

The edit of the 197 subscriber

Number of the entry | Name max. 9 char | 12-144
Baudrate | R12-R144
M12-M144

Number of the subscriber 16 chars, with “=>“ possible, the next 16 chars append to this entry

RRV-number (only with recall): intern. telefon number of the device, that want this recall

Online action

Hang up
Lift
Data Mode
Voice Mode
Init Modem
Login remote
Transmit Firmware
Fetch Firmware

Remote config ON (ONLY PD-TELE)

Remote config OFF (ONLY PLC-TELE)

First Config

Language ...
Device type ...
Telephone ...

Configuration

Device type

PLC-S5 TELE
PD-TELE
PLC-S5 KOR/MUX
PLC-S7 300/400
PLC-S7 200 9K6
PLC-S7 200 19K2
PlC-S5-F-TYPE

Device name

max. 9 char

PD-MUX-Mode (only with PLC-TELE and S5-CPU)

PD-MUX
PD-PLC
PD-MUX -c

Telephone

Dial mode

Ton
Impulse

Extension

Yes
No

Outline Code

0,1,2,3,4,5,6,7,8,9,!,“,“,/,>,#,X,W,*

Count of rings

0,1,2,3,4,5

busy identify

Yes
No

PCMCIA-Modem type (Only in TELE-BOOK)

Connection

Speaker

On
Off

Hang up hearing

0 to 10 secs.

Max. connect time

0 to 60 mins.

Max. Idletime

0 to 60 mins.

Baud rate manual

12
24
48
96
144

Recall mode (Only with PLC-TELE)

Yes
No

Recall number (Only with PD-TELE)

Telefon number, 16 chars max

Acces code

Pin device local: 6 char pin
Pin PLC local: 6 char pin
Pin device remote: 6 char pin
Pin PLC remote: 6 char pin

S7-Config (Only with PLC-TELE)

local MPI-Address
(MPI-Address for the device, if it is on the mpi bus)

Max. MPI-Address

S7-MPI-Address
(is only valid, if there is no Poll-list active, for Pager, Fax- and SPS-TELE)

Poll-list
(if there any entries exist, the S7-MPI-Adress is not valid)

Options

Pager-TELE

Pager operation

Yes
No

Pager flag

Only even flag words 0 to 254

Pager COM-DB

DB 1 to 255, DW 0 to 998

SPS/ASCII-TELE

Modem control

No
With Flag word
With dig. I/O

Modem flag

Only even flag words from 0 to 254

SPS-TELE-operation

Yes
No

SPS-TELE-flag

Only even flag words from 0 to 254

SPS-TELE-COM-DB

DB 1 to 255, DW 0 to 998

ASCII-operation

Yes
No

ASCII-Flag

Only even flag words from 0 to 254

ASCII-COM-DB

DB 1 to 255, DW 0 to 998

FAX-TELE

Fax-operation

Yes
No

FAX-TELE-flag

Only even flag words from 0 to 254

FAX-TELE-COM-DB

DB 1 to 255, DW 0 to 998

Resolution

Heavy
Fine

FAX-POLL-DB

DB 1 to 255, DW 0 to 998

Kodak-Option

Symadyn-Option

Digital-IO

Local input
Local output
Remote input
Remote output
Offline output

Mode

Manual
Mirror
Dialing

PCS-Option

Special

To PD/PLC-interface (only with PD-TELE)

Connect PD with PD (PD-socket of the PLC-Tele's)

Connect PD with PLC (PLC-socket of the PLC-Tele's)

Break TX-Line (only with PD-TELE)

0 to 30 sec.

S7-200 on (only with PD-TELE)

IBX-TEST (only with KOR/MUX-TELE)

Direct mode (only with PD-TELE)

Source-COM
Dest.-COM
DM ON
DM ON with Handshake

Tele-Switch (only with PD-TELE)

PD-Coupling

Pro-Tool 7/17 (only with PD-TELE)

Language

German
English

Info

Version
Remoteversion
Remotename
Copyright

6.2 Menu item Messages

In this menu item which occurs automatically on the display after starting the TELE-Network device, the user receives important data about the condition of his/her device. It is displayed whether the TELE-Network has a direct connection to the control.

• PLC ONLINE
• PLC OFFLINE

Moreover, after the first dialling, the users is informed whether there is a connection or not:

• connected
• not connected

6.3 Menu item Hang up

With this menu item, the modem disconnects an existing connection, i.e. it hangs up.

6.4 Menu item Select Subscriber

Select one of the maximally 197 saved entries by using the up/down key. Then press ENTER for starting the actual dialling.
You can interrupt the dialling process by using the cursor-left key. This might become necessary if you accidentally dialled the wrong number.

6.5 Menu item Edit subscriber

With the function „Edit subscriber“ you can input up to 197 names and telephone numbers in a telephone directory and save them there. You have the storage positions 1 to 197 at your disposal.

If you are in this menu item, you can select with up/down keys your desired storage position (1 to 197). Press ENTER and the cursor moves to the input position:

Number of the entry	Subscriber name (max. 9 characters)	Max. Baudrate, to begin the connection

Telefon number of the subcriber (max. 16 character, or with „=>“ select next entry, so you can use both entries and you have max. 31 characters)

Schema of LCD-display for menu item Edit Subscriber

Possible baudrates:
12 - 144 (normal connection between two devices)
R12 - R144 (connection with recall, see chapter 8.1)
M12 - M144 (call to a mailbox, no tele-network device, see chpater 8.10)

If you have to edit a telefon number with more than 16 characters, you can do it with following way:

You edit, for example subscriber 8, edit the telefon number with 15 characters, then the special char„=>“, and edit in subscriber 9 the rest of this telefon number.

You can select letters, numbers or other adjustments by using the up/down keys and the cursor position (if possible) by using the cursor-right/left keys.

If you have activated the return call function (Rxx Baud), you will then have the possibility to input the RC-PNr. (return call-prefix number).

If you have activated the modem call function, you had to configure the connected PC by the TELE-LINK at the TTY-PD-Connector and by the TELE-BOOK and TELE-PROFessional at the V24-Connector with following options:

RTS/CTS at TELE-BOOK and RTS/CTS at TELE-PROFessional

6.6 Menu item Online action

6.6.1 Hang up

With this menu item, the modem disconnects an existing connection, i.e. it hangs up.

6.6.2 Lift

With this menu item, the modem receives incoming calls. This is only the case if the adjustment „number of signals before picking up“ (which is explained further down) is turned to zero and if the modem does not pick up independently.

6.6.3 Data mode

In case there is only one telephone line that should be used by a TELE-Network device and for the telephone communication with your co-worker, you can use this telephone line with this menu item for both ends.
The co-worker recognises after picking up a parallelly working telephone the signal of a calling TELE-Network device and can then connect the TELE-Network to the line with this menu item. The device disconnects the existing connection to the telephone, takes over the line and is then in data mode with the calling device. In case of speech mode, this menu item can be used as well in order to connect TELE-Network devices to the line. In this case, however, this function has to be carried out at both devices.

Only hang up the phone after the TELE-Network has displayed CONNECT. Do not hang up the phone if there should be a speech mode after the data mode.

6.6.4 Voice mode

This is the contrasting command to the command „DATA MODE“. It disconnects an existing data connection and the speech connection is released again.

Do not hang up the phone while the data mode is in process.

6.6.5 Init Modem

With this command, modified initialisations are transferred to the modem.

6.6.6 Login remote

With this action you can repeat the password input a second time, after you had logged in incorrectly.

6.6.7 Transmit Firmware

This command is used to transmit newer software versions to TELE-Network devices with older versions. Your own programme is loaded to the other TELE-Network device via the telephone line to the programme memory. In this way, all TELE-Network devices can be updated with the most recent software release.

Caution:

Programmes can only be transmitted between device types that are configured differently. (PLC-TELE<=>PD-TELE or PD-TELE<=>PLC-TELE): If the devics are of the same type (PLC-TELE<=>PLC-TELE or PD-TELE<=>PD-TELE), there will be the error report „partner does not recognise option“.

The TELE-Network device that has received the programme, programmes itself after the transmission. While the programming is in process, do not disconnect the device from the voltage supply since then the complete programme becomes invalid. If the programme is invalid, the device reports CRC-ERROR. If this message appears, the programme has to be re-started with a PC.

After the programming, the device executes a warm start and after that it reports with the new software release yet with the same configuration.

6.6.8 Recive Firmware

This is the contrasting command to the command „Transmit Program“. More recent software releases are loaded down from the TELE-Network devices. Here, the programme of another TELE-Network device is loaded to your own programme memory via the telephone line.
In this way, all TELE-Network devices are updated to the most recent software release.

Caution:
Programmes can only be transmitted between device types that are configured differently. (PLC-TELE<=>PD-TELE or PD-TELE<=>PLC-TELE): If the devics are of the same type (PLC-TELE<=>PLC-TELE or PD-TELE<=>PD-TELE), there will be the error report „partner does not recognise option“.

The TELE-Network device that has received the programme, programmes itself after the transmission. While the programming is in process, do not disconnect the device from the voltage supply since then the complete programme becomes invalid. If the programme is invalid, the device reports CRC-ERROR. If this message appears, the programme has to be re-started with a PC.

After the programming, the device executes a warm start and after that it reports with the new software release yet with the same configuration.

6.6.9 Remote Config ON

With item you can activate the configuration of the remote device. If you had activated this item, and you change any parameter in the konfiguration, you change it in the remote device and not in this device you are in front of. This item is so long active, until you deactivate this item.

Be shure, that you switch off the remote configuration after ending of the edit, because when you meen, you are ready with the configuration, and you want to edit your own configuration, you overwrite the remote configuration, and so ist possible, you can´t get a connect after this operation. Before you start the remote configuration, you should have the same firmware in both devices.

6.7 Menu item first config

With this item it is possible, to configure the important parameters, so that your device is as fast as soon ready for installation.

With the cursor-up or cursor-down keys, you can go through the menu tree. Press ENTER in order to select a menu item. Now use the cursor-up or cursor-down key again to select your next adjustment. Press ENTER to save it.

6.7.1 LANGUAGE

• German menu drive in German
• English menu drive in English

6.7.2 DEVICE TYPE

• PD-TELE The device is next to the programming device and is connected to it

• PLC-S5-TELE The device is next to the plc-control and is connected to it
• PLC-S5-KOR/MUX The device is not connected directly to the plc but via a SIEMENS Multiplexer (PD-BUS-dialling), via a coordinator (e.g. 923 C) or via THE IBX-Bus (Bus system of PI with PD-BUS-dialling); (special type of PLC-TELE).

Caution:
The built-in Multiplexer is not active in this operation mode!
• PLC-S7 300/400 This device is connected to a S7-300/400 plc
• PLC-S7 200 9K6 This device is connected to a S7-200 plc and communicates with 9600 baud
• PLC-S7 200 19K2 This device is connected to a S7-200 plc and communicates with 19200 baud
• PLC-S5-F-TYPE This device is connected to a S7-plc, but this plc is a F-type plc

6.7.3 Dial mode

• Tone: The modem dials with the multi-frequency-method MFM
• Pulse: The modem dials with the pulse method

6.7.4 Extension mode

• Yes: The device is not connected directly to the line. You then need either a prefix number or a certain key combination to get to the line.
• No: The device is either connected directly to the line, i.e. you do not need a prefix number in order to get a line or the device is within a private branch exchange and should call a partner within this system.

6.7.5 Outline code

With these possible figures you can config the device to get a telefon line:
0,1,2,3,4,5,6,7,8,9,!,“,“,/,>,#,W,*

6.7.6 Rings before lifting

• = 0

With this adjustment, the modem does not pick up independently. With the menu item „pick up“ you have to make the modem pick up manually.

• = 1-5
Modem picks up after the adjusted number of rings.

6.7.7 Busy identify

• Yes: The device proofes befor dialing, if the telefon line is free or Busy
• No: The device dials without proofing the telefon line. This is the better config, because some telefon devices gives you a signal after taking the line, that seems to be a busy signal, so the device doesn´t dial.

6.7.8 PCMCIA-Modem type

Wih this menu item is plugged in PCMCIA-card in the TELE-BOOK configured, so the TELE-BOOK can inatialise the card and take a secure telefon connection.

Following PCMCIA-Cards are in the moment possible:

Card-name	Settings	Type
Elsa MicroLink 28800	Elsa-MicroLink	TAE-Modem
Megahertz	Megahertz	TAE-Modem

PSION DACOM Gold Card Global 33K6 and 56 K with GSM	GoldCard	TAE-Modem
Ericson GH688	Elsa-MicroLink	GSM-Modem
Motorola GSM	Motorola GSM	GSM-Modem
Nokia DTP-2	Nokia DTP-2	GSM-Modem
Siemens GSM	Siemens GSM	GSM-Modem
Dr. Neuhaus Furycard 19.2 (DUO)	Siemens GSM	GSM-Modem
Smart ClipperCom	Smart Clipper	GSM-Modem
GVC extern	GVC extern	V24-Karte with ext. Modem

There are following Siemens Handy´s possible:

E 10 D for D-Netz
S 10 D for D-Netz
S 10 Active for D-Netz
S11 E for E-Netz

All handy written down above functioning with the pcmcia-card serie 10.

The original number of siemens for this card is:
Siemens E10 S10 activ 511 PC-Card
And the cable between handy and pcmcia-card is:
0030 LIFAR L36880-N1201-A11 WE No. 78783

Don´t use the cable for connecting a PC (PC Com1 oder Com2 [RS232] to the handy)!!

So you can also use the newer handys, like for e.g. siemens S25, C35, or nokia (6150, 5110). For the use of this handys, you need to plug in a serial PCMCIA-card, that your tele-book gets a com-port. Now you can use the cable for this handys, that you use normally for the connect to the pc. After this, you select the siemens GSM or the nokia dtp-2 card in this menu item.

The operation of these remote maintenance units is only allowed if a supervising person is present who can intervene in the installation at any time. Please do not intervene in running programmes without visual communication or control.

Before installing the TELE-LINK-Network devices, please connect them by all means with earthing PE at the casing or at the screw terminal!

Please read the user´s manual closely before installing the device. There is no responsibility taken for damage due to incorrect connection or handling.

6.8 Menu item configuration

6.8.1 Device type

With this option you configure the first function of this device. You can configure follwing possibilities:

• PD-TELE The device is next to the programming device and is connected to it
• PLC-TELE-S5 The device is next to the plc-control and is connected to it
• PLC-S5 KOR/MUX The device is not connected directly to the plc but via a SIEMENS Multiplexer (PD-BUS-dialling), via a coordinator (e.g. 923 C) or via THE IBX-Bus (Bus system of PI with PD-BUS-dialling); (special type of PLC-TELE).

Caution:

The built-in Multiplexer is not active in this operation mode!
• PLC-S7 300/400 This device is connected to a S7-300/400 plc
• PLC-S7 200 9K6 This device is connected to a S7-200 plc and communicates with 9600Baud
• PLC-S7 200 19K2 This device is connected to a S7-200 plc and communicates with 19200 Baud
• PLC-S5-F-TYPE This device is connected to a S5-plc, but it is a F-type plc.

6.8.2 Device Name

If you input the a device name as for example the installation name, number or place, the usage of several TELE-Network devices and their management is made easier. The device name can be asked for with the option „remote name“ and it can be shown on the display.

By pressing the cursor-up/down keys, numbers and letters can be edited and the position of the cursor can be changed by using the cursor-left/right key. Press ENTER in order to finish and save the input of the device name.

6.8.3 PD-MUX-Mode (Only for PLC-TELE and S5)

With this menu item, you can use the Multiplexer that is integrated in the TELE-Network device. For the operation with the Mulitplexer, there are the following adjustments:

• PD-MUX Multiplexer is active between the telephone line and the PD-socket.
• PD <=> PLC PD-socket is connected to the PLC-socket (fast speed, without timecontroll, Multiplexer is turned off). When connected to a caller, the PD-socket is out of funktion. Behind the disconnection from a caller, the PD-socket will communicate with the PLC-Socket.
• PG-MUX-C PD-socket is connected to the PLC-socket (fast speed, withtimecontroll, Multiplexer is turned off). When connected to a caller, the PD-socket is out of funktion. Behind the disconnection from a caller, the PG-socket will communicate with the PLC-Socket.

This mode is only for S5-Mode of the Tele-Network-Device in use.

6.8.4 TELEPHONE

6.8.4.1 Dial mode

• Tone: The modem dials with the multi-frequency dialling method
• Pulse: The modem dials with the pulse method

6.8.4.2 Extension

• Yes: The device is not connected directly to the line. You then need either a prefix number or a certain key combination to get to the line.
• No: The device is either connected directly to the line, i.e. you do not need prefix number in order to get a line or the device is within a private branch exchange and should call a partner within this system.

6.8.4.3 Outline Code

Here, the key combination or the prefix number that are necessary for the connected telephone installation or each telephone set are set in order to call the line.

0,1,2,3,4,5,6,7,8,9,!,“,“,/,>,#,W,*

: 0,1,2,3,4,5,6,7,8,9
Rhombus: #
Flash: !
Earthing key (R): >
Series system: *
Break 1/8s: /
Break 2s: ,
Waiting for office: W (If office is available, the phonenumber get called)

6.8.4.4 Count of Rings

• = 0

With this adjustment, the modem does not pick up independently. With the menu item „pick up“ you have to make the modem pick up manually.

• = 1-5
Modem picks up after the adjusted number of rings.

6.8.4.5 Busy Identify

• Yes: Device waits for the free signal and checks if there is a busy signal. It now either dials after recognising the free signal or it does not dial if the line is busy.
• No: Device does not identify a busy signal and dials immediately after starting the call (standard)

6.8.4.6 PCMCIA-Modem type (only with TELE-BOOK)

With this menu item is plugged in PCMCIA-card in the TELE-BOOK configured, so the TELE-BOOK can inatialise the card and take a secure telefon connection.

Following PCMCIA-Cards are in the moment possible:

Cardname	Settings	Type
Elsa MicroLink 28800	Elsa-MicroLink	TAE-Modem
Megahertz	Megahertz	TAE-Modem
PSION DACOM Gold Card Global 33K6 and 56 K with GSM	GoldCard	TAE-Modem
Ericson GH688	Elsa-MicroLink	GSM-Modem
Motorola GSM	Motorola GSM	GSM-Modem
Nokia DTP-2	Nokia DTP-2	GSM-Modem
Siemens GSM	Siemens GSM	GSM-Modem
Dr. Neuhaus Furycard 19.2 (DUO)	Siemens GSM	GSM-Modem
Smart ClipperCom	Smart Clipper	GSM-Modem
GVC extern	GVC extern	V24-Karte with ext. Modem

There are following Siemens Handy´s possible:

E 10 D for D-Netz
S 10 D for D-Netz
S 10 Aktiv for D-Netz
S11 E for E-Netz

All handy written down above functioning with the pcmcia-card serie 10.

The original number of siemens for this card is:
Siemens E10 S10 activ 511 PC-Card
And the cable between handy and pcmcia-card is:
0030 LIFAR L36880-N1201-A11 WE No. 78783

Don´t use the cable for connecting a PC (PC Com1 oder Com2 [RS232] to the handy)!!

So you can also use the newer handys, like for e.g. siemens S25, C35, or nokia (6150, 5110). For the use of this handys, you need to plug in a serial PCMCIA-card, that your tele-book gets a com-port. Now you can use the cable for this handys, that you use normally for the connect to

the pc. After this, you select the siemens GSM or the nokia dtp-2 card in this menu item.

6.8.5 Connection

6.8.5.1 Hangup hearing

With this menu item, you adjust whether you want to hear how the modem hangs up. If so, you can also determine a time span (in seconds):

• 0 seconds: You cannot hear how the modem hangs up.
• 1 to 10 seconds: You can hear for the duration of 1 to 10 seconds how the modem hangup.

6.8.5.2 Max. connect tome

With this menu item, you determine the maximum duration of the connection. After this maximum, the connection is disrupted. The duration is set in minutes. The maximum is 60 minutes.
If the value is set to 0, the option is disable. That means the connection exist until the user hangup in the menu item command.

6.8.5.3 Max. Idletime

Here, you determine the maximum duration of the idle operation of the PG. The time span starts when there is no exchange of data between the plc and the PG anymore. After the maximum time is up, the connection is disconnected. The duration is set in minutes. The maximum is 60 minutes.
If the value is set to 0, the option is disable. That means the connection exist, indepentent if datas exchanged between PLC and PD, until the user hangup in menu item command.

6.8.5.4 Baud rate manual

This entry of the Baud rate is only valid for data and speech operation. When switching from speech to data operation, the modem has to start with an initial value (initial Baud rate) in order to build up the connection. This initial Baud rate corresponds to the „Baud rate manual“.

Following items are possible:

12: 1200 Baud
24: 2400 Baud
48: 4800 Baud
96: 9600 Baud
144: responding of the modem type, max. Baudrate 14400 or 33600 Baud

6.8.6 Recallmode (only for PLC-TELE)

Here, you can turn the return call mode on or off.

Available items:
YES
NO

This menu item is only necessary for the PLC-TELE.

6.8.7 Recallnumber (only for PD-TELE)

Here, you can input the prefix number plus the number with which the TELE-Network device that requires a return call can be reached.

Possible items: max. 16 char Telephonnumber.

This menu item is only active with the PG-TELE.

6.8.8 Access code

6.8.8.1 PIN device local

Password for the protection of the configuration of your TELE-Network device (PLC-TELE or PD-TELE). The parameters of the device can only be changed after the input of the correct password.

local => means the device in front of you). Max. 6 characters.

6.8.8.2 PIN PLC local

Password of the device that is located at the installation (PLC-TELE). This password protects the connected plc-control against unauthorised access via the telephone line. Without inputting a password,„PLC-OFFLINE“ is reported via the telephone line and then there is an access is not possible.

local => means the device in front of you). Max. 6 characters

6.8.8.3 PIN device remote

Input of the password „PIN device local“ t the partner device with which you are connected via the telephone line. Input only possible if the partner device does not have a password protection or if the user knows the password

Remote => means the device you have access to via the telephone line. Max. 6 characters.

6.8.8.4 PIN PLC remote

Input of the password „PIN PLC local“ at the partner device with which you are connected via the telephone line. Input only possible if the partner device does not have a password protection or if the user knows the password.

Remote => means the device you have access to via the telephone line. Max. 6 characters.

The access to a TELE-Network device that is protected by a password via the telephone line (see Login Remote) or at the device itself is only possible if the user knows the password.

Please do not forget your password or keep it at a safe place. In case you forget the password, you have to send the device back to the producer because it has to be reset in its original state. This cannot be done by the customer or the partner or by telefone line!

6.8.9 S7-Config (only for PLC-TELE)

6.8.9.1 Local MPI-Address

With this menu item you configure the device, which MPI-adress is correct for the bus account. Default is 0, max. adress is 31.

6.8.9.2 Max. MPI-Address

With this configuration the device is known, which is the maximum active mpi-address.

6.8.9.3 S7-MPI-Addresse

Here is write down the mpi-address for the plc, which you need for following options:

- Pager-operation
- FAX-Option
- PLC-Option

Have you don´t configured a mpi-adress, so the device doesn´t know, which plc gives him the order to dial, to send a fax. Have you configured the S7-poll-list, so this entry is not active.

6.8.9.4 Poll-Liste

If you have more than one plc´s, which have order to fax, send sms for the tele-network device, so you can edit this list with the adresses of this plc´s. This list is be reed for following options.

f you edit only a „0“ in this list, so the device uses only the S7-MPI-Adress-entry.

6.9 Menu item Options

6.9.1 Pager-TELE (only for PLC-TELE)

6.9.1.1 PAGER operation

With this menu item, you can turn the PAGER-TELE operation on or off.

6.9.1.2 PAGER flag

With this menu item, you can input the common flag word for the data communication.

Use even numbers only (e.g. FW 122)! Only 0 to 254.

6.9.1.3 PAGER-COM-DB

With this menu item, you can set the communication data base (DB) in order to set parameter values to the data flow and source at the PAGER-operation.

6.9.2 PLC/ASCII-TELE

This menu item is only activated if the TELE-Network device has a plc-option or an ASCII-option.

6.9.2.1 Modem Control

In this menu item, you can adjust how the communication between the plc and the modem is carried out.

NO: plc does not have the possibility to control the modem
with flag word:PLC-TELE-LINK and plc have a common flag word for controlling
with digital I/O: PLC-TELE-LINK and plc communicated via the digital I/O-level

6.9.2.2 Modem flag

In case you selected „with FW“ (with flag word) in the menu item „modem control„, you can now enter the common flag word for the modem control.

Use even numbers only (e.g. MW 120)! Only 0 to 254.

6.9.2.3 PLC-TELE operation

With this menu item, you can turn the PLC-TELE operation on or off.

6.9.2.4 PLC-TELE flag

With this menu item, you can input the common flag word for the data communication.

Use even numbers only (e.g. FW 122)! Only 0 to 254.

6.9.2.5 SPS-TELE-COM-DB

With this menu item, you can set the communication data base (DB) in order to set parameter values to the data flow, source, and target at the PLC-TELE operation.

DB 1 to 255, DW 0 to 998

6.9.2.6 ASCII operation

With this menu item, you can turn the ASCII-TELE operation on or off.

6.9.2.7 ASCII flag

With this menu item, you can set the common flag word for the data communication.

Use even numbers only (e.g. MW 122)! Only 0 to 254.

6.9.2.8 ASCII-COM-DB

With this menu item, you can set the communication data base (DB) in order to set parameter values to the data flow, source, and target at the ASCII-TELE operation.

DB 1 to 255, DW 0 to 998

6.9.3 FAX-TELE

This menu item is only activated if the TELE-Network device has a FAX-option.

6.9.3.1 FAX operation

With this menu item, you can turn the FAX-TELE operation on or off.

6.9.3.2 FAX flag

With this menu item, you can input the common flag word for the data communication.

Use even numbers only (e.g. FW 122)! Only 0 to 254.

6.9.3.3 FAX-COM-DB

With this menu item, you can set the communication data base (DB) in order to set parameter values to the data flow and source at the PLC-TELE operation.

DB 1 to 255, DW 0 to 998

6.9.3.4 Resolution

With this menu item, you can select the resolution of the fax transmit. Possible parameters are:

- heavy
- fine

6.9.3.5 FAX-POLL-DB

In this menu item you define the communication-DB for polling. It has the same building like the FAX-KOM-DB. But it is only activ, when the TELE-LINK-Network device gets a fax call with a blank paper. So you call the TELE-LINK-Network-device with your fax, send him a blank page, and the device will call back your transmitted fax number with the data configured in the FAX-POLL-DB.

DB 1 to 255, DW 0 to 998

6.9.4 Kodak-Option

This menu item is only activ, if you have for both devices the kodak-option. If you have connect between both modems, here you can activate the possibillity, so you can make a picture with the camera, load the dig. pictures into the camera or from the camera. Or you can shut a picture with the camera, but you are not at the same place as the camera.

6.9.5 Symadyn-Option

This option is only active, when you have installed this option for both tele-network devices. If you have the connect of both modems, you can activate this option in the PG-TELE, so the network-devices helps you to programm the symadyn-card over the telefon line.

6.9.6 Digital I/O (only with TELE-DIO-Module)

6.9.6.1 Local inputs

In this menu item you can see on the display the current settings of the digital input level that is built-in optionally. This display is continuously actualised until you leave this menu item.

Only decimal values are shown.

You can see the values in the following table

Decimal value	Status Input 1	Status Input 2	Status Input 3	Status Input 4
00	OFF	OFF	OFF	OFF
01	ON	OFF	OFF	OFF
02	OFF	ON	OFF	OFF
03	ON	ON	OFF	OFF
04	OFF	OFF	ON	OFF
05	ON	OFF	ON	OFF
06	OFF	ON	ON	OFF
07	ON	ON	ON	OFF
08	OFF	OFF	OFF	ON
09	ON	OFF	OFF	ON
10	OFF	ON	OFF	ON
11	ON	ON	OFF	ON
12	OFF	OFF	ON	ON
13	ON	OFF	ON	ON
14	OFF	ON	ON	ON
15	ON	ON	ON	ON

6.9.6.2 Local outputs

The digital outputs that are optionally built-in are set here.

You have to set a decimal value.

This is shown in the following table

Decimal value	Status Output 1	Status Output 2	Status Output 3	Status Output 4
00	OFF	OFF	OFF	OFF
01	ON	OFF	OFF	OFF
02	OFF	ON	OFF	OFF
03	ON	ON	OFF	OFF
04	OFF	OFF	ON	OFF
05	ON	OFF	ON	OFF
06	OFF	ON	ON	OFF
07	ON	ON	ON	OFF
08	OFF	OFF	OFF	ON
09	ON	OFF	OFF	ON
10	OFF	ON	OFF	ON
11	ON	ON	OFF	ON
12	OFF	OFF	ON	ON
13	ON	OFF	ON	ON
14	OFF	ON	ON	ON
15	ON	ON	ON	ON

6.9.6.3 Remote Input

This inputs behave analogously to the local inputs but they are situated at the other station (PLC-TELE).

6.9.6.4 Remote Output

These outputs behave analogously to the local outputs but they are situated at the other station (PLC-TELE):

6.9.6.5 Offline Output

Here, you can type in the Default-value of the outputs that are built in the device optionally. In case there will be no connection, the optionally built-in outputs of the called device are set immediately to this value.

6.9.6.6 Mode

Here, the following modes can be set for the digital I/O-level:

• Manual This is the normal mode for digital I/O. Here, you can set the outputs of the I/O of your partner device.

• Mirror As soon as there is a telephone connection, the inputs of the PG-TELE are mirrored on the outputs of the PLC-TELE and vice versa.

• Dialling In this mode, the TELE reacts to the digital inputs with an alarm report. As soon as only one alarm input changes, the TELE-device decodes the combination of inputs and automatically calls the resulting subscriber entry.

6.9.7 PCS-Option

This menu item will be active, if you have installed for both tele-network-devices the pcs-option. If you have a telefone connection, this means, you have the connect between both modes, and

you start you configuration-software for the pcs, both devices are be switched in the pcs-mode and gives you the help for programming the pcs.

6.10 Menu item Special

6.10.1 To PD/PLC interface?

In this menu item it is decided at the PG-TELE whether the communication at the PLC-TELE is made via the PLC or via the PG-socket.
Normally, the PG-TELE communicates with the plc via the PLC-TELE and the PLC-socket.
If there is for example a 2nd plc connected to the PLC-TELE at the PG-socket, then the PG-TELE can communicate with the plc at the PG socket of the PLC-TELE with this adjustment.

This menu item is also valid for the H1, L1 and L2 communication if these software options are released. In this case, the CP is connected to the PG-socket of the PLC-TELE.

The following adjustments are possible:

• Connect PG-socket with PLC-socket normal setting
• Connect PG-socket with PG-socket 2nd plc or switch to CP connection

6.10.2 Break Tx-line

This menu item is valid for example for turning on the H1. In case the connected CP does not react anymore to the communication, a break with adjustable duration can be sent to the CP. (Duration in seconds, 0 to 30)

6.10.3 S7-200 on

If you want to programm a S7-200 plc, you have to switch to this mode after connecting the modems. It is very important, that the plc-type is S7-200. In the display of both devices stands after you switch the mode: S7-200 on. If you want to stop this mode, press the button to the left, and this mode stops.

6.10.4 IBX-Test (only for PLC-S5 KOR/MUX)

If you have selected the device type KOR/MUX-TELE, you have now the possibility, to test the connected pg-bus. First you select Test IBX: xx; xx stands for the pg-bus-number 1 to 31. The tele tells you, if the selected slave is connected. Automatic the tele tries to connect the plc and gives you an OK if the Connection is good, or gives you the message, where the failure is.

6.10.5 Direct mode

You can select this mode in order to realise a data transmission that does not correspond to a communication protocol specific for controls as for example the AS511-protocol of Siemens-plcs.

After the TELE-Network devices have built up a connection, the direct / transparent mode can be turned on. There is now a direct coupling between the PG-socket of the PG-TELE and the PG-socket of the PLC-TELE: This means that data that enters the PG-TELE is released unchecked at the PLC-TELE. In this way, you can transfer files from one PC to another, configure a connected OP, or simply transfer and execute the protocol of another control which is not supported by the TELE-Network devices.

The direct mode can only be activated from the PD-TELE! Moreover, it is an unprotected transmitting medium without special checking. Because of that it is a plain modem route with modem security (correction of errors according to modem standards). We cannot take any guarantee for run time errors.

6.10.5.1 Source-Com

With this menu item, the device is configured for the so-called transparent mode. The TELE-Network device is adjusted to parameters that are specifically made for transmission.

• PD or PLC (-socket) connection (input) from the dialling TELE-LINK
• Baudrate 300, 1200, 1800, 2400, 4800, 9600, 19200 and 38400 Baud.
• Number of Data bits 5 to 8 bits
• Parity N (none), E (even) and O (odd)
• Number of stop bits 1, 1.5 and 2 bits

6.10.5.2 Dest.-Com

In this menu item, the device is configured for the so-called transparent mode. The TELE-Network device is adjusted to parameters that are specifically made for transmission.

• PD or PLC (-socket) connection (input) from the TELE-LINK that is called
• Baudrate 300, 1200, 1800, 2400, 4800, 9600, 19200 and 38400 Baud.
• Number of data bits 5 to 8 bits
• Parity N (none), E (even), O (odd)
• Number of stop bits 1, 1.5 and 2 bits

6.10.5.3 Direct Mode ON

If there is a connection between PG-TELE and PLC-TELE, the direct mode can be turned on with this menu item. This mode is valid until the transmission is disconnected by using the cursor-left key.

6.10.5.4 Direct Mode ON with HW

If there is a connection between PG-TELE and PLC-TELE, the direct mode can be turned on with this menu item. This mode is valid until the transmission is disconnected by using the cursor-left key. With this mode, there is a hand shaked connection between the plc-tele and the device, you want to communicate. Here is the DTR and DSR line used.

6.10.6 Tele-Switch

With this option, you can configure the tele-switch device for the Tele-Network-devices. The TELE-SWITCH can be operated at the PLC-or PG-socket of a TELE-Network device that is configured as PLC-TELE.

In the PG-TELE, the following adjustments have to be made for calling a channel:

1st line: TELE-Switch
2nd line: xx to ChaNr: yy xx = PD or PLC (with cursor-up/down key)
yy = Channel 00 (fed-through mode finished)
yy = Channel 01 to 16 (call corresponding slave number)

After this input, the question „Switch? YES/NO“ is displayed:

• YES Input is taken over, channel is called
• NO Input is dismissed, present condition remains

If there is a call, then it is reported whether the call or the transformation respectively were successful or not. After connection clear-down, the SWITCH is automatically deactivated.

6.10.7 PD-Coupling

With this menu item, at an existing coupling between two TELE-Network devices the mode PD-coupling is set.

Please keep to the following scheme by all means:

PD-TELE: The PD has to be configured as ACTIVE for the coupling
PLC-TELE: The PD has to be configured as PASSIVE for the coupling

After the phone connection between the TELE-Network devices has been made, the sub menu item „PD-coupling on“ in the menu item PG-coupling at the PG-TELE is turned to „yes“. In the top menu item „Messages“ you can see the message „PD ONLINE“. If there is a communication error or disconnection, the message „PD OFFLINE“ appears.

At the PG that is connected to the PLC-TELE the message „PLC-connect in the PLC unknown“ might appear. With this artificially produced error report, the PG-TELE tests the readiness of the PG that is connected to the PLC-TELE. You can simply neglect this report.

6.11 Menu item language

By using the cursor-up/down key, you can select between German and English menu drive.

6.12 Menu item information

6.12.1 Version

This menu item informs you about the software release of your TELE-Network device.

6.12.2 Remoteversion

This menu item informs you about software release of the called TELE-Network device. If there is a more recent or older release, a software update can be made.

6.12.3 Remotename

In this menu item, the device name of the called device is displayed. In this way, can check with which installation a connection has been built up. This only works on the condition that the called device has a device name.

6.12.4 Copyright

Copyrights of the TELE-Network devices:

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7 Special Functions

7.1 RECALL mode

In order to optimise or save phone charges, for example for longer and often international calls, you can receive recalls from the TELE-Network device of your interlocutor. After the firm or the technician there has reported a disturbance of the installation, you call there with the TELE-Network device and cause a return call. In this way, the phone costs are at the customer´s expense.
Please make the modifications described in the following chapters in order to be able to work with the return call mode.

7.1.1 PLC-TELE

On the PLC-TELE, you have to config following:

Count of Rings: minimum 1 or bigger
Dial Mode: Tone or Pulse
Extension: Yes or No
Outline Code: 0,1,2,3,4,5,6,7,8,9,!,”,”,/,>,#,X,W,*
Recall Mode: YES

7.1.2 PG-TELE

In the PG-TELE, you have to configure following:

Count of Rings: minimum 1 or bigger
Recall Number: Own telefon number of this tele-network-device, if you want a Recall from other areas, only with precall number

In your Edit Subscriber, you you have configured the telefon number, you want the recall, you just have to select the baudrate beginning with the Rxxx. So for example the R144, this means, you want a recall with 144000 baud.
As soon as the Baud rate with the “R“ has been activated, a new input field will be shown after the input of the phone number (RC-PNr.) This return call - prefix number stands for the international code of the PG-TELE (for Germany, the international code is 0049). If the return call is a national one, just confirm with ENTER (field remains empty). If you have input a RC-PNr., you must not delete the ZERO of the prefix of the return call number. This happens automatically when the TELE-Network device dials. This means that the return call number always remains completely in the entry.

7.1.3 Use recall-mode

In order to start the return call, select (after having made the aforementioned adjustments) the respective subscriber in the menu item “subscriber dialling“. As usual, you start the dialling with ENTER and in this way you also start the return call.
The TELE-Network devices communicate with each other, exchange the return call numbers, hang up immediately and then the PLC-TELE calls back the other TELE-Network device within a minute. If there is no return call, please check whether the adjustments in the TELE-Network device (PG-TELE and PLC-TELE) are correct and whether the device that calls back had got a line.

7.2 Operation of several plcs at one TELE-Network device

If you want to attend several automation devices that are not networked, there are two possibilities to connect them to a TELE-Network device.

7.2.1 Operation with Siemens MUX-757

Connect the PLC´s in a star-shaped way with a MUX-757 of Siemens and connect the latter to a PLC-TELE. In this way, you can programme up to maximally 8 plc controls via one telephone connection. Turn the TELE-Network device to the operation mode “KOR/MUX“

7.2.2 Operation with intelligent Bus-terminal IBX

With the intelligent Bus-system IBX-terminal up to 30 plcs can be contacted. At the individual IBX-terminals, set the PG-number of the respective control via the DIP switch that is located at top. The terminals are connected with each other in a bus-shaped way via a 4wire RS485-line. Please note: Use a 2 x 2 x 0,25 cable, single shielded. The shield has to be connected both ways.
With your S5-software you contact with both variants the desired AG as usual via the PG-BUS (Bus/path calling). Switch the TELE-Network device to the operation mode “KOR/MUX“

7.3 Operation of several plcs via the H1-Bus

It is no problem to attend a complete H1-network.
With an additional software option, it is possible to configure the PLC-TELE in such a way that a “local AG“ can be connected at the PLC-socket of the PLC-TELE and that a CP can be connected at the PG-socket. After the connection set-up, the programmer decides at the PG-TELE whether he/she wants to programme at the PLC or at the CP. With the Bus-calling of his/her S5-software, he/she can reach and programme all the SIMATIC-S5-PLCs that are connected to the H1-Bus.

With the menu item “Special items“ and the submenu item “To the PG/PLC-interface“, it is decided at the PG-TELE whether the communication at the PLC-TELE is via the PLC-socket or the PG-socket.

Possible adjustments:

- Connect PG-socket with PLC-socket normal setting
- Connect PG-socket with PG-socket 2nd plc or switch to CP-connection

7.4 Operation of several plcs via the L1-Bus

It is no problem to attend a complete L1-network.
With an additional software option, it is possible to configure the PLC-TELE in such a way that a “local PLC“ can be connected at the PLC-socket of the PLC-TELE and that a CP can be connected at the PG-socket. After the connection set-up, the programmer decides at the PG-TELE whether he/she wants to programme at the PLC or at the CP. With the Bus-calling of his/her S5-software, he/she can reach and programme all the SIMATIC-S5-PLCs that are connected to the L1-Bus.

With the menu item “Special items“ and the submenu item “To the PG/PLC-interface“, it is decided at the PG-TELE whether the communication at the PLC-TELE is via the PLC-socket or the PG-socket.

Possible adjustments:

• Connect PG-socket with PLC-socket normal setting
• Connect PG-socket with PG-socket 2nd plc or switch to CP-connection

7.5 Operation of several plcs via the L2-Bus

It is no problem to attend a complete L2-network.
With an additional software option, it is possible to configure the PLC-TELE in such a way that a “local PLC“ can be connected at the PLC-socket of the PLC-TELE and that a CP143 or a CP1430 (H1) can be connected at the PG-socket. After the connection set-up, the programmer decides at the PG-TELE whether he/she wants to programme at the PLC or at the CP. With the Bus-calling of his/her S5-software, he/she can reach and programme all the SIMATIC-S5-PLCs that are connected to the L2-Bus.

With the menu item “Special items“ and the submenu item “To the PG/PLC-interface“, it is decided at the PG-TELE whether the communication at the PLC-TELE is via the PLC-socket or the PG-socket.

Possible adjustments:

• Connect PG-socket with PLC-socket normal setting
• Connect PG-socket with PG-socket 2nd plc or switch to CP-connection

7.6 Coupling of multiple PLCs via the telephone line: PLC option

With the special option PLC-TELE out from the PLC, you can transmit or collect in case of need in the PLC already stored texts, states and data blocks to another PLC.

7.6.1 Structure of the communication word between PLC and TELE-Network device

In each option, which requires a shared communication flag word between the PLC and the TELE-Network device that is read by the TELE-Network device every 5 seconds, this is structured as follows:

Example: MW10 (Can be subdivided into MB10 and MB11)

MW 10 => MB 10 + MB 11

Command byte number of the entry in the list of participants

Command overview for the command byte

01h: Start dialing process
After the connect with the remote site, a 10h is written back into this register.
02h: hang up modem
This command is only possible if the connected TELE-LINK is the caller (actor) or if no telephone connection exists. The TELE-LINK then disconnects the connection. If the command is executed, in the command register is a 30h, in case of a fault is a 50h.
03h: hang up modem necessarily
This statement is executed in any case immediately and directly. It gives back in the same register a 30h.

Feedback of the TELE-Network device in the command byte

10h: Modem connection available with TELE-LINK (PLC-TELE or PG-TELE)
20h: Number of the desired participant entry is invalid
30h: Modem connection is not available any more, for example by ending call or if the partner has hung
40h: No connect possible (probably occupied)
50h: The hang up command 02h could not be executed
60h: Modem connection available with ASCII-partipicant

7.6.2 Structure of the PLC-TELE flag

Example: MW12 (Can be subdivided into MB12 and MB13)

MW 12 => MB 12 + MB 13

Send direction transmission status

Send direction

01h: trigger send job
The entries in the communication DB are treated as a send job. That means, the defined range is transferred to the partner.
Sender = client (source)
Receiver = partner (target)
02h: trigger fetch or pickup order
The entries in the communication DB are treated as fetch order. That means, the defined range is transferred from the partner to the client.
Sender = client (target)
Receiver = partner (source)

transmission status

01h: Job is completed without errors
02h: Job is running, but here is to check for TIMEOUT, the order should be done after max. 45 seconds
03h: Source block does not exist or is too short
04h: Destination block does not exist or is too shortbr> 05h: General error, job must be repeated
06h: Configuration DB not exist
07h: Parameterization error
08h: The partner device is not a PLC-TELE

7.6.3 Structure of the communication data module at the PLC-TELE

DW0: KC = data type of the source (only DB is possible at the moment)
‘DB’ data block
‘EB’ input byte
DW1: KF = Source DB number
DW2: KF = Start address of the source area = StartDWNr
DW3: KF = Number of words
DW4: KC = Data type of the target (only DB is possible at the moment)
‘DB’ data block
‘EB’ input byte
DW5: KF = Source DB number
DW6: KF = Start address of the source area = StartDWNr
DW7: KF = Number of words

When using the PLC option at Siemens S7 controllers, make sure that only straight data word addresses are used when creating the communication data module.

Here then sees this com-DB as follows:

adress	name	type	initial value
0.0		STRUCT	
+0.0	source data type	CHAR	´ D ´
+1.0	source data type 1	CHAR	´ B ´
+2.0	source_DB_Nr	INT	10
+4.0	source_start_DW_Nr	INT	0
+6.0	source_number_of_words	INT	2
+8.0	target_data_type	CHAR	´ D ´
+9.0	target_data_type 1	CHAR	´ B ´
+10.0	target_DB_Nr	INT	10
+12.0	target_start_DW_Nr	INT	0
+14.0	target_number_of_words	INT	2
+16.0	temp_array	ARRAY[1..512]	
*2.0		INT	
=1040.0		END_STRUCT	

Please note when you edit the DB's, that you consider the inputted DB again in the data view. It often occurs the problem that the declaration view and the data view are different and therefore it can lead to error messages or negative operating!

7.6.4 Send data with the PLC-TELE-option

To send or pick up data out of the PLC to another PLC, you first must defined a communication flag word into the TELE-LINK, a communication data module and the PLC-TELE flag. The communication flag word and the PLC-TELE flag must always be entered as straight number (0, 2, 4, 6, ..., 254).

To start the transfer and select the participant 4, the PLC sets the following command into the communication flag word (eg, MW10): 0104H.

The remaining data and the communication are due to expire after the DB defined schema.

Please note that the PG-MUX-Mode is set on PG-MUX.

7.7 Send data from the PLC to a fax machine: FAX option

With the special option FAX-TELE out from the PLC, can be transmitted in case of need already stored texts, states and data blocks to a fax machine.

7.7.1 Structure of the communication word between PLC and TELE-Network device

In each option, which requires a common communication flag word between the PLC and the TELE-Network device that is read by the TELE-Network device every 5 seconds, this is structured as follows:

Example: MW10 (can be subdivided into MB10 and MB11)

MW 10 => MB 10 + MB 11

Command byte number of the entry in the list of participants

Command overview for the command byte

01h: Start dialing process
After a connect with the remote site in this register is written back a 10h.
02h: Hang up modem
This command is only possible if the connected TELE-LINK is the caller (actor) or if no telephone connection exists. The TELE-LINK then disconnects the existing connection. If the command is executed, in the command register is placed a 30h, in case of an error an 50h.
03h: Hang up the modem necessarily
This statement is be executed immediately and directly in any case. It gives back in the same register a 30h.

Feedback telegrams of the TELE-Network device in the command byte

10h: Everything OK, send fax
20h: Number of the desired participant entry is invalid
30h: A data block is too small
40h: No connect is possible (probably occupied)
50h: Error in the fax transmission

7.7.2 Structure of the communication data block at the FAX-TELE

DW 0 - DW 9: KC is inputted the station ID of the PLC Telefax device
eg.: +49 1122331121

Only valid ASCII characters can be entered, otherwise fill in with blanks until DW 9.

DW10: Source data block 1
DW11: Start data word in this DB
DW12: Number of data words in this DB
DW13: Source data block 2
DW14: Start data word in this DB
DW15: Number of data words in this DB
DW16: dto. ...

The end of the list is recognized if is entered the number 0 (zero) as source DB.

Example: It should be sent the characters in DB 5 from DW4 100 words and DB10 from DW0 200 words:

Structure of the block:
DW0 - DW9 = KC'+4996199999 '
DW 10: 5
DW 11: 4
DW 12: 100
DW 13: 10
DW 14: 0
DW 15: 200
DW 16: 0 (= end identification)

At the S7, it looks like this:

adress	name	type	initial value
0.0		STRUCT	
+0.0	send_identifier	ARRAY[1..20]	
*1.0		CHAR	´+4´,´99´,´61´,´99´,´99´,´9´
+20.0	source_DB_1	INT	5
+22.0	source_start_DW_1	INT	4

+24.0	source_number_of_words 1	INT	200
+26.0	source_DB_2	INT	10
+28.0	source_start_DW_2	INT	0
+30.0	source_number_of_words 2	INT	400
+32.0	end_identifier	INT	0
=34.0		END_STRUCT	

7.7.3 Sending faxes with the FAX-TELE-option

To send faxes from the PLC, you must first define a communication flag word and a data communication block in the TELE-LINK. The communication MW must always be entered as an straight number (0, 2, 4, 6, ..., 254).

To start the transfer and select the participant 4, the PLC sets the following command into the communication flag word (eg: MW10): 0104H. The remaining data and the communication are due to expire after the DB defined schema.

Please note that the PG-MUX Mode is set on PG-MUX.

7.8 Send data from the PLC to the modem participants: ASCII option

The PLC can exchange data via data blocks with a so-called ASCII participant. The ASCII participant is a normal modem. The PLC can share data via data blocks with a so-called ASCII-participant. The ASCII-participant is a normal modem. There are admitted only V.42 BIS compounds.
The caller can be the ASCII participants, can be the PLC or can be started via the TELE-LINK.

7.8.1 Structure of the communication word between PLC and TELE-Network

In each option, which requires a shared communication flag word between the PLC and the TELE-Network device that is read by the TELE-Network device every 5 seconds, this is structured as follows:

Example: MW10 (Can be subdivided into MB10 and MB11)

MW 10 => MB 10 + MB 11

Command byte number of the entry in the list of participants

Command overview for the command byte

01h: Start dialing process
After a connect with the remote site, in this register is written back a 10h. When selecting an ASCII-TELE-LINK, you obtaine after 20 seconds back a 60h, after the two modems have established the connection or the called ASCII-participant has already been a row that he at the PLC wants to send before these 20 seconds are expired. If the PLC wants to send immediately, it must be selected with 04h.
02h: Hang up the modem
This command is only possible if the connected TELE-LINK is the caller (actor) or if no telephone connection exists. The TELE-LINK then disconnects the existing connection. If the command is executed, in the command register is placed a 30h, in case of an error a 50h.
03h: Hang up the modem necessarily
This statement is executed immediately and directly in any case. It gives back a 30h in the same register.
04h: An ASCII number is called. If thereafter takes place a connect, the PLC sends a 60h for the connection with ASCII participants.
Advantage: After a connect the PLC can immediately deposit the ASCII commands.

If a TELE-LINK (AG or PG) is on the other end, they can not communicate together. So use only if it is ensured that the participant is also an ASCII-participant. Otherwise use 01h.

Feedback telegrams of the TELE-Network device in the command byte.

10h: Modem connection available with TELE-LINK (PLC-TELE or PG-TELE)
20h: The number of the desired participant entry is invalid
30h: Modem connection is not available any more, for example, after hanging up or even if the partner has hung
40h: No connect possible (probably occuipied)
50h: The hang up command 02h could not be executed
60h: Modem connection available with ASCII-participant

7.8.2 Structure of the ASCII-TELE-flag

Example: MW12 (Can be subdivided into MB12 and MB13)

MW 12 => MB 12 + MB 13

Send direction transmission status

Send direction

00100H into the flag word (00 necessarily into the LOW byte even at the PLC-TELE, so the status is erased, otherwise TELE-LINK does not accepts the command). => Send the data block which are described in the the communication DB. The number of bytes to be sent, stands in the communication DB

0200H The PLC is ready to receive data, i.e. into the SPS receiving lines are only written if this command is included. It is always written in only one line including CR. Then TELE sets i.e. in the command flags 0AH - 020AH. For the PLC this means that data has arrived. After processing this data again can be set 0200H. if there are located more rows in the TELE, they will be sent to the PLC.
In the target DB stands:

DW: The number of bytes received in KF format
DW: from here the characters in KC

transmission status

01h: Job completed without errors
02h: Job running, but here's to check for TIMEOUT, the job should be done after max. 45 seconds
03h: Source block does not exist or is too short
04h: Destination block does not exist or is too short
05h: general error, job must be repeated
06h: Configuration DB does not exist
07h: parameterization error
08h: The partner device is not an ASCII-participant

7.8.3 Strucutre of the communication data module at the ASCII-TELE

DW0: KC = data type of the source (at the moment´only DB is possible)
‘DB’ data block
‘EB’ input byte
DW1: KF = Source DB number
DW2: KF = Start address of the source area = StartDWNr
DW3: KF = Number of words
DW4: KC = Data type of the target (at the moment only DB is possible)
‘DB’ data block
‘EB’ input byte
DW5: KF = Target DB number

DW6: KF = Start address of the target area = StartDWNr
DW7: KF = Number of word

7.8.4 Send data with the ASCII option

The following criteria must be met:

(the ASCII-participant is referred to below as "AT")

• The AT sends as first Characters no 0AH to the PLC
• All shipments of AT must be completed with CR = 13dec
• TELE-Network device saves max. 3200 characters from the ASCII participants (even several lines)
• A line can have a length of max. 510 bytes (including CR)

As with the PLC-TELE, a communication flag word must be agreed for the data transmission.

Likewise must be agreed a communication DB as at the PLC-TELE. The source area is the area which is sent to the AT, into the target area sends the AT. It should be noted, that the target area in the first word indicates the number of bytes received. Mind you Bytes! The TELE-LINK writes the number of bytes received not in the configuration DB, but rather the first word of the target range. When sending PLC to AT, the number of bytes to be transmitted (not WORDS like at the PLC-TELE) taken over from the configuration DB. For the status messages apply the same rules as for the PLC-TELE.

To send or pick up data from the PLC to an ASCII participant, you first have to define a communication flag word in the TELE-LINK, a communication data block and the ASCII-TELE flag. The communication flag word and the ASCII-TELE flag always must be entered as straight number (0, 2, 4, 6, ..., 254).

To start the transfer and select the participant 4, the PLC sets the following command into the communication flag word (eg: MW10): 0104H. The remaining data and the communication are due to expire after the DB defined schema.

Please note that the PG-MUX Mode is set on PG-MUX.

7.9 Send messages from the PLC to a pager

**** Attention ****
Pager operation only switch to yes when all parameters are set

With the pager option from the PLC can be transmitted in the PLC already stored texts, states and data blocks, if needed to a pager. This option is currently possible in all devices from software version V 4.00 S5/S7-Firmware.
Note this is the ownness of each different pagers. Following pagers are supported:

• SMS to mobile phnoe
• Citycall (alphanumeric)
• Scall
• Skyper
• Quix (alphanumeric)
• ANP Belgacom (numeric and alphanumeric)

It should be noted that there are several protocols for SMS to communicate with the server. TAP and UCP are implemented. D1, E-Plus is communicate with TAP. D2 with UCP. When triggering the Pager call in the data block, the corresponding pager type is specified. In the telephone directory you enter the number of the server to which the message should to be sent:

Numbers for Germany

Service	Number	Protocol	Maximum length of the message in characters
D1 SMS	01712521002	TAP	160
D2 SMS	01722278025	UCP	160
E-Plus SMS	01771167	TAP	160
Citycall number	01691	specifically	80
Scall number	01696nnnnnnn (*)	specifically	15 numeric
Quix (aphanumeric)	016591	specifically	80
Quix (numeric)	016592	specifically	15
Skyper (aphanumerik)	01692nnnnnnn (*)	specifically	80
ANP Belgacom	0452500001	specifically	120 / alpha
Proximus	0475161622	UCP	160

(*) n = number of the pager

Note that you must specify the number of the pager in the phone number at Skyper and Scall. Otherwise, the number of the recipient pager is in the pager data block.

Please note the following: If the SMS transmission cause problems, always check the central dial-in number of the network operator if necessary. It happens that these numbers will change. Please contact your local sales representative or our technical hotline of the remote maintenance device.

7.9.1 Structure of the communication word between PLC and TELE-Network device

The communication flag word is required for each option which requires a common communication word between the PLC and the TELE-Network device. This is read by the TELE-Network device every 3 seconds. For pagers, ASCII and PLC-TELE this is the same word. Please note the coding.

The control word is structured as follows:

Example: MW10 (Can be subdivided into MB10 and MB11)

MW 10 => MB 10 + MB 11

Command byte number of the entry in the list of participants

Command overview for the command byte

01h: A pager will be called

Feedback of the TELE-Network device in the command byte

20h: The station number is invalid or the entry is empty
30h: A data block is too small or does not exist or is incorrectly
eg. pager number is not correctly
40h: no connect possible (probably occupied or wrong number)
50h: The hang up command 02h could not be executed
60h: Modem connection available with ASCII-partipicant
70h: Error in the deposition of SMS message
80h: Message was deposed
90h: Command is not supported (for example, 06h in the command byte)

7.9.2 Structure of the communication data module at the pager TELE for SIMATIC S5

The length of the data block must be at least 142 words (DW 0 to DW 141)

DW 0: coding for pager type: in KF format

D1 or E-Plus SMS with TAP	0
D2 SMS with UCP	1
Citycall alphanumeric	2
Scall numeric	3
Quix alphanumeric	4
Quix numeric	5
Skyper alphanumeric	6
ANP Belgacom	7
Proximus	8

The list will be updated as needed, especially for new respectively pagers in foreign countries.

DW 1 - DW 10 the number of the first pagers in KC with 'E' at the end. It can be entered up to max. 19 characters.
For exmaple: 0171992282E
If at the beginning there is an E, this entry will not be used.

At SMS, a message can be deposed with a call to the server to multiple recipients. For all other pagers, only this entry will be considered. At pagers with dial in on the server via the pager number, these entries will not be considered at the end of the telephone number.

*** This entry must exist in any case ****

DW 11 - DW 20 number of the 2nd Pagers only for SMS pager (= 0 or 1 in DW 0)

DW 21 - DW 30 number of the 3rd Pagers only for SMS pager (= 0 or 1 in DW 0)

DW 31 - DW 40 number of the 4th Pagers only for SMS pager (= 0 or 1 in DW 0)

DW 41 - DW 50 number of the 5th Pagers only for SMS pager (= 0 or 1 in DW 0)

DW 51 - DW 59 free....

DW60 - DW 141 Text of the message. (max. length is 160 characters)
Here you should note that at pager (eg Scall) stand only numbers. In addition are sent only characters from 20H and 7FH. All other characters will be ignored. The end of the text is recognized by a 00h in the data block. The maximum message length of the different pagers must be maintained. Otherwise, the message will be not transmitted completely. A maximum of 160 characters are possible per message.

7.9.3 Structure of the communication data module at the pager TELE for SIMATIC S7 300/400

It must be noted that the text is completed at the end with 0. The type STRING was entered only for the simple input of text. TELE-LINK / PROF needed a 0 (zero) as text end identifier.

Please note that the PG-MUX Mode is set on PG-MUX.

7.9.4 Send a pager message to a data service

After the communication DB was fully defined and composed in the PLC control, can only be started with the communication flag word of the connection establishment. For this purpose is entered in the communication flag word the 01h for connection establishment. The Tele-Network device is return a message after completion of the service of the PLC. Be it for transmission success or for error case.

7.10 Communication with a mailbox (modem)

With this option now you can communicate with the tele-network-device from your pg/pc above the telefon line into a mailbox (esp. the modem). You only have to configure your terminal programm in your pg/pc with following parameters:

Baud rate 19200 Baud, 8 data-bit, 1 stop-bit, no parity

Handshakes like following:

TELE-PROFessional-II: RTS/CTS on V24-Connector

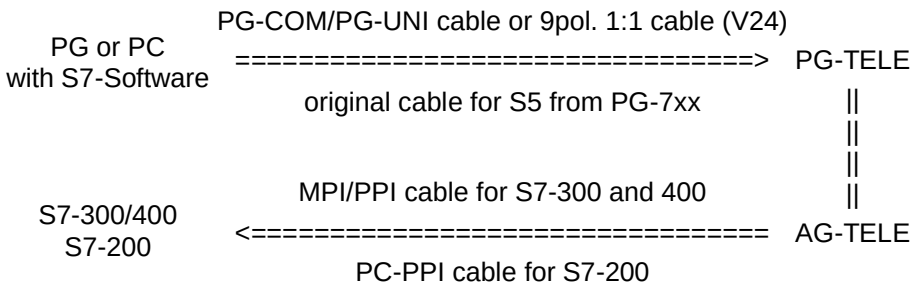
At next, you select the subscriber you want to dial, but now you need this baudrate like M144 or M96 and so on. After the connect you can work with your pc and your terminal programm, like the modem is build in in your pc.

7.11 Communication with S7 controller

The TELE-device is located on the PLC side and is adjusted in the menu item "Device Type" as PLC-S7 300/400 Tele. When connected to the S7-200 the device type will changes to PLC-S7 200 9K6 or PLC-S7 200 19k2. The PG-TELE must not be reconfigured regarding the PLC type because it recognizes itself which PLC type has the PLC-TELE.

Attention: When using an S7-200 controller, must be activated the menu item " S7-200" at " Special" in the PG-TELE. After the telephone connection has been established and everything is connected, the S7-200 communication will be activated by confirm this menu item. Now you can continue working with the programming software MicroWin. Furthermore, it is recommended to turn on the modem support at the properties of the PPI cable because then are set higher TIME OUTs. As a modem type can be used the type Bausch Induline IL 14K4 with the recommended standard parameters. The PC must be connected to the TELE Professional PG-V24 with a 9-pin. 1:1 cable.

Connection scheme:



The transmission rate for this option is set to 19200. You can connect with your Siemens PG or compatible PC via the V.24 or V.24/TTY on the TELE-Network device which you set as PG-TELE.

A connection from the Siemens PG via the built MPI interface is NOT possible. It must be adjusted the subassembly PC adapter with 19200 baud.

The as PLC-TELE configured TELE-Network device is connected to the S7-300/400 controller via a so-called MPI / PPI cable.

The as PLC-TELE Configured TELE-Network device is connected to the S7-200 controller via a so-called PC-PPI cable. This cable realizes the implementation of RS232 (V.24) to the PPI interface of the PLC.

7.12 Possibillity of Programming of Siemens OPs

With the TELE-Network devices with a software version bigger than 4.41 it is possible to programm Siemens Ops. For this, you have to do following:

7.12.1 Programming with ProTool lite:

With this, you can programm the OP7/17 directly with ProTool lite. You have to connect the programming port of the OP with the PG-Port of the PLC-TELE. On the PG-TELE side, you connect your PC on the same way as you want to programm the plc. After connecting the two modems via telefon line, you restart your OP for beginning the transfer, after this, you change to the menu item Special on your PG-TELE and activate the ProTool 7/17. Now you can transfer your project to your OP. After programming your OP, you can end the ProTool-Option with pressing the ? - key. Now, your TELE-Network device is in the standard programming mode, for example for the S5 or the S7.
By this way, you can also programm the C7, too.

7.12.2 Programming with ProTool:

For programming the bigger Ops, like OP27 / 37, you can´t use the software ProTool lite. For this OPs you use ProTool. This OPs can be programmed only via MPI-Protocoll, because, the standart protocoll of programming is not modem like. For this, you must configure following:

- Connection of PLC-TELE with MPI/PPI-cable and MPI-Netz-Adapter to the OP
- Change devicetyp of PLC-TELE to PLC-S7 300/400
- The ProTool-Software must be installed in the simatic manager
- In your project or the OP must be activated the MPI-Interface for transfer

After connect of the telefon line, you restart the OP for the transfer mode. Now you start your transfer with your ProTool-Software via PC-Adapter and 19200 Baud. After the OP is programmed, you disconnect the telefon line and your OP is ready to work.
This Menthod works with S5 OPs, too. But you need for this way the simatic manager for Step 7. This is only way to programm OPs.

7.13 Controlling of the TELE-Network-Devices with TAPI-Interface

The Tele-Network-Devices can be controlled with the TAPI-Interface with MS Outlook for example. So you can dial or hang up, without using the keyboard of the tele-network-devices. So, if you have edited more telefon numbers, for example 135, so you don’t have the time, to pull down until, you got your telefon entry number 135. So you can controll this with a comfortable software.

You need following configuration:

You connect your PC with the second COM-port with a so-called Nullmodemkabel (it’s a cable not 1to1, you have twisted pairs) to the plc-V24-port of the tele-professional. After this, you install in your pc a standart modem for this com-port.

Please note following:

TAPI-controll to TELE-Professional:
Dial mode (ton/impulse), count of rings, busy identify you must configure it on the TeleProfessional.
(Tested with Outlook 2000)

1. Connection to AG-socket => Baudrate: 9600,8,N,1 without Handshake!
2. Choose standart analog modem (via WIN 9x, install NT first)
3. In the number (MS Outlook: contact!) the following function can be introduce via special characters:

! => Pin number is following, but it is only a numeric oin allowed, you can't transfer ASCII-characters with the TAPI-function
(=> Baudrate is following
(12 = 1200 Baud
(24 = 2400 Baud
(48 = 4800 Baud
(96 = 9600 Baud
(144 = 14.4 KB Baud the maximum of the modem)
=> callbackwith the RRV-number (max 9 figures)

Example:
Dial the number 00418762112 with PIN:45671, baudrate 4800 and call back from swiss to germany. The number via contac is:

00418762112!45671(48)0049

The placement of PIN, call back option or baudrate don´t care, it is only iportant, that the telefon number is at first.

7.13.1 More commands for the TAPI-function

After, you get the connect via telephone line, you have more commands for the TAPI-function via the PLC-V24-interface. All commands beginn with “AT[“. You must define every command allonw, you can't send 2 commands in one command line. Every command must be closed witj a CR.

command	**function**
AT[A	Connects the PG-TELE to the PLC-port of a PLC-TELE
result	
OK	All is OK
ERROR	Nothing is OK, there must be a failure
You must login	Function can't be activated, the other device havs a activated pin and there was no login, yet.

command	**funktion**
AT[B	Connects the PG-TELE to the PG-port of a PLC-TELE
result	
OK	All is OK
ERROR	Nothing is OK, there must be a failure
You must login	Function can be activated, the other device has a activated pin and there was no login, yet.

Nothing is OK, there must be a failure

command	**function**
AT[Dx	Tele-switch function over the PD-port of the other device. X is for the portnumber, you want to connect, possible values are 1 to 16.
result	
OK	All is OK
You must login	Function can be activated, the other device has a activated pin and there was no login, yet.

command	**function**

AT[E	Direct mode without handshakes is activated. It will be used the in the PG-TELE defind parameter for source- and destination-com. After, you have activated this mode, the ending will be only reached, you change the status of the DSR-line (ALT-H for ZOC or TELIX). Or, you press any key on the TELE-PROFessional-II.
AT[F	see for AT[E, only with activated handshakes (RTS/CTS)

result

OK	Direct mode is activ
ERROR	Function not OK, maybe, source com not correct defined.
Direct mode off	Direct mode is deactivated, somebody with the keypad, or DSL-line
You must login	Function can be activated, the other device has a activated pin and there was no login, yet.

command	function
AT[Gx	Only for Siemens-TELE-Professional-II. Changes the plc-type, x stands for the plc type. Possible values. Attention: These switch need a few seconds time.

x	Meaning
0	SIMATIC-S5
1	Not for use
2	SIMATIC-S5-KOR/MUX/IBX
3	SIMATIC-S7 300/400
4	SIMATIC-S7 200 9K6
5	SIMATIC-S7 200 19K2
6	SIMATIC-S5 with F-Typ

result

OK	All is OK
ERROR	Nothing is OK, please check the parameter you used
You must login	Function can be activated, the other device has a activated pin and there was no login, yet.

command	funktion
AT[S	delivers the current status of the device back

result

No carrier	A phone connection doesn't exist at the moment.
Connect, PLC:online	A phone connection exist. The PLC-device which is connected to the PLC-port is ONLINE
Connect, PLC:offline	A phone connection exist. The PLC-device which is connected to the PLC-port is OFFLINE

Connect, PD:online	A phone connection exist. The PLC-device which is connected to the PD-port is ONLINE
Connect, PD:offline	A phone connection exist. The PLC-device which is connected to the PD-port is OFFLINE

7.14 Function of the TELE-SWITCH as MUX (compatible with Siemens-MUX 757)

All DIP switches are turned to the following adjustment corresponding to the slave number:

DIP 1	DIP 2	meaning
OFF	OFF	channel 1 to 8 corresponding to slave 1 to 8
ON	OFF	channel 1 to 8 corresponding to slave 9 to 16
OFF	ON	channel 1 to 8 corresponding to slave 17 to 24
ON	ON	channel 1 to 8 corresponding to slave 25 to 30

The remaining DIP switches are all turned OFF. For the calling, the usual PG-BUS-calling is used.

7.14.1 Function as TELE-SWITCH

DIP 3 has to be turned ON, DIP 1 and DIP 2 according to the above table. The TELE-Network device supports with this operation mode only the slave numbers 1 to 16.
The TELE-SWITCH can be operated at the PLC-or PG-socket of a TELE-Network device that is configured as PLC-TELE. In the PG-TELE, the following adjustments have to be made for calling a channel:

Menu item: TELE-SWITCH

1st line: TELE-SWITCH
2nd line: xx to ChaNr: yy xx = PG or PLC (UP/DOWN key)
yy = Channel 00 (fed-through mode finished)
yy = Channel 01 to 16 (call corresponding slave number)

After this input, the question “Switch? YES/NO“ is displayed:

• YES Input is taken over, channel is called
• NO Input is dismissed, present condition remains

If there is a call, then it is reported whether the call or the transformation respectively were successful or not. After connection clear-down, the SWITCH is automatically deactivated.

8 TELE-Manager

8.1 Description

The Tele-Manager allows you to install an update on your devices and to configure them.

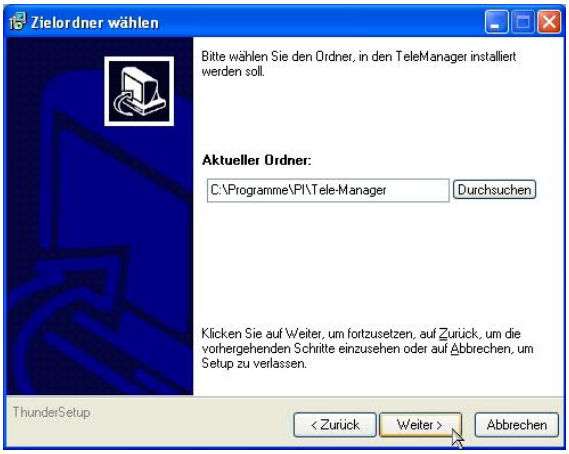
Requirement to use the software:

• Windows 3.xx / Win9x / Win NT / 2000 / XP
• mouse, touchpad or other pointing device

8.2 Installation

1.Please download from the you known web-site the "TELE-manager" and save the file on your PC.

2. Run the file and follow the instructions.

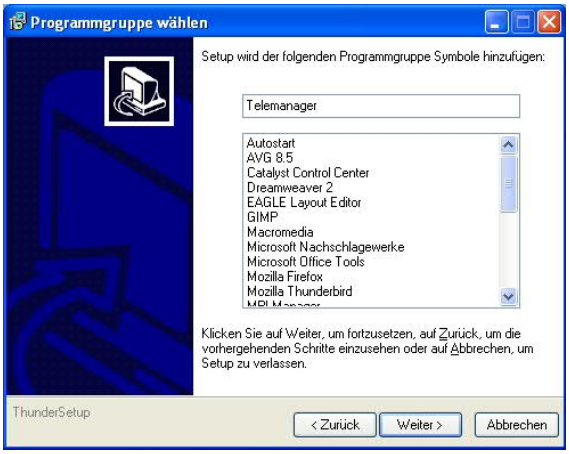


3. After selecting the language, the installation starts in the selected language and it appears the Welcome dialog.

Click "Continue" to be able to select the installation path.

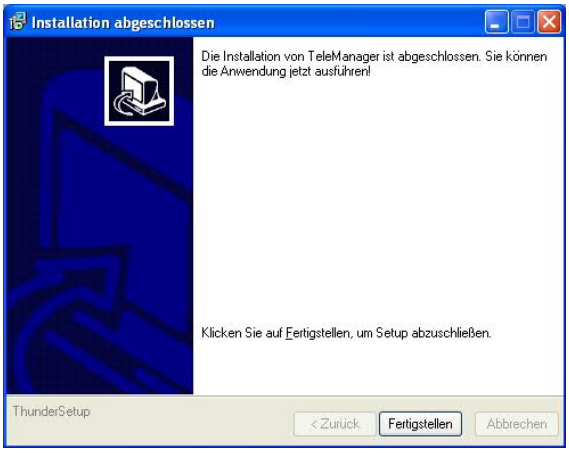
To change the installation path, click on "Browse".

Then click on "Next".



4. Select in the dialog the program folder the startup entries for the Tele Manager.

Click on "Next".



5. Wait for the installation of the files.

6. Exit the installation after successfully copy the data with "Finish".

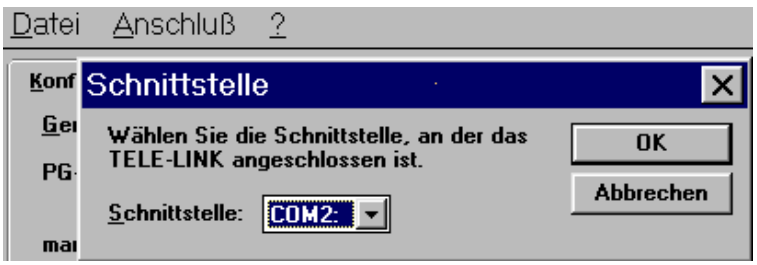
8.3 Method

8.3.1 Adjusting of the interface

Choose Interface on the computer via connection

Select interface, for example COM2

Confirm with "OK"



8.3.2 Activating the TELE Manager in the TELE-Network device

Open the folder firmware / online by clicking with the mouse.

Connect TELE-LINK (PG socket) with computer.

Click "Activate TELE Mangager in the TELE-LINK"
Establishing a connection to the computer and interrupt the power supply to the TELE-LINK and reconnect.

Wait until the message appears: "TELE Manager is successfully activated at the TELE-LINK".

Click "Finish"

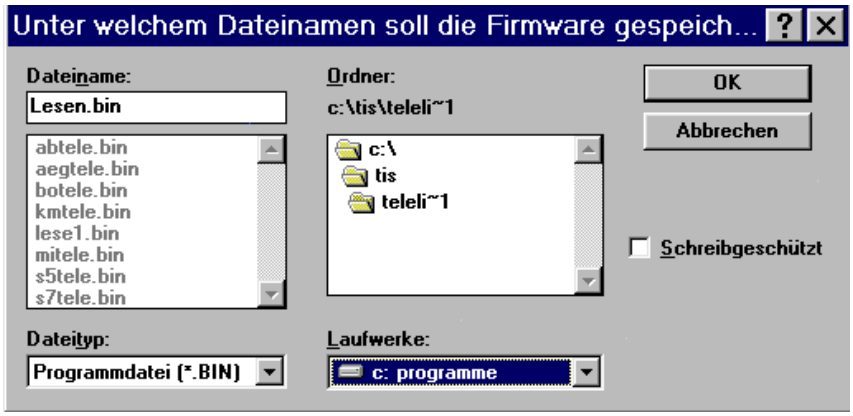
Connection from the TELE-LINK to the computer is now established

Dot not confirm this message, otherwise the activation is canceled!

8.3.3 Read out or transfer the firmware

Read out the firmware from TELE-LINK

Click "Reading firmware from TELE-LINK"
Save the TELE-LINK firmware with a file name that you specified, on the hard disk or floppy disk.



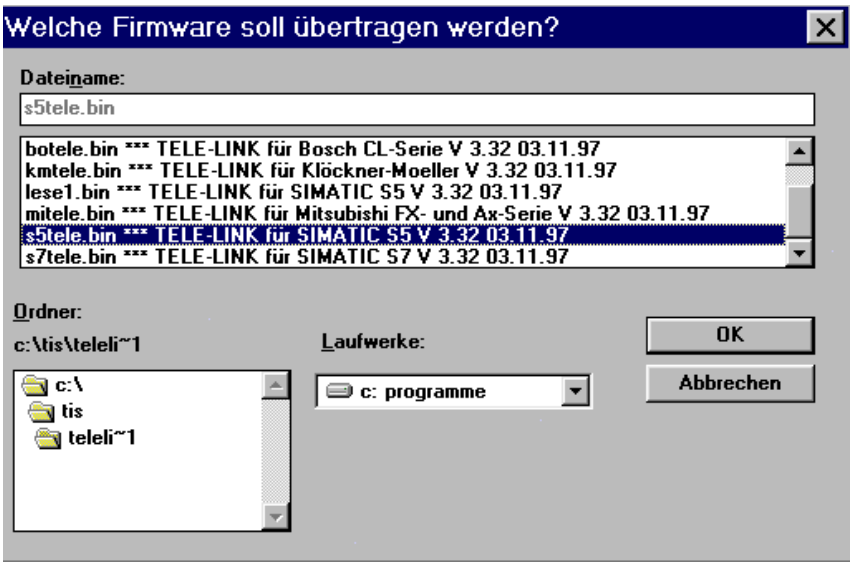
Click "OK"

File is read by TELE-LINK and saved under the file name you specified.

This function is only available in the licensed version!

Transfer the firmware from the computer to the TELE-LINK

Click "Select firmware ....." , specify the directory on the hard disk / floppy disk of your computer and determine the to be transmitted <Software>.bin.



Confirm with "OK"

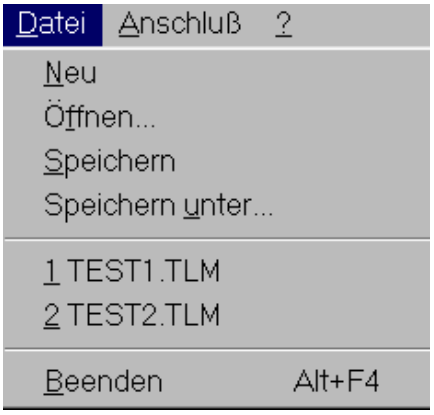
Writing firmware to the TELE-LINK,
security question takes place:

"Do you really want to override the firmware in the TELE-LINK?"
Confirmation with Yes: The firmware in the TELE-LINK is overwritten (Do you have backed up the "old" firmware before?). Confirm with No: The write operation is canceled.

In the Lite version the existing firmware can only be replaced with a newer version!

8.4 Description of the menu bar

By clicking on file, you open a menu



=> **New:** has no function
=> **Open...:** By that you open a directory on your hard disk / floppy disk with the . tlm (eg Test1.tlm)
=> **Save:** With Save You can save the opened and possibly changed TELE Manager Software
=> **Save as...:** You can give a new name for the opened and changed software and save it in another directory.
=> **Exit:** TELE Manager will be closed

For connection see point "Interface"

With ? You get a clue to the product.

With the purchase of Tele-Manager, the software will be licensed to you.

Disclosure to third participants has the consequence that your registration information are shared.

The passing is not allowed and will be criminal prosecuted.

The software is fully functional, except the online mode.

8.5 Configuration

- Loading from TELE-LINK ...
- Transfer to TELE-LINK ...
- Type of device

Description of the program buttons in configuration

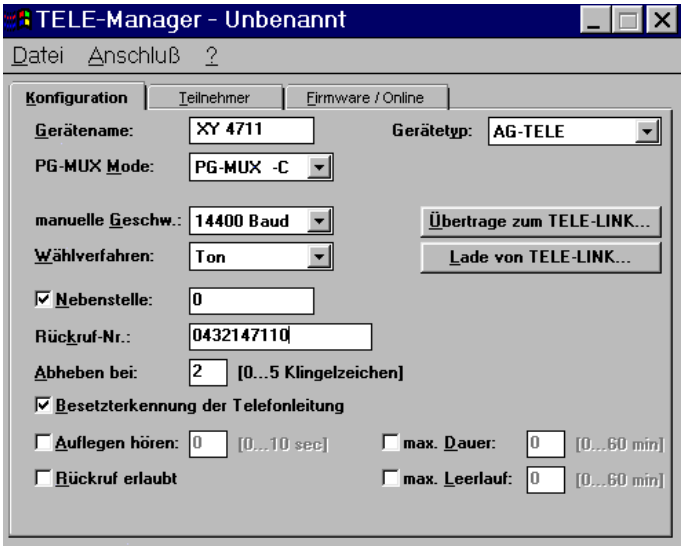
Individually customize TELE-LINK

Loading from TELE-LINK ....
The "existing" data are read and displayed.

You can save the configuration by clicking on "File", "Save as ..." .

You can change the data and save with a new name by clicking "File", "Save As ..."

Click on "Transfer to TELE-LINK ..." when the settings have been changed and the TELE-LINK should be informed. Confirm the query with yes and click "Exit".



At type of device, you can choose between AG-TELE, PG-TELE and KOR / MUX-TELE.

8.6 Participants

- Loading from TELE-LINK ...
- Transfer to TELE-LINK ...
- Arrow keys
- Change
- Insert
- Delete and Remove

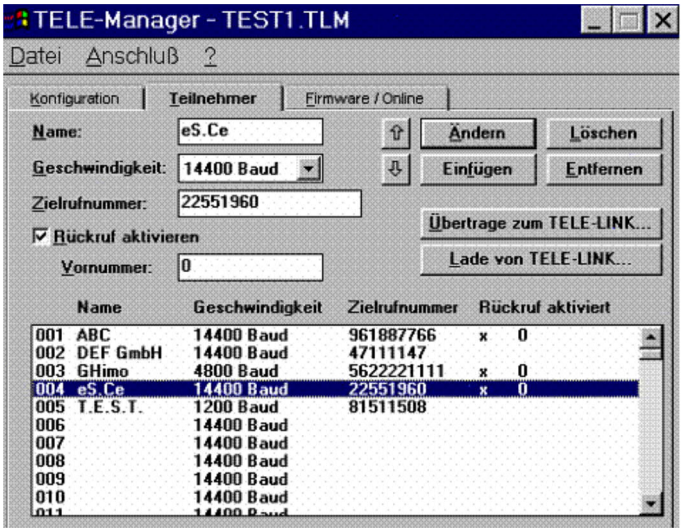
Manage participant data
You can enter 197 different participants under a file name.

Reading out data with "Loading from TELE-LINK ..." and save the data with "File", "Save As ...".

By "Transfer to TELE-LINK ..." the participant list which you have created, is transferred to TELE-LINK.

Confirm with Yes and click on "Finish". The setting is completed.

With the arrow keys, the marked call number can be moved to another position.



With "Change" the marker is moved one position down.
With "Insert", the data inserted at the marked position which are displayed in the mask.
Caution when deleting and removing (file saved ?).

8.7 Finish programming with TELE-Manager

- Call Firmware / Online mask
- Click "Disable TELE Manager TELE-LINK"
- Click "Finish". Remove cablefrom the computer and the power supply.

9 Technical data

Supply voltage:	24V DC (12 - 36V)
Power consumption:	3 watt
Display:	expressive LCD-display
Handling/Configuration:	integrated keypad Tele-Manager
Interfaces:	**to the PLC:** RS232: 9,6 KBd - 115,2 KBd / fully assigned **to the PD/PC:** TTY/20mA current loop (100 % mechanically and electr. compatible) RS232: 9,6 KBd - 115,2 KBd / with a 1on1-cable to the PC **others:** 1 x PCMCIA
Integrated modem:	-
Operating temperature:	-30 - +55°C
Case:	powder coated metal table case
Dimensions:	233 x 162 x 39 mm
Scope of delivery:	
	TELE-BOOK Power connector 3pins big

9.1 Pin assignment of TTY / 20mA current loop for the PD socket

Pin no.	short	description	direction
1	Mext	external ground	Out
2	TTY IN –	receiving data –	In
3	+5V	power Supply +5V	Out
4	+24V	power Supply +24V	Out
5	GND	internal ground	Out
6	TTY OUT +	Send data +	Out
7	TTY OUT –	Send data –	Out
8	Mext	external ground	Out
9	TTY IN +	receiving data +	In
10	M24V	ground +24V	Out
11	I-Tx	20mA current source transmitter	Out
12	GND	internal ground	Out
13	I-Rx	20mA current source receiver	Out
14	+5V	power Supply +5V	Out
15	GND	internal ground	Out

9.2 Pin assignment for the RS232 PD socket

Pin no.	short	description	Richtung
1	DCD	receive line signal detected	In
2	TXD	send data	Out
3	RXD	receive data	In
4	DSR	transmission device ready	Out
5	GND	signal ground	
6	DTR	data device ready	In
7	CTS	ready to send	Out
8	RTS	request to send	In
9	RI	ring signal	In

This cable is designed to be connected directly on a PC. Optionally, the cable can be lengthened by a 1:1-cable up to 15 m.. The cable should have a good quality.

9.3 Pin assignment RS232 for the AG-plug

Pin number	Short form	Desgination	Direction
1	NC	not connected	
2	RXD	receive data	input
3	TXD	transmit data	output
4	DTR	data device is ready	input
5	GND	signal mass	
6	DSR	transmission means ready	output
7	RTS	request to send	input
8	CTS	ready to send	output
9	NC	not connected	

The cable is designed so that it can be directly connected to the PC. Optionally the end of the cable can be extended with a 1:1 extension cable up to 15m. A good quality of the extension cord must be respected.

9.4 Assignment of the connection pins of the TAE-SOCKET (RJ11)

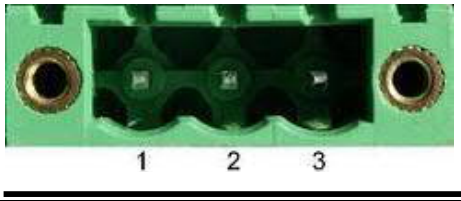
Pin no..	short form	name
1	G	Alarm Clock
2	B2	Output for phone
3	B	to telephone network
4	A	to telephone network
5	A2	Output for phone
6	E	ground

In the 4 pin version there are two outside pins.

9.5 Pin assignment TAE6

Pin no.	short form	name
1	A	to telephone network
2	B	to telephone network
3	G	Alarm Clock
4	E	ground
5	B2	Output for phone
6	A2	Output for phone

9.6 pin assignment power supply



Pin number	Short form	Designation	Direction
1	P24V	24V DC voltage	input
2	PE	earthing	input
3	M24V	mass	input

10 Miscellaneous

10.1 PLC controllers

The TELE-Network device is usable for following PLC controllers:

Siemens:

S5-90 U
S5-95 U
S5-100 U
S5-115 U + F
S5-135 U
S5-155 U + H

S7-200
S7-300
S7-400

+ H1-Option (only for S5-TELE-devices)
+ L1-Option (only for S5-TELE-devices)
+ L2-Option (only for S5-TELE-devices)
+ FAX-Option
+ SPS-Option
+ ASCII-Option (only for S5-TELE-devices)

Bosch:

CL200
CL300
CL400
CL500

AEG:

A 120
A 250

Mitsubishi:

FX series
A series

ALLEN Bradly:

SLC 500 DF1 Protocol + DH485

Klöckner Moeller:

PS3 controllers
PS4 controllers (V24)

Selectron:

PMC 20

GE Fanuc

Pilz PSS3xxx

Telemechanique Premium TSX57

it is to be noted that a special TELE-Network device should be used for any of the listed PLC types. There is currently no way to realize two different PLC types in a TELE-device, except for Siemens S5 and S7.

10.2 Special features special PLC types

10.2.1 Allen Bradley-TELE

The connection between Tele-Network device and PC is a V24-TTY interface cable or a 9-pin V24 1:1 cable.

As message appears "AB AG TELE" or "AB-PG-TELE" Supported is the DF1 protocol in full duplex mode without hardware handshake, i.e. hardware handshake on the PC software should not (!) be enabled, otherwise no online is possible.

Supported are the baud rates

• 1200
• 2400
• 4800
• 9600
• 19200 each case with straight(E) or no (N) parity

The PLC-TELE constantly checking on the current interface to the PLC and the PLC connection automatically determines the correct baud rate. This process not takes place in the active "PLC Mode".

Peculiarity:
In the menu item "Messages", is indicated in the 2nd Line if a PLC is connected respectively communication with the PLC is possible.

• OFFLINE = PLC is not responsive or not connected, or remote device is PIN protected and login has not occurred yet.
• ONLINE xxxxx,y SPS is approachable, so it will displayed ONLINE and the baud rate of the PLC

xxxx = baud rate y = parity
1200 E = straight
2400 N = no
4800
9600
19200

The user can gather his interface settings for the PLC software from this status.

For the operation of the programming software", must be pressed the menu item "DF1 Mode on". The display changes to: "PLC mode is" "active" ..."

Now you can work with the PLC software. By pressing any key this mode is canceled. The TELE-Network device can be operated. But this means that if this button is pressed during a PC-PLC communication, the current communication is interrupted.

Restriction
• monitoring of the connection time does not take place
• no MUX operation possible
• Digital I / O is not supported

10.2.1.1 The connection cable

Used is the RS232 port (9-pin plug) of the PLC, PIN assignment as with a PC.
Since work is possible without a handshake, a PG-UNI-cable can be used at the TELE AG socket with corresponding GENDER CHANGER or connected to the TELE-PG SOCKET.

When connected to the programming port is to note:
If there is no modem connection the standard interface is used.

In the "Configuration -> hours-port" in the PLC-TELE, the connection can be chosen which is used by default for communication after renewed connection setup.

10.2.2 Klöckner Moeller-TELE

10.2.2.1 SPS types

The Klockner Moeller-TELE-Network supports the following Klockner Moeller - controls:

• PS3
• PS4

i.e. all controllers with SUCOM A protocol can be remote controlled (note for the PC programming software). The connecting cables can be vary to the respective controller.

10.2.2.2 Time-out of the interface

If the file COM.INI does not exist, it is to generate with the following entries: (note spelling!):

• [COM interface parameter]
• baud rate=9600
• ReceiveTimeout=10

10 means 10 seconds, and can be varied under some circumstances. It should be noted that these entries are different when using a different language. This requires the user to study its manual.

10.2.2.3 Connection cable to PC

DSR and DTR on the PC must be connected to:

• 9 poles: Bridge 4 - 6 - 1 and 7 - 8
• 25 poles: Bridge 6 - 8 - 20 and 4 - 5

On the PLC side TELE-PROFessional or TELE-Book with V24 adapter, to that the PC-PLC connection cable for each PLC.

10.2.3 Mitsubishi-TELE

10.2.3.1 SPS types

The Mitsubishi TELE supports the following Mitsubishi - controls:

• FX
• A series

10.2.3.2 Connection cable to PC

On the PC are to be connected DSR, DTR, RTS and CTS:

• 9 poles: Bridge 4-6 and 7-8
• 25 poles: Bridge 6-8 and 4-5

10.2.3.3 Connecting cable for control

On the PLC side TELE-PROFessional or TELE-Book with V24 adapter, to that SC-09 cable with additional adapters for each PLC

10.2.3.4 Medoc software

The function of the remote control was tested of a Mitsubishi PLC with the MELSEC Medoc + V2.32 for Windows. It is possible that with an older software version of this package is not always works an online connection, that means transmitting a block, because this PC software does not await the feedback from the PLC and therefore it can lead to transmission errors.

10.2.4 Jetter PLC

To remote maintenance a Jetter PLC, the S5 mode must be leave. Here the direct mode is used.

The respective parameters relating the source-Com and target- Com, you please read in your manual for the Jetter PLC.

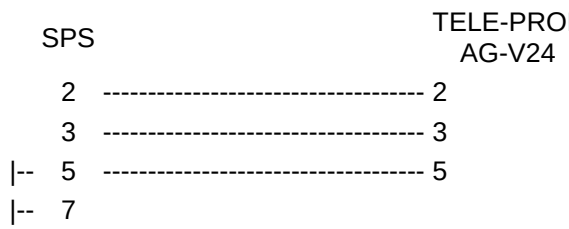
10.2.4.1 Connection cable to PC

For connection of the TELE-Network device to the PC you can choose between three variants:

• 9pole 1:1 of PC-V24 (COM1 or COM2) to PG-V24-port Tele-Prof
• Interface cable from PC-V24 (COM1 or COM2) to PG-TTY port

10.2.4.2 Connecting cable to PLC

The cable used between the AG TELE and Jetter PLC has the following pinning:



10.3 World-wide use of the TELE-PROFessional-II (modem connection)

Normally, TAE-socket and German cable can always be connected to the corresponding AB-line! In this way, there is a protection against the connection of other phones as well.

Country	Modem type	Cable
Abu Dhabi	USA	USA
Africa	USA	USA
Algeria	USA	USA
Argentina	USA	USA
Australia	USA	USA
Belgium	D	B
Brasilia	USA	USA
Chile	USA	USA
China	USA	USA with IDD-line *
Denmark	D	DK
Dominikan Republic	USA	USA
Great Britain	USA	USA
Finland	D	D with TAE-Dose **
France	D	F
Greece	D	D with TAE-socket **
Hong Kong	USA	USA
India	USA	USA
Indonesia	USA	USA
Ireland	USA	USA
Israel	USA	USA
Island	USA	USA
Italy	D/USA	USA
Japan	USA	USA
Jemen	USA	USA
Kanada	USA	USA

Kasachstan	USA	USA
Kenya	USA	USA
Columbia	USA	USA
Korea	USA	USA
Croatia	USA	USA
Latvia	USA	USA
Luxembourg	USA	USA
Malaysia	USA	USA
Marocco	USA	USA
Mexico	USA	USA
Moldova	USA	USA
New Zealand	USA	USA
Netherlands	D	NL
Norway	D	D with TAE-socket 2)
Austria	D	A
Peru	USA	USA
Philippines	USA	USA
Poland	USA	USA
Portugal	USA	USA
Puerto Rico	USA	USA
Romania	USA	USA
Russia	USA	USA
Sweden	S / D	S / D with TAE-socket 2)
Switzerland	D / CH	CH
Serbia	USA	USA
Singapore	USA	USA
Slovenia	USA	USA
Spain	D	USA
Sri Lanka	USA	USA
South Africa	USA	USA
Syria	USA	USA
Taiwan	D / USA	USA
Thailand	USA	USA
Czech Republic	USA	USA
Turkey	USA	USA
Hungary	D	D with TAE-socket
USA	USA	USA

Venezuela	USA	USA
United Arab Emirates	USA	USA

* The IDD-line is normally available in every big firm in China; otherwise, the communication is very bad, almost like a second parallel phone network.

** In Scandinavia, please not that calling with inband signalling is possible without problems with the German modem. However, with pulse dialling, the Scandinavian system differs form the German system:
dialling series
German (European) system: 1, 2, 3, 4, 5, 6, 7, 8, 9, 0
Scandinavian system: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9
For a call from Sweden to the following German number: 0049-11833
(information service of the Telekom) the following number
has to be input: 1150-22944.

Attention:

For a world-wide operation with the TELE-Network devices it is normally indispensable to use for each country in which the modem is used the modem corresponding to that country (e.g. for Great Britain a British modem, for Spain a Spanish modem and so on). Experience shows that this is not always possible. Then, the decision has to be made by the user himself/herself.
The above table that shows the usable modem types for several countries is put together according to practical experience. Therefore it is not guaranteed that the corresponding TELE-Network device has the admission for the operation in the country in question. Technically speaking, the US modem works in every country since it does not have the restrictions a German modem has (as for example bell voltage, bell frequency, charging pulse filter and so on).

11 Troubleshooting

Display remains dark

Voltage connected?
Reverse voltage

Modem does not dial

Telephone line connected?
Telephone line in the correct connection box?
Dialing recognized correctly?
Dialing Parameters entered correctly?
Is the phone system released for data use?
Is the modem connected to an ANALOG port?

Recall does not work

Recall parameterized as instructed?
Adjust AG TELE and PG-TELE!

No connect at call

Is sitting a so called call-by-call - provider between the two devices?
This has the consequence that any line is multiplexed and thus cancels the carrier signal!
Baud rate set correctly?
In some countries, it makes sense, to call not with maximum, but rather 1 or 2 steps lower

Device does not pick up

Number of rings configured correctly?
A and B line wired correctly?
Is the telephone cable in the correct port?

Barely ONLINE to PLC

TELE-Network device properly grounded?
Cable connection OK between the AG TELE and the PLC?
Is the device even PLC-TELE?
PG-MUX mode set correctly?

No ONLINE to PLC

Cable connection OK between the PLC-TELE and the PLC?
Is device even AG-TELE?
Cable between the PLC and PLC-TELE properly or broken?