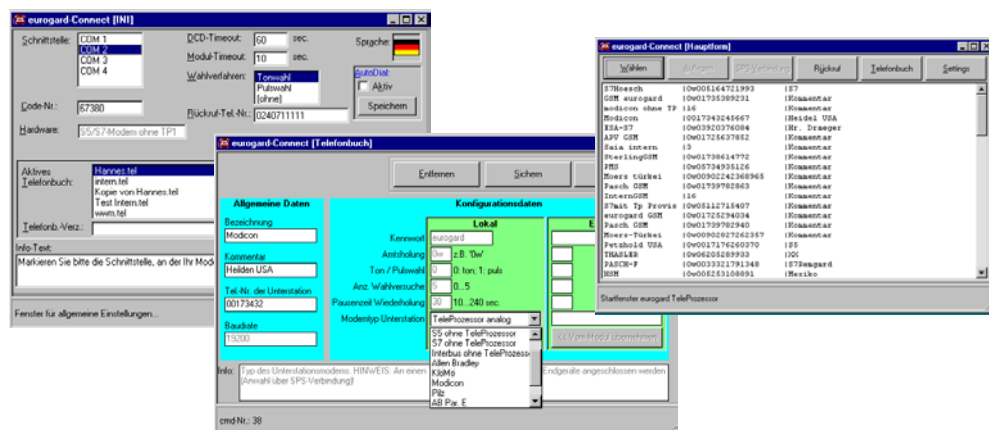


Operating instructions eurogard-Connect



V22.0

**Connection software
for world-wide communication with:**

- SIMATIC® S5 / S7-controls**
- INTERBUS-Controller boards**
- Allen-Bradley-controls**
- PC-PC-connections**
- Modicon-controls**
- MOELLER-controls**
- PILZ-controls**
- SAIA®-controls**
- ELIN**
- SEW-MOVIDRIVE**

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1. GENERAL INFORMATION

This document describes the functional range of the PC-connection software required for the eurogard modem lines. The master unit (at the PC) as well as the slave unit may be equipped with a teleprocessor. This software supports operation with or without teleprocessor both at the master unit and at the slave unit.

IMPORTANT NOTE !!! Please make sure that during data telecommunication no damage can occur at or through your plant! Active programs must not be interrupted without visual control! Supervising staff has to be present at any time of operation. We do not accept liability for incorrect data or operating errors. Warranty of eurogard GmbH is confined exclusively to the parts supplied.

1.1 Applications and operating principles

The wwm22-software sets up the connection between the master unit and the parameterized interface of the slave unit. After connection set up the serial interfaces at the PC and at the slave unit are adjusted according to the AD type (baudrate, data framing, handshake). Subsequently, the PC serial interface is released for the final application (PLC-software).

The software interrupts the connection set up if the required connection quality (depending on the type of control) is not achieved. Some AD-types require the use of our teleprocessor modems. For details, please refer to the annex of this document.

The "Phonebook" of wwm22 allows convenient handling of the the slave units.

1.1.1 Slave unit with Teleprocessor (Series IUM 2-1-xx)

When dialling up a slave unit with teleprocessor, first of all, the communication with the teleprocessor is established (password check); after that, the user can set up the connection to the control or to the controller board. You can also set up a connection to the chosen control directly by pressing the relevant command button.

During one connection the user can switch over to various controls connected to the slave unit.

The slave units can be extended with various interface modules (Series IM-xx), allowing access to up to 12 controls.

The functions *password access* and *call-back* are implemented in the supplied version.

In addition to this the modems can handle the special protocols for:

- SIMATIC®-S5-controls for oversea connections
- INTERBUS-controller boards
- SEW-MOVIDRIVE-frequency converters

Connections may be established via fixed network or GSM network.

1.1.2 Slave unit without Teleprocessor (Series IUM 2-0-xx)

Slave units without teleprocessor can access a maximum of two controls. Setting the relevant 24V-signal at the slave unit also allows a call-back function (not possible for GSM). The call-back number can be transmitted to the slave unit via the wwm22 software.

1.2 Connection of Teleprocessor1 (Master unit)

Connect up the serial port of the PC to the PC-interface of the teleprocessor1 as well as the teleprocessor1 to the eurogard master unit with the supplied cable. After connecting the power supply units and switching on, the devices are operational.

Special attention should be paid to the correct setting of the operating voltage at the power supply unit (12VDC).

1.3 System requirements and installation

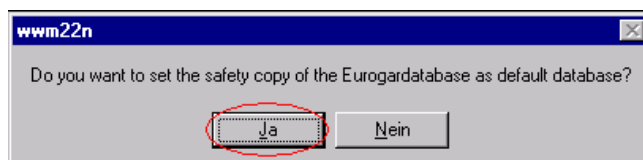
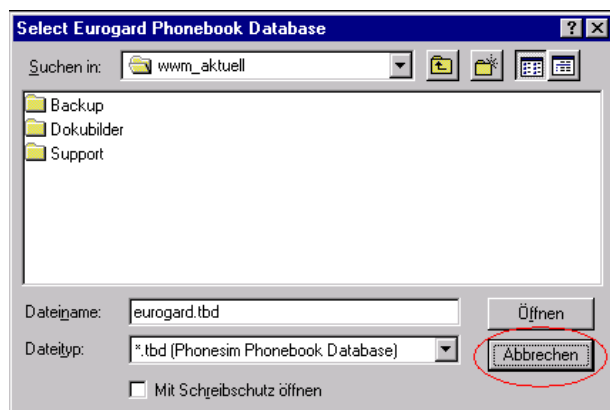
The software runs on all standard PCs with operating systems Windows9x and Windows NT 4.0, Windows 2000 and Windows XP.

NOTE:

Please refer to the manufacturer's documentation regarding the supported operating system for the programming software!

For installation, start the program *setup.exe* on the installation CD and follow the instructions on the screen. For de-installation, follow the Windows de-installation procedure ("Settings...System control...Software...").

When booting the wwm22-software for the first time, the user is requested to initialise wwm22. Press "Abbrechen" in the screen form "Select eurogard phonebook database" and set the safety copy of „Eurogarddatabase“ as default database.



2. DESCRIPTION OF SOFTWARE

Preliminary remarks

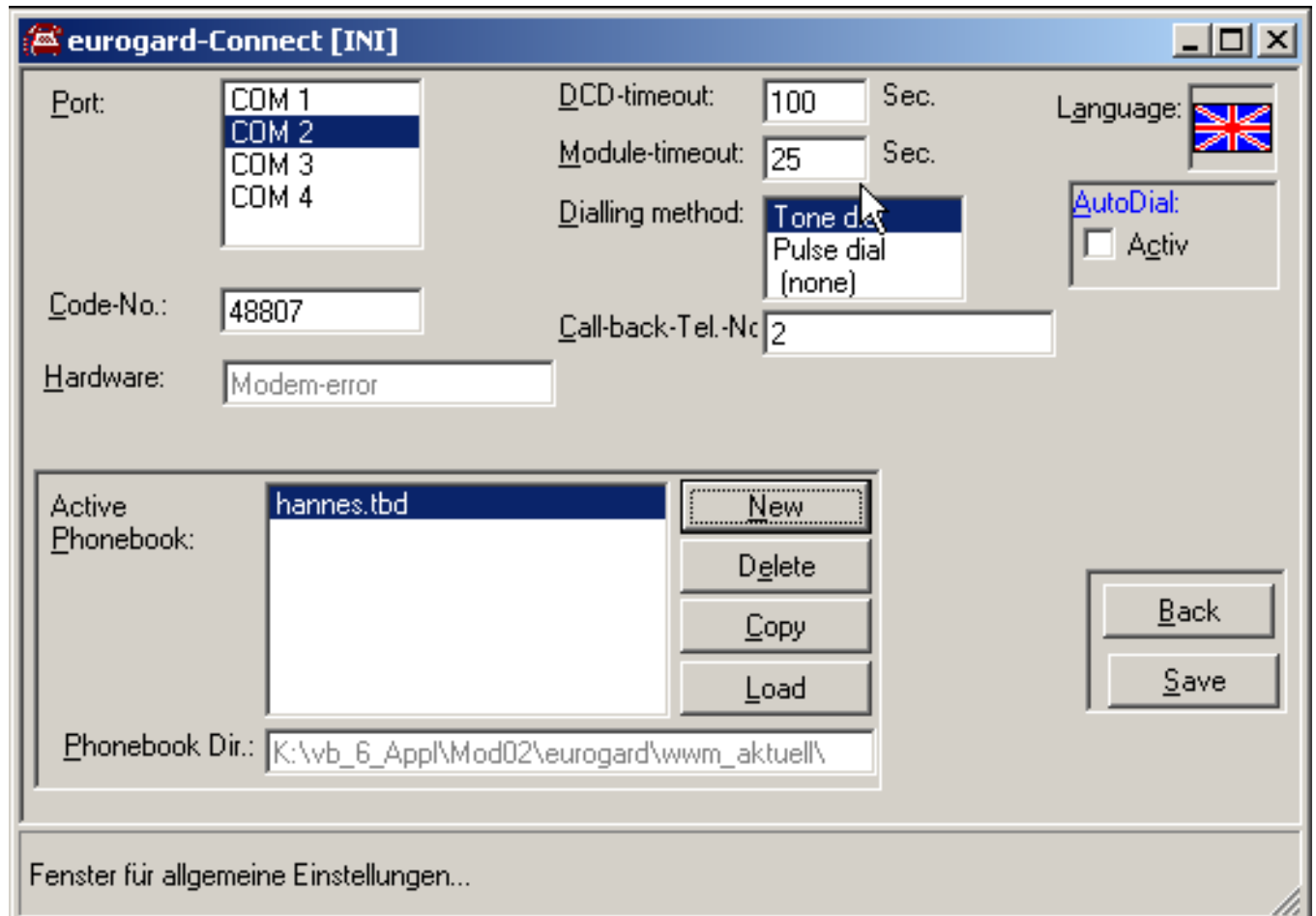
The correct connection and ready status of the relevant eurogard master unit is verified with every start of the software. If any errors are detected, dialling up a slave unit is not possible !

Highlighting a field with the mouse will result in an explanatory text in the infotext field or a tool tip.

All command buttons and input fields are interlocked in such a manner that malfunctions are excluded.

2.1 Settings (Window INI)

With *Settings* in the main menu the window *INI* is opened. Here, global settings for all connected slave units are entered. *Save* checks the hardware and enables or blocks commands.



The fields refer to the following

- Port:** Selection of serial modem port at the PC where the master unit is connected.
The relevant PLC software has to be able to access this port, as well. For S5 normally COM1, for S7 use the relevant settings of the STEP7®-Software („PG/PC-Schnittstelle einstellen“) [Select port PD/PC].
- Code-No.:** Code-No. of the eurogard master unit (Key-Nr.); this 3 or 5-digit number can be found on the underneath side of the master unit.
- Hardware:** Indicates which hardware is used in the PC.
Note: This field is set automatically by wwm22.
- Active Phonebook:** With the buttons *New*, *Delete*, *Copy* and *Load* you can handle entries in different phonebooks.
- Phonebook Dir.:** Drive or directory where the phonebook files are saved. This can be a network directory eg (decentralized access). As default the directory of this software is used.

| | |
|---------------------------|---|
| <u>DCD-Timeout:</u> | Software delay time after dialling for modem connection set up. |
| <u>Module-Timeout:</u> | Software delay time after modem connection set up for communication with the teleprocessor of the slave unit (only applies to series IUM 2-1-xx). |
| <u>Dialling method:</u> | Selects the dialling method of the telephone installation (tone/pulse) |
| <u>Call-back-Tel.-No:</u> | a) for slave modems with teleprocessor (IUM 2-1-xx): This number is dialled when a call-back is triggered by the remote teleprocessor (telephone number of the master unit). Connection to exchange line and dialling method for call-back are saved in the phonebook. b) for slave modems without teleprocessor (IUM 2-0-xx): This number is saved in the slave modem by pressing the button <i>Save</i> . Connection to exchange line and dialling method for call-back are saved in the phonebook under the relevant entry. |
| <u>Language:</u> | Select language by clicking the flag symbol (German/English). |
| <u>AutoDial:</u> | This function automatically sets up a connection after starting the program. <i>Save</i> saves the entry chosen in the main form as starting connection. If <i>AutoDial</i> is activated, the automatic dial up is carried out at the next start of the program. The slave unit to be dialled up has to be selected in the → Phonebook. |
| <u>Save:</u> | saves the settings to the hard disk and checks the connection to the master unit. Errors in the connection to the modem are detected and displayed; dialling up a slave unit is not possible in the case of errors. |
| <u>Back:</u> | Closes the form and opens the window <i>Main form</i> . |

2.2 Phonebook

All specific settings for a slave unit are saved in its phonebook entry. Depending on the type of slave unit, there are two data areas which may be accessed. From here you can set up the connection to the chosen slave unit.

IMPORTANT NOTE!!

For connection set up and close down the serial interface of the PC must not be occupied by other software! This will result in the message: "Anschluß bereits geöffnet". This is shown by an active DTR-LED at your master unit (depending on the PLC-software). Please close the PLC program and start again!

The settings are saved in three data areas:

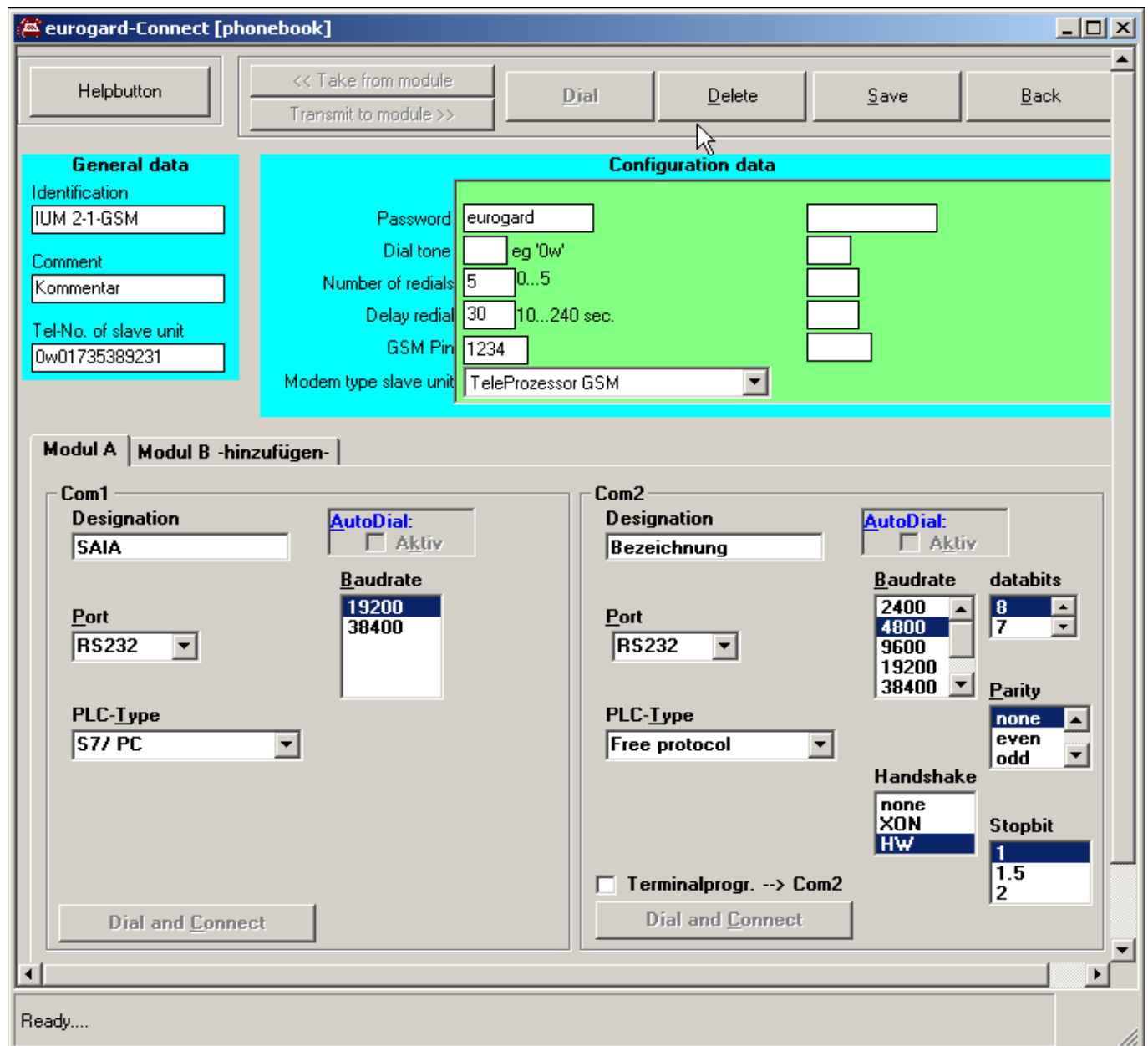
- General data
- Configuration data
- Hardware extension

2.2.1 Command buttons

Note:

The commands on some buttons change during operation of the program, depending on the type of slave unit and the status of the connection! In addition to this the commands shown depend on the type of slave unit in use (with or without teleprocessor). Some buttons are only visible if the modem is operated with a teleprocessor. The buttons are to a large extent self-explanatory.

- Delete:** Deletes the chosen phonebook entry from the data base.
- Helpbutton:** If you are connected to the teleprocessor this displays information about the hardware and the software release; please have this information at hand when contacting our hotline.
- Dial:** This button can show the following commands:
Dial
Set up modem connection to slave units with teleprocessor, a connection to a control is not set up.
Only applies to slave units with teleprocessor.
Interrupt
The teleprocessor at the slave unit is put from communication mode into dialog mode.
Only applies to slave units with teleprocessor.
Hang up
The modem connection is terminated
- Save:** Saves the phonebook entry to the hard disk
IMPORTANT!
During this process the modem type of the slave unit is verified. Make sure to enter the correct PIN when operating a GSM modem! Otherwise you will not have access to the slave unit!
- Back:** Closes the window and returns to the main form.
- Delete module:** Deletes a module completely from the data base
Note:
This button is only visible with slave units with teleprocessor (IUM 2-1-xx) if more than one module is parameterized.
- Dial and Connect:** With this button you can directly set up the connection to the parameterized control. After successful connection set up the background colour changes so that the active connection is clearly visible. You can directly switch over to your PLC software (STEP[®]7, etc).
This button can show the following commands:
Dial and connect
A modem connection is set up with immediate access to the control.
Connect
During an active modem connection you are put through to the control, after other active connections to a control have been terminated.
- Transmit to module>>:** Transmits data from the local hard disk of the PC to the remote teleprocessor. Here you can carry out remote configurations and, eg, change the password to the teleprocessor. The parameterized PLC-specific settings (Designation, port, PLC-type, etc are transmitted to the teleprocessor of the slave unit, as well; here, in the teleprocessor of the slave unit they are of merely informative character, without any effects on functionality.
Only applies to slave units with teleprocessor.
- <<Take from module:** copies data from the teleprocessor into the active window, **without** saving them to the hard disk.
Only applies to slave units with teleprocessor.



2.2.2 General data

contains information and settings which are not transmitted to the remote teleprocessor and which have the same function for all types of slave units. They are:

Identification: Description of slave unit

Comment: Additional comments regarding the slave unit

Tel.No. of slave unit: Telephone number of the slave unit
 This telephone number is composed of:

- Connection to exchange line (for telephone installations) and possible hold signal for ringing tone
- telephone number including country and area code

Example: exchange line: 0, delay for ringing tone: W, Tel.-No.: 01234/56789;
 enter : 0W0123456789

2.2.3 Configuration data

Local lists the data saved on the hard disk of the PC, *Remote* contains all data saved in the remote teleprocessor; these cannot be altered on the monitor and are only displayed in the case of a connection to the remote teleprocessor when opening the phonebook. This is verified if a phonebook entry with teleprocessor is opened.

No active connection

Only local data is displayed, the command buttons for transmitting data to and from the teleprocessor are deactivated.

Active connection:

Remote configuration data from the teleprocessor is read and displayed in the fields *Configuration data*; non-matching values are highlighted by means of different colours. The command buttons for transmitting data to and from the teleprocessor are activated.

The fields in *Configuration data* refer to the following

| | |
|-------------------------------|--|
| <i>Password:</i> | Access password to remote teleprocessor Important With dial up, the local password is compared to the one in the remote teleprocessor. In the case of a wrong password, access to the remote teleprocessor and to the PLC is denied!! The standard password in the supplied teleprocessor is <i>eurogard</i> . Only applies to slave units with teleprocessor |
| <i>Dial tone:</i> | Sign for connection to exchange line and, where necessary, delay for ringing tone which the remote slave modem has to use for call-back. This entry depends on the type of telephone installation. In general, for private branch exchanges the following entry is sufficient: 0W Only applies to slave units with teleprocessor |
| <i>Number of redials:</i> | Indicates the number of redials of the remote teleprocessor Only applies to slave units with teleprocessor |
| <i>Delay redial:</i> | Indicates after how many seconds the remote teleprocessor is to repeat call-back after failure. Only applies to slave units with teleprocessor |
| <i>GSM PIN:</i> | PIN number of a GSM slave unit Only activated when a GSM modem is chosen |
| <i>Modem type slave unit:</i> | Please select the slave unit type from the list! |

2.2.4 Hardware extension

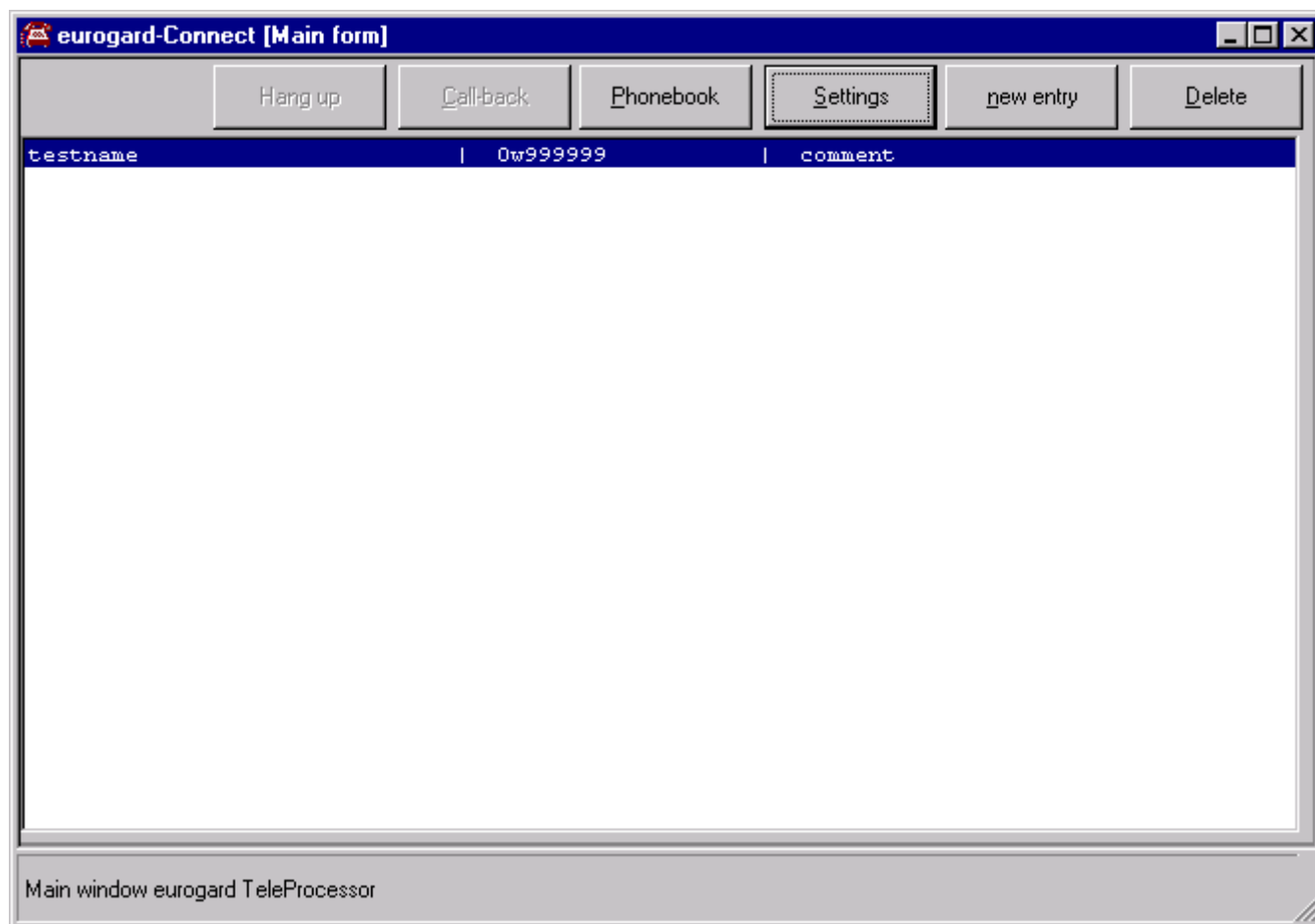
Information about the extension modules is saved in this section. „Module A“ is included in every slave unit. Each module can be equipped with a maximum of 2 interfaces. Slave units with teleprocessor can be equipped with a maximum of 5 additional modules for two interfaces each (Extension unit „IW-1000“ + interfaces „IM-xxx“). Slave units without teleprocessor cannot be extended (max. two interfaces).

Important!

In the case of a connection to a slave unit with teleprocessor, differing data saved in the teleprocessor is displayed in red text boxes. By transmitting the data from the teleprocessor or by manually adjusting data to match, the text boxes disappear.

| | |
|-----------------------|---|
| <i>Module A etc.:</i> | Choose the module by clicking the relevant tab. |
| <i>Module_add:</i> | Add a new tab for additional module. |
| <i>Designation:</i> | Brief description of the connected control. |
| <i>Autodial:</i> | Determines which interfaces is to be activated after automatic dial up Note: Only one PLC can be chosen. In addition to this the checkbox in → <i>Settings</i> has to be activated and the relevant specifications have to be entered. |
| <i>Port:</i> | Type of physical interface at the slave unit |
| <i>PLC-Type:</i> | Determines which PLC-type is connected to the port. Depending on the chosen type of PLC the following fields are deactivated. By choosing „Free protocol“ all parameters can be freely specified: Please refer to the relevant instruction manuals of your control! Note: For details about the different PLC types please refer to the annex of this document! |
| <i>Baudrate:</i> | Baudrate of the communication between control software and control |
| <i>Databits:</i> | Number of databits in one frame for the communication between control software and control. |
| <i>Parity:</i> | Parity of the communication between control software and control |
| <i>Stopbit:</i> | Number of stop bits of the communication between control software and control |
| <i>Handshake:</i> | Handshake of the communication between control software and control |

2.3 Start-screen (*Main form*)



In this main form access to the command buttons is dependent on the status of the program which is displayed in the status bar.

Phonebook: In order to access the phonebook a subscriber has to be highlighted. This can also be done by double-clicking a subscriber. In the phonebook you can then set up a connection to a slave unit with and without teleprocessor (see also →Phonebook)

new entry: Opens the phone-book with a blank entry so that a new contact can be added.

Delete: A highlighted entry is deleted from the database.

Hang up: Disconnects an active modem connection or interrupts connection set up. Depending on the status it may be necessary to click this button several times.

Call-back / Wait for call-back: This button has different functions depending on the type of slave unit highlighted in the list (with/without teleprocessor). The text on the command button changes accordingly.

a) Slave units with teleprocessor:

Initiates a call-back of the remote teleprocessor. This can be carried out from an active connection as well as from the master unit in offline status; in this case the teleprocessor is dialled up automatically, the connection is interrupted and a call-back is carried out.

By initiating a call-back the relevant number and the baud rate are transmitted to the teleprocessor from the window *Settings*. The

connection to exchange line is saved in the remote teleprocessor (→2.2 *Phonebook*).

b) Slave units without teleprocessor:

Pressing the command button enables the master unit to receive a call-back. Setting the relevant 24V-signal at the slave unit allows the call-back function (see also documentation for the specific slave unit!). The call-back numbers can be saved in the slave unit during an active connecton from the →phonebook by pressing the relevant button.

3. SPECIAL FEATURES FOR GSM-MODEMS

When switching on the GSM-modem, the SIM-Card PIN has to be transmitted to the modem. Without the correct PIN **access is denied** because you cannot log into the GSM network!

The PIN-Nr. from the phonebook is transmitted to the EEPROM of the remote teleprocessor with the command button *Transmit to module>>*. Connect the GSM slave unit to your PC by means of the included adapter and switch on.

Subsequently the following steps are necessary:

- start wwm22
- open the phonebook with the relevant subscriber
- Press *Dial*
- Press *Transmit to module>>*
- Close wwm22 and disconnect the GSM slave unit from the PC

The slave unit is operational after switching off and on again. The GSM modem is automatically connected to the network by the teleprocessor.

4. EUROGARD-SOFTWARE-SERVICE

The eurogard-software-service offers technical support.

If there are any questions regarding the eurogard modem lines or the teleprocessors please first refer to the manual. For further assistance please contact our hotline.

eurogard GmbH

Kaiserstrasse 100

D-52134 Herzogenrath

Tel.: ++49 / (0)2407 / 95 16-0

Fax: ++49 / (0)2407 / 95 16-23

5. ANNEX

A) Use of the master unit

eurogard-master units may also be used for other applications (Internet etc) under Windows9x / NT / 2000 / XP. When installing the modem via the system control select: modem ELSA 33.6 TQV or ELSA 56K PRO!

B) Telephone line

A telephone line is required. This may be a main line or an extension. For ISDN-connections an **analog** terminal is necessary! If you want to use a telephone parallel to your modem, a modem switch is required because the modem automatically switches on after the first ringing tone.

When using an ISDN modem as master unit, an ISDN-S0-terminal is required.

C) Special features of the different controls

Depending on the type of control the master or slave unit has to be equipped with a teleprocessor. In addition to this certain basic settings have to be entered in some of the controls or the control software. Details are specified under C1 to C9.

For the connection schemes please refer to the documentation of the relevant slave unit.

C1) Connection to S5[®]-controls

Connections outside the EU normally require the use of a slave unit with teleprocessor due to the low acknowledgement delay times at the PLC. S5-PLCs have a TTY-interface.

C2) Connection to S7[®]-controls

S7-controls are connected via an MPI-Adapter (PC or TS) to the RS-232-interface of the slave unit. Please make sure that:

- the correct interface and baudrate are set in STEP[®]7 under *PG/PC-Schnittstelle einstellen*
- the correct baudrate is set at the MPI-Adapter

The baudrates have to correspond to the relevant settings in the phonebook!!

C3) Connection to INTERBUS-Controller Boards

For connections to INTERBUS-Controller Boards the use of a teleprocessor is required both on the master and on the slave side due to the short character delay time.

C4) Connection to Modicon-controls

At the PC, the configuration is carried out via the PLC-Software (eg Concept 2.2) -> Online -> Connect -> Modus: ASCII, -> Settings: 19200,e,7,1 .

The Modbus-interface at the PLC is set accordingly via "Online -> Load ->".

IMPORTANT!

The Modbus-interface has to be set before the first modem connection is established!

C5) Connection to Allen-Bradley-controls

Connections to Allen-Bradley-controls (Type PLC5 or SLC5) require a driver for RS232-communication, eg the „AB_DF1-1“ with the settings „9600 Bd,8,N,1“.The PASS-THRU-

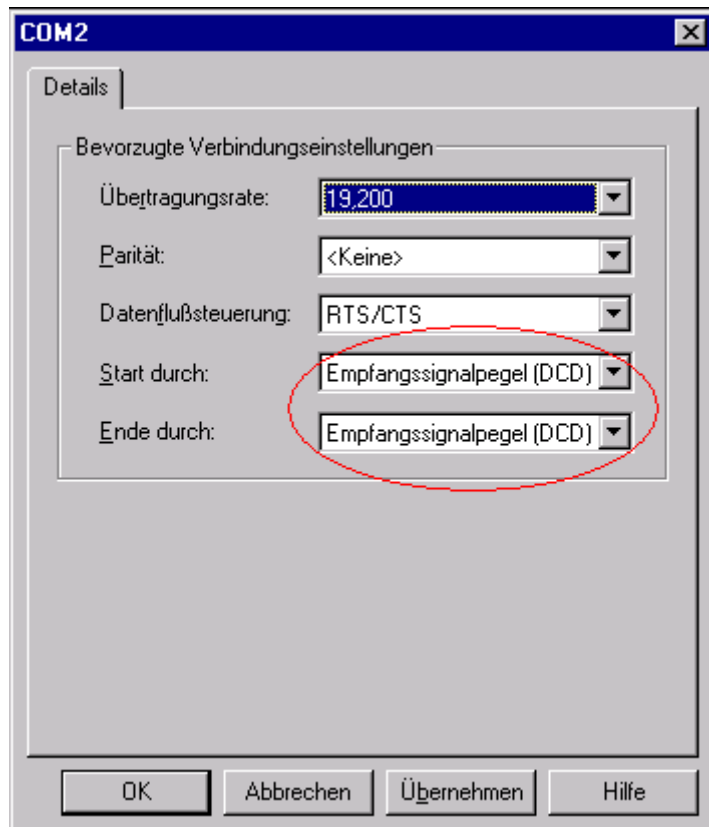
procedure in the processor of the control also allows communication with a panel. PASS-THRU is supported in the SLC5-control from version SLC5-04 upwards.

C6) Connection to MOELLER-controls

For successful communication two parameters in the file COM.INI in the SUCOSOFT-folder have to be changed as follows: ExtraTimeout=500; ExtraTimeout_Chars=500

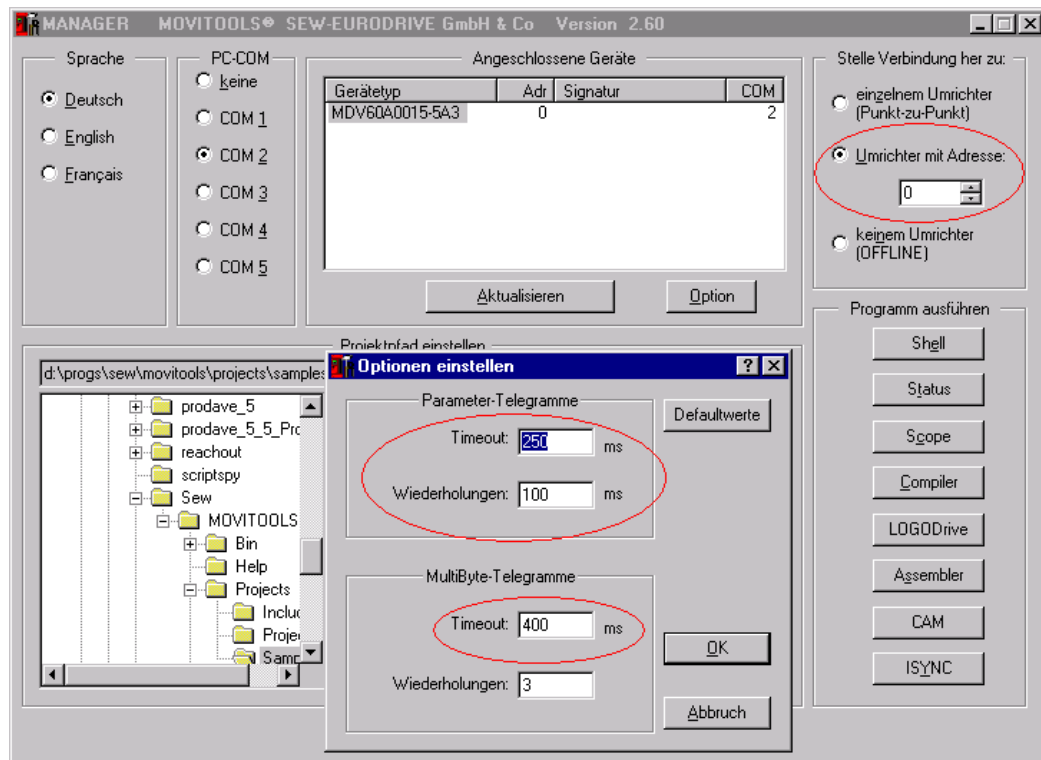
C7) Connection via free protocol (PC-AnyWhere)

Set the transmission parameters in PC-AnyWhere according to the settings in the phonebook, and activate Hardware-Handshake. In PC-AnyWhere, activate Start and End both on the host and on the remote side as shown in the screenshot below:



C8) Connection to SEW-MOVIDRIVE

Set the transmission parameters in the SEW-software („MOVITOOLS“) as shown in the screenshot below:



C9) Connection to Mitsubishi-controls

Please refer to the documentation „Notes on teleservice operation for Mitsubishi“ which is available on demand!