



PCC Communications Software

59500/1



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## 1.1 Preface

### Warranty



If any difficulties should arise during start-up, please do not manipulate the unit in any way. Doing so may jeopardize your warranty claims.

### Data backup



Make a regular backup of your configuration file.  
If you reformat the hard disk, the setup will be deleted, including all the settings, connection lists, and archive data that were created!

## 1.2 Typographical Conventions

### Warning signs

#### Warning



This symbol is used when there may be **damage to equipment or data** if the instructions are ignored or not followed correctly!

### Note signs

#### Note



This symbol is used when your **special attention** is drawn to a remark.

#### Reference



This symbol refers to **further information** in other manuals, chapters or sections.

#### Action instruction



This symbol indicates that an **action to be performed** is described. The individual steps are marked by this asterisk, e.g.

\* Use OK to confirm

### Representation

#### Menu items

*File → Save as*

Small arrows between the words indicate a **sequence of commands** which must be performed one after another.

# 1 Introduction

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## 1.3 Documentation for PC Software Components

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### **PC Evaluation software (PCA3000)**

PCA3000 serves to visualize and evaluate process data (measurement data, batch data, messages, device audit trails, etc.). Process data can be read in via the CompactFlash memory card or made available through the PCC software.

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### **PCA Communication software (PCC)**

PCC is responsible for the data transfer from a device (e.g. paperless recorder) to a PC, or within a network.

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### **PC Audit Trail Manager software (PCAT)**

PCAT documents any actions performed in the PC software components which lead to modifications of files, user lists (rights files), device lists, etc. The different message types are "Information," "Warnings," and "Errors."

Audit trail records cannot be modified.

## 2 PCA Communication Software

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### 2.1 Purpose

The PCA Communication Software PCC is used for connecting a PC to a paperless recorder or a controller with recording function in order to transfer registration data from the device to the PC.

Depending on the device and the PC, different interfaces are available for data transfer, e. g. serial interface, USB, Ethernet.

Data recorded in the device can be readout manually or automatically (time-controlled), even from several devices at the same time. All devices and settings are administered in a device list. Several device lists can be created, thus it is possible to assign devices to different machine lines.

Recording data readout from a device are available in an archive file for evaluation with PC Evaluation Software PCA3000.

The PCA Communication Software PCC also offers a teleservice function. With the teleservice the current process data of a device are displayed in a separate window. Data of several devices can be displayed at the same time.

Every action performed in the PCA Communication Software PCC is logged by the PC Audit Trail Manager PCAT.

### 2.2 Hardware and Software Requirements

The following hardware and software requirements must be met for installing and operating PCC:

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**Minimum configuration**

- PC with Intel Pentium<sup>1</sup> 4 or higher
- Microsoft Windows<sup>2</sup>: Windows 7 (32 bit), Windows Vista, Windows XP
- 1 Gbyte main memory
- CD-ROM drive
- Mouse
- A free serial port, USB port, or network connection (depending on the device and type of data transfer)
- 120 Mbyte available on hard disk

<sup>1</sup> Pentium is a registered trademark of the Intel Corporation

<sup>2</sup> Microsoft and Windows are registered trademarks of Microsoft Corporation

## 2 PCA Communication Software

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<b>Communication</b>	<p>In addition, the following are required for communication between the PC and device:</p> <ul style="list-style-type: none"><li>- PC interface cable including adapter (only when using the Setup interface) or</li><li>- Serial interface cable (when using the RS232C or RS422/485 interface) or</li><li>- USB cable (when using the USB port)</li><li>- Network connection (when using the Ethernet connection).</li></ul>
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### 2.3 Content of CD

<b>Software</b>	<ul style="list-style-type: none"><li>- PC Evaluation software (PCA3000)</li><li>- PCA Communication software (PCC)</li><li>- Setup program (only for specific devices)</li><li>- Technical documentation</li></ul>
<b>License number</b>	<p>Various license numbers are printed on the reverse side of the CD cover, depending on what you ordered. These numbers must be entered during the installation, or in the specific program at a later time. All the functions that were ordered can be enabled in this way.</p>



If no license number or an invalid number was entered during installation, then some functions of the corresponding software (such as data transmission, saving of data, printout) will be disabled.



## 3 Installing the software



### Please consider the following items:

- The user who is logged in during installation must be the same as the one who will subsequently be working with the program.
- The user must have administrator rights during the installation.

**The installation will not be carried out correctly unless these conditions are fulfilled.**

### Run installation program

- \* Start Microsoft Windows



If Microsoft Windows has already been started, all Windows programs must be shut down before installing the software.

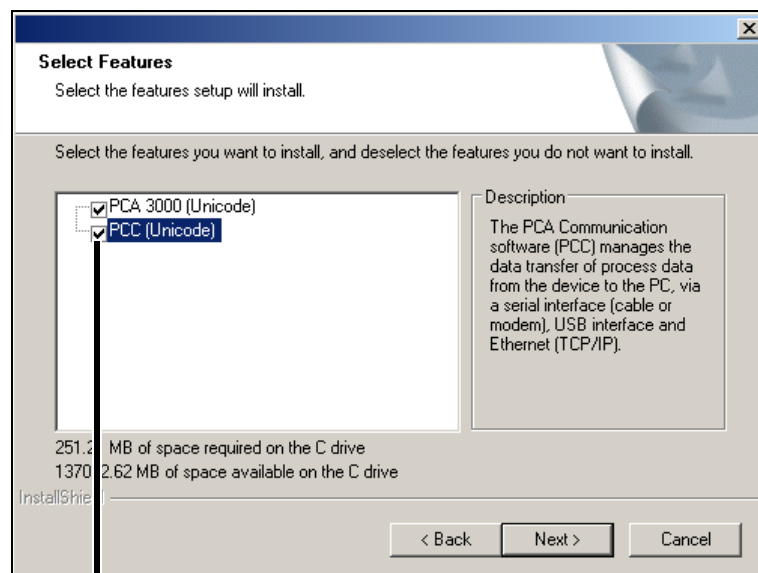
- \* Insert the CD into the drive, then close the drive.

After the CD has been inserted, the installation program will start automatically. If not, proceed as follows:

- \* Start file "Launch.exe" in the main directory of the CD.

The installation program will lead you through the rest of the installation with screen messages.

- \* Select the software (feature) that needs to be installed.

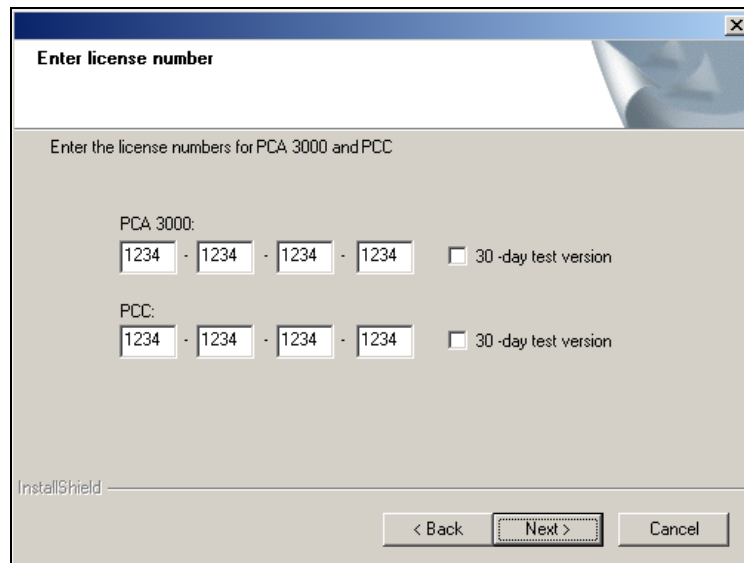


Software to be installed must be marked by a tick (☑).

## 3 Installing the software

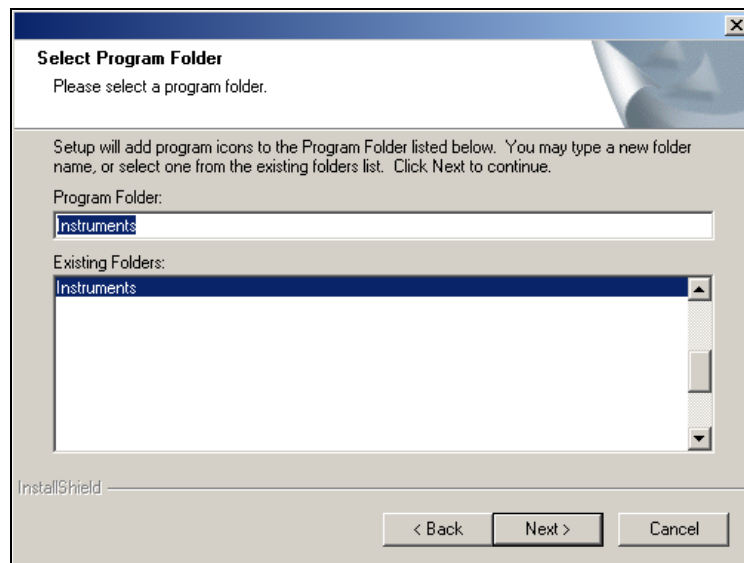
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- \* Now enter the required license numbers.



The screenshot shows a dialog box titled "Enter license number". The main text says "Enter the license numbers for PCA 3000 and PCC". There are two sections: "PCA 3000:" and "PCC:". Each section has four input fields containing the number "1234", separated by hyphens. To the right of each section is a checkbox labeled "30-day test version". At the bottom, there are three buttons: "< Back", "Next >", and "Cancel". The "InstallShield" logo is visible in the bottom left corner.


- \* Define the program folder into which the icons for starting the software will be copied.

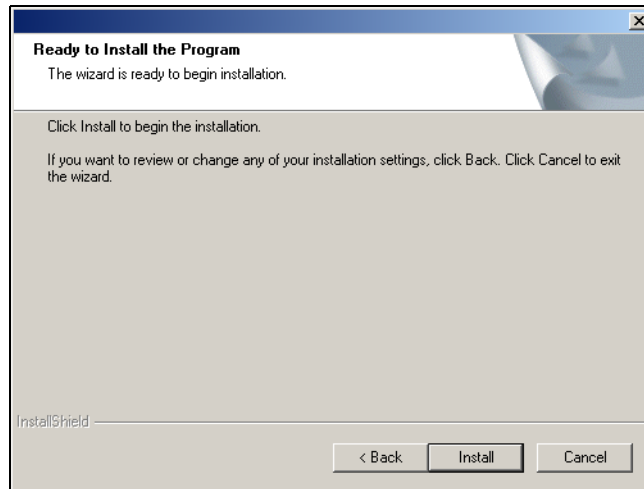



The screenshot shows a dialog box titled "Select Program Folder". The main text says "Please select a program folder." Below this, there is a paragraph: "Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the existing folders list. Click Next to continue." There are two sections: "Program Folder:" with a text input field containing "Instruments", and "Existing Folders:" with a list box containing "Instruments". At the bottom, there are three buttons: "< Back", "Next >", and "Cancel". The "InstallShield" logo is visible in the bottom left corner.

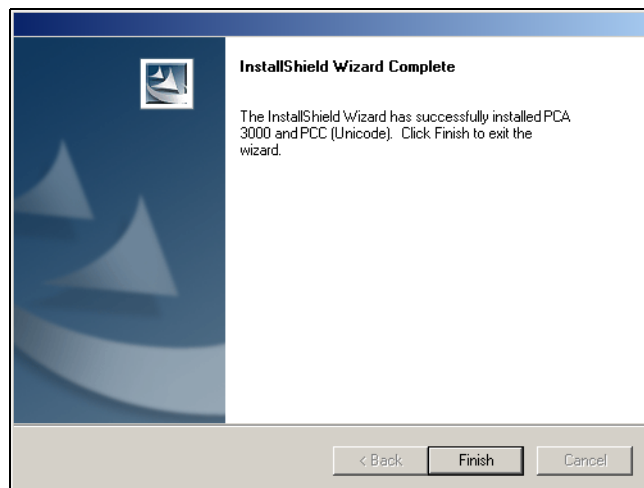
## 3 Installing the software

### Starting the Installation

- \* Now click  to install the selected software components.



- \* Finish the installation by clicking .



### 3 Installing the software

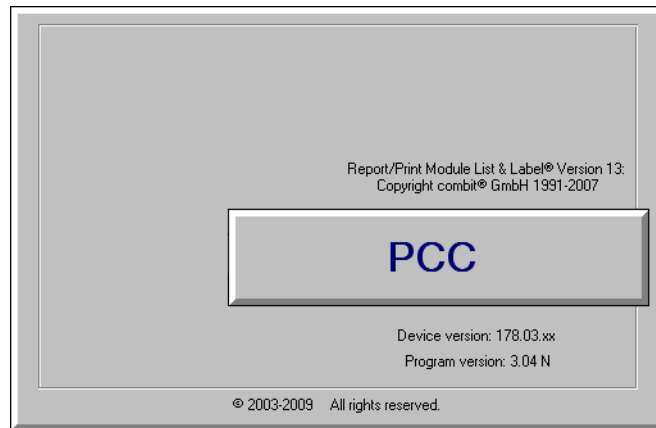
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### 4.1 Starting the Program

- \* Call up the program from the start menu



The start screen appears, with information about the installed version.



#### Logging in to the program

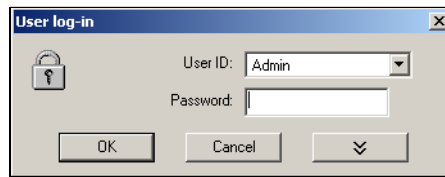
Log-in only occurs when it has been activated by the user. It can be activated, for instance, through the function *Tools* → *Renew log-in / Alter password*.

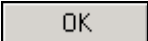
⇒ Chapter 8.5.12 "Renew Log-in / Alter Password"

## 4 Operation

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### Password entry



- \* Log in to the program. Select your name (user ID) and enter the password.
- \* Click .


### Password alteration


⇒ Chapter 8.5.12 "Renew Log-in / Alter Password"

### Start automatic mode after waiting time

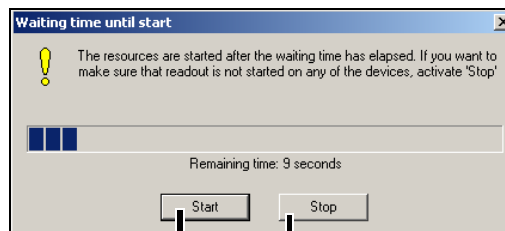
This window appears if the option "Activate automatic mode after starting program" has been selected in the device list.

⇒ Chapter 5.1 "Editing the Device List"

By clicking on button  you can inhibit the start of automatic mode. Thus you have the opportunity to change the settings of automatic devices before starting automatic mode manually.

With button  you can start automatic mode immediately, i. e. before waiting time has expired.

If you do nothing, automatic mode is started after the expiration of waiting time.



Automatic mode  
– do not start

Automatic mode  
– start

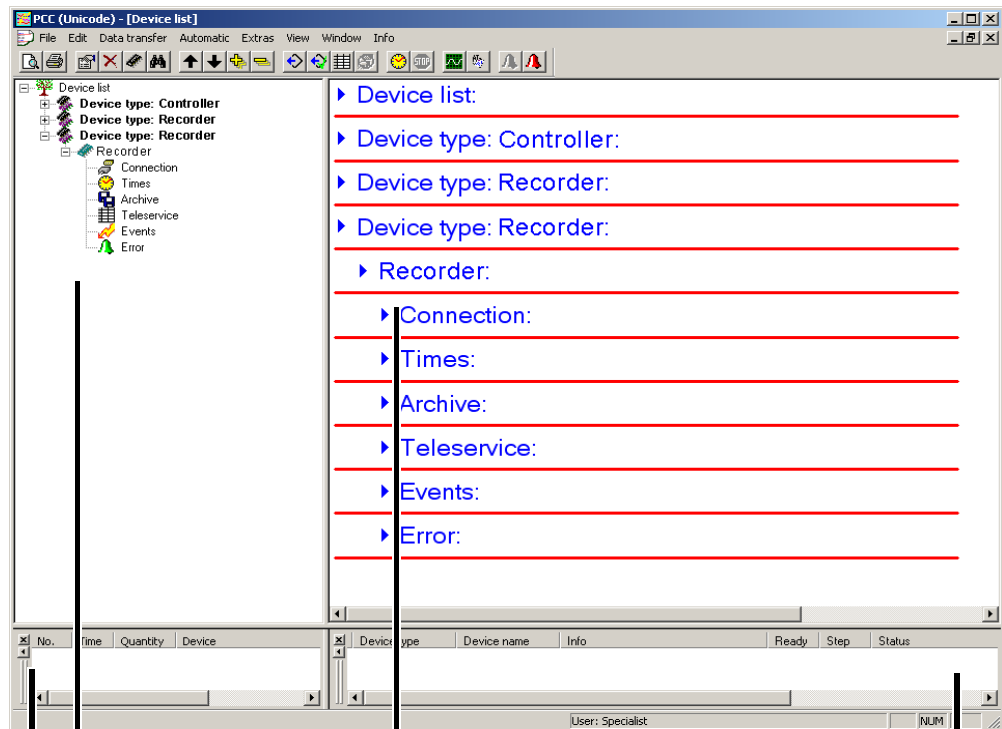


The dialog is not started if function "Automatic in background" is active when the program is started or if PCC has been started as a Windows system service.

⇒ Chapter 8.4.2 "Automatic Mode in Background"

⇒ Chapter 8.4.4 "Start as service"

## 4.2 Windows of the User Interface



### Navigation tree

A tree structure showing all connected devices

### Output orders window

Point in time and number of output orders per device

### Active devices window

A list of all the devices that are active (in PCC) at present, e.g. retrieving data

### Dialog window

The settings for the connected devices are listed here.

The mouse can be used to adjust the window to the required size.

The windows for active devices and output orders can be shown or hidden.

⇒ Chapter 8.7 "Window"

## 4 Operation

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### 4.3 Device types

**Devices with or without CompactFlash memory card or USB host interface**



The operating instructions below make frequent reference to “Device type” 1 or 2 or to “Devices of type” 1 or 2.

#### **Device type 1**

Device type 1 designates devices that have **no** slot for **CompactFlash memory cards** and **no USB host interface**.

#### **Device type 2**

Device type 2 designates devices that are equipped with a slot for **CompactFlash memory cards** or a **USB host interface** for connecting a USB memory stick.



### 4.4 Rights

As described in “Logging in to the program” on page 13, a user must log in with the correct ID and password under some circumstances when the program is started. As a result of this, log-in rights are assigned to individual functions. Therefore it may not be possible to activate all functions, depending on the user or type of installation.

Right	Demo installation	Maintenance	Specialist
Edit time settings	-	-	X
Edit archive settings	-	-	X
Print	-	X	X
Edit interface settings	-	X	X
Edit device settings	X	X	X
Delete device	-	-	X
Create new device	X	-	X
Start automatic mode, start PCC as service	-	-	X
Exit Start automatic mode, exit PCC as service	-	-	X
Pause transmission procedure	-	-	X
Edit extras/options	-	X	X
Edit global settings	-	X	X
Place program in background / bring to foreground	-	-	X
View event list	X	X	X
View error list	X	X	X
Comment in audit trail	-	X	X
Preparing the device modem	-	X	X
Enabling program options	X	-	X
Create new archive	-	-	X
Read in time periods	-	X	X

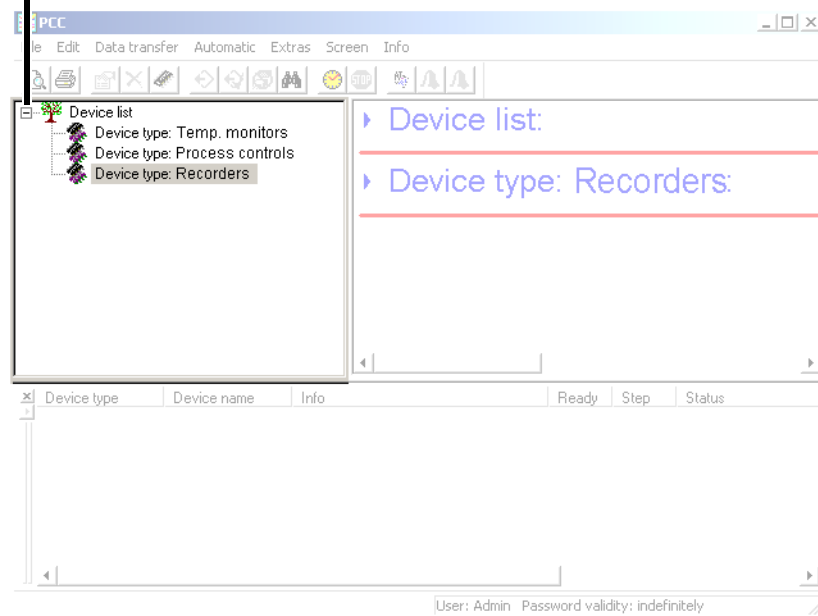
X = right is available

## 4 Operation

### 4.5 Navigation tree

The settings for the device list are made in the navigation tree, where the individual devices (from which the data are to be read out) are entered.

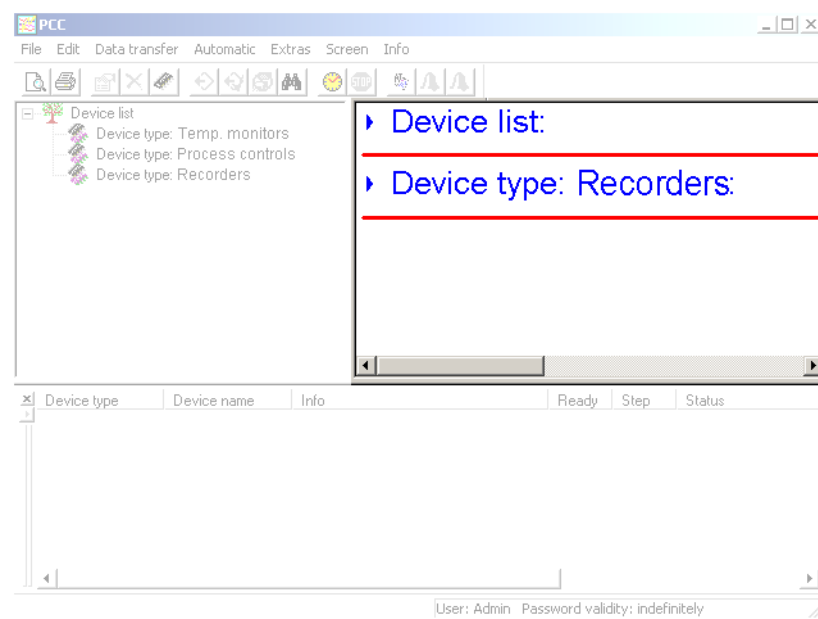
Fold up tree ([-])  
and  
unfold tree ([+]).



Use the mouse to change the settings in the device list or to add a device to the list.

### 4.6 Dialog window

The currently valid entries are shown in the dialog window. The dialogs for altering the settings can also be called up in the dialog window.



Click on the arrows (by using the left mouse button when the mouse pointer is positioned on an arrow) to open (unfold) and close (fold up) the current parameter values.

#### Unfold / Fold up



Device list:



Device list:

C:\Documents and Settings\All Users\Application Data  
Device list settings:  
Designation:  
Author:  
Default archive directory:  
C:\DOCUMENTS AND SETTINGS\ALL USERS\I

#### Device list

Use the right mouse button, or double-click the device list to change the global settings.

▶ Device list:

⇒ Chapter 5.1 "Editing the Device List"

⇒ Chapter 8.2.1 "Device List"

## 4 Operation

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### Device type (device)

Right click or double click a device to change all the settings for the device. If the function “*Use the Assistant for device settings*” is active, then all the settings will be requested, one after another. If the Assistant is not active, you will have to call up the various settings dialogs by hand.

- ▶ Device list:
- ▶ Device type: Recorders
- ▶ Recorder 1 :
- ▶ Connection:
- ▶ Times:

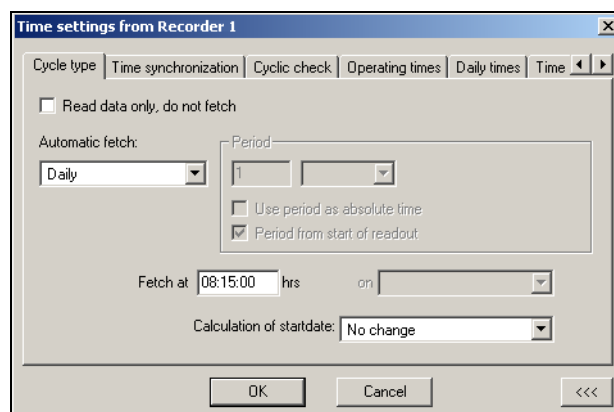
⇒ Chapter 5.2 "Adding devices"

⇒ Chapter 8.2.2 "Device Type"

### Device type (parameter)

You can right click or double click a parameter to change a particular setting for the device (the Assistant for device settings doesn't matter in this case).

- ▶ Device list:
- ▶ Device type: Recorders
- ▶ Recorder 1 :
- ▶ Connection:
- ▶ Times:

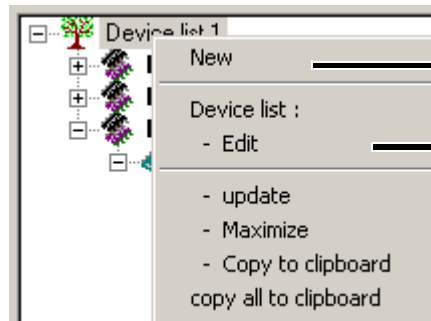


⇒ Chapter 5.2 "Adding devices"

⇒ Chapter 8.2.2 "Device Type"

## 5.1 Editing the Device List

- \* Position the mouse pointer on “*Device list*” and press the right mouse button.

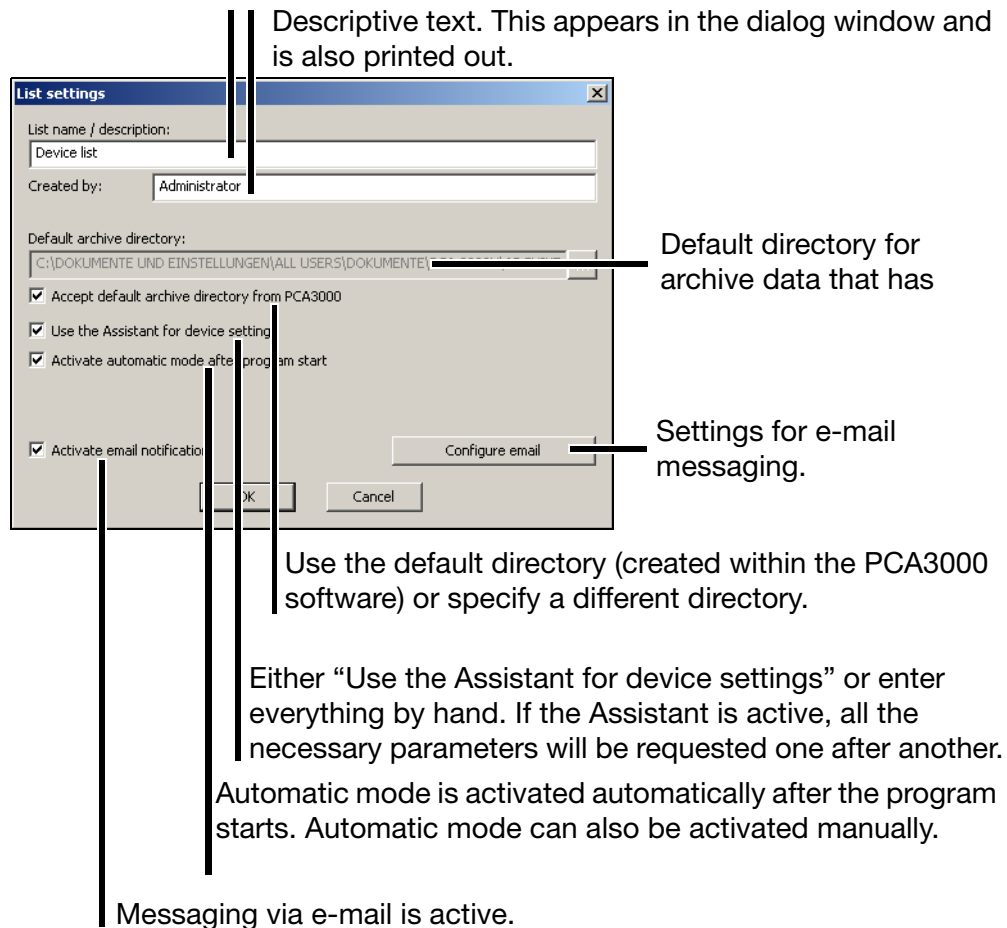


A new device is entered in the list here.

Alter the global settings for the device list.

### Global settings

- \* Select function *Edit device list*.



Descriptive text. This appears in the dialog window and is also printed out.

Default directory for archive data that has

Settings for e-mail messaging.

Use the default directory (created within the PCA3000 software) or specify a different directory.

Either “Use the Assistant for device settings” or enter everything by hand. If the Assistant is active, all the necessary parameters will be requested one after another.

Automatic mode is activated automatically after the program starts. Automatic mode can also be activated manually.

Messaging via e-mail is active.

⇒ Chapter 8.2.1 "Device List"

## 5 Device Management

### E-mail settings

Settings for e-mail messaging.

Selection of different possibilities for (optionally) logging into the e-mail server

User name and password for logging in on the e-mail server

After you click the button, you can make settings for the SMTP and if applicable the POP3 server.

Information about the sender, used in the e-mail

The screenshot shows a dialog box titled 'email settings'. It contains several sections: 'Log-in (optional)' with radio buttons for 'none', 'SMTP' (selected), and 'POP3'; 'User:' and 'Password:' text boxes; 'Smtp server settings' and 'POP3 server settings' buttons; 'Sender' section with 'Name:' and 'Address:' text boxes; 'To:', 'Copy:', 'Blind copy:', and 'Subject:' text boxes (with 'PCC' entered in 'Subject'); 'Status messages every day at' with a time selector set to '08:00:00' and a 'Test email' button; a checkbox for 'Additional notice for every error' which is checked; and 'At the earliest' with a spinner set to '10' and 'Min.' label. At the bottom are 'OK' and 'Cancel' buttons. Annotations with lines point to various parts of the dialog: 'Log-in (optional)' and its radio buttons; the 'User:' and 'Password:' fields; the 'Smtp server settings' and 'POP3 server settings' buttons; the 'Sender' section; the 'To:', 'Copy:', 'Blind copy:', and 'Subject:' fields; the 'Status messages every day at' section; the 'Additional notice for every error' checkbox; the 'At the earliest' spinner; and the 'Test email' button.

Regardless of the daily status message, an e-mail is sent when an error occurs. Other errors are only reported if they occur after an adjustable amount of time (in this case 10 minutes).

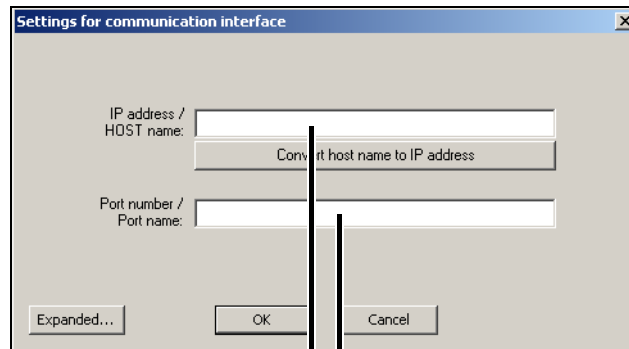
A status message is sent daily by e-mail at this time (with automatic mode).

After the server data and an e-mail address are entered, a test e-mail can be sent.

E-mail addresses and topic

### Server settings

Settings for SMTP server or POP3 server.



IP address or host name of the SMTP or POP3 server. When the host name is entered, the IP address can be determined by clicking "Convert host name to IP address" (for information or to check whether the host name can be converted into an IP address).

Port number or port name for the SMTP or POP3 service. The port name is replaced while the connection is being set up by the predefined port number (SMTP = 25; POP3 = 110).

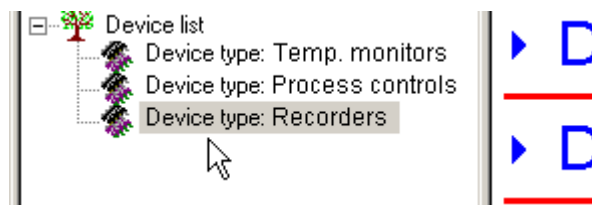


E-mail is sent via the SMTP server. The settings for the POP3 server are only needed if login is required on the e-mail server and the server uses the "SMTP-after-POP" procedure for authentication.

You can obtain all necessary settings (IP address, port number, login data) from the operator of the e-mail server.

## 5.2 Adding devices

- \* Click a device to activate it.



- \* Start the menu function *Edit* → *New* or click the icon () in the toolbar.

The following text example assumes that the selected device is a paperless recorder.

## 5 Device Management

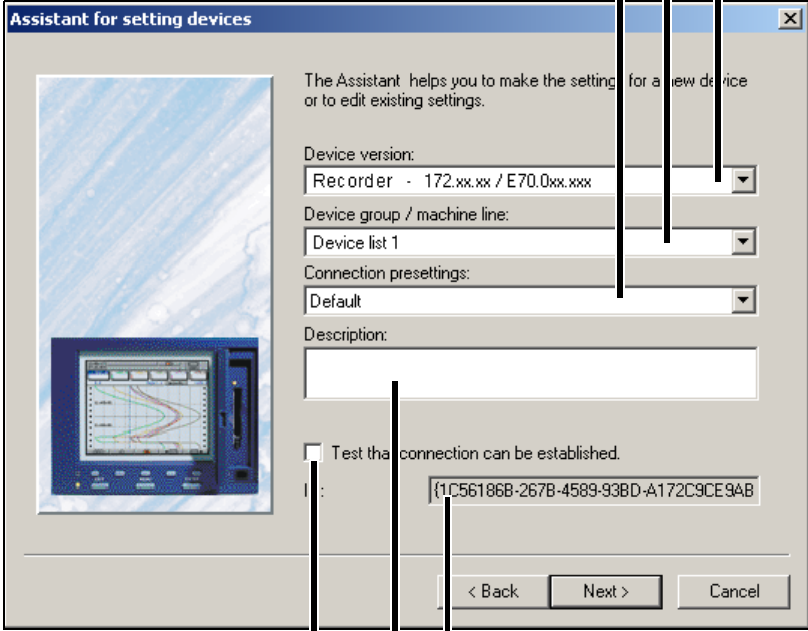
### Select device

The following dialog appears if the setting "Use the Assistant for device settings" is active.

Select device type and version.

Select device group / machine line to which the device shall be assigned to. (This drop-down-menu is only visible if there are at least two device lists.)

Selection of connection presettings (device-dependent)



If the option is active (☑), a check is made at the end, whether the chosen device can be accessed via the selected interface.

The identifier is created by the computer. It is unique, and is, for example, entered in the PC audit trail. It can be used in the PCAT software, if a filter is defined.

A descriptive text for the device can be entered here. The text will appear in the navigation tree.



The function described here is based on an active "Assistant for setting devices" (default setting for a new software installation). The Assistant can be switched off through the function *Device list* → *Edit* or by using the Setup software within the device list.

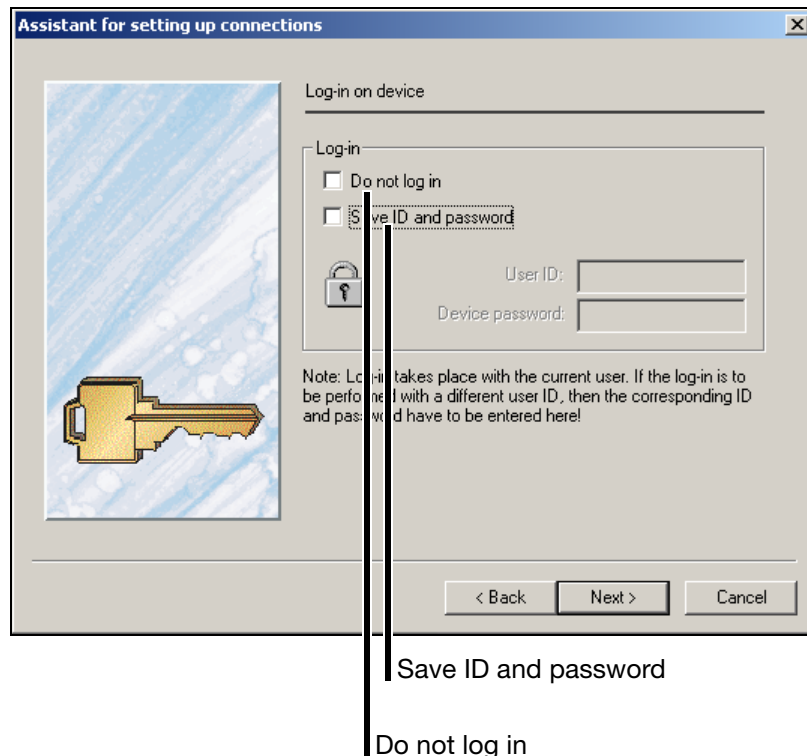
You will now be led automatically from dialog to dialog, and can make all the entries that are required for reading out data.



## 5 Device Management

### Logging in on the device

Logging in to the device is only required for devices with internal user administration.



### Do not log in

The default setting of the software is that a user who is logged in is automatically logged in to a device that is found with the user's name and password, and can thus communicate with this device.

Set option (☒) if you do not want to log in. Please note that, for example, the following functions are not executable if you are not logged in (standard setting):

- Fetch data
- Read data

In the device's user list it is defined by standard rights which functions can be executed by a user who is not logged in.

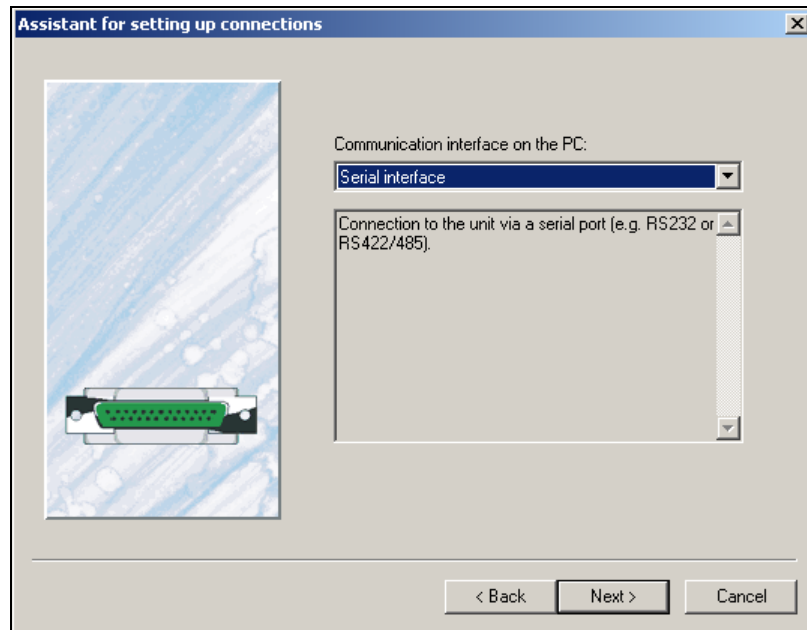
### Save ID and password

If the option is active, the log-in to the device is made through the user ID and password that are entered, regardless of who is currently using the PC software.

In the following dialog window, click  to select the interface you want to use to access the device.

# 5 Device Management

## PC Communication interface



Available options are:

		
USB	Communication interface on the PC: USB-TTL converter	Setup interface
USB	Communication interface on the PC: USB port	USB
RS232	Communication interface on the PC: Serial interface	RS232
RS232	Communication interface on the PC: Serial interface	RS232 to RS422/485 converter
RS232	Communication interface on the PC: Serial interface	Setup interface
Modem	Communication interface on the PC: Analog modem/ISDN	Modem - RS232
Modem	Communication interface on the PC: Analog modem/ISDN	Modem - RS422/485

## 5 Device Management

TCP-IP (Intranet / Internet)	<div>Communication interface on the PC:</div> <div>TCP/IP-PORT</div>	Ethernet
TCP-IP (Intranet / Internet)	<div>Communication interface on the PC:</div> <div>TCP/IP-PORT (ICPDAS 7188E1-8)</div>	TCP-IP to RS232/RS485 converter  type: I-7188E series
TCP-IP (Intranet / Internet)	<div>Communication interface on the PC:</div> <div>TCP/IP-PORT (W&amp;T)</div>	TCP-IP Ethernet to RS232/RS485 converter  type: W&T Com server

The next steps depend on the interface or type of connection that has been selected.

### USB-TTL converter

The following parameters must be selected:

Connected TTL converters	Select converter	If multiple converters are connected, a selection can be made here.
Transfer rate	9600, 19200, 38400	The transfer rate must match the one that has been set in the device.
Device address	1 ... 254	Device address for the Modbus protocol

### USB interface

The following parameters must/can be selected:

Communication protocol	Modbus protocol	The Modbus protocol must be set here.
Connected devices	Select which device should be connected.	If multiple devices are connected via USB interface, a device can be selected here.
Name	Activate check yes/no	If check is active, the device will only be connected if the device name matches.
F No.	Activate check yes/no	If check is active, the device will only be connected if the device number matches.

## 5 Device Management

CPU	Activate check yes/no	If check is active, the device will only be connected if the CPU number matches.
Path	Activate check yes/no	If check is active, the device will only be connected if the USB path matches.

### Serial interface

The following parameters must be selected.

Connected to	COM1, COM2	The PC interface to which the device is connected.
Transfer rate	9600, 19200, 38400	The transfer rate must match the one that has been set in the device.
Control signal	RS232	If the RS232 interface on the device or an interface converter with an automatic transmit/receive changeover is used.
	RS232 setup interface (TTL)	If the setup interface on the device is used.
	RS422-RTS	If the RS422/485 interface on the device is used.
	RS422-DTR	
	RS485-RTS	
	RS485-DTR	Recommendation: Use a Spectra converter with an automatic transmit/receive changeover.
Communication protocol	Modbus protocol	The Modbus protocol must be set here.
Device address	1 ... 254	Device address for the Modbus protocol.  If the "RS232 setup interface" is used as the control signal, then the device address is ignored – it does not have to match the address in the device.

## 5 Device Management

---

### Analog modem / ISDN

The following parameters must be selected.

Telephone number		Enter the telephone number for the required device.
Connect via		Select the modem that will be used to make the connection.
Communication protocol	Modbus protocol	The Modbus protocol must be set here.
Device address	1 ... 254	Device address for the Modbus protocol.

### TCP/IP PORT

The following parameters must be selected.

IP address / HOST name	xxx.xxx.xxx.xxx (Example: 192.168.0.10)	Specify the IP address or the host name of your device. (If the host name is used, the IP address can be determined for verification by clicking "Convert host name to IP address".)
Port number, port name	502, 80	Port used for communication (protocol-dependent). Modbus-TCP/IP -> 502 Http protocol -> 80
Communication protocol	Modbus TCP/IP, Http protocol	The Modbus TCP/IP or Http protocol must be set here. Note the port number!

## 5 Device Management

---

### TCP/IP PORT (ICPDAS 7188E1-8)

The following parameters must be selected.

IP address / HOST name	xxx.xxx.xxx.xxx (Example: 192.168.0.10)	Specify the IP address or the host name of your device. (If the host name is used, the IP address can be determined for verification by clicking "Convert host name to IP address".)
Serial port	COM1, COM2, ...	Serial port of the converter to which the device is connected.
Transmission rate (baud rate)	9600, 19200, 38400	Transmission rate between converter and device. It must match the rate set in the device.
Control signal	None	If the RS232 interface on the device is used.
	RTS permanent	
	RTS changing	

### TCP/IP PORT (W&T)

The following parameters must be selected.

IP address / HOST name	xxx.xxx.xxx.xxx (Example: 192.168.0.10)	Specify the IP address or the host name of your device. (If the host name is used, the IP address can be determined for verification by clicking "Convert host name to IP address".)
Serial port	A, B, C, D	Serial port of the converter to which the device is connected.
Transmission rate (baud rate)	300, 600, 1200, 2400, 4800, 9600, 14400, 19200, 38400, 57600	Transmission rate between converter and device. It must match the rate set in the device.

## 5 Device Management

---

Control signal	RS232	If the RS232 interface on the device is used.
	RS232 setup interface (TTL)	If the setup interface on the device is used.
	RS422-RTS	If the RS422/485 interface on the device is used.
	RS422-DTR	
	RS485-RTS	
	RS485-DTR	Recommendation: Use a Spectra converter with an automatic transmit/receive changeover.
	RS232/RS485 adapter cable	Only for internal test purposes.

---

After selecting the interface, the next step is to make the entries for the time settings (for the automatic read-out of data) and the archives (folders and names of the files in which the data will be stored).



Not all devices support setting up a connection via the setup interface. In this case, please use another interface on the device in question.



Please consult the Operating Instructions of the relevant device for information about connecting and configuring the interface on the device.

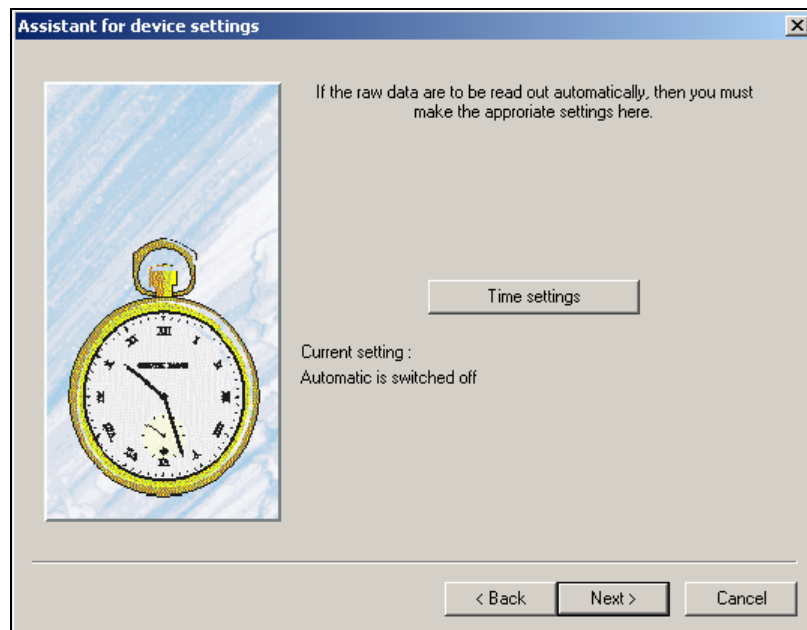


The connection to a device of type recorder can also be made via Internet.

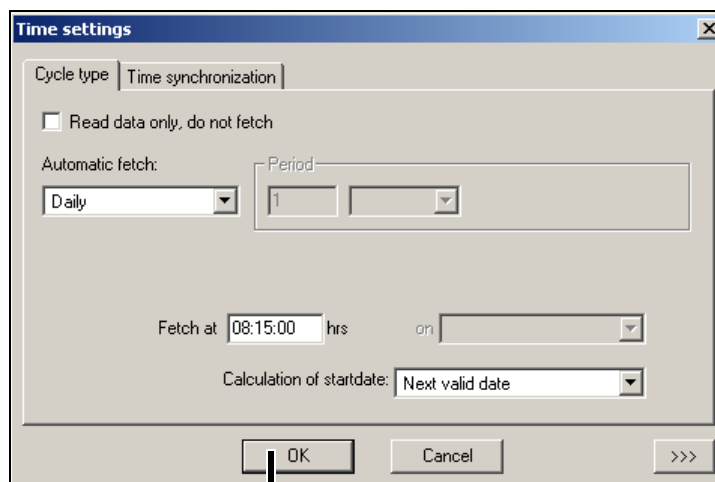
⇒ Chapter 5.6 "Connection via PROXY server"

## 5 Device Management

### Time settings



- \* After you click the **Time settings** button, you can enter the times for the automatic read-out.

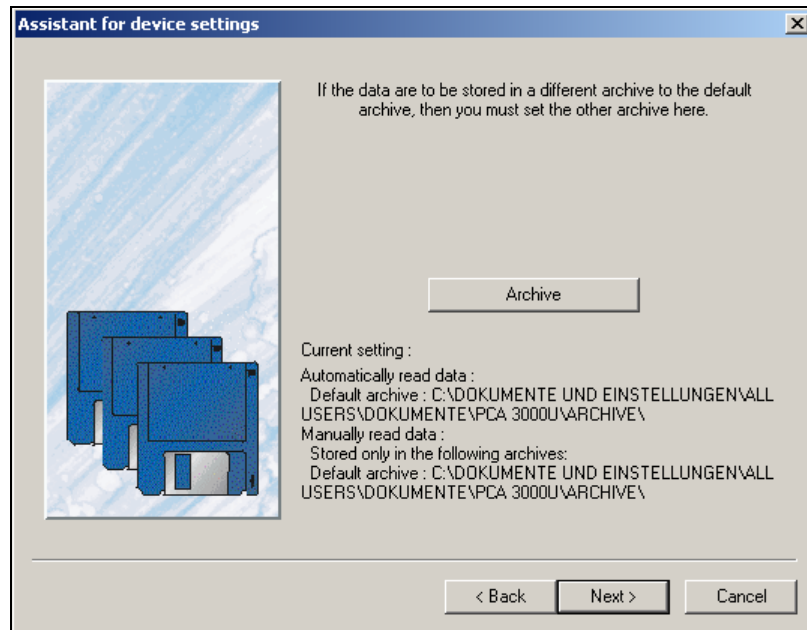


Click OK when the times have been set.

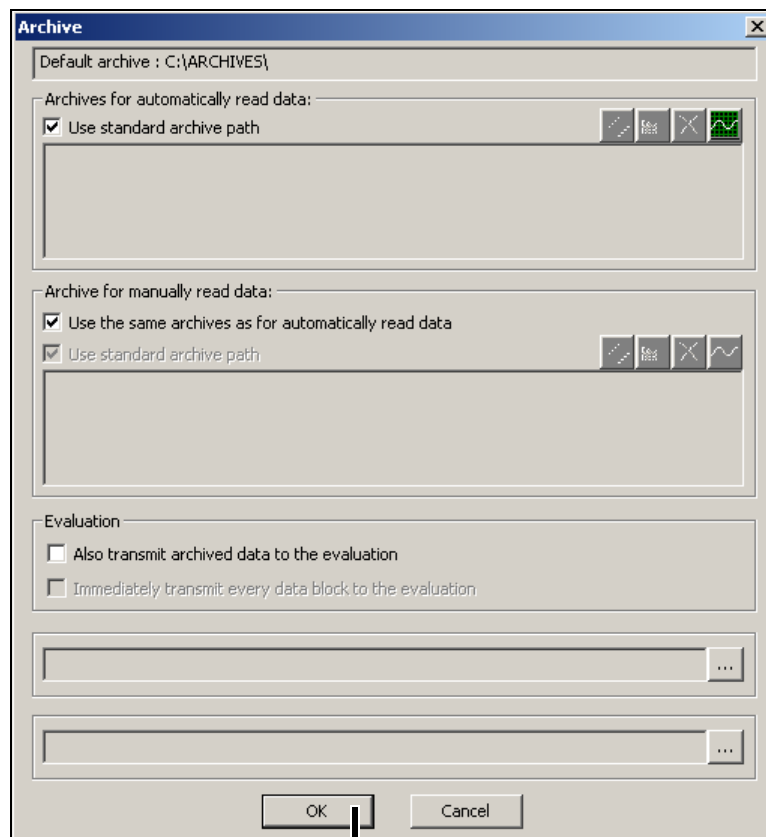
⇒ Chapter 6 "Time Settings"



## Archive



- \* After you click the **Archive** button, you can alter the settings for the archive (file name and directory).



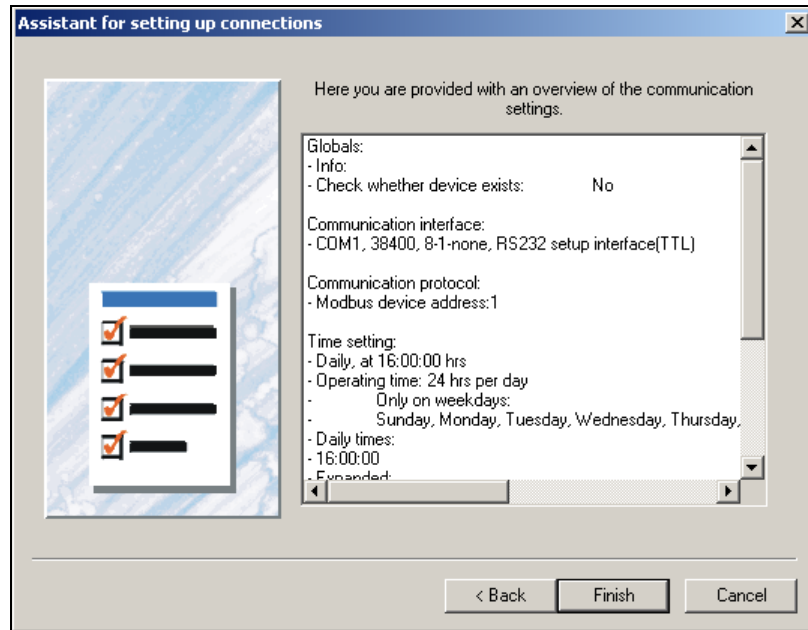
When the archive settings are complete, click OK.

⇒ Chapter 7 "Archive"

## 5 Device Management

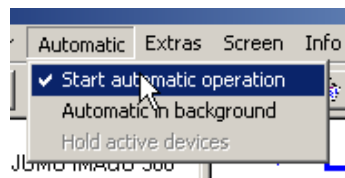
---

You will then get a summary for the new device.




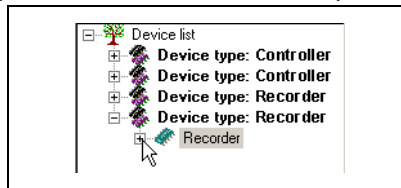
\* Click  to finish adding a new device.

The device should now be set up and ready for reading out data. If you want the device to read out data automatically, automatic mode must be started. It can be started through menu function *Automatic* → *Automatic mode*.

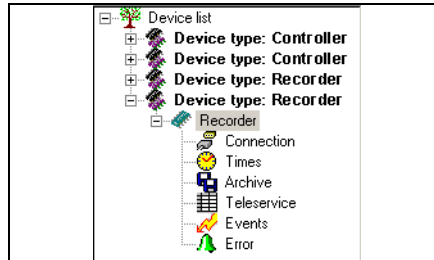


### 5.3 Changing the settings

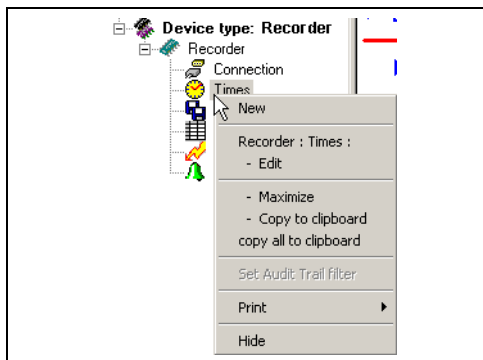
- \* Position the mouse pointer on the  icon and press the left mouse button.



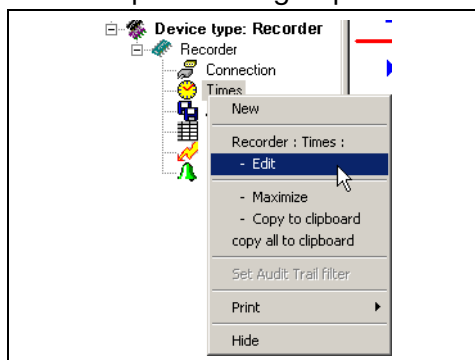
The tree in the navigation window unfolds.



- \* Position the mouse pointer on the parameter group you want to change, and right click.



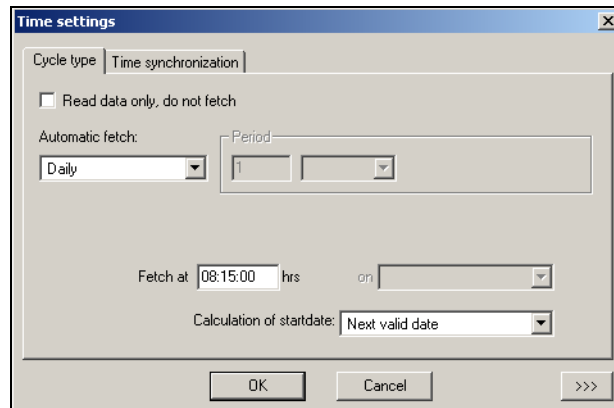
- \* Select "... Edit." The corresponding dialog for making changes opens, depending on the selected parameter group.



## 5 Device Management

---

In this example, the "Time settings" dialog appears.



⇒ Chapter 6 "Time Settings"

⇒ Chapter 8.2.3 "Editing"

### 5.4 Device list sorting

You can sort the device by moving devices within their device type. It is also possible to move device types within the device list.

To sort the device list, follow these steps:

- \* Mark the device type or device with the mouse pointer.
- \* Click the appropriate icon to move the device type or device:



up



down

More information on managing devices may be found in the following sections:

⇒ Chapter 8.2 "Editing"

⇒ Chapter 8.5 "Tools"

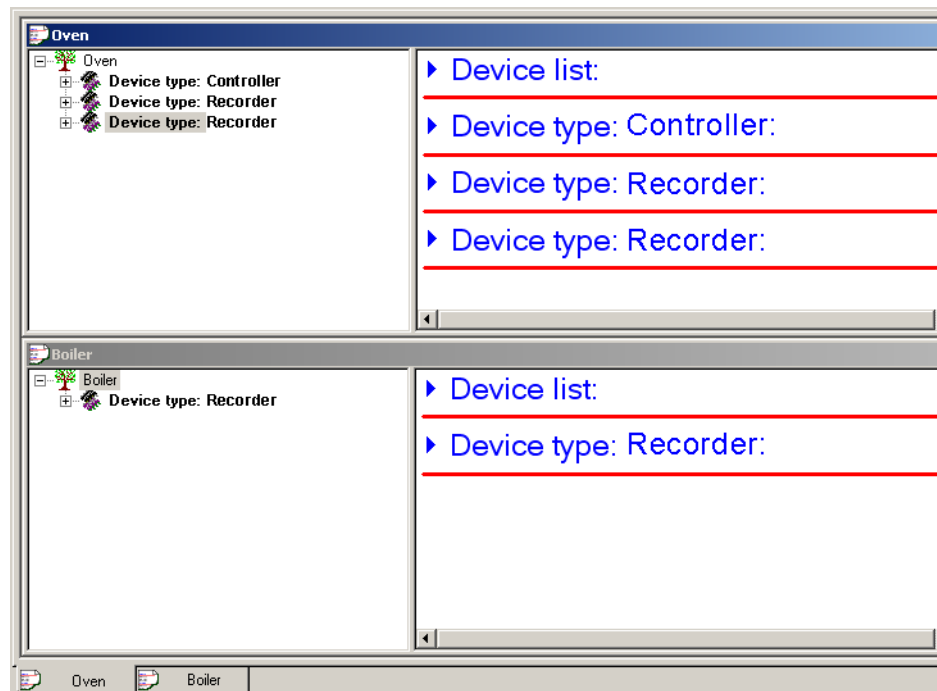
### 5.5 Creating additional device lists

The default device list is named “device list“. This name can be changed. In addition further device lists can be created and their names can freely be chosen.

⇒ Chapter 8.2.4 "Device groups/Machine lines"

Using several device lists has the advantage that devices can be grouped together or assigned to machine lines.

Each device list is displayed in a separate window. The following example shows two device lists named „Oven“ and „Boiler“.



### 5.6 Connection via PROXY server

Connecting a device of type recorder via Internet means that a PROXY server has to be used. Without PROXY server it is only possible to use a VPN connection or a connection within an Intranet.

When you add a new device to a device list, it is best to use the Assistant for setting devices and to choose the corresponding connection presetting. Thus in the TCP/IP port settings window you will find additional input fields for PROXY server.

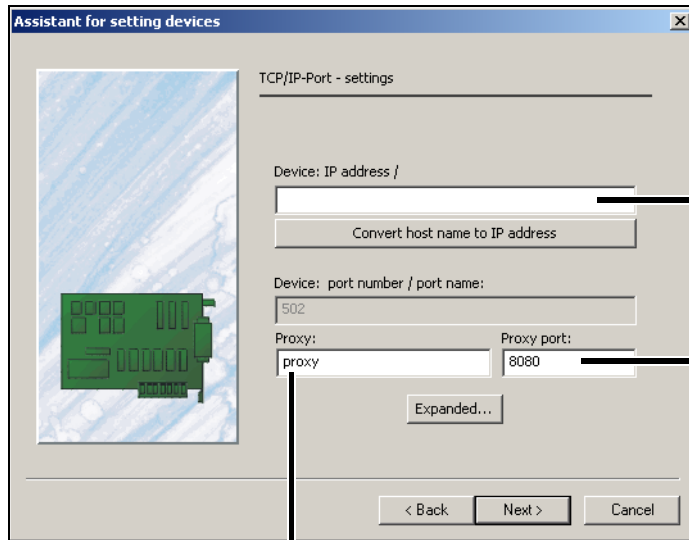
⇒ See “With assistant” on page 38.

You may first have to change the Extended settings for communication in order to make the PROXY server input fields visible.

⇒ See “Changing the extended settings” on page 38.

# 5 Device Management

## With assistant



The screenshot shows the 'Assistant for setting devices' window with the 'TCP/IP-Port - settings' tab selected. On the left is a graphic of a green circuit board. The main area contains several input fields and buttons:

- 'Device: IP address /' with an empty text box.
- A button labeled 'Convert host name to IP address'.
- 'Device: port number / port name:' with a text box containing '502'.
- 'Proxy:' with a text box containing 'proxy'.
- 'Proxy port:' with a text box containing '8080'.
- An 'Expanded...' button.
- Navigation buttons at the bottom: '< Back', 'Next >', and 'Cancel'.

Annotations with arrows point to specific fields:

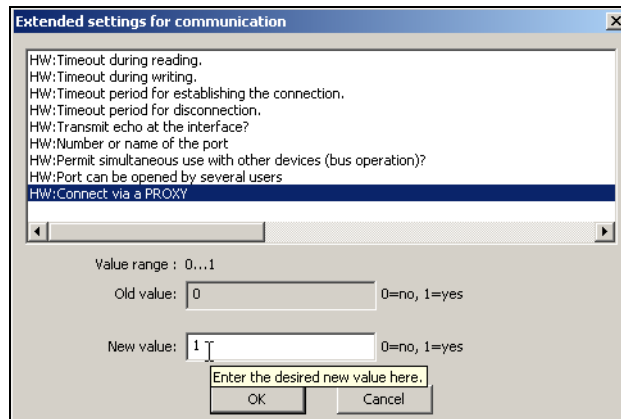
- An arrow points to the 'Device: IP address /' field with the text: 'Enter IP address (or host name) of device'.
- An arrow points to the 'Proxy port:' field with the text: 'Enter port number of PROXY server'.
- An arrow points to the 'Proxy:' field with the text: 'Enter IP address (or name) of PROXY server'.

## Changing the extended settings

You can change connection properties for entering IP address and port number of the PROXY server as follows:

- \* Click on *Features* within *Connection* window. In the next window click on *Expanded...*

The following window is opened:



The screenshot shows the 'Extended settings for communication' window. It features a list of hardware settings on the left, with 'HW:Connect via a PROXY' selected and highlighted in blue. Below the list, the 'Value range' is shown as '0...1'. There are two input fields: 'Old value:' containing '0' and 'New value:' containing '1'. To the right of these fields are labels '0=no, 1=yes'. Below the input fields is a text box with the placeholder 'Enter the desired new value here..'. At the bottom are 'OK' and 'Cancel' buttons.

- \* Select „HW:Connect via a PROXY“, set the new value to 1 and finish the dialog with *OK*.
- \* Also close the previous window with *OK*.
- \* Once again, click on *Features*.  
In the next window the additional input fields for PROXY server are visible now..



The connection via PROXY server is only working with settings *TCP-IP-Port* and *Http* protocol.

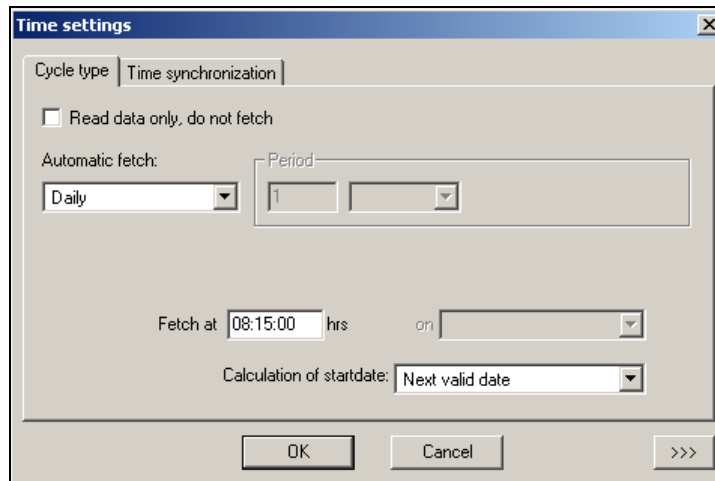
## 6 Time Settings

In the “Time settings” dialog, you can set the cycle types for retrieving data, synchronizing clocks, operating times for each day of the week, and the settings for the response to an error. Here you can also make settings to define how data is read out and evaluated.

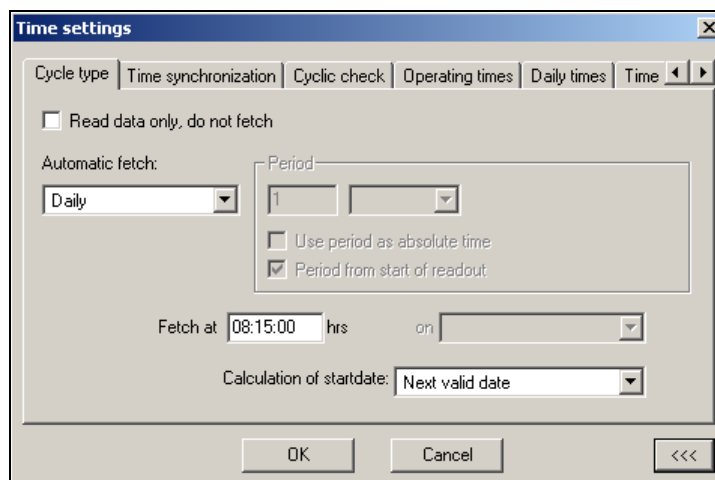
The menu for setting the times for retrieving data can be accessed

- when a new device is set up or
- by means of the menu function *Edit* → ... *Times*: - *Edit*.

In the latter case, the “Times” field must be selected in the navigation tree.



When you click , additional setting options appear.



It depends on the specific device whether, when using an Ethernet connection via TCP/IP, only one program from the PC software components can operate through the interface. If only one program can operate, other programs can still continue to communicate with other devices.

## 6 Time Settings

### Cycle type: Periodic

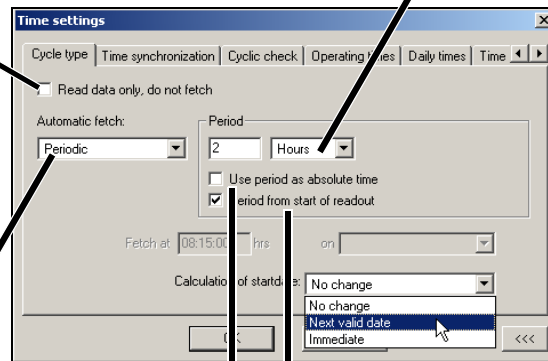
Defines the type and method for retrieving or reading out raw data.

#### Active (☑):

Data will only be read; the memory alarm is not affected

#### Setting for retrieval intervals:

The settings “2” and “hours” mean: data will be retrieved every 2 hours



The following functions are available:



#### Inactive (☐):

The time interval does not start to run until the read-out procedure is finished.

#### Active (☑):

The time interval starts to run at the start of read-out.

If the read-out takes longer than the time interval, then the next whole multiple of the interval is used.

#### Operating period: active

##### Inactive (☐):

The operating period is the relevant factor for the time interval. At the end of the operating period, the remaining time of an interval is carried forwards to the start of the next operating period.

##### Active (☑):

At the end of the operating period, the interval continues in a 24-hour rhythm.

#### Operating period: inactive

If the operating period is inactive, this function has no effect.



If the period is set to less than 60 seconds, the data are read out in a continuous cycle, i.e. the connection to the device is never broken. A continuous cycle is only stopped if an error occurs, on cancellation by the user, or at the end of the operating period (if it is active and the read-out has been carried out 100%). The parameter for “Continue read-out beyond the operating period” in the “Advanced (1)” tab also has an effect on the end of the operating period.



## 6 Time Settings

### Example 1

The interval for retrieval is: every 2 hours during the operating period from 08:00:00 AM to 06:00:00 PM, with the setting “Immediate”. In this case, the operating period can be divided by the time interval.



If the option “Use period as absolute time” was active (☒) , then the behavior would not change, since both the operating period (10 h) and a complete day (24 h) can be divided by the time interval (2 h).

### Example 2

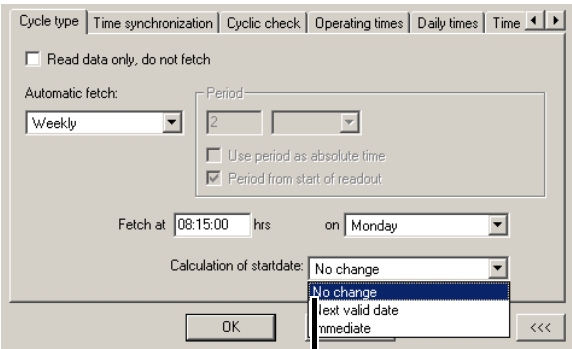
The interval for retrieval is every 2 hours during the operating period from 08:30:00 AM to 05:30:00 PM, with the setting “Immediate”. In this case, the operating period cannot be divided exactly by the time interval. So the retrieval times for the following day will be shifted accordingly.

When data is retrieved for the 10th time, the start time will have come round to 09:05:32 again.



If the “Use period as absolute time” option was active (☒) , then the behavior for read-out would be as described above, for Example 1.

# 6 Time Settings



## Start time for next read-out of data

### No change

If a change is made to the time settings, the new time will only take effect after the next read-out.

Example: Read out will be performed Mondays at 8:00 AM. It is currently 7:00 AM Monday. You set “Retrieve at” to 10:00 AM and leave the “Calculation of start date” set to “No change.” The next read-out happens at 08:00 AM. Then the new setting will be made for 10:00 on Monday of the following week.

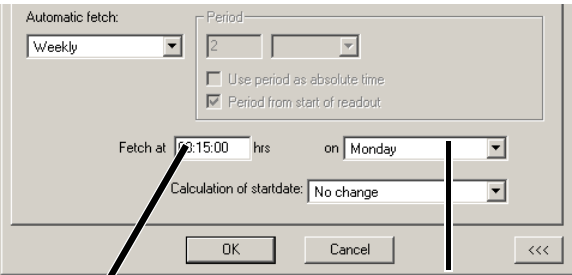
### Next valid date:

Depending on the setting, this is the next full hour, minute, or day – at 00:00:00 AM.

### Immediate:

This takes the present day/time as the starting date, after which the new time is calculated from the current setting. Caution: If the present time is outside the operating period, there will be no read-out.

**Cycle type**  
**Daily,**  
**Weekly,**  
**Monthly**



**Time**  
for daily, weekly or monthly

**Weekday**  
for weekly or monthly

## 6 Time Settings

### Time synchronization

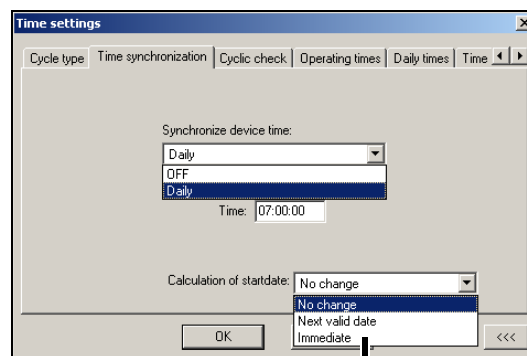
The setting for when the device time will be synchronized to the PC time. This is used to eliminate differences between the PC and the device.



It is only possible for devices that support time synchronization.



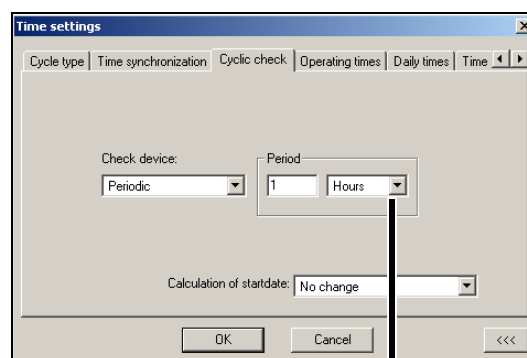
Synchronization can only be performed during operating periods.



**Setting that determines whether and how the start date/ time is calculated**

### Cyclic check

This defines a check for whether the attached device is still connected to the PC. If a device is not accessible, then an error message is entered in Audit Trail Manager.



**Setting for how frequently the connection should be checked.**

This function is intended to reveal any possible connection error before the data read-out takes place.



The check can only be made during the operating period (when the operating period is active).

## 6 Time Settings

### Operating periods

Here you can set the periods of time for which the device is accessible, i.e. the system is in operation. These settings are used to calculate the start dates/times for activities (e.g. retrieving or reading out data, time synchronization, and cyclic checks) and in this way also reserve specific time periods for other programs.

The time of day from ... to ... when the device is operational

Weekdays on which the device will be operational

### Daily times

These settings are intended for use when data need to be retrieved or read out at a specific time of day.



These times must lie within the operating periods, and the action (retrieving/reading) must be set to daily!

Time entry

List for the special time entries

The selected entry is removed from the list and presented for editing in the time field.

Adds the date/time that is set to the list.

## 6 Time Settings

### Time schedule

These settings are intended for use when data must be retrieved or read out at individually specified times that cannot be set to occur periodically.



These times must lie within the operating periods, and the action (retrieving/reading) must be set to schedule! After the processing of a scheduled event, it will be removed from the list by the software.

Time  
and date  
entry.

The screenshot shows the 'Time settings' dialog box with the 'Time schedule' tab active. The 'New date' field contains '4. 3. 2008' and the 'New time' field contains '01:00:00' with 'hrs' as the unit. There are '>>' and '<<' buttons between the date and time fields. A large empty list area is on the right. At the bottom are 'OK', 'Cancel', and '<<<' buttons.

List for the  
special time  
entries

The selected entry is removed from the list  
and presented for editing in the date/time  
field.

Adds the date/time that is set to the list.

## 6 Time Settings

### Expanded (1)



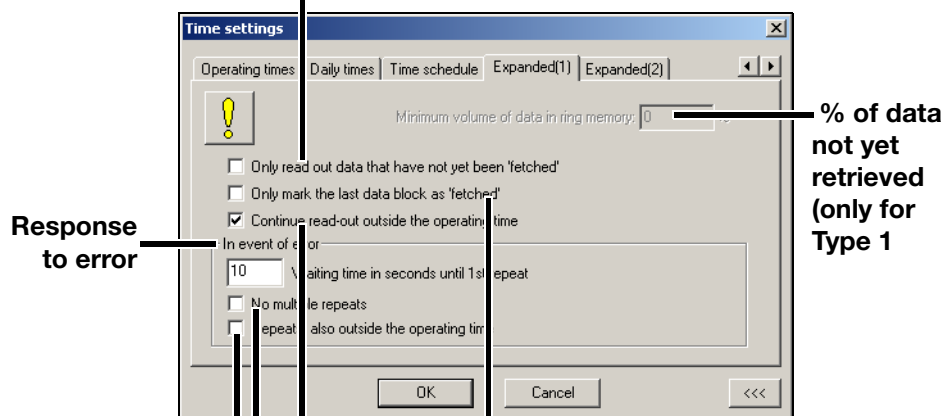
This function depends on the device version!

#### Inactive (☐):

All data will be read out from the device. For Type 1 devices it can happen that a memory alarm is generated during the read-out. After a successful read-out, the alarm will automatically be reset.

#### Active (☒):

Only new data will be read, even if "old" data is still missing in the archive.



#### Active (☒):

The mark that data have been retrieved will only be set when the read-out procedure is finished (only Type 2 devices).

#### Active (☒):

If the operating period ends, an existing read-out procedure continues until all the data have been retrieved.

#### Inactive (☐):

If the operating period ends, an existing read-out procedure is cancelled (after the current data block has been completely read out).

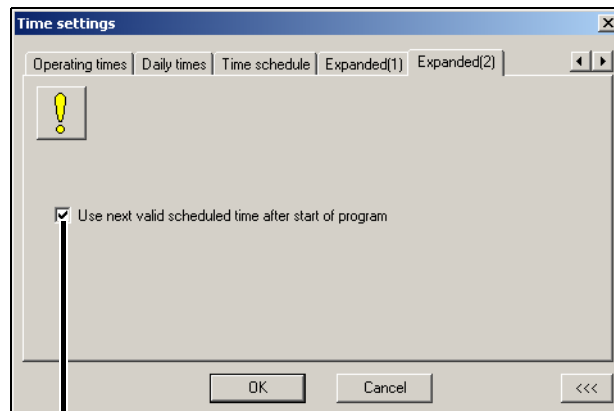
#### Active (☒):

In the event of an error, a single repeat is carried out. Further attempts at reading will not be made until the next scheduled time.

#### Active (☒):

In the event of an error, repeats are permitted even though they are made outside the operating period.

### Expanded (2)



**Active (

The scheduled times are calculated from the next valid point, as if the PCC software had just made a read-out.**

**Inactive (

Data that have not yet been read out (from devices where the scheduled time has passed) is read immediately and then the scheduled times are recalculated (see register for operating periods).**



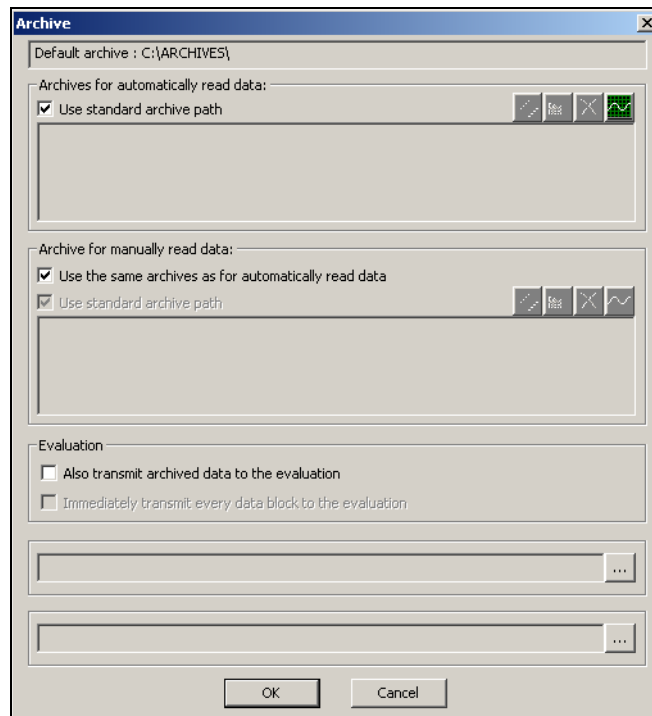


The menu for setting the archives for retrieved data can be accessed

- when a new device is set up or
- by means of the menu function *Edit* → *Edit archive*.

In the latter case, the “Archive” field must be selected in the navigation tree.

After calling up this function, the default archives that have been set will appear, and the other functions will be grayed out (not selectable).



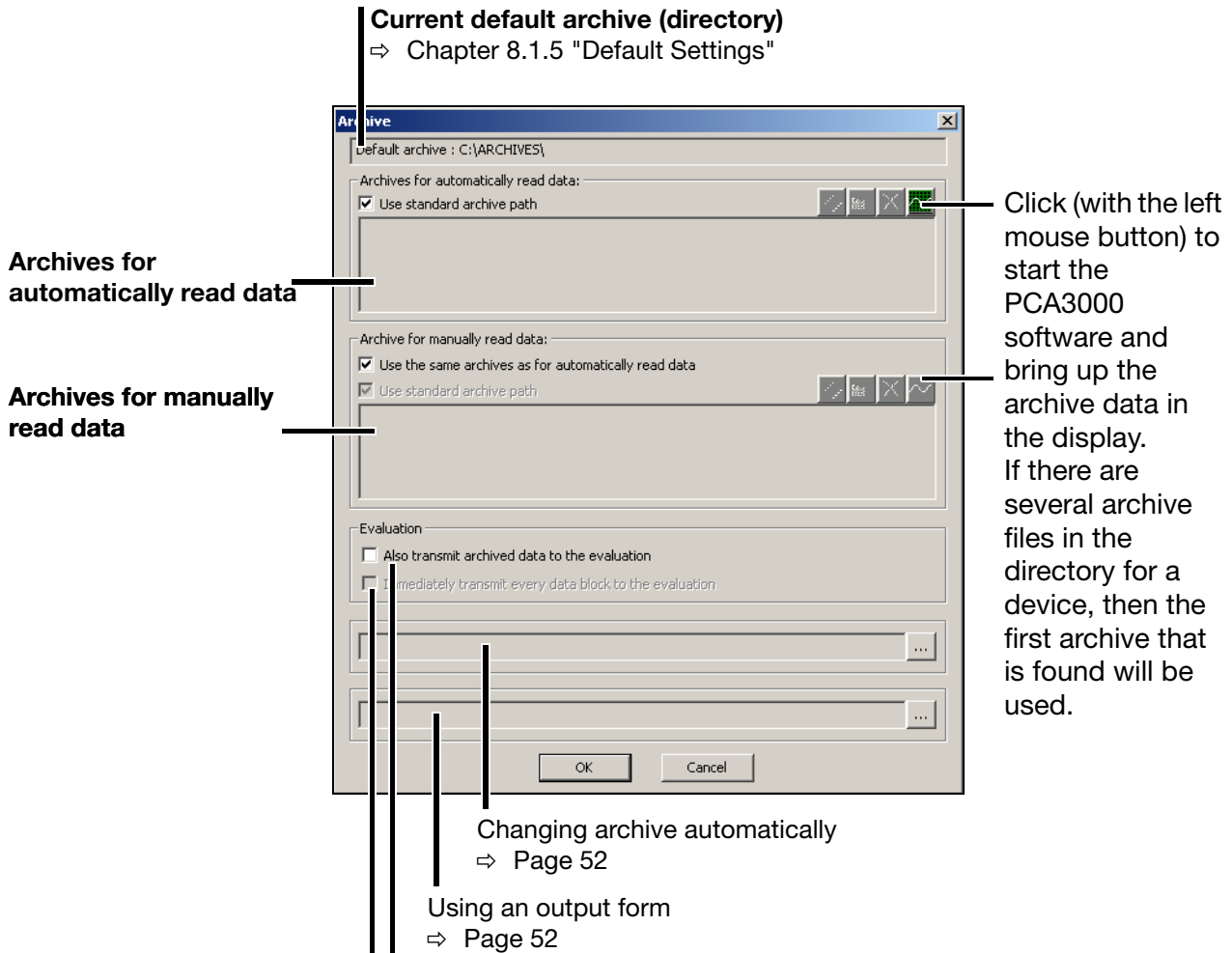
A new archive can only be set if the tick mark is removed by clicking. You can select any directory and/or archive file with the \*.177 filename extension.

---

### Tip

It is a good idea to have several archive files if the data will be stored both on your own PC and on a server, using a regular data backup procedure. For instance, an additional archive could be provided for company-wide access.

## 7 Archive



### Active (☑):

Data is immediately accepted for evaluation.

In PCA3000, this means that the archives will be opened faster.

### Active (☑):

Accepts each data block individually for evaluation, directly after reading out.

### Inactive (☐):

All the data in the archive that is not yet in evaluation (e.g. previously read data, or data from a CF card) will not be evaluated until the end of reading out.



### Archive directory:

Data is saved in all archive files with the same device identifier (Manf. No., CPU No., or config checksum; depends on device type). If there is no archive, a new one will be created.

File name = device identifier

### Archive file:

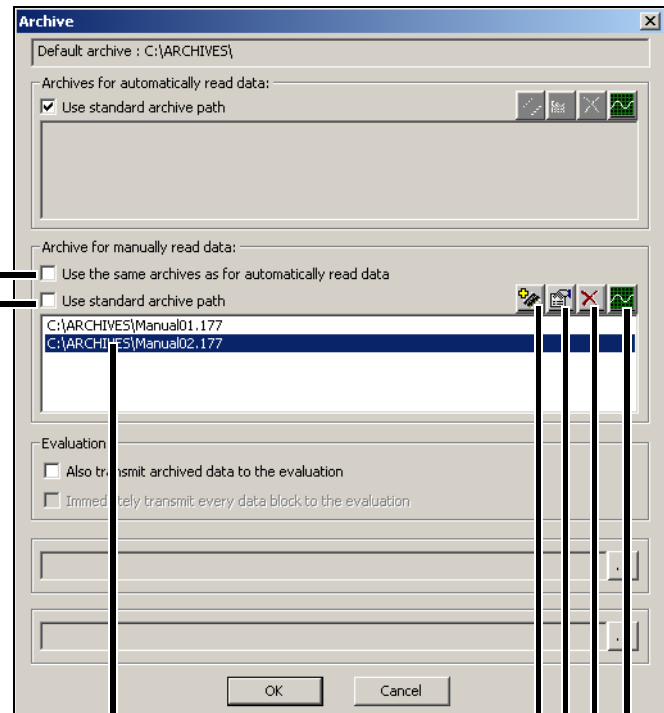
Data will only be stored in this archive. The archive must have the same device identifier as the device itself. If the archive does not match the device and no matching password is found, a new one is created.

If, for instance, it is not possible to store data on a network, it will be stored in the default archive.

If the standard archive paths (or archives) shall not be used, the concerning function has to be deactivated (☐). Example:

Inactive:  
Archives for automatically read data will not be used for manually read data.

Inactive:  
The default archive path for manual read-out will not be used.



Double clicking on it allows you to enter the name directly.

Add another archive for manually read data.

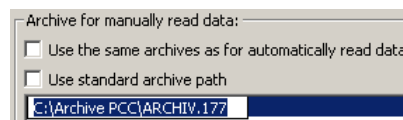
Edit archive entry for manually read data.

Remove an archive from the list.

Start PCA3000 and display the data.  
The marked archive will be opened. If it is a directory, then the first archive that is found will be opened.

## Tip

If you click a second time on an entry (not a double-click; two clicks with brief pause between), you can edit the archive name and the directory as text.



## Tip

If you enter a name without defining a path (e.g. Manual01.177), then an archive with this name will always be created or used in the default directory.



When making a manual entry, please note that the file name extension must always be "177." If this rule is not followed, it will not be possible to store data in the intended archive.

## 7 Archive

---

### Changing archive

---

When the set time range is exceeded, a new archive is automatically created.

The following settings are possible:

- inactive
- 1 day
- 1 week
- 1 month
- 1 year



The time range refers to the time stamps in the data of the device. It does not refer to the points in time when data are read or fetched from the device.

Therefore an archive change is not possible until device data with a corresponding time stamp are available. In this respect the point in time when data are read or fetched is also relevant.

### Output form

---

Data that have just been read in are automatically generated with the form selected here.

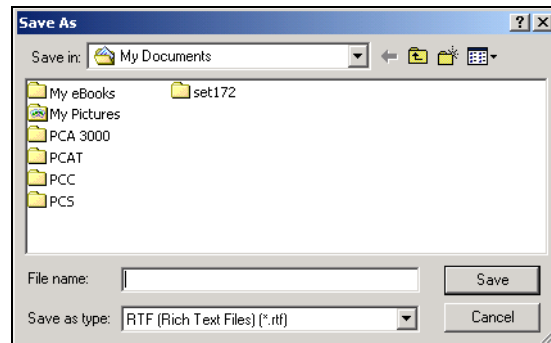
This function can only be used if PC Evaluation software PCA3000 has been installed with option "automatic printout."

Further information can be found in the documentation for PC Evaluation software PCA3000 (59498).


### 8.1 File

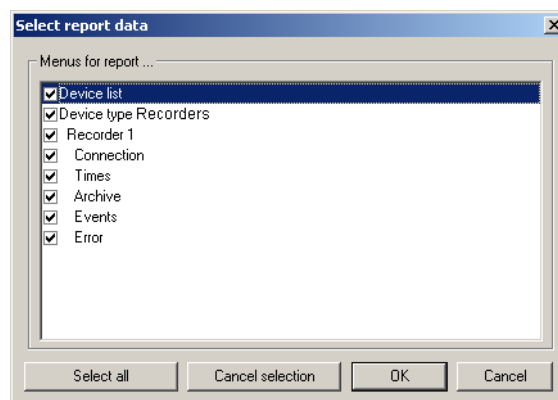
#### 8.1.1 Export as RTF Text

This function exports the information in the dialog window as an RTF text in the file to be selected.



#### 8.1.2 Print, Print Preview

This function  prints all the connection data for the devices marked in the diagram in the dialog window.





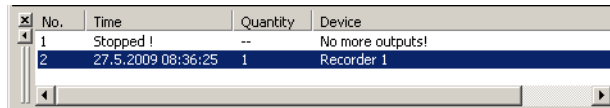
## 8 Menu Functions and Toolbar

### 8.1.4 Output orders

When outputs have been stopped (tick mark visible), data are no longer output into output forms. Nevertheless, outputs will not be lost because they are entered on a list with output orders.

In this case, after manual read out, the automatic start of PC Evaluation software PCA3000 is also deactivated (manual start by using button is possible).

In the window for output orders every device is shown with time and number of outputs (e. g. batches):



No.	Time	Quantity	Device
1	Stopped !	--	No more outputs!
2	27.5.2009 08:36:25	1	Recorder 1

⇒ Chapter 4.2 "Windows of the User Interface"

After enabling outputs (tick mark removed), all outputs, which have been collected till then, are carried out. PCA3000 is started automatically if manual read out was used before.

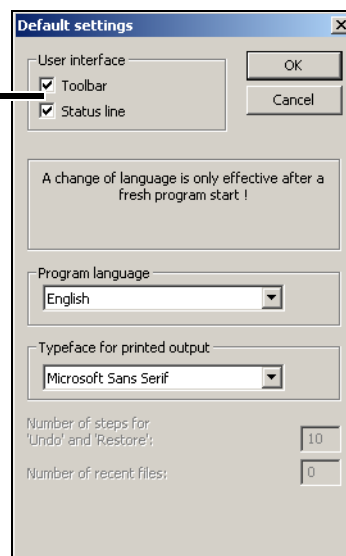
The list with output orders can also increase even if outputs have not been stopped. This happens temporarily when outputs cannot be processed as fast as they are collected.

### 8.1.5 Default Settings

\* *File → Default settings*

\* Set the preferred language and font

A tick mark means that this bar or line is visible



You can select the language of the PC program here as well as the font for printer output.

The settings do not become active until the program has been restarted.

## 8 Menu Functions and Toolbar

### 8.1.6 List Settings

Right-click on  
the device list

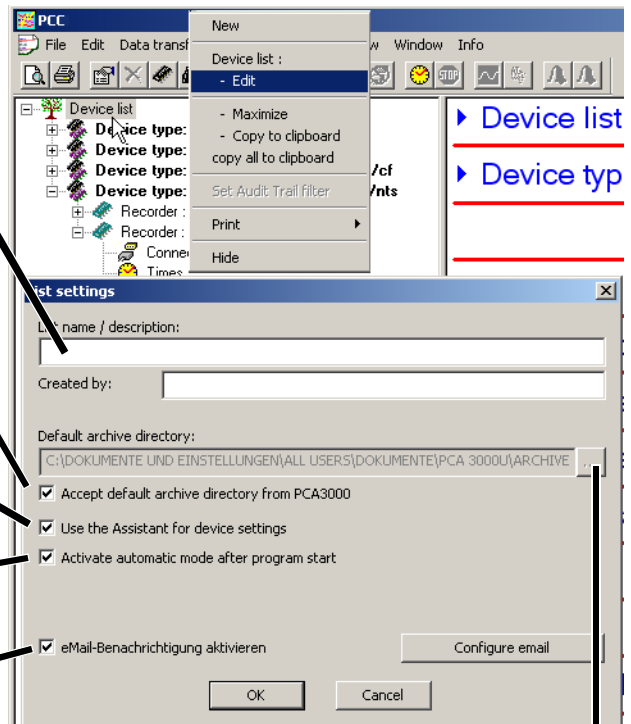
You can enter  
additional information  
on the list in this field.

The default PCA3000  
archive is used. - Do  
not set a tick if another  
archive directory is  
required.

Device settings are  
made with the  
Assistant.

Automatic mode is  
active after the  
program starts.

Messaging via e-mail  
is activated.



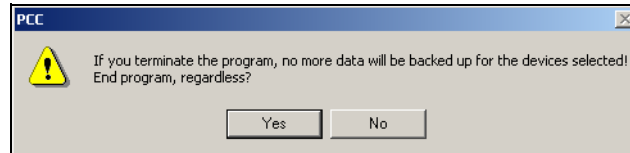
Click here to select a different archive  
(instead of the default archive for PCA3000)  
or to enter the name directly  
in the field.



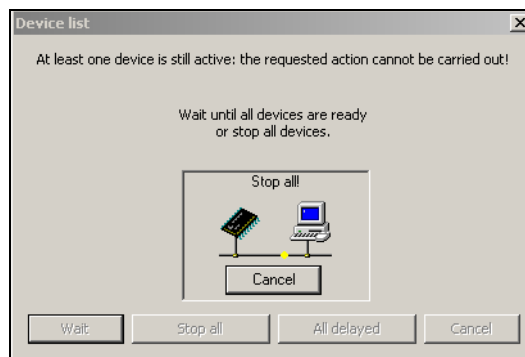
## 8 Menu Functions and Toolbar

### 8.1.7 Exit

This terminates the program immediately after any current activities, such as reading out data, have been completed. During the time that elapses until all activities have been completed, no new activities will be started. Activities of connected devices can also be cancelled. In this case, the program is immediately terminated.



If any devices are still active after clicking  (e.g. data are being read out), then the following dialog will appear.



Click the upper button  for the lower ones to become active.

Select "Stop all" to end the program immediately.

If you select "All delayed", the program ends as soon as all currently active data blocks have been completely read



If a data transfer is cancelled prematurely, then some data will be missing from the archive. You must make certain that the data has been retrieved from the devices in good time, before a loss of data occurs.

## 8 Menu Functions and Toolbar

---

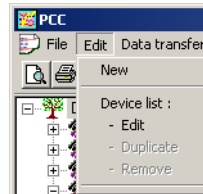
### 8.2 Editing

The entry in the navigation tree defines which of the functions *New*, *Edit*, *Duplicate*, and *Remove* are available.

---

#### Device list

If the device list item is active, then the following functions are available.

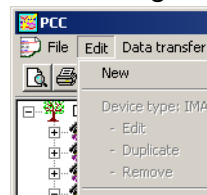


⇒ Additional information can be found in Chapter 8.2.1 "Device List".

---

#### Device type

If a device type is active, then the following functions are available.

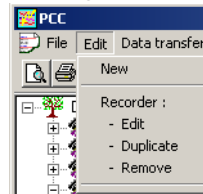


⇒ Additional information can be found in Chapter 8.2.2 "Device Type".

---

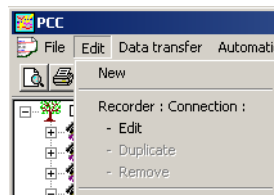
#### Device

If a device is active, then the following functions are available.



#### Parameter group

If the parameter group for a device is active, then the following functions are available.

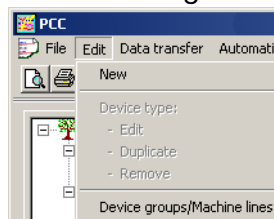


⇒ Additional information can be found in Chapter 8.2.3 "Editing".

---

#### Device groups/ Machine lines

The function *Device groups/Machine line* is always available, regardless of the entry which is currently marked in the navigation tree.



⇒ Additional information in Chapter 8.2.4 "Device groups/Machine lines".

---

# 8 Menu Functions and Toolbar

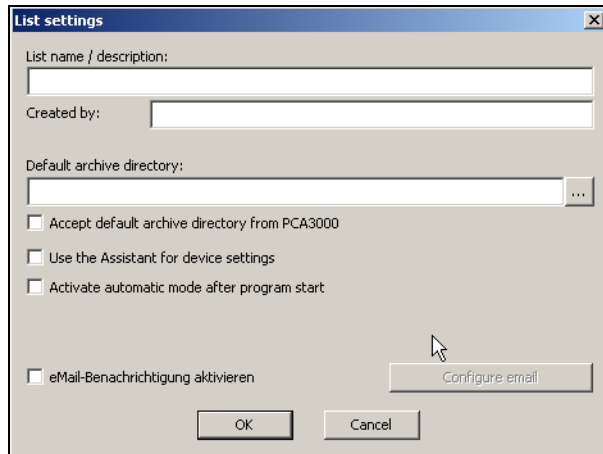
## 8.2.1 Device List

### Editing the device list

\* *Edit → Device list: - Edit* (or press the F4 function key)

The entry marked in the tree structure will be edited.

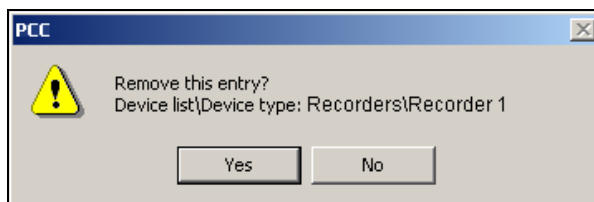
⇒ Chapter 8.1.6 "List Settings"



### Remove

\* *Edit → [Device]: - Remove* (or press the "Del" key)

This removes a connected device from the device list.



\* Click on "Yes" to remove the entry from the device list.

### Duplicate

\* *Edit → [Device]: - Duplicate* (or press "Ctrl" + "Insert" keys)

The device that is marked in the navigation tree will be copied, and added to the device list as a new entry. This entry can be freely modified.

A new identifier is created for every device entry, and so it is different from the device that was copied. Events and errors are not copied, but automatically set up as new entries.



This function is particularly suitable as a time-saver for entering devices that are similar, with only small differences in the connection data.

⇒ Chapter 8.2.2 "Device Type"

## 8 Menu Functions and Toolbar

---

### Move a device to another device list

- \* Create a new device list if necessary
    - ⇒ Chapter 8.2.4 "Device groups/Machine lines"
  - \* Mark the device in the navigation tree
  - \* *Edit* → [Device]: - *Edit* (or press the F4 function key)
  - \* Select the required device list in field *Device group / machine line*
  - \* Finish dialog (*OK* or *Forward...* ; depending on dialog)
- The device is moved to the selected device list.

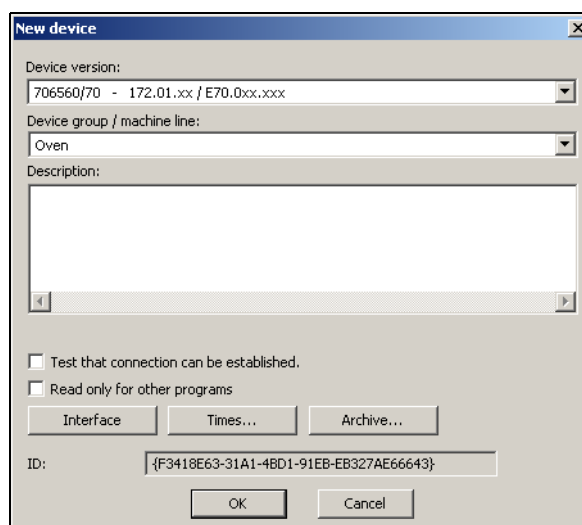
### 8.2.2 Device Type

#### New (with Assistant)

- \* *Edit* → *New* (or press the "Insert" key)
- This adds a new device to the device list.
- ⇒ Chapter 5.2 "Adding devices"

#### New (without Assistant)

- \* *Edit* → *New* (or press the "Insert" key)
- New devices can also be added to the device list without using the "Assistant for device settings".
- When you have called up the function, the following dialog window will appear:



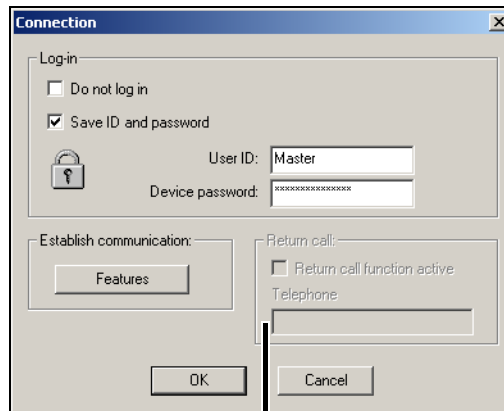
Unlike the operation with the Assistant, you will not be led sequentially from one parameter to another, but will have to start the individual dialog windows yourself.

## 8 Menu Functions and Toolbar

### 8.2.3 Editing

#### Edit connection

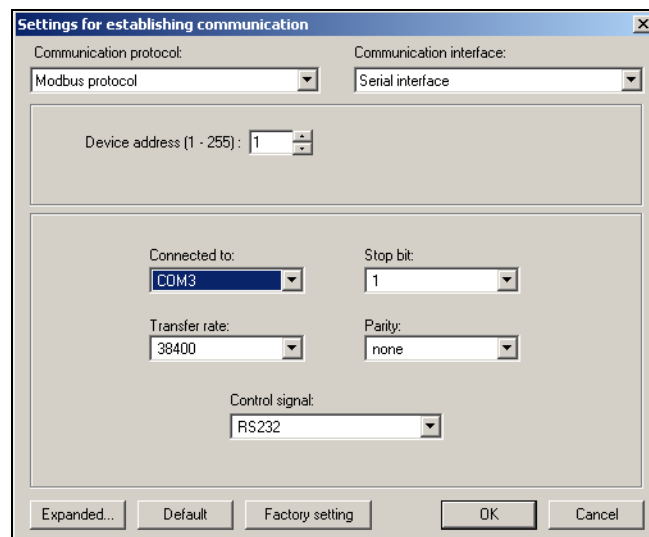
\* *Edit → ... Connection:* - Edit (or press the F4 function key)



The “Return call” function is only available for specific device types with an active modem connection. Here you must enter the number of the PC that will be called by the device.

The log-in options have already been described on Page 25.

If you click **Features**, you can alter the settings for the communication connection.



#### Edit times

\* *Edit → ... Times:* - Edit (or press the F4 function key)

⇒ Chapter 6 "Time Settings"

#### Edit archive

\* *Edit → ... Archive:* - Edit (or press the F4 function key)

⇒ Chapter 7 "Archive"

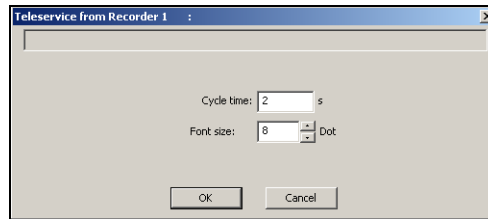
## 8 Menu Functions and Toolbar

---

### Edit Teleservice

*Edit → ... Teleservice: - Edit* (or press the F4 function key)

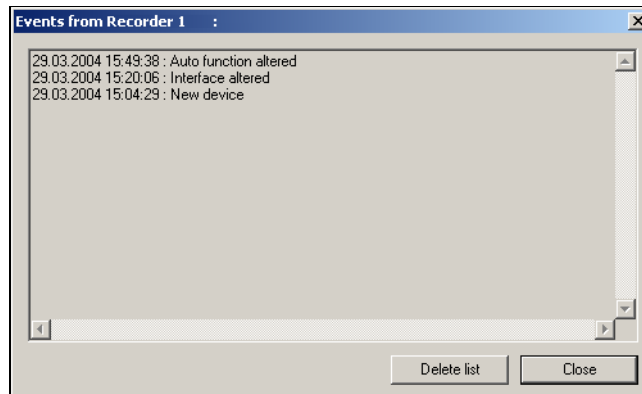
The cycle time determines the interval for updating the display. The font size determines the size for display of the Teleservice window.



### Editing events

\* *Edit → ... Events: - Edit* (or press the F4 function key)

The “Events” list is designed for fast diagnostics and checking. Events that have been entered here can be deleted. However, deleting them has no effect on the Audit Trail entries.

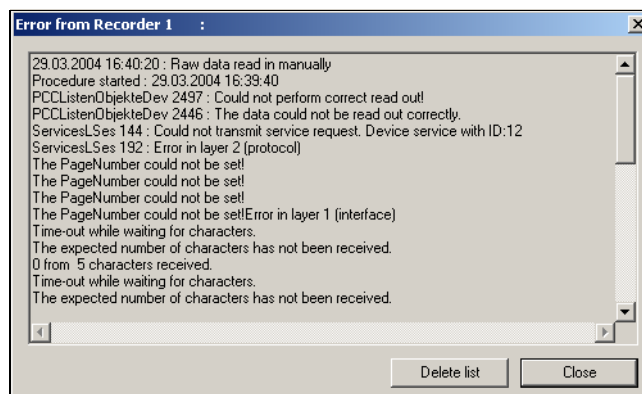


The number of entries is limited. If the maximum number is exceeded, the program will delete the oldest entries. You can use the PCAT software to view all the entries.

### Editing errors

\* *Edit → ... Errors: - Edit* (or press the F4 function key)

The “Errors” list is designed for fast diagnostics and checking. The errors that have been entered here can be deleted. However, deleting them has no effect on the Audit Trail entries.





The number of entries is limited. If the maximum number is exceeded, the program will delete the oldest entries. You can use the PCAT software to view all the entries.

## 8 Menu Functions and Toolbar

### Error indication

The toolbar contains two bell icons for indicating errors.

The green bell  becomes active if a new error occurs in the device that is marked in the navigation tree.

The red bell  becomes active if a new error occurs for any device.

If errors occur in more than one device, the bells remain active until you have looked at all the errors.

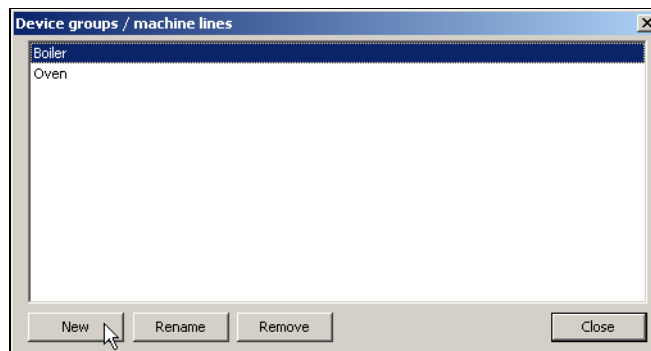


The number of different devices with new errors is limited.

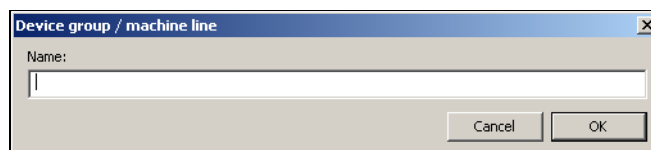
### 8.2.4 Device groups/Machine lines

*Edit → Device groups/Machine lines*

This function can be used to create new device lists or to rename or remove existing device lists.



A name has to be given to a new device list in the following field. If an existing device list shall be renamed, this has also to be done here.



A device list can only be removed if it does not contain any device. If the list is not empty you first have to remove all devices or to move the devices to another device list.


⇒ Chapter 8.2.1 "Device List"

## 8 Menu Functions and Toolbar

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### 8.3 Data Transfer

#### 8.3.1 Reading out Raw Data (Manually)

Depending on the device that is used, different information must be provided when manually reading out  raw data.

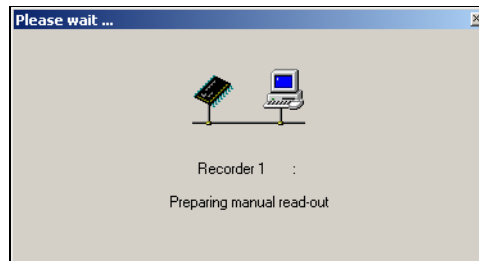
##### **Paperless recorders of device type 2**

For paperless recorders of device type 2 you can set what data is required by the device.



The value for the memory alarm is not affected, i.e. the data will be read out, but not marked as “retrieved”!

First, the software establishes a connection to the device.



You can close the dialog (or move it) and carry on working through the PCC software. When the connection has been established, the data selection follows. Every change to the configuration requires a new entry to be made in the list.

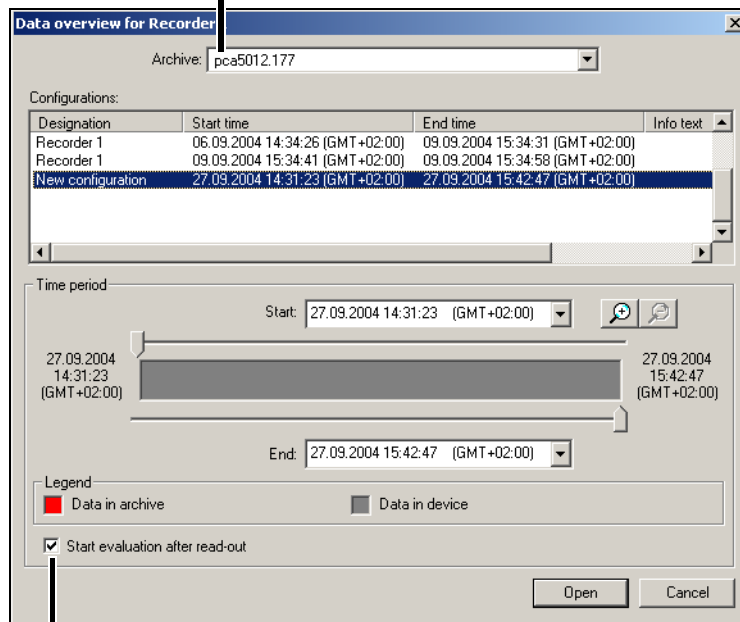
For example if the configuration of a measurement input is changed, then a new entry has to be made, because different measuring ranges require different scalings in PCA3000.

\* Select the required entry from the list and set the time limits if necessary.



## 8 Menu Functions and Toolbar

The archive is selected here.



### Active (☑):


After reading out the data, the evaluation software PCA3000 will be started automatically (if outputs are not stopped).

The first archive that is found will be opened, depending on the settings described under „Edit archive” on page 61.

⇒ Additional information about using the data selection dialog can be found in the PCA3000 Operating Manual (59498).

## 8 Menu Functions and Toolbar

### 8.3.2 Fetching Raw Data (Manually)

When raw data is fetched manually , a check in the device determines what data is not yet in the set archive.

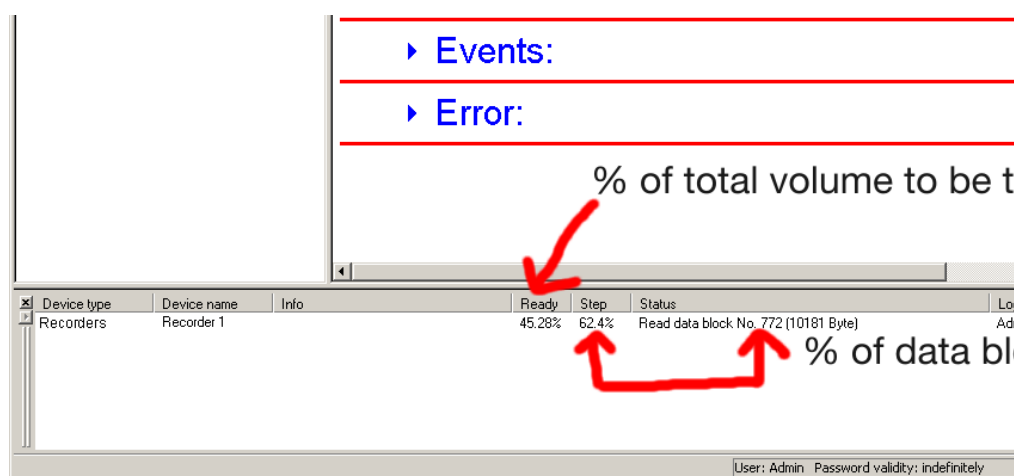
This command transfers only the data that is missing to the archive.



The value for the memory alarm is reset and marked as “fetched”! For Type 1 devices, please note the *Times* → *Advanced (1)* tab (Page 46).

\* Click the icon.

The missing data will be transferred to the selected archive in the PC.



#### Device type 2

Depending on the time taken for reading out and the speed of storage, it is possible that data has been recorded after the start of reading out, but not yet been read out. This data will be retrieved by the next read-out procedure.


#### Device type 1

Data recorded after the start of reading out will be retrieved by the next read-out procedure.

#### All device types

If manual retrieval has lasted for longer than 1 minute, automatic read-out is performed again, and if necessary once more after that (for a maximum of 3 times).

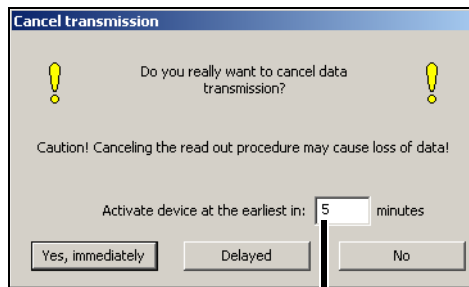
### 8.3.3 Canceling the Procedure

The  function is used to cancel a currently active process of the device identified in the tree structure immediately.

## 8 Menu Functions and Toolbar

### Cancel automatic mode

If you are about to cancel the read-out of data in automatic mode, the following dialog window appears:



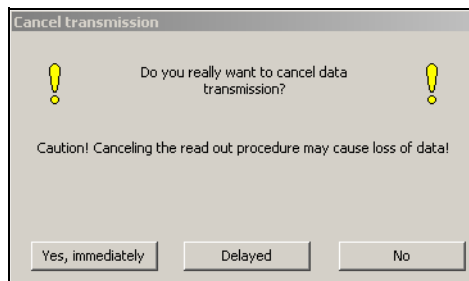
The procedure that was cancelled will be resumed at the earliest after this time has elapsed. Automatic mode must remain switched on!

Click **Yes, immediately** to cancel the reading out of data immediately. Make sure that the data have been retrieved in good time, to avoid a loss of data. Select the period during which the device will remain inactive. Automatic mode will not restart for the selected device until that period has elapsed.

After you click **Delayed**, read-out ends as soon as the currently active data block has been completely read. In this case, no error message will be generated.

### Cancel manual read-out

When you cancel a manual read-out, the following dialog window appears:



Click **Yes, immediately** or **Delayed** to cancel the reading out of data (see above).

### PCAT entry

Cancelling automatic mode or manual read-out will cause the following PC-Audit-Trail entries:

*Yes, immediately:* Error

*Delayed:* Warning



The appropriate user rights are required to cancel reading out of data.

⇒ Chapter 4.4 "Rights"

## 8 Menu Functions and Toolbar

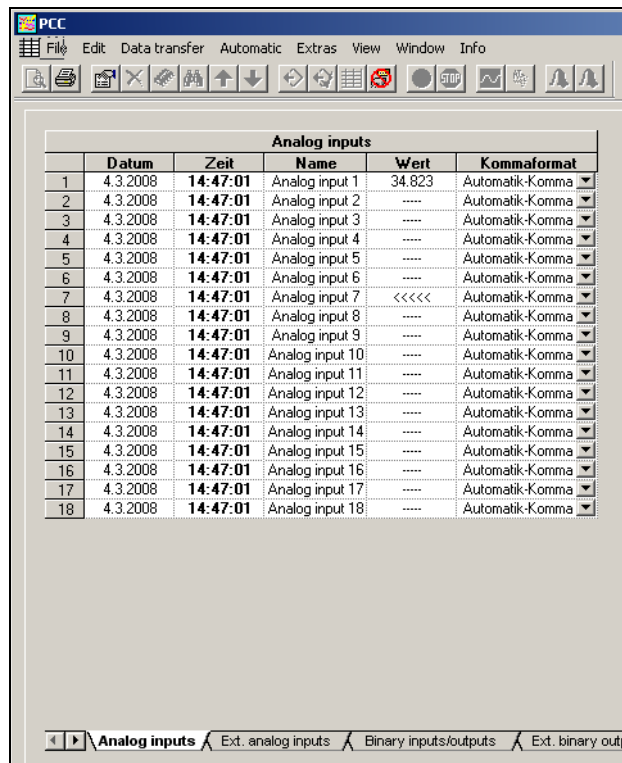
### 8.3.4 Teleservice

Teleservice  is used to show current process data of attached devices.

Teleservice can be active for several devices at the same time.

The interval at which data is updated can be adjusted. The font size can also be changed.

⇒ „Edit Teleservice” on page 62



	Datum	Zeit	Name	Wert	Kommaformat
1	4.3.2008	14:47:01	Analog input 1	34.823	Automatik-Komma
2	4.3.2008	14:47:01	Analog input 2	-----	Automatik-Komma
3	4.3.2008	14:47:01	Analog input 3	-----	Automatik-Komma
4	4.3.2008	14:47:01	Analog input 4	-----	Automatik-Komma
5	4.3.2008	14:47:01	Analog input 5	-----	Automatik-Komma
6	4.3.2008	14:47:01	Analog input 6	-----	Automatik-Komma
7	4.3.2008	14:47:01	Analog input 7	<<<<<	Automatik-Komma
8	4.3.2008	14:47:01	Analog input 8	-----	Automatik-Komma
9	4.3.2008	14:47:01	Analog input 9	-----	Automatik-Komma
10	4.3.2008	14:47:01	Analog input 10	-----	Automatik-Komma
11	4.3.2008	14:47:01	Analog input 11	-----	Automatik-Komma
12	4.3.2008	14:47:01	Analog input 12	-----	Automatik-Komma
13	4.3.2008	14:47:01	Analog input 13	-----	Automatik-Komma
14	4.3.2008	14:47:01	Analog input 14	-----	Automatik-Komma
15	4.3.2008	14:47:01	Analog input 15	-----	Automatik-Komma
16	4.3.2008	14:47:01	Analog input 16	-----	Automatik-Komma
17	4.3.2008	14:47:01	Analog input 17	-----	Automatik-Komma
18	4.3.2008	14:47:01	Analog input 18	-----	Automatik-Komma



To use Teleservice, "Modbus" or "Modbus TCP/IP" must be set as the connection protocol.



Manual read-out or retrieval of data is not possible when Teleservice is active.

The active Teleservice is closed for an automatic device if data is being read out or retrieved.

If data needs to be read out or retrieved from a given device at the same time Teleservice is active, two copies of Teleservice must be present in the device list (use function "Duplicate").

#### Exit Teleservice

An active Teleservice session can be terminated for the selected device (- *Exit Teleservice*) or for all devices (*Exit all Teleservices*).

## 8 Menu Functions and Toolbar


### 8.4 Automatic

The scheduled times and activities that have been set up under “Times” will only be automatically processed in automatic mode.

#### 8.4.1 Starting/Stopping Automatic Mode

You can tell whether automatic mode has been **started** by whether the icon



If automatic mode has been **stopped**, the icon is shown as normal, i.e. **not depressed** .

#### Changeover started/ stopped

The changeover between started and stopped is made through the menu function *Automatic* → *Automatic mode* or by clicking the corresponding icon



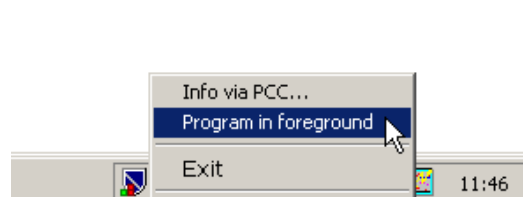
#### 8.4.2 Automatic Mode in Background

This closes the current program window and places the PCC icon in the system tray of the task bar at bottom right. The program carries on running in the background.



If the program is ended and then restarted, it carries on in the background, as shown in the picture. If the PC is restarted, then PCC is also automatically restarted (after logging in to the operating system).


- \* If you click the icon, a window opens.
- \* Click “Program in foreground” and then (after successful user log-in) PCC reopens the program window to its full size.



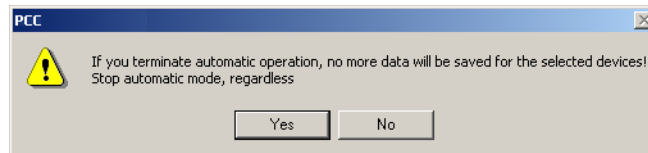
## 8 Menu Functions and Toolbar

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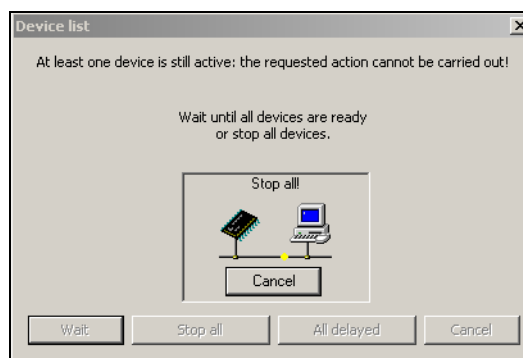
### 8.4.3 Stopping Active Devices

This function  terminates automatic mode (if it was active when the icon was clicked) and cancels all currently active data transmissions.

**Message for  
active  
automatic  
mode**



**Cancel current  
transmissions**



Click the upper button  for the lower ones to become active.

Select "Stop all" to end the read-out immediately.

If you select "All delayed", the read-out ends as soon as all currently active data blocks have been completely read. In this case, no error message will be generated.



If a data transfer is cancelled prematurely, then some data will be missing from the archive. You must make certain that the data has been retrieved from the devices in good time, before a loss of data occurs.

**PCAT entry**

Cancelling current transmissions will cause the following PC-Audit-Trail entries:

*Stop all:* Error

*All delayed:* Warning

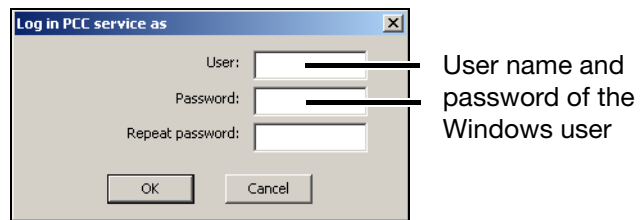
## 8 Menu Functions and Toolbar

---

### 8.4.4 Start as service

---

Starts PCC as a Windows system service.



This function makes it possible to run PCC without the Windows user being logged in. In this manner, PCC starts as soon as the PC is turned on or restarted without a user having logged in.

The user name and password must still be entered in this case, however, because as a system service, PCC requires a valid user context to be able to access various user settings (for example the default archive directory).

The user who makes the settings for the system service requires administrator rights. The user in whose context the system service is running can have restricted user rights.



If PCC still cannot be started as a service even with administrator rights, the reason may be lack of authorization for starting system services.

Please contact the PC administrator.

---

#### **Remove service**

The currently running system service is terminated.

At the same time PCC is removed as a system service, so that it will not run the next time the PC is turned on or restarted.

---

#### **Exit service**

The currently running system service is terminated.

The next time the PC is turned on or restarted, PCC will be started again as a system service.

## 8 Menu Functions and Toolbar

---

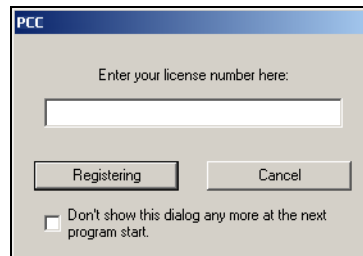
### 8.5 Tools

#### 8.5.1 Enable Program Options

---

You can use this function to enable additional software options, or to license a software that was installed as a demo version.

\* *Tools → Enable program options*



\* Enter the license number and click "Registration"



After successful registration, the program must be closed and then restarted, so that the newly enabled options can be activated.

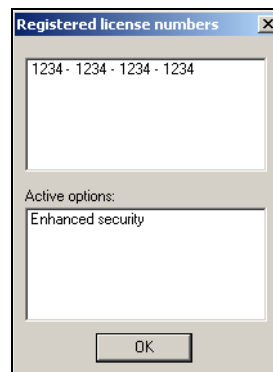
**No restart of Windows and no deinstallation** is required!

#### 8.5.2 Forgotten the License Number?

---

**Registered  
license  
numbers**

\* *Click Info → Registered license numbers*



Your license numbers for the installed software components will now appear. Various software modules can be enabled, depending on the license number.



## 8 Menu Functions and Toolbar

---

### 8.5.3 Compressing the Device List

---

This removes unused areas that have developed in the database (device list) – for instance, after deleting devices. If large gaps are present, compressing the device list will reduce the time taken to load and save it.

### 8.5.4 Resetting the Device List

---

All the devices in the connection list will be deleted. None of the devices can be active (reading out/retrieving data, Teleservice), not even for a different program (Setup or PCS).

### 8.5.5 Importing the Device List

---

Opens a previously saved device list for importing. After the list is selected in the following dialog, all or some devices can be imported from the list.

### 8.5.6 Save Device List

---

The current device list can be saved if no other device is active (data read-out/retrieval, Teleservice). It is not possible to stop actions that are running.

⇒ See “Cancel current transmissions” on page 70.

### 8.5.7 Reset all Error/Event Lists

---

Local error/event lists of all device entries are reset.

This does not affect the Audit Trail list.

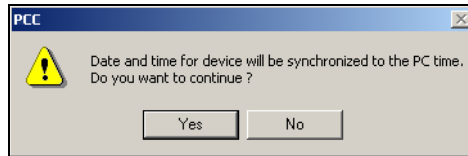
## 8 Menu Functions and Toolbar

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### 8.5.8 Synchronizing the Device Time

This function is only available for devices that support synchronization.

Synchronization is only possible if the time difference between the PC and the device is not greater than 30 seconds.



System requirements means that synchronization is only effective for differences  $>1$  second. The residual error is  $<\pm 1$  second. After long periods of connected operation (e.g. when using the Ethernet interface) the deviation can rise to 2 seconds.

### 8.5.9 Changing the Device Password

This function is only available for devices that have user/password management.


This function provides the option for altering the password at the device itself or via the interface – because of the remote location of the device or as a convenient method that does not require detailed knowledge of operation.



The function is useful if the device is operated at a remote location, via Ethernet or a modem, or the user does not otherwise have adequate knowledge of the system.

## 8 Menu Functions and Toolbar

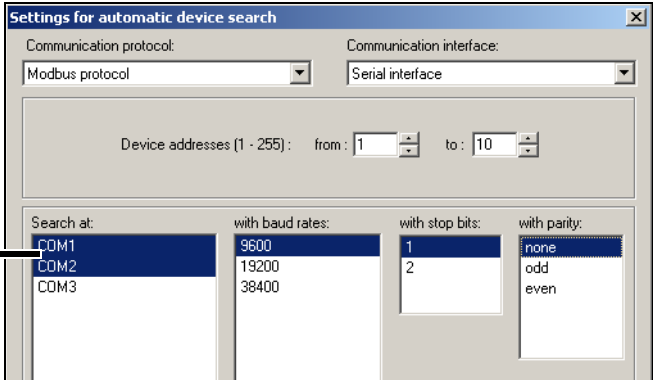
### 8.5.10 Searching for a Device

This function  is used to search for connected devices on the interfaces that have been set up.



By pressing the Shift or Ctrl key and the left mouse button you can search through several interfaces for connected devices using one or several baud rates. Depending on the setting, the search procedure may take some time.

The search covers the addresses 1 to 255 for the COM1 and COM2 ports.



Search at:	with baud rates:	with stop bits:	with parity:
COM1	9600	1	none
COM2	19200	2	odd
COM3	38400		even



When using the connection via the setup interface, no search should be made through an address area, since the search could find a device and make an entry for every address, even though there is only one device connection. Some devices ignore the device address on the setup interface.

Depending on the communication interface that is used, the appropriate valid dialog will be brought up on the screen. The example shows the dialog for using the serial interface.




A device that has been found will be added to the list if:

- the connection settings have not yet been used (e.g. for another device address or another baud rate) or
- the device identifier cannot be matched to any of the existing entries in the list.

## 8 Menu Functions and Toolbar

### 8.5.11 Preparing the Device Modem

#### Recommended modems

<b>HSM 33.6</b> Analog industrial modem for mounting on DIN rails	<b>HSM ECO TA</b> ISDN industrial modem for mounting on DIN rails	<b>TC35i</b> GSM modem
		
Part number: 00416612	Part number: 00416611	Part number: 00440255

**Tixi HG**  
GSM modem  
with alarm function  
for mounting on  
DIN rails



Part number: 00487003

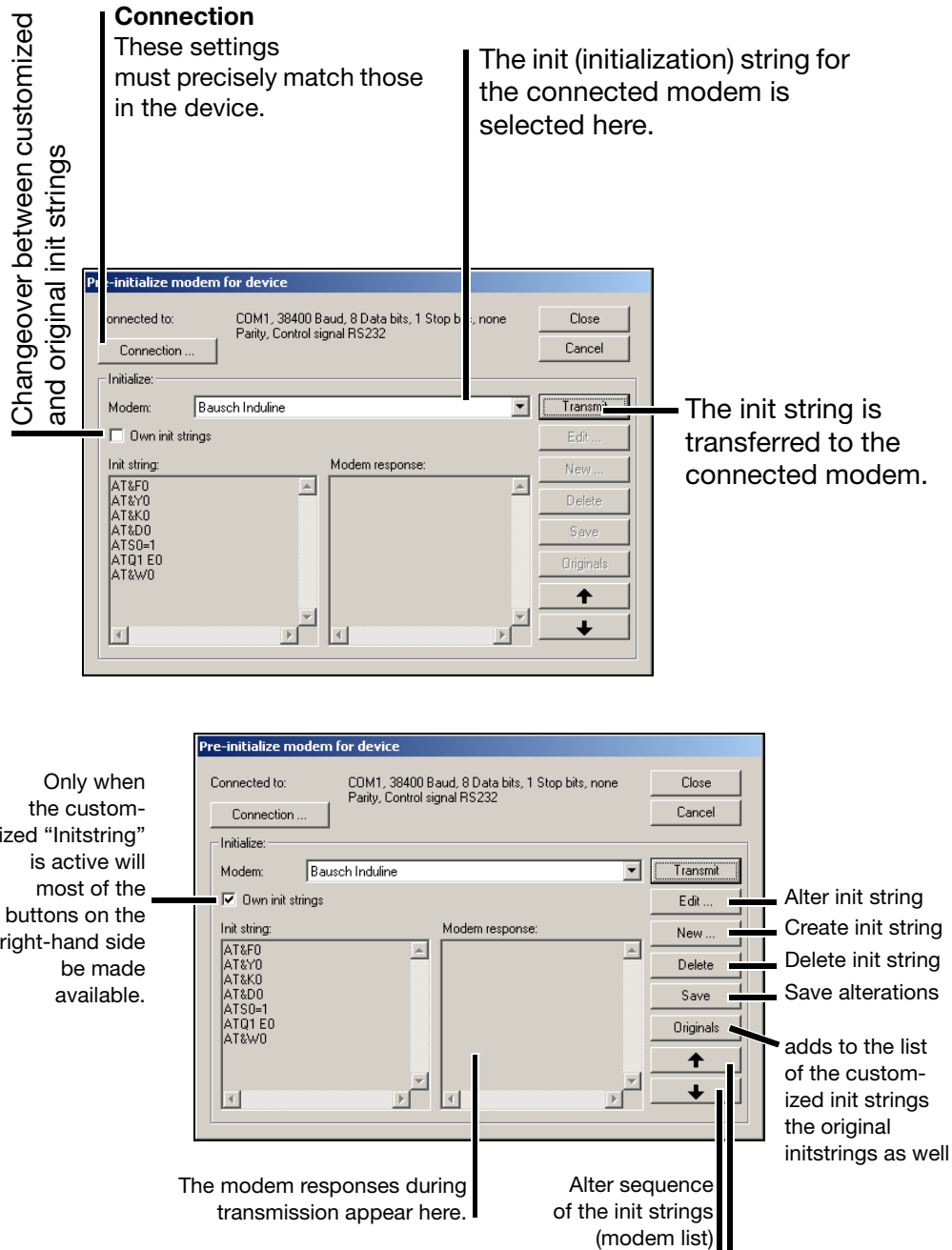
If other modems are used for the device, it may be necessary to alter the initialization string. However, it is not possible to guarantee that the connection will work. No support is available if other modems are used.

## 8 Menu Functions and Toolbar

### Preparing the device modem

This function is used to prepare (initialize) a modem so that it can be connected as a device modem.

- \* Connect modem to PC via a standard modem cable.



- \* After entering the settings, click *Transmit*. When the settings have been sent, a result message for the initialization appears.
- \* Detach the modem from the PC and cable it up correctly to the device interface.

If the modem responses includes texts such as "Error", then the modem failed to interpret one of the commands. You will have to correct the command or

## 8 Menu Functions and Toolbar

use a different init string.

Originals

After the software has been installed for the first time, the standard init strings (one string per modem) will be copied and treated as “customized” strings. In this way, any altered init strings will also be retained after a software update. This function means that the original strings can be attached to the “customized” ones, with the result that the modem list grows every time the function is called up.

### Interface converter

If the device uses an RS422/485 interface, then the device modem must be connected to the device via an interface converter (Spectra, type I-7520A) that converts RS232 to RS422/485 levels.



If a different interface converter is used, it must be equipped with an automatic data direction sensing function.

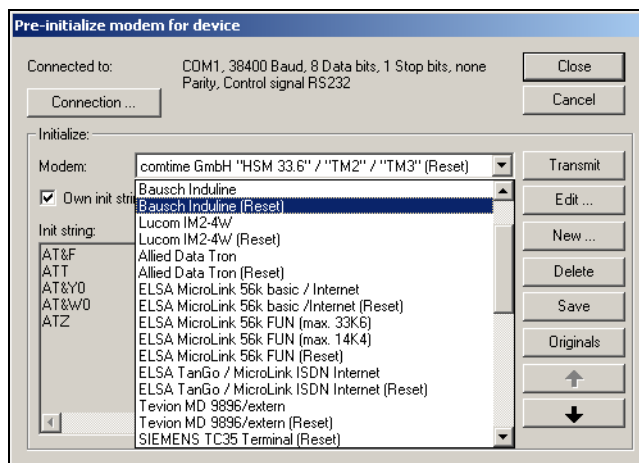
- \* Connect the device to the telephone network, via the Spectra interface converter and the modem, as per wiring plan.
- \* Switch on the modem.
- \* Establish the new connection to the device via the modem.

⇒ Chapter 8.2.1 "Device List"

### Reset modem

This resets the modem to the factory defaults, so that it can be used as a PC modem again.

- \* Select a modem init string with the addition “Reset.”



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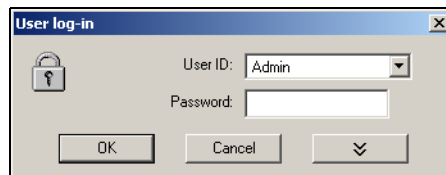
### 8.5.12 Renew Log-in / Alter Password

This is a standard dialog that helps to protect all components of the PC software from unauthorized access. The software uses the log-in dialog for mandatory identification via the password.

*Cancellation* or an incorrect password invalidates all the rights for the user. For security reasons, even ending the program is only possible after entering the correct password.

#### Exception

If automatic mode is switched off and no devices are active, then the program can be ended.



#### Password activation

The function *Renew log-in / Alter password* is used to

- activate the user and password prompt at the program start and
- alter the current password.

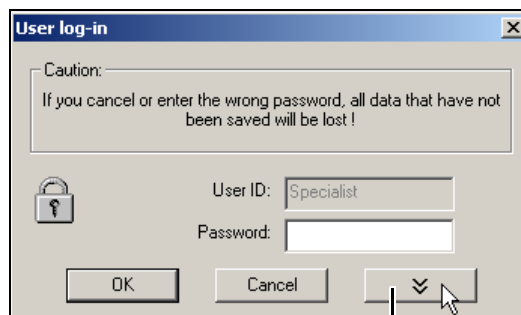
This function only affects the operation of the software and not any device user list that may be present.

#### Activation of the user and password prompt when the program starts

When the software is first newly installed, there will be no prompt for user name and password. You will automatically be logged in as “Specialist”, with a blank password.

Proceed as follows:

- \* Start the function “Renew log-in / alter password”.
- \* Show options.

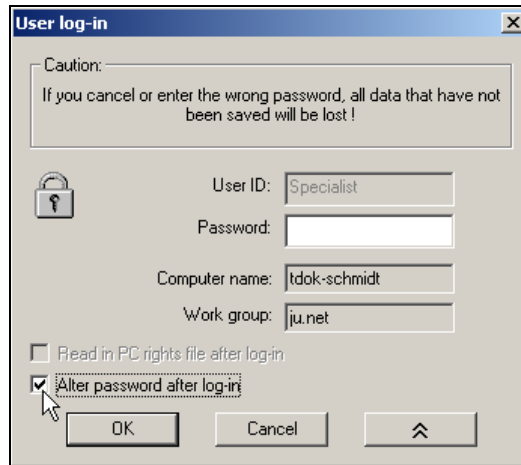


Show options.

## 8 Menu Functions and Toolbar

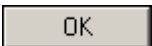
---

- \* Activate option “After log-in – alter password” and click .



- \* Enter the password – the “Old password” field remains empty.



When the entry has been concluded, click  to activate the new password. From now on, the user name and the password will be requested when the program starts.



Initially, no start password is assigned to the “Maintenance” user either. When the program starts, log in with the “Maintenance” user name and enter a password as described above.

### Changing the password

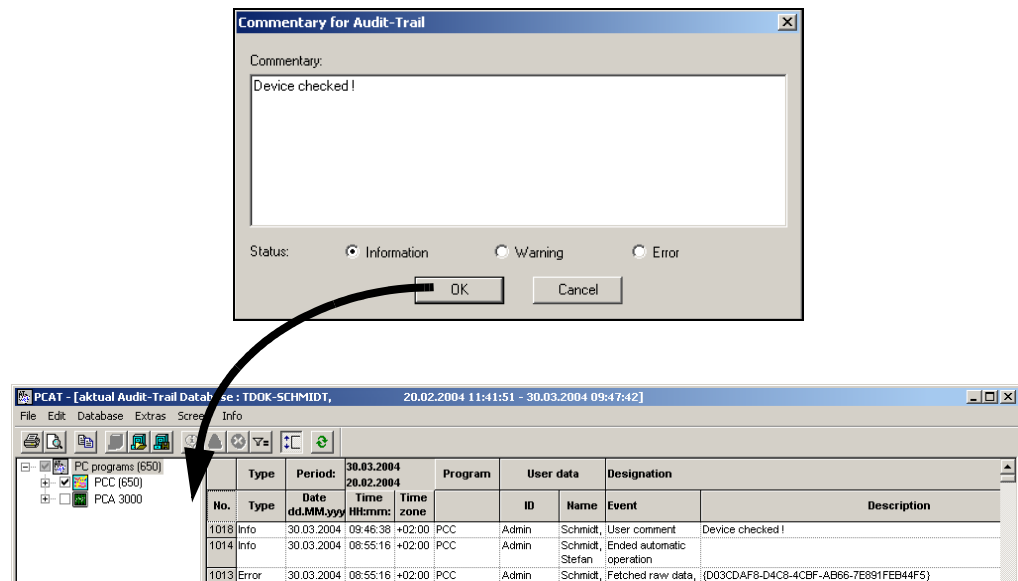
Changing a password is very much like activating password administration. The only difference is that in this case the “Old password” field must not remain empty.



## 8 Menu Functions and Toolbar

### 8.5.13 Comment in Audit Trail

This creates an entry in the PC audit trail (PCAT) for the better understanding of the activity that has been performed.



⇒ Chapter 1.3 "Documentation for PC Software Components"

### 8.5.14 Start Audit Trail

This function starts the PC Audit Trail Manager software.

### 8.5.15 Set Audit Trail filter

If the filter is set, only the entries of the corresponding device are displayed in the PC audit trail.

This function is only active if PC Audit Trail Manager software has been started before.

\* Mark the device in the device list:



\* Extras → Set Audit Trail Filter

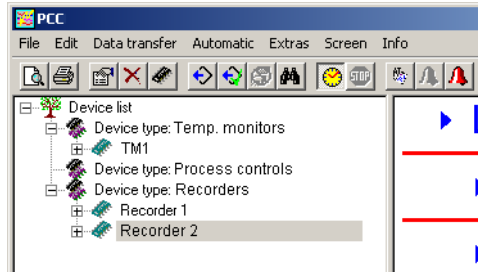
## 8 Menu Functions and Toolbar

### 8.6 View

#### Update

This updates the display on the screen.

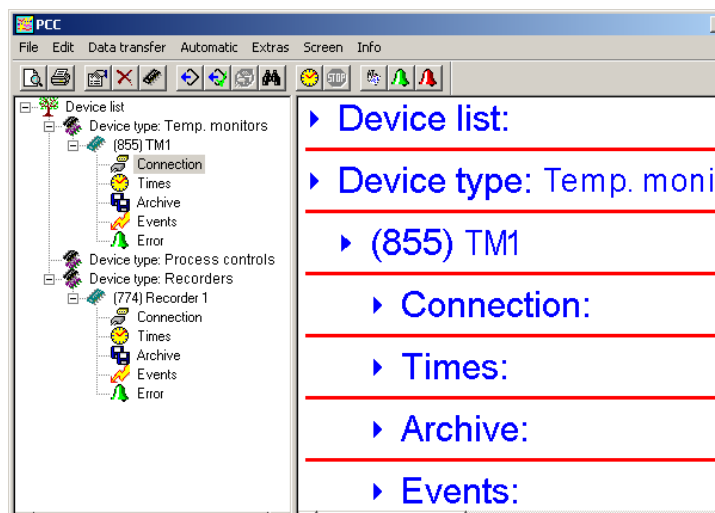
If devices are added to the device list, e.g. through the Setup software, while PCC is active, then this function adds the devices to the user interface of PCC.



Deleted devices will only be removed when they are inactive, i.e. no data is being transferred.

#### With numbers

This inserts a unique ID number in front of every device name. This makes it easier to find a device if names are duplicated. Once it has been set up, this number is also used in the audit trail entries.





#### Minimize all/ Maximize all

All the settings shown in the dialog window are folded up (no detail view) or unfolded (detail view).

#### Expand all/ Compress all

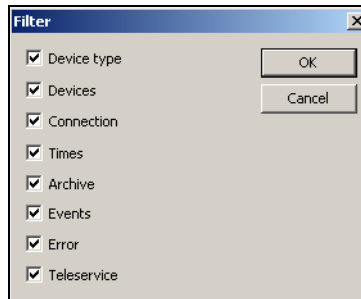
All device types, which are displayed in the navigation tree, are expanded (all devices displayed) or compressed.

For this function the buttons  (Expand all) and  (Compress all) can be used also.

## 8 Menu Functions and Toolbar

### Filters

The filter function can be used to filter out settings in the dialog window.



### Show hidden

All hidden elements in the navigation tree are shown. This refers to empty device types and device lists, device types, and devices marked "Hidden."

⇒ Chapter 4.2 "Windows of the User Interface"

### Hide

Device lists, device types, and devices can be marked "Hide." Then they will not appear in the navigation tree. Then can be shown with function "Show hidden."

## 8.7 Window

### Cascade, tile horizontally

Windows can be arranged cascading or tiled horizontally.

### Arrange icons

Arranges the icons in the lower part of the window.

### Active devices

Here you can show or hide the window for active devices.

⇒ Chapter 4.2 "Windows of the User Interface"

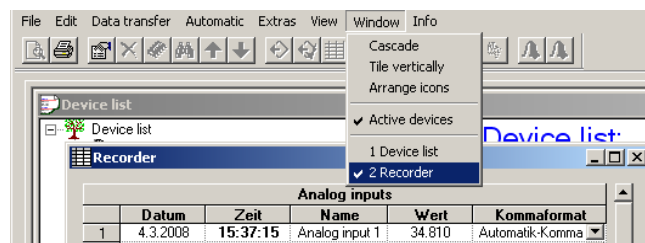
### Output orders

The window for output orders can be displayed or hidden.

⇒ Chapter 4.2 "Windows of the User Interface"

### Window selection

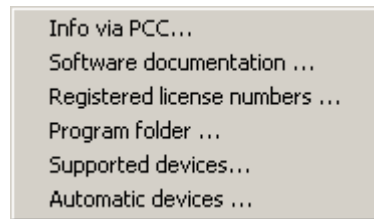
If several windows are open (for example device list, Teleservice), you can switch between them here.



## 8 Menu Functions and Toolbar

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### 8.8 Info



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#### Info via PCC

Here you can obtain information on the version number of the program. Please have this number available if you have technical problems or queries and contact a service representative.

Click **Additional...** button for additional information on any PC software components that may be installed. Please have these numbers available as well, if you have technical problems or queries and contact a service representative.

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#### Software documentation

Opens the instructions for the PCA communication software (PCC) as a PDF document.

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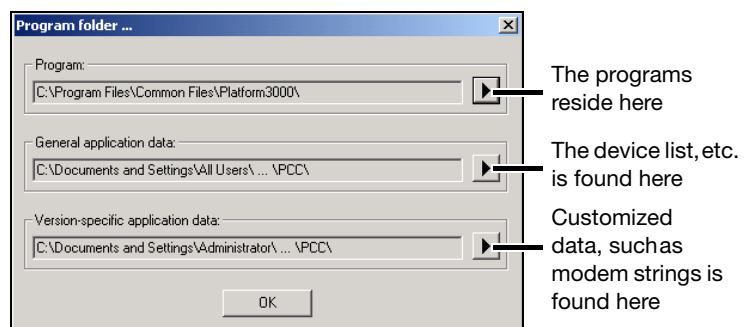
#### Registered license numbers ...

Here you can obtain information on the license number of the program. Please have this number available if you have technical problems or queries and contact a service representative.

---

#### Program folder

Your program data is saved here, on the hard disk.

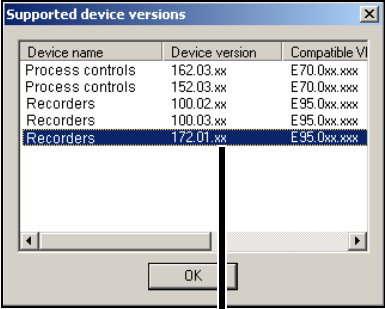


## 8 Menu Functions and Toolbar

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### Supported devices

List of device versions supported by the currently installed version of the PCC Communications Software.



Device name	Device version	Compatible V1
Process controls	162.03.xx	E70.0xx.xxx
Process controls	152.03.xx	E70.0xx.xxx
Recorders	100.02.xx	E95.0xx.xxx
Recorders	100.03.xx	E95.0xx.xxx
Recorders	172.01.xx	E95.0xx.xxx

xx means that these positions will not be evaluated in the event of a version check  
(e.g. 172.01.05 is just as valid as 172.01.01)

### Automatic devices

Shows all devices that have been configured for automatic mode (even if automatic mode is not activated).



**FAQ 1**                    **Why can't I see new devices that I created with the Setup software in the PCC software (which had already been started)?**

**Answer**                    Click on the menu function *View* → *Update* – the PCC software will then accept the new devices.

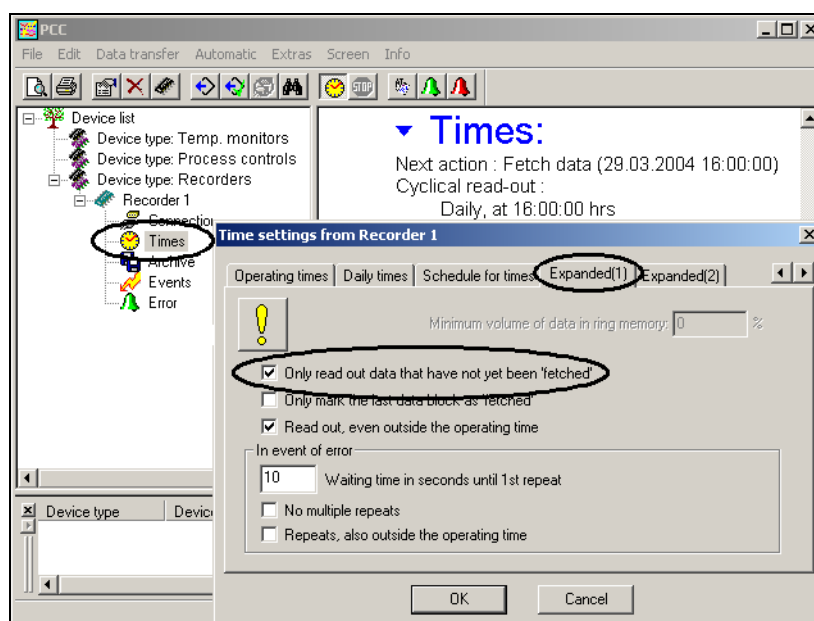
**FAQ 2**                    **What is the difference between “Retrieve raw data” and “Read out raw data”?**

**Answer**                    “Read out raw data ” does **not** affect the memory alarm of a device. On the other hand, “Retrieve raw data” does affect the memory alarm. After the data has been retrieved, any memory alarm that is present will be canceled.

**FAQ 3**                    **Why do devices with Type 1 memory set the memory alarm during the read-out of raw data?**

**Answer**                    In the navigation tree, activate the option “Only read data that has not been retrieved yet” in the setting for “Times” in the “Advanced” tab.

Caution: When using manual read-out, you cannot make any further selection of the quantity of data in this way.



**FAQ 4**                    **What is meant by Device Type 1 and Device Type 2?**


**Answer**                    Device Type 1 means devices that do **not** have a CompactFlash memory card for retrieving the data from the device.

Device Type 2 means devices that use a CompactFlash memory card for retrieving the data from the device.

## 9 FAQs

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**FAQ 5**                      **How can I find the file with the measurement data, if the archive is only set as a directory, and no file name has been set?**

**Answer**                      The name is assigned automatically and is derived from the device identifier and a serial number.  
If there are one or more files with different names already containing data from the required devices, then the first file that is found will be used. A new file will not be created.  
Open the archive settings and click on PCA button . This automatically opens the PCA3000 software with the correct archive (PCA3000 must already be installed).  
⇒ „Edit archive” on page 61

**FAQ 6**                      **Why can't I activate the buttons for reading out data from a device, even though the device is not shown in the “Active devices” list?**

**Answer**                      The device is being used at the moment by a different software program (e.g. the Setup software).

**FAQ 7**                      **Can the setup interface be used on all devices for reading out data?**

**Answer**                      No. Establishing a connection or reading out data via the setup interface only works with devices that support that function on that interface.  
⇒ See also note on Page 31

**FAQ 8**                      **Why doesn't my PC modem (analog) create any connection to a device modem (ISDN)?**

**Answer**                      ISDN modems use the X.75 protocol. This protocol is not supported by the analog modem.  
An ISDN PC modem can bring up an analog modem, but only together with a CAPI port driver on the PC.  
The following modem connections are possible:

PC modem	Device modem
Analog	Analog
Analog	GSM
ISDN X.75	ISDN
ISDN V.110	GSM
ISDN with CAPI port driver	Analog
Analog and a/b adapter on the ISDN connection	Analog



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<b>Austria</b>	T: +43 (0) 2236 691 121
<b>China</b>	T: +86 22 8398 8098
<b>France</b>	T: +33 (1) 77 80 90 40
<b>Germany</b>	T: +49 (0) 561 505 1307
<b>UK</b>	T: +44 (0) 1273 606 271
<b>USA</b>	T: +1 800 866 6659

<b>Email</b>	<a href="mailto:Inquiries@West-CS.com">Inquiries@West-CS.com</a>
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