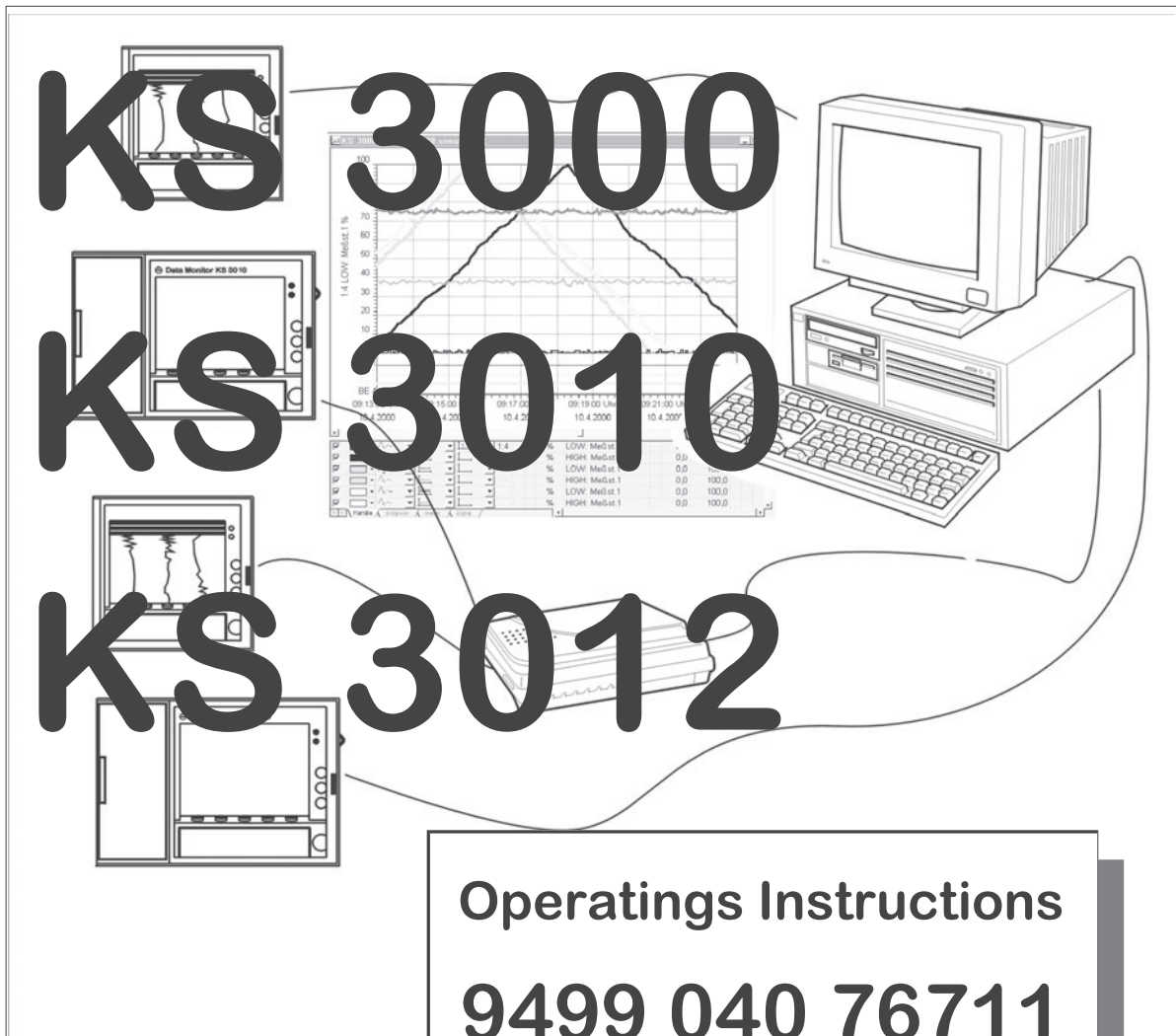




# PCC Communications Server Data Monitor KS 3000, KS 3010 und KS 3012



**Operatings Instructions**  
**9499 040 76711**  
Valid from: 8421



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## 1.1 Preface

### Warranty



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If any difficulties should arise during start-up, please do not manipulate the unit in any way. You could endanger your rights under the instrument warranty! Please contact the nearest subsidiary or the head office in such a case.

### Data backup



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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 Documentation for PC software components

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### 9499-040-76611 **PC Evaluation software (PCA3000)**

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

---

### 9499-040-76711 **PCA Communications software (PCC)**

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

# 1 Introduction

---

## 1.3 Typographical conventions

### 1.3.1 Warning signs

Caution



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

### 1.3.2 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.

Footnote

abc<sup>1</sup>

Footnotes are remarks that **refer to specific points** in the text. Footnotes consist of two parts:  
A marker in the text, and the footnote text itself.  
The markers in the text are arranged as continuous superscript numbers.

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

### 1.3.3 Representation

Menu items

*File* → *Save as*

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

### 2.1 General

---

**Intended application** The PCC software is used to manage the device list for a PC. It fetches time-dependent data from various attached devices and can synchronize the device time to the PC time. It is possible to fetch data simultaneously (multitasking) from devices that are connected to different serial interfaces or modems or via an Ethernet.

---

**PCA3000** The data that have been fetched for further processing in the PCA3000 evaluation software are held separately for each device as: connection data, time of fetching, and the storage location (archive).

#### 2.1.1 Hardware and software requirements

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

---

**Hardware**

- PC Pentium<sup>1</sup>
- 64Mbyte main memory
- CD-ROM drive
- mouse
- one free serial interface, network connection, or USB interface for CompactFlash memory cards (depending on the type of data transmission to the device),
- 120Mbyte available on hard disk

---

**Communication** In addition, the following items are required for communication between the PC and the device, such as:

- PC interface cable including adapter (only when using the Setup interface) or
- serial interface cable (when using the RS232C or RS422/485 interface) or
- network connection (when using the Ethernet connection).

---

**Software**

- Microsoft Windows<sup>2</sup> NT4.0, 2000 or XP

#### 2.1.2 Hardware and software recommendations

- Windows 2000 operating system
- Pentium III
- 128Mbyte main memory
- 2Gbyte free space on hard disk for data

<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 Installation

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### 2.2 What is on the CD?

---

**Software**

- PC Evaluation software (PCA3000)
- PCA Communications software (PCC)
- Technical documentation

---

**License number**

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.



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 inhibited.

### 2.3 Starting the installation program

#### Run installation program



**The installation will not be carried out correctly unless the following conditions are fulfilled:**

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

- \* Start Microsoft Windows



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

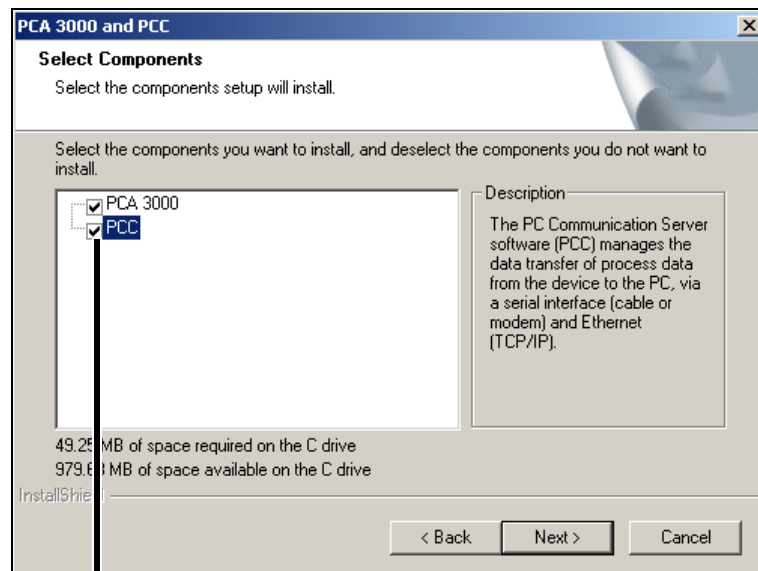
- \* Insert the CD into the drive, then close the drive.

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

- \* Start the file "Start.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 components that need to be installed.

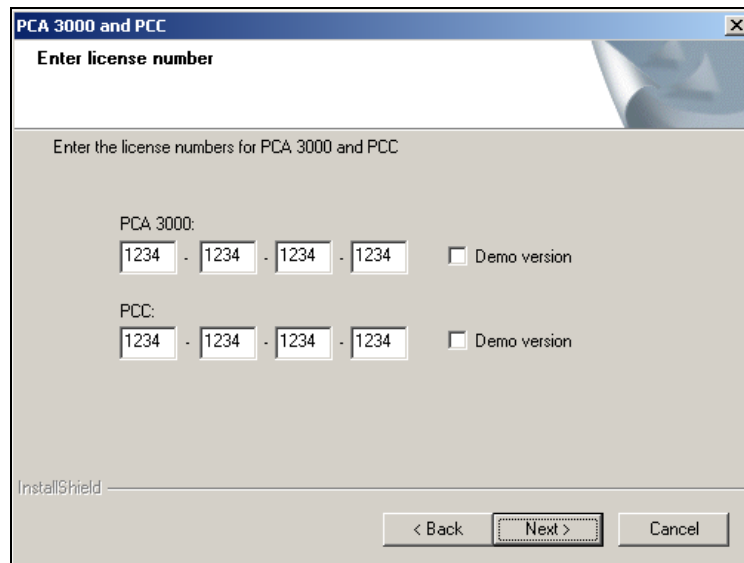


Software that is to be installed must be marked by a tick (☑).

## 2 Installation

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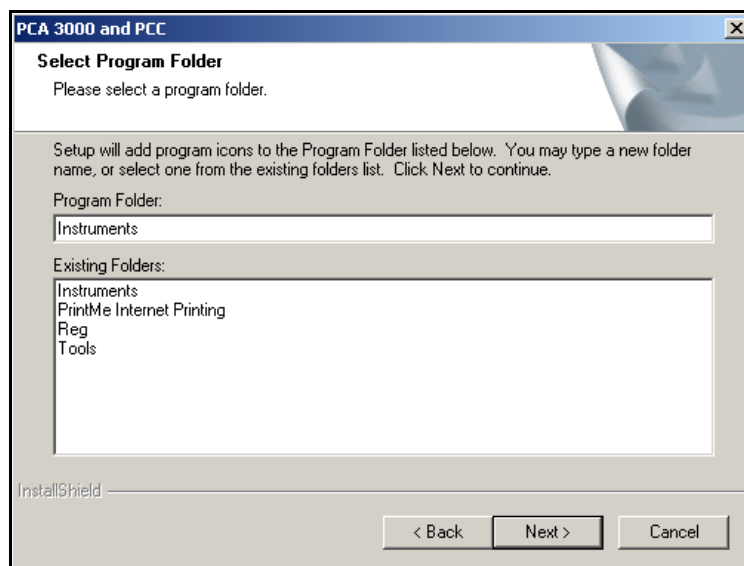
- \* Now enter the required license numbers.



The dialog box is titled "PCA 3000 and PCC" and "Enter license number". It contains the following elements:

- Text: "Enter the license numbers for PCA 3000 and PCC"
- Section: "PCA 3000:"
  - Four input fields containing "1234" separated by dots: "1234 . 1234 . 1234 . 1234"
  - Checkbox: "Demo version" (unchecked)
- Section: "PCC:"
  - Four input fields containing "1234" separated by dots: "1234 . 1234 . 1234 . 1234"
  - Checkbox: "Demo version" (unchecked)
- Text: "InstallShield" (bottom left)
- Buttons: "< Back", "Next >", "Cancel" (bottom right)

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

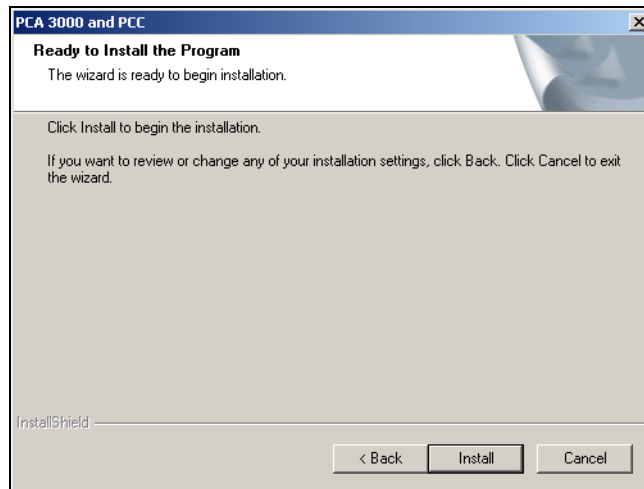



The dialog box is titled "PCA 3000 and PCC" and "Select Program Folder". It contains the following elements:

- Text: "Please select a program folder."
- Text: "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."
- Text: "Program Folder:"
  - Input field containing "Instruments"
- Text: "Existing Folders:"
  - List box containing: "Instruments", "PrintMe Internet Printing", "Reg", "Tools"
- Text: "InstallShield" (bottom left)
- Buttons: "< Back", "Next >", "Cancel" (bottom right)

### Starting the installation

- \* The selected software components will now be installed, by clicking on



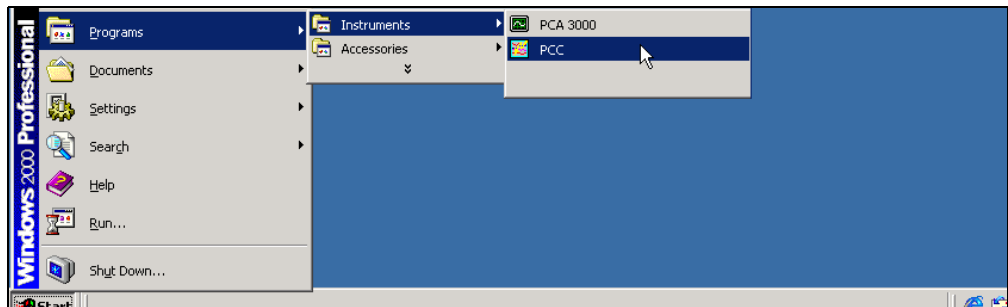
- \* Conclude the installation with the  button.

# 2 Installation

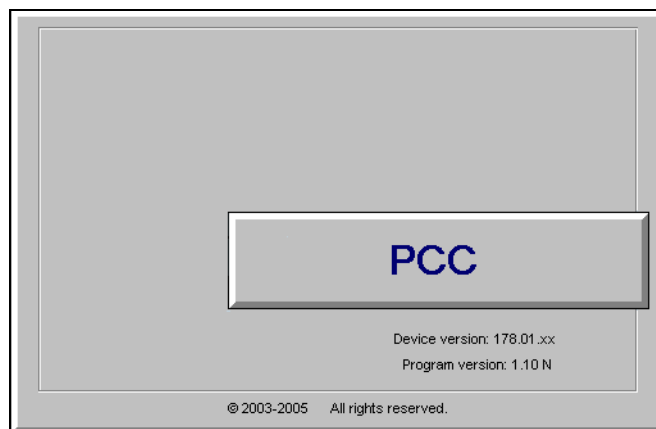
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### 3.1 Starting the program

- \* Call up the program from the start menu



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



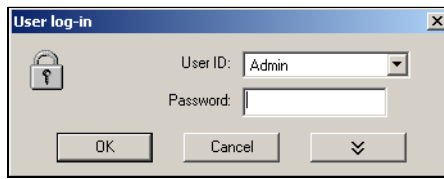
#### 3.1.1 Logging in to the program


- The log-in is performed only when it has been activated by the user. It can be activated, for instance, through the function *Extras* → *Renew log-in / Alter password*.
- ⇒ Chapter 7.5.10 “Renew log-in / alter password”
- Some devices do not have a log-in to the program.

# 3 Operation

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## Password entry



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

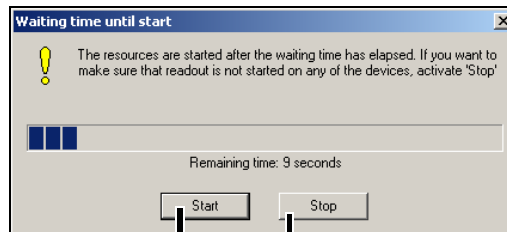
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## Password alteration

⇒ B 70.9703.0 PCS Chapter 4 “User list Assistant“ (for an enhanced security level).

## After a pause: Start automatic operation

This window offers the option of not immediately starting automatic operation when the program is started. This may be necessary, for instance, if work has to be done on the device list before activities can commence for the listed devices.



Automatic mode  
– do not start

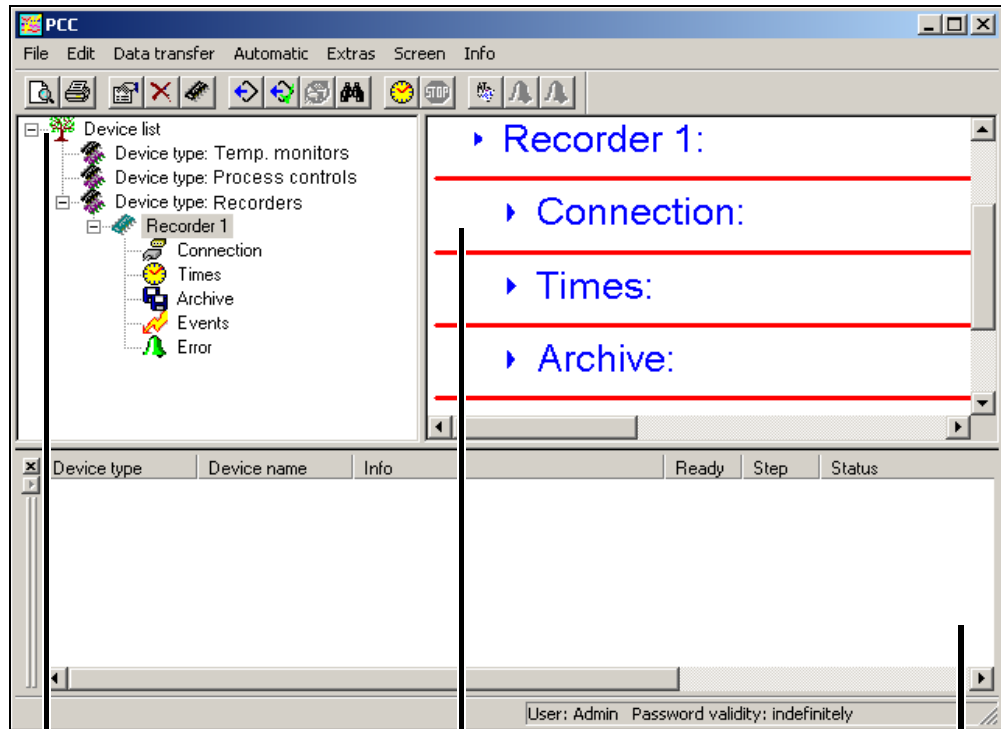
Automatic mode  
– start immediately



This dialog will not be initiated if the function “Automatic in background” is active when the program is started.

⇒ Chapter 7.4.2 “Automatic mode in background”

## 3.2 Windows of the user interface



**Navigation tree**  
A tree structure showing all connected devices

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

**Dialog window**  
The settings for the connected devices are listed here.

### 3.2.1 Moving and closing windows

The mouse can be used to adjust the window to the required size, or the window for active devices can be closed completely.

## 3 Operation

---

### 3.3 Device types

#### Devices with or without CompactFlash memory card.



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 is used to designate all devices that do **not use** a **CompactFlash memory card** for fetching the data from the device.

#### **Device type 2**

Device type 2 is used to designate all devices that use a **CompactFlash memory card** for fetching the data from the device.

### 3.4 Rights

As described in Chapter 3.1.1 “Logging in to the program”, a user must log in with the correct ID and password when the program is started. As a result of this log-in rights are allocated for the individual functions. So it is possible that not all functions can be activated, 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	-	-	X
End automatic mode	-	-	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
Prepare device modem	-	X	X
Enable program options	X	-	X
Create new archive	-	-	X
Read in time periods	-	X	X

X = right is available

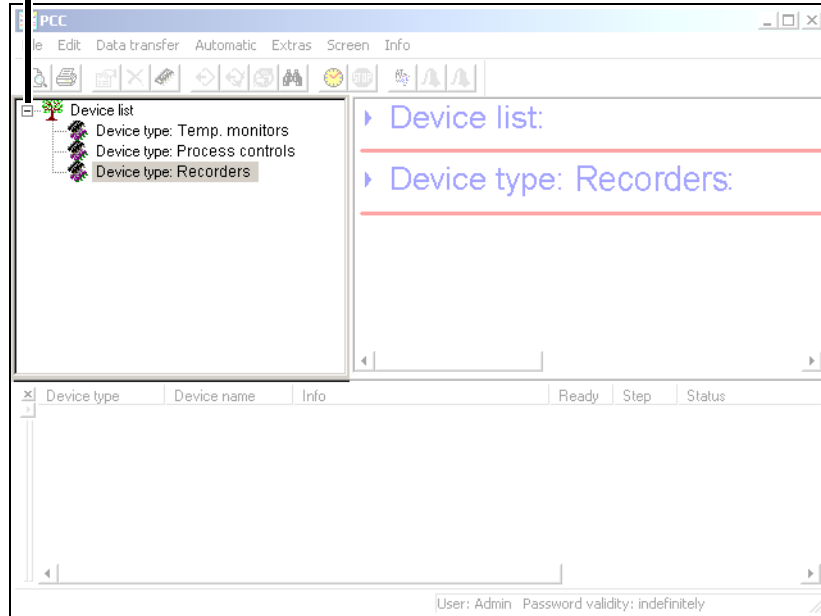
# 3 Operation

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## 3.5 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.

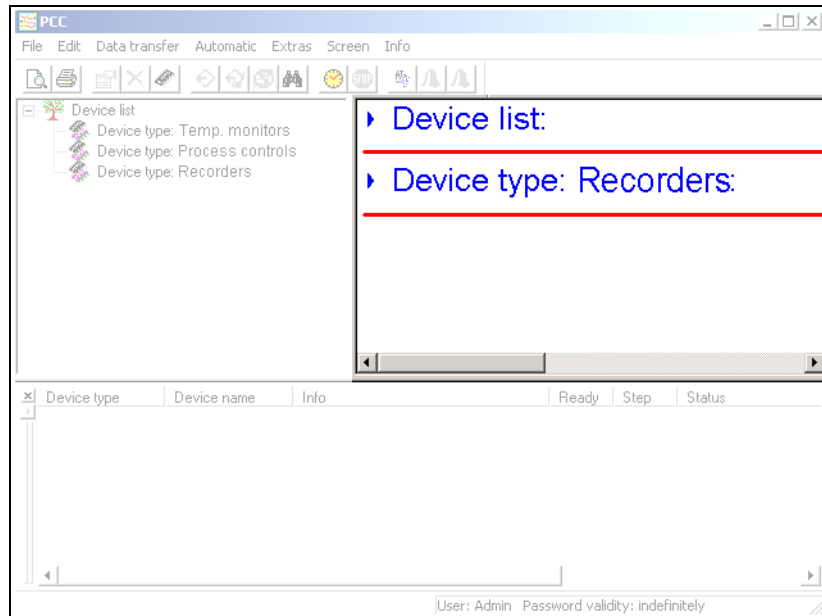
Fold up tree (☐)  
and  
fold down tree (⊕).



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

## 3.6 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 (fold down) and close (fold up) the current parameter values.

**Fold down /  
Fold up**

▶ Device list:

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

**Device list**

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

▶ Device list:

⇒ Chapter 4.1 “Editing the device list”

⇒ Chapter 7.2.1 “Device list”

# 3 Operation

---

## Device type (device)

By using the right mouse button, or by double-clicking on a device, you can change all the settings for the device. If the function “*Use 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:

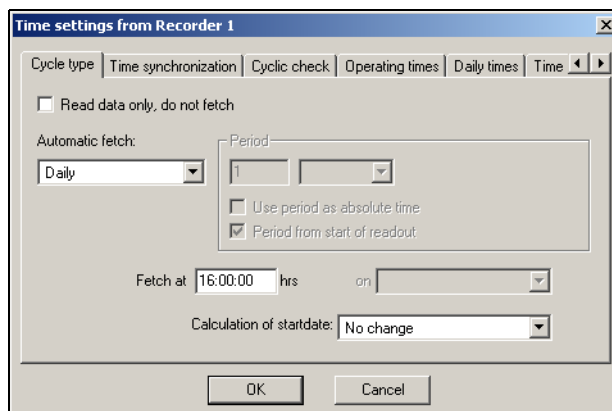
⇒ Chapter 4.2 “Adding devices”

⇒ Chapter 7.2.2 “Device type”

## Device type (parameter)

By using the right mouse button, or double-clicking on a parameter, you can change a particular setting for the device. The function “*Use Assistant for device settings*” is irrelevant in this case.

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

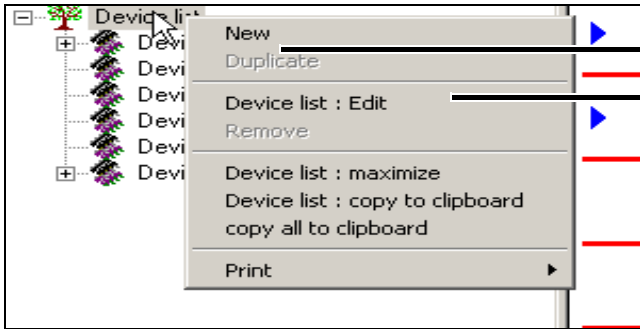


⇒ Chapter 4.2 “Adding devices”

⇒ Chapter 7.2.2 “Device type”

## 4.1 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 the function *Edit device list*.

A screenshot of a dialog box titled 'List settings'. It contains the following fields and options:

- 'List name / description:' with the text 'My first device list'.
- 'Created by:' with the text 'Stefan Schmidt'.
- 'Default archive directory:' with the text 'D:\ARCHIVES\' and a browse button '...'.
- Two checked checkboxes: 'Accept default archive directory from PCA3000' and 'Use the Assistant for device settings'.
- 'OK' and 'Cancel' buttons at the bottom.

Annotations with arrows point to various parts of the dialog:

- An arrow points to the 'List name / description' field with the text: 'Descriptive text. This is shown in the dialog window, and also printed out.'
- An arrow points to the 'Use the Assistant for device settings' checkbox with the text: 'Use the default directory (created within the PCA3000 software) or specify a different directory.'
- An arrow points to the 'Default archive directory' field with the text: 'Default directory for archive data that have been fetched.'

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.

⇒ Chapter 7.2.1 "Device list"

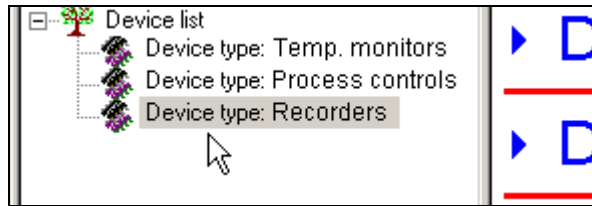
# 4 Device administration


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## 4.2 Adding devices

---

- \* Activate a device type by clicking on it with the mouse.

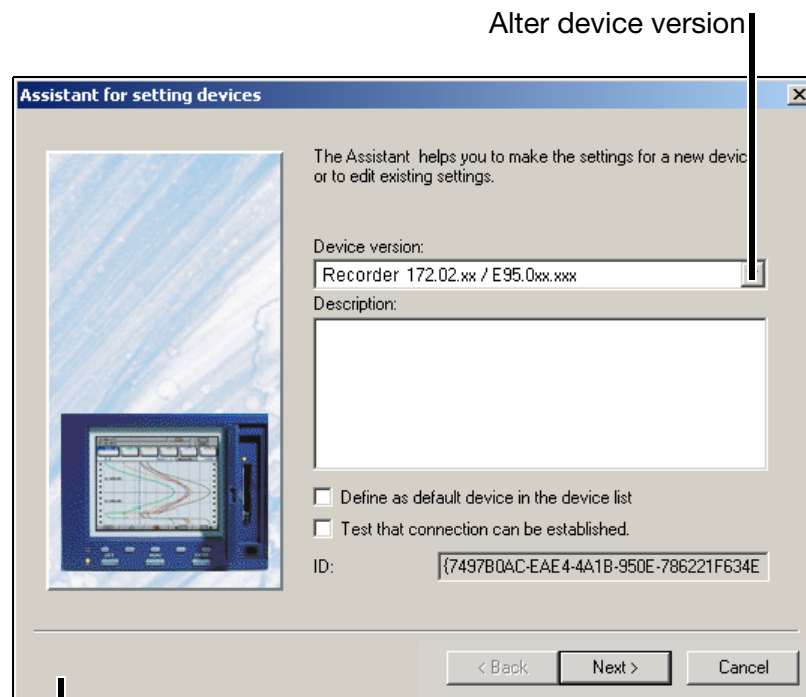


- \* Start the menu function *Edit* → *New* or left-click on the symbol (  ) in the toolbar.
- 

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

---

### Select device



The function “Use the Assistant for device settings” must be set as active, and then, for example, this dialog will appear.

## 4 Device administration

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

Select device type and version.

The Assistant helps you to make the settings for a new device or to edit existing settings.

Device version:  
Recorder 172.02.xx / E95.0xx.xxx

Description:  
Recorder 1

Define as default device in the device list  
 Test that connection can be established.

ID: {7497B0AC-EAE4-4A1B-950E-786221F634E}

< Back    Next >    Cancel

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

Here you can decide whether the device should be defined as the default device (). The function is only significant if the device is to be accessed through the setup software or the PCS software

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.

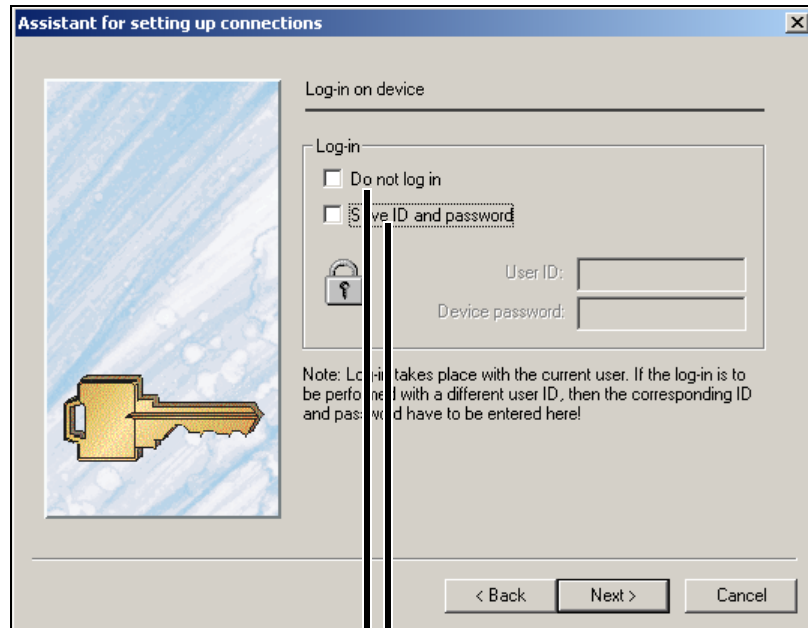


The function described here is based on an active “Assistant for setting up connections” (default setting for a new software installation). The Assistant can be switched off through the function *Device list* → *Edit* or by using the Setup or PCS software within the device list.

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

# 4 Device administration

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




Save ID and password

Do not log in.

**No 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.

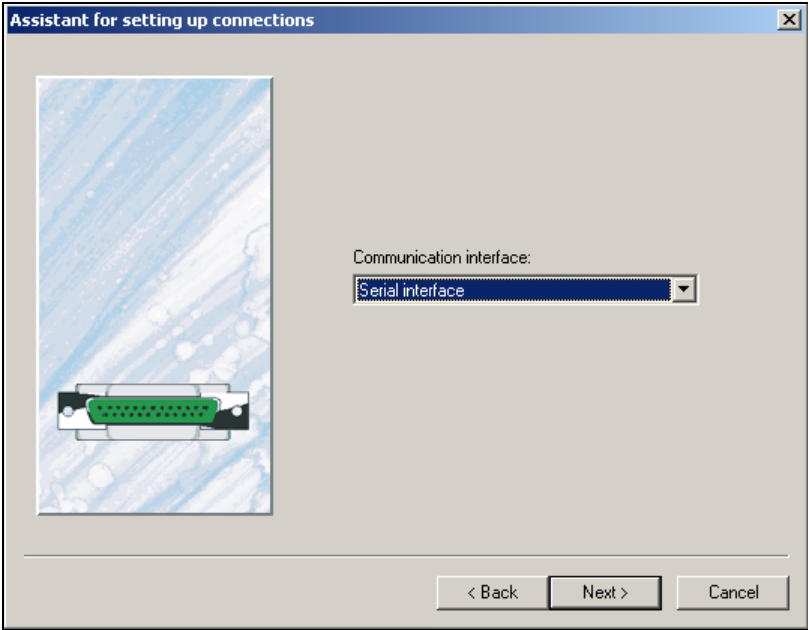
Set the option (☑) if you do not want to log in. Please note that it is possible that some functions will not be operable if you are not logged in. The decisive factor is the current user list and the access rights that are defined in this list.

**Saving 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.


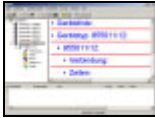

In the following dialog window, you have to activate the  button to select the interface which you want to use to access the device.

# 4 Device administration

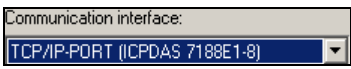
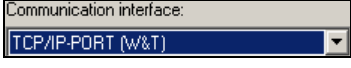
## PC Communication interface



Available options are:

		
RS232	Communication interface: Serial interface	RS232
RS232	Communication interface: Serial interface	RS232 to RS422/485 converter
RS232	Communication interface: Serial interface	Setup interface
Modem	Communication interface: Analog modem/ISDN	Modem - RS232
Modem	Communication interface: Analog modem/ISDN	Modem - RS422/485
TCP-IP (Intranet / Internet)	Communication interface: TCP/IP-PORT	Ethernet

## 4 Device administration

TCP-IP (Intranet / Internet)		TCP-IP to RS232/RS485 converter  Type: I-7188E series
TCP-IP (Intranet / Internet)		TCP-IP-Ethernet to RS232/RS422/RS485 converter  Type: W&T Com-Server

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

### Serial interface

The following parameters must be selected.

Connected to	COM1, COM2	The PC interface to which the device is connected.
Transmission rate	9600, 19200, 38400	The transmission 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	Recommendation: Use a Spectra converter with an automatic transmit/receive changeover.
RS485-DTR		
Communications protocol	Modbus TCP/IP, Modbus protocol	Set the Modbus protocol here.

## 4 Device administration

Device address	1 – 255	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.
----------------	---------	--

### 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 is to be used to make the connection.
Communications protocol	Modbus TCP/IP, Modbus protocol	Set the Modbus protocol here.
Device address	1 – 255	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)	Enter the IP address of your device. If you enter the name, the IP address can be determined by clicking on the button “Convert HOST name to IP address”.
Port number, port name	502	The port used for communication.
Communications protocol	Modbus TCP/IP, Modbus protocol	Set the Modbus TCP/IP here.

## 4 Device administration

---

### 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)	Enter the IP address of your converter. If you enter the name, the IP address can be determined by clicking on the button "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 one that has been 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)	Enter the IP address of your converter. If you enter the name, the IP address can be determined by clicking on the button "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 one that has been set in the device.

## 4 Device administration

---

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 are to be stored).

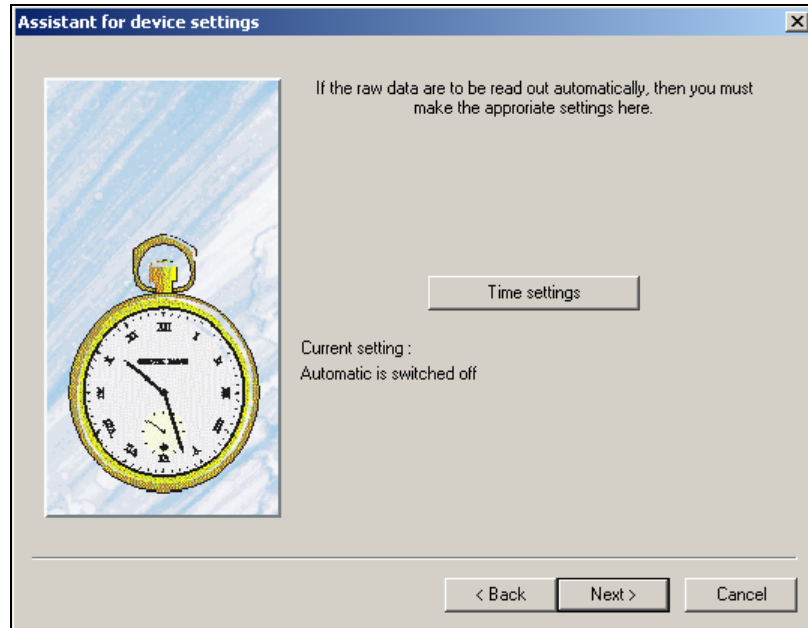


Making the connection via the setup interface only works with devices that have the Modbus protocol available at this interface.

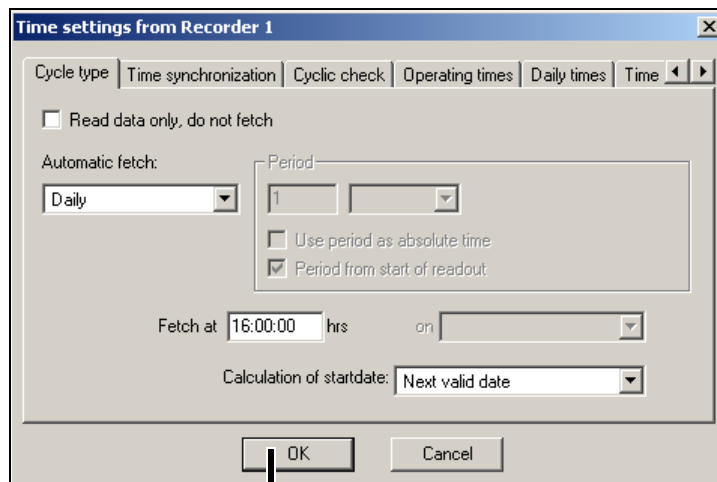
---

# 4 Device administration

## Time settings



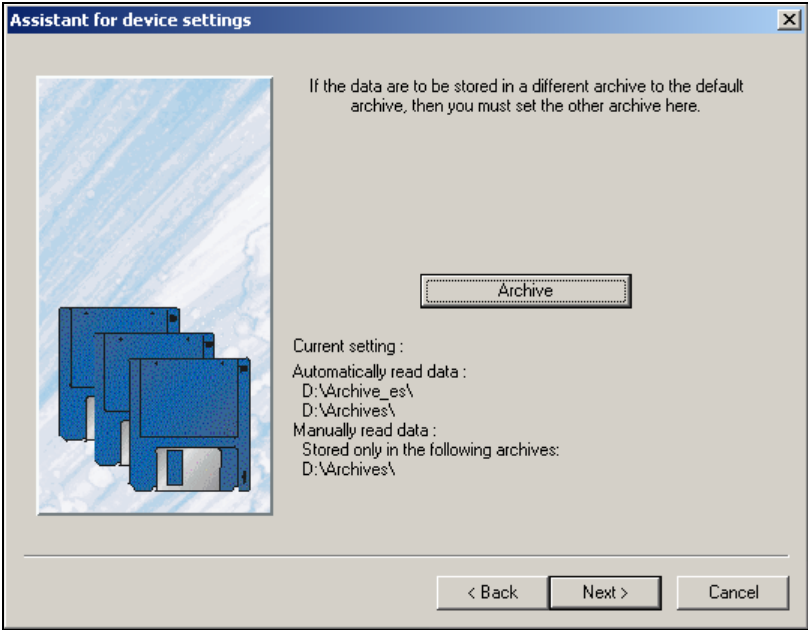
- \* Left-click on the **Time settings** button, and then you can enter the time for the automatic read-out.



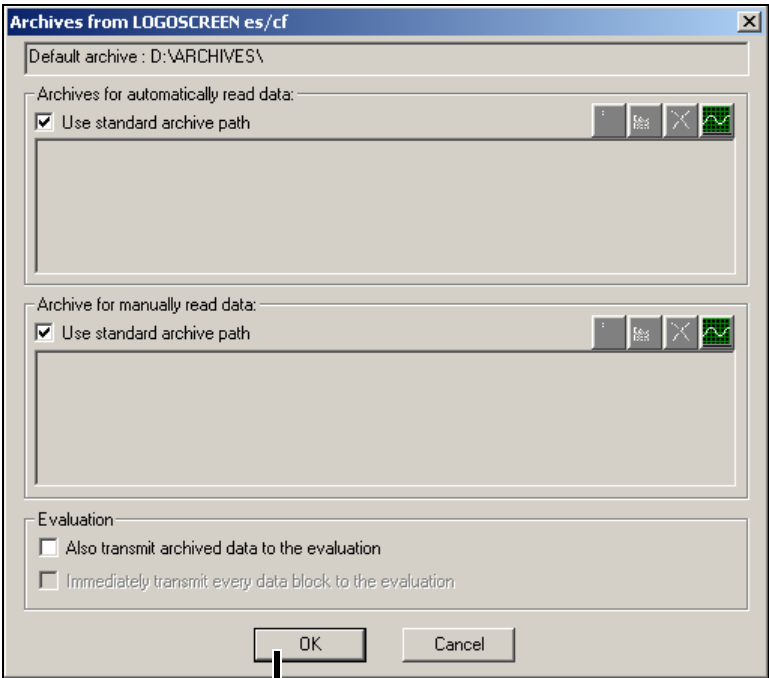
Click on OK when the times have been set.

⇒ Chapter 5 “Time settings”

## Archive



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



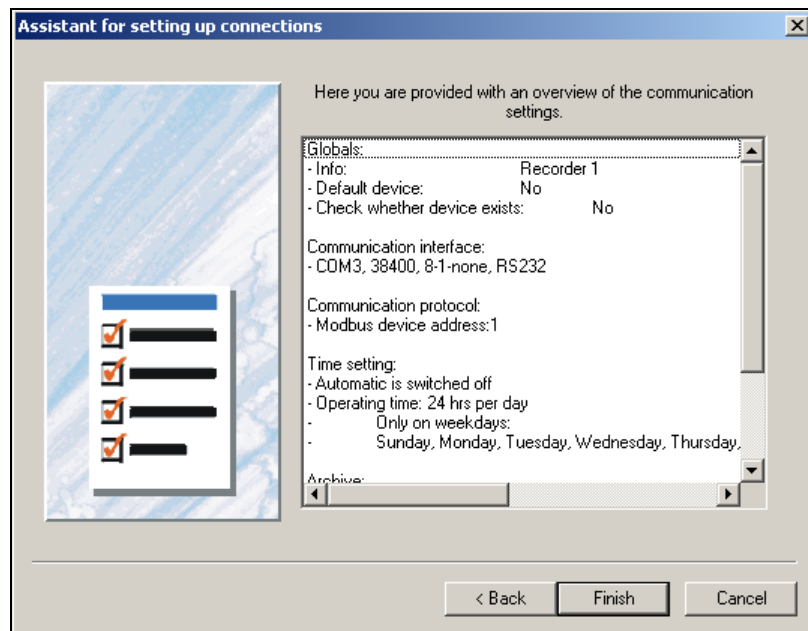
Click on OK when you have finished the archive settings.


⇒ Chapter 6 “Archive”

## 4 Device administration

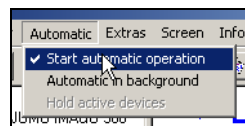
---

You will then get a summary for the new device.



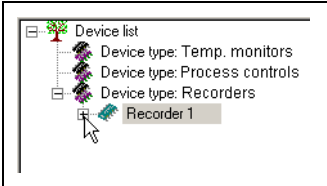
\* Complete the adding of a new device by clicking on the  button.

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



## 4.3 Changing the settings

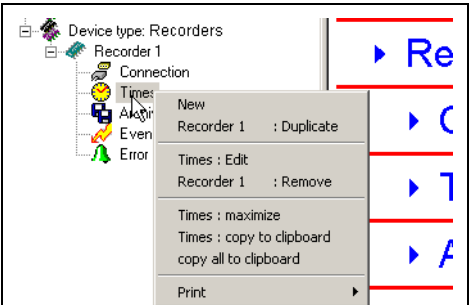
- \* Position the mouse pointer on the **+** symbol and press the left mouse button.



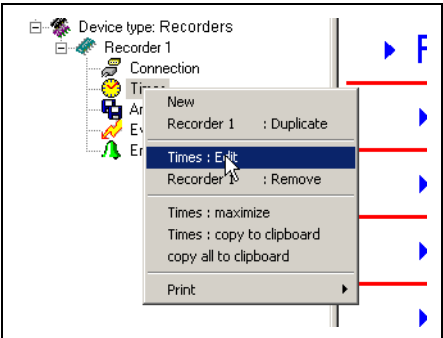
The tree in the navigation window will now be folded down.



- \* Position the mouse pointer on the parameter that you want to change, and press the right mouse button.

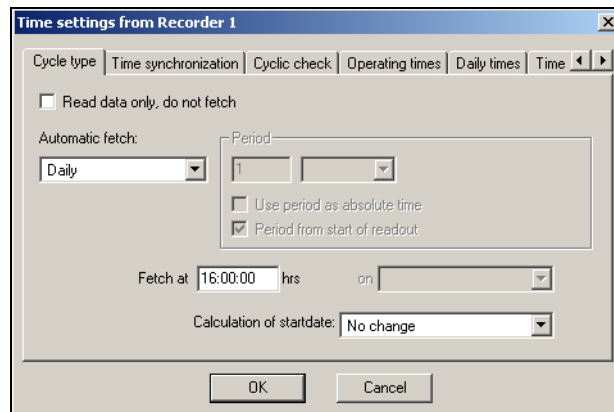


- \* Select "... edit". The dialog for alteration will be opened, depending on the selected parameter.



## 4 Device administration

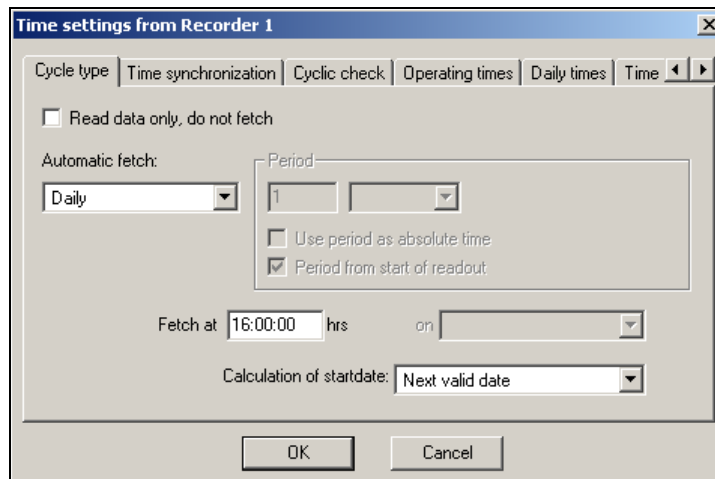
---



⇒ Chapter 5 "Time settings"

⇒ Chapter 7.2.3 "Editing"

## 5 Time settings



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

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

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

In the “Time settings” dialog, you can set the cycle types for fetching 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 the read-out and evaluation of the data.



When using an Ethernet connection via TCP/IP, only one program from the PC software components can operate through the interface. But other programs can still continue to communicate with other devices.

Example:

PCC is used to access a paperless recorder (Device 1) via TCP/IP. PCS (Security Manager) can be used to access a different paperless recorder (Device 2) via TCP/IP.

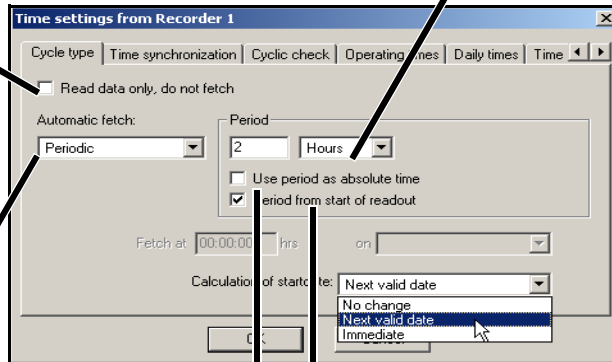
# 5 Time settings

**Cycle type:**  
periodic

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

**Active (☑):**  
The data will only be read, the memory alarm is not affected

**Setting for fetch intervals:**  
The settings “2” and “hours” mean: data will be fetched every 2 hours



The following functions are available:

- OFF
- Periodic
- Daily
- Weekly
- Monthly
- Schedule

**Inactive (☐):**  
The time interval only starts to run when 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 register “Expanded (1)” also has an effect on the end of the operating period.

## 5 Time settings

### Example 1

The interval for fetching 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 hours) and a complete day (24 hours) can be divided by the time interval (2 hours).

### Example 2

The interval for fetching 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 fetch times for the following day will be shifted accordingly.

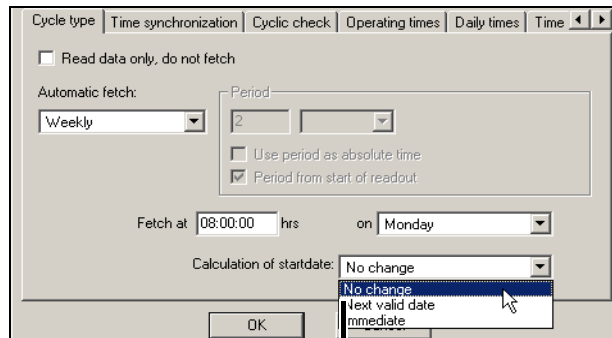
When data is fetched for the 10th time, the start time will have come round to 09:05:32 again.



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

# 5 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 is set to take place on Mondays, at 08:00. It is now 07:00 on Monday. You set “Fetch at” to 10:00, and leave the “Calculation of start date” set to “No change”. The next read-out happens at 08:00. Then, the new setting will be made: for 10:00 on Monday of the following week.

### Next valid date

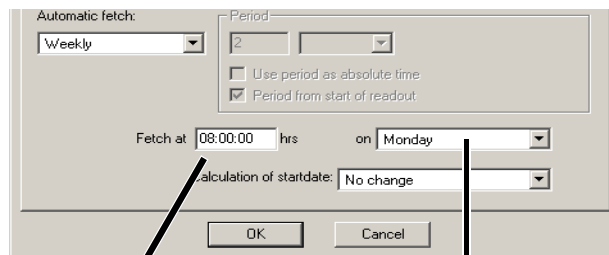
Depending on the setting, this is the next full hour, minute, or day – at 00:00:00.

### 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,  
**cycle type:**  
weekly,  
**cycle type:**  
monthly



**Time**  
for daily, weekly or monthly

**Weekday**  
for weekly or monthly

## 5 Time settings

### Time synchronization

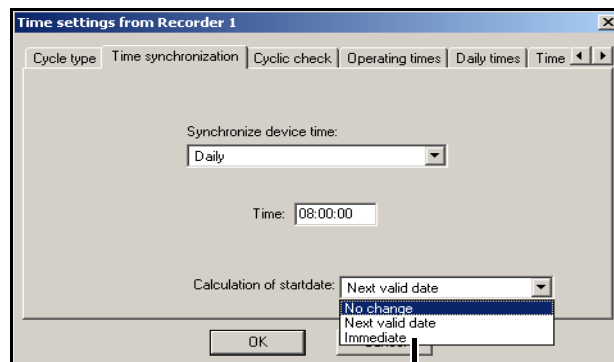
The setting for when the device time is to be synchronized to the PC time. This is used to eliminate differences between the PC and the device.



It is only possible for devices that support time synchronization.



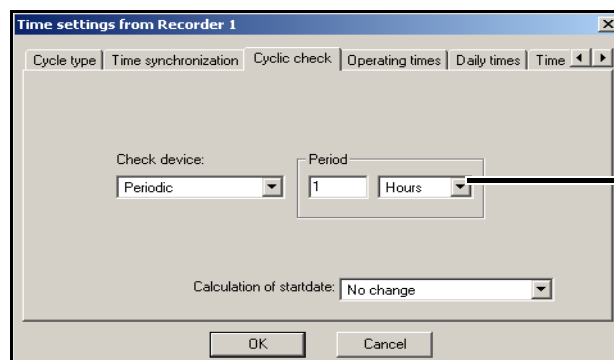
Synchronization can only be performed during operating periods.



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.

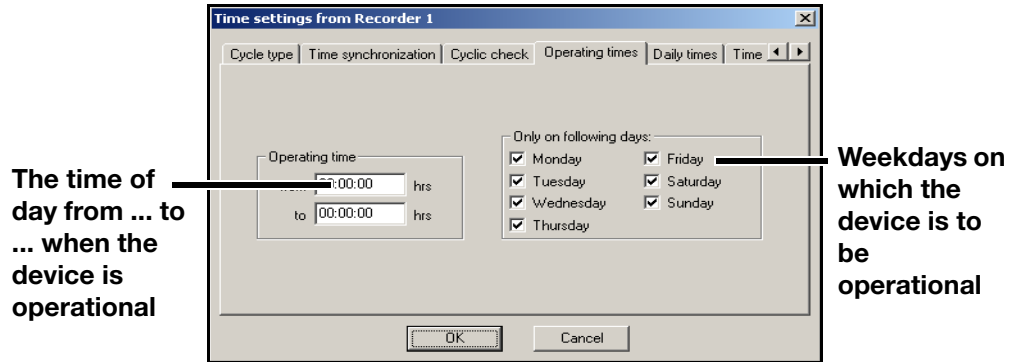


The check can only be made during the operating period (when the operating period is active).

# 5 Time settings

## Operating periods

Here you can set for which periods of time 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. fetching or reading out data, time synchronization, and cyclic checks) and in this way also reserve specific time periods for other programs.

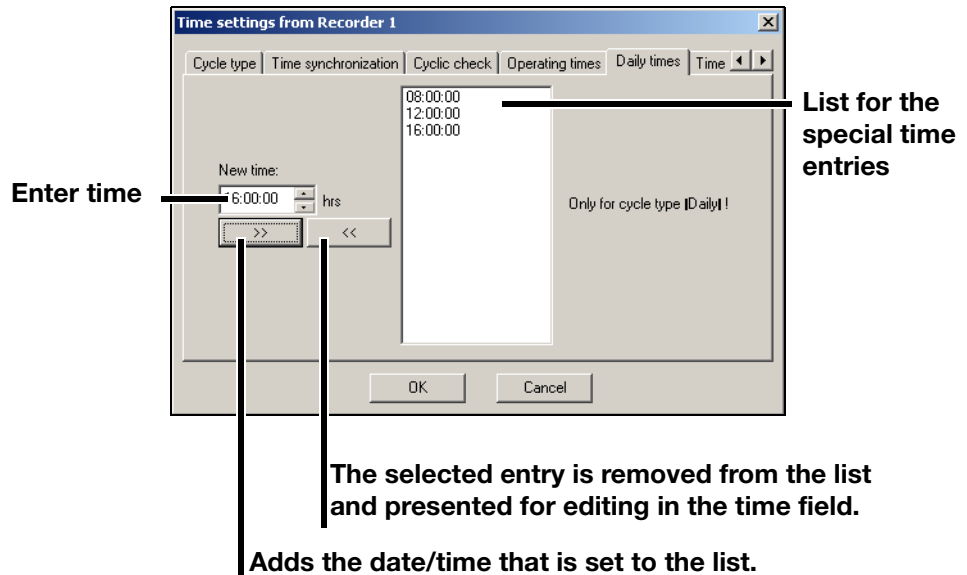


## Daily times

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



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



## 5 Time settings

### Time schedule

These settings are intended for use when data need to be fetched 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 (fetching/reading) must be set to schedule! After the processing of a scheduled event, it will be removed from the list by the software.

**Enter date and time**

**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.**

# 5 Time settings

## Expanded (1)



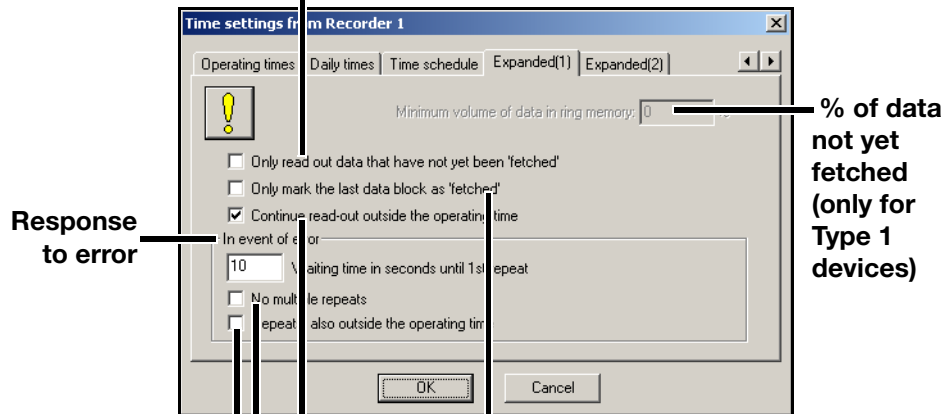
This function depends on the device version!

**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 are missing in the archive.



**Active (☑):**

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

**Active (☑):**

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

**Inactive (☐):**

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

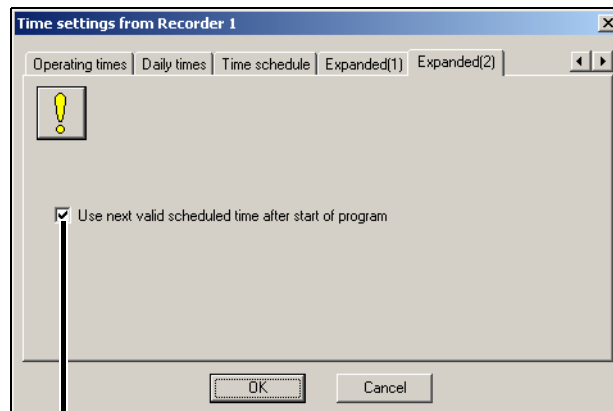
**Active (☑):**

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 (

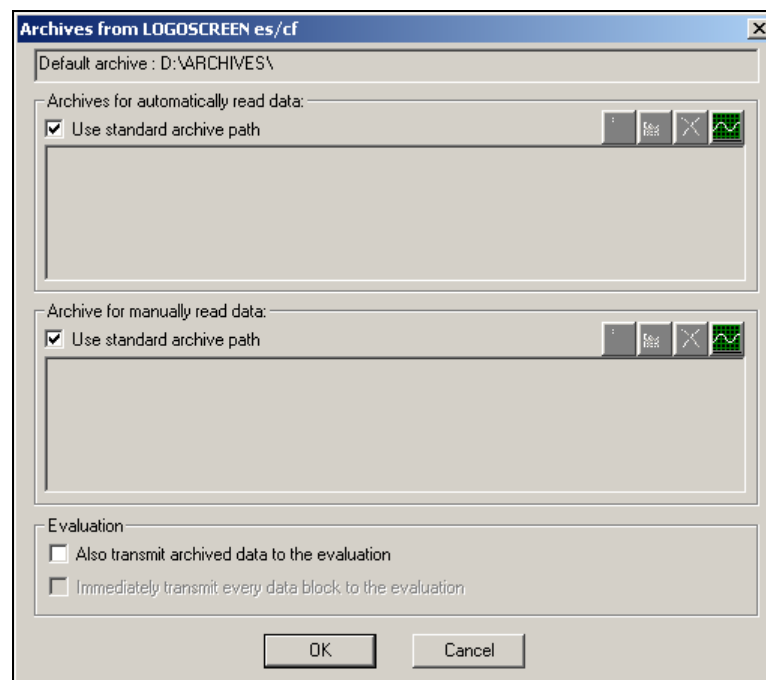
The scheduled times are calculated from the next valid point, as if the PCC software had just made a read-out.**

**Inactive (

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

# 5 Time settings

---



The menu for setting the archives for the data fetched 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 has to 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 that have the \*.177 file name extension.

---

### Tip

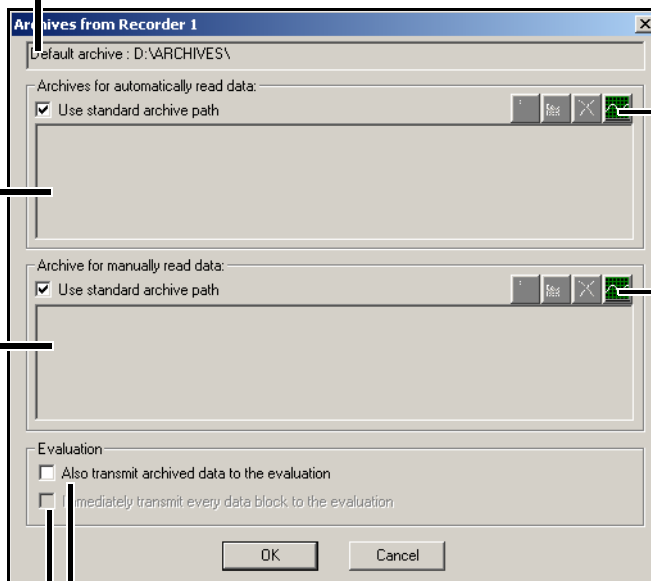
It is a good idea to have several archive files if the data are to be stored both on your own PC and on a server, using a regular data backup procedure. For instance, an additional archive could be provided for company-wide access.

# 6 Archive

**Current default archive (directory)**  
⇒ Chapter 7.1.4 “Default settings”

**Archives for automatically read data**

**Archives for manually read data**



A click with the left mouse button starts the PCA3000 software and brings up the archive data in the display. If there are several archive files in the directory for a device, then the first archive that is found will be used.

**Active (☑):**

Data are 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 entire data in the archive that are no yet in evaluation (e.g. previously read data, or data from a CF card) will only be evaluated at the end of reading out.



**Archive directory**

Data are stored in all the archive files with the same device identifier (Serial No.). If there is no archive, a new one will be created.

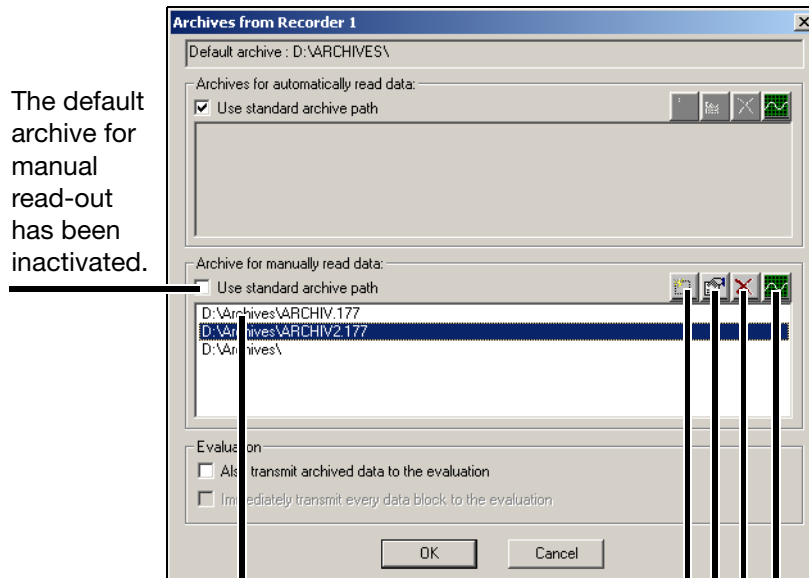
File name = device identifier

**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 a suitable existing archive cannot be found, then a new archive will be created.

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

If the standard (default) archive paths (one or both) are inactive () , then the dialog changes, e.g. to:



The default archive for manual read-out has been inactivated.

Double-click on it in order to be able enter the name directly.

Add another archive for manually read data.

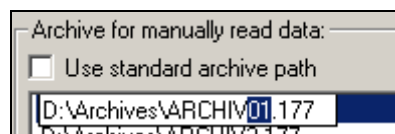
Edit archive entry for manually read data.

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), then 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, then it will not be possible to store data in the intended archive.

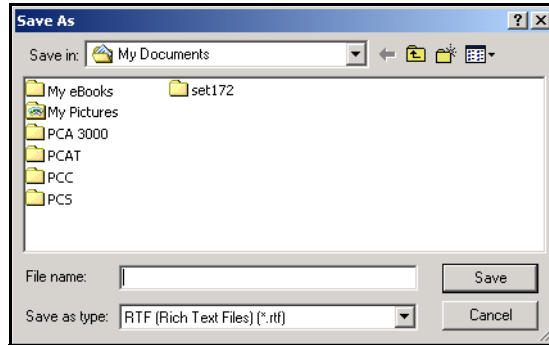


# 7 Menu functions and toolbar

## 7.1 File

### 7.1.1 Export as RTF text

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

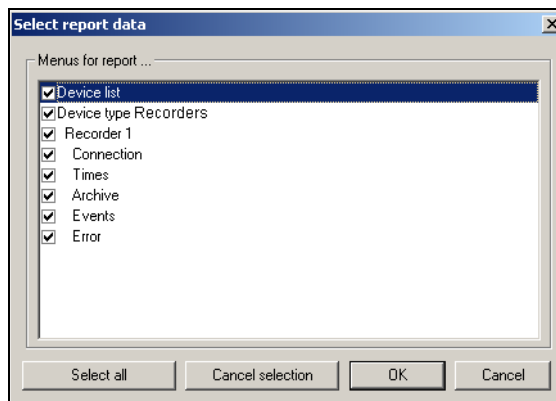


### 7.1.2 Print, print preview



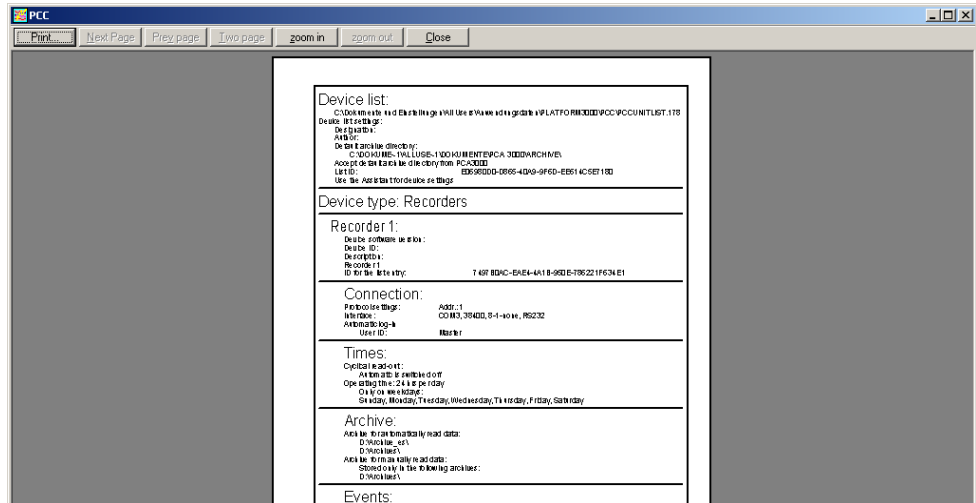
This function prints all the connection data for the devices that are marked in the diagram in the dialog window.

Select what is to be printed



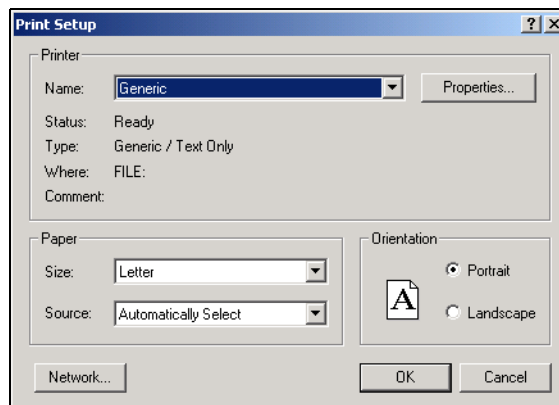
# 7 Menu functions and toolbar

## Print preview



### 7.1.3 Printer setup

This switches to the list of the printers that are installed on the PC.



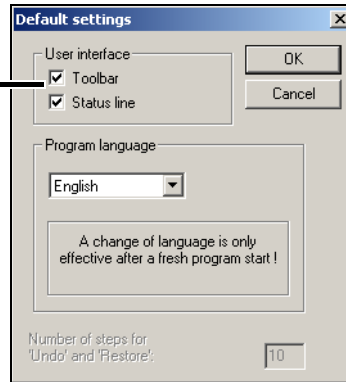
# 7 Menu functions and toolbar

## 7.1.4 Default settings

### Default settings

- \* *File* → *Default settings*
- \* Set the required language

A tick mark means that this bar or line is visible



Here you can change the language used for the PC programs. But the change only becomes active after a fresh program start.

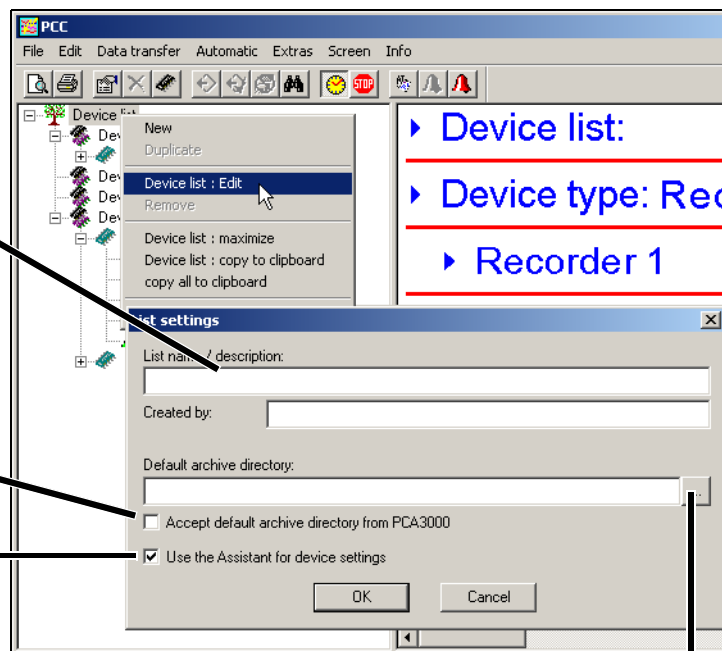
## 7.1.5 List settings

### Right-click on the device list

You can enter additional information on the list in this field

Click the tick mark to be ON, if you want to use the same archive as for PCA3000

If this tick mark is set, the Assistant for device settings is activated.



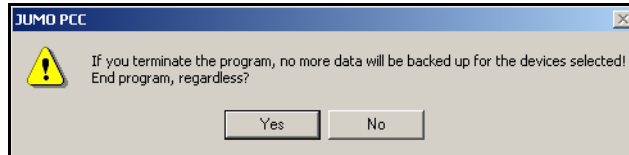
Click here to select a different archive (instead of the default archive for PCA3000) or to enter the name directly in the field

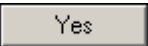
# 7 Menu functions and toolbar

---

## 7.1.6 Cancel

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 on the  button (e.g. data are being read out), then the following dialog will appear.



Select "Cancel" and then "Stop all" to terminate the software immediately.



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

# 7 Menu functions and toolbar

---

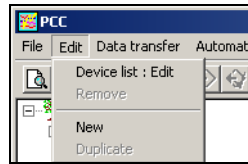
## 7.2 Editing

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

---

### Device list

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

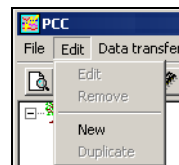


⇒ Additional information can be found in Chapter 7.2.1 “Device list”.

---

### Device type

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

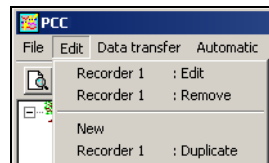


⇒ Additional information can be found in Chapter 7.2.2 “Device type”

---

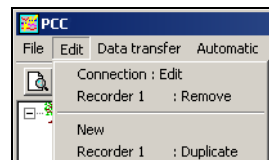
### Device

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



### Lower level for a device

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



⇒ Additional information can be found in Chapter 7.2.3 “Editing”

# 7 Menu functions and toolbar

---

## 7.2.1 Device list

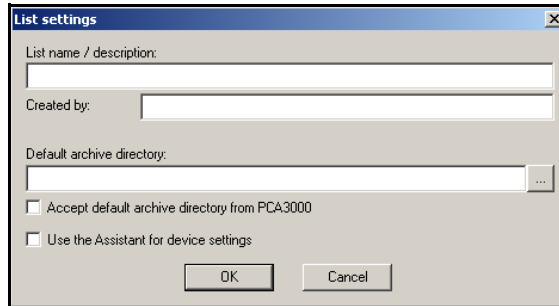
### Edit device list



\* *Edit* → *Edit device list* (or press function key F4)

The entry marked in the tree structure will be edited.

⇒ Chapter 7.1.5 “List settings”



### Remove

\* *Edit* → *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* → *Duplicate* (or press “Ctrl” + “Insert”)

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 7.2.2 “Device type”

# 7 Menu functions and toolbar

## 7.2.2 Device type

### New (using the Assistant)

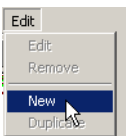


\* *Edit* → *New* (or press the “Insert” key)

This adds a new device to the device list.

⇒ Chapter 4.2 “Adding devices”

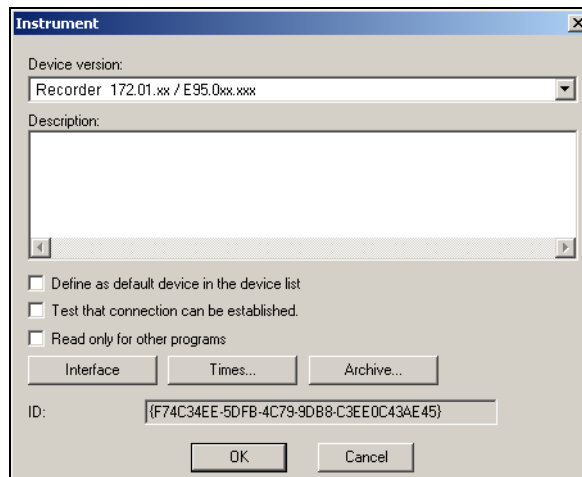
### New (without Assistant)



\* *Edit* → *New* (or press the “Insert” key)

New devices can also be added to the device list without using the “Assistant for setting up connections”.

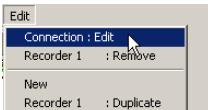
When you have called up the function, the following dialog window will appear:



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.

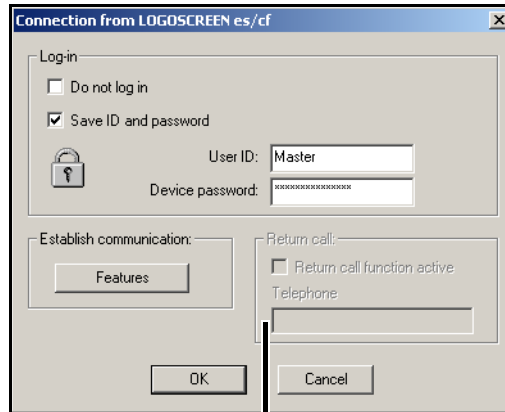
## 7.2.3 Editing

### Edit connection




\* *Edit* → *Edit connection* (or press the F4 function key)

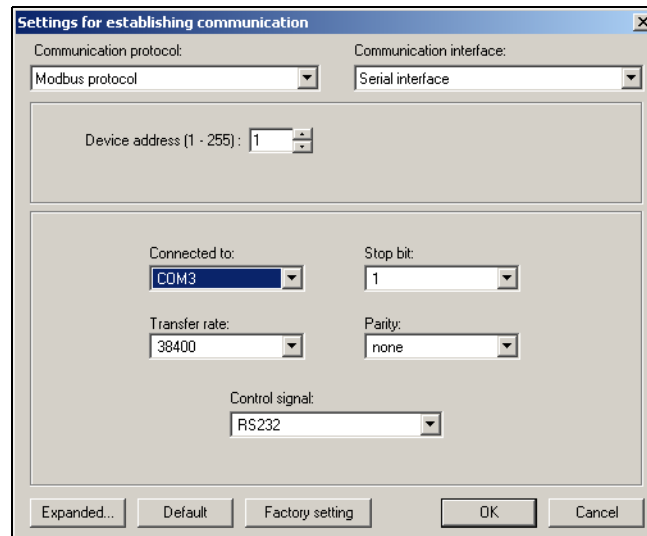
# 7 Menu functions and toolbar



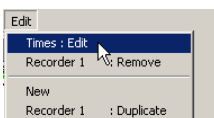
The “Return call” function is only available for specific device types with an active modem connection. Here you must enter the number of the PC that is to be called by the device.

The log-in options have already been described on Page 26.

If you click on the  button, you can alter the settings for the communications connection.



## Edit times

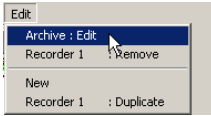


\* *Edit* → *Edit times* (or press the F4 function key)

⇒ Chapter 5 “Time settings”

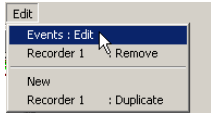
# 7 Menu functions and toolbar

## Edit archive



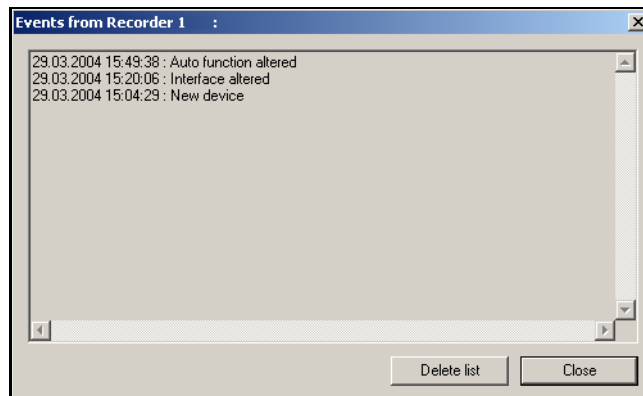
- \* *Edit* → *Edit archive* (or press function key F4)
- ⇒ Chapter 6 “Archive”

## Edit events



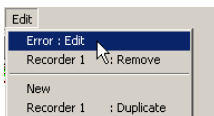
- \* *Edit* → *Edit events* (or press the F4 function key)

The “Events” list is intended for fast diagnosis and checking. The events that have been entered here can be deleted. But deleting has no effect on the Audit Trail entries.



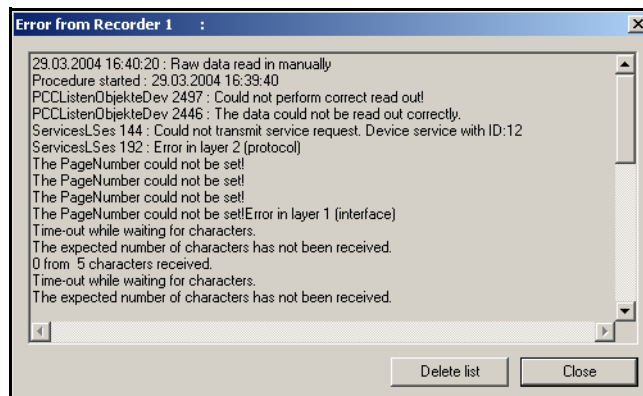
The number of entries is limited. If the maximum number is exceeded, the program will delete the oldest entries.

## Edit errors



- \* *Edit* → *Edit errors* (or press the F4 function key)

The “Errors” list is intended for fast diagnosis and checking. The errors that have been entered here can be deleted.



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.

Two bell symbols are included in the toolbar and used in conjunction with errors.

## 7 Menu functions and toolbar

---



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



The red bell is active if a new error occurs in any of the devices. If errors occur in more than one device, then the bells remain active until you have looked at all the errors.



The number of different devices with fresh errors is limited.

### 7.3 Data transfer

#### 7.3.1 Reading out raw data (manually)



Depending on the device that is used, various details will have to be entered for reading out raw data.

#### Recorders

For the recorders (device type 2) you can define which data are required from the device.



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

First, the software establishes a connection to the device.



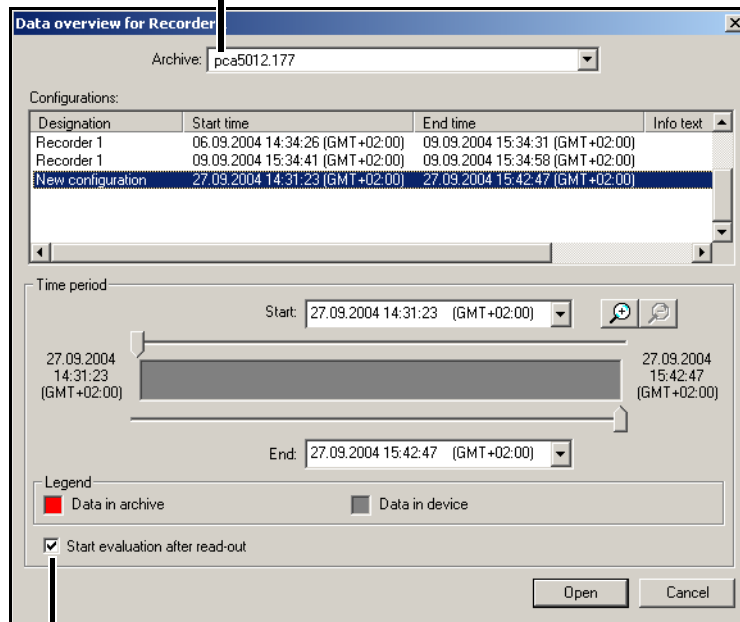
You can close the dialog (or move it) and carry on working through the PCC software. When the connection has been established, the data selection follows. Every alteration of the configuration requires a new entry to be made in the list.

If, for instance, 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.

## 7 Menu functions and toolbar

The archive is selected here.



### Active (☑):

After reading out the data, the evaluation software PCA3000 will be started automatically.

The first archive that is found will be opened, depending on the settings described under "Edit archive" on page 59.

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

# 7 Menu functions and toolbar

## 7.3.2 Fetching raw data (manually)

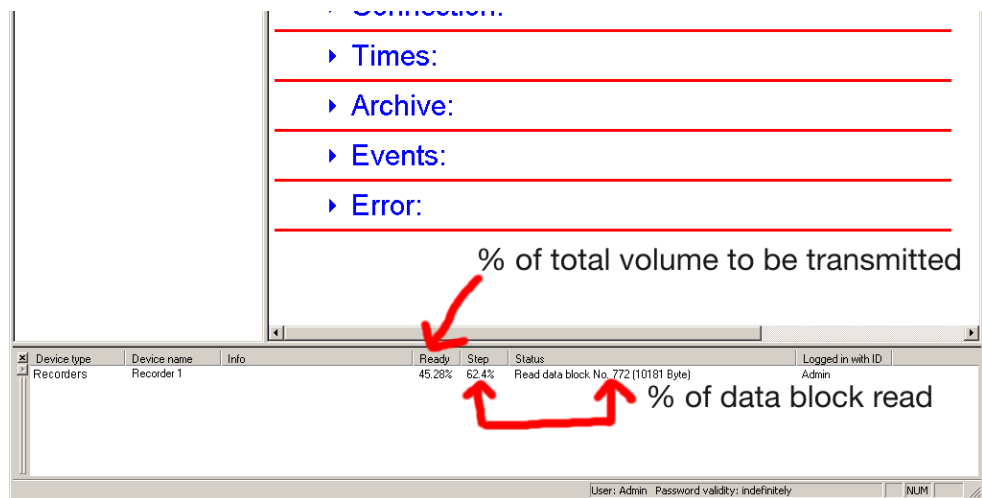


The device checks which data have not yet been stored in the archive that has been set. This command transfers just these outstanding data to the archive.



The value for the memory alarm is reset and marked as “fetched”! For Type 1 devices, you must take note of the register *Times* → *Expanded (1)* (Page 44).

- \* Click on the icon  
The outstanding 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 have been recorded after the start of reading out, but not yet been read out themselves. These data will be fetched by the next read-out procedure.

### Device type 1

Data that have been recorded after the start of reading out will be fetched by the next read-out procedure.

# 7 Menu functions and toolbar

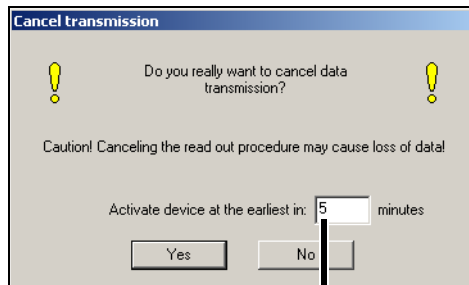
## 7.3.3 Cancelling the procedure

The currently active procedure for the device that is marked in the tree structure will be cancelled immediately.



### Cancel automatic mode

If you want to cancel the read-out of data in automatic mode, then the following dialog window will appear:

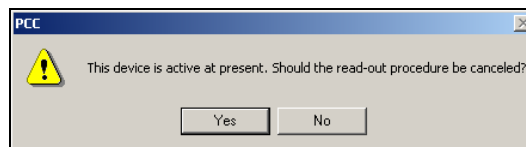


The procedure that was cancelled will be resumed at the earliest after this time has elapsed. The automatic mode must remain switched on!

Click on  to cancel the reading out of data. Make sure that the data have been fetched in good time, to avoid a loss of data. Select the period during which the device will remain inactive. Automatic mode will only restart for the selected device when this period has elapsed.

### Cancel manual read-out

If a manual read-out is cancelled, all that appears is the following warning message:



Click on  to cancel the reading out of data.

# 7 Menu functions and toolbar



---

## 7.4 Automatic

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

### 7.4.1 Starting/stopping automatic mode



#### started

If automatic mode has been started, this can be recognized by the **depressed** representation of the icon  .

#### stopped

If automatic mode has been stopped, this can be recognized by the icon being 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 a single left-click on the corresponding symbol  .

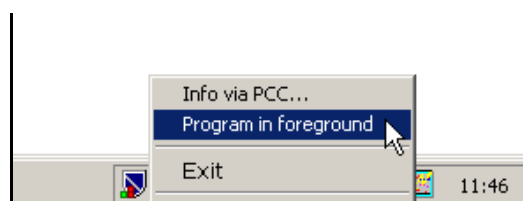
### 7.4.2 Automatic mode in background

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 the log-in to the operating system).

- \* If you click on the icon, a window is opened.
- \* Click on “Program in foreground” and then (after a successful log-in by the user) PCC will open up the menu window to its full size.



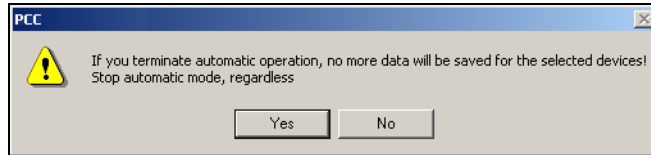
# 7 Menu functions and toolbar

## 7.4.3 Stopping active devices



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

**Message for active automatic mode**



**Cancel current transmissions**



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

# 7 Menu functions and toolbar

---

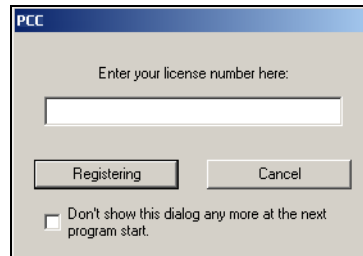
## 7.5 Extras

### 7.5.1 Enabling program options

---

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

\* *Extras* → *Enable program options*



\* Enter the license number and click on "Registration"



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

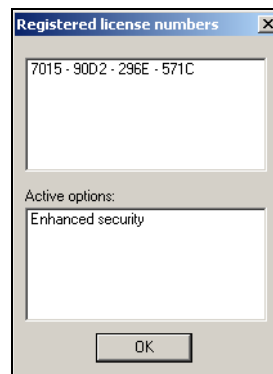
**No restart of Windows and no deinstallation** is required!

### 7.5.2 Forgotten the license number?

---

**Registered  
license  
numbers -  
click here**

\* Click on *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.

# 7 Menu functions and toolbar

---

## 7.5.3 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.

## 7.5.4 Resetting the device list

---

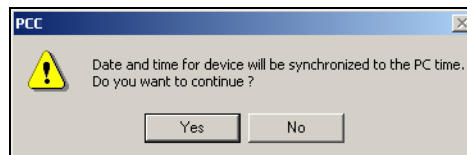
All the devices in the connection list will be deleted. None of the devices can be active, i.e. reading out at the moment, not even for a different program (Setup or PCS).

## 7.5.5 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 larger 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.

## 7.5.6 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 comfortable method that does not require detailed knowledge of operation.



The function is appropriate 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.

# 7 Menu functions and toolbar

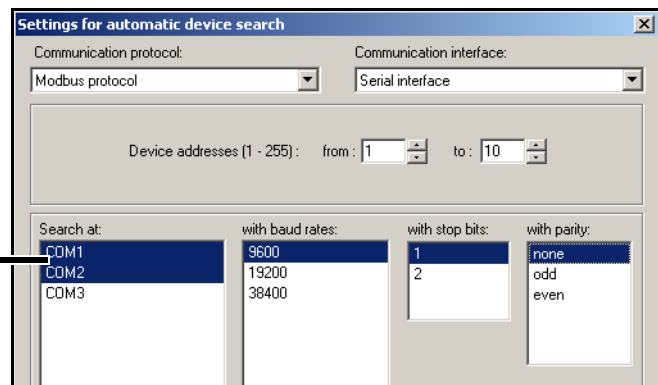
## 7.5.7 Searching for device

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.



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.




## 7 Menu functions and toolbar

### 7.5.8 Device modem

It often turns out that the device and the modem are fitted with Sub-D socket connectors. The modem cable, on the other hand, has one male and one female connector. For this reason, please use the optional, preassembled cable (Part number 9407-799-00801) when using one of the modems recommended below.

Since many modems use RS232 signal levels, an RS422/485 converter is also required if RS422/485 is used for the device.

#### Recommended modems

<b>TM2 33.6</b> Analog industrial modem Desktop device	<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
		

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.

# 7 Menu functions and toolbar

## 7.5.9 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.

**Connection**  
These settings must match those in the device quite precisely.

The init (initialization) string for the connected modem is selected here.

Changeover between customized and original init strings

The init string is transferred to the connected modem.

Only when the customized "Initstring" is active will most of the buttons on the right-hand side be made available.

Alter init string

Create init string

Delete init string

Save alterations

adds to the list of the customized init strings the original initstrings as well

The modem responses during transmission appear here.

Alter sequence of the init strings (modem list)

- \* After entering the settings, click on *Transmit*. When the 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.

## 7 Menu functions and toolbar

If the modem responses includes texts such as “Error”, then the modem failed to understand one of the commands. You will have to correct the command or 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 the “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 I 7520A/ISA) that converts RS232 to RS422/485 levels.



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

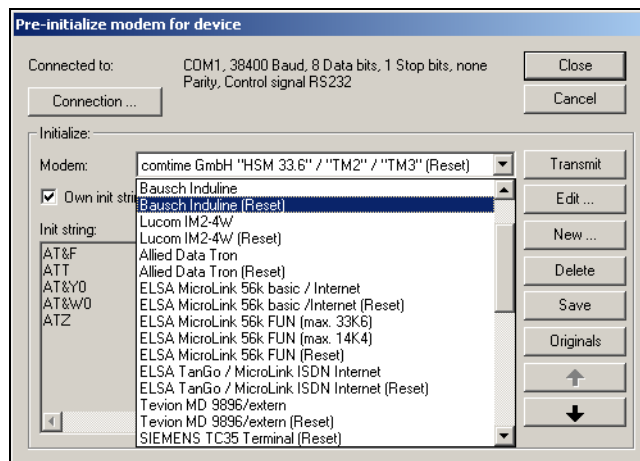
- \* Connect the device to the telephone network, via the Spectra interface converter and the modem, as per wiring plan.
- \* Switch on the modem.
- \* Establish the new connection to the device via the modem.

⇒ Chapter 7.2.1 “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”.



# 7 Menu functions and toolbar

---

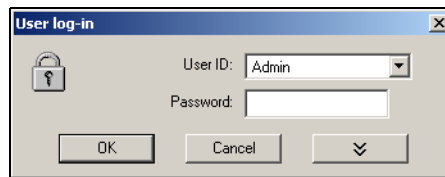
## 7.5.10 Renew log-in / alter password

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

For devices without an enhanced security level, the function *Renew log-in / Alter password* is used to

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

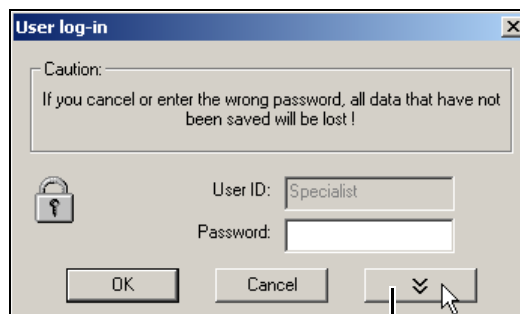
This function only affects the operation of the software and not any device user list that may be present.

### Activation of the user and password query at the program start

When the software is first newly installed, there will be no query of the user name and password. You are automatically logged in as "Specialist" with a blank password.

Proceed as follows:

- \* Start function "Renew log-in / Alter password".
- \* Show options.

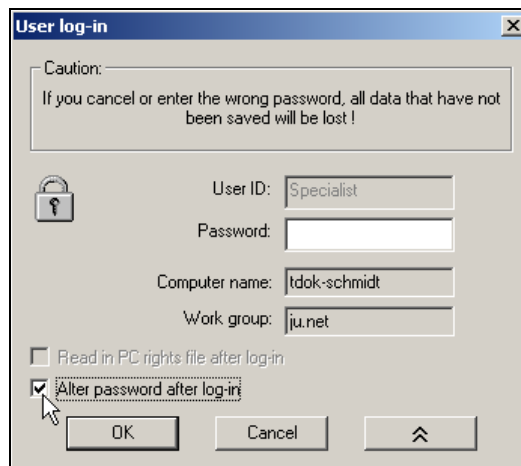


Show options.

## 7 Menu functions and toolbar


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

OK



The "User log-in" dialog box contains a "Caution" message: "If you cancel or enter the wrong password, all data that have not been saved will be lost!". It features a lock icon and several input fields: "User ID" (Specialist), "Password" (empty), "Computer name" (tdok-schmidt), and "Work group" (ju.net). There are two checkboxes: "Read in PC rights file after log-in" (unchecked) and "Alter password after log-in" (checked). At the bottom are "OK", "Cancel", and "Up" buttons.

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



The "Change password" dialog box features a lock icon and three password input fields: "Old password" (empty), "New password" (masked with asterisks), and "Confirm new password" (masked with asterisks). It includes "OK" and "Cancel" buttons at the bottom.

When the entry has been concluded, the new password is activated by clicking . From now on, the user name and the password will be requested at the program start.



No start password is initially assigned to the “Maintenance” user either. At program start, log in with the “Maintenance” user name and enter a password as described above.

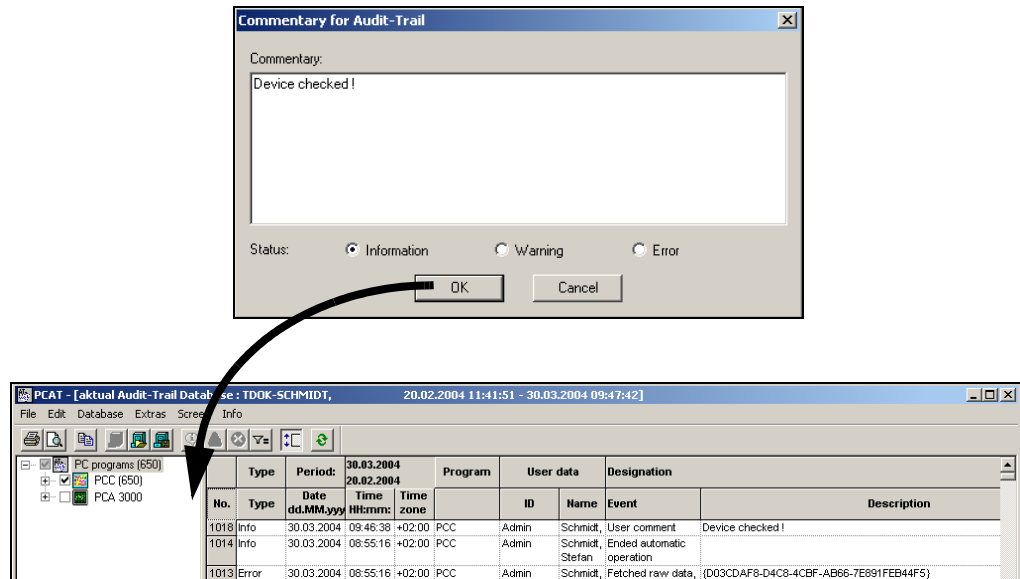
### Password alteration

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

# 7 Menu functions and toolbar

## 7.5.11 Comment in audit trail

This creates an entry in the PCAT for the better understanding of the activity that has been performed.



## 7.5.12 Start audit trail

This function starts the PC Audit Trail software.

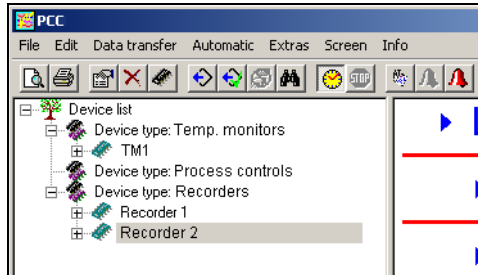
# 7 Menu functions and toolbar

## 7.6 View

### 7.6.1 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.

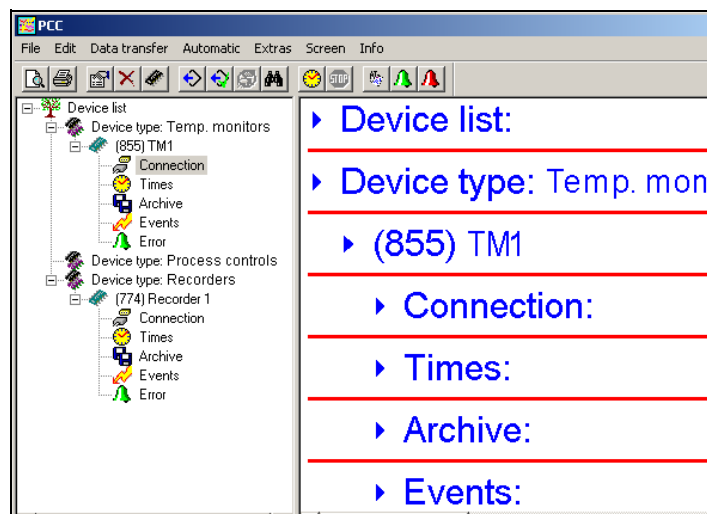
### 7.6.2 Active devices

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

⇒ Chapter 3.2 “Windows of the user interface”

### 7.6.3 With numbers

This inserts an unambiguous 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.



# 7 Menu functions and toolbar

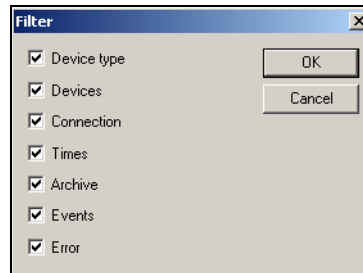
---

## 7.6.4 Minimize/maximize all

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

## 7.6.5 Filter

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



# 7 Menu functions and toolbar

## 7.7 Info



### Info on 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.

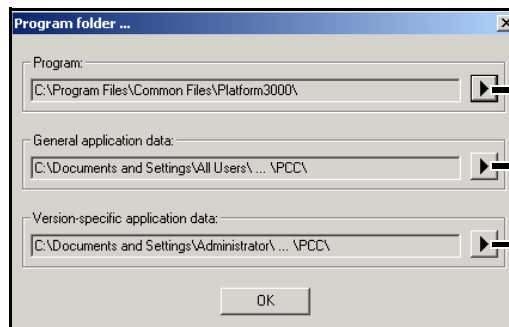
Activating the **Additional...** button will provide you with additional information on any PC software components that may be installed. Please have these numbers available as well, if you have technical problems or queries and contact a service representative.

### 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

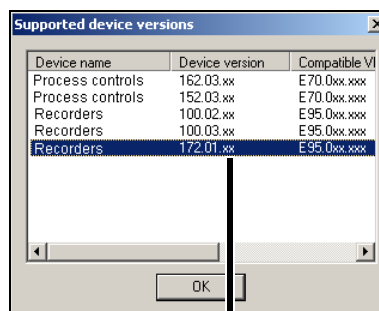
Your program data are saved here, on the hard disk.



here are the programs  
here is, for instance, the device list  
here are the customized data, such as modem strings

### Supported devices

Information about the devices with which this software will function.



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)

## 7 Menu functions and toolbar

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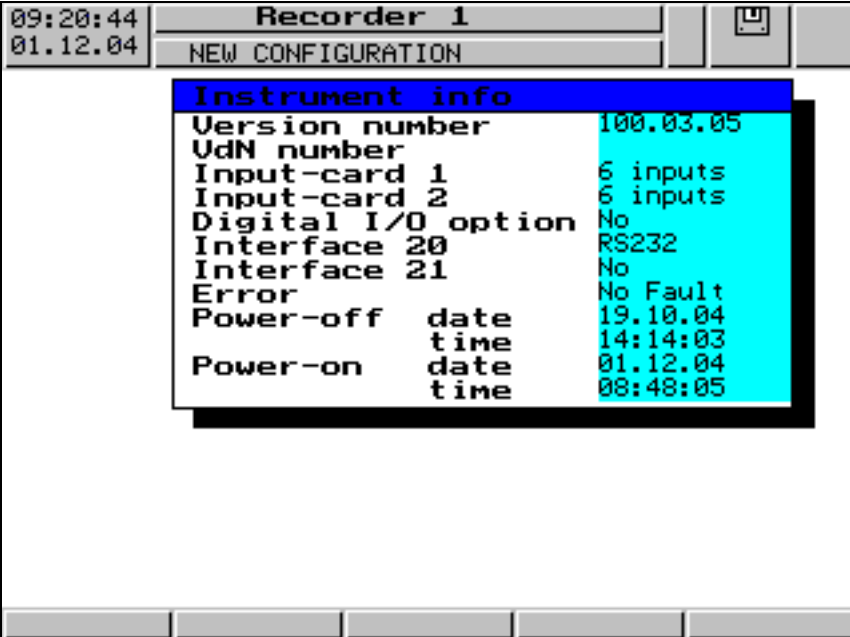
## 8 Device-specific data

### 8.1 Paperless recorders (KS3010 und KS3012)

#### 8.1.1 Identifying the interface

Which interface is implemented in the paperless recorder can be requested via the menu *Device info* → *Interface*.

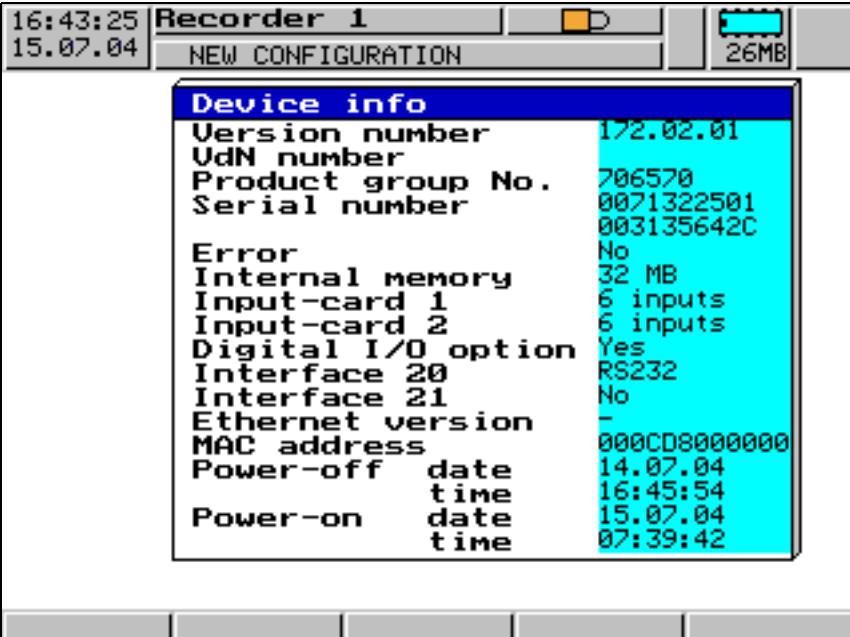
##### KS3010



The screenshot shows the 'Recorder 1' interface with a 'NEW CONFIGURATION' button. A menu titled 'Instrument info' is displayed, listing various system parameters and their values.

Instrument info	
Version number	100.03.05
UdN number	
Input-card 1	6 inputs
Input-card 2	6 inputs
Digital I/O option	No
Interface 20	RS232
Interface 21	No
Error	No Fault
Power-off date	19.10.04
Power-off time	14:14:03
Power-on date	01.12.04
Power-on time	08:48:05

##### KS3012



The screenshot shows the 'Recorder 1' interface with a 'NEW CONFIGURATION' button and a '26MB' indicator. A menu titled 'Device info' is displayed, listing various system parameters and their values.

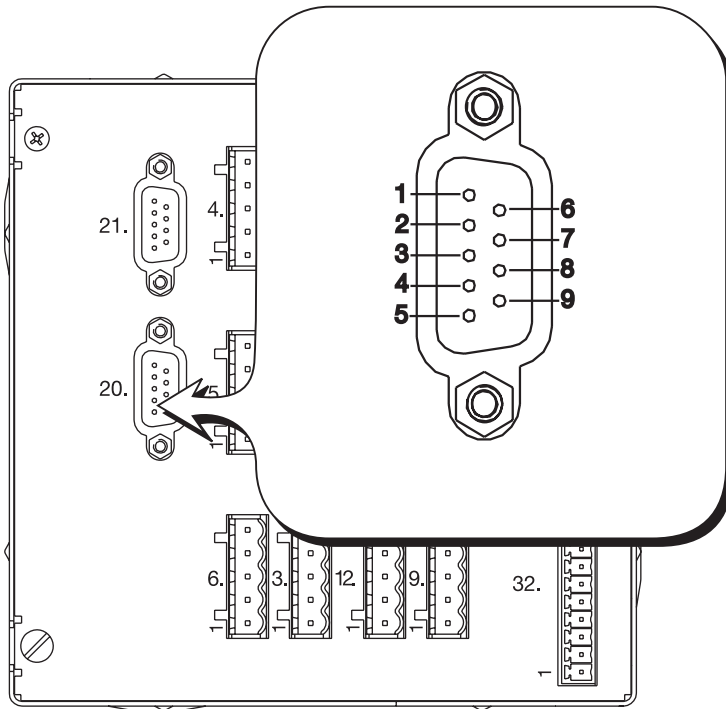
Device info	
Version number	172.02.01
UdN number	
Product group No.	706570
Serial number	0071322501 003135642C
Error	No
Internal memory	32 MB
Input-card 1	6 inputs
Input-card 2	6 inputs
Digital I/O option	Yes
Interface 20	RS232
Interface 21	No
Ethernet version	-
MAC address	000CD8000000
Power-off date	14.07.04
Power-off time	16:45:54
Power-on date	15.07.04
Power-on time	07:39:42

# 8 Device-specific data

## 8.1.2 Connection diagram

Rear view of the paperless recorder

Example: KS3010 (also valid for KS3012)



**Connector 20**

**Interface**

**Connection diagram**

	<b>RS232</b>	<b>RS422</b>	<b>RS485</b>
1○		1○	1○
2○	RxD	2○	2○
3○	TxD	3○ TxD+	3○ TxD+/RxD+
4○		4○ RxD+	4○
5○	GND	5○ GND	5○ GND
6○		6○	6○
7○		7○	7○
8○		8○ TxD-	8○ TxD-/RxD-
9○		9○ RxD-	9○

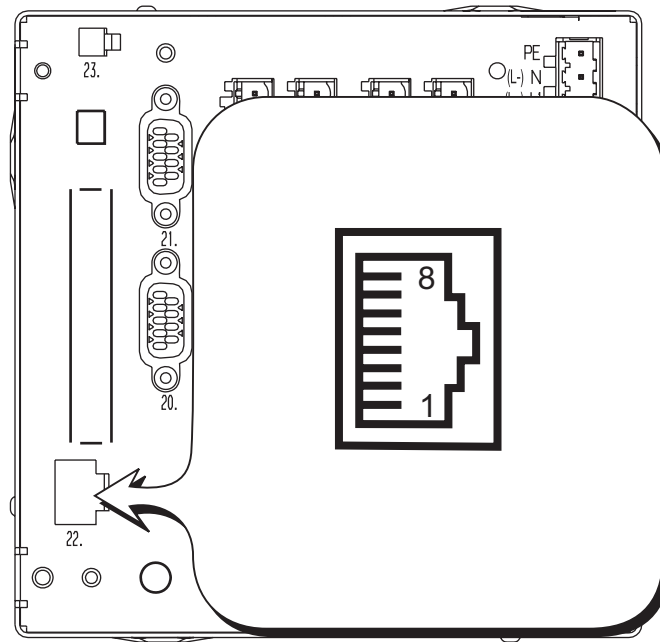


When connecting the serial interface, please make sure that connectors 20 and 21 are not mixed up. Connector 21 is reserved for the PROFIBUS-DP interface (available as an extra).

## 8 Device-specific data

Rear view of the  
paperless  
recorder

(only for KS3012)



**Connector 22**

**Interface**

**Ethernet**

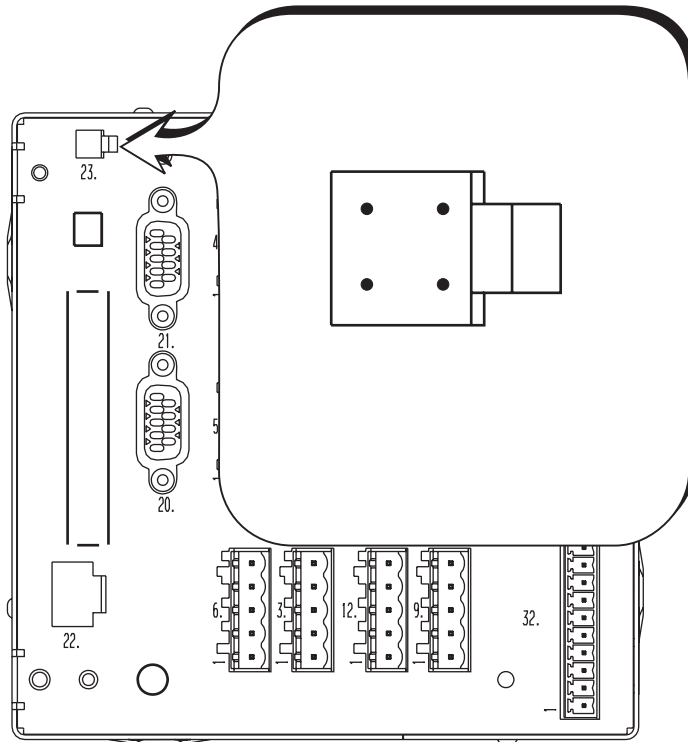
**Connection  
diagram**

1	TX+	Transmit data +
2	TX-	Transmit data -
3	RX+	Receive data +
6	RX-	Receive data -

## 8 Device-specific data

Rear view of the  
paperless  
recorder

(only for KS3012)



**Connector 23**

Interface

**Setup interface**

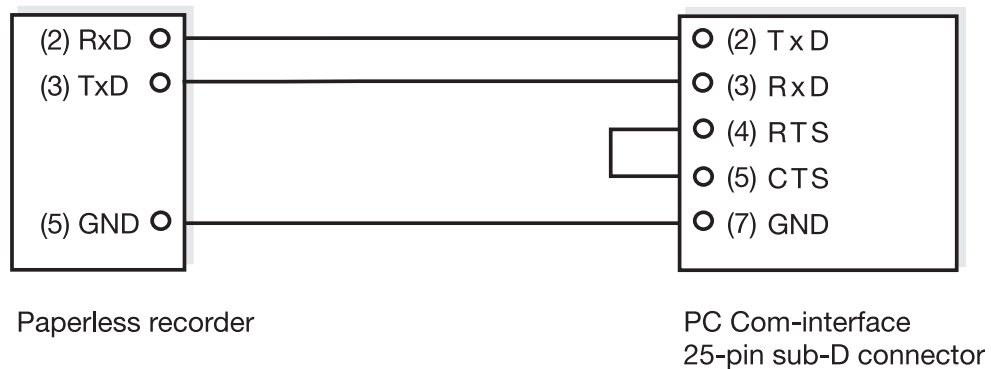
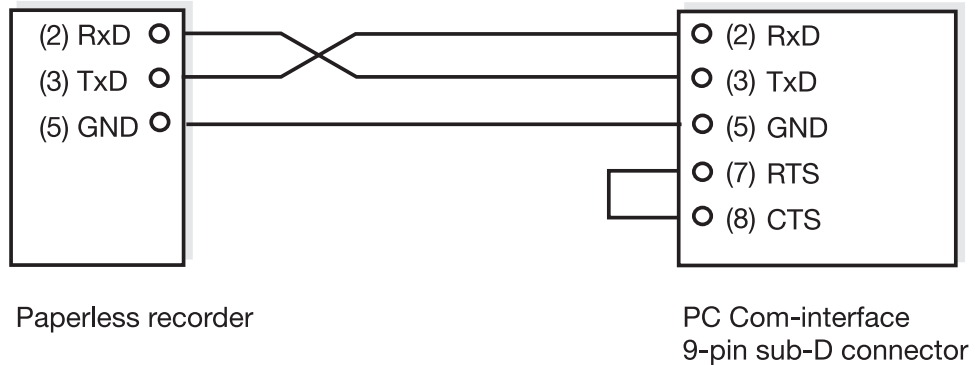
Connection  
diagram

Connection only possible with  
“PC interface cable with TTL/RS232 converter  
and adapter (socket)”

## 8 Device-specific data

### 8.1.3 RS232

In case of the RS232 interface, the handshake lines (RTS, CTS) are not used. The RTS line from the master (CTS on the recorder) will be ignored, the answer will be sent by the recorder immediately. The CTS line of the master (RTS on the recorder) remains open. If the master evaluates the handshake lines, they must be bridged in the cable.



### 8.1.4 RS422/RS485

The changeover between the RS422 and RS485 interfaces is performed automatically by the recorder according to the connection type (2-wire or 4-wire connection).



We recommend using a screened and twisted connection cable.

## 8 Device-specific data

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### 8.1.5 Ethernet

If a PC is directly connected to a recorder via the Ethernet interfaces, a standard crossover cable can be used.

In all other cases, the connection is dependent on the network or connection type used (Internet, Intranet, ...).

### 8.1.6 Setup interface

If the setup interface is used, the “PC interface cable with TTL/RS232 converter and adapter (socket)” must be used.

**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.

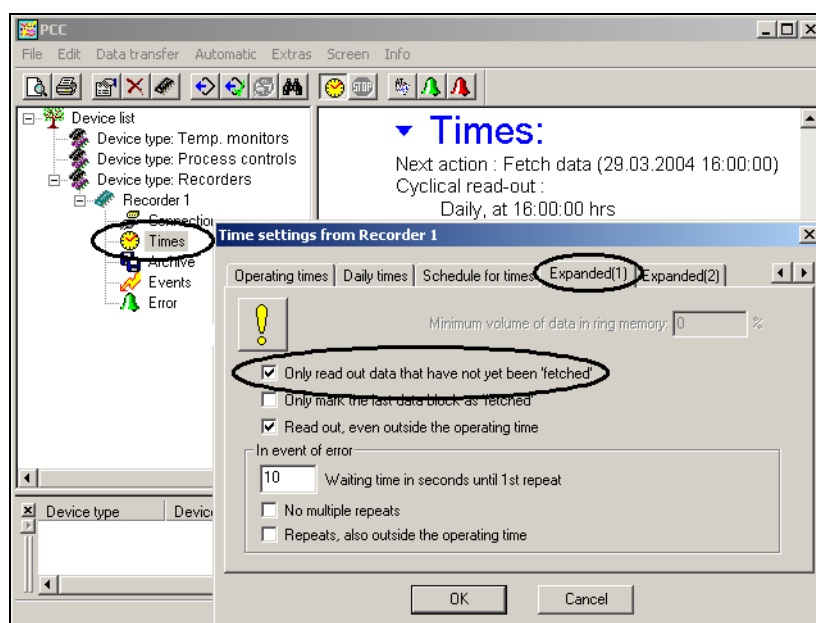
**FAQ 2**                    **What is the difference between “Fetch raw data” and “Read out raw data”?**

**Answer**                    “Read out raw data ” does **not** affect the memory alarm of a device. But “Fetch raw data ” does affect the memory alarm. After the data have been fetched, any memory alarm that is present will be cancelled.

**FAQ 3**                    **Why do some 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 have not yet been fetched” in the setting for “Times” in the “Expanded” register.

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 fetching the data from the device.


Device Type 2 means devices that use a CompactFlash memory card for fetching 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 will be assigned automatically, and is derived from the device identifier and a serial number.  
If there are one or more files with a different name, that already contain 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 the PCA button . This automatically opens the PCA3000 software with the correct archive (PCA3000 must be already installed).

⇒ “Edit archive” on page 59

**FAQ 6**                    **Why can't I activate the buttons for reading out data from a device, although 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 or PCS 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 have the Modbus protocol available at this interface.

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