EE31 Series

Manual

Logger & Visualisation Software

YOUR PARTNER IN SENSOR TECHNOLOGY

E+E

ELEKTRONIK®
Ges.m.b.H.

Logger & Visualisation Software - EE31 Series

GENERAL

This software has been developed by E+E Elektronik$^{®}$ to store measurement data of the EE31 series transmitters in databases (Logger Software) and/or representing them graphically and in tabular form (Visualisation Software).

Logger- and Visualisation Software is optional to the standard EE31 series.
System requirements: MS Windows 98 SE$^{®}$ or later, serial port.

INSTALLATION

Insert the CD-ROM in your PC and open the file setup.exe in the corresponding folder by a double-click. Follow precisely the instructions of the installation menu, choose the required and determine all other settings concerning the installation. At the end of the installation routine a readme file or the program will be opened automatically.

With the very first installation of the Logger Software the database-engine for MS Windows® is installed in the background as well. As a result the duration of the complete installation process is slightly longer.

If the configuration software is already installed or if only an update is to be performed, the older version must first be uninstalled (the installation routine notifies and interrupts the procedure automatically).

To remove the previous version, open the menu "Software" in the "Control Panel". There a list of all programs installed on the system can be found. Remove both the programs "E+E Logger" and "E+E Visualisation" and then install the update.

LIMITATION OF LIABILITY

E+E Elektronik disclaims any liability for any damages and losses resp. consequential losses (for example, but not limited to reduction of profit, interruption of business, loss of data or information or any other loss of fortune), which occures through installation and / or use and also through impossibility of use of a software product from E+E Elektronik and possible related support resp. refusal of support.

Table of contents

1. Logger Software

1.1 Introduce New Transmitter

In order to introduce a new transmitter first a workspace has to be created.

For this, a new workspace can be created or a saved workspace can be opened (🖙 | or "File" -> "Open Workspace").

In addition, the transmitter must be assigned to a group in the workspace. To do this, a new group can be created or a group already created can be opened.

Furthermore, it is possible importing workspaces that have already been created with the EE31 configuration software.

1.1.1 Create New Workspace

Assign filename (e.g.: factory_1) and storage location on your harddisk for the new workspace. Allocate this workspace to a user environment. If no user environment exists, create a new one (by assigning filename and storage location).

1.1.2 Create New Group

Assign a group name (e.g.: room4). The group is added to the workspace. If several transmitters are to be introduced, they can be allocated to different groups.

1.1.3 Introduce New Transmitter

Select the button 🗋 or the corresponding pull-down menu. In the dialog box first select the group to which the new transmitter should belong to. Assign a transmitter name (e.g.: dryer 1). The device type EE31 is already specified.

Under "Configure Device" the network parameters of the transmitter must be set. In the field "Network Address", enter the network address preset by E+E - this is to be found on a sticker attached to the transmitter. Define the serial port with which you have connected the EE31. If several transmitters have been connected to this COM-port using RS232 to RS485 converters, select the option "Network".

1.2 Settings for Logging

To save the configuration settings press button "Apply".

Transmitters can be selected individually in the tree structure, in groups or all in the workspace by means of a mouse click on the corresponding name. For multiple selections depress the Ctrl-key and drag the mouse (analogous to MS Windows®).
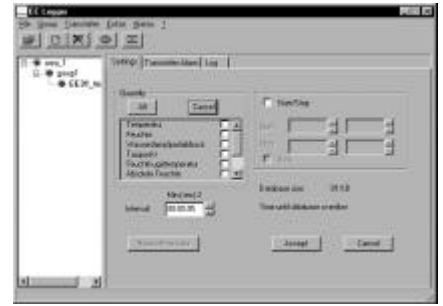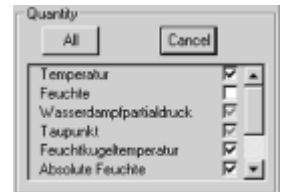
1.2.1 Selection of Measured Values

The measured values to be recorded can be selected by checking the boxes.
If all measured values processed by EE31 are to be logged simultaneously, press "All".
"None" will cancel any selection.

The three possible selections are:
- box not checked: not selected
- box marked with black tick: selection is applicable for all transmitters of the group / the workspace
- box is marked with gray tick: selection is applicable for particular transmitters of the group / the workspace

1.2.2 Determining Start / Stop Moment

If a database has already been defined, by pressing the button ⊙ the recording of measurement data will begin immediately.
Furthermore, the start / stop moment can be defined. This must be entered in the appropriate input fields in the format DD.MM.YY and hh:mm:ss.
The recording can be repeated at the same interval every day by selecting the option "Daily".

1.2.3 Determining Logging Interval

The logging interval can be set between 1 second and 23h 59' 59'' and is entered in the input mask in the format hh:mm:ss.

However it is recommended to set as logging interval at least 5s for each transmitter.
E.g.: for a workspace with 30 transmitters to be logged simultaneously, the optimum logging interval is at least 150s.

1.2.4 Display Database Size

When a database has already been defined and logging has started, its current size and the calculated time of the database overflow is displayed.

1.2.5 Read Offline Data

Feature for HUMLOG 10 - applications - is not relevant for the EE31 series and therefore this button is deactivated.

1.3 Set Alarm Functions

Limit values can be defined for all measured values. Exceeding the respective limits an alarm is sent by email and/or SMS to a recipient created in the user database. The alarm options are to be selected by checking it.

1.3.1 Alarm With Every Limit Exceeded

If the option box "Always" is selected the alarm triggers with every limit exceeded. If the box "Always" is blank, an alarm is only initiated with the first limit exceeded.

1.3.2 Setting Alarm Types

By checking the corresponding alarm type the message send to the registered recipient takes place per SMS and/or email. The recipient must be created in the user database.
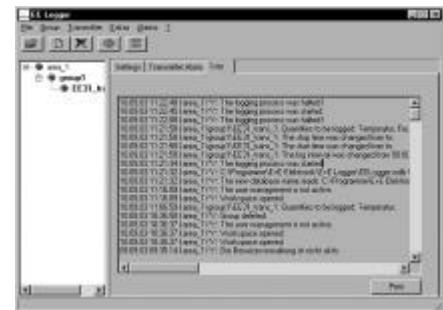
1.4 Event Log

The log file provides a chronological overview of relevant settings and events with date and time.
If the entire workspace is marked in the tree structure then all events are displayed. If only one group or one transmitter is marked only the appropriate events are displayed.
The event log is stored automatically. The storage location is the sub-folder "Log" in the installation directory of the E+E Logger. Each month has its own sub-folder, each day has its own log-file.

The stored event logs are automatically overwritten after one year. For long-term archiving purposes it is therefore recommended to make a separate backup of the log-files.

1.5 Creating a Database (DB)

In the pull-down menu "Extras", the dialog for configuring a database can be opened by selecting "Database Settings".

1.5.1 Type of Database

There are 3 different database formats:

- MDB (Microsoft DataBase): files with the extension .mdb are files which can be processed directly in MS Access®.
- ASCII: files that consist of purely text characters can be imported by many software programs (e.g. MS Excel®).
- ODBC (Open Database Connectivity): open database format, ODBC-drivers must be installed and an ODBC DB already created.

ASCII databases can not be processed and displayed by the E+E Visualisation Software.

6

1.5.2 Database Parameters

Besides the storage location and the name of the DB, the maximum file size of the DB is also to be specified.
If set, a pop-up message will warn for exceeding a particular DB-size (as percentage of the maximum size).
With the mode-selection it can be determined, whether the oldest logging data should be overwritten on reaching the maximum DB-size (loop-mode) or whether logging should stop (overflow-mode).

MDB and ASCII DBs can be automatically archived every month on any free selectable day. Data from the period of one month is stored in an additional database in the specified DB-directory.

1.6 Logger Start

If a database has been created and the logging settings determined, by pressing the button recording can begin. A pop-up window informs about the successful start of the logging.

During the logging process the EE-Logger window can be minimized by pressing the button or .Logging continues in the background, the symbol continues to be visible in the tray.
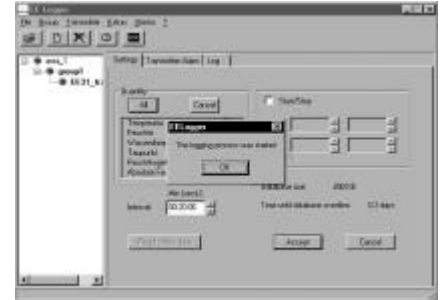
1.7 Logger Stop

The logging process is halted by pressing the button . A pop-up window confirms the successful stop of the logging. Since the database must be closed, it can take several seconds until the confirmation message is displayed.

If logging has taken place in the background, the logging window can be called up with a double-click on the tray icon "E+E Logger". The recording can now be halted, as described previously.
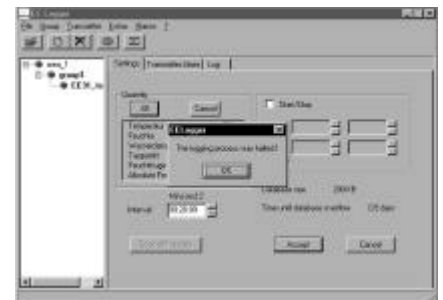
The recorded measured values are located in the database-file and can be further processed.

1.8 User Management

The E+E Logger software has integrated user management, with which users can be added and removed. Certain rights per user can be assigned.

To be able to initiate alarms using the Logger software at least one user must be assigned.

1.8.1 Create User

When first using the user management, the user window of the Administrator will be opened.

To be able to create further users and user groups, an administrator password must be assigned, which must consist of at least 4 characters. Capitals- / small lettering is to be observed!

Email address, mobile phone number for SMS-receipt and SMS-Limit (maximum SMS-alarms possible in 24 hours) must also be entered.

Email- and SMS-dispatch can be tested immediately (test-buttons). For the SMS-test, the COM-port to which the mobile phone is connected with the PC must been defined ("Extras" -> "Configure SMS").

Additional users can now be added via the menu item "New User" according to the above mentioned scheme.

The properties of users can be edited by clicking the menu item "User Properties".
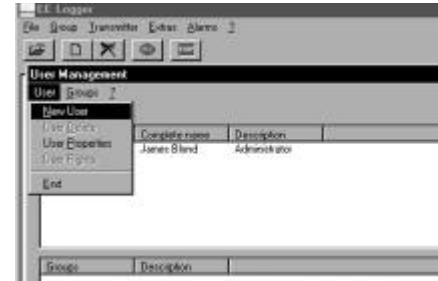
1.8.2 User Groups

Several users can be grouped together in user groups (e.g.: engineers). As a result, the assignment of the same rights for several users is made easier. Groups can be created: Menu item "Groups" -> "New Group"

In the input mask "New Group", group name etc. and also an email address are assigned for the group; the group will be notified in the event of an alarm.

1.8.3 Rights

Via the menu item "User" -> "User Rights" rights can be assigned for the user added.

The individual rights can be selected in the pull-down menu. With the button "Add" or with a double-click on the respective user- / group name, users or groups are added to the respective action, that are allowed to execute it. With the button "Remove", the respective rights are withdrawn again.

The user "Admin" automatically has all rights. Rights cannot be withdrawn from the "Admin".

1.8.4 User Logon and Logoff

If at least the user "Admin" and one other user have been configured, when opening the "EE Logger" users must logon with user name and password.

If the program logs on an unsupervised PC in the background, for security reasons one can logoff with "Extras" -> "User Logoff". In a logged-off state no actions can be performed and configurations cannot be altered.
If settings are to be determined or if one wishes e.g. to quit logging, it is necessary to logon with user name and password "Extras" -> "User Logon".

1.9 Alarms

In the menu "Alarms" -> "System Alarms", alarms can be set for events. These settings and the initiation of the alarm functions are based on the same principle as with the alarms due to limit-exceeded for set measured values.

All system events are logged in an alarm log. The user logged on the moment the alarm is received can view the log and acknowledge alarms. The alarms can be acknowledged individually or all at once. Depending on the setting either all alarms or only unacknowledged ones are displayed.

1.10 Flow Chart: Logging
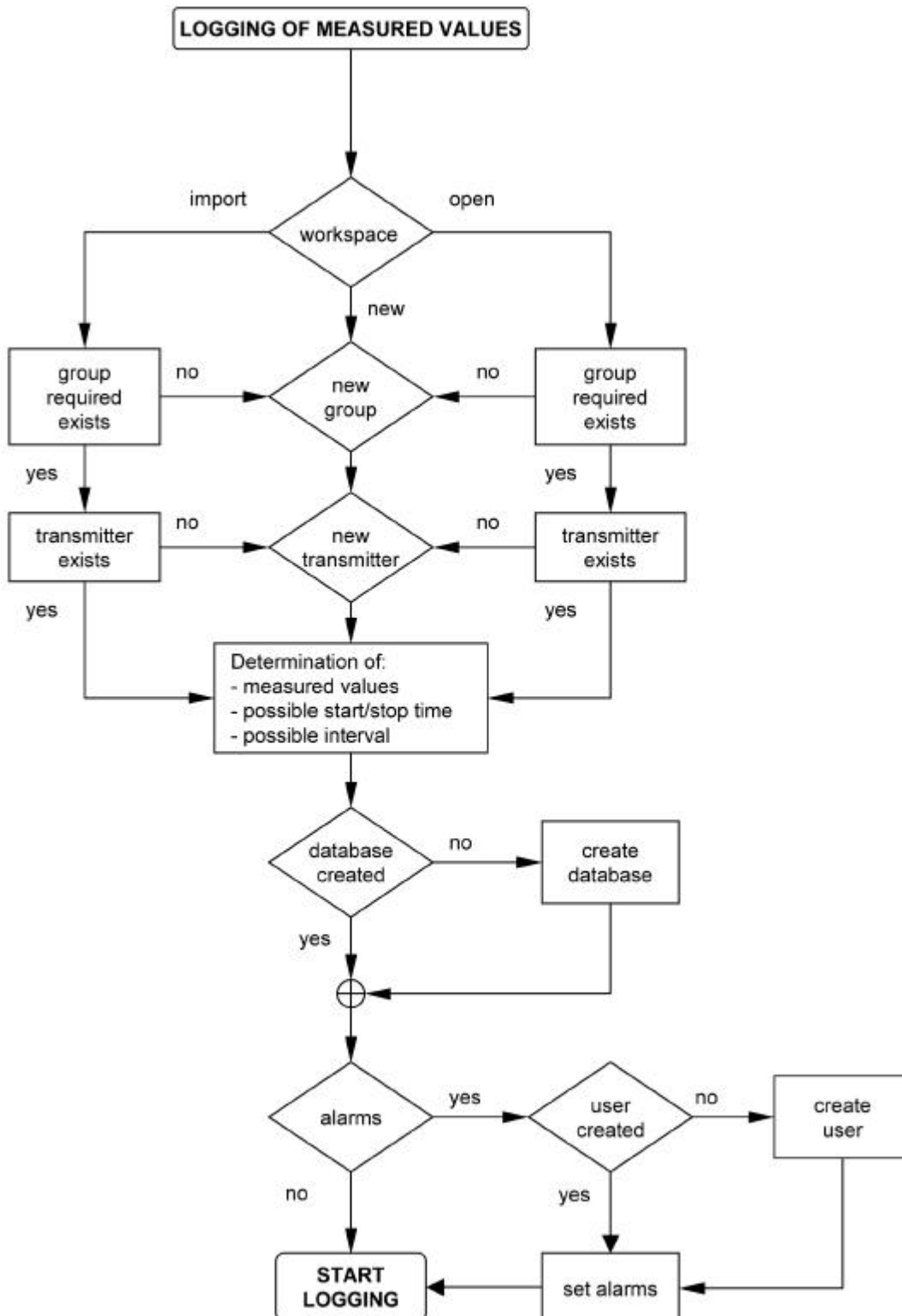
2. Visualisation Software

The E+E Visualisation software enables the representation of the recorded data in tabular and graphic form.
The data must exist in form of a MDB or an ODBC database, ASCII databases cannot be represented with the E+E Visualisation software.
The visualisation can take place both on-line and from an archived databases.

2.1 Select Database

In the menu "Database" -> "Settings", the settings for the database to be visualized are determined.
The type of database and the path must be specified. For databases in which data are to be continuously recorded by the E+E Logger software, the updating interval required can be set for the visualisation (recommendation: at least 10s).

To be able to display the measured values graphically or in tabular form, a transmitter of the workspace must be selected. The selection is identified by transmitter names displayed bold.
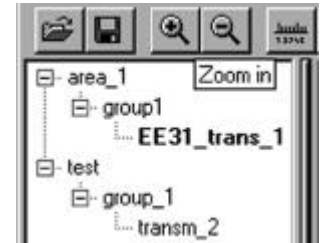
2.2 Display all Recorded Values of a Single Transmitter

Under the tab "Single Selection", all recorded measured values of a single transmitter are displayed - as diagrams and in table format.
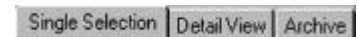
The measured-value limits set in the E+E Logger software are represented automatically in the graphs by dashed lines. In this way the limits exceeded are better visible.
In the table format measured values that are outside the limits are represented in red.

2.3 Display Selected Values of
## a Single Transmitter / a Group / the Entire Workspace

Under the tab "Detail View" it can be determined by checking option boxes which measured values are displayed as a graph. The measured values of several transmitters of a group or a workspace can also be dis-played simultaneously. The selection of a transmitter / a group / the entire workspace is carried out by a selection in the tree structure.
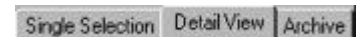
Several transmitters are selected with a click of the left mouse button and drag over the desired selection, simultaneously keeping the Ctrl-key pressed - analogous with the method for selecting several files in MS Windows Explorer.

A transmitter group is selected with a click with the left mouse button on the group name; all transmitters by marking the workspace name.
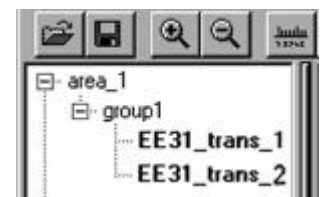
2.4 Display Archived Data

Under the tab "Archive" it is possible to access archived data. For this, via "File" -> "Load File" or with the button 📂, a stored selection is loaded. The selection can be viewed under the tab "Archive" and compared with data of the detail view or the single selection respectively.

2.5 Adaptation of the General View

In the E+E Visualisation Software the view can be extensively freely edited. Consequently it is possible to freely alter the partitioning and therefore the size of the areas of:
        - tree structure of the workspace
        - diagram
        - tables
by dragging the two vertical bars and keeping the left mouse button depressed.
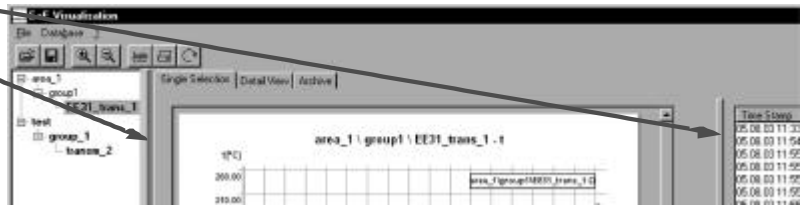
2.6 Adapting the Diagram View

If the view of a diagram is to be altered, with a double-click in the diagram area the corresponding dialog window can be opened.
This functions both in the single- as well as in the detail view and also for archived diagrams.

The following parameters can be modified:
   - diagram title: Designation and Font
        - size of the scaling lines of the x-axis and the font of the labeling
          of both axes.
        - page margins

With a double-click on the x- or the y-axis, the scaling of the respective axis can be altered.

Under the parameters for the y-axis, it is also possible to adapt the color of the axis and the associated diagram curve individually.
This can increase the differentiating contrast of several measured values with several axes.

Several measured values of several trans-mitters can be displayed simultaneously in one diagram in the detail view. For this, the respective transmitters must be selected in the tree structure and the respective option boxes in the detail view. The individual curves of the measured values are differentiated by color, the individual transmitters by the respective symbols on the curves (see legend of the illustrated diagrams).
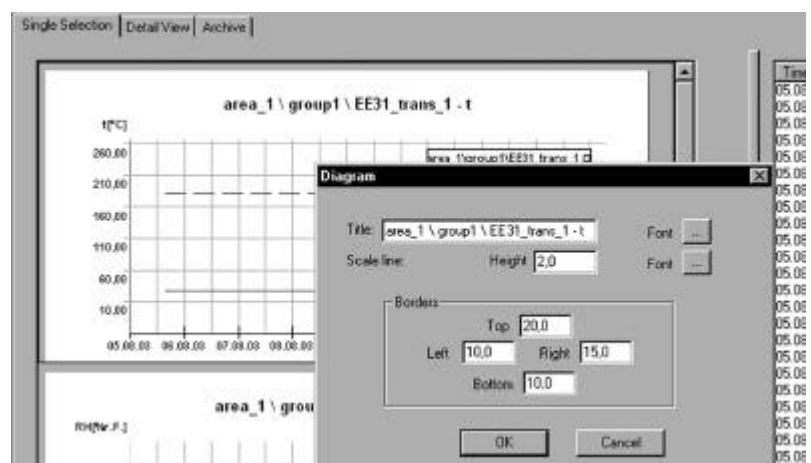
2.7 Zoom Function

For detailed representation of the diagrams particularly interesting sections can be enlarged.

Press ⊕ . Move the mouse cursor in the diagram and select the area to be enlarged, keeping the left mouse button depressed. If the mouse button is released the view is adapted according to the selection.
This procedure can be repeated until the desired representation size is reached.

In order to return to the original view size, only a mouse click on the button ⊕ is required.
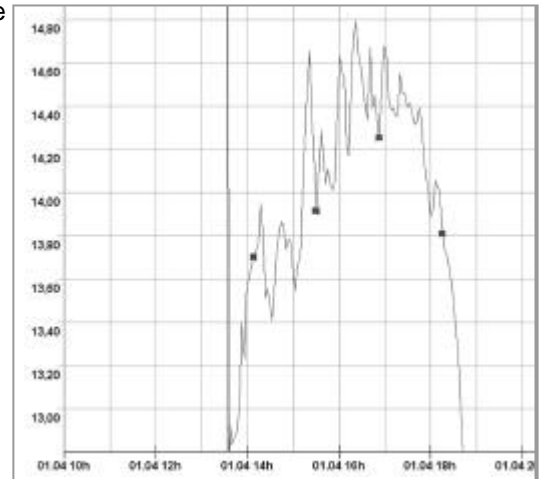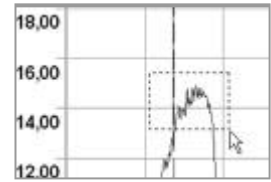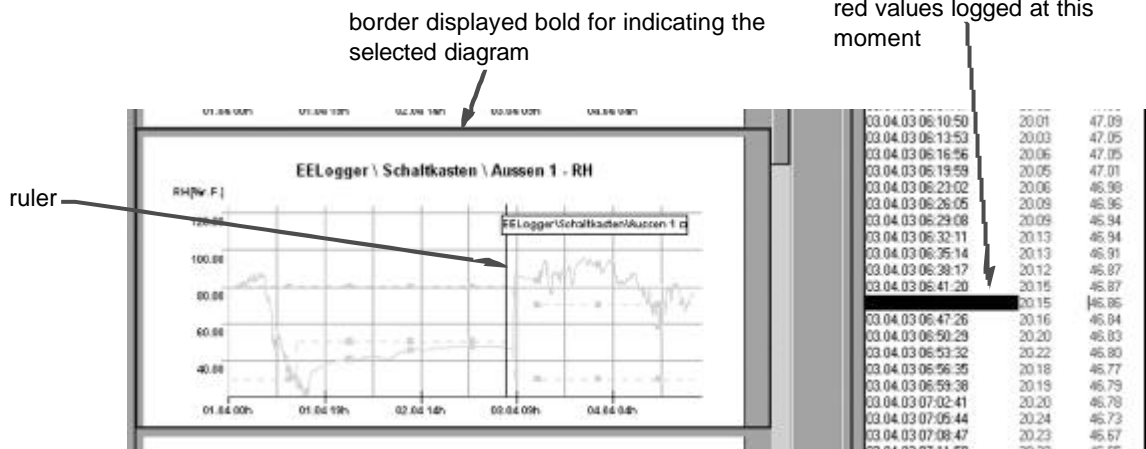

2.8 Exact Reading of Curve Values with the Ruler Function

For a simple and exact reading of the curve values, the E+E Visualisation software incorporates a ruler function. The ruler function is activated or deacti-vated respectively with a click of the button ⊞ .

2.8.1 Ruler Function in the Single Selection

If with activated ruler function the mouse is clicked exactly on a measurement curve, then in the table alongside the corresponding rows are highlighted and can be read off exactly with associated time and date.
The bold displayed border shows which diagram has been drawn upon for the reading of the table values.

corresponding table rows with date, time of all measu-red values logged at this moment

border displayed bold for indicating the selected diagram
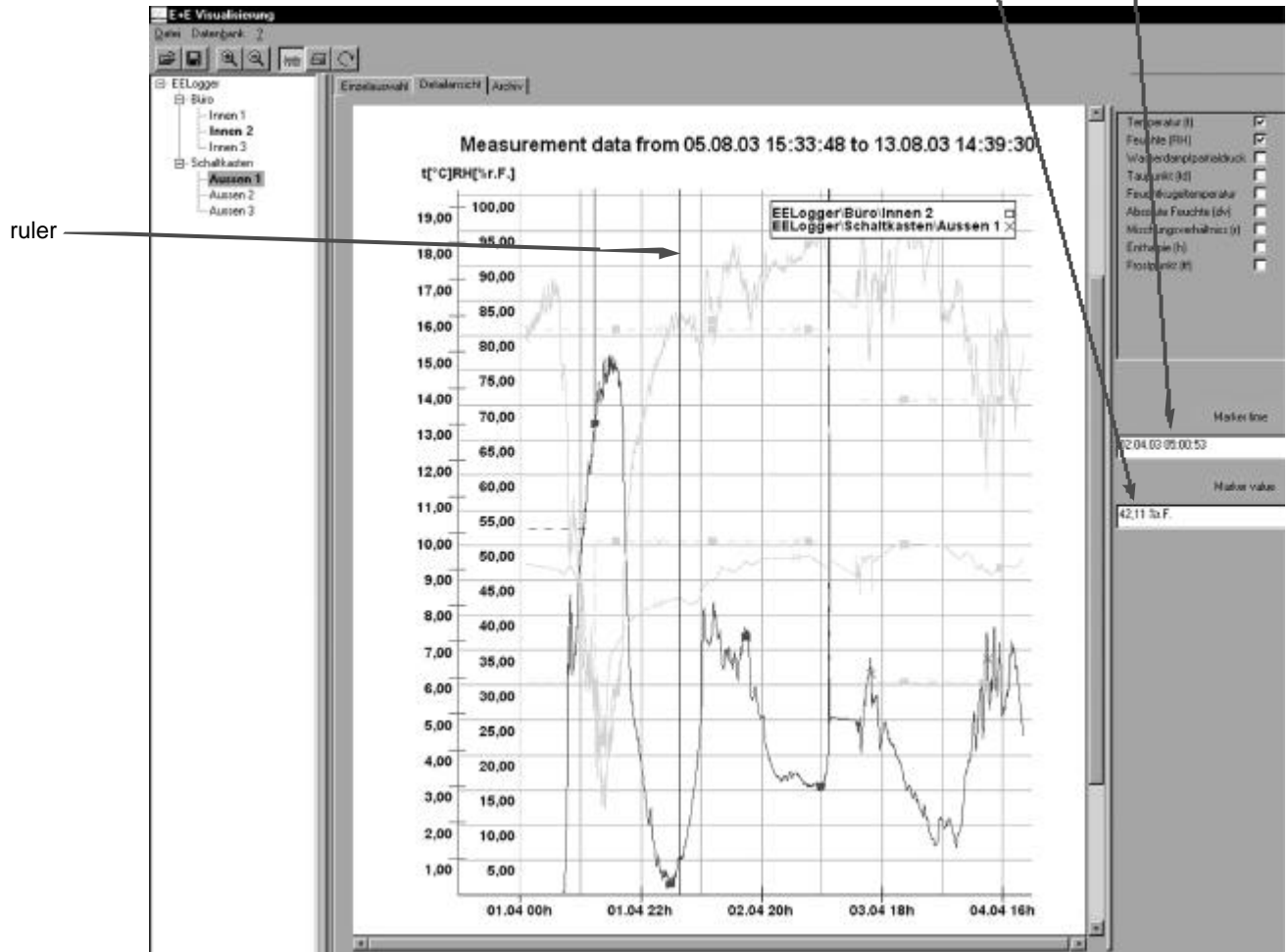
ruler

12

2.8.2 Ruler Function in the Detail View

If with activated ruler function the mouse is clicked on a measurement
curve in the detail view, then moment and measured value are displayed
exactly in the two fields provided.

If several measurement curves of several transmitters are represented
simultaneously, the curve selection must be carried out carefully.
Legend and different-colored curve display of the individual measured
values are suitable aids for this.

exact indication of moment and
measured value

ruler

2.8.3 Ruler Function for Archived Curve Views

The ruler function also functions for stored views, which, after they have
been loaded, can be viewed under the tab "Archive".
The function is analogue to the ruler function in the detail view.

2.9 Archiving of Diagram Views

To be able to refer to important curve sections at a later time it is possible to store them.
Select in the menu "File" -> "Save File" or use the button 🖫 .
Filename and storage location can be chosen.

For a single selection of a diagram select with a mouse click (identified by the border displayed bold). Only the selected diagram is stored.

2.10 Printing

2.10.1 Printing the Single Selection

If the button 🖨 is pressed in the single selection, a dialog appears with several options.

Diagram
It is possible to print either all diagrams or only the marked diagram (identified by the border displayed bold). If all diagrams are selected, each diagrams is printed on a separate sheet.

Table
Either the entire table can be printed (attention: can consist of many pages) or only a marking within the table.
Possible markings are:
- a table row by positioning the ruler on a curve
- a table row by clicking directly on it in the table
- several continuous rows of a table by clicking on two values and
  simultaneously keeping the Shift-key depressed
- several random selected rows of a table by clicking on several values and
  simultaneously keeping the Ctrl-key depressed

Printer
Display of the standard dialog field of MS Windows$^{®}$ for printer selection and -configuration.

2.10.2 Printing the Detail View or the Loaded Archive View

If the button 🖨 is pressed in the detail view or in the archive view, the standard dialog field of MS Windows$^{®}$ for printer selection and -configuration appears immediately. No further selections can be made.

2.11 Automatic Updating of Diagrams & Tables

If a database is viewed in the E+E Visualisation software, in which current measured values are still being continuously written by the E+E Logger software, then with the button 🗘 diagrams and tables can be updated at the preset updating interval (see chapter 2.1 Select Database).

HEAD OFFICE:

E+E ELEKTRONIK Ges.m.b.H.
Langwiesen 7
A-4209 Engerwitzdorf
Austria
Tel: ++43/7235/605-0
Fax: ++43/7235/605-8
email: info@epluse.at

TECHNICAL OFFICES:

E+E CHINA
B0820, Hui Bin Office Building,
No. 8, Bei Chen Dong St., Chao Yang District,
Beijing 100101, P.R. China
Tel: ++86/10/84992361; ++86/10/84992362
Fax: ++86/10/84992363
email: info@epluse.cn

E+E GERMANY
Schöne Aussicht 8c
D-61348 Bad Homburg
Tel: ++49/6172/13881 0
Fax: ++49/6172/13881 26
email: epluse@ee-elektronik.de

E+E FRANCE
Les Crêtes Dorées 1
F-69210 Sourcieux les Mines
Tél / Fax.: ++33/4/74723582
email: epluse@wanadoo.fr

h t t p : / / w w w . e p l u s e . n e t