
Operating Manual

GSOFT40K

as of Version 6.0

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1 General Advice

Required Basic Knowledge

This manual takes it for granted that the reader has a basic knowledge of how to operate a PC with Windows™. Unless this is the case we recommend that the operator acquires a basic knowledge of Windows™ prior to the installation (manuals, technical literature, introductory lessons, etc.)

Software License Agreement

We kindly ask you to thoroughly read the agreement on software licensing on the CD wrapper. By opening the wrapper you agree to comply with the regulations.

System Requirements

- IBM compatible PC 486 or better, approx. 15 MB free space on hard disk, CD-ROM disk drive
- at least 8 MB main memory
- Windows 95, 98, 2000, NT 4.0(with Service Pack 3) or better
- graphics card with 800*600 dots or more
- one free serial interface (COM1...4)

Software – Scope of Supply

- GSOFT40K: operating software for the loggers of the EASYLOG- and MINILOG- series
- sample files (in sub-directory GSOFT40K Samples)
- EBxKonfig: configuration software for logger and other EASYBUS- modules

Importance of the Computer Clock Time

To guarantee trouble-free operation the computer clock time has to be checked prior to starting the program; re-set if necessary. GSOFT40K displays both time and date in the bottom left-hand corner; both can be corrected using Windows™ - system control. Please make sure that the correct settings regarding the time zone (summer time / winter time) have been chosen.

Delivery State of the Data Loggers

During delivery the EASYLOG device is in a so called 'sleeping condition': there are no indications on the display and the current consumption is at its minimum. As soon as communication with the software has been started the device will 'wake up', the display changes between the current measuring value and 'stop', the data logger is ready for operation. So far no data are recorded! To do so a new logger recording has to be initiated. (p.r.t. pages 3 and 5)

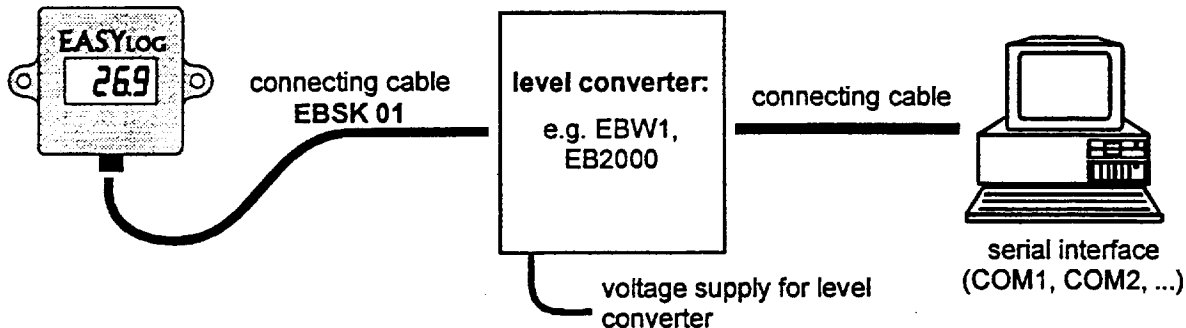
2 Installation And Commissioning

Software Installation

- start Windows
- place CD in CD-ROM disk drive
- start ,GSOFT40K_600 SETUP.EXE' - file
- continue in accordance with the instructions given by the installation program

Connections Between Logger And PC

Make sure that the connections between your data loggers and your PC are correct:



How to Start the Software

The software can be started by clicking on the ,GSOFT40K' icon. To do so click on ,Start' at the bottom left-hand corner of your screen, select ,program' and then ,GSOFT40K': The relevant icons will be displayed, select ,GSOFT40K'.

When starting it for the first time the program will ask you to enter the language, the interface and the level converter used. A correct selection is vital for the functioning of the program. If a selection has already been made it can be altered later on. (menue 'Configuration').

3 How to Operate Logger With GSOFT40K – Step by Step

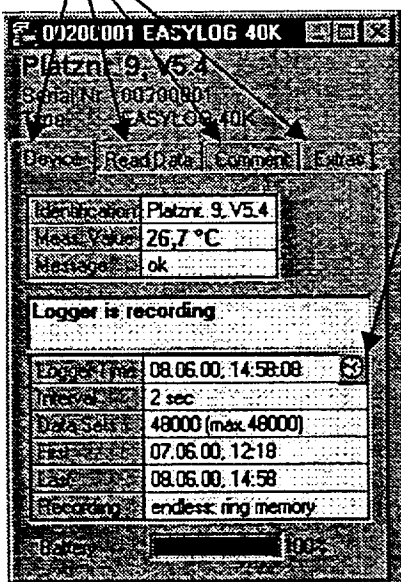
Make all necessary connections and start the GSOFT40K program (see above)

Step 1: Link to Connected Loggers

In order to be able to operate loggers you have to 'connect' them: Select 'Connect' in the ,Logger' menu. A list of the loggers found will be displayed. The search for connected loggers may be repeated by ,New Search' Select loggers with which you want to operate (tick by mouse-clicking on the relevant loggers). ,Ok' connects the loggers selected in one ,logger window' each. If no loggers can be found please check your set-up and your interface configuration ('Interface' in 'Configuration' menu).

Step 2: The Logger Window


The logger window displays all the important data of the relevant logger. Select register of logger window to be displayed by mouse-click!



Register ,Device'

(not available if logger window has been opened from file!)

The information displayed will be regularly updated.

 This symbol is shown for loggers with internal real-time clock. Use symbol to set real-time clock to PC time.

Register ,Data Read' (for logger window from file: ,data')

Logger data that have been loaded in the PC from a file or from a connected logger will be displayed in form of a table. To display a 'legend' activate the item 'Show Legends' in the 'Logger' menu.

Hint: Use mouse to change window size to be able to indicate more data simultaneously.

Register ,Comment'

Use this register to enter a comment regarding the logger data. The comment will be memorized in a file.

Register ,Extras'

Display of all remaining logger properties. Settings that can be changed are displayed on a white background.

Detailed description:
chapter 4

Please note the following for the *Register, Extras*:

If the logger already contains recorded data the settings can only be changed if the data are deleted!

Hint: Instead of making your selection via the menu, simply click on the 'toolbar': Put your mousepointer on the symbols (without clicking) to get a short description of the function.



Step 3: Start New Logger Recording

To start a new logger recording select 'Start New Logger Recording' from the 'Logger' menu. (Unless you have already done so: link to connected loggers, see above).

Note: Data that have already been recorded will be lost after a new logger recording has been started! Read the logger data and save them into a file, if necessary! (p.r.t. step 6)
Alarm limits and identification will have to be entered prior to the start (p.r.t. step 2). Upon logger start the logger time will automatically be updated to the current time.

The screenshot shows the 'Start New Logger Recording' dialog box. It is divided into several sections:

- Datalogger:** A list of loggers with checkboxes. Two are checked: '0020001 EASY LOG 40K' and '06200010 EASY LOG NS'.
- Identification:** Fields for 'Platznr.' (set to '9, V5.4') and 'V6.4'.
- Start after:** Fields for date ('08.06.2000') and time ('15:06'). A 'clock' icon is next to it.
- Start conditions:** Radio buttons for 'Immediately', 'when alarm is cleared', and 'when externally started'.
- Recording:** Radio buttons for 'endless and memory' (selected) and 'stop when memory filled'.
- Interval:** A text field containing '2 sec' and a slider control.
- Buttons:** 'OK' and 'Cancel' buttons.

Annotations on the right side of the dialog box explain the fields:

- Select logger to be started
- Enter time as of which logger is to be started (p.r.t. chapter 5)
- Selection of starting conditions (p.r.t. chapter 5)
- Type of memory (*endless*: ...: permanent recording, if memory is full, the data at the beginning of the memory will be overwritten)
- Interval: 2s...5h(depending on logger). ex.: ,15 min' -> logger recording measuring value at 15 min intervals

Further description: chapter 5

Step 3: Read Logger Data

Link to connected loggers unless you have already done so (see above).

To read out data of a logger recording select 'Read Logger Data' from 'Logger' menu; the relevant window will be opened. If more loggers are connected that may contain data, you can either read 'all data' of the loggers selected or select a common period of time.

The data that have been read out will be displayed in the register 'Read Data' in the table.

Step 4: Stop Logger Recording

If the logger is not used for a longer period of time the battery service life can be increased by stopping the logger. Once stopped the logger is only measuring if connected to a level converter (logger supply via level converter). To stop logger select 'Stop Logger Recording' from the 'Logger' menu (unless you have already done so: link logger, see above).

Please note: Older logger versions will loose their recorded data as soon as logger is stopped!

Step 5: File Operation: Saving And Loading

It is possible to attach a comment (logger window register 'Comment') to the data read in via the logger so that they can be stored in data files: menue 'File - Save' or 'File - Save As'.

Data that have been saved can be displayed again by means of the 'File Open' command.

Attention: Do not mix up with 'File - Save View' or 'Open View' - p.r.t. chapter 9.

Hint: The last files to have been saved will also be displayed in the menue 'File' and can be opened by means of a mouseclick.

4 The Logger Window – In Details

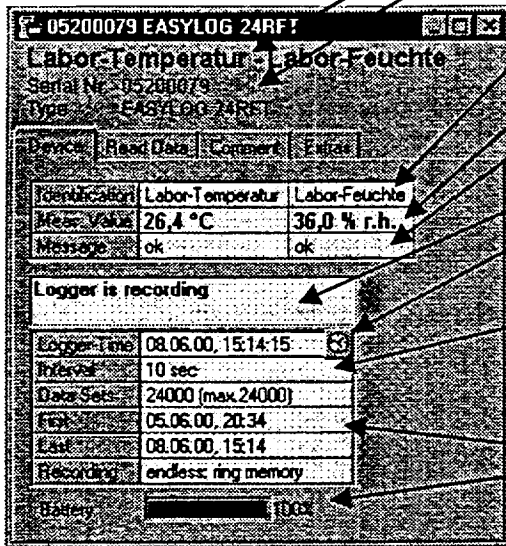
You have a choice between 4 different views:

- *Device* (not available if logger window has been read from file)
- *Read Data* (or *Data*, if logger window has been read from file)
- *Comment*
- *Extras*

Headlines displayed above the registers:

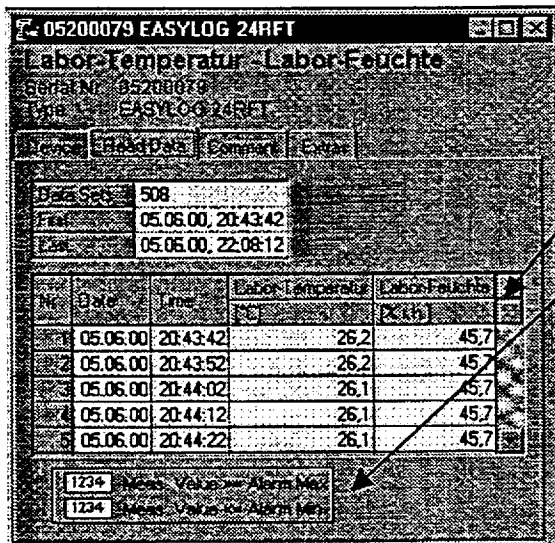
- identification (if supported by logger)
- logger serial number and type

4.1 Device



- Identification:** (only if supported by logger) can be altered under 'extras' and will be stored in the logger
- Measuring value:** current meas. value, continuously updated
- Message:** read out of messages referring to the measuring values (p.r.t. chapter 10)
- Logger state messages:** displays state of the logger recordings.
- Logger-time:** if the logger is equipped with a real-time clock this will be indicated here (may be set to computer time by means of clock symbol); if not, the computer time will be displayed.
- Interval:** intervals at which measurements are made and stored in the logger memory, e.g. '15 min': a measurement is carried out every 15 min, the result is stored in the logger (will be stated in case of a new logger recording start)
- First..Last:** time of the first and last measuring value taken
- Battery:** state of the logger battery, we recommend to return the logger to manufacturer's for a battery change if the value falls below 100%.

4.2 Read Data



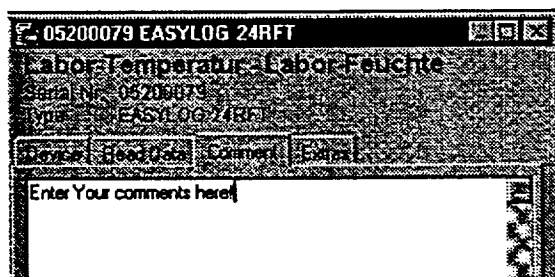
If there are logger data in the memory they can be read out (menue 'logger – read out logger data') and be viewed in form of a table.

Scrollbar: use scrollbar to go through the table

Legend: explanations regarding the data (only possible if menue 'Logger – Show Legends' has been activated).

Hint: *The logger window size can be adjusted as you wish by means of the mouse. To be able to display more data simultaneously simply change window size!*

4.3 Comment



As soon as the logger data have been read you may enter your comments here.

The comment can be printed together with the tables.

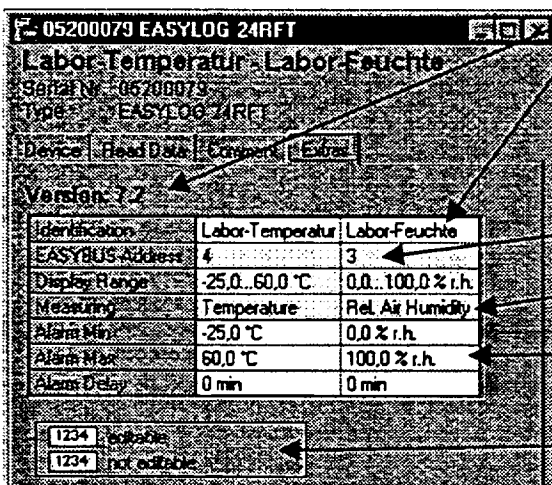
If logger data are saved as a file, the comment will also be saved in the same file automatically.

This is an important function to help you describe logger data so that you will be able to identify and assign them even after a longer period of time.

4.4 Extras

Display of all the remaining properties and settings of the logger

Please note: *If the logger already contains recorded data the settings can only be changed if the data are deleted!*



Version: the version number of the logger

Identification (up to 16 digits, older logger types do not support an identification, '-' will be displayed)

The identification is displayed at the top of the logger window and will help you to identify the logger. We, therefore, recommend to choose an identification with regard to the logger position, e.g. 'cooling area' or 'climate room 1'

EASYBUS-Address: cannot be changed via GSOFT40K. To do so please use our EbxKonfig software.

Type of measurement: older logger types do not support a type of measurement display, '-' will be displayed

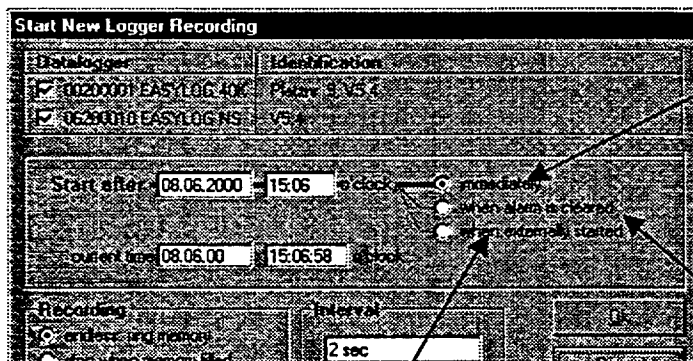
Alarm- Min, -Max, -Delay:

input of alarm delay as a multiple of a minute, older logger types do not support an alarm delay, the display then is always 0 min.

Legend: description regarding data (only available if menu 'Logger - Show Legends' has been activated).

5 Start of the Recordings And Starting Conditions

When starting a new logger recording you have a choice between various starting conditions:



Start at a certain point of time or immediately:

Logger recording starts as soon as the time set has been reached. If the time is not changed the loggers selected will start immediately. (this selection is sufficient for most applications)

Start when alarm is cleared: the logger recording will only start if all alarms have been cleared even if the time set has already been reached. Alarm is given e.g. if the meas. value is smaller than the min. alarm limit set (logger window register ,Extras').

Start when externally started: the logger recording will only be started externally, even if the time set has been reached. An external start can be carried out on site with the help of the ,EBSK-1' starting key.

Please note: *The logger time will be set to computer time after every new start.*

Examples for Application:

Start a recording at a certain point of time:

Set logger, start new logger recording via the option 'immediately' and the point of time desired.

The logger display alternates between the measuring value and ,St.dE' (= start with delay). Disconnect logger and take to place of application. Recording starts as soon as the point of time has been reached, ,St.dE' disappears.

Place of logger application not in the vicinity of a computer, recording to start at place of application:

Set logger at computer, start new logger recording series via the option 'when externally started' The logger display alternates between the measuring value and ,St.Et' (= wait for 'external start'). Disconnect logger and start at the place of application by pressing the button of the starting key ,EBSK-1': Logger recording starts, ,St.Et' disappears.

Place of application is not in the vicinity of a computer but in a cooling area with approx. -10°C.

Recording to start after logger has been placed in the cooling area.

Set max. alarm limit of logger to 0°C; set min. alarm limit to -20°C. Start new logger recording series via the option 'when alarm is cleared'. At room temperature (>0°C !) the logger will be at max. alarm (logger window: register 'Device' - 'Message'); the display alternates between the measuring value and ,St.AI' (= wait for ,start alarm'). Disconnect logger and place it in cooling area.

As soon as the logger temperature in the cooling area falls below 0°C the alarm will be cleared and the logger starts recording, ,St.AI' disappears (no computer required at the place of application).

6 Measuring Value Diagrams

The logger data and logger windows loaded can also be displayed as diagrams.

To do so select 'Create New Diagram' from the 'Diagram' menu.

A selection of all possible graphs will be displayed. Select the graphs desired and acknowledge selection by pressing 'Ok'. The diagram will be opened.

Y-Axis: if you select graphs with different units, two Y-axes will be displayed.

Zoom Left/Right Y-Axis: chose here if the mouse zoom function is to be applied to the left or right Y-axis.

Zoom Back: cancel last zoom action

Change Name: the name of the diagram (here: ,laboratory climate') can be changed

Zoom All: Show max. diagram area

Zoom Manual: zooming by entering figures

Scrollbar: if a zooming action has been carried out the scrollbar can be used to ,go through' the diagram.

Cursor: if activated a crosshair cursor will be displayed to show the individual measuring points. The measuring point data will be displayed in the statusbar.

Add/Delete Labels: to describe measuring points (see below)

Add/Delete Series: the number of graphs displayed can be changed (see below)


Display Points: Display (marking) of measuring points

Legend: if activated a short description of the graph will be displayed.

System limitations:

- max. 2 different units (°C, % r.h. etc.) per diagram
- max. 15 graphs per unit



Adding Data Labels

To add a comment to a specific measuring point select menu item "Diagram/Add Data Label" or click on the corresponding symbol. By moving the mouse over the diagram the  symbol will appear as mousepointer. A text line that can be filled freely will be placed at the position desired by a mouseclick

Adding Series

To be able to display additional measuring series in a diagram, select the menu item "Diagram / Add Sereies" or click on the corresponding symbol of the diagram window. The data source selection will appear again for you to select an additional measuring series.

,Zoom': Enlarge a Area of the Display

If 2 units are displayed : Use the  and  symbols to select the Y-axis desired.

Place mouse at the beginning of the area desired, keep left mouse key pressed, move mouse to the end of the area desired, release mouse key: the part selected will be enlarged (zoomed). Use "Diagram – Zoom Back" to get back to the original view. Use "Diagram – Zoom All" to get back to the entire diagram.

Use scrollbar to move the zoomed part to the left or right or upwards and downwards. To display exact parts of the screen we recommend using the "Diagram – Zoom Manually". This function can be used to enter the exact position (entering of figures and time settings) of the segment to be displayed.

7 How to Print Data

The window selected (logger window with data or diagram) can be printed via 'File – Print' provided a printer has been connected to your computer. Use 'File – Printer Setup' to change the printer parameters or to chose another printer.

If the diagram is not printed: for some types of graphics cards it may happen that the diagram will not be printed if the colour depth is set to 16 bit. In such a case please reduce or increase the colour depth of your screen display.

8 How to Export Data

Logger data can be stored as ASCII (=text) – files so that they can be used with a word processing or calculation program. To do so please select the desired logger window and select 'File – Export'. Another window will be displayed for you to select the settings required. Normally the pre-set values will be sufficient.

9 How to Work With “Views”

Use your mouse to position logger and diagram windows on the screen as desired. The resulting view can be saved via "File / Save View". If, later on, the view is downloaded via "File / Open View", the complete view, including diagrams and settings, will re-appear.

Limitations:

- A recovery of diagrams is only possible if the logger windows, which are the data source, have been read from files.
- Descriptions or comments in diagrams will not be saved.
- The connected data loggers' settings at the bus must be identical to the settings at the time the memorizing functions was carried out.
- Logger data that have been read in prior to saving will not be read in automatically.

10 State And Error Messages

Messages in the Logger Window Register “Device”

logger recording stopped:	The logger is in the 'sleeping mode'. No recordings are made.
logger is recording:	The logger is active.
min. alarm:	Values have fallen below the min. alarm limit.
max. alarm:	Values exceeding the max. alarm limit.
low battery:	We recommend battery change at the manufacturer's.
measuring range overrun:	Values exceeding the max. permissible measuring value, measuring data no longer valid (measuring value – display: "error").
measuring range underrun:	Values below min. permissible measuring value, measuring data no longer valid (measuring value – display: "error").
system error:	The sensor or the measuring electronics are defective. We recommend to return the device to the manufacturer's for repair, measuring data are no longer valid (display "—").

Logger – Error Messages During Recording

The following error messages have been filed in the logger memory and will be displayed in accordance with the table view selected (e.g. 16352,0).

low battery:	We recommend battery change at the manufacturer's.
measuring range overrun:	Values exceeding the max. permissible measuring value.
measuring range underrun:	Values falling below min. permissible measuring value.
recording error:	The data logger operation has been interrupted. Please note that once this message has occurred all data recorded so far will not be valid.