

Operating Manual

Windows™ Operating Software **GSOFT 3050** as of version 3.0

for Handheld Instruments GMH 3000 / GMH 5000 / GHM*silverline*

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1 Intended Use

The Software GSOFT3050 is an operating software for use with handheld measuring instruments of the Series: GMH 3000, GMH 5000 and GHMsilverline. It is able to operate and read out the data logger function and to show the data in form of table or diagram.

Unless the user of this manual has a basic knowledge of how to handle a personal computer and work with the operating system Windows™, we recommend that he acquires same prior to installation of this software (operating manuals, specialised literature, introductory courses etc.)

All security advices mentioned in this manual have to be considered (follow chapter 4).

You must follow the intended use under consideration of the Security advices. In different cases or in case that one or more terms of the security advices are violated this software must not be used.

2 Software License Agreement

We kindly ask you to carefully read the software license agreements on the disk package. By opening the package you agree to the stipulations mentioned.

3 Common Advices

Please read this manual mindfully, familiarize with the operation of the software before using it. Keep it within reach to consult the manual in case of doubt.

Your opinion counts: Let us know your wishes and recommendations.

Your opinion counts and may be used when we modify existing, or develop new products.

4 Security Advice

1. The Software may only be used on a system (computer or computer-network) that is intended for its use.
2. THIS SOFTWARE IS NOT DESIGNED, INTENDED, CONSTRUCTED, OR AUTHORIZED FOR USE IN ANY TYPE OF SYSTEM OR APPLICATION IN WHICH THE FAILURE OF THE SYSTEM OR APPLICATION COULD CREATE A SITUATION WHERE PERSONAL INJURY OR DEATH MAY OCCUR, OR SEVERE PHYSICAL OR ENVIRONMENTAL DAMAGE (E.G., MEDICAL SYSTEMS, LIFE-SUSTAINING, LIFE-SAVING SYSTEMS, NUCLEAR FACILITIES, AIRCRAFT NAVIGATION OR COMMUNICATION SYSTEMS, AIR TRAFFIC CONTROL SYSTEMS).
3. The system used for this software, as well as the software itself must be kept up to date. This includes antivirus-protection as well as security updates.
4. Microsoft releases security updates for Windows regularly.
5. Never write down any passwords or usernames, do not use passwords that could be guessed easily (like the name of your cat).

5 System Requirements

The software supports following Microsoft® Windows™ operating systems:

- Microsoft Windows™ 95, 98, 2000, XP, NT 4.0 (with Service Pack 3.0)
- Microsoft Windows Vista™ and Microsoft Windows 7™

The software runs in 32 bit as well as in 64 bit. Die Software is a 32 bit application.

Minimum hardware requirements

- IBM compatible PC (min. Pentium™)
- Min. 20 MB free hard disk space
- CD-ROM drive
- Min. 32 MB RAM
- Mouse
- One unassigned serial interface or usb-port
- Interface converter (e.g. GRS 3100 for GMH 3xxx; USB 5100 for GMH 5xxx or SL-USB for GHMsilverline SL-__)

6 Software Installation

- Start Windows™
- Insert CD-ROM in CD-ROM drive, select "Execute" in Menu "Start"
- Enter "d:\setup" - d stands for the letter of your CD-ROM drive – and acknowledge. In case your CD-ROM drive is not 'd', please use the corresponding letter.
- Follow now the instructions given by the installation program.
- A new program group with the following program icon will be created:
The software will be started by double clicking on this symbol.
- Start program, choose the language that you desire, and the interface to which you have connected your interface adapter.



7 Significance of Computer Time

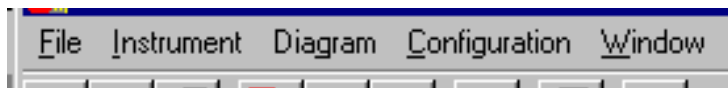


Each instrument with logger function includes a real time clock which can be adjusted to the computer time. To adjust the device time correctly it is absolutely necessary to prove the computer time. When required, this time can be corrected by changing the referring system settings.

8 Software Operation

8.1 Menu bar

You can easily have access to all software functions by using the menu bar. The content of the menu bar depends on the program status:



8.2 Toolbar

To ensure comfortable software operation the most important software functions have been put together at the Toolbar. The content of the toolbar depends on the program status:



File functions:

- 1.1 open file
- 1.2 save file
- 1.3 print file

Logger functions:

- 2.1 search instrument
- 2.2 start new logger recording
- 2.3 stop logger recording
- 2.4 read logger data
- 2.5 clear logger

Data representation:

- 3.1 create new diagram

Further functions:

- 4.1 interface configuration
- 4.2 program information

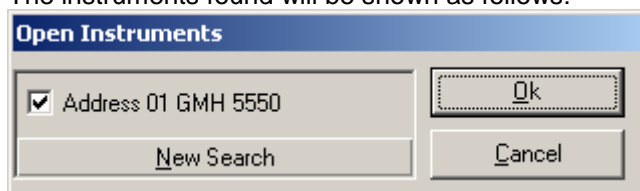
When moving the mouse pointer over a symbol a short description of the function is shown after a short time.

8.3 Logger Functions

8.3.1 Open Instruments



- Connect instruments to the interface adapter and switch it on
- In case of connecting more than one instrument to an interface:
- To adjust the basic address of an instrument (only supported by instruments of the new generation) use the menu (please read the instruments operating manual) and give each instrument a different address.
- Choose menu 'measure instrument / open...' or click at the corresponding toolbar symbol.
- GSOFT3050 is now searching for connected measure instruments.
- The instruments found will be shown as follows:

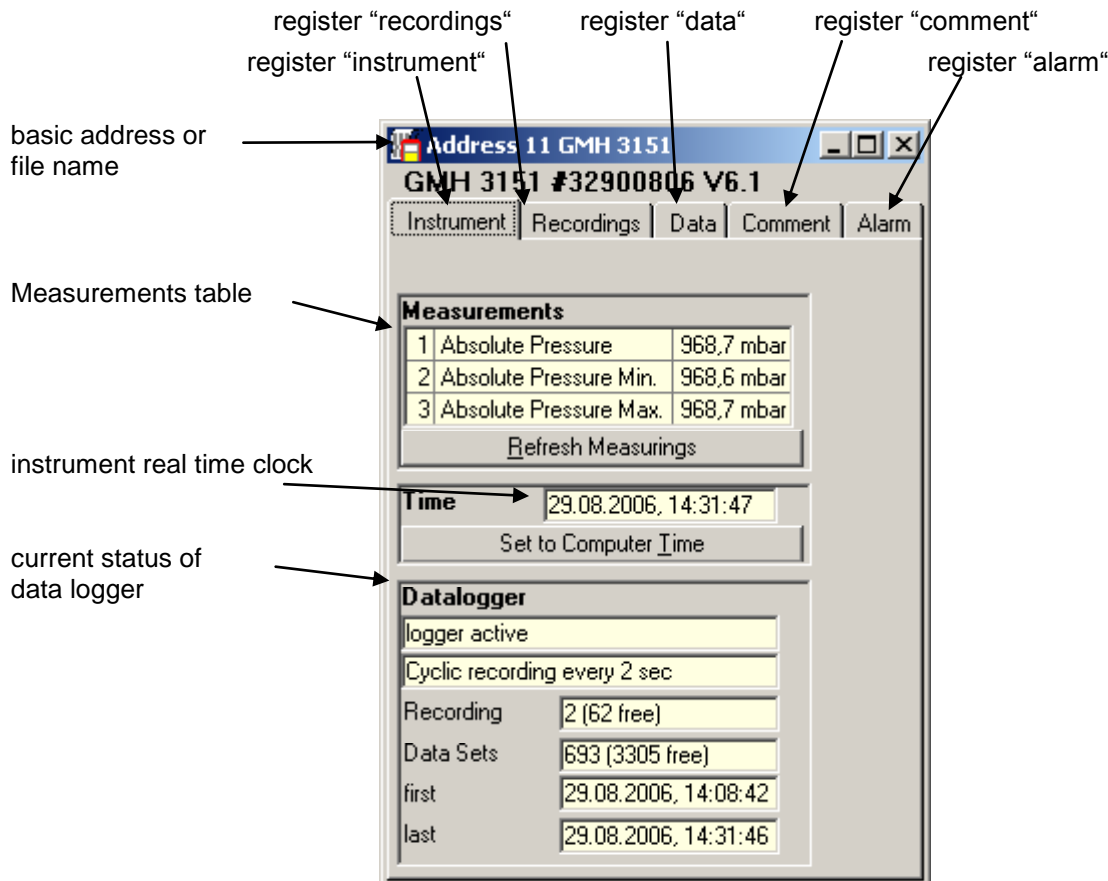


Please check the following points, if no instrument was found:

- Are the instruments switched on and connected to the interface adapter ?
- Did you choose the correct interface? ("configuration / interface")
- Did you connect the interface cable with the correct connector of the PC?
- As far as GRS3105 are concerned: provided tension voltage OK ?
- Using more than one instrument: Are the base addresses different ?

Marked instruments will be opened by 'OK'. Each instrument will be shown by a different window.

8.3.2 Data Window



Please check real time clock and adjust it when necessary (by 'Set to Computer Time')

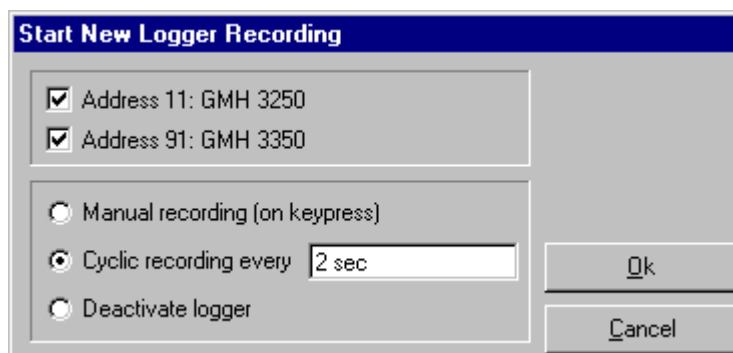
8.3.3 Start Logger Recording



When logger recordings are restarted, all Data which have been recorded until that moment will be deleted!! Please read in and save important information immediately!

To start a new recording please select "instrument / start new logger recording" or click at the corresponding toolbar symbol.

A selection of loggers which can be started will appear:



Marked instruments will be started.

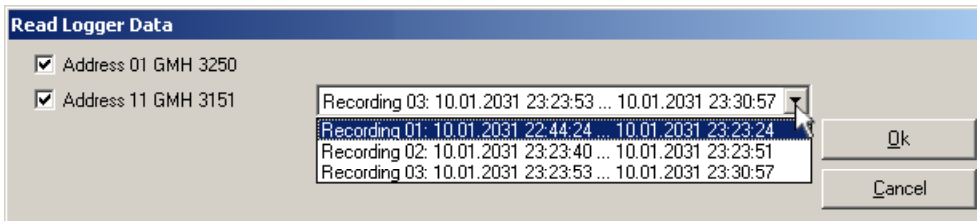
Selection of recording type:

- Manual recording: instrument records data, when the key 6 ('store') is being pressed.
- cyclic logger: Instrument records data automatically within the selected interval, the recording will be stopped when memory is filled.
- deactivate logger: the instrument will behave like a standard instrument without logger, key 6 is used for 'freezing' the displayed value: 'HLD'

8.3.4 Reading in of Measurements

In case that more than one instrument with logger data are connected, you can select the instruments which should be read in.

If an instrument is supporting multiple recordings, then additionally the desired recording of this instrument has to be selected. (Note: reading several recordings of one instrument simultaneously is not possible)



Loggers, operating on cyclic recording have to be stopped before their data can be read in. This means that you have to interrupt recordings of a logger which is operating on cyclic recording! The information and instructions you need will be given by the program.

After loading the data you can see them by selecting register „Data“. The field which have a whit background and are used for table headlines can be changed. You can enter any text at the register „comment“. Please save them now by selecting menu „file“ function „save file“, if you might need these data in future

8.3.5 Stop Logger Recording

If recording is stopped (as far as cyclic loggers are concerned), data which have been saved until that moment are preserved.

8.4 File Operation

If you have saved logger data by selecting menu „file“ function „save“ or „save as“ you can re-load them at any time into the program to see the data or to analyse them. In that case please select „File / open...“ and open the corresponding file.

8.4.1 Export Files

Files can be saved as ASCII (=text) – file to be able to open them e.g. in word processing programs or spreadsheet programs. Select therefore the data window in question and select at the menu „file/export ...“. Please pay attention to make the correct adjustments in the following dialog window „ export files“, especially with spreadsheet programs.

8.4.2 Copying Data To Clipboard

Table data can be copied to the clipboard, from where they can be inserted to other applications again:

Select the desired data range by with the mouse (select all: click on upper left field of table) and press key combination **Strg and C** -> The table data will be copied to the clipboard.

8.5 Working with Views

With your mouse you can arrange data windows and diagram windows (see below) on the screen. You can save such a screen view by selecting the function „file / save view“. In case that the view will be opened by „file /open view“ the complete view will be restored, including all diagrams and adjustments.

8.6 How to Print Data

The selected window (logger window with data or diagram) can be printed via 'File – Print' provided a printer has been installed to the computer. Use 'File – Printer Setup' to change 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 color depth is set to 16 bit. In such a case please reduce or increase the color depth of your screen display.

8.7 Measurement Diagrams

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

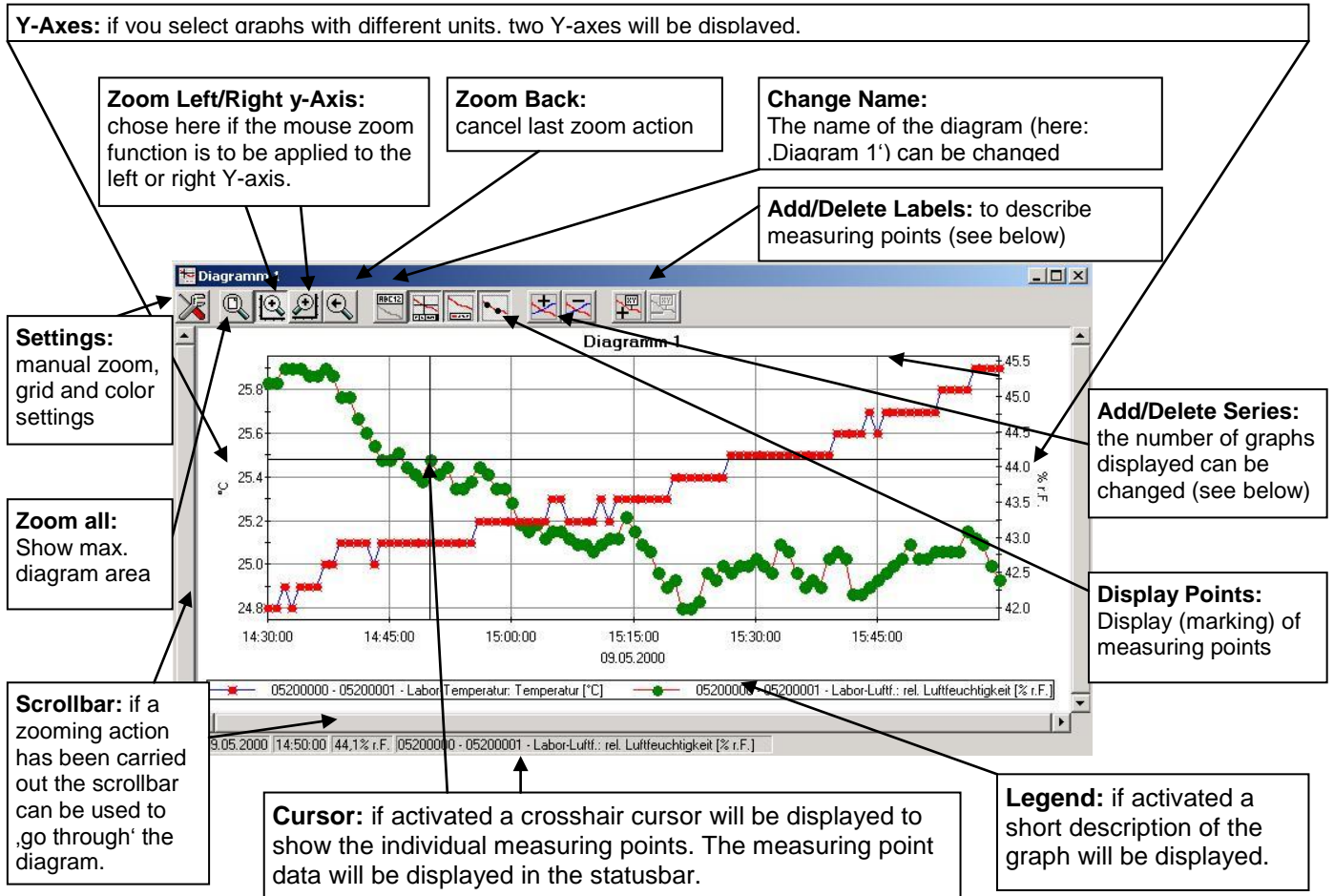
To do so select 'Create New Diagram' from the 'Diagram' menu.

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


System limitations:

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

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



8.7.1 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

8.7.2 Adding Series

To be able to display additional measuring series in a diagram, select the menu item "Diagram / Add Series" 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.

8.7.3 '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 – Settings". This function can be used to enter the exact position (entering of figures and time settings) of the segment to be displayed.

8.7.4 Copying Data To Clipboard

Diagrams can be copied to the clipboard, from where they can be inserted to other applications again.

Click on the desired diagram and press the key combination **Strg and C** -> The diagram will be copied to the clipboard as a bitmap.