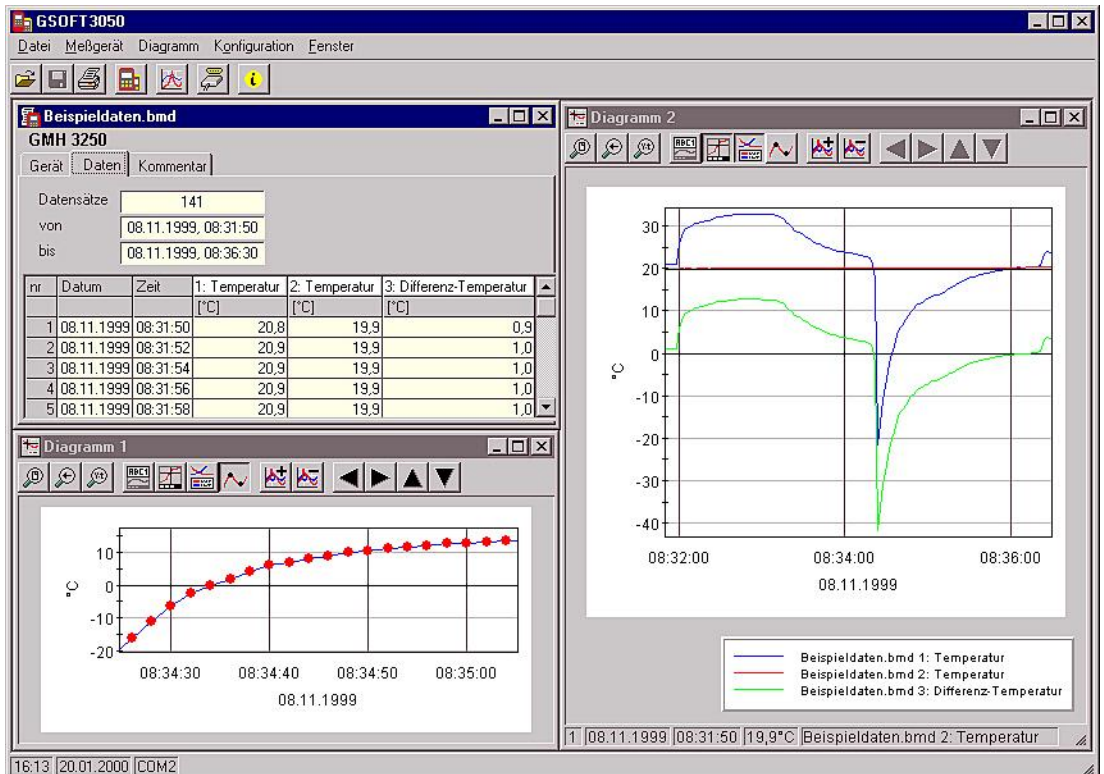





Windows™ - Operating Software  
for GMH 3000 / GMH 5000 / GHM *silverline* handheld devices

as of version V3.4 Operating Manual

# GSOFT3050



-  Please carefully read these instructions before use!
-  Please consider the safety instructions!
-  Please keep for future reference!



WEEE-Reg.-Nr. DE 93889386

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## 1 General Note

Read this document carefully and get used to the operation of the software before you use it. Keep this document within easy reach near the device for consulting in case of doubt.

Mounting, start-up, operating, maintenance and removing from operation must be done by qualified, specially trained staff that have carefully read and understood this manual before starting any work.

The manufacturer will assume no liability or warranty in case of usage for other purpose than the intended one, ignoring this manual, operating by unqualified staff as well as unauthorized modifications to the device. The manufacturer is not liable for any costs or damages incurred at the user or third parties because of the usage or application of this device, in particular in case of improper use of the device, misuse or malfunction of the connection or of the device.

The manufacturer is not liable for misprints.

## 2 Safety

### 2.1 Intended Use

The Software GSOFT3050 is an operating software for use with handheld measuring instruments of the series: GMH 3000, GMH 5000 and GHM*silverline*. 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.)

With GMH handheld devices you have to set them to serial communication and in case of more devices on one converter no addresses must be used twice.

All security advices mentioned in this manual have to be considered.

### 2.2 Safety signs and symbols

Warnings are labelled in this document with the followings signs:



**Caution!** This symbol warns of imminent danger, death, serious injuries and significant damage to property at non-observance.



**Attention!** This symbol warns of possible dangers or dangerous situations which can provoke damage to the device or environment at non-observance.



**Note!** This symbol point out processes which can indirectly influence operation or provoke unforeseen reactions at non-observance.

### 2.3 Safety guidelines

Please do always use current operating systems with latest hot-fixes and service packs and always use the latest Software version.

Depending on the bought software version an update to the latest version is for free.



**Attention!** Support is only possible when using a current operating system with the latest service pack, the latest software version. There will be no support from GHM Messtechnik GmbH when using an operating system that is no longer supported by Microsoft.

## 3 Product Specification

### 3.1 Scope of supply

- Installation CD

### 3.2 System requirements

- CD-ROM-drive
- Mouse, keyboard
- 1.0 GHz processor (suggested 1.6 GHz dual core processor)
- 1 GB RAM, 150 MB hard disc (your databases need additional disc space)
- Resolution: at least 1024x764
- Interface converter
  - free serial port for GRS 3100, GRS 3105
  - or free USB-interface for USB 3100, USB 3100 N, USB 5100, USB 5200, SL USB
- Windows Vista, Windows 7 or Windows 8 / 8.1  
Windows Server 2003, Windows Server 2008 / 2008 R2  
(Software will run from Windows 98 SE)

## 4 Significance of Computer Time

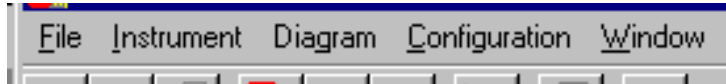


**Attention!** Each instrument with logger function includes a real time clock which can be adjusted to the computer time. To adjust the device time correctly it is absolutely necessary to prove the computer time. When required, this time can be corrected by changing the referring system settings.

## 5 Software Operation

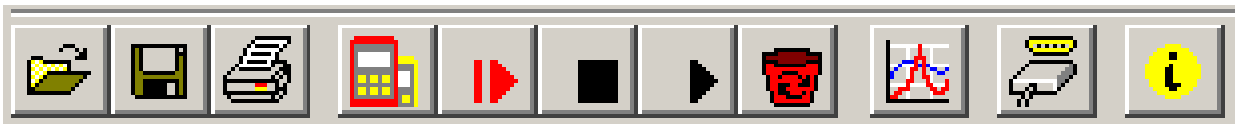
### 5.1 Menu bar

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:



### 5.2 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:



1.1

1.2

1.3

2.1

2.2

2.3

2.4

2.5

3.1

4.1

4.2

#### 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

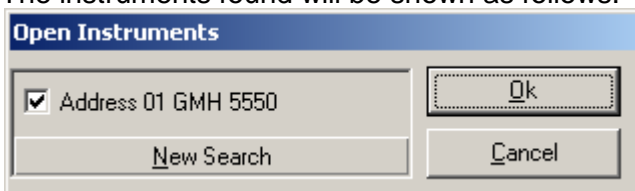
When moving the mouse pointer over a symbol a short description of the function is shown after a short time.

## 5.3 Logger Functions

### 5.3.1 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.
- GSOF3050 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.

### 5.3.2 Data Window

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

### 5.3.3 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.

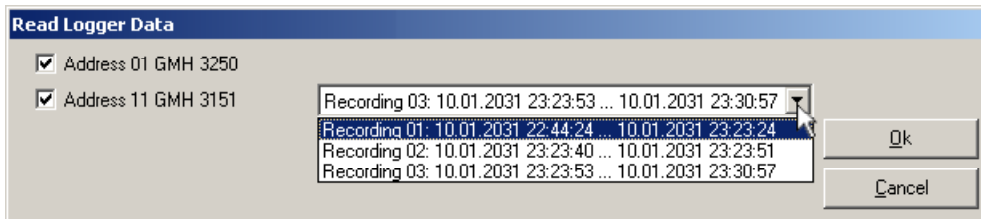
Selection of recording type:

- 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'

### 5.3.4 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

### 5.3.5 Stop Logger Recording

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

## 5.4 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.

### 5.4.1 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.

### 5.4.2 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.

## 5.5 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.

## 5.6 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.

## 5.7 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.

**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: 'Diagram 1') can be changed

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

**Settings:** manual zoom, grid and color settings

**Zoom all:** Show max. diagram area

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


**Display Points:** Display (marking) of measuring points

**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

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


### 5.7.1 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

### 5.7.2 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.

### 5.7.3 '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.

### 5.7.4 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.

## 5.8 Calibration History

In the register *Calibration history* the former calibrations of the instrument can be viewed.

You can do so by pressing *load calibration from device* (1). Calibration records are then displayed in tabular form (3).

They include, depending on the connected device e.g. date, calibration data and rating.

For further processing these data can be saved into a text file (4).

Additionally, a calibration interval can be set. After the time interval passed, the instrument indicates a warning that the unit requires a new calibration (consider the operating manual).

Address 01 GMH 5550

GMH 5550 #33800022 V1.5

Instrument | Data | Comment | Alarm | Calibration history

1 → load calibration from device

2 → calibration interval 30 days save to device

nr	Date	asymmetry	slope acid	slope alkaline	rating
01	02.04.2012 03:56:10	-6,95 mV	-56,397 mV/pH	-56,397 mV/pH	100 %

save to text-file

4 →