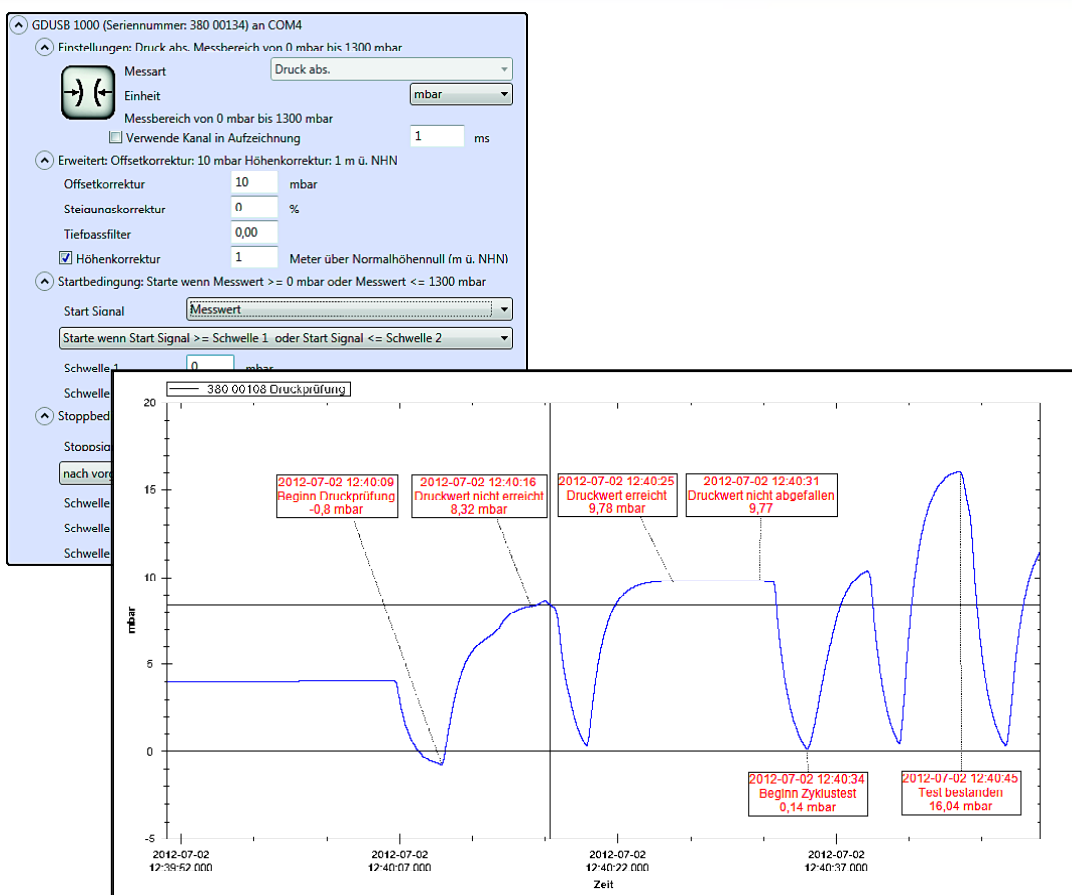# GREISINGER

EN

Operating manual
High speed data acquisition software
with live display

as of version 1.2

GDUSB FastView

☞ Please carefully read these instructions before use!

☞ Please consider the safety instructions!

☞ Please keep for future reference!

CE

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1   General Note

Read this document carefully and get used to the operation of the device 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

This software GDUSB 1000 FastView is only for using with one or more GDUSB 1000.
One or multiple GDUSB 1000 can be read and shown simultaneously.
The number of simultaneously usable devices will depend on the used computer system and the desired cycle time. For more information refer to the chapter 'System Requirements'.
After a recording the data is written to the hard disk drive, can be viewed and annotations can be added.
Virtual systems will run, but they are not covered by our support, this software is designed as a clean single seat installation.

2.2 Safety signs and symbols

Warnings are labeled 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

1.   Do not use this product as safety or emergency stopping device or in any other application where failure of the product could result in personal injury or material damage. Failure to comply with these instructions could result in serious injury and material damage.

3 Systemanforderungen

3.1 Operating System

Original Microsoft Windows Operating System:
- Microsoft Windows XP with Service Pack 3
- Microsoft Windows Vista with Service Pack 2
- Microsoft Windows 7 with Service Pack 1
- Microsoft Windows 8

Virtual systems will genarally work, but these are excluded from our support.

3.2 Software components and device drivers

The following components are needed and if they are not installed on the system they will be installed automatically from the CD:
- Microsoft .NET Framework 4 or above
- Microsoft Visual Studio 2010 Runtime
- SQLite Database Management System
- Silicon Labs CP210x USB to UART Bridge VCP Driver Version 6.5 or above

3.3 Hardware

Minimum:
- 1 GHz CPU (Windows Vista or Windows 7: 1,2 GHz CPU)
- 1 GB free RAM
- 100 MB free HDD
- 1 free USB port on the PC or on a USB-Hub for each GDUSB 1000

Recommended:
- 2,0 GHz Dual Core CPU
- 2 GB free RAM
- 10 GB free HDD
- 1 free USB port on the PC for each GDUSB 1000

4 General Instructions

The number of simultaneously usable devices will depend on the used computer system. When using an USB-Hub the number of usable devices will lower as the system load will rise when using an USB-Hub. Whenever not enough system resources will be available, at first the live display won't be updated. When the system then still has heavy load the program will stop the recording.

When problems will occur during the record please check the free available RAM of your computer. Before starting you should have at least 512 MB.

With one millisecond cycle time 2 … 10 MB per minute per channel will be needed. After recording the data will be written to the hard disk drive. Here the data usage is about 10 MB per minute per channel.

Do not run any other programs during the measurement. Sometimes it can be useful to deactivate the virus scanner as some have a high system load on RAM- or file access.

5 Handling

The complete handling of the software is done by the menu bar and 2 tabs.

5.1 Menu bar

The main functions are placed in the menu bar. Depending on the program state some functions in the menu bar may be deactivated. By clicking with the left mouse key the function is performed.

Language selection

The language can be changed at runtime.
During a running record the selection is not active. For better understanding the name as well as a depending country flag is shown.

Start search

A mouse click (or pressing the F5-Key) will search for all devices that are currently available for the system. (Only active when no record is currently running) All devices found will be listed in the tab „Device". A right click will open the "default settings".

Start recording

A mouse click (or pressing the F9- or the Play- Key) will start a new recording. (Only active when no record is currently running) The devices for the recording have to be selected in the tab „Device".

Stop recording

A mouse click (or pressing the F9- or the Stop- Key) will stop a running record. (Only active when a record is currently running) Normally the recording will stop automatically after hitting the stop condition. When „manual" had been selected as stop condition the record has always to be stopped by this function.

Load data

This loads a saved recording from the hard disk drive. (Only active when no record is currently running) For each record a new folder has been created.

Export data

Exports an image file with all charts and a .csv file for each device. (Only active after data has been load) The .csv file contains all data points of the current chart viewing range. A right-click opens the export-settings.

Zoom 1:1

Deactivates the zoom of the complete chart. (Only active after data has been load and the zoom function has been used)

Zoom back

Steps one zoom back. (Only active after data has been load and the zoom function has been used)
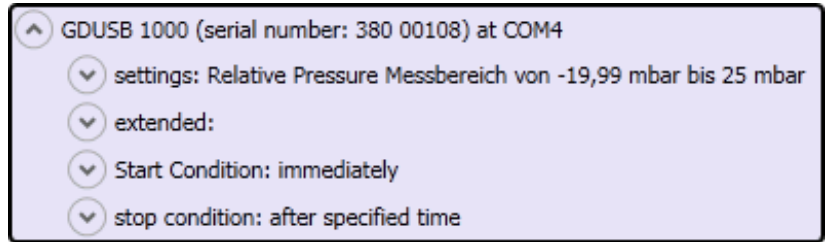
System Information

This will show the system information (version, driver version, license, etc…) of the program.

6   Tabs

6.1 Device

This tab 'Device' contains a list of all devices found by the system. All properties of the devices can be changed.


Every device found is displayed like shown in the image above. The settings are grouped and each group header already contains important properties
With a left click on the arrow symbols in front of the group header the group can be opened or closed.
The editable fields in the groups can now be changed. For each device you want to use in the next recording in the 'use channel in next record' in the group 'Settings' has to be checked.
After changing and leaving a text input field the corresponding value is sent to the device. If the device won't support this setting, a message will appear. The properties in the group 'Start Condition' and 'Stop Condition' (e.g. 'Limit 1') are depending on the condition and could be inactive. The values of inactive fields won't be sent to the device. If any invalid value was entered, the field will be framed in red, these values also won't be sent to the device.
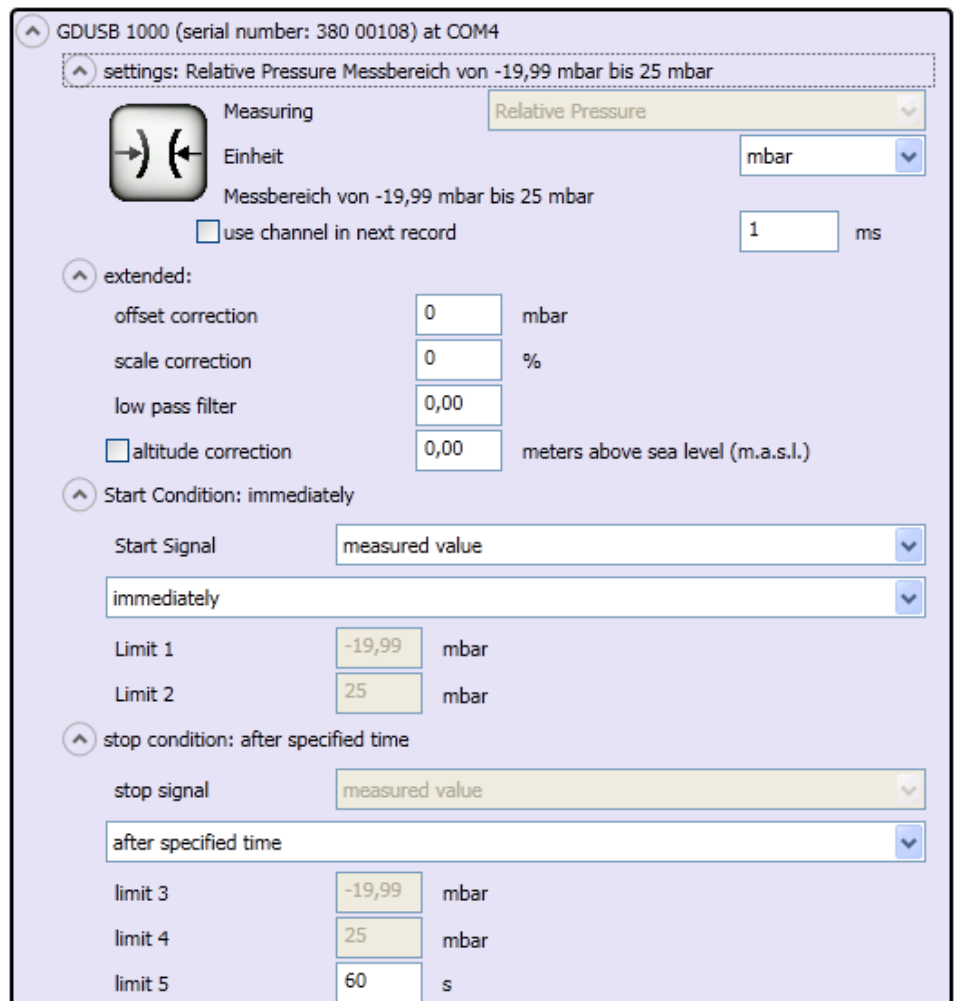
6.2 Chart

The tab 'Chart' is only active when a record is currently running or after loading a stored recording.
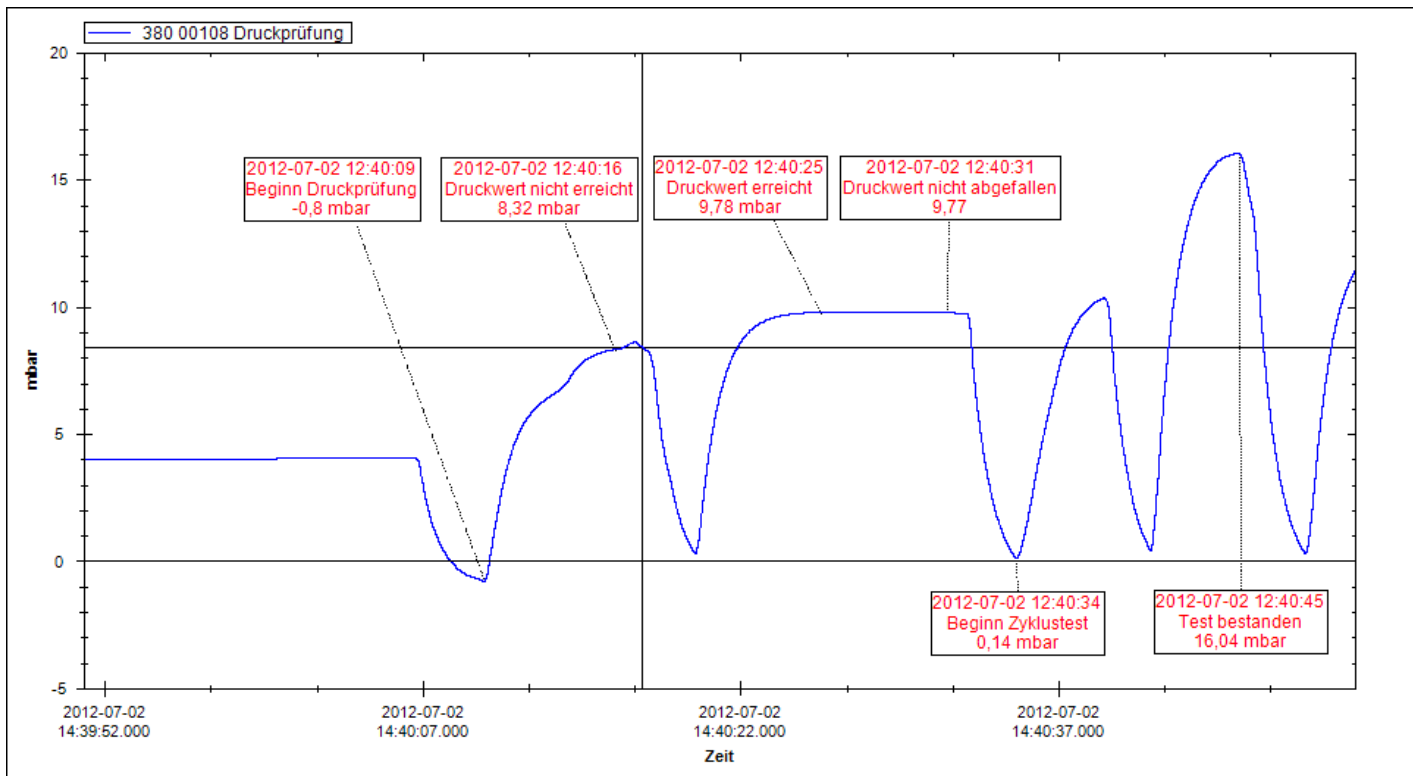
After a record the complete data will be loaded and shown as chart. Every second could contain up to 1000 measured data points, so the chart will be dynamically re-rendered depending on the depth of the zoom.

With a right click on the chart the color and the description of the curve can be changed. All changes are stored in the database.

During a running record additionally to the curve a digit display will be shown for each device (when "Show measured value of each channel while recording" is active in the "default settings"). Here the measured value and the timestamp of the last measurement will be shown. After recording the display will be closed automatically.
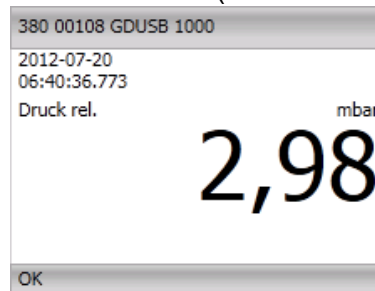
After loading data annotations can be added to the curve with a left click. These annotations will then be stored in the database. By right clicking on an annotation the text can be changed or the complete annotation can be deleted. Deleting an annotation will remove the annotation from the chart and the database.

7   Program Settings

7.1   Default settings

With a right click on "start search" the default settings are displayed. Here the general default values can be changed, like a default start- or stop-condition for each found sensor device. Here is also the possibility to set if the device should be used in the next record, or if the digit display should be shown during a record.

7.2   Start a recording

After selecting the devices and changing their properties the recording can be started by clicking on 'Start recording'. At first all parameters are

checked and the storage folder has to be defined.

In the above of the window the valid folders from your computers file system is shown. Here you have to select the folder. A comment describing the record should then be added in the text field 'Comment for current record folder'. Then you have to specify a 'Folder' where the program stores the data. This folder has to be a not existing one where all data files will be stored.

7.3   Loading data

Stored data can be loaded by clicking on 'Load data'. A new dialog window will open where the folder with the data has to be selected. Additionally the comment and the device settings are shown.

7.4 Export settings

After loading data of a finished recording 'Export data' will become active.

With a right click on this, a new dialog window 'Export Settings' will appear.

There the .csv file properties can be edited.
Depending on the program you use for importing the data, different settings have to be used.

The following settings change the pdf-report only:
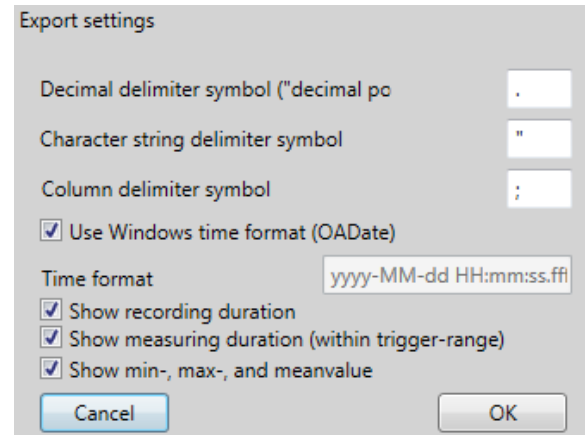"Show recording duration"
Calculates the duration of the entire recording
"Show measuring duration (within trigger-range)"
Calculates the duration of the measuring within start- and stop-condition (trigger-range)
"Show min-, max-, and meanvalue "
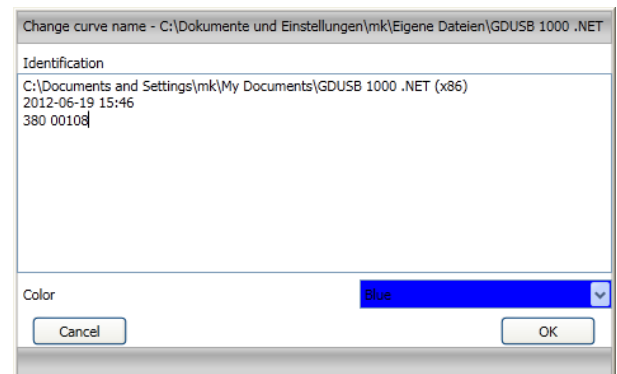Calculates values over the entire recording

'OK' will store all properties and the program will reload these settings on start up.

7.5 Changing the curve's name

After loading data and showing a curve, with a right click on the curve the name and the color can be changed.
'OK' will store these settings in the database.

7.6 Changing the annotation text

Arbitrary annotations can be added to each curve after loading a saved recording.

After loading data annotations can be added to the curve with a left click. These annotations will then be stored in the database.

By right clicking on an annotation the text can be changed or the complete annotation can be deleted. Deleting an annotation will remove the annotation from the chart and the database.