Quick guide GSVmulti

Connecting the measuring amplifier
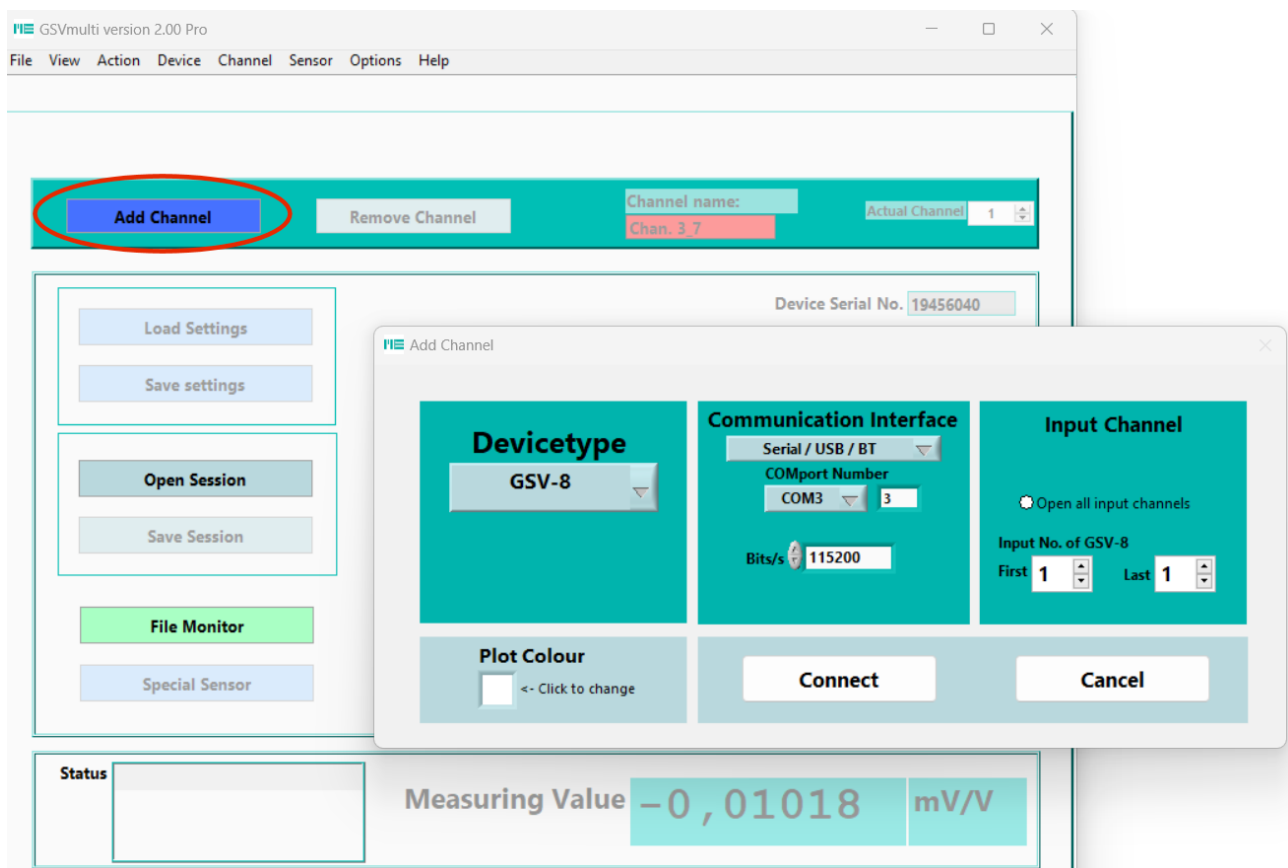
After starting the GSVmulti software, the following functions are available
Add Channel, Open Session and File Monitor.

"Add Channel" opens the dialog for entering the connection data.
Please select "Device type, COMport Number, and the desired channel(s).
Repeat "Add Channel" until you have opened all channels or/and devices.

ME-Meßsysteme GmbH
Eduard-Maurer-Str. 9   Tel.: +49 3302 89824 10   Mail: info@me-systeme.de
16761 Hennigsdorf   Fax: +49 3302 89824 69   Web: www.me-systeme.de   1

Main window (configuration)

In the main window, navigate to the desired channels by selecting "Actual Channel" in the upper right corner. The default names of the channels, e.g. "Chan. 3_1" you can overwrite with your own name and save with Enter.

With the four buttons in the center you define the essential properties of the sensor on the currently selected channel:

Set Zero: Performs a zero calibration of the sensor. The orange button indicates that this setting will be saved in the sensor's eeprom. Note: for temperature and voltage inputs: By default, the software prohibits zeroing of temperature and voltage inputs (top menu: Options).

User Scaling: A window for entering the scaling / calibration data for the sensor opens here.

Data Frequency: The number of measured values sent per second via the interface is entered here. Please select the frequency required for the measurement task here. The amplifier performs internal oversampling and applies filtering.

Input Type: The physical input type is selected here.
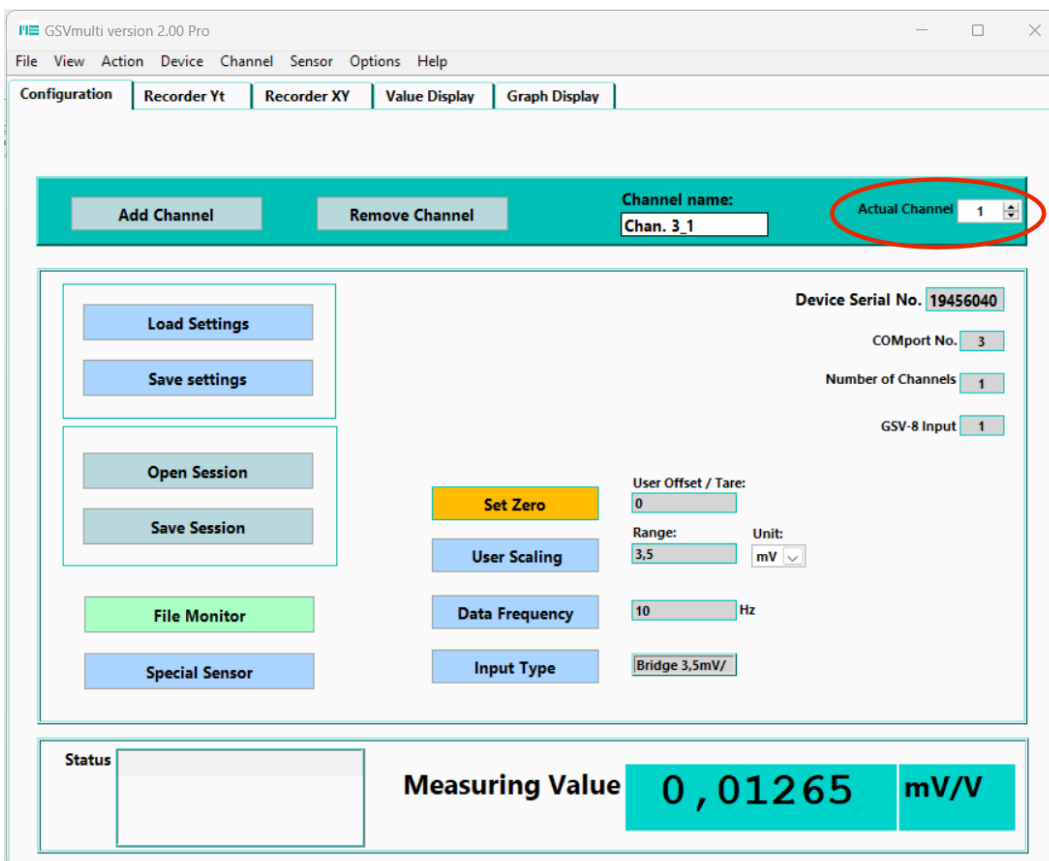
With Load Settings, factory settings (default) of the measuring amplifier can be restored and also those that have previously been saved by the user with Save Settings.
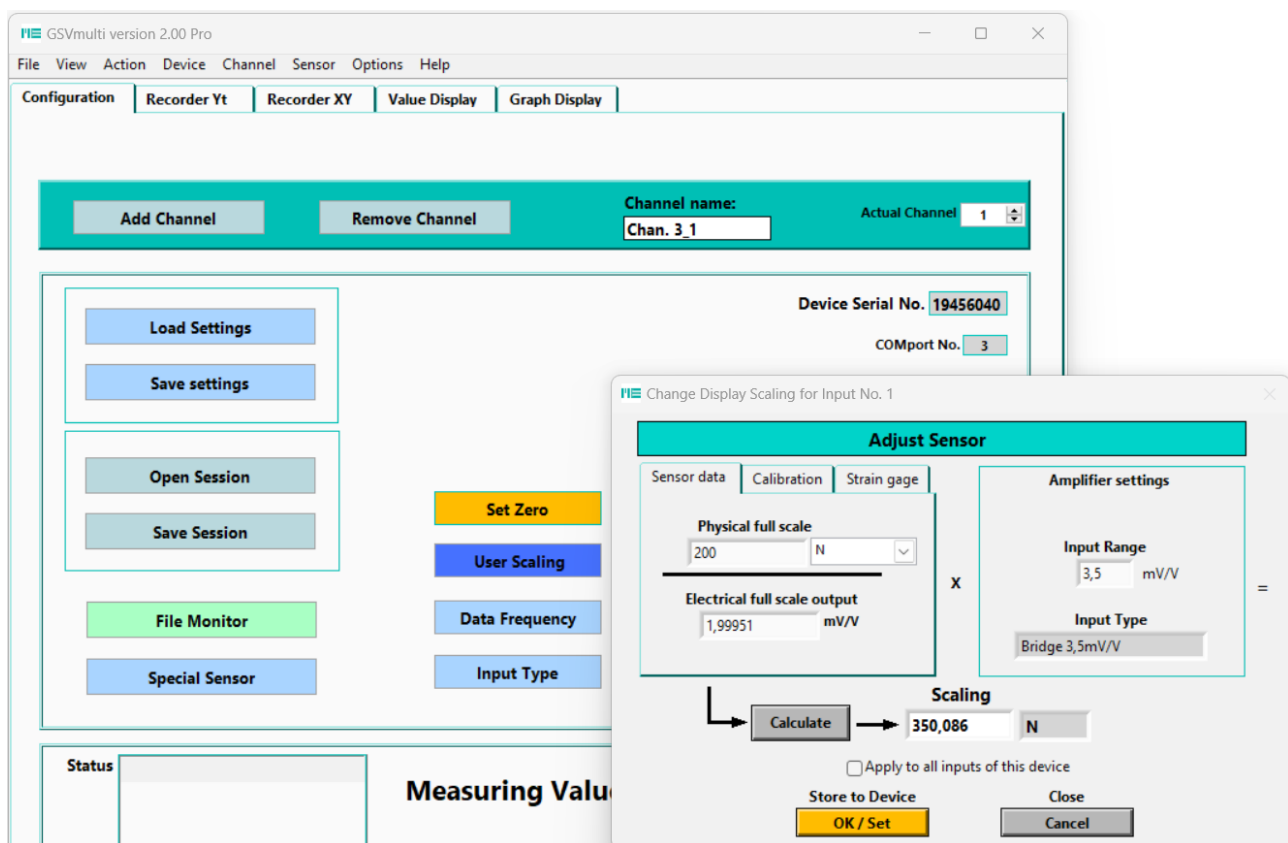

Scaling

The "User Scaling" button opens the dialog for entering or calculating the scaling factor.

The scaling factor is calculated by:

- the measuring range of the sensor (physical full scale)
- the output signal change of the sensor with 100% load change (electrical full scale output)
- and from the physical measuring range of the measuring amplifier (amplifier input range). This is usually read out automatically by the software.

The selection of unit does not affect the result, instead change the "Physical full scale" of the sensor accordingly.

Press Calculate and then OK / Set, to save the scaling in the measuring amplifier.

ME-Meßsysteme GmbH
Eduard-Maurer-Str. 9   Tel.: +49 3302 89824 10   Mail: info@me-systeme.de
16761 Hennigsdorf   Fax: +49 3302 89824 69   Web: www.me-systeme.de   3

Input Type

The Input Type button opens the dialog for setting the physical input range for the selected channel.

Three measuring ranges 2.0 mV/V, 3.5 mV/V and 7.0 mV/V are available for sensors with strain gauges. Three permanently assigned bridge excitation voltages are connected to the three measuring ranges. For

- 2 mV/V: 8,75 V
- 3,5 mV/V: 5,0 V
- 7 mV/V: 2,5 V

Recorder Yt

The measured values are displayed graphically in the Recorder Yt index card.

Start the graphic display with "Start Measuring" or "Stop Measuring". With "Start Recording" "Stop Recording" you start or end the recording on file.

Set All Zero carries out the zero adjustment for all channels. Note that the "Set Zero" button can be disabled for individual channels, e.g. for force/torque sensors or when virtual channels are active.
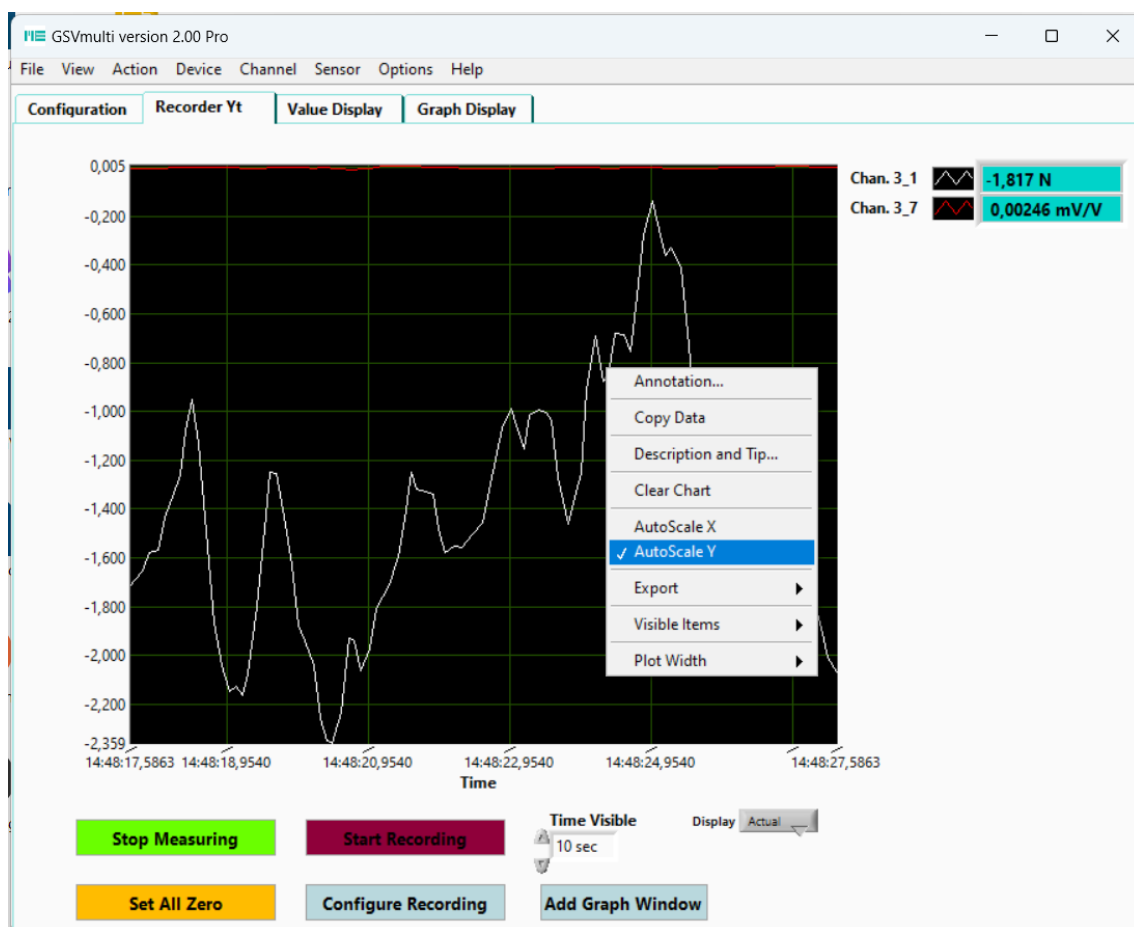
Right-clicking opens the context menu for various settings, such as Autoscale.

If Autoscale Y is deactivated, you can click on the minimum and maximum value of the y-axis by editing and then press Enter.

Set the time range with "Time Visible".

Under "Display" there is a selection of displays: The noise amplitude can be called up with "Max-Min" or a quality number "Measurement range/noise amplitude" can be called up with "Resol Parts PP".

Software triggers, for example, can be defined with the Configure Recording button.

ME-Meßsysteme GmbH
Eduard-Maurer-Str. 9
16761 Hennigsdorf

Tel.: +49 3302 89824 10
Fax: +49 3302 89824 69

Mail: info@me-systeme.de
Web: www.me-systeme.de

5

Additional graphic windows can be added with the Add Graph Window button, e.g. to display forces and moments in different windows with their own graphic scaling or to carry out FFT.

All settings relating to the graphics window and naming of channels, as well as interface numbers, etc. can be saved in a file of the ".ucf" type when exiting the program or using the Save Session button, and by "Open Session" or by clicking on the ucf file be restored when the program starts.
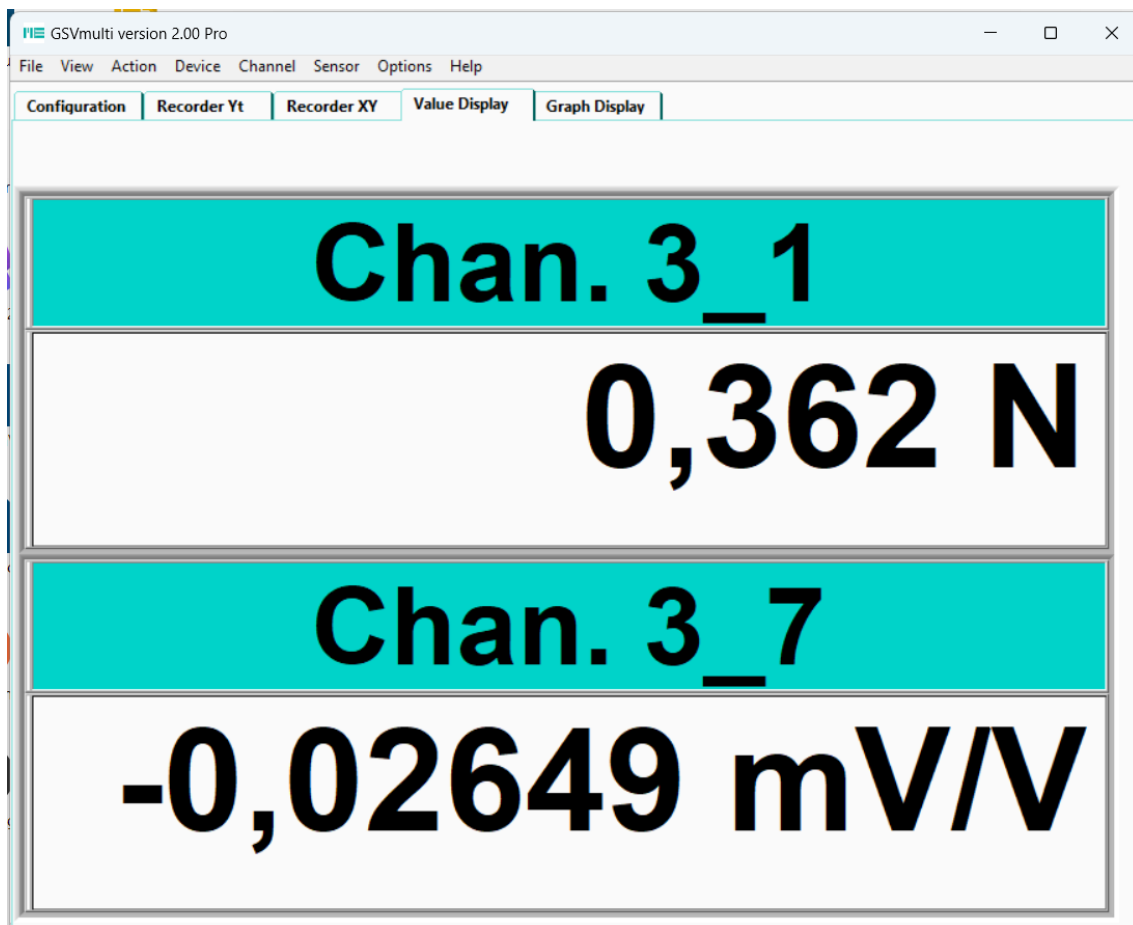
Graphic display "Graph Display"

DThe "Graph Display" tab offers predefined graphic windows for each channel.
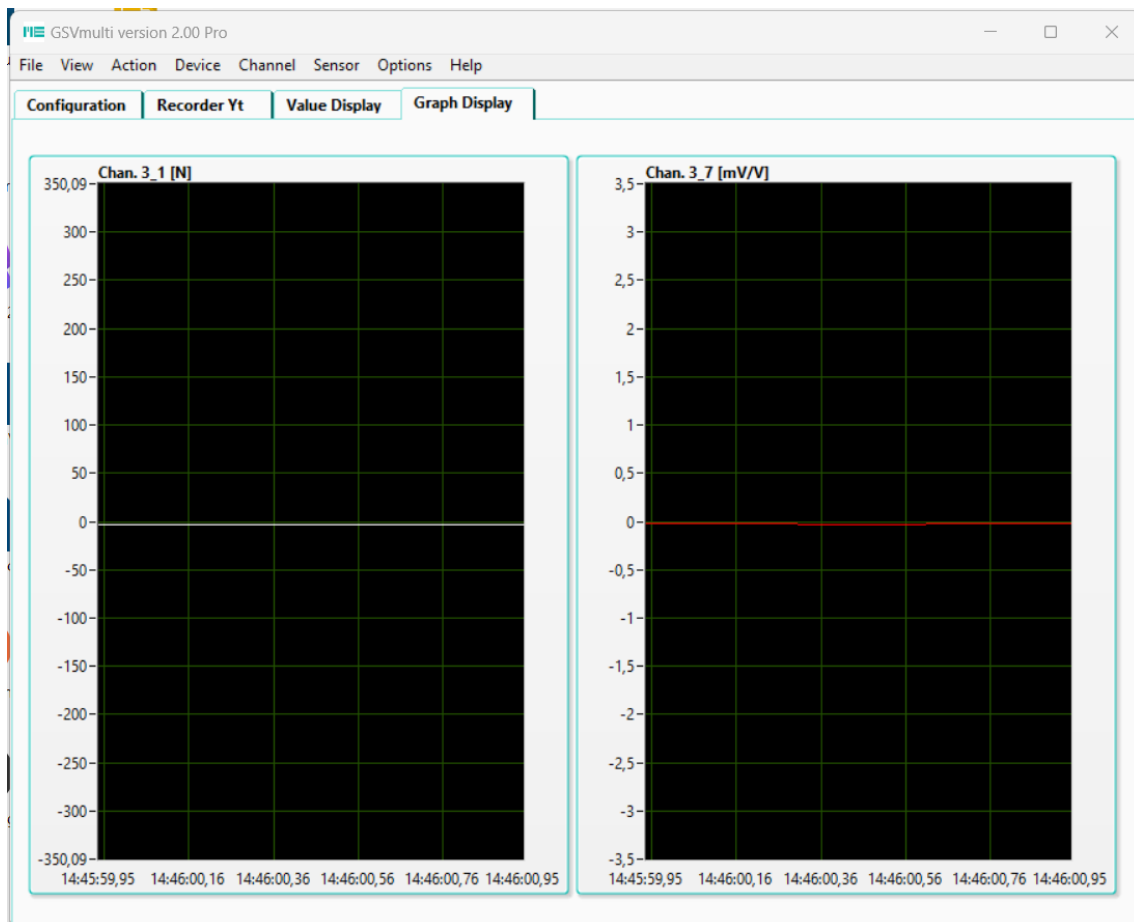
Large display "Value Display"

A large display of all channels is available under this tab.

More functions

Sensor: TEDS Editor for reading and writing TEDS with GSV-8

Sensor: Configuration data for strain gauge rosettes and force-torque sensors

Device Advanced Settings: Definition of FIR and IIR filters, assignment of functions to digital inputs and outputs, definition of Bluetooth settings, CANbus settings, interface parameters, real-time clock settings, and much more.

ME-Meßsysteme GmbH
Eduard-Maurer-Str. 9
16761 Hennigsdorf

Tel.: +49 3302 89824 10
Fax: +49 3302 89824 69

Mail: info@me-systeme.de
Web: www.me-systeme.de

7