

# BlueDAQ

## Software



BlueDAQ Software v1.0 06-16-2022

**interface**  
FORCE MEASUREMENT SOLUTIONS

The World Leader in Force Measurement Solutions™



# The BlueDAQ Software is suitable for live viewing, recording, and analysis of stored measuring data.

The multiple channels can be recorded over the time axis (y-t diagram) or via an X-axis (X-Y diagram). The BlueDAQ software is available for models BSC1, BSC2, BSC4D, BX6, BX8, and the 9330. The measuring data is stored in binary TDMS by recording and can be opened, displayed, and exported in text or Excel format with the integrated File Monitor.

## BlueDAQ Features:

- Setting the Measuring frequency
- Setting the display unit and scaling factor
- Calculate the scaling for sensors force, displacement, torque, and active sensors with voltage or current output
- Online monitor graphical live-display
- Setting the digital filter
- Simulation of the digital filter represent frequency response and step response
- Configuration of analog outputs BX8
- Configuration of the digital I/O ports BSC4D, BX6, and BX8
- Configuration of the CAN bus parameters BX6 and BX8
- Loading and saving of the complete settings Sessions to file
- Loading and saving of configurations Settings in the amplifier memory
- Loading and exporting Excel and CSV of stored data File-Monitor
- Integrating of the calibration matrix for 3-axis sensor 5AR and 6-axis sensor 6AXX and 6ADF
- Stress analysis with strain gages rosettes
- Hardware-triggered data recording via digital input BSC4D and BX8
- Software-triggered data recording via threshold value over or undershoot or timed
- Call parameters for inclusion in scripts and batch files or Windows Task Scheduler
- Context help
- Opening multiple graphical life displays
- Setting the axis scaling autoscale or fixed
- Assigning of the channel-names
- Live display of the spectral power density frequency analysis
- Useful keyboard shortcuts, like F12, Ctrl-Z, and Ctrl-A
- Reading and writing of TEDS with BX8
- Large display of measuring values
- Configuration Data format
- Administration: lock write protection against unauthorized configuration, operating hours counter, and error memory

## BlueDAQ-PRO Software

### Product Description:

- License to activate the professional functions of the BlueDAQ software
- Free update for three following revisions
- Scope of delivery: license file in zip format
- Installation of the license with Help->.Apply license

### Functions:

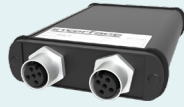
- MathScript, virtual channels based on formula links with measurement channels
- Integration of a GPE receiver and reading of GPS coordinates
- Insert notes while recording a measurement

## Compatible Instrumentation

Interface provides instrumentation such as scale input/output, force and moment value calculation, graphing, logging, and display that are compatible with the BlueDAQ Software.



**BSC1** Single Channel  
PC Interface Module &  
Bridge Amplifier  
Single Channel



**BSC2** Dual Channel  
PC Interface Module  
Dual Channel



**BSC4D** Bridge Amplifier &  
PC Interface Module  
4 Channel



**BX6-BT** Portable 6-Channel  
High Speed Bluetooth  
Data Logger  
6-Channels, 6-Axis Compatible



**BX8-AS** Data Acquisition  
System & Amplifier  
8 Channel



**BX8-HD15** Data Acquisition  
System & Amplifier  
8 Channel



**BX8-HD44** Data Acquisition  
System & Amplifier  
8 Channel



**9330** Battery Powered  
High Speed Data  
Logging Indicator  
Portable Display

## BlueDAQ Compatible Instrument Comparison

	BSC1	BSC1HR	BSC1HRD	BSC2	BSC4D	BX6-BT	BX8	BX8-AS	9330
Channels	1	1	1	2	4	6	8	8	1
Encoder Channels	0	0	0	0	0	1	2	2	0
INPUT TYPES									
mV/V	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VDC	No	No	No	No	Yes	Yes	Yes	Yes	Yes
mA (with 500ohm resistor)	No	No	No	No	Yes	Yes	Yes	Yes	Yes
PT1000	No	No	No	No	Yes	No	Yes	Yes	No
Type K thermocouple	No	No	No	No	No	No	Yes	Yes	No
Bridge Completion	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Analog output	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes
Data Frequency (Hz)	1000	1000	1000	1000	500	up to 3000	48,000	48,000	3750
Resolution (bit)	16	24	24	16	16	16	24	24	24
Sensor connection	DB-15	Screw terminal	Screw terminal	M12	DB37 or M12	Solder Pads	4xHD44 or 8xHD15	Screw Terminal	DB-15
Display	No	No	Yes	No	No	No	No	No	Yes
Setpoints	1	2	2	1	8	2	16	16	
Digital Inputs/Outputs	0	0	0	0	8	3	16	16	
Excitation Sense	No	No	Yes	Yes	No	No	Yes	Yes	Yes
TEDS	No	No	No	No	No	Yes	Yes	Yes	No
INTERFACES									
USB	Yes	Option	Option	Yes	Yes	No	Yes	Yes	Yes
RS232/422/UART	No	Yes	Yes	No	No	No	Yes	Yes	No
CAN/CANopen	No	Option	Option	No	No	No	Option	Option	No
EtherCAT	No	No	No	No	No	No	Option	Option	No
Bluetooth®	No	No	No	No	No	Yes	No	No	No

## BlueDAQ Software is used for:

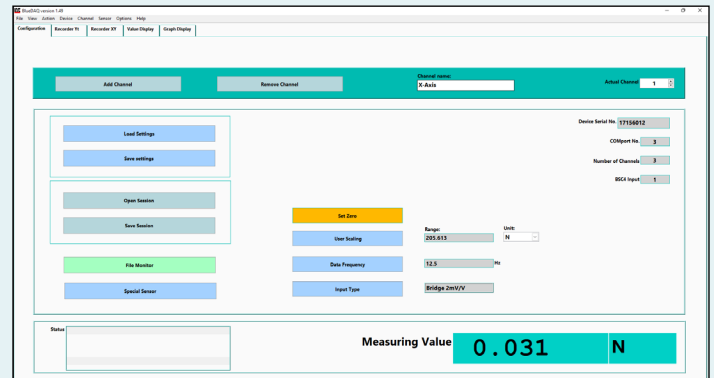
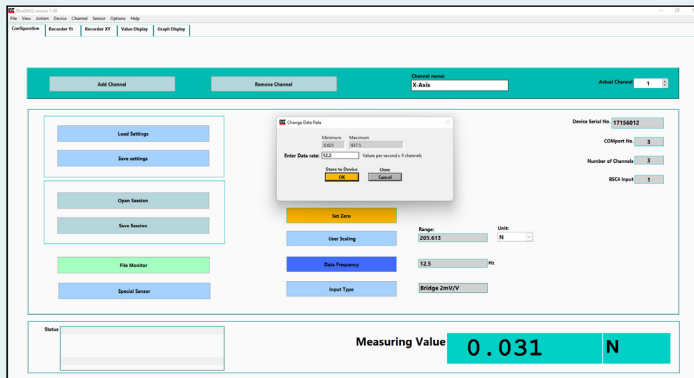
- Configuration of measuring amplifiers
- Recording of measurement data
- Playback and export of recorded data
- Read-out dataloggers 9330 and GSV BX6-BT

## BlueDAQ Software contains modules for:

- Stress analysis with strain gages
- Use of multiple axis and multi-component force torque sensors
- Long-term data acquisition decimation at run time

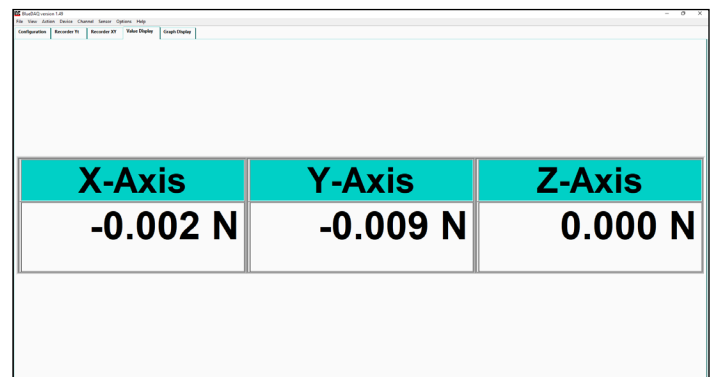
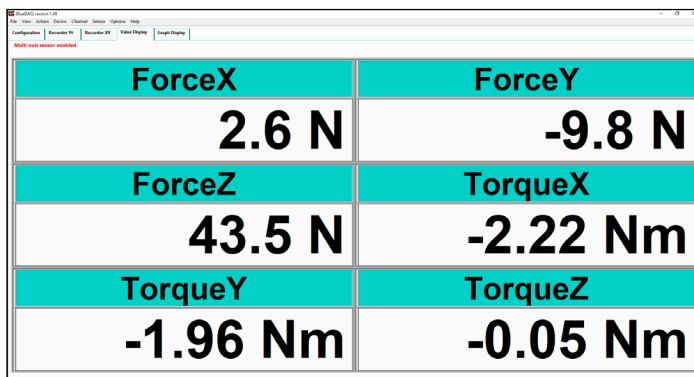
## Measuring Frequency

The dialog for setting the measuring frequency is displayed in the Configuration window by clicking the Data frequency. There is a various range of values depending on the device type (BSC1, BSC2, BSC4D, BX6, and BX8) and interface. Minimum and maximum adjustable frequencies are displayed.



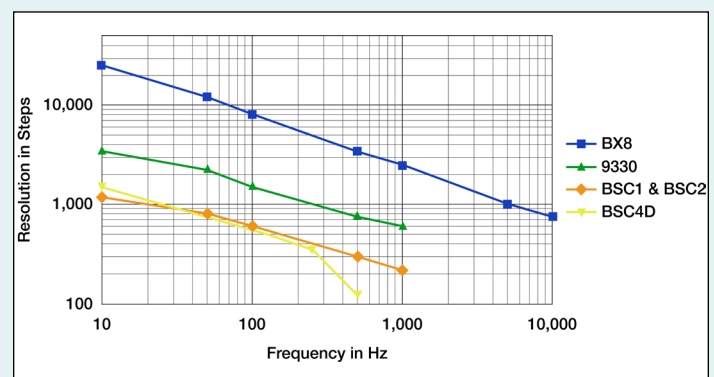
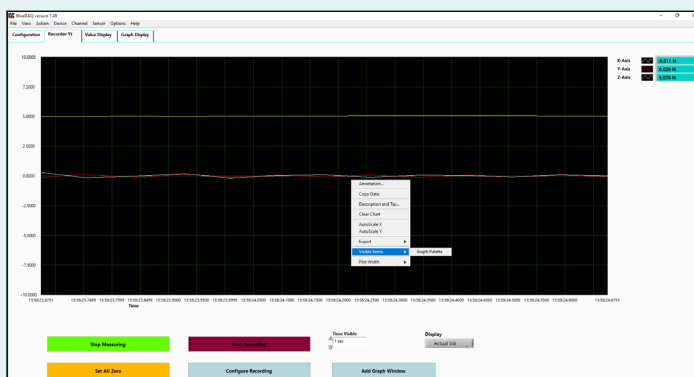
## Large Display

The Value Display index card allows a large display of all the opened channels. The scaling and arrangement of the displays are automatically full screen.



## Online Monitor

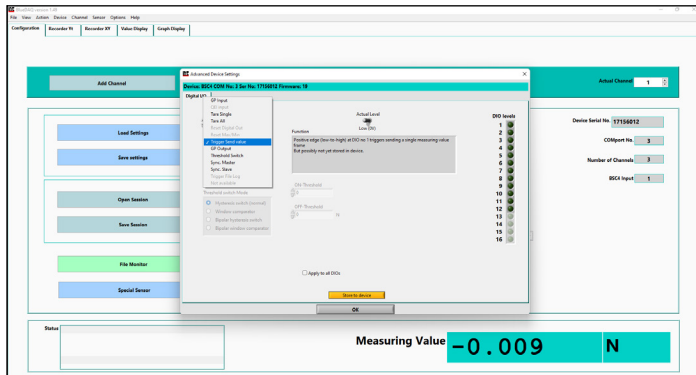
In the Y-t recorder the measuring values of all channels are displayed graphically. You can use the right mouse button to apply different functions to the graphics window. You can use the right mouse button to apply various functions to the graphics window, such as Autoscale. When the Autoscale is switched off, the axis values can simply be overwritten do not forget to confirm with Enter.



## Digital I/O Ports

The digital ports of the BX8 can be equipped with predefined functions

- The triggering of a single measurement
- The triggering of a measurement as long as the port is active
- The indication of a threshold value overshoot and much more

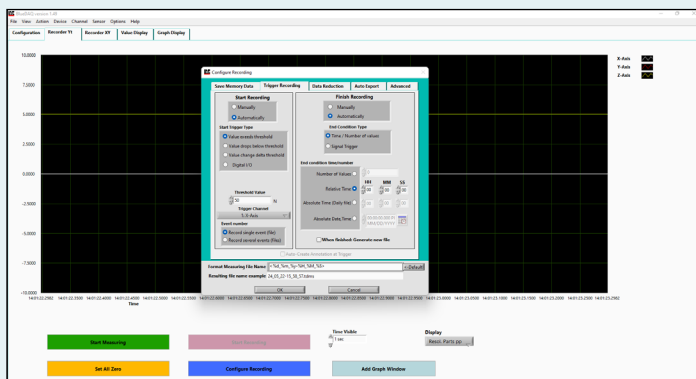


## Software Triggers

In the Yt recorder, a Configure Recording button opens a window for setting various conditions for the automatic start and stop of the recording. The beginning of the recording can be triggered by exceeding or undershooting a threshold value.

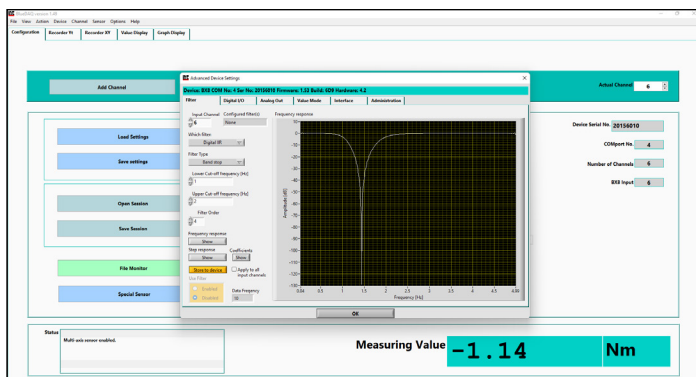
The end of the recording can be triggered by:

- Defined time
- Defined number of measured values,
- Exceeding or undershooting of a threshold value



## Digital Filters

The configuration of digital filters is achieved from the Device -> Advanced Settings menu bar. Display of the frequency response.



# Interface BlueDAQ Software

- Scale Input/Output
- Force & Moment Value Calculation
- Graphing
- Logging
- Display

*Interface BlueDAQ Software and BlueDAQ-PRO Software are available for project designs requiring the highest performance.*

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