DEIF Multi-instruments SW

4189341413A

Utility software

User manual

Improve Tomorrow

1. About DEIF Multi-instruments SW

2. Software installation instructions

3. Connect for first time

4. Menus and features

1. About DEIF Multi-instruments SW

DEIF Multi-instruments SW is a PC-based utility software application for the Windows operating system. It can be used to read and log data, and to configure and view the multi-instrument settings of the MIB 8000C or MIC-2 MKII.

Some advanced functions are only accessible using DEIF Multi-instruments SW.

1.1 Intended users

The DEIF Multi-instruments SW user manual is intended for designers and operators who need to configure or supervise the system.

The manual primarily focuses on the use of the software with the MIB 8000C multi-instrument.

1.2 Software versions

The information in this document relates to software version 3.71.x

1.3 Warnings and safety

Installing the multi-instrument may involve work with dangerous currents and voltages. Therefore, the installation should only be carried out by authorised personnel who understand the risks involved in working with live electrical equipment.

DANGER!

Hazardous live currents and voltages

Do not touch any terminals, especially the AC measurement inputs as this could lead to injury or death.

DANGER!

Hazardous live currents and voltages

No required preventative maintenance or inspection. Any repair or maintenance of the equipment must be performed by the factory.

1.4 Legal information

Trademarks

Disclaimer

DEIF takes no responsibility for installation or operation of the equipment. If there is any doubt about how to install or operate the equipment, the company responsible for the installation or the operation of the equipment must be contacted.

The English version of this document always contains the most recent and up-to-date information about the product. DEIF does not take responsibility for the accuracy of translations, and translations might not be updated at the same time as the English document. If there is a discrepancy, the English version prevails.

2. Software installation instructions

2.1 System requirements

- Operating System: Windows version 11.
- Communication: USB 2.0 Type A cable.
- USB to RS-485 converter and associated driver.

Recommended cable

RS-485 communication
High-quality shielded 22 AWG (0.5 mm²) twisted pair or higher. Overall length of cable connecting all devices should not exceed 1200 m.

NOTE An Ethernet connection is also possible with an MIC-2 MKII with installed TCP/IP Ethernet module. Refer to Option TCP-IP Ethernet module..

2.2 Install DEF Multi-instruments SW

1. Go to the DEIF software page for the MIB 8000C.

2. Follow the download instructions.

4. Follow the installation instructions.

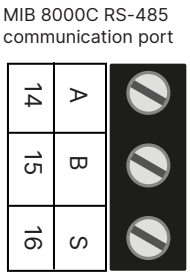
NOTE You can also download the software from the DEIF software page for the MIC-2 MKII.

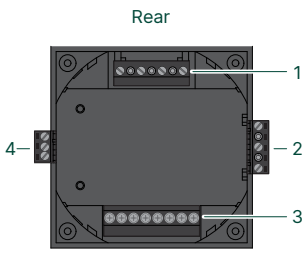
2.3 Connect the RS-485 interface

DANGER!

Hazardous live currents and voltages

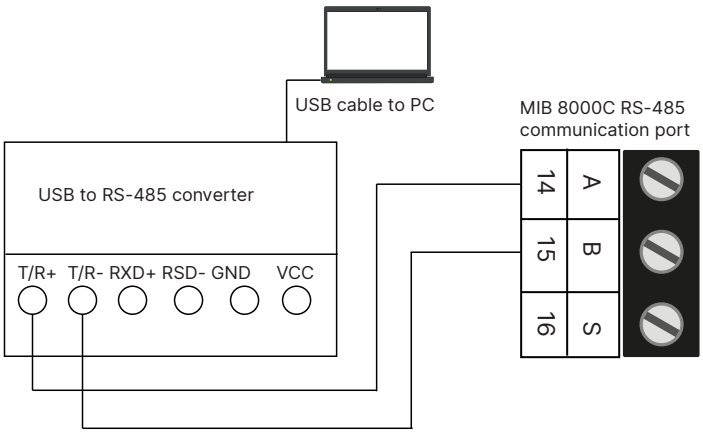
Do not touch any terminals, especially the AC measurement inputs as this could lead to injury or death.





No.	Item	Notes
1	Voltage input terminal	Used for voltage input
2	Power supply terminal	Control power input
3	Current input terminal	Used for current input
4	Communication terminal	The RS-485 communication port

You will need to use a USB to RS-485 converter:

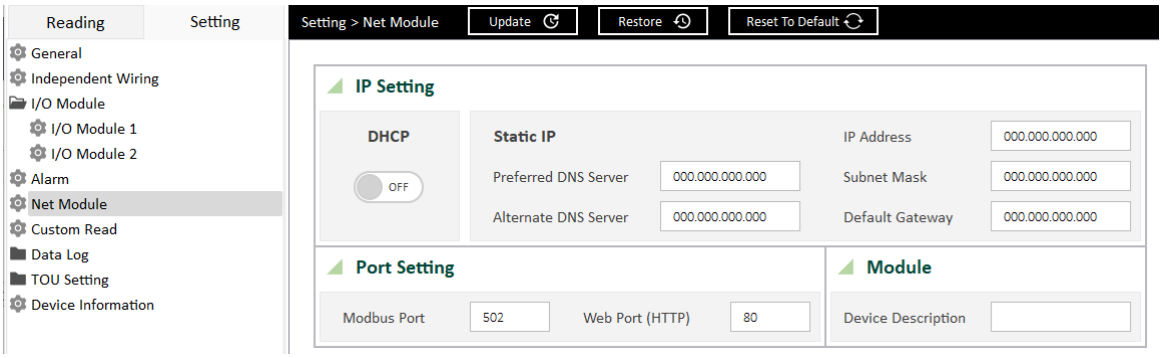


2.4 Connect the TCP interface

Only for an MIC-2 MKII with a fitted Ethernet TCP/IP module.

To connect the TCP interface to the MIC-2 MKII, refer to Option TCP-IP Ethernet module.

TCP interface settings page



2.5 Confirm communication settings

After you have connected the MIB 8000C to the PC using the USB to RS-485 converter, confirm the communications settings are correct.

MIB 8000C default settings

Modbus device address	Baud rate	Parity
1	19200*	Non1 (no parity, 1 stop bit)

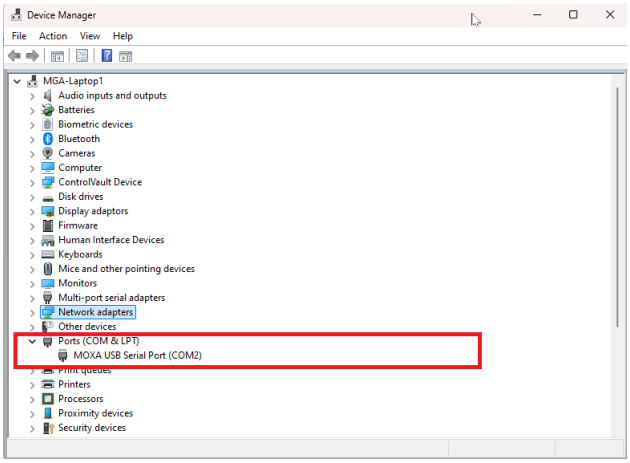
NOTE *If connecting to a meter with no display (DIN rail mount model), the default baud rate of the meter is 9600 on the first power up. After one minute of being powered up, the default baud rate will change to 19200.

Confirm COM port

The COM port must be confirmed on your computer:

- Run Device Manager.

- Under Port (COM & LPT), find the COM port number. Note the COM port number, as you will need this to connect to the software.



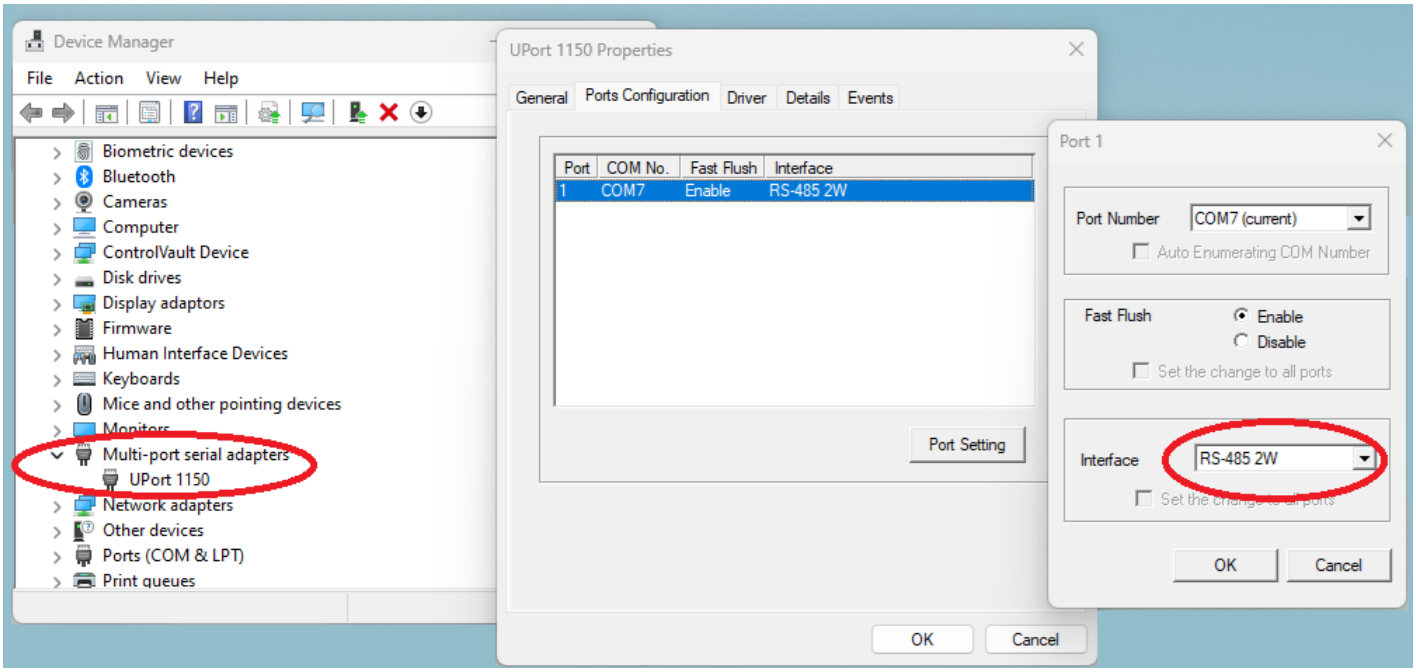
NOTE This example shows an installation using a MOXA UPort 1150 converter.

Select the correct communications interface

1. Double-click *Multi-port serial adapters*.

2. Double-click *UPort 1150* or right click *UPort 1150* and select *Properties*.

3. Select interface *RS-485 2W* and click *OK*.



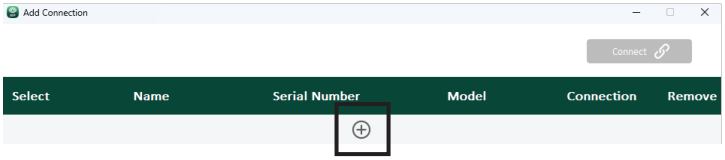
After you have noted the COM port number and selected the correct communication interface, you can run the DEIF Multi-instruments SW application and connect with your MIB 8000C device.

3. Connect for first time

3.1 Create a meter profile

1. Select the *Click to Add New Meter* tab.

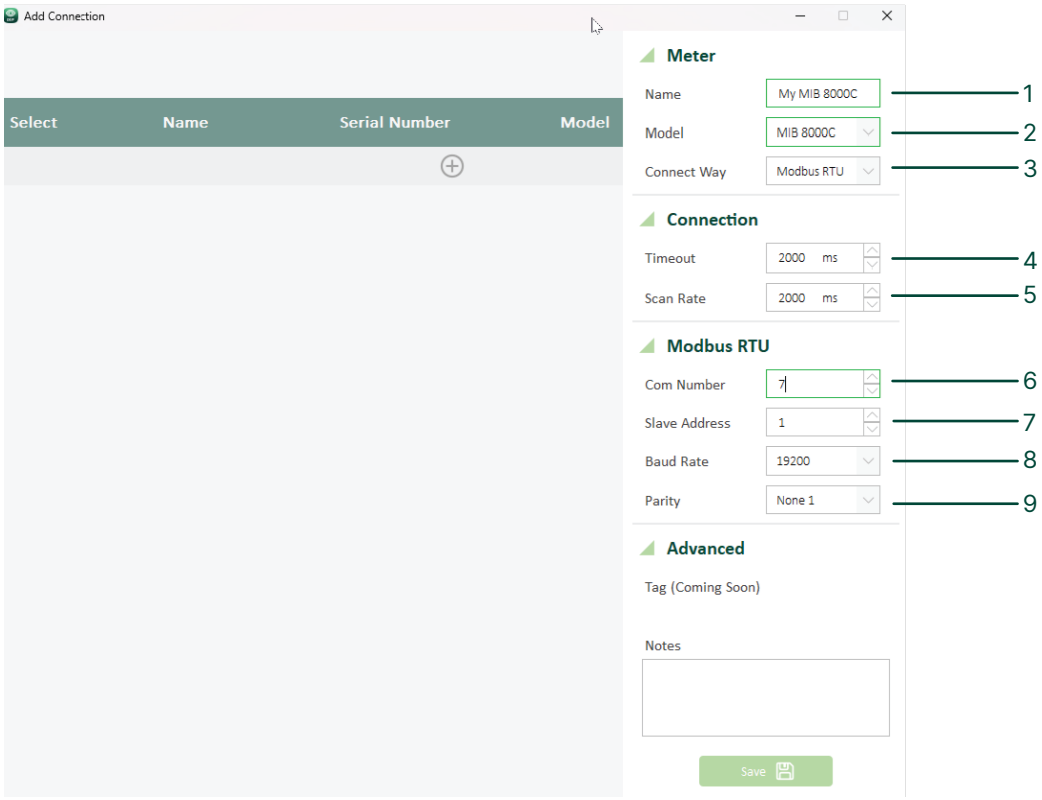
2. Select the + symbol in the Add Connection page to generate the meter profile settings.



3. Set up the meter profile with the correct settings.

4. Select *Save* to save the profile.

Profile settings



Number	Name	Notes
1	Name	Meter profile name must have at least one character.
2	Model	Select *MIB 8000C*. Select *MIC-2 MKII* if connecting to a MIC-2 MKII meter.
3	Connect way	Select *Modbus RTU*
4	Connection timeout	Default is 2000 ms.
5	Connection scan rate	Default is 2000 ms.
6	Com number	Enter port number. It must be the same as the USB port number you noted down earlier.

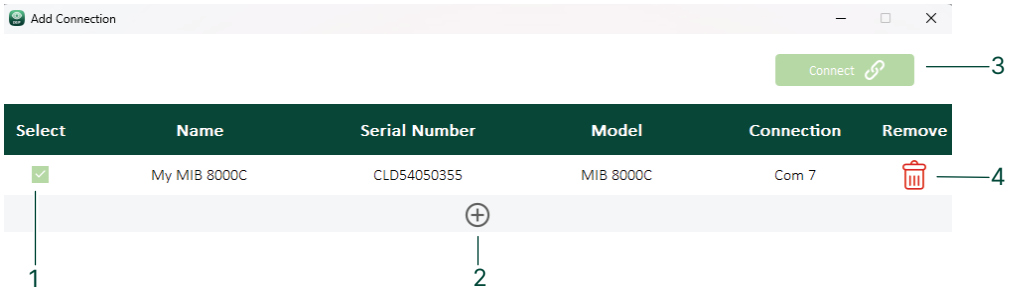
Number	Name	Notes
7	Slave Address	Default is 1.
8	Baud Rate	Default is 19200.
9	Parity	Default is None1.

3.2 Connect software to meter

1. Return to the Add Connection page.

2. Tick the *Select* box to select the profile.

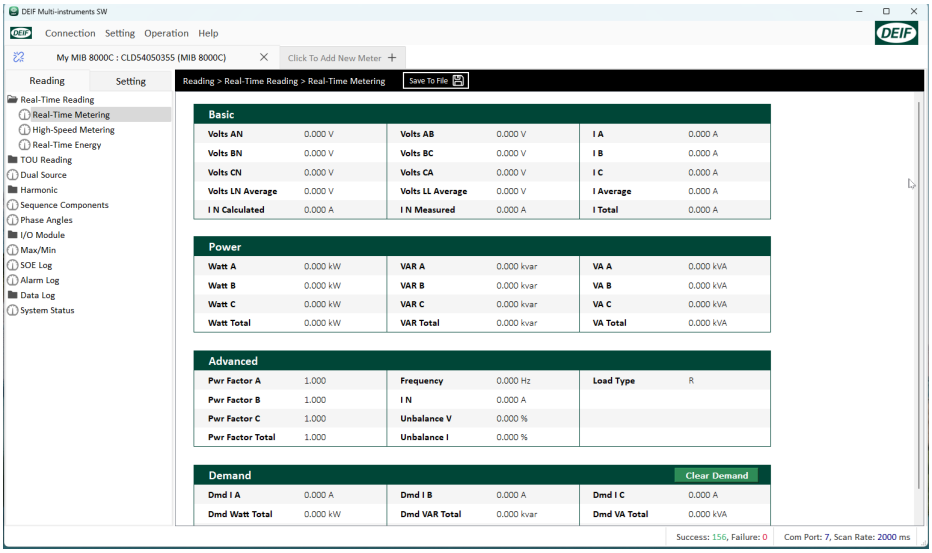
3. Select*Connect* to connect with the meter.



Number	Item	Notes
1	Select	Select the profile to be connected.
2	Add profile	Add a new meter profile.
3	Connect	Connect with meter.
4	Remove	Delete meter profile.

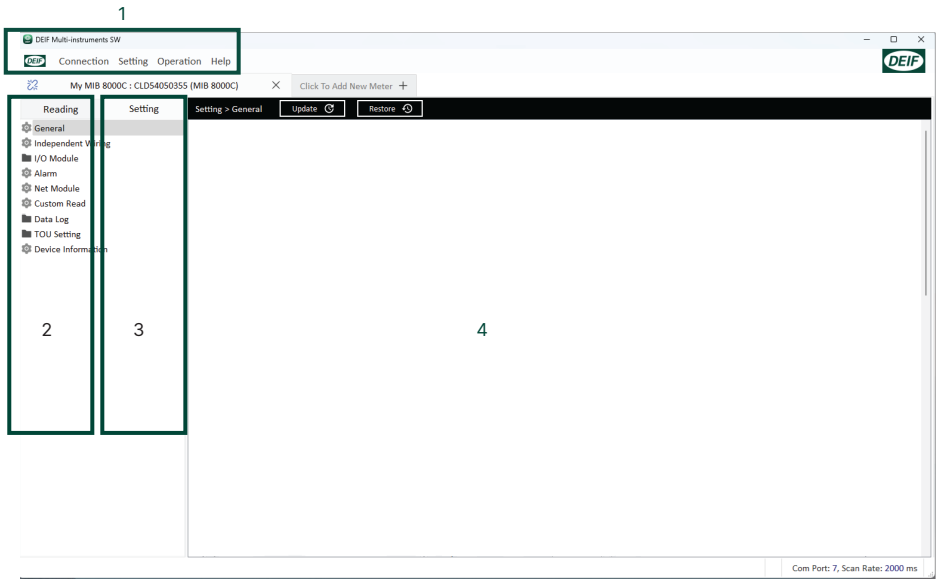
Default opening page

When the connection is made, the software will open on the default opening page:



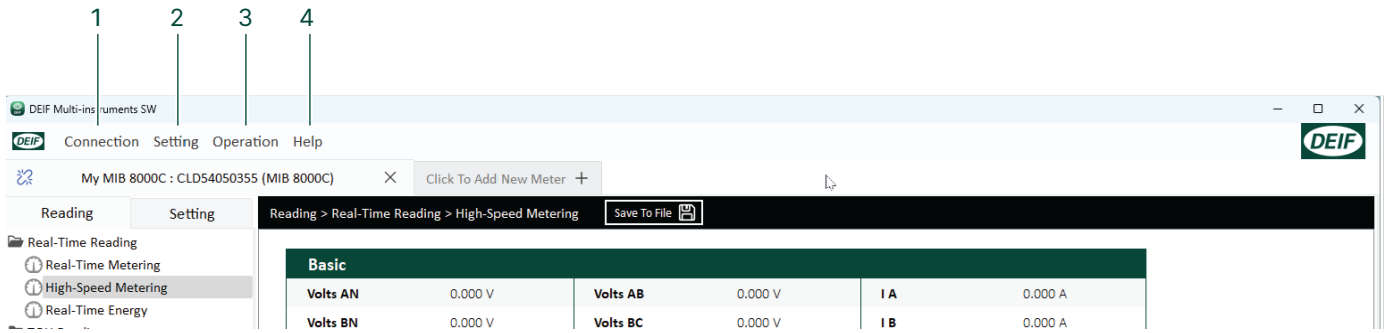
4. Menus and features

4.1 Menus overview



Number	Item	Notes
1	Top bar menu	Main menu for connecting software to device and other operations.
2	Reading side bar menu	Menu for reading and displaying various data and logs.
3	Setting side bar menu	Menu for configuring data and operations.
4	Display view page	The reading data or configuration data and options are displayed in this page.

4.2 Top bar menu



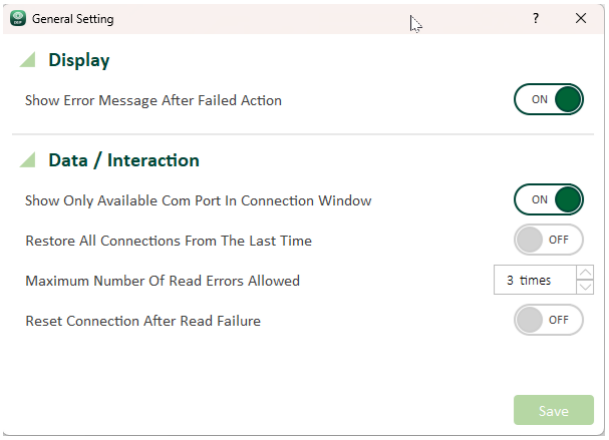
Number	Item	Function
1	Connection	Connect or disconnect. Add or remove connections.
2	Setting	Open General setting. Open Data log setting. Open logging parameters selection menu and other data logging settings.
3	Operation	Export or import configuration.

Number	Item	Function
		Update firmware. Find device (IP address). Calculate pulse constant.
4	Help	Show supported device types and utility software version.

4.2.1 General setting, data log setting and logging parameters

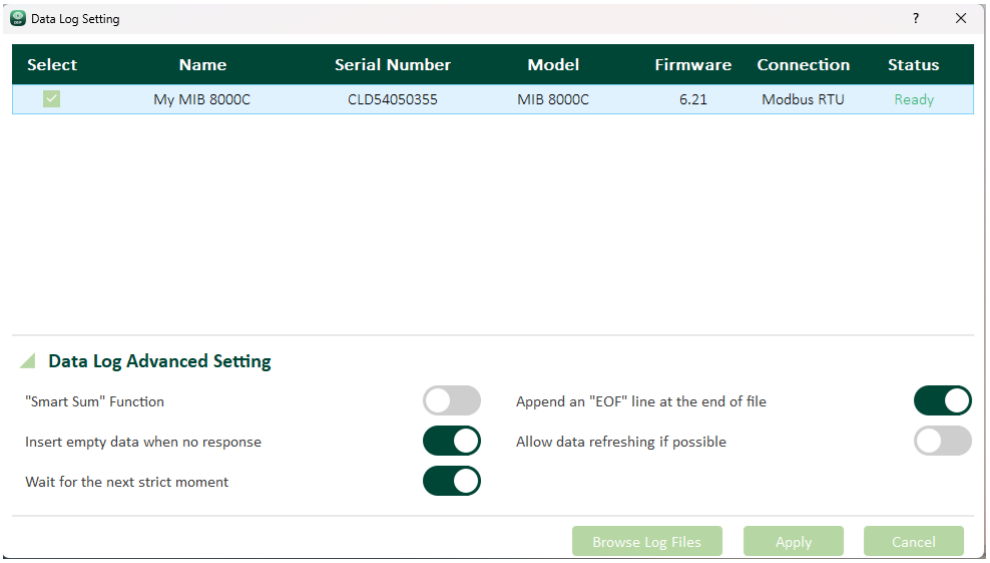
Setting > General setting

For display and data/interaction options.



Setting > Data log setting

For advanced data log settings.



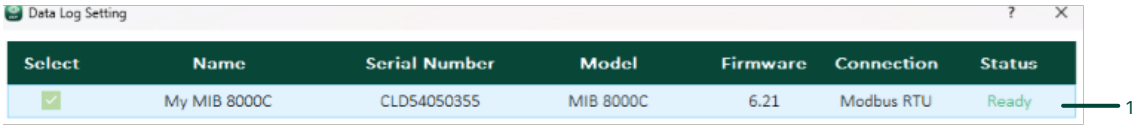
Logging parameters selection menu

The user can select the parameters that will be logged, how frequently they will be logged, and save the data log as a file.

To open logging parameters:

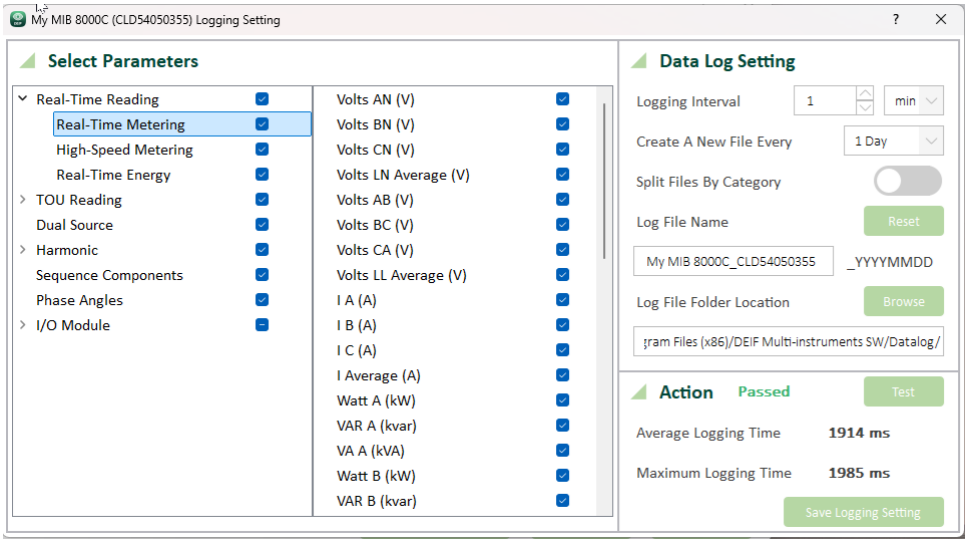
1. Tick the Select box (if not already ticked).

2. Select blue menu bar to open the logging parameters selection menu.

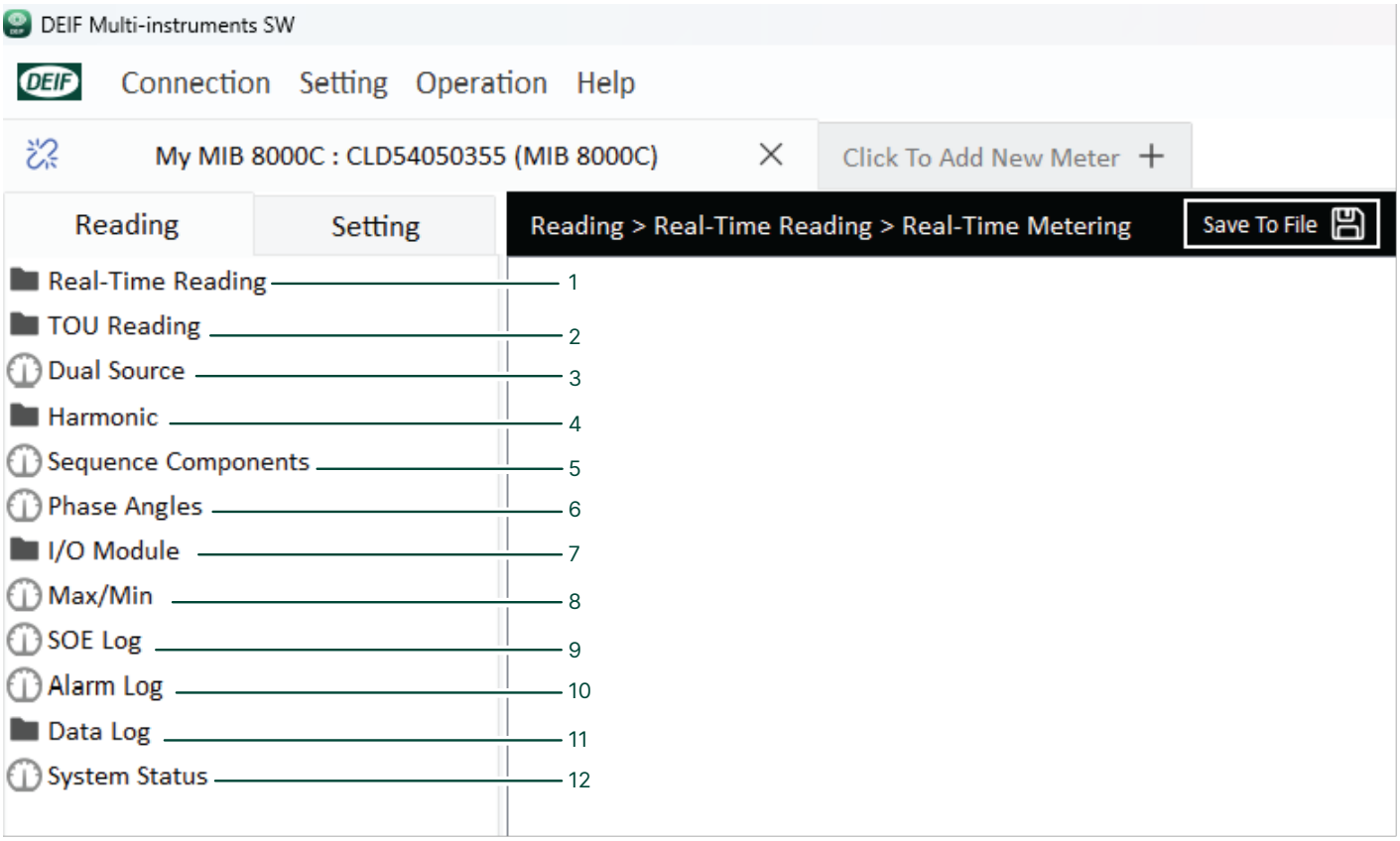


Number	Item	Notes
1	Blue menu bar	Click the menu to open the *Select Parameters*, *Data Log Setting* and *Action* window.

3. Select the parameters to be logged and configure other data log settings.



4.3 Reading menu



Number	Item	Notes
1	Real-time reading	Double-click for: Basic, Power, Advanced and Demand values.
2	TOU reading	Double-click for: Current month Prior Month TOU.
3	Dual source	Dual source energy reading and data source log.
4	Harmonic	Double click for: TDH Voltage spectrum Voltage Amplitude spectrum Current amplitude spectrum Current amplitude/angle.
5	Sequence components	Voltage and current sequence and unbalance factor.
6	Phase angles	Phase angles diagram (3LN).
7	I/O module	Double click for: I/O module 1 reading and I/O module 2 reading.
8	Max/Min	Maximum and minimum values with time stamps.
9	SOE log	Latest SEO record with time stamp.
10	Alarm log	Latest alarm record with time stamp.
11	Data log	Double click for: Data log 1, Data log 2, Data log 3 and Data Log 4 records.
12	System status	System status and I/O module status.

4.3.1 Real-time reading

There are three reading pages available: *Real-Time Metering, High-Speed Metering* and *Real-Time Energy*.

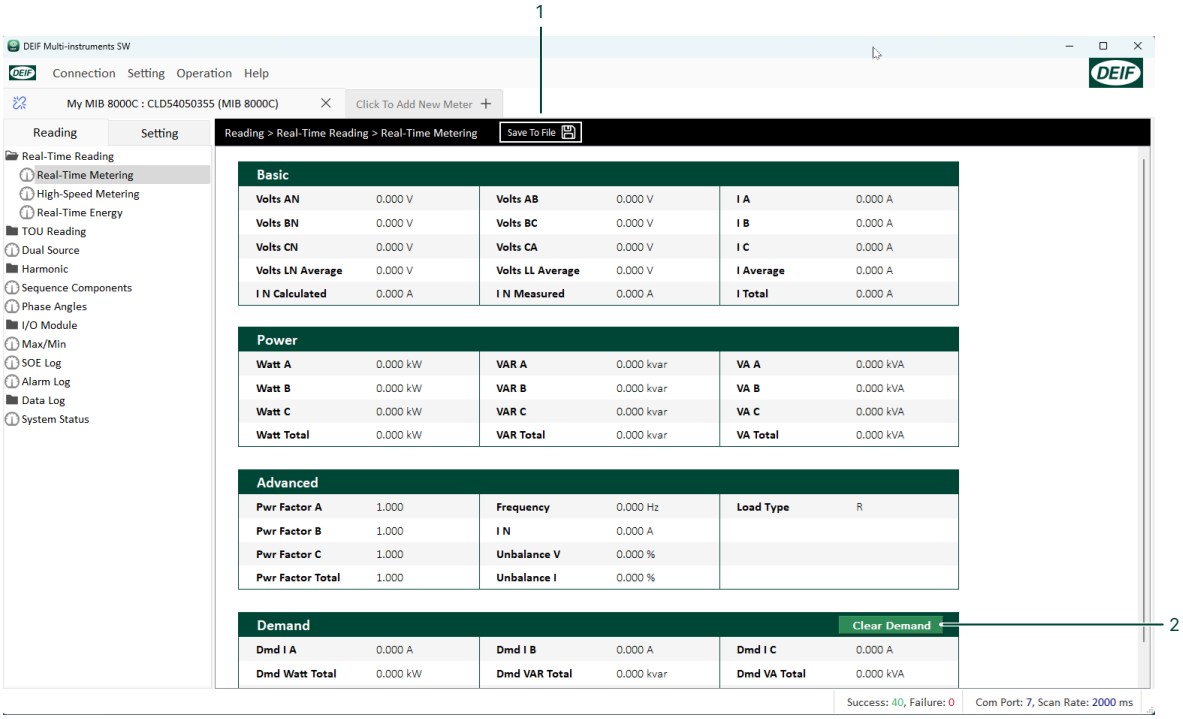
4.3.2 Real-time metering

Monitor basic, power, advanced and demand data in real time.

Demand calculation types and intervals are configured in the *Setting* side bar menu.

Types of demand and calculation methods

Demand type	Calculation
Fixed block	Based om selecting the *Window Interval* (calculation period), which has a range of 1 to 30 minutes. The meter will calculate and update the demand values at the end of each calculation period
Sliding block	Based om selecting the *Window Interval* (calculation period), which has a range of 1 to 30 minutes. The meter will average the energy accumulated during this calculation period. Demand value is updated every minute.
Thermal	Based on thermal response, used in thermal demand meters. This method uses a sliding window to update the demand value at the end of each *Window Interval.*
Rolling block	Based om selecting the *Window Interval* (calculation period), which has a range of 1 to 30 minutes, and the Calculation Interval (a sub interval). The demand value is updated at each sub interval. The *Calculation Interval* must be a factor of the *Window Interval* period. For example, a *Window Interval* of 15 minutes can have a *Calculation Interval* of 5 minutes.



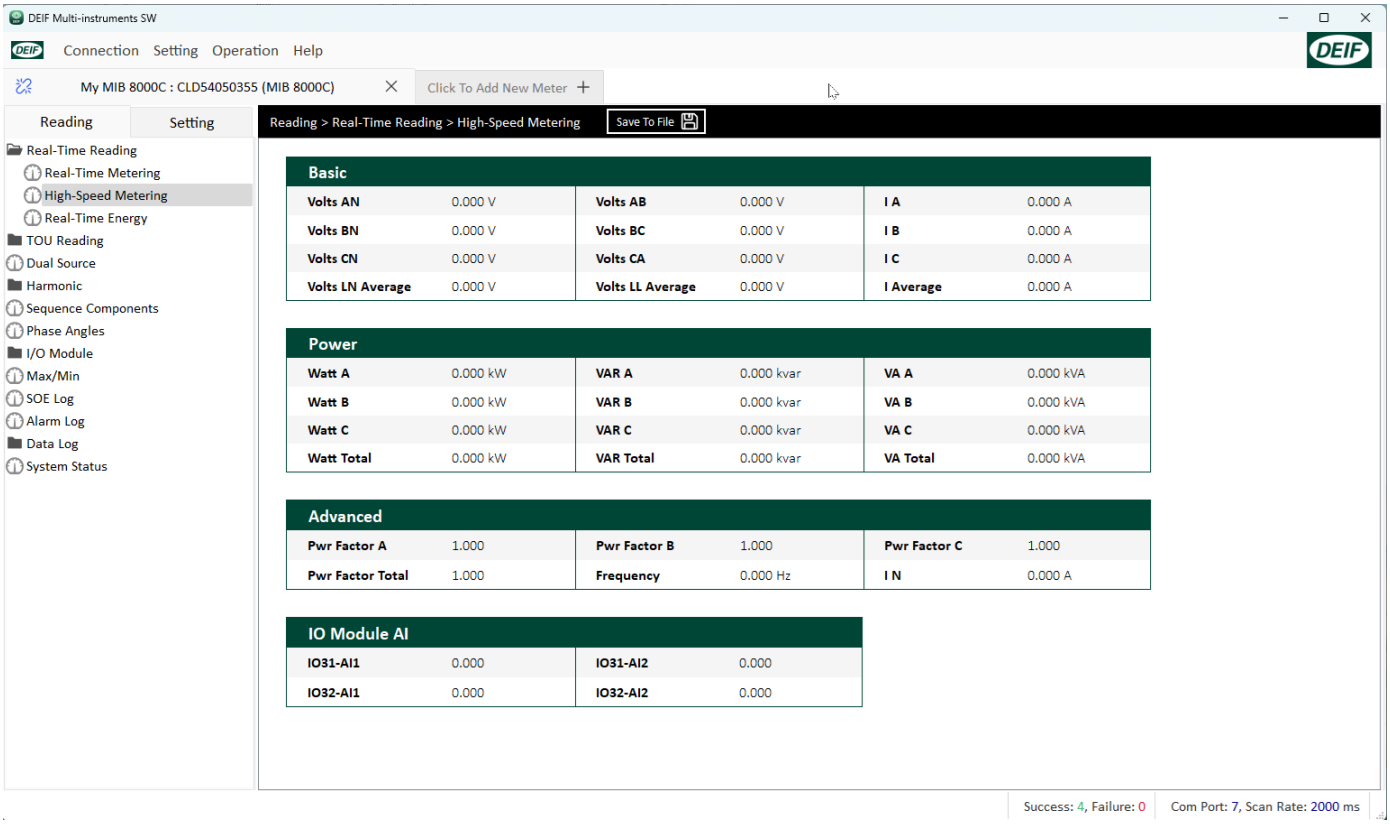
Number	Item	Notes
1	Save To File	Save data as a .csv file.
2	Clear Demand	Clear demand values.

4.3.3 High-speed metering

Users can access the MIB 8000C high-speed readings for monitoring purposes.

Sampling rates	Parameters supported
50 ms	Voltage, current total active/reactive power, frequency
100 ms	Most real-time parameters

Click on the *Save to File* button to save data as a .csv file.



4.3.4 Time of use

Assign different time of use tariffs to specific period of time within a 24-hour period according to your billing requirements.

MIB 8000C will calculate and accumulate energy for the tariffs according to its internal clock and TOU settings.

You can do this for the current month and the prior month.

Accumulated

Parameter	Sharp	Peak	Valley	Normal	Total
Ep_Imp	0.0 kWh	0.0 kWh	0.0 kWh	0.0 kWh	0.0 kWh
Ep_Exp	0.0 kWh	0.0 kWh	0.0 kWh	0.0 kWh	0.0 kWh
Eq_Imp	0.0 kvarh	0.0 kvarh	0.0 kvarh	0.0 kvarh	0.0 kvarh
Eq_Exp	0.0 kvarh	0.0 kvarh	0.0 kvarh	0.0 kvarh	0.0 kvarh
Es	0.0 kVAh	0.0 kVAh	0.0 kVAh	0.0 kVAh	0.0 kVAh

Incremental

Parameter	Sharp	Peak	Valley	Normal	Total
Ep_Imp	0.0 kWh	0.0 kWh	0.0 kWh	0.0 kWh	0.0 kWh
Ep_Exp	0.0 kWh	0.0 kWh	0.0 kWh	0.0 kWh	0.0 kWh
Eq_Imp	0.0 kvarh	0.0 kvarh	0.0 kvarh	0.0 kvarh	0.0 kvarh
Eq_Exp	0.0 kvarh	0.0 kvarh	0.0 kvarh	0.0 kvarh	0.0 kvarh
Es	0.0 kVAh	0.0 kVAh	0.0 kVAh	0.0 kVAh	0.0 kVAh

Maximum Demand

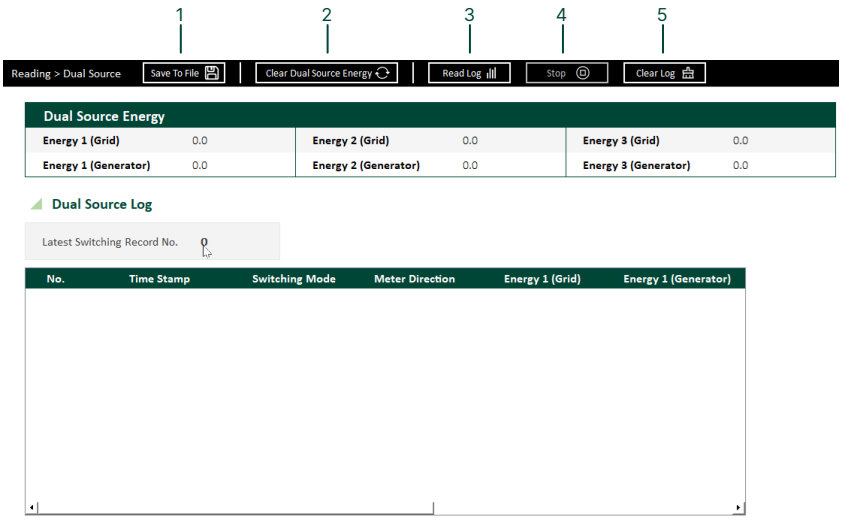
Parameter	Sharp	Peak	Valley	Normal	Total
Watt (Imp)	0.000 kW 2000-01-00 17:44:58	0.000 kW 2000-01-00 17:44:58	0.000 kW 2000-01-00 17:44:58	0.000 kW 2000-01-00 17:44:58	0.000 kW 2000-01-00 17:44:58
Watt (Exp)	0.000 kW 2000-01-00 17:44:58	0.000 kW 2000-01-00 17:44:58	0.000 kW 2000-01-00 17:44:58	0.000 kW 2000-01-00 17:44:58	0.000 kW 2000-01-00 17:44:58
VAR (Imp)	0.000 kvar 2000-01-00 17:44:58	0.000 kvar 2000-01-00 17:44:58	0.000 kvar 2000-01-00 17:44:58	0.000 kvar 2000-01-00 17:44:58	0.000 kvar 2000-01-00 17:44:58
VAR (Exp)	0.000 kvar 2000-01-00 17:44:58	0.000 kvar 2000-01-00 17:44:58	0.000 kvar 2000-01-00 17:44:58	0.000 kvar 2000-01-00 17:44:58	0.000 kvar 2000-01-00 17:44:58
VA	0.000 kVA 2000-01-00 17:44:58	0.000 kVA 2000-01-00 17:44:58	0.000 kVA 2000-01-00 17:44:58	0.000 kVA 2000-01-00 17:44:58	0.000 kVA 2000-01-00 17:44:58
I A	0.000 A 2000-01-00 17:44:58	0.000 A 2000-01-00 17:44:58	0.000 A 2000-01-00 17:44:58	0.000 A 2000-01-00 17:44:58	0.000 A 2000-01-00 17:44:58
I B	0.000 A 2000-01-00 17:44:58	0.000 A 2000-01-00 17:44:58	0.000 A 2000-01-00 17:44:58	0.000 A 2000-01-00 17:44:58	0.000 A 2000-01-00 17:44:58
I C	0.000 A 2000-01-00 17:44:58	0.000 A 2000-01-00 17:44:58	0.000 A 2000-01-00 17:44:58	0.000 A 2000-01-00 17:44:58	0.000 A 2000-01-00 17:44:58

Clear Sharp | Clear Peak | Clear Valley | Clear Normal | Clear Total

Button	Notes
Clear Sharp	Clear sharp tariff values.
Clear Peak	Clear peak tariff values.
Clear Valley	Clear valley tariff values.
Clear Normal	Clear normal tariff values.
Clear Total	Clear total values.

4.3.5 Dual source

Shows dual source energy readings and a dual source log.



Number	Item	Notes
1	Save to file	Save data as a .csv file.
2	Clear dual source energy	Reset the energy readings.
3	Read log	Show the log record.
4	Stop	Stop logging.
5	Clear log	Clear the log.

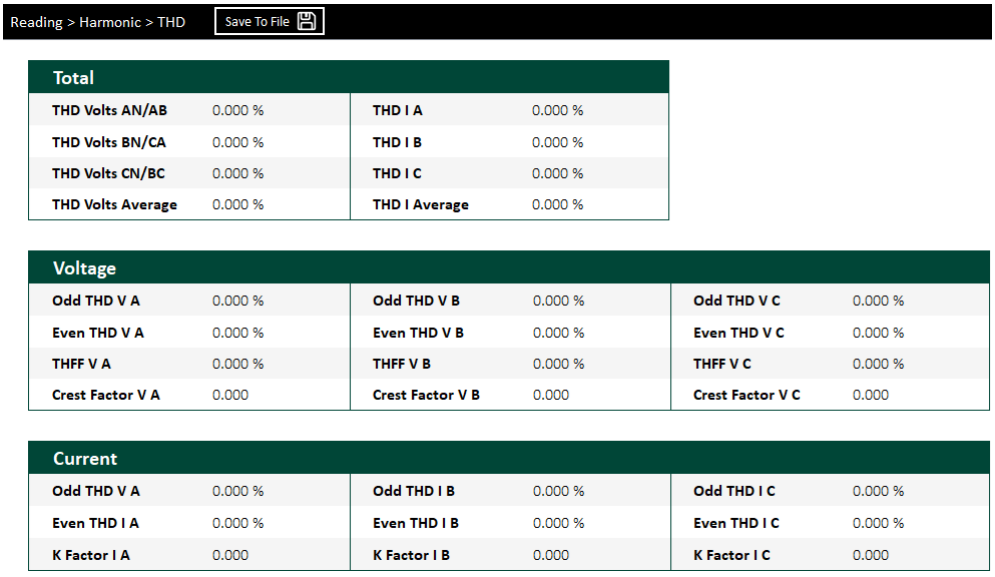
4.3.6 Harmonic

There are five pages available: *THD*, *Voltage Spectrum*, *Voltage Amplitude/Angle*, *Current Spectrum* and *Current Amplitude/Angle*.

4.3.7 THD

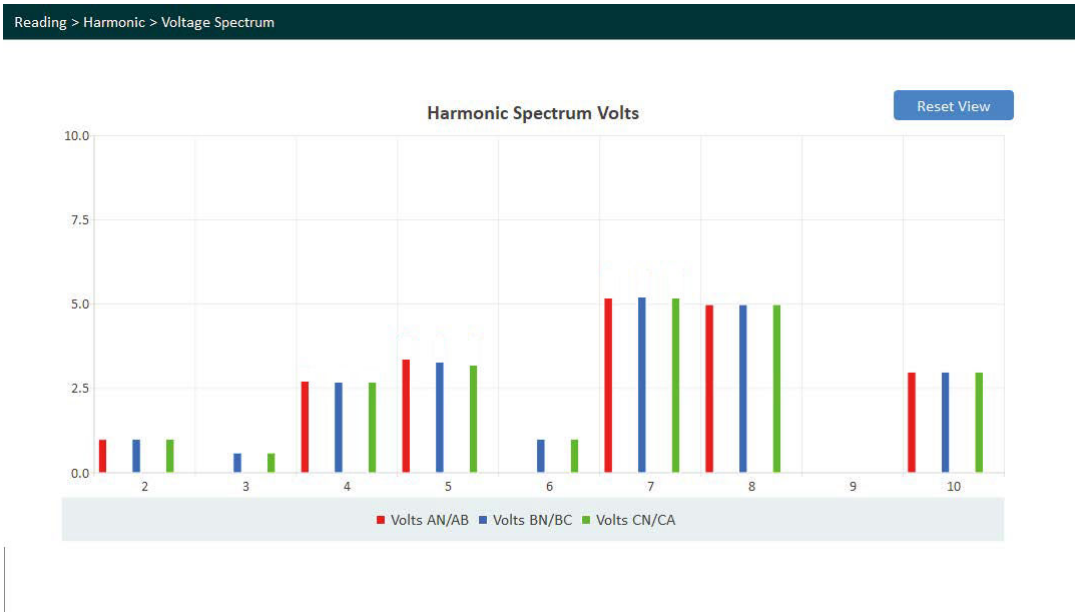
Shows the total harmonic power reading.

Click the *Save To File* button to save data as a .csv file.



4.3.8 Harmonic voltage spectrum

Harmonic spectrum volts displayed as graph.

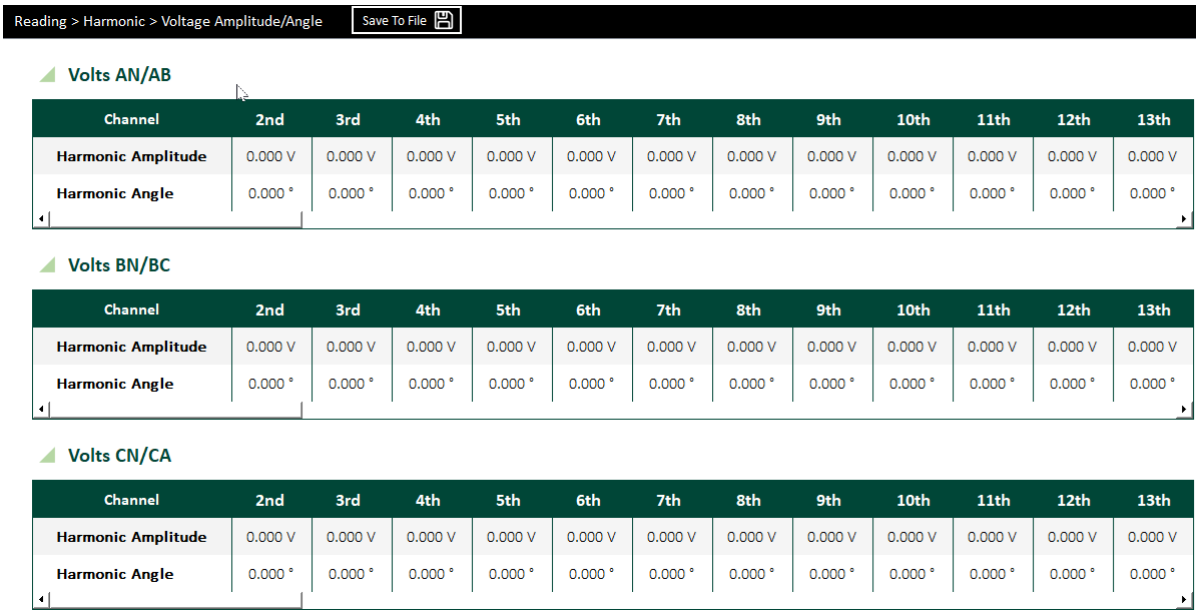


Click on the *Reset View* button to reset the graph view.

4.3.9 Voltage amplitude and angle

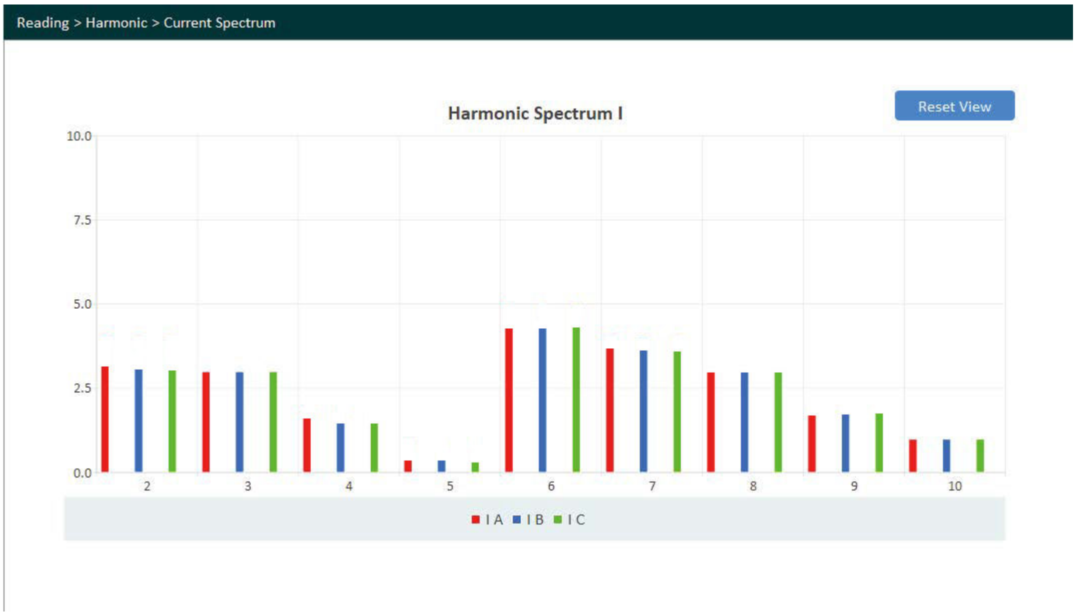
Harmonics and their values.

Click on the *Save to File* button to save data as a .csv file.



4.3.10 Current spectrum

Harmonic spectrum amps displayed as graph.

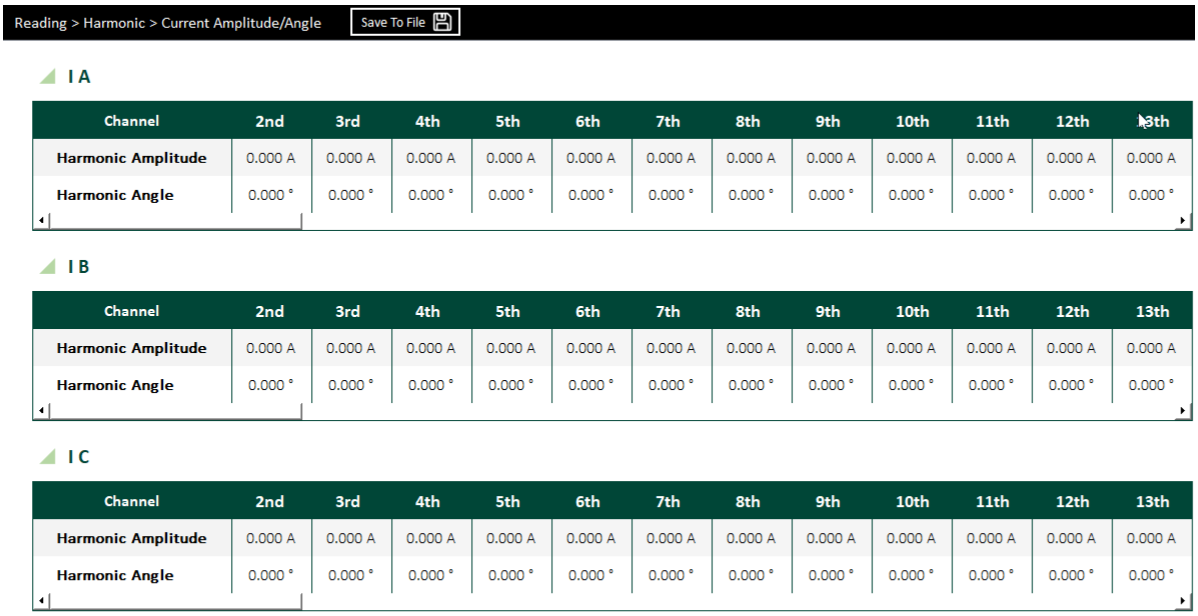


Click on the *Reset View* button to reset the graph view.

4.3.11 Current amplitude and angle

Harmonics and their values.

Click on the *Save to File* button to save data as a .csv file.



I A

Channel	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th
Harmonic Amplitude	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A
Harmonic Angle	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °

I B

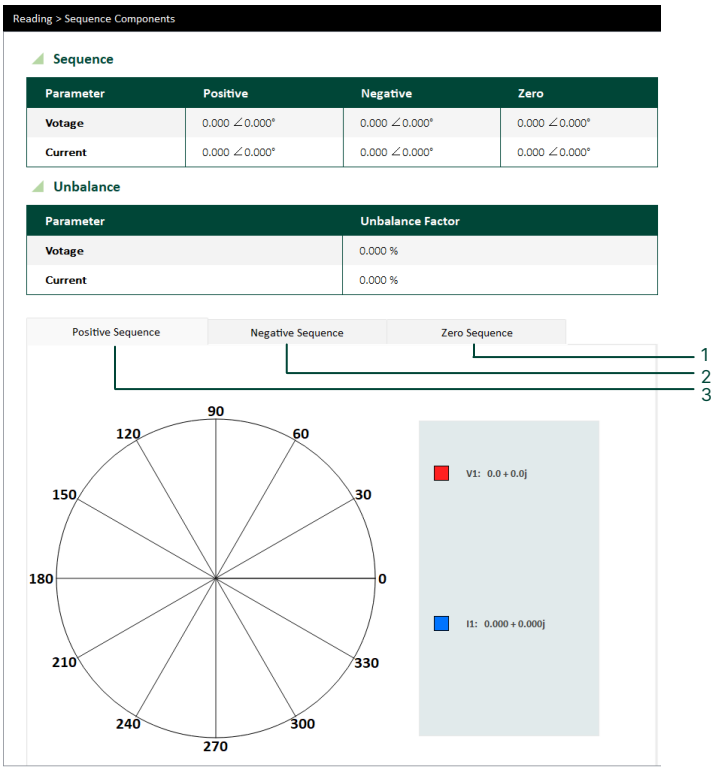
Channel	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th
Harmonic Amplitude	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A
Harmonic Angle	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °

I C

Channel	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th
Harmonic Amplitude	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A
Harmonic Angle	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °	0.000 °

4.3.12 Sequence components

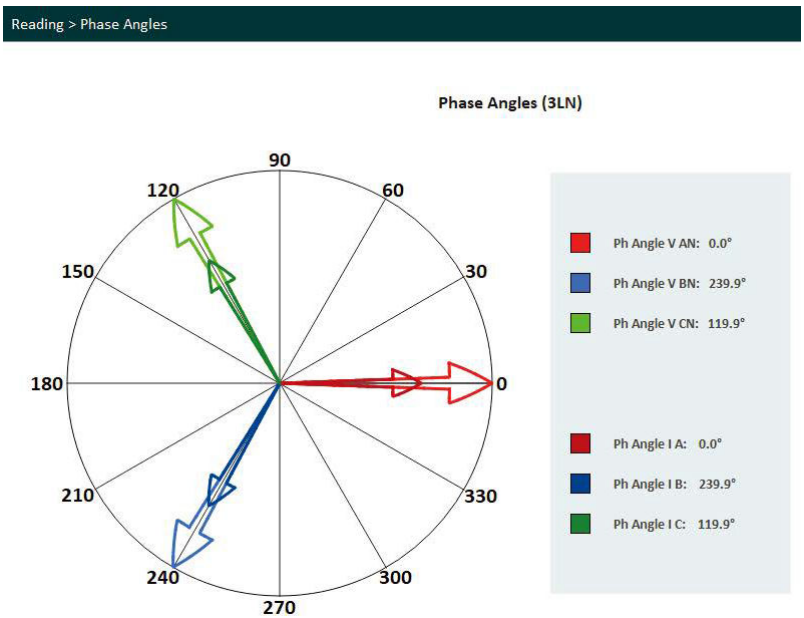
Represent the three-phase system as three single-phase networks: positive sequence, negative sequence, and zero sequence.



Number	Notes
1	Click for positive sequence diagram and readings.
2	Click for negative sequence diagram and readings.
3	Click for zero sequence diagram and readings.

4.3.13 Phase angles

Shows the phase angle readings.



NOTE Image is for a three-phase four-wire system where the three phase voltages are 120 degrees apart.

4.3.14 I/O module

There are two I/O pages: *I/O Module 1 Reading* and *I/O Module 2 Reading*.

Only the *I/O Module 1 Reading* page is relevant to MIB 8000C.

4.3.15 I/O Module 1 Reading

I/O module data display page.

There are three variants of the I/O extension module. The page shows all three possible variants. However, only one extension module may be physically attached to the MIB 8000C.

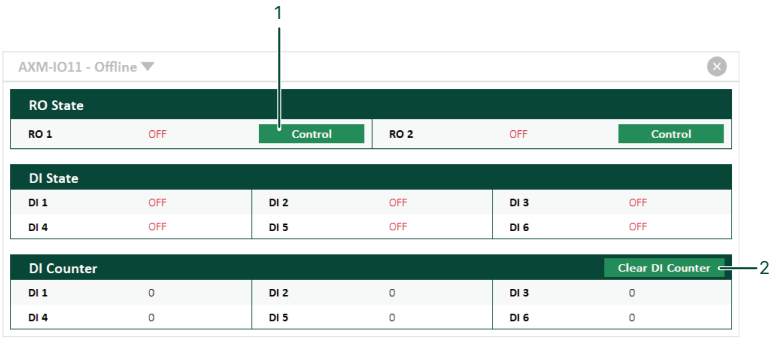
Unattached modules are shown as offline on the page.

Depending on the module that is attached, users can toggle relays, read the status of digital inputs, and read and reset counters.*

Click on the *Save to File* button to save as a .csv file.

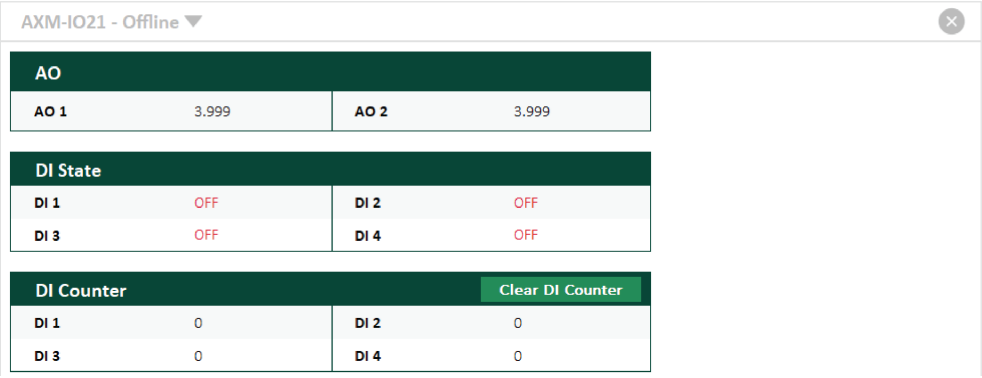
To configure the settings of an attached module, use the Setting side bar menu.

AXM-IO1, 6 digital inputs, 2 relay outputs

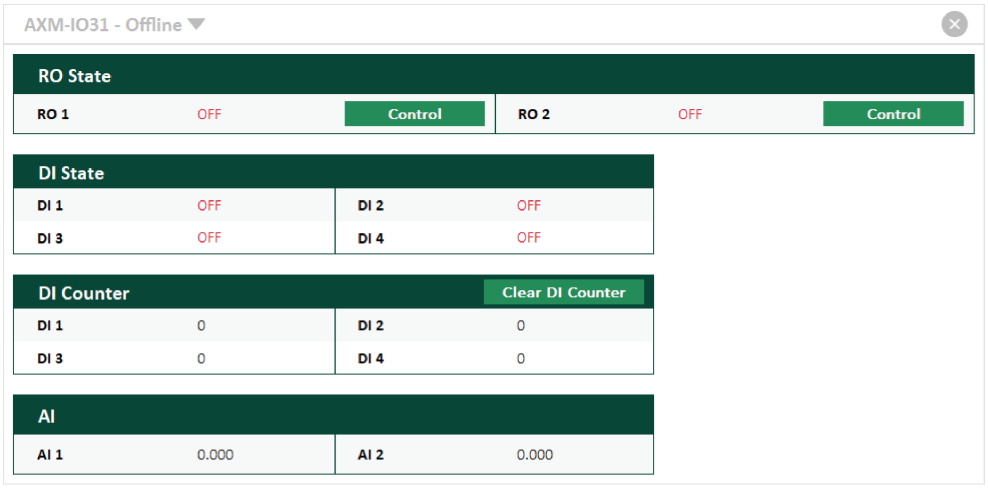


Button	Item	Notes
1	Control	Toggle relay state.
2	Clear DI Counter	Reset DI counter.

AXM-IO2, 4 digital inputs and two relay outputs

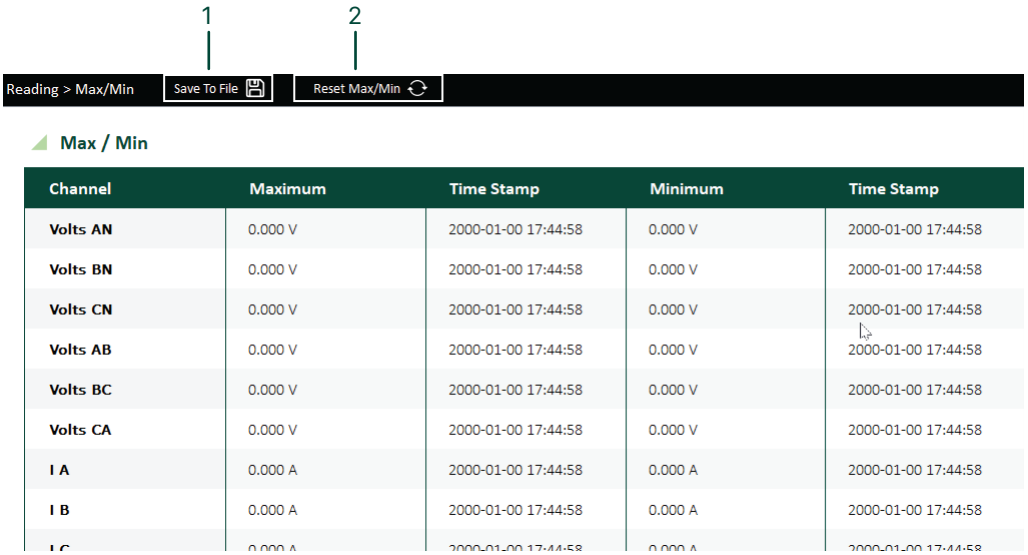


AXM-IO3, 4 digital inputs, 2 relay outputs, 2 analogue inputs



4.3.16 Max/Min

This is the maximum and minimum statistics page for real time, demand and TDH parameters, all with a time stamp.



Number	Item	Notes
1	Save To File	Save data as a .csv file.
2	Reset Max/Min	Clear statistics data.

4.3.17 SOE

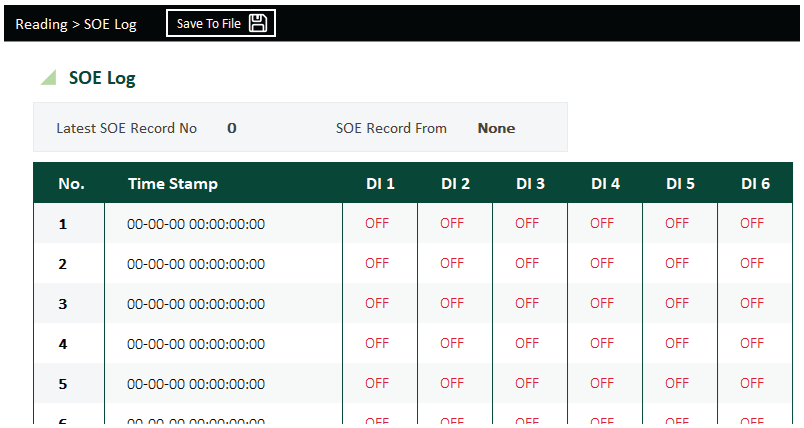
The sequence of events log page.

The MIB 8000C records events as soon as it has powered up and this data is saved in non-volatile memory. This means the SOE record is not lost if there is a power outage or shutdown of the unit.

The log records up 20 events. If more than 20 events have been recorded, the record with the oldest time stamp will be overwritten

MIB 8000C will only record SOEs when the digital input channel is configured to Status mode. If the digital input channel is set to Pulse mode, the SOE log will not be updated.

Click on the *Save to File* button to save as a .csv file.



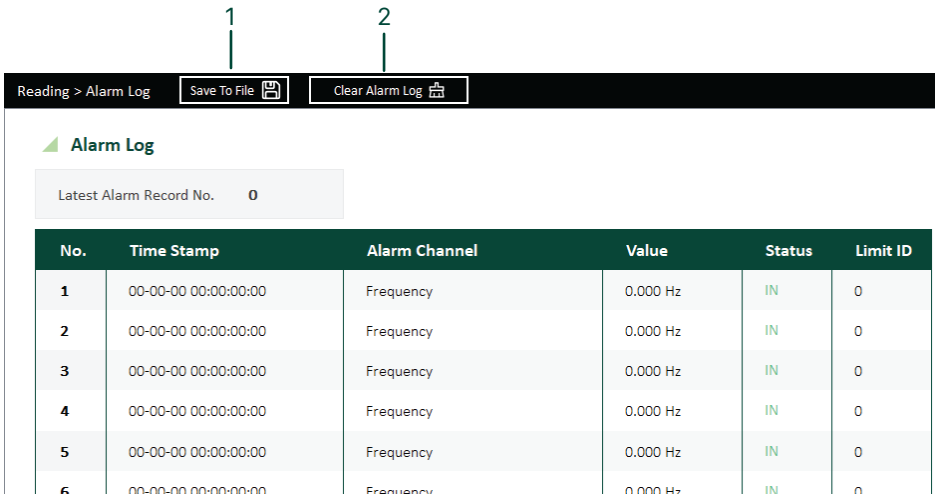
4.3.18 Alarm log

The alarm log page.

MIB 8000C records up to 16 alarms. Alarm log records are stored in a cyclic manner, which means the alarm with the latest time stamp is overwritten over the alarm with the oldest time stamp.

When a parameter that was above/below its normal range, returns to its normal range, the alarm log records this value with a time stamp. This means the user can determine for how long a time the parameter was not within its normal range.

The No. sequence in the record does not indicate the order of the alarm events. For example, No. 4 could be the latest alarm record.



Number	Item	Notes
1	Save To File	Save data as a .csv file.
2	Clear Alarm Log	Clear the record.

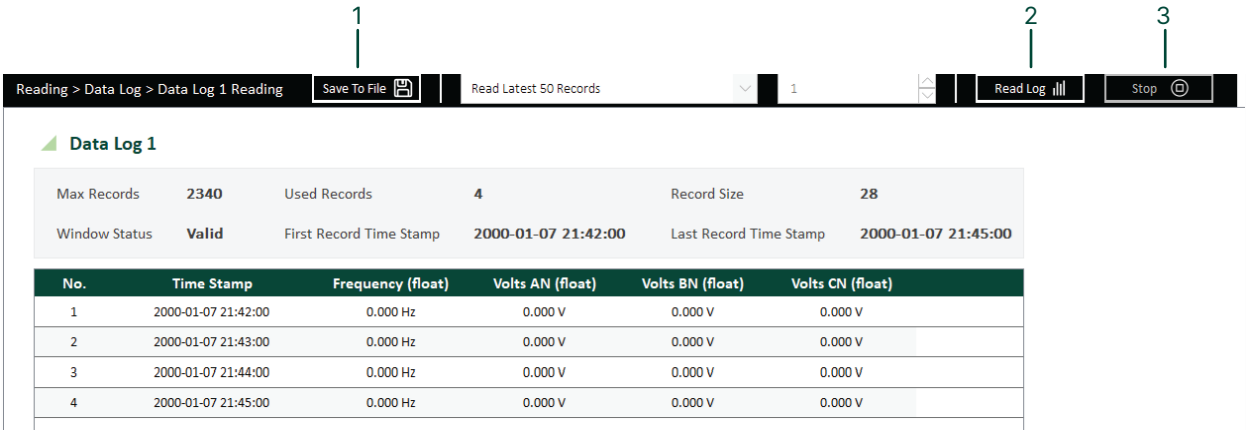
4.3.19 Data log

There are four pages available: *Data Log 1 Reading*, *Data Log 2 Reading*, *Data Log 3 Reading* and *Data Log 4 Reading*.

Each data log can be individually configured with individual settings. See Data log settings.

4.3.20 Data Log 1 Reading

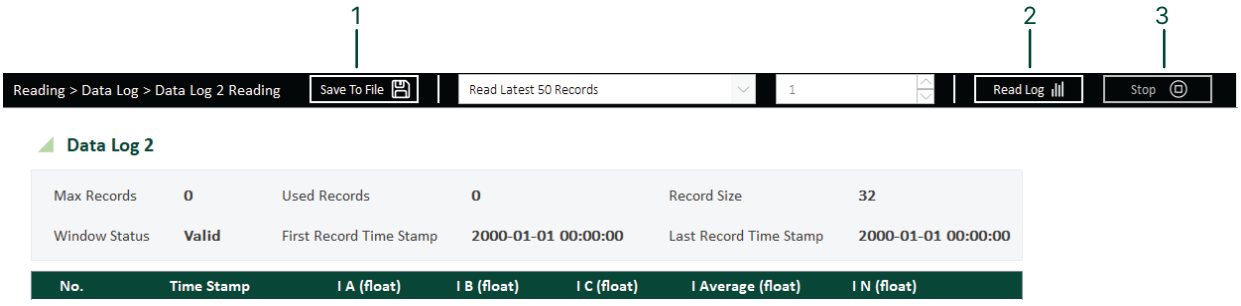
Data retrieval page.



Number	Item	Notes
1	Save To File	Save data as a .csv file.
2	Read Log	Start populating page with data.
3	Stop	Stop retrieving data.

4.3.21 Data Log 2 Reading

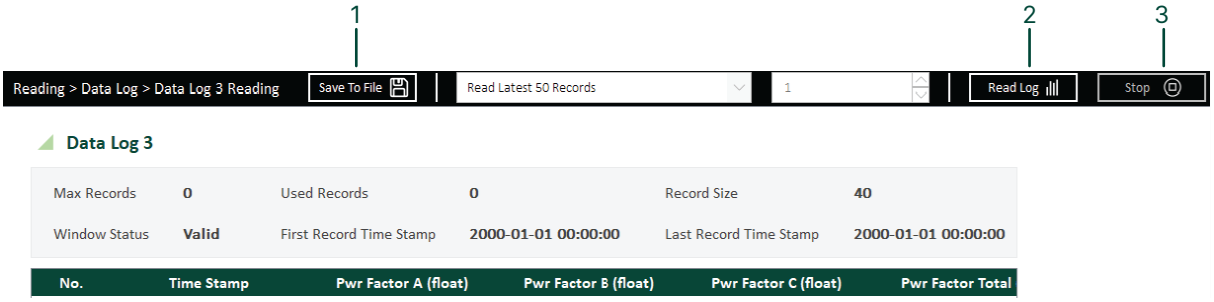
Data retrieval page.



Number	Item	Notes
1	Save To File	Save data as a .csv file.
2	Read Log	Start populating page with data.
3	Stop	Stop retrieving data.

4.3.22 Data Log 3 Reading

Data retrieval page.

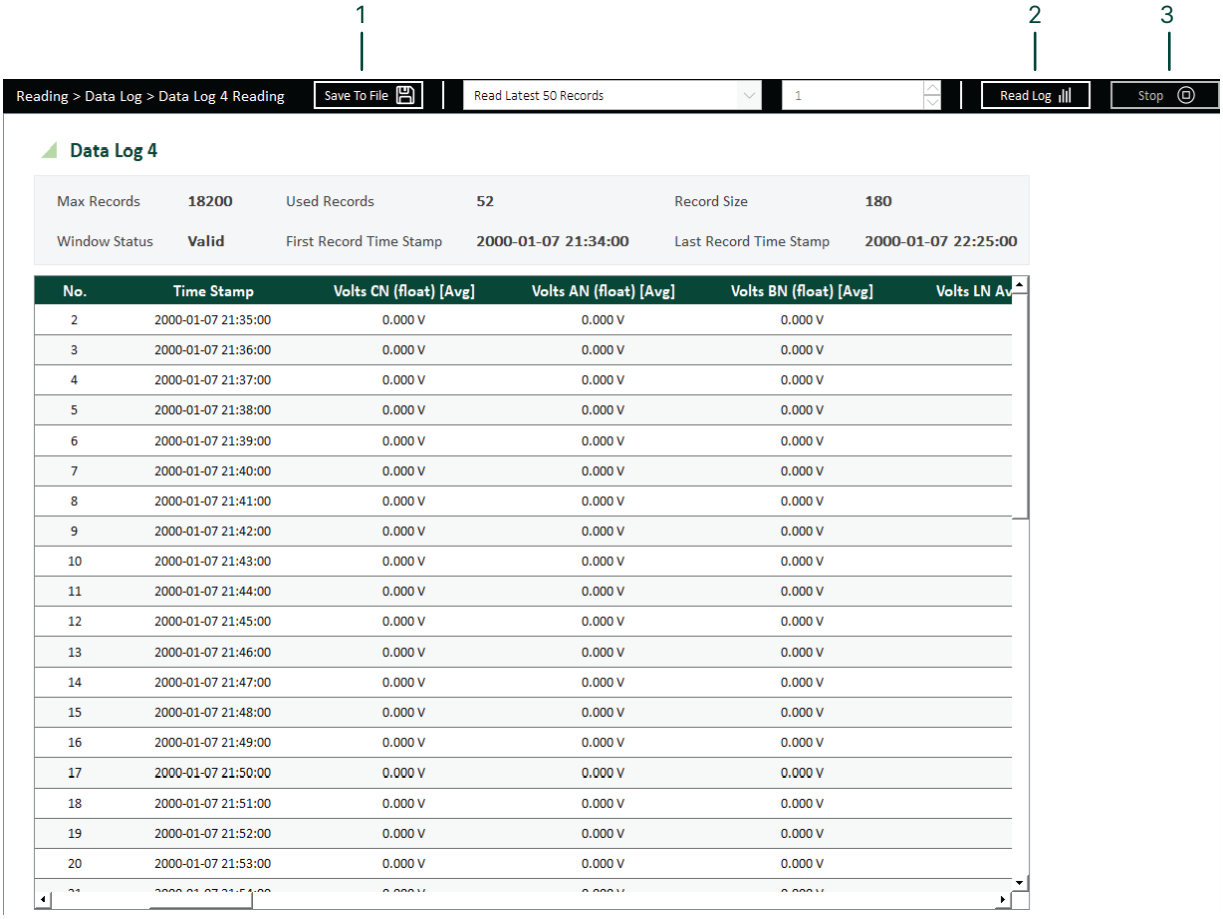


Number	Item	Notes
1	Save To File	Save data as a .csv file
2	Read Log	Start populating page with data.
3	Stop	Stop retrieving data.

4.3.23 Data Log 4 Reading

Data retrieval page.

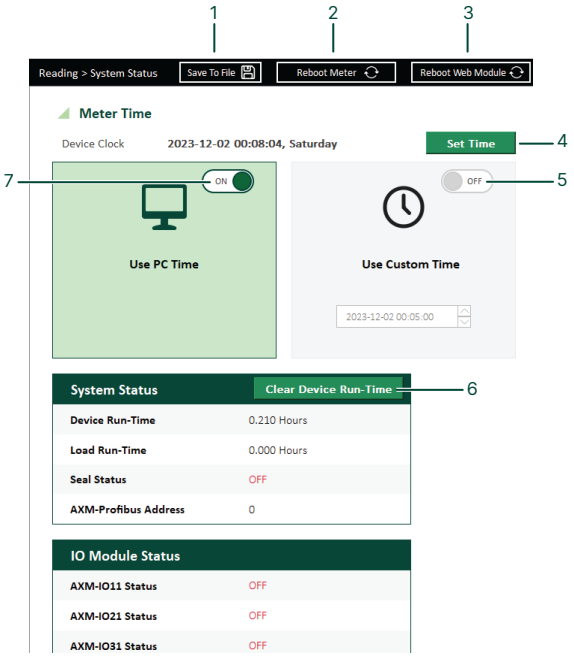
Data Log 4 is a dedicated trend log, recording maximum, minimum and average values of the parameters.



Number	Item	Notes
1	Save To File	Save data as a .csv file
2	Read Log	Start populating page with data.
3	Stop	Stop retrieving data.

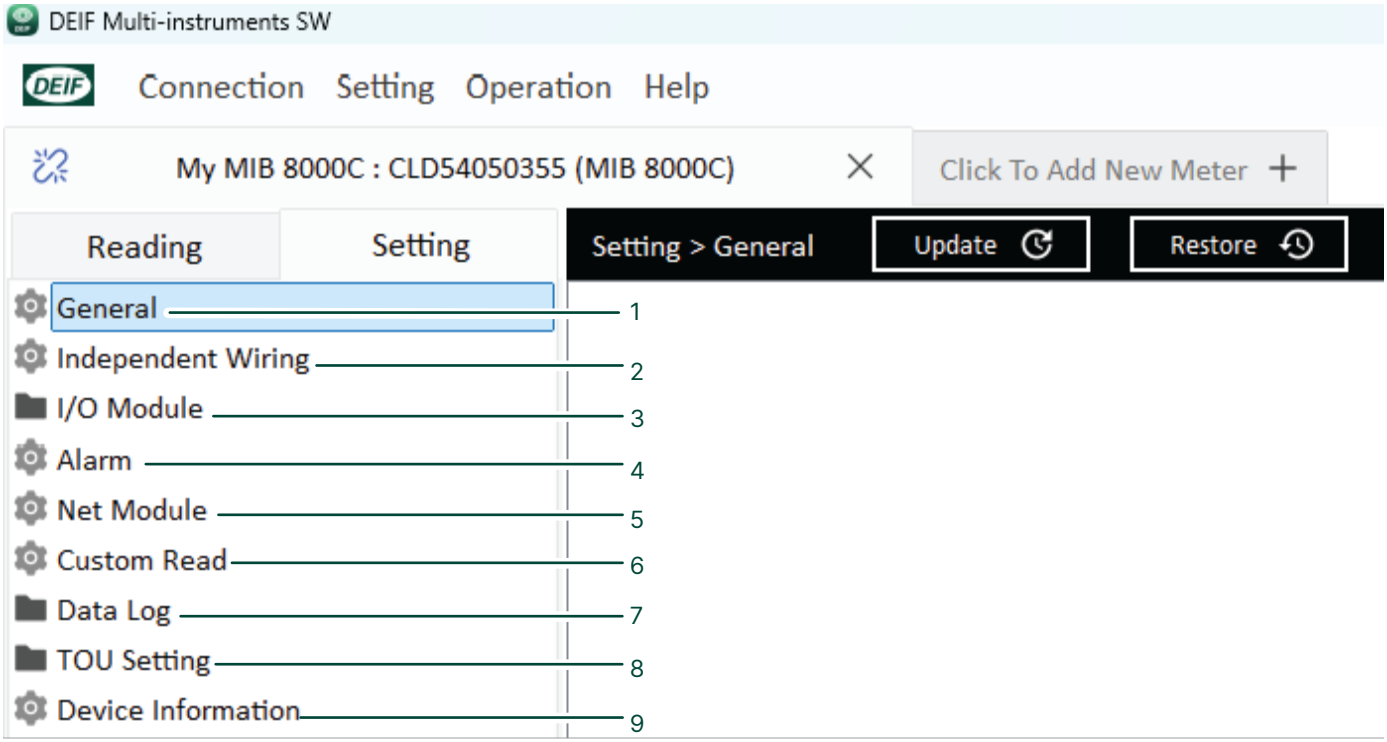
4.3.24 System status

Configure the MIB 8000C date and time setting and run time, and view system and module status.



Number	Item	Notes
1	Save to File	Save data as a .csv file
2	Reboot Meter	Force a reboot of the device. A forced reboot will close the software connection to the MIB 8000C. To re-establish connection with the device: • Click on *Click To Add Meter* • Tick the *Select* box of your meter profile. • Click on the *Connect* button to connect the software.
3	Reboot Web module	Force a reboot of the Web module (if installed). Not applicable to MIB 8000 C.
4	Set Time	Write time to device.
5	Use Custom Time ON	Toggle OFF to ON to manually set device date and time. Format: YYYY-MM-DD HH:MM:SS Automatically switches off the Use PC Time function.
6	Clear Device Run-Time	Reset the run-time of the device.
7	Use PC Time ON	Toggle OFF to ON to enable the device clock to match your PC clock. Automatically switches off the Use Custom Time function.

4.4 Setting menu



Number	Item	Notes
1	Configurable general settings	Double-click to configure: Communication, Wiring, PT and CT ratios, I N Value, I Direction, Real-Time Reading, Demand, Other, DO Energy Pulse Const, Energy Type, Energy Reading, VAR/PF Convention, VAR Calculation Method, SOE Enabled, Load, Non-Standard Options, Security, Dual Source Energy, I Phase Selection, Frequency Average Filter, Advanced Pulse Constant, Modbus Gateway and Phase Order.
2	Independent Wiring	Configure: Independent Wiring Mode, CT Setting, Voltage Channel ID, Summation Channel 1 Config and Summation Channel 2 Config.
3	I/O Module	Double-click to configure: I/O Module 1 and I/O Module 2.
4	Alarm	Configure up to 16 alarm channels.
5	Net Module	Configure interface settings of Net Module.
6	Custom Read	Customised logging.
7	Data Log	Double-click to configure: Data Log 1, Data Log 2, Data Log 3 and Data Log 4.
8	TOU Setting	Double-click to configure: Daylight Saving Time. TOU. Ten Years Holiday.
9	Device Information	Device and I/O information only.

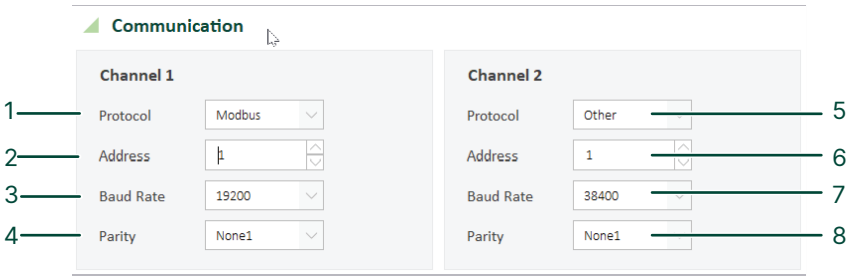
4.4.1 General

The general page allows the user to configure many features, values and settings.

Communication

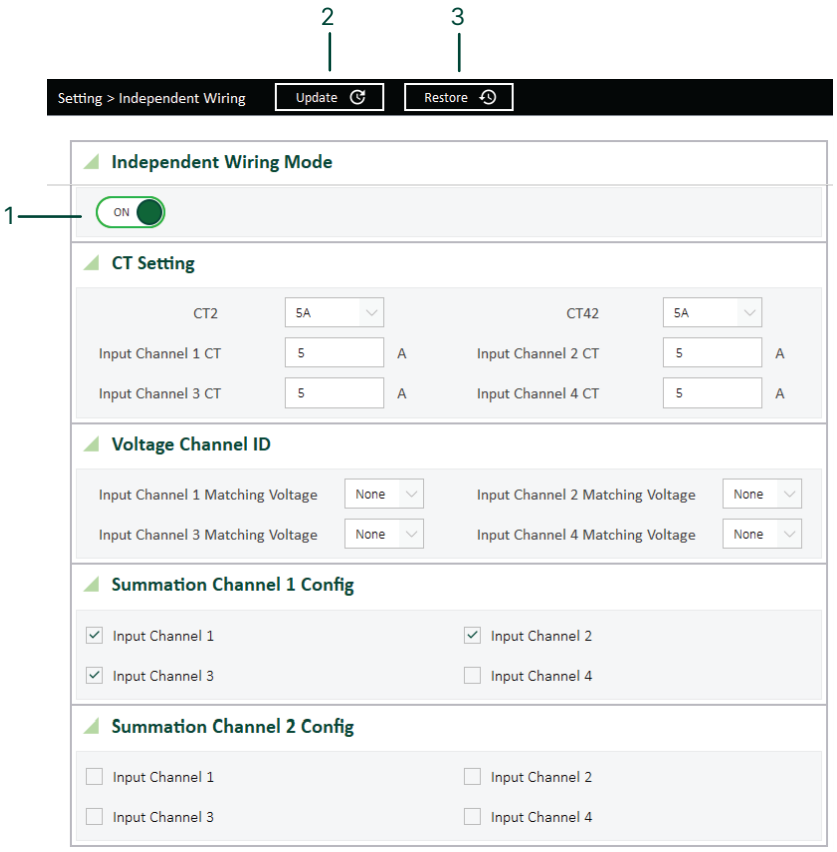
Configure channel 1 for MIB 8000C or MIC-2 MKII.

Configure channel 2 only for MC-2 MKII with installed optional Ethernet module.



Number	Item	Range	Default	Notes
1	Protocol	Modbus, BACNet	Modbus	BACNet is the building automation and control networks protocol.
2	Address	1 to 247	1	The server (slave) ID.
3	Baud Rate	2400 to 115200	19200	Communication speed.
4	Parity	Even Odd, None1, None2	None1	None1 = no parity and 1 stop bit None2 = no parity and 2 stop bits. Even = even parity. Odd = odd parity.
5	Protocol	Other, Web2, Profibus	Other	The Other protocol is typically used with communication modules. The WEB2 protocol has a fixed baud rate of 115200. It is used with communication modules. Profibus is used for high-speed, time-critical fieldbus networks. The default baud rate is 384000.
6	Address	1 to 247	1	The server (slave) ID.
7	Baud rate	4800 to 115200	38400	Communication speed.
8	Parity	Even, Odd, None1, None2		None1 = no parity and 1 stop bit. None2 = no parity and 2 stop bits. Even = even parity. Odd = odd parity.

4.4.2 Independent wiring



Number	Item	Notes
1	Enable independent wiring mode toggle button.	Enables independent channel configuration. **NOTE** Several conditions must be met and set before users can configure these channel settings.
2	Update	Write new values to device.
3	Restore	Restore last saved configuration settings.

4.4.3 I/O module

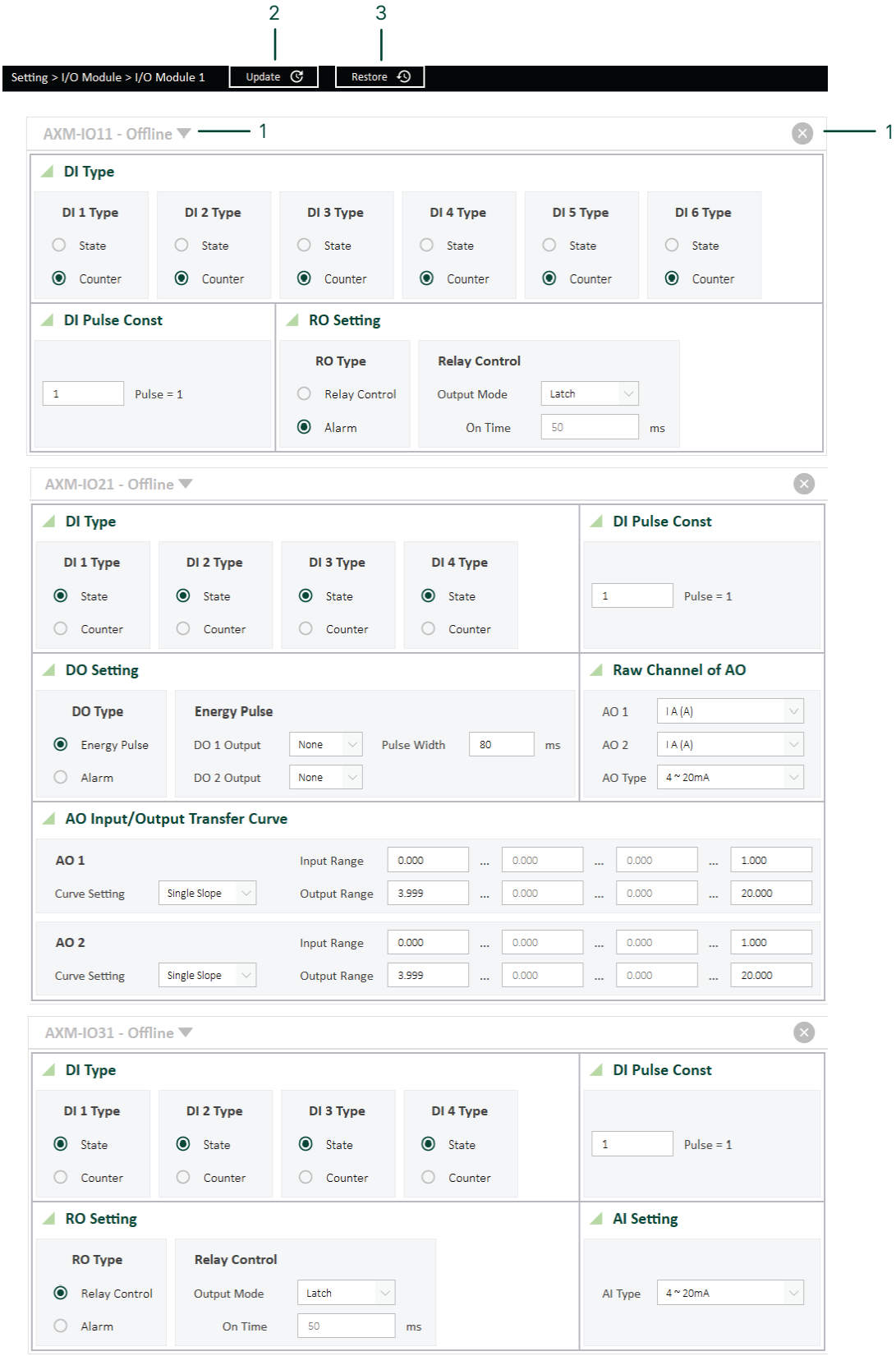
I/O Module 1 page

Configure the installed extension module on this page.

The page shows the configuration settings for all three types of extension modules that can be fitted to the multi-instrument.

The MIB 8000C can only be fitted with one extension module.

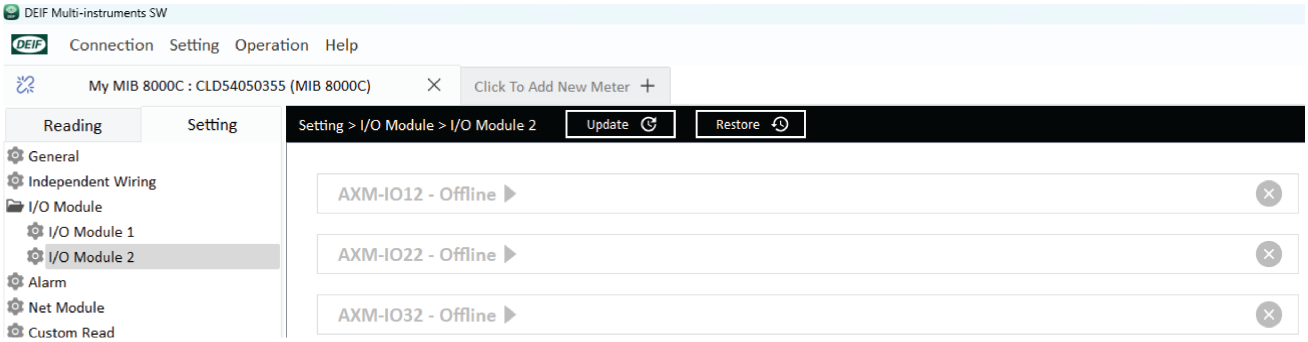
The MIC-2 MKII can be fitted with two extension modules.



Number	Item	Notes
1	Hide/show	Hide or show configuration settings.
2	Update	Write new values to device.
3	Restore	Restore last saved configuration settings.

I/O Module 2 page

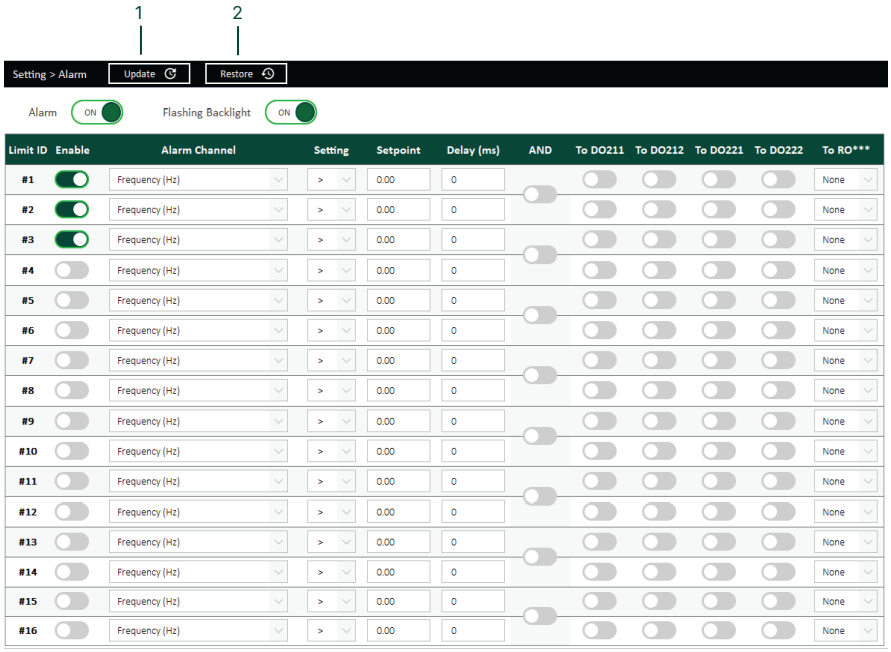
This page only applies to the MIC-2 MKII with two installed I/O modules.



NOTE When a module is fitted (*Online*) the utility software will also show two buttons, allowing you to change a module from Module 1 to Module 2.

4.4.4 Alarm

Configure alarms on this page. A maximum of 16 alarms can be configured.

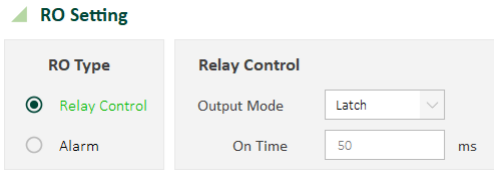


Setting enabled	Setting not enabled	Notes
		Click to toggle.

Number	Item	Notes
1	Update	Write new values to device.
2	Restore	Restore last saved configuration settings.

Relay output

Alarm configuration also depends on the relay configuration in the I/O Module page.



RO Setting	Notes
Alarm	The relay will switch ON or OFF based on the set alarm condition. Some alarms can be set to trigger the relay when their value is over or under a certain condition.
Latch	The relay activation state will remain unchanged until the linked alarm status switches from ON to OFF.
Manual	The alarm will be switched to ON and will only change status if the user changes its status from ON to OFF.

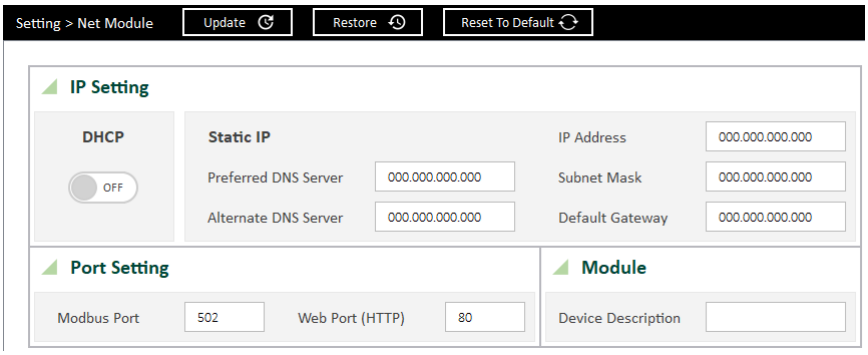
Read the status of the relay output in the I/O Reading Module 1 page.

4.4.5 Net module

Configure the Ethernet module net interface settings on this page.

This page applies only to the MIC-2 MKII multi-meter with installed optional Ethernet module.

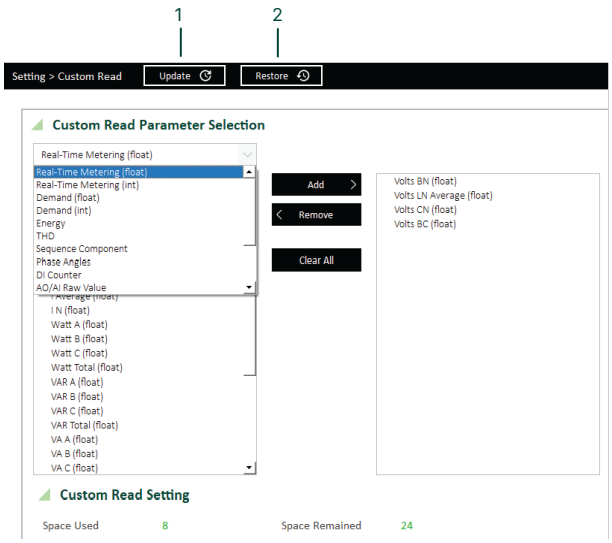
For settings, refer to Option TCP-IP Ethernet module.



See also General settings.

4.4.6 Custom read

Configure a customised log on this page.



Number	Item	Notes
1	Update	Write new values to device.
2	Restore	Restore last saved configuration settings.

4.4.7 Data log

The MIB 8000C has four data logs which can be configured:

- Data Log 1
- Data Log 2
- Data Log 3
- Data Log 4

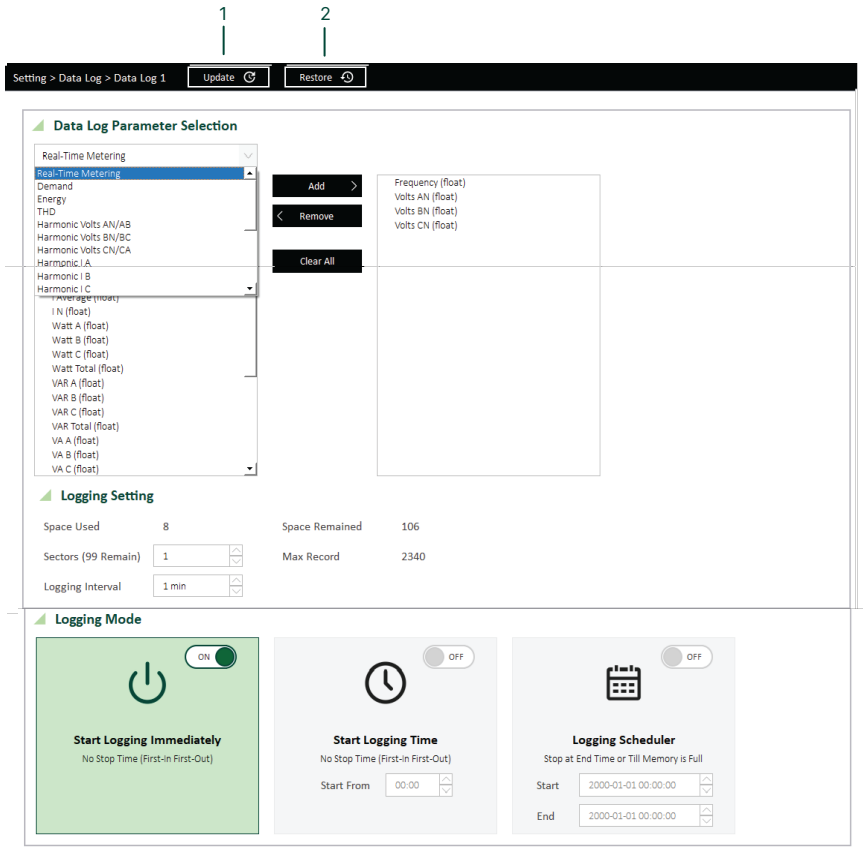
Data log	Maximum number of parameters included in log	Notes
1	114	Configurable.
2	114	Configurable.
3	114	Configurable.
4	38	Configurable. Data log 4 is used only as a trending log and records the maximum, minimum and average values of parameters. Updating Data Log 4 does not affect Data Log 1, 2, and 3.

NOTICE

Updating a log with a new configuration

When the update is executed, all three data logs Data Log 1, Data Log 2 and Data Log 3 will be updated. Download and save all logs before changing the configuration.

Data log 1



Number	Item	Notes
1	Update	Update log settings.
2	Restore	Set to last updated log settings.

Data log 2, 3 and 4

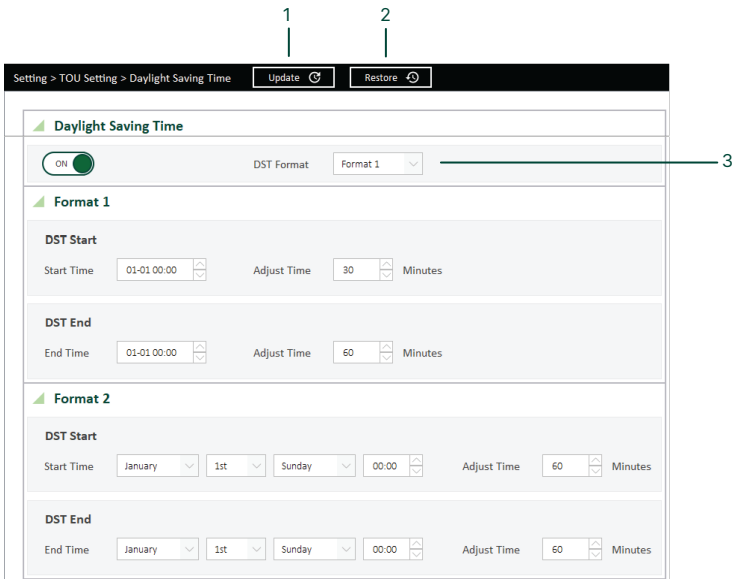
Page layout and configuration procedures are the same as *Data Log 1*.

4.4.8 TOU setting

There are three time-of-use configuration pages: *Daylight Saving Time*, *TOU* and *Ten Years Holiday*.

4.4.9 Daylight saving time

Configure daylight saving time (DST) on this page. The MIB 8000C will automatically adjust its clock according to the DST time setting. At the end of the DST period, the MIB 8000C will return its clock to standard time.



Number	Item	Notes
1	Update	Write new values to device.
2	Restore	Restore last saved configuration settings.
3	Time Format	Select *Format* 1 or *Format 2* for the update.

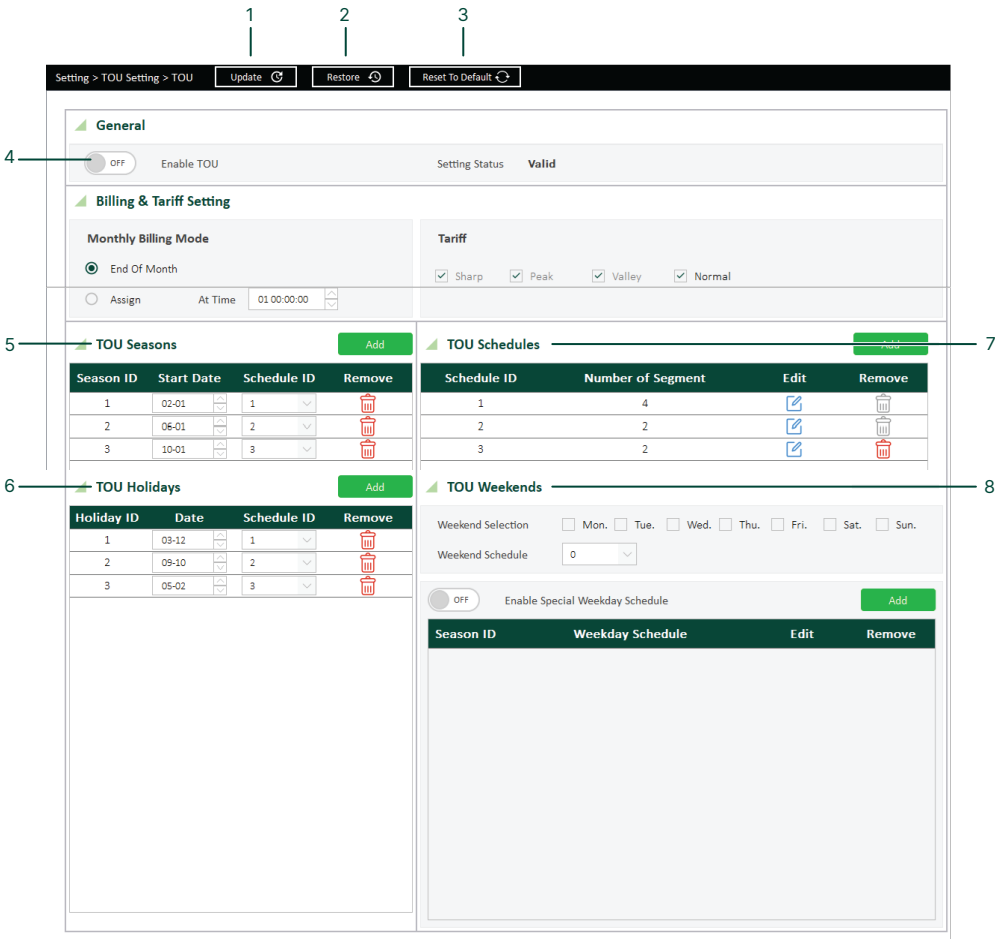
4.4.10 TOU

Many if not all utility companies charge their customers using time-of-use (TOU) rates. These are rates based on the time of day energy was consumed.

On this page you can assign up to four different tariffs to specified time periods within the day.

MIB 8000C will calculate and accumulate energy for each of the configured tariffs using its time and date and the TOU settings.

NOTE Scroll down the *TOU Setting* page to see and configure *TOU Holidays* and *TOU Weekends*



Number	Item	Notes
1	Update	Write new values to device.
2	Restore	Restore last saved configuration settings.
3	Reset to Default	Restore default settings.
4	Enable TOU	Toggle ON to enable the time-of-use function.
5	TOU Seasons	Divide the year into a maximum number of 12 seasons, each season is designated with a specific schedule that it operates to.
6	TOU Holidays	Configure up to a maximum of 30 holidays in the TOU calendar, each holiday can be assigned a specific schedule.
7	TOU Schedules	A schedule divides a 24-hour period into segments, each segment is assigned a specific tariff. There can be a maximum of 14 schedules. A schedule can be also be divided into time segments. A single schedule can cover a maximum of 14 time segments.
8	TOU Weekends	Designate specific day(s) of the week as weekends and which schedules apply to weekends.

Configuring TOU settings

Recommended procedure:

1. Set the number of desired tariffs in *TOU*.
2. Configure the schedule(s) in T*DU Schedules* and edit each schedule to define the segments that are included in the schedule.
3. Set the season in *TOU Seasons* and assign the season with the configured schedule.

4.4.12 Device information

Display of device and module information.

Click on the *Save to File* button to save as a .csv file.