

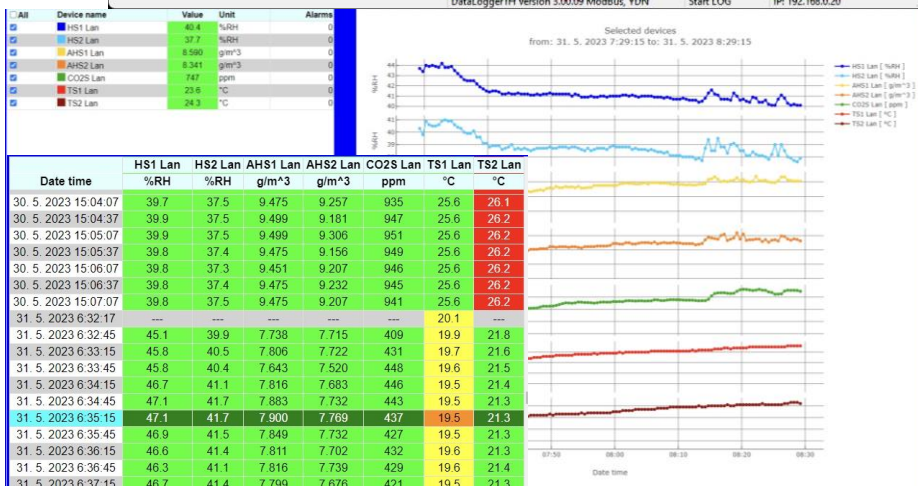
# DataLoggerTH

## Software Manual

Ver. 3.02.01

DataLoggerTH							
System Device Report Help							
Status	IP Address or COM Port	Slave ID	Device Name	Read Date - Time	Measured Value	Unit	Notes
OK	192.168.0.74	1	HS1 Lan	31. 5. 2023 8:36:54	31,2	%RH	Register: 10
OK	192.168.0.76	1	HS2 Lan	31. 5. 2023 8:36:54	38,3	%RH	Register: 10
OK	192.168.0.74	1	AHS1 Lan	31. 5. 2023 8:36:55	9,263	g/m³	Register: 160
OK	192.168.0.76	1	AHS2 Lan	31. 5. 2023 8:36:56	8,544	g/m³	Register: 160
OK	192.168.0.75	1	CO2S Lan	31. 5. 2023 8:36:56	726	ppm	Register: 150
OK	192.168.0.74	1	TS1 Lan	31. 5. 2023 8:36:57	29,6	°C	Register: 0
OK	192.168.0.76	1	TS2 Lan	31. 5. 2023 8:36:57	24,4	°C	Register: 0

DataLoggerTH Version 3.00.09 ModBus, YDN Start LOG IP: 192.168.0.20



## Introduction

DataLoggerTH is a PC Windows based software application, which is used for logging measured data from the monitoring systems of various physical quantities, e.g. temperature and humidity.

These systems can consist of one or more large size digital displays and sensor devices. Once displays and sensors are installed and connected to a serial line RS485 or LAN Ethernet network, data logging software can be used to record the measured values and show them on a remote PC. (Please note, the PC running the DataLoggerTH must be connected to the same network as the sensor devices and monitors.)

Besides data logging, upper and lower alarm limit values can be set. Exceeding these limits will cause that displayed values will become red (when exceeding the upper limit) or yellow (exceeding the lower limit). If the e-mail notification is set in the system configuration, the user will also be notified by e-mails every time a new alarm occurs. Query on selected devices is also possible to make a table of the recorded values for a specified time period. This table can then be exported into Excel file. The measured values stored over some period of time can be also presented graphically in the form of a built-in chart, or in the Internet browser using a web client.

## Software Installation

Please run the setup.exe file from the supplied CD, which you have received from your monitoring system (display or sensor device) supplier. Alternatively, you can unpack the entire DataLoggerTH.zip application folder to your PC hard disk. It is also possible to download the software from [Internet](#).

## Starting Application

After software installation on your hard drive double-click the DataLoggerTH.exe file located in the DataLoggerTH folder. If this is the first time the software is started the software will automatically start the installation process and its icon will be included on desktop. The DataLoggerTH application window will open.

## Configuring the Application Settings



Click on the “System Configuration” button to set the main data logger parameters. The main “System Configuration Settings” window will open.

System Configuration Settings

System intervals

Sensor reading interval [s] File Save interval [s]

10 30

Data receive timeout [s]

10

Application start options

☐ Start in tray

☐ Autostart LOG

Web server parameters

Port 80 ( default value: 80 )

OK Cancel

### System intervals:

**Sensor reading interval (in seconds)** – time period between reading the sensor values. It can be set from 1 to 300 sec. For example, if the interval is set to 10 sec, the application will request the measured values from all sensors in the list and then will wait for 10 seconds until new request occurs.

**File Save interval (in seconds)** – this is the time period how often the recorded data will be saved into a log file. It can be set from 1 to 3600 seconds.

For example if the files save interval is set to 600 seconds, the application will save the log file every 10 minutes. Nevertheless, exceeding the alarm limits will cause saving the log file out of the file save interval. It will be saved immediately when the alarm state occurs.

**Data receive timeout (in seconds)** – this is the time period in which the reading from the sensor or display must be received. It can be set from 1 to 30 sec. If the measured data are not received within this time, communication fail error will be recorded. In case of large networks, please allow longer time for receiving messages (e.g. 15 to 30 sec).

### Application startup options:

**Start in tray** – DataLoggerTH will be minimized into the Windows’ system tray as a program icon. See the Window’s desktop bottom tray with applications icons on the right side.

**Autostart LOG** – data logging for the devices in the list will be automatically started when software application is started and data will be recorded into the log file. Clicking on the Start button is not necessary.

### Web server parameters:

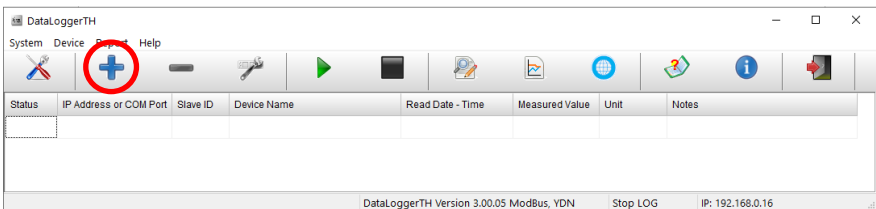
**Port** number of your web server. Default value is 80.

After you have finished all the **System Configuration Settings** click the **OK** button. New Settings will be saved. These settings will be remembered even after you close and restart the DataLoggerTH software application. Once you set the configuration settings, there is no need to set it again after you start the application.

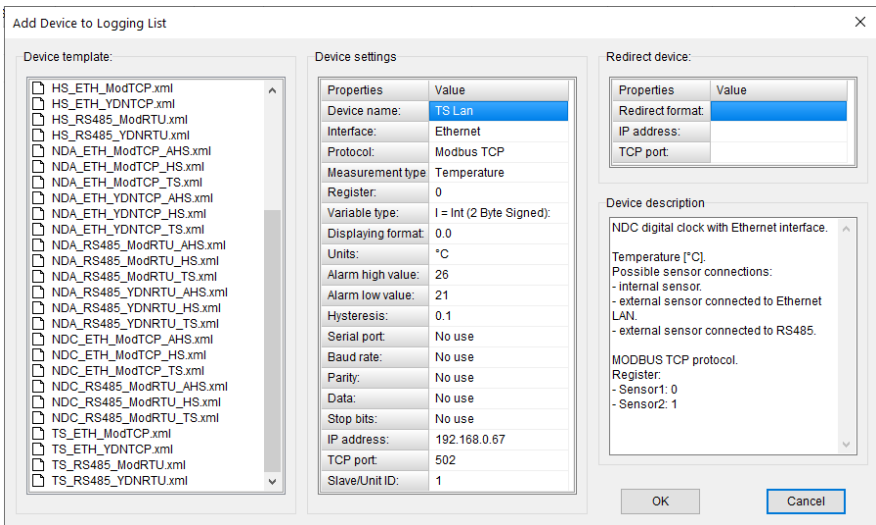
### Adding Devices to Logging List



Click on the “**Add Device**” button to add and configure sensor/display settings. The “**Add Device to Logging List**” window will open.



In this window it is necessary to choose the type of connected sensor or display device from the given xml template files and set its properties. Refer to the examples on the next page for more information on how to add your device to the logging table.



Note that after selecting the .xml template file there will be a brief device description in “*Device description*” window on the right side.

**Example 1:**

**External temperature and humidity sensor THS Sensor 52 12DC RS485, communication protocol Modbus RTU.**

Adding **temperature** measurement of the sensor. (Humidity measurement must be added as another new device separately.)

Select the **TS\_RS485\_ModRTU.xml** file and edit the sensor parameters as necessary.

Add Device to Logging List

Device template:

HS\_RS485\_YDNRTU.xml

NDA\_ETH\_ModTCP\_AHS.xml

NDA\_ETH\_ModTCP\_HS.xml

NDA\_ETH\_ModTCP\_TS.xml

NDA\_ETH\_YDNRTCP\_AHS.xml

NDA\_ETH\_YDNRTCP\_HS.xml

NDA\_ETH\_YDNRTCP\_TS.xml

NDA\_RS485\_ModRTU\_AHS.xml

NDA\_RS485\_ModRTU\_TS.xml

NDA\_RS485\_YDNRTU\_AHS.xml

NDA\_RS485\_YDNRTU\_HS.xml

NDA\_RS485\_YDNRTU\_TS.xml

NDC\_ETH\_ModTCP\_AHS.xml

NDC\_ETH\_ModTCP\_HS.xml

NDC\_ETH\_ModTCP\_TS.xml

NDC\_RS485\_ModRTU\_AHS.xml

NDC\_RS485\_ModRTU\_HS.xml

NDC\_RS485\_ModRTU\_TS.xml

TS\_ETH\_ModTCP.xml

TS\_ETH\_YDNRTCP.xml

**TS\_RS485\_ModRTU.xml**

TS\_RS485\_YDNRTU.xml

Device settings

Properties	Value
Device name:	TS
Interface:	RS485
Protocol:	Modbus RTU
Measurement type:	Temperature
Register:	0
Variable type:	I = Int (2 Byte Signed):
Displaying format:	0.0
Units:	°C
Alarm high value:	26
Alarm low value:	21
Hysteresis:	0.1
Serial port:	COM1
Baud rate:	19200
Parity:	EVEN
Data:	8
Stop bits:	1
IP address:	No use
TCP port:	No use
Slave/Unit ID:	1

Redirect device:

Properties	Value
Displaying format	
IP address:	
TCP port:	

Device description

THS sensor with RS485 interface.

Temperature [°C] - external sensor connected to RS485 bus.

MODBUS RTU protocol.

Register: 0

OK

Cancel

In this case we selected the **Temperature Sensor (TS\_)** with **RS485** interface (**\_RS485\_**) and protocol **Modbus RTU (\_ModRTU)**. The following parameters can be set:

- Device name:**

Enter some meaningful description of the measuring device.  
For example: *"Temp Sensor 2, library"*, etc.
- Register:**

By standard all ELEN sensors for measuring temperature are using Modbus register **"0"**.
- Units:**

Enter the measurement unit for the device. In this case it will be degrees C.
- Alarm high value:**

Upper limit value. Exceeding this value will trigger alarm.
- Alarm low value:**

Lower limit value. Value below this limit will trigger alarm.
- Serial port:**

Enter the serial port number of your PC to which is the sensor connected.
- Baud rate:**

Communication speed of the connected sensor.
- Parity:**

Communication parity of the connected sensor.
- Data:**

Number of data bits.
- Stop bits:**

Number of stop bits.
- Slave/Unit ID:**

RS485 network address for communication via ModbusRTU.

**Example 2:**

**External temperature and humidity sensor THS Sensor 52 12DC RS485, communication protocol Modbus RTU.**

Adding **humidity** measurement of the sensor.

Select the **HS\_RS485\_ModRTU.xml** file and edit the sensor parameters as necessary.

**Add Device to Logging List**

Device template:

- ☐ ADC\_C\_CH0\_RS485\_ModRTU.xml
- ☐ ADC\_C\_CH1\_RS485\_ModRTU.xml
- ☐ ADC\_V\_CH0\_RS485\_ModRTU.xml
- ☐ ADC\_V\_CH1\_RS485\_ModRTU.xml
- ☐ AHS\_ETH\_ModTCP.xml
- ☐ AHS\_ETH\_YDNRTU.xml
- ☐ AHS\_RS485\_ModRTU.xml
- ☐ AHS\_RS485\_YDNRTU.xml
- ☐ CDN\_100\_3T\_RS485\_YDNRTU.xml
- ☐ CO2S\_ETH\_ModTCP.xml
- ☐ CO2S\_RS485\_ModRTU.xml
- ☐ HS\_ETH\_ModTCP.xml
- ☐ HS\_ETH\_YDNRTU.xml
- ☒ **HS\_RS485\_ModRTU.xml**
- ☐ HS\_RS485\_YDNRTU.xml
- ☐ NDA\_ETH\_ModTCP\_AHS.xml
- ☐ NDA\_ETH\_ModTCP\_HS.xml
- ☐ NDA\_ETH\_ModTCP\_TS.xml
- ☐ NDA\_ETH\_YDNRTCP\_AHS.xml
- ☐ NDA\_ETH\_YDNRTCP\_HS.xml
- ☐ NDA\_ETH\_YDNRTCP\_TS.xml
- ☐ NDA\_RS485\_ModRTU\_AHS.xml
- ☐ NDA\_RS485\_ModRTU\_HS.xml
- ☐ NDA\_RS485\_ModRTU\_TS.xml

Device settings

Properties	Value
Device name:	HS
Interface:	RS485
Protocol:	Modbus RTU
Measurement type:	Humidity
Register:	10
Variable type:	I = Int (2 Byte Signed)
Displaying format:	0.0
Units:	%RH
Alarm high value:	70
Alarm low value:	30
Hysteresis:	2
Serial port:	COM1
Baud rate:	19200
Parity:	EVEN
Data:	8
Stop bits:	1
IP address:	No use
TCP port:	No use
Slave/Unit ID:	1

Redirect device:

Properties	Value
Displaying format	
IP address:	
TCP port:	

Device description

THS sensor with RS485 interface.

Relative Humidity [%RH] - external sensor connected to RS485 bus.

MODBUS RTU protocol.  
Register: 10

OK Cancel

In this case we selected the **Humidity Sensor (HS\_)** with **RS485** interface (**\_RS485\_**) and protocol **Modbus RTU (\_ModRTU)**. The following parameters can be set:

- Device name:** Enter some meaningful description of the measuring device.  
For example: *"Humidity, library"*, etc.
- Register:** By standard all ELEN sensors for measuring humidity are using Modbus register "10".
- Units:** Enter the measurement unit for the device. In this case it will be % RH.
- Alarm high value:** Upper limit value. Exceeding this value will trigger alarm.
- Alarm low value:** Lower limit value. Value below this limit will trigger alarm.
- Serial port:** Enter the serial port number of your PC to which is the sensor connected.
- Baud rate:** Communication speed of the connected sensor.
- Parity:** Communication parity of the connected sensor.
- Data:** Number of data bits.
- Stop bits:** Number of stop bits.
- Slave/Unit ID:** RS485 network address for communication via ModbusRTU.

### Example 3:

#### External temperature and humidity sensor THS Sensor 40 12DC LAN, communication protocol Modbus RTU.

Adding **temperature** measurement of the sensor. (Humidity measurement must be added as another new device separately.)

Select the **TS\_ETH\_ModTCP.xml** file and edit the sensor parameters as necessary.

**Add Device to Logging List**

**Device template:**

- HS\_RS485\_YDNRTU.xml
- NDA\_ETH\_ModTCP\_AHS.xml
- NDA\_ETH\_ModTCP\_HS.xml
- NDA\_ETH\_ModTCP\_TS.xml
- NDA\_ETH\_YDNRTU\_AHS.xml
- NDA\_ETH\_YDNRTU\_HS.xml
- NDA\_ETH\_YDNRTU\_TS.xml
- NDA\_RS485\_ModRTU\_AHS.xml
- NDA\_RS485\_ModRTU\_HS.xml
- NDA\_RS485\_ModRTU\_TS.xml
- NDA\_RS485\_YDNRTU\_AHS.xml
- NDA\_RS485\_YDNRTU\_HS.xml
- NDA\_RS485\_YDNRTU\_TS.xml
- NDC\_ETH\_ModTCP\_AHS.xml
- NDC\_ETH\_ModTCP\_HS.xml
- NDC\_ETH\_ModTCP\_TS.xml
- NDC\_RS485\_ModRTU\_AHS.xml
- NDC\_RS485\_ModRTU\_HS.xml
- NDC\_RS485\_ModRTU\_TS.xml
- TS\_ETH\_ModTCP.xml**
- TS\_ETH\_YDNRTU.xml
- TS\_RS485\_ModRTU.xml
- TS\_RS485\_YDNRTU.xml

**Device settings**

Properties	Value
Device name:	TS Lan
Interface:	Ethernet
Protocol:	Modbus TCP
Measurement type:	Temperature
Register:	0
Variable type:	I = Int (2 Byte Signed):
Displaying format:	0.0
Units:	°C
Alarm high value:	26
Alarm low value:	21
Hysteresis:	0.1
Serial port:	No use
Baud rate:	No use
Parity:	No use
Data:	No use
Stop bits:	No use
IP address:	192.168.0.68
TCP port:	502
Slave/Unit ID:	1

**Redirect device:**

Properties	Value
Displaying format	
IP address:	
TCP port:	

**Device description**

THS sensor with Ethernet interface.  
Temperature [°C] - external sensor connected to Ethernet LAN.  
MODBUS TCP protocol.  
Register: 0

OK Cancel

In this case we selected the **Temperature Sensor (TS\_)** with **Ethernet** interface (**\_ETH\_**) and protocol **ModbusTCP** (**\_ModTCP**). The following parameters can be set:

- Device name:** Enter some meaningful description of the measuring device.  
For example: *"Temp Sensor 1, server room"*, etc.
- Register:** By standard all ELEN sensors for measuring temperature are using Modbus Register **"0"**.
- Units:** Enter the measurement unit for the device. In this case it will be degrees C.
- Alarm high value:** Upper limit value. Exceeding this value will trigger alarm.
- Alarm low value:** Lower limit value. Value below this limit will trigger alarm.
- IP address:** IP address of the connected sensor.
- TCP port:** Port number for TCP protocol. Default factory value is 502. If you need to change this number, you must change the port number of the sensor device as well.
- Slave/Unit ID:** All ELEN sensor devices use this parameter for internal communication.

**Example 4:**

**Digital clock NDC with external or internal temperature and humidity sensor THS Sensor 52 12DC RS485.**

NDC clock is connected to LAN via Ethernet.

Adding the *temperature* measurement of the sensor. (Humidity measurement must be added as new device separately.)

Select the **NDC\_ETH\_ModTCP\_TS.xml** file and edit the sensor parameters as necessary.

Add Device to Logging List

Device template:

HS\_ETH\_ModTCP.xml

HS\_ETH\_YDNTCP.xml

HS\_RS485\_ModRTU.xml

HS\_RS485\_YDNRTU.xml

NDA\_ETH\_ModTCP\_AHS.xml

NDA\_ETH\_ModTCP\_HS.xml

NDA\_ETH\_YDNTCP\_HS.xml

NDA\_ETH\_YDNTCP\_AHS.xml

NDA\_ETH\_YDNTCP\_TS.xml

NDA\_RS485\_ModRTU\_AHS.xml

NDA\_RS485\_ModRTU\_HS.xml

NDA\_RS485\_YDNRTU\_AHS.xml

NDA\_RS485\_YDNRTU\_TS.xml

NDA\_RS485\_YDNRTU\_HS.xml

NDC\_ETH\_ModTCP\_AHS.xml

**NDC\_ETH\_ModTCP\_TS.xml**

NDC\_RS485\_ModRTU\_AHS.xml

NDC\_RS485\_ModRTU\_HS.xml

NDC\_RS485\_YDNRTU\_TS.xml

TS\_ETH\_ModTCP.xml

TS\_ETH\_YDNTCP.xml

TS\_RS485\_ModRTU.xml

TS\_RS485\_YDNRTU.xml

Device settings

Properties	Value
Device name:	TS Lan
Interface:	Ethernet
Protocol:	Modbus TCP
Measurement type	Temperature
Register:	0
Variable type:	I = Int (2 Byte Signed)
Displaying format:	0.0
Units:	°C
Alarm high value:	26
Alarm low value:	21
Hysteresis:	0.1
Serial port:	No use
Baud rate:	No use
Parity:	No use
Data:	No use
Stop bits:	No use
IP address:	192.168.0.67
TCP port:	502
Slave/Unit ID:	1

Redirect device:

Properties	Value
Redirect format:	
IP address:	
TCP port:	

Device description

NDC digital clock with Ethernet interface.

Temperature [°C].

Possible sensor connections:

- internal sensor.

- external sensor connected to Ethernet LAN.

- external sensor connected to RS485.

MODBUS TCP protocol.

Register:

- Sensor1: 0

- Sensor2: 1

OK

Cancel

In this case we selected the Numerical Digital Clock (**NDC\_**) with **Ethernet** interface (**\_ETH\_**) and Temperature Sensor (**\_TS\_**). The following parameters can be set:

- Device name:

Enter some unique meaningful description of the measuring device. For example: *Server room temperature, Library temp, etc.*
- Register:

By standard all ELEN NDC clocks with internal or external THS sensors use Modbus Register “0” for Temperature and “10” for Humidity. In this case we are measuring temperature therefore it is set to “0”.
- Units:

Enter the measurement unit for the device. In this case it will be degrees C.
- Alarm high value:

Upper limit value. Exceeding this value will trigger alarm.
- Alarm low value:

Lower limit value. Value below this limit will trigger alarm.
- IP address:

IP address of the NDC clock.
- TCP port:

Port number for TCP protocol. Default factory value is 502. If you need to change this number, you must change the port number of the sensor device as well.
- Slave/Unit ID:

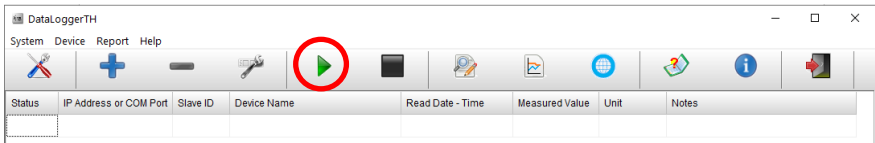
All ELEN sensor devices use this parameter for internal communication.



## Starting Data Logging



Click on the **Start** button to start data logging of the listed devices in the table. Depending on the reading interval set in the System Configuration window, it might take some time for the measurements of each sensor to appear in the table.



Data logging table is divided into several columns – *Status, IP Address or COM Port, ...*

Status	IP Address or COM Port	Slave ID	Device Name	Read Date - Time	Measured Value	Unit	Notes
OK	192.168.0.67	1	Humidity, Library	24. 11. 2022 15:37:44	36.2	%RH	Register: 11
OK	192.168.0.67	1	Temperature, Library	24. 11. 2022 15:37:44	22.4	°C	Register: 1

DataLoggerTH Version 3.00.05 ModBus, YDN      Start LOG      IP: 192.168.0.16

Every time the measured value is read from device, the value in the table is updated. If the data are received correctly the **Status** data column will indicate Read...**OK**.

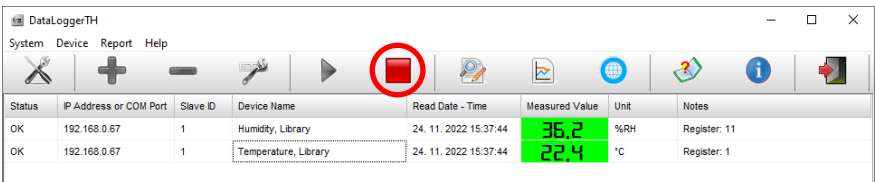
If there is a communication failure, the **Status** column will show **Error** to indicate that the device data cannot be read. Please check the **Device Parameters** settings if everything is set correctly. Then check if the device (sensor and/or display) is powered and connected to the network.

If there is a sensor device failure, the **Status** data column will show **Sensor ?** to indicate that there is a sensor fault. Confirm that the sensor connector is plugged in.


## Stopping Data Logging

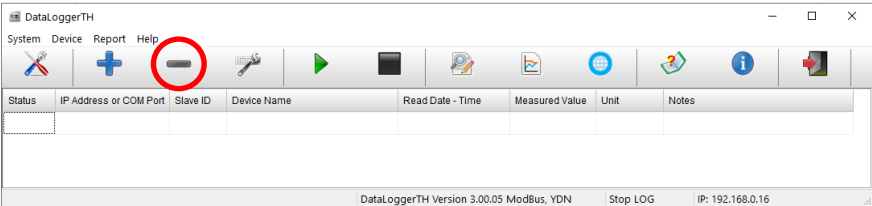


Click on the **Stop** button to stop data logging of the listed devices in the table. Displayed values will be cleared from the logging table. This is so the user is not considering the last recorded values to be current by mistake.




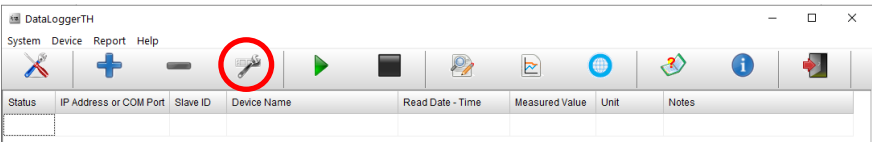
# Removing Devices from Logging List

 If you want to remove the device from the table you can click on the **“Delete Device”** button. It will be removed from the list.



# Editing Device Parameters

 Click on the **“Edit Device”** button to add and configure sensor/display settings. The **“Edit Device Parameters”** window will open. In this window you can change the parameters of the selected device in the list.



# Notification e-mail Configuration



Click on the “Notification e-mail Configuration” button to set e-mail notifications when various alarm events occur. The e-mail notifications configuration window will open.

Notification e-mails configuration

**E-mail options**

☐ Do not send

☒ Send immediately when an alarm starts or stops or when an error occurs

☐ Send when one or more of the following conditions are met:

**Conditions**

Conditions settings

Enter condition name / description (e.g. "Server room temp. too high")

Server room temperature too high

Add Change Delete Delete all

Condition name
Server room temperature too high
Temperature returned to normal

**Notifications options**

☐ Send all in one e-mail

☐ Send each condition in a separate e-mail

☒ Send each alarm event in a separate e-mail

**Condition events settings**

Select device: TS Lan Alarm event: over high limit

Add Change Delete Delete all

Sensor	Alarm
TS Lan	over high limit

**E-mail settings**

Login info

Host: 192.168.0.104

Username: user1@company.com

Password: \*\*\*\*\*

Send notifications

To e-mail(s): user1@company.com; user2@company.com

Separate e-mail addresses with ";" (semicolon)

Close

## E-mail settings

### Login info

In this section you must enter the e-mail account login information and password for the e-mail account from which the alarm e-mails will be sent.

**Host** – enter your e-mail host server. This can be textual information, e.g. *smtp.gmail.com*, or IP address of your e-mail host server, e.g. *192.168.0.104*.

**Username** enter the username for your e-mail account, e.g. *user1@company.com*

**Password** enter the password for your e-mail account.

### Send notifications

**To e-mail(s)** enter the e-mail address where your notifications will be sent. In case of sending notification e-mails to more than one recipient separate each e-mail address with a “;” semicolon.

## E-mail options

**Do not sent** check to disable all e-mail notifications

**Send immediately when alarm starts or stops or when communication error occurs**

Check to enable sending of e-mail notifications every time when alarm event occurs.

**Send when one or more of the following of the following conditions are met**

Check to enable sending e-mail notifications only after one or more alarm conditions listed in the table occur. This option can also be used when the user wants to be notified only when multiple alarm events occur at the same time. For example the temperature and humidity values are both exceeded.

**Conditions settings**

Enter condition name or description of new condition you want to set and add it to the list of conditions by clicking the “**Add**” button. Then click on **Select device** to choose from devices you previously installed into DataLoggerTH using the Add button. After this select the **Alarm event** which you are interested in. After selection click the Add button to add it to the list of events.

After you are finished with the notification settings click the *Close* button.

**Example – setting new condition for e-mail notification**

User wants to be notified by e-mail when the measured values of temperature and humidity in the library are exceeded.

Enter a new *Condition name / description*: e.g. “Library temp and humidity alarm” and click on Add button. Then select this newly created condition name in the *Conditions list* table.

Go to the right side column - *Condition events settings* and *Select device* which is measuring the temperature from the drop-down menu. In this case it is a sensor called “TS LAN”. Next select the “*over high limit*” from the *Alarm events* drop-down menu. Click on Add button. First alarm event for our new condition is set. Then go to “Select device” again and choose device which measures humidity. In this case it is a sensor called “HS LAN”. Next select the “*over high limit*” from Alarm events. Click on Add button again. The second alarm event for our new condition will be set. Now we have 2 events in the Events list table for the condition called “Library temp and humidity too high”. (See screenshot below.) After you are finished with the notification settings click the *Close* button.

Conditions settings

Enter condition name / description (e.g. "Server room temp. too high")  

Library temp and humidity too high

Add

Change

Delete

Delete all

Conditions list

Condition name
Library temp and humidity too high

Condition events settings

Select device  
TS Lan

Alarm event  
over high limit

Add

Change

Delete

Delete all

Events list

Sensor	Alarm
HS Lan	over high limit
TS Lan	over high limit

Another example of new condition can be that the user wants to send e-mail only when temperature from two different sensor devices is exceeded. He can select e.g. sensors called TS LAN1 and TS LAN2 from the *Select device* drop-down menu and add them to the *Events list*.

## Query on History Records



Click on the **Query** button to open the **Query on Sensor Value History Records** window. You can select desired devices and set Start Time and End Time of the history records.



Once you have made your selection, history data can be displayed in a report by clicking on the **Run Query Report** button.



The history query report can be also converted into Excel XLS file by clicking on the **Export data to XLS file** button.

Query on Sensor Value History Records

Parameters:

Start Time: 28. 4. 2020 0:00:00

End Time: 28. 4. 2020 11:45:48

Record Type: All records

Select Device:

Net ID	ID + Register	Device Name
<input type="checkbox"/>	192.168.0.72 1 + 0	PGrande
<input checked="" type="checkbox"/>	192.168.0.72 1 + 1	PMediana
<input checked="" type="checkbox"/>	192.168.0.72 1 + 2	Ambiente

Device Data:

Date and Time	Net ID	ID + Register	Device Name	Value	Unit	Device Status
28. 4. 2020 11:42:36	192.168.0.72	1 + 0	PGrande	22,0	[°C]	Periodic entry -> OK
28. 4. 2020 11:43:36	192.168.0.72	1 + 0	PGrande	22,0	[°C]	Periodic entry -> OK
28. 4. 2020 11:44:36	192.168.0.72	1 + 0	PGrande	21,9	[°C]	Periodic entry -> OK
28. 4. 2020 11:45:36	192.168.0.72	1 + 0	PGrande	21,9	[°C]	Periodic entry -> OK
28. 4. 2020 11:42:36	192.168.0.72	1 + 1	PMediana	22,1	[°C]	Periodic entry -> OK
28. 4. 2020 11:43:36	192.168.0.72	1 + 1	PMediana	22,1	[°C]	Periodic entry -> OK
28. 4. 2020 11:44:36	192.168.0.72	1 + 1	PMediana	22,1	[°C]	Periodic entry -> OK
28. 4. 2020 11:45:36	192.168.0.72	1 + 1	PMediana	22,1	[°C]	Periodic entry -> OK
28. 4. 2020 11:42:36	192.168.0.72	1 + 2	Ambiente	22,0	[°C]	Periodic entry -> OK
28. 4. 2020 11:43:36	192.168.0.72	1 + 2	Ambiente	22,0	[°C]	Periodic entry -> OK
28. 4. 2020 11:44:36	192.168.0.72	1 + 2	Ambiente	22,0	[°C]	Periodic entry -> OK
28. 4. 2020 11:45:36	192.168.0.72	1 + 2	Ambiente	22,0	[°C]	Periodic entry -> OK

The Report.xls file will be stored to the DataLoggerTH folder of your PC.

A1								
	A	B	C	D	E	F	G	H
1								
2	History Records							
3	All records							
4	Time range: 28. 4. 2020 to 28. 4. 2020 11:48:10							
5	Date and Time	Net ID	ID + Register	Value	Unit	Description of Device Status		
6	28. 4. 2020 11:42:36	192.168.0.72	1 + 0	22,0	[°C]	Periodic entry -> OK		
7	28. 4. 2020 11:43:36	192.168.0.72	1 + 0	22,0	[°C]	Periodic entry -> OK		
8	28. 4. 2020 11:44:36	192.168.0.72	1 + 0	21,9	[°C]	Periodic entry -> OK		
9	28. 4. 2020 11:45:36	192.168.0.72	1 + 0	21,9	[°C]	Periodic entry -> OK		
10	28. 4. 2020 11:46:37	192.168.0.72	1 + 0	21,9	[°C]	Periodic entry -> OK		
11	28. 4. 2020 11:47:37	192.168.0.72	1 + 0	21,9	[°C]	Periodic entry -> OK		
12	28. 4. 2020 11:42:36	192.168.0.72	1 + 1	22,1	[°C]	Periodic entry -> OK		
13	28. 4. 2020 11:43:36	192.168.0.72	1 + 1	22,1	[°C]	Periodic entry -> OK		
14	28. 4. 2020 11:44:36	192.168.0.72	1 + 1	22,1	[°C]	Periodic entry -> OK		
15	28. 4. 2020 11:45:36	192.168.0.72	1 + 1	22,1	[°C]	Periodic entry -> OK		
16	28. 4. 2020 11:46:37	192.168.0.72	1 + 1	22,1	[°C]	Periodic entry -> OK		
17	28. 4. 2020 11:47:37	192.168.0.72	1 + 1	22,1	[°C]	Periodic entry -> OK		
18	28. 4. 2020 11:42:36	192.168.0.72	1 + 2	22,0	[°C]	Periodic entry -> OK		
19	28. 4. 2020 11:43:36	192.168.0.72	1 + 2	22,0	[°C]	Periodic entry -> OK		
20	28. 4. 2020 11:44:36	192.168.0.72	1 + 2	22,0	[°C]	Periodic entry -> OK		
21	28. 4. 2020 11:45:36	192.168.0.72	1 + 2	22,0	[°C]	Periodic entry -> OK		
22	28. 4. 2020 11:46:37	192.168.0.72	1 + 2	22,0	[°C]	Periodic entry -> OK		
23	28. 4. 2020 11:47:37	192.168.0.72	1 + 2	21,9	[°C]	Periodic entry -> OK		
24								
25								
26								
Report								


*\* Please note, you must have Microsoft Excel application software installed on your PC in order to open the query report file.*

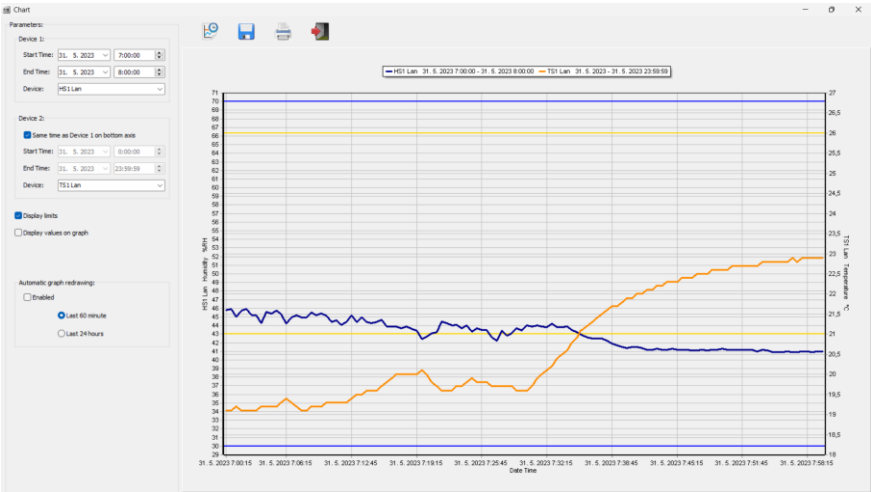
# Chart



Click on the **Chart** button to open the **Chart** window. Here you can visualize the recorded values in a chart for up to 2 devices.

DataLoggerTH						
System Device Report Help						
Status	IP Address or COM Port	Slave ID	Device Name	Read Date - Time	Measured Value	Unit
OK	192.168.0.67	1	Humidity, Library	24. 11. 2022 15:37:44	36.2	%RH
OK	192.168.0.67	1	Temperature, Library	24. 11. 2022 15:37:44	22.4	°C

At first the desired device to view must be selected in the **Device:** pulldown menu and the **Start Time** and **End Time** of the history records must be set. You can also select to view the preset upper and lower alarm limits by checking the **Display limits** check box. Measured values can also be shown on the chart by enabling the **Display values on graph** check box. **Automatic graph redrawing** allows recorded measurements to be automatically updated in the chart in real time. User can select to see the recorded values for the **Last 60 minutes** or **Last 24 hours**. When all selections are made, click the **Display data** icon  for the chart to be displayed or redrawn.

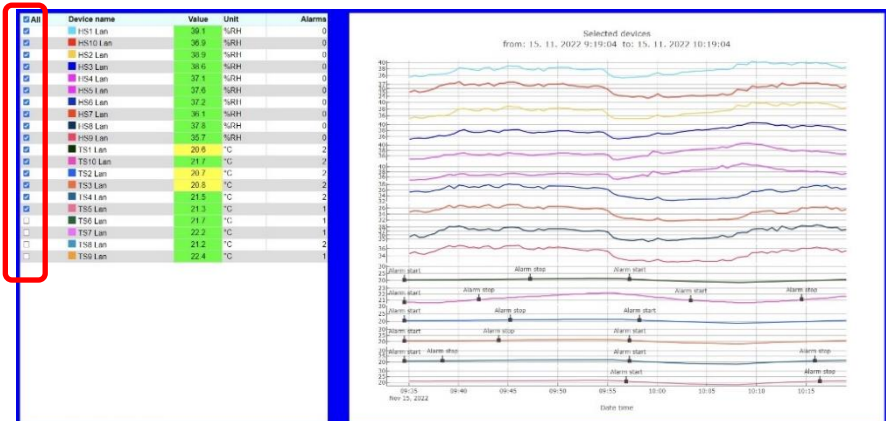


Please note, another type of chart for up to 16 devices can be viewed in the separate Internet browser window by clicking on the Web client icon. Please refer to the next page for more information.

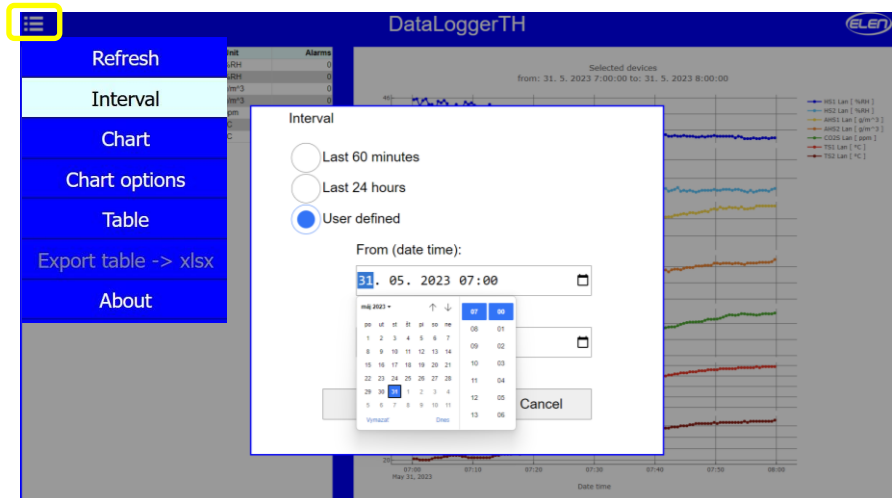
## Web client – Viewing logged data as Chart or Table in Internet web browser



Click on the **Web client** button to open the **Internet browser** window. Here you can visualize logged measurements in a chart or table for up to 16 devices. Check the square box next to each line with listed devices whose recorded values you want to view in the chart.

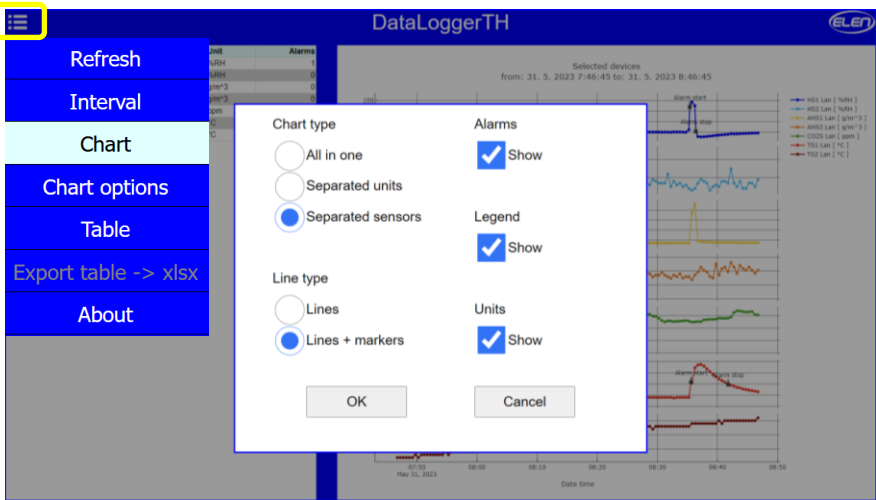


Select **Interval** from menu to set desired history period for the chart plotting.

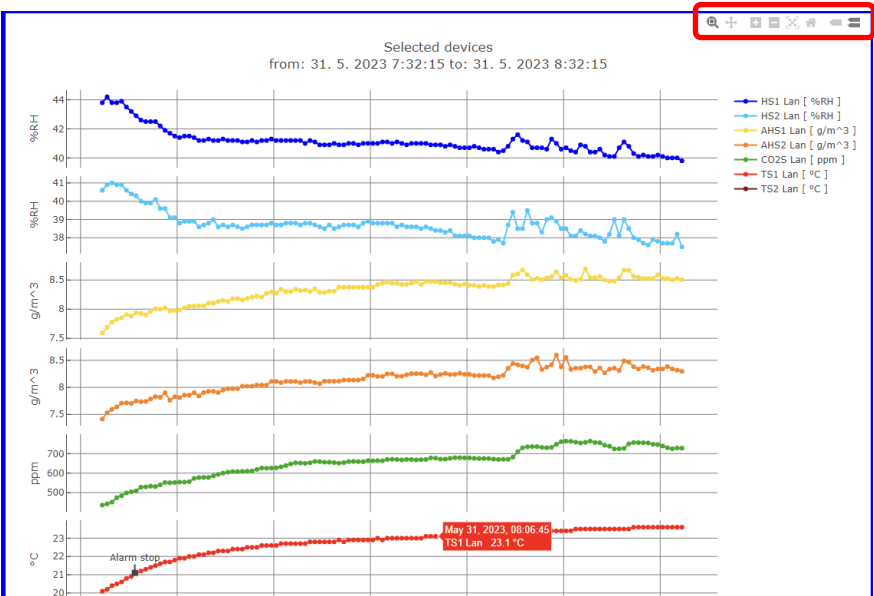




Select the **Chart** from menu to set desired **Chart type**, **Line type** and whether you want to see the **Alarms**, **Legend** and **Units** on the chart.



Note there is a possibility to adjust the chart with: **Zoom**, **Pan**, **Zoom in**, **Zoom out**, **Autoscale**, **Reset axis**, **Show closest data on hover**, **Compare data on hover**. These options are located in the top right section of the graph. To view these options, simply place your cursor into this area with your mouse.



Select **Table** from menu to view the logged data in a table format. Values exceeding the upper alarm limits will be highlighted in red and values exceeding the lower alarm limits will be highlighted in yellow color.

Refresh	DataLoggerTH									
Interval	Value	Unit	Alarms							
Chart	48.11	%RH	0							
Chart options	37.6	%RH	0							
	8.528	g/m <sup>3</sup>	0							
	8.319	g/m <sup>3</sup>	0							
	7.60	ppm	0							
Table	23.6	°C	0							
Export table -> .xlsx	24.3	°C	0							
About										

Date time	HS1 Lan %RH	HS2 Lan %RH	AHS1 Lan g/m <sup>3</sup>	AHS2 Lan g/m <sup>3</sup>	CO2S Lan ppm	TS1 Lan °C	TS2 Lan °C
31. 5. 2023 7:33:45	43.8	40.9	7.825	7.838	474	20.5	21.4
31. 5. 2023 7:34:15	43.9	40.9	7.853	7.709	484	20.6	21.5
31. 5. 2023 7:34:45	43.5	40.8	7.908	7.715	496	20.5	21.6
31. 5. 2023 7:35:15	43.2	40.4	7.882	7.703	504	20.9	21.8
31. 5. 2023 7:35:37	---	---	---	---	---	21.1	---
31. 5. 2023 7:35:45	42.9	40.3	7.837	7.748	509	21.1	21.8
31. 5. 2023 7:36:15	42.6	40.8	7.806	7.735	526	21.2	21.9
31. 5. 2023 7:36:45	42.5	39.9	7.899	7.740	529	21.3	22.0
31. 5. 2023 7:37:15	42.5	39.9	7.964	7.785	533	21.4	22.1
31. 5. 2023 7:37:45	42.5	40.1	8.010	7.830	531	21.5	22.2
31. 5. 2023 7:38:15	42.2	39.6	8.000	7.816	540	21.6	22.3
31. 5. 2023 7:38:45	41.9	39.6	8.019	7.901	552	21.7	22.4
31. 5. 2023 7:39:15	41.7	39.1	7.970	7.762	561	21.7	22.4
31. 5. 2023 7:39:45	41.5	39.1	7.978	7.827	552	21.8	22.5

</

Select **Export table -> .xlsx** from menu to export logged data to Excel spreadsheet file.

A1								
	A	B	C	D	E	F	G	H
1		HS1 Lan	HS2 Lan	AHS1 Lan	AHS2 Lan	CO2S Lan	TS1 Lan	TS2 Lan
2	Date time	%RH	%RH	g/m <sup>3</sup>	g/m <sup>3</sup>	ppm	°C	°C
3	31. 5. 2023	41,1	38,7	8,226	8,043	619	22,5	23,2
4	31. 5. 2023	41,2	38,7	8,206	8,043	626	22,6	23,2
5	31. 5. 2023	41,2	38,7	8,273	8,043	625	22,6	23,2
6	31. 5. 2023	41,3	38,8	8,293	8,11	626	22,6	23,3
7	31. 5. 2023	41,2	38,7	8,273	8,11	627	22,6	23,2
8	31. 5. 2023	41,2	38,7	8,341	8,089	632	22,7	23,3
9	31. 5. 2023	41,2	38,8	8,301	8,11	639	22,7	23,3
10	31. 5. 2023	41,2	38,8	8,301	8,11	647	22,7	23,3
11	31. 5. 2023	41,2	38,8	8,341	8,11	653	22,7	23,3
12	31. 5. 2023	41,2	38,7	8,321	8,089	652	22,7	23,3
13	31. 5. 2023	41	38,8	8,328	8,11	650	22,7	23,3
14	31. 5. 2023	41,2	38,8	8,301	8,11	653	22,8	23,3
15	31. 5. 2023	41,1	38,7	8,348	8,089	660	22,8	23,3
Last 60 minutes								

## Help Information



Click on the **Help** button to open the help manual.

## About the Software



Click on the **About** button to open the window with information about the software version and licensing.

## Closing the Application



Click on the **Application Exit** button to close the software application. All device parameters and configuration values will be stored, so when you start the application again there is no need to set it again.

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