



## Web interface MANUAL

[www.mastertherm.online](http://www.mastertherm.online)

**FOR DISTRIBUTORS AND SERVICE COMPANIES**

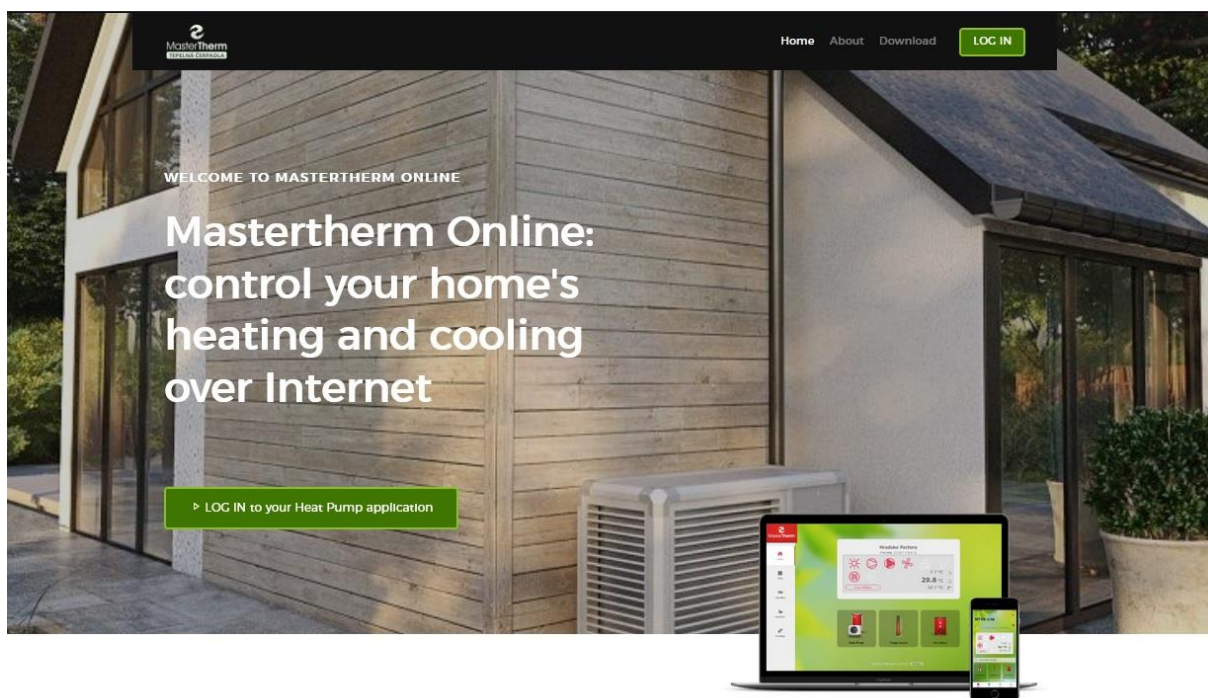
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# 1 Introduction

This manual describes a new web interface for Internet control of a MasterTherm heat pump equipped with a **pGDx touch** screen for data transfer to a server.

This is a new interface adapted to modern standards, used exclusively for units equipped with pGDx touch.



## About Online App

Web and mobile applications enable remote monitoring and control of your internet connected heatpump.

## 2 Creating a login password

The first step in a Distributor Account creation (if you do not already have one) is send request to MasterTherm. Please attach your email address and full name for account creation. Service accounts can be created by distributors and end-user accounts by distributors or service companies - the information needed to create accounts is the subject of this manual.

After creating an account, we will send you email with request to create a new password for your account on the [mastertherm.online](https://mastertherm.online) website with the following or similar wording:

Dear Customer,

Your username for online control of your MasterTherm heat pump is **USER\_NAME**.  
You can create (or change) a password to access your heat pump with the link below:

[LINK\\_FOR\\_CREATING\\_PASSWORD](#)

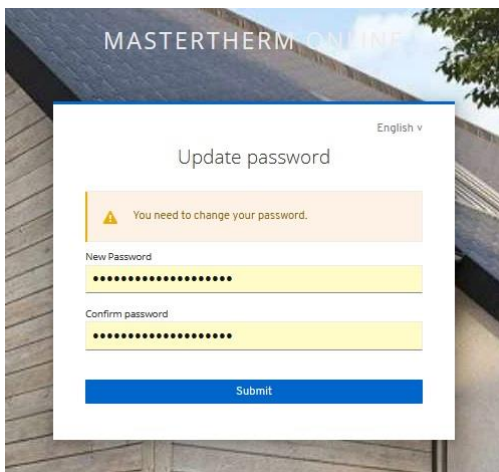
This link is valid for **VALIDITY** hours.  
If you are unsure whether this information is for you then please ignore this message.

After creating a password, you can log in to the new dedicated website to control your MasterTherm heat pump with pGDx touch controllers:

<https://mastertherm.online/>

Thank you for choosing MasterTherm.

After pressing the link to create a password, you will be redirected to a page where you will create a new password according to your requirements.



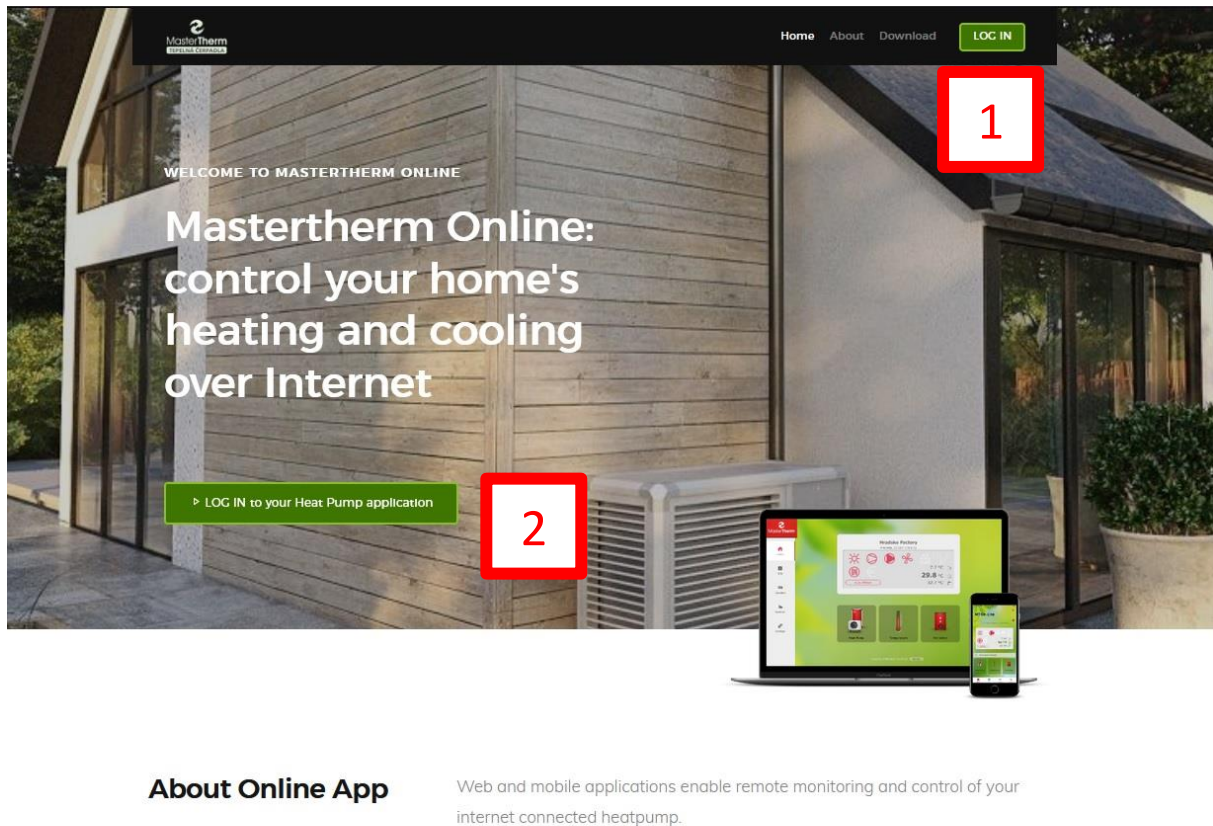
After entering the new password and confirming it, please press the **Submit** button to continue.

(Strong password should contain uppercase and lowercase letters in combination with numbers)

Then it will be possible to log in with the new login details on [mastertherm.online](https://mastertherm.online)

## 3 Login

Enter [mastertherm.online](https://mastertherm.online) in your web browser.



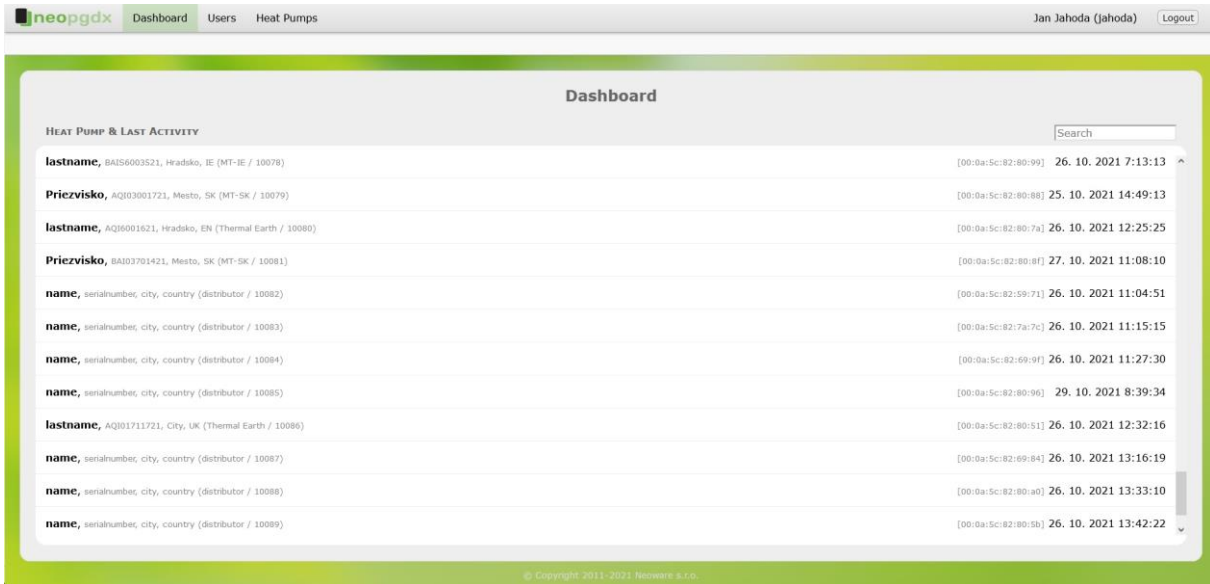
As you can see in the picture above, there are 2 buttons available to log in. After logging in through any of these buttons, the end user will only see end user's web application. Users with higher access level (distributors, service users) have the choice of logging in using the button:

**1** After logging in using this button the (distributor / service) user is redirected to the administration section where all advanced settings are available.

**2** With this button, the (distributor / service) user is redirected to the end user section, where he can select any heat pump available to his account and see it "through the eyes of the end user". This option is mainly used to demonstrate the user interface, e.g. to potential heat pump customers or to demonstrate the correct heat pump settings from web application to the end user.

## 4 Administrator section

After logging in to the administration section, the main administration page will be displayed:



### 4.1 Dashboard

(The first page displayed after logging in, or entering after pressing "Dashboard" in the upper left part)

The dashboard is a list of all the devices we have available in our account. You can filter devices using the full-text search engine at the top right of the Dashboard.

For example, you can filter devices by:

- Serial number (e.g.: BAI22XXXXX)
- City
- End-user name
- MAC address (the unique network card identifier of each pGDx touch)
- Group assignment
- Language
- pGDx touch ID (e.g.: 10001)

The left part of the Dashboard displays basic information about the heat pump.

`user, unitNumber, city, Country (Distributor / pGDx ID)`

The right part of Dashboard displays MAC address of the device and the date and time when pGDx touch was last online.

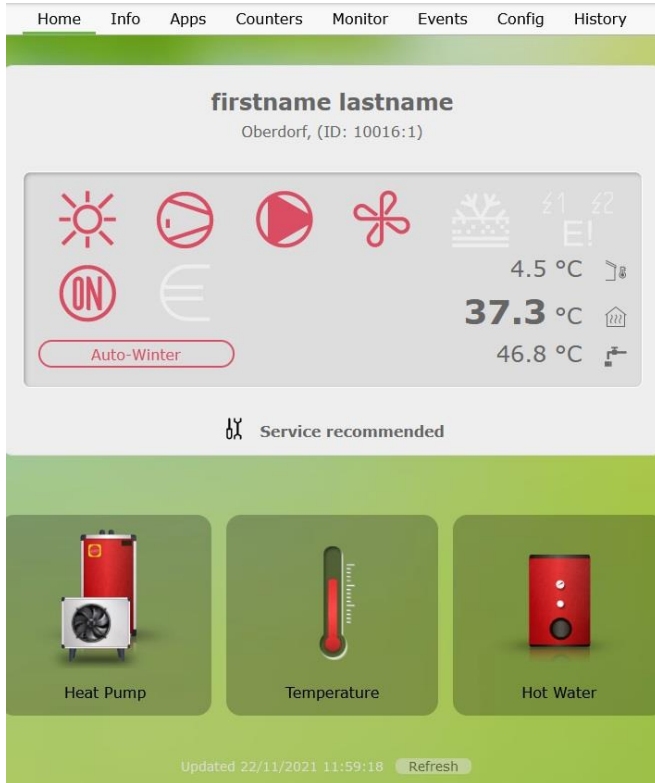
`[00:0a:5c:■■:■■:■■] 4. 11. 2021 10:08:55`



After clicking on the heat pump selected from the Dashboard, we are redirected to a page with its own settings.

## 4.2 Home

(home screen for setting the selected HP, enter from the upper navigation bar after selecting the HP)



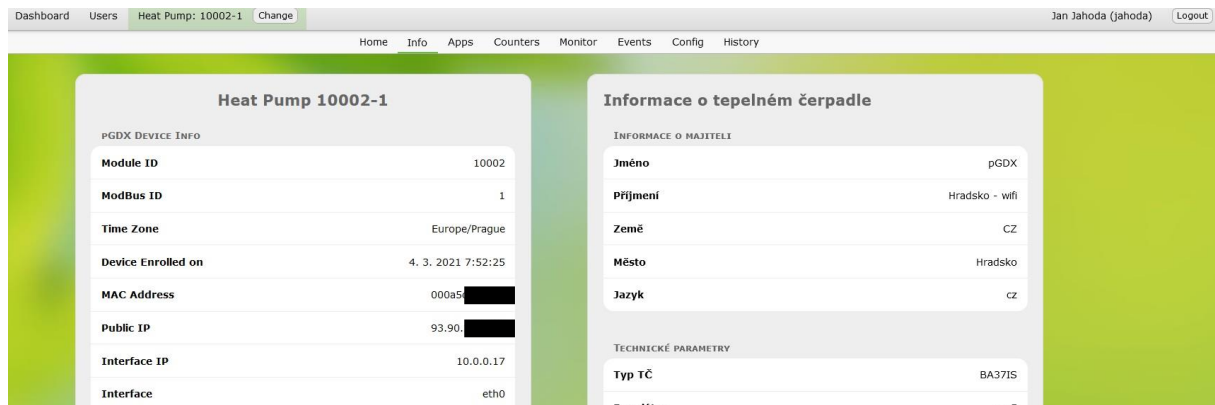
This page shows the basic web application for controlling the heat pump. It is very similar to the end user application and allows quick basic settings such as:

- Equithermal curve adjustment
- Setpoint settings
- ON / OFF Heat Pump
- Function
- Mode
- Display of current DHW temperatures, outdoor temperature, heating water temperature, etc.

## 4.3 Info

(Enter after pressing "Info" from the upper navigation bar after selecting heat pump)

In this section, you will find detailed information about the heat pump, the type of internet connection, the SW version in the controller, the SW version in pGDx touch and many other useful information.



An example of the information displayed is shown below:

### Heat Pump 10057-1

**PGDX DEVICE INFO**

Module ID	10057
ModBus ID	1
Time Zone	Europe/Prague
Device Enrolled on	23. 9. 2021 10:17:25
MAC Address	000a5c:████████
Public IP	93.90.1:████████
Interface IP	10.0.0.7
Interface	wifi0
Hostname	HMI-8420
Firmware Version	1.0.472
Software Version	2.9.0.601
NeoPGDX Version	0.01
MT Project	pGDx_mastertherm
MT Version	1110
NeoPGDX Updated	1. 10. 2021 12:44:53
Setup Updated	1. 10. 2021 12:44:53
Certificates Updated	1. 10. 2021 12:44:53
Checked for Update	4. 11. 2021 3:01:36
Info Retrieved	4. 11. 2021 3:01:40

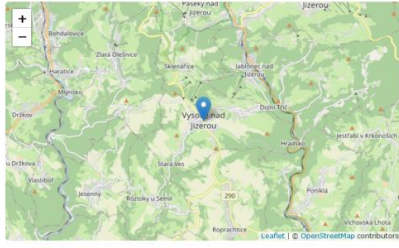
### Weather Forecast Location

**EDIT**

**Place** Vysoké nad Jizerou, Liberecký

**Latitude** 50.685277

**Longitude** 15.401579



### Heat Pump Info

**OWNER INFO**

Name	firstname
Surname	lastname
Country	UK
City	Oberdorf
Language	en

**TECHNICAL PARAMETERS**

HP Type	BAIS
Controller	pco5
Exp	0
Output	18A37IS
Reversion	No

**COMMUNICATION**

Module ID	10016
Unit Id	1
Firmware Version	41

**HEATING CIRCUITS LABELS**

Heating Circuit PAD 01	
Heating Circuit PAD 11	.....

### Weather

**Oberdorf**

3 °C

☁️ 2.57 m/s, 47°  
 1013 hPa  
 89 %

13:00	16:00	19:00	22:00	Tue 1:00	Tue 4
☁️	☁️	☔	☔	☁️	☁️
3 °C	3 °C	3 °C	3 °C	3 °C	3 °C

Tue	Wed	Thu	Fri	Sat
☁️	☔	☁️	☔	☔
4 °C / 0 °C	5 °C / -2 °C	4 °C / -1 °C	1 °C / -1 °C	0 °C / -3 °C

Weather data © OpenWeatherMap.

### 4.3.1 Edit location for weather forecast

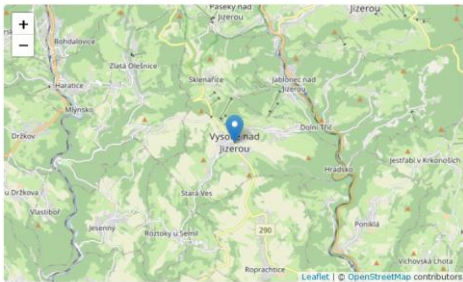
### Weather Forecast Location

**EDIT**

**Place** Vysoké nad Jizerou, Liberecký

**Latitude** 50.685277

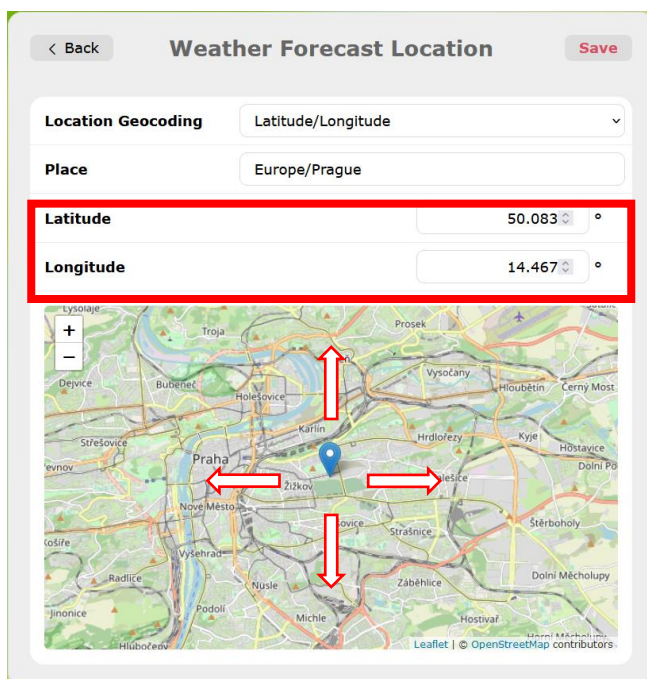
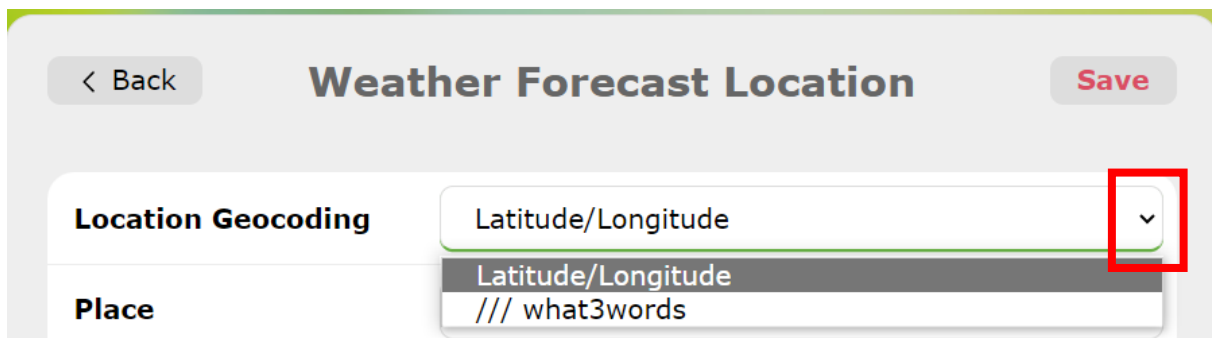
**Longitude** 15.401579



You can edit the location for the weather forecast by pressing the "EDIT" button in the upper right part of the weather forecast section.

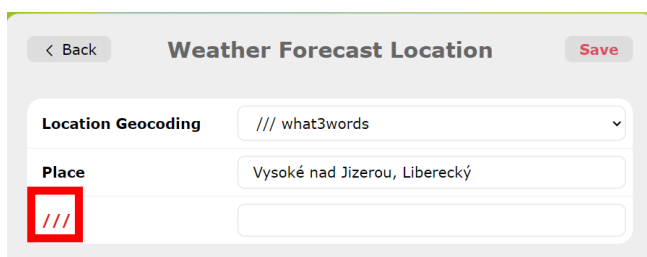


After pressing the Edit button, you can choose whether you want to fill in the GPS coordinates manually (or by moving the marker) or by using the what3words function (position definition using 3 words).



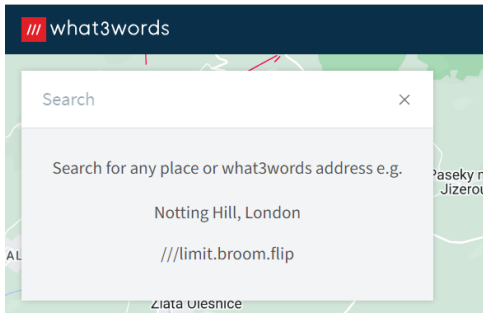
**Latitude/Longitude**

Here it is possible to enter GPS coordinates directly or move the marker in map to required position (and thus modify the coordinates).



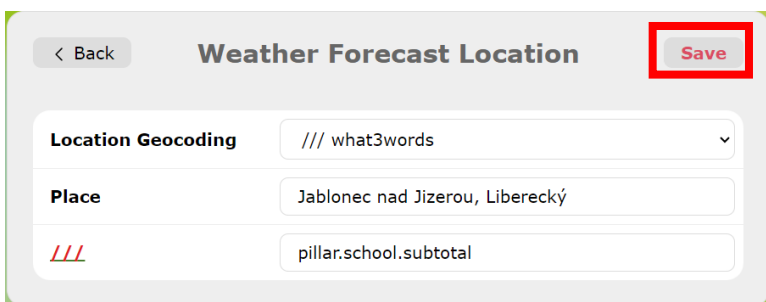
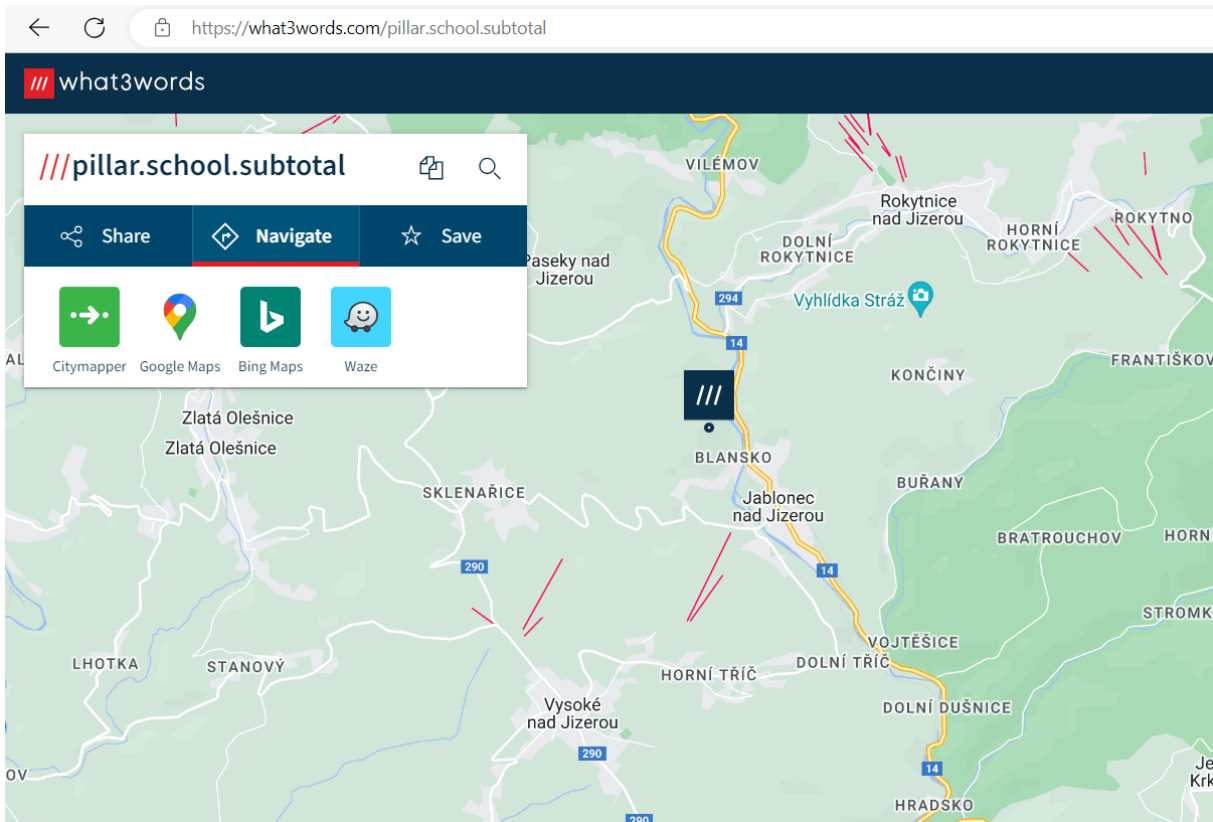
**/// what3words**

Here you can enter the location using 3 words separated by a period or (if we don't know them yet) go to [www.what3words.com](http://www.what3words.com) first using the /// button to find out the name according to the pattern w3w.



You can enter the name of any place or address into the search engine (or move the location marker on the map).

The w3w definition of that location is then displayed.



After your changes please use button "Save" to save your changes.

**After saving the changes, we recommend refreshing your browser page to see the change immediately.**

### 4.3.2 Editing the name of heating circuits

After pressing the EDIT button, it is possible to enter the name of the heating circuits.

HEATING CIRCUITS LABELS		EDIT
Heating Circuit PAD 01	Basement	
Heating Circuit PAD 11	Living room	
Heating Circuit PAD 12	Bedroom	
Heating Circuit PAD 13	Room2	
Heating Circuit PAD 14	Room3	
Heating Circuit PAD 15	Room4	
Heating Circuit PAD 16	Room5	

Please use the SAVE button to save the new requested names.

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### Heating Circuits Labels

Save

Heating Circuit PAD 01	<input type="text" value="Basement"/>
Heating Circuit PAD 11	<input type="text" value="Living room"/>
Heating Circuit PAD 12	<input type="text" value="Bedroom"/>
Heating Circuit PAD 13	<input type="text" value="Room2"/>
Heating Circuit PAD 14	<input type="text" value="Room3"/>
Heating Circuit PAD 15	<input type="text" value="Room4"/>
Heating Circuit PAD 16	<input type="text" value="Room5"/>



If name of the heating circuit is "0", then this heating circuit will be hidden in the **Temperature** section in the web and mobile application. This function is suitable to use, for example, when working with virtual heating circuits, the display of which could be confusing for the user.

**Heating Circuit PAD 11**

## 4.4 Apps

Service diagnostic applications are available here that can be assigned to individual units or made available to service groups.

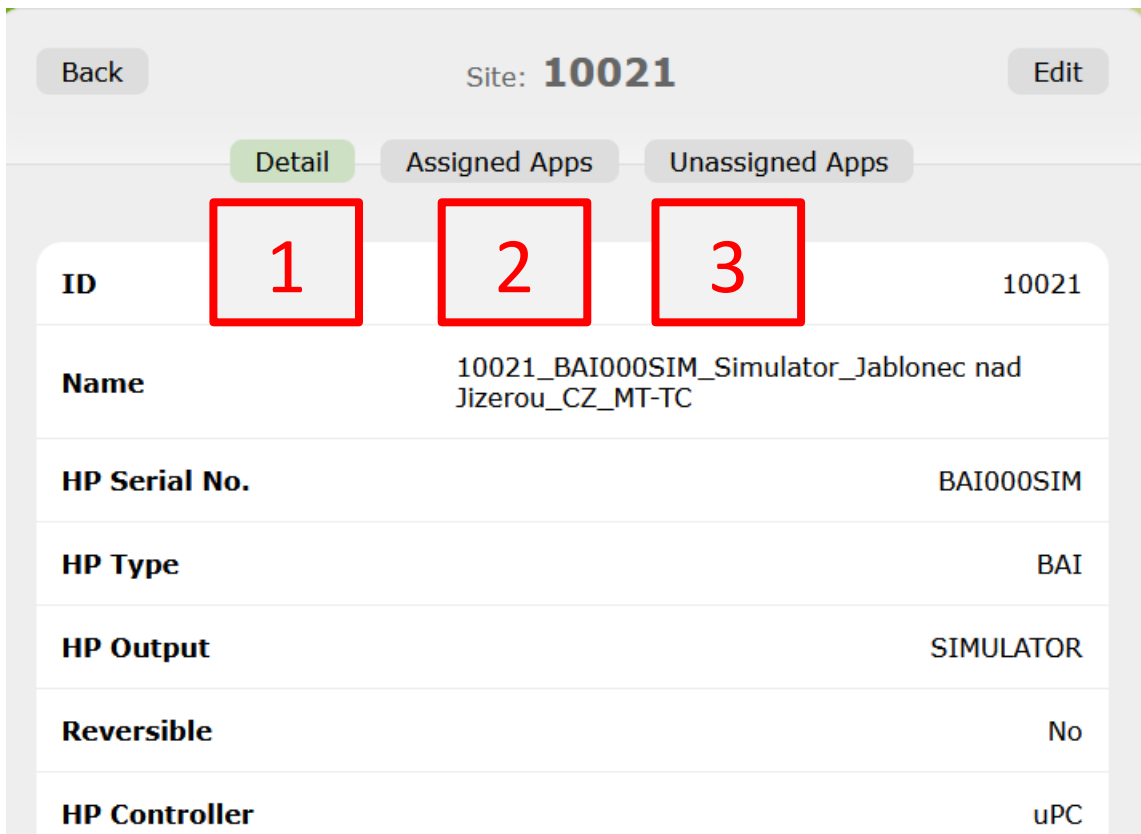
Currently (27/06/2022) the following applications are available:

NAME	
Energy Management	Heating circuit 6
Energy Management 3x400V	Alarm settings
Heat Pump Settings	Cooling settings
Heat Pump Diagnostics	Sanitary hot water
EExpansion settings	Enabled functions
Configuration	Universal / differential thermostats
Pump settings	Pool
Fan / brine pump settings	Solar
Defrost settings	High temperature protection
Speed settings	MasterLan setup
Room terminals settings	
Heating settings	
Heating circuit 1	
Heating circuit 2	
Heating circuit 3	
Heating circuit 4	
Heating circuit 5	

### 4.4.1 [How to assign an application to the required module:](#)

Navigate to: **Resources -> Sites -> Select the module for application assignment**

Following screen will be displayed:



At the top of the panel, you will find these three buttons:

1

- Here you can insert information about the selected module (Site)

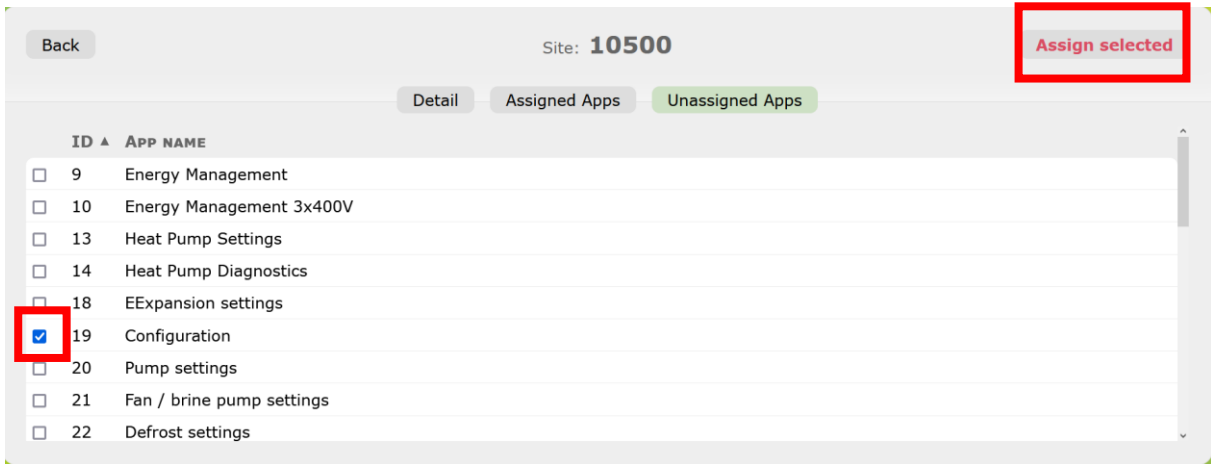
2

- After pressing this button, it is possible to display actually assigned applications

3

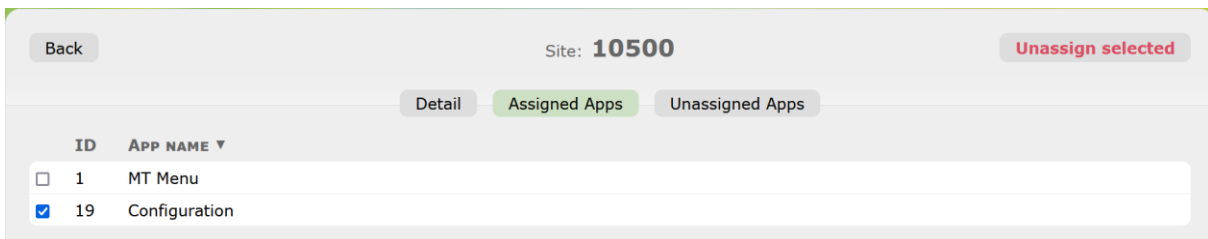
- After pressing this button, it is possible to display available applications that are not currently assigned to the selected module

Please press "Unassigned apps" button (number 3 in the picture above) and following screen will be displayed:



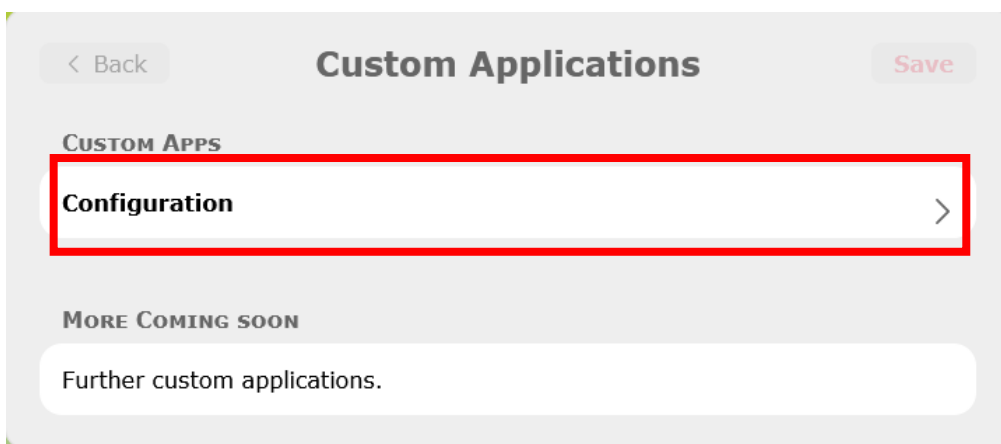
First check the checkbox of the required application (or more applications) and then confirm with the "Assign selected" button as shown in the picture above.

Then this application will be visible in the "Assigned apps" section:



Here it is also possible to unassign selected application using "Unassign selected" button.

Now if we select (e.g. from the Dashboard) this module and select the "Apps" tab in the top menu, it will be possible to select and display the application we have assigned.





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**Configuration**
Save

**DESCRIPTION**

Basic and HW configuration of heat pump system.

**SETTING**

**Heat pump type (I14)** [0]: Air / Water

**Number of compressors (D40)** [0]: 1 Compressor

**Number of refrigerant circuits (D39)** [0]: 1 Refrigerant circuit

**Hydraulic type of the unit (I208)** [0]: Mini

**TIMING**

**Pump circulation time (I8)** 60 s

**Compressor OFF time (I7)** 360 s

**DOUBLE COMPRESSOR UNIT SETUP**

**Compressors rotation (D206)** [0]: Disabled

**Delay of the 2nd compressor start (I209)** 0 s

**PUMP TIMING**

**Pump before compressor (I9)** 30 s

**Pump after compressor (I10)** 30 s

**REMOTE ON / OFF**

**Compressor (D75)** [1]: Remote signal ENABLED

**Auxiliary heater (D74)** [1]: Remote signal ENABLED

**Sanitary hot water (D76)** [0]: Remote signal DISABLED

**SHW / H&C TIMING**

**Maximum time in SHW mode (I53)** 60 min

**Minimum time in H/C mode (I54)** 60 min

**PUMP TIME**

**Pump runtime (I13)** 2990 h

**HEATER STATISTICS**

**Total heater 1 operating time (I100)** 0 h

**Total heater 2 operating time (I101)** 10 h

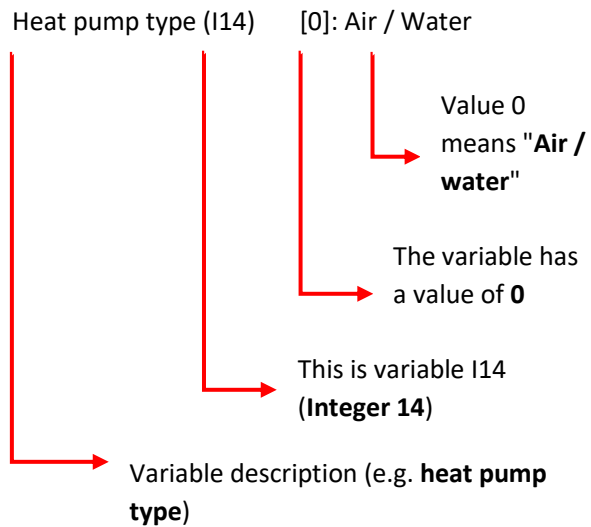
**HEAT PUMP ID / SW RELEASE**

**Heat pump ID (I72)** 1

**SW release (I104)** 60

This is an example of the "Configuration" service application display. As you can see, applications are developed with a focus on clarity, so most parameters describing the properties of the control and the heat pump itself are now displayed by listing the value, but also the textual description of the value of the variable.

For example:

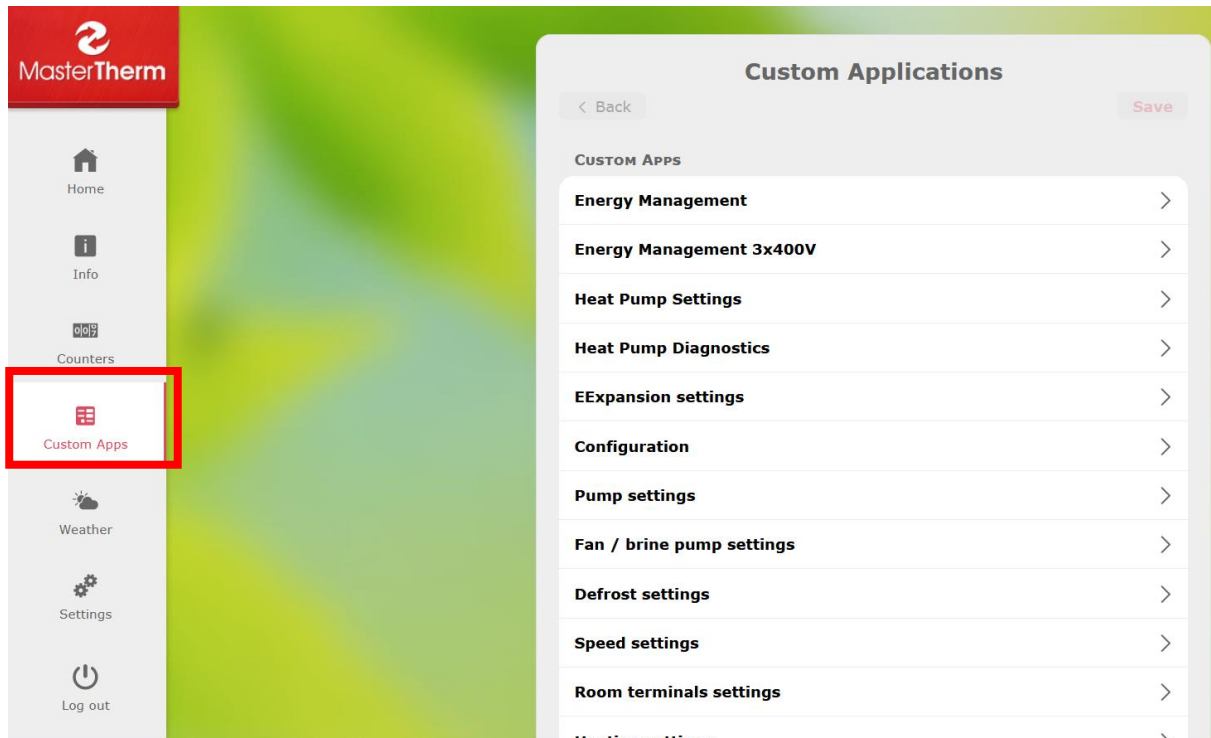


This new app design is also easy to read when viewed on mobile devices.

## 4.4.2 End-user app. Assignment

If it is required to display some existing or newly created application to the end user, this is possible.

The application to be displayed to the end user must be assigned not only to the module itself but also to end-user group. After that, end-user will see a new "**Custom Apps**" tab in their web application and find the assigned applications in it:

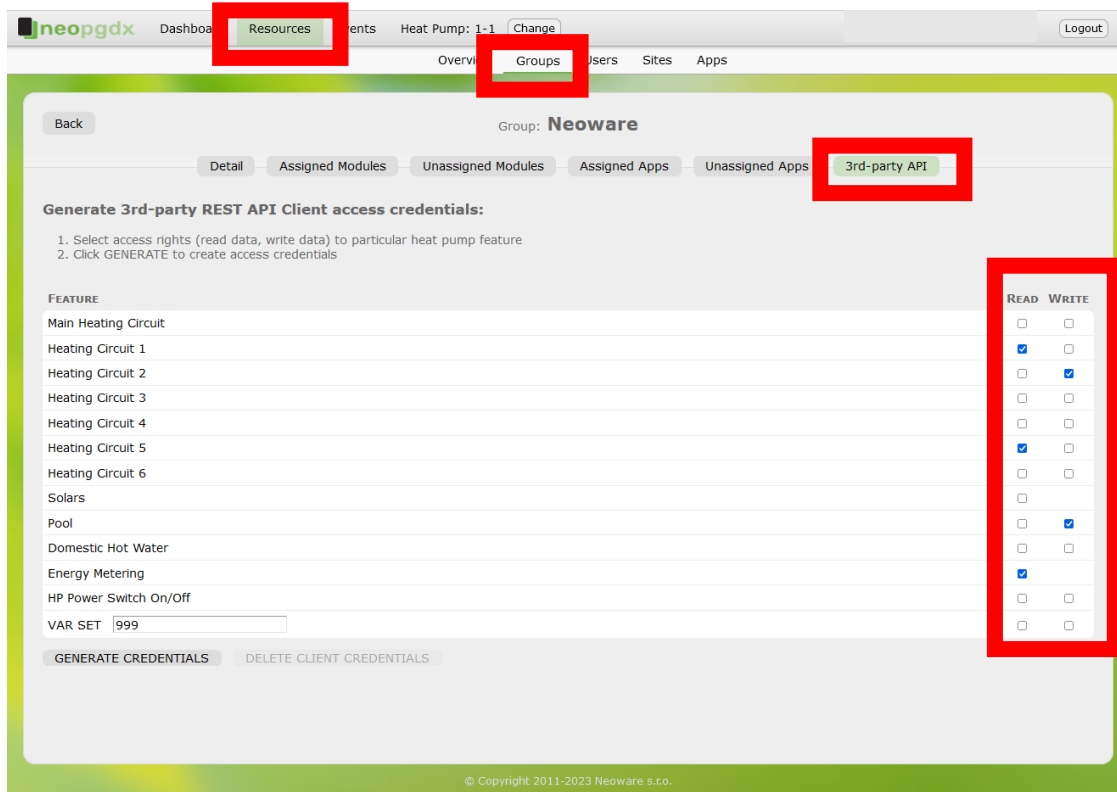


## 4.4.3 Assigning rights to 3rd party applications

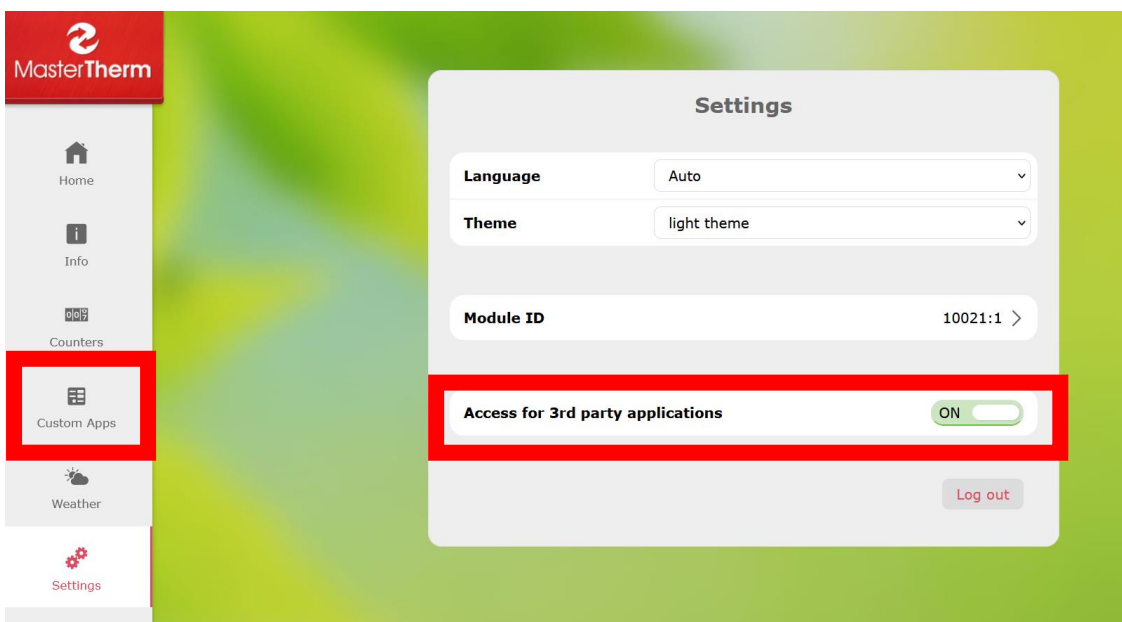
The section for developers allows you to create your own applications that communicate with our Cloud server. In this way, it is possible to read / write variables to / from the assigned units and thus create, for example, your own mobile application, integration with the smart-home system, etc.

To access documentation and the [developer.mastertherm.online](https://developer.mastertherm.online) section, you must first contact us. Once complete, your application is tested and can be granted access permissions as desired. When updating (modifying the code), the application must be tested again.

The developer should have his own service group created and in it only the units that his application should be able to control. The distributor has the right to select the sets of variables to which the developer will have access and also access (read only / write only / read and write) for each set of variables:



You can press the "GENERATE CREDENTIALS" button after you have finished selecting required permissions. You should send these credentials to the developer. If it is required to change the permissions for the developer, it is necessary to press the DELETE CLIENT CREDENTIALS button, enter the new permissions and then generate a new access key using the GENERATE CREDENTIALS button (and send it to your developer again). In addition, consent is required from the end user for third-party application access. Consent must be given by the end user - a new item is displayed to him in his web application.



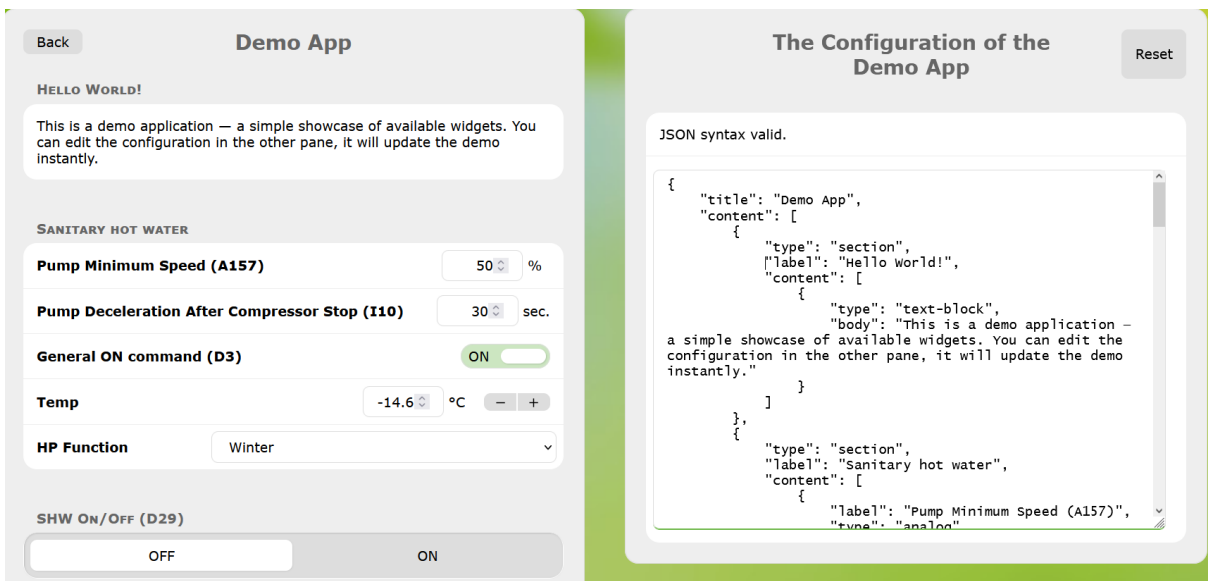
### 4.4.4 Translation and creation of new applications

New application definitions are created in JSON format.

If you are interested in translating applications into your language, please contact us. We will send you JSON definitions of individual applications for translation.

More experienced users who can build their own JSON application (for example, following the "DEMO" pattern in Resources -> Apps -> DEMO) can do so and start using their new application.

In the picture below you will find the screen from the DEMO section. On the left is a graphical representation of the application and on the right JSON definition. If you modify the JSON definition, the change will take effect immediately in the graphical representation. At the top is a text that indicates whether the JSON entry is made without errors (JSON syntax valid).



When creating an application, please click "Create" button and insert the name of the new application and its JSON definition. Then confirm by pressing the SAVE button.

### 4.5 Events

Current and past alarm status events are available here.

Events						
EVENT ID	UNIT ID	START TIME UTC	STOP TIME UTC	VARIABLE	EVENT	ACK
90	1	2022-06-24 18:23:30	active	D 20	✘	☑
89	1	2022-06-22 10:58:00	2022-06-25 13:00:49	D 3	⚠	☑
88	1	2022-06-17 08:40:34	2022-06-24 18:22:30	D 20	✘	☑
87	1	2022-06-14 03:11:04	2022-06-17 08:39:03	D 20	✘	☑
86	1	2022-06-08 07:20:47	2022-06-08 07:23:48	A 1	✘	☑
85	1	2022-06-08 06:56:29	2022-06-08 07:12:43	A 1	✘	☑

Event types



Warning

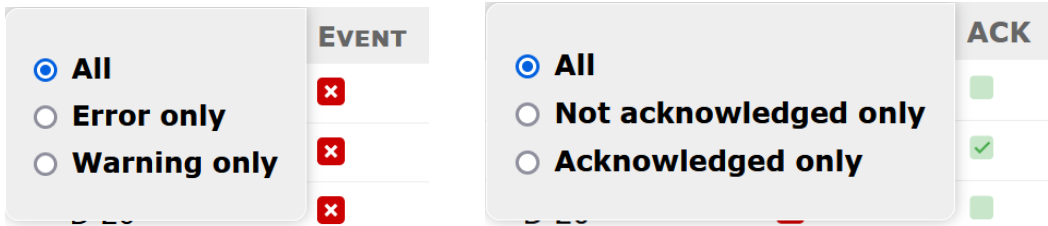


Alarm

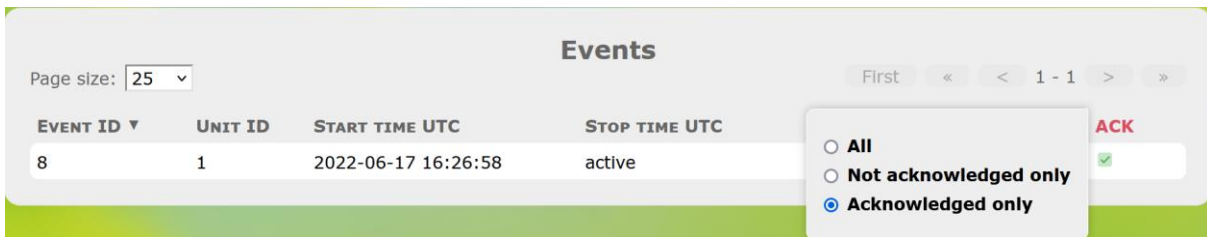
EVENT ID	UNIT ID	START TIME UTC	STOP TIME UTC	VARIABLE	EVENT	ACK
90	1	2022-06-24 18:23:30	active	D 20		<input type="checkbox"/>
89	1	2022-06-22 10:58:00	2022-06-25 13:00:49	D 3		<input type="checkbox"/>
88	1	2022-06-17 08:40:34	2022-06-24 18:22:30	D 20		<input type="checkbox"/>
87	1	2022-06-14 03:11:04	2022-06-17 08:39:03	D 20		<input type="checkbox"/>
86	1	2022-06-08 07:20:47	2022-06-08 07:23:48	A 1		<input type="checkbox"/>
85	1	2022-06-08 06:56:29	2022-06-08 07:12:43	A 1		<input type="checkbox"/>

- 1** - **Event ID** = event identification number assigned by start time
- 2** - **Unit ID** = ready for future use - now the value is always 1
- 3** - **Start time UTC** = event start time in coordinated universal time format (UTC) (- please keep your country's time offset in mind -)
- 4** - **Stop time UTC** = event stop time in coordinated universal time format (UTC) (- please keep your country's time offset in mind -)
- 5** - **Variable** = variable monitored by the event condition
- 6** - **Event** = event type (warning or alarm)
- 7** - **ACK** = acknowledge alarm

After hovering the mouse over Event or ACK, a menu is displayed with the option of filtering according to the selected parameters:



If the filter is active, the column name is highlighted in red:



After hovering the mouse over the selected event, details of setting the conditions for triggering the alarm / warning are displayed.



The default sorting is descending - the most recent event is displayed first. The number of records displayed on the page is selected in the upper left part (Page size). Switching between pages is possible using the < > arrows, the "First" button is used to jump to the first (or last - according to the user's display settings) page.

## 4.6 Config

The Configuration section is used to set the logging of the values of the selected variables.

It is also possible to edit the name and description of variables and set parameters for triggering an alarm event if the conditions you require are met.

At the bottom of the section, you can enter an email address (or comma-separated addresses) to send notifications in the event of an alarm or warning and adjust monitoring settings.



After entering the section, we will see 3 tables divided according to the data type of variables (digital, analog, integer).

**Digital variables**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
41	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
61	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
81	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
101	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
121	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
141	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
161	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
181	181	182						188	189			192	193	194	195	196	197	198	199	200
201	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220
221	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240
241	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260
261	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280
281	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300
301	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320
321	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340
341	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360
361	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380
381	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400
401	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420
421	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440
441	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460
461	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480
481	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497			500

Logged and alarm variables are marked with a highlighting frame:

**Digital variables**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
41	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
61	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
81	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
101	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
121	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
141	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
161	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
181	181	182						188	189			192	193	194	195	196	197	198	199	200
201	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220
221	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240
241	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260
261	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280
281	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300
301	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320
321	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340
341	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360
361	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380
381	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400
401	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420
421	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440
441	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460
461	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480
481	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497			500

Blue frame  
= variable is  
logged

Orange frame  
= variable is  
logged with  
alarm (or  
warning) state  
monitoring

**Digital variables**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
41	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
61	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
81	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
101	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
121	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
141	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
161	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
181	181	182						188	189			192	193	194	195	196	197	198	199	200
201	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220
221	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240
241	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260
261	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280
281	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300
301	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320
321	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340
341	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360
361	361	362	363	364	365	366	367	368												

### 4.6.1 Digital variable configuration and triggering an alarm as required

After clicking on the required variable number, a window with detailed settings is displayed (according to the data type of the variable).

Here you can edit the name and description of the variable

If the "variable is logged" then values from this variable are periodically (every minute) written to the memory on cloud server and then it is possible to display them in "History" section.

If the variable is marked as "Alarm", it is possible to set the sending of notification emails according to the selected criteria and threshold values.

For a digital variable, it is possible to choose from 3 options for triggering an alarm according to the change in the value of the variable:

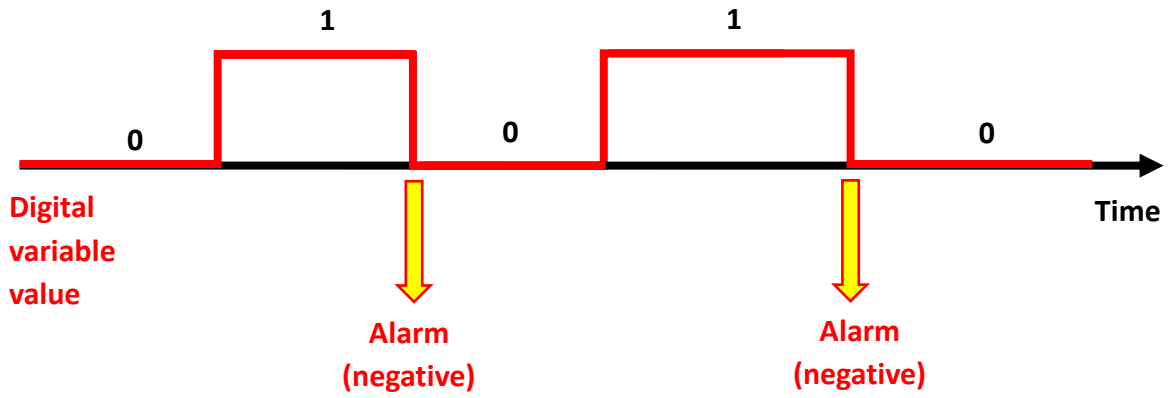
Positive = value change from 0 to 1

Negative = value change from 1 to 0

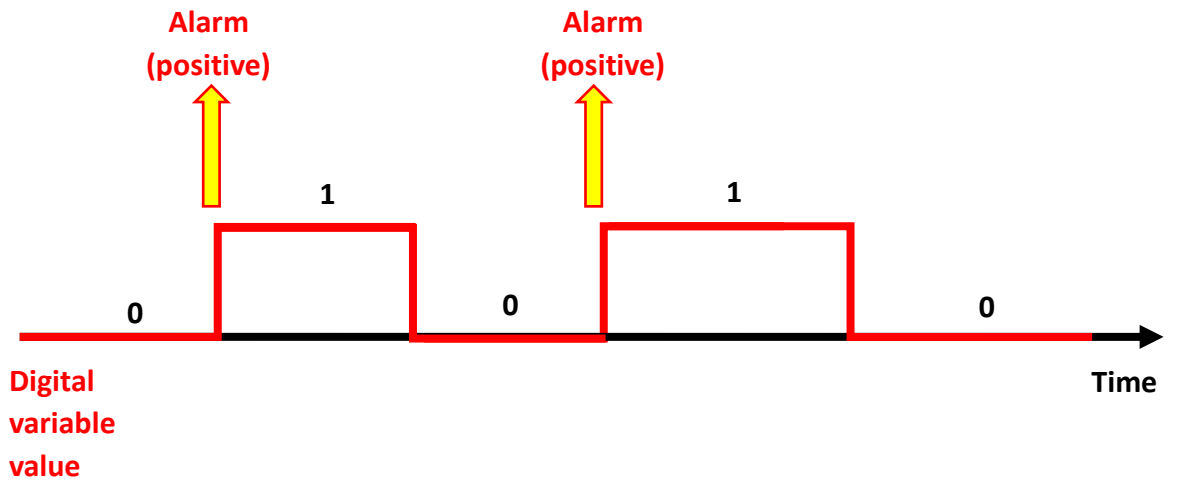
Negative & Positive = both changes

Triggering an alarm condition:

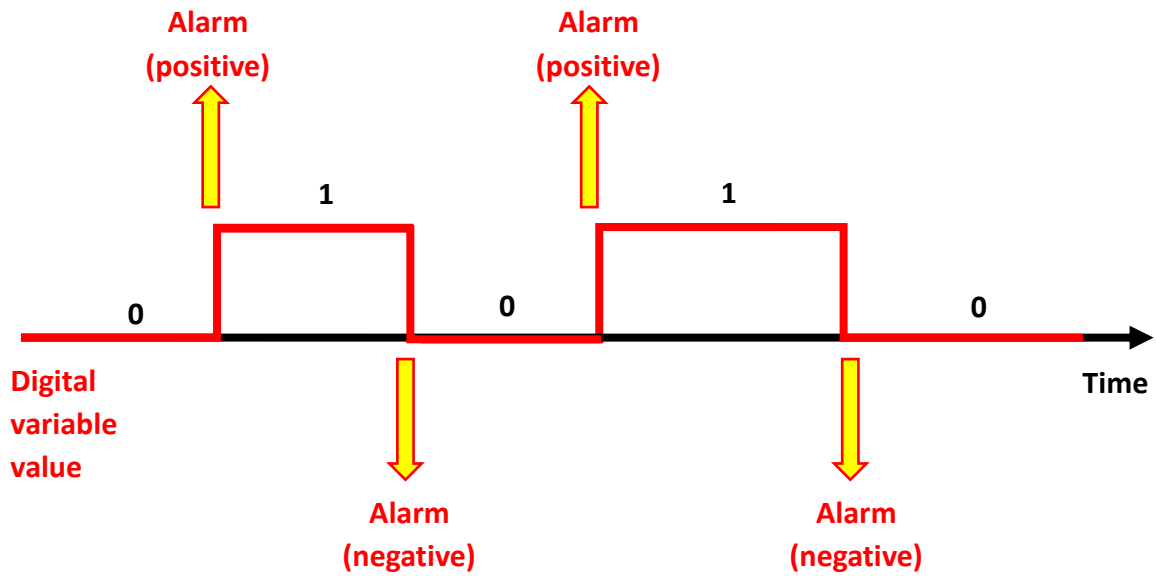
Trigger = Negative



Trigger = Positive



**Trigger = Negative & Positive**



### Settings for digital variable 19

Close Delete Save settings & alarm

Variable type: digital variable

Variable ID: 19

Variable name: reset3e\_v

Variable description: manual reset 3 errors

Variable logged:  ON

Alarm:  ON

PLEASE ADJUST ALARM SETTINGS

**Trigger**

Positive Negative Negative & Positive

**Severity**

Alarm Warning

It is also possible to set the "severity" of the alarm that will be displayed in the incoming email:

Alarm

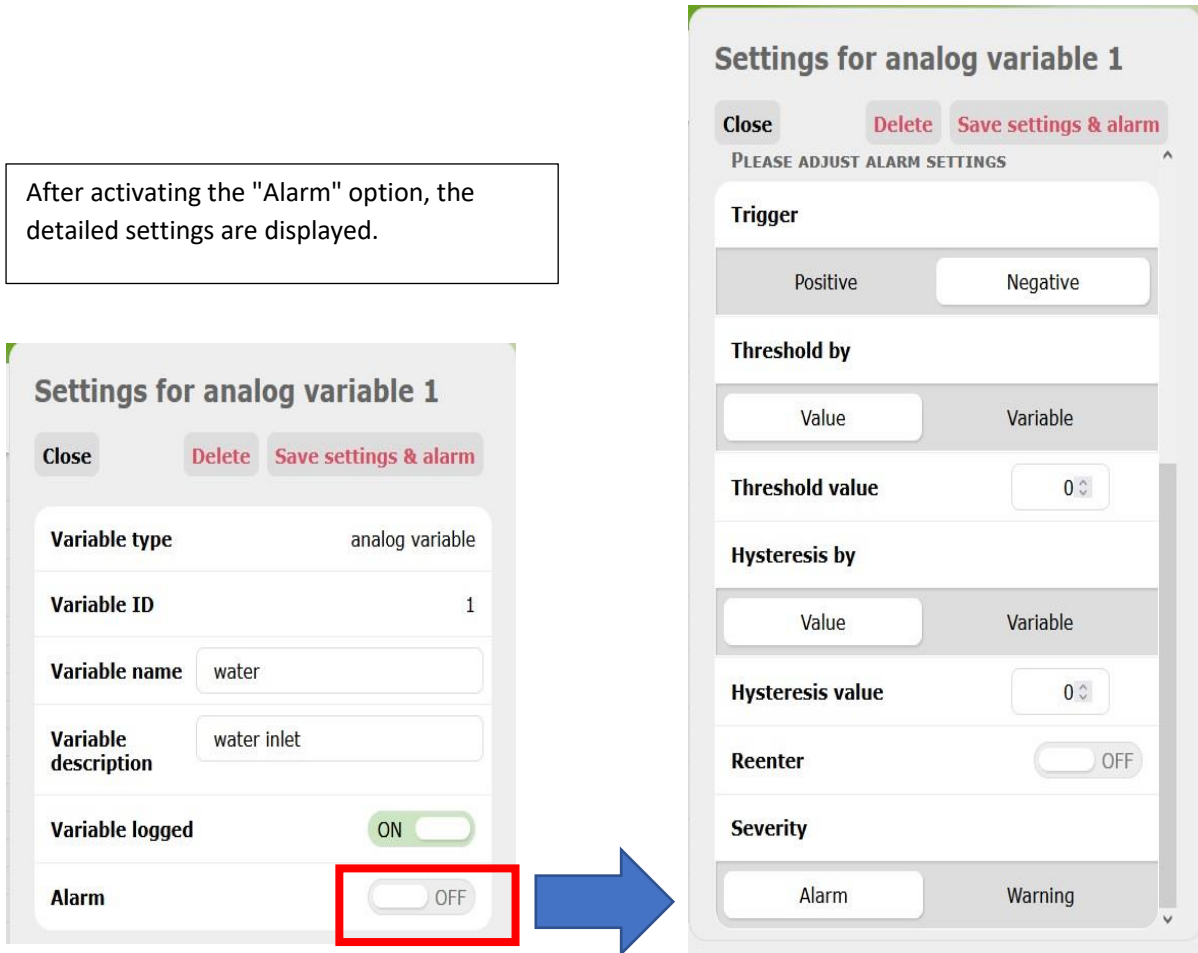
Warning



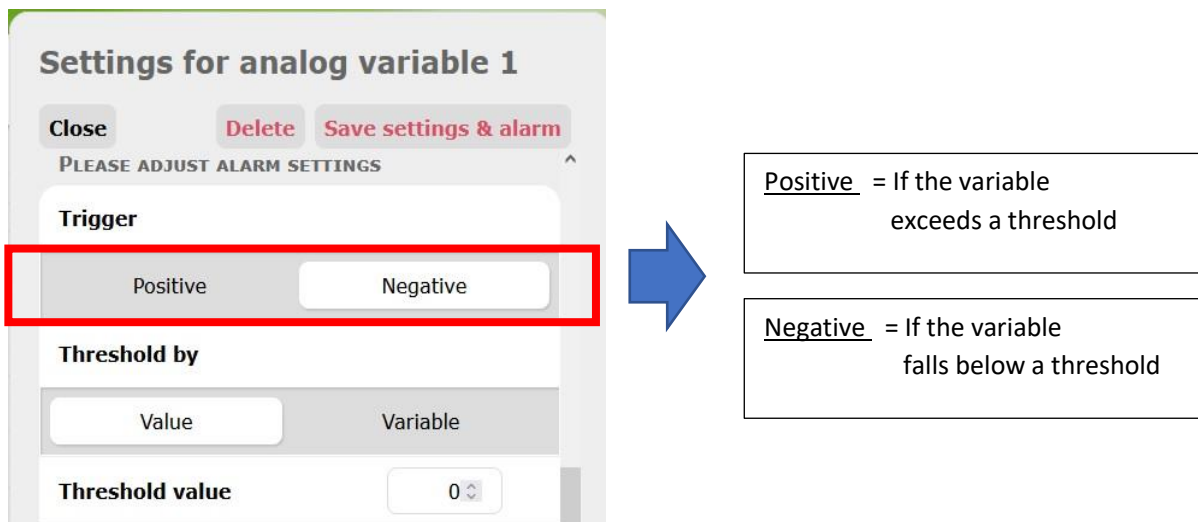
### 4.6.2 Analog / Integer variable configuration and triggering an alarm as required

After clicking on the required variable number, a window with detailed settings is displayed (according to the data type of the variable).

After activating the "Alarm" option, the detailed settings are displayed.



A description of the individual settings can be found below:



**Settings for analog variable 1**

Close Delete Save settings & alarm

PLEASE ADJUST ALARM SETTINGS

**Trigger**

Positive Negative

**Threshold by**

Value Variable

**Threshold value** 0

**Hysteresis by**

Value Variable

**Hysteresis value** 0

**Reenter** OFF

**Severity**

Alarm Warning

Setting the required threshold value by **Value** or **Variable**:

**Value** = If the "Value" option is selected, enter the required threshold Analog/Integer value in the line below (Threshold value).

**Variable** = If the „Variable" option is selected, then we can assign value of selected variable number to the threshold value.

**NOTE:**

If trigger is for ANALOG variable the value references number of analog variable. If trigger is for INTEGER variable the value references number of integer variable.

**Settings for analog variable 1**

Close Delete Save settings & alarm

PLEASE ADJUST ALARM SETTINGS

**Trigger**

Positive Negative

**Threshold by**

Value Variable

**Threshold value** 5

**Hysteresis by**

Value Variable

**Hysteresis value** 1

**Reenter** OFF

**Severity**

Alarm Warning

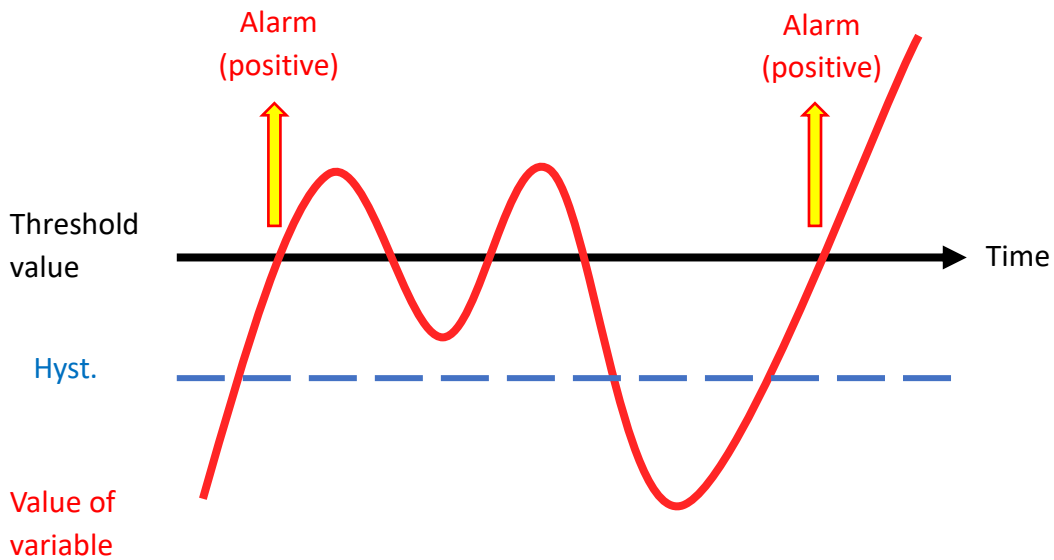
**FOR EXAMPLE:**

If we want to receive an email notification if the current heating water temperature (Analog 1) exceeds the required heating water temperature of the main heating circuit (Analog 5), the settings may look like the picture on the left.

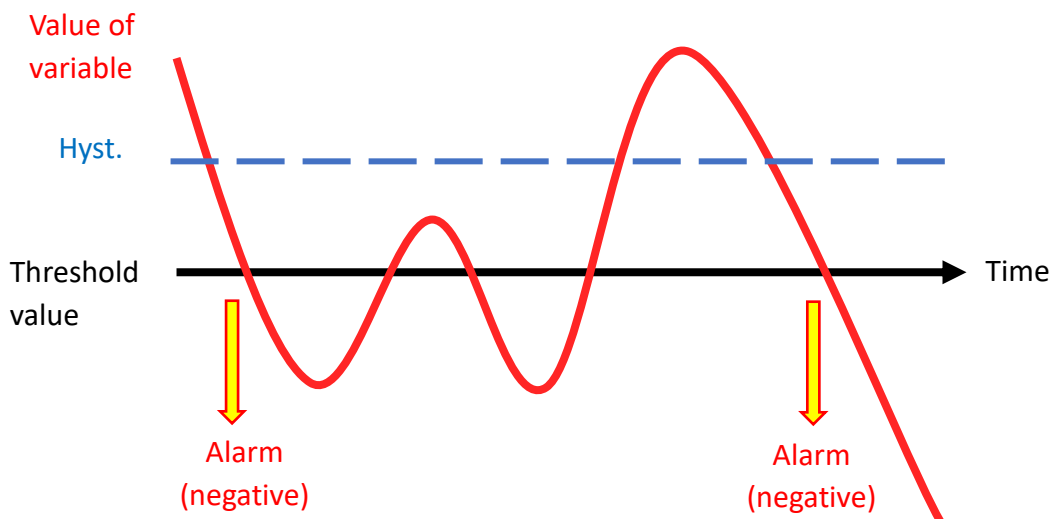


Triggering an alarm condition:

Trigger	= Positive
Reenter	= OFF
Hysteresis	= 1 °C



Trigger	= Negative
Reenter	= OFF
Hysteresis	= 1 °C



## Example of alarm email

**Notification from site: [10021\_BAI000SIM\_Simulator\_Jablonec nad Jizerou\_CZ\_MT-TC (id=10021)]**

Site ID: 10021  
 Unit ID: 1  
 Unit name: Heat Pump  
 Time: 2022-06-08T09:20:47+02:00

**ALARM FIRED**

Variable: ANALOG 1  
 Variable name: water  
 Actual value: 41.5

**Condition:**

Trigger: above threshold  
 Threshold: ANALOG 5 (value 29.1)  
 Hysteresis: 2.0

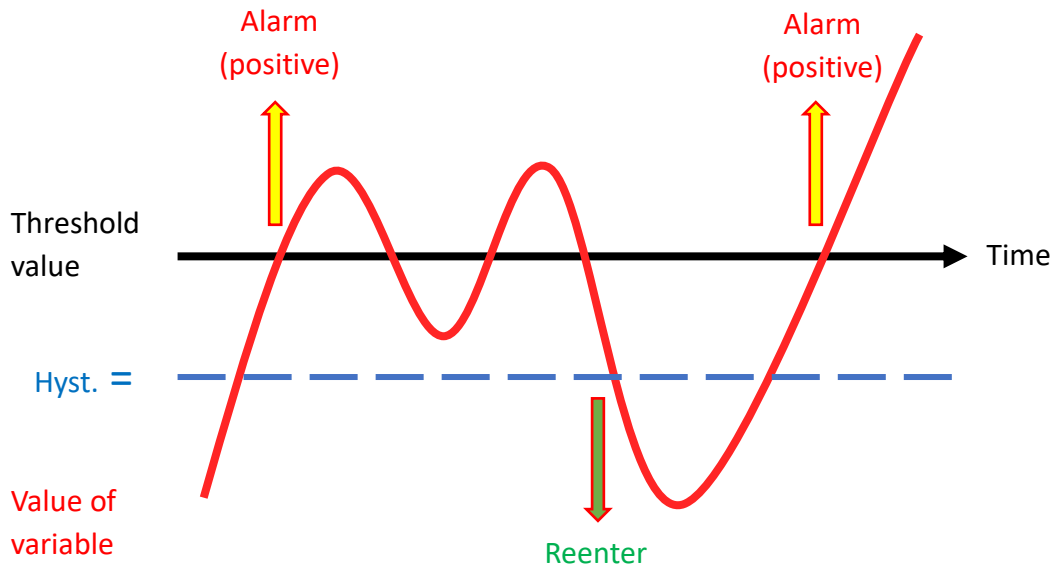
*This e-mail was generated automatically. Please do not reply to the sender, the mailbox is unattended.*

This text can be translated into your language!

(If you are interested in a translation into your language, please contact us).

## Triggering an alarm condition (with “Reenter” option):

Trigger	= Positive
Reenter	= ON
Hysteresis	= 1 °C

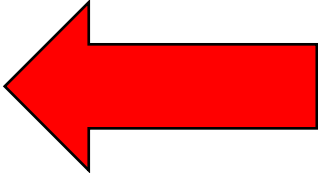


## Example of alarm email (for reenter event)

**Notification from site: [10021\_BAI000SIM\_Simulator\_Jablonec nad Jizerou\_CZ\_MT-TC (id=10021)]**

Site ID: 10021  
 Unit ID: 1  
 Unit name: Heat Pump  
 Time: 2022-06-08T09:23:48+02:00

ALARM CLEARED



Variable: ANALOG 1  
 Variable name: water  
 Actual value: 22.7

**Condition:**

Trigger: above threshold  
 Threshold: ANALOG 5 (value 29.1)  
 Hysteresis: 2.0

*This e-mail was generated automatically. Please do not reply to the sender, the mailbox is unattended.*

### 4.6.3 Monitoring parameters

At the bottom of the Config section you will find the possibility of setting advanced communication parameters and also the option to enter an email address (or multiple addresses separated by a comma) for sending alarm email notifications. It is also possible to copy this setting from another preset module.

**Monitoring parameters** Save monitoring parameters

**Monitoring enabled**  ON

**BASIC FREQUENCY**

**Data write max delay** 10 sec

**Data read period** 60 sec

**DETAILED FREQUENCY**

**Detailed frequency enabled**  OFF

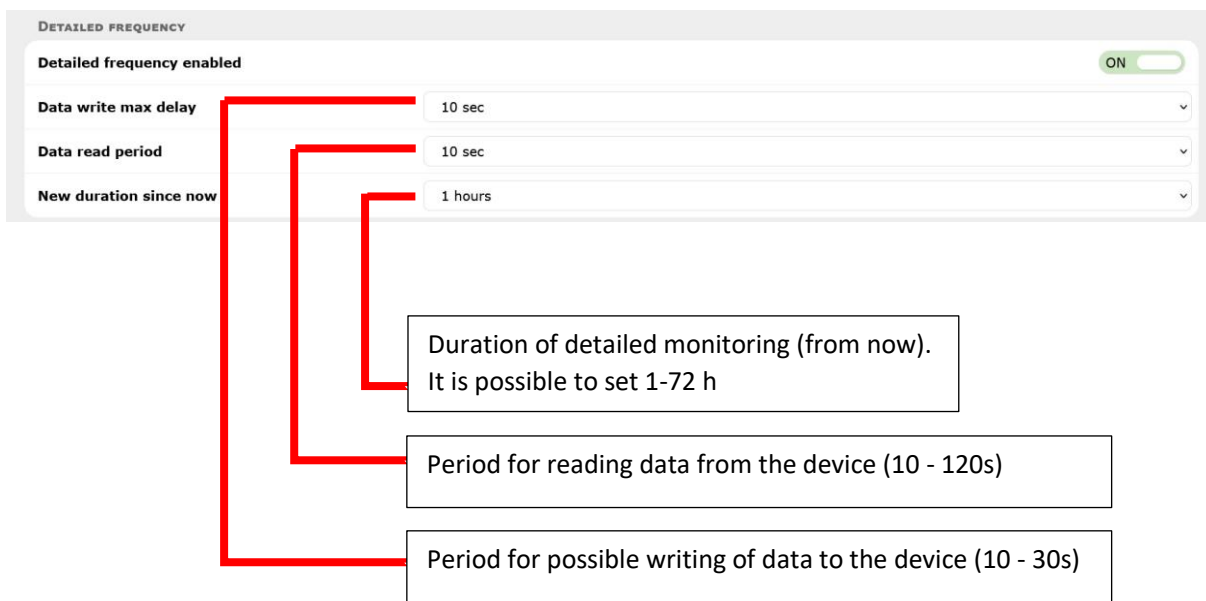
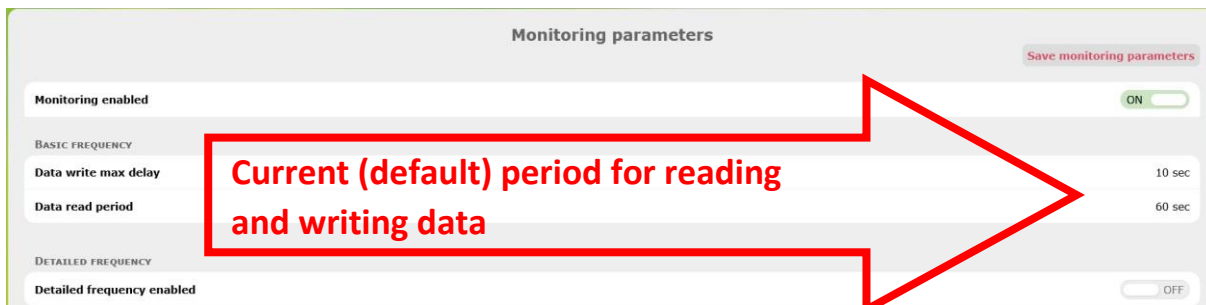
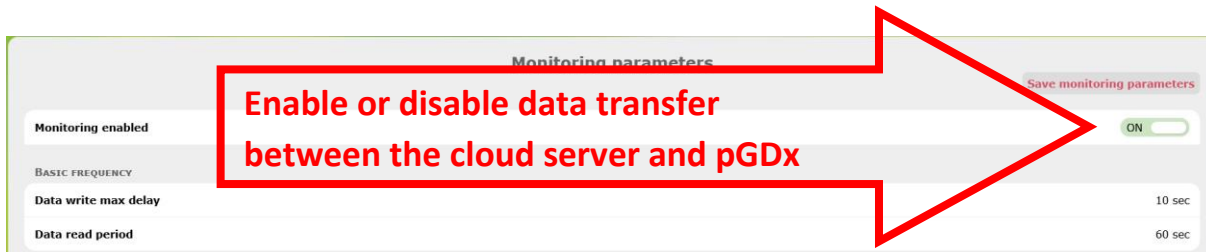
**NOTIFICATIONS**

**Email recipients**

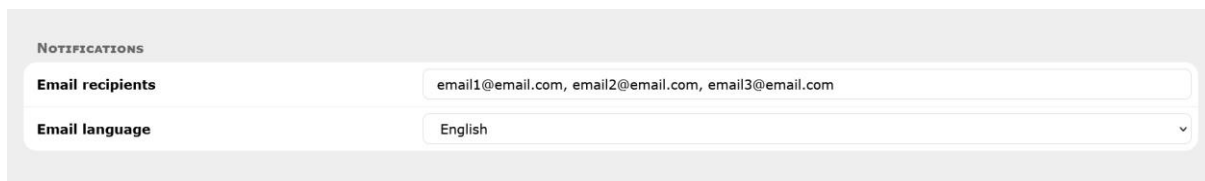
**Email language** English v

**COPY CONFIGURATION FROM**

Copy



Here you can enter an email (or emails separated by a comma ",") to send notifications in case of an alarm or warning.



For now, the text of the email of the notifications is in English only, but it's not a problem to add the required translation:

English
Czech
Dutch
German
Italian
Estonian
Danish

If you want to have the notification email translated into your language, we will need your help with the translation.

COPY CONFIGURATION FROM

▼

Copy

Here it is possible to copy all configuration (variable names, description, alarms ...) from the selected unit to this unit. Select a "sample" unit from the drop-down list and click **Copy**.

**Save monitoring parameters**

After adjusting any configuration settings, please do not forget to click save button.

## 4.7 Counters

(enter after pressing "**Counters**" from the upper navigation bar after selecting the heat pump)

On the Counters page, you will find common counters, but also a counter of basic alarms:

Counters	
<b>SYSTEM COUNTERS</b>	
Compressor Runtime	3310 h
Compressor Start Counter	7580 x
Pump Runtime	4010 h
<b>AUXILIARY COUNTERS</b>	
Auxiliary Heater 1 Runtime	0 h
Auxiliary Heater 2 Runtime	0 h
<b>ALARM COUNTERS</b>	
LP switch/PT error	0 x
Alarm HP from PT error	0 x
Alarm CHT error	0 x
Alarm CLT error	0 x
Alarm flow error	1 x
Alarm DGT error	0 x
Alarm fan TP error	0 x
Alarm compressor/drive TP error	0 x
Alarm antifreeze error	0 x
Alarm LP from PT on HP side error	0 x
Alarm EVD error	0 x
Alarm HP switch error	11 x
Alarm inverter drive error	0 x

## 4.8 Monitor

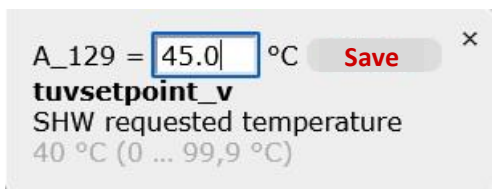
(Enter after pressing "**Monitor**" from the upper navigation bar after selecting the heat pump)

Classic table view of all 2100 (from pGDx SW version 1114) variables that are transferred from the heat pump controller. The tables are described according to data types of variables (Digital, Analog, Integer).

For easier orientation of technicians and faster diagnostic possibilities, after hovering the mouse pointer over each individual variable, a window with information about variable is displayed. Whether the variable can be written or read-only and description and name of selected variable is displayed.

Digital variables																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
1	1	0	1	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	1	20
21	1	0	1	1	0	0	0	0	0	1	0	0	1	0	1	1	1	1	0	0	40
41	1	1	0	1	0	1	1	1	0	0	0	0	1	0	1	1	0	1	0	0	60
61	1	0	1	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	80
81	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100
101	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	120
121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	140
141	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	160
161	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	180
181	1	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	200
201	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	220
221	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	240
241	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	260
261	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	280
281	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	300
301	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	320
321	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	340
341	0	0	0	0	0	0	1	0	0	1	1	1	1	1	1	1	1	1	0	0	360
361	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	1	1	1	1	1	380
381	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	400
401	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	420
421	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	440
441	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	460
461	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	480
481	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500
501	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	520
521	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	540
541	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	560
561	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	580
581	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	600
601	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	620
621	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	640
641	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	660
661	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	680
681	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	700

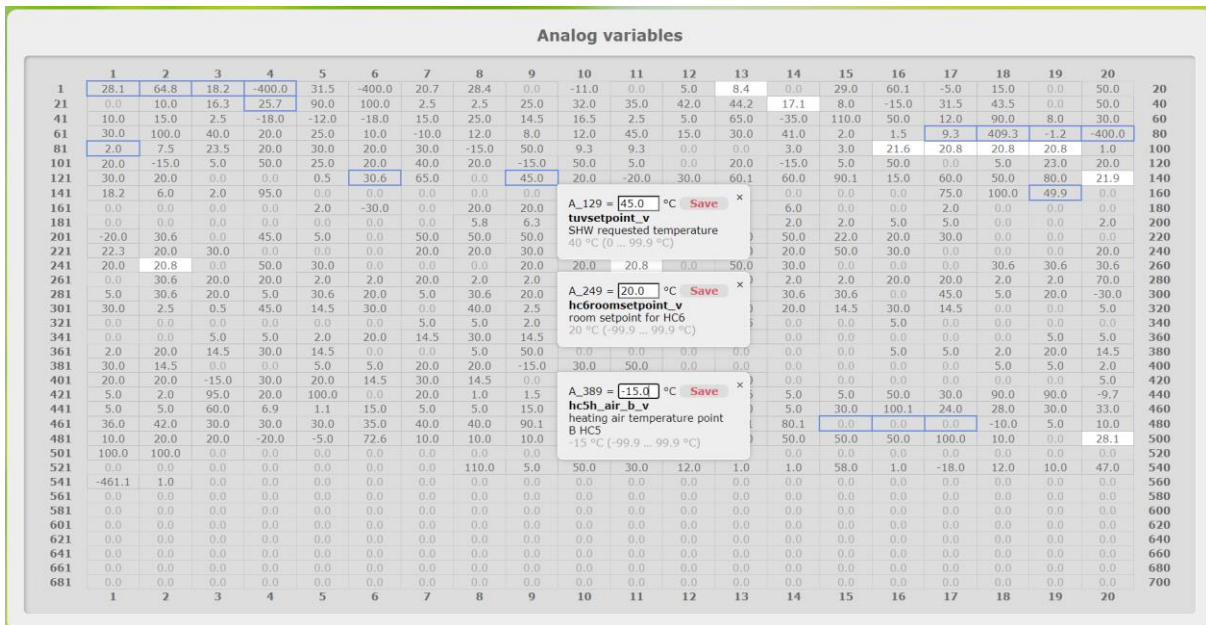
After clicking on any variable marked for read and write (R / W), a window will appear, which is used to edit value of the selected variable:



The figure above shows an example for adjusting required heating water temperature to 45°C. We enter the required value of the variable in the text field and then confirm it by pressing the "Save" button.



We can also open multiple windows for editing variables at once, as shown in the figure below, making it easier to enter multiple values.



### 4.9 History

(Enter after pressing "History" from the upper navigation bar after selecting the heat pump)

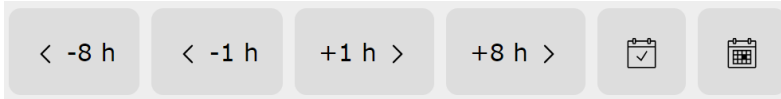
This page is used to display logged variables in a clear chart. The big change compared to the previous interface is that the graph plots the logged values minute by minute in a total time frame of 8 hours. This means that if any variable has been logged in the selected time frame, it will also be clearly visible there.

In the upper middle part of the page, you will find information about the currently selected time frame:

**History:** -8 h ... **22/11/2021, 12:08:58**

The information above means that we are displaying history for the time frame as of 22/11/2021 12:08:58 and previous 8 hours (-8 hours).

At the top right, there are buttons for browsing and specific time frame selection:



The +/- 1h or 8h buttons are used to move the time frame by +/- 1 or 8 hours and can be used to list the "recent events" at a time that is interesting for us.

If you want, you can choose the calendar function to select date.



After pressing the calendar button, the calendar for selecting required date is displayed.

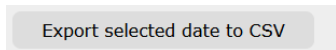


Use the "<" and ">" arrows to select the month.

After pressing the number of the day in the month, logged data are displayed for required day.



This button is used to return to the time frame of the current day ("today").



The calendar provides the ability to export data in CSV format for download. It is therefore not a problem to provide exported data for further analysis, tuning the operation of industrial installations, etc.

Data is always exported for 1 full day (24h from 0:00 to 23:59).

Below these navigation buttons, we will find a sliding menu across the entire width of the page for selecting variables to display in the chart. After hovering the mouse pointer over any variable, its description will be displayed. The figure below shows the part of this menu with currently selected variable A1 (return water temperature of the main heating circuit). Please see the colour that the A1 variable is now highlighted at the bottom (green). A graph for this variable will be plotted in this colour. The colour is selected automatically depending on number of selected variables and the program's efforts to distinguish selected graphs as best as possible.

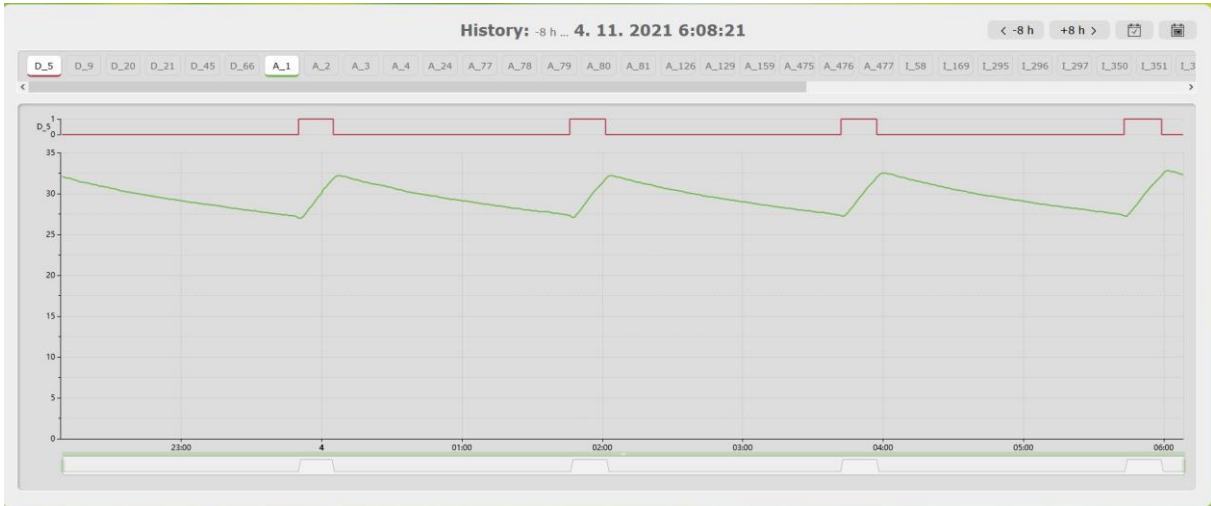


For example, when you select this variable, you may see a graph that looks like this:



If we are interested in the exact value lying somewhere on the graph curve, we can easily find it by hovering over the desired location with the mouse pointer (exact value and exact time of its log will be displayed), as shown in the picture on the left.

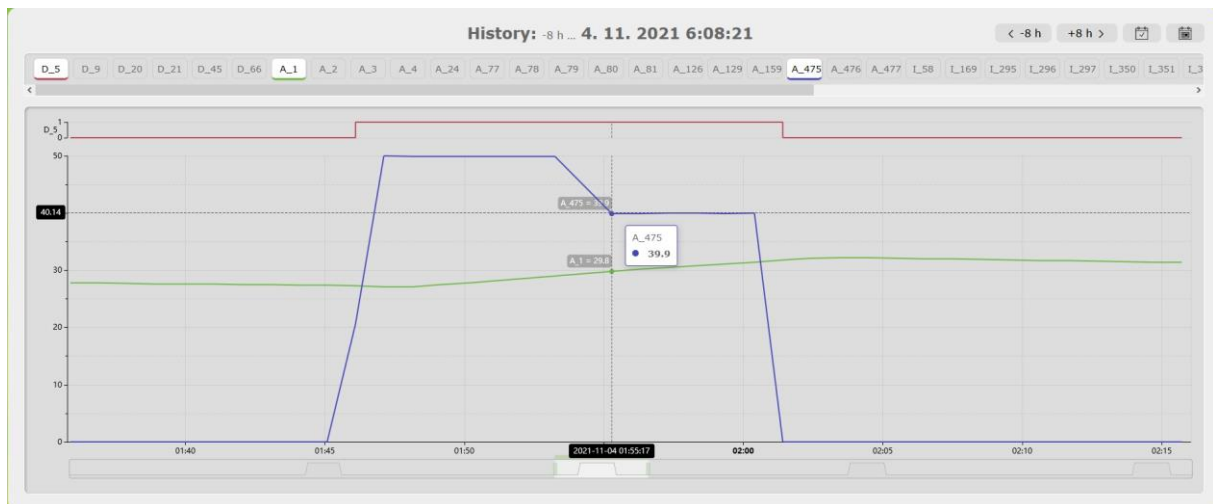
We have the actual return water temperature of the main heating circuit shown in the graph now. It would be interesting to see the compressor operation information (D5) as example. As this is a digital variable, it will be displayed in a different way for clarity, as shown in the figure below:



In the same way, we can display for example the actual speed of the compressor (A475) and other...



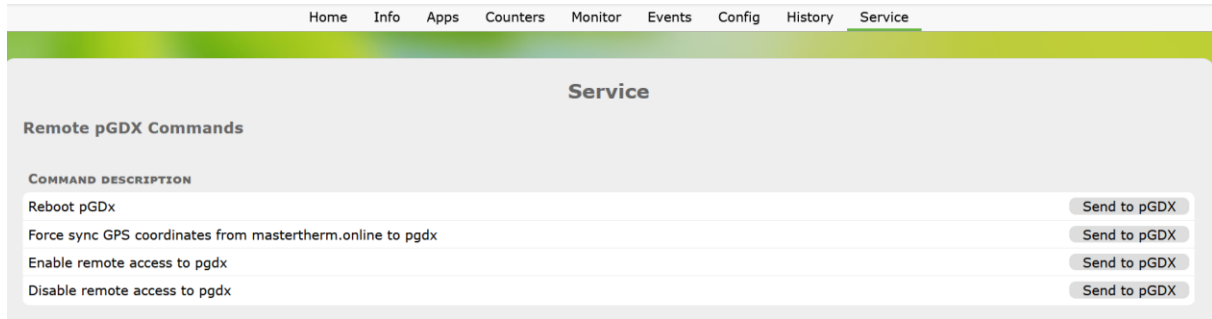
Using the mouse wheel, we can zoom in on the graph (stretch the timeline) and view the detail of the current data:



Thanks to these possibilities, the analysis of logged data is one of the most powerful tools for diagnosing problems and optimizing operation of MasterTherm heat pumps.

## 4.10 Service

The service section is intended for launching applications on the pGDx side created beyond the normal function of monitoring variables of the heat pump. These are functions launched directly in the pGDx device and provide superior service access options.



Here you will find functions such as:

- Reboot pGDx
- Force sync GPS coordinates from mastertherm.online to pGDx
- Enable remote access to pGDx
- Disable remote access to pGDx

### Send to pGDX

To send a request to pGDx to start a function, press button on the right.

**Currently, only 1 command per minute can be run.**

For security reasons, the following window is displayed in case of a more frequent request:

### Other command is being executed, wait a minute and repeat

Please provide the following details when reporting this error:

```
severity: notice
id: 7001
messageTitle:
requestId: da71d92cfaa8167f4c93f894a5762f43
message: Other command is being executed, wait a minute and repeat
reason:
domain: APIGW-UTILS:/api/v1/commands/sites/10700/1/command
URL: https://mastertherm.online/webui/heat-pump/10700-1/service
```

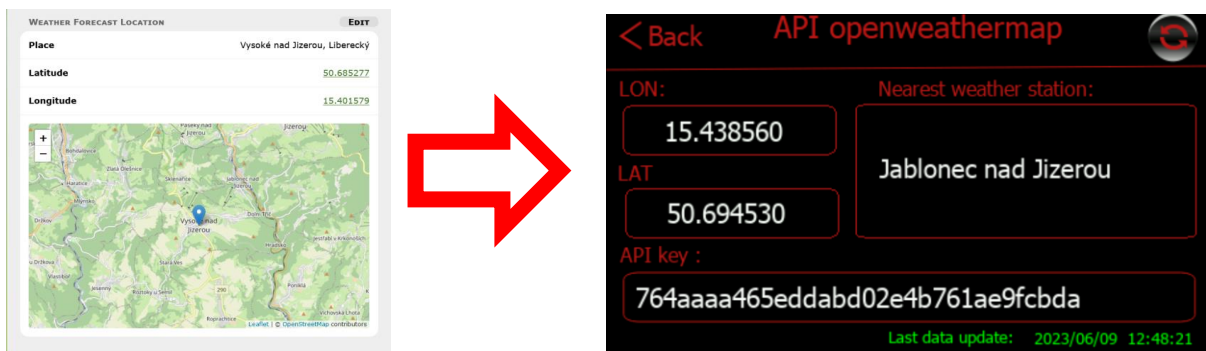
If you see this notification, refresh the page and wait at least one minute before running the next command.

### 4.10.1 Reboot pGDx

The pGDx device will restart. The device will not be online for a few minutes due to restarting all services. This is the only function executable by a user with "service" level authority.

### 4.10.2 Force sync GPS coordinates from mastertherm.online to pGDx

Using this button, GPS coordinates of the unit (if entered) can be forcibly written from the Cloud server to pGDx.



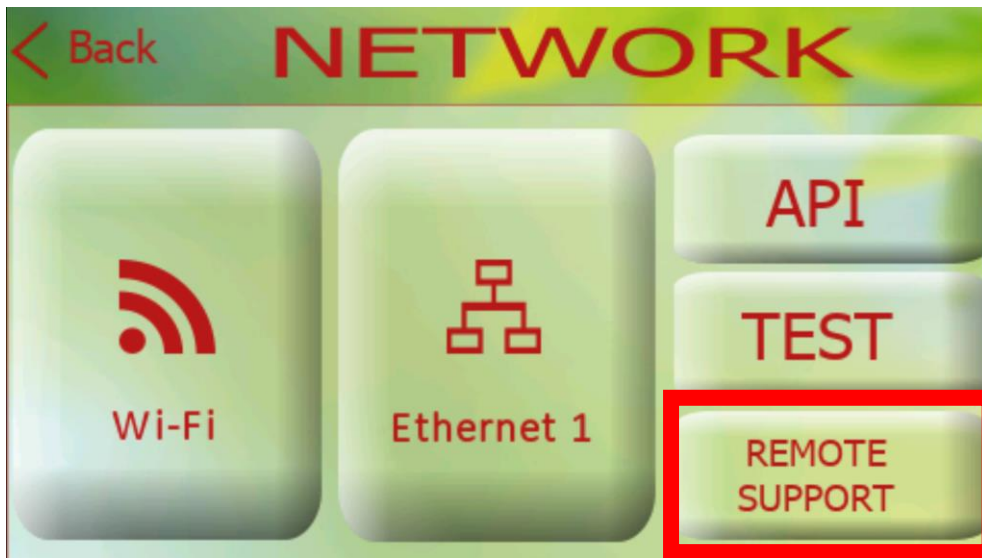
### 4.10.3 Disable remote access to pGDx

This button can be used to terminate a remote connection for service support. If you do not terminate the connection yourselves, it is automatically deactivated within 24 hours.

### 4.10.4 Enable remote access to pGDx

With this button, a secure "remote desktop" connection can be established with pGDx for advanced service access and assistance in case of problems. **End-user consent is required to establish a secure connection, either for a permanent possibility of remote connection option or to temporarily enable the feature using button in pGDx.**





Remote service support is **always enabled**

Remote service support is **enabled only temporarily**

If the customer has this option **enabled permanently** or has initiated the establishment of a secure connection for remote technical support by **Enable only now** button, it is possible to connect to his pGDx and have the same access as if we were standing directly in front of pGDx on site.

For remote access (if the requirements above are met), it is necessary to go to the "remote" section:

[www.mastertherm.online/remote](http://www.mastertherm.online/remote)

(if login is required, enter the same access data as for entering the administration section)

### 4.11 Remote section

([www.mastertherm.online/remote](http://www.mastertherm.online/remote))

- 1) In the full-text search engine on the right, **enter the pGDx number** you want to connect to
- 2) Click on the button labelled with a name according to the pattern: Module number + "VNC"



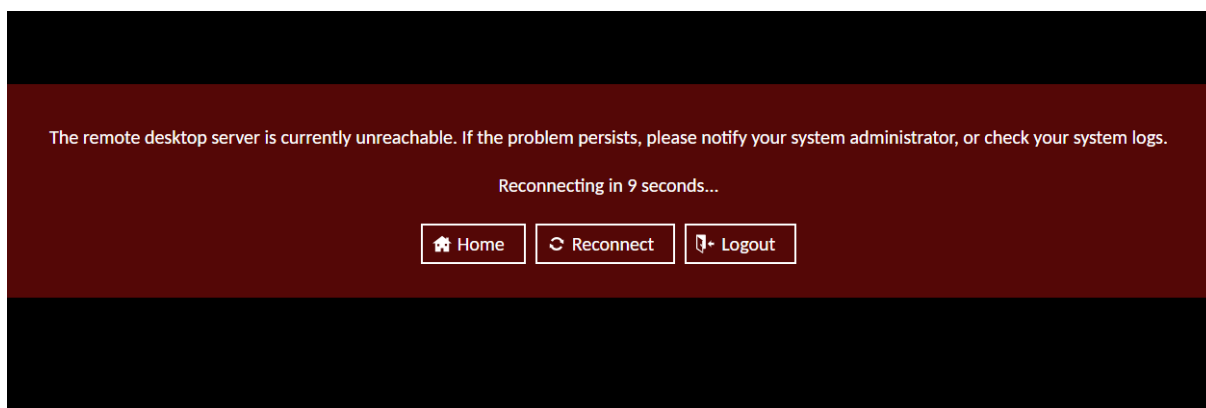
After successful connection, we can control pGDx directly:



All functions can be used, including the pGD emulator for the most advanced settings and diagnostics (for example, DC drive parameters check, communication protocols, etc.)

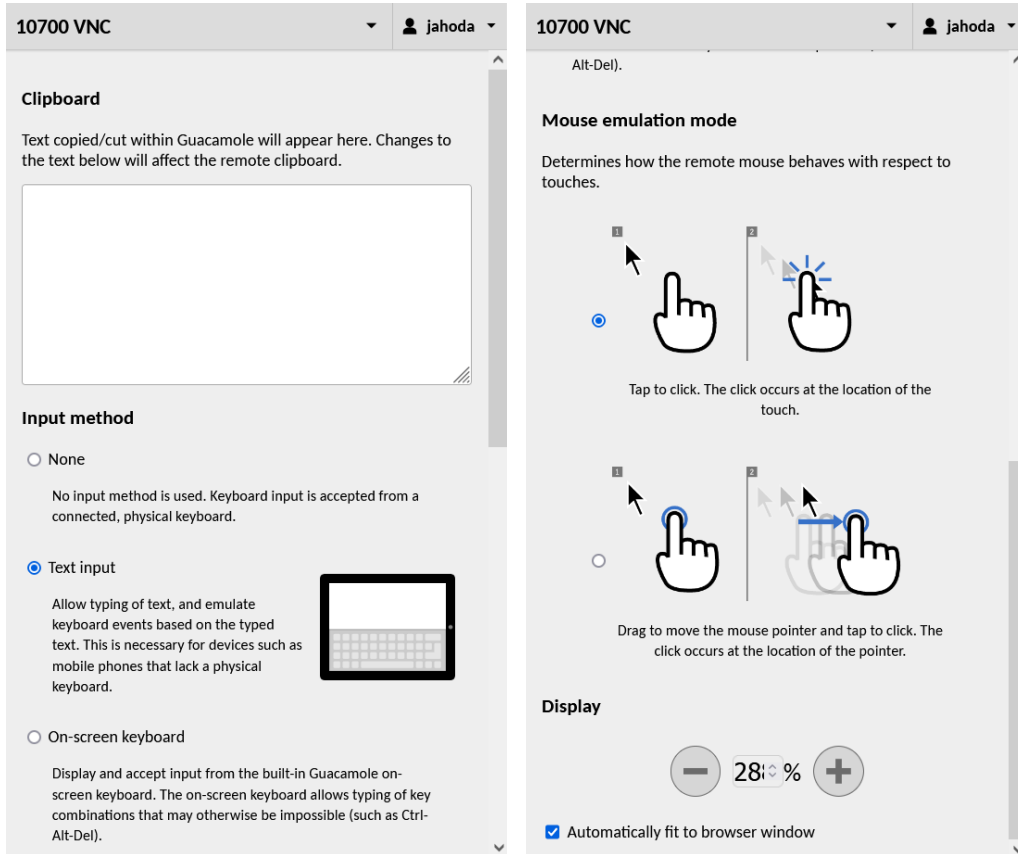


If the connection has not yet been established (the time between pressing the button and the possibility of connection can be around 1 minute or it could not be established - for example, the function is not enabled by the end user) the following window is displayed.



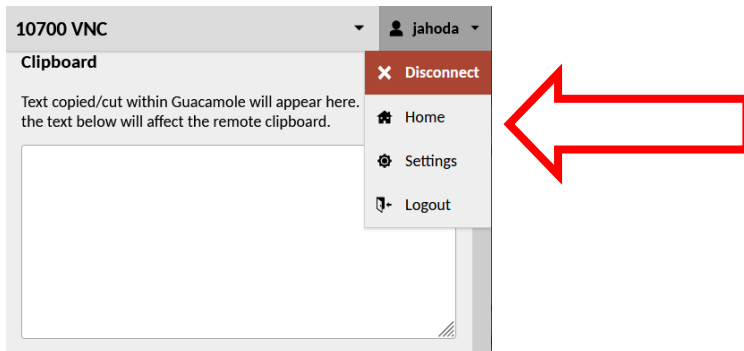
In this case, we recommend verifying the enablement of the function on the customer's side and then repeating the action (starting the function from the "Service" section).

While using this function, you can press the key combination: (left) CTRL+ALT+SHIFT to show control settings:

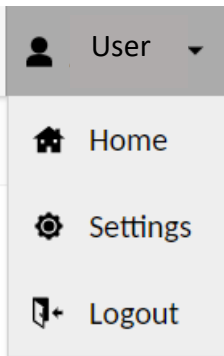
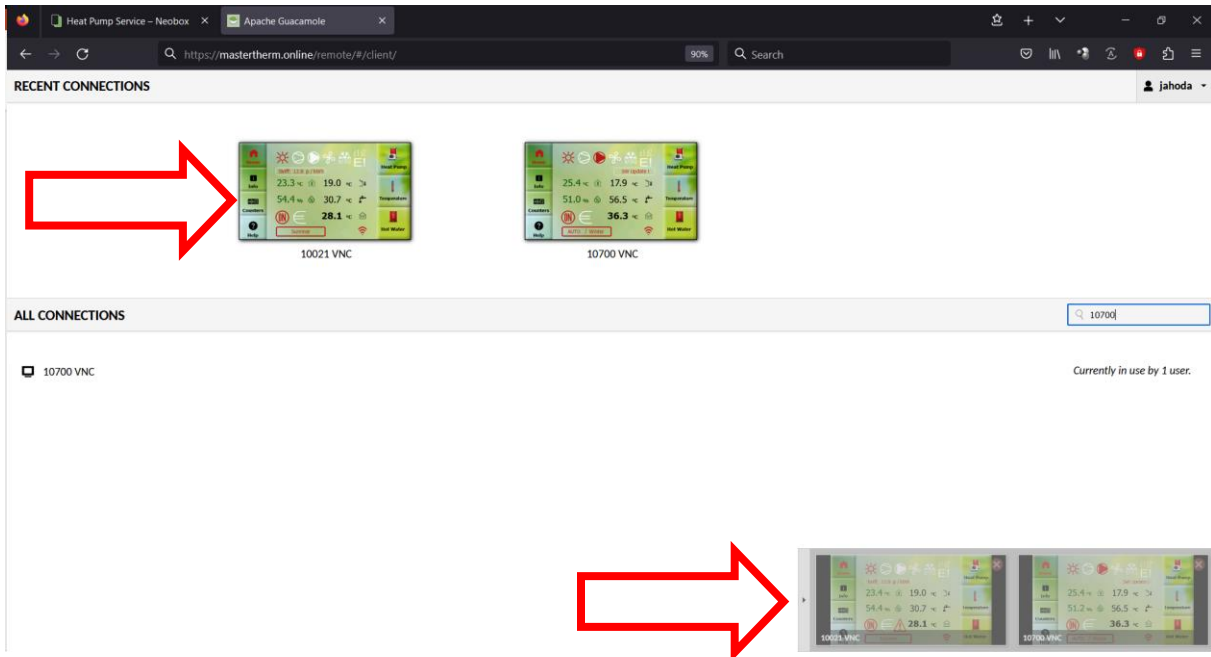


This allows you to adjust, for example, size of the window, display of mouse cursor, ability to enter text remotely from our keyboard, display of keyboard on the and more.

You can return to the [www.mastertherm.online/remote](http://www.mastertherm.online/remote) home screen from the CTRL+ALT+SHIFT drop-down menu, then press the home button from the drop-down menu at the top right:



The web interface can remember last few connections for quick access in the future. If multiple connections are active at the same time, you can easily switch between them using by clicking the previews at the bottom:



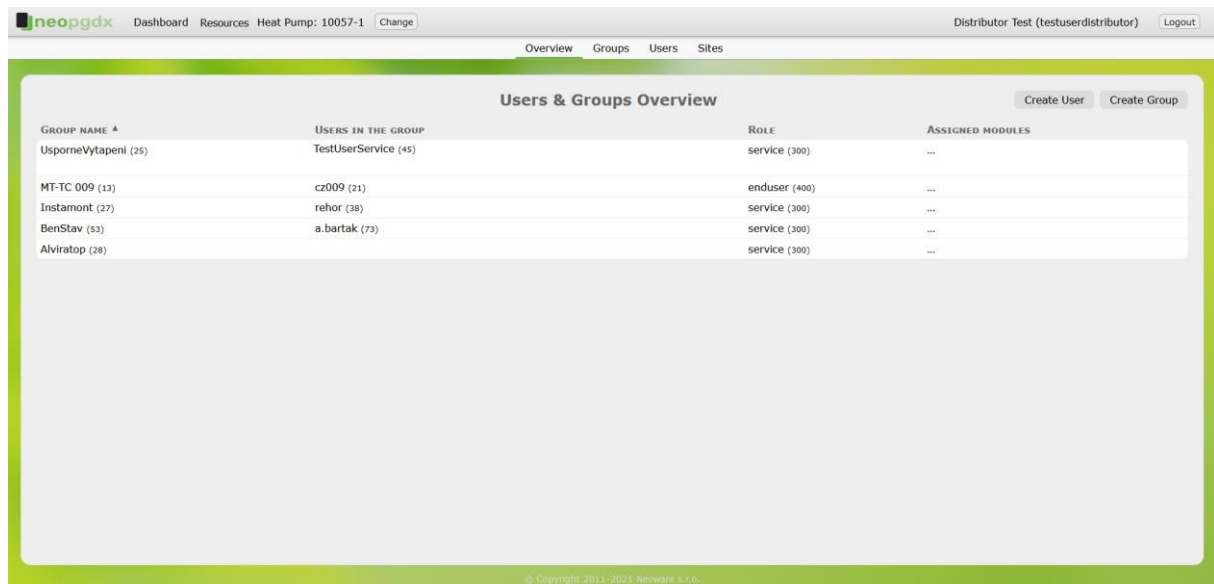
In the upper right, there is a drop-down menu with which you can enter **Settings** of the interface and then select, for example, interface language, time zone, display all active connections, and perform general configuration of the display and user input.

## 5 Resources

(Management of groups, users and information about them)

Resources section is used to create new users and user groups, assign devices to user groups, edit device information and, last but not least, create and reset passwords. The current interface creates (or resets) account passwords by sending an email to the target user ([see chapter 2 of this manual](#)) with a link, and the user then creates the password for access himself. This ensures that the password is confidential and known only to the target user. The password can be changed at any time by pressing the "**Forgot Password**" button on the login screen of [www.mastertherm.online](http://www.mastertherm.online). The password is changed in the same way as it was created - by sending a link to change password to email address of the target user.

The figure below shows the default state after pressing the "**Resources**" button at the top left. After pressing the button, we are automatically redirected to the **Overview** tab, general overview of users and groups.



GROUP NAME	USERS IN THE GROUP	ROLE	ASSIGNED MODULES
UsporneVytapeni (25)	TestUserService (45)	service (300)	...
MT-TC 009 (13)	cz009 (21)	enduser (400)	...
Instamont (27)	rehor (38)	service (300)	...
BenStav (53)	a.bartak (73)	service (300)	...
Alviratop (28)		service (300)	...

For easier configuration of individual objects, we can simply click on the objects (individual groups and users) and display their detail. After pressing, for example, a specific group, we will automatically be redirected to the group settings tab ("**Groups**") and the detail of the desired group will be displayed.

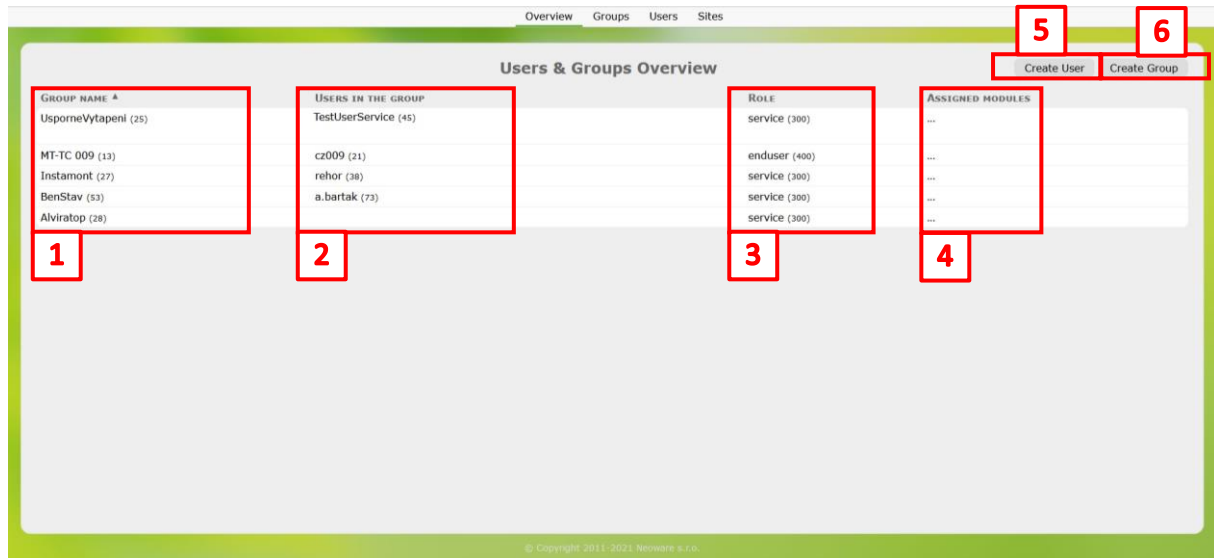
In the upper middle part, you can switch between the tabs using this navigation bar:



- **Overview** – This is a basic overview of users and groups
- **Groups** – Detailed information about groups, creating and editing groups
- **Users** – Detailed information about users, creating and editing users
- **Sites** – Detailed information about modules (pGDx touch), heat pump and installation

## 5.1 Overview

The "Overview" tab consists of the following components:



- 1 View available groups
- 2 View users assigned to each group
- 3 View the role of individual groups (service / for the end user)
- 4 Modules (pGDx touch) assigned to individual groups (8.11.2021 - not shown yet)
- 5 Button for creating a user (you will be redirected to the "Users" section)
- 6 Button for creating a group (you will be redirected to the "Groups" section)



## 5.2 Groups

The "Groups" tab consists of the following components:

GROUP NAME ▲	DESCRIPTION	ROLE
UsporneVytapeni (25)	Úsporné vytápění s.r.o.	service (300)
MT-TC 009 (13)	MT-TC Enduser	enduser (400)
Instamont (27)	Instamont - Řehoř	service (300)
BenStav (53)	Benešovské stavebniny	service (300)
Alviratop (28)	ALVIRA TOP s.r.o.	service (300)

- 1 Names of available groups
- 2 Description of individual groups
- 3 Roles of individual groups (service / end user group)
- 4 Button for creating new groups

### 5.2.1 Roles (types) of groups

There are 4 types of groups according to permissions that are available:

- **Manufacturer** (manufacturer) has full access to all settings and accounts with lower privileges such as distributor, service and end user accounts
- **Distributor** has access to most of the advanced settings in addition to editing basic device information (serial number, assigning pGDx touch to its own group..., etc.). Has access to create accounts with lower privileges such as service or end user accounts
- **Service** (service / assembly company accounts) have access to diagnostic tools and can create accounts for end users
- **Enduser** (end user accounts) only have access to the end user application

The "Users" tab consists of the following components:

USER NAME ▲	LAST NAME, FIRST NAME	E-MAIL	DESCRIPTION	GROUP
TestUserService (45)	Test, Service	j.jahoda@mastertherm.cz	Úsporné vytápění s.r.o.	UsporneVytapeni (25)
rehor (38)	Řehor, Roman	instamont@email.cz	Instamont - Řehof	Instamont (27)
j.krikava@uspornevytapani.cz (26)	Krikava, Jakub	j.krikava@uspornevytapani.cz	Úsporné vytápění s.r.o.	UsporneVytapeni (25)
cz009 (21)	User, Cz	j.jiranek@mastertherm.cz	MT-TC Enduser	MT-TC 009 (13)
a.bartak (73)	Barták, Antonín	antonin.bartak@seznam.cz	Benešovské stavebniny	BenStav (53)

- 1 View available users
- 2 Name and surname of the user
- 3 User email address
- 4 User description
- 5 The group to which the user is assigned
- 6 Button for creating a new user

### 5.3 Sites

The "Sites" tab is used to enter / edit heat pump and installation information. It consists of the following components:

1	2	3	4	5
MODULE ID	NAME	pGDx MAC	ENROLLED [UTC]	LOCAL TIMEZONE
10057	10057_BAI6000418_přijmeni_Hradsko_CZ_MT-TC	00:0a:5c:82:5c:9b	2021-09-23 08:17:25	Europe/Prague
10053	10053_BAI3701221_Danysová_Nová_Paka_CZ_MITC-ÚspornéVytápění	00:0a:5c:82:59:7c	2021-09-14 07:22:18	Europe/Prague
10051	10051_BAI02601221_přijmeni_Město_CZ_MITC-AlviraTop	00:0a:5c:82:59:74	2021-09-14 06:20:04	Europe/Prague
10050	10050_BAI2200321_přijmeni_Město_CZ_MITC-ÚspornéVytápění	00:0a:5c:82:59:75	2021-09-14 05:49:49	Europe/Prague
10047	10047_BAI2601721_přijmeni_město_CZ_MITC-ÚspornéVytápění	00:0a:5c:82:59:a0	2021-09-07 08:42:57	Europe/Prague
10046	10046_BAI53701621_Krejza_Roudnice nad Labem_CZ_Instamont	00:0a:5c:82:59:87	2021-09-07 08:21:32	Europe/Prague
10045	10045_BAI54500921_Jahoda_Jablonec nad Jizerou_CZ_ÚspornéVytapeni	00:0a:5c:82:59:9d	2021-09-07 07:34:29	Europe/Prague
10044	10044_BAI04500621_Hák_Rokytnice nad Jizerou_CZ_ÚspornéVytapeni	00:0a:5c:82:59:73	2021-09-07 06:33:35	Europe/Prague
10040	10040_AQ3000121_přijmeni_město_CZ_MITC	00:0a:5c:82:59:70	2021-08-24 10:35:41	Europe/Prague
10039	10039_BAI02600621_přijmeni_město_CZ_MITC	00:0a:5c:82:59:93	2021-08-24 08:40:03	Europe/Prague
10037	10037_BAI02601821_Svejška_Dolní Jirčany_CZ_MITC-ÚspornéVytápění	00:0a:5c:82:59:ad	2021-08-24 06:35:19	Europe/Prague
10036	10036_AQ14505221_přijmeni_město_CZ_MITC-AlviraTop	00:0a:5c:82:59:8d	2021-08-24 06:08:20	Europe/Prague
10034	10034_BAI02200621_přijmeni_město_CZ_MITC-ÚspornéVytápění	00:0a:5c:82:59:91	2021-07-28 05:18:12	Europe/Prague
10032	10032_BAI54501221_Tobiáš_Stratov_CZ_MITC-ÚspornéVytápění	00:0a:5c:82:59:76	2021-07-27 13:22:48	Europe/Prague
10025	10025_BAI2603120_MasterTherm tepelná čerpadla_Chyně_CZ_MITC	00:0a:5c:82:59:85	2021-07-12 10:27:31	Europe/Prague
10024	10024_AQ3000114_Avenarius_Ústí nad Labem_CZ_MITC	00:0a:5c:82:59:b1	2021-07-09 05:22:22	Europe/Prague
10023	10023_BAI02601121_Svobodová_city_CZ_MITC	00:0a:5c:82:59:9f	2021-07-08 04:26:11	Europe/Prague
10007	10007_BAI03702020_Podešř_Město_CZ_Instamont	00:0a:5c:81:d8:12	2021-04-24 12:43:27	Europe/Prague
10021	10021_HP-Simulator-upc_MT_Hradsko_CZ_MITC	00:0a:5c:81:d8:16	2021-04-24 12:43:27	Europe/Prague
10009	10009_BAI03702620_Kříkava_Jičín_CZ_MITC-Úsporné_vytápění	00:0a:5c:81:d8:1a	2021-04-24 12:43:27	Europe/Prague

- 1 Module number pGDx touch
- 2 Full name of the device (automatically created name according to the entered information)
- 3 MAC addresses of Ethernet cards of individual pGDx touch devices
- 4 The first connection of pGDx touch to the server
- 5 Local time zone (selected according to the destination of heat pump)

After clicking on the required module, a window for editing basic information will appear.

## 5.4 Creating new group and new user

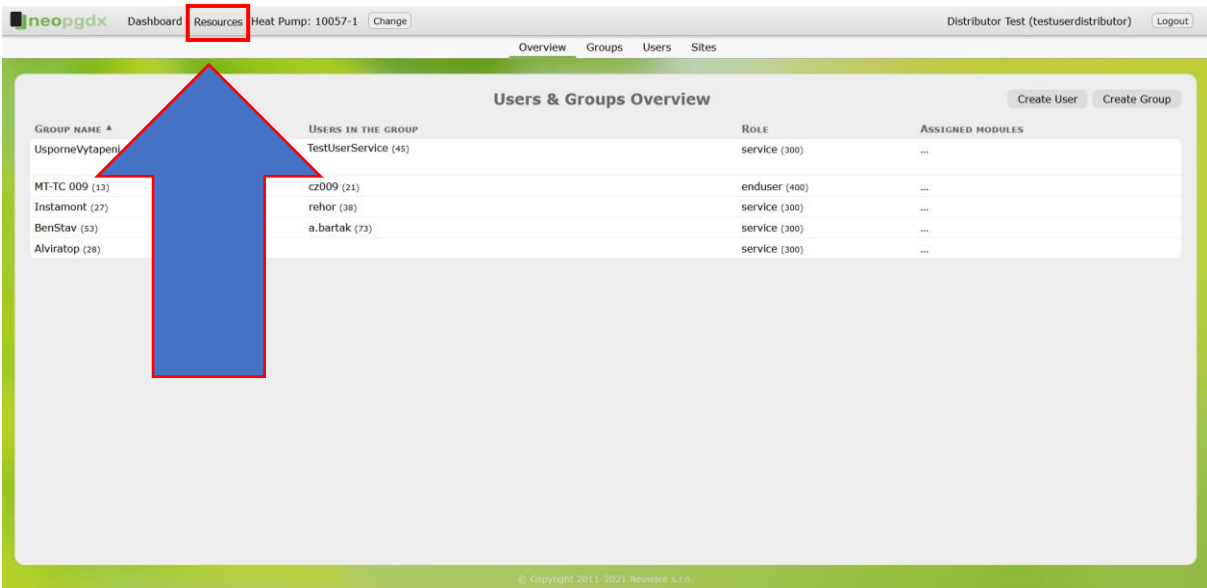
To create a new access for enduser/service user, we will proceed as follows:

- 1) Create a new group (name can be, for example, name of the family, name of the installation company, etc., role of the group can be either for the end user - "enduser" or for the service company - "service")
- 2) We assign the required pGDx touch to the group
- 3) We will create a new user (enter the name, email address and select which group we want to assign him to)
- 4) We will send a password creation request to the user's email address

This procedure is described in detail in the following section of the manual.

### 5.4.1 Creating a new group

The first step is to create a new group. Please go to the source data and account section, press the "Resources" button at the top left of the screen:



The screenshot shows the neopgdX web interface. At the top, there is a navigation bar with 'Resources' highlighted in a red box. Below the navigation bar, there is a 'Users & Groups Overview' section. A large blue arrow with a red outline points to the 'Resources' button. The table below shows the following data:

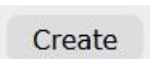
GROUP NAME *	USERS IN THE GROUP	ROLE	ASSIGNED MODULES
UsporneVytapeni	TestUserService (45)	service (300)	...
MT-TC 009 (13)	cz009 (21)	enduser (400)	...
Instamont (27)	rehor (38)	service (300)	...
BenStav (53)	a.bartak (73)	service (300)	...
Alviratop (28)		service (300)	...

Continue by pressing "Groups" on the navigation bar located at the top center of the screen:



The screenshot shows the navigation bar with 'Groups' highlighted in a red box.

Then press the "Create" button at the top right of the screen:



The screenshot shows the 'Create' button.

A window for filling in basic information about the group will appear:

**Group name** = Group name (e.g.: Doe)

**Role** = Select group permissions  
(enduser = end user group, service = service user group)

**Description** = Any description for better group identification

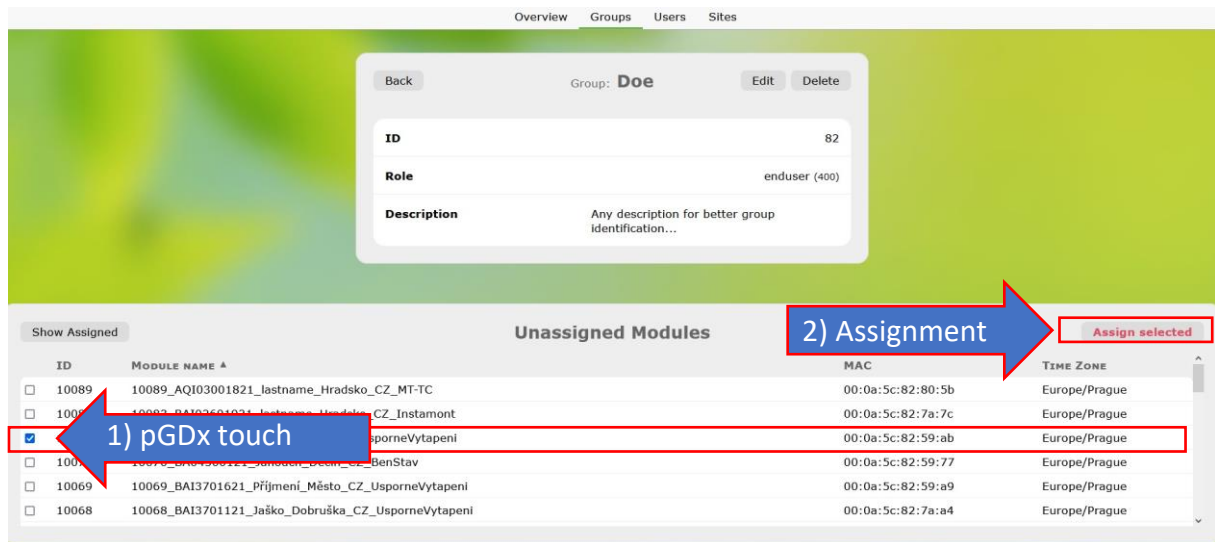
Enter information about the group and press the "Create" button.  
(in the example below we create a group for the end user).

### 5.4.2 Assign pGDx touch to the desired group

After pressing "Create" button, a new group will be created and we are redirected to the page for assigning required pGDx touch (any quantity of pGDx touch can be assigned if it is a service group or this request is from the end user). In the example below, we assign one pGDx touch to the "Doe" group.

"Assigned modules" table is displayed at the bottom, in which an overview of pGDx touch IDs assigned to the selected group is usually visible (this screen can also be called up by clicking on any group from the "Groups" section or the "Overview" section). Since no pGDx touch has been assigned to our new group yet, we must first assign it. Press the "Show unassigned" button.

We will see all available pGDx touch. Then it is necessary to select the required pGDx touch by checking the box on the left:



- 1) First select required pGDx touch for assignment by checking the box on the left side of the line
- 2) Press the "Assign selected" button -> assignment to the group is completed

### 5.5 Creating a new user

After creating a group, all that remain is to create a user who will be assigned to the group.

Use the navigation bar at the top centre to go to the "Users" section:



At the top right of this tab, click on the "Create" button:



A window for entering user information is displayed (all fields except description are required):

The screenshot shows a 'New User' form with the following fields: Username, First Name, Last Name, e-mail, Language (set to Czech), Group (set to undefined), and Description. The 'Create' button is visible in the top right corner.

- Username** = username with which the user will log in
- First Name** = First name (e.g.: John)
- Last Name** = Last name (e.g.: Doe)
- e-mail** = user email address
- Language** = user language
- Group** = selection of the group to which we want to assign the user (e.g.: Doe)
- Description** = any description to distinguish the user

After filling in, press the "Create" button.

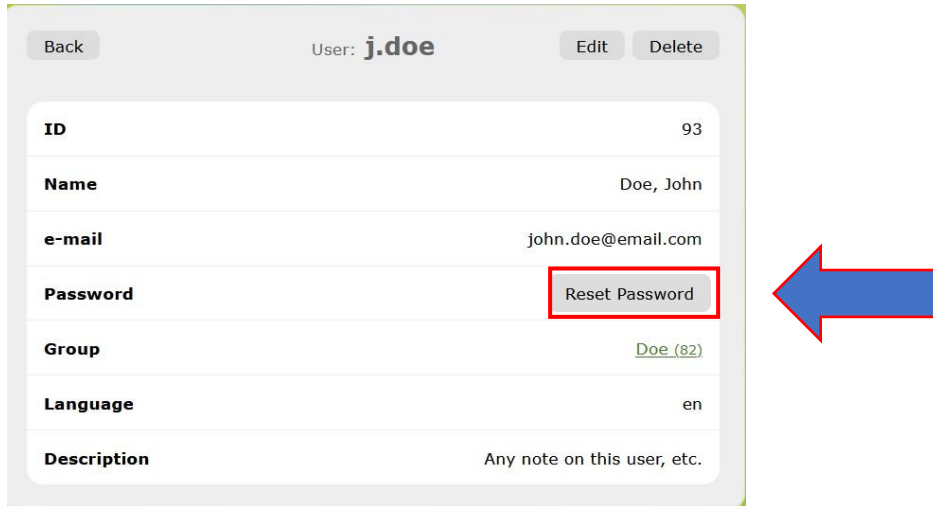
The screenshot shows the 'New User' form with the following filled-in data: Username: j.doe, First Name: John, Last Name: Doe, e-mail: john.doe@email.com, Language: English, Group: Doe (82), and Description: Any note on this user, etc. The 'Create' button is highlighted with a red box, and a blue arrow points to it from the right.

A new user is now created.

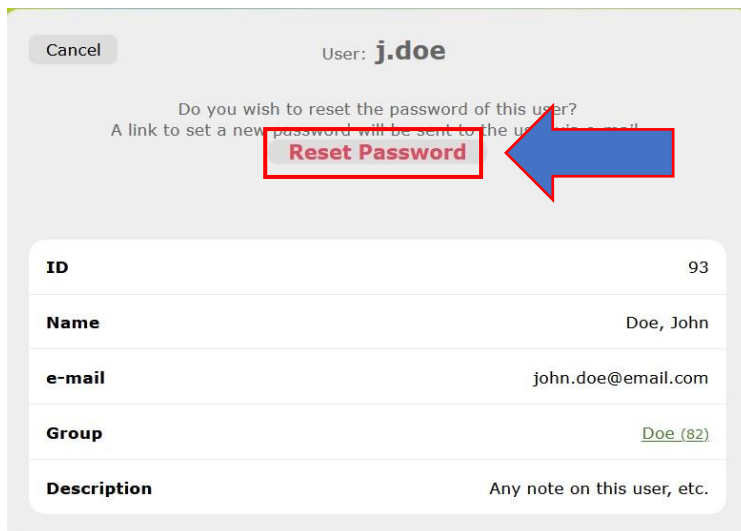


### 5.5.1 Create / reset user password

To create a new password, the system uses method of sending an email with a link to create a new password to the user's email address. After creating a new user, we are automatically redirected to the user detail, where the "Reset Password" button is located. We will get to the same screen even after clicking on the name of the required user from the "Users" or "Overview" section:



This is followed by a recapitulation of the data before sending the email. Press **Reset Password**.



After pressing this button, an email will be sent requesting the creation / change of a password to the user's email address. ([see chapter 2 Creating a login password](#)).

Then it is possible to log in with the new login details on the page [mastertherm.online](http://mastertherm.online)

## 6 Revision history of this document

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Revisions to this manual will be documented here.

### **Rev000, 12/11/2021**

The first official release of the document.

### **Rev001, 28/06/2022**

Add a description of the [Config](#) and [Apps](#) sections.

### **Rev002, 14/07/2022**

Add a description of the [Events](#) section.

### **Rev003, 22/06/2023**

Add a description of the [History](#) section (export data to CSV)

Add a description of [Info](#) section ([edit location](#), [edit HC names](#)),

Add a new section: [Service](#) and description of available functions

Add [mastertherm.online/remote chapter](#) for remote support function

Add description of [3<sup>rd</sup> party application management](#)

[End-user app. assignment](#)

Add a description of [Monitor](#) section – monitoring of more variables

If you have any questions, you can contact me directly:  
**[j.jahoda@mastertherm.cz](mailto:j.jahoda@mastertherm.cz)** or my colleagues.

