

Anybus Edge Gateway

Exercise: Working with Data in HMS Hub

SOLUTION SHEET

SCM-1202-136 1.0 en-US ENGLISH

1 Working with Data in HMS Hub

This exercise explains how to configure settings for data points such as data update time, scaling, logging etc., and also how to set up alarms in HMS Hub.

1.1 Configuring Data Points

1. Log in to the project in HMS Hub.
2. Our mission is to configure our data points, so we select **Config** in the menu.
3. Select **variables**. This is where, for best practice, we find our data points.
4. Select one variable at a time, by clicking the **edit** icon.

DemoRig: Project1			
device-info	Device information		⊕ ⊕ ⊕ 👁 ✎
inputs	Inputs		⊕ ⊕ ⊕ 👁 ✎
outputs	Outputs		⊕ ⊕ ⊕ 👁 ✎
variables	Variables		⊕ ⊕ ⊕ 👁 ✎
OverrideLed1	OverrideLed1	false	👁 ✎
OverrideLed2	OverrideLed2	false	👁 ✎
Switch1	Switch1	false	👁 ✎
Switch2	Switch2	false	👁 ✎
Temperature	Temperature	22.6	👁 ✎

5. Configure each data point according to the following:

- **Update time**

Select the trigger mode that is best suited for your application. For this demo we will use trigger mode **any change**. This yields the fastest update time.

We will use the same setting for all variables, except for Temperature.

For the temperature value we don't need a fast update time. We are also not interested in changes less than 0.5 degrees. For the temperature, we select trigger value + sec.

Trigger mode

Trigger value+sec (4) ▼

0.5 Value 10 Sec ?

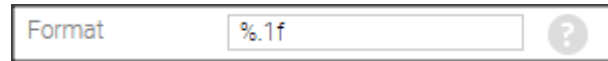
For more detailed information about the trigger modes hover with the mouse pointer over the question mark.

- **Scaling and formatting**

The scaling is done in the Anybus Edge Gateway (with the DIV element in HMS Sequence), but it could also be done in HMS Hub if needed.

The scaling in HMS Hub is calculated using the following formula: (value * factor) + offset.

For the temperature value, we will add formatting to show only one decimal point. Floating point values can show many decimal points when converting between formats. To show only one decimal point, we enter %.1f in the Format field.




A screenshot of a 'Format' input field. The field contains the text '%.1f'. To the right of the field is a circular help icon with a question mark.

- **Logging**

The default maximum storage time for a data point/tag is 40 days.

To enable the logging function, check the box **Save history** and specify how many days you want to store data (up to 40 days)



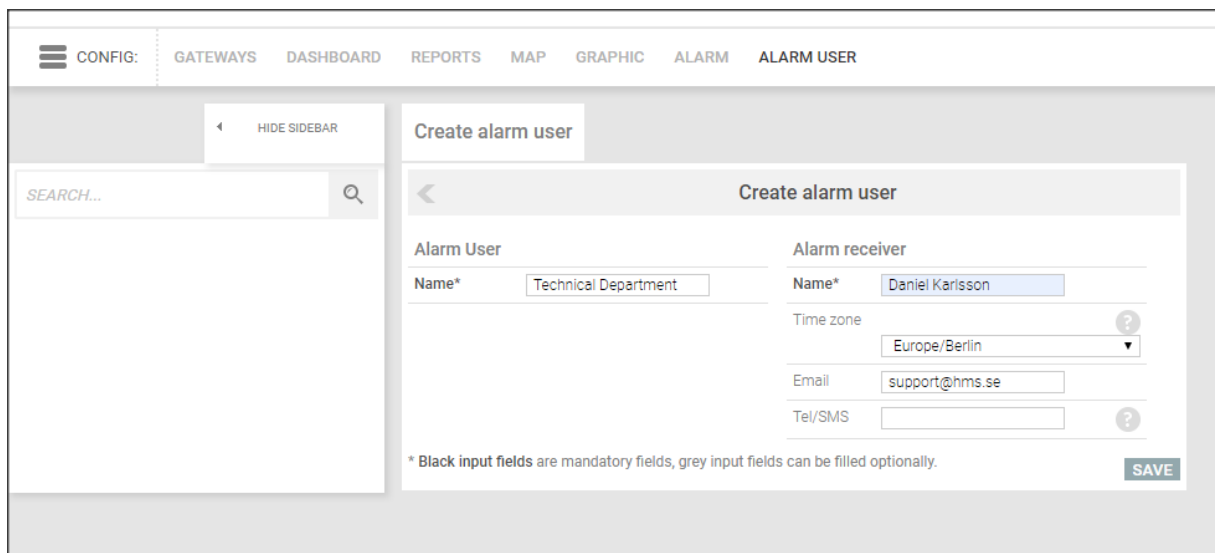
A screenshot of a 'Save history' configuration section. It includes a checkbox labeled 'Save history' which is checked, followed by an input field containing the number '10' and the text 'Days'. A circular help icon with a question mark is to the right.

Now, let's try flipping the switches and changing the temperature and see what happens.

1.2 Working with Alarms

To use alarms, you need to create at least one alarm user or essentially, a group of alarm receivers.

Click **Alarm user** in the menu, and create an alarm user according to the image below.



A screenshot of the 'Create alarm user' form in the HMS Hub interface. The top navigation bar includes 'CONFIG:', 'GATEWAYS', 'DASHBOARD', 'REPORTS', 'MAP', 'GRAPHIC', 'ALARM', and 'ALARM USER'. The left sidebar has a 'HIDE SIDEBAR' button and a search bar. The main form is titled 'Create alarm user' and contains two sections: 'Alarm User' and 'Alarm receiver'. The 'Alarm User' section has a 'Name*' field with the value 'Technical Department'. The 'Alarm receiver' section has a 'Name*' field with the value 'Daniel Karlsson', a 'Time zone' dropdown menu set to 'Europe/Berlin', an 'Email' field with the value 'support@hms.se', and a 'Tel/SMS' field. A note at the bottom states: '* Black input fields are mandatory fields, grey input fields can be filled optionally.' A 'SAVE' button is in the bottom right corner.

Click **Save**.

Click the edit icon.

CONFIG: GATEWAYS DASHBOARD REPORTS MAP GRAPHIC ALARM **ALARM USER**

HIDE SIDEBAR

SEARCH...

Create alarm user

Daniel Karlsson

Daniel Karlsson

Alarm User

Name Daniel Karlsson

Time zone Europe/Berlin

Alarm Plan

Mo	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Tu	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
We	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Th	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Fr	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Sa	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Su	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

Alarm receiver

Name	Email	Tel/SMS	Period
Daniel Karlsson	dak@hms.se		

SAVE

Specify the time period to receive alarms.

CONFIG: GATEWAYS DASHBOARD REPORTS MAP GRAPHIC ALARM **ALARM USER**

HIDE SIDEBAR

SEARCH...

Daniel Karlsson

Edit: Daniel Karlsson

Daniel Karlsson

Alarm receiver

Name* Daniel Karlsson

Email dak@hms.se

Tel/SMS

Period

Mo	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Tu	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
We	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Th	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Fr	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Sa	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Su	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

* Black input fields are mandatory fields, grey input fields can be filled optionally.

SAVE

Click **Save**.

We will now show how to create a high temperature alarm.

1. Click on create alarm.
2. Enter the main alarm settings according to the image below. Continue to set up the trigger condition for the alarm.

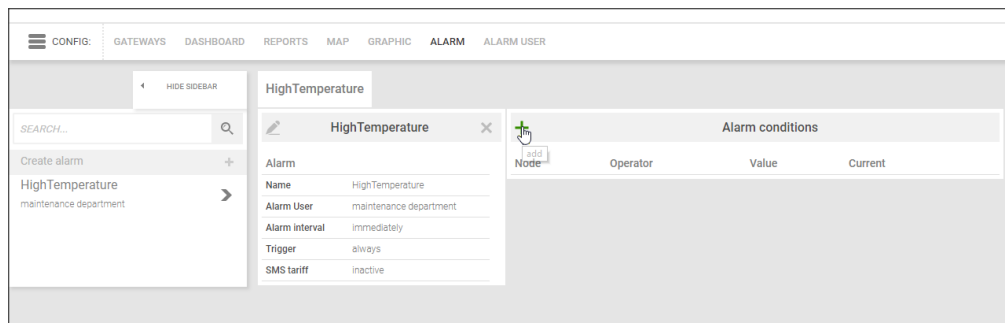
The screenshot shows the 'Create alarm' form in the HMS Hub interface. The form is titled 'Create alarm' and is located on the right side of the screen. The left sidebar contains a search bar and a 'HIDE SIDEBAR' button. The top navigation bar includes links for CONFIG, GATEWAYS, DASHBOARD, REPORTS, MAP, GRAPHIC, ALARM, and ALARM USER. The form fields are as follows:

- Alarm**
 - Name***: HighTemperature
 - Description**: (empty text area)
 - Alarm User***: maintenance department
 - Alarm interval***: immediately
 - Trigger***: acknowledged only
 - SMS tariff***: -

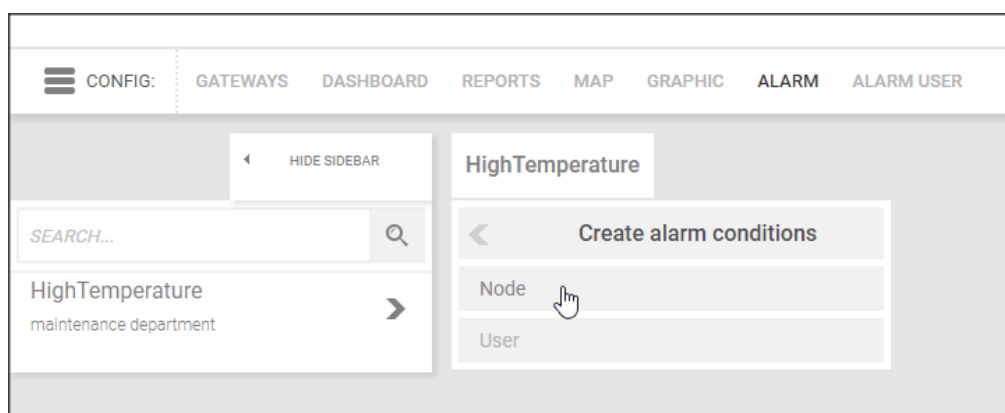
A **SAVE** button is located at the bottom right of the form. A note at the bottom states: '* Black input fields are mandatory fields, grey input fields can be filled optionally.'

3. Click **Save**.

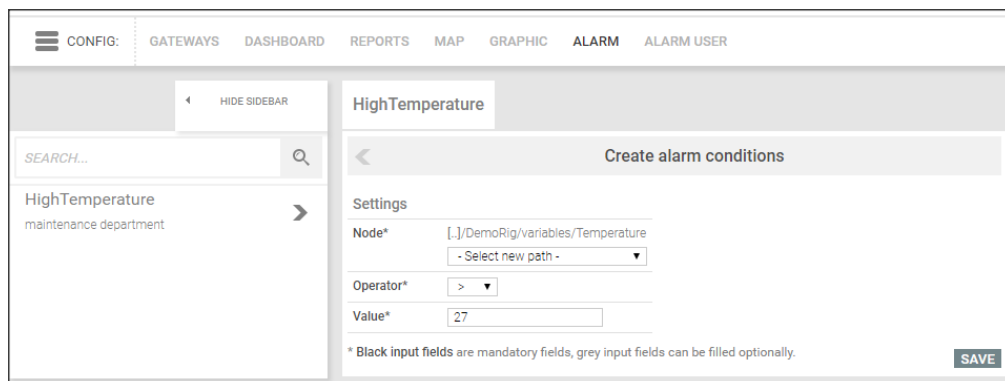
- Click the plus sign to specify the alarm conditions.



- It's possible to trigger alarms from data point values (**NODE**) or user events (**USER**). We will set up an alarm condition for the temperature value, so we click **Node**.



- We select the temperature data point by clicking our way to the correct path, under **Node***. Then we select the logical operator and the value. In our case '> 27'.



- Click **Save**.
- We continue by testing the alarm condition. Select **View** in the menu. Click the Alarm tab, heat up the temperature sensor and watch what happens.

