

# ADLINK SEMA 3.0

## **SEMA Dashboard User's Manual (rev. 1.01)**

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## Revision History

Revision	Date	Changes
1.00	2015/12/09	Initial release
1.01	2015/12/10	Some typos fixed More detailed explanations added

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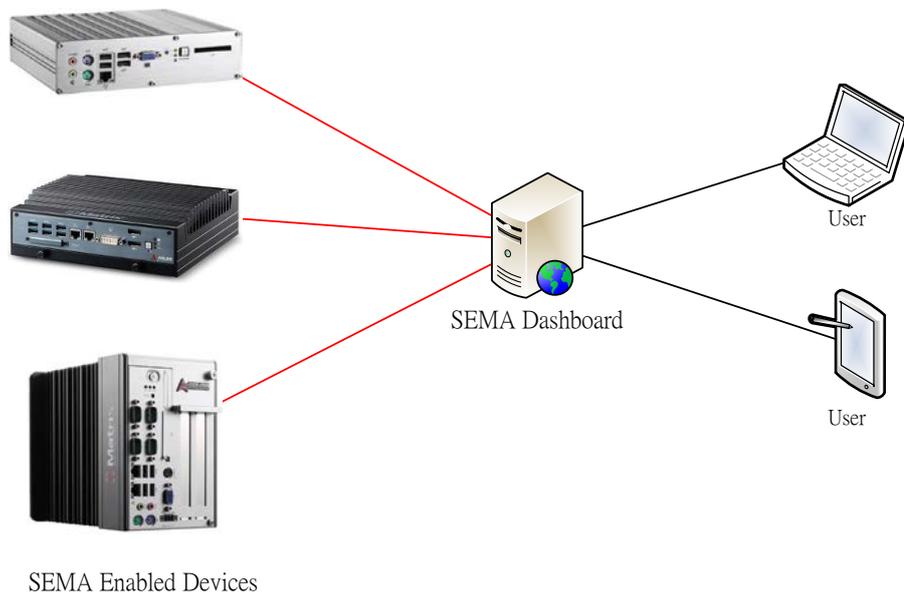
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# 1 Overview

The ADLINK SEMA Dashboard is a Web application that monitors ADLINK SEMA enabled devices. Its main functions are:

- User management
- Personal information maintenance
- Device data presentation
- Sensor value monitoring and alerting

## 1.1 Operation Environment



## 1.2 Supported Operating Systems

The following operating systems are supported:

- ▶ Windows 8.1 (64-bit)
- ▶ Ubuntu 12.04.5 LTS (64-bit)
- ▶ CentOS 7 (64-bit)

## 1.3 Supported Browsers

The following browsers are supported:

- ▶ Chrome 43.0.2357.134 m
- ▶ Firefox 39.0
- ▶ IE 11

## 2 Function Description

### 2.1 System login/logout

Login page of SEMA Dashboard is shown below. You need credentials for login.

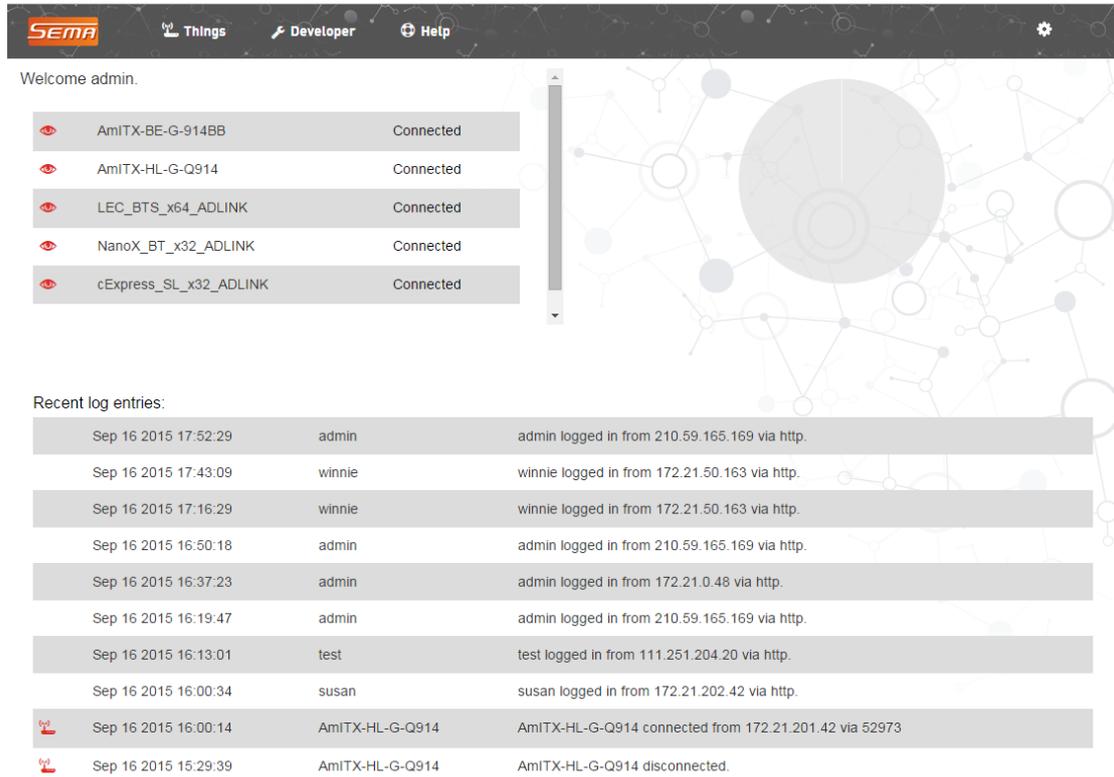
While system is installed for the first time, there is a default system administrator whose user name and password are both “admin”. Use these data to login SEMA Dashboard to use it.

Check the box in front of “Stay signed in” keeps you always stayed in SEMA Dashboard, no matter how long you don’t use it. If you leave it unchecked, and you don’t use SEMA Dashboard for more than 5 minutes, you will be asked to re-do login at your next action.



#### 2.1.1 System abstract information

Once you are logged in into SEMA Dashboard, the main window will display abstract information of devices which are under monitoring.



Welcome admin.

	AmITX-BE-G-914BB	Connected
	AmITX-HL-G-Q914	Connected
	LEC_BTS_x64_ADLINK	Connected
	NanoX_BT_x32_ADLINK	Connected
	cExpress_SL_x32_ADLINK	Connected

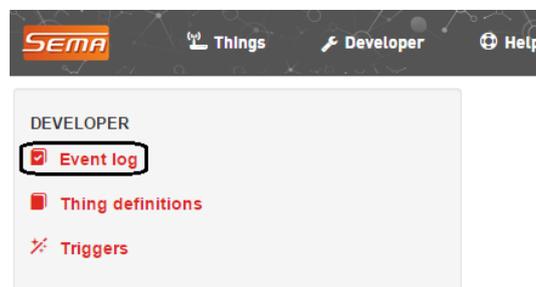
Recent log entries:

Sep 16 2015 17:52:29	admin	admin logged in from 210.59.165.169 via http.	
Sep 16 2015 17:43:09	winnie	winnie logged in from 172.21.50.163 via http.	
Sep 16 2015 17:16:29	winnie	winnie logged in from 172.21.50.163 via http.	
Sep 16 2015 16:50:18	admin	admin logged in from 210.59.165.169 via http.	
Sep 16 2015 16:37:23	admin	admin logged in from 172.21.0.48 via http.	
Sep 16 2015 16:19:47	admin	admin logged in from 210.59.165.169 via http.	
Sep 16 2015 16:13:01	test	test logged in from 111.251.204.20 via http.	
Sep 16 2015 16:00:34	susan	susan logged in from 172.21.202.42 via http.	
	Sep 16 2015 16:00:14	AmITX-HL-G-Q914	AmITX-HL-G-Q914 connected from 172.21.201.42 via 52973
	Sep 16 2015 15:29:39	AmITX-HL-G-Q914	AmITX-HL-G-Q914 disconnected.

You can see your user name displayed at the left-top corner, and a device list located below it. All devices which are now under monitoring are listed here and show their network connection status. Click the icon in front of a device will display more data. Refer to section 2.5.

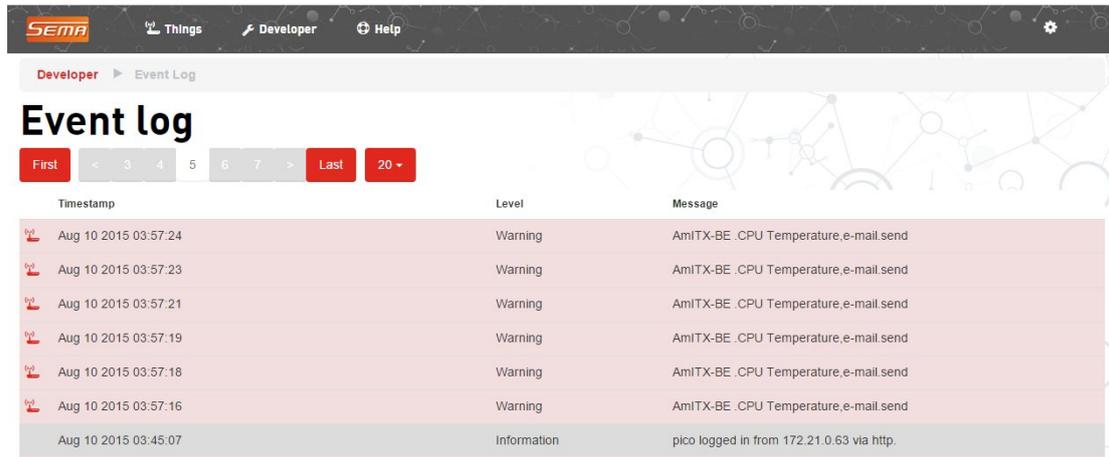
A pie chart reveals connected/disconnected numbers and related ratio, at the right hand side of the device list.

Recent log entries give the latest 10 records of system event log. The information here includes timestamp, user name or device name, and its login/logout or connection/disconnection message. Complete logs could be displayed using **Event log** under **Developer**.



DEVELOPER

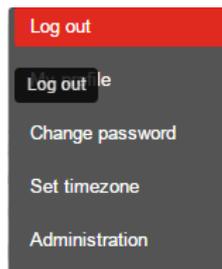
- Event log
- Thing definitions
- Triggers



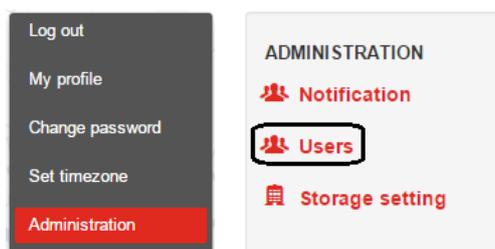
Same as above, click the icon in front of a device brings more data to you. Refer to section 2.5.

## 2.1.2 Logout SEMA Dashboard

If you want to logout, click  symbol at the right-top corner of main window, then click **Log out** and **Yes** in the confirmation window.



## 2.2 Users management



Administration ► Users

## Users New user

	User name	Email Address	Mobile phone	Title	Admin
   	1	1@1.com			No
  Edit 1 	3				No
   	ua_name2				No
   Disable ua_name2					No
  View ua  	ww				No
   	winnie	w@ex.com			Yes
  Delete winnie  	sema2	a@yahoo.com.tw	test2		Yes

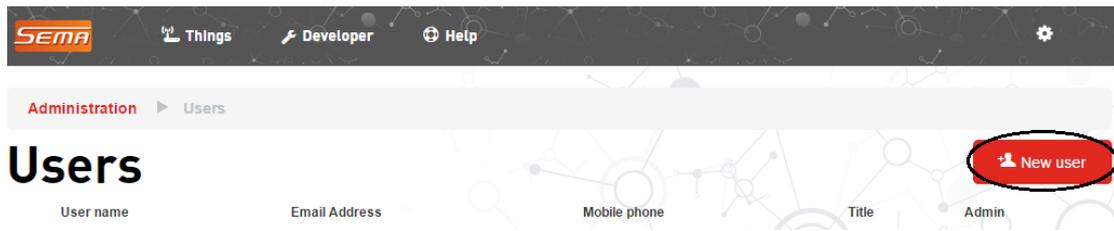
There are 4 icons in front of each user to invoke different actions.

- ▶ A new created user is enabled to use SEMA Dashboard. Click  in front of a certain user to disable it. To enable a disabled user, click  in front of it. A disabled user can't login SEMA Dashboard nor receive alert message.
- ▶ Click  in front of a user to open a page showing its data. Click  in front of a user to open a page to modify its data. Please refer to 2.2.2 for details.
- ▶ Click  in front of a user to delete it. Please refer to section 2.2.3 for details.

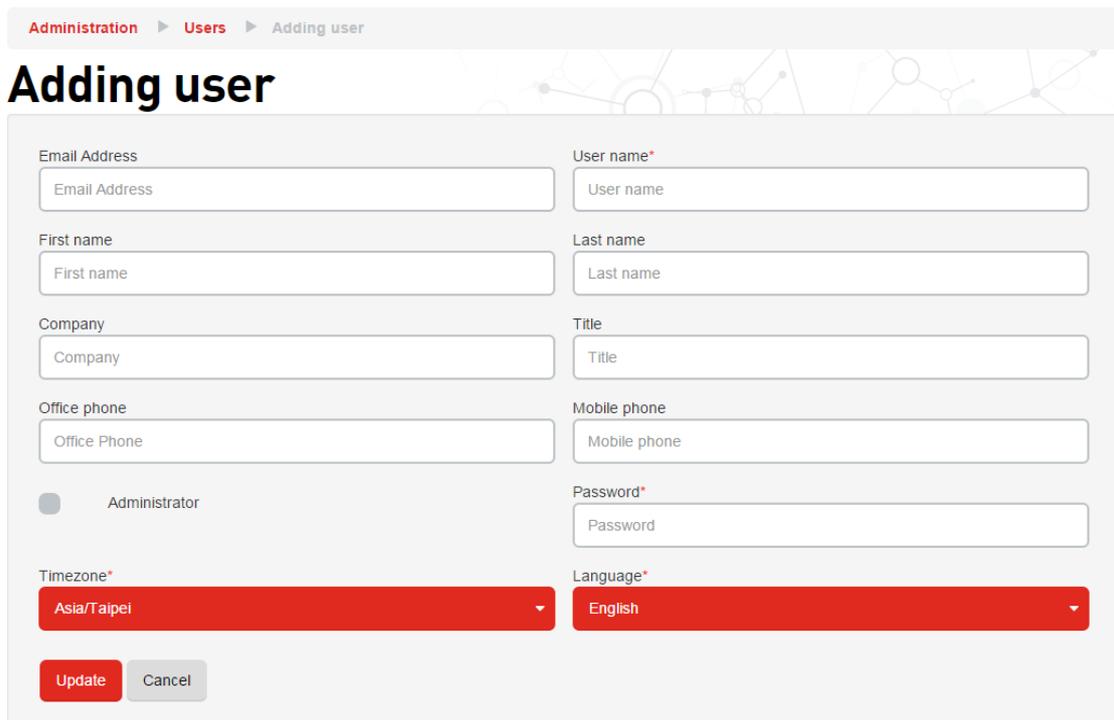
User management can be performed only by a system administrator. The other role of SEMA Dashboard is general users. Besides user management, following functions are also performed only by system administrators:

- ▶ Notification:
  - Maintain users who will receive alerts message. Refer to section 2.7.4.
- ▶ Storage setting
  - Define frequency of collecting sensor data and volume of interesting data for a certain device. Refer to section 2.5.4 for more explanation.
- ▶ Thing definition
  - Define how to present information about a device, including what sensors are under monitoring and a look of detailed data. Refer to section 2.6.
- ▶ Trigger
  - Define a situation that system sends message to pre-specified users when criteria are met. Refer to 2.7.

## 2.2.1 Add a new user



Click **New user** button to open **Adding user** page. Input necessary fields than click **Update** button. A new user is created and displayed in **Users** page.



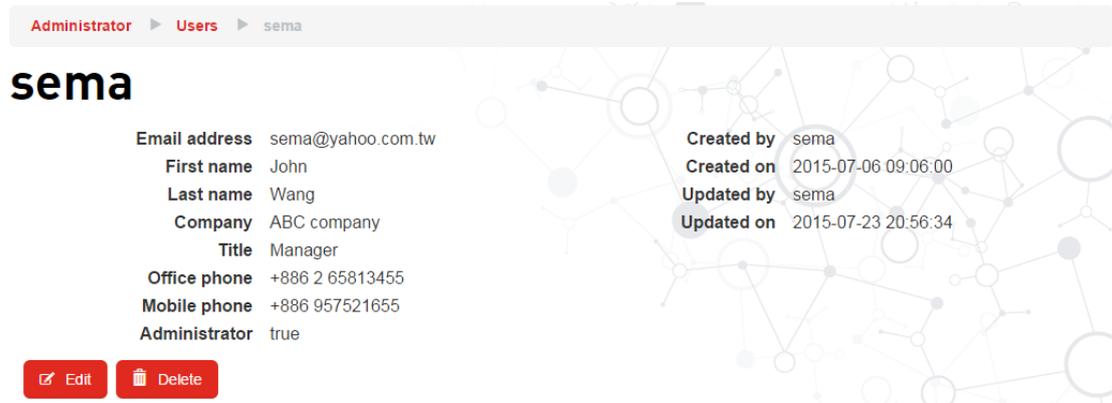
Administration > Users > Adding user

### Adding user

Email Address <input type="text" value="Email Address"/>	User name* <input type="text" value="User name"/>
First name <input type="text" value="First name"/>	Last name <input type="text" value="Last name"/>
Company <input type="text" value="Company"/>	Title <input type="text" value="Title"/>
Office phone <input type="text" value="Office Phone"/>	Mobile phone <input type="text" value="Mobile phone"/>
<input type="checkbox"/> Administrator	Password* <input type="text" value="Password"/>
Timezone* Asia/Taipei	Language* English

## 2.2.2 View and edit information of an existing user

Click  in front of a user to open detailed information page of it.

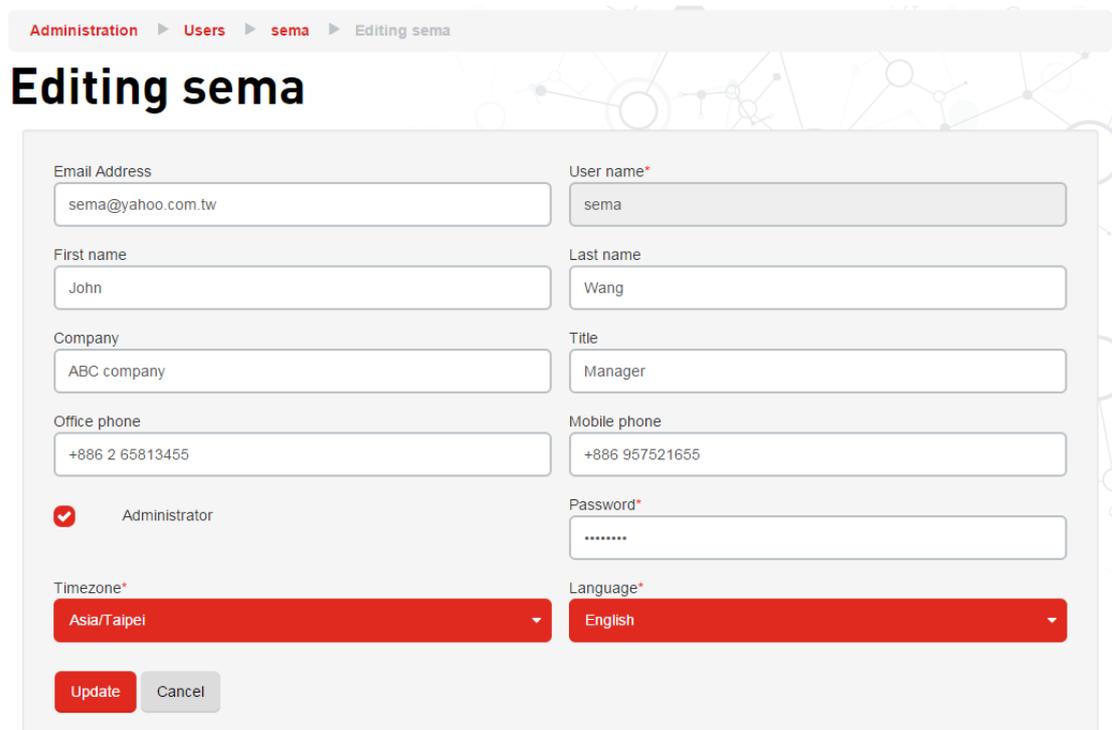


The screenshot shows the user view page for 'sema'. The breadcrumb trail is 'Administrator > Users > sema'. The user's name 'sema' is displayed prominently. Below the name, there are two columns of information:

<b>Email address</b>	sema@yahoo.com.tw	<b>Created by</b>	sema
<b>First name</b>	John	<b>Created on</b>	2015-07-06 09:06:00
<b>Last name</b>	Wang	<b>Updated by</b>	sema
<b>Company</b>	ABC company	<b>Updated on</b>	2015-07-23 20:56:34
<b>Title</b>	Manager		
<b>Office phone</b>	+886 2 65813455		
<b>Mobile phone</b>	+886 957521655		
<b>Administrator</b>	true		

At the bottom left, there are two buttons: 'Edit' (with a pencil icon) and 'Delete' (with a trash icon).

Click **Edit** button to open Editing user page and to modify its detailed information. Alternatively, open this page by clicking  in front of a user in Users page.



The screenshot shows the 'Editing sema' page. The breadcrumb trail is 'Administration > Users > sema > Editing sema'. The page title is 'Editing sema'. The form contains the following fields:

- Email Address:** Input field with 'sema@yahoo.com.tw'.
- User name\*:** Input field with 'sema'.
- First name:** Input field with 'John'.
- Last name:** Input field with 'Wang'.
- Company:** Input field with 'ABC company'.
- Title:** Input field with 'Manager'.
- Office phone:** Input field with '+886 2 65813455'.
- Mobile phone:** Input field with '+886 957521655'.
- Administrator:** A checked checkbox.
- Password\*:** Password input field with masked characters '\*\*\*\*\*'.
- Timezone\*:** A dropdown menu currently showing 'Asia/Taipei'.
- Language\*:** A dropdown menu currently showing 'English'.

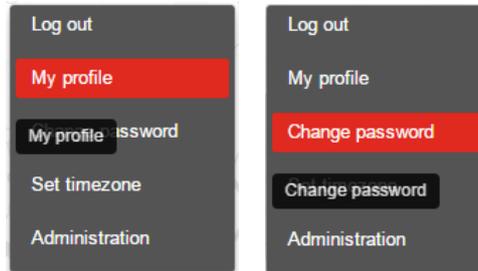
At the bottom, there are two buttons: 'Update' (in red) and 'Cancel' (in grey).

## 2.2.3 Delete an existing user

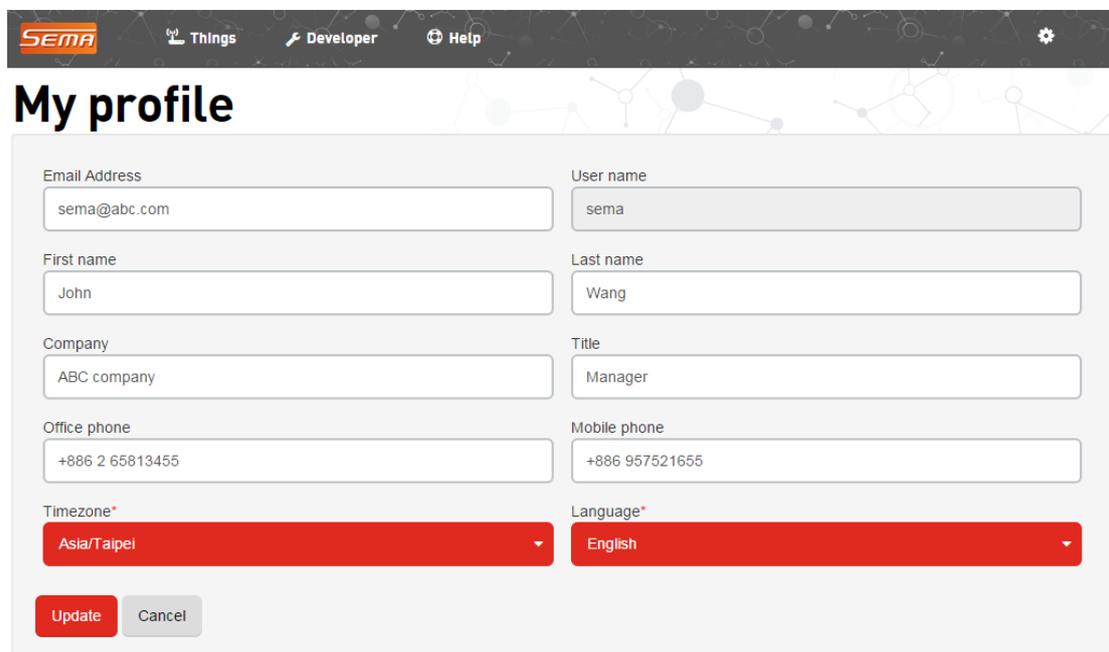
Click  in front of a user (or click **Delete** button in view page) to remove a user. Be aware that the default system administrator “admin” can’t be deleted, and you can’t delete your own account.

## 2.3 Maintain your own profile

Users of SEMA Dashboard can maintain their personal data by “My profile” and “Change password”.

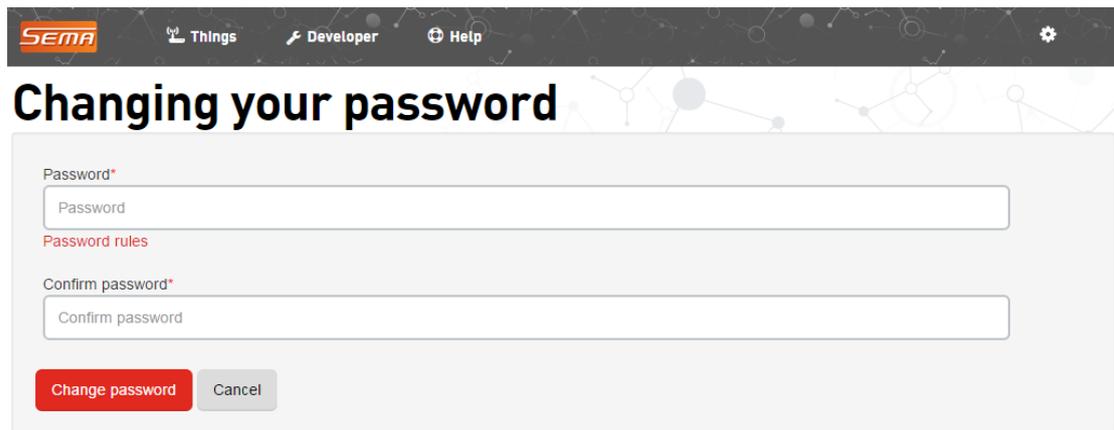


### 2.3.1 Update personal data



You may change data as required, then click **Update** button to save them. Timezone and Language are necessary fields.

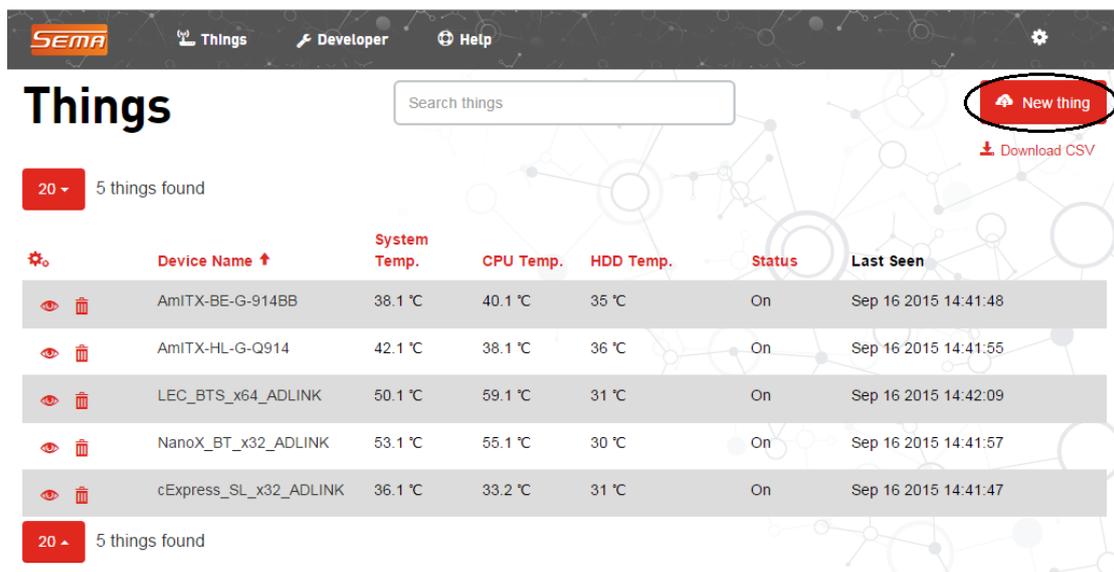
### 2.3.2 Change password



For security concern, you should change your password after the system administrator created your account. Please refer to Password rules to set it, and the updated password will be activated when you login system next time.

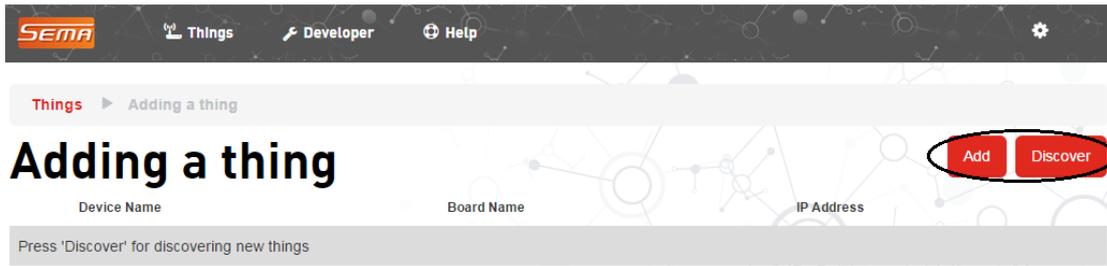
## 2.4 Add/Remove devices under monitoring

Use **New thing** button in **Things** page to include desired devices so that they are under observation.

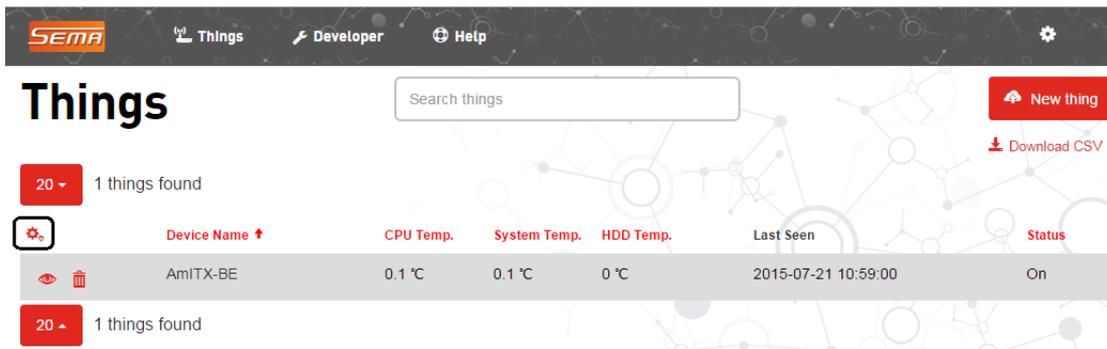


Device Name	System Temp.	CPU Temp.	HDD Temp.	Status	Last Seen
AmITX-BE-G-914BB	38.1 °C	40.1 °C	35 °C	On	Sep 16 2015 14:41:48
AmITX-HL-G-Q914	42.1 °C	38.1 °C	36 °C	On	Sep 16 2015 14:41:55
LEC_BTS_x64_ADLINK	50.1 °C	59.1 °C	31 °C	On	Sep 16 2015 14:42:09
NanoX_BT_x32_ADLINK	53.1 °C	55.1 °C	30 °C	On	Sep 16 2015 14:41:57
cExpress_SL_x32_ADLINK	36.1 °C	33.2 °C	31 °C	On	Sep 16 2015 14:41:47

Click **Discover** button to start searching SEMA-enabled devices. You may hit ESC key to abort searching process once you see interested devices are listed. Check every device you want to add then click **Add** button to include them. All added devices are listed in **Things** page.



## 2.4.1 Customize visible data of Things



Click  to customize data you see in **Things** page.

### Customize Columns ✕

Order	Name	Include
↓	Device Name	<input checked="" type="checkbox"/>
↑ ↓	CPU Temp	<input checked="" type="checkbox"/>
↑ ↓	System Temp	<input checked="" type="checkbox"/>
↑ ↓	HDD Temp	<input checked="" type="checkbox"/>
↑ ↓	Status	<input checked="" type="checkbox"/>
↑ ↓	Last Seen	<input checked="" type="checkbox"/>
↑ ↓	CPU Min Temperature	<input type="checkbox"/>
↑ ↓	CPU Max Temperature	<input type="checkbox"/>
↑ ↓	System Min Temperature	<input type="checkbox"/>
↑ ↓	System Max Temperature	<input type="checkbox"/>
↑ ↓	Boot Count	<input type="checkbox"/>
↑ ↓	Working Period	<input type="checkbox"/>
↑ ↓	Total Running Time	<input type="checkbox"/>
↑ ↓	IP Address	<input type="checkbox"/>
↑	Gateway	<input type="checkbox"/>

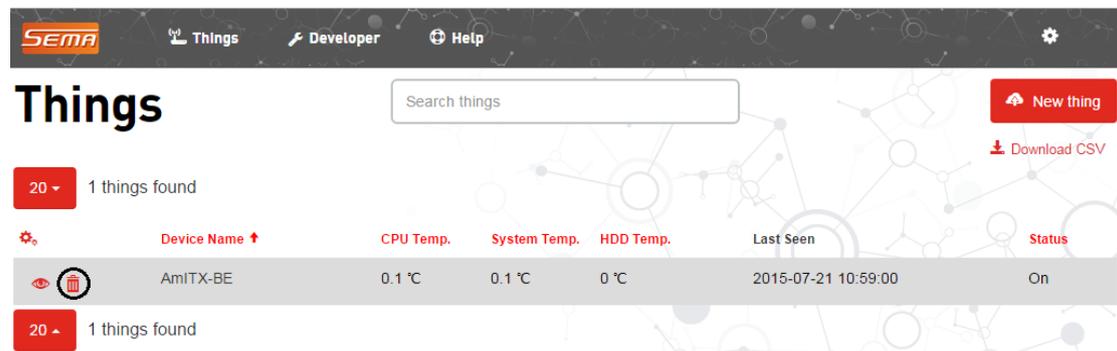
Save
Cancel

Check all data you would like to be shown in **Things** page and use up/down arrow to order their sequence. Click **Save** button to keep this preference.

In **Things** page, click the red column name to sort the data. Up/down arrow shows whether data is ordered by ascending or descending.

## 2.4.2 Remove a device

Click  in front of a device to remove it from monitoring list.



SEMA

Things
Developer
Help
⚙️

# Things

New thing  
Download CSV

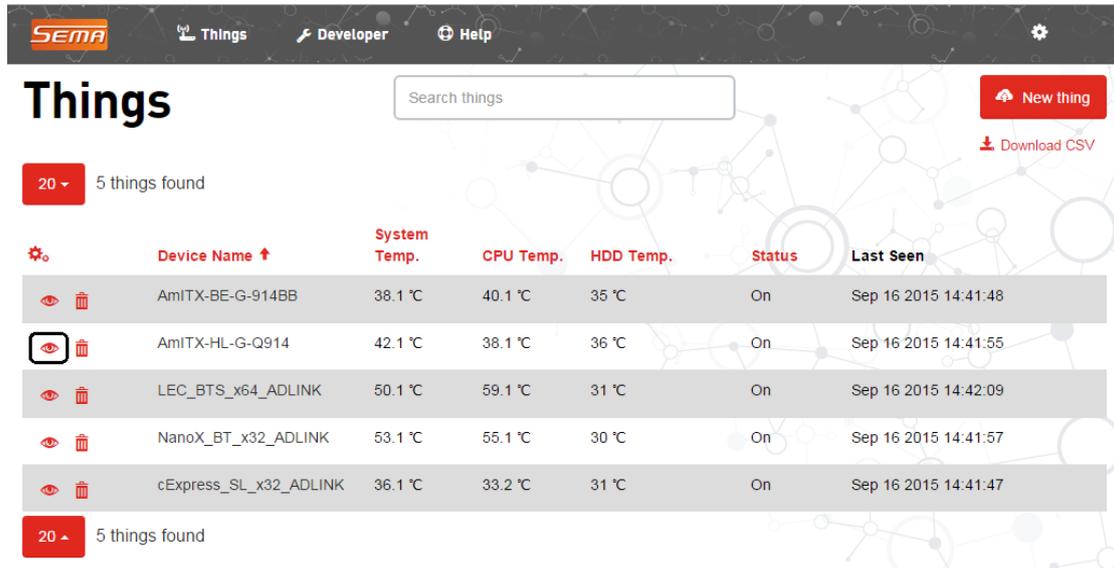
20 1 things found

	Device Name ↑	CPU Temp.	System Temp.	HDD Temp.	Last Seen	Status
	AmITX-BE	0.1 °C	0.1 °C	0 °C	2015-07-21 10:59:00	On

20 1 things found

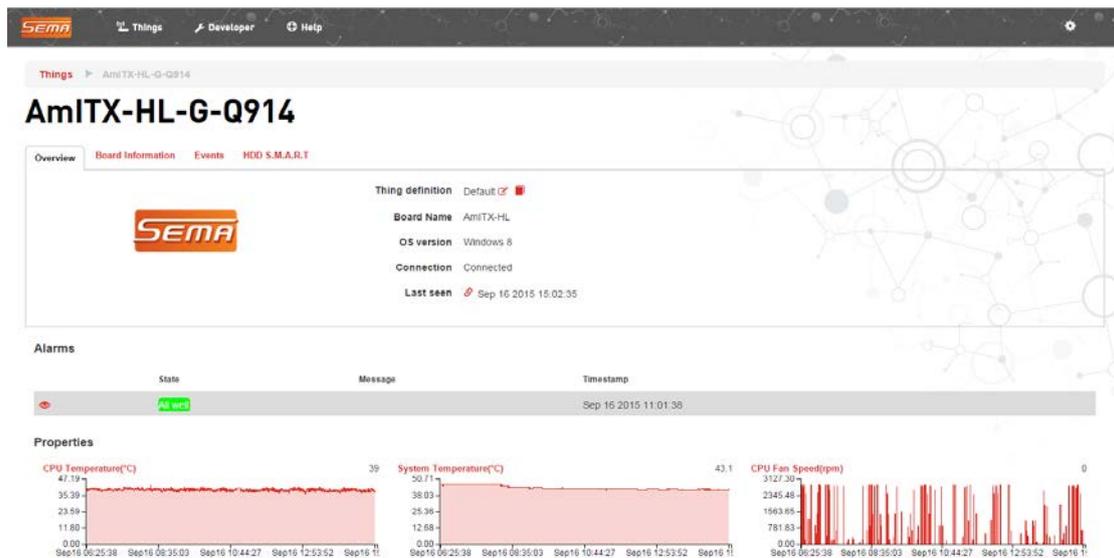
## 2.5 Monitor your devices

Click  in front of a device in **Things** page to open its detailed data page.



The screenshot shows the SEMA Things dashboard. At the top, there are navigation links for 'Things', 'Developer', and 'Help'. The main heading is 'Things' with a search bar and a 'New thing' button. Below this, it indicates '5 things found'. A table lists the following devices:

Device Name	System Temp.	CPU Temp.	HDD Temp.	Status	Last Seen
AmITX-BE-G-914BB	38.1 °C	40.1 °C	35 °C	On	Sep 16 2015 14:41:48
AmITX-HL-G-Q914	42.1 °C	38.1 °C	36 °C	On	Sep 16 2015 14:41:55
LEC_BTS_x64_ADLINK	50.1 °C	59.1 °C	31 °C	On	Sep 16 2015 14:42:09
NanoX_BT_x32_ADLINK	53.1 °C	55.1 °C	30 °C	On	Sep 16 2015 14:41:57
cExpress_SL_x32_ADLINK	36.1 °C	33.2 °C	31 °C	On	Sep 16 2015 14:41:47



The screenshot shows the detailed view for the device 'AmITX-HL-G-Q914'. It includes the following sections:

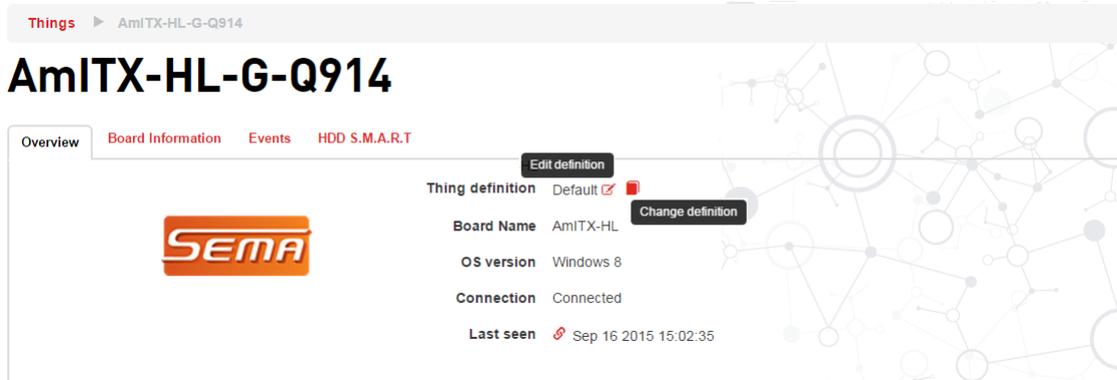
- Overview:** Shows the SEMA logo and device details:
  - Thing definition: Default
  - Board Name: AmITX-HL
  - OS version: Windows 8
  - Connection: Connected
  - Last seen: Sep 16 2015 15:02:35
- Alarms:** A table with columns for State, Message, and Timestamp. One alarm is listed:
 

State	Message	Timestamp
All OK		Sep 16 2015 11:01:38
- Properties:** Three line graphs showing performance metrics over time:
  - CPU Temperature(°C):** Values range from 0.00 to 47.19.
  - System Temperature(°C):** Values range from 0.00 to 50.71.
  - CPU Fan Speed(rpm):** Values range from 0 to 3127.30.

## 2.5.1 General information

Four tabs show various data of this device. Click each tab to see details.

### Overview



Things ▶ AmITX-HL-G-Q914

# AmITX-HL-G-Q914

Overview Board Information Events HDD S.M.A.R.T

SEMA

Thing definition Default  [Change definition](#)

Board Name AmITX-HL

OS version Windows 8

Connection Connected

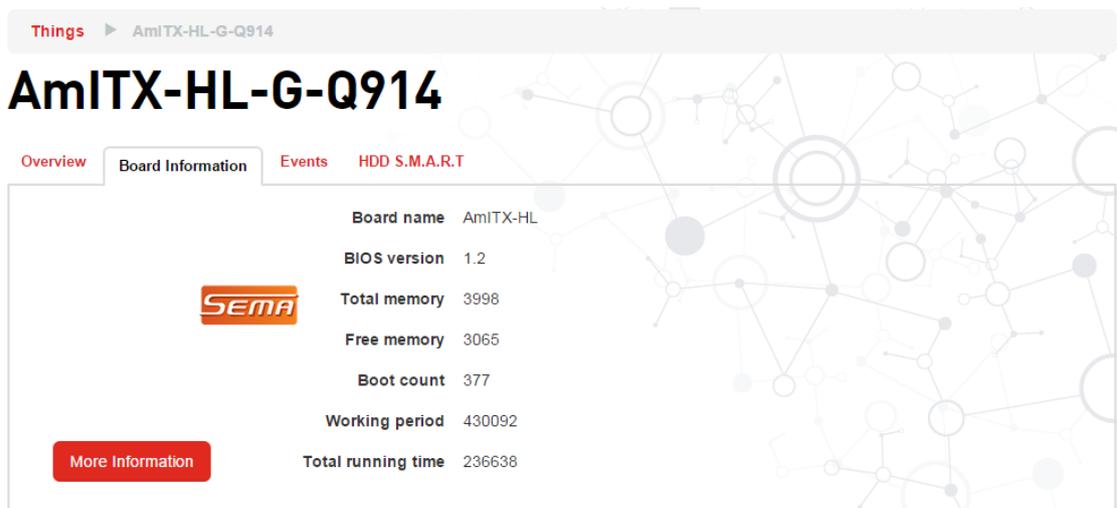
Last seen  Sep 16 2015 15:02:35

Thing definition defines what sensors you monitor and how they're displayed. It decides the content and look of all following pages.

Click  (Change definition) to adopt another thing definition, which changes what is displayed and in which way it's displayed. Please refer to section 2.5.5 for details how to perform this.

If you are a system administrator, you also have authority to modify in-use thing definition by clicking  (Edit definition). It changes current appearance as well as every page's look that use the thing definition. Please refer to section 2.6.2 to know how to edit a thing definition.

### Board Information



Things ▶ AmITX-HL-G-Q914

# AmITX-HL-G-Q914

Overview Board Information Events HDD S.M.A.R.T

SEMA

Board name AmITX-HL

BIOS version 1.2

Total memory 3998

Free memory 3065

Boot count 377

Working period 430092

Total running time 236638

[More Information](#)

Click **More Information** button to see more data.

Things ▶ AmITX-HL-G-Q914 ▶ Board Information.

## Board Information

Board Info	
Board name	AmITX-HL
BIOS Version	1.2
Memory Info	
Free Memory	3070MB
Total Memory	3998MB
Network Info	
IP Address	172.21.201.42
Subnet Mask	255.255.0.0
Gateway	172.21.0.254
MAC Address	00-30-64-13-4B-74
Lifetime Info	
Boot Count	377
Working Period	430296
Total Running Time	236641
Statistics	
CPU Min Temperature	20.1
CPU Max Temperature	56.1
CPU Startup Temperature	36.1
System Min Temperature	18.1
System Max Temperature	49.1
System Startup Temperature	40.1

### Events

Things ▶ AmITX-HL-G-Q914

## AmITX-HL-G-Q914

Overview Board Information **Events** HDD S.M.A.R.T

Sep 16 2015 11:01:38	AmITX-HL-G-Q914 connected from 172.21.201.42 via 52973
Sep 16 2015 10:56:55	AmITX-HL-G-Q914 disconnected.
Sep 15 2015 23:15:19	AmITX-HL-G-Q914 connected from 172.21.201.42 via 52973
Sep 15 2015 23:14:41	AmITX-HL-G-Q914 disconnected.
Sep 15 2015 23:13:16	AmITX-HL-G-Q914 connected from 172.21.201.42 via 52973

[More events](#)

Click **More event** button to see more data.

Things ▶ AmITX-HL-G-Q914 ▶ Events

## Events

First < 1 2 3 4 5 > Last 20 ▾ 946 events found.

Sep 16 2015 15:29:39	AmITX-HL-G-Q914 disconnected.
Sep 16 2015 11:01:38	AmITX-HL-G-Q914 connected from 172.21.201.42 via 52973
Sep 16 2015 10:56:55	AmITX-HL-G-Q914 disconnected.
Sep 15 2015 23:15:19	AmITX-HL-G-Q914 connected from 172.21.201.42 via 52973
Sep 15 2015 23:14:41	AmITX-HL-G-Q914 disconnected.
Sep 15 2015 23:13:16	AmITX-HL-G-Q914 connected from 172.21.201.42 via 52973
Sep 15 2015 23:12:48	AmITX-HL-G-Q914 disconnected.
Sep 15 2015 23:09:12	AmITX-HL-G-Q914 connected from 172.21.201.42 via 52973
Sep 15 2015 23:08:34	AmITX-HL-G-Q914 disconnected.
Sep 15 2015 20:23:12	AmITX-HL-G-Q914 connected from 172.21.201.42 via 52973

### HDD S.M.A.R.T.

Things ▶ AmITX-HL-G-Q914

# AmITX-HL-G-Q914

Overview Board Information Events **HDD S.M.A.R.T.**



HDD1  
 Vendor Name: Seagate  
 Capacity: 500,107,862,016 bytes [500 GB]  
 Healthy Status: Warning

[More Information](#)

Click **More Information** button to see more data.

Things ▶ AmlTX-HL-G-Q914 ▶ HDD S.M.A.R.T.

# HDD S.M.A.R.T.

HDD 1 Reload



**Model Family:** Seagate Barracuda 7200.14 (AF)

**Device Model:** ST500DM002-1CH14C

**Serial Number:** Z1DBNATW

**Firmware Version:** CC49

**Capacity:** 500,107,862,016 bytes [500 GB]

**Sector Sizes:** 512 bytes logical, 4096 bytes physical

**SMART Supported:** Available - device has SMART capability.

**SMART Enable:** Enabled

ID	Attribute Name	Current	Worst	Threshold	Raw Values
01	Raw_Read_Error_Rate	119	099	006	0x00000deee678
03	Spin_Up_Time	098	094	000	0x000000000000
04	Start_Stop_Count	100	100	020	0x000000000240
05	Reallocated_Sector_Ct	100	100	010	0x000000000000
07	Seek_Error_Rate	071	060	030	0x000000ca1f12
09	Power_On_Hours	094	094	000	0x000000001641
0A	Spin_Retry_Count	100	100	097	0x000000000000
0C	Power_Cycle_Count	100	100	020	0x000000000065
B7	Runtime_Bad_Block	096	096	000	0x000000000004
B8	End-to-End_Error	100	100	099	0x000000000000
BB	Reported_Uncorrect	100	100	000	0x000000000000
BC	Command_Timeout	100	065	000	0x0039003a010f
BD	High_Fly_Writes	100	100	000	0x000000000000
BE	Airflow_Temperature_Cel	063	053	045	0x00002c240025
BF	G-Sense_Error_Rate	100	100	000	0x000000000000
C0	Power-Off_Retract_Count	100	100	000	0x0000000000b1
C1	Load_Cycle_Count	079	079	000	0x00000000a5bc
C2	Temperature_Celsius	037	047	000	0x001100000025
C5	Current_Pending_Sector	100	100	000	0x000000000000
C6	Offline_Uncorrectable	100	100	000	0x000000000000
C7	UDMA_CRC_Error_Count	200	187	000	0x0000000003fa
F0	Head_Flying_Hours	100	253	000	0xfa5b00000c9d
F1	Total_LBAs_Written	100	253	000	0x000063438bb2
F2	Total_LBAs_Read	100	253	000	0x0000772bee1b

Healthy status depends on S.M.A.R.T id “C2”, “C4”, “0A” and “BC”, row of error ID will be high-lighted. Status will be “Healthy” with a green check mark if no error, “Warning” with a yellow exclamation mark if only one error, and “Bad” with a red cross if more than one error. The status “Healthy”, “Warning” and “Bad” does not necessarily mean that the hard disk will surely die in the near future, but there is a chance for failure. To verify this, a complete (hardware) examination tool is required.

Click **Reload** button to query HDD S.M.A.R.T. data from the device again. The latest value of

this HDD will be displayed.

Note: Because the id defined in S.M.A.R.T. is designed for HDD, there may be some mismatch when you use the SSD (Solid-state drive). This could make “Healthy Status” not correct. Please contact your SSD vendor for more details.

## 2.5.2 Alarms

Alarms section shows the latest state of this device, the remarks and the time of state change.



Alarms	State	Message	Timestamp
	All well		Sep 16 2015 16:00:14

3 states and their according messages are:

- ▶ All Well: Device operates normally and keeps sending sensor data. No remarks.
- ▶ Alert: means at least one sensor value exceeds pre-defined threshold. Abnormal situation happened. Remarks tell what action is taken.
- ▶ No Data: means device is disconnected or sensors are disabled. Remarks will show more details.

Click  to open **Alarms** page to see historical data and statistics by 3 separate tabs.

Table

### Alarms

[Charts](#)
[Timeline](#)
[Table](#)

[Download CSV](#)

Timestamp	State	Duration	Message
Sep 15 2015 19:39:22	No Data	35 seconds	Sensor disabled
Sep 15 2015 19:39:58	All well	11 minutes 51 seconds	
Sep 15 2015 19:51:49	No Data	24 seconds	Sensor disabled
Sep 15 2015 19:52:13	All well	15 minutes 44 seconds	
Sep 15 2015 20:07:57	No Data	34 seconds	Sensor disabled
Sep 15 2015 20:08:32	All well	11 minutes 15 seconds	
Sep 15 2015 20:19:48	No Data	41 seconds	Sensor disabled
Sep 15 2015 20:20:29	All well	5 seconds	
Sep 15 2015 20:20:35	No Data	34 seconds	Sensor disabled
Sep 15 2015 20:21:09	All well	1 minutes 36 seconds	
Sep 15 2015 20:22:46	No Data	26 seconds	Sensor disabled
Sep 15 2015 20:23:12	All well	2 hours 45 minutes 22 seconds	
Sep 15 2015 23:08:34	No Data	38 seconds	Sensor disabled
Sep 15 2015 23:09:12	All well	3 minutes 35 seconds	
Sep 15 2015 23:12:48	No Data	28 seconds	Sensor disabled
Sep 15 2015 23:13:16	All well	1 minutes 24 seconds	
Sep 15 2015 23:14:41	No Data	38 seconds	Sensor disabled
Sep 15 2015 23:15:19	All well	11 hours 41 minutes 35 seconds	
Sep 16 2015 10:56:55	No Data	4 minutes 43 seconds	Sensor disabled
Sep 16 2015 11:01:38	All well	4 hours 28 minutes	
Sep 16 2015 15:29:39	No Data	30 minutes 35 seconds	Sensor disabled
Sep 16 2015 16:00:14	All well	39 minutes	

Start

End

Sep 15 ,2015 16:39:16

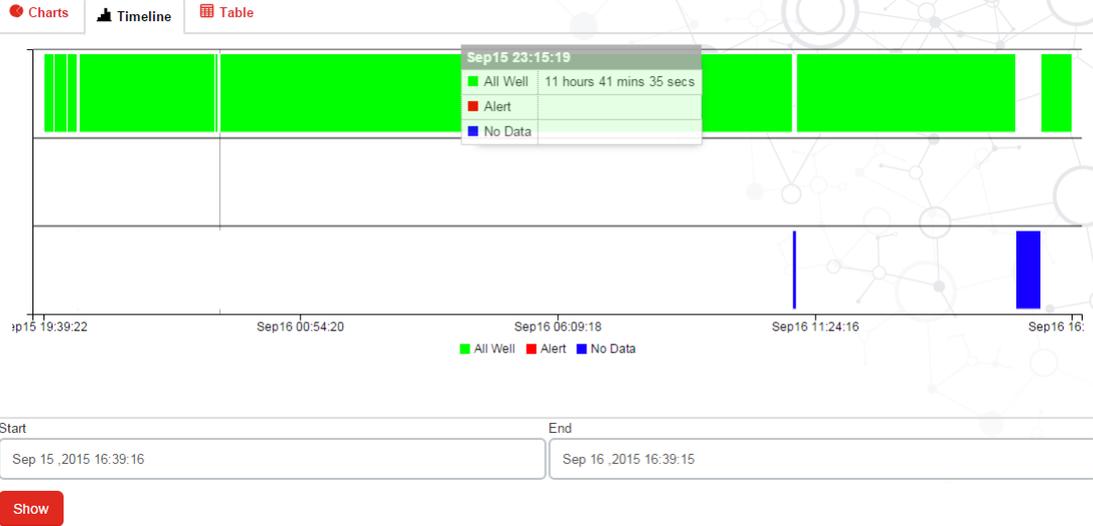
Sep 16 ,2015 16:39:15

Show

Show state transition in a list with timestamp, duration and message. You may change time frame by updating date/time in the start and/or end field. Click **Download CSV** hyperlink to export these data for further usage.

### Timeline

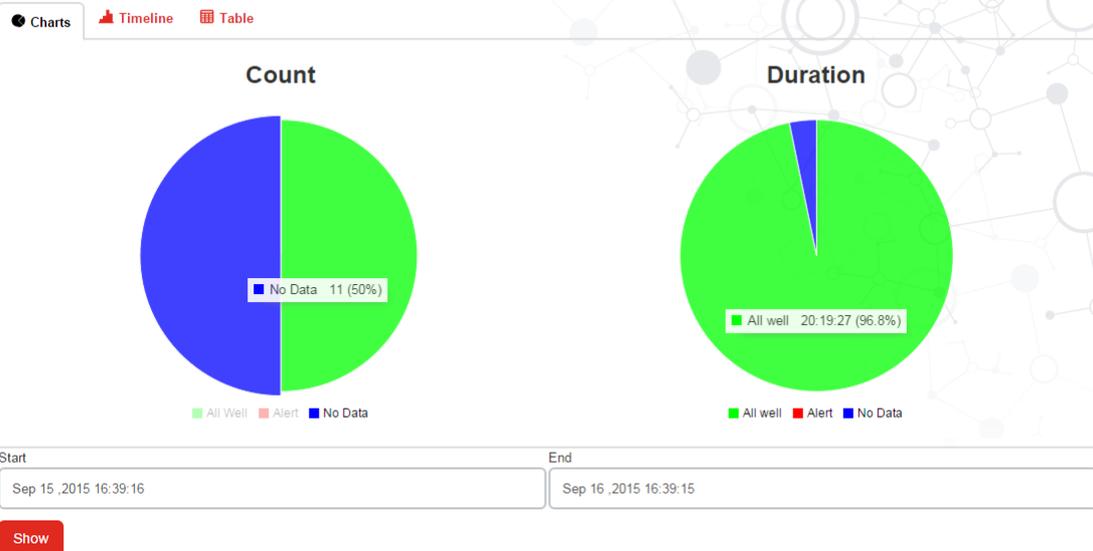
#### Alarms



Show state transition in a timeline. Put mouse cursor upon any color square to see information of timestamp and duration. You may change time frame by updating date/time in the start and/or end field.

### Charts

#### Alarms

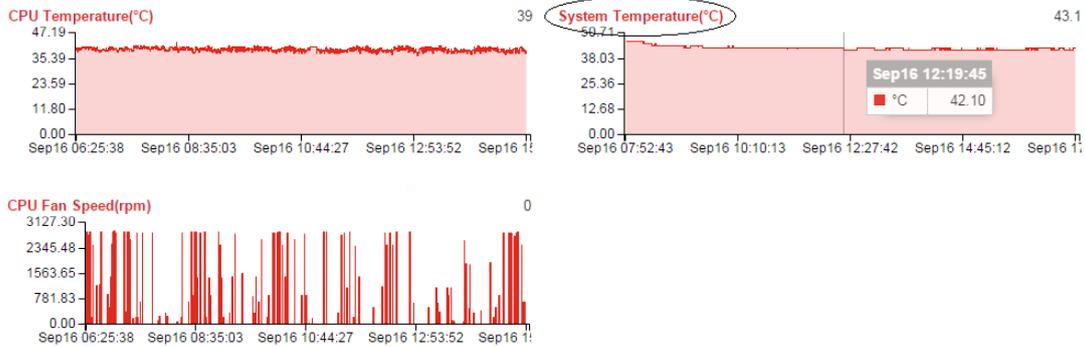


Show ratio of different states by count and by duration. Put mouse cursor upon a chart to see information of count/duration and the percentage. You may change time frame by updating date/time in the Start and/or End field.

## 2.5.3 Properties

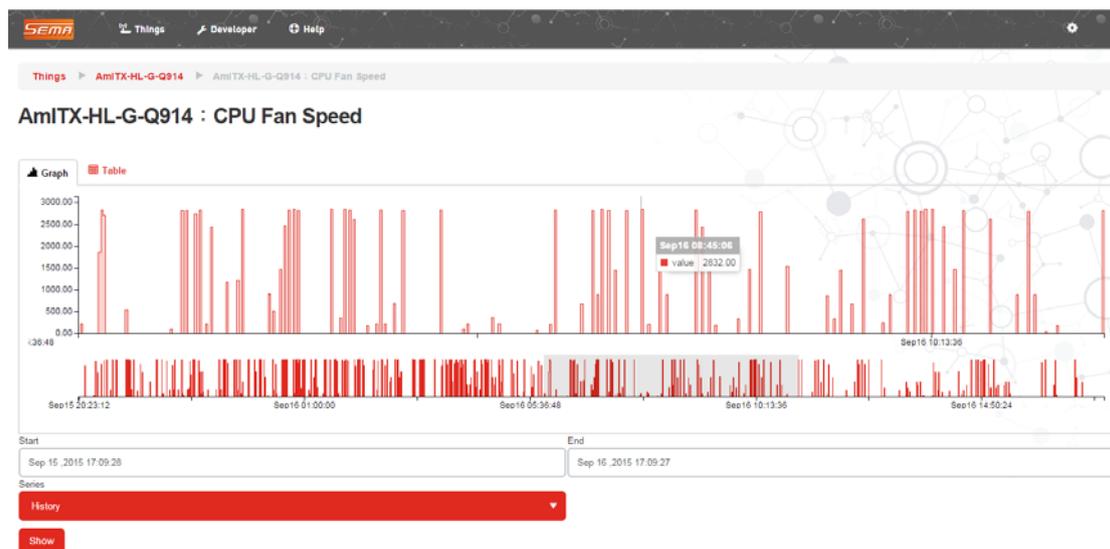
Properties section shows all sensors under monitoring and their data. You see time and value by moving cursor onto the graphs. Considering performance of web page responding, if data are more than 750 records per specification of applied thing definition, only the latest 750 records will be shown.

### Properties



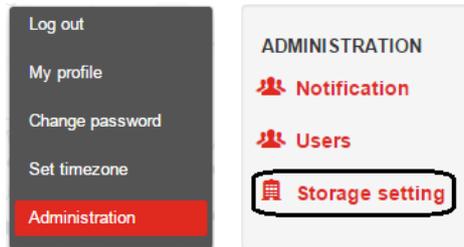
Click sensor name to open the sensor page, all sensor data could be viewed by table or graph. You may adjust displayed data by 3 ways:

- ▶ Change start and/or end dates.
- ▶ Press left mouse key to drag a square onto lower graph, release mouse key when appropriate time duration. Only data in gray area will be displayed on upper graph. You may also press left mouse key onto gray area to move it, or on edges to resize gray area to show data from different time duration.
- ▶ Roll mouse gyro wheel onto upper graph, graph will zoom in/out to show data from different time duration. Gray area of lower graph reflects what you did on upper graph.



## 2.5.4 Storage setting

You may specify the pace that SEMA Dashboard takes device's sensor data and how long you want to keep them through **Storage setting** under **Administration**.



Administration > Storage setting

## Storage setting

Storage remaining 35 GB

20 ▾

	Device Name	Settings
 	AmITX-BE-G-914BB	Sample Rate: <b>30</b> Seconds Keep all logs.
 	AmITX-HL-G-Q914	Sample Rate: <b>40</b> Seconds Keep: <b>20</b> Days
 	LEC_BTS_x64_ADLINK	Sample Rate: <b>30</b> Seconds Keep all logs.
 	NanoX_BT_x32_ADLINK	Sample Rate: <b>2</b> Minutes Keep all logs.
 	cExpress_SL_x32_ADLINK	Sample Rate: <b>60</b> Seconds Keep: <b>1</b> Months

20 ▲

While each device has been added into SEMA Dashboard, there will be a record here with default settings (get sensor data every 60 seconds and keep all records).

Above the table, you can see how much storage remains. It is a reference to set the numbers, or to allocate more space for data if necessary.

Click  in front of each device to see more information in view page.

Administration > Storage setting > AmITX-HL-G-Q914

## AmITX-HL-G-Q914

Sample Rate 40Seconds

Log Management Overwrite log earlier than 20 Days

 Edit

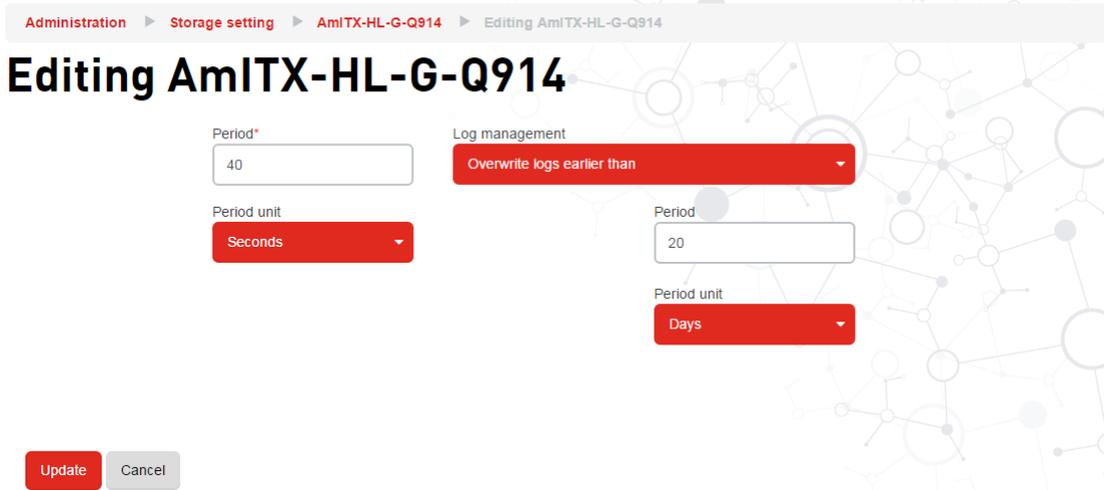
Created by admin

Created on Sep 15 2015 13:05:08

Updated by susan

Updated on Sep 16 2015 17:23:58

Click  in front of each device, or click **Edit** button in view page, to open edit page and change the settings of it. Note that the minimum of the sample rate is 20 seconds.



## 2.5.5 Change thing definition

Click on  (Change definition) opens a dialog window, use drop-down list to choose which thing definition you want to use.



After choosing another thing definition and clicking **Change definition** button, a page shows differences between both definitions for your confirmation. Click on **Submit** button to activate new definition to current device view page.

If there is no thing definition you want to use, refer to section 2.6.1 to learn how to create a new thing definition.

## Thing definition change

Options that appear in **red** text and with a **<** will be removed. Options that appear in **green** text and with a **>** will be added. Options that appear in black text appear in both. When an option is **removed**, all of the historical data for the thing will be lost.

### Thing definition

<DEMO  
>Default

### Properties

Name

CPU Temperature

Memory Usage

<Main Current

>System Temperature

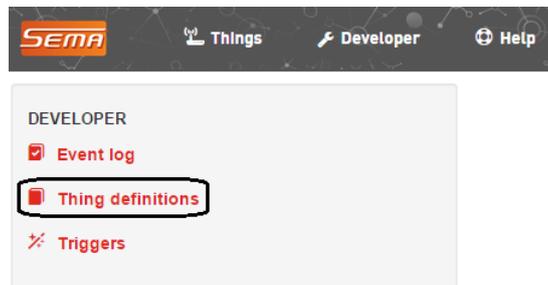
>CPU Fan Speed

Submit

Cancel

## 2.6 Define what and how you see device data

Every user has his own view to a device, including which sensors will be under observation, how much data will be demonstrated, and how they will be displayed on the web page. **Thing definitions** is what you need to do so.



## Thing definitions

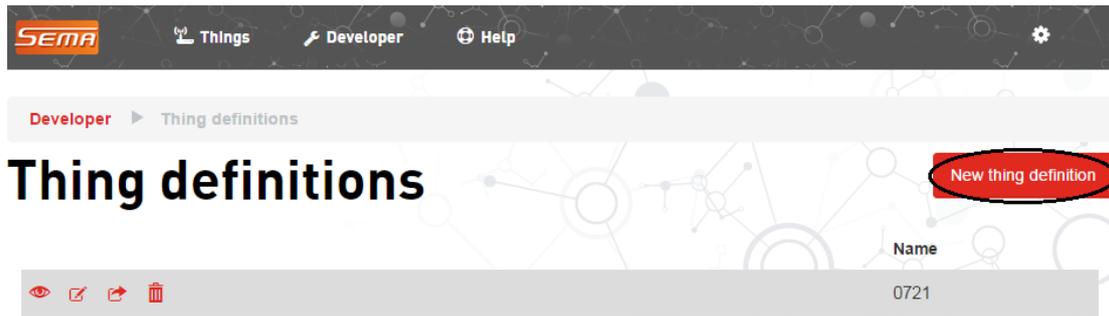
New thing definition

	Name
   	0721
    Delete 0721	DEMO
    Clone DEMO	Default
    Edit Default	None_test
    View None_test	Pico_0721_Test
   	TEST

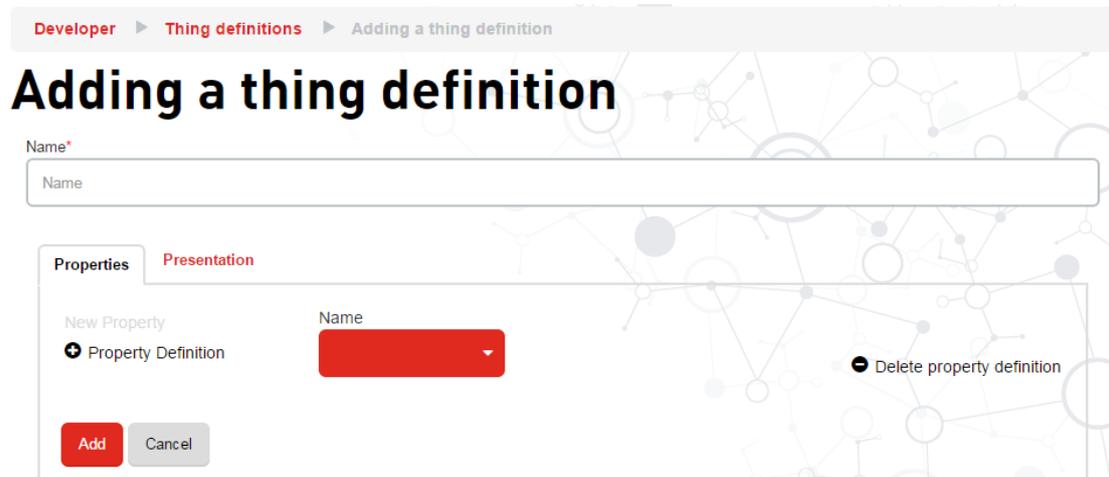
There are 4 icons in front of each thing definition to invoke different actions.

- ▶ Click  in front of a thing definition to open a page showing its data. Click  in front of a thing definition to open a page to modify its data. Refer to 2.6.2 for details.
- ▶ Click  in front of a thing definition to delete it. Refer to 2.6.3 for details.
- ▶ Click  in front of a thing definition to create a new thing definition based on an existing one.

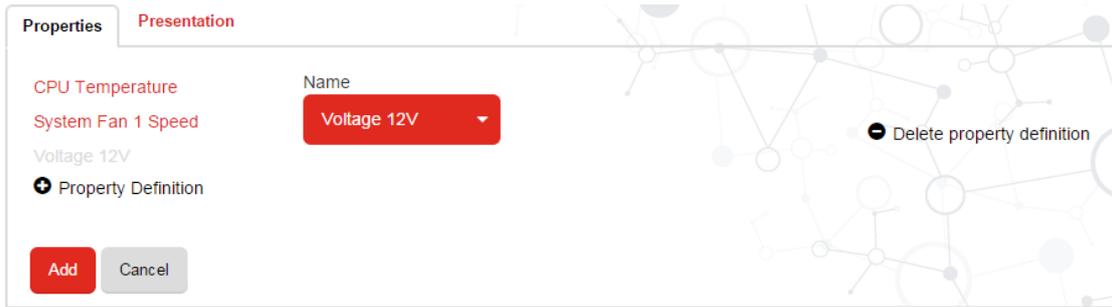
## 2.6.1 Add a new thing definition



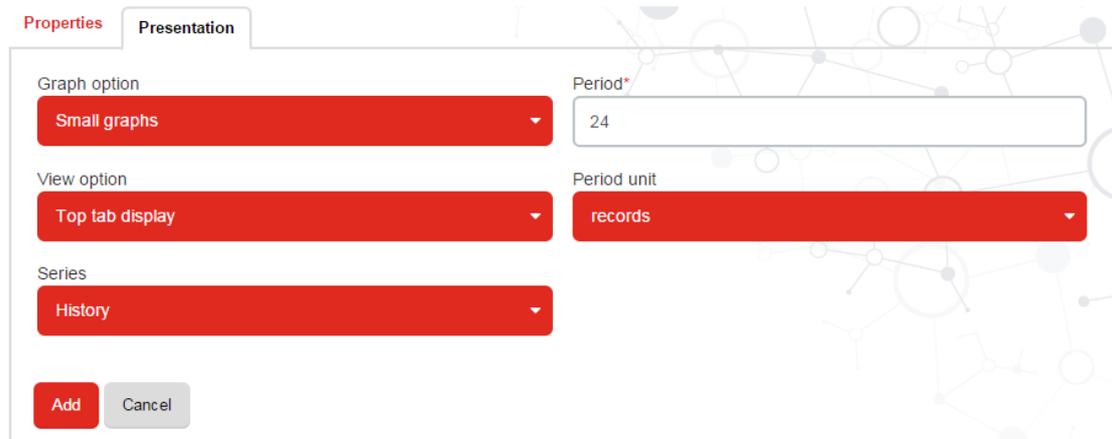
Click **New thing definition** button to open **Adding a thing definition** page. Input the necessary fields and click **Add** button. A new thing definition is created and displayed in **Thing definitions** page.



In Properties tab you need to choose what sensors will be under your observation. Click **+ Property Definition** and select one sensor from the drop-down listing. Repeat this action until all sensors are chosen. To remove a selected sensor, just mark its name in selected list and click **- Delete property definition**.

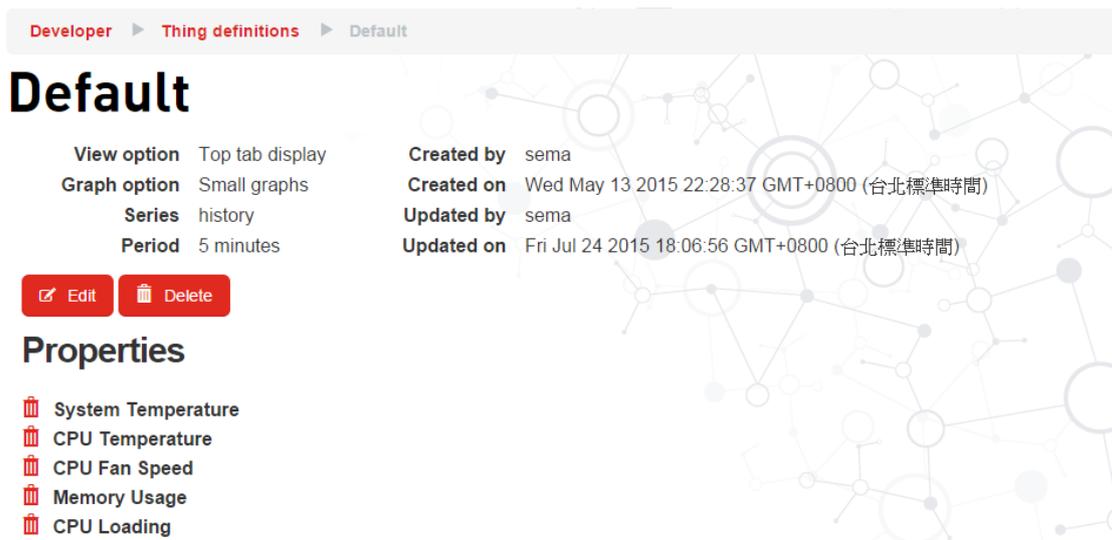


In **Presentation** tab you need to setup how much device data you want see and how the look of the Thing view page will be. Input combinations of **Period** and **Period unit** and click each drop-down list to see options. Save your setting then go to **Thing** view page to see the results.

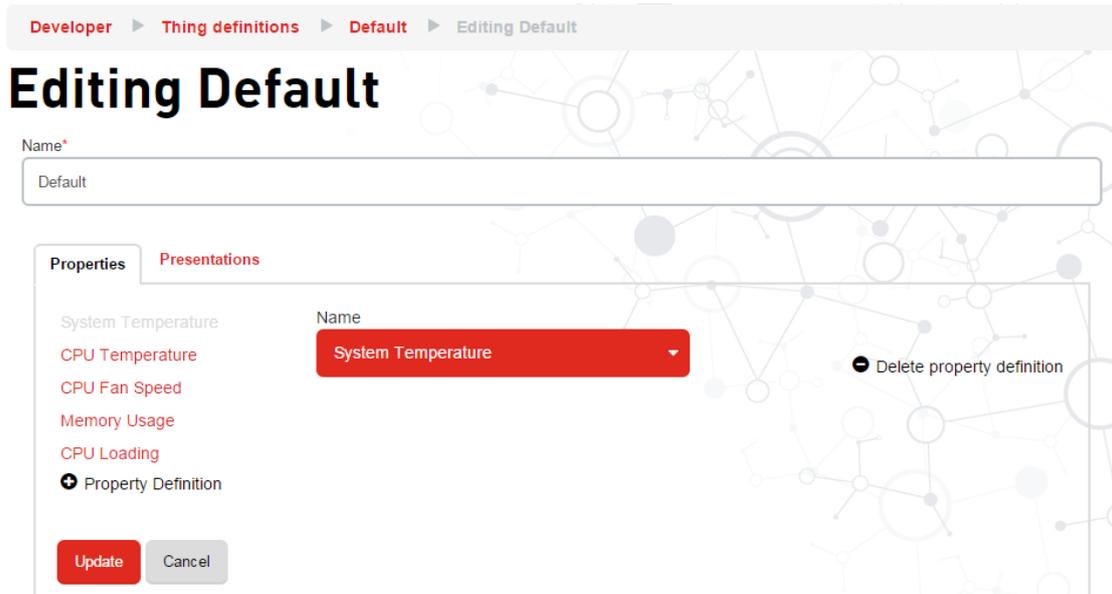


## 2.6.2 View and edit information of an existing thing definition

Click  in front of a thing definition to open detailed information page of it.



Click **Edit** button to open **Editing** thing definition page to modify its detailed information.

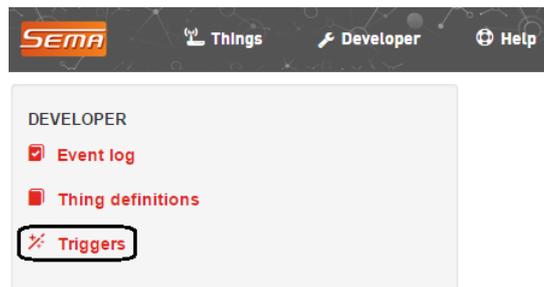


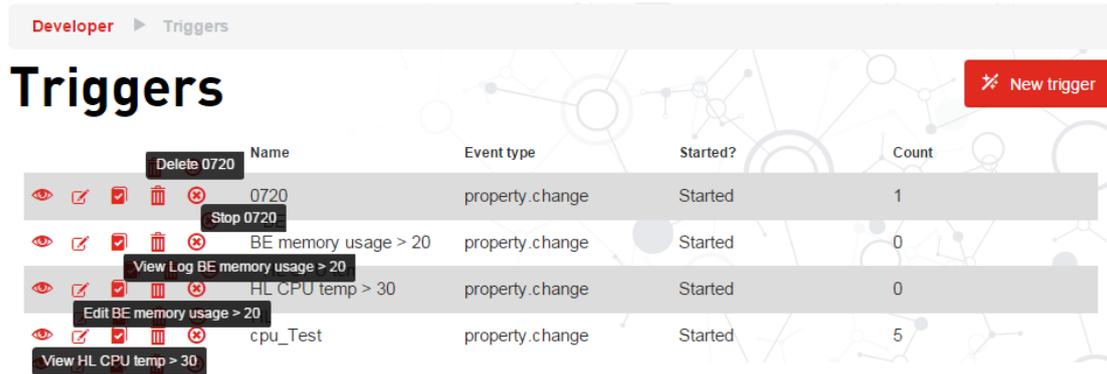
### 2.6.3 Delete an existing thing definition

Click  in front of a thing definition (or click **Delete** button in view page) to remove a thing definition.

## 2.7 Create triggers to issue alerts

Besides monitoring devices by your own, getting a system notification to remind you something wrong is going will be helpful. Triggers under **Developer** let you create as many triggers as you need. Enabling these triggers, system will monitor devices for you and give you a warning alert when pre-defined criteria are met. Then you can check and perform the necessary actions. An event log will also be recorded while a trigger is issued. You may check the event log at any time for further investigation or analysis.



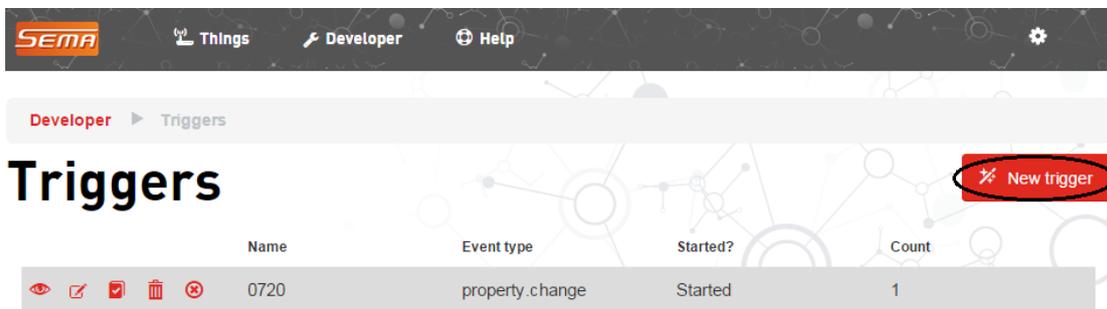


Name	Event type	Started?	Count
0720	property.change	Started	1
BE memory usage > 20	property.change	Started	0
HL CPU temp > 30	property.change	Started	0
cpu_Test	property.change	Started	5

There are 5 icons in front of each trigger to invoke different actions.

- ▶ A new-created trigger is stopped, i. e. it's not sending alerts. Click  in front of a certain trigger to start it. To stop a started trigger, click  in front of it.
- ▶ Click  in front of a trigger to open a page showing its data. Click  in front of a trigger to open a page to modify its data. Refer to section 2.7.2 for details.
- ▶ Click  in front of a trigger to delete it. Refer to section 2.7.3 for details.
- ▶ Click  in front of a trigger to see all events issued by this trigger.

## 2.7.1 Add a new trigger



Name	Event type	Started?	Count
0720	property.change	Started	1

Click **New trigger** button to open **Adding a trigger** page. Input necessary fields and click **Update** button. A new trigger is created and displayed in **Triggers** page.

## Adding a trigger

Name\*

Description

### Event

Event Type\*

Thing\*

Property\*

Operator\*

Operand

Time in Condition(seconds)

### Actions

SMS send Action

+ Action

Update Cancel

A trigger must have a name and define a pair of Thing and Property. Criteria are defined by Operator, Operand(s) and Time in Condition (means the minimal seconds the exception lasts).

Actions allow you specifying what kind of notification you want to receive. SMS and Email are two options. Click **+ Action** to choose one and enter text for notification message. Variables are helpful to embed sensor data into message. Be aware that SMS notification must be less than 160 characters.

If you want to delete actions, select it in list then click **- Delete action**.

SMS.send  
email.send  
+ Action

Action  
email.send

Subject\*  
Subject

Body\*  
Body

Suggestions  
\$(event.trigger.name)  
\$(event.trigger.triggec  
\$(event.trigger.operat  
\$(event.trigger.operar  
\$(event.trigger.operar  
\$(event.trigger.operar  
\$(event.trigger.time\_lr  
\$(event.device.name)

Delete action

## 2.7.2 View and edit information of an existing trigger

Click  in front of a trigger to open detailed information page of it.

Developer > Triggers > BE memory usage > 20

### BE memory usage > 20

Name	BE memory usage > 20
Description	
Started?	Started
Event type	property.change
Count	0
Last sent	0000-00-00 00:00:00

Creadd by	sema
Created on	2015-07-24 16:40:05
Updated by	sema
Updated on	2015-07-24 22:24:04

[Edit](#) [Delete](#) [Log](#) [Stop](#)

### Event

Thing	AmlTX-BE
Property	Memory Usage
Operator	Value >= Operand
Operand	19
Operand2	
Time in Condition (seconds)	1

### Actions

email.send

Subject	Warning
Body	\$(event.trigger.name) warns you \$(event.device.name) is abnormal.

Click **Edit** button to open **Editing trigger** page to modify its detailed information.

Developer ▶ Triggers ▶ BE memory usage > 20 ▶ Editing BE memory usage > 20

## Editing BE memory usage > 20

Name\*  
BE memory usage > 20

Description  
Description

### Event

Event Type\*  
property\_change

Thing\*  
AmITX-BE

Property\*  
Memory Usage

Operator\*  
Value >= Operand

Operand  
19

Time in Condition(seconds)  
1

### Actions

email.send Action

+ Action

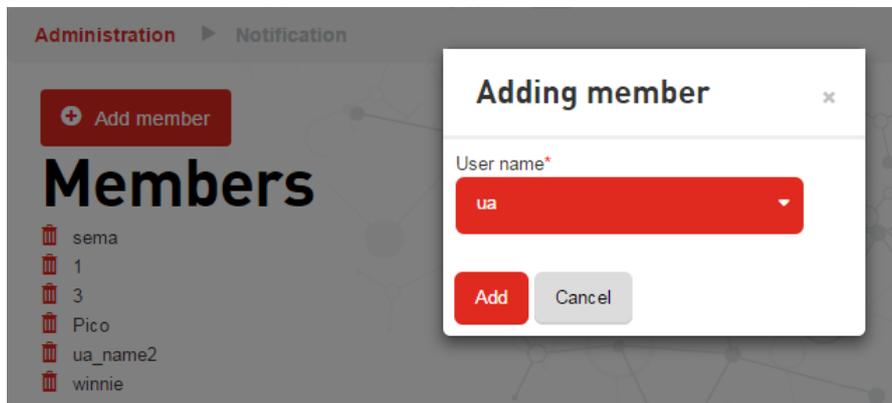
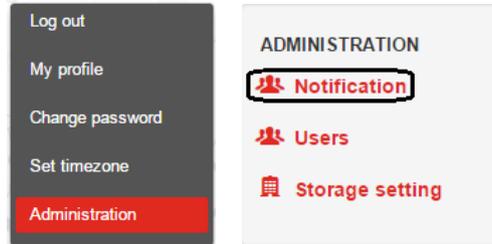
Update Cancel

### 2.7.3 Delete an existing trigger

Click  in front of a trigger to remove a trigger.

## 2.7.4 Assign members to receive alerts

Who will receive alerts? All users of SEMA Dashboard are candidates, but you need to create a notification list and assign members. Members in list will receive an alert message, if he/she was not disabled. Notification under Administration helps you to do so.



Users added before form a notification list. Click **Add member** button to open **Adding member** dialog, choose users who are not yet in notification list one by one to add them as members. Only if users in list are not disabled, they will receive alert notification with pre-defined message once triggers are issued.

## Getting Service

Contact us should you require any service or assistance.

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