Configuring a HWg-STE Sensor

Configuring a HWg-STE Sensor

HWg-STE Temperature Sensor Configuration

Introduction

In this configuration quick guide we're going to learn, step by step, how to use Pandora to monitor a HWg-STE Temperature Sensor.

We will assign alerts via eMail and generate a basic report as well.

Installation and configuration

Step #1. Pandora installation

Take a look at the installation manual or begin from a preinstalled Pandora with a virtual image (links).

Step #2. Sensor installation

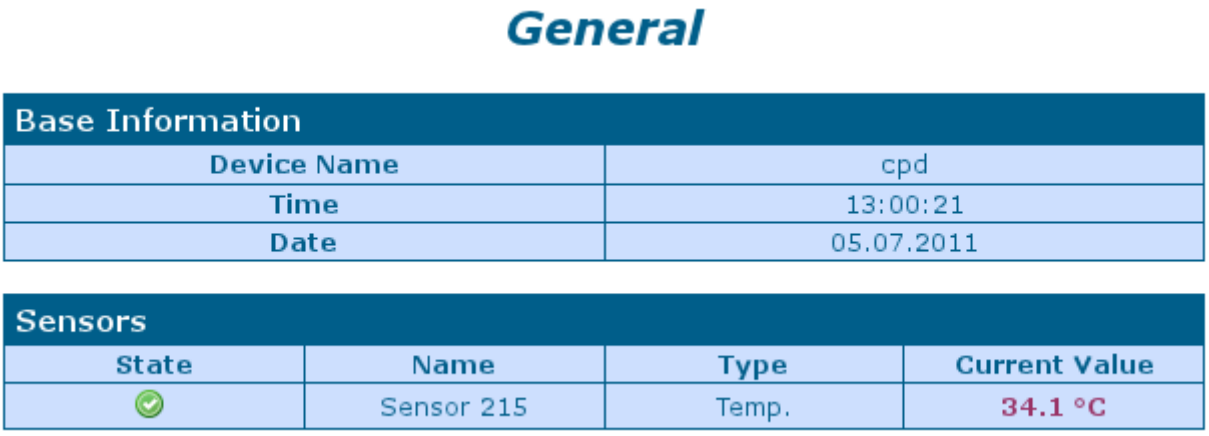
Let's get started with the HWg-STE sensor:

Manufacturer documentation:
http://www.hw-group.com/products/HWg-STE/STE_ip_temperature_sensor_en.html

Sensor manual: http://www.hw-group.com/download/HWg-STE_MAN_en.pdf

It is really important to take care while configuring the IP address to access the temperature sensor and make sure it is connected. We also need to know its OID. For this purpose, we must

access and configure the device via web:



General

Base Information	
Device Name	cpd
Time	13:00:21
Date	05.07.2011

Sensors			
State	Name	Type	Current Value
	Sensor 215	Temp.	34.1 °C

In the screen “System → TXT List of common SNMP OID's” we can check the OID of our sensor:

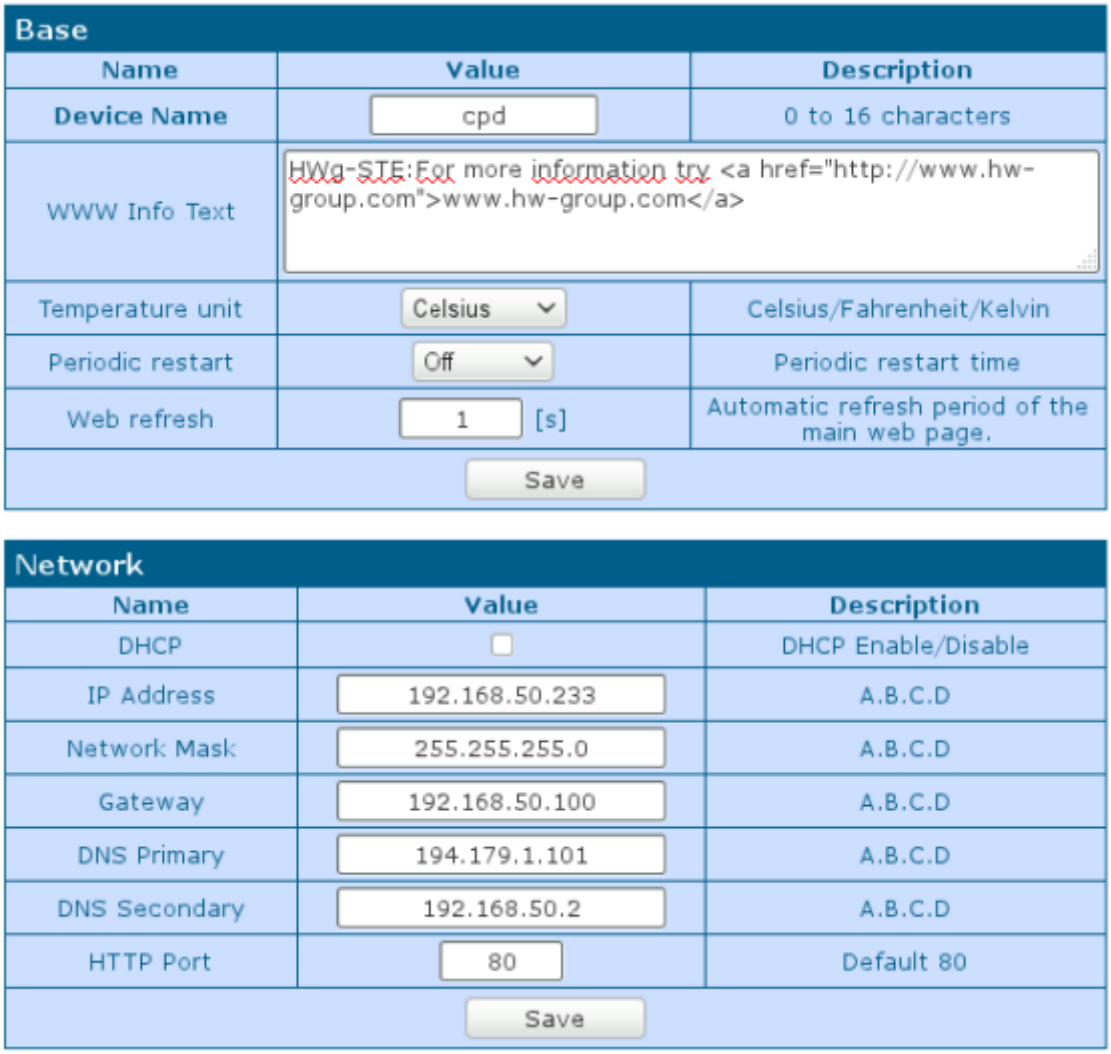
```
HWg-STE SNMP OID description
-------------------------------------------------------------------------

System Values:
-----------------------------------------------------
.1.3.6.1.2.1.1.1.0             System Description   (string)
.1.3.6.1.2.1.1.2.0             System ObjectID      (objid)
.1.3.6.1.2.1.1.3.0             System UpTime        (timeticks)
.1.3.6.1.2.1.1.4.0             System Contact       (string)
.1.3.6.1.2.1.1.5.0             System Name          (string)
.1.3.6.1.2.1.1.6.0             System Location      (string)
.1.3.6.1.2.1.1.7.0             System Services      (integer)
.1.3.6.1.4.1.21796.4.1.70.1.0  System MAC address   (string)

Sensors Values, (n = 1..x)
-----------------------------------------------------
.1.3.6.1.4.1.21796.4.1.3.1.1.n Sensor Index         (integer,  NUM  (1..x))
.1.3.6.1.4.1.21796.4.1.3.1.2.n Sensor Name          (string,   SIZE (0..16))
.1.3.6.1.4.1.21796.4.1.3.1.3.n Sensor State         (integer,  0=Invalid, 1=Normal, 2=OutOfRangeLo
.1.3.6.1.4.1.21796.4.1.3.1.4.n Sensor String Value  (string,   SIZE (0..10))
.1.3.6.1.4.1.21796.4.1.3.1.5.n Sensor Value         (integer,  current value *10)
.1.3.6.1.4.1.21796.4.1.3.1.6.n Sensor SN            (string,   SIZE (0..16))
.1.3.6.1.4.1.21796.4.1.3.1.7.n Sensor Unit          (integer,  0=unknown, 1=°C, 2=°F, 3=°K, 4=%)
.1.3.6.1.4.1.21796.4.1.3.1.8.n Sensor ID            (integer,  NUM      (0..x))

For more details, analyze MIB file or check detailed device’s manual..
```

Since we only have one sensor, the OID will be:

```
.1.3.6.1.4.1.21796.4.1.3.1.5.1
```

It is important to note that the device returns the temperature in degrees and without decimal comma in the output. If we want to show the real value, we will have to divide this value by 10. This post-process can be done in Pandora.

And the IP address:



Base

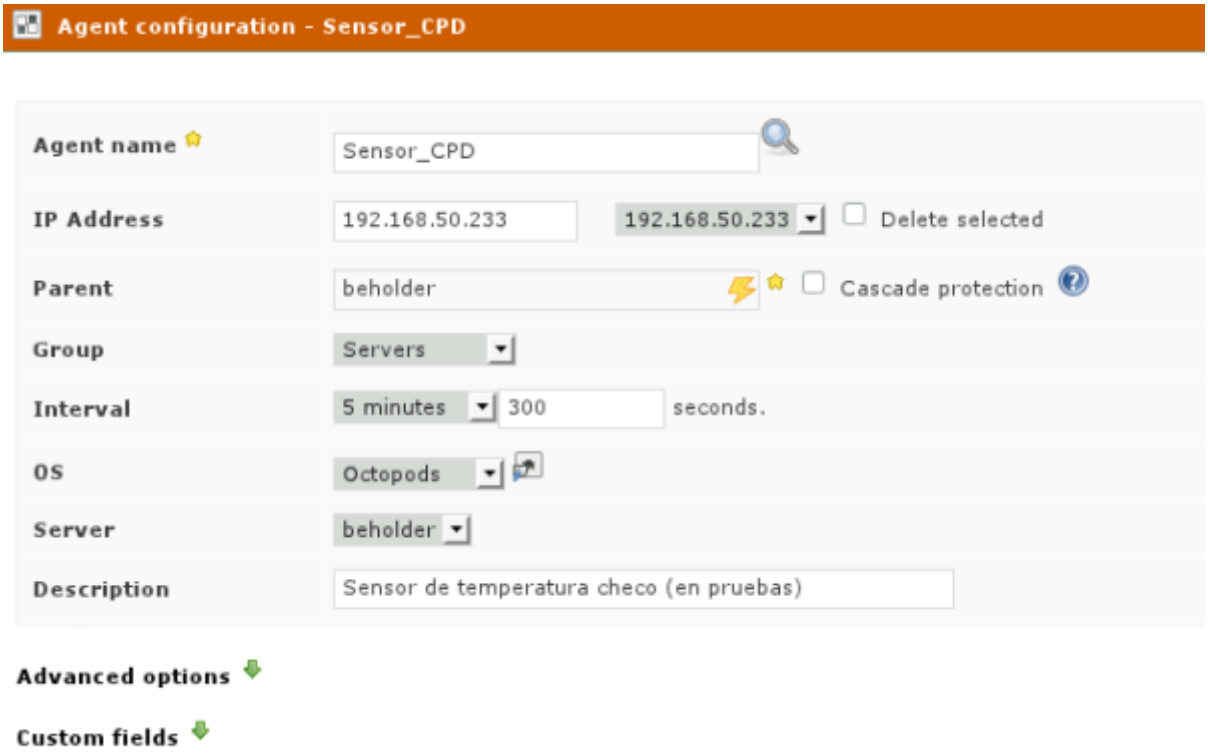
Name	Value	Description
Device Name	cpd	0 to 16 characters
WWW Info Text	HWg-STE:For more information try www.hw-group.com	
Temperature unit	Celsius	Celsius/Fahrenheit/Kelvin
Periodic restart	Off	Periodic restart time
Web refresh	1 [s]	Automatic refresh period of the main web page.
	Save	

Network

Name	Value	Description
DHCP		DHCP Enable/Disable
IP Address	192.168.50.233	A.B.C.D
Network Mask	255.255.255.0	A.B.C.D
Gateway	192.168.50.100	A.B.C.D
DNS Primary	194.179.1.101	A.B.C.D
DNS Secondary	192.168.50.2	A.B.C.D
HTTP Port	80	Default 80
	Save	

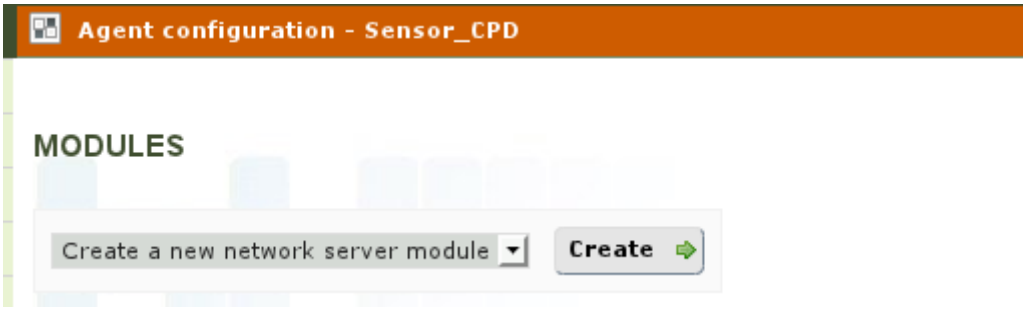
Step #3. Configuring the sensor in Pandora

Let's go to the agent configuration screen. There we are going to create a new agent and fill all the relevant information. This agent must have the same IP address we've just configured in the sensor.:

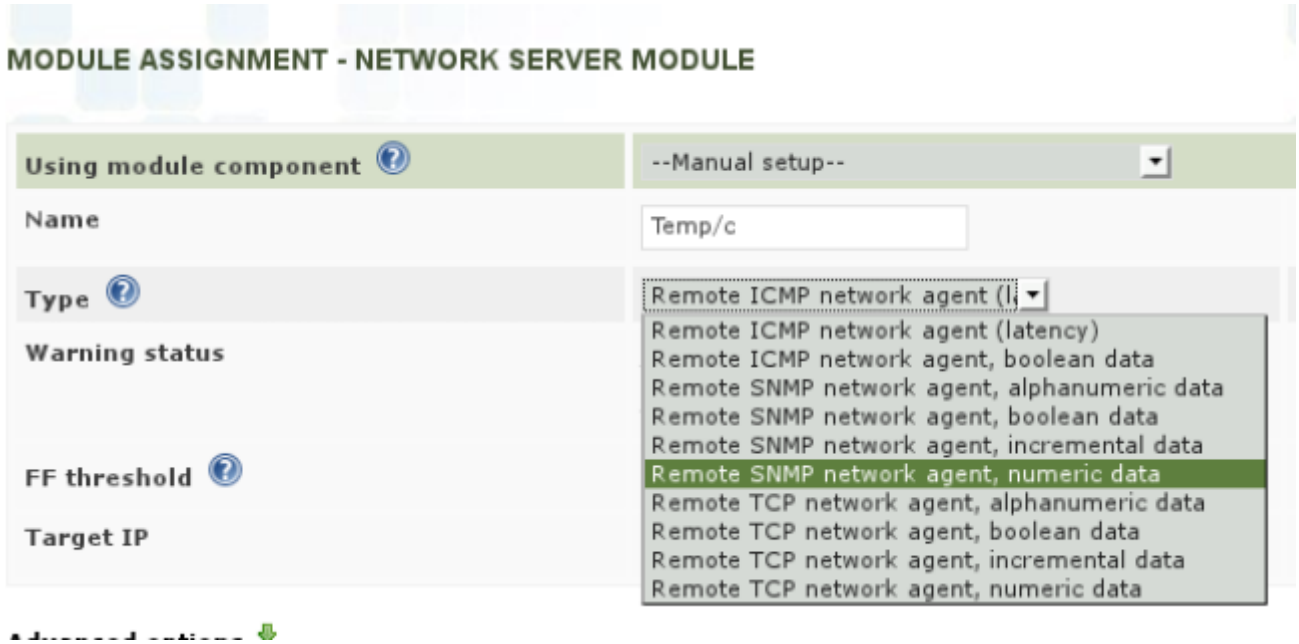


I have associated it to the Servers group, but it is possible to change it later if I decide to create a Sensors group.

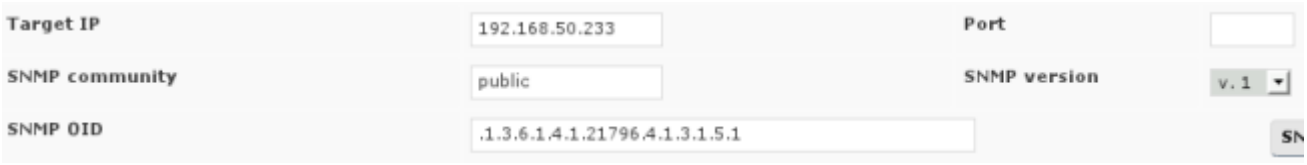
Let's define a SNMP module. Go to the module screen:



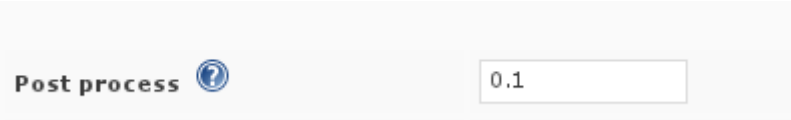
Create a module which type is “SNMP Numeric Data Module”.



The SNMP OID field must be filled with the one obtained previously. SNMP community is “public” by default.



I need to open the advanced section, to specify a post-process which can divide the result by 10.

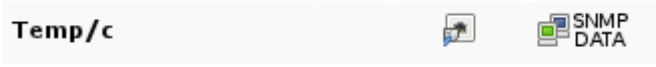


Time to click on the “Create” button:

Right after creating the module, we should see something like this:

If we click in the bulb button... (modules)

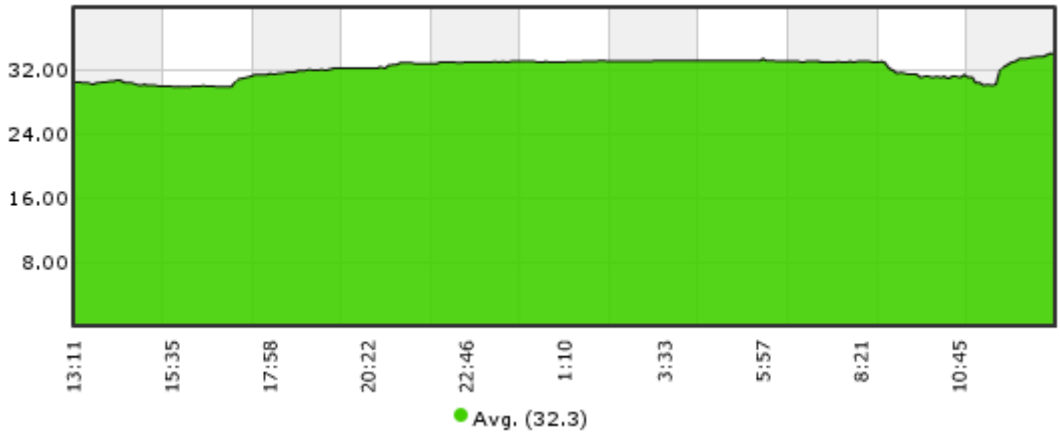
The previous look the new module had should have changed, and appear without the red triangle icon, by initialising it:



If we take a look to the agent view... (Magnifying glass)

We will be able to see the data we've gathered from the sensor:

Module is up and running. In a matter of hours we will have enough data to display a graphic like this:



Step #4. Configuring an alert

When temperature reaches a value over 38 degrees, we want an alert to be generated via email. The first thing we have to do is to configure the module, so it gets into critical status when its value gets over 38 degrees.

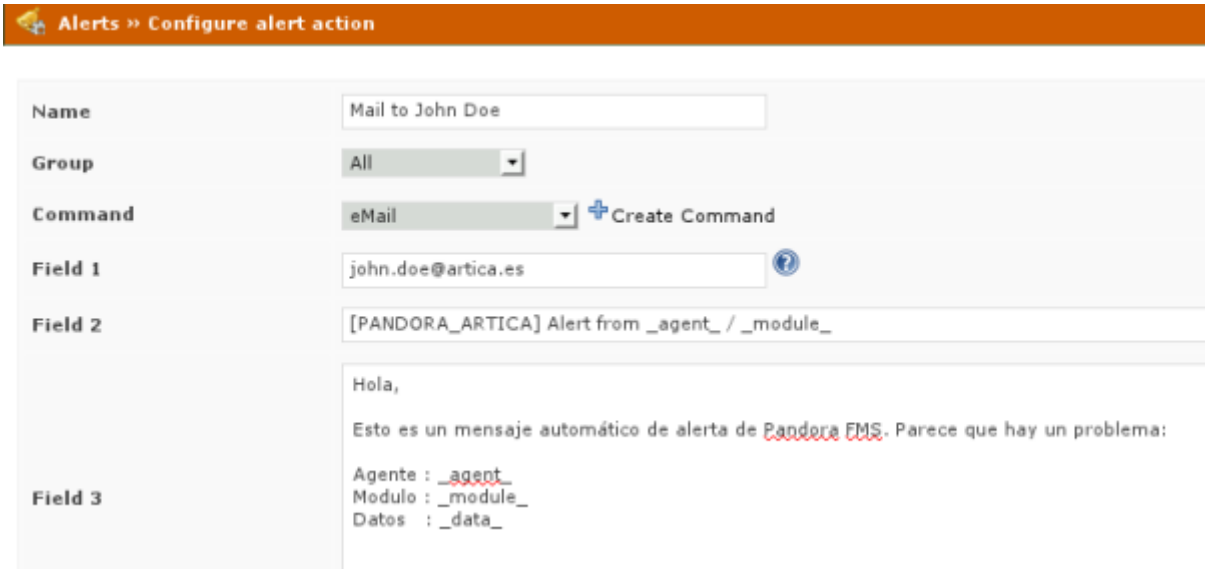
Let's edit the module... (click on the key, inside the edition view or the agent data view)

We need to modify the ranges so the module gets into critical status over 38ºC:

Now we will have to define an alert action to send an email to a specific email address. Let's go to

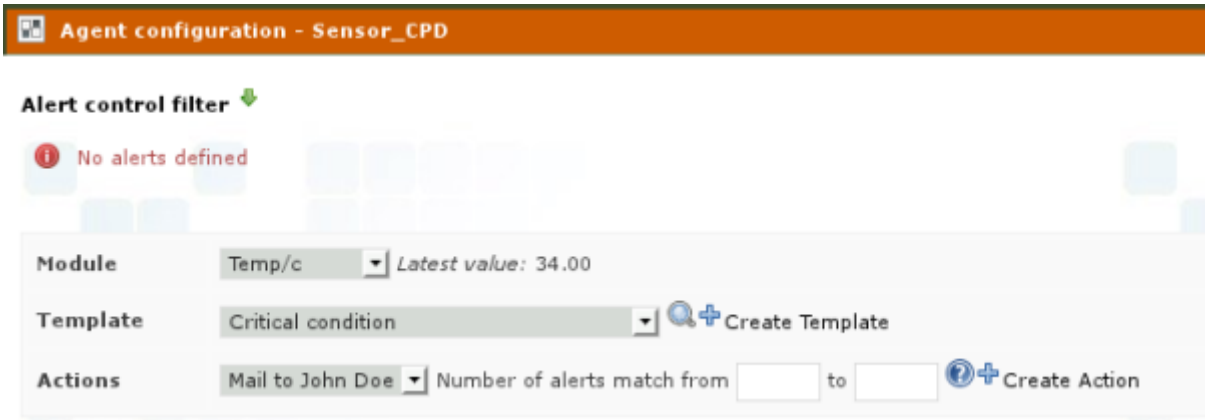
the menu Administration → Manage alerts → Actions to create a new one.

We are going to define an generic alert action to send an email, so we can use it with any moudule entering into a CRITICAL status:



After creating the action, we only have to define an alert in the agent which contains the sensor module. To achieve this, we need to edit the agent by going to the alerts sections:

Create a new alert, starting from the default template alert “Critical condition”:



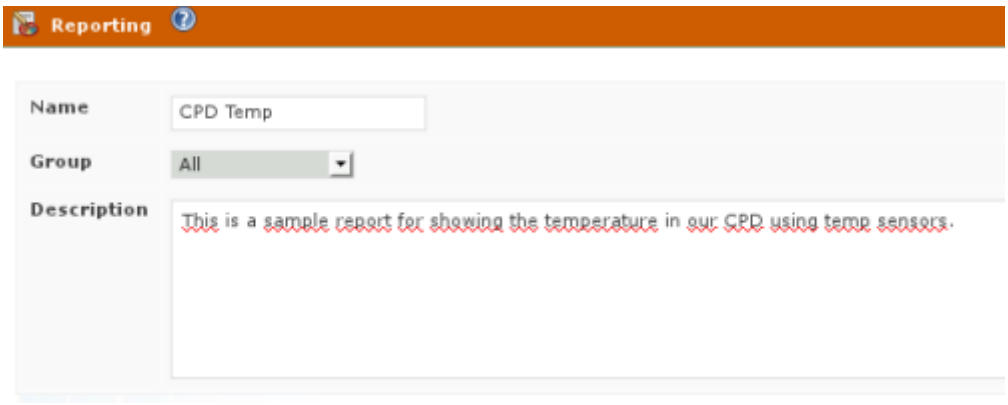
OK... the new alert is ready. We should see something like this:

Step #5. Creating a basic report

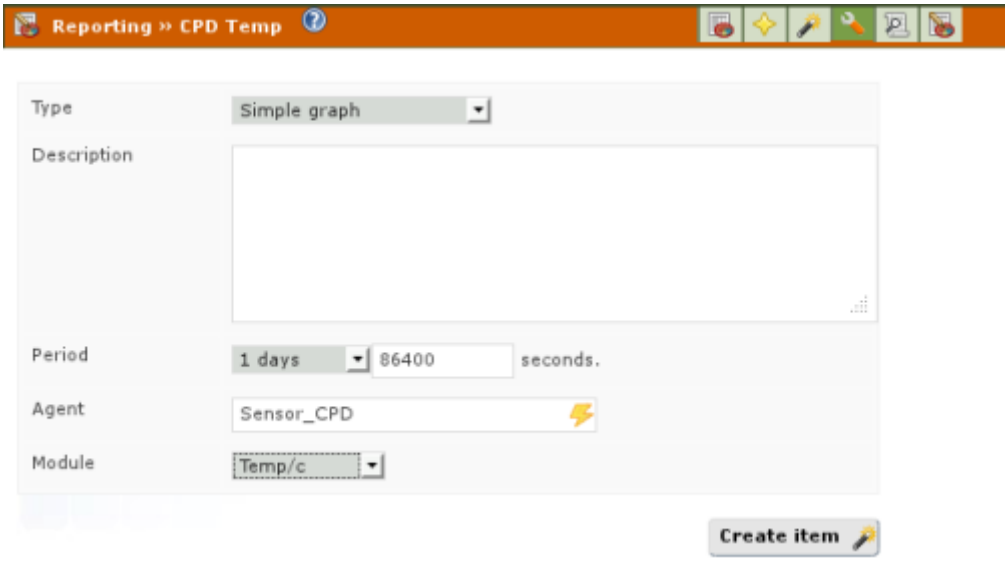
Finally, once we have completed the previous steps, it is time to create a report which will contain

a basic temperature graphic, with the average and maximum values.

Let's go to the menu Administration → Reports → Create report:



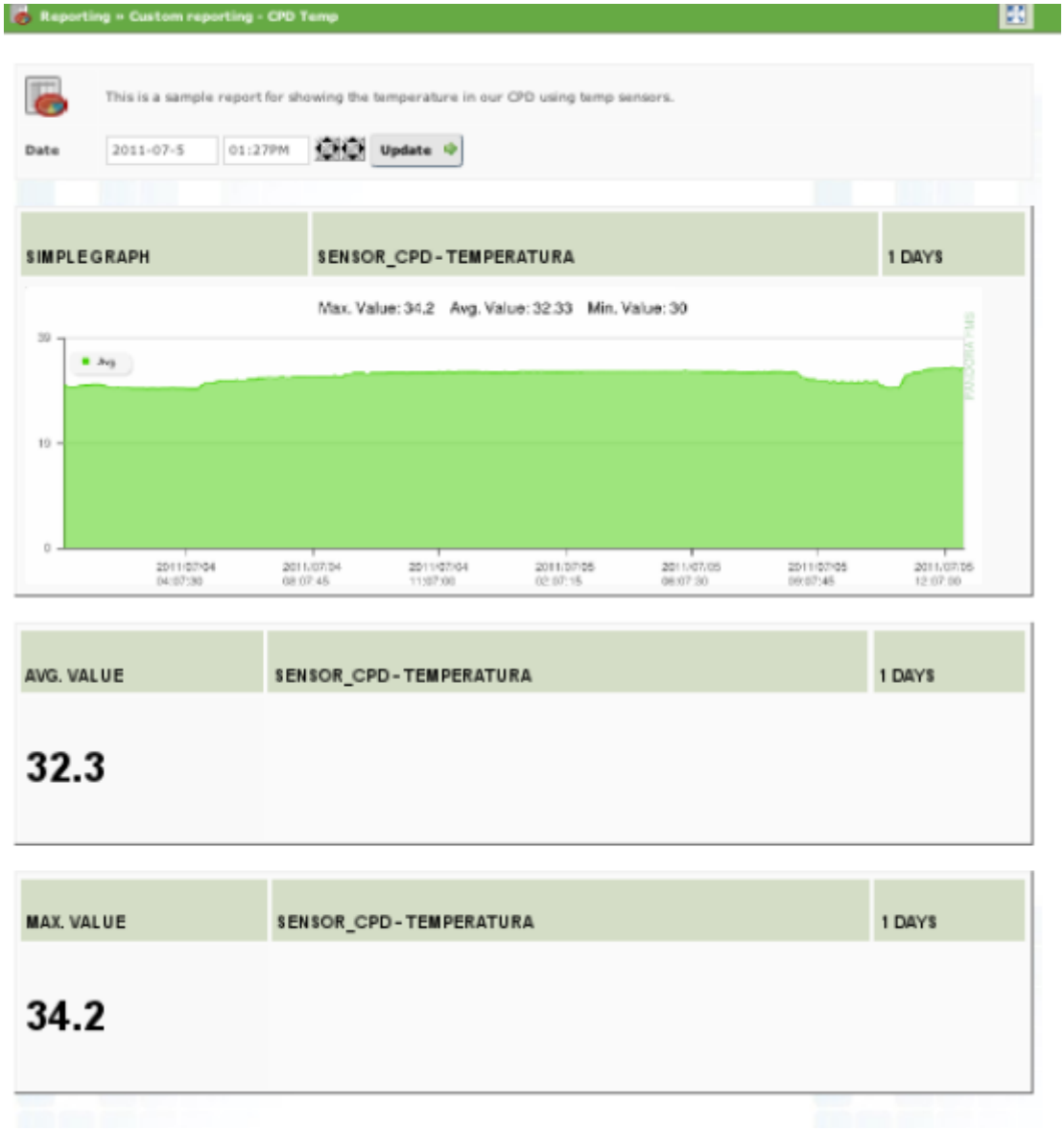
Click on the key button so we can add new elements to the report. Choose a “Simple graph” element type.



Following the same procedure, create other two elements with types “AVG (Average value)” and “MAX (Maximum value)” respectively.

Once created, in order to view it, we need to click in the report view button (first to the left). Another choice is to go to the menu Operation → Report and click on the report we've just created.

The report should look like this (once it has enough data, after some hours/days).



Go back to Pandora FMS documentation index