

Configuring a HWg-STE Sensor

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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

General

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

Sensors				
State	Name	Туре	Current Value	
0	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)
                          System UpTime (timeticks)
System Contact (string)
System Name (string)
.1.3.6.1.2.1.1.3.0
.1.3.6.1.2.1.1.4.0
                           System Name
.1.3.6.1.2.1.1.5.0
                                             (string)
                           System Location (string)
System Services (integer
.1.3.6.1.2.1.1.6.0
.1.3.6.1.2.1.1.7.0
                                              (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 (l..x))
                                             (string, SIZE (0..16))
(integer, 0=Invalid, 1=Normal, 2=OutOfRangeLo
.1.3.6.1.4.1.21796.4.1.3.1.2.n Sensor Name
.l.3.6.l.4.l.21796.4.l.3.l.3.n Sensor State
.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)
                                              (string, SIZE (0.16))
.1.3.6.1.4.1.21796.4.1.3.1.6.n Sensor SN
.1.3.6.1.4.1.21796.4.1.3.1.7.n Sensor Unit
                                              (integer, O=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-SIE:Eor more information try <a href="http://www.hw-
group.com">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.:

igent name 😭	Sensor_CPD	
P Address	192.168.50.233 192.168.50.233 🔽 🗆 Delete selec	ted
arent	beholder 🗲 🌣 🗌 Cascade protec	tion 🔞
roup	Servers 💌	
nterval	5 minutes 🔄 300 seconds.	
s	Octopods 💽 🗺	
erver	beholder 💌	
escription	Sensor de temperatura checo (en pruebas)	

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".

MODULE ASSIGNMENT - NETWORK SERVER MODULE

Using module component 🔞	Manual setup
Name	Temp/c
Туре 🕖	Remote ICMP network agent (I.▼
Warning status	Remote ICMP network agent (latency) Remote ICMP network agent, boolean data Remote SNMP network agent, alphanumeric data Remote SNMP network agent, boolean data
FF threshold 🕖	Remote SNMP network agent, incremental data Remote SNMP network agent, numeric data Remote TCP network agent, alphanumeric data
Target IP	Remote TCP network agent, boolean data Remote TCP network agent, incremental data Remote TCP network agent, incremental data

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

Target IP	192.168.50.233	Port	
SNMP community	public	SNMP version	v.1 💌
SNMP OID	.1.3.6.1.4.1.21796.4.1.3.1.5.1		SN

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

	~		
Post process		0.1	

Time to click on the "Create" button:

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



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



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 38°C:

Critical status	Min. 38
	Max. 0.00

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 \rightarrow Manage alerts \rightarrow 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:

🔩 Alerts » Configure a	alert action
Name	Mail to John Doe
Group	All
Command	eMail 🔄 🖶 Create Command
Field 1	john.doe@artica.es
Field 2	[PANDORA_ARTICA] Alert from _agent_ / _module_
	Hola,
	Esto es un mensaje automático de alerta de <u>Pandora EMS</u> . Parece que hay un problema:
Field 3	Agente :agent Modulo :module Datos : _data

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:

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

🚹 Agent config	uration - Sensor_CPD
Alert control filt	er 🏶
No alerts def	ined Contraction of the second s
Module	Temp/c Latest value: 34.00
Template	Critical condition 🔄 🔍 🕈 Create Template
Actions	Mail to John Doe 💌 Number of alerts match from to

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

0	-	Temp/c	Critic[]dition	▶ Mail t[]hn Doe (Añvays) 🗙 💠 Add action	-	×

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 \rightarrow Reports \rightarrow Create report:

🐻 Reporting	
Name	CPD Temp
Group	All 🗾
Description	This is a sample report for showing the temperature in our GRR using temp sensors.

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

Туре	Simple graph	
Description		
Period	1 days 💌 86400 seconds.	
Agent	Sensor_CPD 🦻	
Module	Temp/c •	

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 \rightarrow 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).

>	ann pre reparero						
2011-0	7-5 01:279	M	Jpdate 🌵				
IPLEGRAPH		SENSOR	_CPD - TEMPE	RATURA			1 DAYS
		Max. Valu	e:34.2 Avg. Va	lue: 32.33 Min. V	alue: 30		
1.000							
• 349	_						
	01107/04	2011/07/04	2011/07/04	2011/0/705	2011/07/05	2011/07/05	2011,077,07
2	011107704 4:07280	2011/07/04 08/07/45	2011/07/04 11/07/08	2011/07/05 02:07:15	2011/07/05 06:07:30	2011/07/05 09:07:48	2011/07/06 12:07:00
20	011107104 4187730	2011/07/04 08 07:45	251147/64 11327:00	2011/07/55 02:07:15	2011/05 06:07:30	2011-07-05 06:07:45	2011,07,08 12:07:00
2 0	51110704 4:07:80	2011.07/34 08 07:45 SENSOR_CPD	201107764 11397568	2011.07/05 02:07:15	2011/07/05 06:07:30	2511107/05 59787545	2011/07/08 12 07:00
3. VALUE	911-00104 4087380	2011.07.34 08.07.45	2011/07/04 11387:00	2011.07105 02:07:15	2011/07/08 06/07/30	2011/02/08 09:07:45	2011,07.16 12:07:00 1 DAYS
3. VALUE	51115754 4:07:30	2011.07.04 08:07:45	2011/07/04 11/327:08	2011.07/05 02:07:15	2011/07/05 06:07:30	2011/07/95 09:07:45	2011.07.08 12.07.00 1 DAYS
3. VALUE 2.3	911-027-04 4:307-360	2011.07.34 08.07.45	2011/02/04 11/02/00	2011.07166 02.07:15	2011/07/05 96/07/30	2011/07/08 06/07/45	2011,07.16 12:07:00 1 DAYS
ng. value	D1110744 4:07:30	2011/07/04 08:07:45	2011;07:04 11:57:08	2011.5/105 02:07:15	2011/07/05 06:07:30	2011/02/925 09:07:45	2011.07.08 12.07.00 1 DAYS
0. VG. VALUE	D1110704 4:3730	2011.07.04 08 07 45	2011/02/04 11/02/00	2011:15/705 (C 07:15	2011/07/05 06:07:30	25111-027-05 06:07245	2011.07.06 12 07 00 1 DAYS
3. VALUE 2.3	D1110704 4:07:30	2011/07/34 08:07:45	2011:07:04 11:07:08	2011:07:05 02:07:15	2211/07.05 09.07.30	2011/02/05	1 DAYS
2.3 x. value	D1110704 4(307300	2011.07.04 00 07 45 SENSOR_CPD	2011/07/04 11/07/00 D- TEM PERATU	JRA	2011/07/05	25111-027-05 Bit of 7:45	2011.07.18 12 07 10 1 DAYS
3. VALUE 2.3 X. VALUE	D11107r04 41:07:30	2011/07/34 08 07:45	2011:07:04 11:07:08	2011.0705 02.97:15	2211/07/05 08/07/20	2011/02/026	1 DAYS

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