www.AKCP.com

sensorProbe2 / sensorProbe4/ sensorProbe8/ sensorProbe8-X20 User Manual

Help Version updated till firmware 413

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1) Introduction

1. What is sensorProbe?

The sensorProbe2, sensorProbe4, sensorProbe8 and sensorProbe8-X20 (SP2/SP8/SP8-X20) are intelligent devices for monitoring environmental variables, power, physical threats and security. The units are IP based and include a web interface for configuration. Included in this is a TCP/IP stack, Web server, full SNMP and E-mail support.

Any of our AKCP intelligent sensors can be connected via the RJ45 connections (excluding our daisyTemp, 8 port sensor controlled relay, thermocouple or PMS sensors), or you can add dry contact connection for monitoring UPS, security systems and air conditioning status.

2. What's the difference between the SP2, SP4 and the SP8?

The SP2 is a small unit with facility for 2 RJ45 sensor inputs. The SP4 has a total of four RJ45 sensor inputs while the SP8 is a larger unit with the facility for up to 8 RJ45 inputs.

3. What's the difference between the SP8 and the SP8-X20?

The sensorProbe8-X20 has the 8 RJ-45 intelligent sensor ports AND has 20 extra dry contact inputs, where the sensorProbe8 only has the 8 RJ-45 sensor ports. More on these extra dry contacts in topic #8 in this section below.

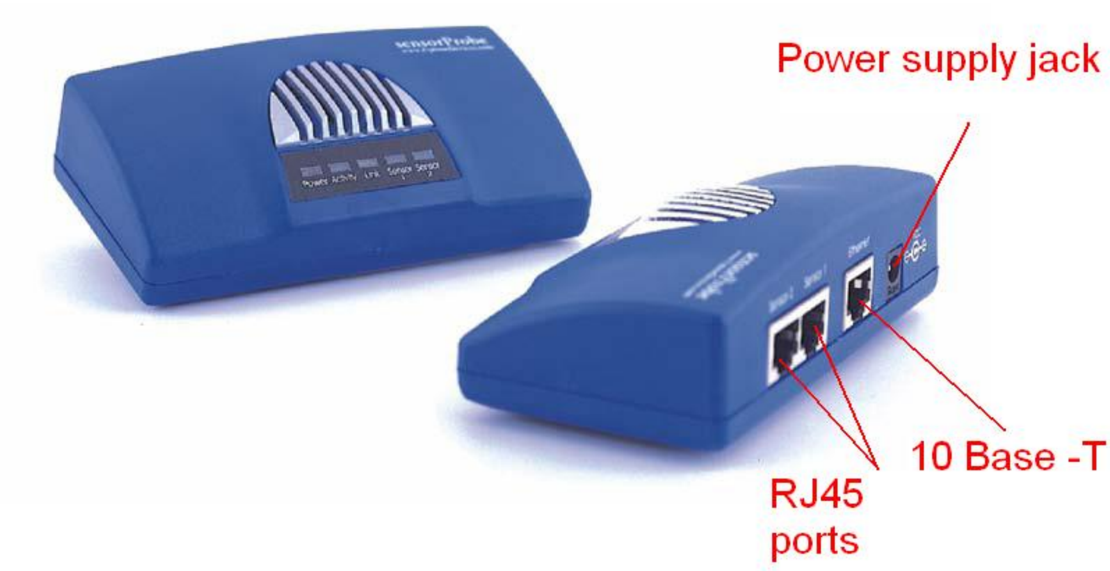
4. How to use this manual

This manual aims to provide the user with a step by step guide on how to get your unit set up and functioning. It will introduce the primary features of the unit by way of tutorials. You can either go through the whole procedure from start to finish, or, if you wish, use each tutorial as a standalone lesson. The start of each lesson gives an "entry point profile" which details how to get to the start point of the lesson and assumes previous knowledge through completion of previous tutorials.

Quick Tip:

Throughout this manual you will find "Quick Tips" in each section that will relate to the information you are reviewing. Also, in section #7 you find a "Quick Facts" and "FAQ" section that covers common questions and problems you may encounter. If however you need any further assistance please don't hesitate to contact our support team on support@akcp.com

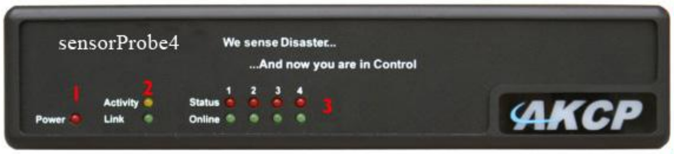
5. sensorProbe2


Power supply jack
10 Base -T
RJ45
ports

Note: The SP2 is also available with Power over Ethernet (PoE) instead of a power supply jack.

6. sensorProbe4 and sensorProbe8

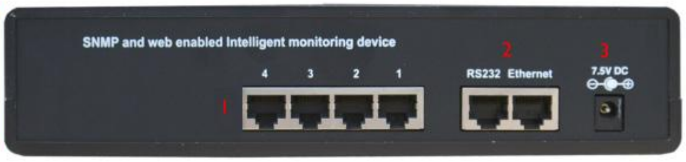
FRONT


sensorProbe4
We sense Disaster...
...And now you are in Control
1
Power
2
Activity
Link
Status
Online
1
2
3
4
3
AKCP

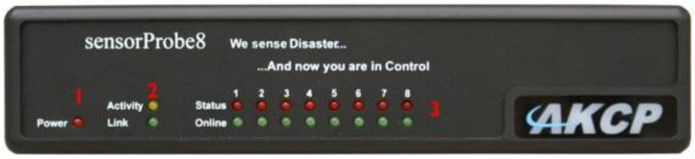
1. Power Led
2. Activity / Link LED
3. 16 LED's indicating online status and network activity

REAR

1. Intelligent Sensor Ports
2. Standard 10 Base-T Ethernet RJ-45
3. 7.5 DC Input Jack


SNMP and web enabled Intelligent monitoring device
4
3
2
1
1
2
RS232
Ethernet
3
7.5V DC

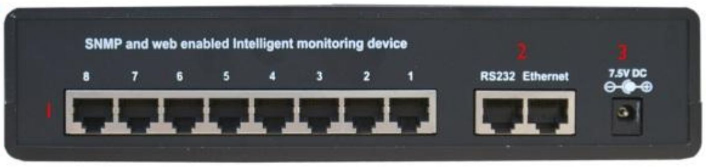
FRONT


sensorProbe8
We sense Disaster...
...And now you are in Control
Power
Activity
Link
Status
Online
1
2
3
AKCP

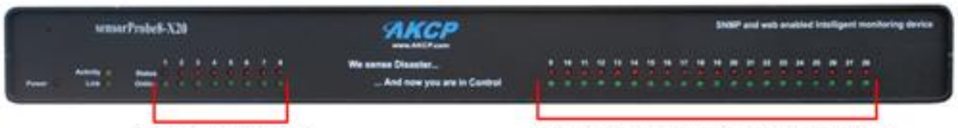
1. Power Led
2. Activity / Link LED
3. 16 LED's indicating online status and network activity

REAR

1. Intelligent Sensor Ports
2. Standard 10 Base-T Ethernet RJ-45
3. 7.5 DC Input Jack

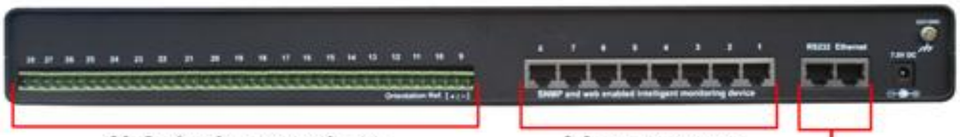

SNMP and web enabled Intelligent monitoring device
8 7 6 5 4 3 2 1
RS232 Ethernet
7.5V DC
1
2
3

7. sensorProbe8-X20



16 LED indicators 2 per sensor

40 LED indicators, 2 per dry contact



20, 2 wire dry contact inputs

8 Autosense ports

standard 10 base-T ethernet RJ-45

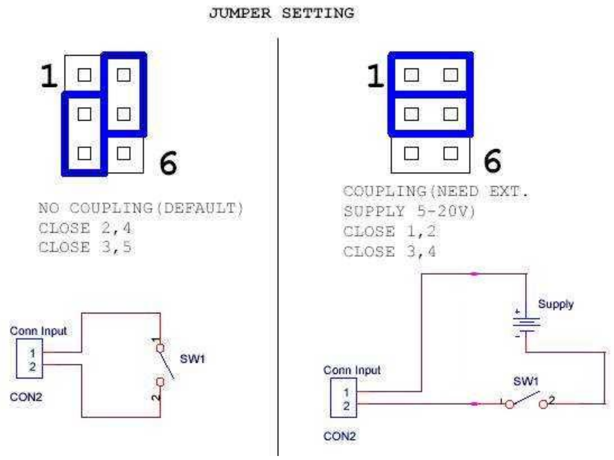
Note: The RS232 port is for AKCP engineers\debugging only

8. sensorProbe8-X20 20 Extra Dry Contact Inputs

The 20 extra dry contact inputs on for example, the sensorProbe, (or securityProbe X20/X60) can be configured as **inputs only** up to 5 Volts in normal operation. In opto-isolation mode they can input up to 30 Volts DC. This will protect these inputs and the unit from high voltages and spikes.

Opto-isolators provide complete electrical separation between the securityProbe and the dry contact. The base units are therefore protected against possible large voltage spikes caused by lightning for example.

The figure below shows the JUMPERS (on the dry contact board) set up to provide opto-isolators support. Opto-isolators provide complete electrical separation between the sensorProbe and the dry contact.



The OID for the extra dry contact inputs is:- .1.3.6.1.4.1.3854.1.2.2.1.18.1.3.<port>

Extra dry contact input practical applications:

The extra dry contact inputs can be used to monitor many types of equipment, for example, you can run the connection from warning lights on alarm panels to the dry contact inputs, so that when the warning light on the alarm panel is activated, the dry contact is triggered in the units web interface, thus allowing you to send notifications via emails or SNMP traps.

2) Installation

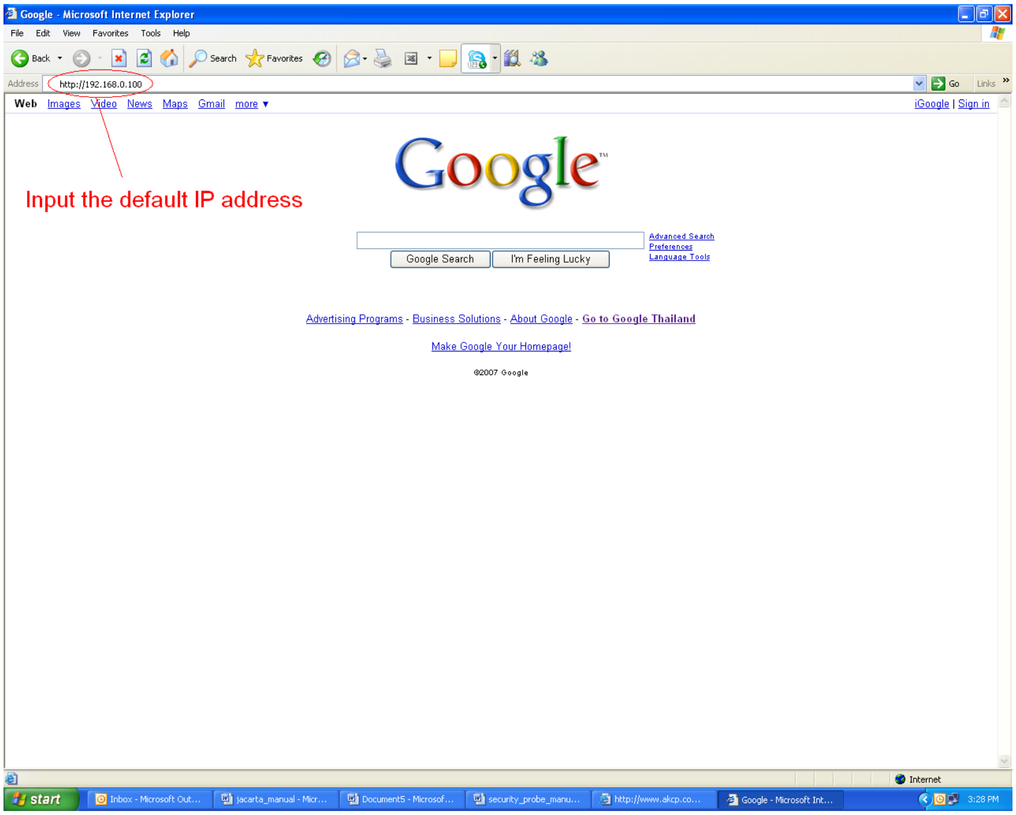
1. Assigning an IP address

These units are plug and play devices that will easily connect to your existing network setup. Every unit ships with a default IP address. This is **192.168.0.100.** The first steps you will need to undertake to install your unit will be to assign it an IP address to match your current network configuration. Before starting this, ensure you have the following items:-

1. RJ45 CAT5 crossover cable with RJ45 male connection
2. A PC with Ethernet card or LAN socket.
3. Power socket for the unit to connect to

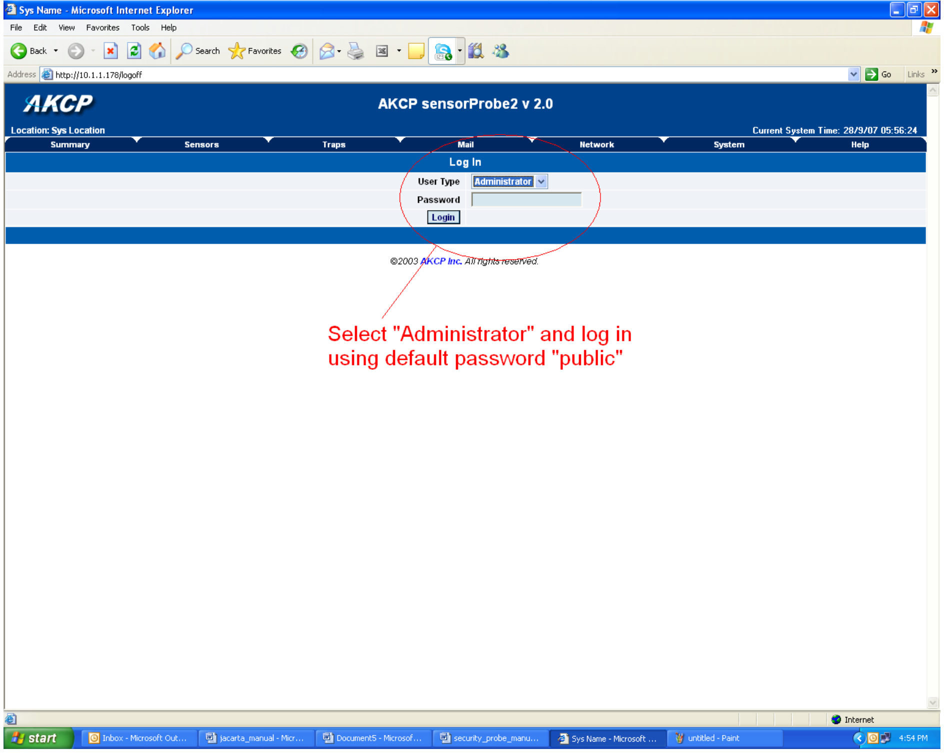
a) Connect the unit via the CAT5 crossover cable to the Ethernet / LAN port on your computer.

b) Open your web browser and go to the default IP address **http://192.168.0.100**


Google - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://192.168.0.100
Input the default IP address
Google
Google Search
I'm Feeling Lucky

In some cases your computer might not be able to connect to this default IP address. In this situation you need to set up your computers routing table to allow access to this. See here for this process.

c) You will now be presented with the following login screen.


Sys Name - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address http://10.1.1.178/logoff
Go Links
AKCP
Summary
Sensors
Traps
Mail
Network
System
Help
Log In
Login
Internet
start

AKCP sensorProbe2 v 2.0

Location: Sys Location

Current System Time: 28/9/07 05:56:24

User Type: Administrator

Password:

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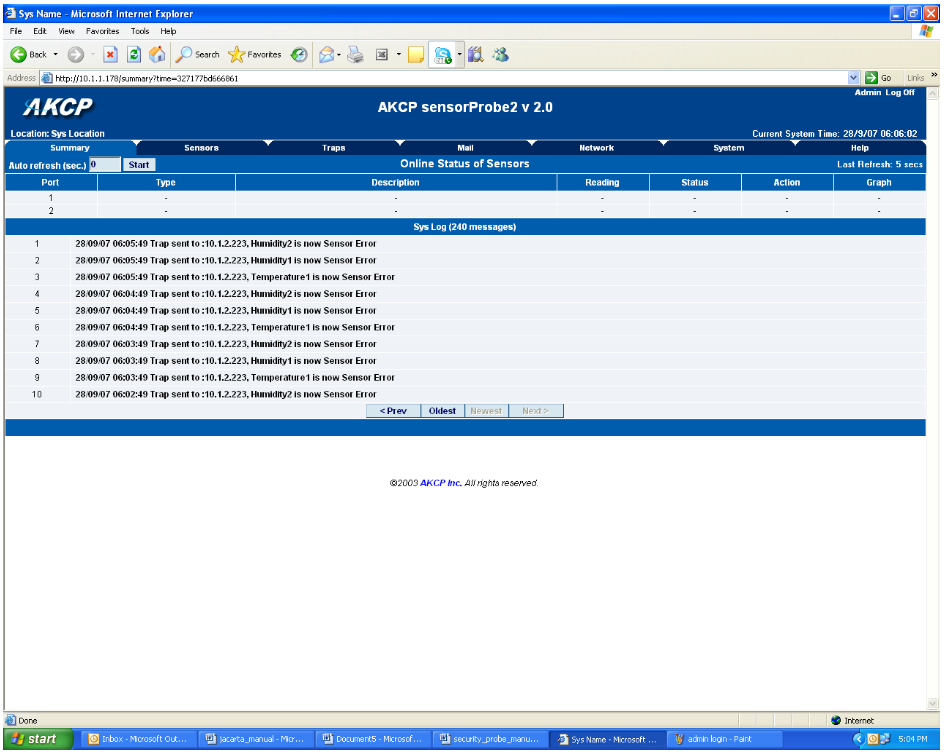
Select "Administrator" and log in using default password "public"

d) After logging in you will be taken to the main summary page.


Sys Name - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address http://10.1.1.178/summary?time=327177bd666861
Go Links
AKCP
Admin Log Off
Summary
Sensors
Traps
Mail
Network
System
Help
Start
< Prev
Oldest
Newest
Next >
Done
Internet
start

AKCP sensorProbe2 v 2.0

Location: Sys Location

Current System Time: 28/9/07 06:06:02

Auto refresh (sec.) 0

Online Status of Sensors

Last Refresh: 5 secs

Port	Type	Description	Reading	Status	Action	Graph
1	-	-	-	-	-	-
2	-	-	-	-	-	-

Sys Log (240 messages)

```
1   28/09/07 06:05:49 Trap sent to :10.1.2.223, Humidity2 is now Sensor Error
2   28/09/07 06:05:49 Trap sent to :10.1.2.223, Humidity1 is now Sensor Error
3   28/09/07 06:05:49 Trap sent to :10.1.2.223, Temperature1 is now Sensor Error
4   28/09/07 06:04:49 Trap sent to :10.1.2.223, Humidity2 is now Sensor Error
5   28/09/07 06:04:49 Trap sent to :10.1.2.223, Humidity1 is now Sensor Error
6   28/09/07 06:04:49 Trap sent to :10.1.2.223, Temperature1 is now Sensor Error
7   28/09/07 06:03:49 Trap sent to :10.1.2.223, Humidity2 is now Sensor Error
8   28/09/07 06:03:49 Trap sent to :10.1.2.223, Humidity1 is now Sensor Error
9   28/09/07 06:03:49 Trap sent to :10.1.2.223, Temperature1 is now Sensor Error
10  28/09/07 06:02:49 Trap sent to :10.1.2.223, Humidity2 is now Sensor Error
```

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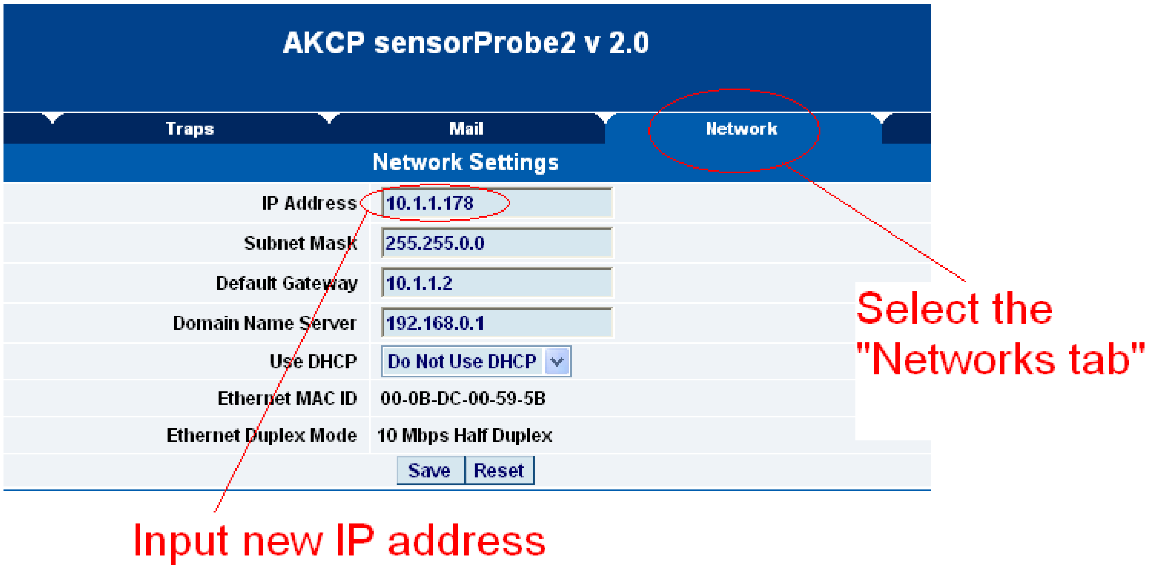
e) From summary page select the “Network” tab. After inputting your new IP address click “save”



AKCP sensorProbe2 v 2.0

Network Settings

IP Address	10.1.1.178
Subnet Mask	255.255.0.0
Default Gateway	10.1.1.2
Domain Name Server	192.168.0.1
Use DHCP	Do Not Use DHCP
Ethernet MAC ID	00-0B-DC-00-59-5B
Ethernet Duplex Mode	10 Mbps Half Duplex

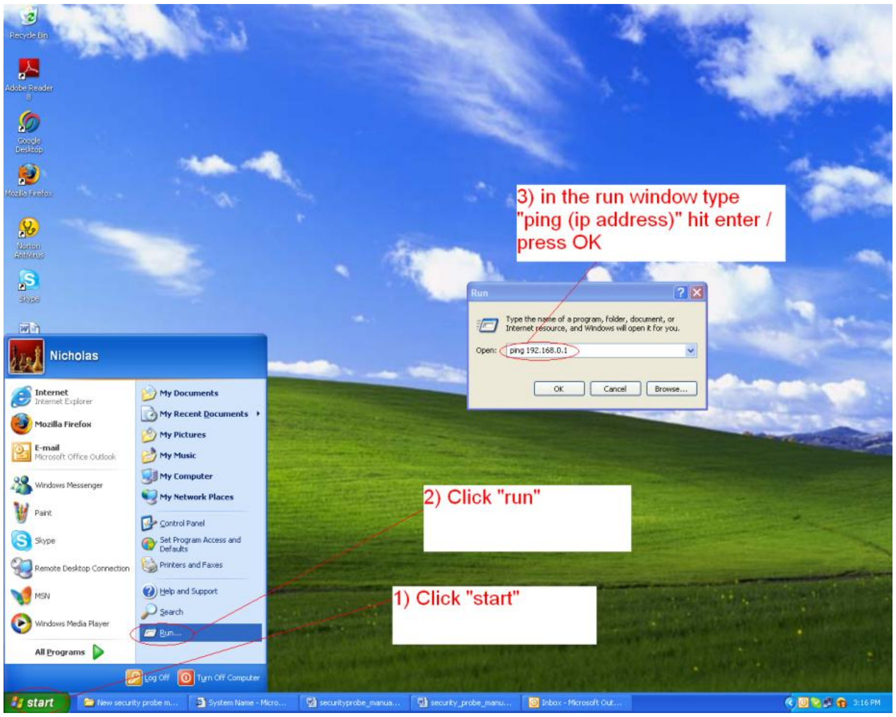
Select the "Networks tab"

Input new IP address

2. Testing your new IP address

We now need to test that your new IP address has been assigned successfully. We will do this via the “ping” command.

1. Click start/run……



3) in the run window type "ping (ip address)" hit enter / press OK

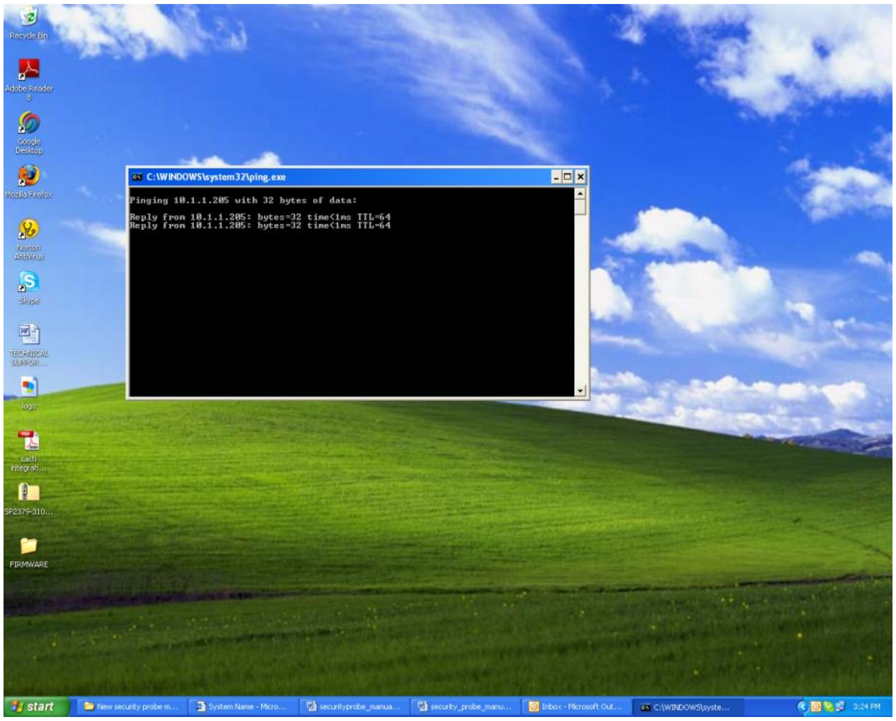
Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.

Open: ping 192.168.0.1

2) Click "run"

1) Click "start"

2) You will now get an MS DOS command prompt which shows the ping results. If this is unsuccessful you will receive a “request timed out” message.



```
Pinging 10.1.1.205 with 32 bytes of data:

Reply from 10.1.1.205: bytes=32 time<1ms TTL=64
Reply from 10.1.1.205: bytes=32 time<1ms TTL=64
```

Having connection problems? Please note:

The units default connection speed is 10MB w/Half Duplex, so if you are having trouble connecting to the unit then you do have the option to set the unit to full duplex mode by using the follows SNMP set command

```
snmpset -v1 -c public 192.168.0.100 .1.3.6.1.4.1.3854.1.2.2.1.72.0 s "1yyy"
```

To set back to halfduplex -->

```
snmpset -v1 -c public 192.168.0.100 .1.3.6.1.4.1.3854.1.2.2.1.72.0 s "0yyy"
```

where 'public' is admin password. Where '192.168.0.100' is the sensorProbe's IP address. The duplex mode is shown on Network Settings page.

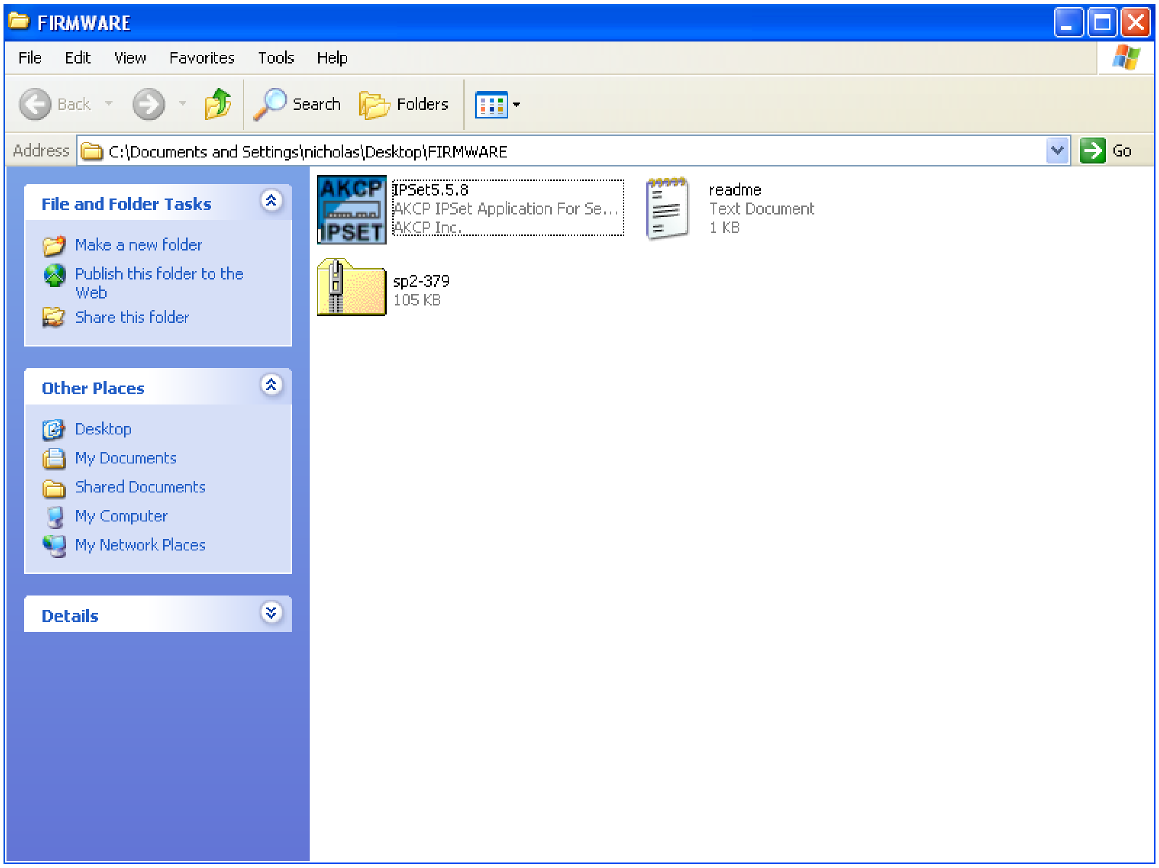
Quick Tip:

If you're still having trouble connecting to your sensorProbe, or opening your unit's web interface, please see the FAQ in section #7 at the end of the manual for more help.

3. Upgrading the firmware

As we are constantly releasing new firmware with added capabilities it is recommended you upgrade to the latest firmware. To do this you need to go to our website http://www.akcp.com/company/firmwareupdate.htm and log in using your MAC address. This can be found on a sticker on the base of your unit.

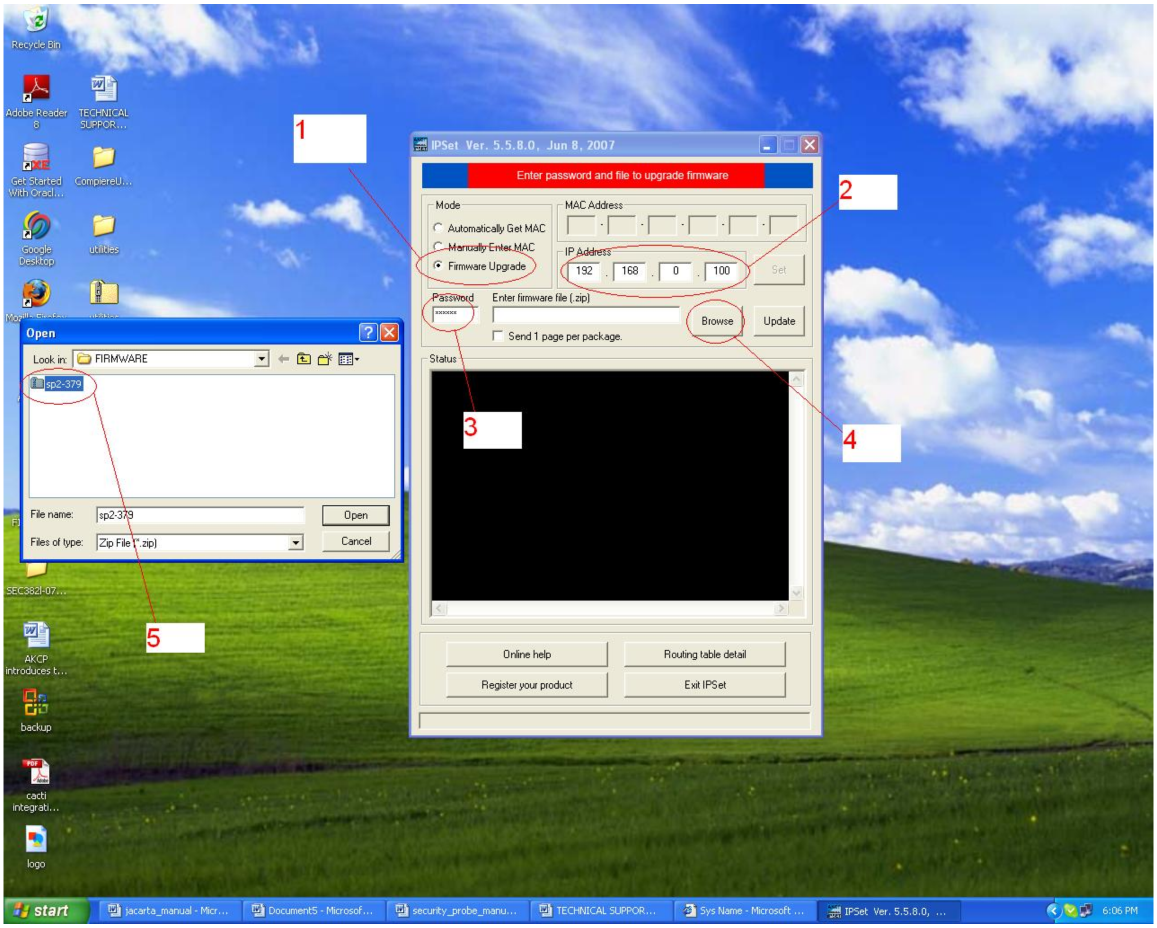
1) When you download your firmware it will come in a zip package. Extract this to your desktop into a folder named firmware. When you open this folder you will see something like the following:-


FIRMWARE
File
Edit
View
Favorites
Tools
Help
Back
Search
Folders
Go
File and Folder Tasks
Make a new folder
Publish this folder to the Web
Share this folder
Other Places
Desktop
My Documents
Shared Documents
My Computer
My Network Places
Details
IPSet5.5.8
AKCP IPSet Application For Se...
AKCP Inc.
readme
Text Document
1 KB
sp2-379
105 KB

Address C:\Documents and Settings\nicholas\Desktop\FIRMWARE

You can see one of these files is a program named IPSet. This utility will upload the firmware to your unit. Double click the program to boot it.

2) When IPSet loads you will be met with a screen similar to this:-



IPSet Ver. 5.5.8.0, Jun 8, 2007

Enter password and file to upgrade firmware

Mode
○ Automatically Get MAC
○ Manually Enter MAC
● Firmware Upgrade

IP Address: 192 . 168 . 0 . 100

Password: ******

Open

Look in: FIRMWARE

File name: sp2-379

Files of type: Zip File (*.zip)

1
2
3
4
5
Recycle Bin
Adobe Reader 8
TECHNICAL SUPPOR...
Get Started With Oracl...
CompiereU...
Google Desktop
utilities
SEC382I-07...
AKCP introduces t...
backup
cacti integrati...
logo
MAC Address
Set
Enter firmware file (.zip)
Browse
Update
Send 1 page per package.
Status
Online help
Routing table detail
Register your product
Exit IPSet
sp2-379
Open
Cancel
start
jacarta_manual - Micr...
Document5 - Microsof...
security_probe_manu...
TECHNICAL SUPPOR...
Sys Name - Microsoft ...
IPSet Ver. 5.5.8.0, ...
6:06 PM

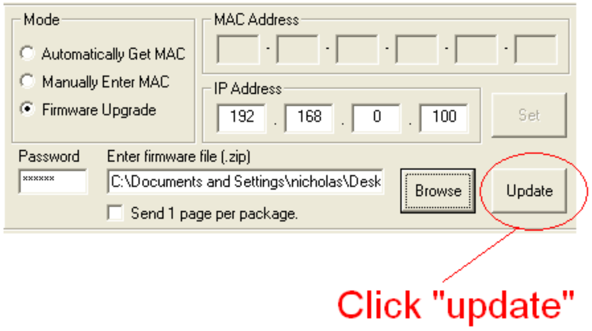
1) Select firmware upgrade

2) Type in the IP address of your unit

3) Type in your administrator password

4) Click browse, a new window will pop up

5) Select the zipped firmware file, click open.



Mode
○ Automatically Get MAC
○ Manually Enter MAC
● Firmware Upgrade

IP Address: 192 . 168 . 0 . 100

Password: ******

Enter firmware file (.zip): C:\Documents and Settings\nicholas\Desk

☐ Send 1 page per package.

Click "update"

MAC Address
Set
Browse
Update

6) When complete the message “upgrade complete” will be displayed

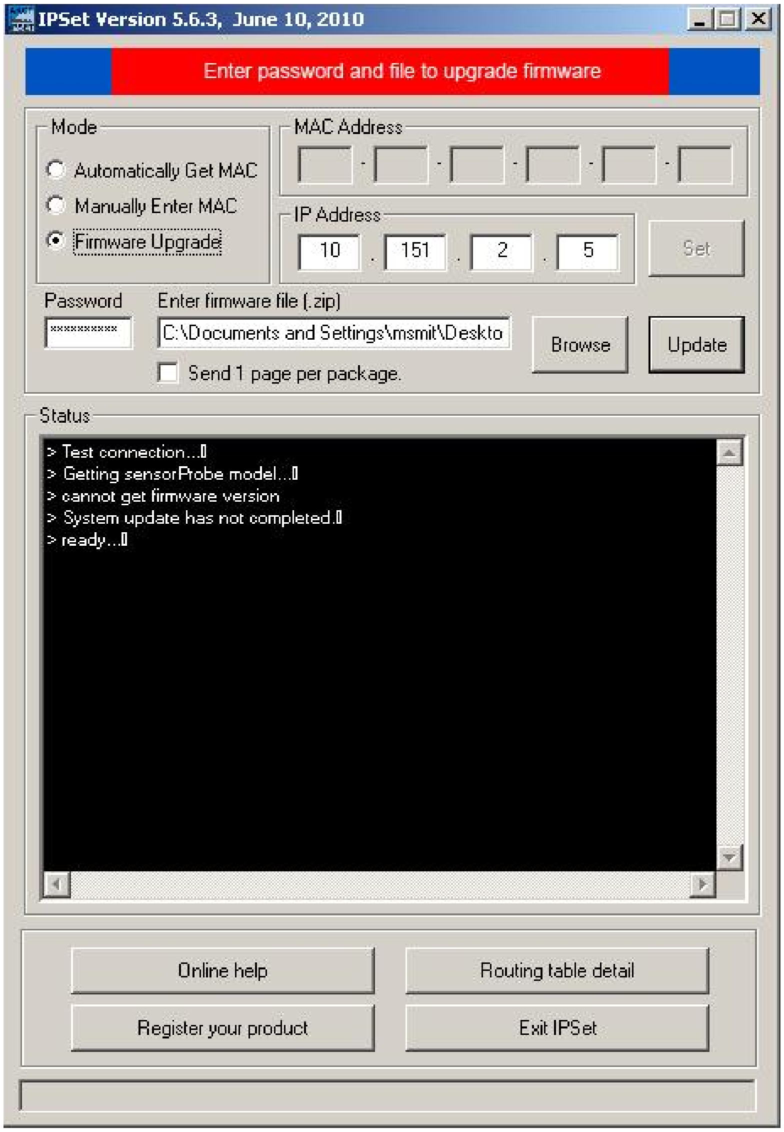
7) Problems updating firmware that is very old to the latest release.

You may experience a problem when trying to update your sensorProbe2 or sensorProbe8 to the latest firmware if the firmware on your base unit has not been updated for a very long period of time.

If you try to update your unit and receive this error below in the IPSet utility, then you will need to update your unit in one or two steps, depending on how old the firmware version is you are running on the unit.

Please download either of these older versions of firmware depending on if you have a sensorProbe2 or sensorProbe8 unit, then update the unit with each and then to the latest version that is on our web site.

1st sensorProbe2 update: - http://www.akcp.com/wp-content/uploads/2010/04/SP2_371.zip
2nd sensorProbe2 update: - http://www.akcp.com/wp-content/uploads/2010/04/SP2_398.zip
1st sensorProbe8 update: - http://www.akcp.com/wp-content/uploads/2010/04/SP8_371.zip
2md sensorProbe8 update: - http://www.akcp.com/wp-content/uploads/2010/04/SP8_398.zip


IPSet Version 5.6.3, June 10, 2010
Enter password and file to upgrade firmware
Mode
MAC Address
Set
Browse
Update
Status
Online help
Routing table detail
Register your product
Exit IPSet

Mode: ○ Automatically Get MAC ○ Manually Enter MAC ● Firmware Upgrade

IP Address: 10 . 151 . 2 . 5

Password: **********

Enter firmware file (.zip): C:\Documents and Settings\msmit\Deskto

☐ Send 1 page per package.

```
> Test connection...▯
> Getting sensorProbe model...▯
> cannot get firmware version
> System update has not completed.▯
> ready...▯
```

3) Setting up a sensor and Downloading Sensor Data

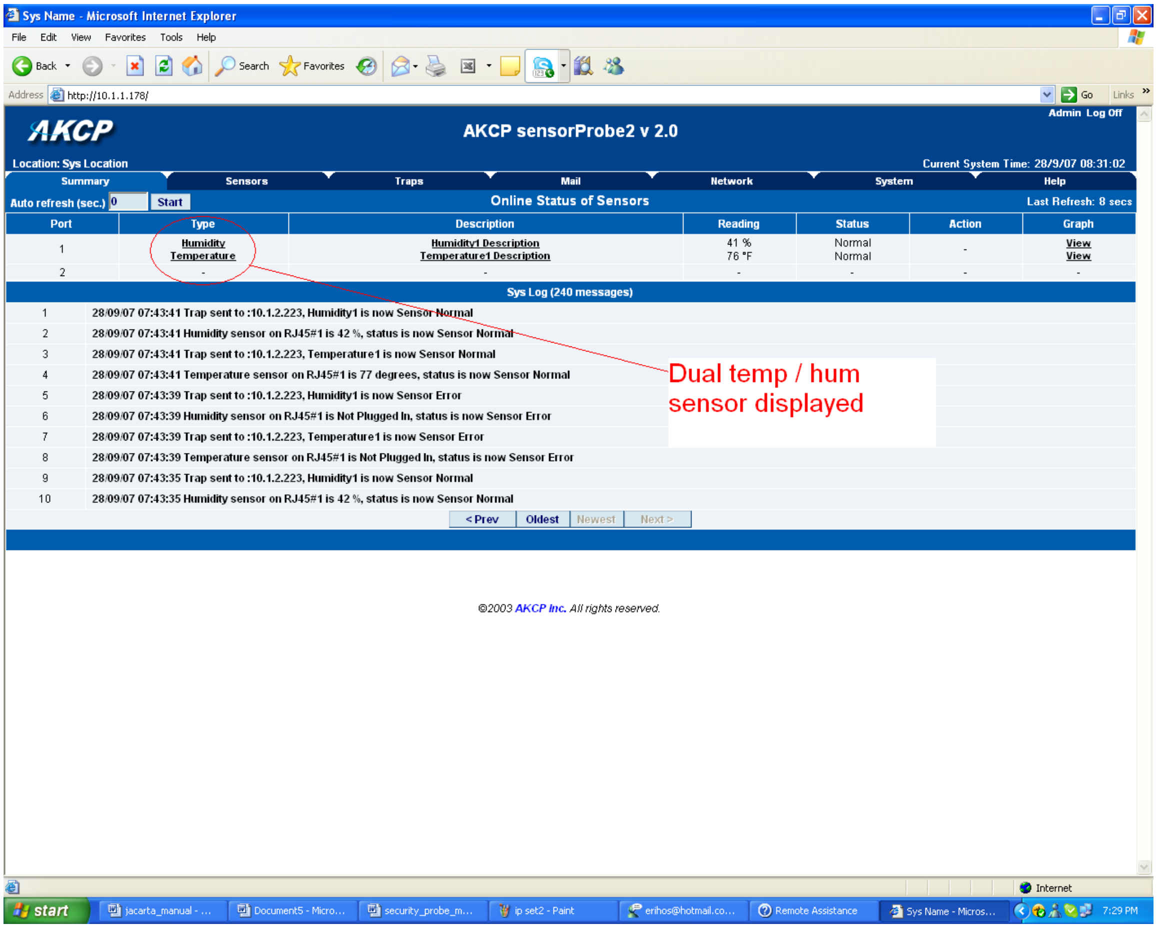
For the purposes of this manual and tutorials we will cover setting up a dual temp / humidity sensor. The first part of the tutorial will cover the basic installation and settings for the sensor. The second part will explain how to go about setting up various notifications such as SNMP traps.

1. Basic setup

a) Plug in your sensor to the RJ45 port 1 (sensor 1). The unit will automatically detect the presence of the sensor and configure it.

b) Now return to the web browser and input the IP address of your unit. Then log in as administrator.

c) You will now see the summary page looking something like this:-


Sys Name - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back
Search
Favorites
Address http://10.1.1.178/
Go
Links
Admin Log Off
AKCP
AKCP sensorProbe2 v 2.0
Location: Sys Location
Current System Time: 28/9/07 08:31:02
Summary
Sensors
Traps
Mail
Network
System
Help
Auto refresh (sec.) 0
Start
Online Status of Sensors
Last Refresh: 8 secs
Sys Log (240 messages)
< Prev
Oldest
Newest
Next >
©2003 AKCP Inc. All rights reserved.
Internet
start
jacarta_manual - ...
Document5 - Micro...
security_probe_m...
ip set2 - Paint
erihos@hotmail.co...
Remote Assistance
Sys Name - Micros...
7:29 PM

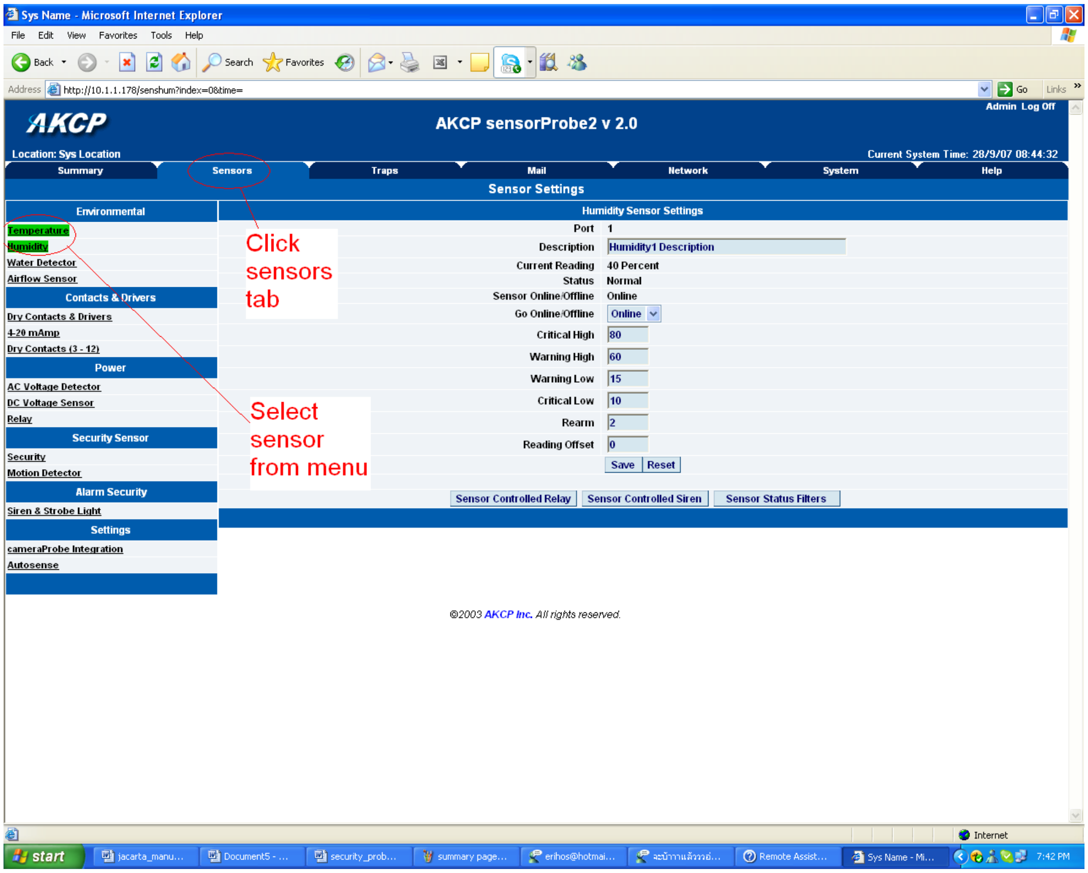
Port	Type	Description	Reading	Status	Action	Graph
1	Humidity Temperature	Humidity1 Description Temperature1 Description	41 % 76 °F	Normal Normal	-	View View
2	-	-	-	-	-	-

```
1    28/09/07 07:43:41 Trap sent to :10.1.2.223, Humidity1 is now Sensor Normal
2    28/09/07 07:43:41 Humidity sensor on RJ45#1 is 42 %, status is now Sensor Normal
3    28/09/07 07:43:41 Trap sent to :10.1.2.223, Temperature1 is now Sensor Normal
4    28/09/07 07:43:41 Temperature sensor on RJ45#1 is 77 degrees, status is now Sensor Normal
5    28/09/07 07:43:39 Trap sent to :10.1.2.223, Humidity1 is now Sensor Error
6    28/09/07 07:43:39 Humidity sensor on RJ45#1 is Not Plugged In, status is now Sensor Error
7    28/09/07 07:43:39 Trap sent to :10.1.2.223, Temperature1 is now Sensor Error
8    28/09/07 07:43:39 Temperature sensor on RJ45#1 is Not Plugged In, status is now Sensor Error
9    28/09/07 07:43:35 Trap sent to :10.1.2.223, Humidity1 is now Sensor Normal
10   28/09/07 07:43:35 Humidity sensor on RJ45#1 is 42 %, status is now Sensor Normal
```

Dual temp / hum sensor displayed

You will see the temp/humidity sensor displayed in the summary page.

d) From this page select the “Sensors” tab. This will bring you to the following page:-


Sys Name - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address http://10.1.1.178/senshum?index=0&time=
Go Links
AKCP
AKCP sensorProbe2 v 2.0
Admin Log Off
Location: Sys Location
Current System Time: 28/9/07 08:44:32
Summary
Sensors
Traps
Mail
Network
System
Help
Sensor Settings
Environmental
Temperature
Humidity
Water Detector
Airflow Sensor
Contacts & Drivers
Dry Contacts & Drivers
4-20 mAmp
Dry Contacts (3 - 12)
Power
AC Voltage Detector
DC Voltage Sensor
Relay
Security Sensor
Security
Motion Detector
Alarm Security
Siren & Strobe Light
Settings
cameraProbe Integration
Autosense
Save
Reset
Sensor Controlled Relay
Sensor Controlled Siren
Sensor Status Filters
©2003 AKCP Inc. All rights reserved.
Internet
start
7:42 PM

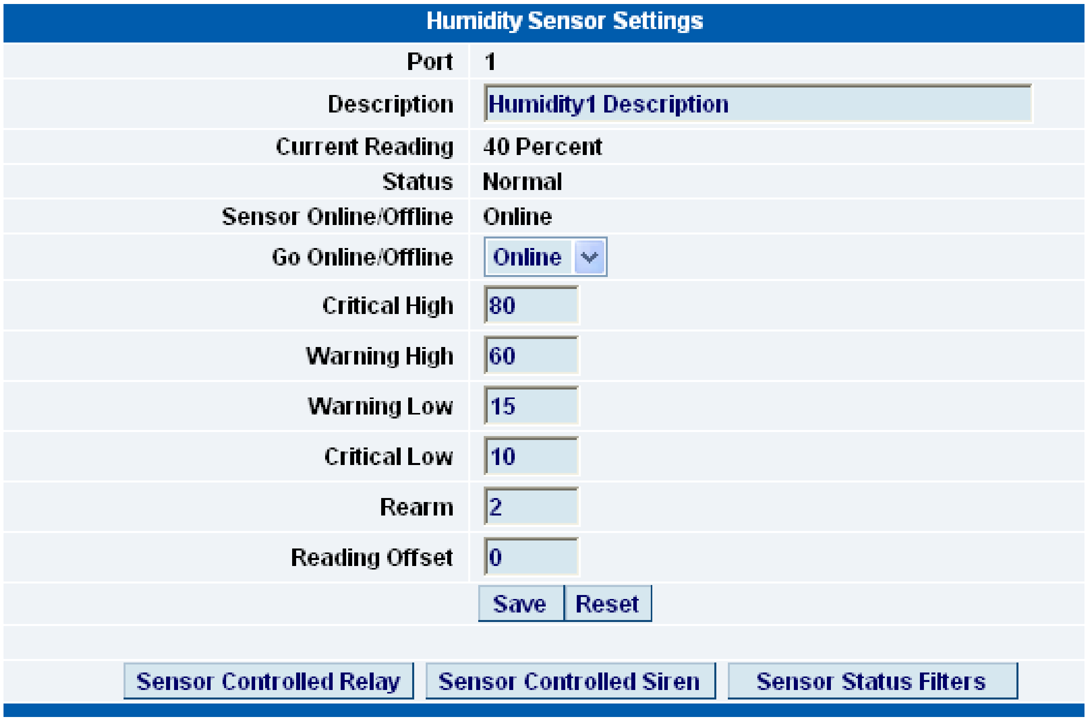
Click sensors tab

Select sensor from menu

Humidity Sensor Settings

Port	1
Description	Humidity1 Description
Current Reading	40 Percent
Status	Normal
Sensor Online/Offline	Online
Go Online/Offline	Online
Critical High	80
Warning High	60
Warning Low	15
Critical Low	10
Rearm	2
Reading Offset	0

In this example we have selected the humidity sensor from the sensor menu on the left. The sensors highlighted in green indicate that they are currently connected to the unit. In this case you can see there is a temp and humidity sensor connected (dual sensor) and so they are highlighted in green in the menu.



Humidity Sensor Settings

Port	1
Description	Humidity1 Description
Current Reading	40 Percent
Status	Normal
Sensor Online/Offline	Online
Go Online/Offline	Online
Critical High	80
Warning High	60
Warning Low	15
Critical Low	10
Rearm	2
Reading Offset	0

e) This window is used for configuring the sensors parameters. These parameters are explained below :-

Description :- The name of the sensor. Use a meaningful name such as “humidity sensor office1”

Go Online/Offline :- This takes the sensor on or offline without unplugging it from the unit

Critical high :- The %age humidity level at which it is critically high

Warning high :- the %age humidity level at which it is high

Warning low :- the %age humidity level at which it is low

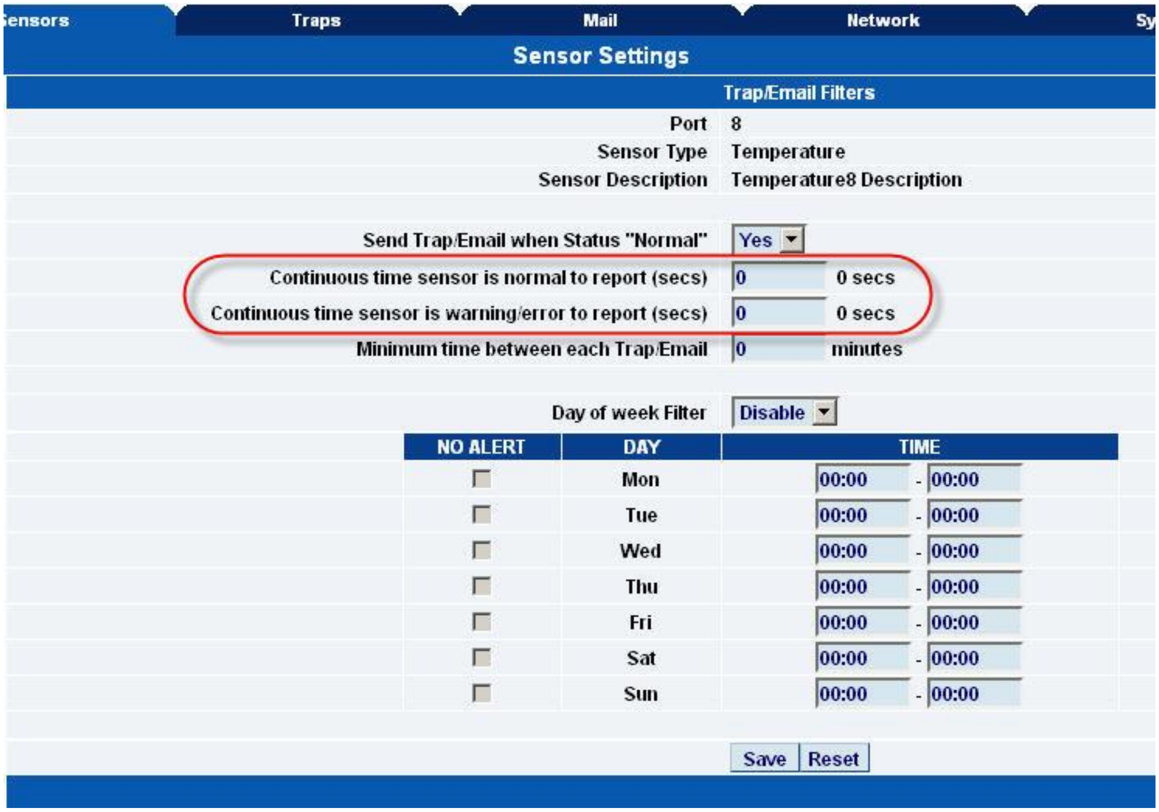
Critical low :- the %age humidity level at which it is critically low

Rearm :- Used to prevent the sensor from flickering between two states. For example if the “High Warning” threshold for the temperature sensor is set to 80 degrees and the sensor were to vary between 79 and 80 you could be faced with a very large number of emails, traps, and events logged. The Rearm parameter prevents this by forcing the temperature to drop by the Rearm before changing the state back to normal. In this example if Rearm is set to 2 then, the sensor would have to drop from 80 down to 77 before the status would change from

Reading offset :- will adjust the reading by your offset amount.

In our example we have set the parameters as indicated in the screenshot above. Once you have done this click on “save”.

For information on setting up other sensor types please refer to the manual for your specific sensor. This will give you guidance in setting up the parameters specific to your sensor.



Sensor Settings

Trap/Email Filters

Port	8
Sensor Type	Temperature
Sensor Description	Temperature8 Description
Send Trap/Email when Status "Normal"	Yes
Continuous time sensor is normal to report (secs)	0 — 0 secs
Continuous time sensor is warning/error to report (secs)	0 — 0 secs
Minimum time between each Trap/Email	0 minutes
Day of week Filter	Disable

NO ALERT	DAY	TIME
☐	Mon	00:00 - 00:00
☐	Tue	00:00 - 00:00
☐	Wed	00:00 - 00:00
☐	Thu	00:00 - 00:00
☐	Fri	00:00 - 00:00
☐	Sat	00:00 - 00:00
☐	Sun	00:00 - 00:00

Sensor Status Filters: - By clicking on the “Sensors Status Filters” button shown in the image above on page #13, you can then adjust the continuous time the sensor is in a warning, error, or normal state before the unit sends the alerts. This feature was added to eliminate false warnings.

2. Downloading Sensor Data

The sensorProbe’s hardware has data logger memory where it stores the sensor data.

It can save 8,640 points per sensor. So, if you set your collection time period for 15 minutes you can save data up to roughly 3 months of data on the unit. When the memory is full, the oldest data will be overwritten.

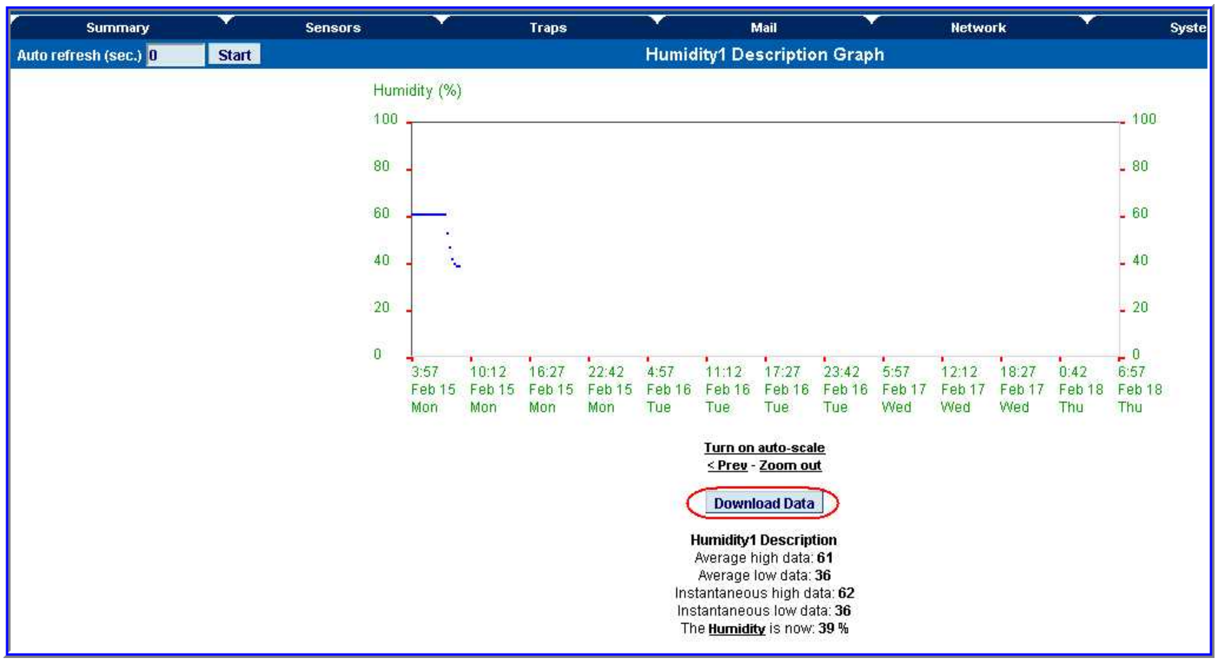
There are a couple ways to get the download the sensor data from the sensorProbes. The first is using the dataCollect or dataDownload utilities. You can download either utility from our web site from your support page after adding you sensorProbe to you product listing.

Make sure when running these utilities your network firewall is not blocking the port these run on.

The first is called dataDownload, which is a command line program that will download all the sensor readings stored on the sensorProbe. This downloaded data is stored in a text file and can then be easily imported into a spreadsheet program, such as MS Excel

After running this utility, the data will be stored in a directory called datadownload located on your C: drive of your PC and this will have the data for each port in it.

Or you can use our dataCollect utility that allows you to poll the sensor data directly from a PC on the same LAN as your sensorProbe in real-time. You can collect an unlimited number of readings and you can collect data from multiple sensorProbes simultaneously.


Summary
Sensors
Traps
Mail
Network
Syste
Auto refresh (sec.) 0
Start
Humidity (%)
100
80
60
40
20
0
3:57 Feb 15 Mon
10:12 Feb 15 Mon
16:27 Feb 15 Mon
22:42 Feb 15 Mon
4:57 Feb 16 Tue
11:12 Feb 16 Tue
17:27 Feb 16 Tue
23:42 Feb 16 Tue
5:57 Feb 17 Wed
12:12 Feb 17 Wed
18:27 Feb 17 Wed
0:42 Feb 18 Thu
6:57 Feb 18 Thu
Turn on auto-scale
< Prev - Zoom out
Download Data

Humidity1 Description Graph

Humidity1 Description
Average high data: **61**
Average low data: **36**
Instantaneous high data: **62**
Instantaneous low data: **36**
The **Humidity** is now: **39 %**

Using Remote Syslog to download sensor data

Another way to get and log all the data in real time from the unit is use the remote syslog on the unit.

You can use the remote system log feature to push out the sys log in real time to a remote server, or PC, then this information can be imported into a data base or other program.

There are two types of third party remote syslog utilities that we recommend. One is "rsyslog" and the other "Kiwi" remote syslog.

There is no MS-Windows version of rsyslog and there is no GNU/Linux version of Kiwi.

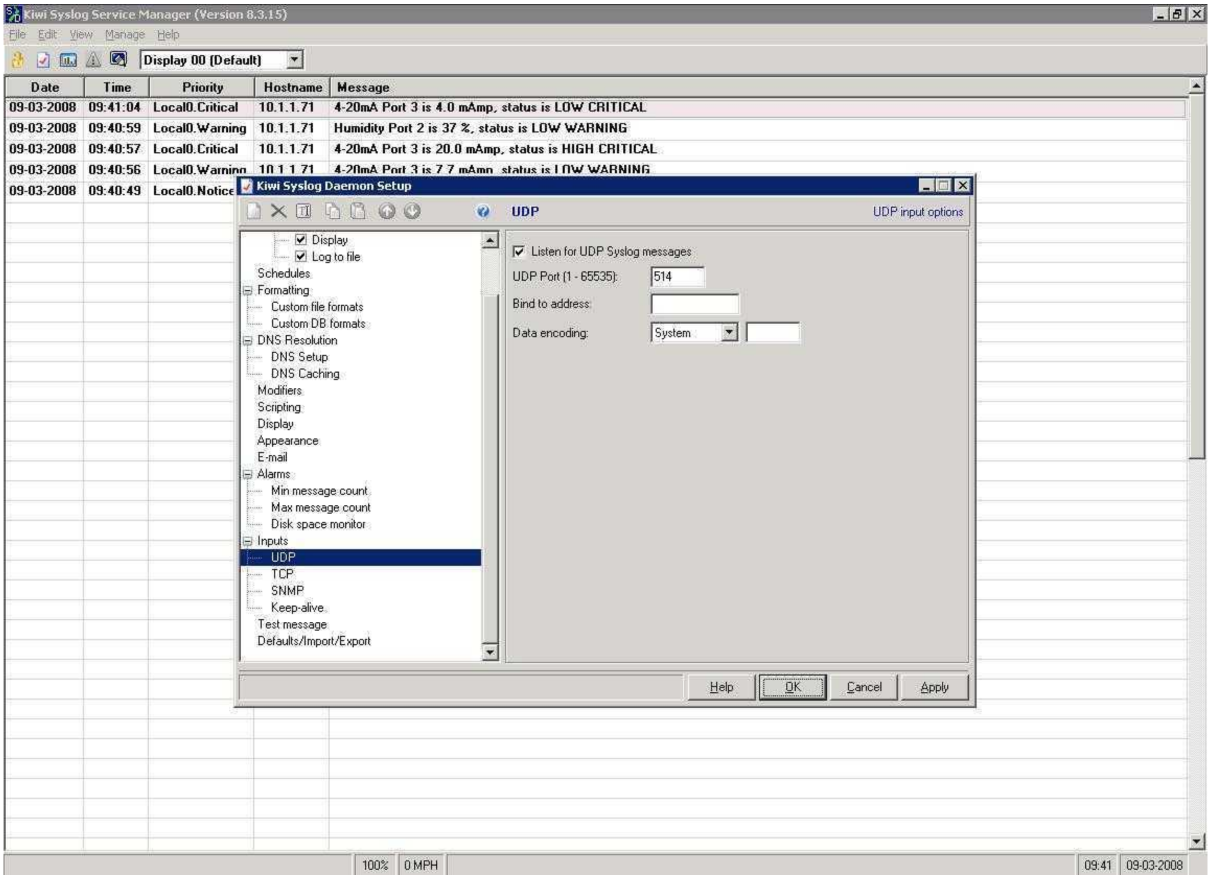
So, we recommend rsyslog for the GNU/Linux users and the Kiwi for the users of the Microsoft operating systems.

Either can be dlownloaded from these links below:

http://www.rsyslog.com

http://www.kiwisyslog.com/kiwi-syslog-daemon-download/

You can install and open the Kiwi Syslog program and set the UDP in the Input settings like in the screen shot shown on the next page:


Kiwi Syslog Service Manager (Version 8.3.15)
File Edit View Manage Help
Display 00 (Default)
Kiwi Syslog Daemon Setup
UDP
UDP input options
Display
Log to file
Schedules
Formatting
Custom file formats
Custom DB formats
DNS Resolution
DNS Setup
DNS Caching
Modifiers
Scripting
Display
Appearance
E-mail
Alarms
Min message count
Max message count
Disk space monitor
Inputs
UDP
TCP
SNMP
Keep-alive
Test message
Defaults/Import/Export
Help
OK
Cancel
Apply
100%
0 MPH
09:41
09-03-2008

```
Date        Time      Priority         Hostname   Message
09-03-2008  09:41:04  Local0.Critical  10.1.1.71  4-20mA Port 3 is 4.0 mAmp, status is LOW CRITICAL
09-03-2008  09:40:59  Local0.Warning   10.1.1.71  Humidity Port 2 is 37 %, status is LOW WARNING
09-03-2008  09:40:57  Local0.Critical  10.1.1.71  4-20mA Port 3 is 20.0 mAmp, status is HIGH CRITICAL
09-03-2008  09:40:56  Local0.Warning   10.1.1.71  4-20mA Port 3 is 7.7 mAmp, status is LOW WARNING
09-03-2008  09:40:49  Local0.Notice
```

☑ Listen for UDP Syslog messages

UDP Port (1 - 65535): 514

Bind to address:

Data encoding: System

Now you would set the Remote Syslog in the sensorProbe. The Remote Syslog IP Address is the IP address of the PC that has the Kiwi Remote syslog program running on it. The Remote Syslog Port is the same port on the Remote syslog program.

It should be showing you the syslog in real time and any entry that is logged in the unit, should shown on your server. You can also export the data to a text file.

4) Notifications

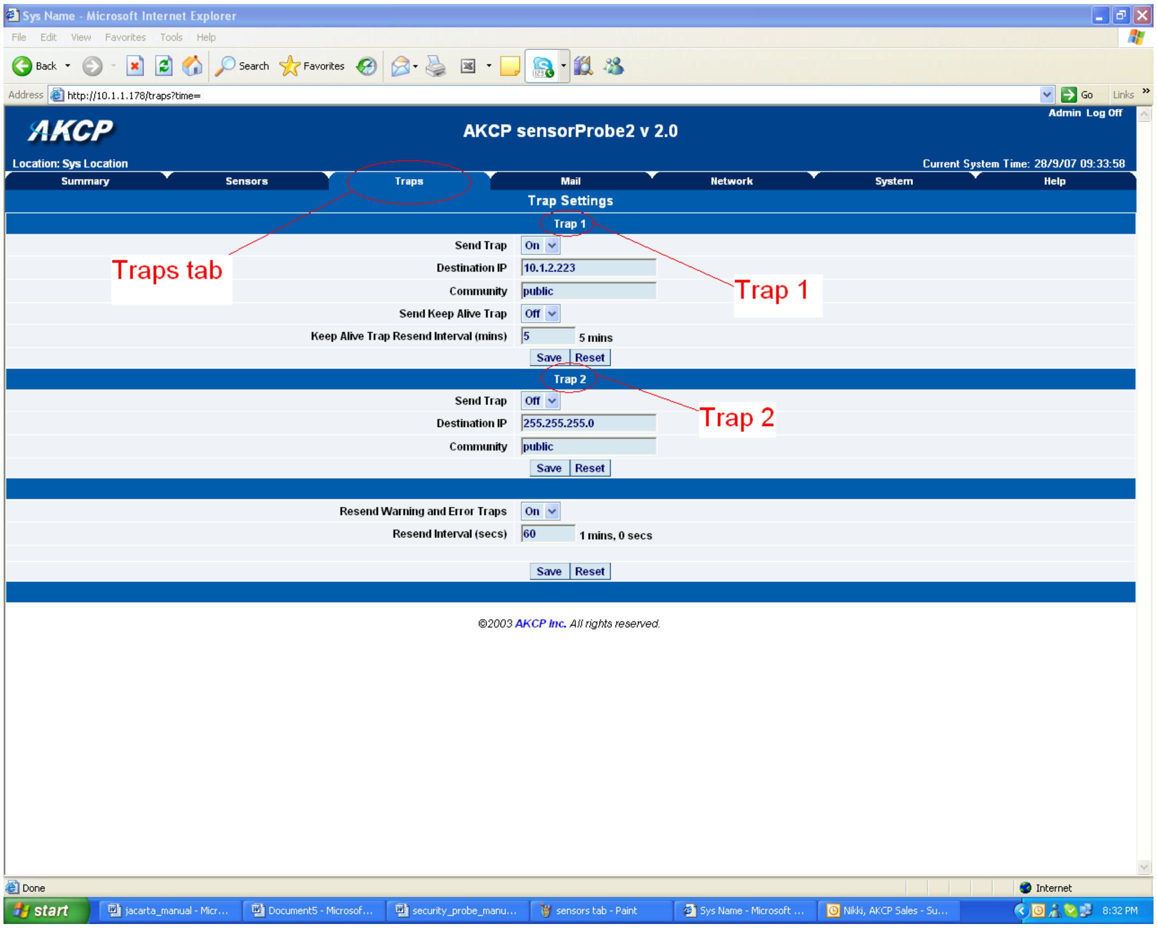
1. Setting up a trap

The SP2 / SP8 can send an SNMP trap message to two different hosts. Whenever the status changes for a sensor that is online, a trap message can be sent.

To get to the entry point of this tutorial, complete the following:-

1) log into the web interface as administrator
2) from summary page select the Traps tab

a) After going to the “traps” tab you can see the two traps (“Trap 1”, “Trap 2”)


Sys Name - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address http://10.1.1.178/traps?time=
Go Links
AKCP
Admin Log Off
Summary
Sensors
Traps
Mail
Network
System
Help
Done
Internet
start
8:32 PM

AKCP sensorProbe2 v 2.0

Location: Sys Location

Current System Time: 28/9/07 09:33:58

Trap Settings

Trap 1

Send Trap: On

Destination IP: 10.1.2.223

Community: public

Send Keep Alive Trap: Off

Keep Alive Trap Resend Interval (mins): 5 — 5 mins

Save | Reset

Trap 2

Send Trap: Off

Destination IP: 255.255.255.0

Community: public

Save | Reset

Resend Warning and Error Traps: On

Resend Interval (secs): 60 — 1 mins, 0 secs

Save | Reset

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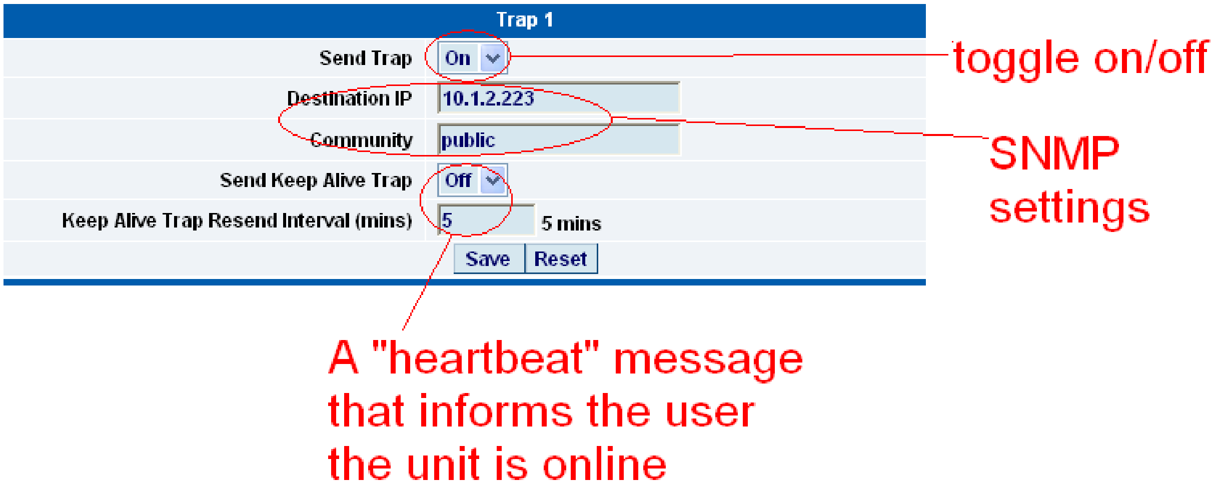
Traps tab

Trap 1

Trap 2

b) The traps have various fields you need to set. These are explained below.



Trap 1

Send Trap: On

Destination IP: 10.1.2.223

Community: public

Send Keep Alive Trap: Off

Keep Alive Trap Resend Interval (mins): 5 — 5 mins

Save | Reset

toggle on/off

SNMP settings

A "heartbeat" message that informs the user the unit is online

Send Trap :- toggles whether the SNMP trap is on or off

Destination IP :- The destination IP address that the trap message will be sent too.

Community :- This is the Community of the host that will receive this trap. This is often set to *public*

Send Keep Alive Trap :- Will send a trap message at your preset time interval. This is useful for informing the user as to whether the unit is still online, or for if you require collection of data at regular intervals regardless of the sensors status.

Keep Alive Resend Intervals :- The time interval in which you want the keep alive traps to be sent.

A different trap message is sent for each sensor type such as temperature, humidity, and switch. The trap messages include 6 var bind fields that include the current sensor status (Normal, Critical High, Warning High, Critical Low, Warning Low, and sensorError), the current sensor value, the level exceeded, the sensor index, the sensor name, and the sensor description.

2) Setting up E-mail notifications

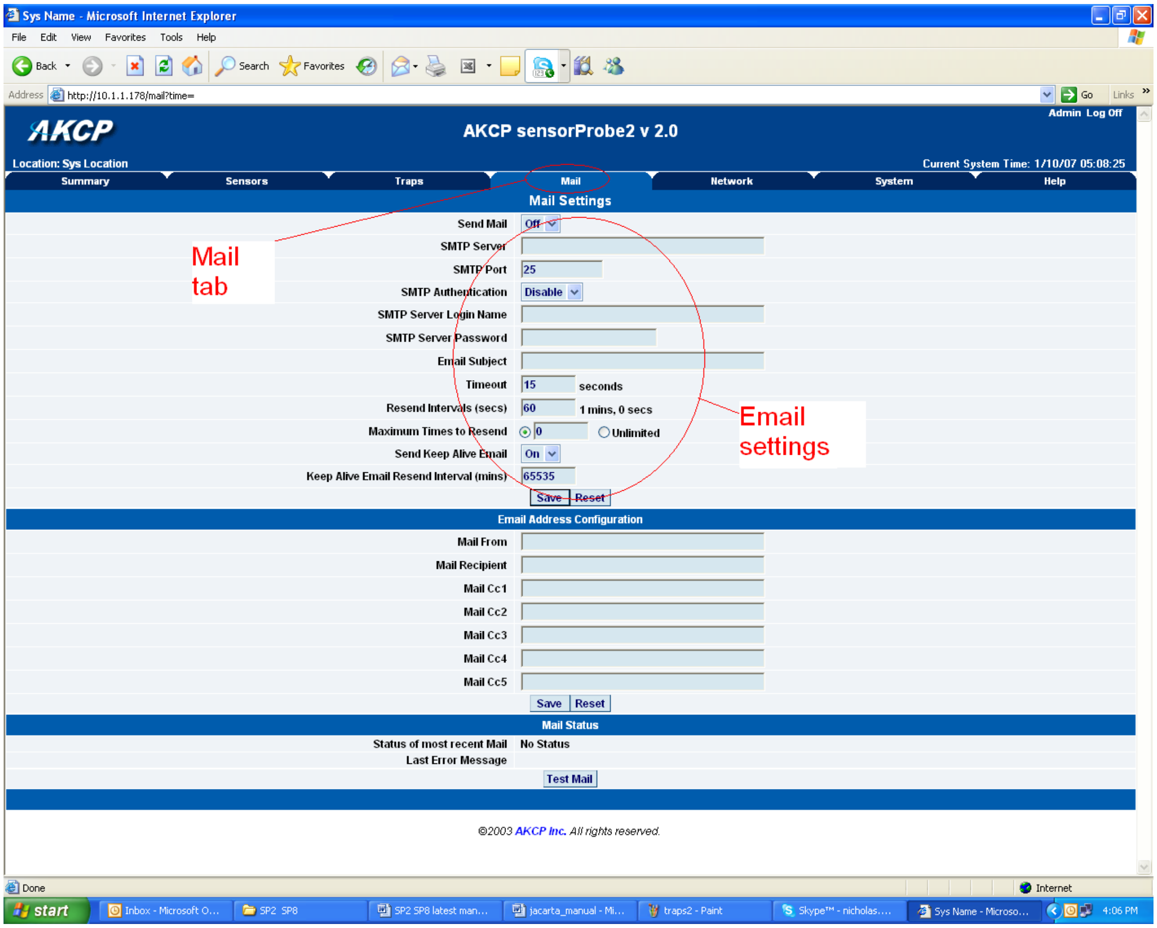
As well as, or instead of, using SNMP traps you can also be notified of a sensors change in status by an e-mail report.

To get to the entry point of this tutorial do the following :-

1) point your browser to the IP address of your unit
2) Log in as administrator
3) Click the “Mail” tab from the summary page.

(continued on next page)

a) Click on the “mail” tab and this brings you to a new page. From here you can setup the various e-mail parameters.


Sys Name - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address http://10.1.1.178/mail?time=
Go Links
AKCP
Admin Log Off
Summary
Sensors
Traps
Mail
Network
System
Help
Done
Internet
start
Inbox - Microsoft O...
SP2 SP8
SP2 SP8 latest man...
jacarta_manual - Mi...
traps2 - Paint
Skype™ - nicholas....
Sys Name - Microso...
4:06 PM

AKCP sensorProbe2 v 2.0

Location: Sys Location

Current System Time: 1/10/07 05:08:25

Mail Settings

Send Mail	Off
SMTP Server	
SMTP Port	25
SMTP Authentication	Disable
SMTP Server Login Name	
SMTP Server Password	
Email Subject	
Timeout	15 seconds
Resend Intervals (secs)	60 1 mins, 0 secs
Maximum Times to Resend	● 0 ○ Unlimited
Send Keep Alive Email	On
Keep Alive Email Resend Interval (mins)	65535

Save Reset

Email Address Configuration

Mail From	
Mail Recipient	
Mail Cc1	
Mail Cc2	
Mail Cc3	
Mail Cc4	
Mail Cc5	

Save Reset

Mail Status

Status of most recent Mail	No Status
Last Error Message	

Test Mail

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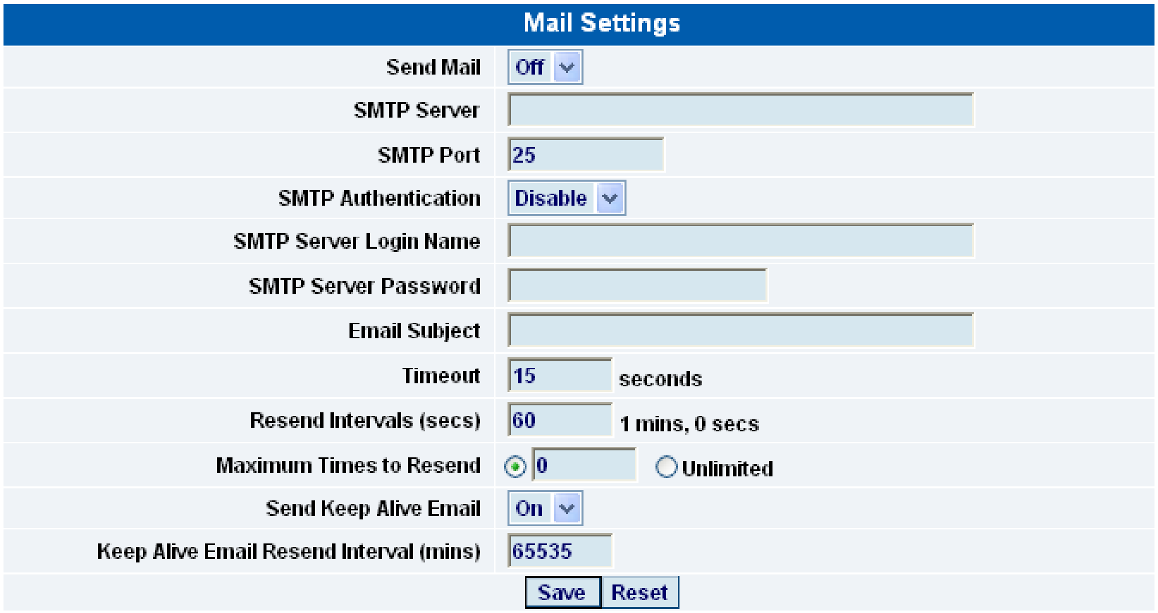
Mail tab

Email settings

b) You can now set up the individual Email options from the fields shown below.



Mail Settings

Send Mail	Off
SMTP Server	
SMTP Port	25
SMTP Authentication	Disable
SMTP Server Login Name	
SMTP Server Password	
Email Subject	
Timeout	15 seconds
Resend Intervals (secs)	60 1 mins, 0 secs
Maximum Times to Resend	● 0 ○ Unlimited
Send Keep Alive Email	On
Keep Alive Email Resend Interval (mins)	65535

Send Mail :- This toggles whether the send Email option is on or off.

SMTP Server :- The address of your SMTP server

SMTP Authentication :- check this option if your SMTP server requires authentication

SMTP Server Login Name :- The user name to login to your SMTP server

SMTP Server Password :- The password used to login to your SMPT server

E-mail subject :- The subject you wish to have for the e-mail. Eg. “sensorProbe notification”

Timeout :- You can increase the timeout for SMTP servers that have poor connectivity. It is best to leave this number as low as possible while still allowing for communication with the SMTP server to continue.

Resend Intervals :- The time between which the e-mails will be sent

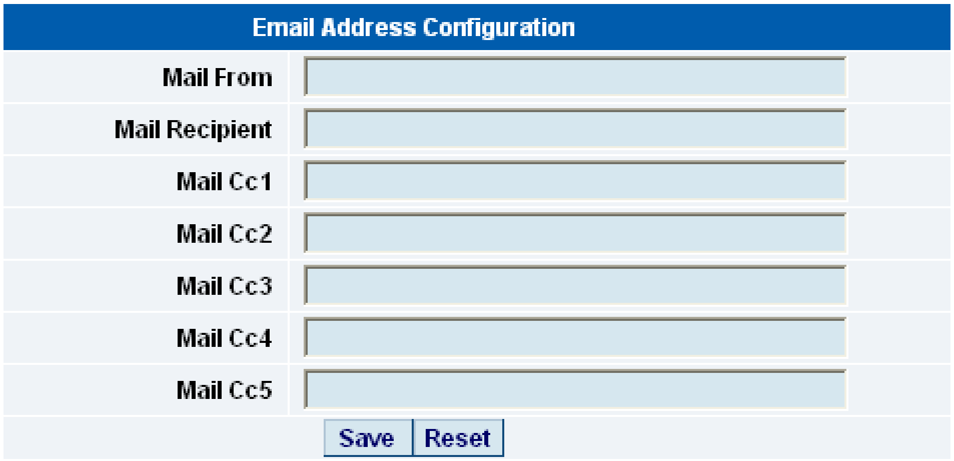
Maximum Times To Resend :- Set the number of times you wish for the notification e-mails to be resent.

Send Keep Alive Email :- This option will tell the unit to send a heartbeat e-mail. This is useful to tell if the unit is still online or not. It is also used when you require collection of data at regular intervals.

Keep Alive Email Resend Interval :- The amount of time between which the keep alive emails are sent.

After setting your parameters click the save button.

c) Below this you will see there is anther section. This is for configuring who the e-mails are to be sent too.



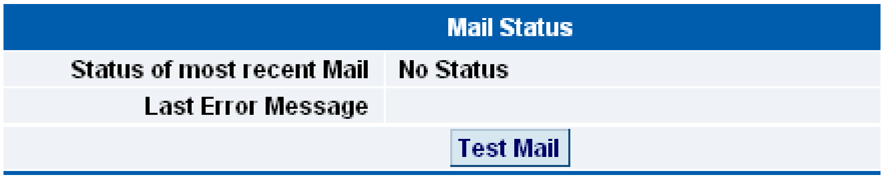
Mail From :- The email address which you would like the e-mail to appear from. Due to anti-spam features of some SMTP servers this address must be authorized on the SMTP server otherwise the server may deny the email.

Mail Recipient :- The email address of the person you wish for the email to be sent to.

Mail Cc1-5 :- Up to five additional e-mail addresses may be added.

When you have filled in your required fields remember to click "Save".

d) At the bottom of the page you have two further options.



Mail Status	
Status of most recent Mail	No Status
Last Error Message	

Status of most recent Mail :- This can be either "No Status" "Success" or "Failure"

Last Error Message :- This is a debugging aid. If the email is not successfully sent, you may find the reason for the problem here.

Test Email :- Useful when you first set up the SMTP settings to ensure they are working, or anytime thereafter. Before a test mail can be generated ensure the previous fields described have been completed.

Quick Tip:
If you having problems connecting to your SMTP email server, then please find some trouble shooting tips in the FAQ section #7 at the end of this manual.

5) System settings

1) Network settings

The networks settings page allows you to change network settings for your unit such as the IP address etc.

To get to the entry point of this tutorial complete the following :-

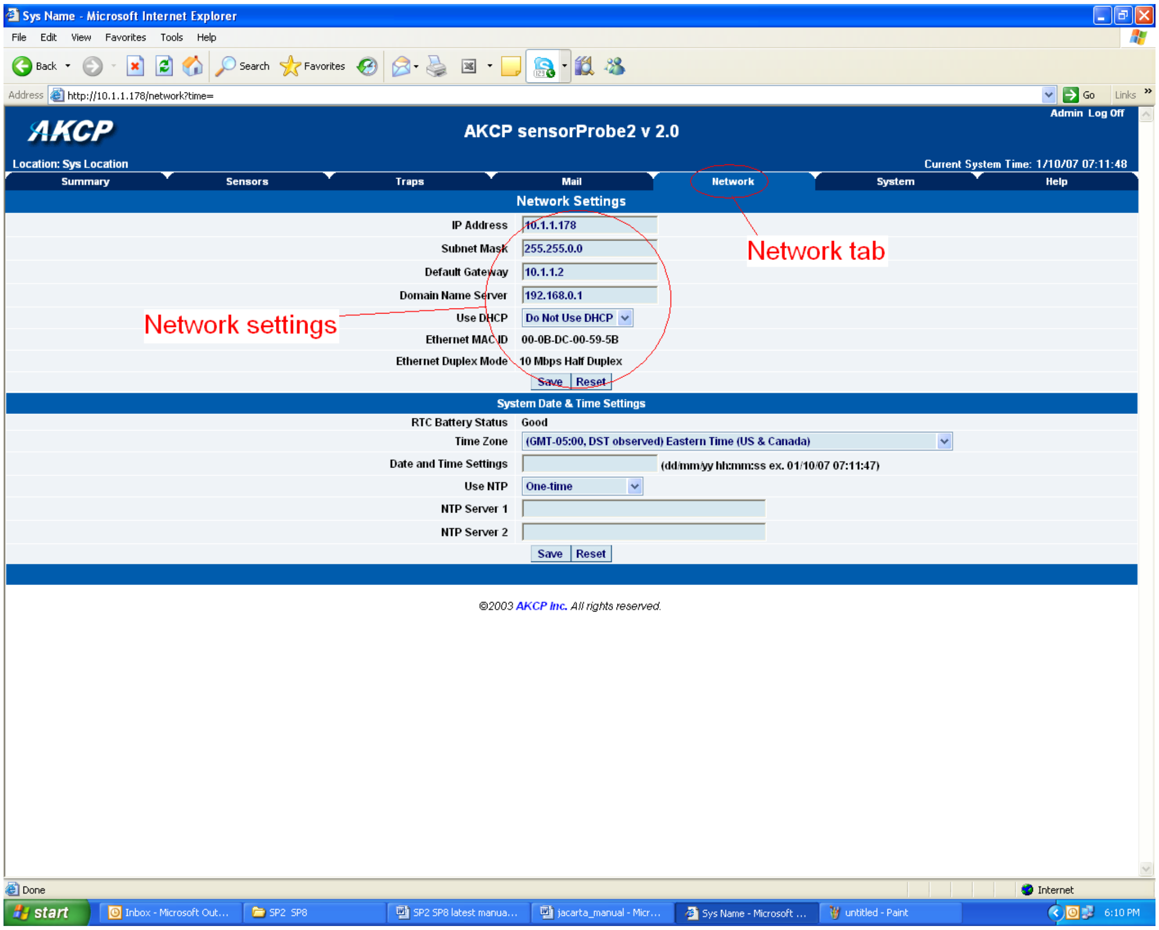
1) Point your web browser to the IP address of your unit
2) Log in as administrator
3) From the settings page, select the network tab.

Quick Tip:
You can change your default HTTP port on the unit using this SNMP set command:

```
snmpset -m all -v1 -c <community> <ipaddress> .1.3.6.1.4.1.3854.1.2.2.1.91.0 u <port>
```

You can still use port 80 for web access as well.

a) After clicking the “Network” tab you will be taken to this page :-


Sys Name - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address http://10.1.1.178/network?time=
Go Links
AKCP
AKCP sensorProbe2 v 2.0
Admin Log Off
Location: Sys Location
Current System Time: 1/10/07 07:11:48
Summary
Sensors
Traps
Mail
Network
System
Help
Network tab
Network settings
©2003 AKCP Inc. All rights reserved.
Done
Internet
start
6:10 PM

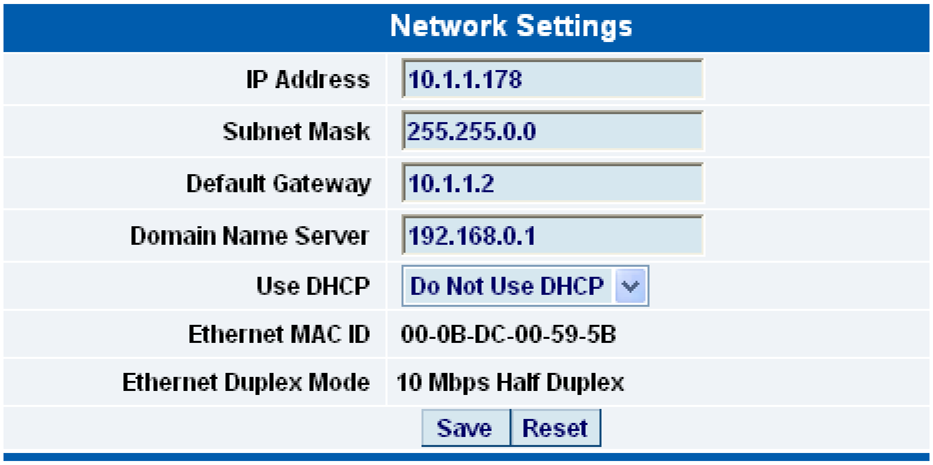
Network Settings

IP Address	10.1.1.178
Subnet Mask	255.255.0.0
Default Gateway	10.1.1.2
Domain Name Server	192.168.0.1
Use DHCP	Do Not Use DHCP
Ethernet MAC ID	00-0B-DC-00-59-5B
Ethernet Duplex Mode	10 Mbps Half Duplex

System Date & Time Settings

RTC Battery Status	Good
Time Zone	(GMT-05:00, DST observed) Eastern Time (US & Canada)
Date and Time Settings	(dd/mm/yy hh:mm:ss ex. 01/10/07 07:11:47)
Use NTP	One-time
NTP Server 1	
NTP Server 2	

b) Once on this page you can setup the network settings as indicated below :-



Network Settings

IP Address	10.1.1.178
Subnet Mask	255.255.0.0
Default Gateway	10.1.1.2
Domain Name Server	192.168.0.1
Use DHCP	Do Not Use DHCP
Ethernet MAC ID	00-0B-DC-00-59-5B
Ethernet Duplex Mode	10 Mbps Half Duplex

IP Address :- Use this to change the IP address of your unit

Subnet Mask :- Use this to assign the subnet mask of your unit

Default Gateway :- Assign the default gateway of your device

Domain Name Server :- IP address of your DNS. Used if you wish to use a DNS address for your unit instead of accessing via the IP address.

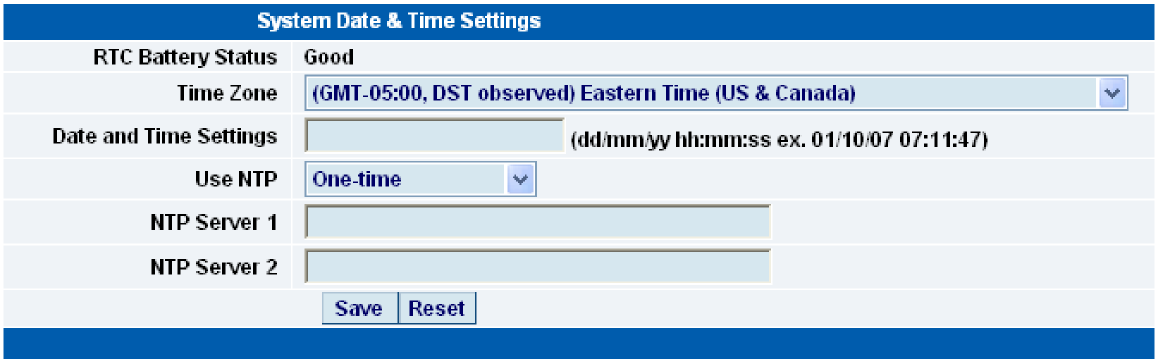
Use DHCP :- The unit can use DHCP to assign its IP address, or it can use a statically assigned IP address. To use DHCP choose “Use DHCP” from the list box and press set. To stop using DHCP choose “Do Not Use DHCP” from the list box and press set. Statically assigning an IP address also turns off DHCP. You can force the SP2 / SP8 to voluntarily give up its IP lease and request a new IP lease by choosing Use DHCP from the list box and pressing “set”.

Ethernet MAC ID :- This is the MAC address of your unit. This is a read only field

Ethernet Duplex Mode :- The duplex mode and speed of your unit. This is a read only field also.

Ensure you apply your new settings by clicking on the “save” button.

c) Below this, there are some further settings for the time and date.



System Date & Time Settings	
RTC Battery Status	Good
Time Zone	(GMT-05:00, DST observed) Eastern Time (US & Canada)
Date and Time Settings	(dd/mm/yy hh:mm:ss ex. 01/10/07 07:11:47)
Use NTP	One-time
NTP Server 1	
NTP Server 2	

RTC Battery Status :- This field displays the status of the Real Time Clock battery on the unit. If the status displays “Bad”, you must replace the battery; otherwise, when the SP2 or SP8 do not have mains power, the clock will stop running. Therefore, you must re-configure the system time settings on every reboot.

Date and Time Settings :- Enter the new date and time in this field. The date and time use the following format : **`date/month/year`** **`(dd/mm/yy)`** and **`hour:minute:second`** **`(hh:mm:ss)`**

Time Zone :- Select time zone that is corresponding to your location from this list box.

Use NTP :- An NTP (Network Time Protocol) is used to synch your units clock over a network. There are many options in this list box. The details for each one are as follows:

- **Do Not Use NTP** - select this option to turn off the time synchronization feature.
- **One Time** - the time is synchronized once the Save button is pressed.

- **On System Start Up** - the time is synchronized once the cameraProbe8 is turned on or reboot.
- **Once a Month/Week/Day/Hour** - the time is automatically synchronized every month, week, day, or an hour, respectively.

NTP Server 1 and 2 :- Set the IP address of the NTP servers to be used. The NTP will synchronize the time with the server that has less number of the stratum.

2) System tab

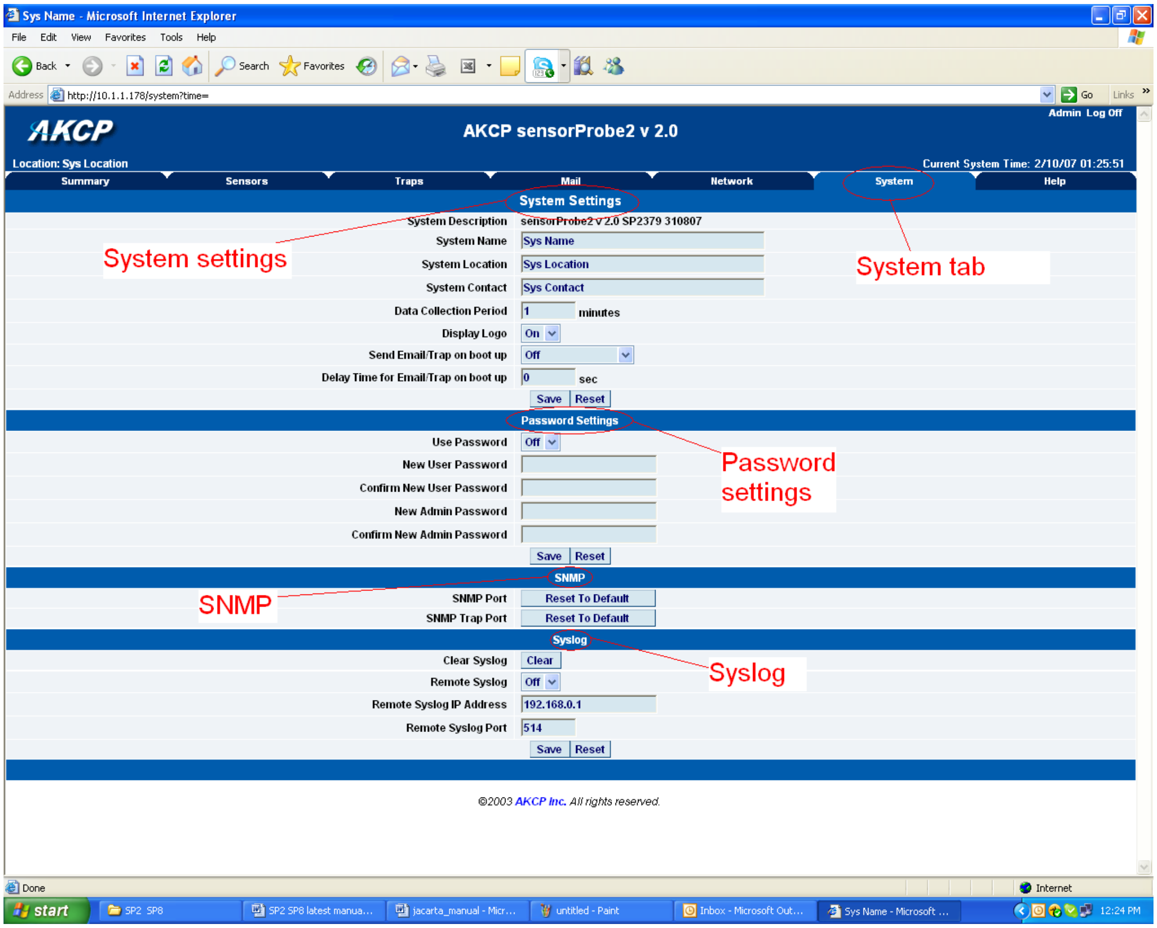
From the systems tab you can input various settings for the unit. These settings are mostly optional.

To get to the entry point of this tutorial complete the following :-

1) Point your browser to the units IP address
2) Log in as administrator using your admin password
3) From the summary page click on the “System” tab

(continued on next page)

a) When you arrive at the settings page you will see the following screen :-


Sys Name - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address http://10.1.1.178/system?time=
Go Links
AKCP
Admin Log Off
Summary
Sensors
Traps
Mail
Network
System
Help
System settings
System tab
Password settings
SNMP
Syslog
Done
Internet
start
12:24 PM

AKCP sensorProbe2 v 2.0

Location: Sys Location

Current System Time: 2/10/07 01:25:51

System Settings

System Description sensorProbe2 v 2.0 SP2379 310807

System Name: Sys Name

System Location: Sys Location

System Contact: Sys Contact

Data Collection Period: 1 minutes

Display Logo: On

Send Email/Trap on boot up: Off

Delay Time for Email/Trap on boot up: 0 sec

Save | Reset

Password Settings

Use Password: Off

New User Password

Confirm New User Password

New Admin Password

Confirm New Admin Password

Save | Reset

SNMP

SNMP Port: Reset To Default

SNMP Trap Port: Reset To Default

Syslog

Clear Syslog: Clear

Remote Syslog: Off

Remote Syslog IP Address: 192.168.0.1

Remote Syslog Port: 514

Save | Reset

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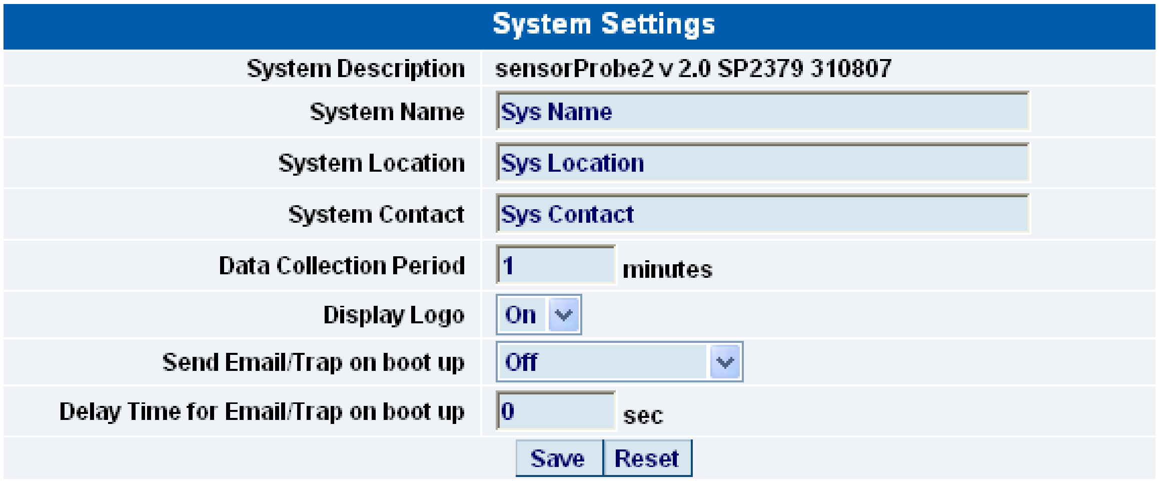
b) The first section is entitled "System Settings"



System Settings

System Description sensorProbe2 v 2.0 SP2379 310807

System Name: Sys Name

System Location: Sys Location

System Contact: Sys Contact

Data Collection Period: 1 minutes

Display Logo: On

Send Email/Trap on boot up: Off

Delay Time for Email/Trap on boot up: 0 sec

Save | Reset

System Description :- This is an MIB II value set when the microcode for the unit was installed. It includes the build time and version of the microcode. This is a read only field.

System Name / Location / Contact :- These are used to identify the system. They are accessed via standard SNMP utilities. The SNMP utilities use these to get information about the unit.

Data Collection Period :- This controls how often data is collected for use in the graph function.

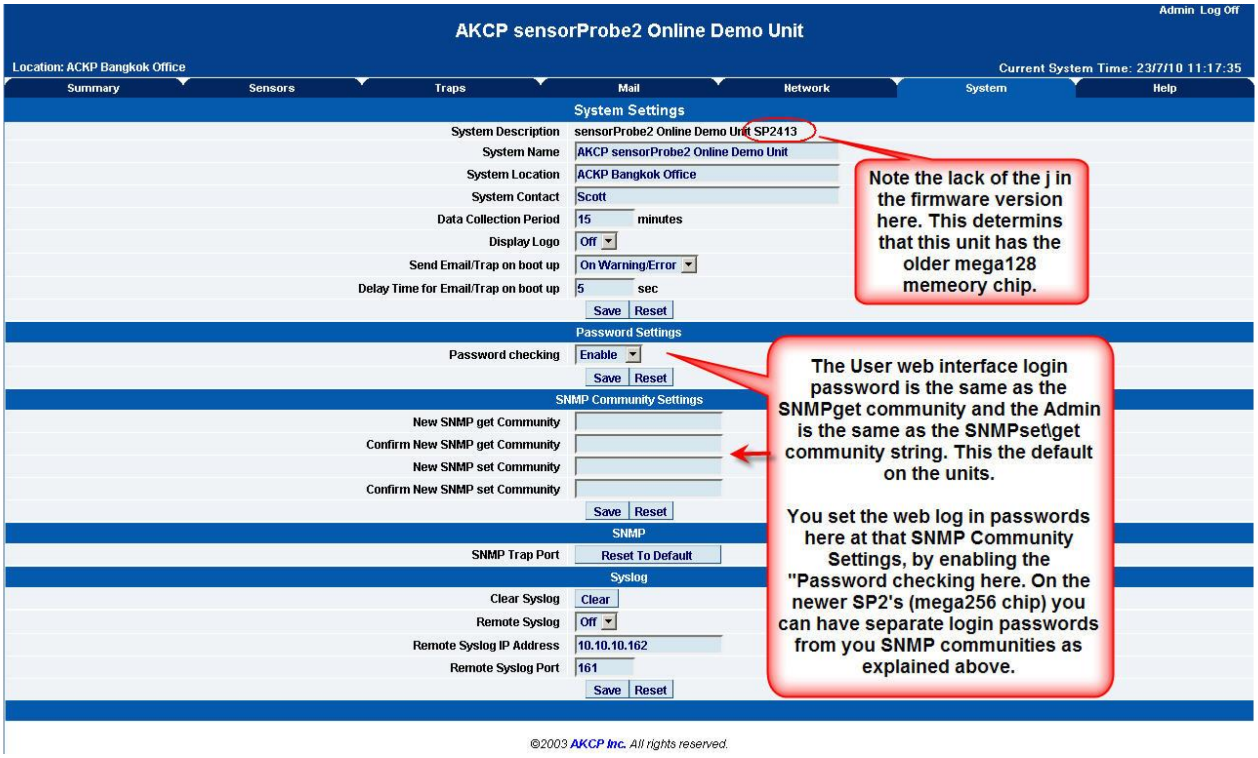
Display Logo : Turn off displaying the logo by using this option. This option can be turned off to allow the web pages to be loaded faster.

Send Email / Trap on boot up :- Use this option to send an Email and SNMP trap each time the system boots up.

Delay Time for Email / Trap on boot up :- The time in seconds to delay before sending the boot up Email or trap.

Remember to click the "Save" button after making any changes.

c) The next section is used for setting a user password, or changing the admin password.



AKCP sensorProbe2 Online Demo Unit

Location: ACKP Bangkok Office

Current System Time: 23/7/10 11:17:35

System Settings

System Description: sensorProbe2 Online Demo Unit SP2413
System Name: AKCP sensorProbe2 Online Demo Unit
System Location: ACKP Bangkok Office
System Contact: Scott
Data Collection Period: 15 minutes
Display Logo: Off
Send Email/Trap on boot up: On Warning/Error
Delay Time for Email/Trap on boot up: 5 sec

Password Settings

Password checking: Enable

SNMP Community Settings

New SNMP get Community
Confirm New SNMP get Community
New SNMP set Community
Confirm New SNMP set Community

SNMP

SNMP Trap Port

Syslog

Clear Syslog
Remote Syslog: Off
Remote Syslog IP Address: 10.10.10.162
Remote Syslog Port: 161

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Note the lack of the j in the firmware version here. This determins that this unit has the older mega128 memeory chip.

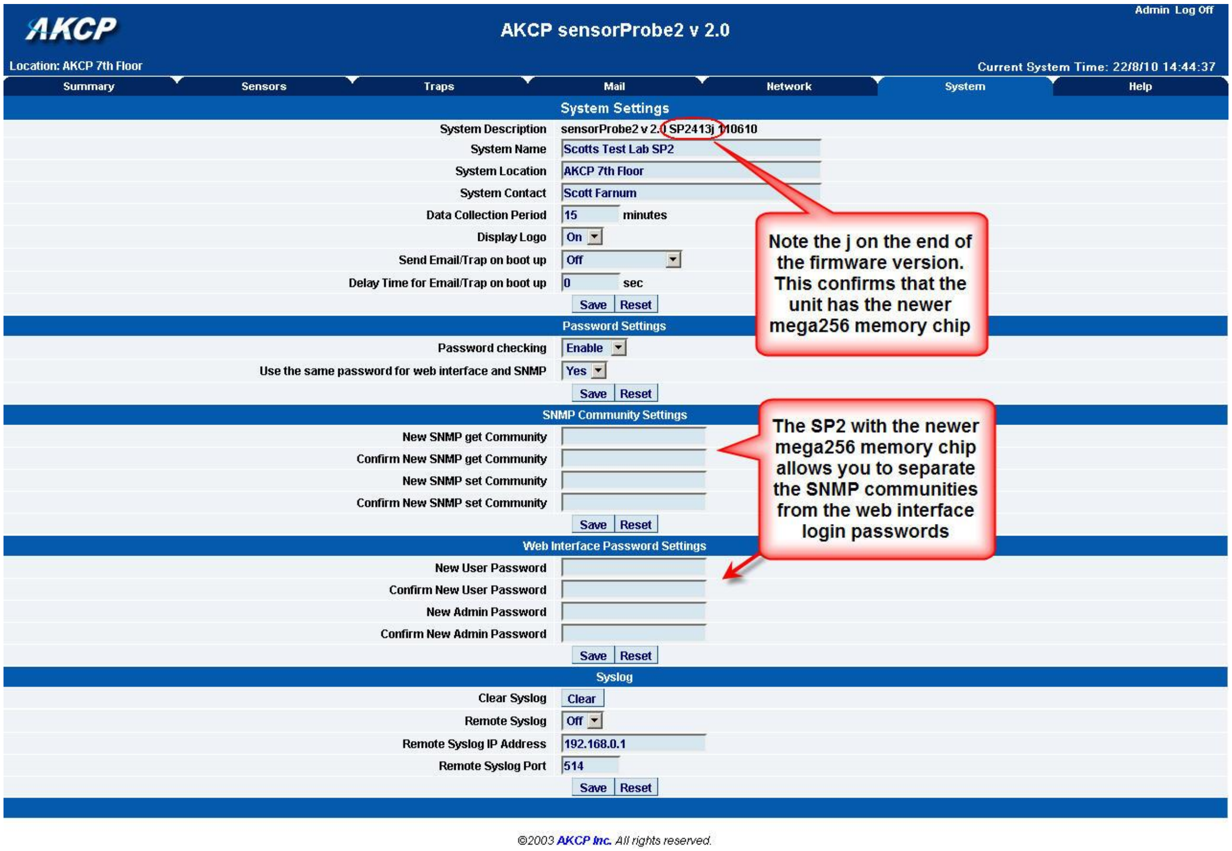
The User web interface login password is the same as the SNMPget community and the Admin is the same as the SNMPset\get community string. This the default on the units.

You set the web log in passwords here at that SNMP Community Settings, by enabling the "Password checking here. On the newer SP2's (mega256 chip) you can have separate login passwords from you SNMP communities as explained above.

Depending on which version of sensorProbe2 you have your System page may appear different. The sensorProbe2 units that were shipped prior to October of 2009 have the older memory mega128 chip. If this is the case your screen will appear like the screen shot shows above. This System page will also show in the sensorProbe8 interface on units shipped prior to July 1st 2011.

Note: To allow the User to login without having to enter a password use "public" in the SNMP get.

The User web interface login password is the same as the SNMPget community and the Admin is the same as the SNMPset\get community string. You set your web interface login passwords in the SNMP community settings by enabling the “Password checking” above then entering your passwords into these fields.



Location: AKCP 7th Floor

Current System Time: 22/8/10 14:44:37

System Settings

System Description: sensorProbe2 v 2.0 SP2413j 100610
System Name: Scotts Test Lab SP2
System Location: AKCP 7th Floor
System Contact: Scott Farnum
Data Collection Period: 15 minutes
Display Logo: On
Send Email/Trap on boot up: Off
Delay Time for Email/Trap on boot up: 0 sec

Password Settings

Password checking: Enable
Use the same password for web interface and SNMP: Yes

SNMP Community Settings

New SNMP get Community
Confirm New SNMP get Community
New SNMP set Community
Confirm New SNMP set Community

Web Interface Password Settings

New User Password
Confirm New User Password
New Admin Password
Confirm New Admin Password

Syslog

Clear Syslog
Remote Syslog: Off
Remote Syslog IP Address: 192.168.0.1
Remote Syslog Port: 514

Note the j on the end of the firmware version. This confirms that the unit has the newer mega256 memory chip

The SP2 with the newer mega256 memory chip allows you to separate the SNMP communities from the web interface login passwords

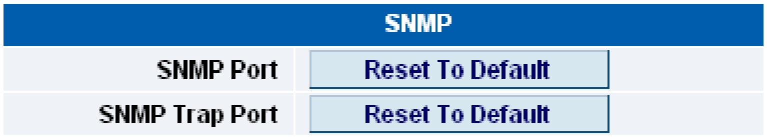
Note the j on the end of the firmware version above. This confirms that the unit has the newer mega256 memory chip. The SP2 / SP4 / SP8 with the newer mega256 memory chip allows you to separate the SNMP communities from the web interface login passwords

Password Checking :- toggle whether the password is required or not

Use the same password for the web interface and SNMP: Ties the SNMP communities to the web interface login passwords.

New User Password :- Type in the password for the user account
Note: To allow the User to login without having to enter a password use “public” in the User password.
Confirm New User Password :- Confirm the new password for the user account
New Admin Password :- Type in the password you wish for the admin account
Confirm New Admin Password :- Confirm the new password for the admin account

d) Next you have the options for resetting the SNMP trap settings



SNMP Port :- Use this option to reset the SNMP port setting to its default

SNMP Trap Port :- Use this option to reset the SNMP Trap Port to its default setting

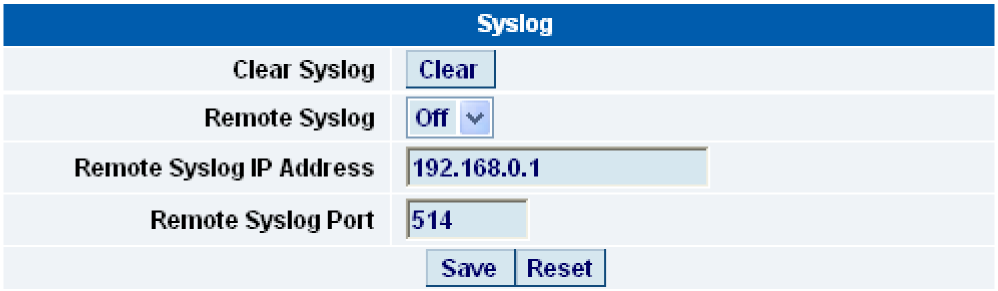
Quick Tip:

Your SNMP port default is 161 and the SNMP TRAP port default is 162. You can set your SNMP ports with the following commands:

snmpset -m all -v 1 -c <community> <ipaddress> .1.3.6.1.4.1.3854.1.2.2.1.99.0 u <new snmp port>

snmpset -m all -v 1 c <community> <ipaddress> .1.3.6.1.4.1.3854.1.2.2.1.100.0 u <new snmp trap port>

e) Finally you have the option for setting up the system log parameters.



Remote Syslog: Off
Remote Syslog IP Address: 192.168.0.1
Remote Syslog Port: 514

Clear Syslog :- Used to clear the system log of the messages for the unit

Remote Syslog :- You can set up the unit to send its syslog message in a standard format acceptable to a remote syslog server. For example, the Logalot system from Somix.

Remote Syslog IP Address, Remote Syslog Port :- You can set the IP address and port of the remote syslog server to which the unit will send the log messages.

Quick Tip:

One way to export your sensor data in real time to a remote location is with the “Remote Syslog” feature. If you want to use the “Remote Syslog” feature for this, please find more detailed information on how to set this up in the FAQ section #7 at the end of this manual.

6) Making your unit visible to the internet

So far the manual has simply covered the basic set up. The setup we have just created will allow you to access your unit on a Local Area Network (LAN). We have setup SNMP traps so that your SNMP software, such as Whatsup Gold, or HP Openview can collate information from your unit.

However, what if you wish to be able to remotely access your unit from anywhere in the world? This is possible; however, the following steps are only an outline guide. Your exact setup and configuration will often depend on your network equipment and setup. You are going to need access to your router, if you are using one and knowledge of whether your IP address is static or dynamic.

1) Simple setup

a) Lets imagine that your unit is connected to a router on your network, and the following IP addresses are assigned.

Your units IP address is the default 192.168.0.100.

Your computers IP address is 192.168.0.200

Your routers IP address is 192.168.0.300

b) To find out your routers external IP address go to www.whatsmyip.com

Lets imagine your routers external IP address is 278.67.04.09

c) You now need to setup port forwarding on your router. This varies depdning on your routers model. Generaly you need to point your browser to your routers IP address (in this case 192.168.0.300). This will then allow you to log into your routers administration interface. You can find how to go about doing this for your router on www.portforward.com For an example of how to do this for a commonly used router follow this link :- http://www.portforward.com/english/routers/port_forwarding/Linksys/WRT54G/HTTP.htm

You need to setup your routers HTTP forwarding to port 80. This will then mean when you access your router using the external IP address you will be forwarded to your units internal IP address.

d) To test this, open your web browser, and go to your external IP address (in our example 278.67.04.09). If your using a dynamic IP address, its best to check it again before doing this as it may have changed since the start of this tutorial.

e) To make this easier you could use a dynamic DNS (Dynamic Name Server). This means you no longer need to remember IP address's or use www.whatsmyip.com to find out your IP address. You will instead register a domain name (for example mysensorProbe2.homeip.com). This will then automatically point your routers external IP address (e.g. 278.67.04.09). This will require you to register the domain name and open an account with a DNS server provider. We recommend www.dyndns.com as they allow up to 5 free domain names to be registered.

f) If you have set everything up correctly you will now be able to access your unit from anywhere in the world by simply pointing your web browser to your DNS address.

Setting up your PC's routing table

*To set up the routing table, open a DOS window (start, run type *command* press enter) and at the command prompt enter.

```
>route add 192.168.0.100 10.1.1.20
```

Where `10.1.1.20` is the IP address of the Ethernet interface on the PC that the unit is plugged into with the crossover cable.

Now ping* 192.168.0.100 to see if the connection was successful.

7) Quick Facts and FAQ:

Question:
How does the SP2 and SP8 record the sensor data and how much can it store?

Answer:
The sensorProbe2 will record and store the changes for the dry contacts and sensors as the units hardware has a data logger where it stores this data in memory. It can save 8,640 points per sensor. So, if you set your collection time period for 15 minutes for example, then you can save data up to 3 months on the unit.

Question:
Can you please tell how often the sensorProbe unit interrogates each sensor to obtain the sensor's readings?

Answer:
This really depends on the sensor type that you have connected to the unit. The switch type sensor interrogates with the sensorProbes more than 2 times per second.
The temperature and analog type sensors interrogate 1 time per second.
But all of the readings depend on the environment like the number of sensors you have online and your email and SNMP trap alert settings.

Question:
Is there a way to reboot the sensorProbe unit's web interface remotely?

Answer:
Yes, you can reboot the unit's web interface remotely using this SNMP command and OID here:

```
snmpset -m all -v 1 -c <community> <IPaddress> .1.3.6.1.4.1.3854.1.2.2.1.106.0 i 1
```

Question:
Is there any way to edit the content of the email alerts that are sent out from my sensorProbe unit?

Answer:
Yes, we have have added a separate e-mail notification function. You can set this by using the following SNMP command:

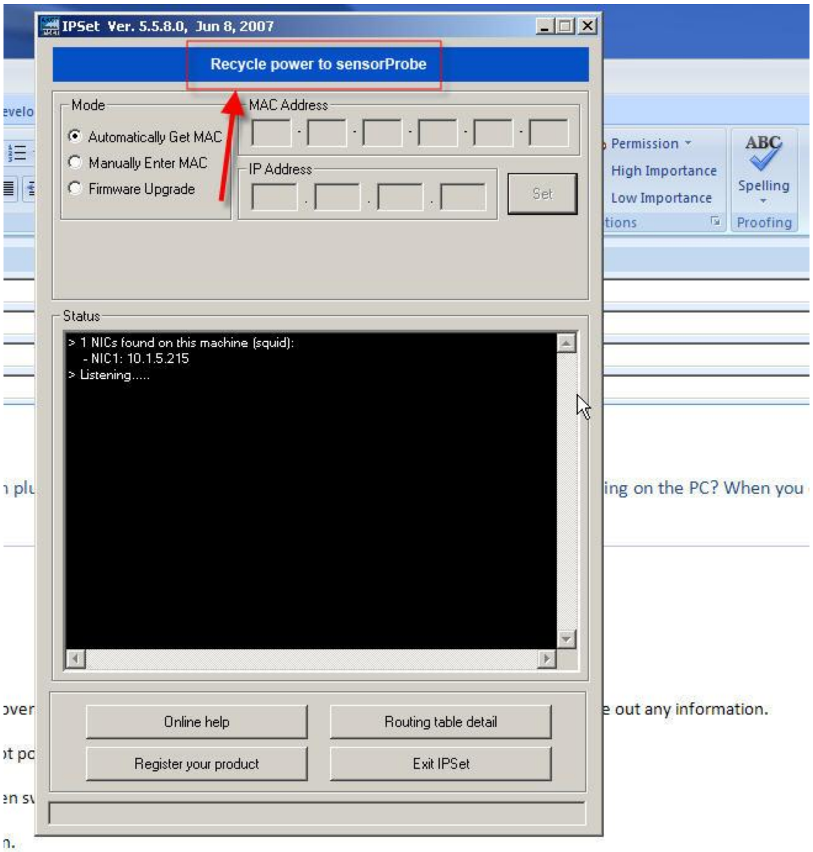
```
snmpset -m all -v 1 -c <community> <ip address> .1.3.6.1.4.1.3854.1.2.2.1.112.0 I <separate>
```

When <community> is admin password <ip address> is ip address of the unit
<separate> is for the separate e-mails or not if this value is 1 it will have the separate e-mails
if this value is 0 it will not have the separate e-mails.

Question:
I have forgotten the IP address that my sensorProbe is configured with. Is there a way I can determine this IP?

Answer:
Yes, you can unplug the power cord, then plug it back in, to cycle the power on the sensorProbe while you have the IPSet utility software running on your PC. When you open the IPSet utility, it will say "Recycle power to sensorProbe" as shown in this screen shot on page 29):

(continued on next page)


IPSet Ver. 5.5.8.0, Jun 8, 2007
Mode
○ Automatically Get MAC
○ Manually Enter MAC
○ Firmware Upgrade
MAC Address
IP Address
Set
Status
Online help
Routing table detail
Register your product
Exit IPSet
Permission
High Importance
Low Importance
Spelling
Proofing

Recycle power to sensorProbe

```
> 1 NICs found on this machine (squid):
   - NIC1: 10.1.5.215
> Listening.....
```

When the sensorProbe is powered up, the IPSet will capture its IP address, then you will be able to click on the flashing button to open the web interface. You can download the IPSet utility by logging into the AKCP web site with you units MAC ID.

Question:
Is there a way to reset my unit back to the factory default settings?

Answer:
Yes, you can reset the unit back to the factory default settings using our utility called "configure". You can download this from our web site. when you reset the unit, please do this with it directly connected to your PC with the cross connect cable. If you get the unit reset, please run the latest firmware update as well with the utility. You can download this from the same link above.

Question:
I am still having trouble connecting to the unit and opening the web interface, what could be the problem and what should I try?

Answer:
If you are using IE7 or IE8 web browser versions, try placing the unit in the “trusted sites” list. Try clearing the cache and refreshing your browser with the ctrl + F5 key. Are you using HTTPS? The sensorProbes, nor IPSet do not support HTTPS. This only available on the securityProbe units.

Question:
I have assigned the gateway IP, and when I click Save, it reverts back to the default IP?

(continued on next page)

__Answer:__
This happens when the device is not able to find the IP entered. When the IP is entered the device searches for the IP and will accept it if it is found, or else it will revert back to the default IP.

__Question:__
I have an alert condition from one of my sensors attached to my sensorProbe unit, in that the base unit (SP8) started to send e-mail alerts. Before I was able to fix the problem, my SMTP server was clogged with several hundreds of messages waiting in the outbound queue to be sent. Is there a way to add a parameter to the base units web interface that defines the interval between successive e-mail alerts in order to limit the rate at which these alerts are being sent and keep the SMTP server operational?

__Answer:__
Yes, we have the "Minimum time between each Trap/Email" feature in the Sensor Settings > Sensor Status Filters button. This feature can limit the traps and e-mails that the unit will send. A similar parameter also exists on the sensorProbe's web interface called "Resend Intervals (secs)" and another one called "Maximum Times to Resend" which will also limit the alerts being sent.

__Question:__
I am having trouble connecting the sensorProbe to my SMTP email server, what could be the problem?

__Answer:__
Here is some things to check when having trouble with SMTP server connections and saving your settings.

Try changing your SMTP server from the name to the IP address of the server.
The SMTP server is entered is wrong.
The send mail option is not enabled in the Mail settings page.
The timeout period entered is too low.
The gateway IP is not entered in the network page
The mail from address is not set
The mail server is not responding
The mail from address is not validated in the mail server
The mail server settings prohibit it from accepting connections form the device IP
The mail server is an SSL type, which is not supported by the sensorProbe units.

__Question:__
I am using Microsoft Exchange Server, but the Exchange server fails to receive the email alerts from my sensorProbe unit, does my sensorProbe support MS Exchange Server?

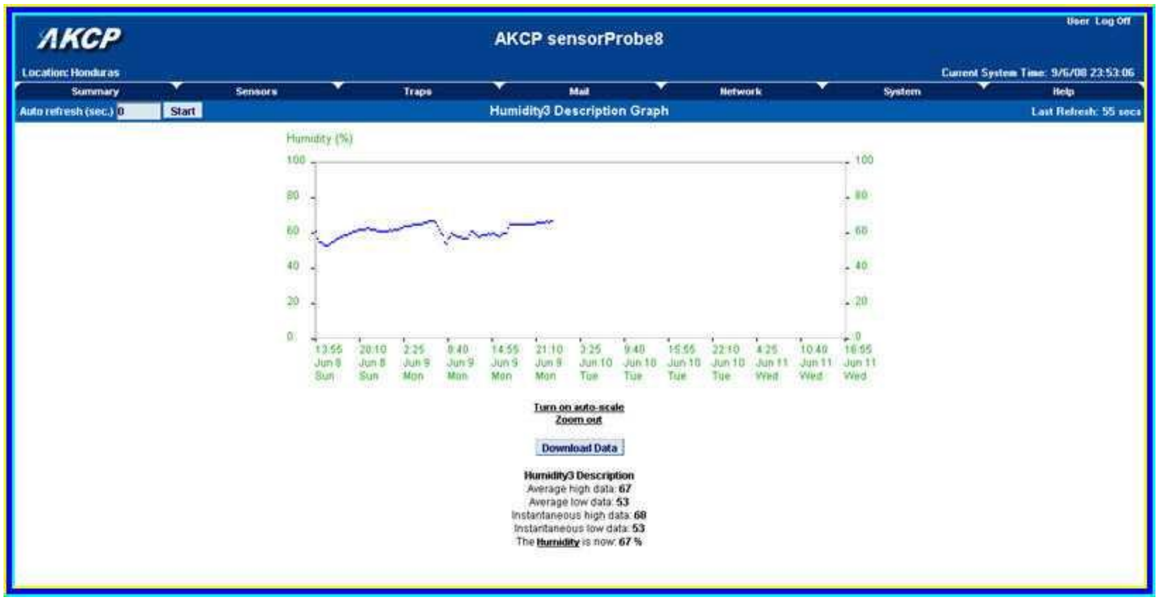
__Answer:__
Yes, the units do support MS Exchange Server. However, the sensorProbe's only support basic authentication. MS Exchange by default, when a connecter is set up uses TLS, then basic. You have to uncheck this option.

__Question:__
Is there a way to download my sensor data, or push this out in real time to my PC?

__Answer:__
Yes, you have several options for collecting, downloading and storing the data from the sensorProbe units. See the section in this manual that covers this.

You can graph each sensors output readings and then download that data as a text file, so you can import it into say an Excel spreadsheet.

This is found by clicking on the Graph >> View in the Summary screen. Please see this screen shot here:


AKCP
User Log Off
AKCP sensorProbe8
Summary
Sensors
Traps
Mail
Network
System
Help
Start
Humidity3 Description Graph
Humidity (%)
100
80
60
40
20
0
13:55 Jun 8 Sun
20:10 Jun 8 Sun
2:25 Jun 9 Mon
8:40 Jun 9 Mon
14:55 Jun 9 Mon
21:10 Jun 9 Mon
3:25 Jun 10 Tue
9:40 Jun 10 Tue
15:55 Jun 10 Tue
22:10 Jun 10 Tue
4:25 Jun 11 Wed
10:40 Jun 11 Wed
16:55 Jun 11 Wed
Turn on auto-scale
Zoom out
Download Data

Location: Honduras

Current System Time: 9/6/08 23:53:06

Auto refresh (sec.) 0

Last Refresh: 55 secs

Humidity3 Description
Average high data: **67**
Average low data: **53**
Instantaneous high data: **68**
Instantaneous low data: **53**
The **Humidity** is now: **67 %**

We also have the two utilities that allow you to download the sensor data. The first is called dataDownload, which is a command line program that will download all the sensor readings stored on the sensorProbe. This data is then stored in a text file and can then be easily imported into a spreadsheet program, such as MS Excel.

You can download this here: http://www.akcp.com/downloads/datadownload.zip

Or you can use our dataCollect utility that allows you to poll the sensor data directly from a PC on the same LAN as your sensorProbe in real-time. You can collect an unlimited number of readings and you can collect data from multiple sensorProbe's simultaneously.

You can download this from our website, by first logging in with your units MAC ID.

Question:
I am not too familiar with SNMP or what OID's to use with your products. How would I find out more about this and what OID's to use?

Answer:
We have an OID manual that includes basic information on SNMP and were to find out more information on this. The manual also includes all our OID's and related information. Please contact the AKCP Support Team if you would like a copy of this.