



www.AKCP.com

SecurityProbe 5ESV User Manual



Help Version updated till firmware 404m

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1) Introduction

What is securityProbe 5ESV Standard with Video?

The securityProbe 5ESV Standard with Video integrates over 10 years of environmental monitoring experience with the latest technology to push the boundaries of disaster protection. Now you can sense and see problems before they lead to business disruptions.

The SEC 5ESV is a high speed, accurate, intelligent monitoring device, featuring a completely embedded host and Linux Operating System. The design is based on our successful securityProbe 5ES, but with the camera inputs.

How to use this manual

This manual is meant to provide the user with a step by step guide on how to configure and set up their unit. It utilizes screen shots in an effort to make things simpler for the user to follow. It is split up into sections that form “mini tutorials”. These cover the basic set up and common configurations of the unit, and give an introduction to its most useful features.

At the end of the manual there is a FAQ section that provides some further in-depth information regarding specific set ups and answers some commonly asked questions. If you need any further information or help with using your unit then please contact us on support@akcp.com and one of our technical support staff will be only to pleased to help you with any information you require.

Package Contents

Your Securityprobe-5ESV package contains the following items:-

- 1x Product CD
- 1x 5ft Crossover cable
- 1x THS00 with 5 ft straight cable
- 1x 7.0 – 9 V, 2.5 A power supply
- 2x Brackets for rack mounting
- 1x Blue quick-start guide.

Front and rear panels



Fig 1. Front panel

The front panel has several LEDs which display the units status and notify you as to its activity.

1. Power LED

When the unit is powered up the power LED will be lit continuously. If the power LED is flashing then it indicates a problem with the CPU. If you notice this then please contact us on support@akcp.com

2. Ethernet LED

The **Activity** and **Link** LEDs indicate network connectivity and activity. The Link LED will light up when there is a network connection present. The activity LED will flash when there is network traffic being sent or received by the unit.

3. Status / Online LEDs

These are numbered 1 – 8. They are used to indicate the connectivity status of the sensors connected to each port. These LEDs also can be used to indicate system status when undertaking various operations.

- A. The LEDs will indicate the progress of an upgrade. The red LEDs will move from left to right to indicate activity, and the green LEDs will indicate overall progress of the upgrade. When all the red lights are off and all green are on the upgrade / recovery process is complete.
- B. These lights will indicate if the unit is operating in safe mode. This is when the unit loads the Operating System (OS) with a minimal set of drivers. If your device enters safe mode after rebooting then please contact us on support@akcp.com
- C. The unit may enter recovery mode if a firmware upgrade has been incomplete. This will be indicated by the unit displaying a continuously lit row of red LEDs. If this happens please contact us on support@akcp.com

4. Mic

The mic is a small hole for access to the internal microphone. This can be used as a sound sensor (or an external mic can be used)

5. Removable SD slot

This slot is provided so you are able to add your own SD flash card to increase the storage space on the unit. You can install up to a 16GB SD card.

The on board memory on the SEC 5ESV is 128MB. This is where the operating system, sensor data, the unit's settings, picture and sound logs are all stored.

If the picture and sound logs become full they will then begin to be stored on your SD card (if one is installed on the unit) automatically.

6. Expansion Ports

There are two expansion ports numbered from E1 and E2. These are expansion Ports for connecting either the 8-sensor8 or the E-opto16 expansion units. These are also used for connecting the CCU or Cabinet Control Units. Please see each of these separate user manuals for each of these products.

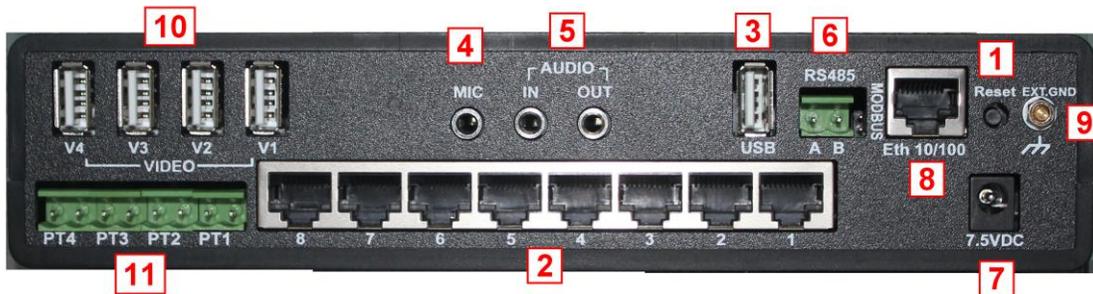


Fig 2. Rear panel.

The rear panel of the unit is home to various ports and connections. The functions of these are as follows :-

1. Safe Mode button. ***(DOES NOT RESET THE UNIT)***

The black tact switch button is used to perform the following functions

- A. A single press will announce the IP address of the unit. This is audible through the internal speaker. It also broadcasts the IP address to the IPset program.
- B. Turns off password checking when accessing the web based interface (hold down for 12 seconds)
- C. To reboot the unit into the firmware upgrade or "SAFE" mode press and hold in the button for more than 12 seconds.

2. Sensor ports

There are 8 RJ45 ports numbered from 1 – 8. These are for connecting AKCP intelligent sensors to the unit.

3. USB port

The unit is equipped with one USB 1.1 port. This can be used, for example, to connect a USB GPRS/GSM compatible modem, a USB WiFi dongle or USB Bluetooth dongle.

4. Mic Out

This is used to connect an external microphone for voice modem applications.

5. Audio in / out

The in is used to connect an external microphone, the output for external speakers.

6. RS485 Port

Used for Modbus connectivity. We support Modbus master or slave.

7. Power Connector

This is a 7.5V DC plug. We recommend you using a 7.0 – 9 V, 2.5 A power supply.

8. Ethernet Port

This RJ45 port is used to connect your unit to the network.

9. External ground MUST be used

The EXT. GND **must** be used to externally ground the unit.

10. High Definition Digital Camera Inputs

The 4 HD Digital Camera ports are where the cameras are connected.

11. High Definition Digital Pan Tilt Dome Controller Inputs

This is where you would connect each of the PTDC pan tilt controller cable inputs.

2) Installation

1. Setting up the IP address

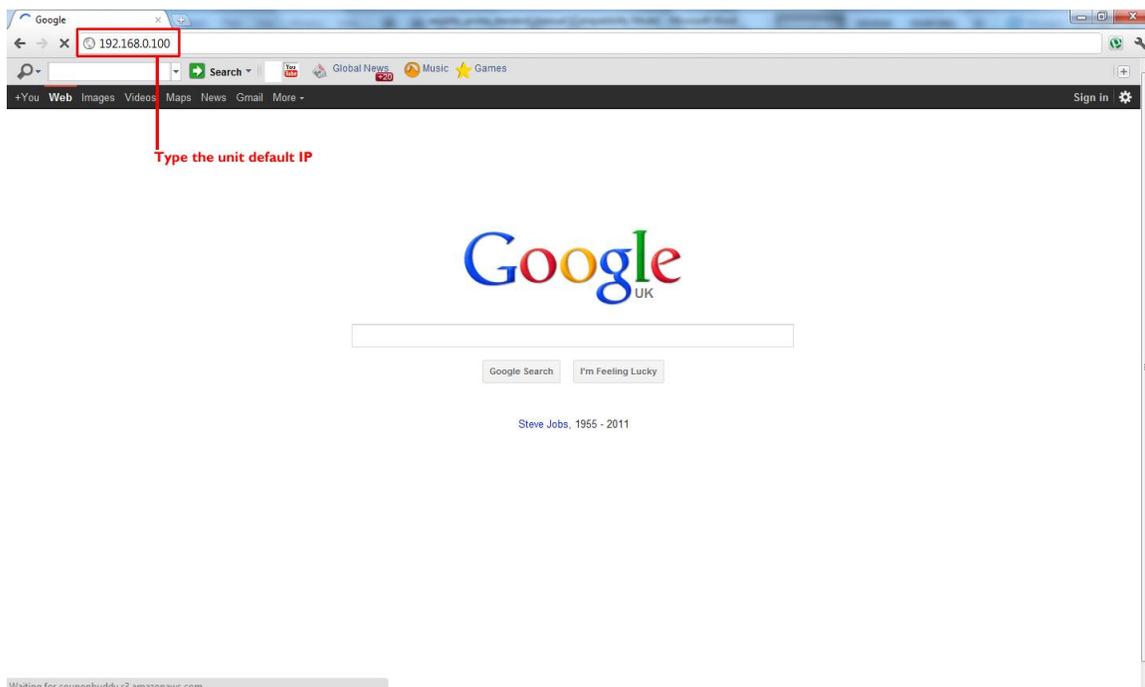
Every unit is shipped with the default IP address of **192.168.0.100** First we will go through the process of changing this IP address to fit your own network configuration.

Ensure the following items are available to you before starting:-

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 Ethernet port of the unit to your computers LAN or Ethernet port with a CAT5 crossover cable.

b) Open a web browser and type the default IP address, hit enter.



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 the appendix on how to setup this.

c) You will now be presented with the following screen. The default password for Admin is “public”. To make your unit secure and change the password.

AKCP securityProbe 5ES

Location: System Location Current System Time: 07/01/2000 13:06:25

Log In

Username Password Enter password and username here

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d) Next the home page will be displayed. It will look similar to this.

AKCP securityProbe 5ES

Location: System Location Current System Time: 01/01/2000 12:58:50

Summary | Map | Sound Log | Sensors | Notification | Access Control | **Settings** | Applications | Help

Summary Setting

Layout Setting

Sensor Filters

Sort by: Host Name

Advanced Filter

Display Status
 Display Sens or Type
 Display Host Name

Search:

Reload Sensor Interval: 10 secs

Syslog Filters

Host Name	Type	Sensor Name	Reading	Status
Main Module	Module	Main Module	-	Normal

Sensors status will be reloaded in 07 secs

System Log (2 messages)

1	2000/01/01 12:24:07	System power-on boot up		
2	1999/12/31 13:11:45	System power-on boot up		

System Log will be reloaded in 08 secs

Click the "Settings" tab

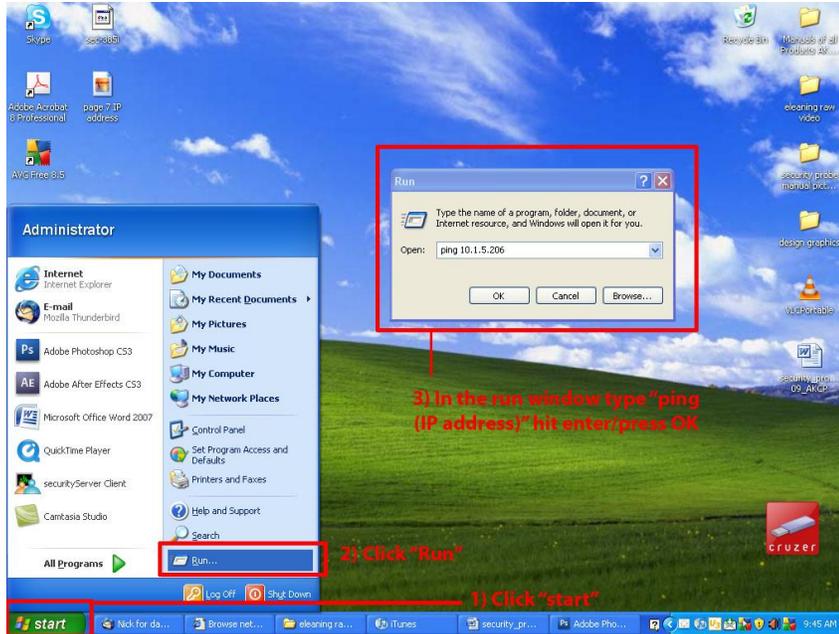
e) Click on "Ethernet network" from the list on the left frame of the page.

Please Note: Even though the screen shots included in this manual will display AKCP securityProbe 5ES, there are no differences between the securityProbe 5ES and the securityProbe 5ESV's web interface as they are shown. If or when there are differences, these will be pointed out.

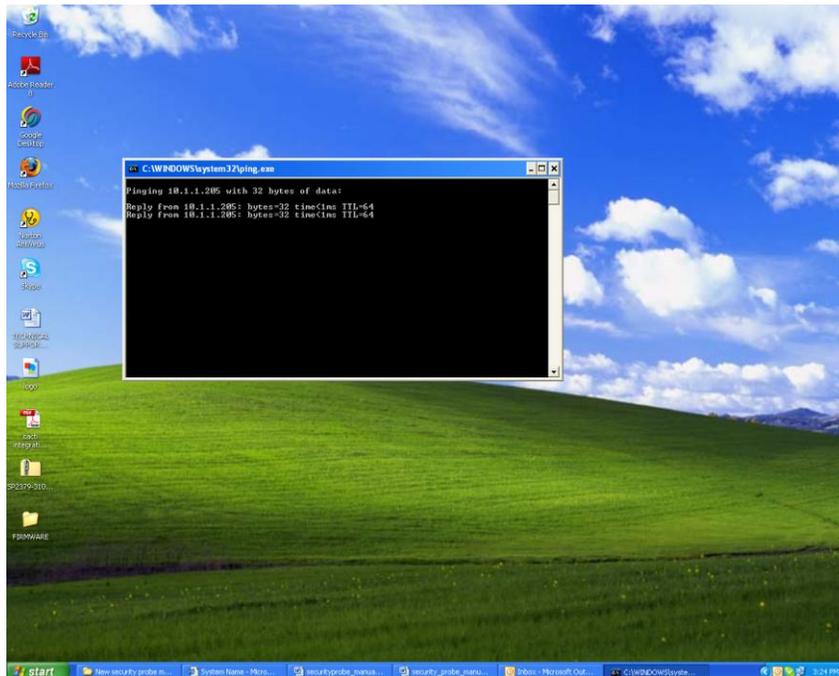
Note. The unit ships with DHCP disabled. If you wish to use a DHCP server to obtain the IP address then see the “Using DHCP” section of the FAQ>

2. Testing the new IP address with the “ping” command

Once you have assigned the new IP address use the “ping” command to test the unit. This can also be used as a diagnostic tool in order to check whether your unit is connected to the network.



After hitting “enter” you will get an MS DOS prompt window that will show the ping results (as below). If unsuccessful you will get a message saying “request timed out”. This indicates either an incorrect IP address or a unit that is not connected to the network.



3. Firmware upgrade

Ensure you are running the latest firmware. You will also need to download the latest firmware from our website (<http://www.akcp.com/company/firmwareupdate.htm>). Log into our webpage using your MAC address, this is found on a sticker on the base of the unit. After the download navigate back to the web based interface (units IP address. This manual will refer to the DEFAULT IP address, 192.168.0.1 you need to substitute this for your own IP address if you have changed it)

Please Note: The firmware file used for the securityProbe 5ESV is the same file used to update the securityProbe 5ES units as it uses the same iMX25 processor.

This tutorial provides you the information needed to upgrade the firmware.

To get to the starting point of this tutorial:

- Log in as administrator
- Click on the settings tab

AKCP securityProbe 5ES

Location: System Location Current System Time: 01/01/2000 12:59:50

Summary Map Sound Log Sensors Notification Access Control **Settings** Applications Help

Summary Setting

Layout Setting

Sensor Filters

Sort by: HostName

Advanced Filter

Display Status
 Display Sensor Type
 Display Host Name

Search:

Apply Filter Clear Filter

Expand All Modules Collapse All Modules

Reload Sensor Interval: 10 secs. Apply

Syslog Filters

Host Name	Type	Sensor Name	Reading	Status
Main Module	Module	Main Module	-	Normal

Sensors status will be reloaded in 07 secs

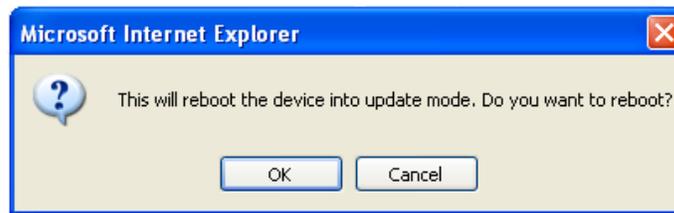
System Log (2 messages)

1	2000/01/01 12:24:07	System power-on boot up
2	1999/12/31 13:11:45	System power-on boot up

System Log will be reloaded in 08 secs

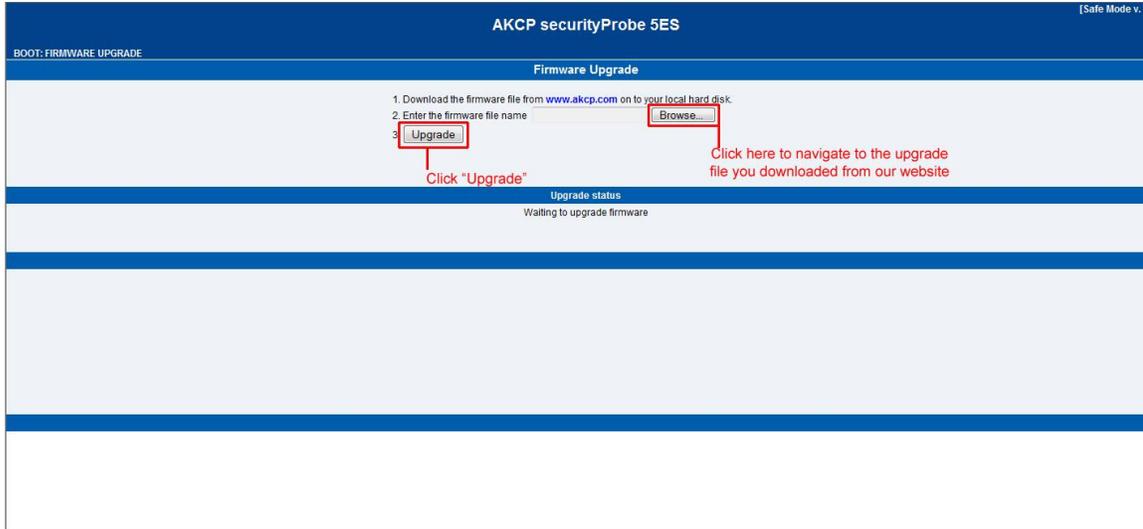
Click the "Settings" tab

Go to the Settings page then >> System Administrator >> System Maintenance >> System Firmware Upgrade Click on the "Upgrade" button, this will reboot the unit into "safe" mode, or "upgrade" mode.



Click OK.. After reboot you will be redirected to the safe mode web interface. This can take some time, so please be patient. The page will display the following message while rebooting

Once the unit has rebooted you will be viewing the following page. Follow these instructions.



After clicking Next, you can browse to the firmware update file (xxxxxx.bin) and click on the "Upgrade" button on the Firmware Upgrade screen.

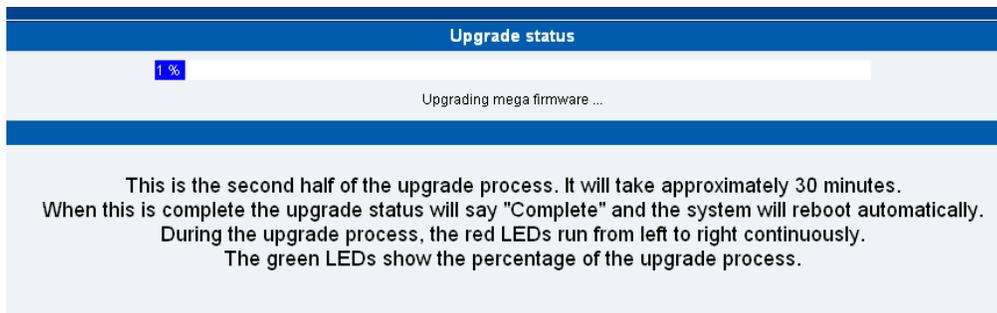
After clicking the Upgrade button, the unit will appear to sit and do nothing, please be patient. If you can see the "Elapsed Time" is still running and in the lower left hand corner of your browser you will see the "Sending Request" notices this means the first half of the update process is working properly.

The second half of the update will begin in roughly 7 to 10 minutes. This will show the upgrade process bar and the percentage that has completed.

You will notice the RED sensor LED's on the front of the unit will be moving from left to right very quickly.

When the unit finishes updating, it will boot back to normal mode and the web interface will refresh back to normal after roughly 3 minutes.

You can check to be sure the unit has been upgraded by checking the version on the Settings Page >> General >> System Description



The unit will then reboot. The process is complete when the LED's are back to their "normal" status.

Please Note: If the unit gets disconnected from the AC power or something else occurs during the firmware update to cause this from not being completed the unit should boot back to normal mode after leaving it powered on (NOT PUSHING THE SAFE MODE BUTTON ON THE BACK OF THE UNIT) and left alone for 30 minutes.

If the unit does not boot back to normal mode or remains with the LED's circling in a counter clockwise rotation after 30 minutes the unit is most likely stuck in safe mode.

If this is the case please **DO NOT CONTINUE TO PRESS THE SAFE MODE BUTTON ON THE BACK OF THE UNIT. This will only continue to keep the unit stuck in safe mode.**

If the unit does not boot back to normal mode after leaving powered on for 30 minutes then perform the following steps;

Firmware Update Mode Using LinuxIPSet

Note: Please always try to use the web interface when upgrading the firmware on the units, but if you are not able to access the web interface then use the LinuxIPSet.

Getting the unit unstuck or back to normal mode;

- #1. Power OFF your device.
- #2. Connect your securityProbe via crossover cable directly to your computer's network interface card.
- #3. Reconfigure your network interface card's TCP/IP settings (IP Address: 192.168.0.2, Subnet Mask: 255.255.255.0, Default Gateway and DNS: Leave them blank)
- #4. Make sure that firewall programs are temporarily turned OFF or make an exception for InuxIPSet5.8.1.exe.
- #5. Run InuxIPSet5.8.1.exe which can be accessed from your product CD, or found within the firmware update compressed file.
- #6. Click the "Firmware Upgrade" option mode in the LinuxIPSet.
- #7. While pressing and holding in the reset button, power ON the unit. Remember not to let go until you see the text in the LinuxIPSet (Received a request of 'kernel-pxa.img' from 192.168.0.100).
- #8. Check the Link LED. It should turn ON. Wait for the green bar to appear in the LinuxIPSet after a minute or two.
- #9. Click on this bar to access the device's web interface and start uploading the new firmware to the SD card or to the unit is this is a 5ES.

Note: If your web browser displays "404 not found" or "page cannot be displayed" errors then try pasting <http://192.168.0.100/index2.html> directly to your browser's address bar.

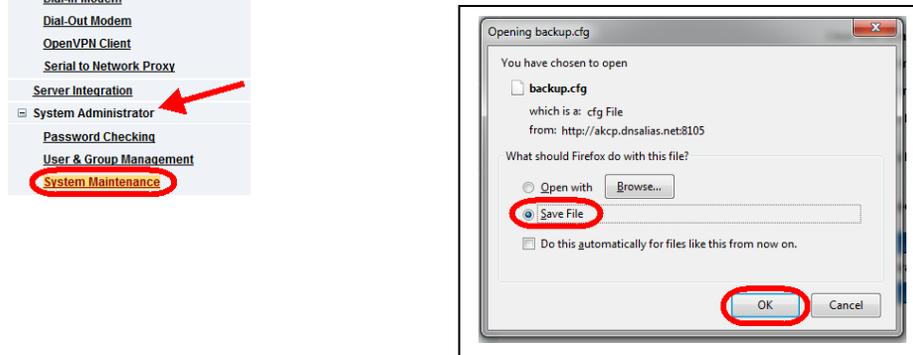
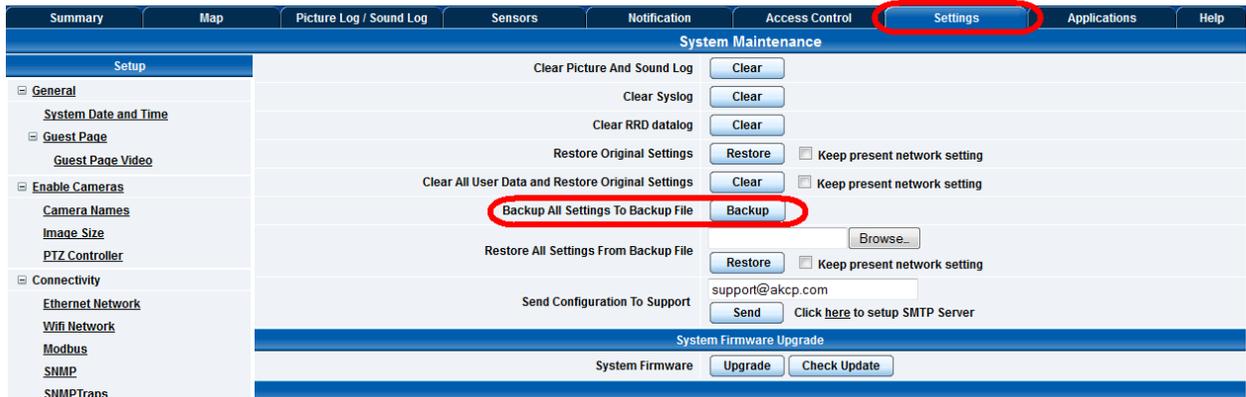
Note: If you still have a problem with the upgrade or the unit please contact AKCP support at support@akcp.com

Creating A Backup Configuration File

Keep in mind the after you set up your securityProbe unit and have all the settings and alerts completed you can create a backup configuration file. This file will contain the configuration of the units settings and also the sensor settings and notification alerts.

These backup configuration files can be loaded on other units as long as they are the same basic type. For example you can load a backup config file from a securityProbe 5E onto a securityProbe 5ES unit. You can also use the probeManager utility to push out the same configuration file to multiple units on your network simultaneously.

However it is not recommended to load a backup file from a securityProbe 5ES or 5ESV unit to a securityProbe 5ES-X20 or X60 or a 5ESV-X20 or X60 unit.



To create your backup config file, you first need to log in to the unit as an Administrator, then navigate to the Settings page >> System Administrator >> System Maintenance then click on the “Backup” button as shown in the screen shot above.

You will then browse to where you would like to store the backup file on the PC, making sure the Save is chosen then clicking the OK button.

You can restore this or another backup file using the Restore All Settings From Backup File.

4. Multi-users and groups setup

Login to the securityProbe or securityProbe 5E with the Administrator password, the default will be “public” if you have not changed this yet.

Click on the Settings page, then System Administrator then User & Group Management as shown in the screen shot below:

Note: The following screen shots may appear small and hard to read. Please use the zoom feature in your PDF reader program to increase the size of the page to better view these screen shots.

Group Setup

AKCP securityProbe 5ES

Location: System Location

Summary | Map | Sound Log | Sensors | Notification | Access Control | **Settings** | Applications | Help

Setup

- General
- Connectivity
- Server Integration
- System Administrator
- Password Checking
- User & Group Management**
- System Maintenance
- Services and Security
- System Log
- Heartbeat Messages

Help

This page allows enabling, creation and changing of the User and Admin password.

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This will take you to the Groups page shown below:-

AKCP securityProbe 5ES

Location: System Location

Summary | Map | Sound Log | Sensors | Notification | Access Control | **Settings** | Applications | Help

Setup

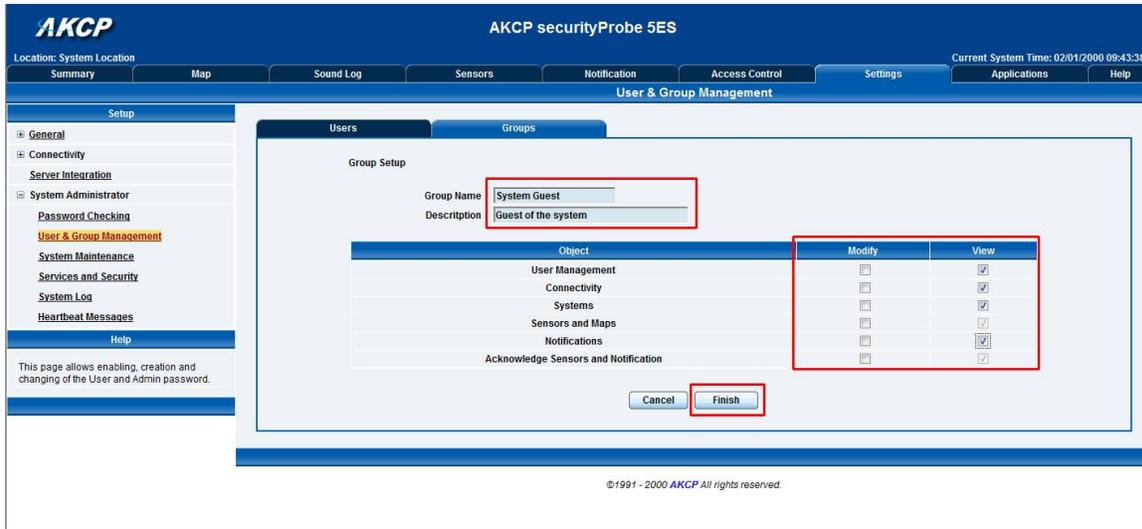
- General
- Connectivity
- Server Integration
- System Administrator
- Password Checking
- User & Group Management**
- System Maintenance
- Services and Security
- System Log
- Heartbeat Messages

Help

This page allows enabling, creation and changing of the User and Admin password.

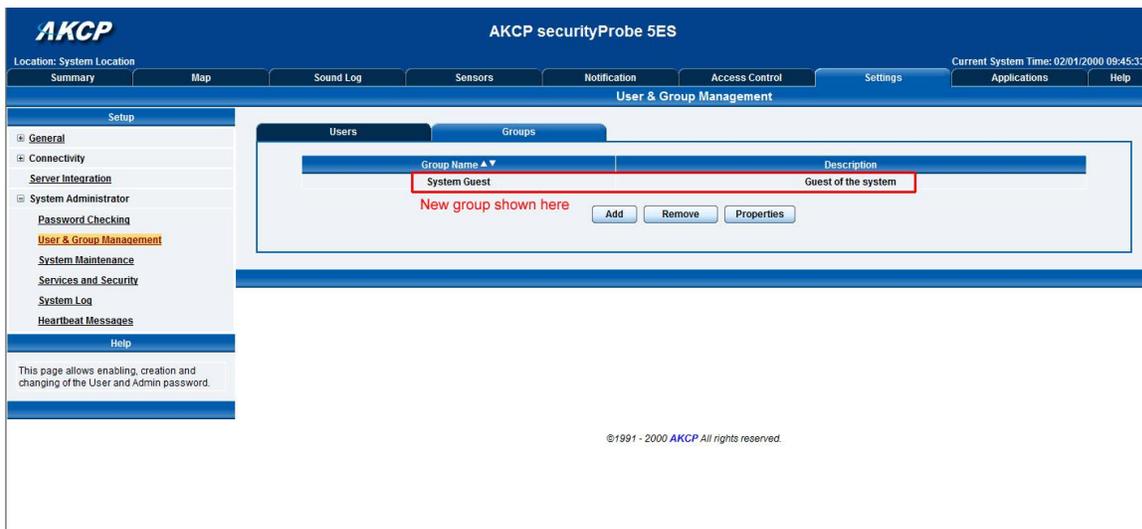
©1991 - 2000 AKCP All rights reserved.

Now click on the “Add” button to add your groups as shown in the screen shot above.



Enter your group name for example we have added a group named “System Guest” and entered our description.

Now check the objects within the web interface that this group will be able to Modify and View. Then click the “Finish” button to save your group.



Now you can see the new group “System Guest” has been added to our group list as shown in the screen shot above.

AKCP securityProbe 5ES

Location: System Location Current System Time: 02/01/2000 09:47:07

Summary Map Sound Log Sensors Notification Access Control Settings Applications Help

User & Group Management

Setup

- General
- Connectivity
- Server Integration
- System Administrator
 - Password Checking
 - User & Group Management**
 - System Maintenance
 - Services and Security
 - System Log
 - Heartbeat Messages
- Help

This page allows enabling, creation and changing of the User and Admin password.

Group Name ▲▼	Description
System Guest	Guest of the system

Add Remove **Properties**

After highlighting the group click "Properties" to modify settings

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If you wish to modify your group settings, highlight the group you wish to modify by clicking on it, then click on the "Properties" button as shown in the screen shot above.

User Setup

AKCP securityProbe 5ES

Location: System Location

Current System Time: 02/01/2000 09:48:52

Summary Map Sound Log Sensors Notification Access Control Settings Applications Help

Setup

General

Connectivity

Server Integration

System Administrator

Password Checking

User & Group Management

System Maintenance

Services and Security

System Log

Heartbeat Messages

Help

This page allows enabling, creation and changing of the User and Admin password.

Users Groups

User Name ▲▼	Group Name ▲▼	Description	Login session timeout (minutes)
Admin *	Administrator	Built-in account for administrator	60
User *	User	Built-in account for user	60

* Cannot remove.

Add Remove Properties

After selecting "Users" Click "Add"

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Click on the Users tab then click the “Add” button to add the new Users to your groups as shown above.

AKCP securityProbe 5ES

Location: System Location

Current System Time: 02/01/2000 09:54:49

Summary Map Sound Log Sensors Notification Access Control Settings Applications Help

Setup

General

Connectivity

Server Integration

System Administrator

Password Checking

User & Group Management

System Maintenance

Services and Security

System Log

Heartbeat Messages

Help

This page allows enabling, creation and changing of the User and Admin password.

Users Groups

User Setup

Enter the user name, password, description and then select the member of the group.

User Details

User Name: BobSmith

Password: *****

Confirm Password: *****

Description: Guest

Login session timeout (minutes): 60

Member of Group: System Guest

User Cannot Change Password

Goto Group Setup

Cancel Finish

Click "Finish" when you have completed your data entry

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Now enter your User details as shown above. In our example we have entered Bob Smith as our Guest into our “System Guest” group. We have also added the option so that this user cannot change his login password. After addition your users for each group click the “Finish” button to save each user.

AKCP securityProbe 5ES

Location: System Location Current System Time: 02/01/2000 09:57:16

Summary Map Sound Log Sensors Notification Access Control Settings Applications Help

User & Group Management

Setup

- General
- Connectivity
- Server Integration
- System Administrator
- Password Checking
- User & Group Management**
- System Maintenance
- Services and Security
- System Log
- Heartbeat Messages

Help

This page allows enabling, creation and changing of the User and Admin password.

User Name ▲▼	Group Name ▲▼	Description	Login session timeout (minutes)
Admin *	Administrator	Built-in account for administrator	60
User *	User	Built-in account for user	60
BobSmith	System Guest	Guest	60

* Cannot remove.

Add Remove Properties

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Now as you can see the new user has been entered into our list of Users.

AKCP securityProbe 5ES

Location: System Location Current System Time: 02/01/2000 09:58:18

Summary Map Sound Log Sensors Notification Access Control Settings Applications Help

User & Group Management

Setup

- General
- Connectivity
- Server Integration
- System Administrator
- Password Checking
- User & Group Management**
- System Maintenance
- Services and Security
- System Log
- Heartbeat Messages

Help

This page allows enabling, creation and changing of the User and Admin password.

User Name ▲▼	Group Name ▲▼	Description	Login session timeout (minutes)
Admin *	Administrator	Built-in account for administrator	60
User *	User	Built-in account for user	60
BobSmith	System Guest	Guest	60

* Cannot remove.

Add Remove **Properties**

After highlighting your user select "Properties" to modify settings.

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To modify a users setting, first highlight the user by clicking on it, then click the “ Properties” button as shown in the screen shot above.

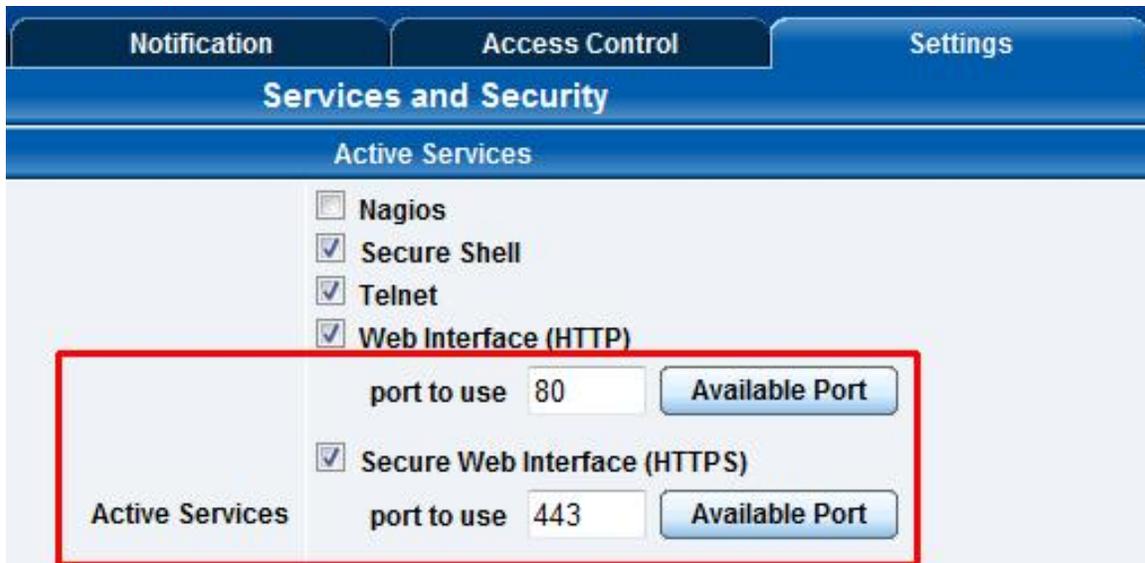
5. Services and Security

Active Services Application (disabling)



You can enable or disable the Nagios, Video Conferencing, Secure Shell and Telnet applications running on the unit thus making the unit more secure as shown in the screen capture above.

Closing or changing ports disabling HTTP and enabling HTTPS



You can also close or change the ports used to access the units web interface, disable HTTP and enable HTTPS only.

The "s" at the conclusion in HTTPS stands for secure. This SSL/TLS connection type is used primarily for high-value sites or 'pages', to elevate the potential of being unreadable by anyone but the end-points.

One benefit is the traffic between client and the securityProbe is not cached along the various units as it moves across the 'Net, and so can't be accessed by someone after the connection is terminated.

The SNMPv3 SSL security feature

The screenshot shows the 'Services and Security' configuration interface. It features three tabs: 'Notification', 'Access Control', and 'Settings'. The main heading is 'Services and Security', and the sub-heading is 'Active Services'. A list of services is shown with checkboxes: Nagios (unchecked), Secure Shell (checked), Telnet (checked), Web Interface (HTTP) (checked), Secure Web Interface (HTTPS) (checked), Simple Network Management Protocol Version 1 (SNMPv1) (checked), Simple Network Management Protocol Version 3 (SNMPv3) (checked), Serial to Network Proxy (ser2net) (unchecked), AKCess Pro Server Integration (checked), and Ethernet Watchdog (unchecked). For the Web Interface (HTTP) and Secure Web Interface (HTTPS), there are 'port to use' input fields (80 and 443 respectively) and 'Available Port' buttons. A red box highlights the 'Add Key' button and the two SNMPv3 checkboxes. At the bottom, there are 'Save' and 'Reset' buttons.

Use the SNMPv3 SSL (Secure Sockets Layer) which is the standard security technology for establishing the encrypted link between the securityProbe in our case and the web browser. This link ensures that all data passed between the securityProbe and the browser remains private and integral.

SNMPv3 provides important security features:

- * Confidentiality - Encryption of packets to prevent snooping by an unauthorized source.
- * Integrity - Message integrity to ensure that a packet has not been tampered with in transit.
- * Authentication - to verify that the message is from a valid source.



Active Security

Active Security	
Active Security	<input type="checkbox"/> Allow Users to Acknowledge Alarms
	<input checked="" type="checkbox"/> Announcement IP Address When Login
<input type="button" value="Save"/> <input type="button" value="Reset"/>	

In the Active Security section you can allow Users who are logged into the units web interface to “Acknowledge” alarms, which is normally reserved only for the Administrator.

When the unit boots up, it will announce the IP address that it has been configured with. As an added security feature this announcement can be disabled in the above screen shot, so that the IP address remains unknown.

The NAC or Network Access Control security feature

Network Access Control	
Network Access Control	<input type="radio"/> Off <input checked="" type="radio"/> On
Access Policy	<input checked="" type="radio"/> Only allow access to the host below <input type="radio"/> Only deny access to the host below
Allow List	<input type="text" value="Address"/> <input type="button" value="Add"/>
<input type="button" value="Save"/> <input type="button" value="Reset"/>	

The NAC or Network Access Control feature allows you to restrict access to the web interface for only certain IP addresses, or deny access to the web interface for only certain IP addresses.

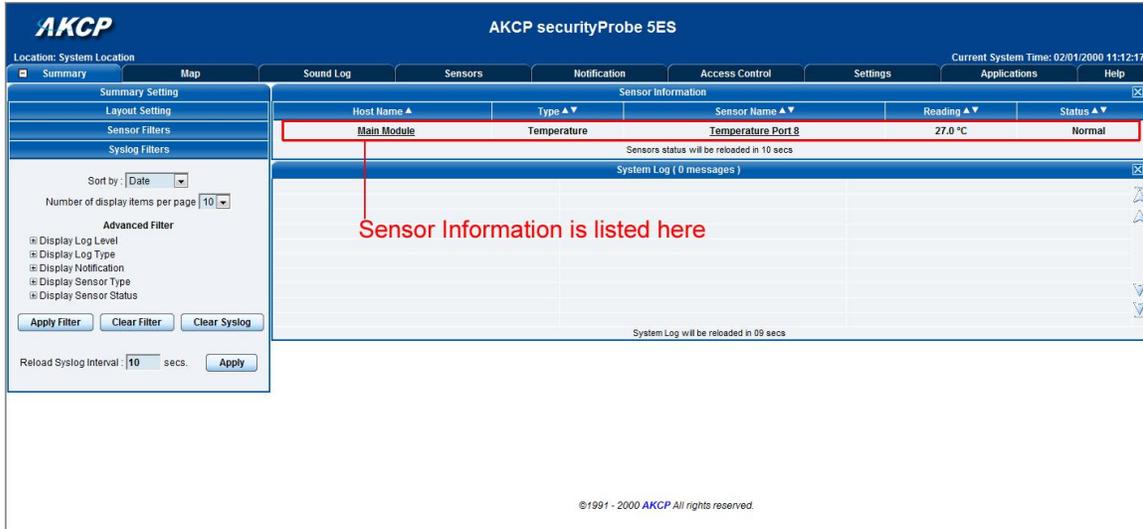
6. Setting up a sensor

In this section we will now go through the basic set up of a sensor. We will focus on the AKCP temperature sensor; however this basic set up process is applicable to all of our sensors. If you require information on specific functions of a particular sensor then please download the manual for that sensor from our website, or locate it on your product CD.

- Plug the sensor into one of the RJ45 “intelligent sensor ports” on the rear panel of the unit. In this example we will use port 1.



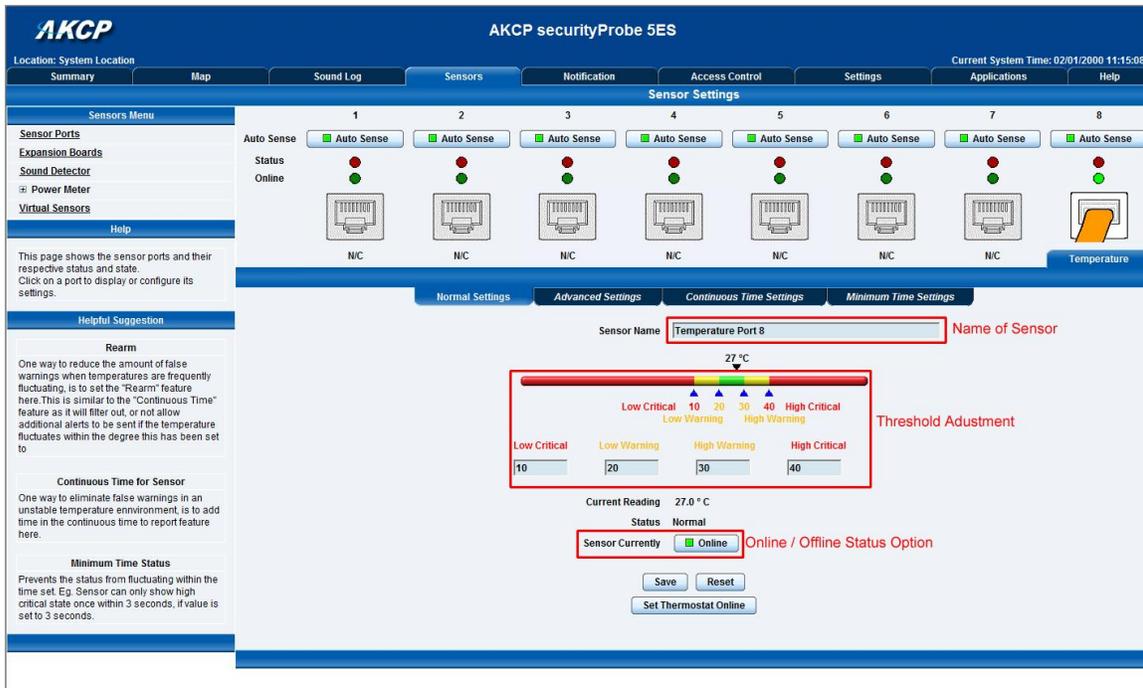
- Now point your browser to the IP address of the unit (default, 192.168.0.100). Next you need to login as the administrator using your administrator password (default is “public”). You will then be taken to the summary page. This is shown below.



The temperature sensor should be listed, along with its current reading and status. If this is not shown please see refer to the FAQ.

This summary page allows you to quickly see which sensors are connected, their status, view the system log, and also view footage from any connected cameras. We will now go through some of the tools the web based interface provides for getting feedback from the sensors.

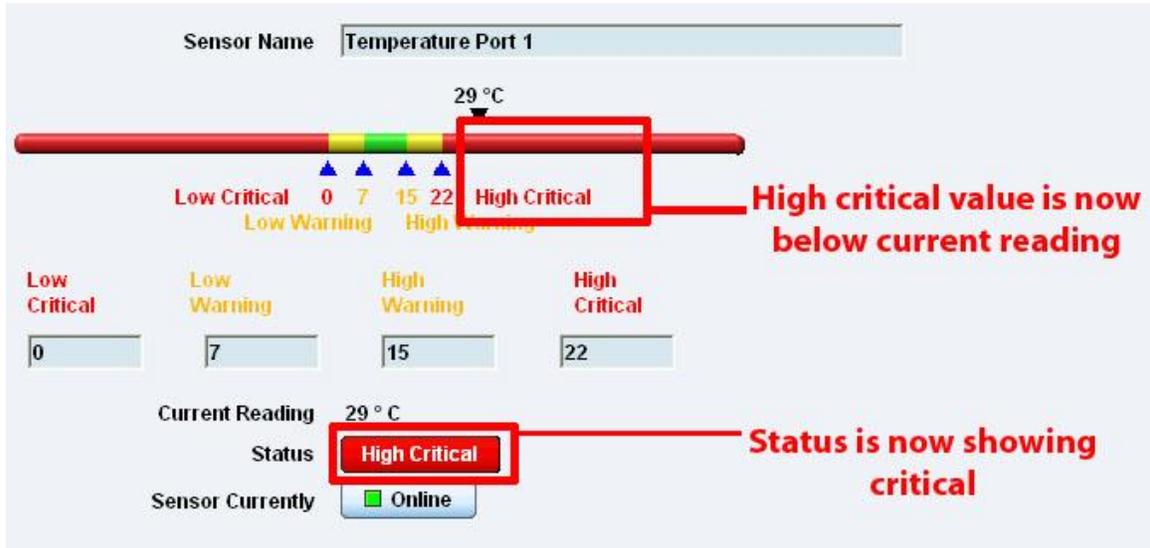
- c) Now click on the temperature sensors name (indicated in previous screen shot). This will bring you to the following page, the sensors page:-



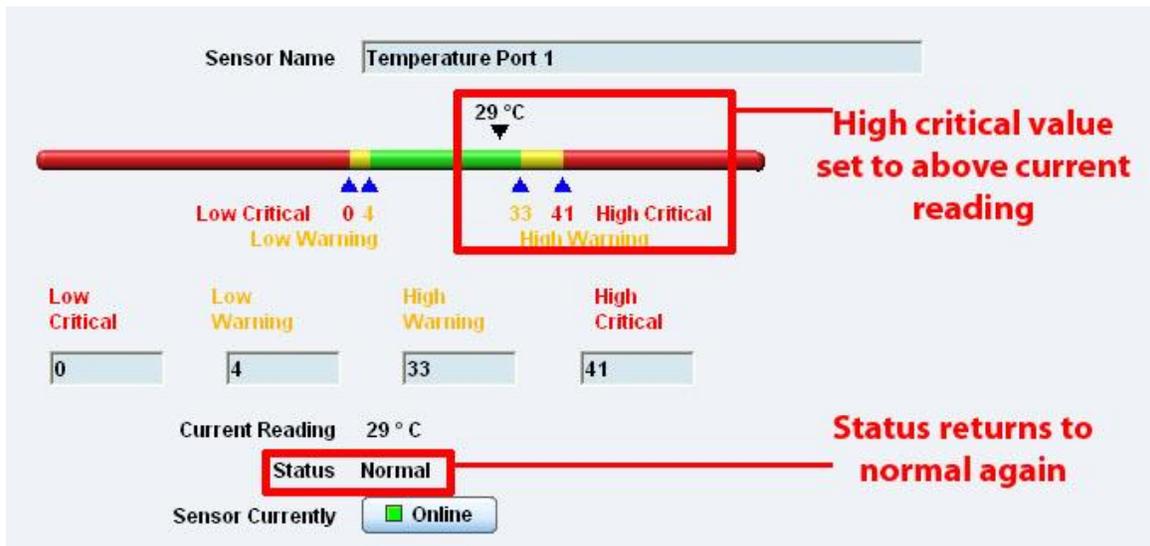
Note: another way of accessing this page is to click on the “sensors” tab at the top of the page.

I) Notification thresholds

From this page you can carry out various operations as indicated above. Also view the current status (normal, low critical, high critical etc). In the screen shot above you can see the sensor is indicating a temperature of 29 degrees F, and a status of Normal. If you click on the blue marker arrow indicated above by the “Set the required threshold” label you can drag this marker to re-configure the thresholds. After dragging the marker click “save” In the next screen shot you can see that this marker has been moved to make a new threshold, and along with it the sensor status has changed.



If the marker is then dragged back to above the current reading temperature you should see the status returns to a normal condition again. *Note: If this does not happen straight away press your browsers refresh button.*



If you wish to take a sensor offline then click on the “sensor currently” button. This will offline the sensor without the need for you to physically unplug it.

Current Reading 29 ° C
Status Normal
Sensor Currently **Online** Online **Click this button to take a sensor offline**

Now your page will look something like below after taking the sensor offline.

The screenshot shows the 'Sensor Settings' page for AKCP securityProbe 5ES. It features a navigation menu on the left and a main area with eight sensor ports (NIC). Each port has an 'Auto Sense' button and a status indicator. Port 8 is highlighted with a red box, and a red arrow points to a note: "The shaded sensor icon indicates that the sensor is offline".

To bring a sensor back online, select your sensor type from the drop down menu and click "save".

The screenshot shows the 'Sensor Settings' page with a dropdown menu open for port 8. The menu lists various sensor types, with 'Temperature' selected and highlighted by a red box. A red arrow points to the 'Save' button with the note "Click Save". Another red arrow points to the 'Temperature' option with the note "Select sensor from drop down menu".

Advanced sensor settings

By clicking on the Advanced Settings tab you will then see the advanced settings for the sensor.

The screenshot shows the AKCP securityProbe 5ES web interface. The top navigation bar includes 'Summary', 'Map', 'Sensors', 'Notification', 'Access Control', 'Settings', 'Applications', and 'Help'. The 'Sensors' tab is active, displaying a 'Sensor Settings' overview for 8 sensors. The 'Advanced Settings' tab for the 'Dual Temperature' sensor is selected and highlighted with a red circle. The configuration options are as follows:

- Units: Fahrenheit Celsius
- Rearm:
- Reading Offset:
- Data Collection Type:
- Display Style: Basic Style Gauge Style
- Check rate of change: Enable Disable
- Enable Graph: On Off
- Enable Calendar: On Off

Buttons for 'Save', 'Reset', and 'Set Thermostat Online' are located at the bottom of the configuration panel.

Advanced mode functions

This close-up view shows the 'Units' configuration section of the 'Advanced Settings' tab. The 'Units' label and the 'Celsius' radio button are circled in red. The configuration options are:

- Units: Fahrenheit Celsius
- Rearm:
- Reading Offset:
- Data Collection Type:
- Display Style: Basic Style Gauge Style
- Check rate of change: Enable Disable
- Enable Graph: On Off

Units: changes units from C to F or vice versa

Rearm:

The screenshot shows the 'Dual Temperature' settings page with the 'Advanced Settings' tab selected. The 'Rearm' field is highlighted with a red circle and contains the value '2'. Other settings include: Units (Celsius selected), Reading Offset (0), Data Collection Type (Average), Display Style (Basic Style selected), Check rate of change (Disable selected), and Enable Graph (Off selected).

The Rearm parameter is useful for sensors whose values can vary such as the temperature and humidity sensors.

It is used to prevent the sensor from flickering between two states. For example if the **Warning High** 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 value 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 **Warning High** back to normal.

Reading Offset:

The screenshot shows the 'Dual Temperature' settings page with the 'Advanced Settings' tab selected. The 'Reading Offset' field is highlighted with a red circle and contains the value '0'. Other settings include: Units (Celsius selected), Rearm (2), Data Collection Type (Average), Display Style (Basic Style selected), Check rate of change (Disable selected), and Enable Graph (Off selected).

The Reading Offset feature is a calibration tool. If you wish to calibrate the temperature sensor, for example, you could enter an offset value of 5. This would mean if the sensor reads 20 degrees then it would record as 25 degrees. This figure can also be a minus figure (e.g. -5 would show 15 degrees instead of 20)

Data Collection Type:

Dual Temperature ▾

Normal Settings
Advanced Settings
Continuous Time Settings
Minimum Time Settings

Units Fahrenheit Celsius

Rearm

Reading Offset

Data Collection Type

Display Style Basic Style Gauge Style

Check rate of change Enable Disable

Enable Graph On Off

Popup Windows on Sensor Name

Sensors URL

Open link in Current Windows New Windows

Filter Status Enable Disable

Enable Calendar On Off

This refers to the data collection from the sensor and how the data is then displayed on the graphs.

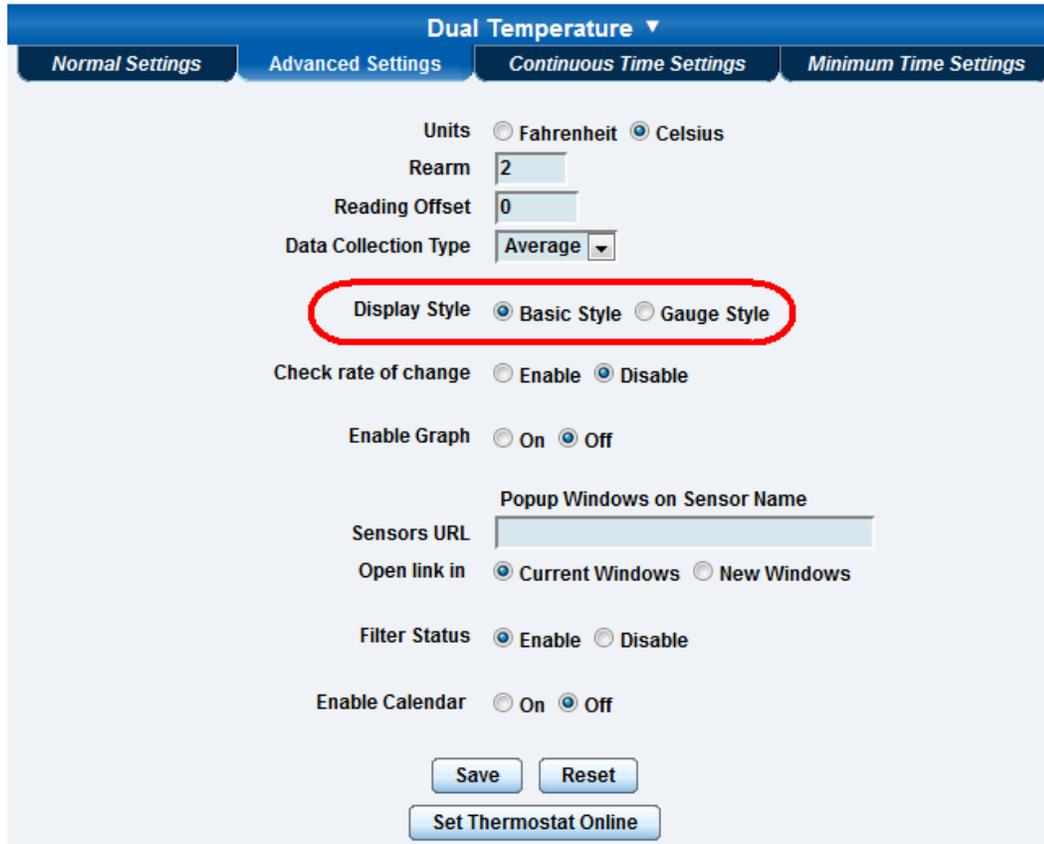
There are three options for the collection of data. Average, Highest and Lowest. The default setting is "Average".

When the data collection type is set to "Average" the output graphs for the daily, monthly, and yearly all have the same size on the screen. For the daily graph, each data point on the graph is one data point collected from the sensor. But for the monthly and yearly graph, in order to display more data into the same size as the daily graph, some consolidation on the data is needed. One data point on the monthly and yearly graph is an average of the sensor data in a range.

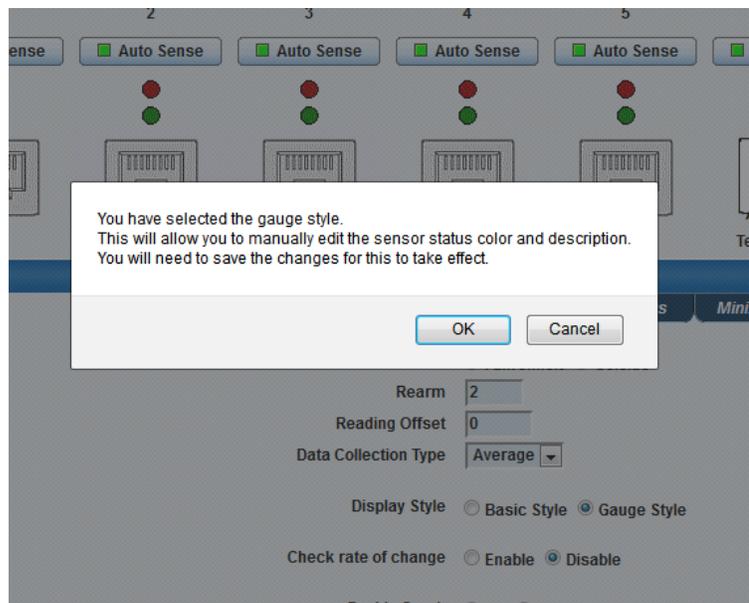
The maximum and minimum values showing on the monthly and yearly graphs are the value of this consolidated data and not the raw data over that period of that time.

When the Data Collection Type is set to the Highest setting then you will get the graphing output displaying the sensors highest reading. This is the same for the Lowest setting.

Display Style:



You can keep the sensors “Display Style” in the web interface as the Basic Style which will be the slide bar type or you can change it to the “Gauge Style” type.

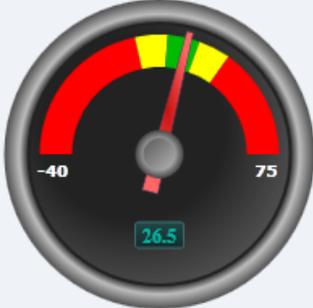


When switching to the Gauge Style type you will first be prompted with the pop up dialog box show above.

Dual Temperature ▾

Normal Settings
Advanced Settings
Continuous Time Settings
Minimum Time Settings

Sensor Name



26.5

Low Critical

40

Low Warning

10

Normal

20

High Warning

30

High Critical

40

75

Current Reading 26.5 °C

Status Normal

Sensor Currently Online

You will now see the new display where you can set the sensors threshold levels as shown above.

Dual Temperature ▾

Normal Settings
Advanced Settings
Continuous Time Settings
Minimum Time Settings

Units Fahrenheit Celsius

Rearm

Reading Offset

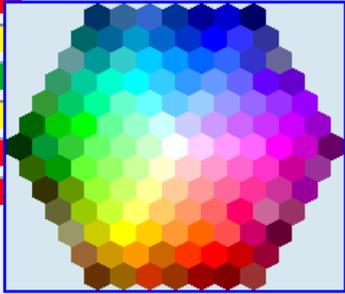
Data Collection Type

Display Style Basic Style Gauge Style

Advanced Status Text and Color

Low Critical	
Low Warning	
Normal	
High Warning	
High Critical	
Sensor Error	

Enable Disable



After clicking on the “Advanced Settings” tab, you can change the text and colors for each sensor threshold as shown in the screen shot above.

Check rate of change:

Dual Temperature ▾

Normal Settings **Advanced Settings** *Continuous Time Settings* *Minimum Time Settings*

Units Fahrenheit Celsius

Rearm

Reading Offset

Data Collection Type ▾

Display Style Basic Style Gauge Style

Check rate of change Enable Disable

Maximum acceptance of change ▾ %

Period of time ▾ minutes

Direction ▾

Status when exceeds limit ▾

Enable Graph On Off

When enabling the “check rate of change” feature for this sensor, you can set the rate in a percentage from 1% to 50% over a period of time from 1 to 20 minutes. You can set the direction to Up, Down, or Both and you can set the Status when the limit is exceeded to show either High Critical or Low Critical.

Now you can tie this sensor alert to any notification. This feature is ideal for our Ultrasonic Fuel Level Sensor to prevent theft of fuel or be alerted to leaks in storage tanks for example.

Graphing Sensor Data:

The screenshot shows the configuration interface for a Dual Humidity sensor. At the top, there are four tabs: 'Normal Settings', 'Advanced Settings', 'Continuous Time Settings', and 'Minimum Time Settings'. The 'Advanced Settings' tab is selected. The settings include:

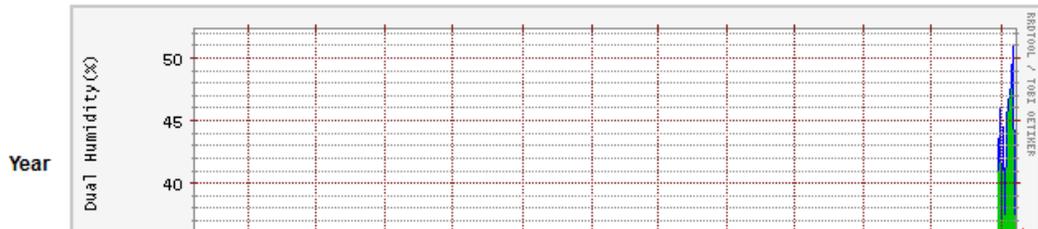
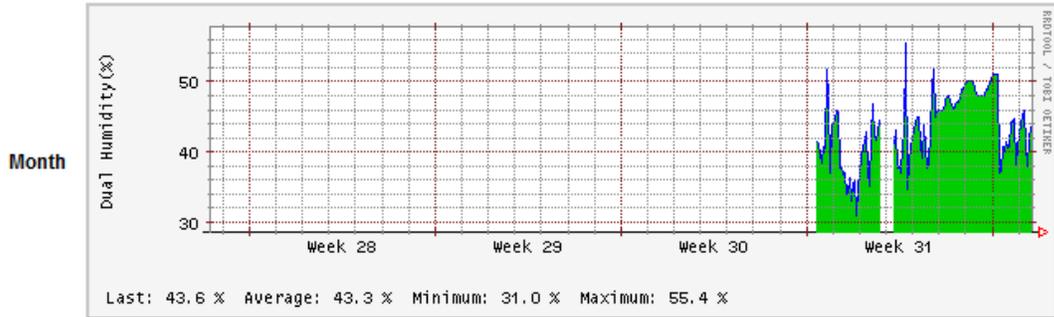
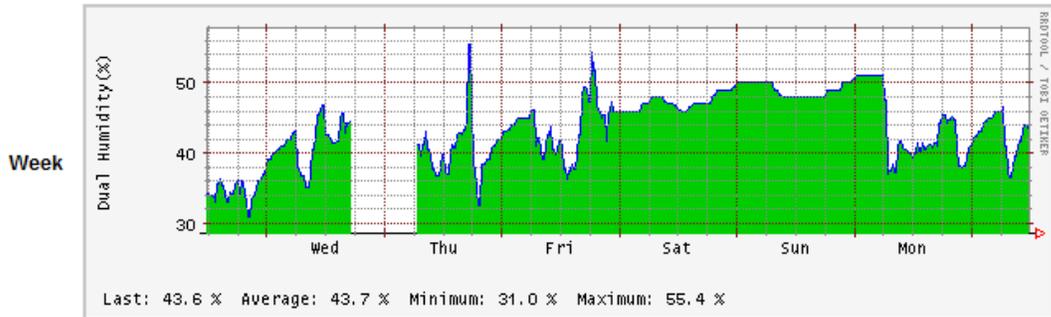
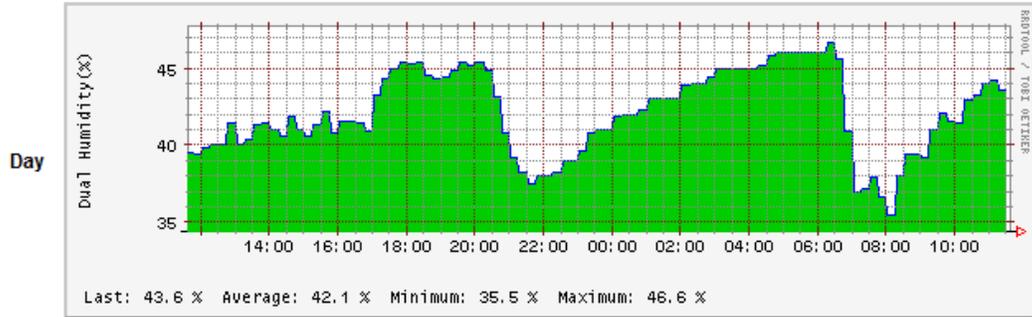
- Rearm: 5
- Data Collection Type: Average
- Reading Offset: 0
- Display Style: Basic Style (selected), Gauge Style
- Check rate of change: Enable, Disable (selected)
- Enable Graph: On (selected), Off. A red circle highlights this section, and a link 'Click here to view graph' is visible below it.
- Popup Windows on Sensor Name: (empty field)
- Sensors URL: (empty field)
- Open link in: Current Windows (selected), New Windows
- Filter Status: Enable (selected), Disable
- Enable Calendar: On, Off (selected)

At the bottom, there are 'Save' and 'Reset' buttons.

In order to save the data from the sensors on the securityProbe 5ESV you will need to enable the Graphing feature on the unit. You need to change the Enable Graph to the On position and click on the Save button to enable the graphing.

Auto Refresh (Minutes)

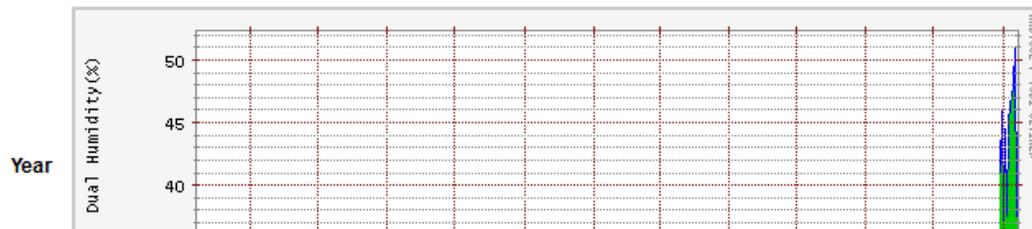
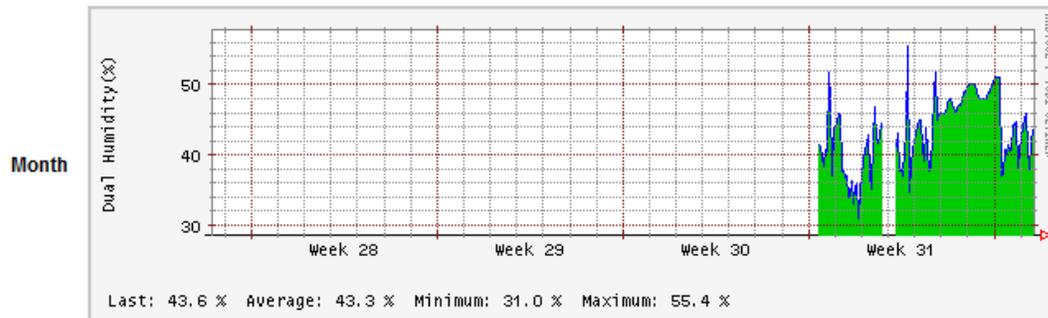
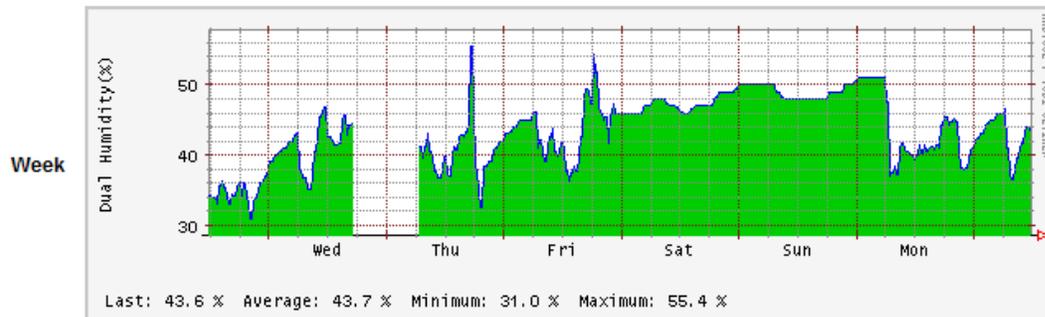
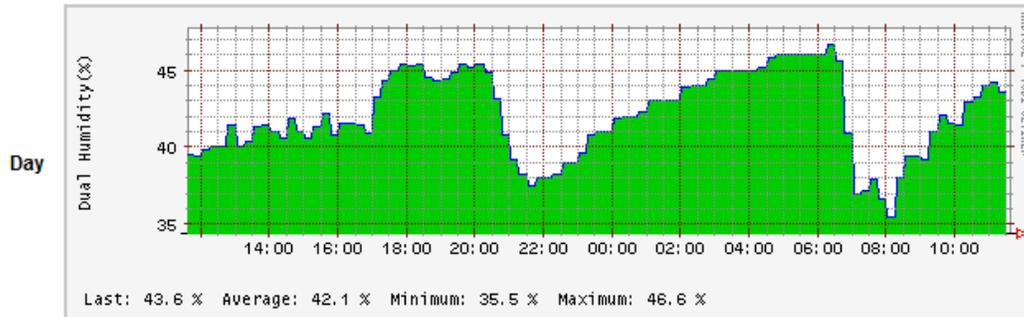
Last Update: 7/8/2012 11:36:11



After clicking on the “Click Here to View Graph” link shown in the screen shot on the previous page you will then see the graphs for the sensor.

Auto Refresh (Minutes)

Last Update: 7/8/2012 11:36:11

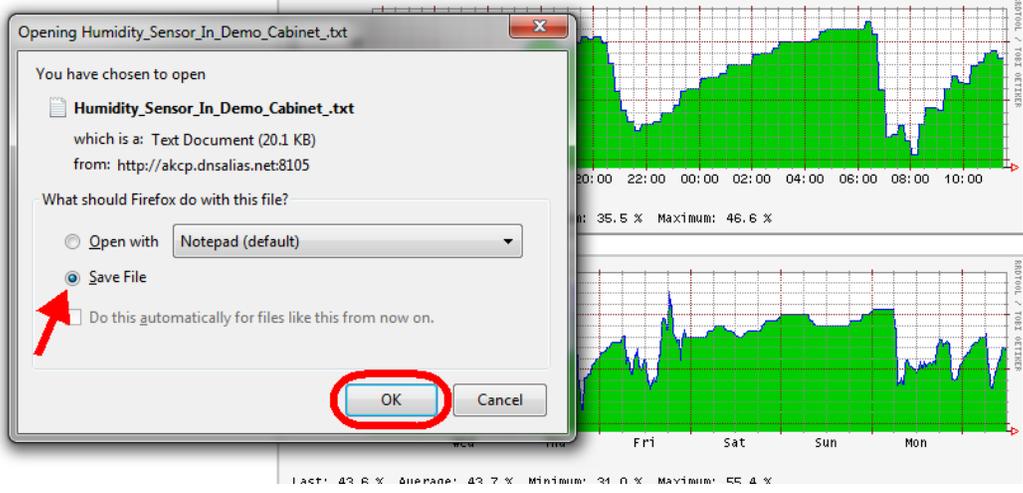
 

You can download the sensor data to a text file by clicking on the Download Data button shown in the screen shot above.

Auto Refresh (Minutes) 0 Start

Last Update: 7/8/2012 11:36:11

Graph Option Download Data Clear Data

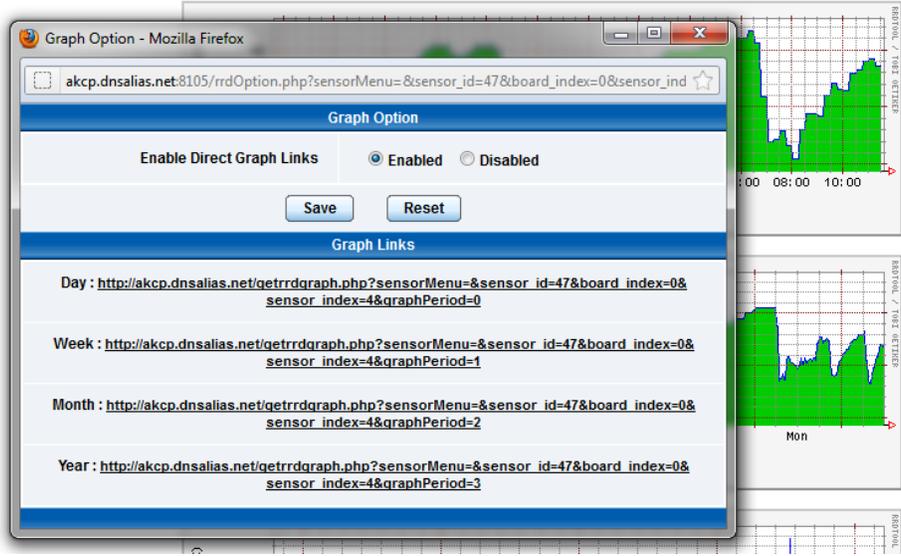


Which will display the pop up box as shown in the screen shot above.

Auto Refresh (Minutes) 0 Start

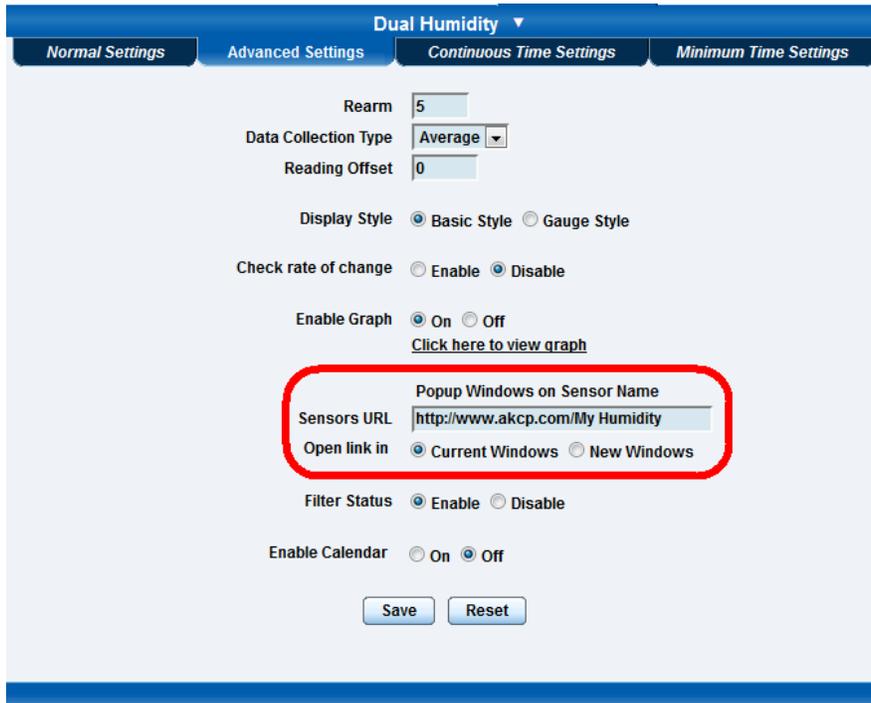
Last Update: 7/8/2012 11:36:11

Graph Option Download Data Clear Data



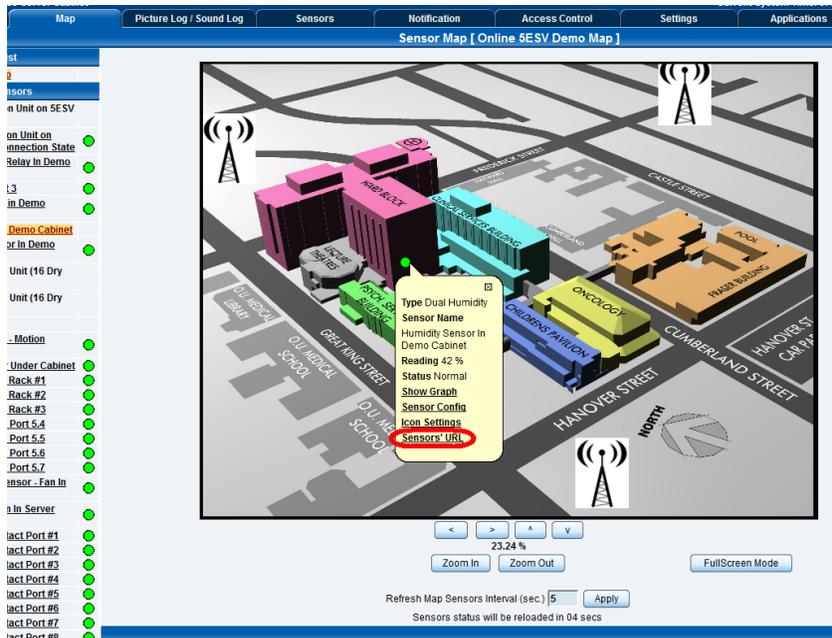
You can also set the Graph Options by clicking on that button then Enabling the graphing page URL's as shown in the screen shot above.

Sensors URL:



The Sensors URL feature in the Advanced Settings tab is the optional Hyperlink URL for each sensor.

What this feature does is allow you to add a Hyperlink to a sensor, then this link will be displayed in the securityProbe 5ESV's mapping feature for that sensor (see the screen shot below) that you can then click on to follow the link to say a picture on the web of where the sensor is exactly or whatever you wanted to link to.



Sensor Filter Status:

Dual Humidity ▾

Normal Settings | **Advanced Settings** | **Continuous Time Settings** | **Minimum Time Settings**

Rearm

Data Collection Type

Reading Offset

Display Style Basic Style Gauge Style

Check rate of change Enable Disable

Enable Graph On Off
[Click here to view graph](#)

Popup Windows on Sensor Name

Sensors URL

Open link in Current Windows New Windows

Filter Status Enable Disable

Enable Calendar On Off

The Sensor Filter Status is a feature that you can Enable or Disable and when enabled will check the sensor status. If the status of the sensor changes very rapidly, then it will report how many times the sensor status changed, instead of having 36 separate entries in the syslog entry.

For example this will report the changes and status once as shown below. Sensor Temperature port 1 status was Error 3 Times, Normal 2 Times. This reduces the writing to the flash and improves performance.

Enable Calendar: If you select this option then the following will be displayed:-

Enable Calendar On Off — Status set to on

All	AM											PM											
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10
Sunday																							
Monday																							
Tuesday																							
Wednesday																							
Thursday																							
Friday																							
Saturday																							

Toggle Working Hours

Report Do Not Report

To Clear/Set, Click Hour, Day, AM, PM, All.
 To Clear/Set the Whole Hour, Click a Cell.
 To Select a Minute, Right Click a Cell; Mouse Over will display minute offset.

Save Reset

Set Thermostat Online

In our example we wish to monitor an office building between the hours of 7 PM – 9 AM Monday – Friday only. You can see in this picture we have selected the “Do Not Report” option for the hours in which we do not wish to receive any notifications or have any events logged. You change the status of that time frame (Report / Do Not Report) by simply clicking on the square. This will change it from blue to grey, a second click will return it to blue.

Enable calendar On Off

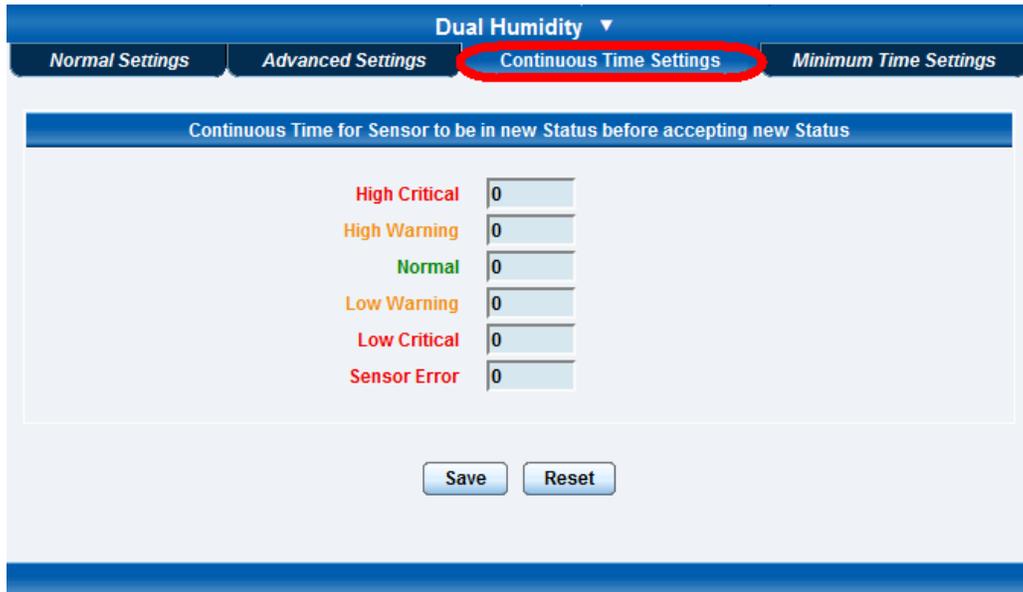
All	AM											PM											
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10
Sunday																							
Monday																							
Tuesday																							
Wednesday																							
Thursday																							
Friday																							
Saturday																							

Toggle Working Hours

Report Do Not Report

To Clear/Set, Click Hour, Day, AM, PM, All.
 To Clear/Set the Whole Hour, Click a Cell.
 To Select a Minute, Right Click a Cell; Mouse Over will display minute offset.

Continuous Time Settings Tab



Continuous Time for Sensor to be in new Status before accepting new Status	
High Critical	0
High Warning	0
Normal	0
Low Warning	0
Low Critical	0
Sensor Error	0

Save Reset

The following advanced functions are for setting the time frame in which the system should delay a notification being triggered when a sensor gives a reading that exceeds the thresholds (high warning, normal, etc).

Continuous Time to Report High Critical: This helps to eliminate unnecessary messages during minor fluctuations. You can set the amount of time to delay a notification of a status change from high warning to high critical. Enter the time in seconds and press the “Save” button. The amount of time that can be entered is between 0 and 65535 seconds which equals approximately 18 hours

Continuous Time to Report High Warning: As above but delays notification for “High Warning”

Continuous Time to Report for Normal: As above but delays notification for return to “Normal” state

Continuous Time to Report for Low Warning: As above, but delays notification for “Low Warning” state.

Continuous Time to Report for Low Critical: As above but delays notification for “Low Critical” state.

Continuous Time to Report for Sensor Error: As above, but delays notification being sent for sensor going into an error state.

Example: An airflow sensor or humidity sensor may have temporary drops in readings which are normal operating characteristics; a logical time limit is set to show abnormal conditions.

Minimum Time Settings Tab

Minimum Time Status Prevents the status from fluctuating within the time set. For example, a sensor can only show high critical state once within 3 seconds, if value is set to 3 seconds.

Using internal Mic as a sound detection sensor

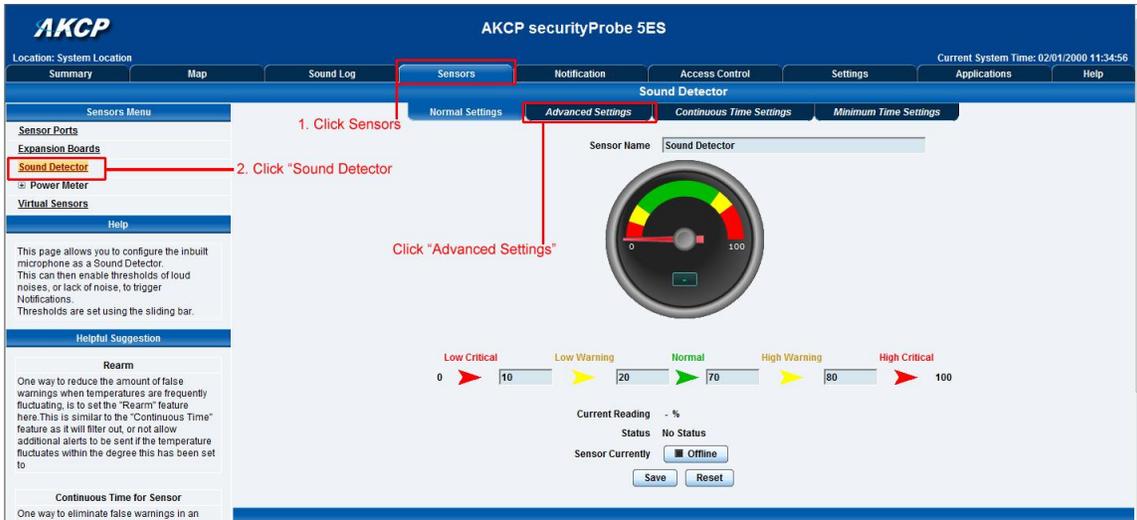
The internal microphone (or an external plugged into the line in jack) can be used as a sound detector.

This tutorial provides you the information needed to setup the internal Mic as a sound detection sensor.

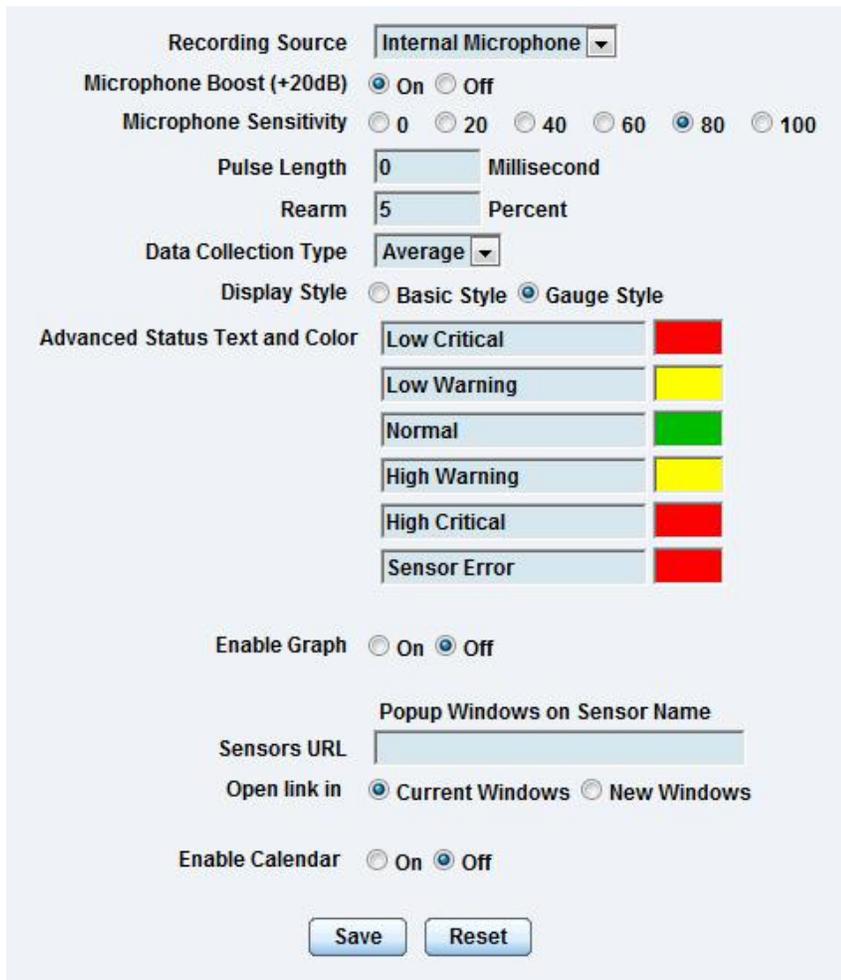
To get to the starting point of this tutorial:

- Log into the web based interface
- Click on the sensors tab

a) First navigate to the correct page in the web interface.



b) When you have clicked on the advanced settings tab you will see the advanced options presented to you.



Now lets look at what each of these settings does:-

Recording Source: Here you can choose either internal or external microphone.

Microphone boost (+20dB): Boosts the microphone by 20 dB

Microphone Sensitivity: The level of sensitivity that can be set. For example, if you set the level to 80, then the microphone will detect more sound if the level was set a 20.

Pulse Length: This defines the minimum duration of a sound to trigger an alert notification.

Rearm: The Rearm parameter is used to prevent the sensor from flickering between two states. For example if the **Warning High** threshold for the sound sensor is set to 80 and the sensor was to vary between 79 and 80, a very large number of emails, traps, and events would be logged. The Rearm parameter prevents this by forcing the signal level to drop by the Rearm value 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 **Warning High** back to normal.

Data Collection Type: There are 3 settings for this parameter: lowest, highest, and average. Data will be collected for the lowest, highest, or average sound reading accordingly.

Display Style: Here you can choose the gauge style, or the classic bar style gauge.

Advanced Status Text and Color: Here you can select to change your display text and warning colors.

Note: As for all the other sensors you can now set up the sound detector to be attached to a notification. Then when your thresholds are broken it will trigger a specified type of notification.

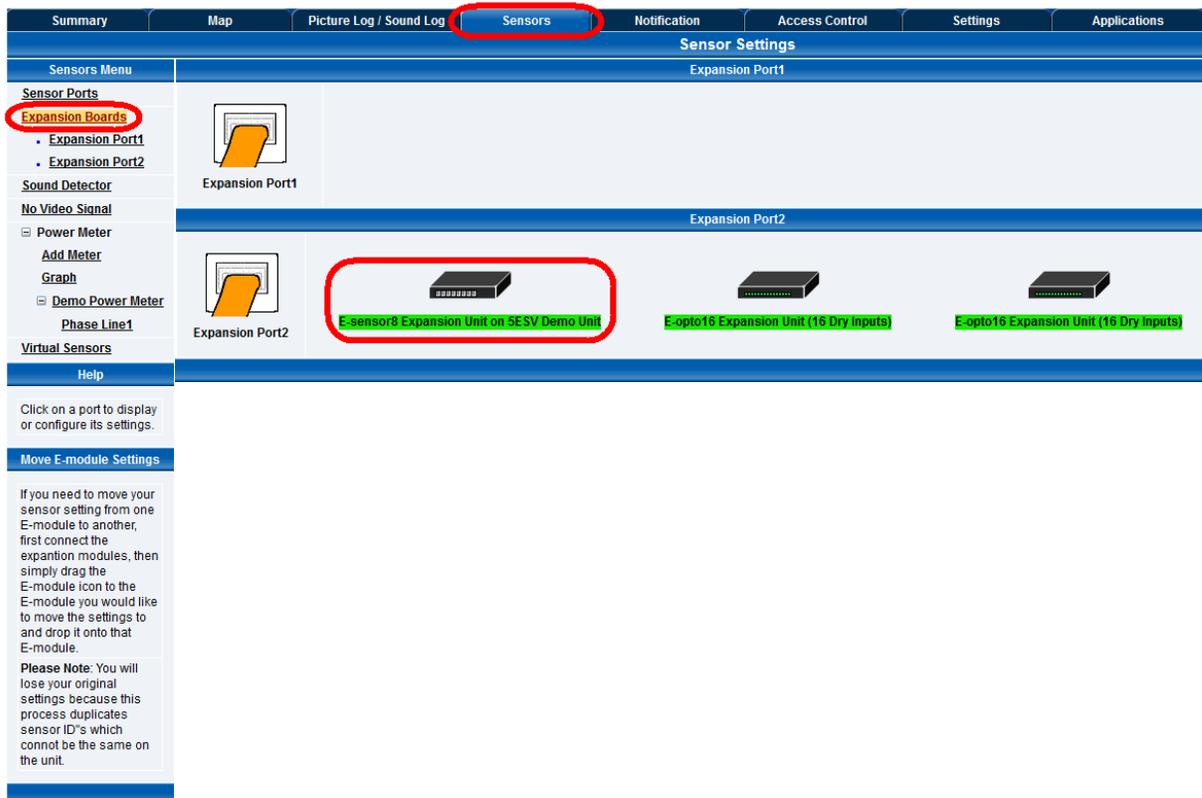
7. Expansion Ports

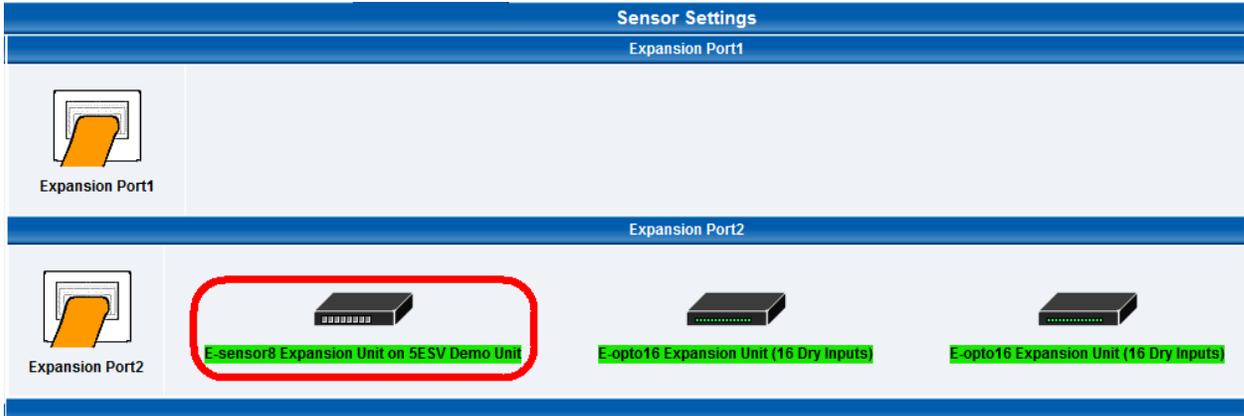
Your AKCP Securityprobe-5ESV is equipped with two expansion ports. This enables you connect up to four daisy chains of expansion modules. The available expansion modules are an eight port intelligent sensor board and an Opto-isolated sixteen dry contact expansion module. In this section we will go through the basic setup of the sensor. If you require information on specific functions of a particular sensor or expansion board then please refer to the relevant manual for that product.

Plug the expansion unit into one of the two ports located on the front panel of the unit. These are numbered E1 and E2.

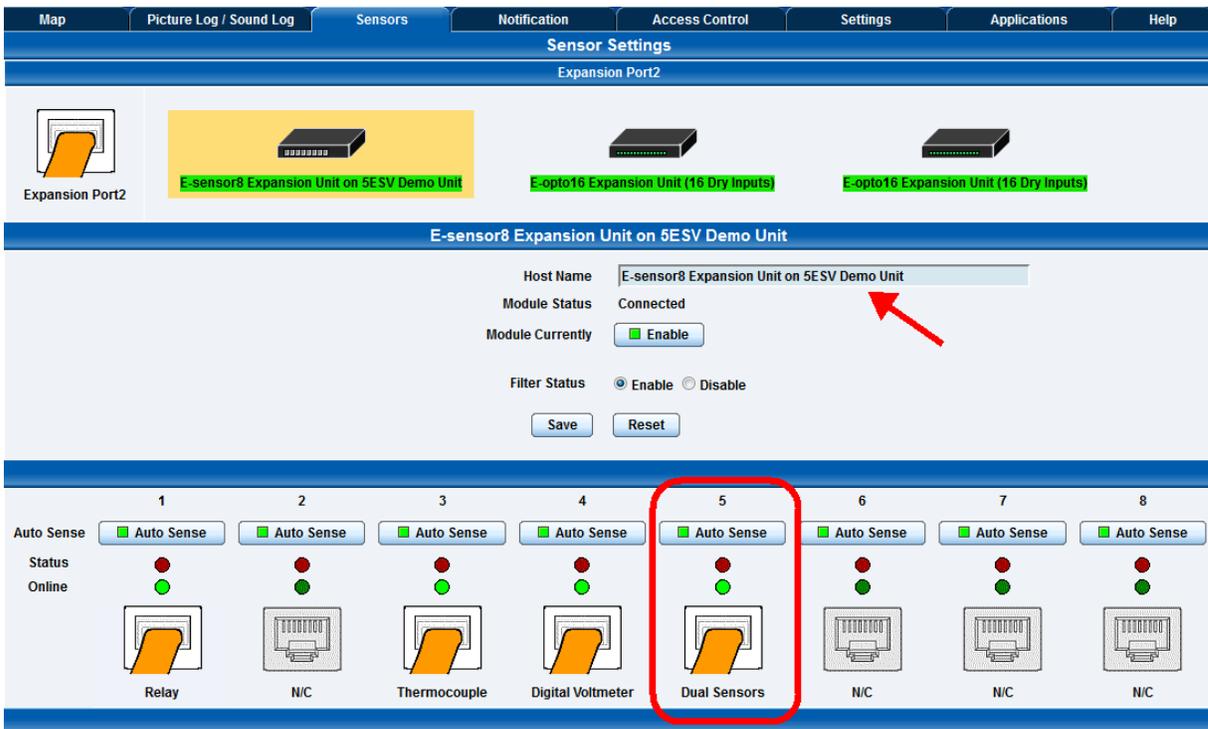


From the summary page, navigate to the “Sensors” tab. Then click “Expansion Units” as outlined in the image below:-





A list of all extended ports will be shown. Each port will display any available expansion units, these will be highlighted in green. Click the module to be taken to the sensor settings page.



This will bring you to the page shown above, the extended port sensors page. On this page you can change the name of the expansion module you can also disable it by clicking on the Enable / Disable button.

Once you have clicked on the “Dual sensors” tab you will be directed to the familiar looking notification thresholds page. From this page you can carry out various operations as indicated in the sensor settings tutorials found on page 42.

Please consult the Expansion Units separate product manual for more specific information such as the SNMP OID's for checking sensors connected, how to transferring settings to additional units, setting up disconnect alerts etc.

3) Notifications

If you setup a notification you can define the action to take when the sensor gives a reading beyond your previously set thresholds. This allows you to determine how you will be notified that a sensors reading has reached the specified parameters (high warning, critical etc) that we looked at in the previous section.

This tutorial provides you the information needed to setup a notification.

To get to the starting point of this tutorial:

- Login as administrator
- Click the “Notifications” tab

1. Adding a notification

a) First click on the “notification wizard”

AKCP securityProbe 5ES

Location: System Location Summary Map Sound Log Sensors **Notification** Access Control Settings Applications Help Current System Time: 06/01/2000 10:22:03

Link Sensor To Action

1. Click Notifications tab

2. Click "Begin Notification Wizard"

Host Name	Sensor Name	Action on Status	Action Name
-----------	-------------	------------------	-------------

Create Edit Create Escalation Remove

Import notification from file Browse... Import Export

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b) You will now have the notification wizard page displayed, shown on the next page.

The screenshot shows the 'Create Action' wizard in the AKCP securityProbe 5ES web interface. The 'Notification' tab is selected, and the 'Action' dropdown menu is open, showing various notification types. The 'SMMP Trap' option is highlighted. A red box is drawn around the 'Next >' button, and the text 'Click "Next" to continue' is written next to it. The interface also includes a navigation menu on the left and a status bar at the top.

Please Note: We will now go through setting up a few different ways of notification step by step. To learn what the other types of notifications do refer to the separate notification manuals that can be found on your product CD.

2. SNMP trap

First we will set up a notification via SNMP trap, so that when your sensor reaches a certain threshold it will send a notification to your SNMP server.

This tutorial provides you the information needed to setup an SNMP trap.

To get to the starting point of this tutorial:

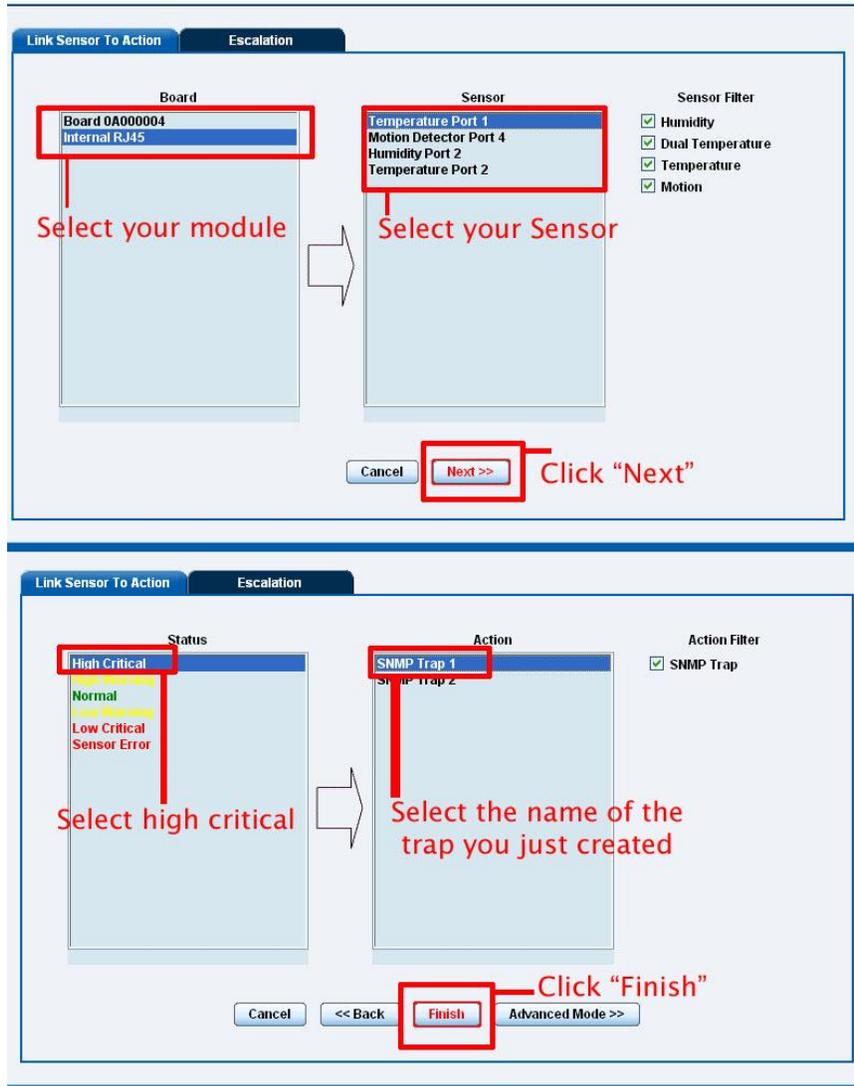
- Log in as administrator
- Click the “Notifications” tab
- Choose “Notifications wizard”
- Choose SNMP trap

a) After selecting to add an SNMP trap you will need to fill in the following information

b) Once this information is correct you can press the “Add Trap Destination” button. After clicking this you have the option of inputting another trap, or clicking on “Next”. Now you can enter the following parameters:-

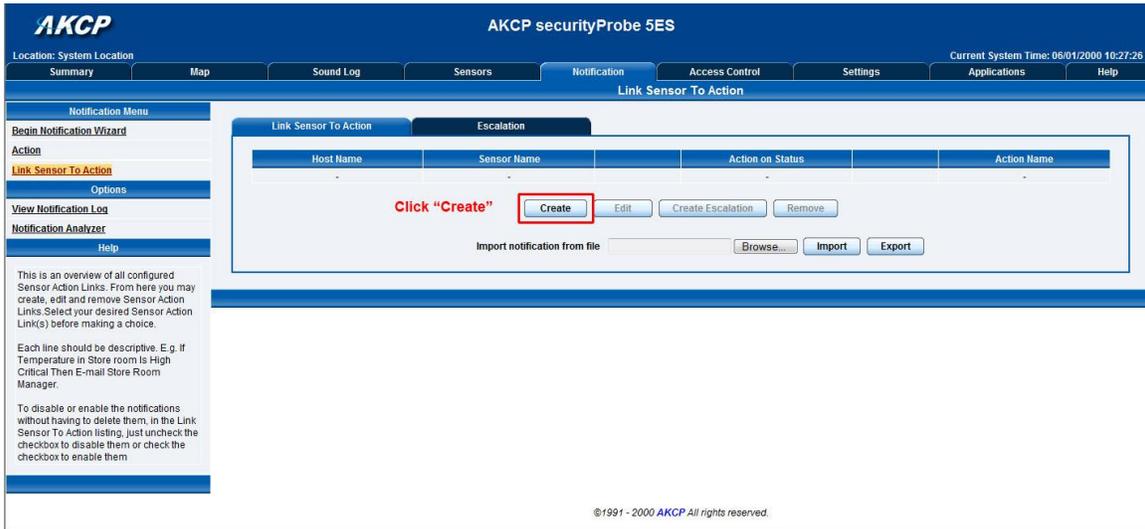
These parameters set the maximum number of times to send the trap notification and the time interval between each notification.

c) After clicking next you will be presented with the following screens:-

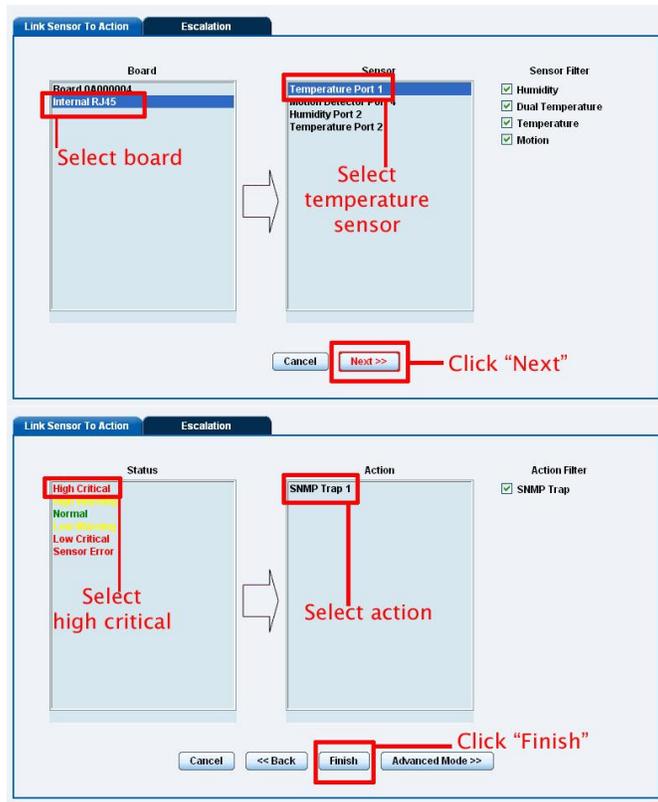


On these screens you can select the parameters for when to send the SNMP trap notification. In our example we have selected to bind the SNMP trap to the temperature sensor we have connected on port 1. The trap will be sent when the sensor reads a "High Critical" and we bind this to the SNMP trap we just created and named "SNMP Trap 1"

d) Once we have created the parameters for the SNMP trap, we need to make it active. To do this go back to the notifications tab and it should look like the following:-



e) Select the sensor and SNMP trap parameters as before



f) Now you will see the SNMP trap has been added to our notifications page:-

Board Name	Sensor Name	Action on Status	Action Name
Internal RJ45	Temperature Port 1	High Critical	SNMP Trap 1

Buttons: Create, Edit, Create Escalation, Remove

Note: To remove this trap and make it inactive, highlight the notification and click remove.

You can repeat this process to set up multiple SNMP traps for different sensors, or for multiple SNMP servers etc.

3. E-mail

This tutorial provides you the information needed to setup an E-Mail Notification.

To get to the starting point of this tutorial:

- Log in as administrator
- Select the “Notifications” tab
- Click “Notification Wizard”

a) If you select to set up an E-mail notification you will be shown the following page

b) After clicking “Next” you will get a page where you can input the e-mail name and message. Press the “Customize” button and the fields will re-write in a format that will allow for an automated e-mail that will display the sensor information.

After this click “Next”

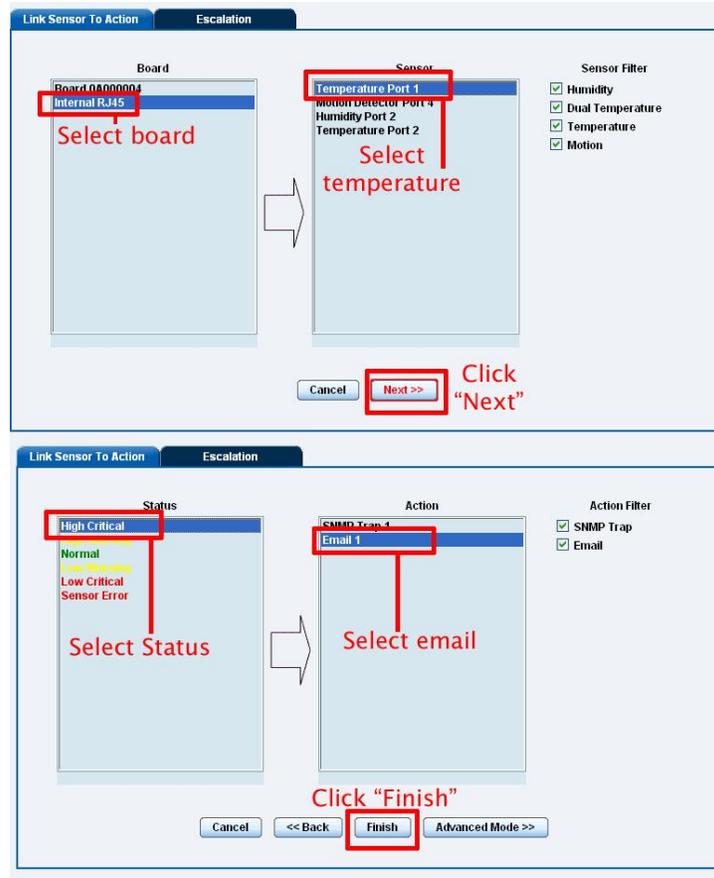
c) Now you need to input your SMTP server address for your e-mail account.

Once this is correct, click next.

d) Now, as with the SNMP trap you can select how many times to attempt to resend the e-mail, and the time elapsed between each attempt.

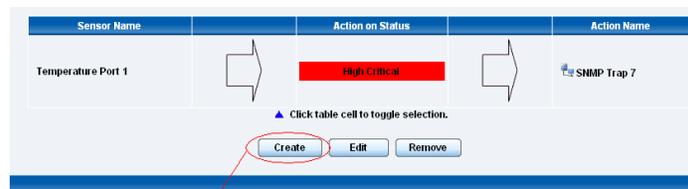
Click next when you have filled in your parameters.

e) Now link the e-mail we just created to the temperature sensor on port 1.



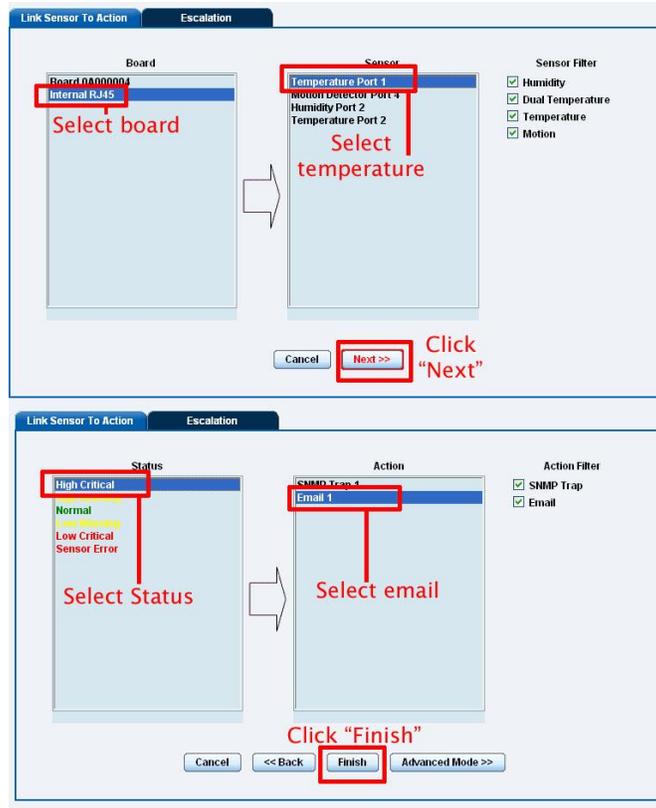
Click on "Finish". You will now be taken back to the main Notification tab.

f) Click on create



Click on "Create"

g) Create the notification link as before. Then click finish



h) You will now be back at the main notification page. You should now see listed our two notifications, the SNMP trap and the e-mail.

Sensor Name		Action on Status		Action Name
Temperature Port 1	→	High Critical	→	SNMP Trap 7
Temperature Port 1	→	High Warning	→	Tutorial E-mail

▲ Click table cell to toggle selection.

As you can see from this page, we now have an SNMP trap set up not give us notification of a “High Critical”, and an E-mail notification that will activate on a “High Warning”

4. SMS notification

Now, we will set up a notification so that you will be sent an SMS message. This message can be sent via a GSM/GPRS mobile phone connected via a Bluetooth connection or the USB port.

This tutorial provides you the information needed to setup a SMS notification.

To get to the starting point of this tutorial:

- Log in as administrator
- Select the “Notifications” tab
- Click “Notification Wizard”

a) From the list of notification types select SMS and click next. You will then be presented with this :-

Current System Time: 31/7/09 17:32:2

Sensors Notification Settings Applications Help

SMS Action Wizard

Action Name SMS 1

Phone Number

Add Phone Number

Cancel Next

Input a notification name

input a phone number

b) You can now either add multiple numbers, or click next. In our case we will click next.

Current System Time: 31/7/09 17:37:2

Sensors Notification Settings Applications Help

SMS Action Wizard

Action Name SMS 1

Phone Number List
00639052965214

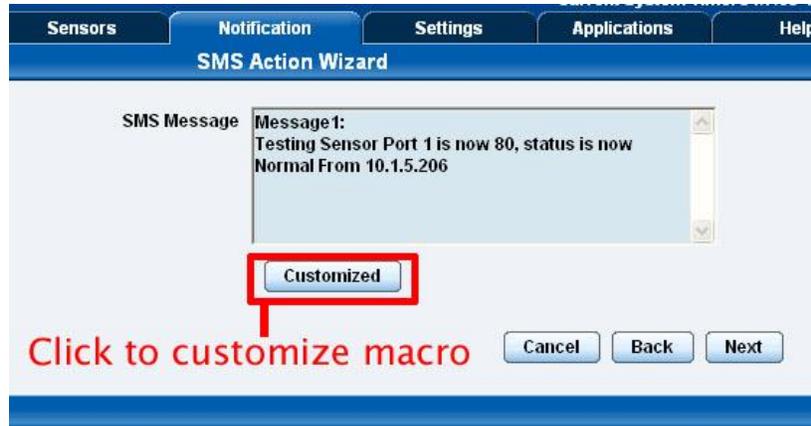
Phone Number 00639052965214

Add Phone Number Delete Phone Number

Cancel Next

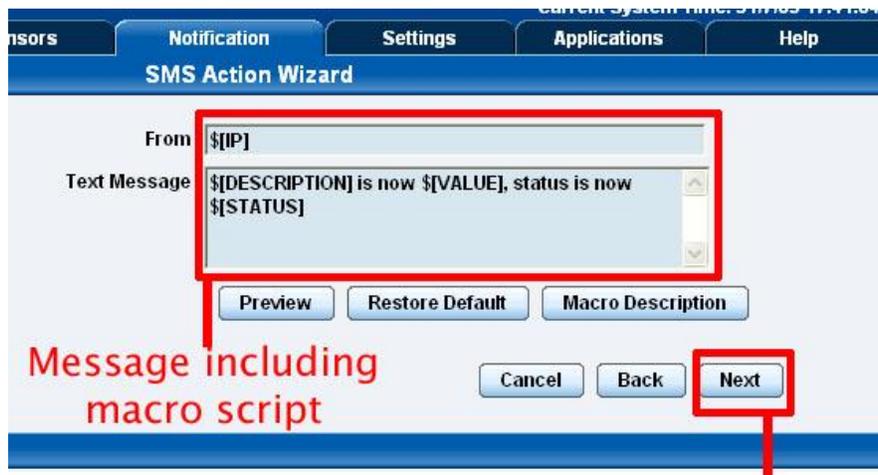
Click "Next"

c) Now we will set up the message that will be sent to the phone. You will see the following screen.



Note: A macro is a script that returns specific data collected by the unit. In our example here the macro will tell the notification to contain the “description” (sensor name), the value (current sensor reading) and the status (high/low warning etc) these macros are common to all sensor notifications.

d) You will now see that the SMS message has changed its format to include the Macro script.



e) Next we will choose to set up the type of connection. This will depend on the type of modem you are connecting. For the purpose of this tutorial we will assume you are connecting a GSM/GPRS enabled modem to the serial port. Therefore we will select COM1 from the list.

Sensors Notification Settings Applications Help

SMS Action Wizard

Mobile Phone Port: COM1

Mobile Phone Port Speed: Auto

Delay Times: 0

Select for Initialization String: Other(Custom Setup)

Initialization String:

Cancel Back Next

Choose the connection type you wish to use

f) You will now be able to select the number of times you wish the SMS to be resent and the interval between sending them.

Sensors Notification Settings Applications Help

Current System Time: 31/7/09 17:00

SMS Action Wizard

Maximum Times to Resend: 0

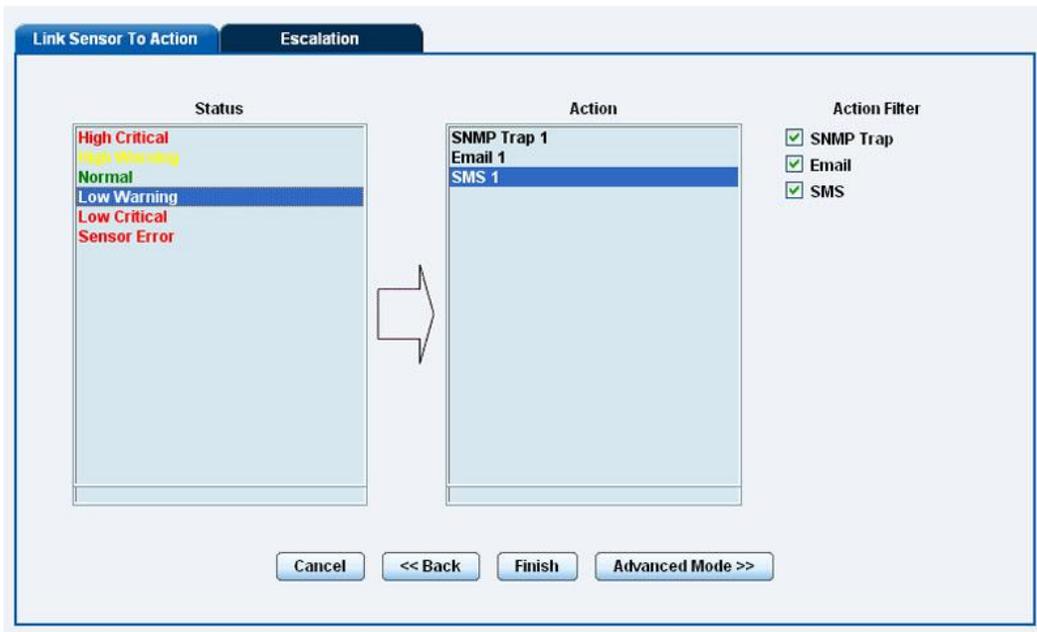
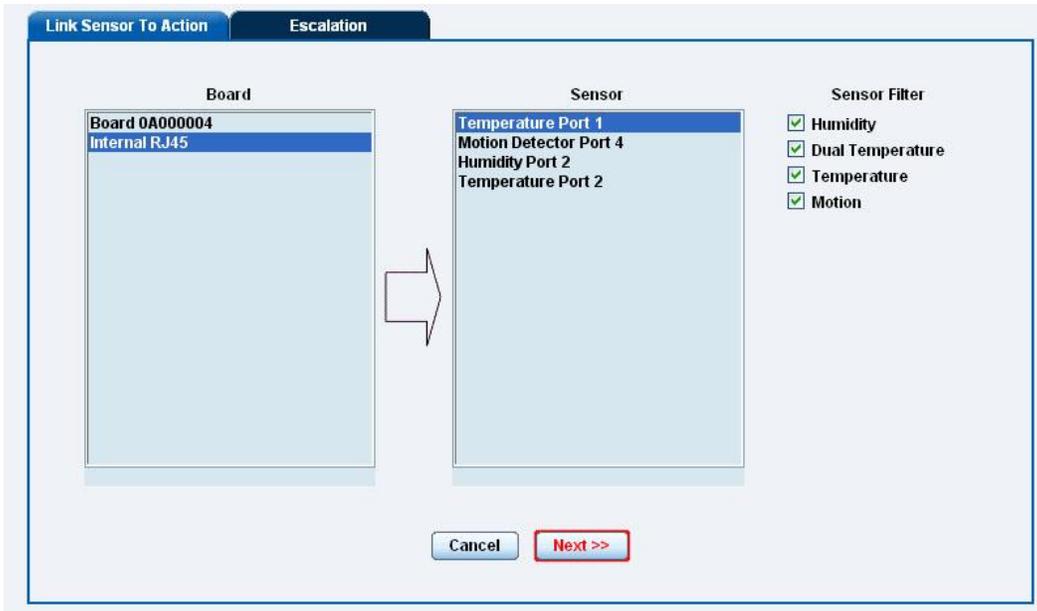
Resend Intervals (secs): 10

Click "Next"

Cancel Back Next

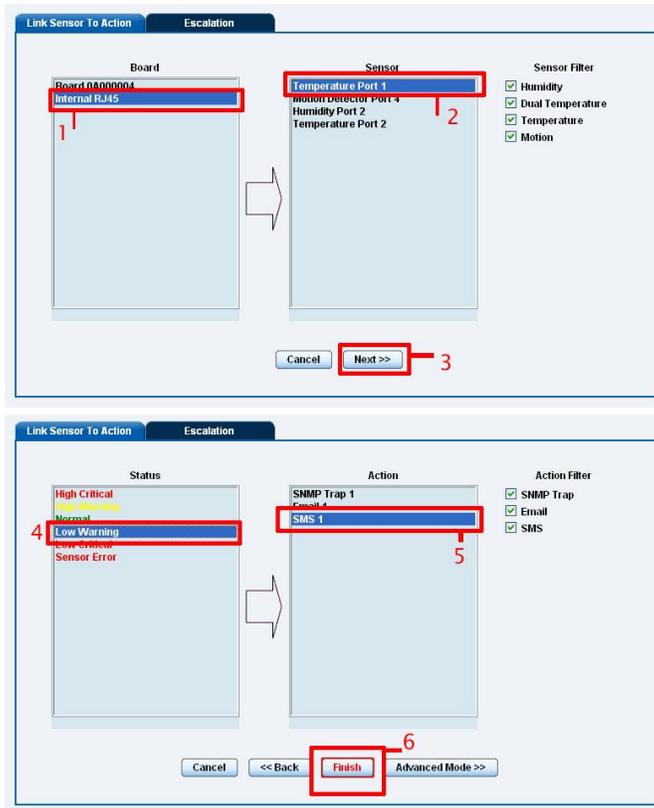
Select number of times to resend and intervals

g) Again we now select the sensor to which to bind this notification too.



As before, select the Temperature sensor on port 1. This time we will use this notification for a low critical. Then select the notification name we assigned, in this case we chose "SMS 1". Click Finish to finalize this.

h) Now we will add the SMS notification to our active list. This is the same process as for the others, simply click on create and then select the appropriate parameters.



j) You will now be back at the main notification page. Now the page should display three types of notifications, the SNMP trap, E-mail and SMS.

Sensor Name	Action on Status	Action Name
Temperature Port 1	High Critical	SNMP Trap 7
Temperature Port 1	High Warning	Tutorial E-mail
Temperature Port 1	Low Warning	Tutorial SMS notification

▲ Click table cell to toggle selection.

Buttons: Create, Edit, Remove

For the purposes of this tutorial we will not cover the set up of every type of notification. However, with this information you should be able to follow the procedure for the other types of notifications easily, as they all follow a similar format. If you still encounter difficulties with this then please contact us on support@akcp.com.

4) Camera

1. Basic setup

The unit will allow for connection of up to 4 HD Digital cameras through the video inputs (V1 – V4). In this tutorial we are going to assume you are connecting an AKCP pan/tilt HD Digital camera, and we are connecting it to port number V4.

This tutorial provides you the information needed to setup the camera functions.

To get to the starting point of this tutorial:

- Connect camera to a video (“V”) port
- Log into web based interface as administrator

a) Once you are logged in you will be taken to the default “summary page”.

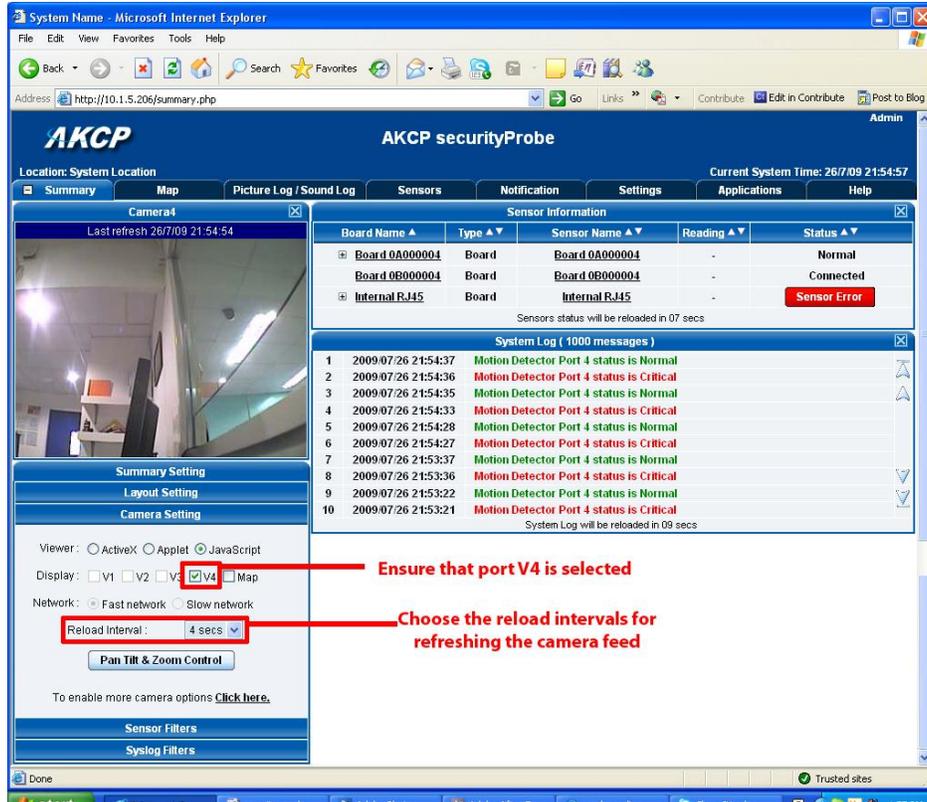
The screenshot shows the AKCP securityProbe web interface in Microsoft Internet Explorer. The browser address bar shows `http://10.1.5.206/summary.php`. The page title is "AKCP securityProbe". The interface includes a navigation menu with tabs for Summary, Map, Picture Log / Sound Log, Sensors, Notification, Settings, Applications, and Help. The "Summary" tab is active, showing a "Camera4" window with a live video feed of an interior room. Below the video feed is a "Summary Setting" menu with options for Layout Setting, Camera Setting, Sensor Filters, and Syslog Filters. The "Camera Setting" option is highlighted with a red box. To the right of the video feed is a "Sensor Information" table with columns for Board Name, Type, Sensor Name, Reading, and Status. The table lists three boards: Board 0A000004 (Normal), Board 0B000004 (Connected), and Internal RJ45 (Sensor Error). Below the sensor information is a "System Log (1000 messages)" table with columns for message ID, timestamp, and status. The log shows alternating "Normal" and "Critical" status messages for "Motion Detector Port 4". Red arrows point from the "Camera Setting" menu item to the "Live feed from camera" label and from the "Camera Setting" menu item to the "Click 'Camera setting'" label.

Board Name	Type	Sensor Name	Reading	Status
Board 0A000004	Board	Board 0A000004	-	Normal
Board 0B000004	Board	Board 0B000004	-	Connected
Internal RJ45	Board	Internal RJ45	-	Sensor Error

Message ID	Timestamp	Status
1	2009/07/26 21:47:11	Motion Detector Port 4 status is Normal
2	2009/07/26 21:47:10	Motion Detector Port 4 status is Critical
3	2009/07/26 21:47:06	Motion Detector Port 4 status is Normal
4	2009/07/26 21:47:05	Motion Detector Port 4 status is Critical
5	2009/07/26 21:46:50	Motion Detector Port 4 status is Normal
6	2009/07/26 21:46:50	Motion Detector Port 4 status is Critical
7	2009/07/26 21:46:49	Motion Detector Port 4 status is Normal
8	2009/07/26 21:46:48	Motion Detector Port 4 status is Critical
9	2009/07/26 21:46:45	Motion Detector Port 4 status is Normal
10	2009/07/26 21:46:44	Motion Detector Port 4 status is Critical

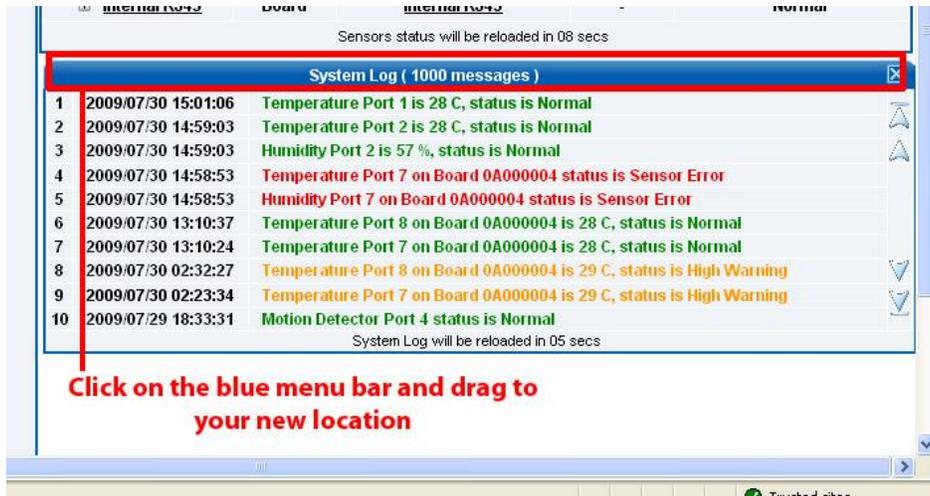
b) You may, or may not see the live image from the camera already. If not then click on Camera setting and follow the instructions below.

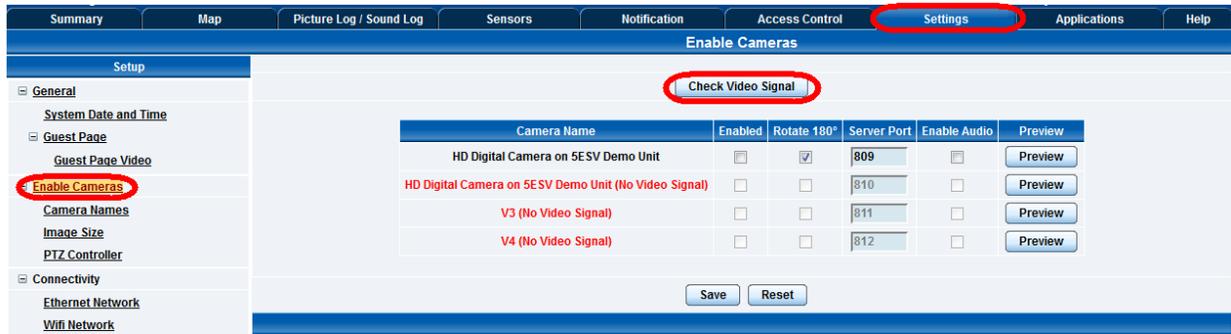
PLEASE NOTE: The ActiveX has been recently removed from the Camera Settings options in the Summary page, so your screen may appear differently.



Helpful hint

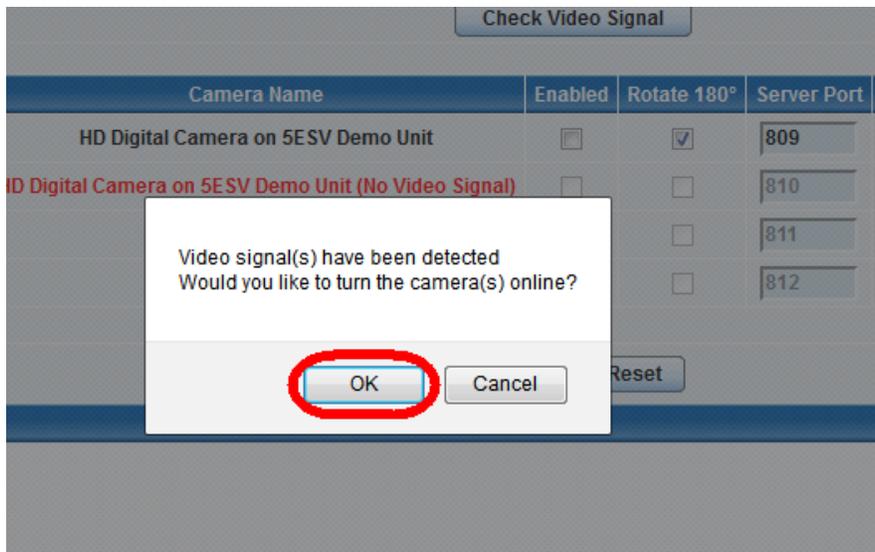
At this stage you will begin opening up multiple windows which my obscure valuable information displayed on the summary page. To prevent this from happening, each window can be dragged to a new position to accommodate your preferred layout. To achieve this follow the directions below.





To check the cameras settings in the web interface you first need to go to the Settings page, then the Enable Cameras page.

You can then press the Check Video Signal button to scan the HD Digital ports on the unit for connected cameras.



After the camera or cameras are detected you will then see this pop-up message shown in the screen shot above. You can then click on the OK button.

Log / Sound Log Sensors Notification Access Control Settings Applications

Enable Cameras

Check Video Signal

Camera Name	Enabled	Rotate 180°	Server Port	Enable Audio	Preview
HD Digital Camera on 5ESV Demo Unit	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	809	<input type="checkbox"/>	Preview
HD Digital Camera on 5ESV Demo Unit (No Video Signal)	<input type="checkbox"/>	<input type="checkbox"/>	810	<input type="checkbox"/>	Preview
V3 (No Video Signal)	<input type="checkbox"/>	<input type="checkbox"/>	811	<input type="checkbox"/>	Preview
V4 (No Video Signal)	<input type="checkbox"/>	<input type="checkbox"/>	812	<input type="checkbox"/>	Preview

Save Reset

The cameras connected to the securityProbe 5ESV base unit will now show the check in the Enabled box as shown in the screen shot above.

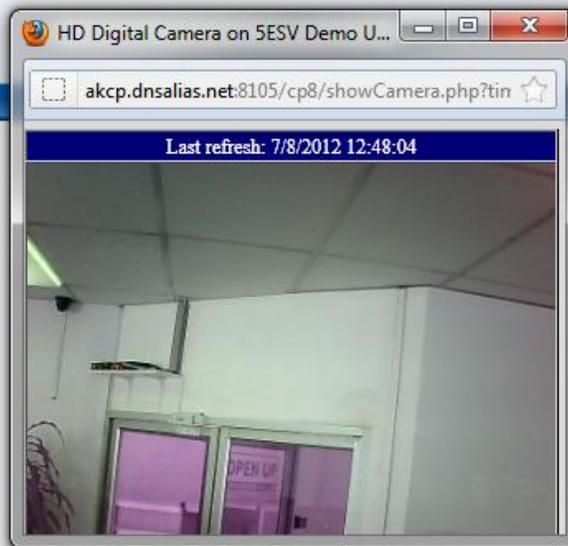
Notification Access Control Settings Applications

Enable Cameras

Check Video Signal

Camera Name	Enabled	Rotate 180°	Server Port	Enable Audio	Preview
HD Digital Camera on 5ESV Demo Unit	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	809	<input type="checkbox"/>	Preview
SV Demo Unit (No Video Signal)	<input type="checkbox"/>	<input type="checkbox"/>	810	<input type="checkbox"/>	Preview
V3 (No Video Signal)	<input type="checkbox"/>	<input type="checkbox"/>	811	<input type="checkbox"/>	Preview
V4 (No Video Signal)	<input type="checkbox"/>	<input type="checkbox"/>	812	<input type="checkbox"/>	Preview

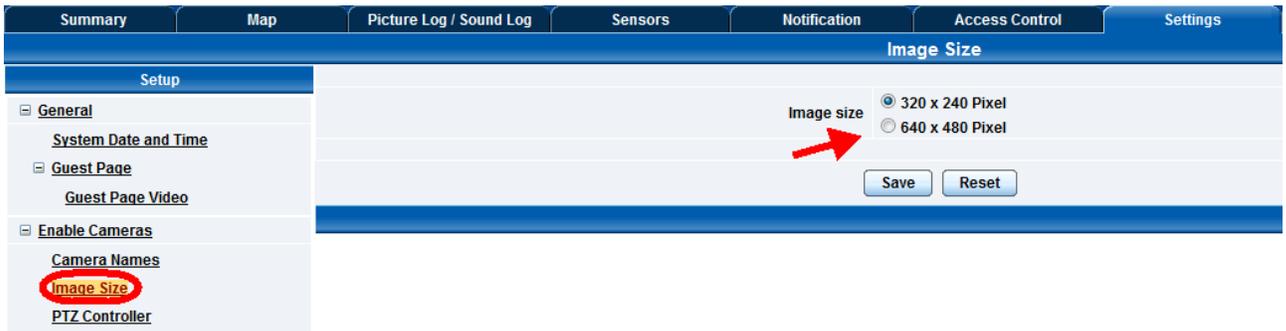
Save Reset



You can then check to make sure the video stream is working by clicking on the “Preview” button. If the image appears upside down, you can enable the “Rotate 180°” setting to correct the image depending on how the camera is mounted.



After your cameras are enabled you can then name them as you require by first selecting the “Camera Names” link from the Setup column, then renaming the text in each of the V1-V4 description fields as shown in the screen shot above.



By clicking on the “Image Size” link in the Setup column you can then change the Image Size of the streaming video from your cameras to either 320 x 240 or 640 x 480. The streaming video Image Size will be displayed on the Summary page as shown in pages 61 and 62 above.



If you are using pan tilt cameras or other third party Pelco-D cameras then you will need to enable the PTZ Controller from the PTZ Controller page as shown above. You will always normally choose the “Internal PTZ Controller”

Note: The External PTZ Controller refers to an obsolete option where an external controller could be connected to the unit.

Summary | Map | Picture Log / Sound Log | Sensors | Notification | Access Control | Settings | Applications | Help

PTZ Controller

PTZ Controller: Internal PTZ Controller

PTZ ID	Camera Type	Baud Rate	Action
PTZ1	General PTZ Camera	2400 bps	Return to home Point
PTZ2	AKCP PT Camera	2400 bps	Return to home Point
PTZ3	General PTZ Camera	2400 bps	Return to home Point
PTZ4	General PTZ Camera	2400 bps	Return to home Point

Buttons: Save, Reset

Now that the Internal PTZ controller is set, you need to select the correct camera type from the drop down list as shown in the screen shot above. If the cameras is an AKCP branded camera you will choose the AKCP PT Camera, if it is another third party Pelco-D type camera you will select the “General PTZ Camera”.

Note: For more information on the cameras, cable run lengths etc., please refer to the FAQ section at the end of this manual.

2. Pan / tilt functions of the camera.

This tutorial provides you the information needed to setup an MMS Notification.

To get to the starting point of this tutorial:

- Log in as administrator
- From summary page select options

a) First, click on the “PTZ Control” button.

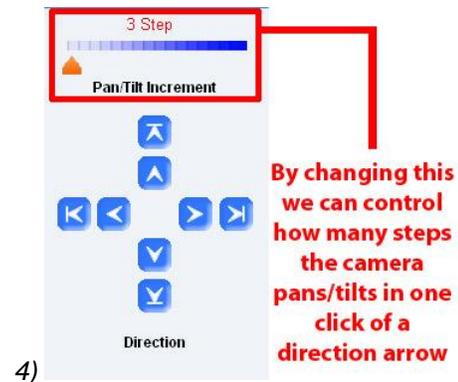
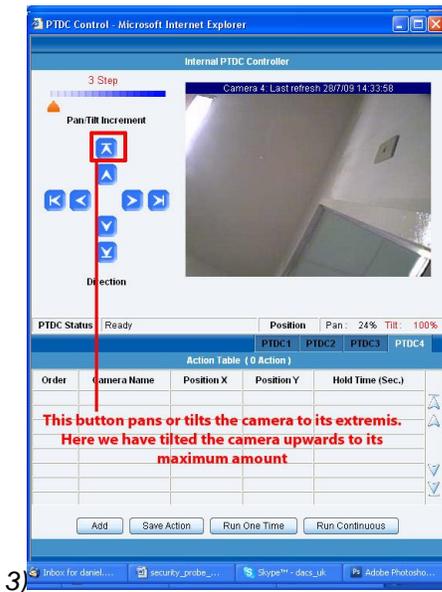
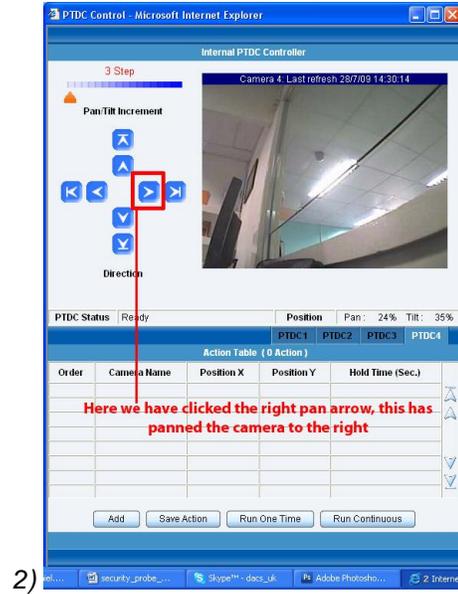
The screenshot shows the PTDC Control interface. On the left, there is a sidebar with settings for Summary, Layout, and Camera. The 'Camera Setting' section includes options for Viewer (ActiveX, Applet, JavaScript), Display (V1, V2, V3, V4, Map), Network (Fast, Slow), and Reload Interval (4 secs). A red box highlights the 'Pan Tilt & Zoom Control' button. The main window, titled 'Internal PTDC Controller', shows a camera feed on the right and control buttons on the left. A red box highlights the main PTDC Control window. The interface includes a '3 Step' progress indicator, a 'Pan/Tilt Increment' section with directional arrows, a 'Direction' label, and a table for PTDC actions.

Order	Camera Name	Position X	Position Y	Hold Time (Sec.)
1	Camera 4	79	50	5

Click on “Pan Tilt & Zoom Control”

This window will now pop up

b) Now we can pan and tilt the camera by way of the pan / tilt arrows.



Helpful Hint

You can also pan and tilt the camera by placing your mouse on the video image and clicking the position in which you would like the camera to face. This is useful when you want to enter the values for automated camera movements.

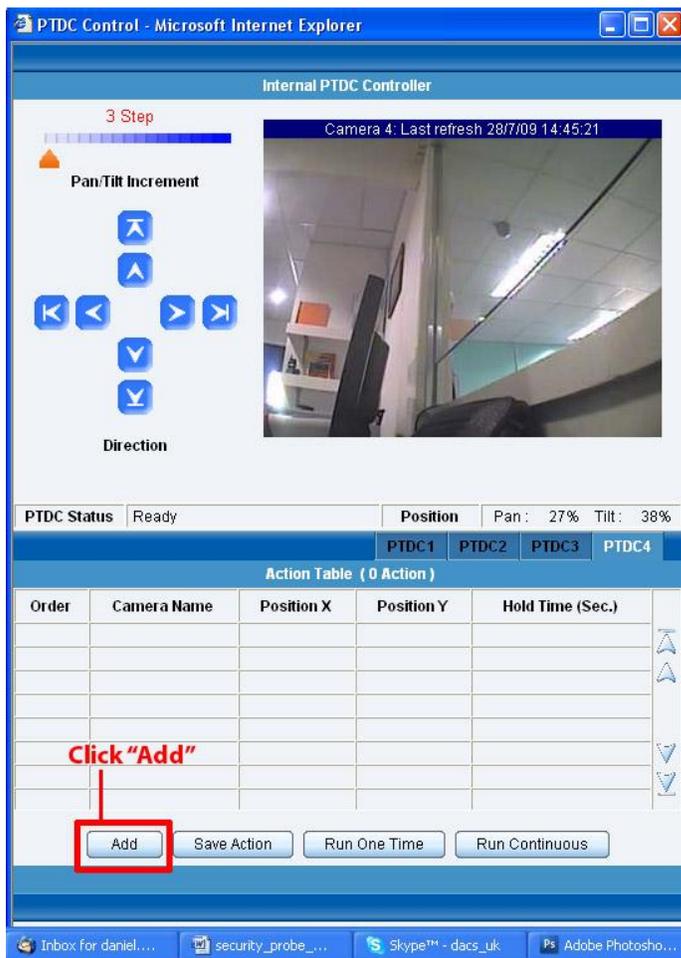
3. Automating camera movements

This tutorial provides you the information needed to setup automated camera movements.

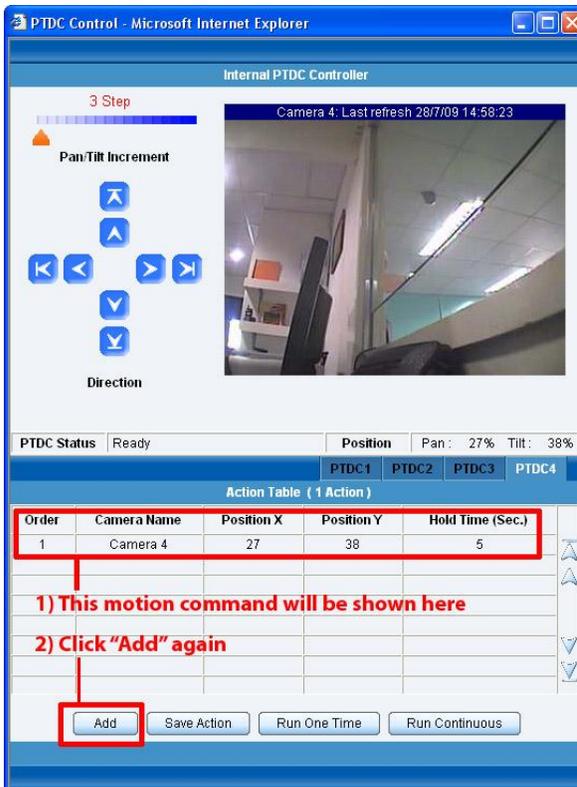
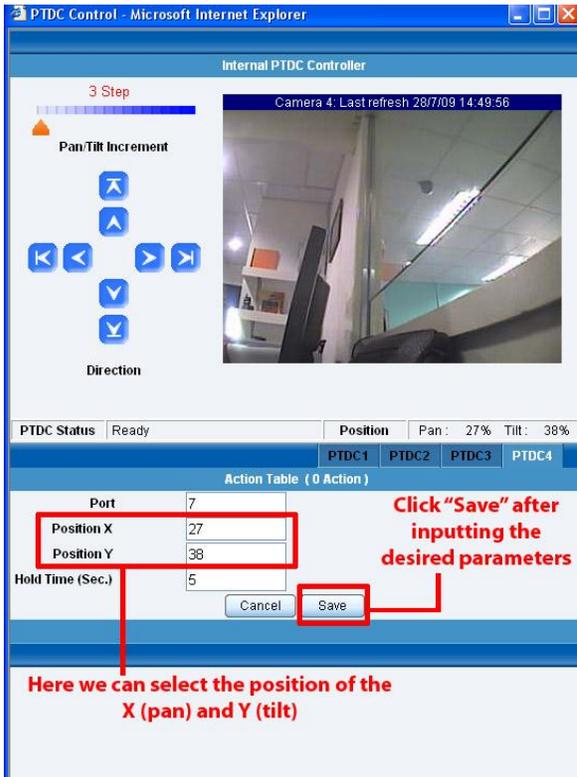
To get to the starting point of this tutorial:

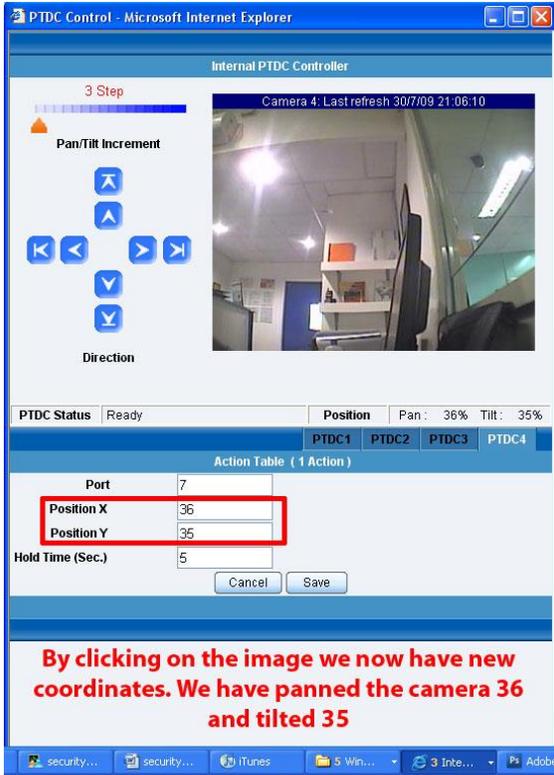
- Log in as administrator
- Select options from the summary page
- Click Pan Tilt and Zoom control

We will now look at creating an automated camera movement. This will make the camera automatically pan or tilt at preset intervals.



b) After clicking on the add button you will be met with the following pages





Repeat this process as many times as you wish to automate the cameras movement so that it covers the area you require too monitor. In this example we have added three different positions.



After adding several movements click "Save Action"

Now click "Run Continuous" and you should see the camera run through the preset coordinates

After clicking "Save Action", click on "Run Continuous". This will start the script running. You should then see instant feedback from the live stream in the camera window as the camera pans through these positions.

4. Recording from the camera

As the ActiveX has been removed from the Camera Settings page, to record from the camera please use the Java option. The web interface will direct you on how to do this. For this tutorial we will assume this is done.

This tutorial provides you the information needed to setup the recording from the camera.

To get to the starting point of this tutorial:

- Log in as administrator
- From summary page select options

a) Select the Java Script as the mode of display.

System Name - Microsoft Internet Explorer

Address: http://10.1.5.206/summary.php?PHPSESSID=64f147182fdfe3aa8402d13aeaad541e

AKCP securityProbe

Location: System Location Current System Time: 28/7/09 15:09:54

Summary Map Picture Log / Sound Log Sensors Notification Settings Applications Help

ActiveX Camera4

FPS: 30.0 Connection: 2 active, 10 max

Jul 28, 2009 15:10:33

Setup Record

mute

Summary Setting

Layout Setting

Camera Setting

Viewer: ActiveX Applet Javascript

Display: V1 V2 V3 V4 Map

Network: Fast network Slow network

Reload Interval: 4 secs

Pan Tilt & Zoom Control

To enable more camera options [Click here.](#)

Sensor Filters

Syslog Filters

Sensor Information

Board Name	Type	Sensor Name	Reading	Status
Board 0A000004	Board	Board 0A000004	-	Warning
Board 0B000004	Board	Board 0B000004	-	Connected
Internal RJ45	Board	Internal RJ45	-	Sensor Error

Sensors status will be reloaded in 05 secs

System Log (1000 messages)

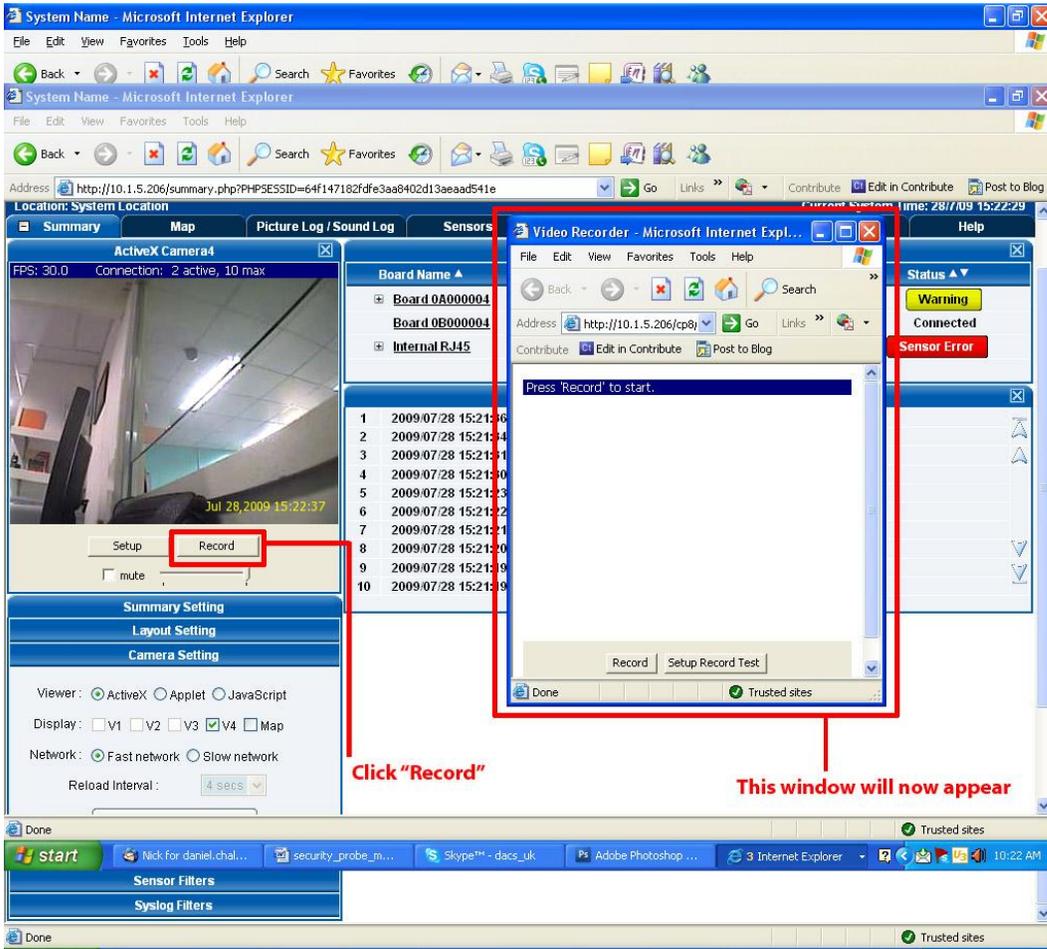
1	2009/07/28 15:10:05	Motion Detector Port 4 status is Normal
2	2009/07/28 15:10:04	Motion Detector Port 4 status is Critical
3	2009/07/28 15:10:02	Motion Detector Port 4 status is Normal
4	2009/07/28 15:10:00	Motion Detector Port 4 status is Critical
5	2009/07/28 15:09:53	Motion Detector Port 4 status is Normal
6	2009/07/28 15:09:52	Motion Detector Port 4 status is Critical
7	2009/07/28 15:09:51	Motion Detector Port 4 status is Normal
8	2009/07/28 15:09:49	Motion Detector Port 4 status is Critical
9	2009/07/28 15:09:29	Motion Detector Port 4 status is Normal
10	2009/07/28 15:09:28	Motion Detector Port 4 status is Critical

Requesting data...

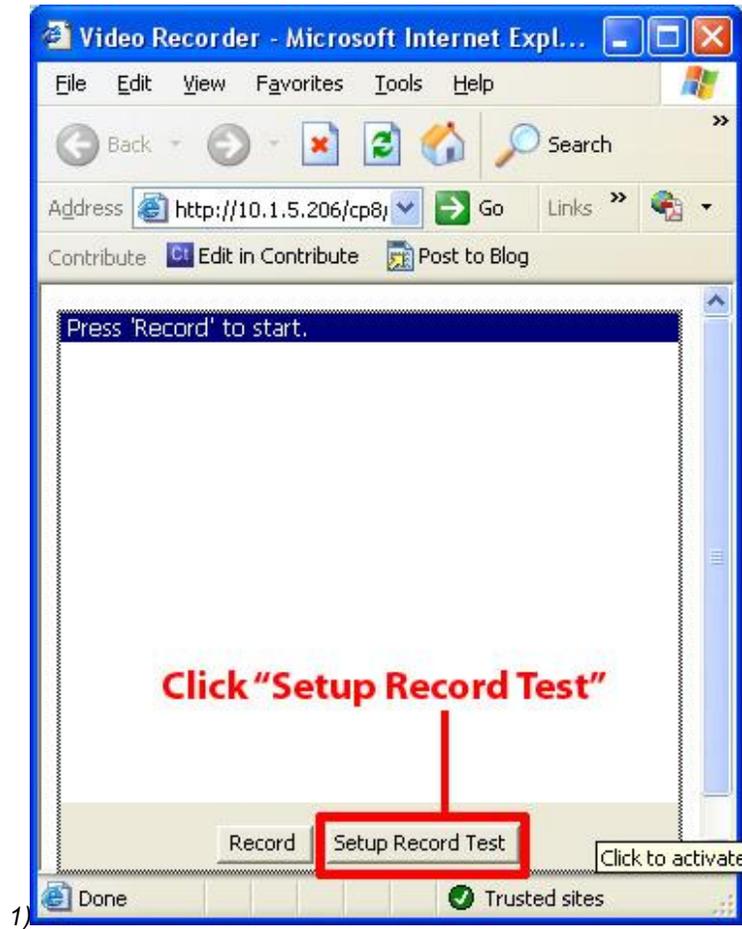
After selecting ActiveX you will see you video window change to this

Select Java Script

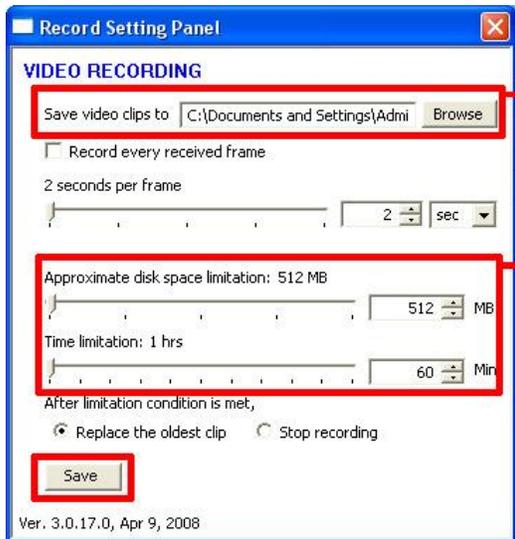
b) Click "Record" and the camera record window will now open.



c) Now we need to set up the capture parameters. Click on "Setup Record Test"



1)

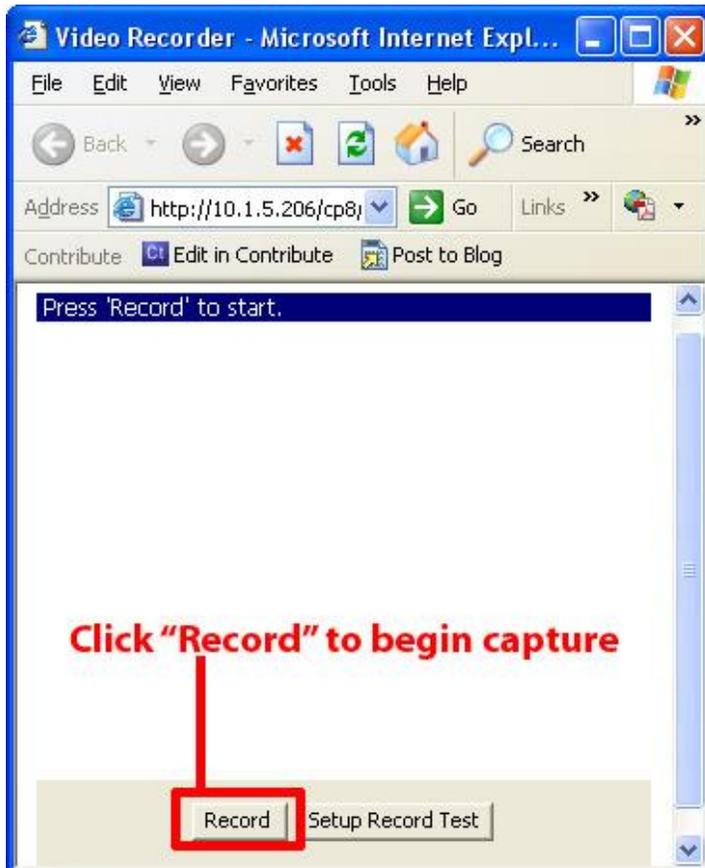


Select the folder in which you wish your video to be saved

Here you can select how much disk space you wish to, length of time and what to do when this limitation is reached (replace oldest clip or stop recording)

2)

d) To begin capture, simply click on “Record”.



Note: If you wish to record, and run the automated camera movement sat the same time, start the automated camera movements from the “PTZ Control”

5. Picture Log

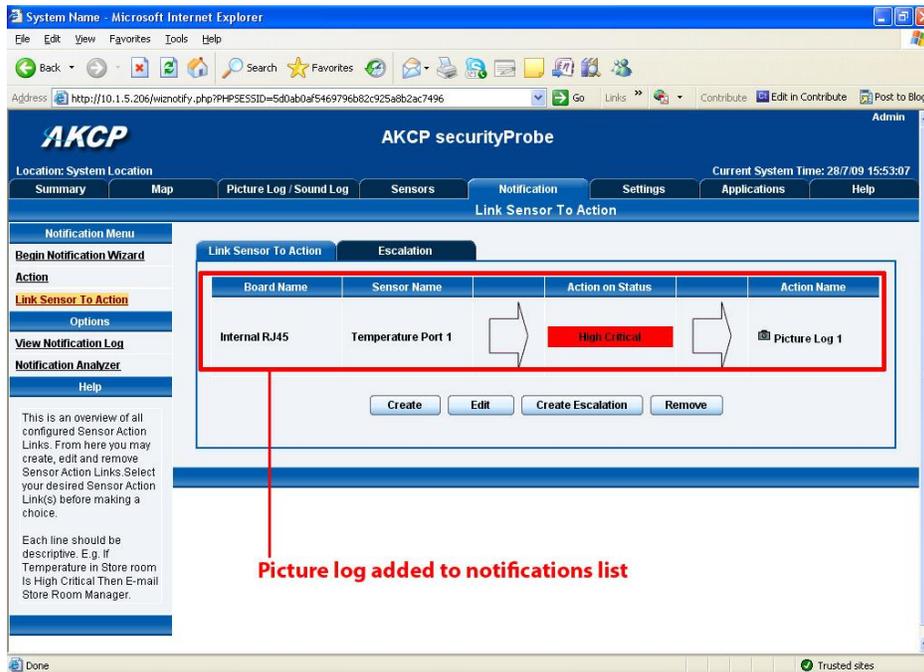
The camera can be used to automatically log a photo and send it as part of a notification. Continuing our example of setting up the temperature sensor in this part of the tutorial we are going to use the camera to capture an image from 2 seconds and 1 second before and 2 seconds after the event. The event will be when the temperature sensor reading is at “High Critical”.

This tutorial provides you the information needed to setup an MMS Notification.

To get to the starting point of this tutorial:

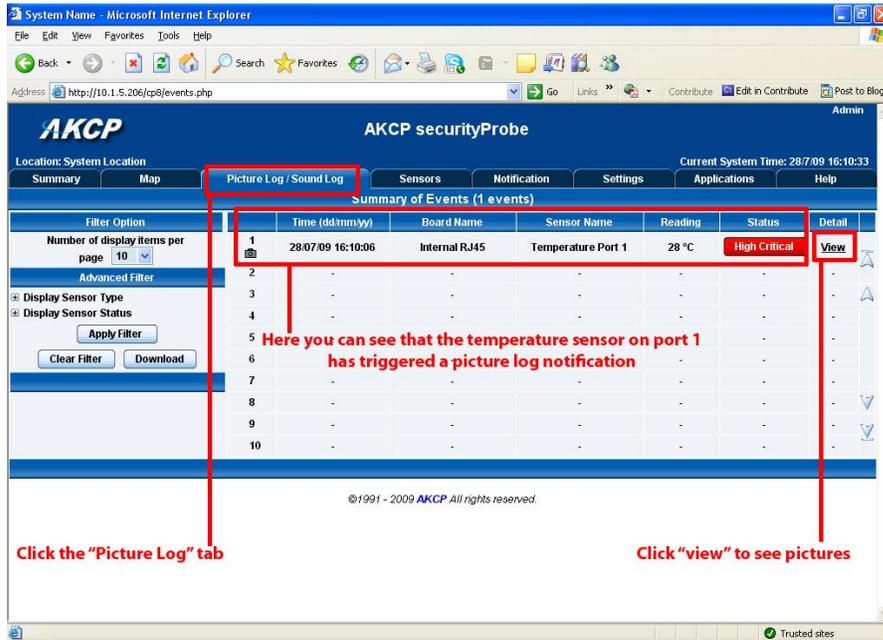
- Log in as administrator
- Select the notifications tab
- Select notification wizard
- Choose picture log as the notification type (follow previous notifications wizard instructions)

a) Once this is done you can add it to the active notifications so your page should now look like this:-

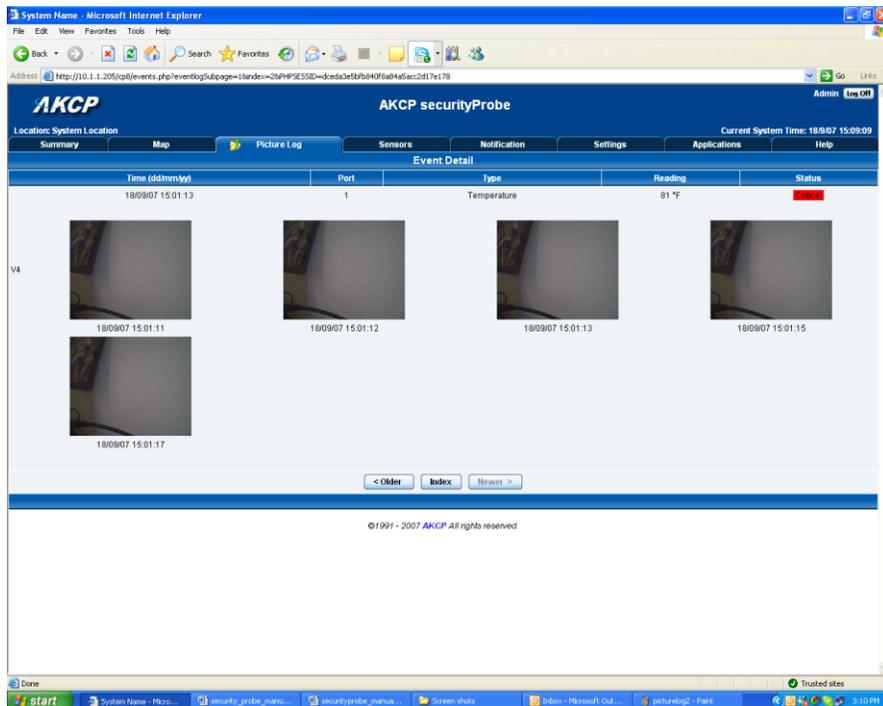


As you can see from the screen shot above, we have set the picture log to be created when the temperate sensor is at a “High Critical” state.

b) Adjust the [notification thresholds](#) in order to trigger a response. This has triggered the picture log notification.



c) Viewing the logged pictures.



From here you can see there is a series of images. These have been taken at the preset time intervals, before and after the event. These parameters were set up in the notification wizard previously.

6) Mapping

The mapping feature allows for an instant visual feedback as to a sensors position, and status. It is a useful monitoring tool for a set up with several sensors in different positions.

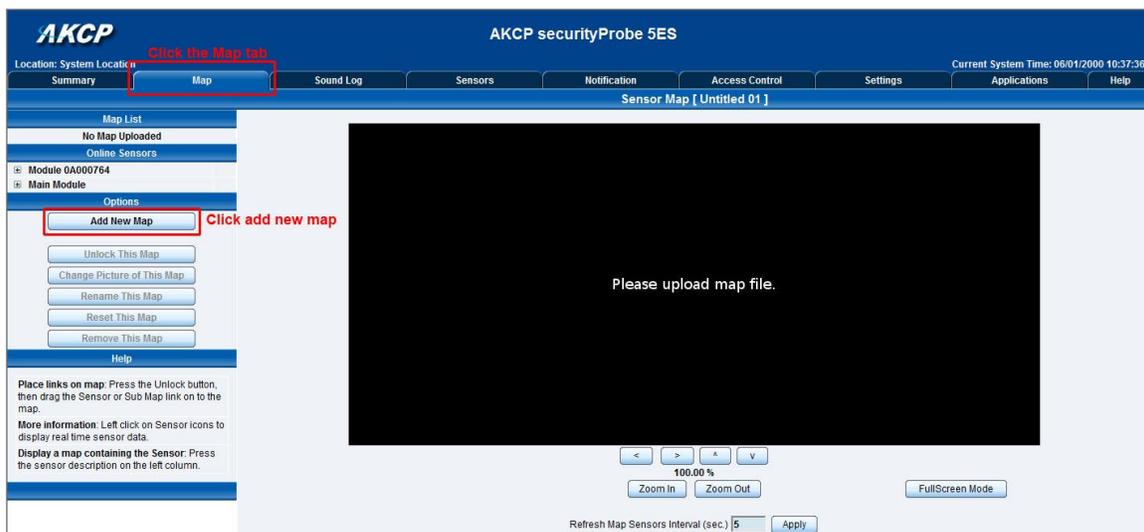
This tutorial provides you the information needed to setup the mapping feature.

To get to the starting point of this tutorial:

- Log in as administrator
- Click the “map” tab

1. Adding a map

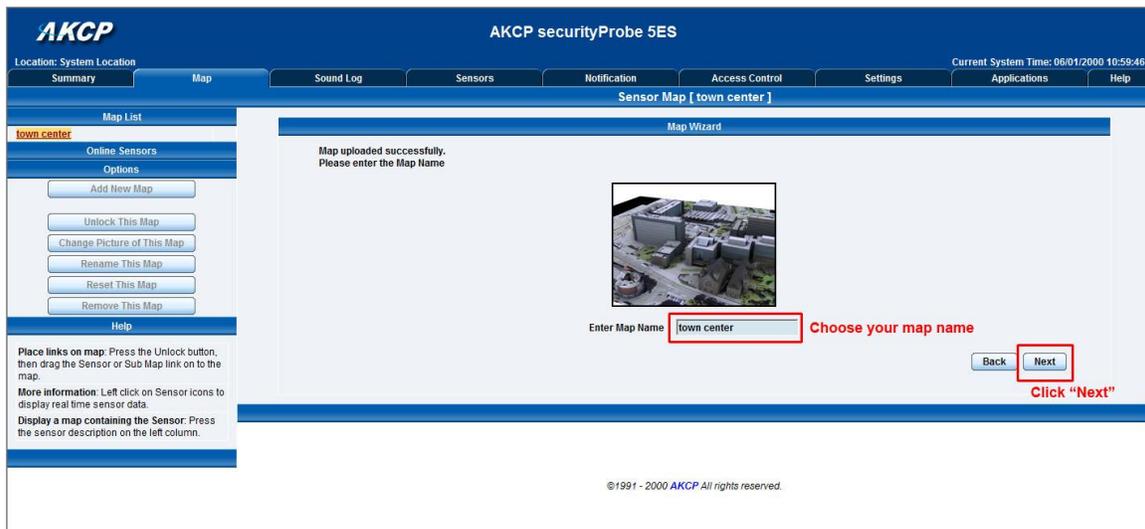
a) First we need to add a picture file to be used as the map. This can be a blueprint of your office, a 3D picture of your office/site being monitored, or a photo of the wiring closet you are monitoring.



b) Now you can browse to the file on your HDD you wish to use.



c) In this tutorial we are going to use a 3D map of a town center we are monitoring.



d) Choose to have the map as a top level map.



e) You will now have the option to finish or to continue adding your sensors to the map. For this tutorial, click next.

Map Wizard

Map added successfully.
Click **Finish** to close this wizard or click **Next** to continue to Sensor Adding Wizard.

f) You will now be taken to the map page where it will display your map. To continue adding the sensors click next.

AKCP securityProbe 5ES

Location: System Location

Summary Map Sound Log Sensors Notification Access Control Settings Applications Help

Current System Time: 06/01/2000 11:02:22

Sensor Map [town center]

Map List

town center

Online Sensors

Module 0A000764

Main Module

Options

Add New Map

Unlock This Map

Change Picture of This Map

Rename This Map

Reset This Map

Remove This Map

Help

Place links on map: Press the Unlock button, then drag the Sensor or Sub Map link on to the map.

More information: Left click on Sensor icons to display real time sensor data.
Display a map containing the Sensor: Press the sensor description on the left column.

This wizard will guide you to the rest of the sensors adding process.

Click the Next button to continue.

Click "Next!"

Cancel Next

g) After clicking next you will be directed to click the "Unlock" button.

AKCP securityProbe 5ES

Location: System Location

Summary Map Sound Log Sensors Notification Access Control Settings Applications Help

Current System Time: 06/01/2000 11:04:02

Sensor Map [town center]

Map List

town center

Online Sensors

Module 0A000764

Main Module

Options

Add New Map

Unlock This Map

Change Picture of This Map

Rename This Map

Reset This Map

Remove This Map

Help

Place links on map: Press the Unlock button, then drag the Sensor or Sub Map link on to the map.

More information: Left click on Sensor icons to display real time sensor data.
Display a map containing the Sensor: Press the sensor description on the left column.

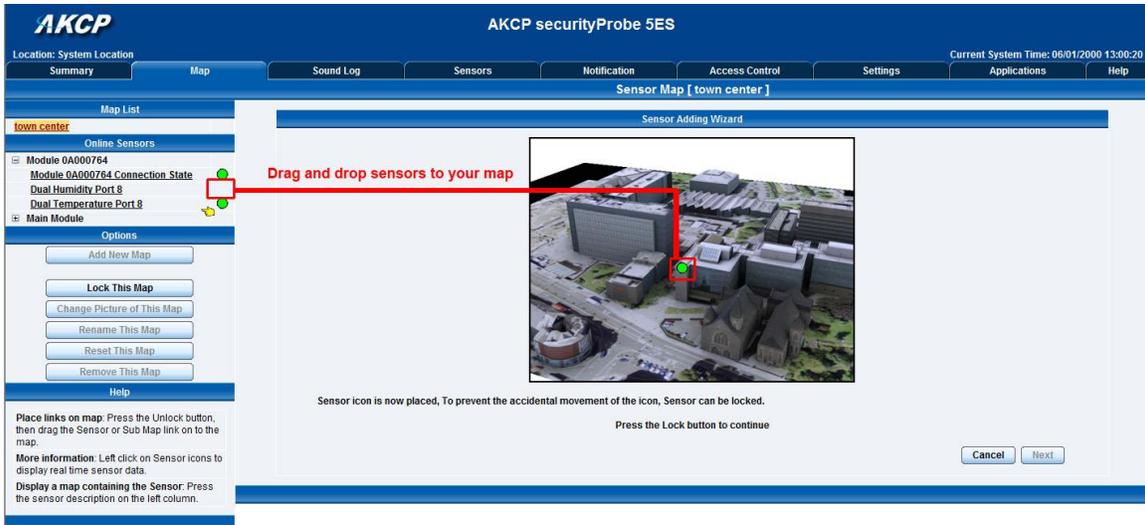
The round circle icons in the upper left represent the Online Sensors.
All sensor icons are locked by default. To move and place the sensors into the map, press the Unlock button.

Click the Unlock button to continue

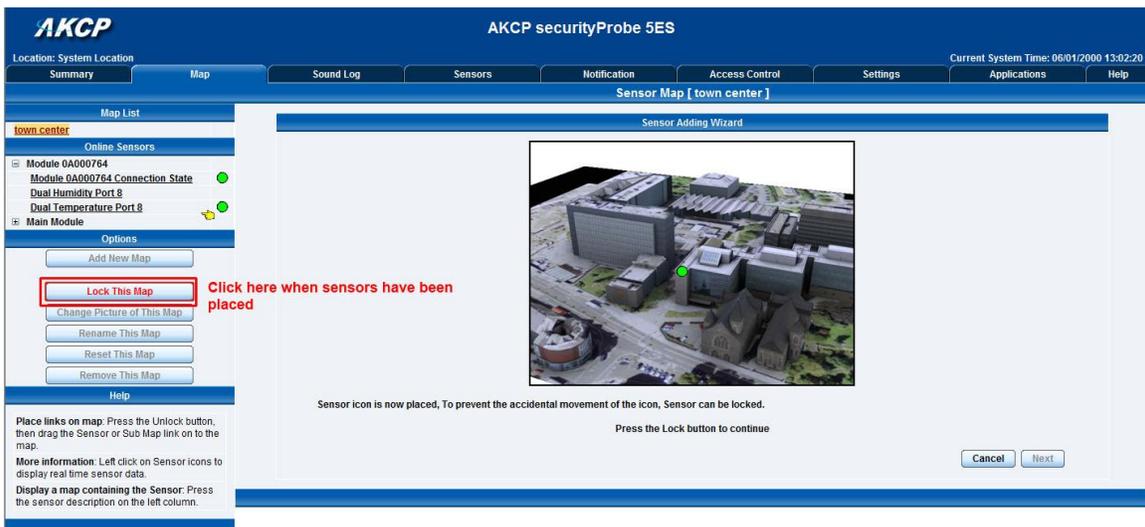
Click "Unlock!"

Cancel Next

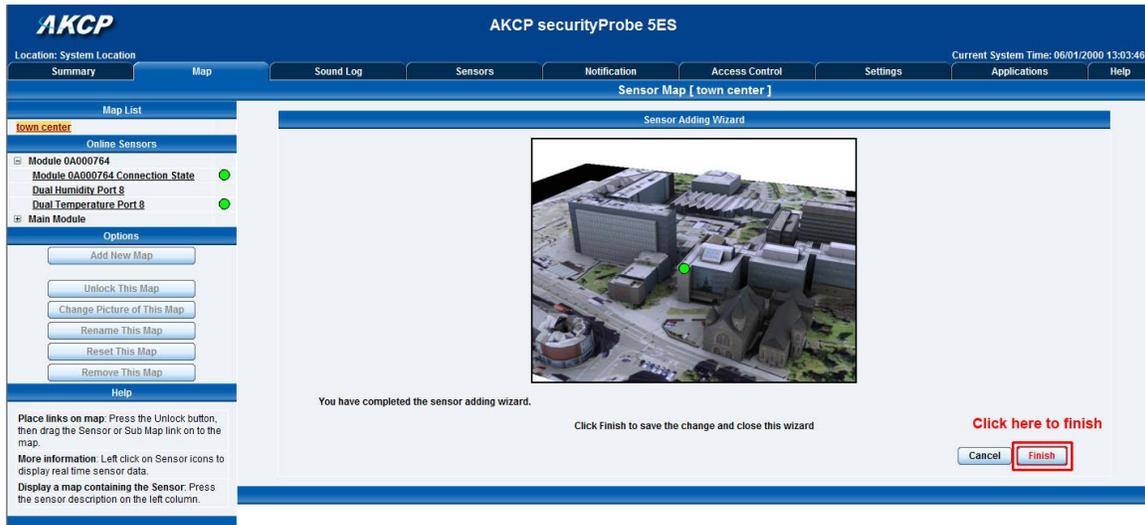
You can now drag sensor icons and position them on the map



i) After you have positioned the sensors in the correct location of your map click on “Unlock”



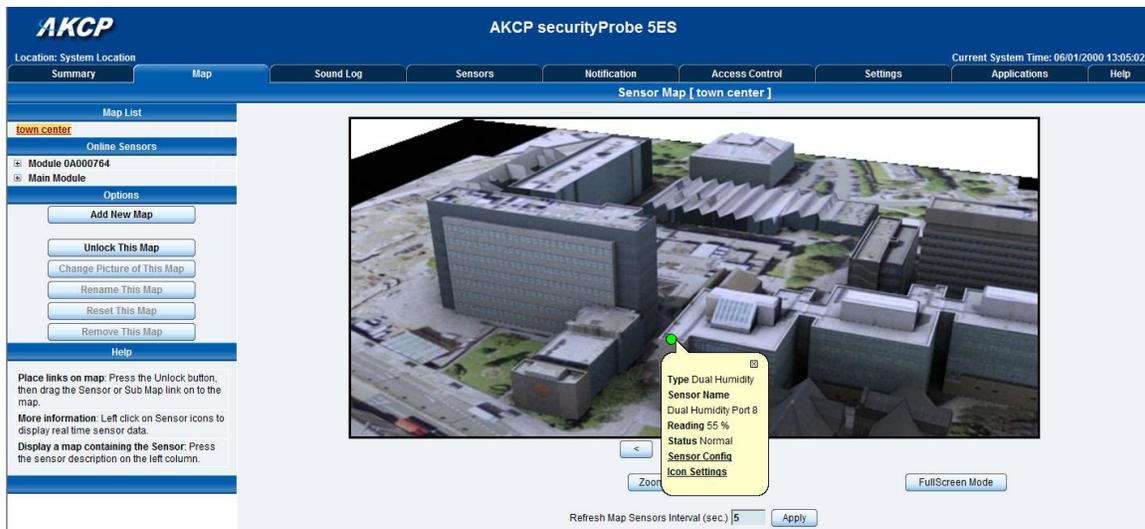
j) Finally you click on the “Finish: button to save your changes



2. Monitoring via the map interface

Now we are going to look at how to monitor the sensor status and use the map interface.

a) To see further information regarding a sensor you can click on its icon. First you must click on the “Lock Icons” button.



If you connect other sensors, these too can be dragged and positioned on the map.

6) Filters

1) Sensor filters

The module now comes equipped with the option to filter your sensor information which is displayed within the summary page. To enter the filter menu, select “Sensor Filters” from the dropdown tab on the left of the page:-

The screenshot shows the AKCP securityProbe 5ES web interface. On the left, the 'Sensor Filters' menu is expanded, showing options for 'Advanced Filter' (Display Status, Display Sensor Type, Display Host Name), 'Apply Filter', 'Clear Filter', 'Expand All Modules', 'Collapse All Modules', and 'Reload Sensor Interval' (set to 10 secs). The main area displays a table of sensor information:

Host Name	Type	Sensor Name	Reading	Status
Main Module	Module	Main Module	-	Normal
Module 0A000764	Module	Module 0A000764	-	Normal

Below the table is a 'System Log (33 messages)' section with a list of log entries including temperature and humidity readings and connection states. A red link 'Click here to view filter options' is visible at the bottom of the log area.

Once you have clicked the tab you will be able to select your filter results by altering various fields of information contained within sensor filter window:-

This close-up of the 'Sensor Filters' window includes the following annotated features:

- Sorting options are found here:** A red box highlights the 'Sort by' dropdown menu, which is currently set to 'Host Name'.
- Select various options to customize your viewing window data:** A red box highlights the 'Advanced Filter' section, which includes checkboxes for 'Display Status', 'Display Sensor Type', and 'Display Host Name'.
- Click here to save your changes:** A red box highlights the 'Apply Filter' button.

Other visible elements include a search field, 'Clear Filter', 'Expand All Modules', 'Collapse All Modules', and a 'Reload Sensor Interval' of 10 seconds with an 'Apply' button.

Altering your page reload interval can be achieved by using these options shown below:-



Once you have selected your preferred filter options, your new settings will be displayed in the "Sensor Information" window found on the summary page:-

AKCP securityProbe 5ES

Location: System Location

Summary | Map | Sound Log | Sensors | Notification | Access Control | Settings | Applications | Help

Current System Time: 06/01/2000 13:18:42

Summary Setting

Layout Setting

Sensor Filters

Sort by:

Advanced Filter

Display Status

Display Sensor Type

Display Host Name

Search:

Reload Sensor Interval : secs.

Syslog Filters

Host Name	Type	Sensor Name	Reading	Status
Main Module	Module	Main Module	-	Normal
Module 0A000764	Module	Module 0A000764	-	Normal

Sensors status will be reloaded in 10 secs

System Log (33 messages)

- 2000/01/06 10:43:04 Temperature Port 8 is 27.5 °C, status is Normal
- 2000/01/06 10:38:16 Temperature Port 8 is 30.0 °C, status is High Warning
- 2000/01/06 10:11:59 Dual Temperature Port 8 on Module 0A000764 is 26.8 °C, status is Normal
- 2000/01/06 10:11:59 Dual Humidity Port 8 on Module 0A000764 is 56 %, status is Normal
- 2000/01/06 10:11:55 Module 0A000764 is enabled
- 2000/01/06 10:08:23 Module 0A000764 Connection State on Module 0A000764 status is Normal
- 2000/01/06 10:03:29 Module 0A000764 is disabled
- 2000/01/06 05:55:01 Temperature Port 8 is 27.5 °C, status is Normal
- 2000/01/05 16:18:52 Temperature Port 8 is 30.0 °C, status is High Warning
- 2000/01/05 10:31:42 Temperature Port 8 is 27.5 °C, status is Normal

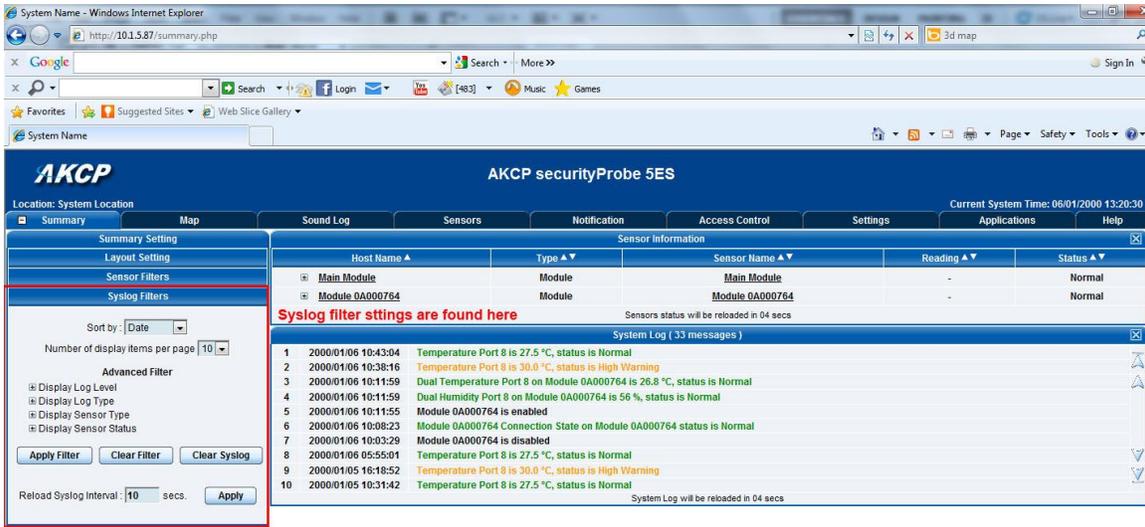
System Log will be reloaded in 09 secs

Your changes are displayed here

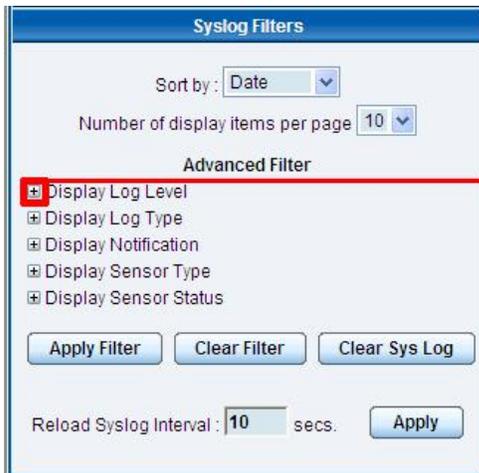
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2) Syslog filters

Syslog filters enable you to customize your syslog window. To begin select the “Syslog filter” tab found on the summary page:-



Once you have clicked the tab you will be able to select your filter results by altering various fields of information contained within syslog filter window:-



By clicking on the “+” sign, a drop down list of options will be come available.

By checking and un-checking various boxes within the Syslog filter window you can customize your displayed results contained within the syslog filter.

Sort by:

Number of display items per page

Advanced Filter

- Display Log Level
 - Critical
 - Warning
 - Notices
 - Information
- Display Log Type
 - System Log
 - Sensor Log
- Display Notification
- Display Sensor Type
 - Temperature
 - Water
 - Humidity
 - Dry contact Array
 - Dual Temperature
 - Motion
- Display Sensor Status
 - Normal
 - High Warning
 - High Critical
 - Low Warning
 - Low Critical
 - Sensor Error

Apply Filter Clear Filter Clear Sys Log

Reload Syslog Interval : secs. Apply

Sorting options are found in the drop down menu

Various check boxes can be ticked and unticked to customize your filter window

Click here to save your selections

Altering your reload interval can be achieved by using the options shown below:-

Reload Syslog Interval : secs. Apply

To change your reload interval enter a new value here and click "Apply"

Once you have selected your preferred filter options, your new settings will be displayed in the "System log Information" window found on the summary page:-

The screenshot shows the AKCP securityProbe 5ES web interface. The browser address bar shows 'http://10.1.5.87/summary.php'. The interface has a blue header with the AKCP logo and the title 'AKCP securityProbe 5ES'. Below the header is a navigation menu with tabs for Summary, Map, Sound Log, Sensors, Notification, Access Control, Settings, Applications, and Help. The 'Summary' tab is selected, and the 'System Location' is shown as 'System Location'. The current system time is '06/01/2000 13:21:52'. The main content area is divided into several sections: 'Summary Setting', 'Sensor Information', and 'System Log (33 messages)'. The 'System Log' section is highlighted with a red box and contains the following entries:

Host Name	Type	Sensor Name	Reading	Status
Main Module	Module	Main Module	-	Normal
Module 0A000764	Module	Module 0A000764	-	Normal

Below the sensor information table is the 'System Log (33 messages)' section, which is highlighted with a red box. It contains a list of log entries with timestamps and descriptions. A red text annotation 'Syslog filter settings are displayed here' is overlaid on the log entries. The log entries include:

- 1 2000/01/06 10:43:04 Temperature Port 8 is 27.5 °C, status is Normal
- 2 2000/01/06 10:38:16 Temperature Port 8 is 30.0 °C, status is High Warning
- 3 2000/01/06 10:11:59 Dual Temperature Port 8 on Module 0A000764 is 26.9 °C, status is Normal
- 4 2000/01/06 10:11:59 Dual Humidity Port 8 on Module 0A000764 is 56 %, status is Normal
- 5 2000/01/06 10:11:55 Module 0A000764 is enabled
- 6 2000/01/06 10:08:23 Module 0A000764 Connection State on Module 0A000764 status is Normal
- 7 2000/01/06 10:03:29 Module 0A000764 is disabled
- 8 2000/01/06 05:55:01 Temperature Port 8 is 27.5 °C, status is Normal
- 9 2000/01/05 16:18:52 Temperature Port 8 is 30.0 °C, status is High Warning
- 10 2000/01/05 10:31:42 Temperature Port 8 is 27.5 °C, status is Normal

At the bottom of the log section, it says 'System Log will be reloaded in 07 secs'. On the left side of the interface, there are 'Syslog Filters' settings, including a 'Sort by' dropdown set to 'Date', a 'Number of display items per page' set to '10', and an 'Advanced Filter' section with checkboxes for 'Display Log Level', 'Display Log Type', 'Display Sensor Type', and 'Display Sensor Status'. There are also 'Apply Filter', 'Clear Filter', and 'Clear Syslog' buttons, and a 'Reload Syslog Interval' set to '10' seconds with an 'Apply' button.

7) Making my unit visible on 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), monitor via the web based interface or with SNMP traps.

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. 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 depending on your routers model. Generally 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.

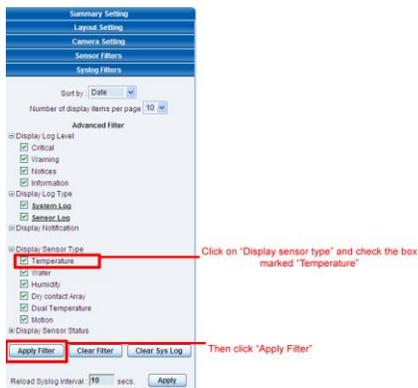
FAQ & Trouble Shooting

- 1) [I cannot see the temperature sensor displayed on summary page](#)
- 2) [I can not access my units web based interface](#)
- 3) [What do my LED lights mean?](#)
- 4) [I have forgotten my units IP address](#)
- 5) [I have forgotten the password for my unit](#)
- 6) [Can I use DHCP to assign my units IP address?](#)
- 7) [How do I set up my routing table?](#)
- 8) [How can I change my administrator password?](#)
- 9) [What functions do different types of notifications provide?](#)
- 10) [Can I connect my unit via WiFi?](#)
- 11) [What is the heartbeat message?](#)
- 12) [What is the Network Sniffer?](#)
- 13) [Can I use the unit to make video conferencing calls?](#)
- 14) My securityProbe unit will not seem to boot up normally and the LED's are circling around counter clockwise what should I do?
- 15) After I finished the firmware upgrade I don't see any sensors connected to my unit in the web interface any longer. What could be the problem?
- 16) I just noticed this "Mega SPI Error" in my securityProbe's web interface. What is the problem? How do I clear this?
- 17) I am seeing "Database Locked" errors entries in the syslog on my securityProbe unit, what should I do?
- 18) My securityProbe unit keeps rebooting after I updated a firmware update failure. What happened and what can I do?
- 19) I have some problems with securityProbe. The following things are not working:
When setting a virtual sensor online, the „Configuration“ button is missing (several browsers tested) The Restore Original Settings“ is not working Clear All User Data and Restore Original Settings“ is not working
- 20) I am having problems with the unit but not sure what to do next?
- 21) On your specs it shows the same resolution on both HD and non HD camera's. What is the difference?
- 22) What are the differences between the securityProbe 5E, the securityProbe 5ES and the securityProbe 5ESV?
- 23)How long can the new HD Digital cameras be extended?

- 24) Does the new HD Digital camera have the cable incorporated into it and what is the length of that cable?
- 25) What if I need to extend the cameras further than 5 meters? Can I purchase what I need from you?
- 26) What if I need to extend the cameras further than 15 meters? Can I use the older digital cameras you offered before that connect to the SEC-5E BNC/RG-6 connectors? Can I use BNC-to-USB adapters?
- 27) Is this option a separate board or unit similar to your expansion units?
- 28) If I order this option will I be able to connect other types of third party cameras as I did with my SEC-5E?
- 29) I noticed on the data sheet the 5ESV now ships with 2 expansion ports instead of 4. Does reducing the expansion ports also reduce the total number of sensors that can be connected to the SEC-5ESV?
- 30) Can I add my own SD flash card to the unit? If so how large can I use and what is then stored on the SD card?
- 31) I noticed you have a different firmware for the securityProbe 5E and the SEC-5ES base units, will there be another separate firmware for the SEC-5ESV?
- 32) Speaking of firmware, do I need a separate firmware version or file if my unit has the X20 or X60 dry contact inputs? For example my SEC-5ES-X20 or my SEC-5ESV-X60?
- 33) Can I still use the same USB modems that worked or work on my securityProbe, my SEC- 5E and 5ES base units?
- 34) Will all the sensors that work on my SEC, SEC-5E, SEC-5ES work on the new SEC-5ESV base unit?

1) I cannot see the temperature sensor displayed on summary page

If after logging in for the first time with the temperature sensor connected, you may need to do the following:-



Next click on apply filter. The temperature sensor should then be displayed in the list of connected sensors.

2) I cannot access my units web interface

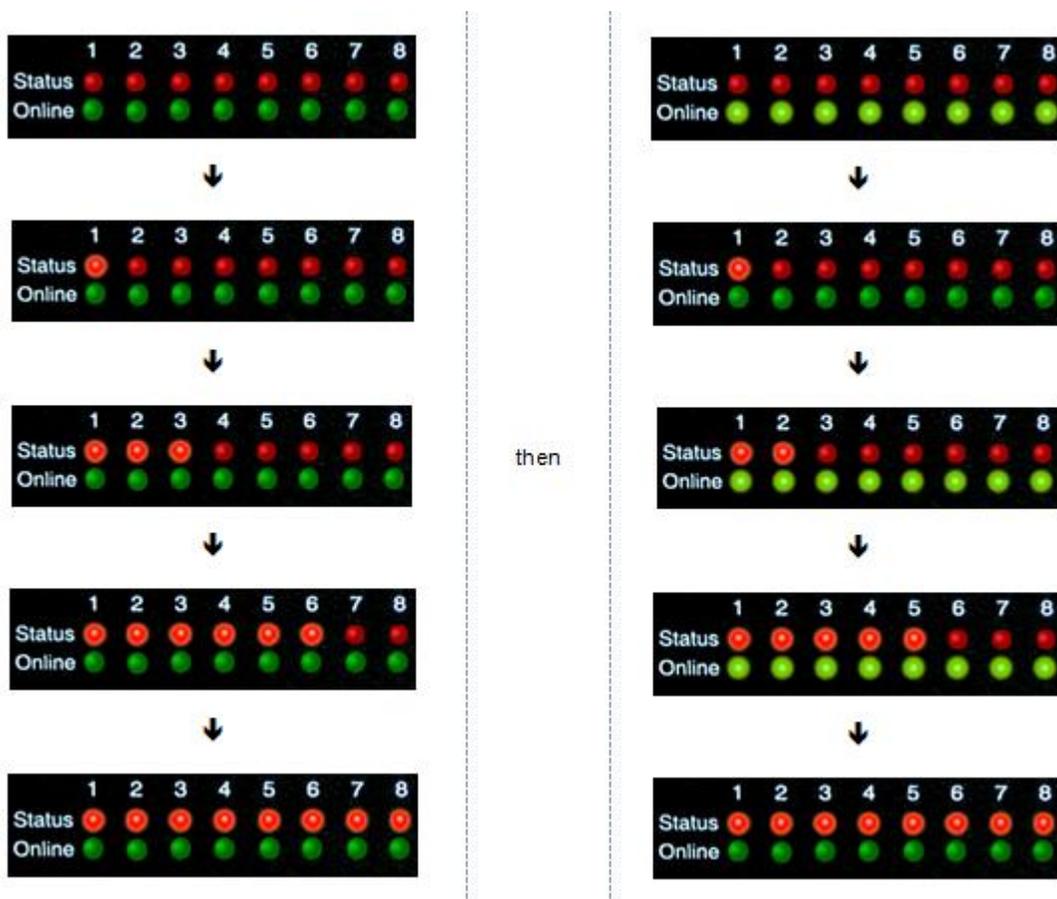
If you're having issues with network connectivity, first ensure that the link100 LED is lit on the front display of the unit. If this is not lit then you have no network connection present. If this is the case then ensure the following :-

1. If connected directly to a PC ensure a good quality crossover cable is being used
2. Ensure a standard CAT5 Ethernet cable is being used to connect to your network
3. See below for more trouble shooting on this.

3) What do my LED lights mean?

The following diagrams show what the various LED displays mean.

LED patterns in Normal Mode



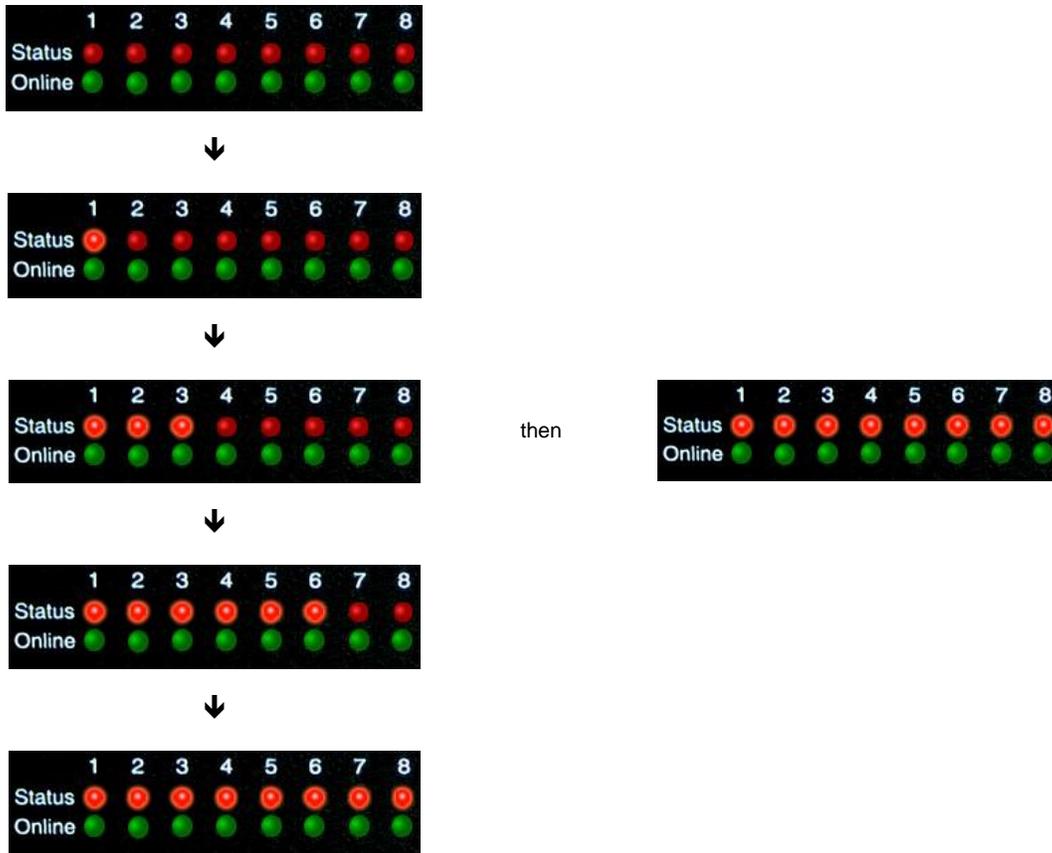
LED patterns in Safe mode



then



LED patterns in **Recovery mode**



LEDs run clockwise after the power is connected.

From left to right each LED indicates

- 1st LED: U-Boot init
- 2nd LED: Kernel loaded with good CRC
- 3rd LED: Board init
- 4th LED: Serial port
- 5th LED: Ethernet
- 6th LED: NOR Flash
- 7th LED: NAND Flash
- 8th LED: Root file-system mounted. Starting init process

After the root file-system is mounted, all green LEDs will be flashing, and red LEDs light increasingly from left to right. The onboard web-server can be accessed during this time and shows a splash screen with boot details. After the boot process is finished the LEDs show the status of the online sensors.

4) I have forgotten my units IP address

If you have forgotten the IP address of your unit then you can simply press the reset button on the back of the unit. This will then announce the IP address through the units internal speaker.

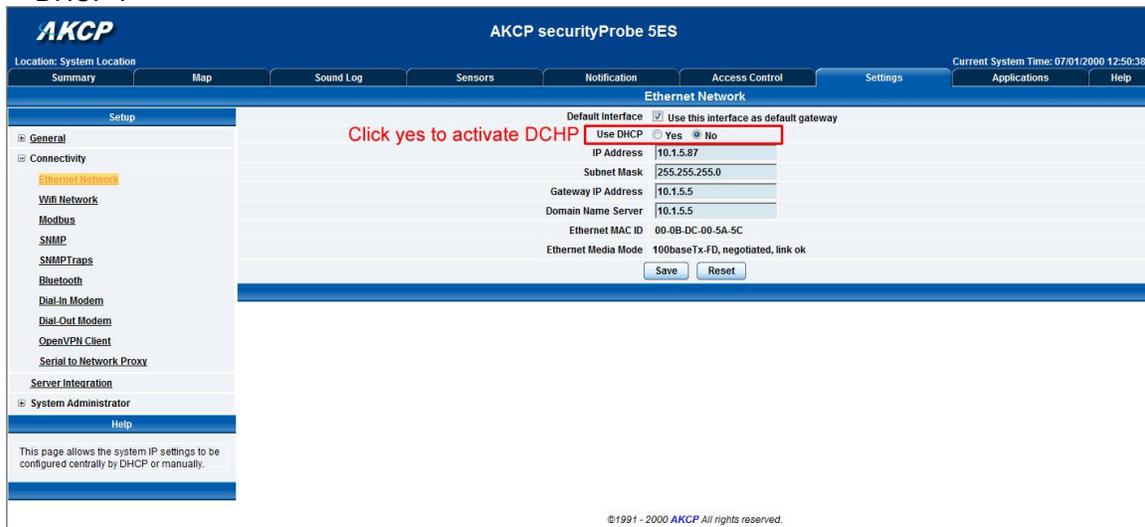
5) I have forgotten the password for my unit.

Hold down the reset button for 12 seconds. This will turn off the use password feature for the web based interface. This will remain turned off until you hold the button down for a further 12 seconds, or the unit announces “Now turning off password checking”.

Note: This will turn off the password checking for accessing the web interface only; you still have to enter the password when access the system via telnet.

6) Can I use DHCP to assign my units IP address?

Yes, you can use DHCP to assign the IP address. The unit ships with this disabled. Therefore to turn it on you need to log into the web interface and navigate to the Ethernet settings by way of clicking the “security” tab, “Ethernet Network” and then clicking on the YES button for “Use DHCP”.



The screenshot shows the 'Ethernet Network' configuration page. A red box highlights the 'Use DHCP' radio button, which is selected. A red text overlay reads 'Click yes to activate DCHP'. Below this, the 'IP Address' is set to 10.1.5.87, 'Subnet Mask' to 255.255.255.0, 'Gateway IP Address' to 10.1.5.5, and 'Domain Name Server' to 10.1.5.5. The 'Ethernet MAC ID' is 00-0B-DC-00-5A-5C and 'Ethernet Media Mode' is 100baseTx-FD, negotiated, link ok. There are 'Save' and 'Reset' buttons at the bottom.

Note: If the unit has a static IP address assigned it will no longer send out DHCP requests. If you later wish to turn DHCP back on you can do that using the Web based interface.

7) How do I set up my 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.

8) How can I change my administrator password?

If you wish to make your unit more secure and change the administrator password from the default (public) to your own choice follow these steps :-

- A) Log into your unit using the default password.
- B) Point towards the settings tab.

AKCP securityProbe 5ES

Location: System Location Current System Time: 07/01/2000 12:57:38

Summary Map Sound Log Sensors Notification Access Control **Settings** Applications Help

User & Group Management

1. Click "Settings"

2. Select this option

User Name ▲▼	Group Name ▲▼	Description	Login session timeout (minutes)
Admin *	Administrator	Built-in account for administrator	60
User *	User	Built-in account for user	60
BobSmith	System Guest	Guest	60

* Cannot remove.

Add Remove Properties

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C) Click on properties which will bring you to the following page:-

AKCP securityProbe 5ES

Location: System Location Current System Time: 07/01/2000 12:58:42

Summary Map Sound Log Sensors Notification Access Control **Settings** Applications Help

User & Group Management

User Setup

Enter the user name, password, description and then select the member of the group.

User Details

User Name: Admin User Cannot Change Password

Password: *****

Confirm Password: *****

Description: Built-in account for administrator

Login session timeout (minutes): 60

Member of Group: Administrator [Goto Group Setup](#)

1. Change password here

2. Click here

Cancel **Finish**

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9) What function do the different types of notifications provide?

The notifications are used to notify you when a sensor reading has hit a certain preset "critical" threshold. There are many ways you can be notified. They are as follows :-

SNMP Trap: This form of notification sends out a signal to your SNMP server.

E-Mail: This sends a notification via e-mail.

SMS: This sends an SMS message to your mobile phone.

MMS: This will send you a multimedia message to your mobile phone. This can include an image captured from one of the sensor probes cameras.

Relay: The relay is used as a switch, for example it could switch on an air con unit if the temperature reading of a temperature sensor reaches a certain threshold.

Alarm sound: This notification will sound an alarm.

Speech: Creates a text to speech notification.

Picture log: Creates an action where the camera logs a series of images when a certain event happens.

Telephone call: Will call you and play a pre recorded message or a text to speech message.

Custom script: Allows you to load a custom script that runs on a sensor reading a pre set parameter.

Fax: Will send a Fax to you with a notification message.

Sound log: creates a log of sound captured with the internal / external microphone.

Siren and strobe: will activate a siren and strobe light.

Mobile access: Gives you the function of viewing the camera attached to your security probe via your mobile phone.

Wake up / Shutdown: This will send a signal to wake or shut down a server.

If you require any assistance in setting up of these please contact us on support@akcp.com

10) Can I connect my unit via WiFi?

Yes you can connect the unit via WiFi. Simply plug a USB dongle into the USB port on the rear of the unit. You then need to configure your connection type, and encryption key etc. You do this from the web based interface in the settings tab and the connectivity option. The dialogue for configuring the WiFi is shown below.

Wifi Network	
Wireless Adapter	<input checked="" type="radio"/> On <input type="radio"/> Off
Default Interface	<input type="checkbox"/> Use this interface as default gateway
Use DHCP	<input type="radio"/> Yes <input checked="" type="radio"/> No
IP Address	<input type="text" value="192.168.0.10"/>
Subnet Mask	<input type="text" value="255.255.255.0"/>
Gateway IP Address	<input type="text" value="10.1.1.205"/>
Domain Name Server	<input type="text" value="10.1.1.2"/>
Wireless Mode	<input checked="" type="radio"/> Infrastructure (Access point) <input type="radio"/> Ad-hoc ch <input type="text" value="1"/>
Wireless SSID	<input type="text"/>
Encryption Mode	<input checked="" type="radio"/> Disabled <input type="radio"/> 64bit WEP
Link Status	Not connected
Signal Strength	0%
<input type="button" value="Save"/> <input type="button" value="Reset"/>	

11) What is the Heartbeat message?

This setting is to have the securityProbe notify you it is still running. You can be notified by either SMS, traps, Custom Scripts or by e-mail:

Alive Trap settings: *Send Keep Alive Traps (Default Off): Select on if you want the system to send Alive Traps.*

Destination: *enter the IP address of the server to send traps to.*

Community: *SNMP community string.*

Resend Interval (mins): *The period of time between each keep-alive trap. Values range from 1 to 65535 minutes.*

12) What is the network sniffer

The Network Sniffer application can be used to capture network packets running to and from the securityProbe, and all the network traffic. You can then import the captured file into Ethereal or TCP dump for details of these network packets. The network trace will help in debugging any network problems; for example, if e-mail cannot be sent.

13) Can I use the camera for a video conferencing call?

Yes it is perfectly possible to use the camera and the integrated microphone to make a video conferencing calls. To do this you need the software called "OpenPhone" running on your computer. This is included on the CD ROM that came with your unit. (Look for OpenPhone.exe). Next follow these steps:-

1. Initiate connection from OpenPhone (PC) to securityProbe.
 - a) Open the program by double clicking "openphone.exe"

- b) Click the "Make Call" button, enter the IP address of the sensorProbe8Linux/cameraProbe8 to initiate a call in the "Address" field. Then, click "Ok"
 - c) The unit will automatically respond to a call and establish the connection. You will then see the video, and hear sound from the unit.
2. Initiate connection from a securityProbe to OpenPhone (PC)
 - a) Open the program by double clicking "openphone.exe"
 - b) On the web interface, click on the **Applications** tab, and click on **Video Conferencing**.
 - c) select the "**Call to**" option and enter the IP address of the PC running OpenPhone. Click "**Save**". to discover your computers IP address in the command prompt type "ipconfig"
 - d) On the OpenPhone application, click "**Answer**" to accept the call.
 3. Connection between two sensorProbe8Linux/cameraProbe8 (only voice conference).
 - a) On the web interface of the calling sensorProbe8Linux/cameraProbe8, click on the **Applications** tab, and click **Video Conferencing**.
 - b) On the right pane, select the "**Call to**" field and enter the IP address of the receiving sensorProbe8Linux/cameraProbe8 into this field. Click "**Save**"
 - c) The connection should automatically establish.

You can end the video conference call by doing the following:-

1. End the call on OpenPhone (PC): to end call, click the "**Hang Up**" button on the OpenPhone. This method can be used to end the call between the system and OpenPhone.
2. End the call on the unit: From the web interface, click on the **Applications** tab and click on **Video Conferencing**. On the right pane, select "**End call and wait for a new incoming call**" option. Then, click "**Save**"

14) My securityProbe unit will not seem to boot up normally and the LED's are circling around counter clockwise what should I do?

Leave the power connected to the unit and let it sit for 30 minutes without pressing the safe mode button and it should boot back to normal mode. If it does not then please follow the instructions on page #16 of this manual.

15) After I finished the firmware upgrade I don't see any sensors connected to my unit in the web interface any longer. What could be the problem?

Ether the update did not completely finish for some reason or your browser has a java script error. First try to clear your cache on your browser, then do a Ctrl + F5 (refresh). If the sensors still do not show then re-run the firmware update once more.

16) I just noticed this "Mega SPI Error" in my securityProbe's web interface. What is the problem? How do I clear this?

The Mega SPI Error is caused by a faulty connection between the main board and the Mega SPI board that is mounted underneath the mainboard and has the sensor ports.

This error can cause the sensors to not be visible as well.

The first thing to try is to re-flash the unit with the latest firmware on our web site, then power cycle the unit. If the unit still has this problem, then you can remove the power from the unit, open the case and re-seat the cables that connect the main board to the Mega IO board. If you still have the same error please contact support and provide the MAC ID of the unit.

17) I am seeing "Database Locked" errors entries in the syslog on my securityProbe unit, what should I do?

First navigate to the Settings >> System Administrator >> System Maintenance page, then run the "Backup All Settings To Backup File". Now run the "Clear All User Data and Restore Original Settings" keeping the network settings. After the unit has been reset you can upload the backup config file using the "Restore All Settings From Backup File".

18) My securityProbe unit keeps rebooting after I updated a firmware update failure. What happened and what can I do?

It sounds like the data base on the unit has been corrupted. Please use this version of firmware to update the unit. Which updating the unit please use the following procedures;

Do a complete reset back to factory default settings and a firmware re-flash.

First download the latest version of the firmware from our web site.

Here are the procedures:

First create a backup config file on the unit from the web interface.

Then run the firmware update and choosing the "Clear All User Data and Restore Original Settings" from the "System Maintenance" drop down menu.

After the firmware update is completed they can restore the backup config file.

19) I have some problems with securityProbe

The following things are not working:

When setting a virtual sensor online, the „Configuration“ button is missing (several browsers tested) The Restore Original Settings“ is not working

„Clear All User Data and Restore Original Settings“ is not working

The problem is most likely some files are missing or have been corrupted on the unit. Please try the following stepst;

1. backup the settings buy creating the backup config file
2. boot to recovery mode. Push and hold in the reset button while powering up the unit.
3. Choose the “clear all setting in recovery mode”
4. install the firmware again.
5. restore with the backup file in normal mode.

20) I am having problems with the unit but not sure what to do next?

Please email support@akcp.com and include the following detailed information in your email;

Note: The more details you can provide the easier and faster we can provide you with a resolution, so please be as detailed ad possible.

1. The details of the problem, condition of the LED's etc.
2. What you did to determine the unit has this problem
3. Was there anything done to the unit prior to having the problem?
4. Did the unit always have this problem, if not when did this start?
5. Do you have more than one unit having the same problem?
6. What did you do to try and fix the problem?
7. What version of firmware is running on the unit? Did you try and upgrade it?
8. Include the backup configuration file from the unit.
9. If you can put the unit online this would be the fastest way for us to solve the problem.
10. What is the MAC ID of the unit.

21) On your specs it shows the same resolution on both HD and non HD camera's. What is the difference?

The difference is the HD Cameras provide a a true digital image with enhanced clarity of the overall image. Resolutions are set to 640x480 to carefully balance image resolution and network bandwidth usage.

22) What are the differences between the securityProbe 5E, the securityProbe 5ES and the securityProbe 5ESV?

The securityProbe 5ESV has all the features of the previous generation SEC-5E base unit. The main differences are:

- It uses a newer and better design that is less susceptible to EMI interference.

- It uses a newer and better processor than the 5E, the iMX25.
- It is configured with the NAND flash on board instead of the SD flash for its main Operating System memory. But still has the SD flash for extended picture and sound storage.
- Provides better quality video and pictures using the new HD Digital or High Definition type UMC (Universal Mount Camera) and HD Digital PTDC (Pan Tilt Dome Camera).
- The new HD Digital PTDC is IR or night vision capable

The difference between the lower cost SEC-5ES and the SEC-5ESV is the 5ES unit does not include video where the 5ESV unit does support video. The 5ESV does not support software camera motion detection. Please use the IR motion sensor for motion detection.

23) How long can the HD Digital cameras be extended?

You can extend the HD Digital cameras both the UMC and the PTDC up to 5 meters. You cannot extend the cable more than 5 meters without active extenders – See FAQ #6 on the next page.

Does the new HD Digital camera have the cable incorporated into it and what is the length of that cable?

Yes, the HD Digital cameras have the cable that attaches to the 5ESV unit incorporated in the camera and this cable comes in a 5 meter length.

24) What if I need to extend the cameras further than 5 meters? Can I purchase what I need from you?

You can use the active cable extenders to extend the run length of the camera cables to 10 meters. We don't currently offer these active extenders, however you should be able to source these in your local area quite easily.

25) What if I need to extend the cameras further than 10 meters? Can I use the older digital cameras you offered before that connect to the SEC-5E BNC/RG-6 connectors? Can I use BNC-to-USB adapters?

We will offer another option so you can order the 5ESV unit with the RG-6 BNC or previous Digital UMC or PTDC Digital camera inputs instead of the HD Digital camera inputs. This would then allow the run length of the RG-6 cable to be extended up to 100 meters. You would however not have the better quality video and pictures that you would get when using the new HD Digital UMC or HD Digital PTDC.

26) Is this option a separate board or unit similar to your expansion units?

No this is not be a separate module, this is the same unit and case only the main board and back panel are different to provide the RG-6 BNC Digital camera connection inputs.

27) If I order this option will I be able to connect other types of third party cameras as I did with my SEC-5E?

Yes, the SEC-5ESV unit with the RG-6 BNC option will continue to support other third party cameras as long as they use the standard PELCO-D protocol and are within the previous specifications that worked with the SEC-5E base units.

28) I noticed on the data sheet the 5ESV now ships with 2 expansion ports instead of 4. Does reducing the expansion ports also reduce the total number of sensors that can be connected to the SEC-5ESV?

No, the SEC-5ESV unit will still support 500 sensors with the 2 expansion ports.

29) I noticed the the 5ES and 5ESV unit are now shipping without the SD cards inserted in the slot on the front panel. Did you forget to include them?

No, the units are now shipped as the NAND type setup where the operating system, settings, sensor data and other information is now stored on board in the NAND flash memory instead of the SD flash cards.

30) Can I add my own SD flash card to the unit? If so how large can I use and what is then stored on the SD card?

Yes, you can add your own SD flash card up to a 16GB. The picture and sound logs are stored on the SD flash. There is no setting that needs to be done, you can just insert the card and when the 128MB memory on the unit is full it will automatically begin storing the picture and sound logs on the SD flash.

31) I noticed you have a different firmware for the securityProbe 5E and the SEC-5ES base units, will there be another separate firmware for the SEC-5ESV?

No, the SEC-5ES and the SEC-5ESV units both use the same iMX25 processor so they will use the same firmware update file.

32) Speaking of firmware, do I need a separate firmware version or file if my unit has the X20 or X60 dry contact inputs? For example my SEC-5ES-X20 or my SEC-5ESV-X60?

No, since all the units with the extra X20 and X60 dry contact inputs use the same iMX25 processor they use the same firmware update file.

33) Can I still use the same USB modems that worked or work on my securityProbe, my SEC- 5E and 5ES base units?

Yes, as long as your firmware is updated on the unit, the SEC-5ESV will support all the same modem types as the previous generation of units.

34) Will all the sensors that work on my SEC, SEC-5E, SEC-5ES work on the new SEC-5ESV base unit?

Yes, all the sensors are supported on the previous generation of SEC and SEC-5E base units will continue to be supported on the new 5ESV base units.

This concludes the securityProbe 5ESV User Manual.

Please contact support@akcp.com if you have any further technical questions or problems setting up your modem or your alerts.

Thanks for Choosing AKCess Pro!