IM5521 IceSpy Notion Pro

System Manual

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1	04/11/2015	First issue.	RAB	CRB

This Manual

This manual is divided into two main parts:

- **Part 1** provides a brief introduction to the Notion Pro System as a whole, and gives an overview of the hardware that you would use with Notion Pro.
- **Part 2** gives a detailed description of the Notion Pro software. See also the Notion Pro Help.

Part 1

1 Introduction

1.1 What does Notion Pro do?

IceSpy Notion Pro enables you to configure and monitor temperature sensors installed in (typically) storage facilities for refrigerated or frozen goods or other temperature-sensitive environments (for example ultra-cold and cryogenic storage in hospitals.

Notion Pro is a System, containing software and hardware. For details of the hardware, see Section 2, also http://www.the-imcgroup.com/notionpro/.

The Notion Pro software gives a graphical user interface (GUI) which works through all the main web browsers, for display on a desktop PC, laptop or mobile device such as a tablet or smart phone.

1.2 Hardware Components

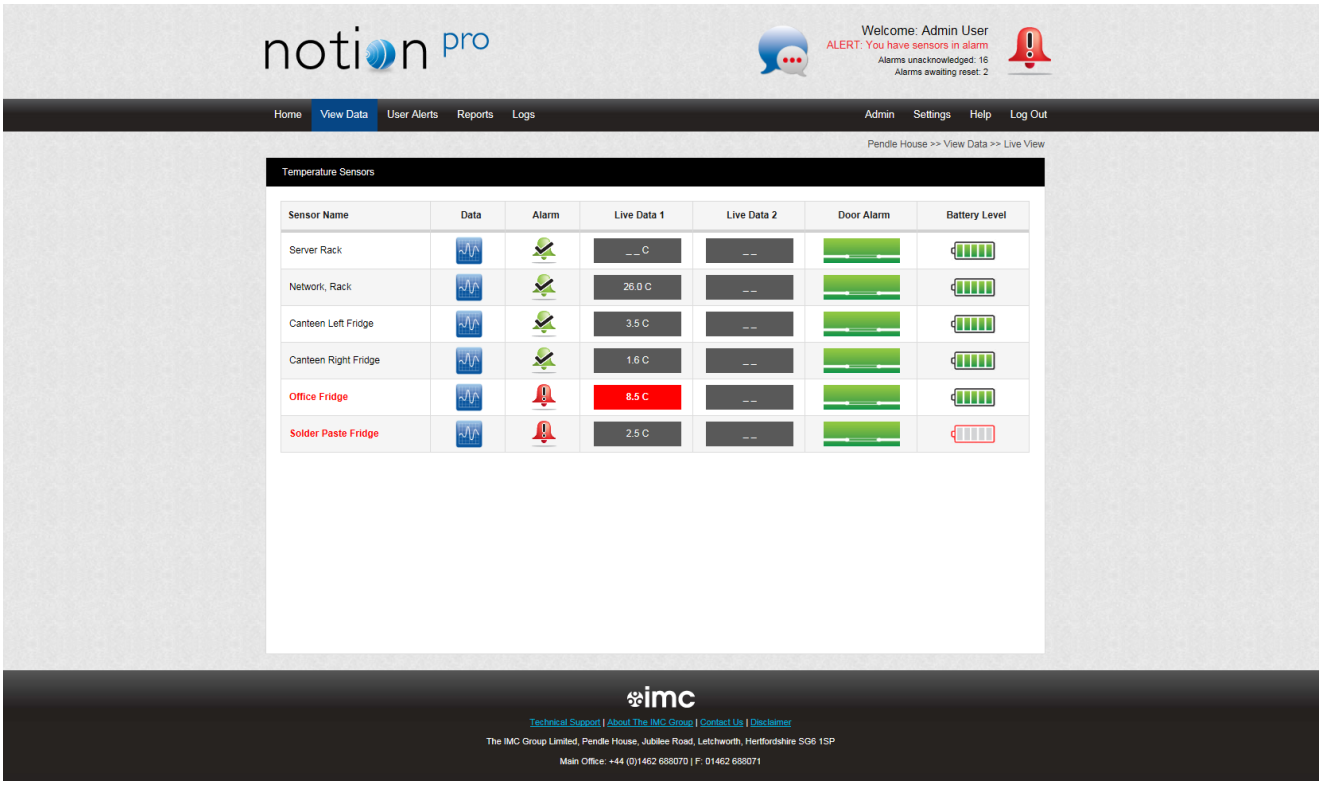
A Notion Pro system contains the following hardware:

- **Transmitters** to monitor the levels of temperature and other variables and transmit the data by radio to the Receiver. See section 2.6 for more details of the transmitters.
- **Network Receiver** (may also be referred to as the Base Unit). See section 2.1 for more details of the Network Receiver.
- **Optional Items.** These are the Echo, the ARB Module, the SMS Module and the Calibration Module. See sections 2.2 -2.5 for more details of these Optional Items.

1.3 Software Components

The Notion Pro system includes the server-based Notion Pro application software. The browser-based user interface enables you to monitor and control the Notion Pro system.

A typical Notion Pro display is shown below.



See Part 2 of this Manual for how to use Notion Pro software. See also the Notion Pro Help.

2 The Notion Pro Hardware

2.1 The Network Receiver

The Network Receiver receives radio signals from the Notion Pro Transmitters and passes them over a network to the Notion Pro software. The Hybrid Receiver will also receive signals from IceSpy System 5 Scout, Notion pro Legacy and Notion Pro transmitters.

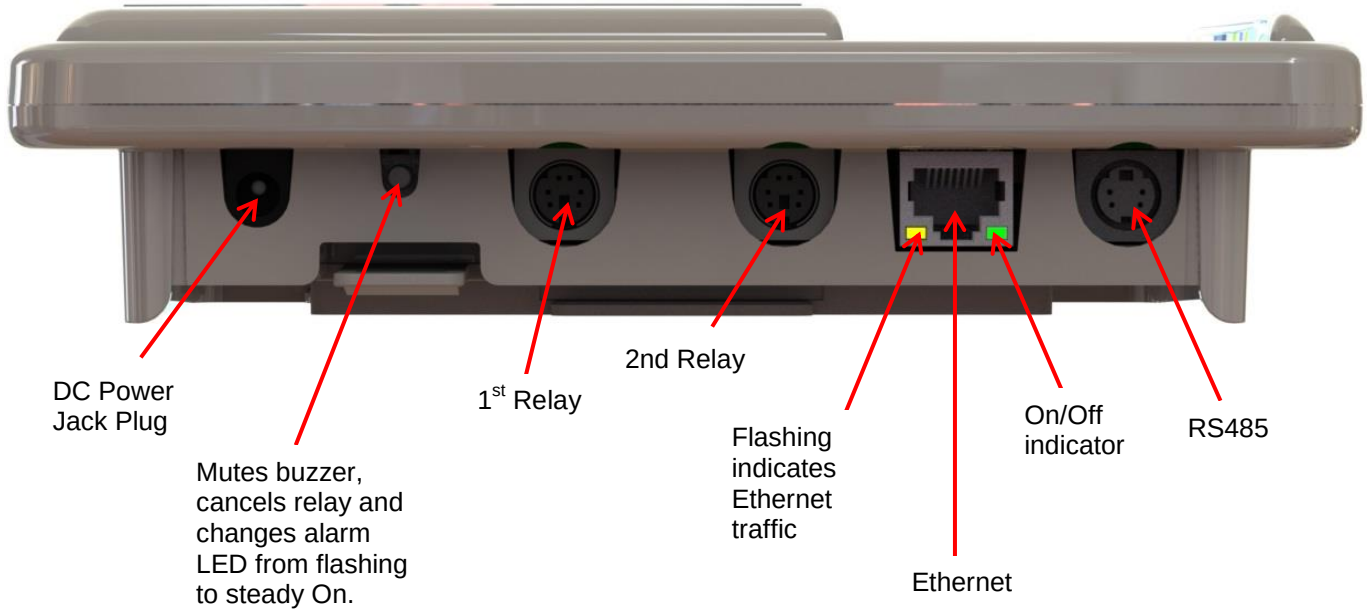
Key features:

- IMC Product Code IN-NR001-Fx (where x indicates the territory-specific frequency, for example F1 for Europe, F2 for USA; **this notation will be used throughout this Manual**). Hybrid unit is IN-HR001-Fx.
- Wall mountable.
- Internal aerials as standard – external aerials are a factory-fitted option.
- Red LED for alarm (normal state off), green LED for power (normal state on), 1 yellow LED for communications (normal state on). See also section 2.1.1.
- Mains powered from supplied adaptor.
- TCP/IP communications.
- Two on-board Relays, one configured for alarm activation, one for communications and power failure.
- Memory lasts for 5 days for up to 50 sensors.
- IP53 rated.

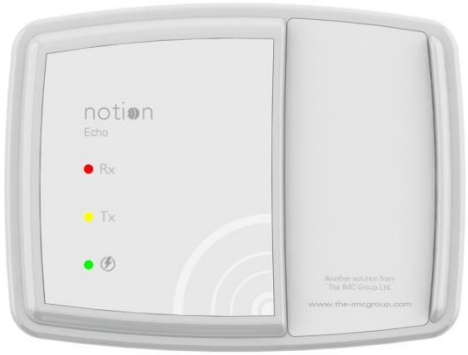
2.1.1 LEDs

Green (constant/flashing)	Unit is powered up. Flashes to indicate radio reception.
Red (flashing)	Alarm. (For example, temperature is outside thresholds.) Changes to steady red if Reset button is pressed. Goes off when Alarm Clear signal is received.
Yellow (constant)	Receiver is connected to your Network. A flashing yellow light means that an Ethernet connection has not yet been established.

2.1.2 Connectors



2.2 The Echo Module (optional)



The Echo module provides a Repeater function to re-transmit signals, should this be required in your installation. Key features:

- IMC Part No IN-RP002-Fx.
- Wall mountable.
- Green LED for power (normal state on), red LED to indicate signal being received, yellow LED to indicate signal being transmitted..
- Mains powered from supplied adaptor.
- Battery backup for 3 days.
- Reset button.
- IP53 rated.

2.2.1 Connectors

(See also section 2.1.2.)

2.3 The SMS Module (Optional)

This unit gives the ability for Transmitter alarms to be sent as SMS messages to mobile phones. See Part 2, 2.5.2 for details of SMS message configuration.

Key features:

- IMC Part No IN-TA001.
- Wall-mountable.
- External aerial.
- Red LED for alarm (normal state off), green LED for power (normal state on), yellow LED for communications (normal state on).
- OLED display showing signal strength and status.
- Base push-button – quick press shows setup and signal strength, 5-second press sends SMS test message.[1]
- On-board 2G/3G GSM module.
- Optional Wi-Fi communications.
- Mains powered from supplied adaptor.
- TCP/IP communications.
- Two on-board Relays, one configured for alarm activation, one for communications and power failure.

[1] The display shows signal strength, whether the unit is connected to the GSM network and whether a SIM card is fitted. When the SMS test message is sent the display indicates the telephone number and the message being sent.

- Battery backup for 24 hours, rechargeable batteries.
- SIM socket and card – accessed from back of battery compartment.
- IP53 rated.

2.3.1 Connectors

Sends SMS
test message

(See also section 2.1.2.)

2.4 The ARB Module (Optional)

The ARB unit gives an alarm display, with a keypad enabling the user to cycle through alarm information. Has RFID and Bluetooth connectivity.

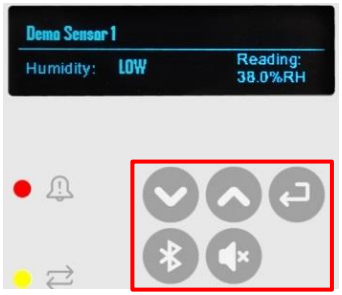
- IMC Part No IN-NA002.
- Wall mountable.
- Bluetooth module to interface to MM2000 series recording thermometer.
- Red LED for alarms (normal state off), green LED for power (normal state on), yellow LED for incoming SMS alarm message (normal state on).
- Mains powered from supplied adaptor.
- TCP/IP communications.
- On-board alarm relay and reset button..
- RS485 output to drive IMC MS1000 system relay cards.
- Battery backup.
- RFID interface and cradle for transmitter backfill[2].
- IP53 rated.

[2] If a transmitted signal can't get through for some reason, data is stored in an on-board cache. *Backfill* is where the transmitter is placed close to the ARB unit, stored data is then transferred automatically to the ARB via RFID.

2.4.1 Connectors

(See also section 2.1.2.)

2.4.2 Keypad Operation



Cycles up/down through Alarm messages for each sensor, ACKNOWLEDGE and RETURN screens.

Enter/OK – see below.

Bluetooth. Press to interface with MM7000 series recording thermometer and download its data.*

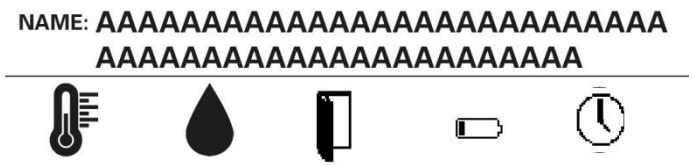
Mute. Stops alarm buzzer

* To download the scan data from an MM7000, first ensure that the MM7000 unit is turned on and enable the Bluetooth function by pressing the Bluetooth button on the MM7000). Then press the Bluetooth button on the ARB unit. If Bluetooth connection is possible an icon will appear on the screen and a number of dots, indicating that download is occurring. Once downloading is completed the screen will show a thumbs up symbol and then revert to normal operation.

2.4.3 User Interaction

On unit power up/reset, a locale-specific welcome screen appears. Pressing OK ( ) at this point enters ARB setup mode, otherwise the display will automatically scroll through the Alarm screens. The display goes off after 30 seconds.

Pressing at an alarm display shows the name of the sensor and one of five icons representing the alarm type, as follows:



ARB Display (representative)

'No Alarms' Display

AAAAAAAAAAAAAAAA	Sensor Name
	Channel A (Temperature). Temperature value has gone beyond pre-set High (or Low) thresholds.
	Channel B (Humidity) Humidity value has gone beyond pre-set High (or Low) levels.
	Door Open. Storage facility door has been left open for more that the pre-set threshold.
	Elapsed Time Warning. A signal has not been received from the sensor for more than the pre-set limit.
	Battery state alarm. Battery should be replaced.

- Pressing on any screen shows Channel A alarm details.

- Pressing on display of on the ACKNOWLEDGE screen acknowledges the alarm. also indicates a successful download of data from an MM7000 unit (see above).
- Pressing on the Channel A, Channel B or RETURN screens goes back to the starting screen.

2.4.4 Example Sub-Screens

Dual Ext Therm 106	
Temperature	↑ 22.4C
Channel 2	Δ 22.5C

Single PT100	
Temperature	↑ 22.7C
Channel 2	

Here, ↑ indicates High alarm, ↓ indicates Low alarm, Δ = rate of change alarm.

In the first of above examples, the transmitter is called ‘Dual Ext Therm 106’, has two alarms for temperature (‘High’ might be ‘High High’) on channel 2 and a rate of change alarm.

The second example (‘Single PT100’) has a High (or High High) alarm on channel 1.

2.5 The Calibration Module (Optional)

The Calibration Module collects data from the Notion Pro Calibration Tool (part of the Notion Pro software) and transfers the data to transmitters placed in the cradle via RFID. Licence to use the device will expire annually.

- IMC Part No IN-CM01.
- Green LED for power (normal state on).
- Mains powered from supplied adaptor.
- IP53 rated.

2.5.1 Connectors

See also section 2.1.2.

2.5.2 Display

Alarm display. Used to show failed communications.

2.5.3 Operation

Would usually be held by a Calibration Engineer, who would come in to the customer's premises on request. Would be used flat on a table connected by RS485 cable to the Engineer's laptop.

The Calibration Tool interacts with the Calibration Module and acts as a virtual display and keyboard. When a transmitter is to be calibrated it must be placed on the Calibration Module cradle. The Engineer then puts the Calibration Module into calibration mode via the calibration tool software.

When a Transmitter is put into calibration mode it sends messages to the System to identify that it is in calibration mode to stop alarms. When the transmitter is taken out of calibration mode another message is sent to the System that it is back in normal mode. If the sensor for some reason has not been taken out of calibration mode in 6 hours then an alarm is sent to warn that the transmitter is still in calibration mode.

Once the unit has gone through its calibration routine the Engineer will take it out of calibration mode. All calibration details will be held in the Transmitter itself, so no adjustments to the Notion Pro data base are required.

2.6 The Transmitters

All the members of the Notion Pro Transmitter family have the same basic enclosure (see above) and share many common characteristics. The available sensors can monitor temperature and relative humidity, voltage and 4-20mA current, (intended to interface with third party sensors), as well as providing door alarms. There are also external PT100 and thermocouple sensor probe options. For more detail on the Notion Pro transmitter family, see the data sheets at http://www.the-imcgroup.com/notionpro/.

All transmitters can be wall-mounted or free standing, as required. As far as possible, the transmitter units should be placed where they will not be subject to electromagnetic interference and where they will not be shielded by walls, doors, metal furniture, appliances etc. Note that if you have more than one Network Receiver on your Site and the signal from a given transmitter is being picked up by more than one Receiver, you can associate the transmitter with the Receiver unit which is showing the highest signal strength for that transmitter. See section 2.7.7 in Part 2 of this manual.

- All units can operate within a -30°C to +50°C temperature range.
- All units have user-replaceable 1.5V Lithium AA batteries. These have an expected life of >2years and work over -30°C to +50°C temperature range. 1.5V AA alkaline can be used but with a reduced battery life and a reduced operating temperature range (0°C to +40°C).

2.6.1 Air Temperature, Internal

- IMC Product Code IN-TH001-Fx
- Product Family: NP3000 series
- Accuracy ±0.5°C, 0.1°C resolution.
- Transmits data once per minute.
- Battery level status and alarms.
- Calibration options are return to IMC, or on site by trained Engineer.
- Gap filling protocol via ARB Module with RFID interface.
- Green Status LED for commissioning and fault finding.
- IP65 rated.
- Approvals – see Section 5.

2.6.2 Air Temperature, Internal + Door Switch

- IMC Product Code IN-THD01-Fx
- Product Family: NP3000 series
- As 2.6.1 but with door monitoring and alarm function.
- External sensor range -30°C to +50°C.

2.6.3 Single Channel, External Temperature Probe

- IMC Product Code IN-TH002-Fx
- Product Family: NP3000 series
- As 2.6.1 but internal sensor is replaced by an external sensor connected via a waterproof connector.
- External sensor range -40°C to +70°C.

2.6.4 Single Channel, External Temperature Probe + Door Switch

- IMC Product Code IN-THD02-Fx
- Product Family: NP3000 series
- As 2.6.1 but internal sensor is replaced with two external sensors connected via a waterproof connector.
- External sensor range -40°C to +70°C.
- Dual Channel Internal and External

2.6.5 Dual Channel, Internal and External Temperature Probe

- IMC Product Code IN-TH003-Fx
- Product Family: NP3000 series
- As at 2.6.1 with the addition of external sensor channel connected via a waterproof connector.
- External sensor range -40° to +70°C
- No door monitoring and alarm function.

2.6.6 Dual Channel, External Thermistor

- IMC Product Code IN-TH004-Fx
- Product Family: NP3000 series
- As at 2.6.3 with the addition of a second external sensor channel.
- Sensor range -40° to +70°C.

2.6.7 Single Channel, External PT100 Probe

- IMC Product Code IN-PT001-Fx
- Product Family: NP3100 series
- As at 2.6.1 with the internal thermistor being replaced by a single external 4-wire Class A PT100 probe. Used to measure temperature at a specific point, typically inside a freezer. This unit can withstand a much wider temperature range that an internal thermistor.
- Range -100°C to +200°C
- Resolution 0.1°C
- Accuracy ± 0.1°C calibrated
- PT100 Probe Class A accuracy un-calibrated
- Probe connection via a waterproof connector.

2.6.8 Single Channel, External PT100 Probe + Door Switch

- IMC Product Code IN-PTD01-Fx
- Product Family: NP3100 series
- As at 2.6.7 but with a door monitoring and alarm function.

2.6.9 Dual Channel, External PT100 Probe

- IMC Product Code IN-PT002-Fx
- Product Family: NP3100 series
- Dual Hirose base connector
- As 2.6.7 but with a second external PT100 channel.

2.6.10 Single Channel, Type T Thermocouple

- IMC Product Code IN-TT001-Fx
- Product Family: NP3200 series
- Single thermocouple base connector
- As at 2.6.1 with the internal thermistor being replaced by a single Type T thermocouple.
- Range -200°C to +350°C
- Resolution 0.3°C
- Accuracy ± 0.5°C.
- IP53

2.6.11 Dual Channel Type T Thermocouple

- IMC Product Code. IN-TT002-Fx
- Product Family: NP3200 series
- Dual thermocouple base connector
- As 2.6.10 with the addition of a second external Type T thermocouple channel.

2.6.12 Single Channel Type T Thermocouple + Door Switch

- IMC Product Code IN-TTD01-Fx
- Product Family: NP3200 series
- Single thermocouple base connector
- As at 2.6.10 with a door monitoring and alarm function.
- Range -200°C to +350°C
- Resolution 0.3°C
- Accuracy ± 0.5°C.
- IP53

2.6.13 Dual Channel 4-20mA Input

- IMC Product Code IN-MA001-Fx
- As 2.6.1 with the internal thermistor being replaced with two current channels.
- Input 4-20mA.

2.6.14 Dual Channel, Voltage Input Transmitter

- IMC Product Codes IN-VT001-Fx, IN-VT002-Fx, IN-VT003-Fx
- As 2.6.2 with the internal thermistor being replaced with two voltage channels.

2.6.15 Temperature and RH transmitter

- IMC Product Code IN-RH001-Fx
- As 2.6.2 using the internal thermistor.
- Sensor type: Sensirion type SHT75.
- RH range 10-90%.
- Resolution 0.1%.
- Accuracy ±3%.
- Sensor mounted in external housing fixed to case.

3 Base Unit Installation Procedure (typical)

Note: This procedure takes you through the generic setup steps for physically setting up the members of the Notion **Pro Base Unit family, that is:**

- Network Receiver
- Echo Module
- SMS Module
- ARB Module

Each of these units will be referred to as a 'Base Unit' in the following procedure.

Install Step		Notes
1. Using the mounting bracket as a drilling template, drill holes for the Base Unit wall mounting bracket into the wall at an appropriate location. 2. Using the spacers provided to give clearance, Screw the mounting bracket to the wall.		When mounting the Base Unit, you should bear in mind that you may need to run cables from the Base Unit to the 12V power supply, also Ethernet and RS485 connections may be present.
3. Using a Phillips screwdriver, remove and retain the screws from the battery cover plate at the rear of the Base Unit.		

Install Step		Notes
4. Insert the backup battery into the recess at the rear of the Base Unit, taking care to insert the connector attached to the battery into the matching connector within the Base Unit.		
5. Screw the battery cover plate to the rear of the Base Unit.		
6. Attach the Base Unit to the mounting bracket.		
7. Using the supplied RJ45 cable, connect the Base Unit to your Network.		(Echo Module communicates by radio and must NOT be connected to a Network.)
8. Using the supplied cable, connect the Base Unit to its 12V power supply.		
9. Plug the power supply cable into the power supply unit.		
10. Slide the appropriate plug adaptor onto the power supply.		Do not connect the power supply to the mains supply yet.
11. Plug in the Base Unit power supply to the mains supply and switch on at the mains socket.		A green light comes on. Power Supply works automatically with 110V-120V or 220V-240V mains voltage.
12. Go into Notion Pro to add Transmitters to Zones and configure them for use.		See the Notion Pro Help for details.

4 Adding Transmitters

As far as possible, the transmitter units should be placed where they will not be subject to electromagnetic interference and where they will not be shielded by walls, doors, furniture, appliances etc. They should preferably be mounted vertically to maximise radio range.

A wall-mounting bracket is available, IMC part no. N494.

4.1 Transmitter Unit Replacement Batteries

IMC recommends:

- Lithium - Energizer Ultimate Lithium L91 IMC stock no. G301
- Alkaline - Duracell ID1500-10 IMC stock no. 88705.

5 Compliance

The Notion Pro equipment conforms to the following international standards:

- Country-specific radio approval.
- R&TTE approval. See the IMC Group R&TTE Declaration of Conformity at http://www.the-imcgroup.com/images/Declarations/IceSpy/IceSpy-Notion-Pro-RTTE-DOC.pdf covering Radio and Telecommunications Terminal Equipment.
- All Notion Pro hardware carries the CE mark to indicate that the equipment meets the requirements of the applicable EC Directives.
- WEEE compliance.
- RoHS compliance.
- Conflict minerals.
- Reach.

Part 2

NOTE

If you are NOT a System Administrator, go to Section 4 to read about how to use Notion Pro to monitor data from the sensors on your Site. You will be unable to access the facilities detailed in Sections 1-3.

1 First Time Login (System Administrator)

To view the Notion Pro website, you will need to open a browser and navigate to the Notion Pro site.

If you are working on the Notion Pro Server itself, enter http://localhost/NotionPro in the browser's address field.

If you are working on a another computer or device, you will need to use the URL supplied by your System Administrator or IT Support provider to reach the Notion Pro server. This may be similar to ServerName/NotionPro for a LAN connection or www.mycompany.com/NotionPro for an internet connection.

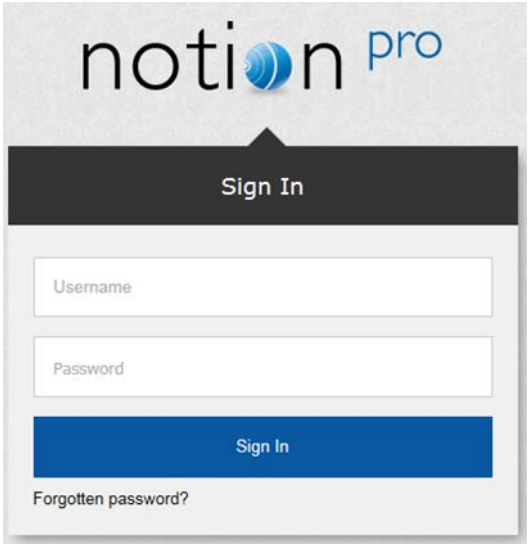


Figure 1

Once you have navigated to the correct URL, the login screen will be displayed, as in Figure 1above.

As you are setting up the system immediately after installation, you need to login as the system Administration User:

Username: Admin User

Password: Admin

Enter your username and password to login, then click **Sign In** Passwords are case sensitive.

As this is the first time you have logged in, you must supply the answer to a **security question**, so if you forget your password in the future, you can retrieve it using a procedure which includes supplying the answer to your security question. See Figure 2.

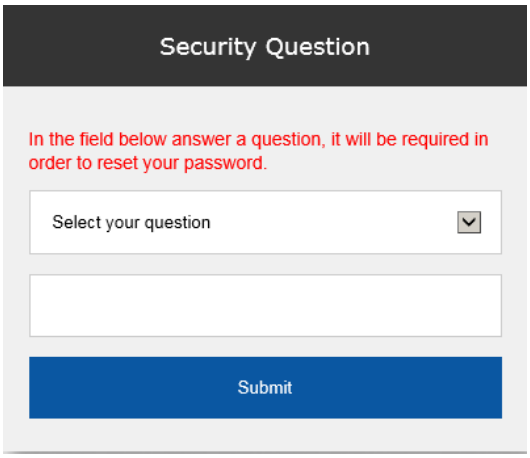


Figure 2

Choose your security question by clicking and choosing from the list. Type the answer into the box below, then click **Submit**.

You will now be returned to the login screen see Figure 1, where you will again need to enter your username and password.

The Security Question screen is only shown when a user logs in for the first time; it will not show when you login as the Admin User again.

Note: When you get to section 2.1.7 below, you should change the default Admin User password so that it is secure.

2 Setting Up Users, Sites and Devices

This Section will guide you through the setting up of Users, User Groups, Access control, System Configuration, Sites, Device Configuration, Account settings, System Overview and Sensor Groups.

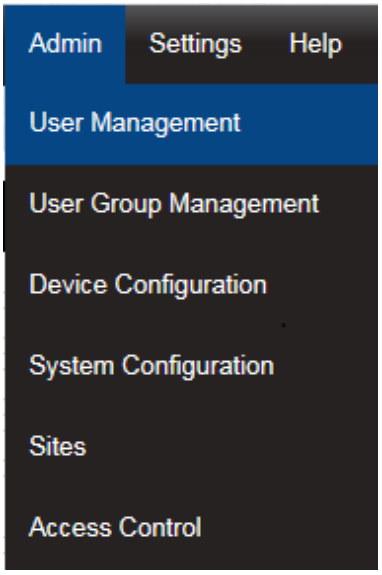
Note: The functionality described in this Section only applies to System Administrators or Users who have been given System Administrator access rights. The Admin User is created automatically when Notion Pro is installed. The Admin User cannot be deleted.

When you get to section 2.1.7 below, you should change the default Admin User password to something more secure, which is memorable.

2.1 User Management

User Management allows you to add Users, edit Users, add External Contacts and edit External Contacts.

2.1.1 Adding and Editing Users



Select **Admin** then **User Management** from the drop down menu to access the **User Management** section.

The **Admin** menu is located at the right hand side of the top menu bar.

After selecting User Management a new window appears see Figure 4 below.

Figure 3

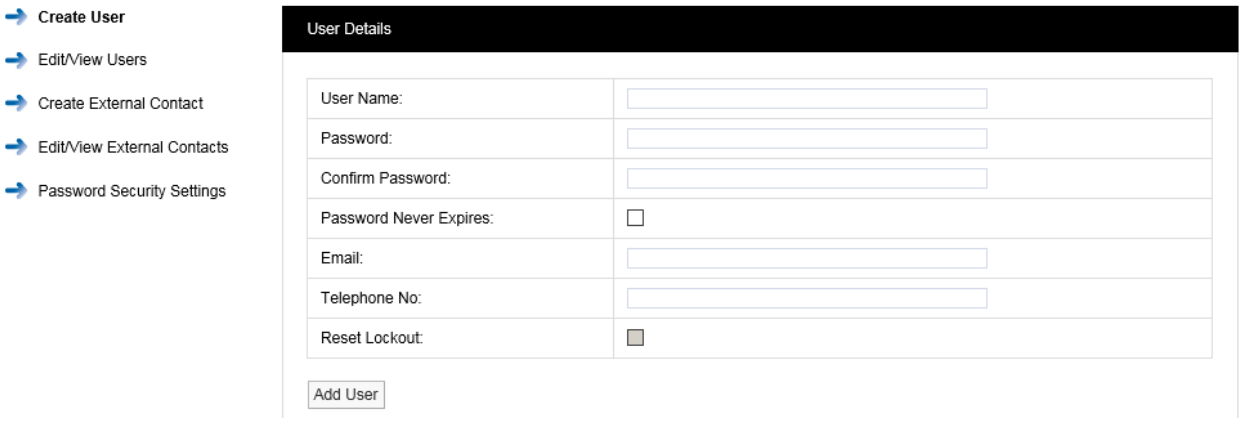
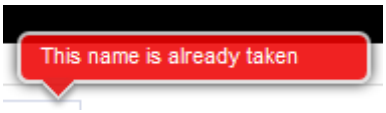


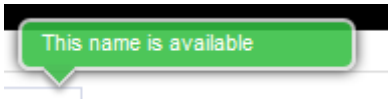
Figure 4

2.1.2 Add User Name

In the dialog box above (Figure 4) enter a new User Name. If the user name is already taken the following message will be displayed.

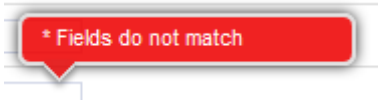


Select another **User Name** until the following message is displayed:



2.1.3 Add Password

Enter a password into the Password field, now re-enter your password into the **Confirm Password** field. It is not recommended to cut and paste the password as this would copy a mistake to the **Confirm Password** field. If when typing your password into the **Confirm Password** field you make a mistake, the following message will be displayed.



If you have re-typed your password correctly then you will be able to proceed to the next step.

By default, Notion Pro requires passwords to be at least eight characters long. The Administrator will not be able to set a minimum password length of less than eight characters. This is configurable by the Administrator. The User ID and password cannot be the same.

Administrators may also require that user passwords have an alphanumeric and mixed case. In this case, passwords must have numeric characters, upper and lower case letters.

2.1.4 Password Never Expires

By default user passwords are set to expire in 90 days, this is selectable by the Administrator.

Password Expiry does **NOT** apply to the Admin User password, which is always set to never expire.

2.1.5 Email:

This field allows you to enter your email address. This is used to receive the following:

- email alerts generated from the system
- email reports.
- password reminders.

2.1.6 Telephone No:

This field allows you to enter your mobile phone number. This is used to receive SMS text alerts generated from the system.

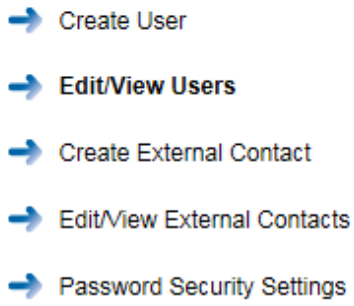
The number should be entered in the following format:

+44 123 987654

2.1.7 Edit/View Users

Edit/View Users allows you to edit existing user's details. The following functions are available:

- Edit allows passwords to be changed along with email address and phone number
- Delete allows single or multiple users to be deleted
- Privileges allows users to be set with viewing rights.



To edit new user, select **Edit/View Users**

After selecting Edit/View Users a new window opens (see Figure 6).

Figure 5

Figure 6

2.1.7.1 Edit

To edit a user select **Edit**. After selecting **Edit** a new window opens (see Figure 7).

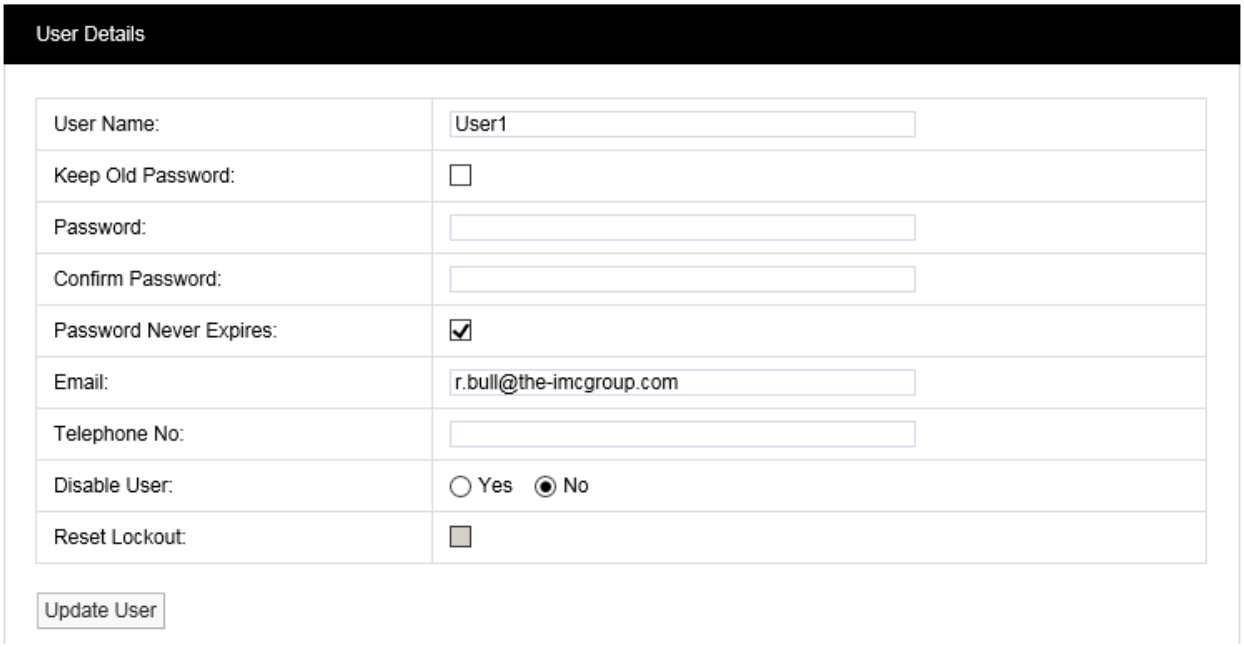


Figure 7

Here you can change the User's email address and mobile phone number. If you wish to update the User without changing your password tick **Keep Old Password** and the existing password will be populated in the password dialog boxes. If you wish to change your password follow steps in 2.1.3.

2.1.7.2 Reset Lockout

Locked out users can be reset from this screen, by selecting **Reset Lockout**.

When you are happy that all details are correct, click the **Update User** button.

2.1.7.3 Delete User

There are three methods for deleting users:

1. Select Delete (see Figure 6). This will delete the record selected, once you are happy with your selection confirm delete by selecting **YES** on the warning dialog box (see Figure 8).

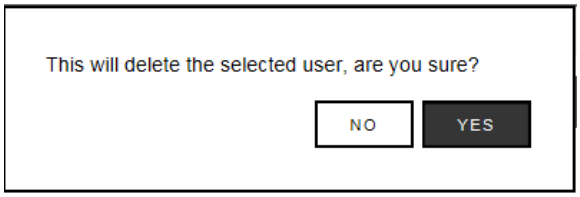


Figure 8

2. If more than one user is to be deleted select the tick box to the left of the name, tick all users to be deleted (see Figure 6). Once you are happy with your selections click **Delete Users** (see Figure 6) select confirm delete by selecting YES on the warning dialog box (see Figure 8).
3. By clicking the tick box next to **User Name** all users will be deleted. WARNING, this will select all users for deletion (see Figure 6). Once you are absolutely sure you want to delete all users click **Delete Users** (see Figure 6) select confirm delete by selecting **YES** on the warning dialog box (see Figure 8).

WARNING: Deleting users cannot be undone.

2.1.7.4 User Privileges

This allows individual users to be assigned viewing rights to **Sites** and **Zones**. (See section 2.5 for more information on Sites and Zones.) Click on Privileges in the View User window (see Figure 6) for the User that you wish to assign viewing rights to. This gives the **Assign Privileges** dialogue box (see Figure 9).

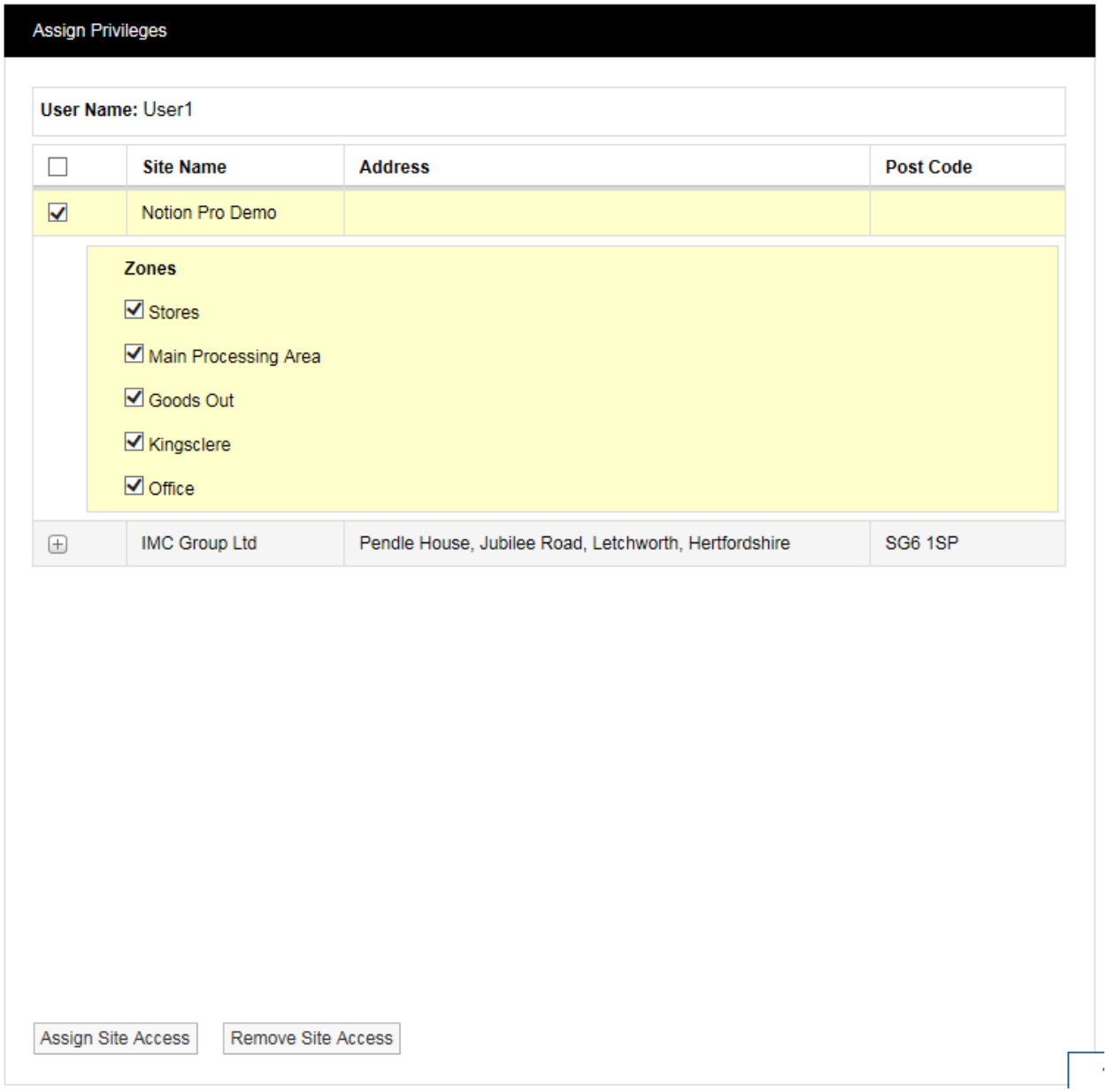
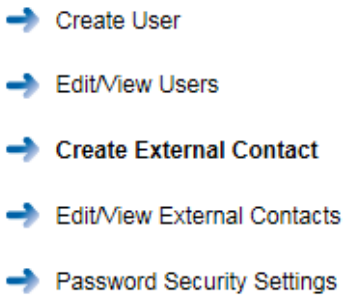


Figure 9

In the example above, User1 has been pre-allocated with viewing access to the Notion Pro Demo Site and the listed Zones. Click **Assign Site Access** or **Remove Site Access** as required. See also section 2.2.4.

2.1.8 Create External Contacts

External contacts are used when there is a requirement to email reports or send SMS alarms to people who are not Notion Pro users.



To create external contacts, select **Create External Contact**.

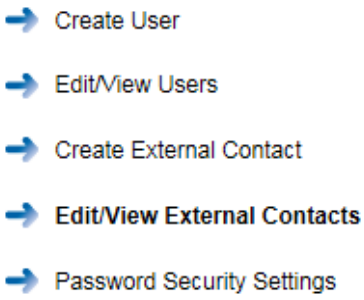
After selecting **Create External Contact** a new window opens, see Figure 11 below.

Figure 10

Figure 11

Enter User Name, Email and Telephone No as in Part 2, section 2.1.2 for an external user. There is no requirement for a password as these users do not have access to Notion Pro.

2.1.9 Edit/View External Contacts



To Edit/View external contacts, select **Edit/View External Contacts.**

After selecting **Edit/View External Contacts** a new window opens (see Figure 13)

Figure 12

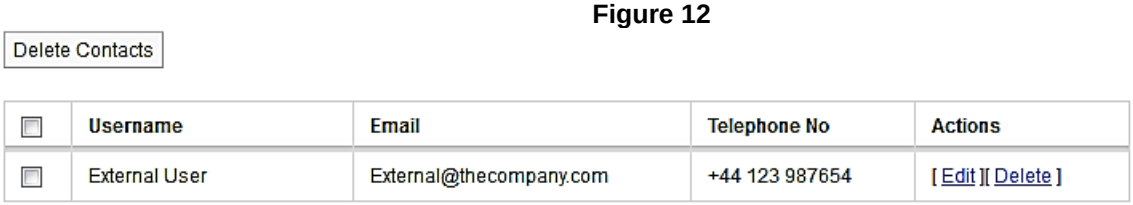


Figure 13

To edit external user details follow steps in section 2.1.7.1, to delete external users follow the steps in section 2.1.7.3.

2.1.10 Password Security Settings

- Create User
- Edit/View Users
- Create External Contact
- Edit/View External Contacts
- **Password Security Settings**

To Edit/View Password Security Settings, select **Password Security Settings**. Once selected, the Password Security Settings window will be shown see Figure 14 below.

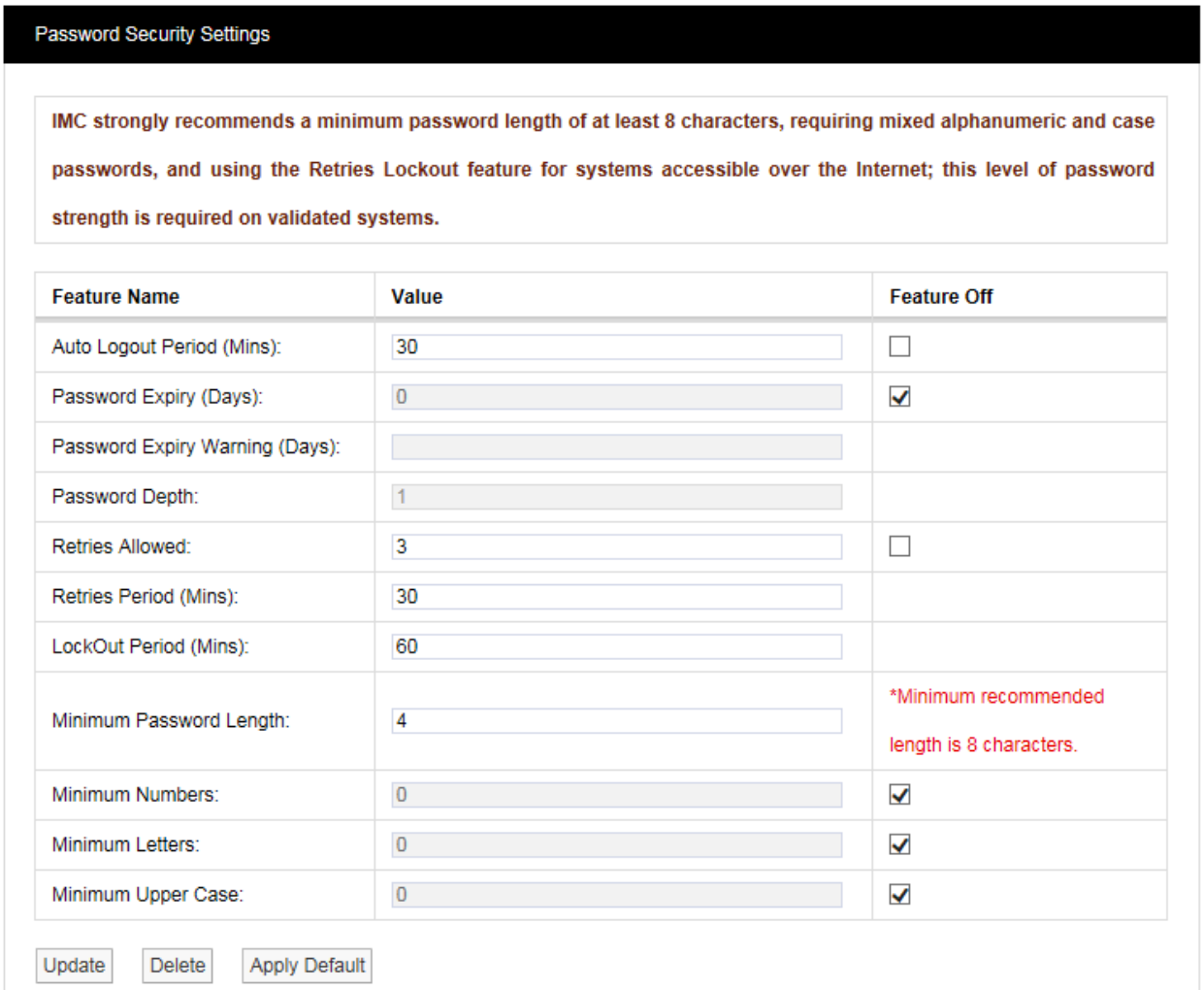


Figure 14

The **Password Security Settings** window is used to set the system's login security features. Login security features apply globally to all logins, with some exceptions for the Admin User account, as detailed below.

Individual features can be disabled by selecting the associated **Feature Off** tick box. Clicking **Apply Default** will return Password Security features to the default settings. click **Update** to apply any changes made.

2.1.10.1 Auto Logout Period (Mins)

If a login session is left unattended, then the system will log the user off after the Auto Logout period. The auto logout period can be set by the Administrator.

When Auto Logout activates, the browser will continue showing the last screen actioned by the user, and if on the Live View, data values will continue to update on the screen. However, when the user tries change window or enter a value, then the browser will show the Login screen and require the user to log back into the system.

The Auto Logout Period can be set between 5 and 60 minutes, the default period is 30 minutes.

2.1.10.2 Password Expiry

Passwords will automatically expire, and need to be changed, after the Password Expiry time. By default user passwords are set to expire in 90 days, this is selectable by the Administrator. Password Expiry does **NOT** apply to the Admin User password, which is always set to never expire.

Users are warned on login within 10 days of expiry, and given the option to type in a new password. This can be done any time between the first warning and expiry. The warning time is settable by the Administrator. This will be a countdown warning and will decrease as the expiry deadline approaches.

Once a password has expired no further access will be allowed for that user until they enter their expired password at which point the system will force a change before any further progress can be made.

2.1.10.3 Password Depth

The Password Depth sets the number of previous passwords that cannot be immediately reused by a user. A password depth can be set globally, between 1 and 10.

2.1.10.4 Retries Allowed

This is the number of failed login attempts allowed for a username, within the **Retries Period**, before the user is locked out. Locked out users are informed of their locked out status, when they try to login.

Lockout Period is the time that a user will be locked out after the **Retries** limit is exceeded.

By default users will be locked out for 60 minutes after three consecutive failed password login attempts within a 30 minute period. Where a lockout occurs, the user will be informed of the lockout period by a message on the browser, and the lockout will be recorded in the activity log.

The number of Retries Allowed can be up to 10. The Lockout Period can be up to 1440 minutes and the Retries Period can be between 10 and 1440 minutes. The Admin User is never locked out.

A lockout value of 0 will lock out users until reset by the Administrator. Any Administrator lockout will be for 30 minutes, (this prevents the Administrator becoming permanently locked out).

A **Reset Lockout** tick box is available on the **User Details** screen. This control will normally be greyed out, and will only become active when the user is currently locked out. This control is only accessible by an Administrator. Administrators can reset a locked out user from the **Edit/View Users** window, see section 2.1.7.1.

2.1.10.5 Username Reuse

Deleted usernames cannot be reused for the period of time specified by **Username Reuse**. If an Administrator types a Reuse blocked username into the ***User Details*** screen, a warning will be displayed. By default, Username Reuse checking is disabled.

2.1.10.6 Minimum Password Length

By default, Notion Pro will require passwords to be at least four characters long, the Administrator will not be able to set a password length of less than four characters. This is configurable by the Administrator. The User ID and password cannot be the same.

2.1.10.7 Accepted Value Ranges

The list below details the setting ranges for each option:

Auto Logout – 5 to 60 minutes.

Password Expiry – 30 to 730 days.

Retries Allowed – 1 to 10 attempts.

Lockout Period – 0 to 1440 minutes; 0 will lockout users until reset by the Administrator.

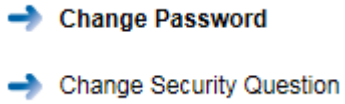
Retries Period – 10 to 1440 minutes.

Password depth – 1 to 10.

Minimum Password Length – 8 to 50 characters.

Minimum Numbers, Minimum Letters, and Minimum Upper Case – 1 to 50, these values are consistency checked, against minimum length and each other.

2.1.11 Changing the Password



To change your password select **Settings>Account Settings** then **Change Password** to give the **Change Password** dialogue box. See Figure 15 below.

Figure 15

Enter the old password in the Old Password field. Enter the new password in the New Password field, enter it again in the Confirm New Password field.

Note: It is recommended that a password be at least eight characters in length and contain at least one number, one letter, one uppercase letter.

Click **Submit**. The message shown in Figure 16 below will be displayed to confirm a successful password reset.

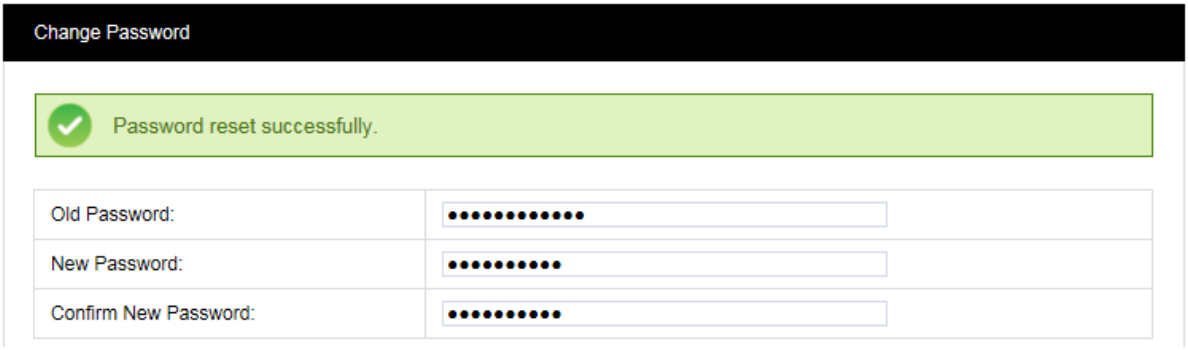
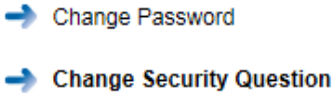


Figure 16

2.1.12 Changing your Security Question

You will need to know the answer to your security question if you have forgotten your password and you have to click on the Forgotten password? Link on the **Sign In** screen.



To change your security question select **Settings>Account Settings** then **Change Security Question** to give the **Change Security Question** dialogue box. See Figure 17 below.

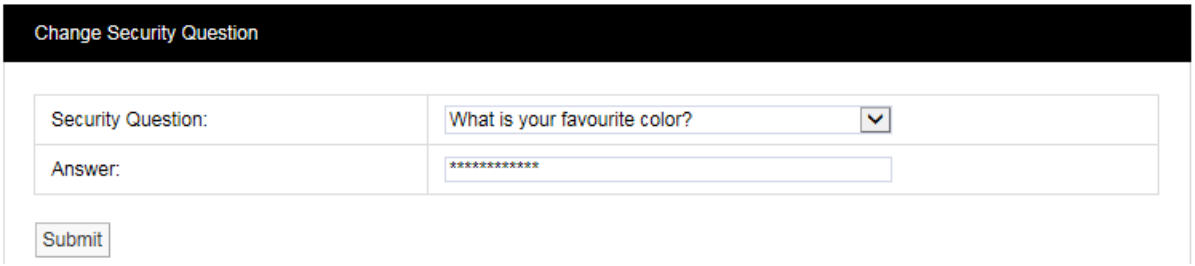


Figure 17

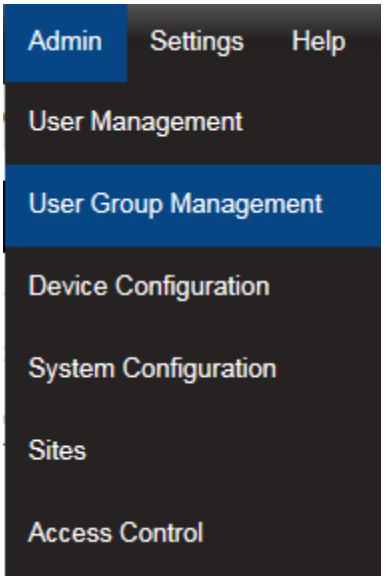
Select your security question from the Security Question pull-down list, the enter the answer into the Answer field, then click **Submit**. Click **Submit**. The message shown in Figure 18 below will be displayed to confirm a successful password reset.

Figure 18

2.2 User Group Management

This section describes how **User Groups** are created and used. User Groups allow viewing **Privileges** to be set for a group, Users added to that group inherit the viewing Privileges associated with that group. Any previous viewing Privileges assigned to an individual user will be overridden by the viewing Privileges associated with that group.

To learn about setting Privileges for individual users see section 2.2.4. Privileges are the viewing rights that allow a user to see **Sites** and **Zones**. Through Privileges a user can be restricted to the number of Zones they can see. This is especially useful on very large systems.



Select **Admin**>**User Group Management** from the drop down menu to access the **User Group Management** section.

After selecting **User Group Management** a new window appears, see Figure 19 below.

2.2.1 Create User Groups

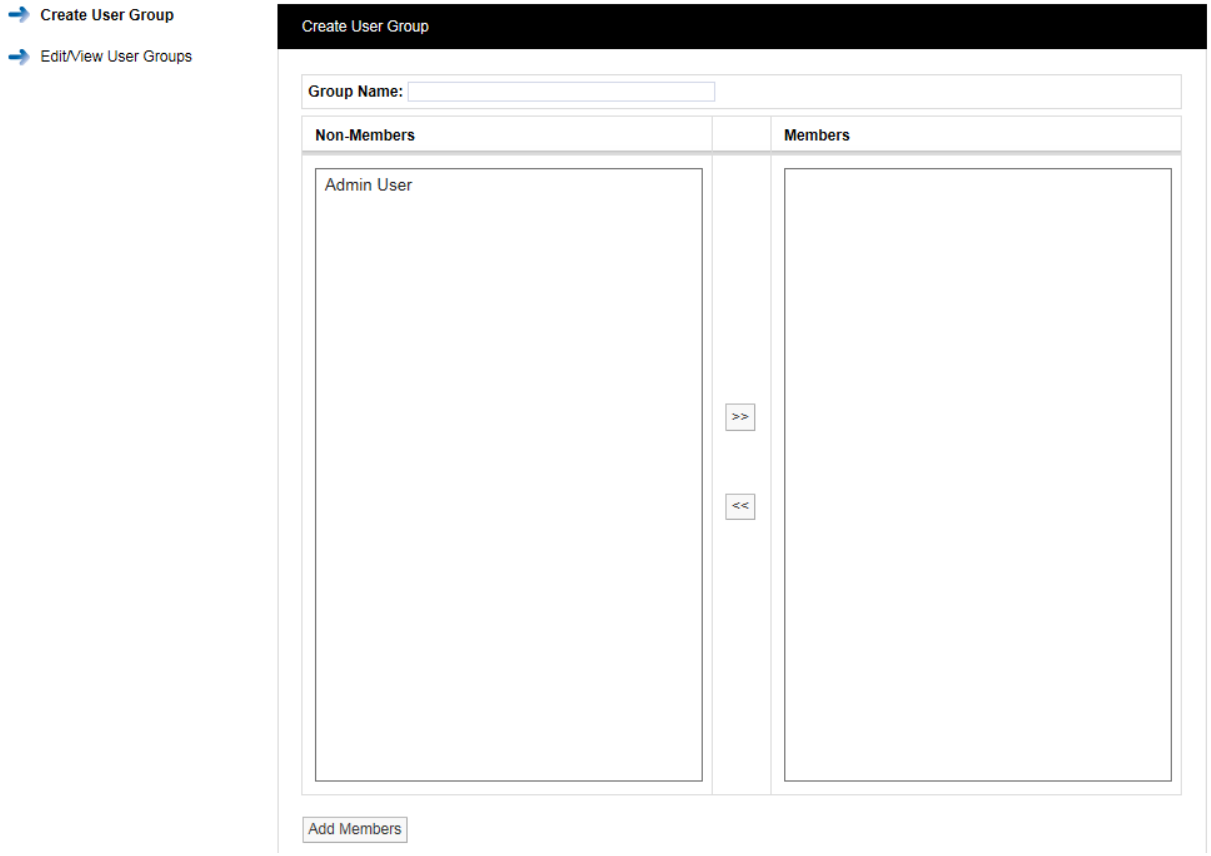


Figure 19

To create a **User Group**, enter a name for the User Group, see examples below:

- **T+RH Sensors** - for a small Site this could be used to allow access to all of the temperature and humidity sensors.
- **T+RH Sensors 1st Floor -** for a larger site this could be used to allow access to all of the temperature and humidity sensors on one floor.

Select the Users that you would like to add to the group. All users that have not already been associated with a group will be shown in the left column. To select more than one user hold the **Ctrl** key and select the required users. Once you are happy with the selected users click the double left arrows located between the columns, this will move the users to the right column.

Users can be de-selected by selecting them in the right column and clicking the double left arrows. When you are happy with your selection, click on **Add Members**. You will be asked if you would like to proceed, see Figure 20 below.

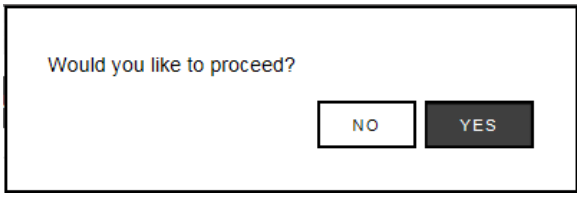
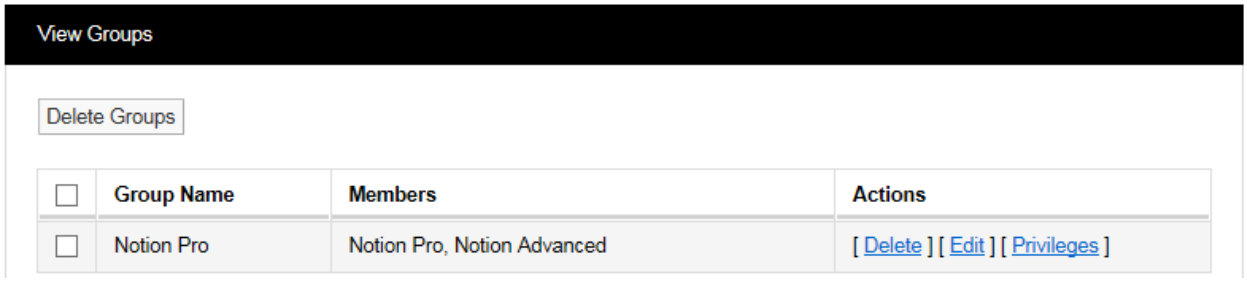


Figure 20

Select **YES** to proceed or **NO** to abort.

2.2.2 Delete User Group



To **Delete** a **User Group** select Delete in the line corresponding to the User Group to be deleted. Once Delete has been selected you will be asked if you would like to proceed, see Figure 21 below.

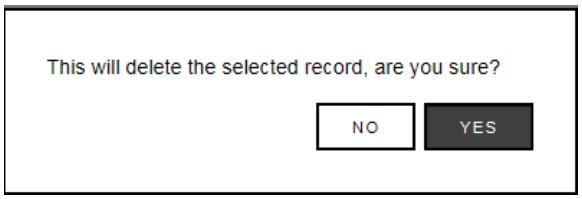


Figure 21

Select **YES** to proceed or **NO** to cancel.

2.2.3 Edit User Group

To Edit a User Group select Edit in the line corresponding to the User Group to be edited. Once Edit has been selected the **Edit User Groups** window will appear, see Figure 22 below.

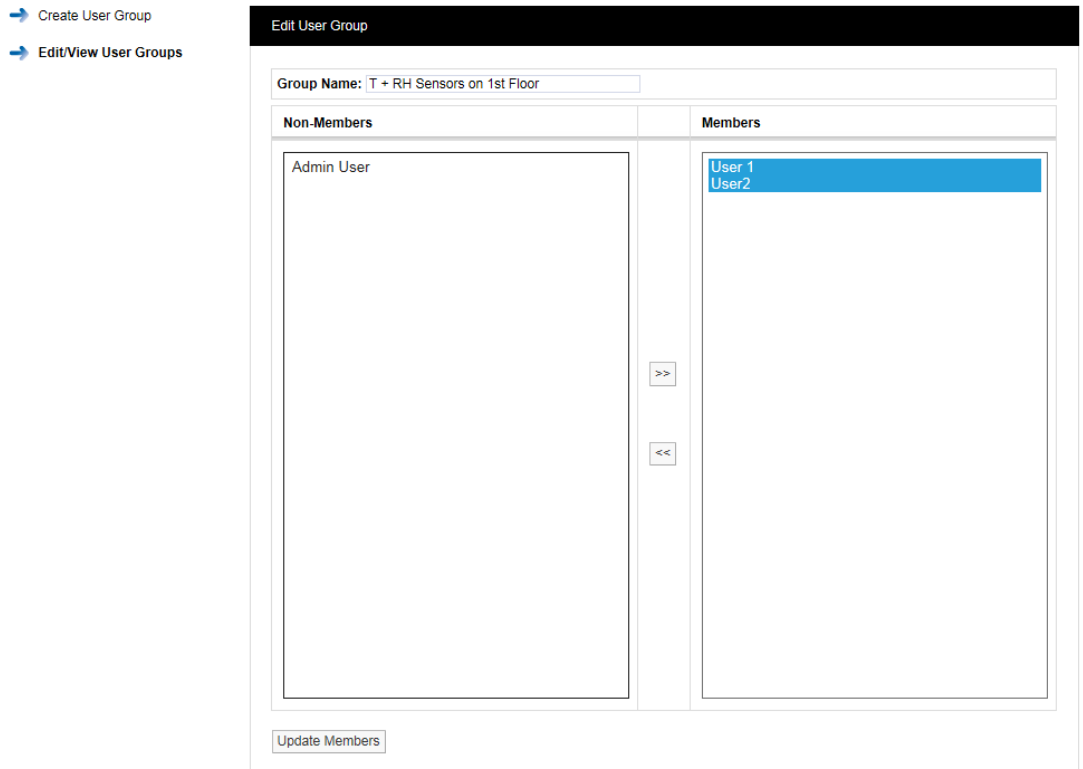


Figure 22

Users can be removed from the User Group or added. To remove Users highlight them in the right column and click the double left arrows. To add Users highlight them in the left column and click the double right arrows.

When happy with your selections click **Update Members**. You cannot remove all the members from a group you must always have to have at least one member. If you want to remove all the members then the User Group needs to be deleted.

When a User is removed from a User Group that User will require **Privileges** adding, see section 2.1.8 to add Privileges.

2.2.4 User Group Privileges

To set the **Privileges** for a **User Group** select **Privileges** in the line corresponding to the **User Group** to be edited. Once **Privileges** has been selected the **Assign Privileges** window will appear, see Figure 23 below.

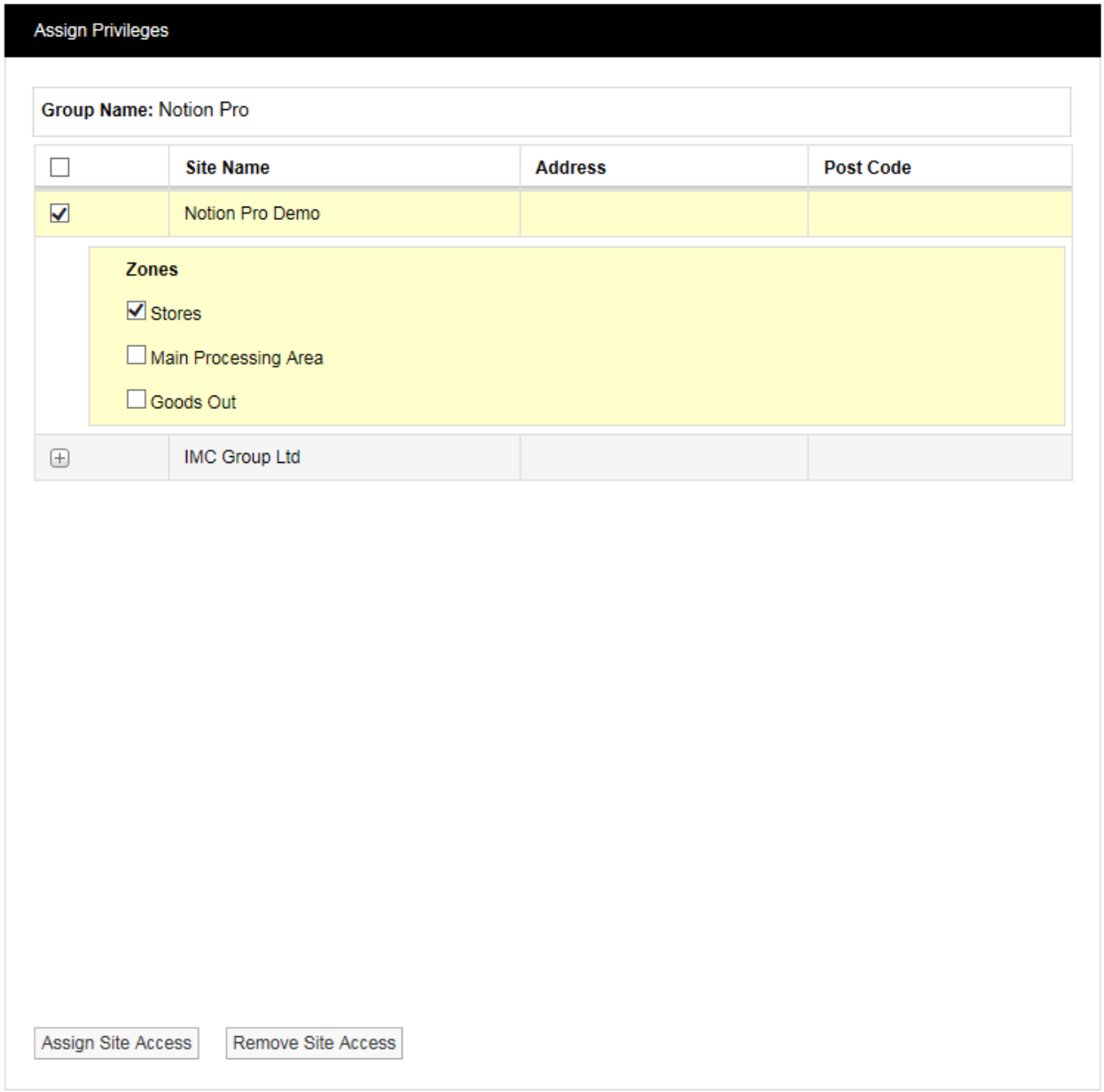


Figure 23

All **Sites** that have been added to Notion Pro will be visible in the **Assign Privileges** window. Sites with an empty tick box are top level Sites with no Sub Sites associated. Sites with a + symbol have Sub-Sites associated, see IMC Group Ltd above.

Selecting the + symbol will reveal the Sub Site details, see Figure 24

below.

Figure 24

To allow the members of **User Group T + RH sensors 1st floor** to view the sensors from the IMC Group Pendle House subsite select the tick box next to **Pendle House**. This will now allow all Users added to this group to be able to see those sensors only.

When you are happy with your selections click on **Assign Site Access**, see Figure 25 below.

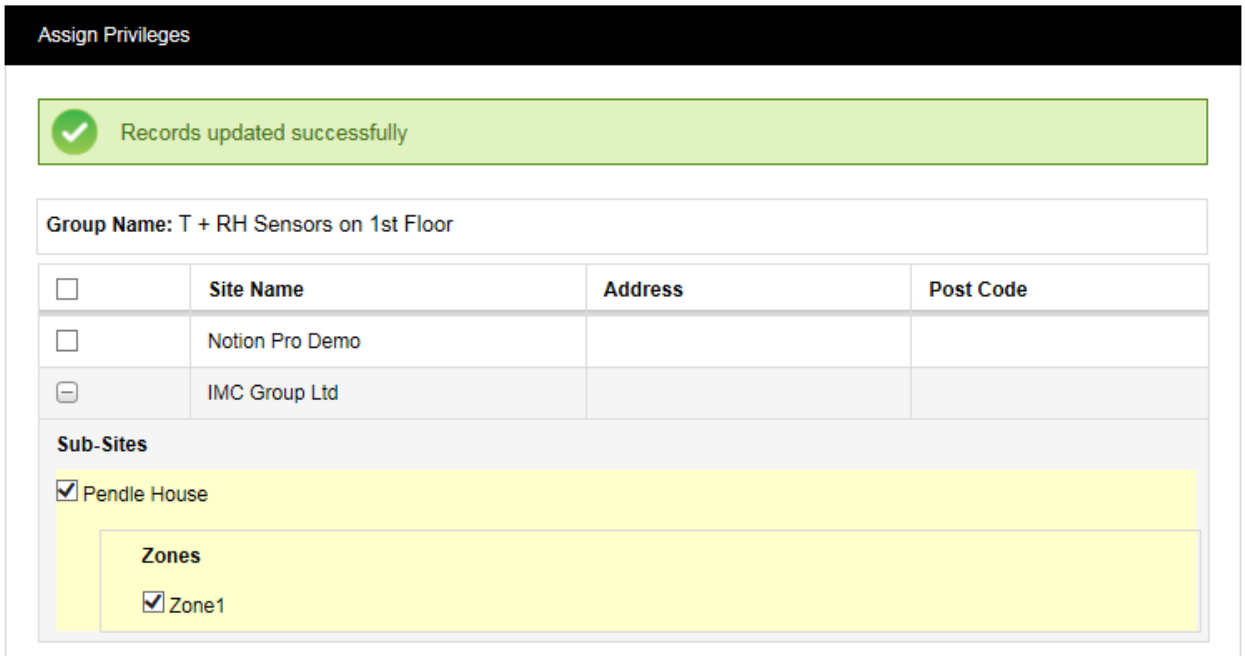


Figure 25

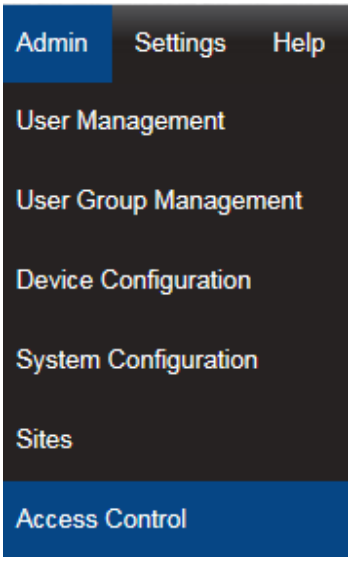
To remove access the process is the reverse of the above. When happy with your selections click on **Remove Site Access**.

Some sites will have more **Zones** and sensor types than others. However, the process for allocating **Privileges** is the same. Depending on what the System Administrator want an individual user to see as many or as few sensors or **Zones** can be selected.

2.3 Access Control

This section describes how users are granted **permissions**. Permissions are system access rights such as **Edit**, **Delete** etc.

Notion Pro allows the creation of **Roles** which are assigned with access permissions. Users are added to Roles and inherit the permissions assigned to the Role thus avoiding the repetitious and error prone task of adding multiple individual users.



Select **Admin** then **Access Control** from the drop down menu to access the **Access Control** section.

After selecting **Access Control** a new window appears, see Figure 27 below.

Figure 26

2.3.1 Permissions Overview

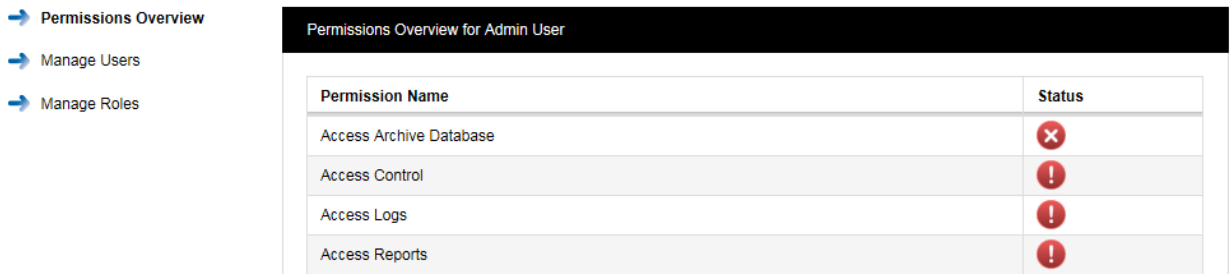


Figure 27

The menu on the right above gives access to the different sections of **Access Control**, the list on the left above is the **Permissions Overview** for the **Admin User**.

Note: the Permissions Overview list is much longer than the lists shown in this section, but these are abbreviated here for space reasons.

The **Admin User** is created automatically when Notion Pro is installed. The **Admin User** cannot be deleted or the **Permissions** altered.

As Users are added to the system they will automatically appear at the bottom of the Permissions Overview screen, see Figure 28 below.

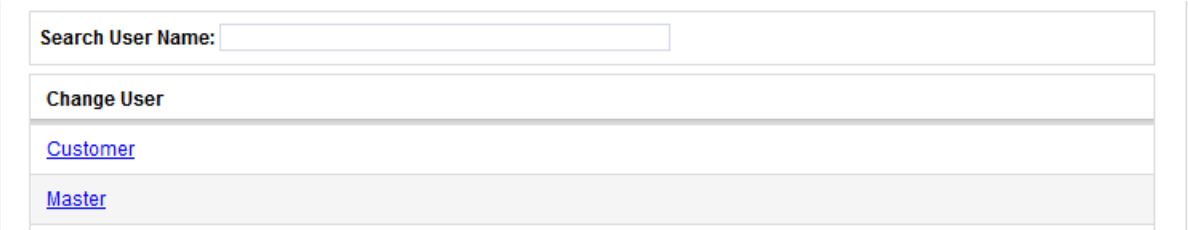


Figure 28

To view the Permissions granted to a user click on the underlined user name. The Permissions Overview for Customer window will appear see Figure 29 below.

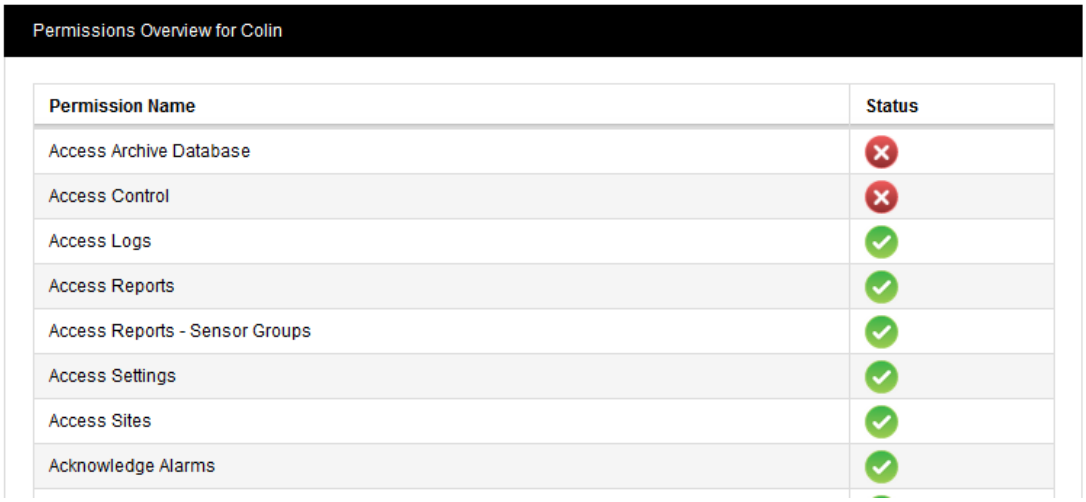


Figure 29

A red circle with a cross means that the Permission is denied, a green circle with a tick means that the Permission is granted. These permissions are inherited from the Role that the user has been assigned; this process is described in section 2.3.2.

2.3.2 Manage Roles

Before you can assign Permissions to a user you need to create **Roles**. To view Roles click on **Manage Roles**. The **Select a Role to Manage** window will appear see Figure 30 below.

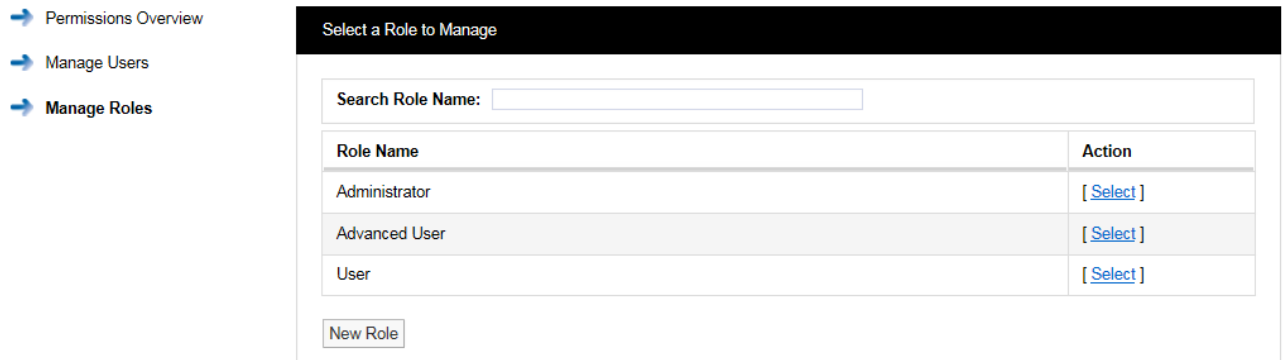


Figure 30

When Notion Pro is installed there are no pre-defined **Roles** set, the Admin User can create **Roles** and decide what **Permissions** to assign to each Role. The list below shows a typical set of Roles. There is no limit to the amount of Roles that can be set.

- Administrator
  This would be a high level Role with all Permissions assigned.
- Advanced User
  These would be a trusted users with access to Admin functions blocked but still able to edit sensor properties. Full data viewing and alarm acknowledging allowed.
- General User
  These would be a lower level users with access to Admin functions and sensor editing blocked. Full data viewing is allowed.
- Guest User
  These would be a view-only user with no editing or alarm acknowledging rights. Full data viewing is allowed.

See also Section 2.3.4.

When Notion Pro is installed a default Admin User is created, the Admin User cannot be deleted and is preset with the Username “Admin User” and the Password “Admin”. We recommend that these details are changed immediately after installation. This can be done in **Admin**>**User Management** see section 2.1.3. The Admin User is pre-assigned with all available Permissions.

When setting up from first install, select **Admin>Access Control>Manage Roles**. The **Select a Role to Manage** window appears, see Figure 31 below.

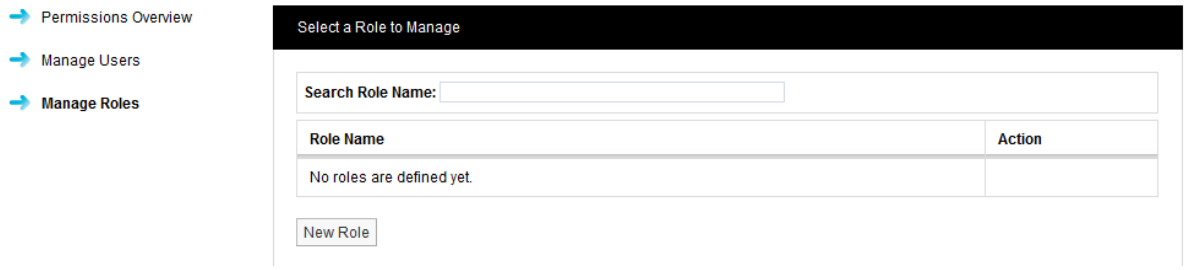


Figure 31

Click on **New Role**. The **New Role** window appears see Figure 32 below.

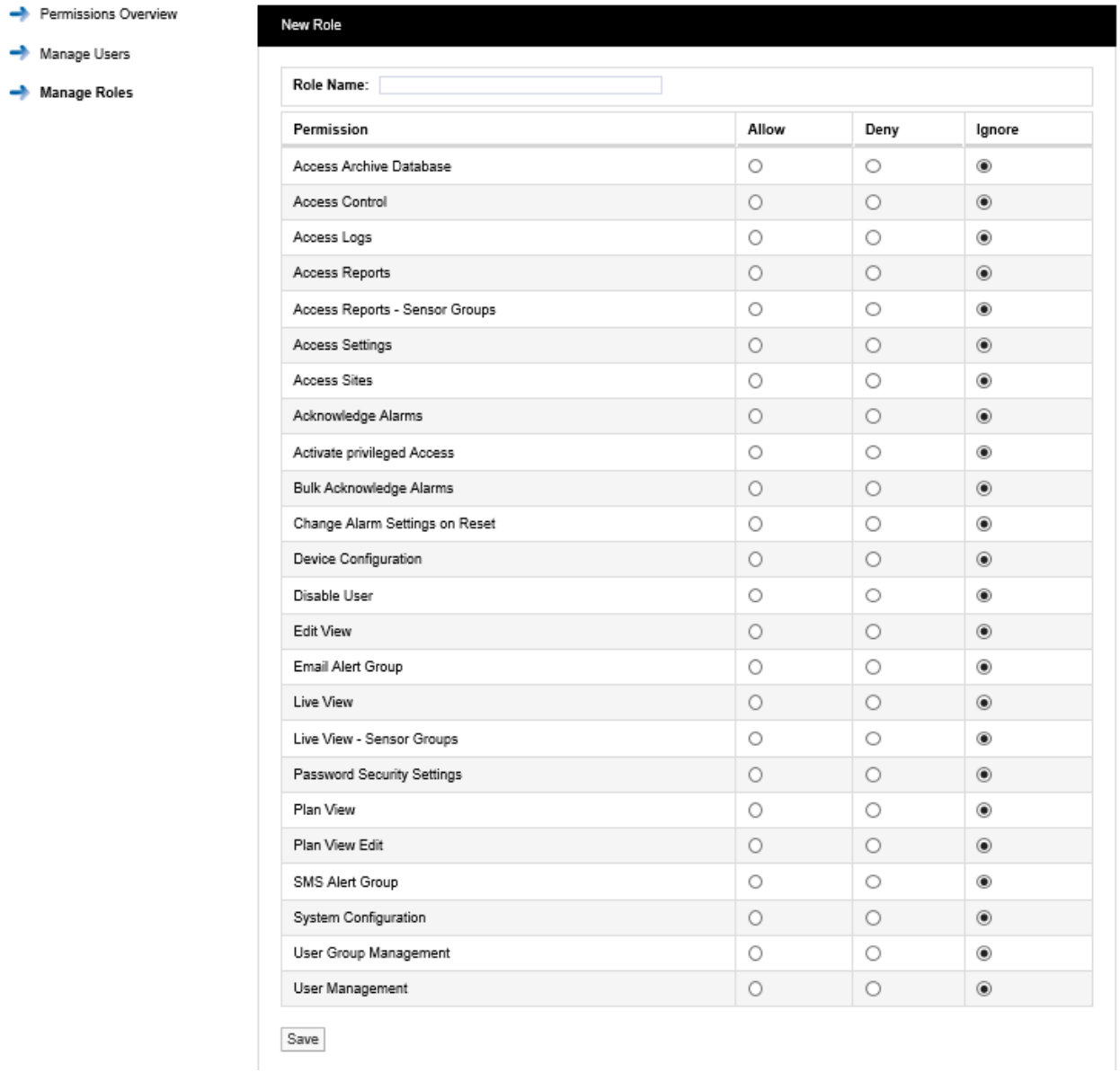


Figure 32

Enter a name for Role. We would recommend using Administrator for the highest level user. It is also suggested that all functions are set to **Allow** with the exception of **Activate privileged Access** which should be set to **Deny**. Select **Save**. You have now created the **Administrator** Role. See Figure 33 below.

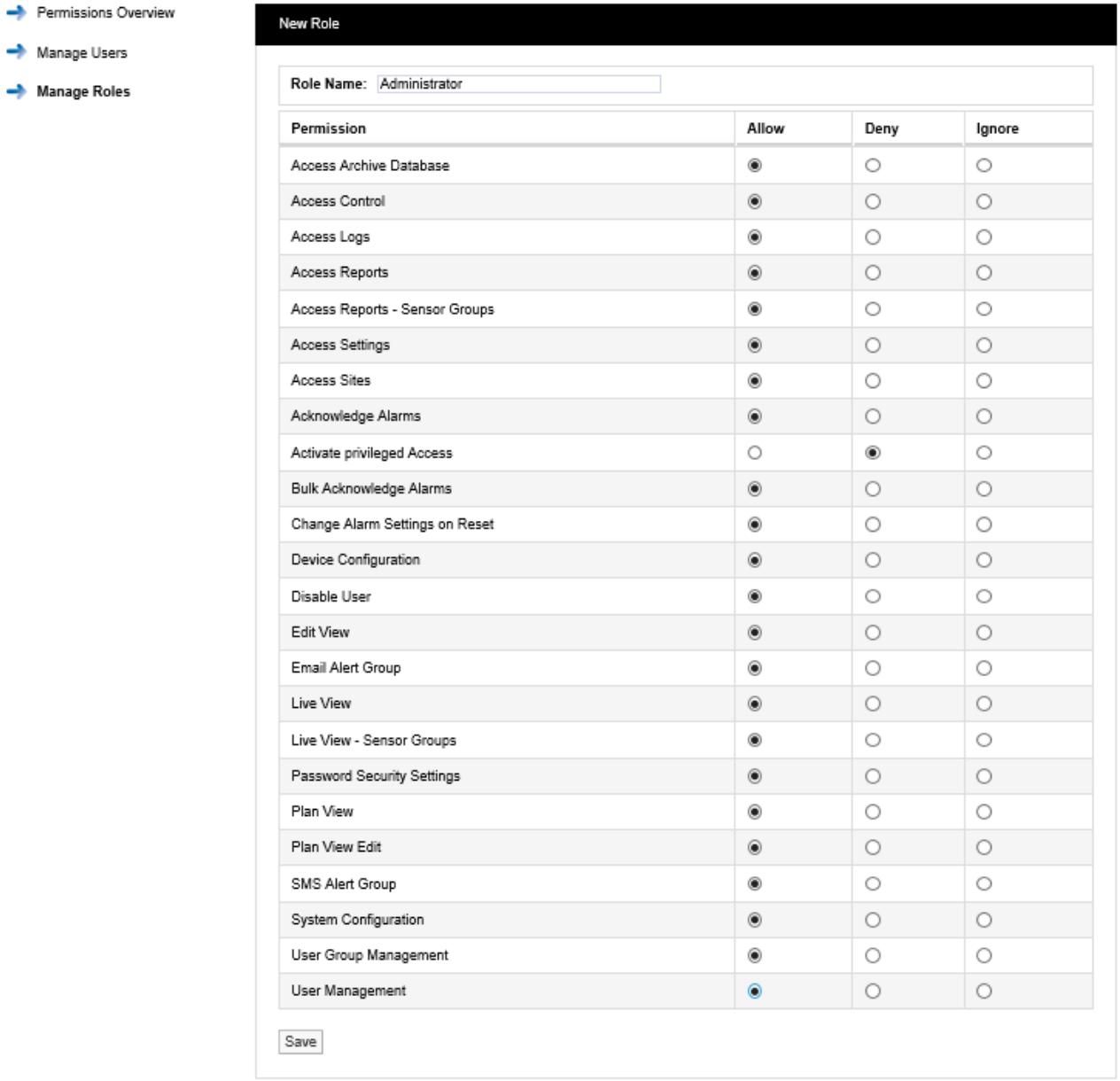


Figure 33

Other Roles can be created as required following the instructions above.

2.3.3 Permission Definitions

Permission	Description	User Level
Access Archive Database	Controls access to Archived read only data	M
Access Control	Controls access to the Access Control section	H
Access Logs	Controls access to System Logs	M
Access Reports	Controls access to Reports	M
Access Reports - Sensor Groups	Controls access to Sensor Group Reports menu	M
Access Settings	Controls access to entire Settings menu	H
Access Sites	Controls access to Sites Section	M
Acknowledging Alarms	Allows user to acknowledge alarms	M
Acknowledge Alarms in Bulk	Allows user to acknowledge multiple sensors alarms	H
Activate privileged Access	Allows Admin User to login as the user; See note 1	H
Change Alarm Settings on Reset	Allows user change alarm values, when resetting an Alarm	M
Device Configuration	Controls access to the Device Configuration section	H
Disable User	Allows user to disable other users.	H
Edit View	Controls access to Edit View section	M
Email Alert Group	Controls access to Email Alert Group section	M
Live View	Controls access to Live View section; see note 2	L
Live View - Sensor Groups	Controls access to Sensor Groups	L
Password Security Settings	Allows access to Password Security Settings screen	H
Plan View	Controls access to Plan View section; see note 2	L
Plan View Edit	Allows movement of sensors in Plan View	M
SMS Alert Group	Controls access to SMS Alert Group section	M
System Configuration	Controls access to System Configuration section	H
User Group Management	Controls access to User Group Management section	H
User Management	Controls access to User Management section	H

Key:

- H These permissions are recommended for the highest level user only
- M These permissions can be granted to general users
- L These permissions can be granted to all users

Notes:

1. So the Admin User can configure settings which the normal user does not have access too.
2. This should be available to all users.

2.3.4 Suggested Role Definitions

The following table gives suggested roles and the settings for those roles. You may wish to define roles and permissions slightly differently for your Site.

Role	Permissions
General Administrator	Select **Ignore** for: • Access Control • Access Logs • Access Sites • Activate privileged Access • Disable User • User Group Management • User Management Select the **Allow** option buttons for all other permissions.
Advanced User	Select **Ignore** for: • Access Control • Access Logs • Access Sites • Activate privileged Access • Change Alarm Settings on Reset • Device Configuration • Disable User • User Group Management • User Management Select the **Allow** option buttons for all other permissions.
Standard User	Select **Ignore** for: • Access Reports • Access Reports – Sensor Groups • Access Settings • Acknowledge Alarms • Bulk Acknowledge Alarms • Live View • Live View – Sensor Groups • Plan View Select the **Deny** option buttons for all other permissions.
Guest User	Select **Ignore** for: • Live View • Live View – Sensor Groups • Plan View Select the **Deny** option buttons for all other permissions.

2.3.5 Manage Users

Notion Pro allows users to be associated with **Roles** rather than having to individually add **Permissions** to each individual **User**. **Permissions** can also be done individually if required.

When setting up users, select **Admin>Access Control>Manage Users**. The **Select a User to Manage** window appears. See Figure 34 below.

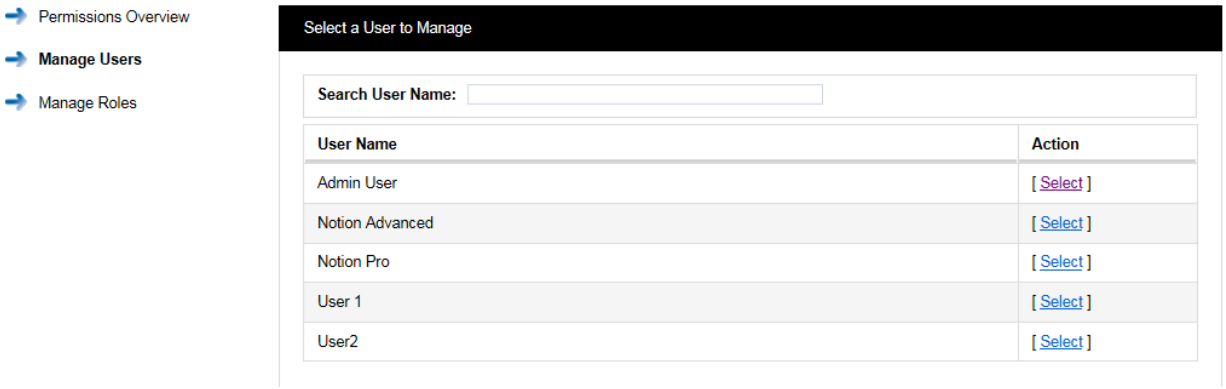


Figure 34

To assign a User to a Role click on Select next to the user name that you want to assign a Role to, see Figure 34 above. The **Managing User** window appears, see Figure 35 below.

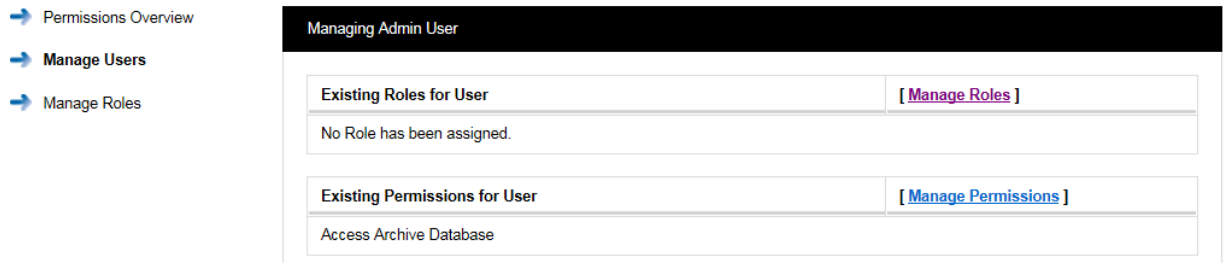


Figure 35

To assign a **Role** to this User select **Manage Roles**. The **Manage User Roles** window appears. See Figure 36 below.

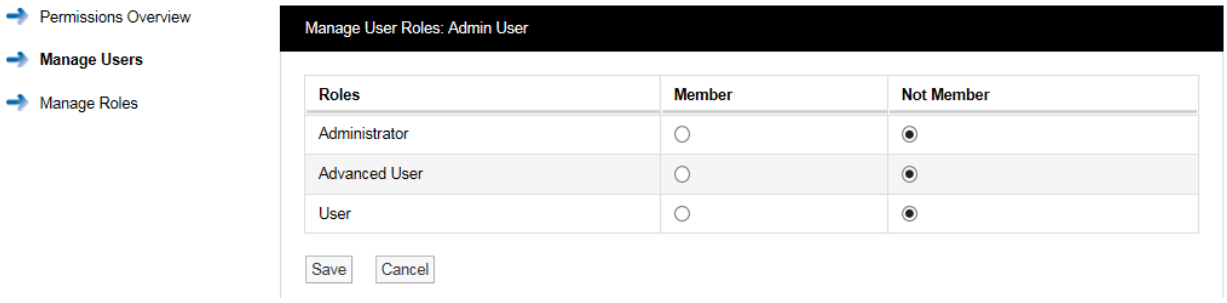


Figure 36

In this case the previously selected User was the **Administrator** user so we need to select the **Member** option button next to **Administrator** to put this user into the **Administrator Role**. This user will now inherit the **Permissions** assigned to this **Role**. More than one user can be assigned to the same **Role**.

A user can be assigned to more than one **Role** for example a lower level user can be assigned a higher set of Permissions by an Admin user on a temporary basis. This allows a user to stand in for a colleague without the need to access the user settings and individually change the **Permissions**.

2.3.6 User Permissions

The main method for Notion Pro users to be granted Permissions is by association to a Role. For total flexibility an individual user can have some permissions Allowed or Denied rather than Inherited.

To manage Permissions for a User:

1. Select **Manage Users** to give the Select a User to Manage dialogue box.
2. Select the required user to give the **Managing** <user name> dialogue box.
3. Click **Manage Permissions** to give the **Manage User Permissions** window. See Figure 37 below.

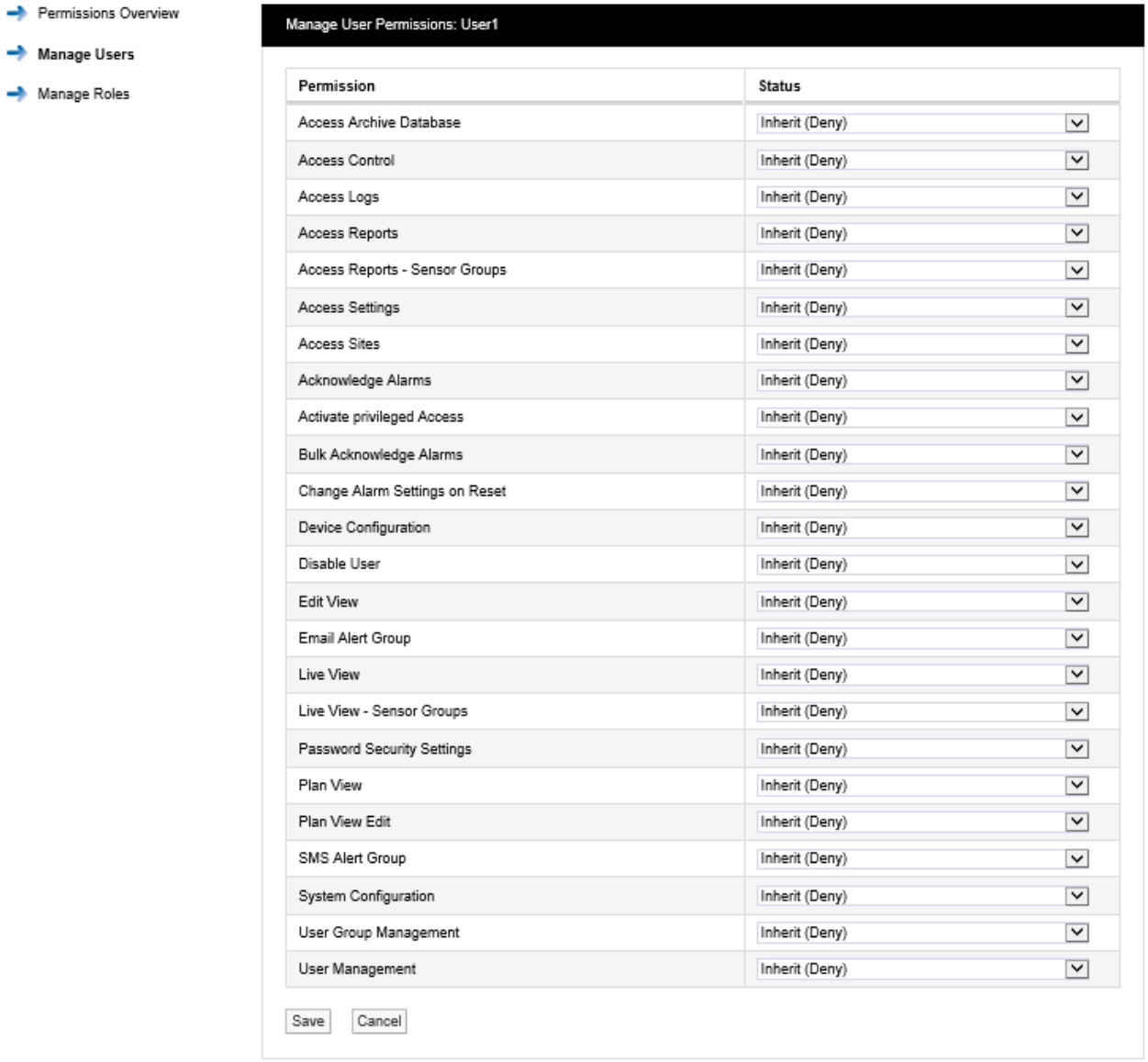
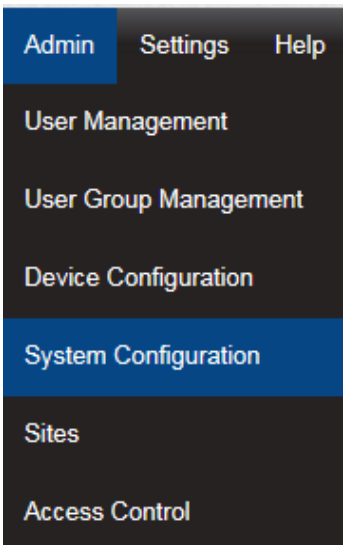


Figure 37

To change Permission select the drop down arrow next to the **Permission** to be changed and select either Allow or Deny. The above process can be repeated for other **Users** and **Roles**.

2.4 System Configuration

This section is where the email **and** SMS settings are set for the automated alarm functions.



Select **Admin** then **System Configuration** from the drop down menu to access the **System Configuration** section.

After selecting **System Configuration** a new window appears, see Figure 39 below.

Figure 38

2.4.1 Email Alert Global Settings

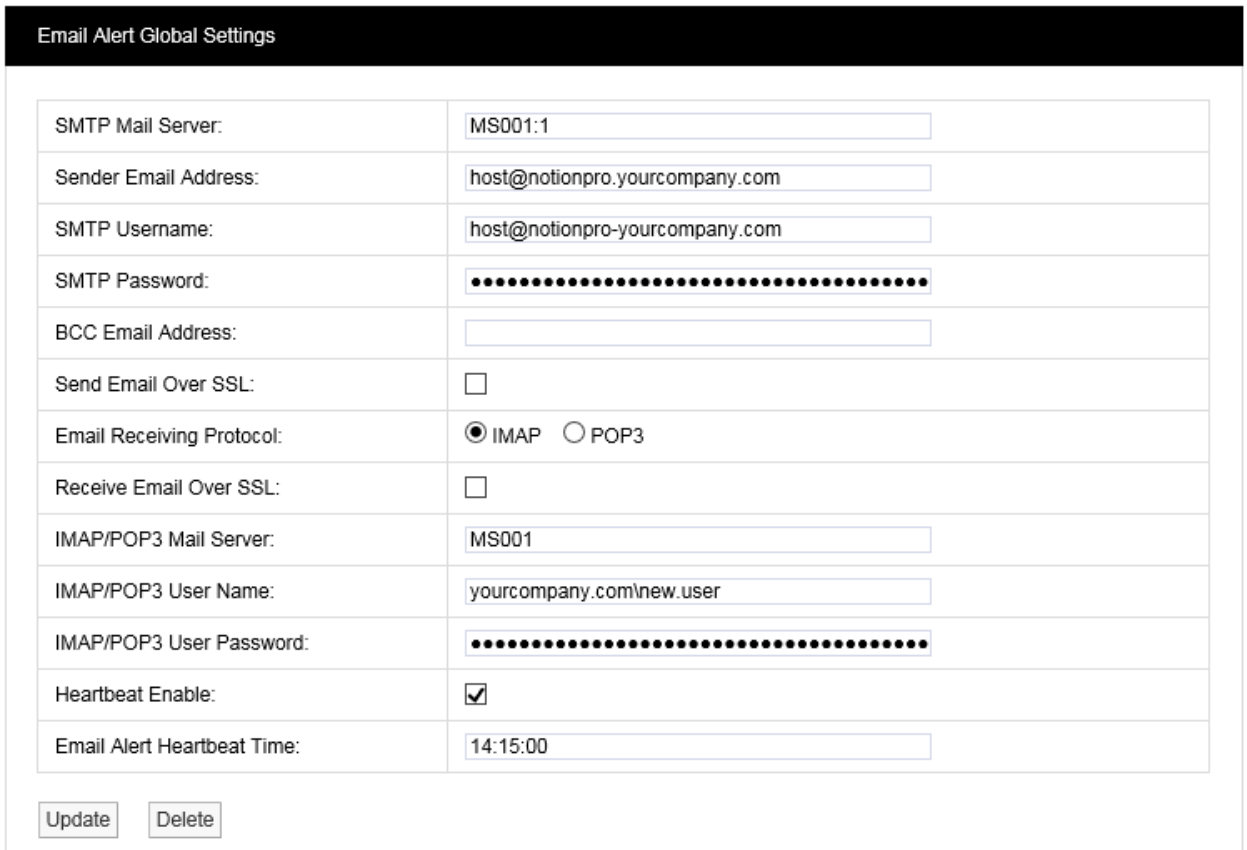


Figure 39

The details in the above example ideally should have been collected prior to installation and if available will be on the Notion Pro Pre-Requisites form. If the details are not available at the time of commissioning, you will need to contact your IT department or provider. If the details are available enter them into the dialog boxes above.

It is not essential that these details are entered at this time. If email alerts and emailed reports are not required at this point these details can be entered at a later date.

Mail Servers can be specified as a resolvable hostname or IPv4 address. The example settings, shown in Figure 39 above, will use standard IANA assigned port numbers when connecting to the mail server(s). If required you can specify the port number to be used, by adding a colon ':' followed by the required port number to the server hostname or IPv4 address; e.g. 'MS001:25' would use port 25.

If you do not know the address(s) and/or port number(s) used by your Mail server, contact your system administrator or IT support provider; please do NOT contact IMC Technical Support, as this is information that only your IT administrator or support provider can supply.

It is recommended that the **Heartbeat** message is enabled, the problem with automated alarm systems using tools such as email, is if you don't get an alarm for several days or weeks then it is difficult to know if that is because the system is not generating any alarms or is it because the email system has failed. The **Heartbeat** message will give a daily indication that everything is functioning correctly. The timing of the Heartbeat message can be set in the bottom dialog box, please ensure that the time is entered in the following format:

- 14:15:00

Any time from the 24 hour clock can be set. When all settings are entered select **Update.**

The **Receive Email** and **IMAP/POP3** settings are for email alert acknowledgement handling, and can be left blank should this feature not be required.

Note: Do NOT set the BCC Email Address to be the same as the Sender Email Address.

Warning: It is not recommended that email alerts are used on their own for critical alarms. Email alerts rely on your internal email systems functioning correctly. Or if your Internet Service Provider is suffering any problems this will also cause disruption of service.

For critical alarms IMC recommend the use of two different methods to send out alarm alerts.

Other forms of alarm alert generation methods are SMS driven from the SMS Module GSM device or hard wired relays driven locally from the Network Receivers. Both methods require extra hardware.

Contact your sales representative or your local distributor for further details. Contact information can be found on our website at http://www.the-imcgroup.com/contact-us for our UK Head office contacts or http://www.the-imcgroup.com/global-distributors to contact one of our authorised distributors.

2.4.2 SMS Alert Global Settings

Notion Pro allows alarm alerts to be sent out via **SMS Alerts**.

To set up **SMS Alert Global Settings**, select **Admin**>**System Configuration> SMS Alert Global Settings**. The **SMS Alert Global Settings** Window will appear, see Figure 40 below.

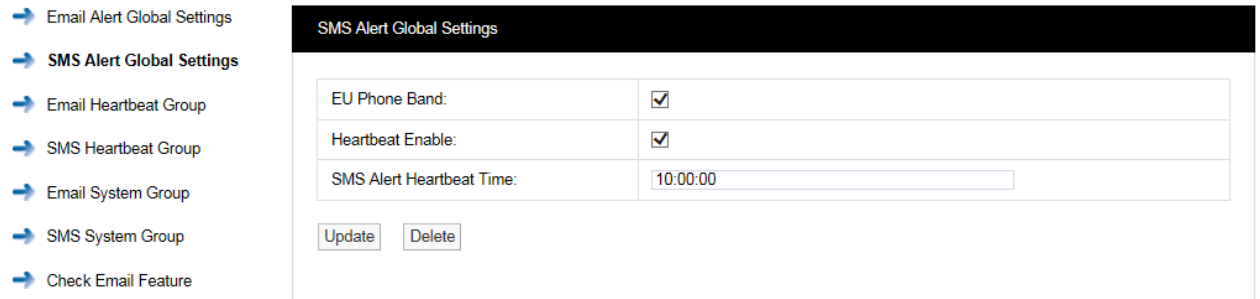


Figure 40

When using the SMS Module anywhere in Europe tick **EU Phone Band**, when using outside Europe leave **EU Phone Band** un-ticked.

It is recommended that the **Heartbeat** message is enabled. The problem with automated alarm systems using tools such as SMS is, if you don't get an alarm for several days or weeks then it is difficult to know if that is because the system is not generating any alarms or is it because the SMS system has failed. The **Heartbeat** message will give a daily indication that everything is functioning correctly. The timing of the Heartbeat message can be set in the bottom dialog box, please ensure that the time is entered in the following format:

- 10:10:00

Any time from the 24 hour clock can be set. When all settings are entered select **Update**.

2.4.3 Email Heartbeat Group

You can create the **Email Heartbeat Group** which allows multiple users to be allocated to a group. To create the **Email Heartbeat Group** select **Email Heartbeat Group** from the side menu and the **Create Email Heartbeat Group** Window will appear see Figure 41 below.

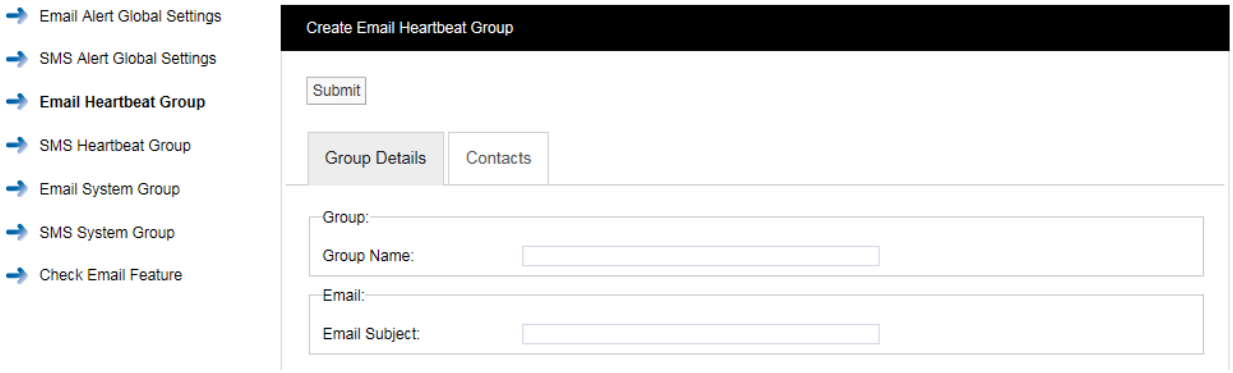


Figure 41

Step 1

Enter a name for the group in the dialog box next to **Group Name**, then enter a phrase in the dialog box next to **Email Subject**. The text entered here will become the subject of the email.

Step 2

Click on the **Contacts** tab and the **Contacts** dialog box appears, see Figure 42 below.

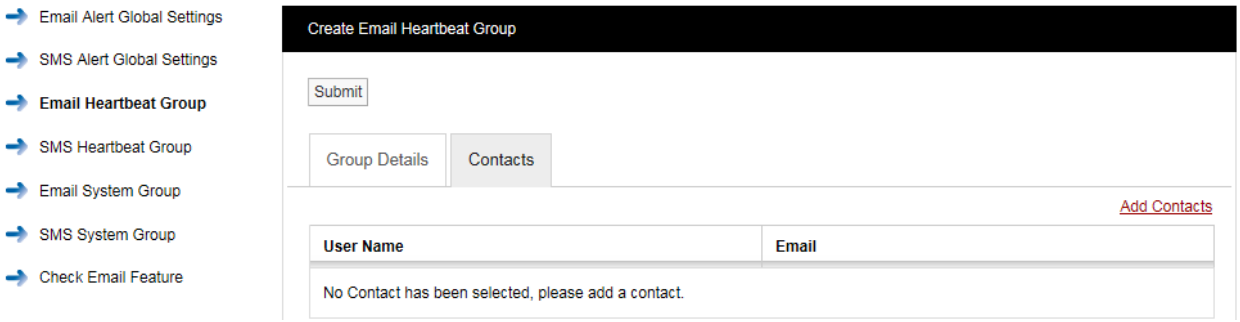


Figure 42

To add Contacts select Add Contacts and the **Add Contacts** window appears, see Figure 43 below.

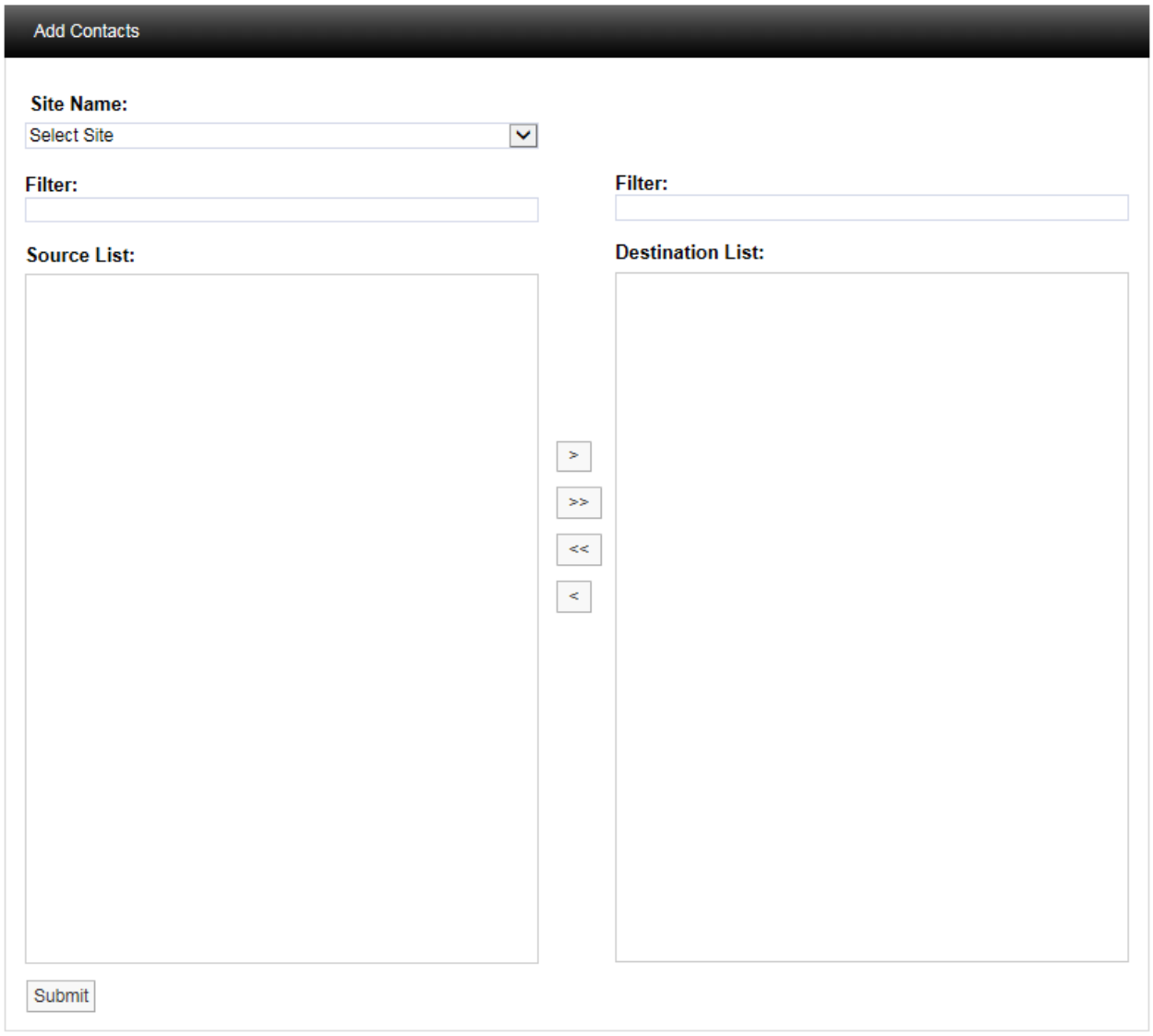


Figure 43

Select a Site from the **Site Name** drop-down menu on the dialog box. On initial setup there will only be one Site available which is created during the installation. See more about creating Sites in section 5.5.1.

The selected **Site's** associated contacts will appear in the left window, when the **Site** contacts/users list is long the required **Contacts** can be found by using the **Filter**. Select the right facing arrow to move the **Contact** to the right window. More than one **Contact** can be moved across. Once you are happy with your selection of **Contacts** select the **Submit** button at the bottom left. This will return you to the **Create Email Heartbeat Group** window; select the Update button to save the group.

2.4.4 SMS Heartbeat Group

You can create the **SMS Heartbeat Group** which allows multiple users to be allocated to a group. To create the **SMS Heartbeat Group** select **SMS Heartbeat Group** from the menu and the **Create SMS Heartbeat Group** window will appear see, Figure 44 below.

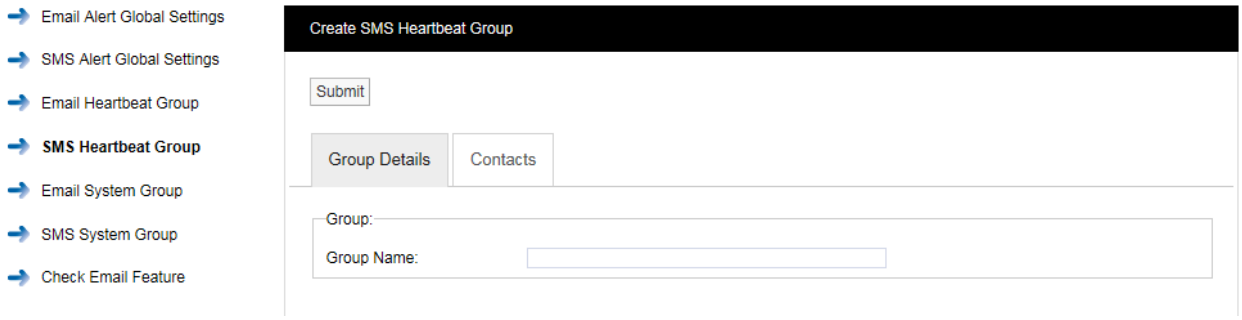


Figure 44

Step 1

Enter a name for the group in the dialog box next to **Group Name**.

Step2

Click on the tab marked **Contacts** and the **Contacts** dialog box appears, see Figure 45 below.

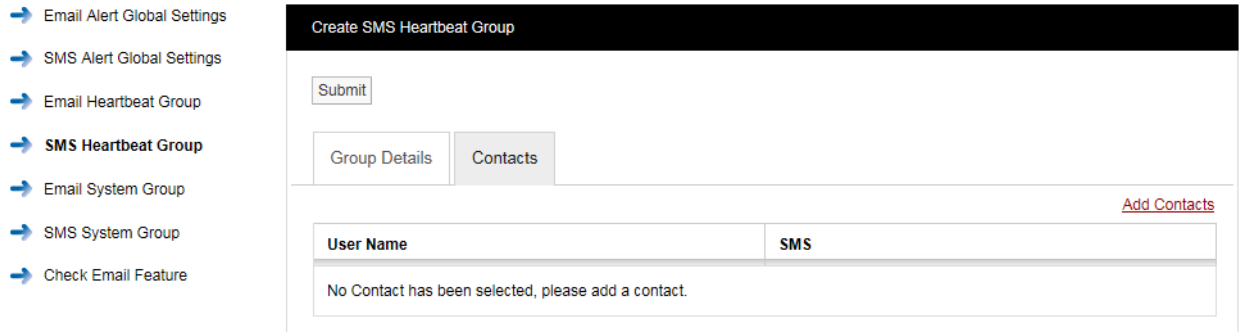


Figure 45

To add Contacts select the Add Contacts text and the **Add Contacts** window appears, see Figure 46 below.

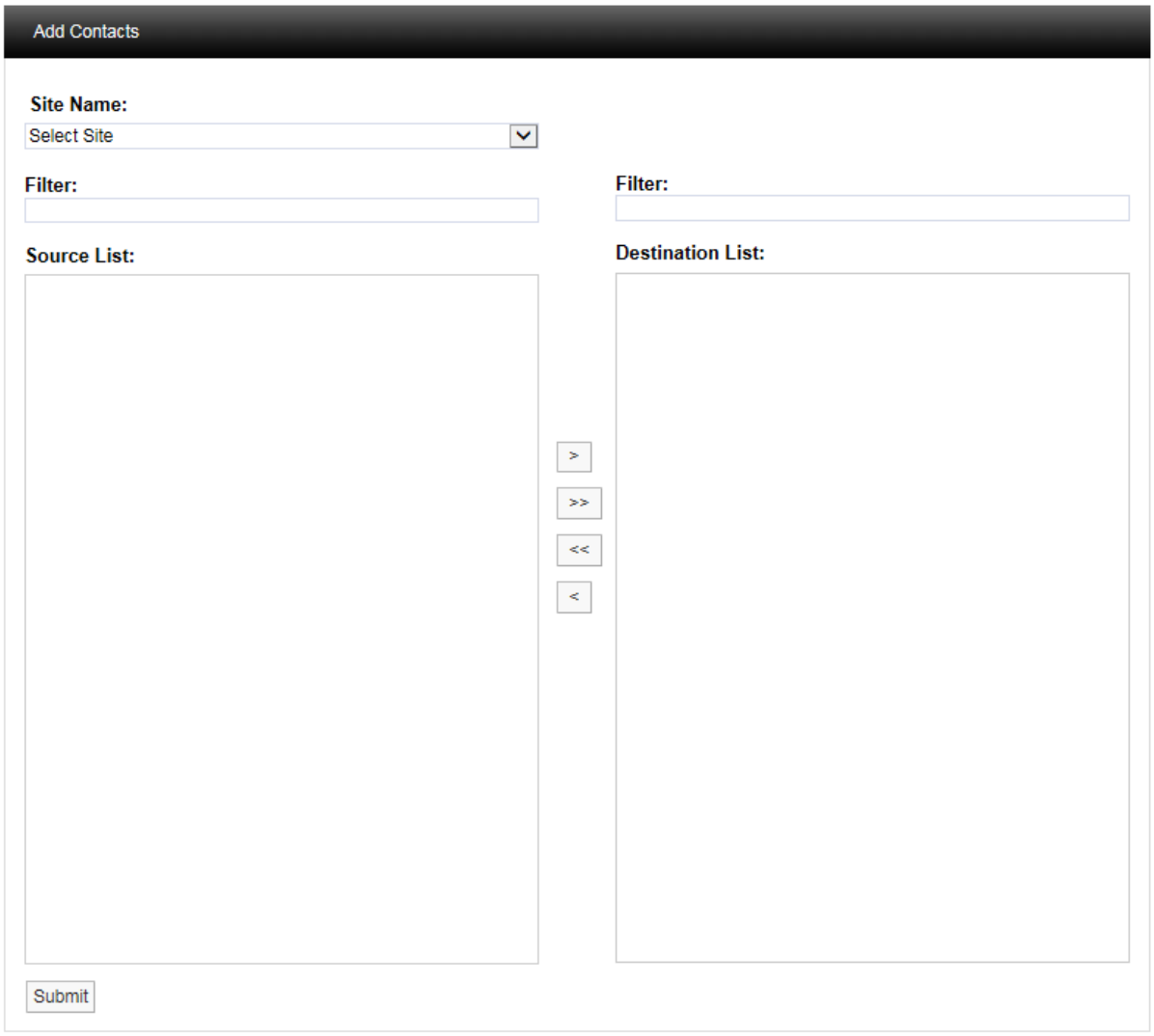


Figure 46

Select a **Site** using the drop down menu on the **Site Name** dialog box on initial setup there will only be one **Site** available which is created during the installation. See more about creating Sites in section 4.5.

The selected **Site's** Contacts will appear in the left window, when the **Contact** list is long the required **Contact** can be found by using the Filter. Select the right facing arrow to move the **Contact** to the right window. More than one **Contact** can be moved across. Once you are happy with your selection of **Contacts** select the **Submit** button at the bottom left. This will return you to the **Create SMS Heartbeat Group** window; select the **Submit** button to save the group.

2.4.5 Email System Group

You can create the **Email System Group**. The **Email System Group** sends email alerts from a predefined list of system events, these events are:

- Edit
- System Start
- System Stop
- Login Fail
- Hardware Event

Multiple users can be allocated to the group. To create the Email System Group select Email System Group from the menu and the Create Email System Group window appears, see Figure 47 below.

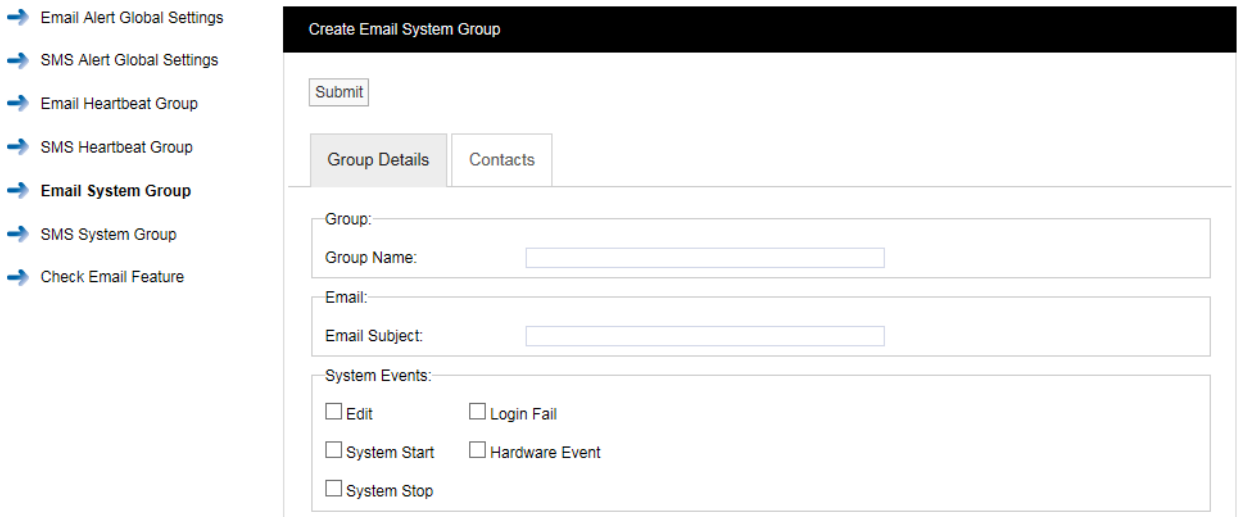


Figure 47

Step 1

Enter a name for the group in the dialog box next to **Group Name**, next enter a phrase in the dialog box next to **Email Subject**. The text entered here will become the subject of the email.

Step 2

Select the parameters from the **System Events** list that you require notification on.

Step 3

Click on the tab marked **Contacts** and the **Contacts** dialog box appears, see Figure 48 below.

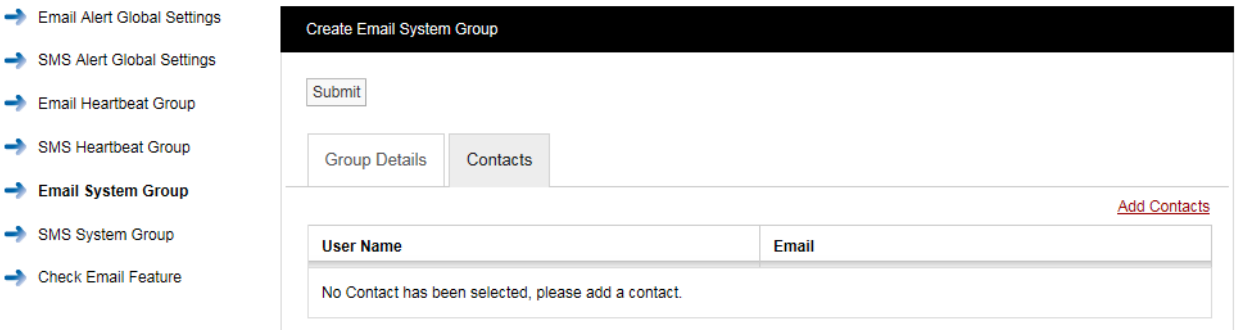


Figure 48

To add Contacts select Add Contacts and the **Add Contacts** Window will appear, see Figure 49 below.

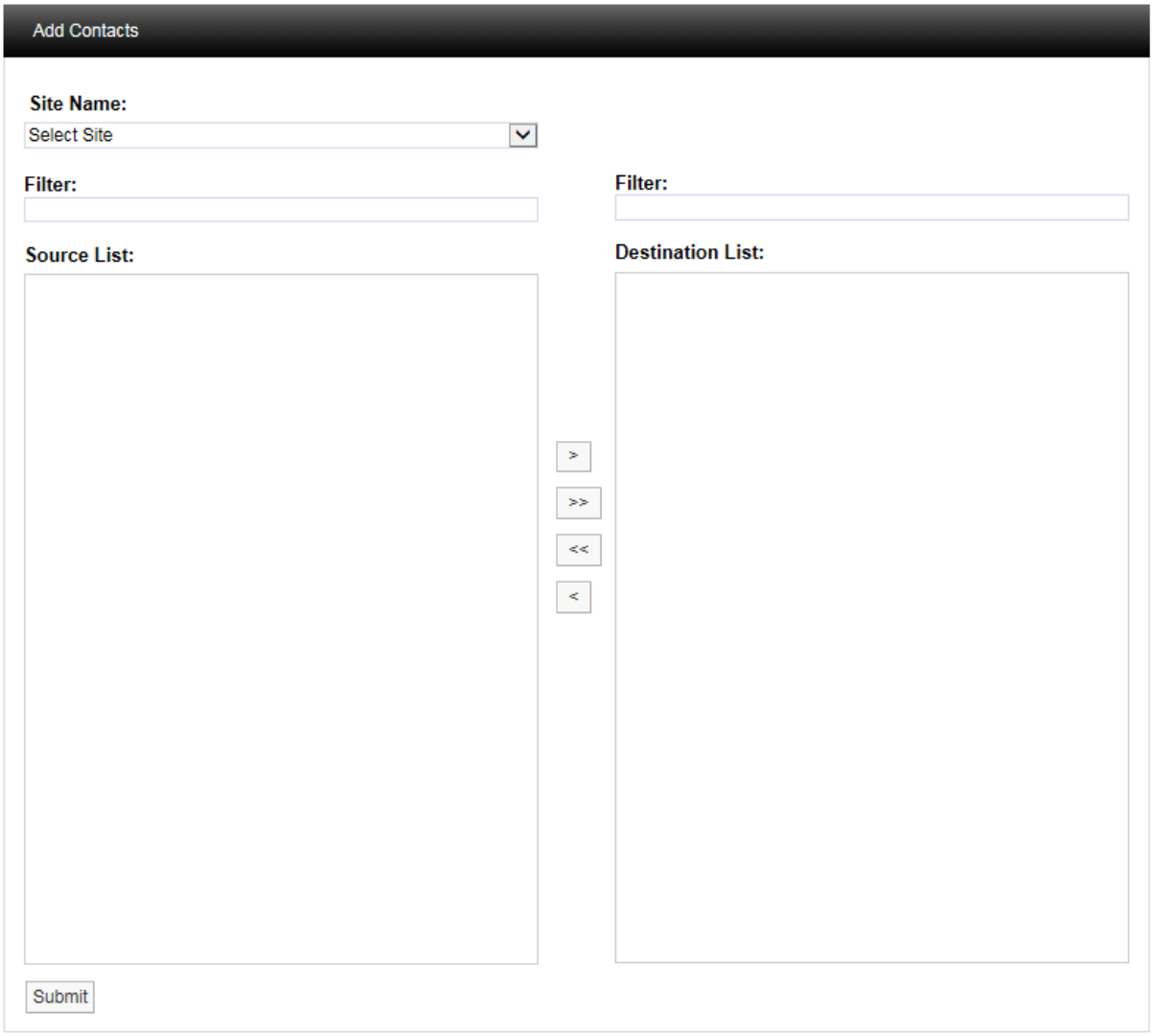


Figure 49

Select a **Site** using the drop down menu on the **Site Name** dialog box on initial setup there will only be one **Site** available which is created during the installation. See more about creating Sites in section 4.5.

The selected **Site's** contacts will appear in the left window, when the **Site** contacts list is long the required **Contact** can be found by using the Filter. Select the right facing arrow to move the **Contact** to the right window. More than one **Contact** can be moved across. Once you are happy with your selection of **Contacts** select the **Submit** button at the bottom left. This will return you to the **Create Email System Group** window; select the **Submit** button to save the group.

2.4.6 SMS System Group

You can create the **SMS System Group**, which sends SMS alerts from a predefined list of System Events. These events are:

- Edit
- System Start
- System Stop
- Login Fail
- Hardware Event

Multiple users can be allocated to a group. To create an **SMS System Group** select **SMS System Group** from the side menu and the **Create SMS System Group** window will appear, see Figure 50 below.

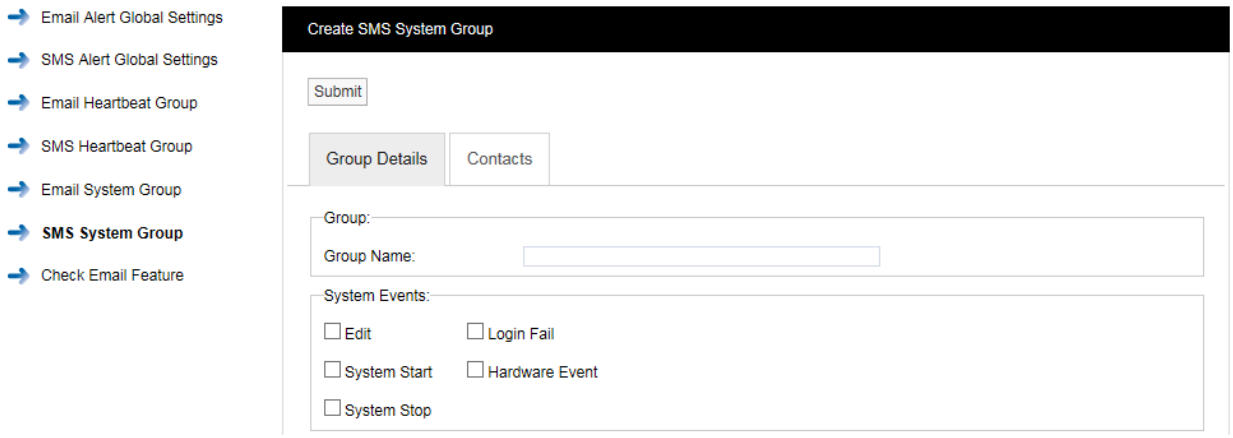


Figure 50

Step 1

Enter a name for the group in the dialog box next to **Group Name**.

Step 2

Select the parameters from the **System Events** panel that you require notification on.

Step 3

Click on the **Contacts** tab and the **Contacts** dialog box appears. See Figure 51 below.

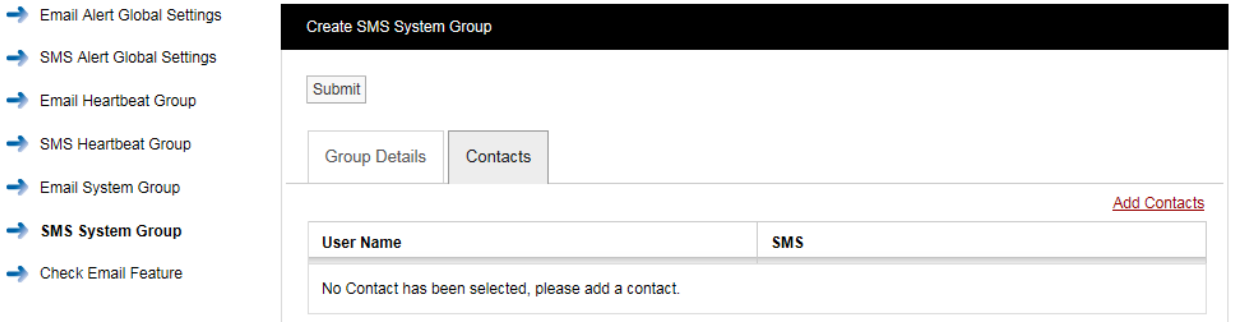


Figure 51

To add Contacts select Add Contacts and the **Add Contacts** window appears. See Figure 52 below.

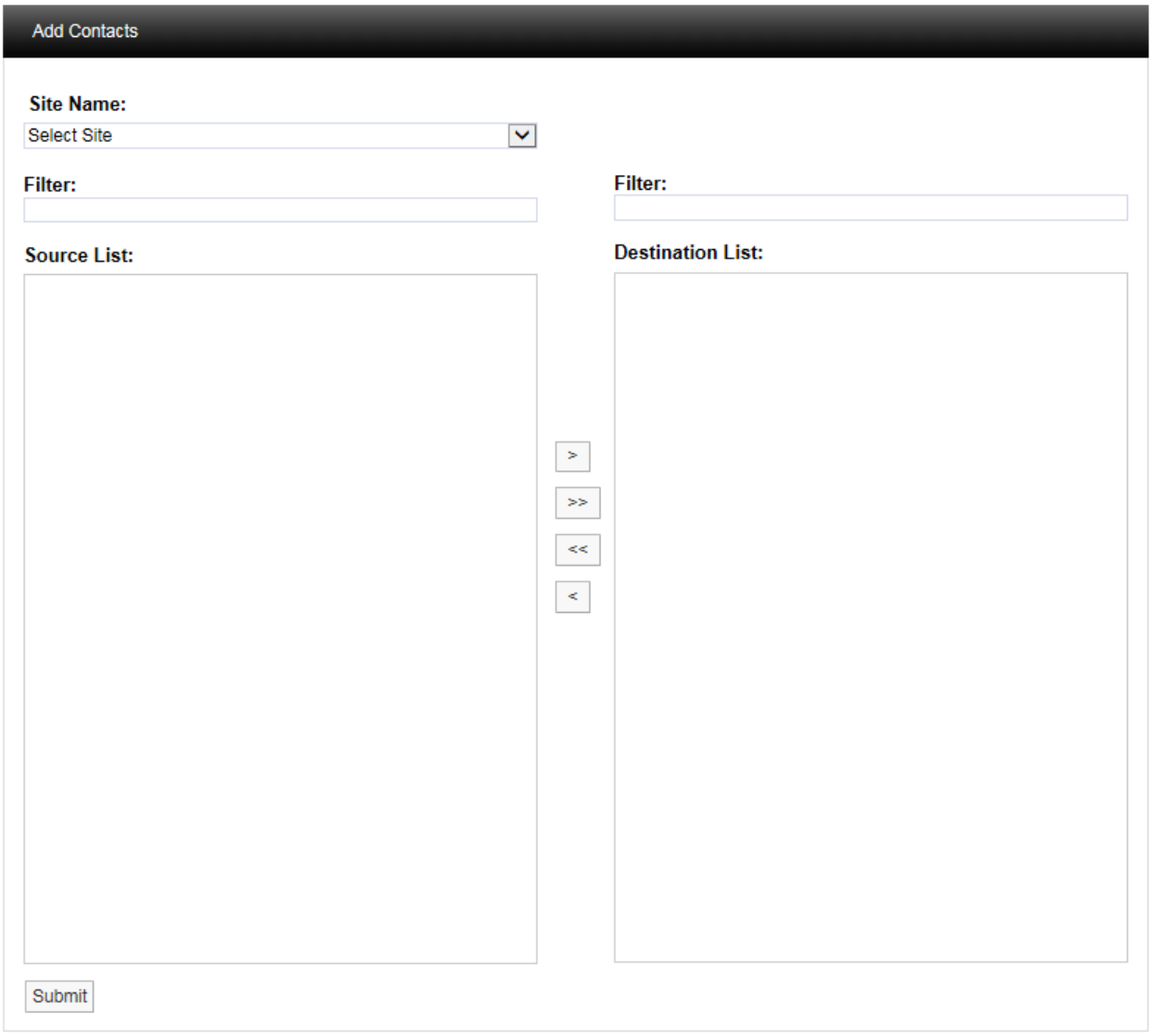


Figure 52

Select a **Site** using the drop down menu on the **Site Name** dialog box. On initial setup there will only be one **Site** available which is created during the installation. See more about creating Sites in section 4.5.

The selected **Site's** contacts will appear in the left window, when the **Site** contacts list is long the required **Contact** can be found by using the Filter. Select the right facing arrow to move the **Contact** to the right window. More than one **Contact** can be moved across. Once you are happy with your selection of **Contacts** select the **Submit** button at the bottom left. This will return you to the **Create SMS System Group** window. Select the **Submit** button to save the group.

2.4.7 The Check Email Feature

This can be used verify that the settings that have been set up in **Email Alert Global Settings** (see section 2.4.1) function correctly and that you can receive an email from Notion Lite.

Select **Check Email Feature** to give the **Check Email Feature** dialog box, see Figure 53 below.

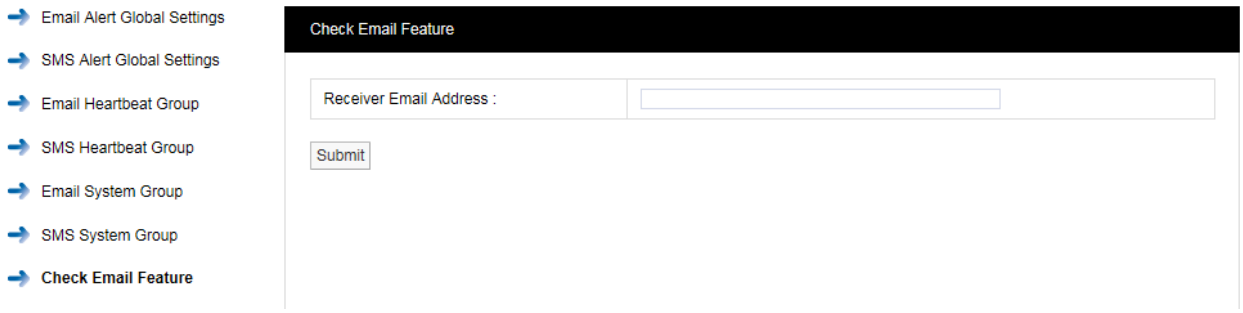


Figure 53

Enter your email address into the Receiver Email Address field then click Submit – you should receive an email from Notion Pro.

2.5 User Alerts

User Alerts provide automated Alarm notification delivered via **Email** or **SMS** or both. (The SMS Module, see Part 1, section 2.3) is required for SMS Alarms). A user must be a member of an **Alert Group** in order to receive messages specified when setting up the System Configuration (Section 2.4).

This section will take you through the use and settings for **Email** alarms and **SMS Alarms**. To access the **User Alert** settings select **User Alerts** from the main menu, see Figure 54 below.

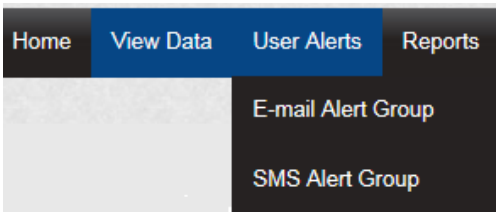


Figure 54

2.5.1 Email Alert Group

To access the E-mail Alert Group settings select **E-Mail Alert Group** from the menu, see Figure 55 below.

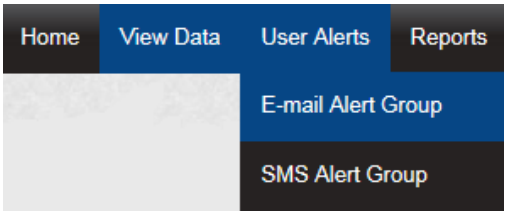


Figure 55

After selecting **E-mail Alert Group** and **Create Email Alert Group** from the side menu the **Create Email Alert Group** window appears, see Figure 56 below.

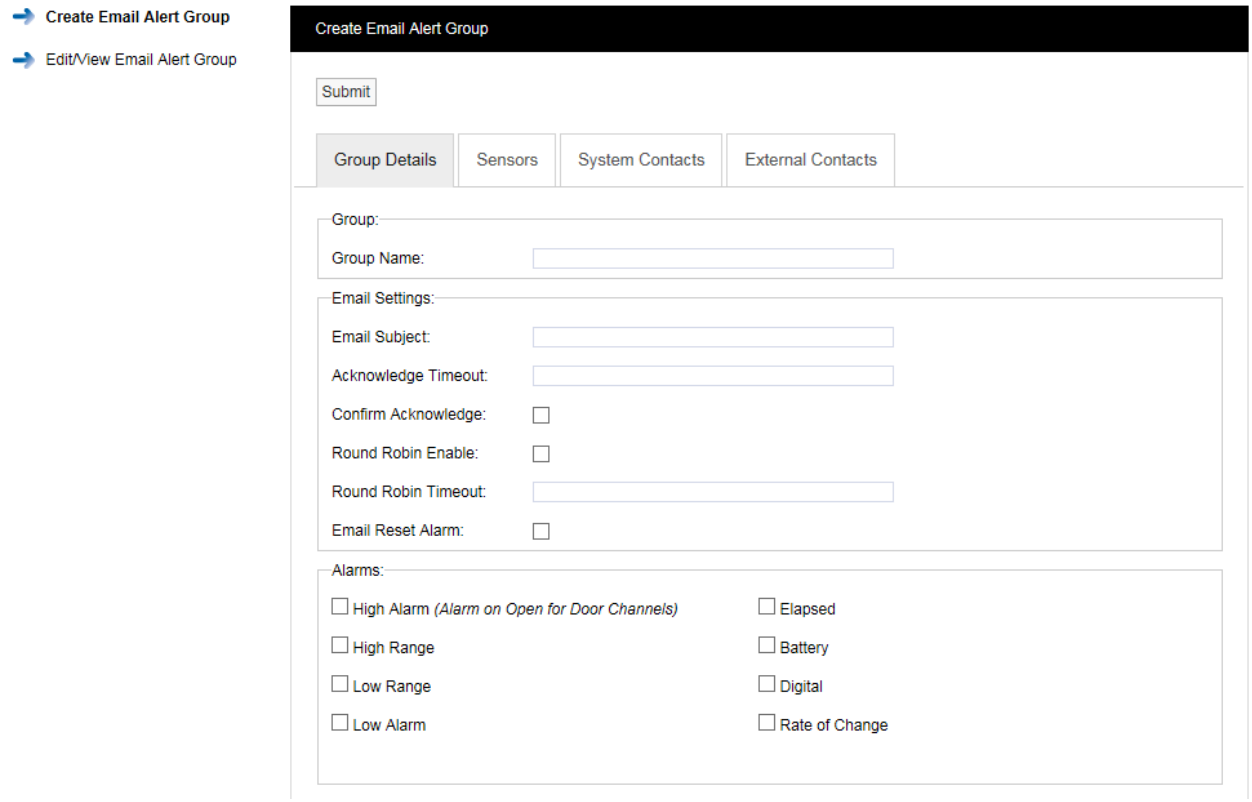


Figure 56

The window above allows Alert Groups to be created and configured for the automated notification of email Alarms.

Step 1

Input a **Group Name**. This can be something that makes sense to the **Site** in question or something related to the function. For this example we will call the group, "**Service Email**" this will be a Group that sends email Alarms to the Service Engineers.

Step 2

Enter a subject title for the Email into **Email Subject**. For this example we will call it "**System Alarm on Notion Pro Site**" this would then alert the engineer in the email subject that they were getting an email about an Alarm condition on that Site.

Step 3

Enter an **Acknowledge Timeout**. This is the time that the system will wait for an acknowledgement email. This should be entered in time format like this 12:00:00, this would be a 12 hour delay.

Step 4

Select the tick box next to **Confirm Acknowledge** if an acknowledgement email is required.

Step 5

Email Alerts can be sent in **Round Robin** mode. Round Robin mode is when email alerts are sent to the first name in the list. If there is no response within the time limit the system moves on to the next person in the list and so on until a response is received, or emails have been sent to everybody in the list. To activate Round Robin mode select the tick box next to Round Robin Enable.

Step 6

You can select the time period the system waits before sending the next email, this should be entered in the Round Robin Timeout field in time format like this: 00:15:00. This would be a 15 minute delay.

Step 7

If required, a reply email can be sent which will reset the alarms. To activate this feature select the tick box next to Email Reset Alarm.

Step 8

Select the alarm parameters that Email Alerts are required for by clicking in the tick box next to the alarm condition within the Alarms panel. Multiple selections can be made.

Step 9

Select the Sensor**s** that you require to be included in the Alert Group. Click on the **Sensors** tab. A new window will appear, see Figure 57 below.

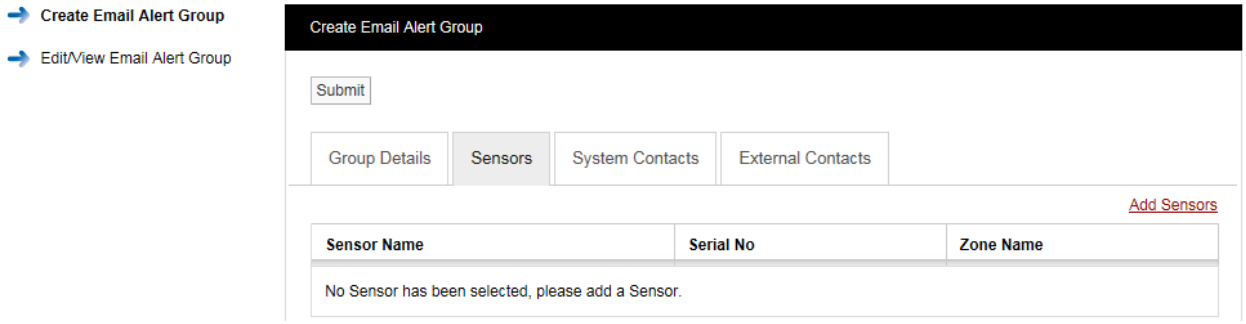


Figure 57

To add sensors click the underlined Add Sensors link. A new window will appear, see Figure 58 below.

To select a Sensor first select a Zone from the **Zone Name** drop down menu.

As the Zone is selected the available sensors in that Zone will populate the left column (**Source List**).

To select Sensors highlight the ones that you want to generate email alerts for then click [>].

To deselect Sensors highlight them in the right column and click [<].

To move all Sensors across click the double arrows.

Once happy with you selection select Submit.

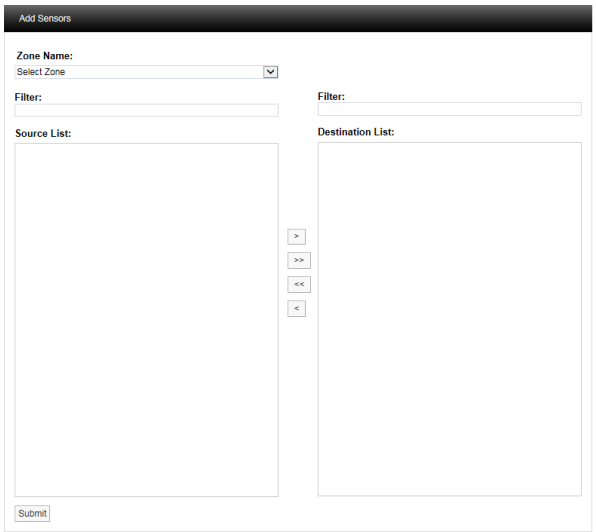


Figure 58

To add **Contacts** to the **Group** select the **System Contacts** tab, see Figure 59 below.

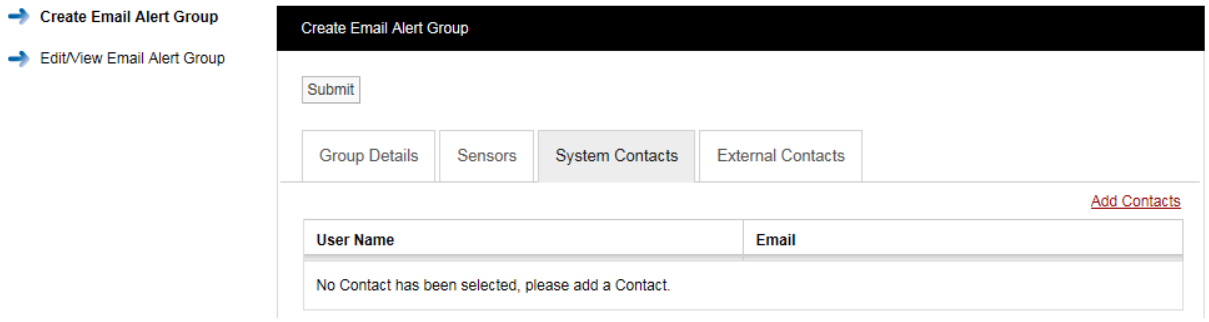


Figure 59

Contacts are the people that you want alerting by email when any of the selected sensors are in Alarm. To add Contacts select Add Contacts. A new window will appear see Figure 60 below for example.

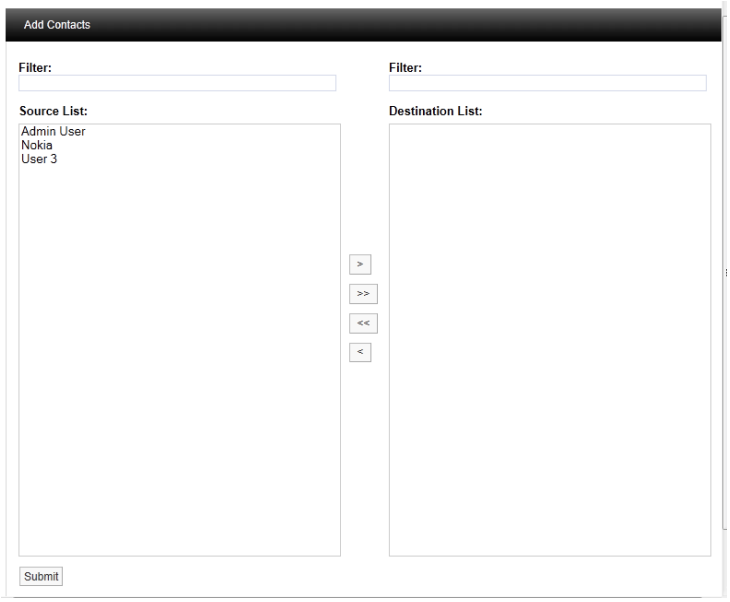


Figure 60

To select a Contact or Contacts highlight the required Contacts and select > , to de-select a Contact highlight the Contact and select <.

When happy with the details select **Submit**.

There is an option to have email Alarms sent to non-Notion Pro Users or External Contacts. See section 2.1.8.

To select **External Contacts** click the External Contacts tab and follow the procedure above for adding System Contacts.

2.5.2 SMS Alert Group

To access the SMS Alert Group settings select **SMS Alert Group** from the menu, see Figure 61 below.

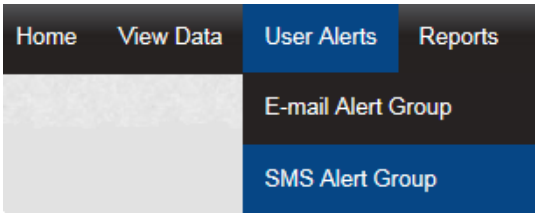


Figure 61

After selecting **SMS Alert Group** the **Create SMS Alert Group** window appears, see Figure 62 below.

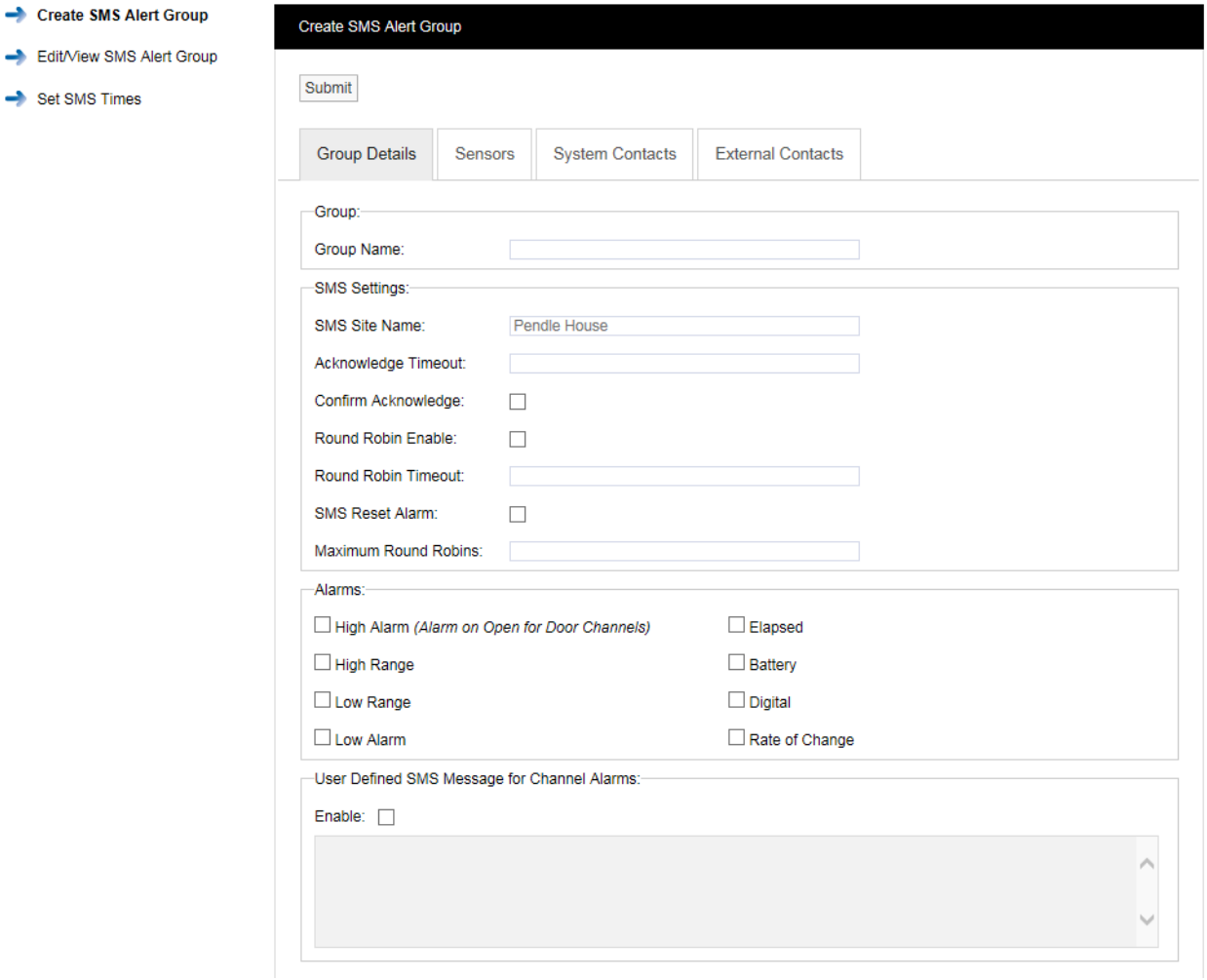


Figure 62

The window above allows **SMS Alert User Groups** to be created and configured for the automated notification of SMS Alarms. Note that you will also need to check that the SMS Global Settings (see section 2.4.2) are correct.

Step 1

Input a Group Name. This can be something that makes sense to the Site in question or something related to the function. For, example we could call the group, "**Service SMS**". This will be a group that sends **SMS Alarms** to the Service Engineers.

Step 2

Enter an **Acknowledge Timeout**. This is the time that the system will wait for an acknowledgement message before re-sending the message. This should be entered in time format like this: 00:10:00. This would be a 10 minute delay.

Step 3

Select the tick box next to Confirm Acknowledge if an acknowledgement SMS message is required.

Step 4

SMS Alerts can be sent in **Round Robin** mode. Round Robin mode is when SMS Alerts are sent to the first name in the list. If there is no response within the time limit the system moves on to the next person in the list and so on until a response is received. To activate Round Robin mode select the tick box next to Round Robin Enable.

Step 5

You can select the time period the system waits before sending the next message, this should be entered in time format like this: 00:15:00. This would be a 15 minute delay.

Step 6

If you require, a Reply SMS can be sent which will reset the Alarms. To activate this feature select the tick box next to SMS Reset Alarm.

Step 7

The number of times the system will go around the Round Robin loop can be limited. To activate this feature enter the number of times the system should go round the loop in the Maximum Round Robins field.

Step 8

Select the Alarm parameters that Email Alerts are required for by clicking in the tick box next to the Alarm condition within the Alarms panel. Multiple selections can be made.

Step 9

For Channel Alarms, you may define your own text message, (this can be used to trigger events on a 3rd-party system with SMS receive capability).

To set-up the required message select **Enable** and enter the required text in the text box. See Figure 63 below.

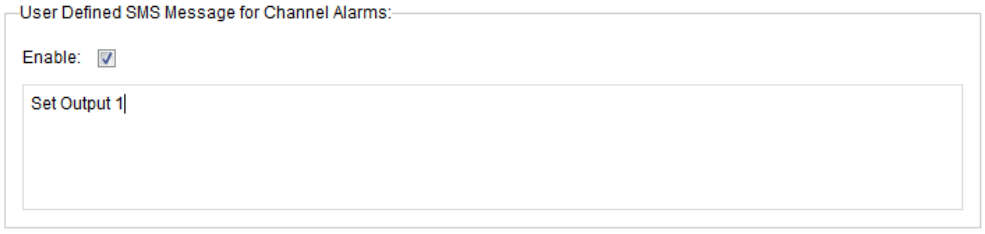


Figure 63

Step 10

Select the Sensors that you require to be included in the Alert Group. To select sensors click on the **Sensors** tab. A new window will appear, see Figure 64 below.

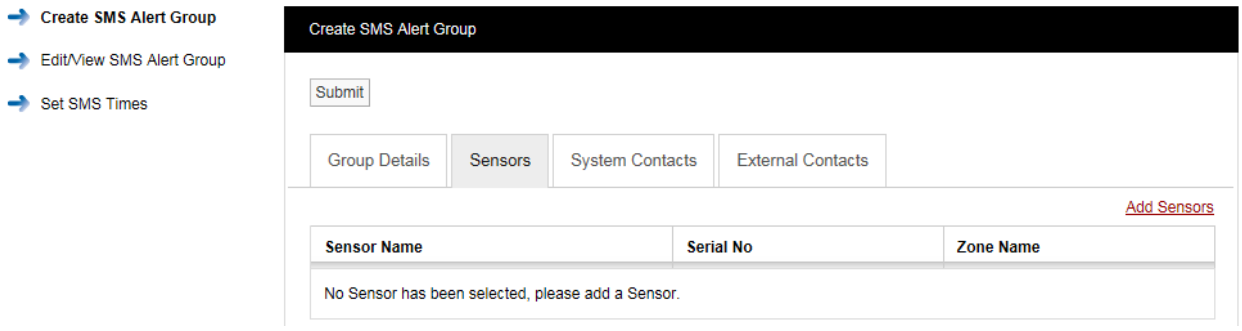
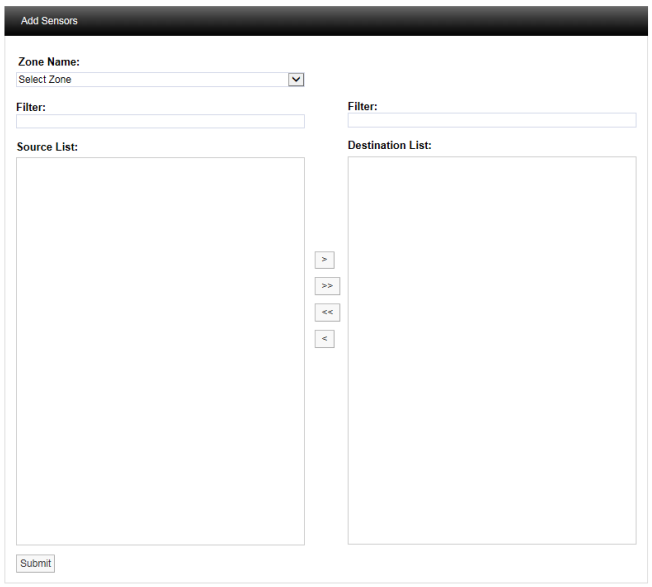


Figure 64

To add sensors click the Add Sensors link, a new window will appear, see Figure 65 below.



To select a Sensor first select a Zone from the drop down menu.

As the Zone is selected the available Sensors will populate the left column (**Source List**).

To select sensors highlight the ones that you want to generate email alerts for then click > .

To deselect Sensors highlight them in the right column and then click < .

To move all Sensors across click the double arrows.

Once happy with you selection select Submit.

See Figure 66 below for example.

Figure 65

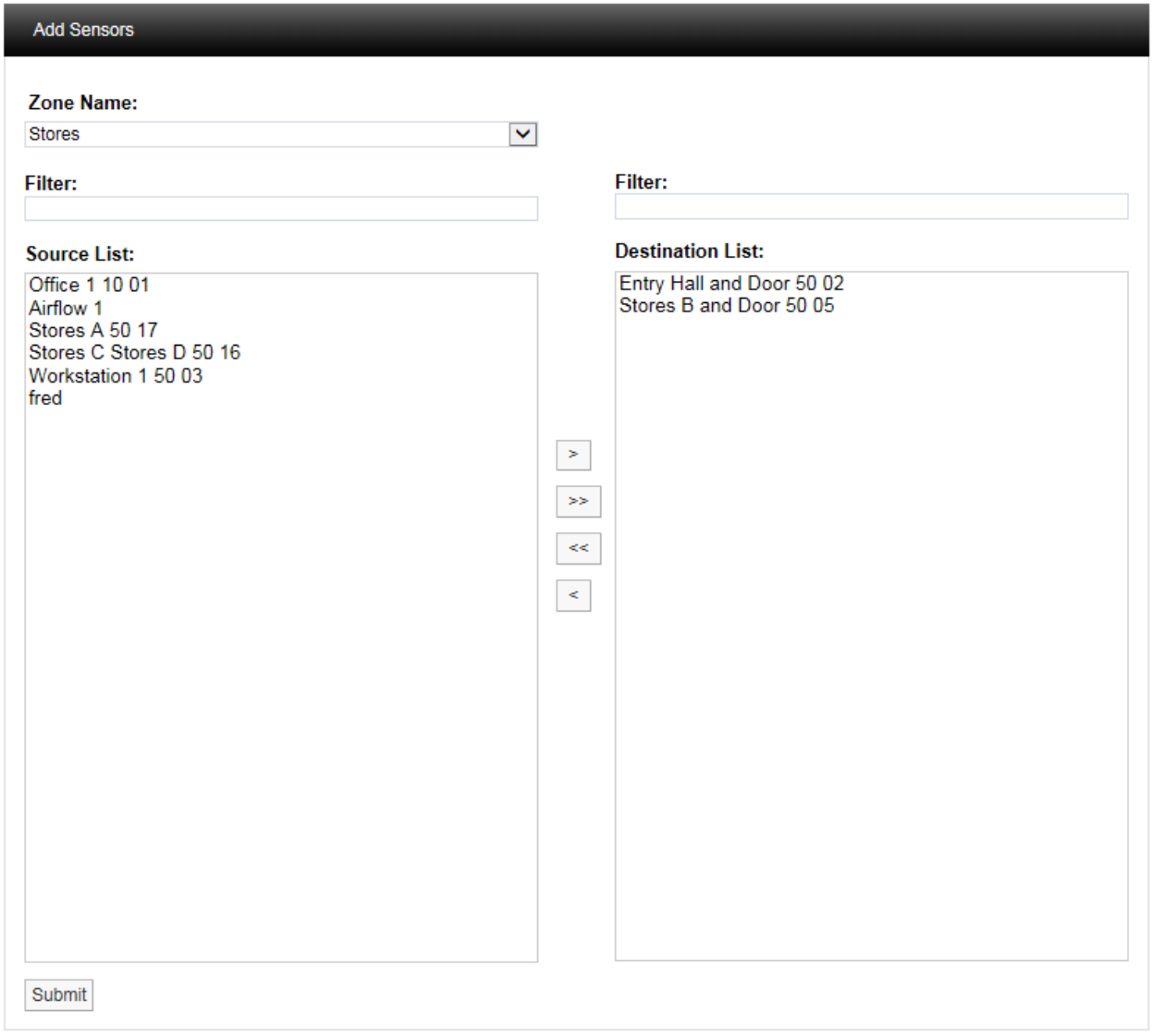


Figure 66

To add **Contacts** to the Group select the **System Contacts** tab. A new window will appear, see Figure 67 below.

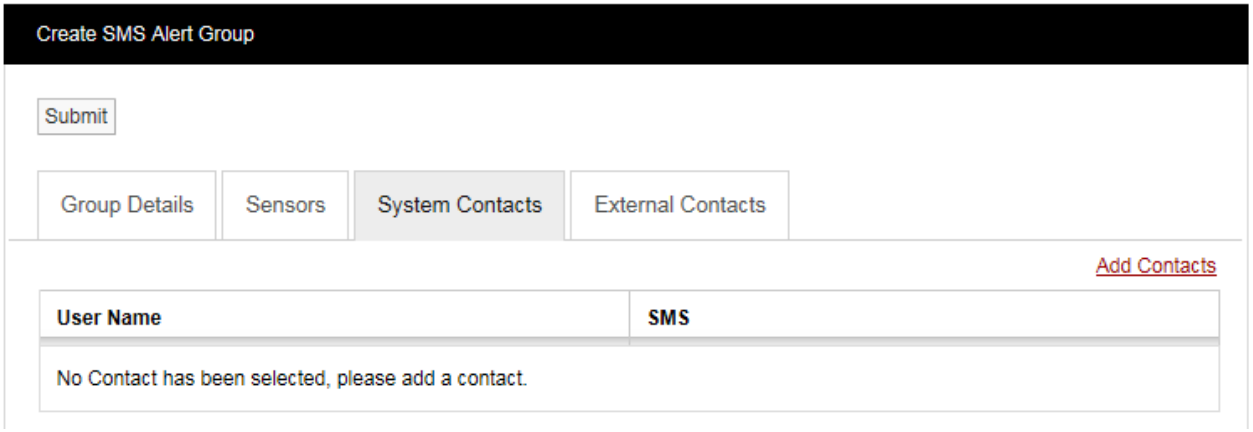


Figure 67

Contacts are the people that you want alerting by email when any of the selected Sensors are in Alarm. To add **Contacts** select Add Contacts. A new window will appear see Figure 68 below.

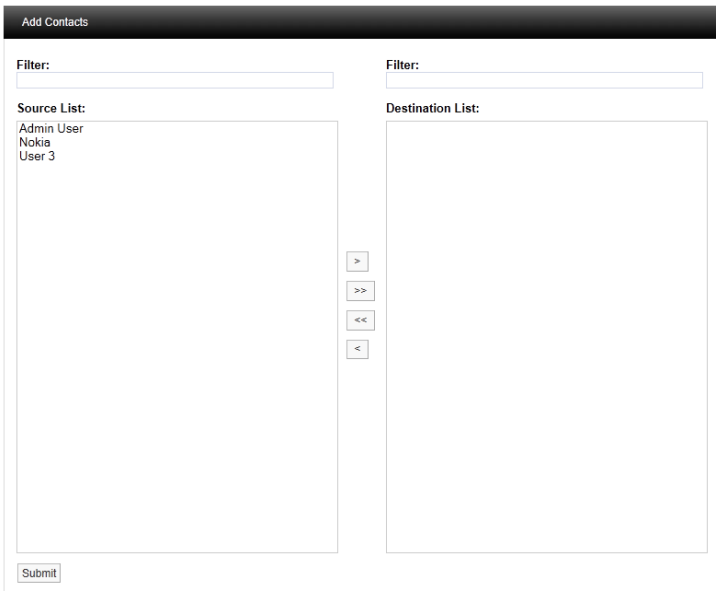


Figure 68

To select a Contact or Contacts highlight the required Contacts and select > , to de-select a Contact highlight the Contact and click < . When happy with the details select **Submit**.

There is an option to have email Alarms sent to non-Notion Pro Users or **External Contacts**. To add External Contacts to the system see section 2.1.8.

To select External Contacts follow the procedure above for adding System Contacts.

2.5.2.1 Set SMS Times

You can set times of day within which SMS messages can be sent. Select Set SMS Times to give the Set SMS Times dialogue box. See Figure 69 below.

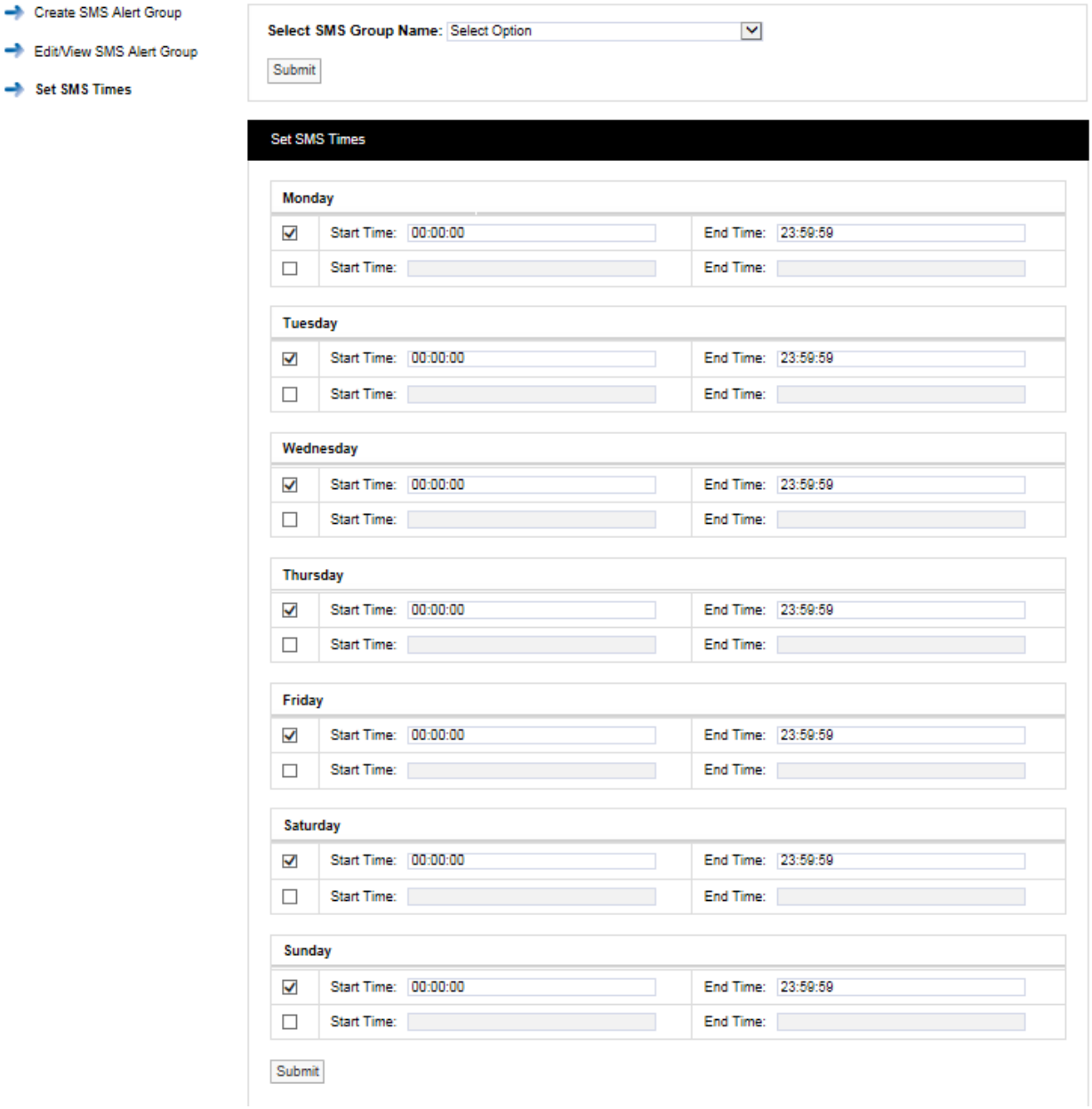


Figure 69

Select the required SMS Alert Group from the **Select SMS Group Name** pull-down menu.

For each day of the week, select the required Start and End times for SMS messaging. If necessary, two Start and End time periods can be set within a single 24-hour period.

Enter Start and End times as required, then click **Submit**.

2.6 Site Management

Sites are the main access points to the system data, each **Site** represents a single physical Site where receiving devices such as Network Receivers are located along with measuring Sensors/Transmitters.

Sites can also have **Sub Sites** associated with the main top level Site. A Sub Site is used where it is desirable to sub-divide a main Site, for example when there are large numbers of sensors on a Site or many departments. Sub Sites could also be floors in a building or departments.

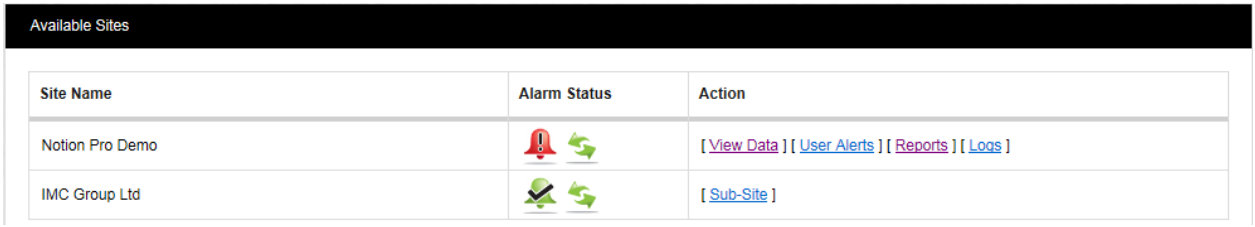
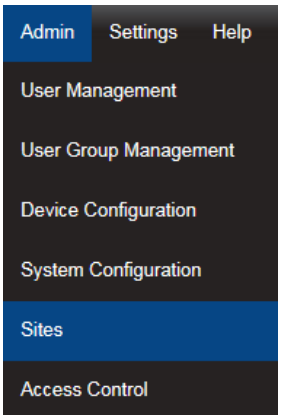


Figure 70

When **Sub Sit**es are used the View Data, User Alerts, Reports and Logs are not available from the top level Site. These functions are now available from the Sub Sites. See below for details of viewing Site data from the **Available Sites** dialogue box.

2.6.1 Creating Sites



Select **Admin>Sites** from the drop down menu to access the **Sites** section.

After selecting **Sites** a new window appears (see Figure 72 below).

Figure 71

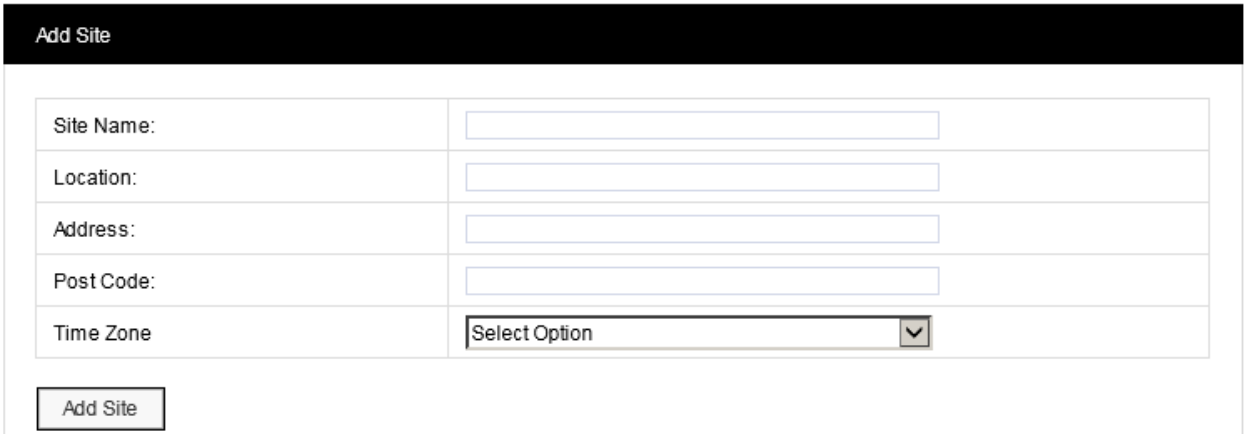


Figure 72

To add a **Site** complete the following:

- Site Name: Enter a name for the **Site**. For example, this could be the name of the company.
- Location: Enter the location. For example, this could be the town or city. (not mandatory)
- Address: This would be the **Site** address. (not mandatory)
- Post Code: This would be the Site post code. (not mandatory)
- Time Zone: Set this to the time zone of the Site. (The value displayed by default is the time zone of the host PC. **It is important to set this correctly**, as dates in the database are stored using GMT.)

When all details have been entered and are correct, click **Add Site**.

2.6.2 Viewing Sites

To **View Sites** select **Edit/View Sites** from the side menu. The **Available Sites** window appears. See Figure 73 below.

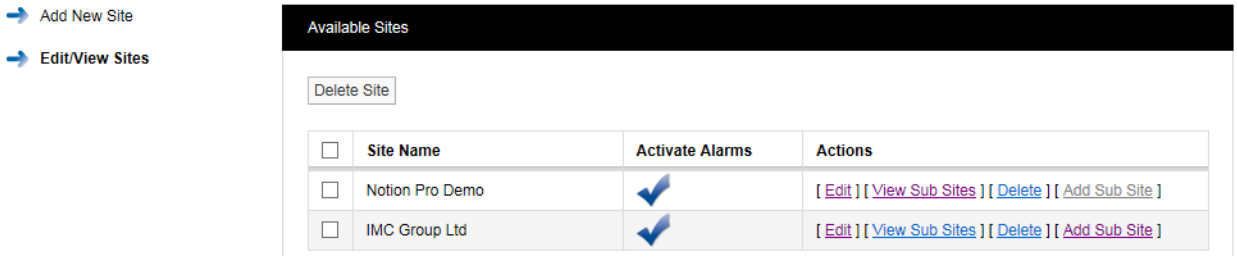


Figure 73

Note: The Available Sites dialogue box here is for editing Sites and Sub Sites and is *not* same as the Available Sites dialogue box available from the **System Overview** selection.

2.6.3 Editing Sites

To edit a Site select Edit on the line corresponding to the Site you wish to edit. The **Edit Site** window appears, see Figure 74 below.

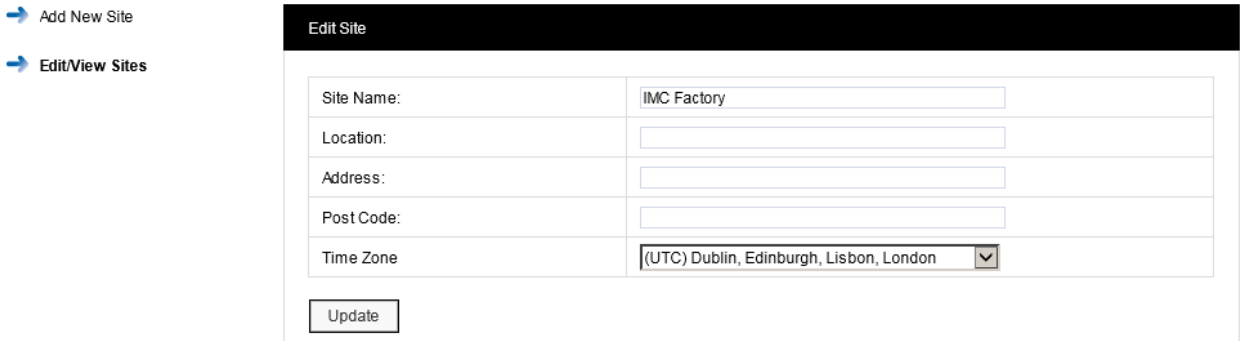


Figure 74

All Site details can be edited in this window. When all details are correct select **Update** to save details.

2.6.4 Adding Sub Sites

To add **Sub Sites** select Add Sub Site on the line corresponding to the Site you wish to add Sub Sites to. The **Add Sub Site** window appears, see Figure 75 below.

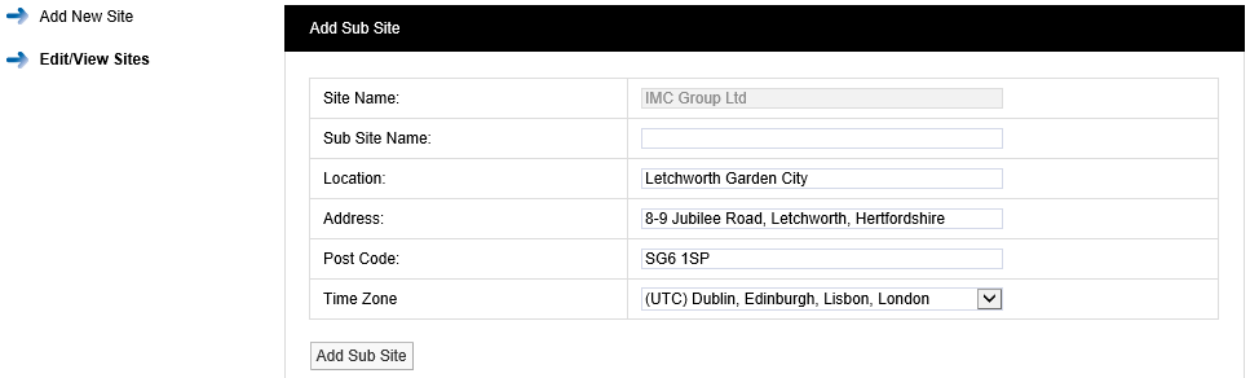


Figure 75

Enter a name for the Sub Site into the Sub Site Name field. When all details are correct select **Add Sub Site** to save the details and add the Sub Site. To return to the main Sites menu select **Edit/View Sites** from the side menu.

2.6.5 Deleting Sites

To delete a Site you must first delete all Sub Sites if any exist. To check this select **Edit/View Sub Sites**, see section 2.6.2. If Sub Sites exist select Delete to delete the Sub Site, see Figure 76 below.

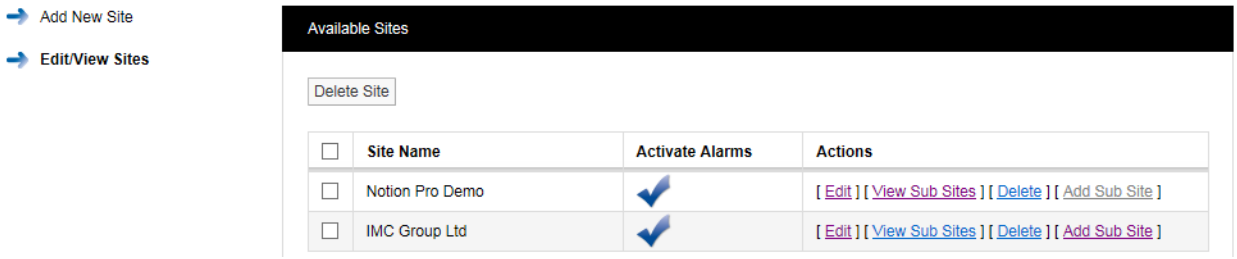


Figure 76

When you are happy that you are deleting the correct Sub Site click Delete and confirm the deletion, see Figure 77 below.

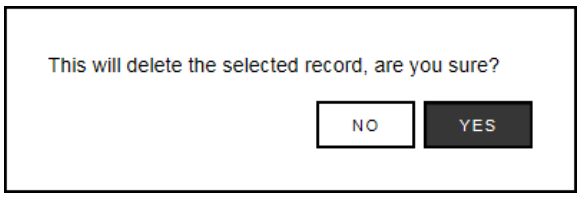


Figure 77

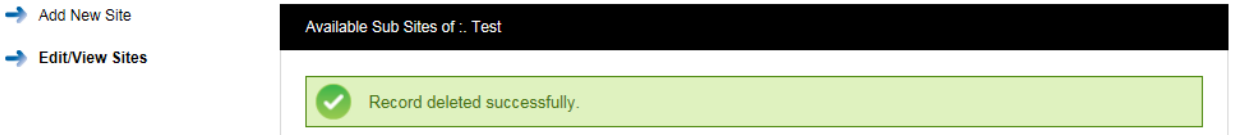


Figure 78

After deleting all **Sub Sites** the main site can now be deleted. To delete the required **Site** select Delete against the Site to be deleted.

When you are happy that you are deleting the correct Site select **YES**, see Figure 79 below.

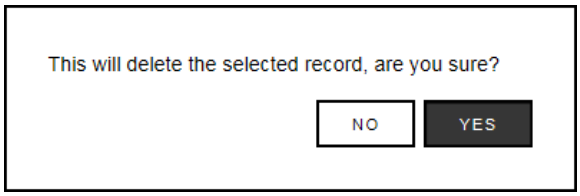


Figure 79

2.6.6 Viewing Sub Sites

To View a Sub Site select View Sub Sites on the line corresponding to the **Site** you wish to view Sub Sites for. The **Available Sub Sites of** window appears, see Figure 80 below.

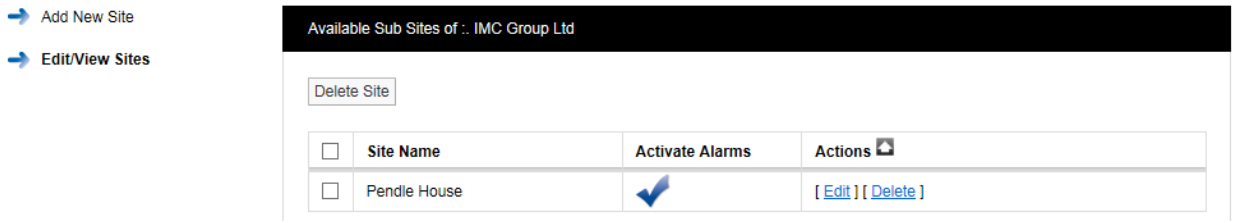


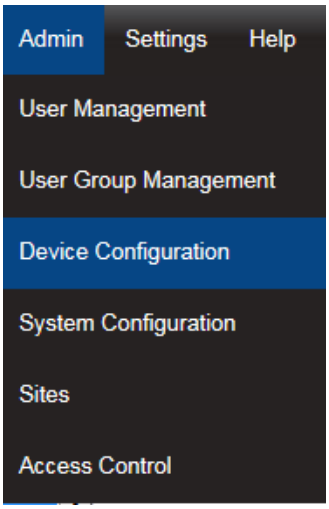
Figure 80

To **Edit** the **Sub Site** select Edit. Address details and images can be changed or added. When happy with any changes select **Update**.

2.7 Device Configuration

Warning: Changing settings in this section will impact on system function, please proceed with caution. If in doubt please contact your local supplier or IMC Support.

This section is where Notion Pro **Hardware Devices** are setup and configured.



Select **Admin**>**Device Configuration** from the drop down menu to access the **Device Configuration** section.

After selecting **Device Configuration** a new window appears (see Figure 82 below).

Figure 81

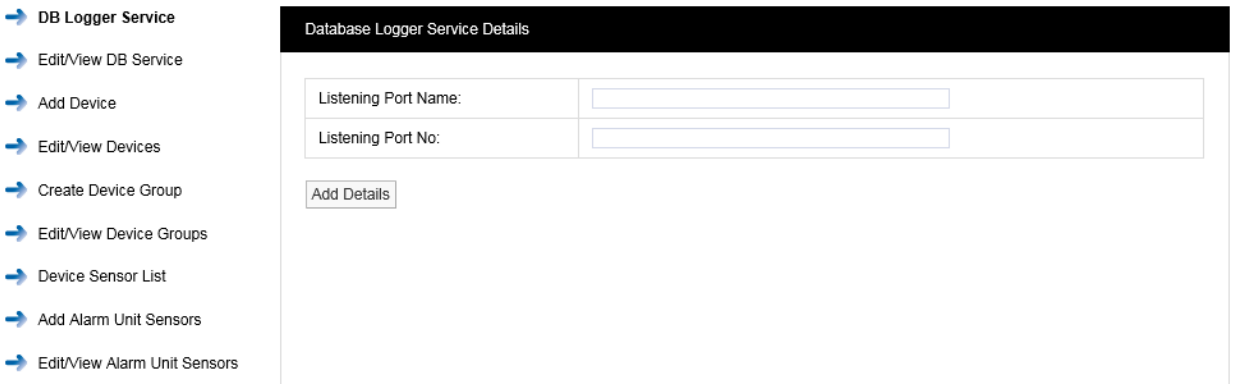


Figure 82

2.7.1 Setting up the Database Logger Service

The **DB Logger Service** is the **Service** that passes data to the SQL database. The Listening Port Name and the Listening Port No are set automatically during installation. There is an option to change this information during installation but it is highly recommended that the default values are used. If there is a port conflict this should be noted on the *Notion Pro Pre-Requisites Manual* (doc. no. IM5546)

2.7.2 Edit/View DB Service

To **Edit** the **Listening Port No** select **Edit/View DB Service** from the menu. A new window **View DB Logger Service Details** will appear, see Figure 83 below.

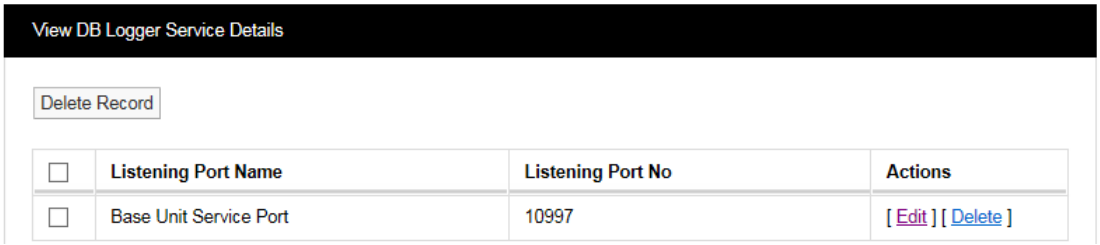


Figure 83

It is possible at some time in the future that a new piece of software could be added to the server which causes a **Port** conflict. IMC would recommend that the new item be given a different **Port** number. If this is not possible then a new Port number can be allocated to the relevant **Notion Pro Service**.

To **Edit** the **Port** number select Edit in the line corresponding to the Service you wish to change the **Port** number a new window **Database Logger Service Details** will appear, see Figure 84 below.

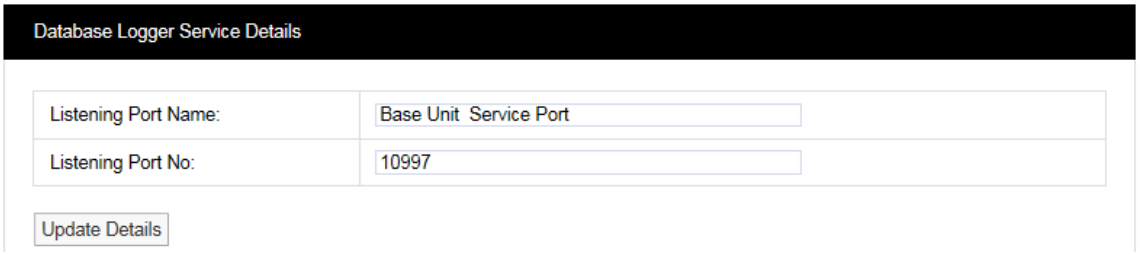


Figure 84

You will need to contact your IT department or IT service provider to get a new **Port** number. Once you have the new **Port** number enter it into the dialog box next to **Listening Port No**. Once you are happy with the details select **Update Details**.

Warning: The Data Services will need to be re-started after changes are made; and all Receiver Units , Alarm Units and SMS Units will need to be reconfigured.

2.7.3 Adding Devices

This section describes the addition of wireless receiving devices to Notion Pro. To add Devices to Notion Pro select **Add Device** from the side menu. The **Control Device Details** window appears, see Figure 85 below.

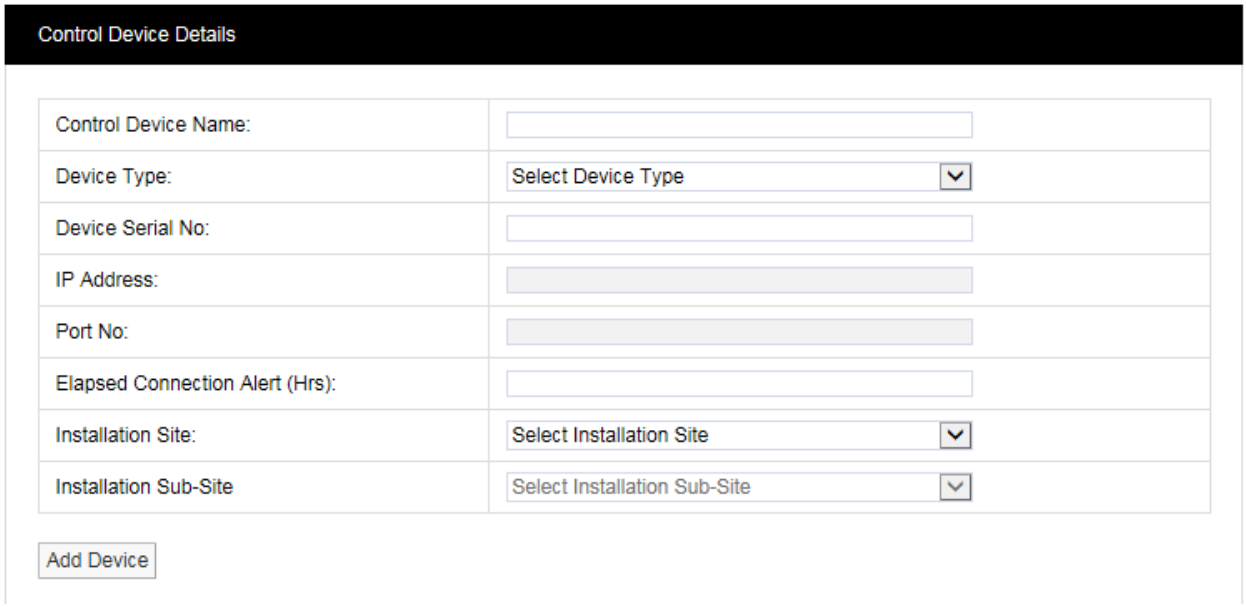


Figure 85

Control Device Name:

This should to be related to Site and location to identify the **Device** this should be a unique name across all sites. Example: **Network Receiver First Floor Building One**. Enter required text into dialog box next to **Control Device Name**.

Device Type:

The Device Type is selected from a pre-defined list; select the Device Type from the drop down menu. There is a label on the back of all **Receiving Devices** that states the **Device Type.**

Device Serial No:

This can be found on a label on the back of the device.

Elapsed Connection Alert

An Alert is generated if the specified time period elapses without the selected device connecting to the IMC Remote Data service. An entry is recorded in the Activity Log (see section 7.1) and the icon in the **Available Sites** dialogue box (see Figure 70) changes to red ( ). If the Email System Group and/or the SMS System Group has Hardware Event selected, then an Email and/or SMS will be sent.

Installation Site:

The **Installation Site** can be selected from the drop-down menu. This list is automatically populated with **Site** names added in the **Sites** section (2.6.1). Select the **Site** name for the **Site** that you are adding the **Device** to.

Installation Sub-Site:

The **Installation Sub-Site** can be selected from the drop down menu. This list is automatically populated with Sub Site names added in the Sites section see 2.5. Select the **Sub Site** name for the **Site** to which you are adding the **Device**.

2.7.4 Edit/View Devices

Select the items to **Edit** when happy with the changes select **Update Details**.

2.7.5 Create Device Groups

Base Units can receive data from a maximum of 200 transmitters; on systems with more than 200 transmitters, **Device Groups** enable specific sensors to be assigned to a Base Unit, or group of Base Units.

On systems with fewer than 200 transmitters, all sensors are available to be received by all Base units. However, Base Units still need to be a member of a Device Group.

If you are going to fewer than 200 transmitters and all your Base Units are in a single location such as a warehouse or a laboratory, then it is probably best to group all your Base Units in a single group.

If you are going to exceed 200 transmitters then you will need to use multiple Device Groups; also if you have Base Units at separate physical locations, then using separate Device Groups can help you manage your system.

To add a **Device Group** select **Create Device Groups** from the menu. A new window **Create Device Group** will appear, see Figure 86 below.

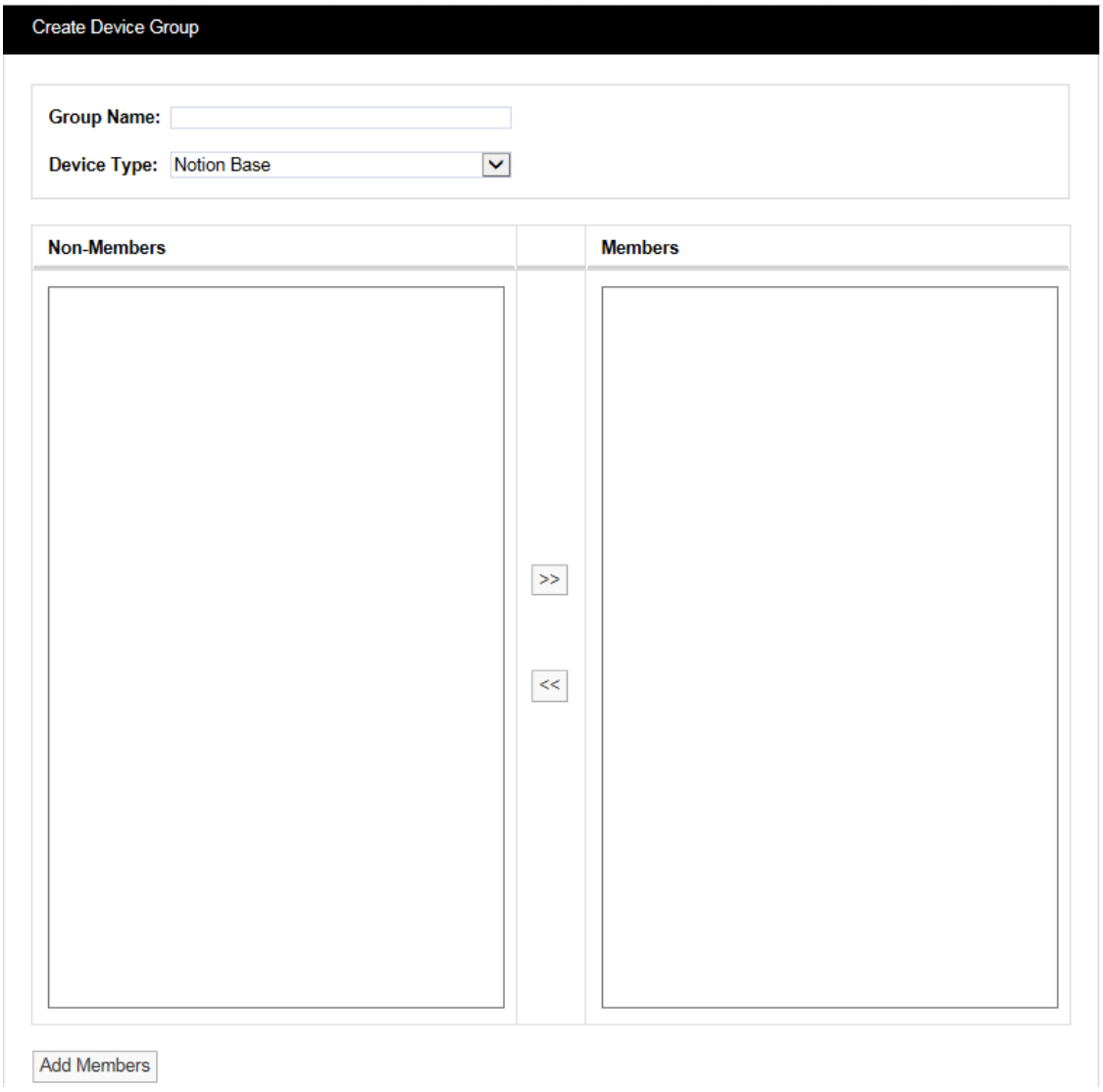


Figure 86

The **Group Name** should be a name that easily identifies a **Device Group**, a Group that contains one or more Receiving Devices. Every receiving device must be in a Device Group, see examples below.

The Device Type is selected from a drop down menu. Select the Device Type that corresponds to your Device. The name of the device type is clearly printed on the front of your device (Base Unit).

Available Devices will be listed in the left column, to select a Device highlight it then click the double right arrows to move it across to the right column.

Once you are happy that the details are correct select **Add Members**.

2.7.6 Edit/View Device Groups

To **Edit/View Device Groups** select **Edit/View Device Groups** from the menu to give the **View Device Groups** window, see Figure 87 below.

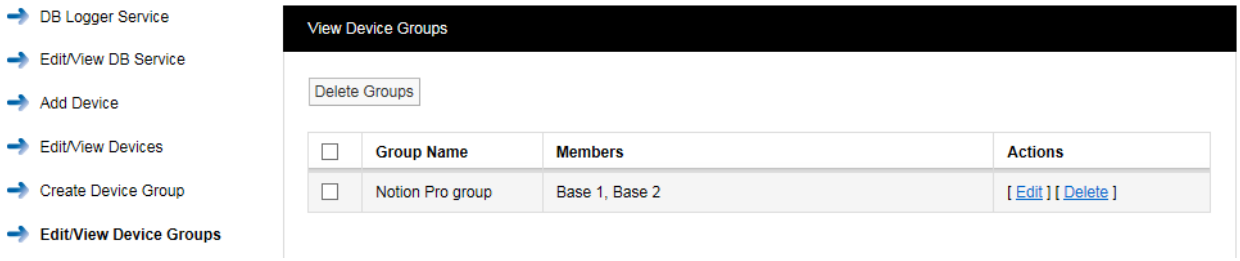


Figure 87

To **Edit** a **Device Group** select Edit in the line corresponding to the **Group Name** that you wish to **Edit**, a new window called **Edit Device Group** will appear, see Figure 88 below.

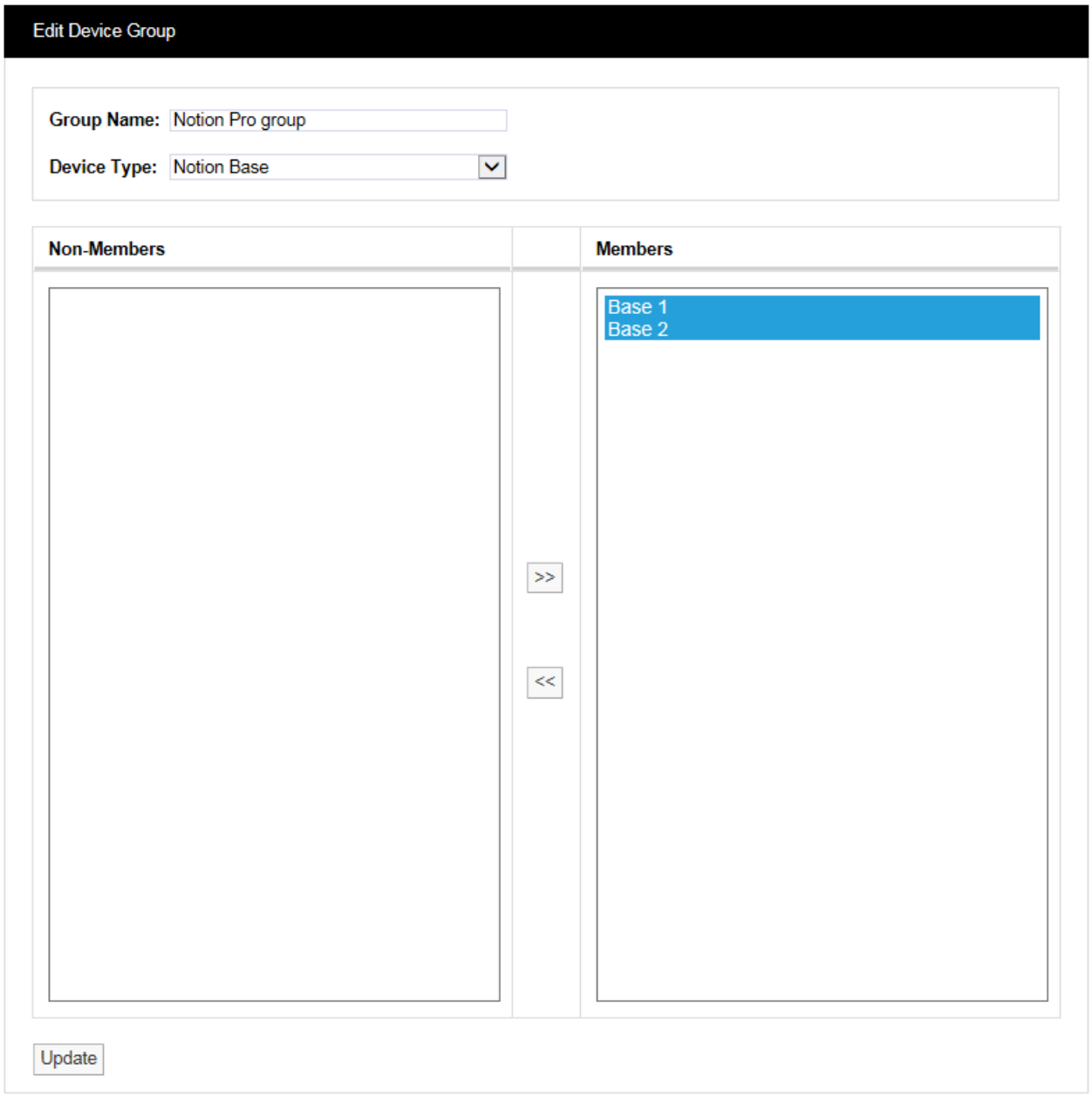


Figure 88

To remove **Devices** from the **Group** highlight them in the right hand column then select >>. The double left arrows will de-select them and move them to the left column. You cannot de-select all **Devices** from a **Group** a **Group** always has to have at least one **Device**. If you need to de-select all the **Devices** then Delete the **Group**. This can be done by selecting Delete in the previous step, see Figure 87.

2.7.7 Device Sensor Lists

Note: For systems with less than 200 sensors, Device Sensor Lists have no effect.

These list all the sensors associated with a **Device Group**. The signal from a given sensor can be received by more than one Base Unit (Network Receiver, see Part 1, section 2.1). You can select a particular sensor instance (for example, the one with the highest signal strength) and assign it to the associated Device Group.

To display a Control Device Sensor List select **Device Sensor List** from the menu on the left to give the **Control Device Sensor List** window, see Figure 89 below.

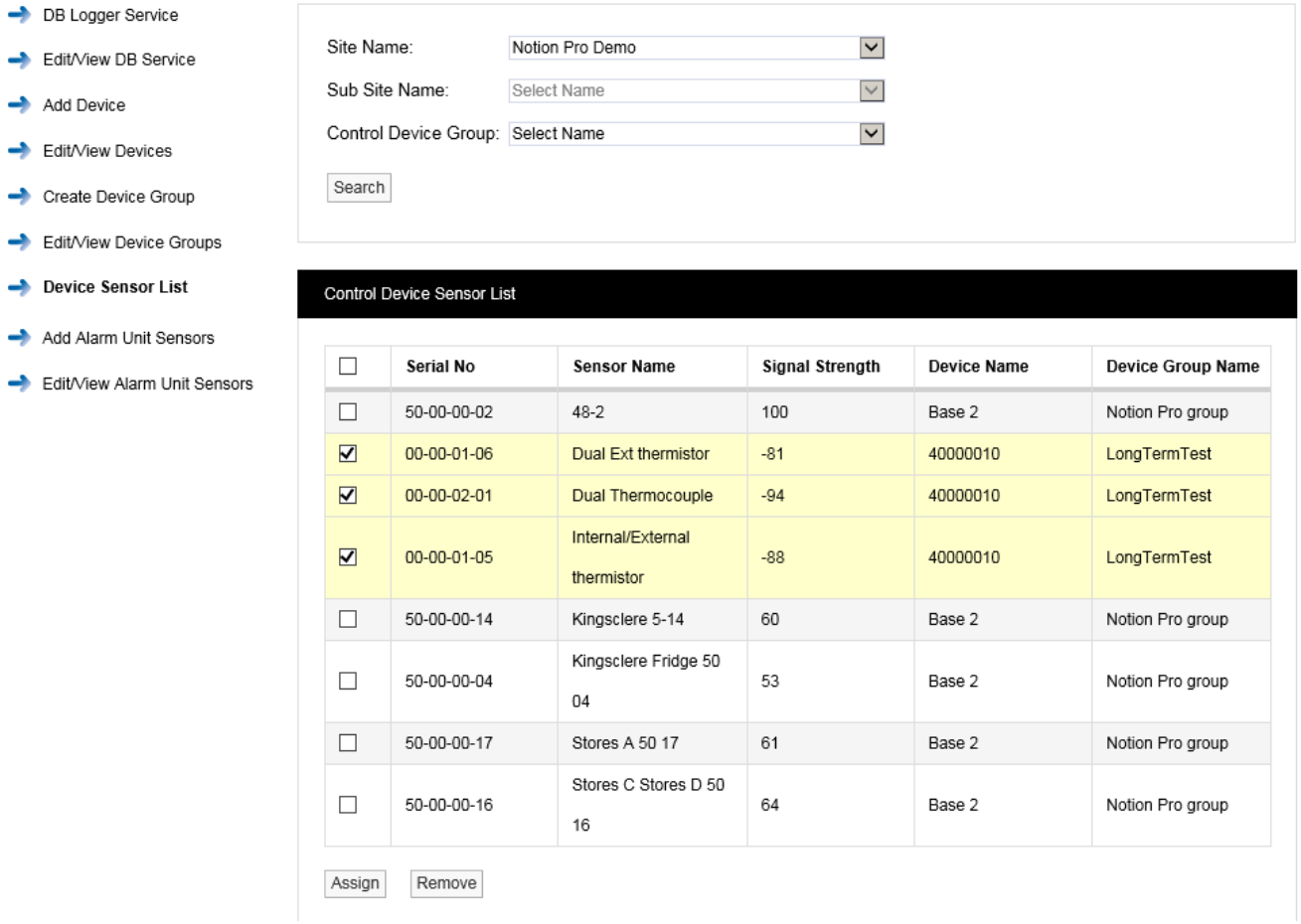


Figure 89

Note: You cannot create (or delete or edit) a Control Device Sensor List. These are created by Notion Pro as sensors are added to the System.

Select the Site of interest from the 'Site Name' list. You must select a Site. Select the Sub Site of interest from the 'Sub Site Name' list, and the Control Device Group of interest from the 'Control Device Group' list. It is not necessary to specify a Sub Site or a Control Device Group, in this case a list of sensors for all Sub Sites and Device Groups will be generated (as in the example in Figure 89 above). Click **Search** to generate the list.

To assign a sensor to its associated Device Group, select the tick box on the left side of the table,

then click **Assign** . The list will be redisplayed with assigned sensors highlighted. (In Figure 89 above, three sensors have already been assigned to the 'LongTermTest' Device Group.

To remove a sensor from its associated Device Group, select the tick box on the left side of the table for the sensors you wish to remove, then click **Remove**. The list will be redisplayed with assigned sensors highlighted. (In Figure 89 above, three sensors have already been assigned to the 'LongTermTest' Device Group).

As another example, Figure 90 below shows a case where signals from two sensors (05-09-00-62 and 05-09-00-46) are each being received by two Network Receivers. The user has selected the two sensors with the highest signal strengths to link to a Device Group.

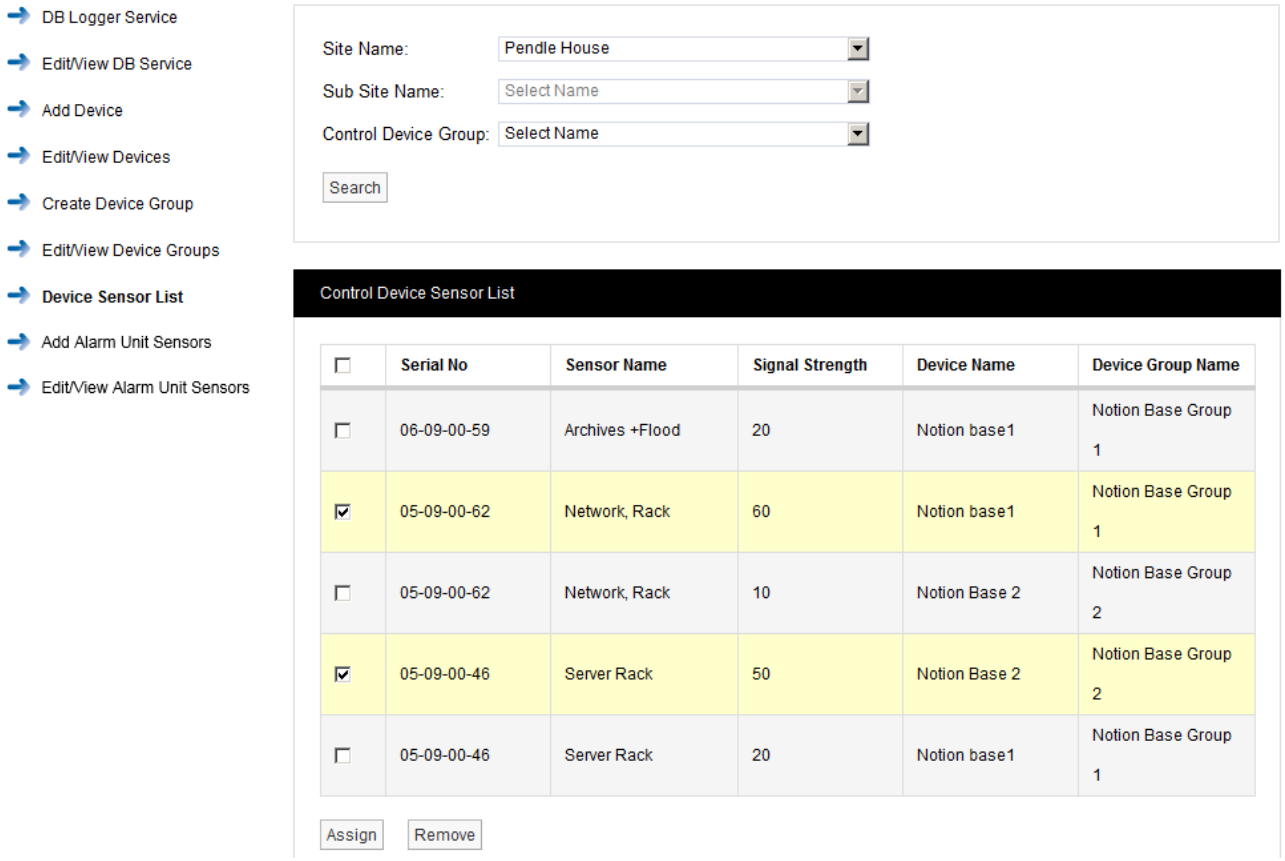


Figure 90

2.7.8 Adding Alarm Unit Sensors

This facility supports the operation of the Notion Alarm Unit (the ARB Module, see Part 1, section 2.4) and enables you to associate sensors with the unit. Select **Add Alarm Unit Sensors** from the side menu, see Figure 91 below.

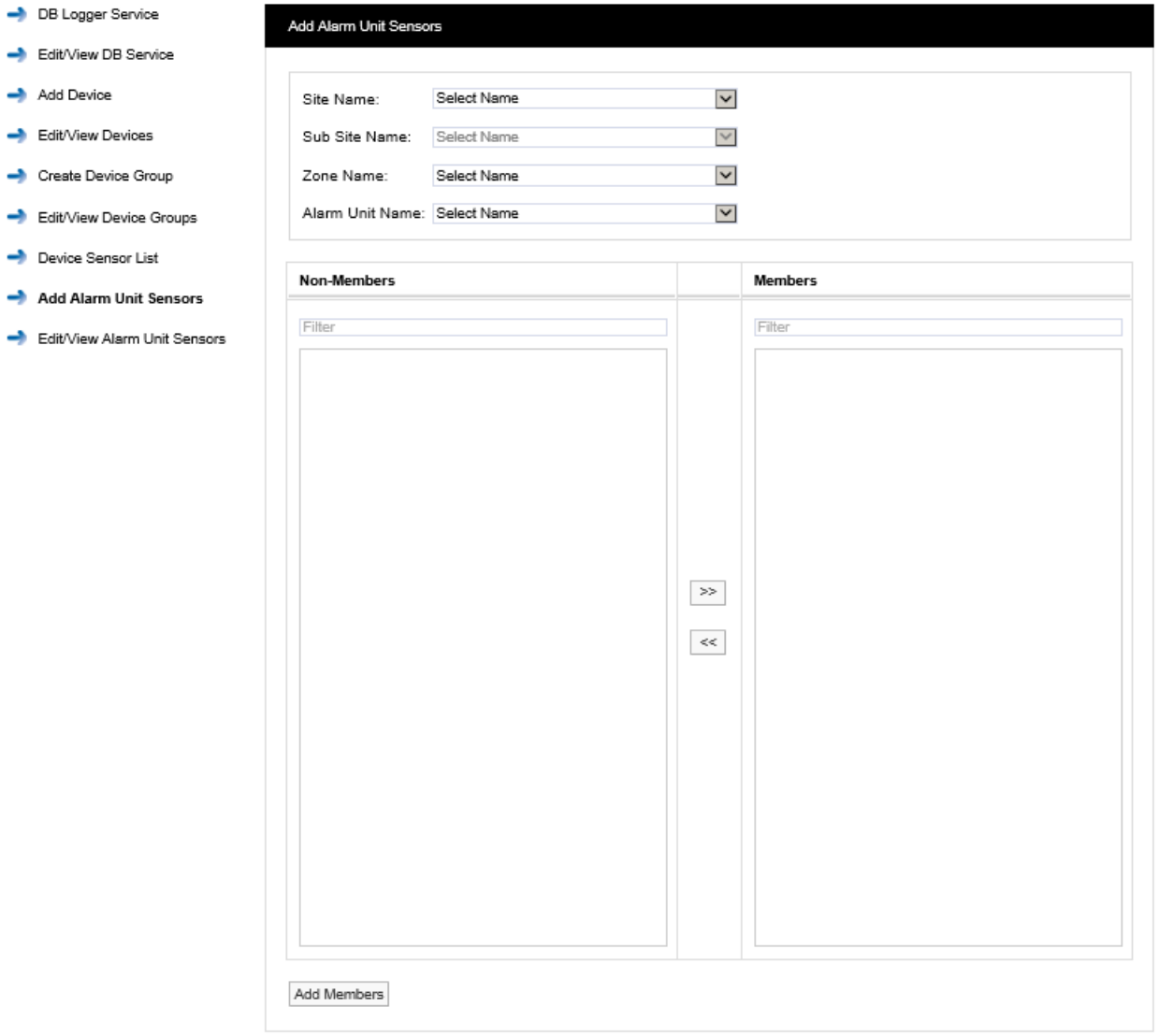


Figure 91

Site Name

Select the Site which contains the Alarm Unit of interest from the pull-down list.

Sub Site Name

Select the Sub Site (if present) which contains the Alarm Unit of interest from the pull-down list.

Zone Name

Select the Zone which contains the Alarm Unit of interest from the pull-down list.

Alarm Unit Name

Select the Alarm Unit of interest (previously created using the **Add Device** facility described at section 2.7.3). The **Add Alarm Unit Sensors** dialog box changes to show a list of the sensors which can be associated with the Alarm Unit. See Figure 92 below for example.

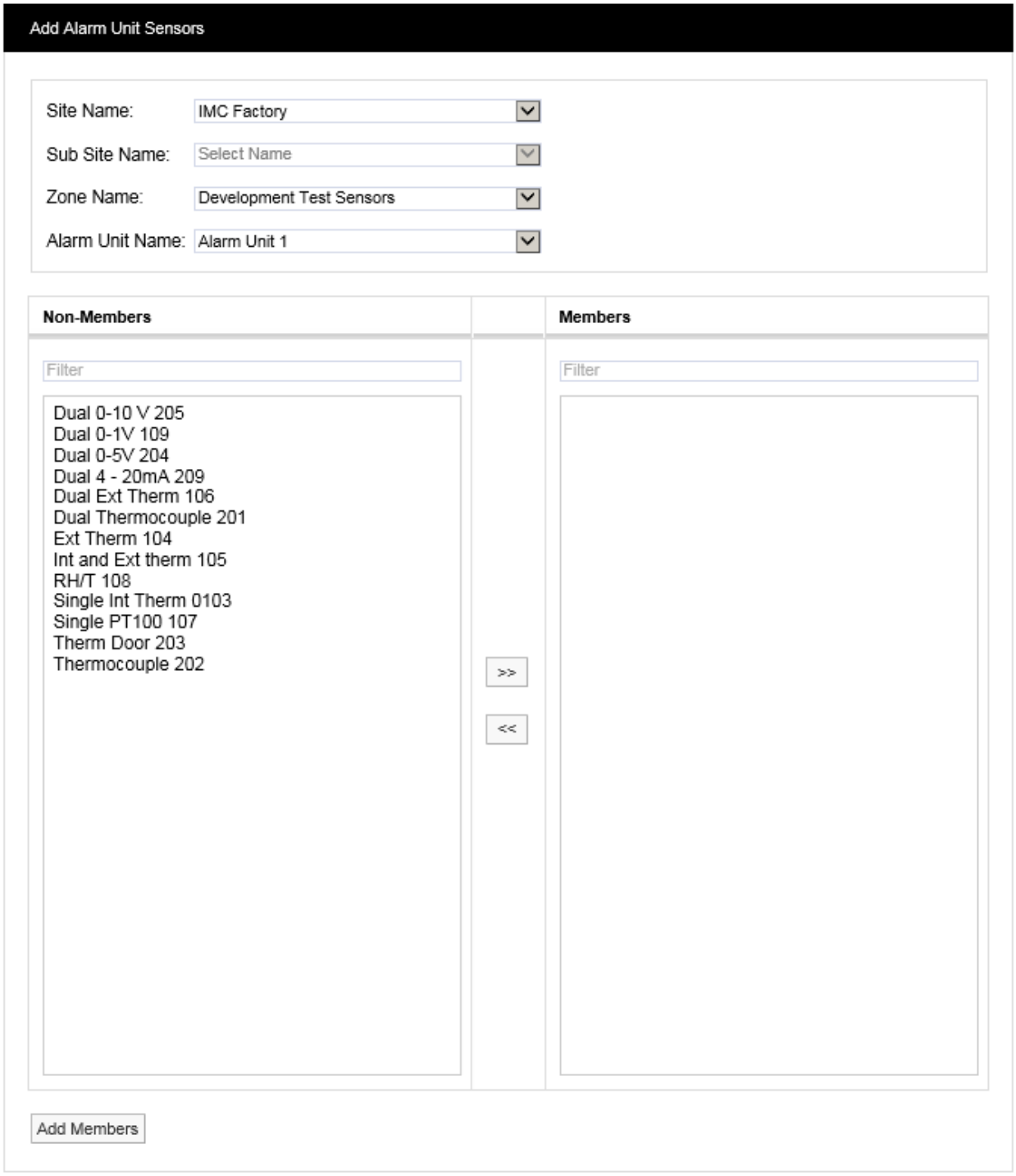


Figure 92

To associate sensors with the Alarm Unit select the required sensors from the **Non-Members** list then select >> to move the selected sensors to the **Members** list. Click **Add Members** to move the selected sensors to the **Members** list. The **View Alarm Unit Sensors** dialogue box will appear to show the sensors which have been associated with the Alarm Unit. See Figure 93 below for example.

Figure 93

2.7.9 Editing/Viewing Alarm Unit Sensors

To edit or view associated Alarm Unit sensors select **Edit/View Alarm Unit Sensors** from the menu to give the **View Alarm Unit Sensors** window, see Figure 93 above for example.

To the list of sensors associated with a given Alarm Unit, select Edit in the line corresponding to the Sensor list that you wish to Edit. A new window called **Edit Alarm Unit Sensors** will appear, see Figure 94 below.

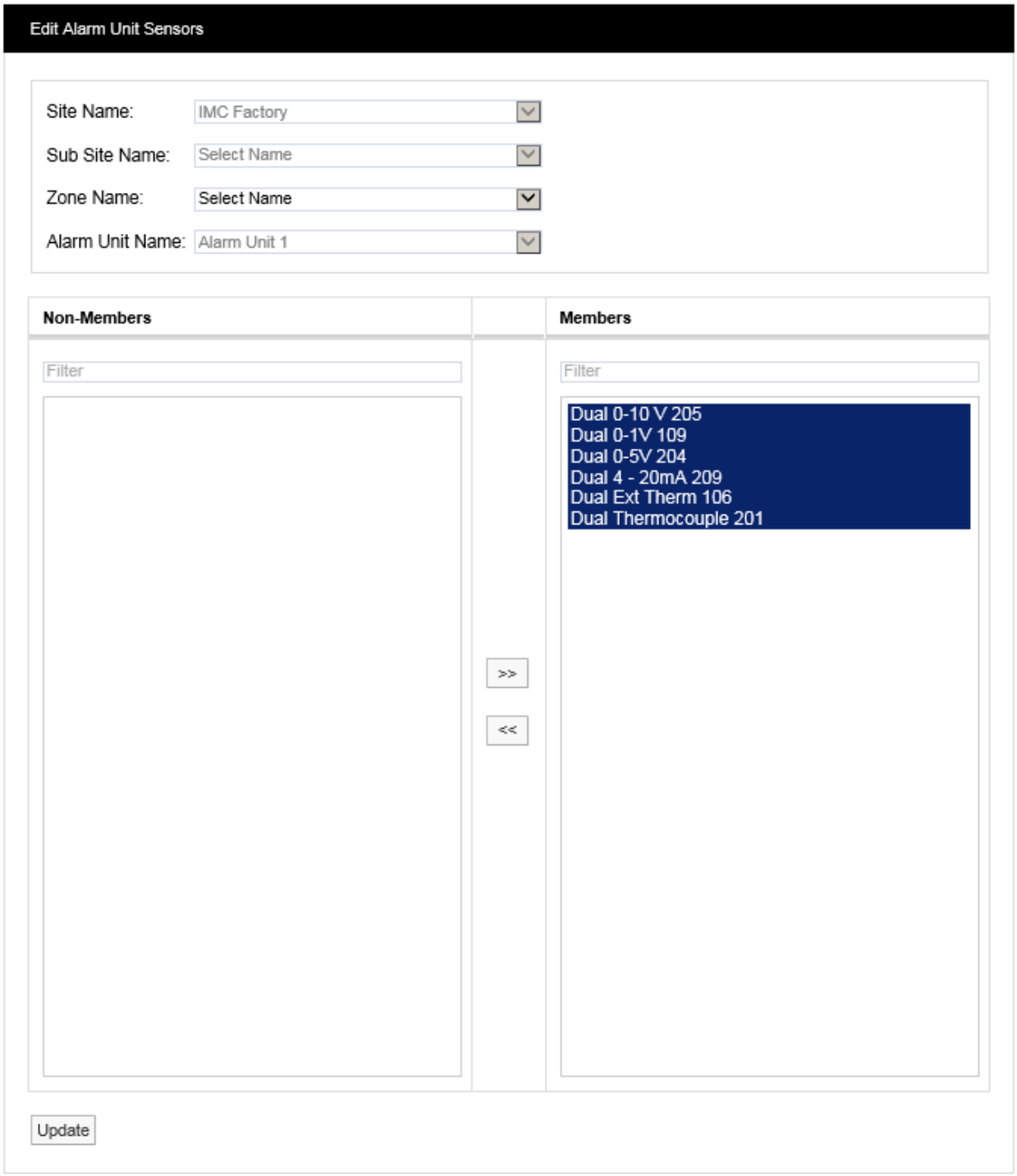


Figure 94

To remove sensors from the list highlight them in the left hand column then select << . The double left arrows will de-select the selected sensor(s) and move them to the left column. Having de-selected the required sensors click **Update** to update the list.

3 Setting Up the Sensor Model

During the Notion Pro installation process a default Site will have been created. You can Edit the details for the default Site, see section 2.6. The first time you run Notion Pro the **System Overview** screen will look something like Figure 95 below.

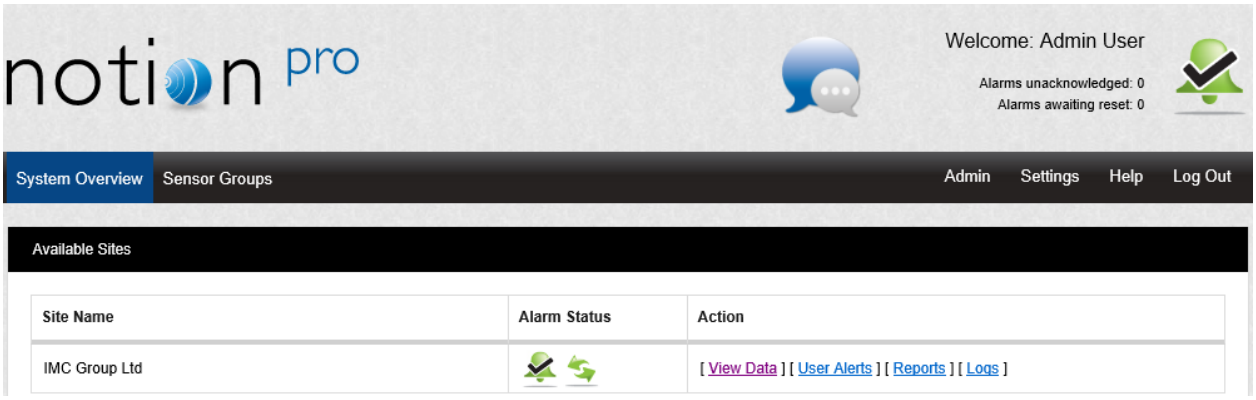
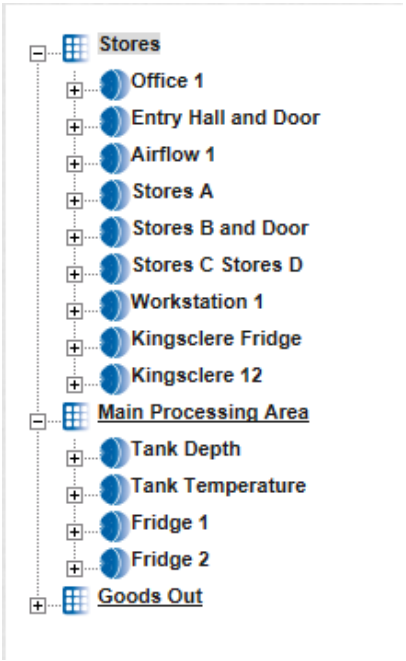


Figure 95

Before you can start monitoring temperature, humidity and other data you will need to add some sensors to Notion Pro.

Each main **Site** can have any number of **Sub Sites**. Sensors added to a **Site** can be sub-divided into **Zones**. **Zones** are viewed in a familiar Windows-style tree, see Figure 96 below.



Zones allow large systems to be sub-divided into logical groups of sensors.

Zones can also be used when granting viewing **Privileges**. When a Site contains many sensors, just granting **Privileges** for a whole Site could still lead to a single User being overloaded with data that doesn't relate to that User. **Zones** can be allocated to Users as well as Sites.

Individual sensors can't be allocated in Privileges only Sites and Zones. There is no practical limit to the number of Zones that can be added to the system. To allocate an individual sensor to a User add a Zone for that sensor.

Figure 96

3.1 Adding Zones

Zones are used to logically group sensors, this could be all sensors of the same type or all the sensors in a particular area. For example a Zone could be called RH&T Sensors which contains all the humidity and temperature sensors, or First Floor Sensors which contains sensors of different types but which are all on the first floor.

During installation a default Site is created. This Site contains one empty Zone called Zone1.

An example of a Zone which has had Sensors added and which has live data coming through is shown in Figure 97:

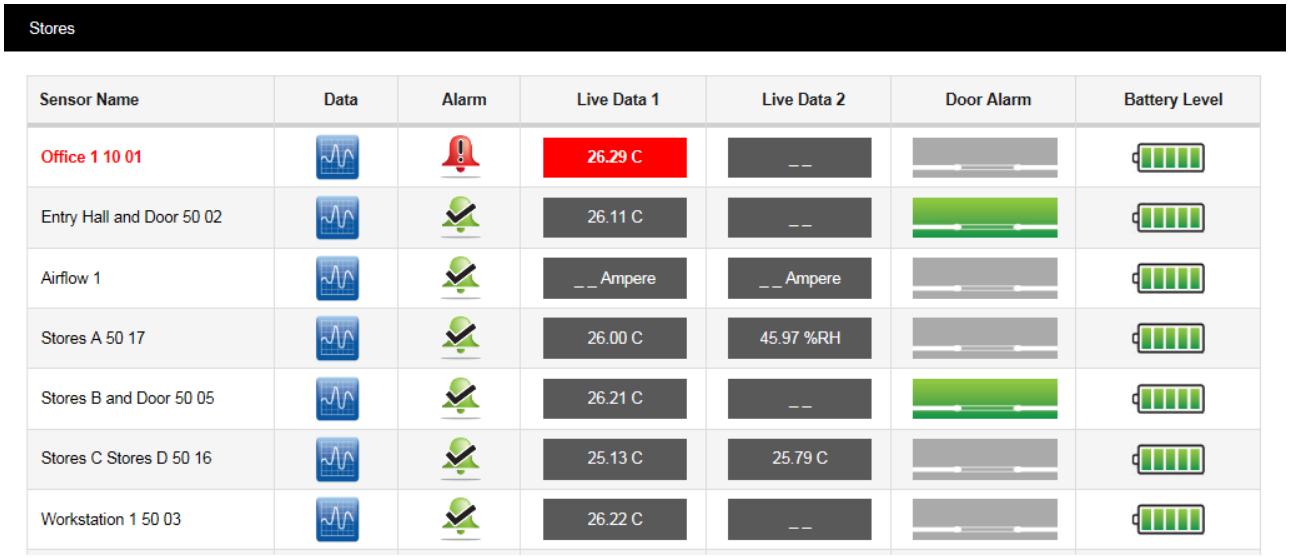


Figure 97

Figure 97 is for the 'Stores' Zone. Notice that the 'column headers' are just the same as in Figure 98. See Section 4 for full details of the **Live Data** viewing facilities in Notion Pro.

To Edit and add Zones select View Data from the **System Overview** display for the Site of interest then **View Data>Edit Mode** from the main menu bar, see Figure 102 below.

A new window will appear. This window will, as we add Zones and sensors become the main data viewing and access window, see Figure 98 below (for the default Zone, Zone1).

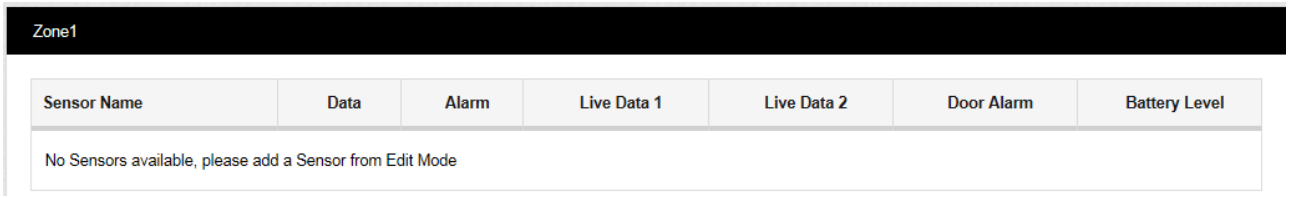


Figure 98

To add a new **Zone** select **Add Zone** from the main **View Data** menu, see Figure 99 below.

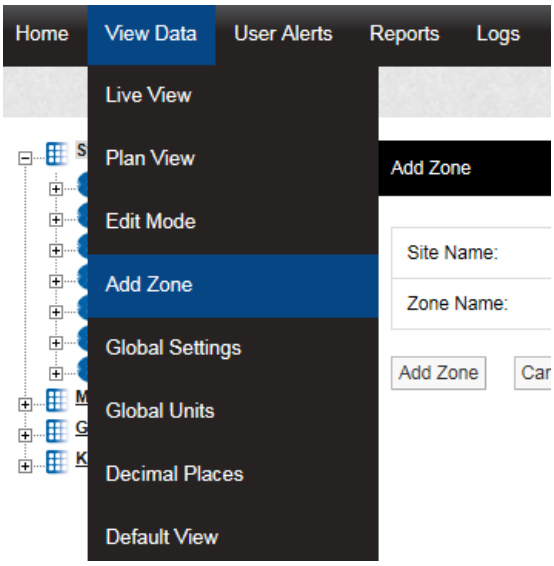


Figure 99

A new window will appear, see Figure 100 below.

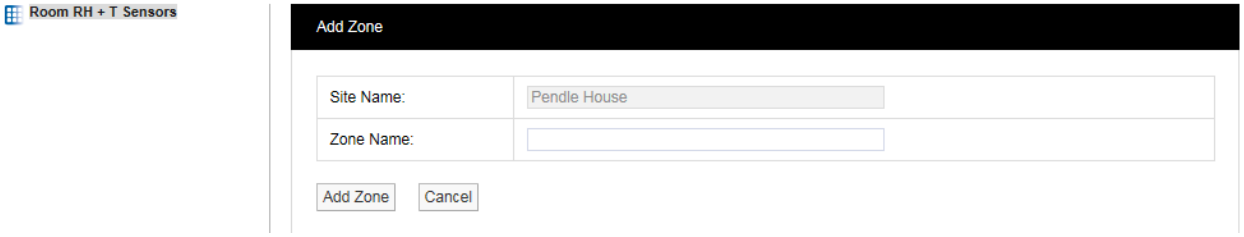


Figure 100

To add a new **Zone,** enter a name into the **Zone Name** field. For this example we will call the Zone **Outdoor Sensors**. When happy select **Add Zone**. You will now see that another Zone has appeared in the tree, see Figure 101 below.

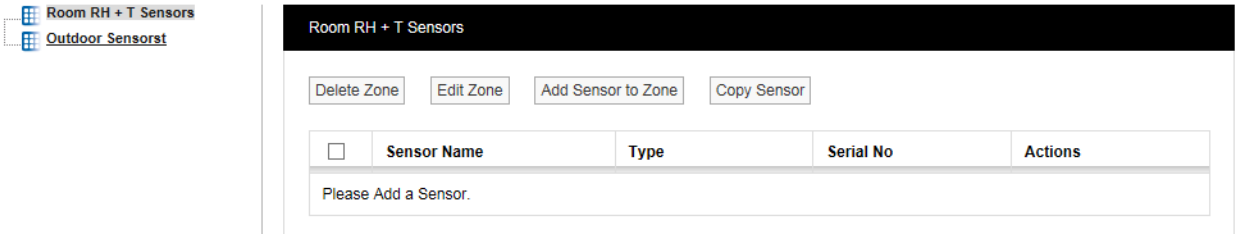


Figure 101

3.1.1 Editing Zones

Edit Mode is only available if you have the correct access **Permissions**. If you do not have the required access permissions you will see the following message:

Access Denied. You are not authorised to perform this task, please contact your System Administrator.

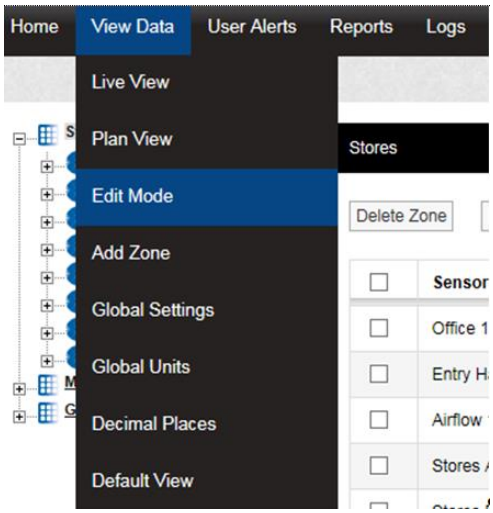


Figure 102

After selecting **Edit Mode** the Sensor and Zone editing/configuration window appears, see Figure 103 below.

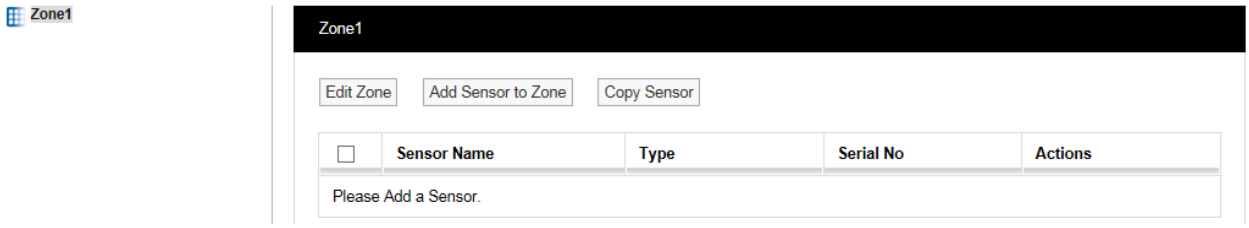


Figure 103

To Edit the Zone select **Edit Zone**. the Edit Zone window will appear, see Figure 104 below.

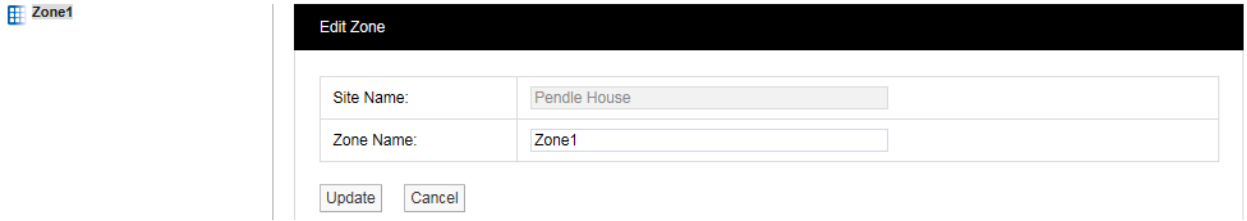


Figure 104

Select a name for the Zone that will make it easy to identify either the type of sensors in the Zone or the location of the Zone. In this example we are changing the Zone1 name to 'Room RH + T Sensors'. Enter the name into the **Zone Name** field**,** once happy select **Update**, see Figure 105 below.

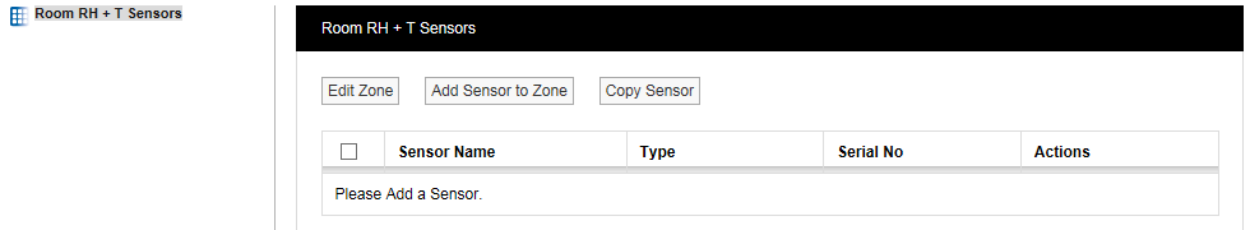


Figure 105

3.1.2 Deleting Zones

To delete a Zone select the tick box next to the Zone that you want to delete then select **Delete Zone**. You cannot delete a Zone with Sensors still in the Zone, see Figure 106 below.

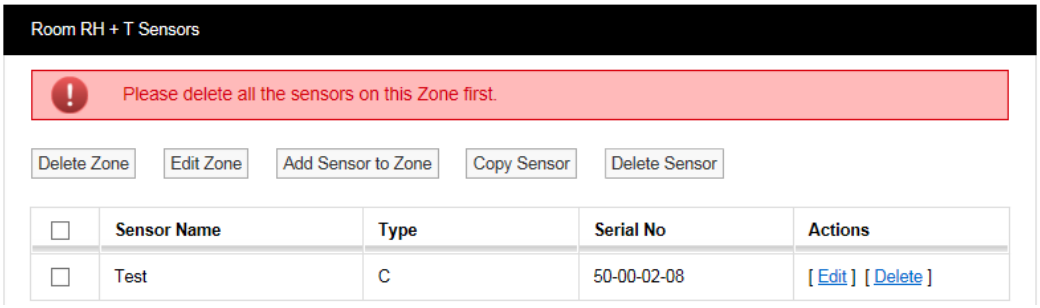


Figure 106

Delete all sensors in the Zone then repeat the steps above to delete the Zone.

3.2 Adding Sensors

Now that we have added some Zones we can now add some Sensors. Before adding Sensors you need to select the Zone that you wish to add Sensors to. To add Sensors select **View Data>Edit Mode**, then select **Add Sensor to Zone**. A new window called Add Sensor will appear, see Figure 107 below.

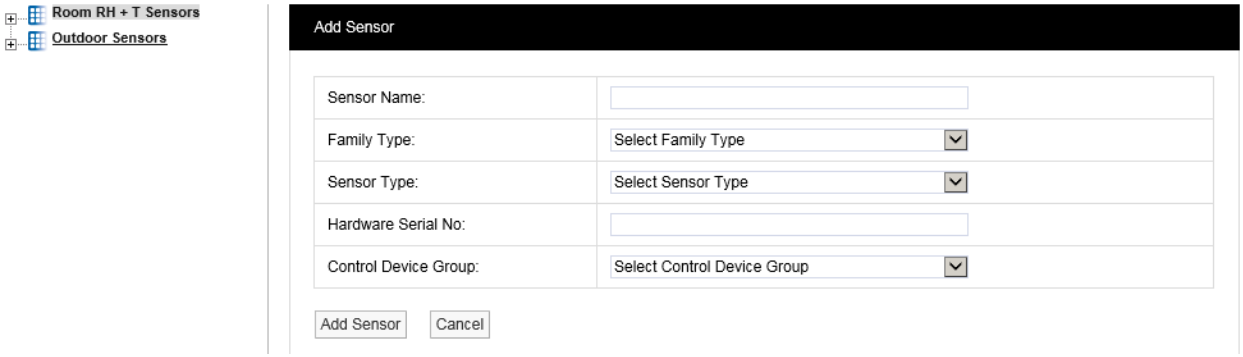


Figure 107

You will notice that the **Room RH + T Sensors** Zone is highlighted (because it is at the top of the list). This is the Zone that the new Sensor will be added to. If you wish to add a sensor to another Zone, simply click on the Zone name.

Sensor Name:

Here you can type a name for the Sensor that means something in relation to either the type of measurement that the Sensor is making or the location, for example, **Room 1 RH/T**.

Family Type:

The 'family' for the sensor you are adding. Select from iSense, Notion or Legacy / Scout.

Sensor Type:

Select the type of **Sensor** you are adding from the drop down menu, a detailed list explaining all the **Sensor** types can be found on our website at http://www.the-imcgroup.com/notionpro.

For this example we will add a temperature sensor, the standard temperature and humidity sensor can be found in the list as **Notion Temperature/RH**.

Hardware Serial No:

This is the transmitter serial number and can be found on the back of the transmitter, for example: 50-00-02-08.

Note: if the sensor has already been added, you would get an error message, as shown in below:

Figure 108

Control Device Group:

The **Control Device Group** contains wireless receiving devices that will receive the data from the transmitters. The Control Device Group is selected from the drop down menu, select the Group that corresponds to the **Site** and is compatible with the wireless transmitters used at that Site. For more details see section 2.7.3. For this example, we are going to select **Notion Pro Group**.

Once you are happy with the details select **Add Sensor**. You will now see that the **Zone** icon has a ⊞ symbol to the left of the icon and that the sensor we have just created has appeared in the table on the right hand side of the screen. See Figure 109 below.

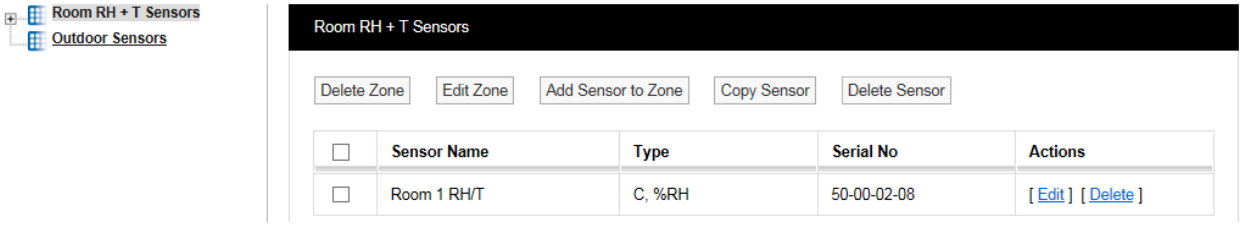


Figure 109

You can add more sensors by repeating the steps above. When adding more sensors additional Zones can also be added and additional sensors added to those Zones. Sensors can be edited or deleted by selecting either Edit or Delete in the line corresponding to the sensor to be edited or deleted.

3.2.1 Copying Sensors

Sensors can be copied from on Zone to another. There are cases where you may want to have the same sensor duplicated in different Zones.

Example 1

When a site has an outdoor sensor it is desirable to have this sensor available in every Zone. The data from an outdoor sensor can be compared with sensor data from individual rooms to see if the conditions inside are being driven by the conditions outside. This is a good indicator of how well HVAC systems (Heating, Ventilating and Air Conditioning) are performing.

Example 2

Rooms that have many enclosed spaces such as fridges in a hospital or display cases in a museum can benefit from being able to compare sensor data. A gallery with 20 display cases all with RH/T sensors could be compared with an RH/T sensor placed in the open gallery. By comparing the data you can see if the conditions outside are driving the conditions inside the cases.

To copy sensors, highlight in the Zones list the Zone that you want to copy sensors to then select **Copy Sensor** from the Zone dialog box. The **Copy Sensors to** window appears, see Figure 110 below. You will notice that the name of the Zone that the sensors are going to be copied to forms part of the window name.

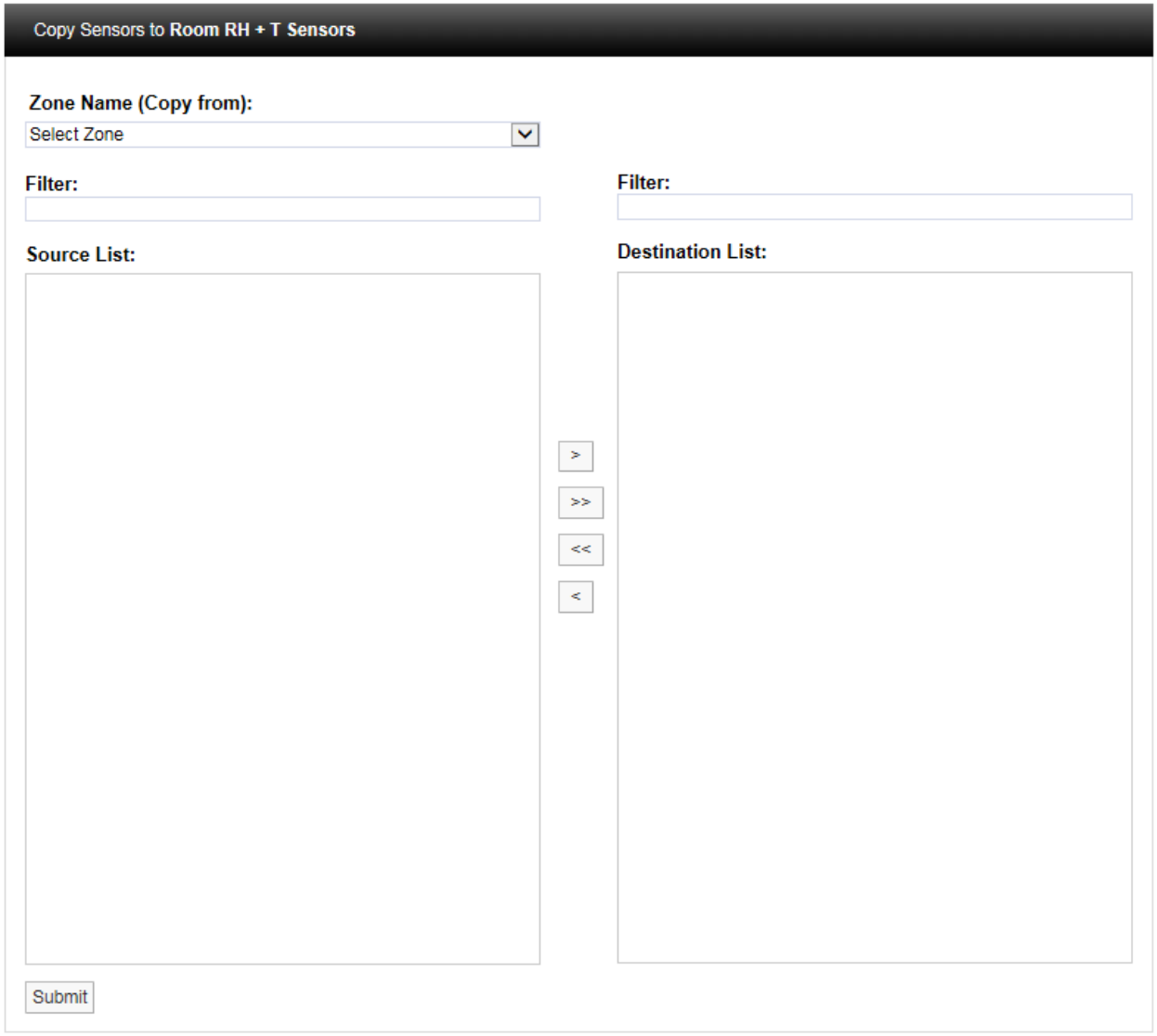


Figure 110

Select the **Zone** that you want to copy the sensor/s from. The names of the available sensors in that Zone will appear in the left column. Highlight the sensor/s you wish to copy then click > . This will move the highlighted sensor/s to the column on the right. When happy with the details select **Submit**. To copy all the sensors click >> .

3.2.2 Deleting Sensors

There are three methods to delete Sensors:

- Select the tick box to the left of the sensor names that you want to delete on the Zone dialog box then select Delete Sensor from the top menu. This will delete all highlighted sensors.
- Select Delete in the row corresponding to the sensor you wish to delete. This will delete only that sensor.
- To delete all sensors in the table, select the tick box on the left of the title row (next to **Sensor Name**), then click **Delete Sensor**.

Warning: Deleting Sensors cannot be undone.

3.3 Configuring Sensors

This section takes you through the configuration of the **Sensor** properties which include **General Settings**, **Scale**, **Alarms** and **Filters**.

3.3.1 Accessing Sensor Properties

To access **Sensor** properties highlight the **Zone** name that contains the **Sensor** that is to be edited, see Figure 111 below.

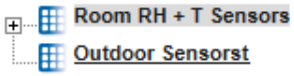


Figure 111

To see the available Sensors click on the + symbol next to the highlighted Zone. The selected branch will expand showing all the available sensors, see Figure 112 below.

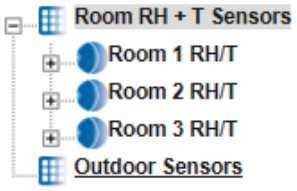


Figure 112

To view the properties of the Sensor that is to be edited click on the + symbol next to the Sensor name. This will expand the branch again, see Figure 113 below.

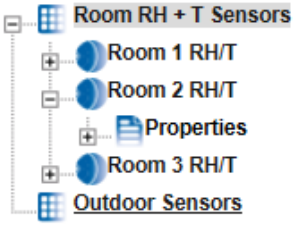


Figure 113

To access the individual **Sensor** properties click on the + symbol next to properties this will expand the branch again, see Figure 114 below.

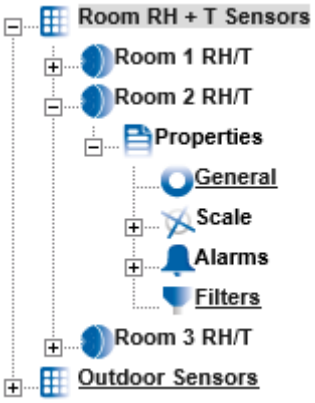


Figure 114

3.3.2 General Properties

To edit the General Sensor Properties click on **General**. This opens the **General Information** window, see Figure 115 below.

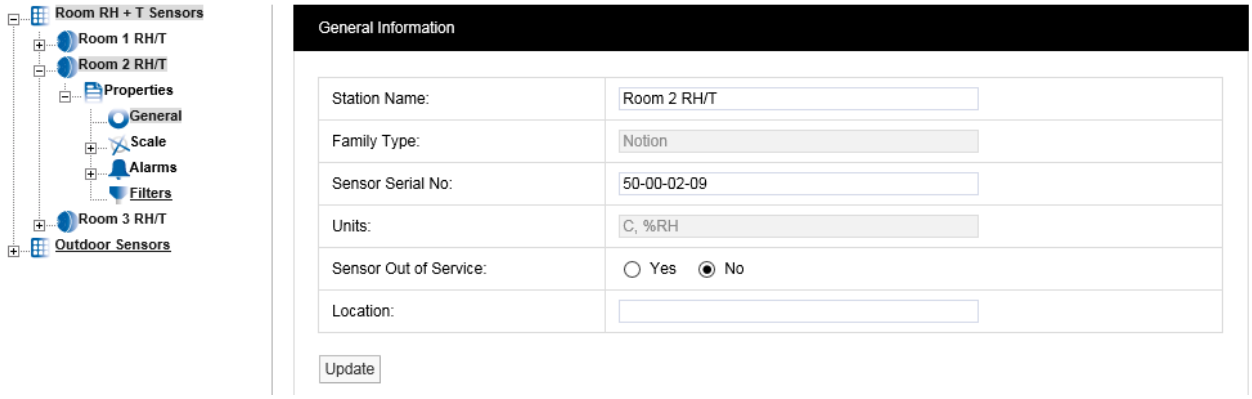


Figure 115

Station Name:

The **Station Name** can be changed, be aware that changing the name may be confusing for other Users as the Station Name normally relates to the physical location of the Sensor. Changing the Station Name no longer starts a new data file.

Family Type:

Notion.

Sensor Serial No:

This is set when the Sensor is added to the system.

Units:

This is the units for each of the channels for the Sensor. These cannot be changed here (but see Section 4.7) as they are set by the Sensor install.

Sensor Out of Service:

This feature allows you to temporally take a sensor out of service. This is useful if the Sensor is measuring something that is turned off for a period and monitoring is not required. It avoids alarms being generated while the Sensor is not required. Out of Service Sensors are displayed with blue text in the **Live View**.

Location:

The Location field allows you to put a note against the sensor to assist with physically locating the Sensor within a building. This is an aide-mémoire and serves no operational function within the software and is not mandatory.

Once you are happy with any changes select **Update**.

3.3.3 Scale

To access **Scale** properties click on the + symbol next to **Scale** and the tree will be further expanded, see Figure 116 below.

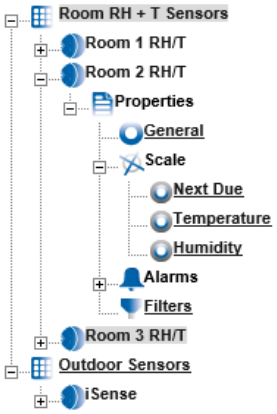


Figure 116

The **Scale** section allows you to set Graph Scaling, Decimal places and the Next Due calibration date for Calibration Reports.

If you have iSense Sensors, then this section will allow you to enter the correct calibration parameters for those sensor(s). See the documentation delivered with the iSense unit for specific calibration details.

Next Due

This feature allows the next Calibration due date to be entered into the system. A PDF Report can be triggered from the due date field. This is very useful in a regulated environment where exceeding the stipulated calibration period would cause a non-compliance. (See section 6.2 for more information on Calibration Reports.)

To access **Next Due** click the link, the **Next Calibration Due Date** window appears, see Figure 117 below.

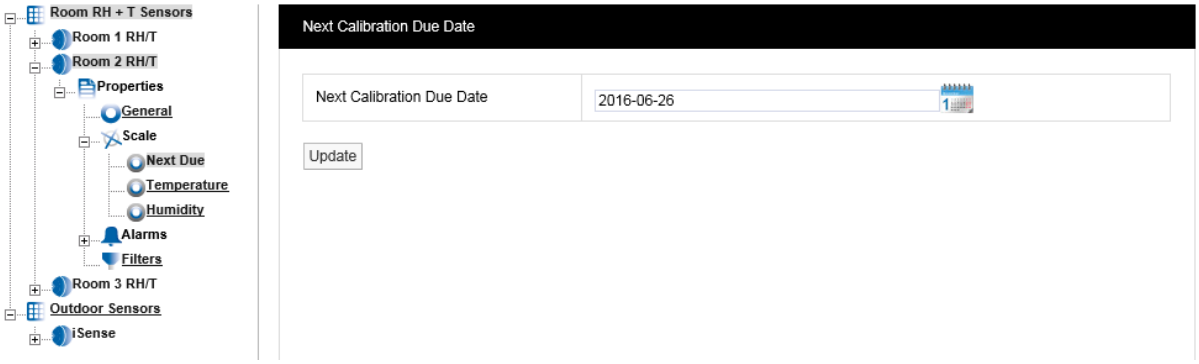


Figure 117

To change the due date enter the new date into the Date field (in YYYY-MM-DD format) or click on the calendar icon and select the required data. If the Sensor has just been added to the system the date in the form is one year from the date that the Sensor was added.

A typical period would be 12 months for environments that are contaminated or the constant operating humidities are very high. Where the environments are clean and the averages humidities are mid-range then every 24 months would be acceptable.

When you are happy with the new date click **Update**.

3.3.3.1 Channel One/Temperature Scale

To enter the Temperature scale page select **Temperature**. The **Temperature** window appears, see Figure 118 below.

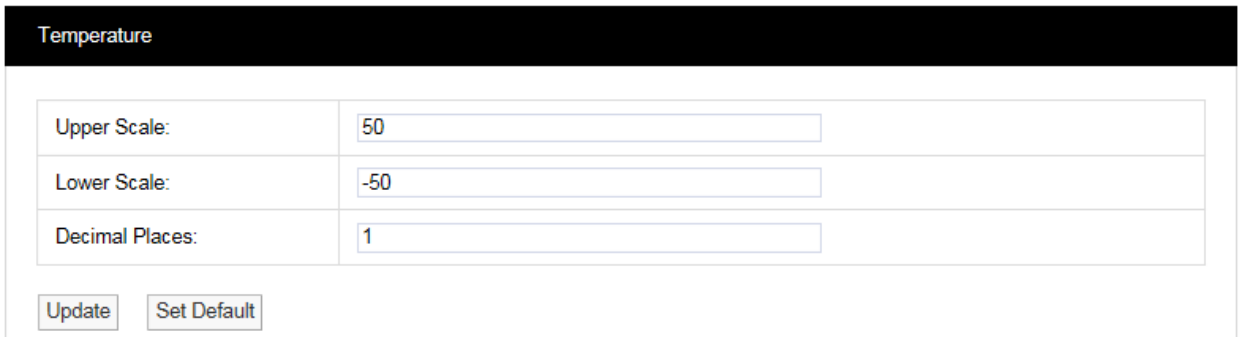


Figure 118

Each Sensor is installed with a default range. These are only a suggestion and can be changed to suit your requirements.

The defaults can be re-loaded by selecting **Set Default**, you will be asked to confirm see Figure 119 below.

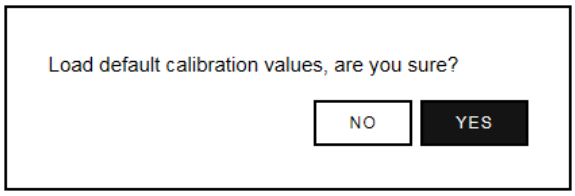


Figure 119

Once the new **Scale** details are known these can be entered into the table in Figure 118 above. Select **Update** to confirm the details. If correct the following message will be displayed, see Figure 120 below.

Figure 120

3.3.3.2 Channel Two/Humidity Scale

To access the Humidity scale settings click **Humidity** and repeat the steps in 3.3.3.1.

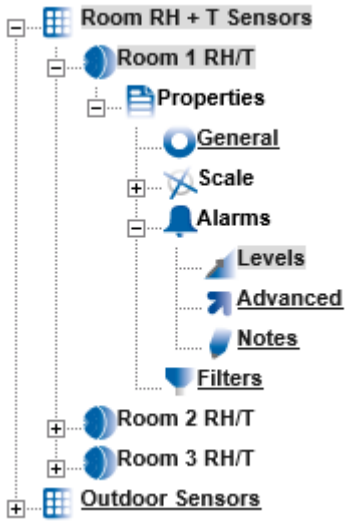
Note: Not all Sensors/Transmitters have two channels, some have only one.

3.4 Alarms

This section will take you through setting **Alarms**.

3.4.1 Levels

To access **Alarm Settings** click on the + symbol next to **Alarms** (in **Edit Mode**). This will expand the branch again, see Figure 121 below.



To access **Levels** click on **Levels** for one of the sensors. See Figure 122 below.

Figure 121

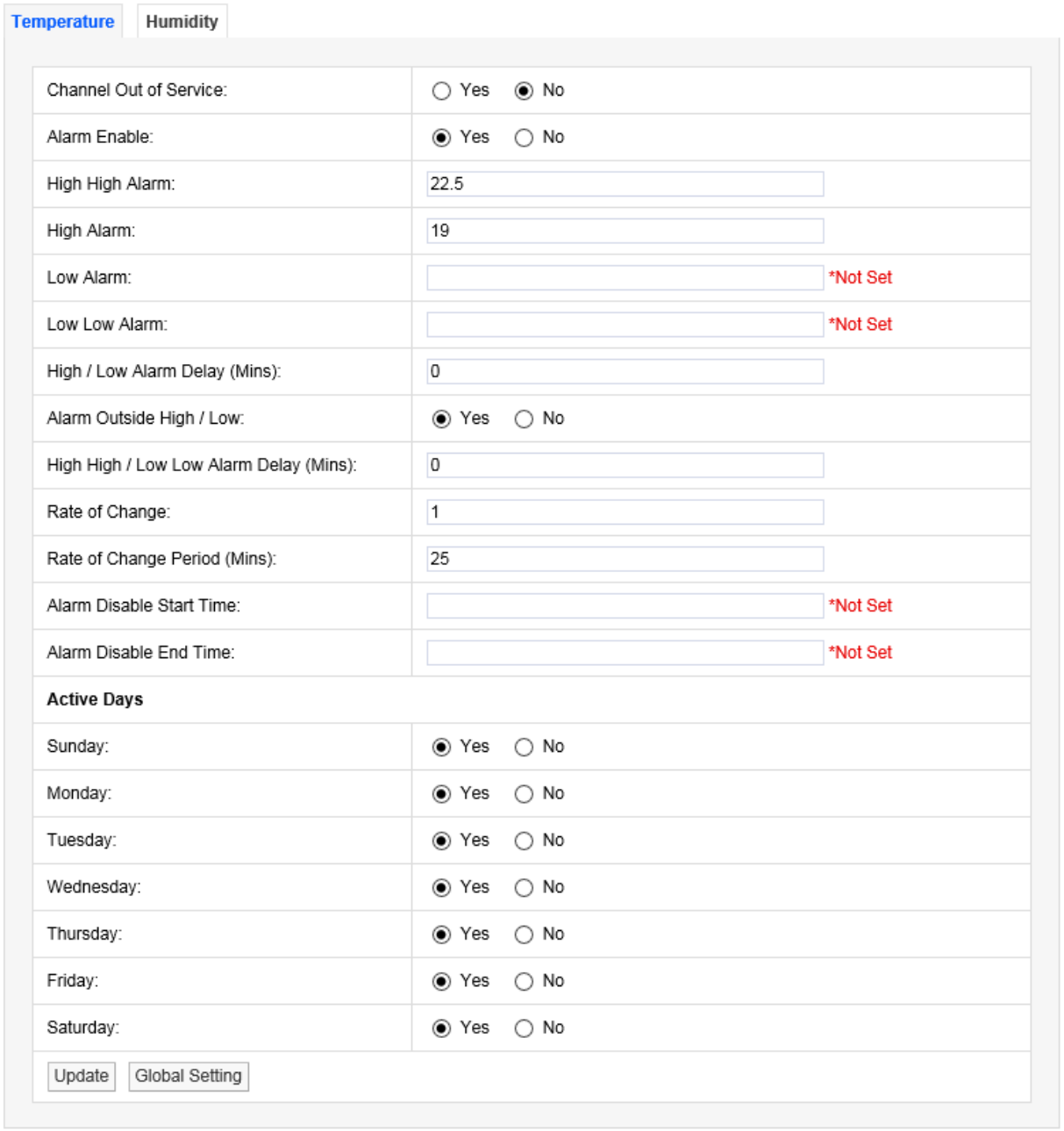


Figure 122

The Sensor in this example is a two-channel temperature and humidity device. You will see two tabs at the top, one marked **Temperature** and highlighted, the other marked **Humidity**. The highlighted tab is the active tab. The tab names will change depending on sensor type, the number of tabs will change depending on the number of channels.

Channel Out of Service

This feature allows a single channel on a dual channel device to be taken out of service. This is useful as it may not be desirable to take the whole device out of service for example if a dual channel temperature transmitter was being used to measure the temperatures in a fridge freezer and the freezer had failed or was not in use the channel associated with the freezer could be taken out of service. This would allow alarms from the fridge to come through the system but there would be no alarms from the unused freezer.

To take a channel out of service select the appropriate tab and select the **No** option button to take that channel out of service. When the channel is required again select the **Yes** option button.

Alarm Enable

If a Sensor is temporally out of service, or if the alarms are temporally not required rather than set all the alarm settings to zero the alarms can be disabled. To disable the alarms select the **No** option button. When the alarms are required again select the **Yes** option button.

High/High High Alarm

The **High High** Alarm is the highest level alarm that can be set on the system. This alarm should be set at a level that warns the user of potential damage. (**High** would represent the highest point of the desirable working range.) To set the **High High** Alarm type a value in the text box next to **High High**. The level can be set to one decimal place.

Low/Low Low Alarm

The **Low Low** Alarm is the lowest level alarm that can be set on the system. This alarm should be set at a level that warns the user of potential damage. (**Low** would represent the lowest point of the desirable working range.) To set the **Low Low** Alarm type a value in the text box next to **Low Low Alarm**. The level can be set to one decimal place.

High / Low Alarm Delay (Mins)

The high / low alarms can be delayed, which is very useful to prevent false alarms. In many buildings rooms are air conditioned to keep the environmental conditions constant. The conditions in any room change when doors are opened but soon recover when the door is closed again.

If alarms are set these could be activated every time a door is opened which would generate many alarms on the system. There is a danger with alarms that a syndrome called alarm fatigue develops where alarms are generated so frequently that they become an annoyance and are consequently ignored.

To avoid this a delay in minutes can be set for the alarms. For example when a door is opened the temperature drops but has recovered back to normal 10 minutes after the door is closed, without an **Alarm Delay** an alarm would be generated every time the door is opened. With an **Alarm Delay** of 15 minutes there would be no alarm generated however if the door was left open there would be an alarm generated after 15 minutes. To enter a **High / Low Alarm Delay** enter the time in minutes in the text box next to **High / Low Alarm Delay (Mins)**.

Alarm Outside Range

To activate **High / Low Alarms** click the **Yes** option button. To disable High / Low Alarms click the **No** option button.

High High / Low Low Alarm Delay (Mins)

This feature allows a delay to be activated on the High High and Low Low alarms. It is generally accepted that no delay is enabled on the **High High** and **Low Low** alarms as these are normally the failsafe alarm levels. If delays are used here it may be that a very small delay is used to avoid a single reading out of spec generating alarms. To put a delay on the **High High** and **Low Low** alarms type a value in the text box next to **High High / Low Low Alarm Delay (Mins)**, and should be entered in minutes.

Rate of Change

This feature activates Rate of Change alarms. Depending on the application a high and low level alarm may not work. A Rate of Change alarm is a mechanism that monitors how fast a parameter is changing and generates an alarm based on the selected criteria. For example, an alarm could be generated if temperature changes by more than 10°C per minute.

To set the Rate of Change enter a value in the dialog box next to Rate of Change. For example, a value of 10 would mean 10°C per Rate of Change period, if temperature units are set to °C. (See section 4.7 for how to set units.)

Rate of Change Period (Mins)

This feature is used together with the Rate of Change value above. Rate of Change Period is the time period associated with the Rate of Change value. This would be entered in minutes, so combined with Rate of Change would work like this - if the temperature changed by more than 10°C in 5 minutes an alarm would be generated. To set the Rate of Change Period enter a value in the field next to Rate of Change Period (Mins).

Alarm Disable Start Time

This feature allows alarms to be disabled during certain time periods. For example if a room is used during the day to work on sensitive items, alarms would be required during the day, but not required during the night. To set the Alarm Disable Start Time enter the time in the field next to Alarm Disable Start Time and should be entered like this: 18:00:00 in hours, (24 hour clock format) minutes and seconds. All alarms will be disabled after 18:00.

Alarm Disable End Time

This feature works together with Alarm Disable Start Time and sets the reactivation time for alarms. To set the Alarm Disable End Time enter the time in the dialog box next to Alarm Disable End Time and should be entered like this: 08:00 in hours, (24 hour clock format) minutes and seconds. All alarms for this device will be active again after 08:00:00.

Active Days

This feature allows alarms to be turned off on certain days. For example where sensitive goods are worked on during the week and put away each evening and at the weekend alarms would not be required at these times. The weekday alarms are handled by Alarm Disable Start and Stop Times. The weekends can be handled by disabling the alarms on Saturday and Sunday. To disable alarms on certain days select the No option button. In this example we want to disable the alarms on Saturday and Sunday. To do this select the No option button next to Saturday and Sunday. To make those days active again select the Yes option button.

Once you are happy with your selections click **Update**. The alarm settings will be saved. The above can be repeated for the second tab if applicable. After selecting Update and the settings are saved the settings page returns with a message “Record updated successfully” see below.

Figure 123 shows a correctly completed temperature alarm settings page. The actual values will change depending on the measuring parameters, every application will be different. The example shows a high level alarm of 25.5°C, a low level alarm of 5°C with a delay of 5 minutes. The high range is set to 20°C and the low range to 5°C with a delay of 5 minutes.

There is a rate of change alarm active which will alarm if the temperature changes by more than 10°C in 5 minutes. All alarms are disabled between the hours of 8am and 6pm and there will be no alarms at any time on Saturdays or Sundays.

Caution:

Alarm fatigue can be a major problem on automated monitoring systems especially when the alarms can drive emails or SMS alerts to call out service personnel.

There are many circumstances where the conditions of a room or space are not actively controlled and are driven by outside forces such as what’s happening next door or the weather outside. In these cases there is little point setting alarms that would relate to ideal conditions, especially if those conditions couldn’t be met on a daily basis. In these cases it is better to have no alarms set.

The danger of receiving many alarms that do not have an action where something can be done to prevent the reoccurrence of that alarm is the main cause of alarm fatigue.

If on the same system there was a critical space with high value objects that was controlled by an HVAC (Heating Ventilation and Air Conditioning) system, and on system failure an alarm was generated there is a great danger that this alarm could be ignored.

We are not suggesting that alarms are never set in these conditions just that thought and consideration are given during the alarm setting process.

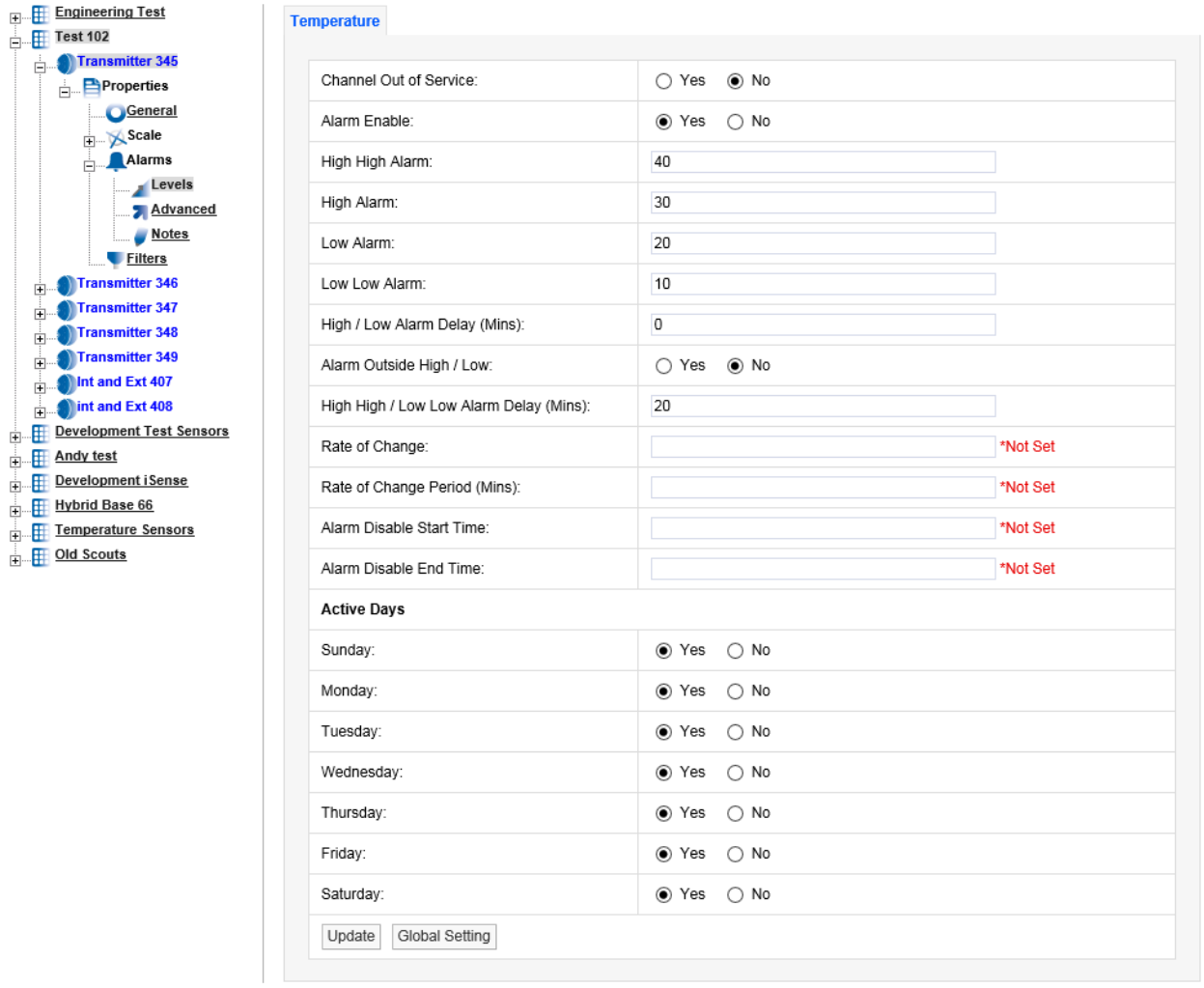


Figure 123

Digital Alarms are Alarms generated by digital channels that record data from devices such as ‘door open’ sensors. Digital channels can only have two states, which are analogous to open or closed. Figure 124 below shows the alarm Levels settings view for a Digital channel:

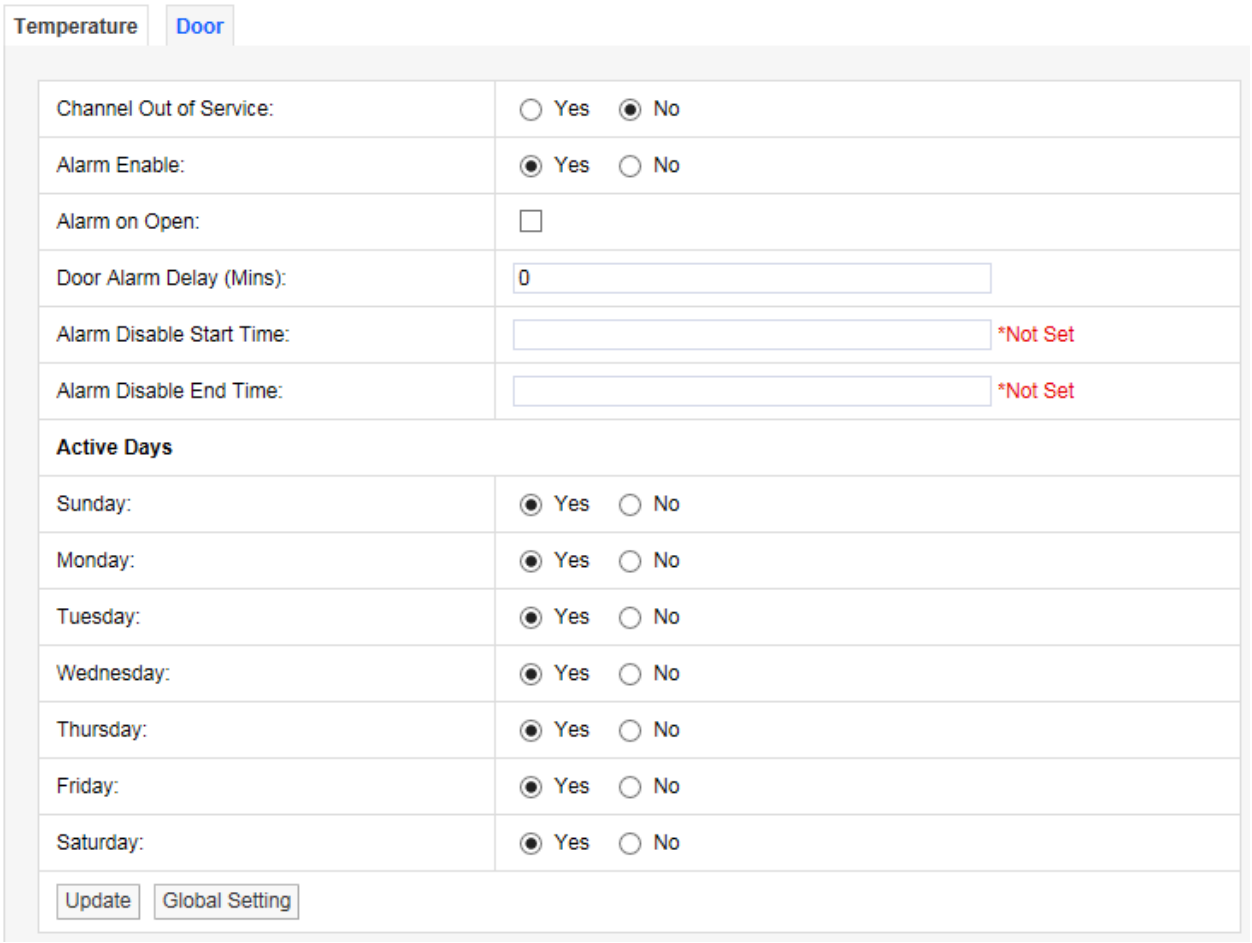


Figure 124

For a door open/close sensor, **Alarm on Open** would give an alarm if someone opened the door.

If there are many Sensors/Transmitters on the same system doing the same function in different spaces it can be tedious and error-prone to go through all the Sensors/Transmitters on the system. There is a facility to change the Alarm settings globally on a number of sensors.

3.4.1.1 Global Settings

To make global changes stay on the alarm settings tab that you want to use to update other Sensors/Transmitters with and select **Global Setting** at the bottom of the tab. A new window will appear, see Figure 125 below.

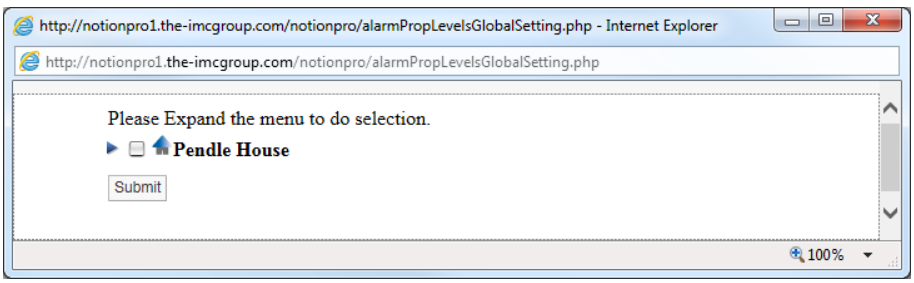


Figure 125

To expand the tree, select the blue arrow to the left of the Site name, see Figure 126 below.

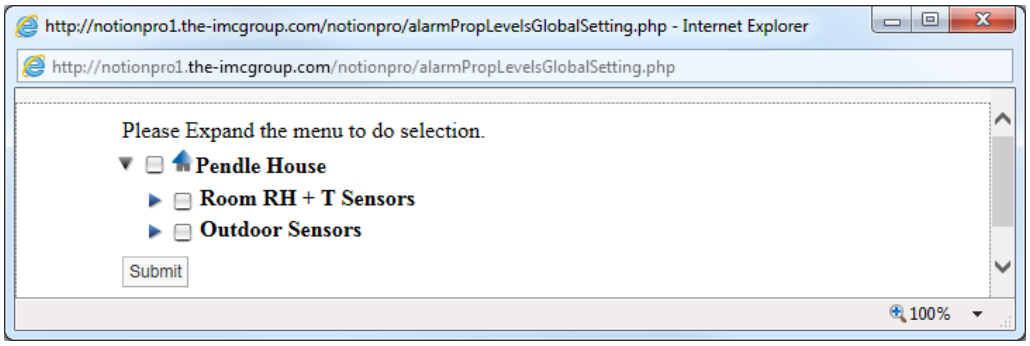


Figure 126

To see the Sensors/Transmitters in a Zone click the blue arrow to the left of the Zone name, see Figure 127 below.

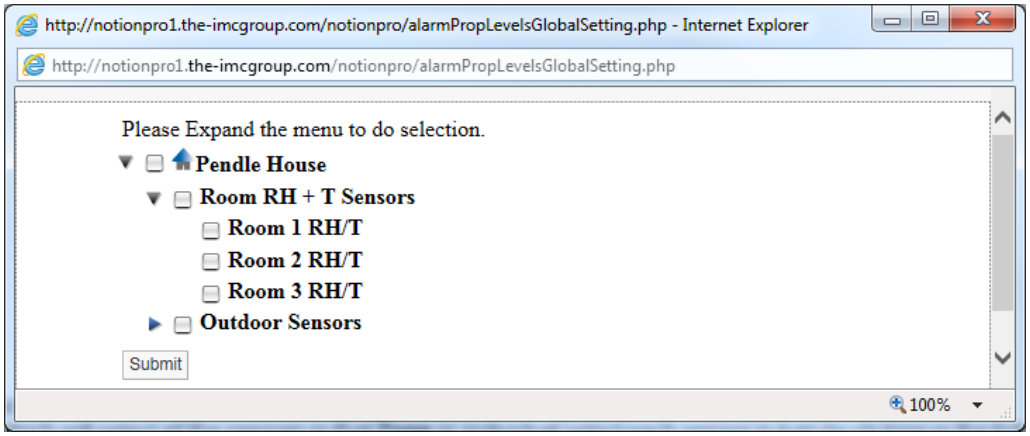


Figure 127

To select the Sensors/Transmitters to update the alarm settings either click in the tick box next to the Zone name which will select all the sensors in that Zone or individually select each sensor in turn by clicking in the tick box next to the Sensor name, see Figure 128 below.

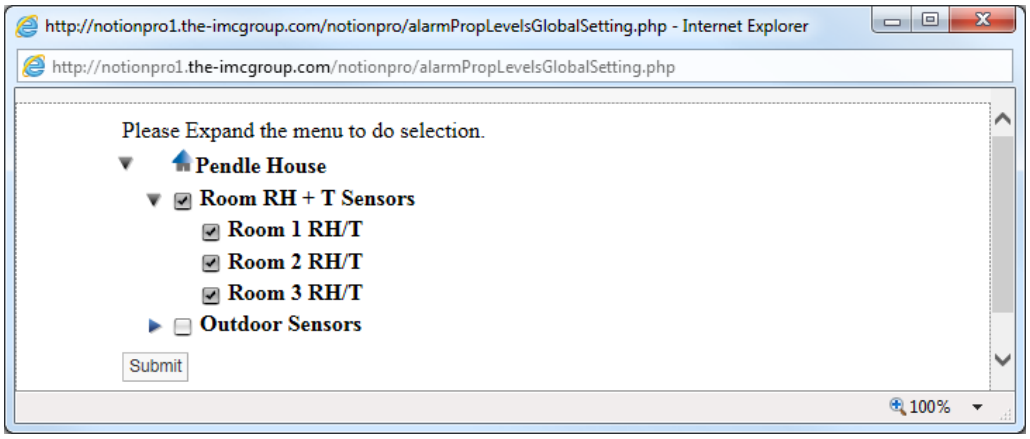


Figure 128

Once you are happy with your Sensor selections select **Submit**. The selected Sensors will now be updated with the alarm settings from the selected Sensor. This can be checked by going into the alarm properties of another Sensor.

3.4.2 Advanced

To edit the **Advanced** settings select **Advanced**. A new window called Alarm Advance will appear, see Figure 129 below.

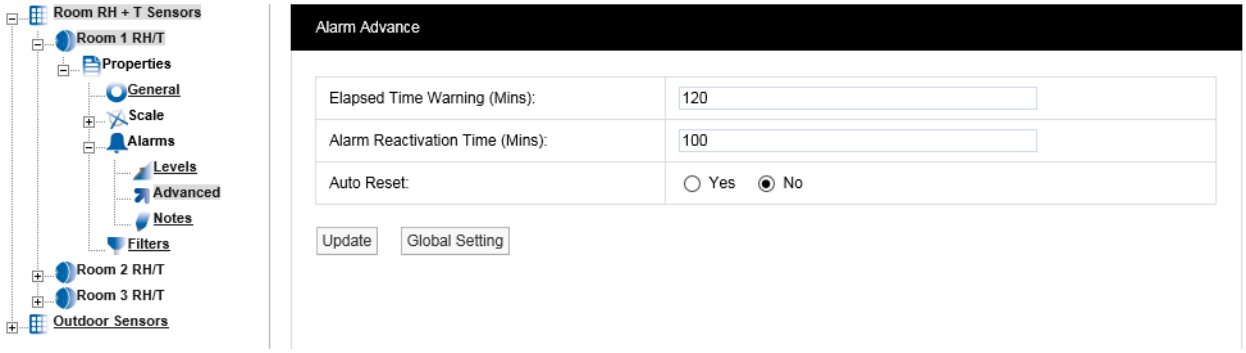


Figure 129

Elapsed Time Warning (Mins)

The elapsed time warning is used to alarm when a signal is not received from a Sensor within the predetermined time. In the default settings the **Elapsed Time Warning** is set to 120 minutes. This can be changed to any time up to 999 minutes. It is not recommended to set the Elapsed Time Warnings to very long periods. If there are lots of Elapsed Time Warnings being generated this may be an indication of a more serious problem such as poor radio coverage.

The main purpose of the Elapsed Time Warning is to alert you that a problem has occurred such as a Sensor has failed, been moved out of radio range or has inadvertently had the battery removed.

There are occasions where all the sensors in a Zone or Zones that are served by a wireless receiving device go into Elapsed Time Warning at the same time. This would be caused by either a failure in the wireless receiving device or a network problem causing the wireless receiving device to stop communication with the database. If such problems are seen then these need to be investigated.

To set the Elapsed Time Warning period enter the required time in minutes into the field next to **Elapsed Time Warning**.

Alarm Reactivation Time (Mins)

The **Alarm Reactivation Time** is the default setting for the time between acknowledging an alarm and when the system checks to see if the alarm condition has returned to normal.

If the alarm condition has returned to normal the alarm status will change from amber (acknowledged) to green (OK), if after the **Alarm Reactivation Time** the alarm condition still exists the alarm status will return to red (unacknowledged) and create a new alarm on the system.

The default setting is 60 minutes. To change this enter a new value in minutes in the field next to **Alarm Reactivation Time**.

Auto Reset

Auto Reset is used to reset an alarm status to green when an alarm condition returns to normal. The default is **No** which means that all alarms have to be acknowledged. The disadvantage is that a Sensor could go in and out of alarm all night but when the User checks in the morning the status shows green, so without looking at the graphs or alarm logs they would be unaware of a problem.

To change the setting select one of the **Yes** or **No** option buttons as required.

When happy with the settings click **Update**. The setting will be saved, see Figure 130 below.

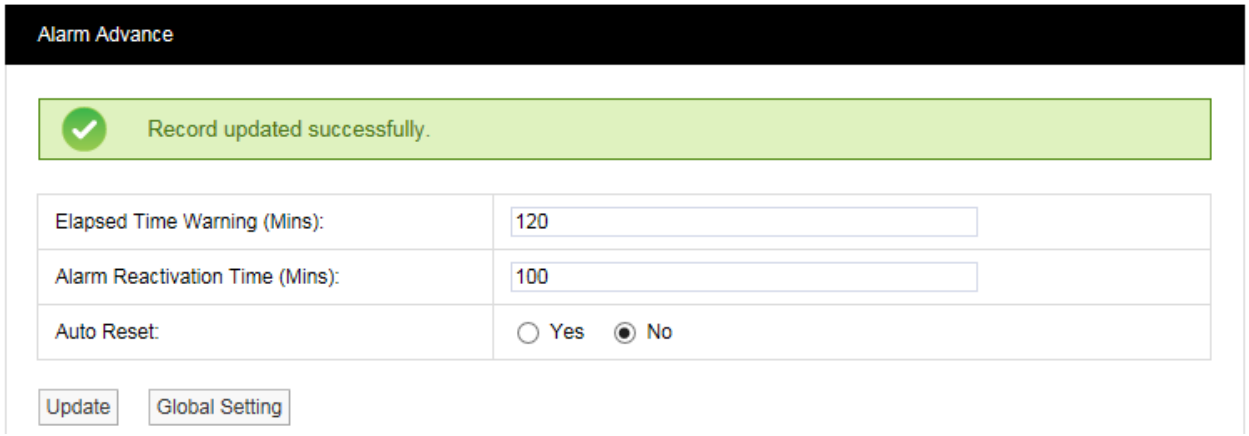


Figure 130

3.4.3 Notes

To edit the **Notes** settings select **Notes**. A new window called **Alarm Notes** appears, see Figure 131 below.

Figure 131

This feature allows you to enter notes for an Alarm. This is especially useful for inexperienced operators. The system can be set up so that low-level users can monitor the system but can't make changes. The **Alarm Notes** will give an inexperienced user specific instruction on what to do when an Alarm occurs.

For example in the middle of the night the temperature increases in a room or space containing high value objects, an Alarm is generated and a night shift operative or security guard views the Alarm. The Alarm message might say "On a high temperature alarm contact Facilities Management on Ext 235 and report the alarm condition and the room location". This feature means that someone not familiar with an area or its contents can still effectively and efficiently deal with an alarm condition.

To activate this feature type your instruction into the dialog box and when happy select **Add**. This will add the message to this Sensor. This can be set individually for every Sensor on the system. Once the changes have been added and are OK you will see the following window, see Figure 132 below.

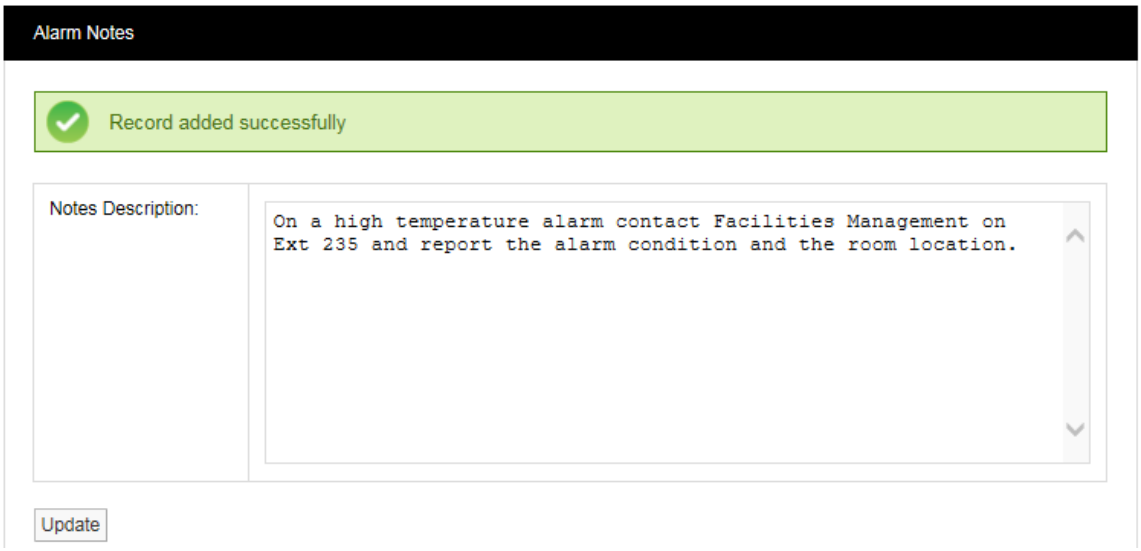


Figure 132

3.4.4 Filters

This feature lets you set filter limits for the Sensor. These should only be used in exceptional circumstances. For example if a Sensor is located in or near an electrical switch panel which can be very noisy electrically this can occasionally cause interference on the radio link, which would be seen on the graph as a large spike in the data.

The filters are designed to remove such interference. If the Sensor is reading temperature and the expected range for this application is -10°C to +50°C a filter could be set at say -40°C for the Min Value and +80°C for the Max Value. Any readings seen above or below these readings would be rejected.

To edit the Filter settings select **Filters**. The **Temperature** tab (for temperature in this case) will appear, see Figure 133 below.

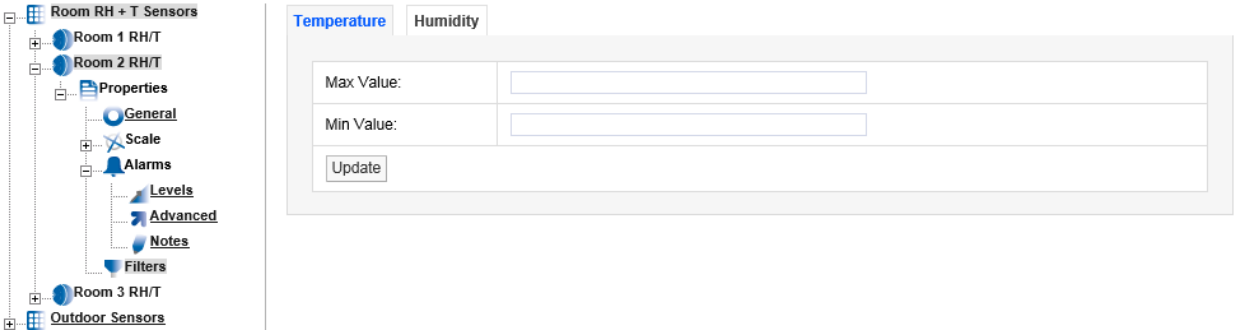


Figure 133

To activate this feature enter the required **Min** and **Max** values in the appropriate fields. The values should be whole numbers in the range 50 for the Max Value and -40 for the Min Value. Select **Update** when finished. (A warning message is given if you click on another tab before you've selected **Update** for a change you made on the current tab.) Once the data is accepted you will see the following screen, see Figure 134 below.

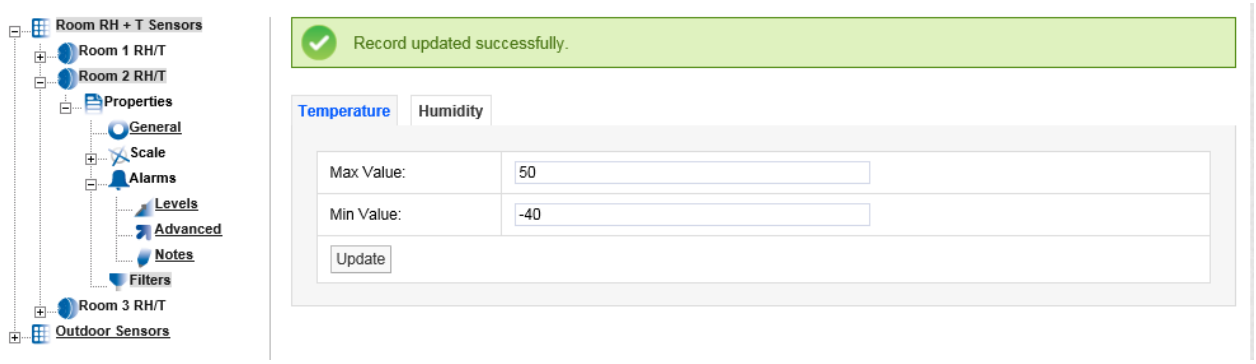


Figure 134

For dual channel Sensors, repeat the above process for the other channel.

Note: Setting filters will cause data to be rejected above and below the filter limits. Check that any filter limits set are above and below the expected ranges.

4 Viewing Data

This section will guide you through viewing data.

4.1 Signing In

4.1.1 First Time Login (Any User)

To view the Notion Pro website, you will need to open a browser and navigate to the Notion Pro site.

If you are working on the Notion Pro Server itself, enter http://localhost/NotionPro in the browser's address field.

If you are working on a another computer or device, you will need to use the URL supplied by your System Administrator or IT Support provider to reach the Notion Pro server. This may be similar to ServerName/NotionPro for a LAN connection or www.mycompany.com/NotionPro for an internet connection.

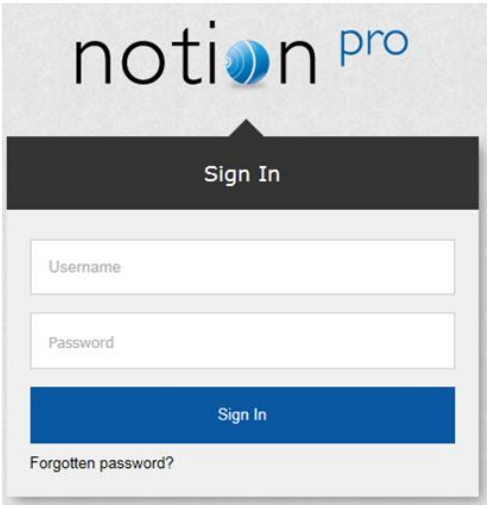


Figure 135

Once you have navigated to the correct URL, the login screen will be displayed, as in Figure 135 above. Log in using the username and password that the System Administrator has given you.

Enter your username and password to login, then click **Sign In**. Passwords are case sensitive.

The first time you log in you must supply the answer to a **security question**, so if you forget your password in the future, you can retrieve it using a procedure which includes supplying the answer to your security question. See Figure 136 below.

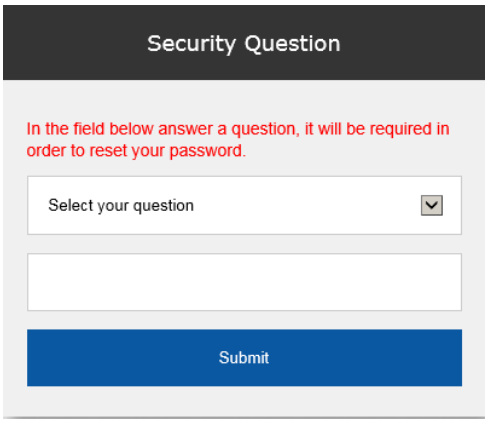


Figure 136

Choose your security question by clicking and choosing from the list. Type the answer into the box below, and then click **Submit**.

You will now be returned to the login screen see Figure 135 above, where you will again need to enter your username and password.

4.1.2 Subsequent Logins (Any User)

Once you have navigated to the correct URL, the login screen will be displayed, see Figure 137 below.

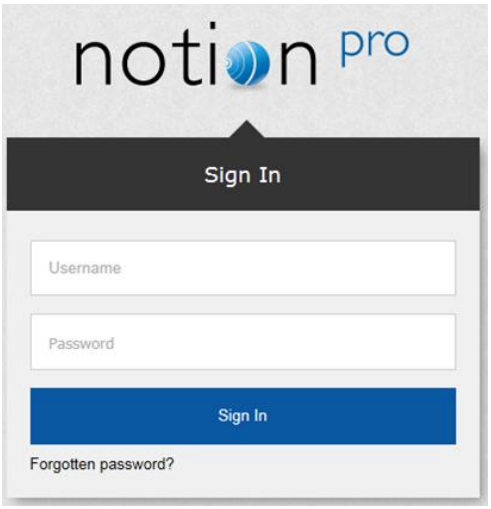


Figure 137

Log in using the username and password that the System Administrator has given you.

If you have forgotten your password click Forgotten password? and work through the procedure that follows. You will need to know the answer to your Security Question to be able to do this.

4.1.3 Archived Databases

Archived Databases will probably only be present if the Notion Pro installation at your site has been running for some time, and if the System Administrator has performed one or more archive operations.

If you login as System Administrator, or with a username with the **Access Archive Database** permission set, then the **Choose Database** screen will be displayed, Figure 138 below.

If your Username does not have the Access Archive Database Permission set, then Notion Pro will go straight to the live system Home screen.

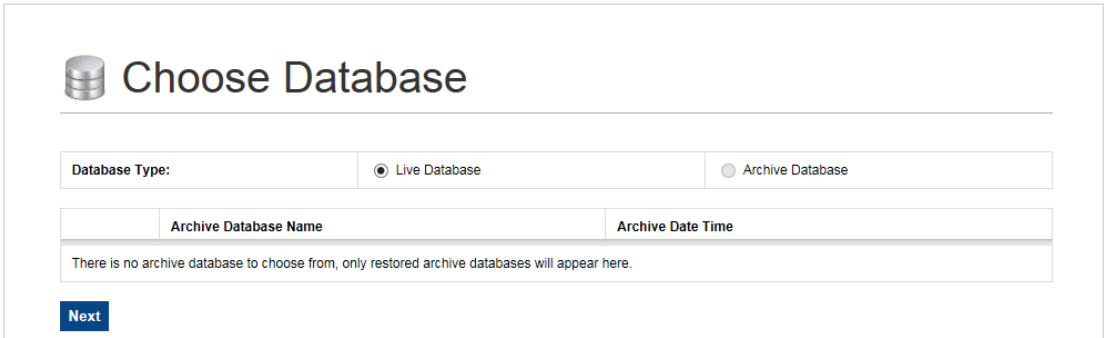


Figure 138

To access archived data, click **Archive Database**, select the required Archive Database, then click **Next**. For detailed information about the Notion Pro Archive / Backup system, see the IceSpy Notion Pro Archive/Backup Manual, doc no IM5549.

4.1 Viewing the Live Database

To access the live Notion Pro system, make sure **Live Database** is selected and click **Next** to give the **System Overview**, see Figure 139 for an example.

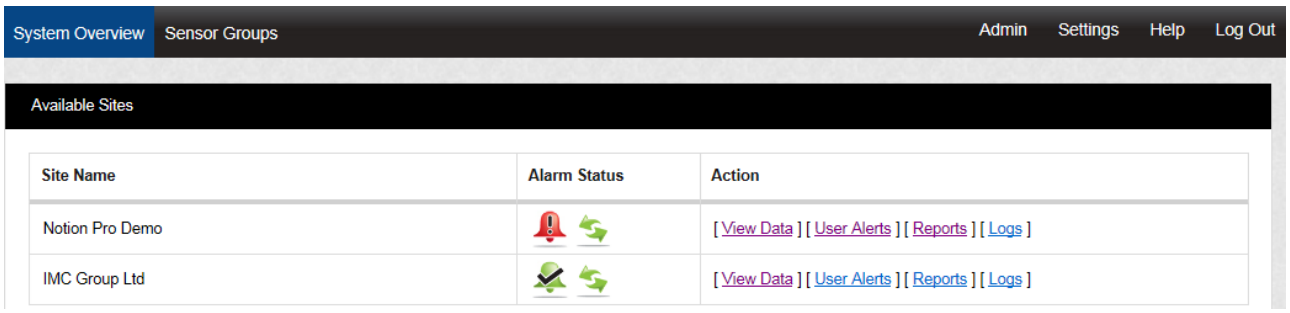


Figure 139

Note: You will only see the **Available Sites** view if your installation has more than one Site. For a one-Site installation, clicking **Next** will take you straight to the Live View, see Section 4.3.

4.2 Choosing the Site to View

On logging in to Notion Pro, you are presented with the **System Overview** display, see Figure 140.

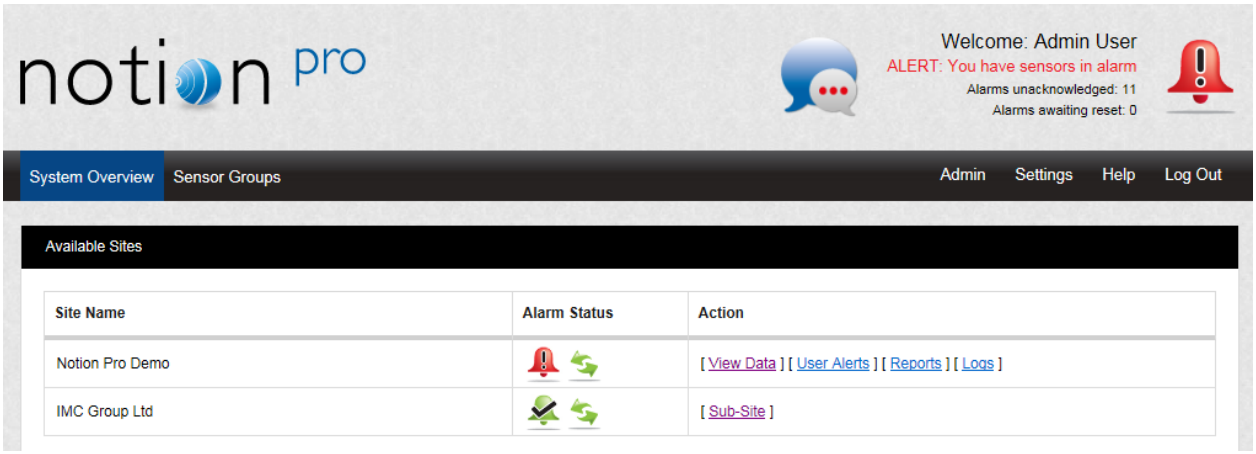


Figure 140

The icons under the **Alarm Status** column in the **Available Sites** window show the alarm and sensor communication status of the Site under the **Site Name** column on the left. See Section 5 for details of Alarms. The available **Actions** for each Site are:

View Data	(see section 4.3 below.)
User Alerts	Allows you to set up email and SMS Alert Groups – see Section 2.5 above.
Reports	Allows you to create sensor Reports – see Section 6 below.
Logs	Allows you to view and edit System Logs – see Section 7 below.

4.3 Viewing Live Data

To view live data, click View Data from the Available Sites dialogue box (see above). For a Site which has Sub-Sites you must first click on Sub-Site and select the sub-site of interest to give the **Live View** window. See Figure 141 below.

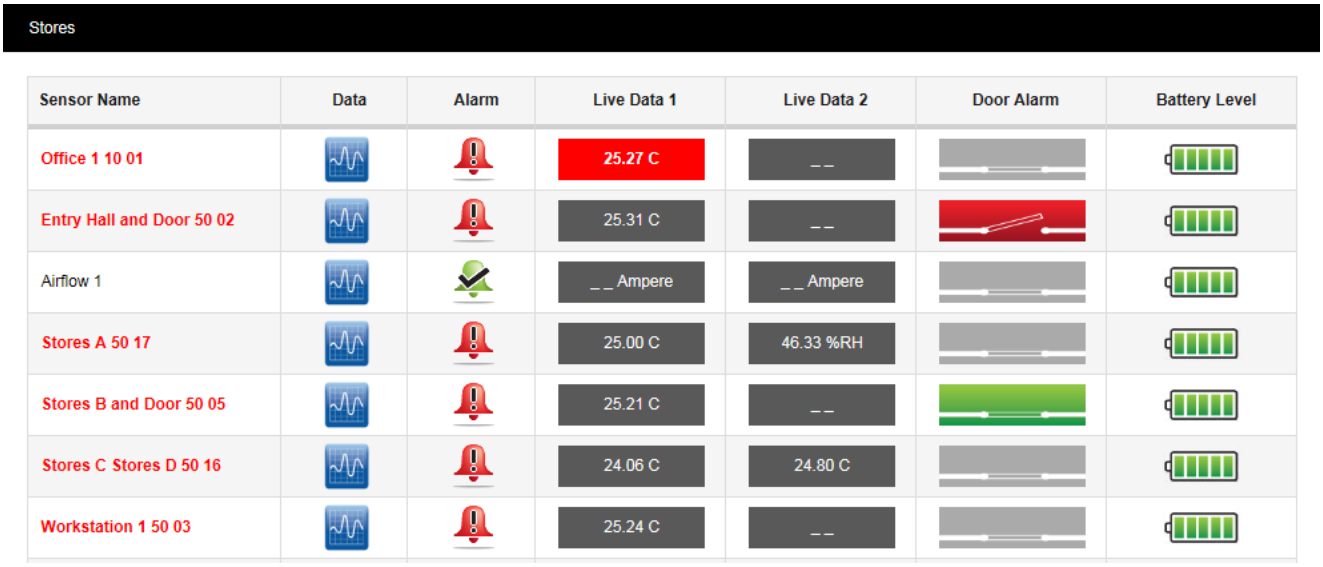


Figure 141

See section 4.3.2 for an explanation of the icons on the Live View display.

4.3.1 Zone Selection

The example Live Data display above is for sensors in the Stores Zone – see top left corner. To choose another Zone, select **View Data>Live View** and then move the mouse pointer to the right to show the Zones within the current Site. See Figure 142

Figure 142

4.3.2 Live View Controls and Indicators

Sensor Name

The colour of the text for each named sensor in this column gives an indication of its state:

Black – sensor giving normal reading, within alarm threshold.

Red – sensor in alarm condition.

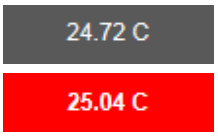
Orange – sensor in alarm condition, but alarm has been acknowledged.

Blue – sensor is out of service.

Single clicking on this text gives more information – see section 4.3.3. Double-clicking opens graphical display of the live sensor data – see section 4.4

Click on this to give a graphical display of the live sensor data – see section 4.4.

These icons indicate the alarm status of the sensor. See Section 5.



The current reading for the sensor channel. Typically, channel 1 would be for temperature data, channel 2 for relative humidity.

A red icon indicates that the sensor reading has gone over its alarm threshold value.

The Door Alarm icons indicate the state of the door alarm channel (if present):

The door is closed.

The door is open and the alarm has not been acknowledged.

The door is open and the alarm has been acknowledged.

There is no door switch associated with this transmitter.

The battery icons indicate the state of the battery for the associated transmitter:

Battery is fully charged.

Battery has less than half its life left, but need not be replaced yet.

Battery is very low and should be replaced as soon as possible.

Battery is empty and must be replaced immediately. **Note:** Scout/Legacy sensors do not output battery information and so the battery display symbol will always be grey. Check for **Elapsed Time Alarms** (see Part 2, section 3.4.3, also Part 1, section 2.4.3 for details of elapsed time alarms).

4.3.3 Alarm Condition Tooltips

Click once on the sensor name to show the current alarm status for that sensor. See Figure 143 for example.

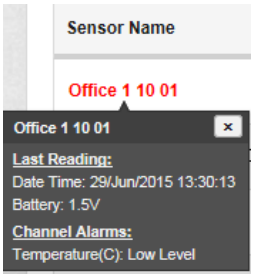


Figure 143

Here we see the date and time of the previous reading from the sensor, also the current battery voltage. The channel 1 temperature value is below the Low Level value that has been set, and so is giving an alarm.

An ‘open door’ alarm might be as shown in Figure 144.

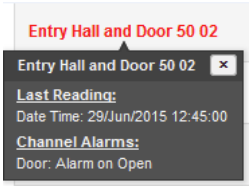


Figure 144

4.4 The Graphical Display

To view the **graph data** for a Sensor click the icon for the sensor on the Live View. See Figure 145 for an example graph.

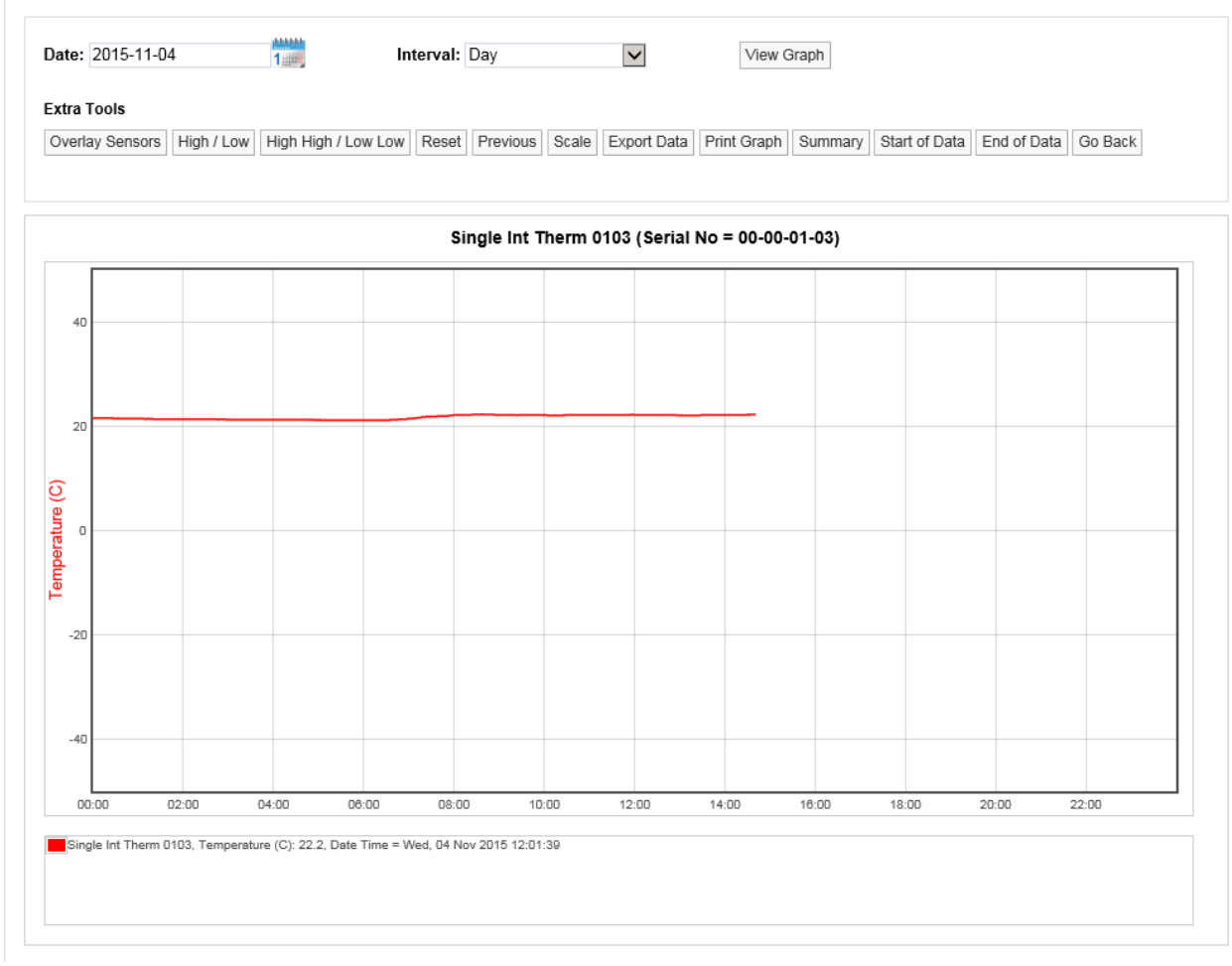


Figure 145 – Line Graph, Temperature Data

Here, the graph shows live temperature data, starting at midnight for the 'Single Int Therm 0103' sensor. Summary data in textual form is shown in the display box under the graph area.

Double-click on the **Sensor Name** in the **Live View** list (see Figure 141) to give the same graph in its own window.

An example of a graph for a two-channel sensor might be as shown in Figure 146.

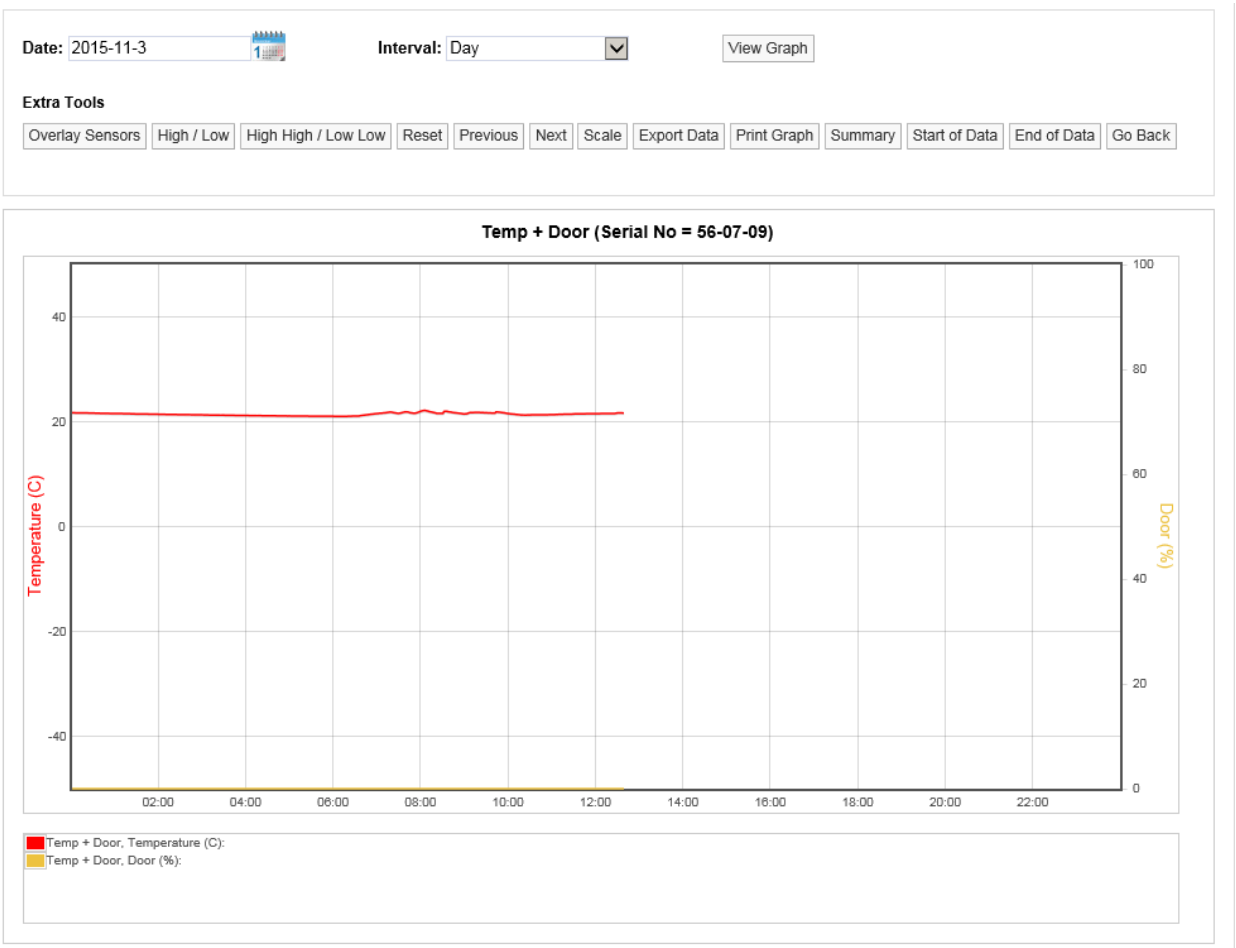


Figure 146 – Line Graph, Temperature Data and Door State Data

Here we see temperature data in red, door data in yellow. The door sensor graph line indicates the percentage of time in each data period that the door was open. This could be one continuous period or an accumulation of several periods. In the above example, the door had been left open from approximately 09:30 to 10:15 when it was closed and remained closed.

4.4.1 Display Time Spans

The graph window defaults to displaying the current day's data.

To change the date range for the graphing period, use the **Date** and **Interval** controls, see Figure 147 below.

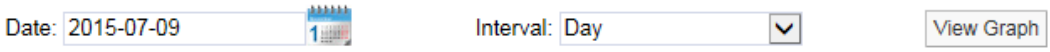


Figure 147

Select the calendar icon to change the data graphing start date, this is the data that the graph will start from, see Figure 148 below.

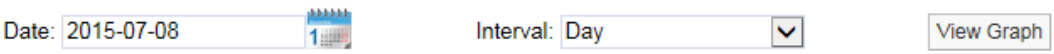


Figure 148

The date has been changed to the 8th July 2015.

To view data for one week (commencing 12th of October 2015) use the **Interval** drop down menu and select Week, see Figure 149 below.

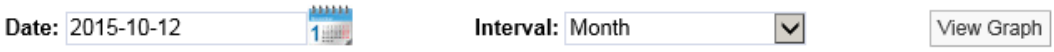


Figure 149

Click on **View Graph** to generate the graph, see **Figure 150** below for example.

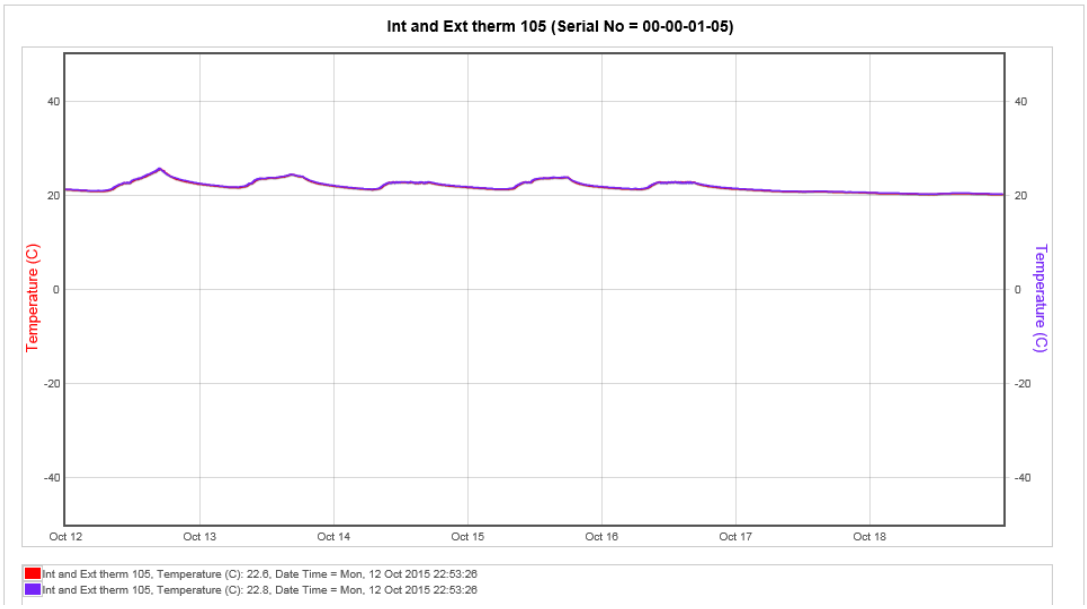


Figure 150

To view data for a month follow the steps above selecting a date from the calendar that is a month or more prior to the current date, set the Interval to Month and select **View Graph**, see Figure 151 below.

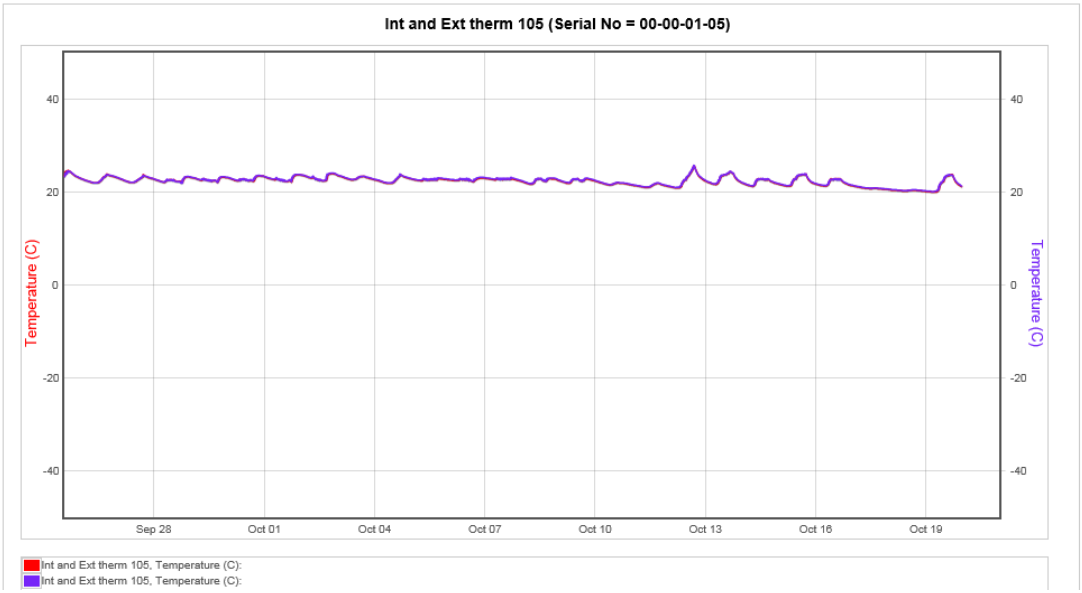


Figure 151

Using the tools above the graph window the following functions can be performed.

4.4.2 Overlay Sensors

This feature allows the comparison of one or more sensors. This is particularly useful if you have an outdoor Sensor and want to see if the outdoor conditions are driving the conditions indoors. To overlay Sensor**s**, in Live View select **Overlay Sensors** from the bar menu in the Live View window. A new window called **Select Sensors to Overlay Graph** will appear, see Figure 152 below.

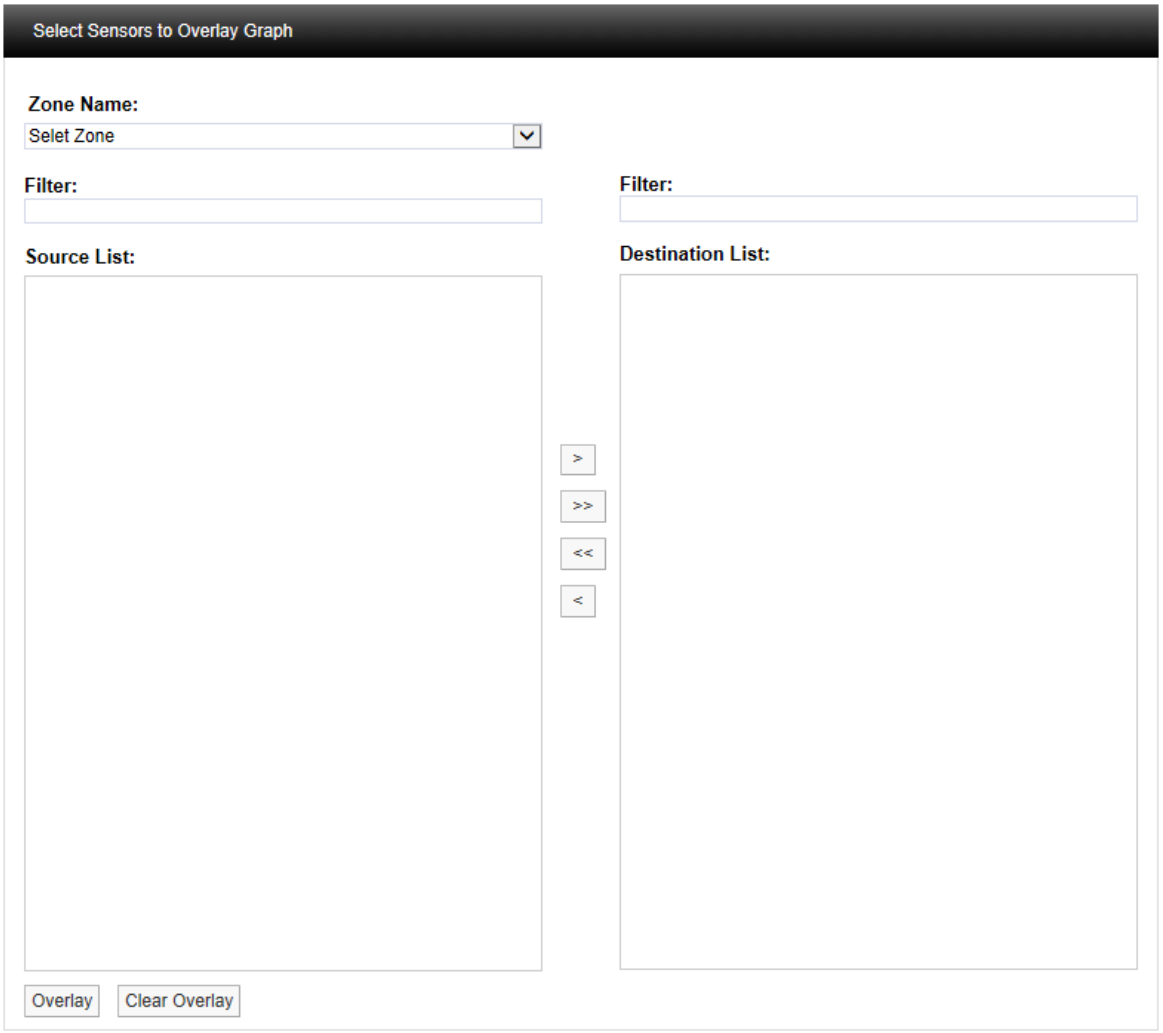


Figure 152

Select the Zone containing the relevant sensors from the **Zone Name:** pull-down list. See Figure 153 below.

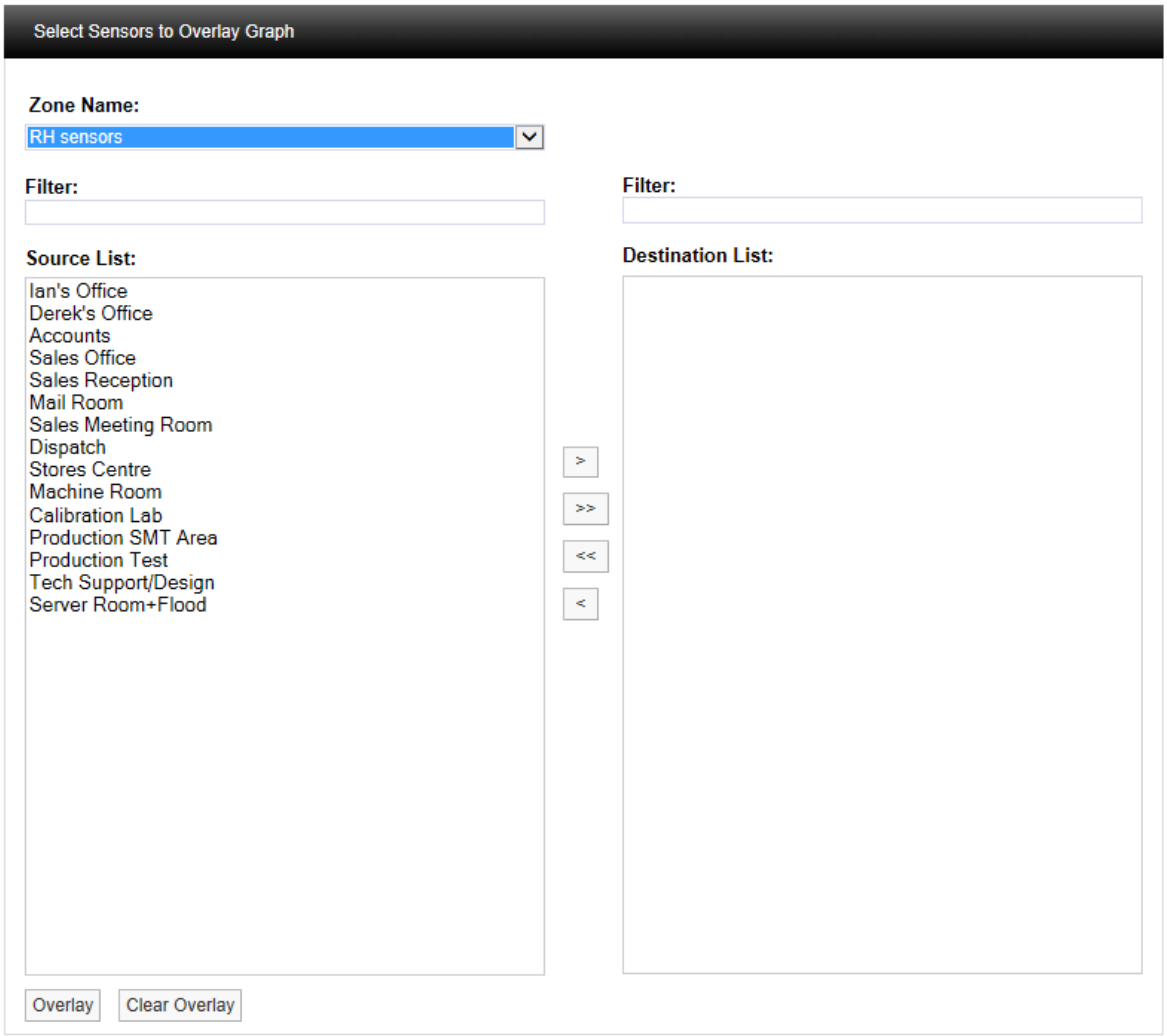


Figure 153

Select the sensor(s) you require from the **Source List** then click >. To select more than one sensor, hold down the Ctrl key as you select the sensors, then click >. See Figure 154 below.

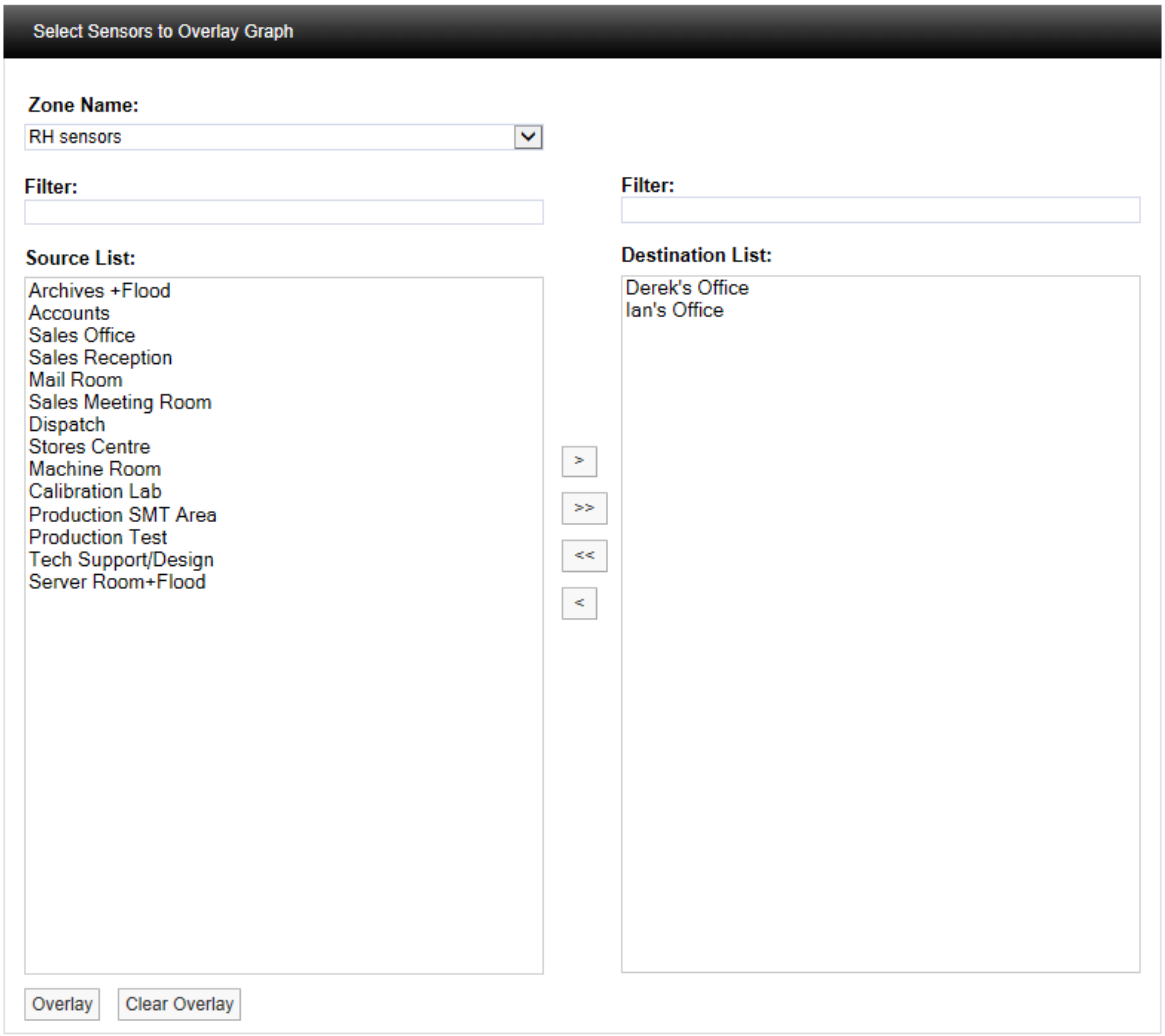


Figure 154

Once you are happy with your selection, scroll to the bottom of the list and select **Overlay**, see Figure 155 below.

Figure 155

After selecting **Overlay** you will be asked to confirm your selection, see Figure 156 below.

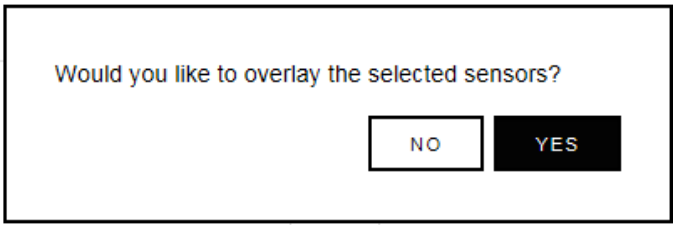


Figure 156

Select **YES** to confirm and to proceed with overlaying data. The graph window will re-appear with the selected Sensors overlaid over the original graph, see Figure 157 below.

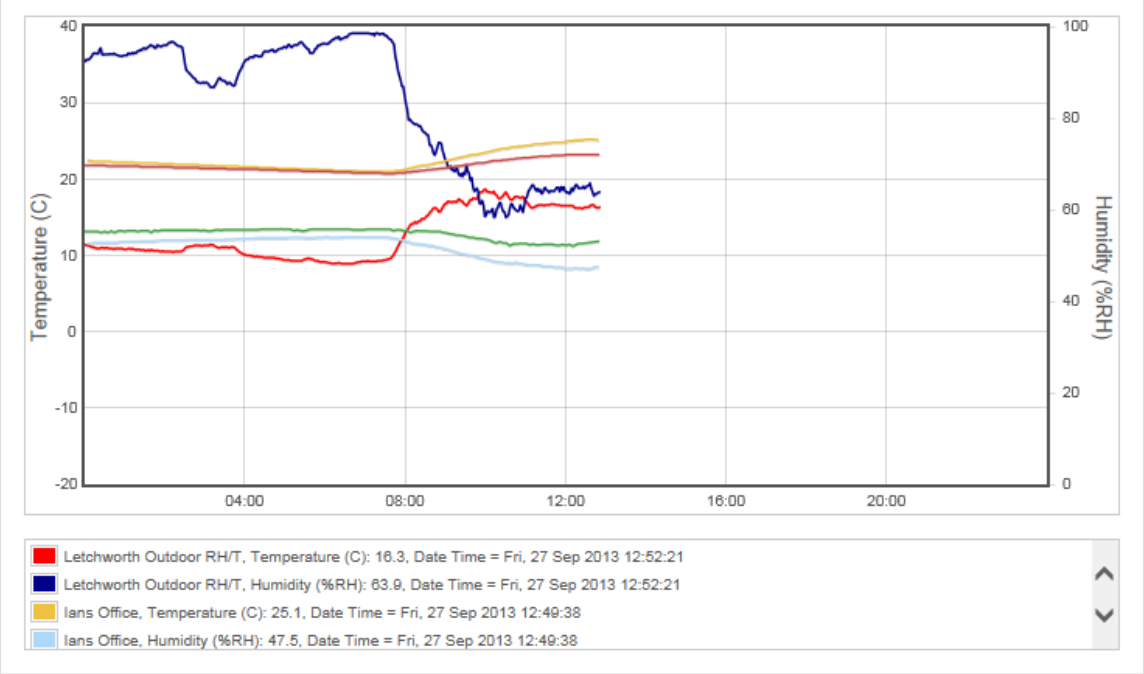


Figure 157

The coloured key below the graph window clearly identifies the overlaid data traces. To see all the key information use the scroll bars to view the lower data. To view specific values on the graph a cursor can be applied. To use the cursor move the mouse pointer over the graph window and the cursor will appear, see Figure 158 below.

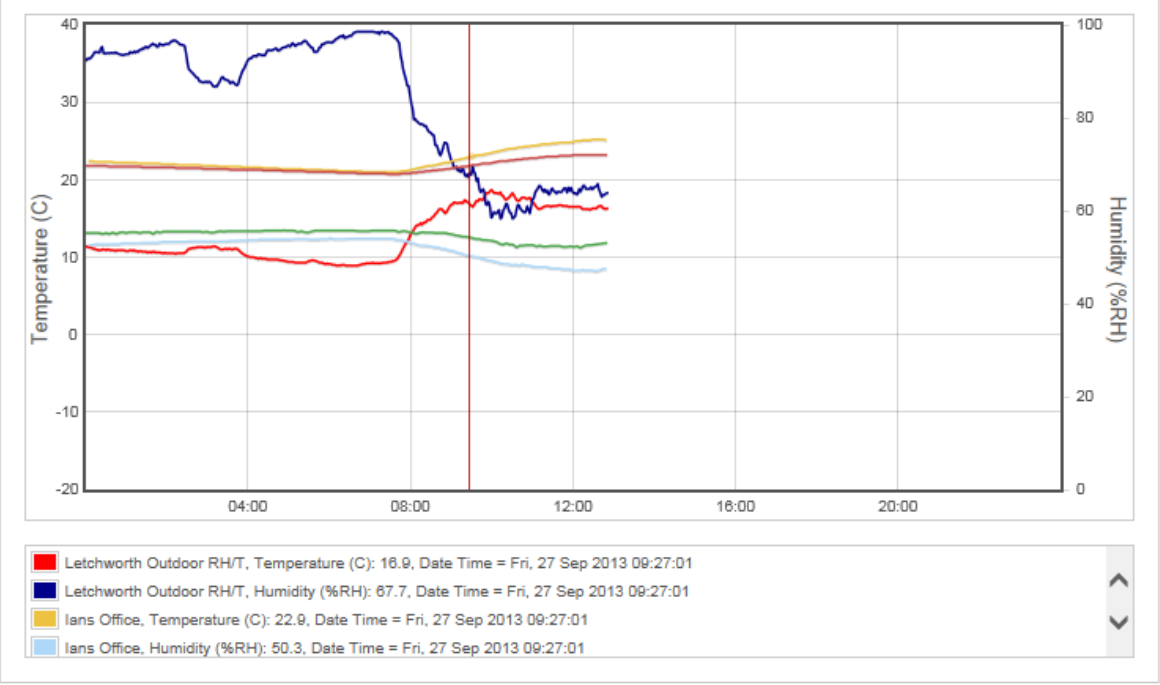


Figure 158

Keeping the mouse cursor within the graph window, move the mouse to the left and right to move the cursor across the screen. As the cursor moves you will see the sensor values along with the date and time changing.

You can see from Figure 158 that as the outside temperature (red trace) increases the two indoor temperature traces (salmon and mustard) are moving up as well. This indicates that the equipment controlling the indoor space is not powerful enough to overcome the effects of the outside temperature changes.

To remove the overlay select the **Overlay Sensors** button and scroll to the bottom of the Sensor list and select **Clear Overlay**, see Figure 159 below.

Figure 159

The graph data will return to the original data.

4.4.3 High Low Alarm

This feature allows the levels for High / Low alarms to be overlaid on the graph, to use this feature alarm levels will need to be set, see section 3.4 on how to set alarms.

Click on the **High Low Alarm** button, then the **Select Channel to Display High low Alarm Settings** window appears, see Figure 160 below.

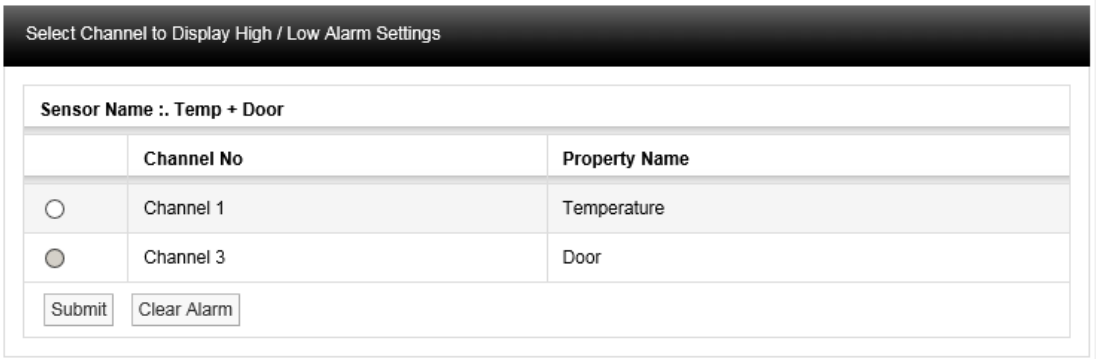


Figure 160

To bring on the temperature alarms select the option button next to **Channel 1** and select **Submit**. Lines representing where the alarm levels are set will appear on the graph, see Figure 161 below.

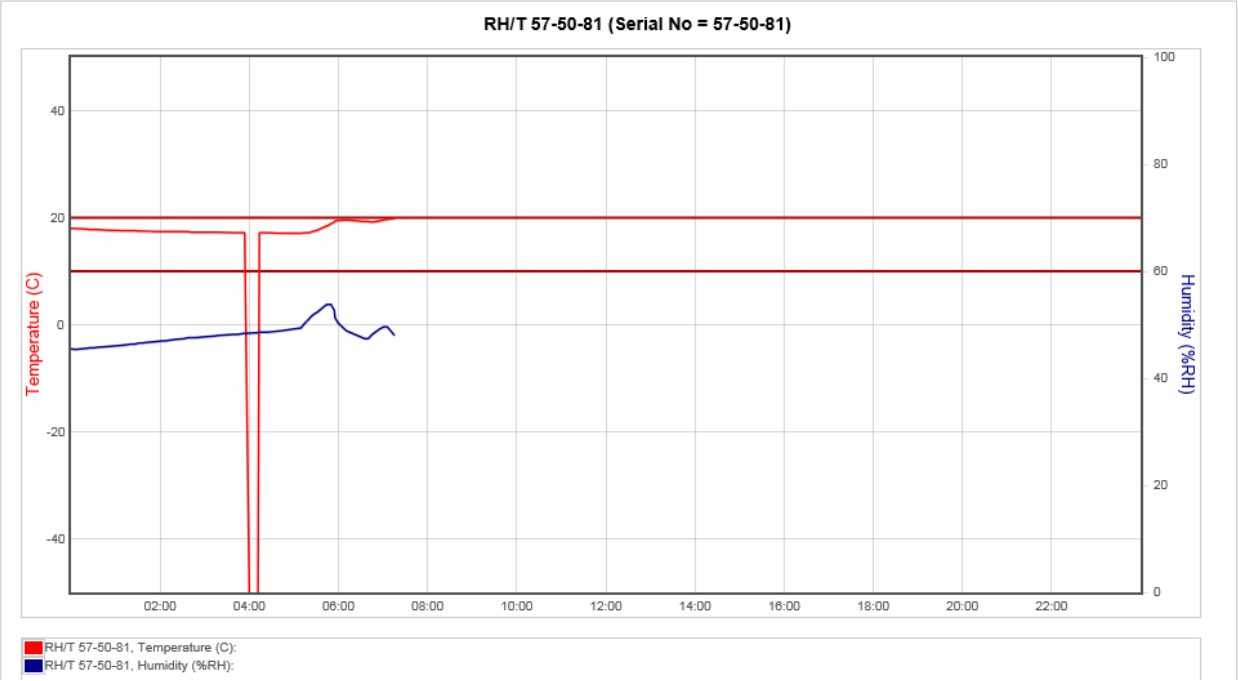


Figure 161

This gives a clear visual indication if there has been an excursion either above or below the alarm settings.

To clear the Alarm select **High / Low Alarm** from the graph window, the **Select Channel to Display High / Low Alarm Settings** window will appear again, this time the **Channel** that has been put on the graph will be highlighted. See Figure 162 below.

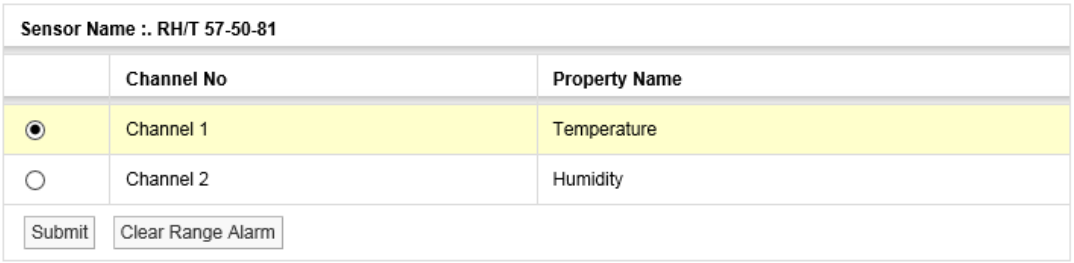


Figure 162

Select **Clear High / Low Alarm** to remove the Alarms from the graph.

4.4.4 High High / Low Low Alarm

This feature has the same function as the **High / Low Alarms** only this time the **High High** and **Low Low** alarm levels are overlaid on the graph. Alarms are set in a similar way to High / Low Alarms. To start the routine, select **High High / Low Low Alarm** from the toolbar above the graph window. See section 3.4.1 for setting alarm levels (System Administrator Users only).

The result here might be as shown in Figure 163 below.

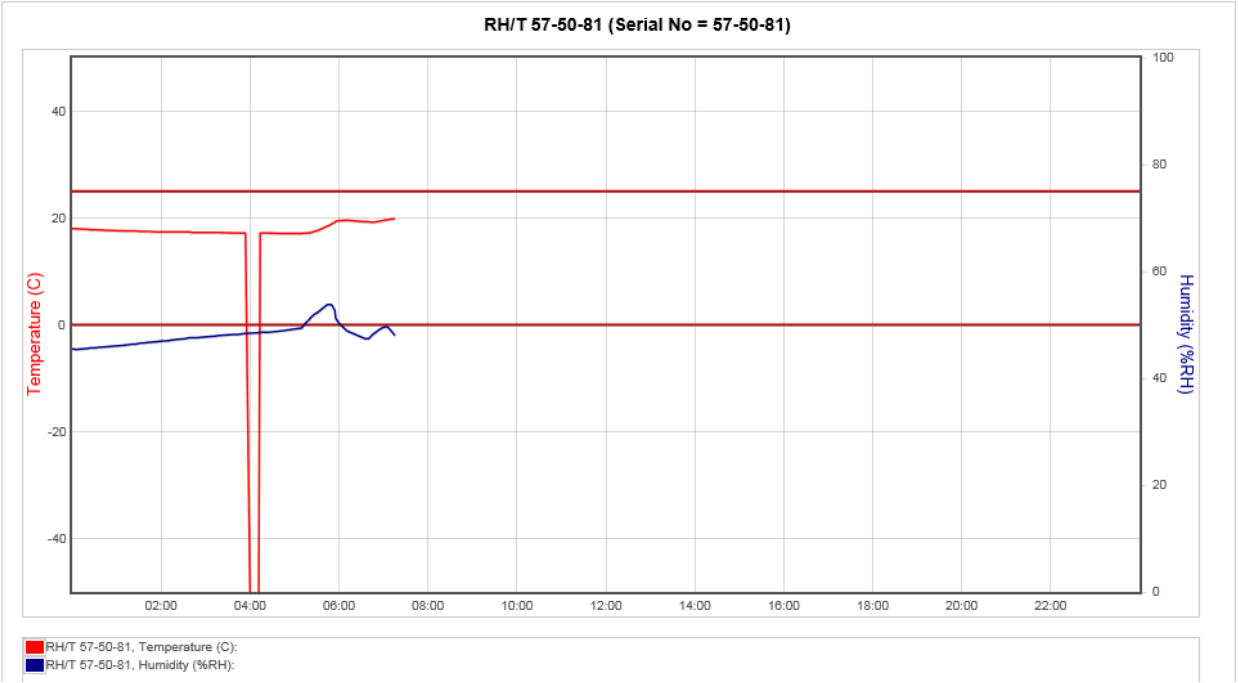


Figure 163

(Temperature has gone below the Low Low setting in the above example).

4.4.5 Reset

This function will clear the graph window back to the default view regardless of where you are. The default view is the current date with one day's data displayed. To reset the graph select **Reset** from the menu above the graph window.

4.4.6 Previous

The **Previous** function steps you back through the data one graph span at a time. If the Interval is set to **Day** then the graph will step in days, **Week** and it will step in weeks, **Month** it will step in months.

4.4.7 Next

The **Next** function steps you forward through the data one graph span at a time. If the Interval is set to **Day** then the graph will step in days, **Week** and it will step in weeks and **Month** it will step in months. When a graph is first generated the **Next** button won't be visible as there is no future data to display. Once you select a time to graph in the past the **Next** button will appear.

4.4.8 Scale

The configuration of the graph **Scale** is selectable. There are three methods of selecting the graph Scale. To change the **Scale** select **Scale** from the menu above the main graph window. A new window called **Select Graph Scale** will appear, see Figure 164 below.

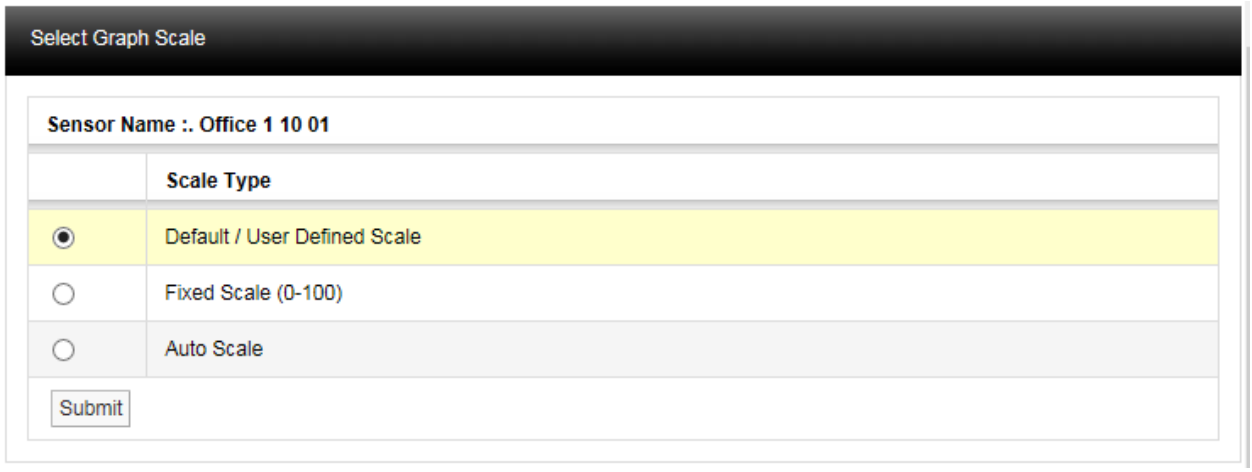


Figure 164

Default/User Defined Scale

You can define a default Scale for each Sensor on the system. The **User Defined Scale** can be set in the **Scale** page see section 3.3.3 (System Administrator Users only). Some Sensors have a very wide operating range but the Sensor in question may be being used at one end of the range. A **User Defined Scale** allows a more detailed view of the data.

Fixed Scale (0-100)

Each Sensor installs with a **Default Scale** which would cover the maximum range for that Sensor. This is **Scale** setting is OK if the Sensor is going to be used over its range. If it's to be used over a smaller range then a **User Defined Scale** may be more appropriate, see above.

Auto Scale

This feature allows the graph **Scale** to be set automatically. **Auto Scale** will set the graph **Scale** to a very tight range which covers the range for the data displayed. This gives a much expanded view of the data and may be confusing as the data can look like it is changing dramatically.

Select the Scale type you require by clicking the option button next to the **Scale Type** and select **Submit**. The graph will re-draw with the new Scale settings, see Figure 165 below.

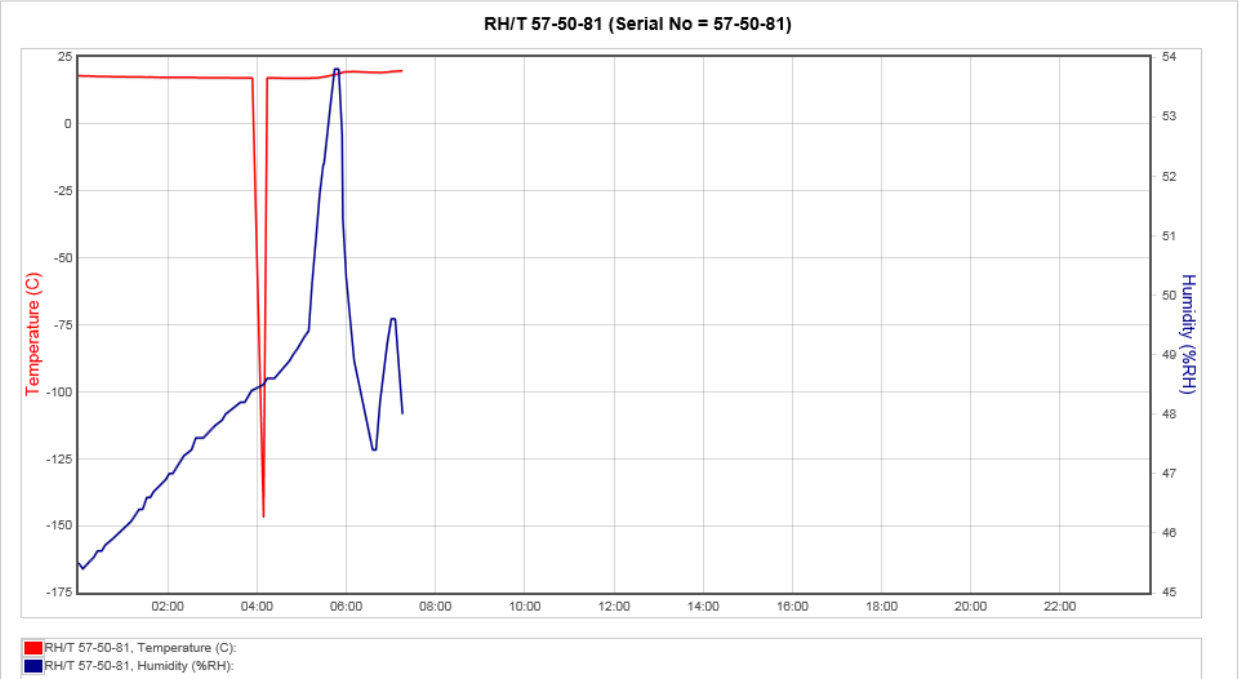


Figure 165

The User Defined Scale for this Sensor is -40°C to +40°C and 0% to 100% Relative Humidity. Using **Auto Scale** has rescaled the graph to -150°C to 23°C and -165% [theoretical] to 20% Relative Humidity.

4.4.9 Export Data

The data associated with **Day** and **Week** interval graphs can be saved to a comma separated variables file, (.CSV). The entire Day or Week's data will be exported, irrespective of the current zoom state when the data is exported. To export data click **Export Data**.

Once clicked you may be asked to choose between saving the file and opening with your computer's default spreadsheet application (see Figure 166). However, the exact action will depend on the browser you are using, the default settings for your browser and the computer operating system and its setup. If you require assistance with this contact your system administrator or IT support provider, please do NOT contact IMC Technical Support, as this is help that only your administrator / support provider can supply.

4.4.10 Print Graph

The Print Graph function allows you to save a picture of the graph (line or bar chart) in .pdf format. Clicking on the **Print Graph** button gives the browser's standard "Do you want to open or save . . ." window. (Example below is for Internet Explorer.)

Figure 166

Clicking **Open** displays the graph in a .pdf window, with IMC headers and footers:

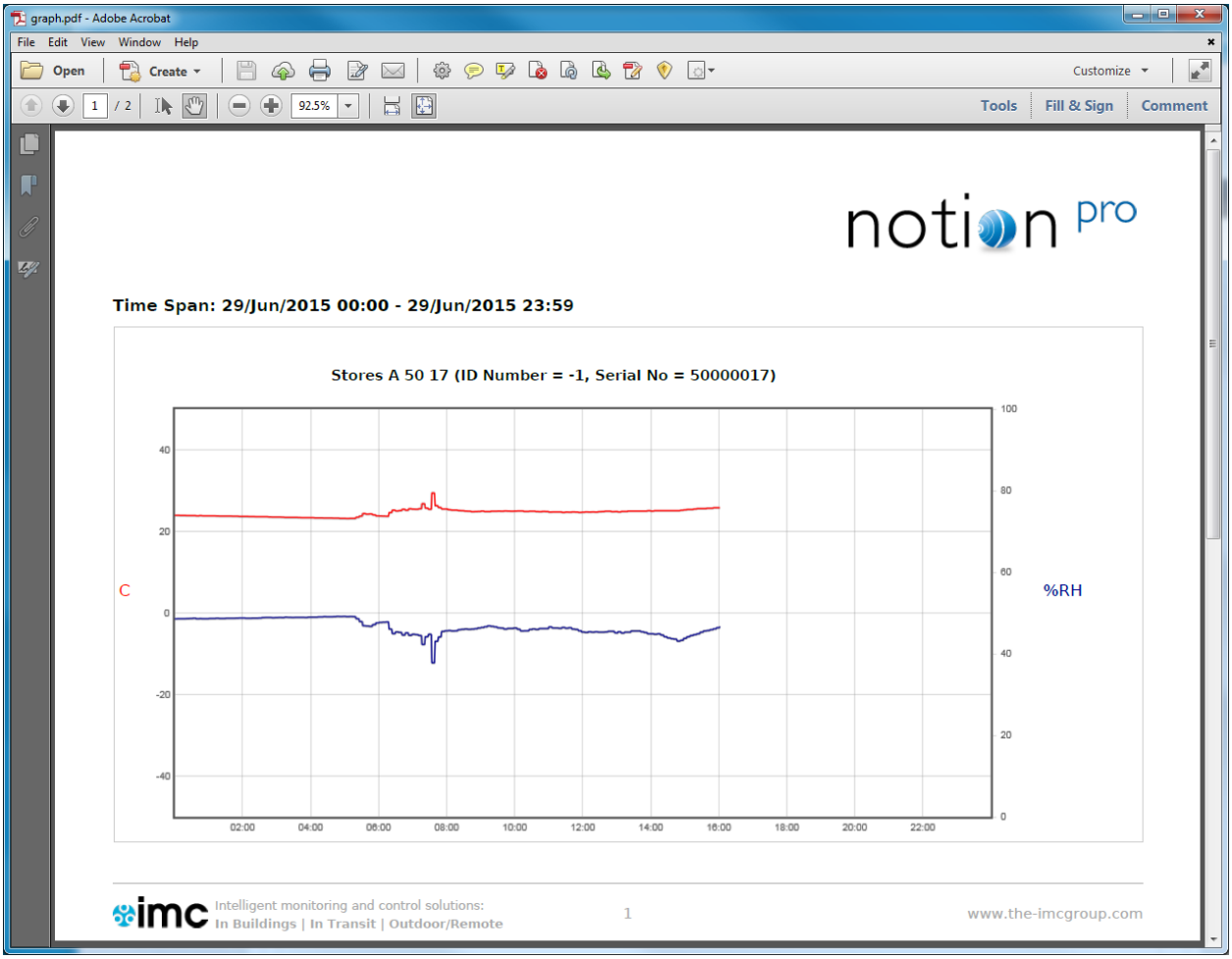


Figure 167

Select **File>Save As…** to save the file to your desired location with name graph.pdf, renaming the file if required.

4.4.11 Start of Data, End of Data

Select **Start of Data** to change the graph display to the date/time when data was first recorded by the sensor. **End of Data** returns the display to the show data at the current date/time.

4.4.12 Go Back

Click this button to go back to the **Live View** display for the Zone at the top of the **Live View** list (see Figure 142).

4.4.13 Zooming In

The graph can be zoomed by using the mouse. To Zoom in on a section of the graph place the mouse cursor at the place where you want to Zoom in on, click and hold the left mouse button and move the mouse to cover the section of the graph to Zoom in on.

When the area required is highlighted release the left mouse button, see Figure 168 below.

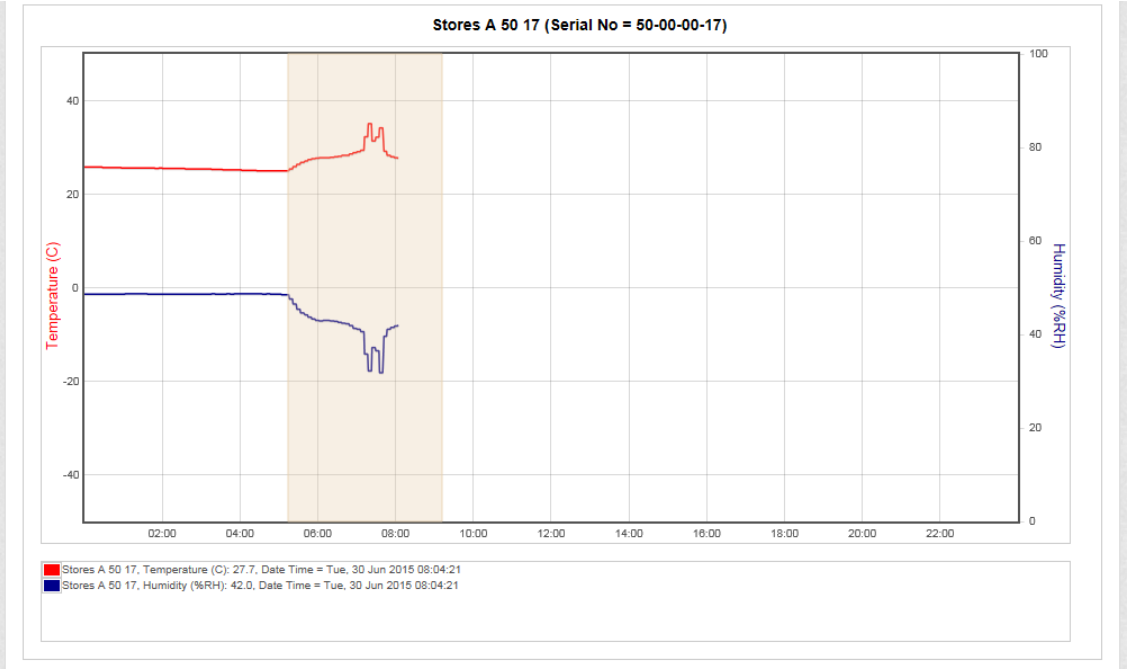


Figure 168

The graph will re-draw, zoomed into the area selected, see Figure 169 below.

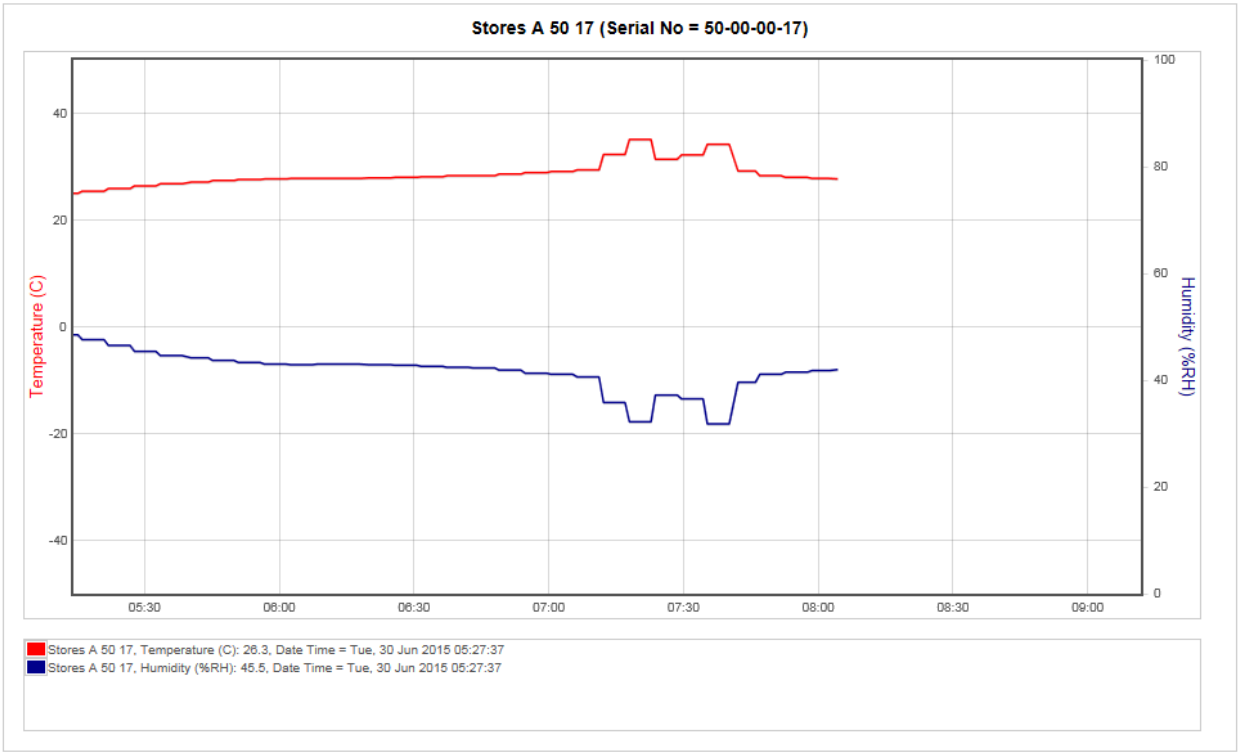


Figure 169

Once the graph has been zoomed a new button (**Zoom Out**) will appear on the graph toolbar, see Figure 170 below.

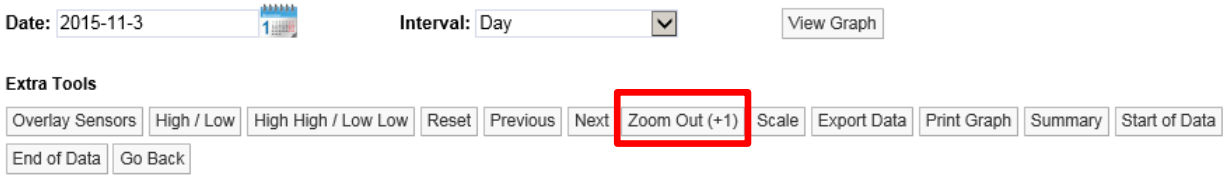


Figure 170

The new button will Zoom the graph out. You will see that Zoom Out is followed by a number in brackets. In the example above (+1) tells you that the graph has been zoomed one time. If the number in brackets was (+3) that would indicate that the graph has been zoomed three times.

Clicking the **Zoom Out** button once will take you back one step. To go back to no Zoom in one step you can select **Reset**. Once the graph has been returned to an un-zoomed view the **Zoom Out** button will disappear.

4.4.14 Graph Title

The graph title appears above the graph and is auto generated by the system. The name consists of the Station name allocated by the user when the Sensor was added to the system and the serial number, see Figure 171.

Figure 171

4.5 Plan View

Notion Pro allows the User to allocate **Plans** to a Zone. Plan View gives a graphical view of the data. To access Plan View select **Plan View** from the **View Data** menu from the top menu bar, see Figure 172 below.

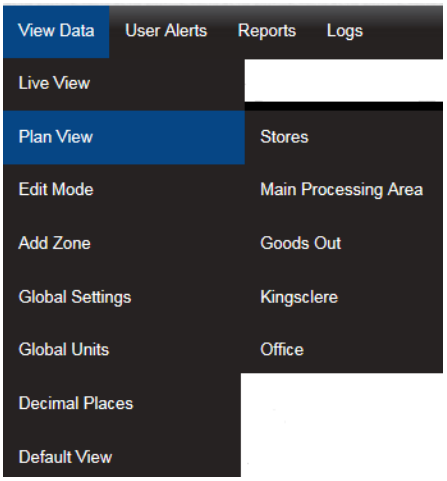


Figure 172

To add a Plan select **Browse** to locate a suitable **Plan**, suitable **Plan** formats are .gif, jpg and .png and should be no larger than 30K, see Figure 173 below for example.

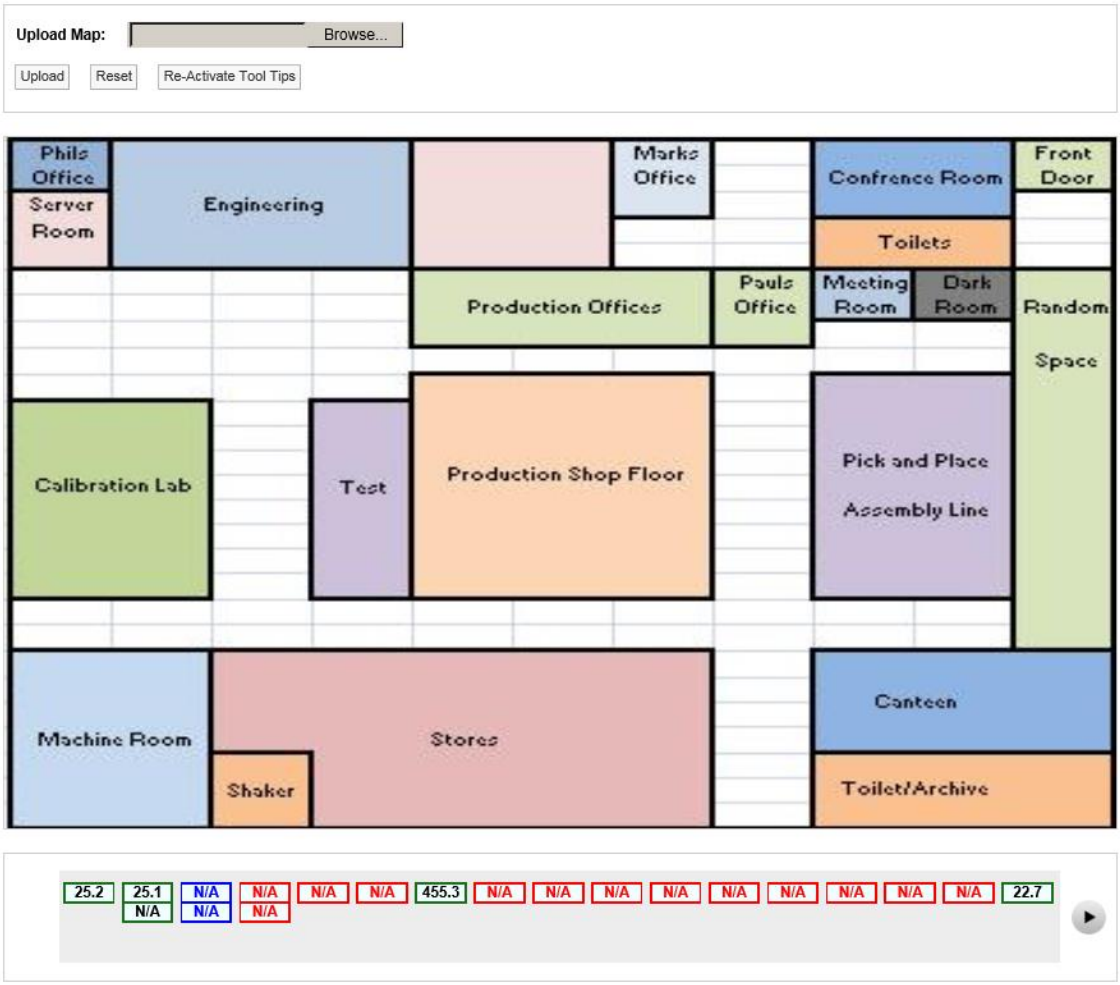


Figure 173

Once a suitable Plan has been located select **Upload** to load the image.

When a plan is first loaded all the sensor icons will be located along the bottom bar. The icons can be dragged to the Plan by moving the mouse pointer over the icon, holding down the left mouse button and dragging the required sensor icon to the desired location on the Plan, see Figure 175 below for example. You must have the Plan View Edit Permission set to **Allow** to be able to do this (System Administrator users only, unless the System Administrator has assigned the permission to you).

'Out of Service' sensors are displayed on the Plan View in blue, see Figure 174.

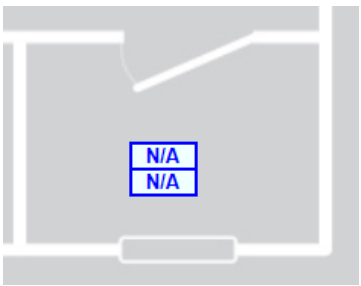


Figure 174

Figure 175

Each channel is represented by a single block. A double-channel device is represented by two blocks, a three-channel device by three blocks. See Figure 176 for example.

Figure 176

If required all icons can be removed from the **Plan** to the bottom bar, to perform this function select **Reset**, you will get a confirmation request, see Figure 177 below.

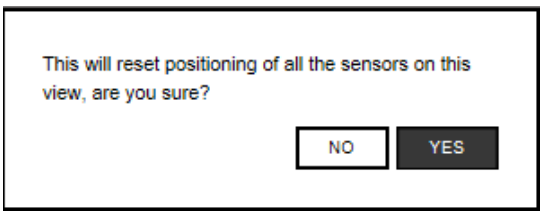


Figure 177

To continue select **YES**, all icons will be moved to the bottom bar.

Moving the mouse pointer over a Sensor icon displays a tool tip with the sensor name and its parent Zone. See Figure 178. Click **Re-Activate Tool Tips** if the tool tips are not visible.

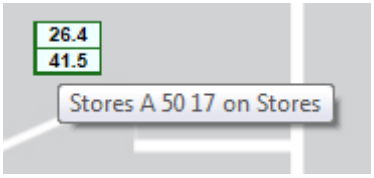


Figure 178

4.6 Global Settings

Global Settings allows alarm disable times and days to be set across a range of Sensors. To access Global Settings select **Global Settings** from the **View Data** menu from the top menu bar, see Figure 179 below.

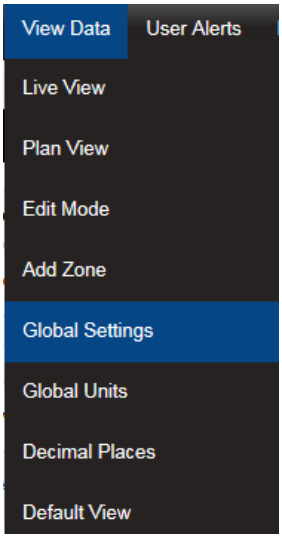


Figure 179

After selecting **Global Settings** a new page will appear, see below.

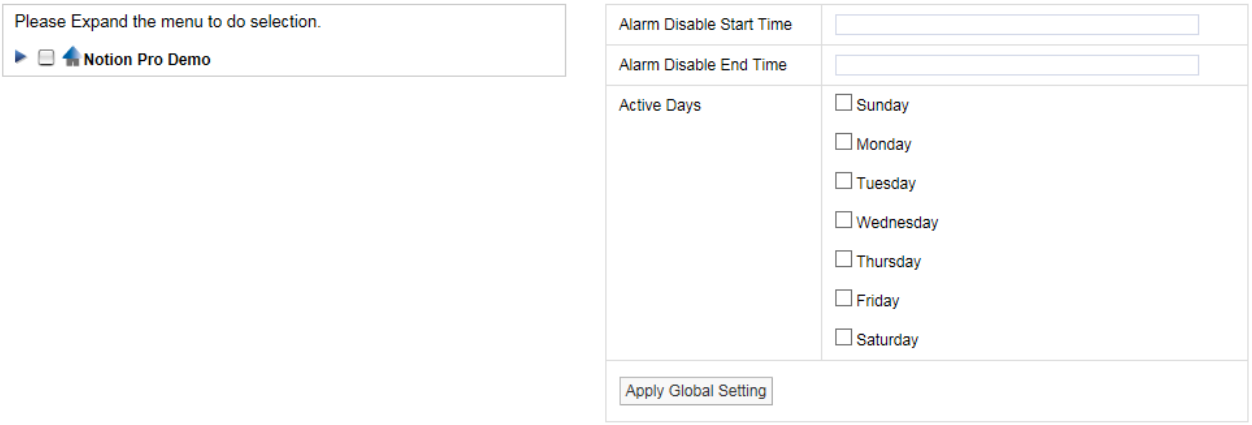


Figure 180

For information on setting times and days see section 3.4.1 (System Administrator Users only), once the times and days have been set use the **Site** and **Zone** tree on the left side to select which Sites and Zones to apply the changes to. (Click on the desired Site, the Zone tree then expands underneath it, see Figure 181 below for an example.)

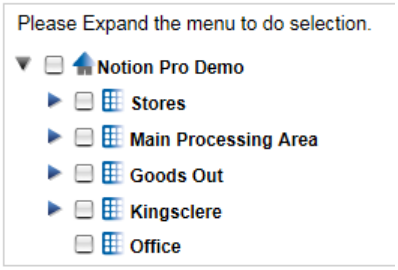


Figure 181

For example, setting Active Days to Sunday to Saturday (Figure 180), then using the tree view illustrated in Figure 181 to select those Zones (or individual sensors within the Zones) to which the global settings are to apply, then selecting **Apply Global Setting** will result in all selected sensors becoming active Sunday-Saturday inclusive.

4.7 Global Units

Global Units allow common Sensor value types to be displayed using alternative units, for example displaying Temperature values as Fahrenheit instead of Celsius. To access the **Global Units** window, select **Global Units** from the **View Data** menu, see Figure 182 below.

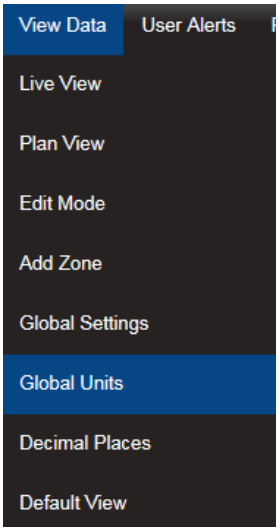


Figure 182

After selecting Global Units the **Edit/View Global Units** window will display, see Figure 183 below.

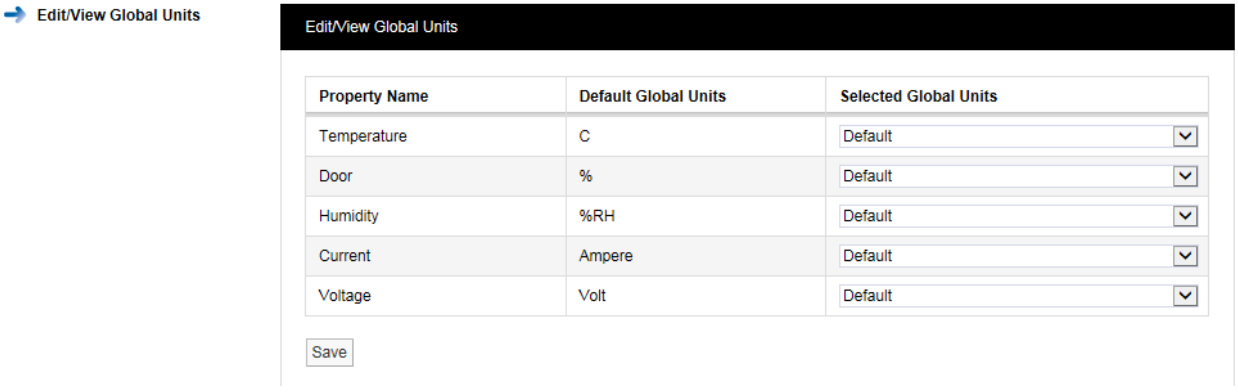


Figure 183

To change the units used for Temperature, for example, click the down arrow to the right of Default and select the required unit option, F or K, see Figure 184 below, then click **Save**. When asked '**Are you sure?**' click **YES** to confirm.

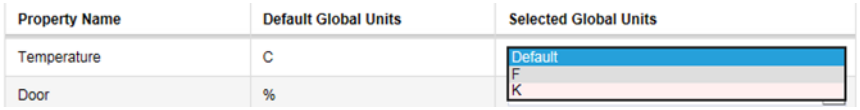


Figure 184

4.8 Decimal Places

The decimal places facility allows you to set the number of decimal places to be used to display sensor data. To access the facility, begin by selecting **View Data>Decimal Places** (see Figure 185) to give the **Decimal Place Setting** window, see Figure 186.

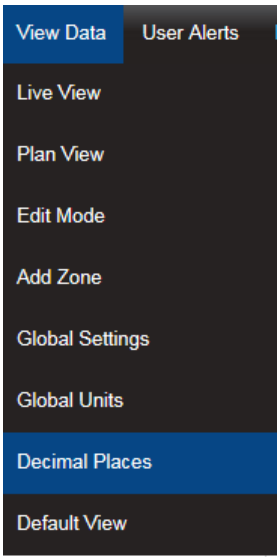


Figure 185

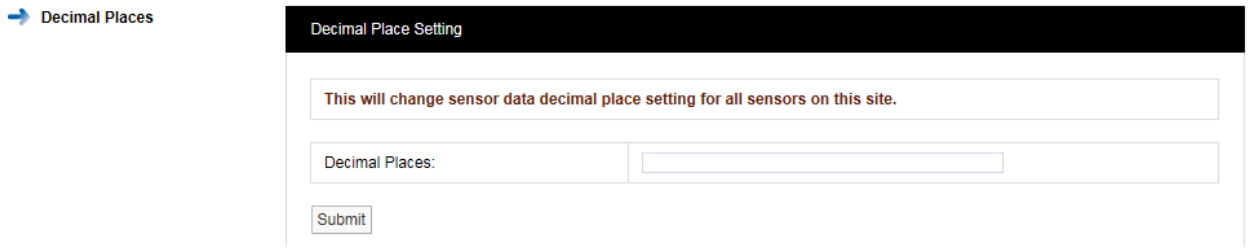


Figure 186

Enter the number of decimal places you require in the Decimal Places: field and click **Submit.** A confirmation window will appear confirming that the setting has been applied, see Figure 187 below.

Figure 187

4.9 Default View

The Live View is the default view type following Notion Pro install, but you can change this to the Plan View if required. To do this, begin by selecting **View Data>Default View**, see Figure 189 below.

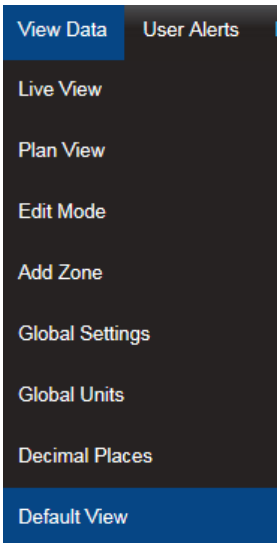


Figure 188

This selection give the **Default View Setting** dialogue box, see Figure 189.

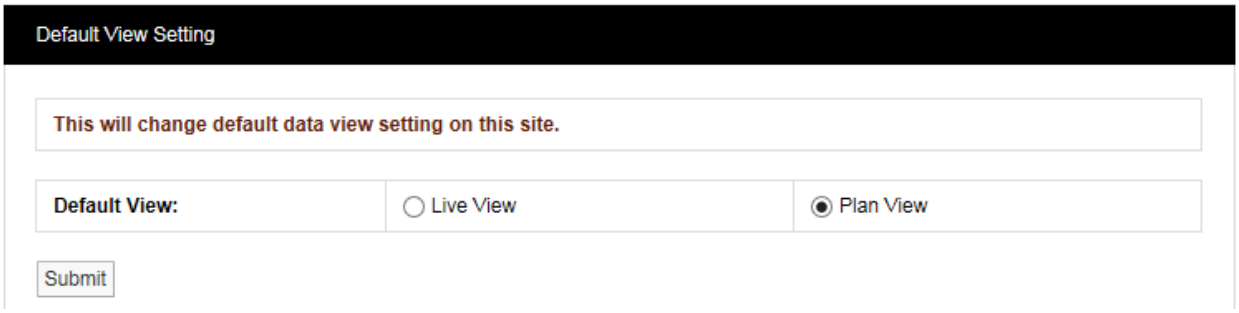


Figure 189

Select the required default view type, then click **Submit**.

5 Alarm Management

This section will take you through managing alarms generated by the system. When the **User** first signs in to Notion Pro the first screen gives an overview of the system. The overall system alarm status can be seen by looking at the Alarm icons under **Alarm Status**, see Figure 190 below.

5.1 System Status Overview

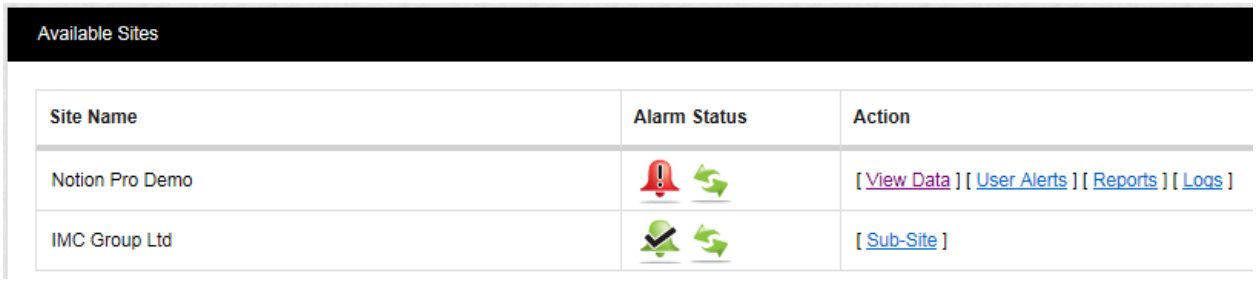


Figure 190

We can see that there are alarms on the Notion Pro Demo Site, but no alarms on the IMC Group Site.

5.1.1 System Messages

System Messages can be viewed from the System Message Alert icon, see the example Figure 191 below.

Figure 191

The three coloured dots indicate the system message status:

- **White** there are no system messages
- **Amber** there no new unread system messages
- **Red** there are new unread system messages

To view the **System Messages** click on the **System Status** message bubble. A new window will appear, see Figure 192 below for example.

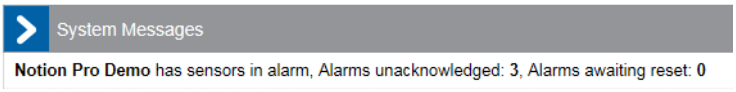


Figure 192

The **System Messages** inform you of where on the system the Alarms are. Once this window is closed the **System Message** bubble changes to amber which indicates that there are still live messages but there are no new ones since the last time the **System Messages** were checked, see Figure 193 below.

Figure 193

The **Status Message** bubble is amber.

5.1.2 System Alarm Status Overview

The **Alarm** icon on the top right of the main screen gives a system wide view of the **Alarm** status, see the example in Figure 194 below.

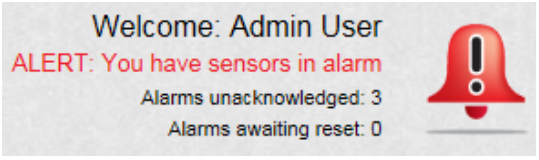


Figure 194

The following data is shown:

- The User that is logged in, in this example it is **Admin User**
- The number of unacknowledged alarms, in this example there are three
- The number alarms awaiting reset, in this example there are none.

The individual **Site** icons show the alarm status for that individual Site only, see Figure 190. The icon indicates that Control Device communications are operating normally, (see section 5.1.3 below for details).

5.1.3 Communications Status

The green connection icon, shown under **Alarm Status** on the Available Sites dialog box, indicates that communications to all control devices, (such as Network Receivers), associated with the site are operating normally.

If communications have been lost to one or more of the sites control devices, the connection icon will display in red and entries will be added to the activity log, (see Section 7.1).

5.1.4 Locating Alarms on the System

There are two ways that you can find Alarms on the system:

Method 1

Select **Home** (or **System Overview**) from the main menu bar.

This takes you to the main System Overview (Available Sites) screen (see Figure 190). If any Sites that are visible are in Alarm their individual Alarm icons will have turned red.

Method 2

Click on the main **Alarm** icon, see Figure 195 below.

Figure 195

Wherever you are in Notion Pro, clicking this icon will take you back to the System Overview screen, so you can tell which Site(s) contain the sensors that are in alarm.

5.2 Acknowledging Alarms

5.2.1 Acknowledge Individual Alarms

To acknowledge an individual **Alarm** click on the **Red Alarm Bell** in the line in the **Live View** corresponding to the Sensor that you want to acknowledge the alarm for. The **Acknowledging Alarm for** window appears, see Figure 196 below.

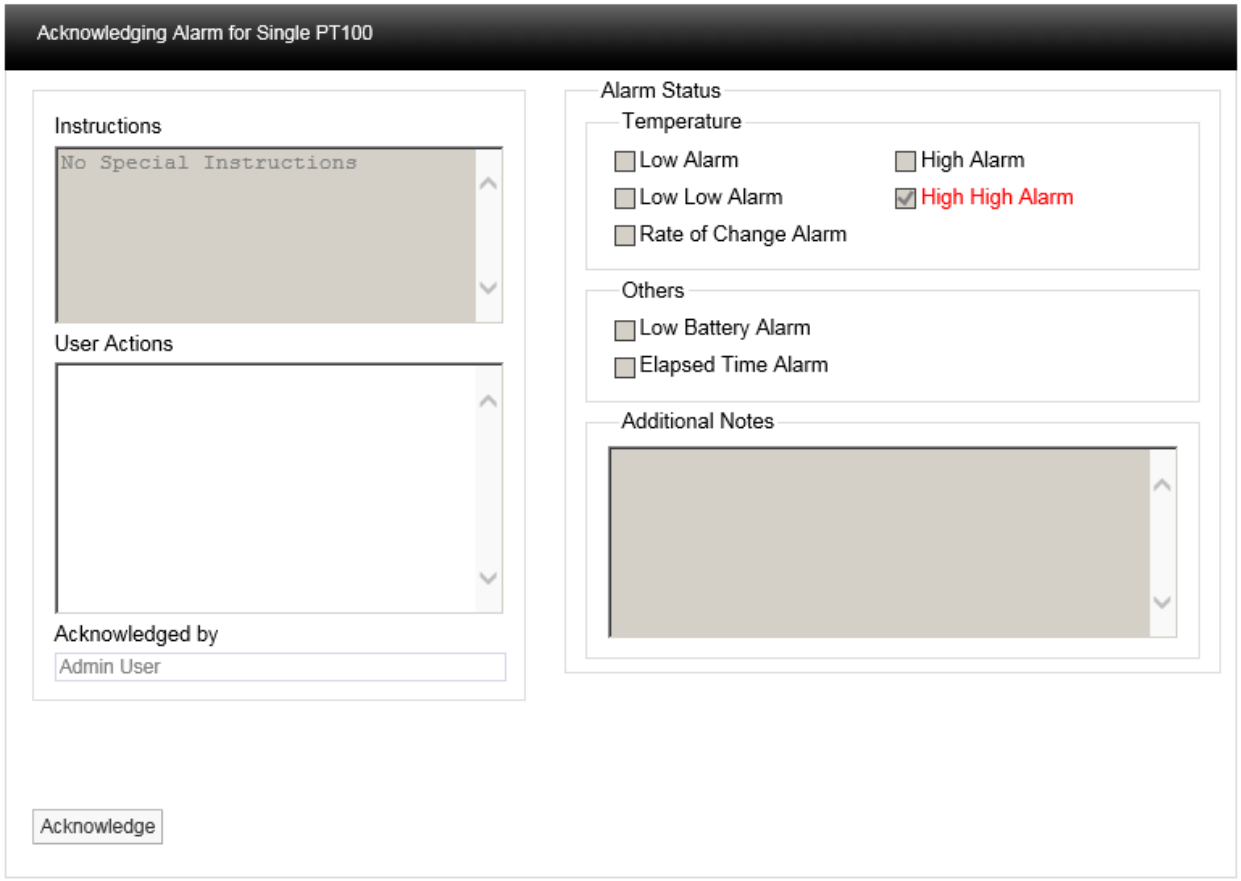


Figure 196

The type of **Alarm** will be highlighted in **Red**, in this example it is a High High Alarm for **Temperature**. If there were special instruction added when the alarm parameters were set these would appear in the Instructions text box. For more information on Instructions see section 3.4.3 (System Administrator Users only).

In the **User Actions** text box enter a note that is relevant to the Alarm, for example “Humidifier out of water, humidifier tank filled up”. You cannot acknowledge the Alarm without putting something in this dialog box. When happy click **Acknowledge**. The window will close and the Alarm icon will turn amber which indicates an acknowledged state.

When you are satisfied that either the cause of the alarm has been resolved and the conditions returned to normal limits the Alarm can be completed. To reset the alarm click on the amber icon, the **Reset Alarm** window will appear, see Figure 197 below.

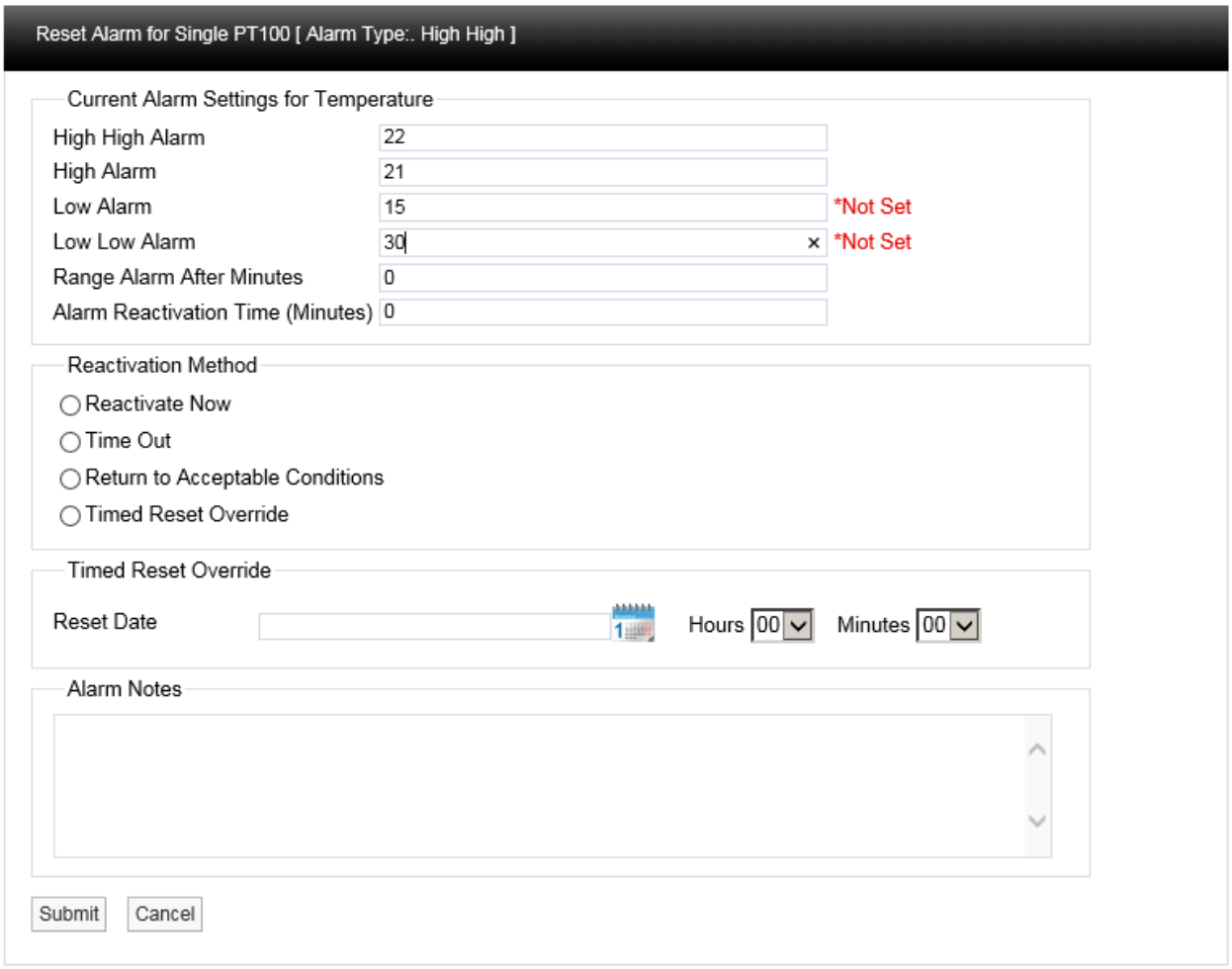


Figure 197

This window allows several features to be used.

The **Current Alarm Settings** are displayed at the top of the window, if the logged in User has the **Permissions** these limits can be adjusted at this stage. **Caution Note:** Any changes made here will be written back to the main database.

There are four methods available to reset the Alarm:

Reactivate Now

If **Reactivate Now** is selected as soon as you select **Submit** the Alarm will be acknowledged. If the Alarm condition still exists the status will return to red and a new Alarm will be generated on the system. If the Alarm conditions have returned to normal the amber Alarm icon will be removed from the list.

When selecting **Reactivate Now** a default message "**Reactivate Now was selected for this Alarm**" will be entered into the **Alarm Notes** text box. This can be added to or overwritten.

Time Out

If **Time Out** is selected as soon as you select **Submit**. The Alarm will be acknowledged after the time delay entered into the **Alarm Reactivation Time (Minutes)** dialog box. If the Alarm condition still exists after the Time Out period the status will return to Red and a new Alarm will be generated on the system, if the Alarm conditions have returned to normal the amber Alarm icon will be removed from the list.

When selecting **Time Out** a default message "**Time Out was selected for this Alarm**" will be entered into the **Alarm Notes** dialog box. This can be added to or overwritten.

Return to Acceptable Conditions

If **Return to Acceptable Conditions** is selected, as soon as you select **Submit** the Alarm will be acknowledged as soon as the conditions return to normal limits. The amber Alarm icon will remain until the conditions return to normal limits.

When selecting **Return to Acceptable Conditions** a default message "**Return to Acceptable Conditions was selected for this Alarm**" will be entered into the **Alarm Notes** text box. This can be added to or overwritten.

Timed Reset Override

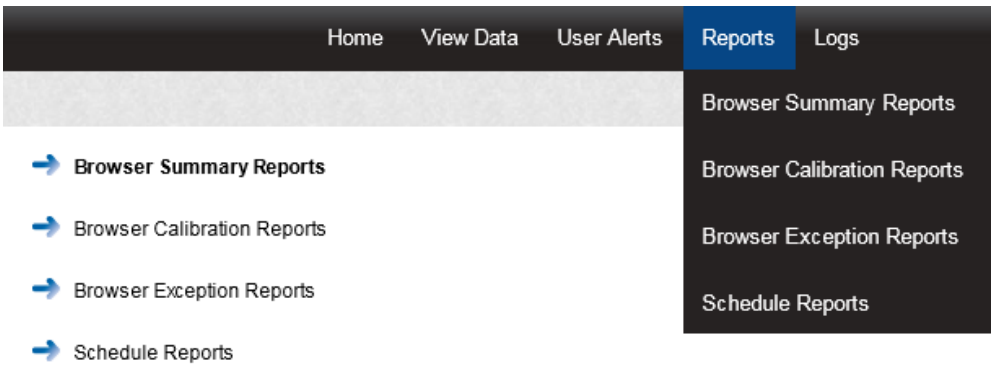
This feature allows you to defer the Alarm reset until a date in the future. To enter the required date select the calendar icon and select the date. This will be entered in the dialog box next to **Reset Date**. Select the time of day from the **Hours** and **Minutes** drop down menus.

This feature would be used if for example the air conditioning in a room or space failed and it was going to take several days to get an engineer in to carry out repairs. In this case the Alarms would be going off all the time which is an inconvenience.

Using this feature requires you to manually enter a note into the **Alarm Notes** text box. A suitable note might be "Engineer called to repair Humidifier unable to attend site before next Friday"

When happy with the details select **Submit**.

6 Reports



Notion Pro can produce a variety of **Reports**. These can be tailored to a customer's individual specifications. The report will be in PDF format with the option to have a CSV data file attached.

Scheduled Reports are user configurable and once configured to be auto generated on a daily, weekly or monthly basis and sent to the user by email. The on-screen reports can be downloaded and saved in PDF format.

Four types of **Report** can be produced:

6.1 Summary Reports

(Reports>Browser Summary Reports)

These can be divided into two sub-types:

- **Sensor Reports** - Summaries of data collected over the past week by selected sensors. You can also generate Reports for sensors of a selected **type** (temperature for a Temperature Sensor, current for an Energy Sensor etc.) over a specified date range (the past week by default).
- **Zone Report**s - Summaries of data collected by all Sensors in a given Zone for a specified date range.

To generate a Summary Report:

1. Select **Reports>Browser Summary Reports** to give the **Browser Summary Report** dialog box, see Figure 198 for example.

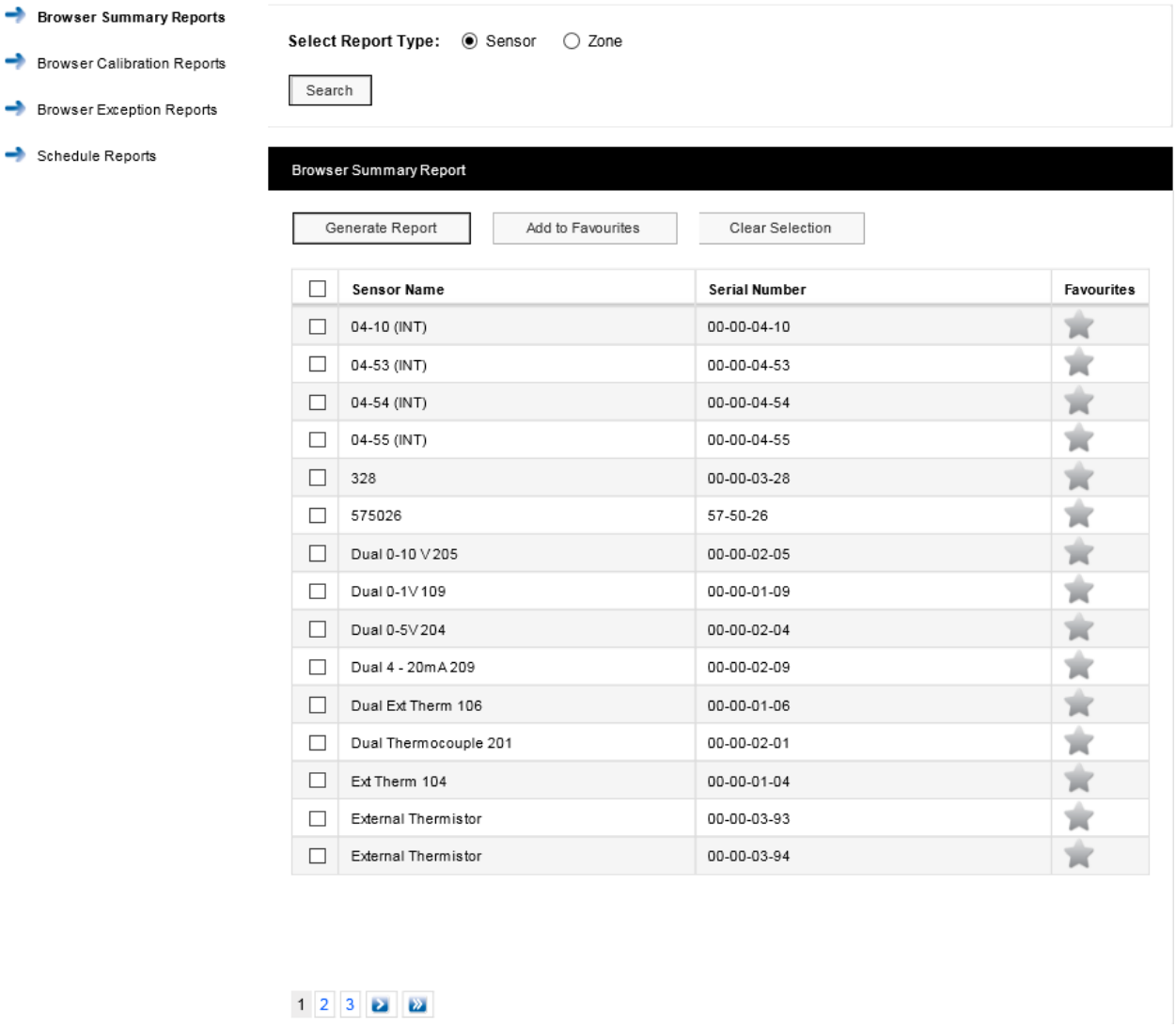
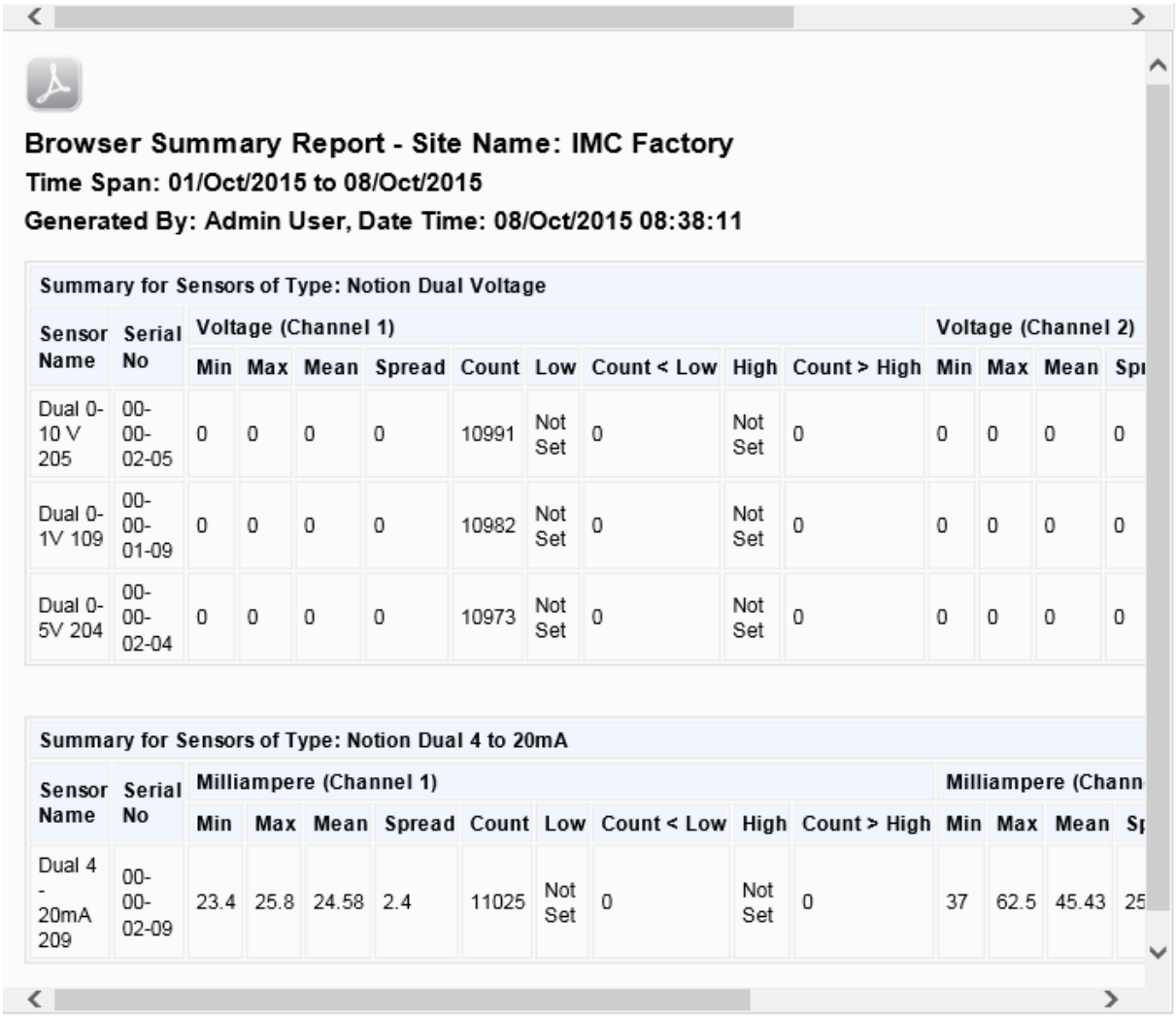


Figure 198

The sensor list is for all sensors of all types across your Site. To report on one or more Sensors:

1. Ensure that the Sensor option button is selected.
2. Select the sensor(s) of interest from the **Sensor Name** list. If the list of sensors is long you may need to click on to see the next page in the sensor list. To select all sensors in the list simply click in the tick box next to **Sensor Name** at the top of the list.
3. Select **Generate Report**.

This gives a report in .pdf format. For example, see Figure 199:



Browser Summary Report - Site Name: IMC Factory
Time Span: 01/Oct/2015 to 08/Oct/2015
Generated By: Admin User, Date Time: 08/Oct/2015 08:38:11

Summary for Sensors of Type: Notion Dual Voltage

Sensor Name	Serial No	Voltage (Channel 1)									Voltage (Channel 2)			
		Min	Max	Mean	Spread	Count	Low	Count < Low	High	Count > High	Min	Max	Mean	Spı
Dual 0-10 V 205	00-00-02-05	0	0	0	0	10991	Not Set	0	Not Set	0	0	0	0	0
Dual 0-1V 109	00-00-01-09	0	0	0	0	10982	Not Set	0	Not Set	0	0	0	0	0
Dual 0-5V 204	00-00-02-04	0	0	0	0	10973	Not Set	0	Not Set	0	0	0	0	0

Summary for Sensors of Type: Notion Dual 4 to 20mA

Sensor Name	Serial No	Milliampere (Channel 1)									Milliampere (Chann			
		Min	Max	Mean	Spread	Count	Low	Count < Low	High	Count > High	Min	Max	Mean	Sp
Dual 4 - 20mA 209	00-00-02-09	23.4	25.8	24.58	2.4	11025	Not Set	0	Not Set	0	37	62.5	45.43	25

Figure 199

Note that you need to use the scroll bar at the top (or bottom) to see all of the Report. If you wish to save the report, click on to give the standard browser Save dialog box (example below is for Internet Explorer):

Select **Save** or **Save as** to save the .pdf file to the required location.

There may be sensors that you often wish to report on. You can specify these as 'favourite' sensors. To do this, select the grey star symbol next to the sensors of interest. The star colour changes to blue and the row containing the sensor becomes highlighted. See Figure 200 for example:

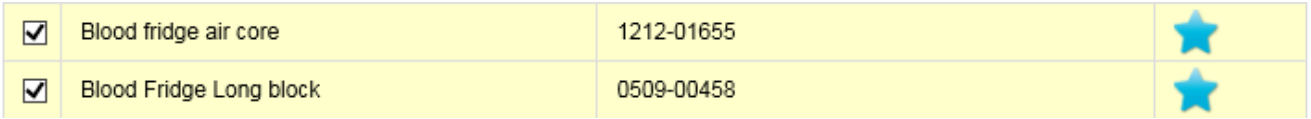


Figure 200

Having specified your 'favourite' sensors, select **Add to Favourites**. If you then nominate other sensors as 'favourites' select the grey star for the sensors of interest then select **Update Favourites**.

Your favourite sensors will then move to the top of the Sensor List and **Generate Report** will generate a report for your favourite sensors.

Having generated a Report, to generate Summary Reports for a selected sensor **type** over a specified date range, first use the icon to choose the required Start and End dates (or enter the required dates directly into the Start Date and End Date boxes), then select the required sensor type from the Select Sensor Type pull-down list. Click **Search** to generate the specified Report. See Figure 201 below.

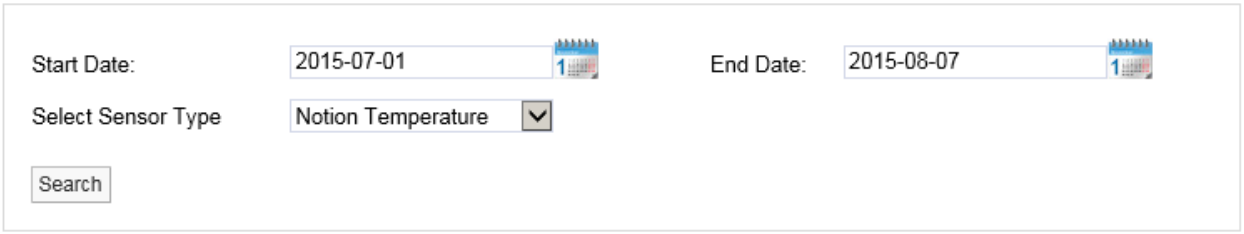


Figure 201

Note: you will only see the date range selection controls after you have already generated a Report.

To report on a **Zone**, ensure that the Zone option button is selected. Click Search to generate a list of Zones for your Site. See Figure 202 for example.

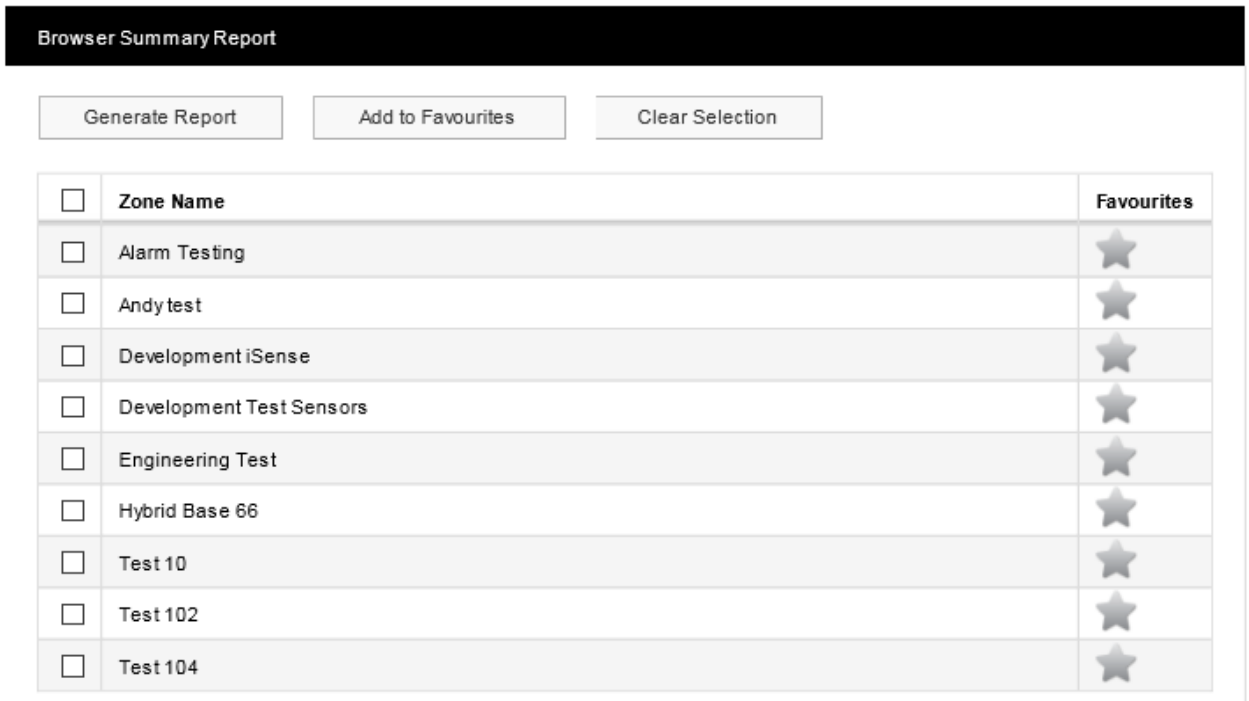


Figure 202

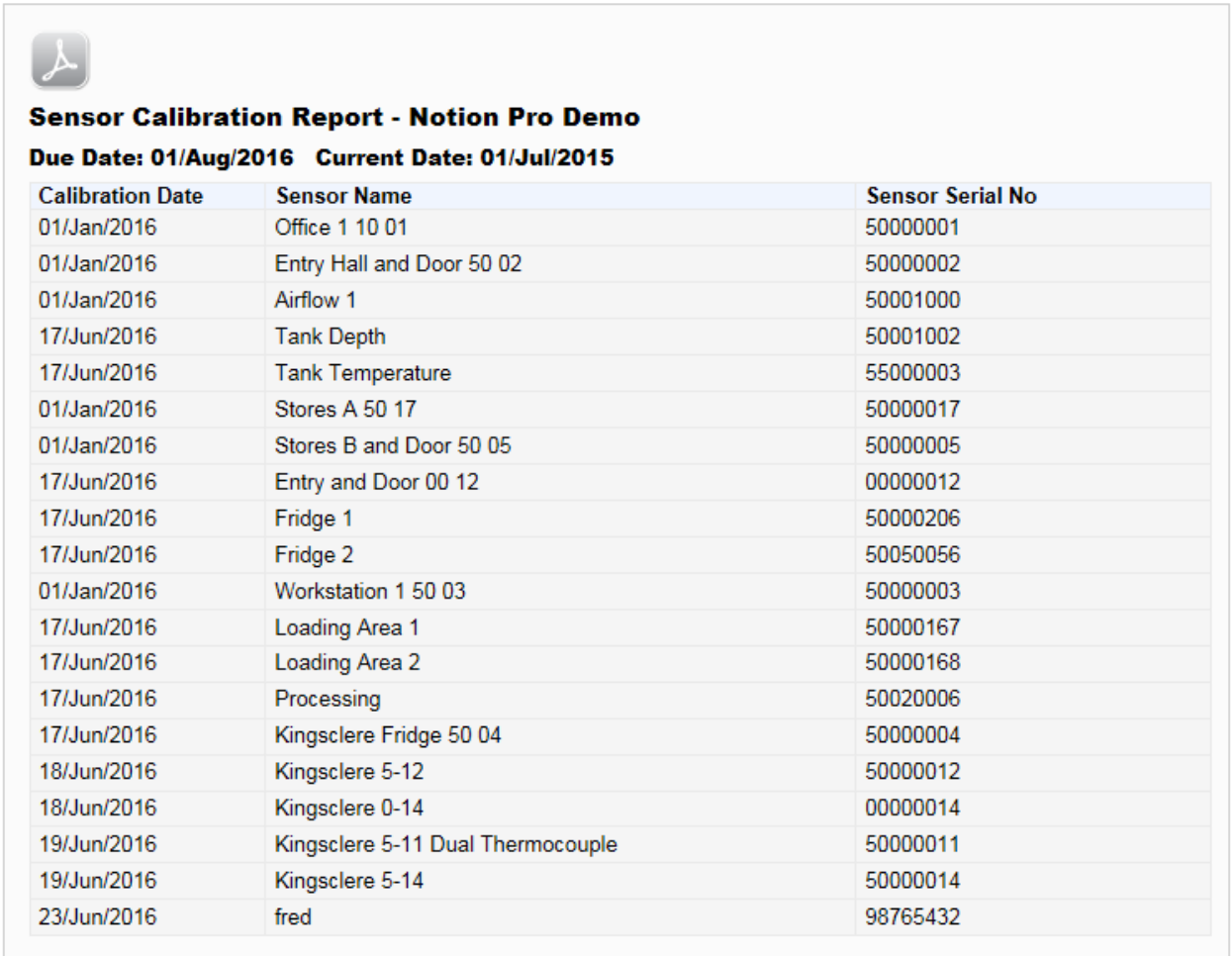
To generate a report for all sensors in a Zone simply select the Zone of interest from **Zone Name** list then select **Generate Report**. You can select 'favourite' Zones, or sensor types and date ranges using the same methods as detailed above for sensors.

6.2 Calibration Reports

(Reports>Browser Calibration Reports)

A simple report of sensors that need calibrating on a given date. This is one month from today's date by default, but the example below shows sensors due for calibration within one year of the current date.

For example:



Sensor Calibration Report - Notion Pro Demo

Due Date: 01/Aug/2016 Current Date: 01/Jul/2015

Calibration Date	Sensor Name	Sensor Serial No
01/Jan/2016	Office 1 10 01	50000001
01/Jan/2016	Entry Hall and Door 50 02	50000002
01/Jan/2016	Airflow 1	50001000
17/Jun/2016	Tank Depth	50001002
17/Jun/2016	Tank Temperature	55000003
01/Jan/2016	Stores A 50 17	50000017
01/Jan/2016	Stores B and Door 50 05	50000005
17/Jun/2016	Entry and Door 00 12	00000012
17/Jun/2016	Fridge 1	50000206
17/Jun/2016	Fridge 2	50050056
01/Jan/2016	Workstation 1 50 03	50000003
17/Jun/2016	Loading Area 1	50000167
17/Jun/2016	Loading Area 2	50000168
17/Jun/2016	Processing	50020006
17/Jun/2016	Kingsclere Fridge 50 04	50000004
18/Jun/2016	Kingsclere 5-12	50000012
18/Jun/2016	Kingsclere 0-14	00000014
19/Jun/2016	Kingsclere 5-11 Dual Thermocouple	50000011
19/Jun/2016	Kingsclere 5-14	50000014
23/Jun/2016	fred	98765432

Figure 203

To generate a Calibration Report select **Reports>Browser Calibration Reports**, see Figure 204 below:

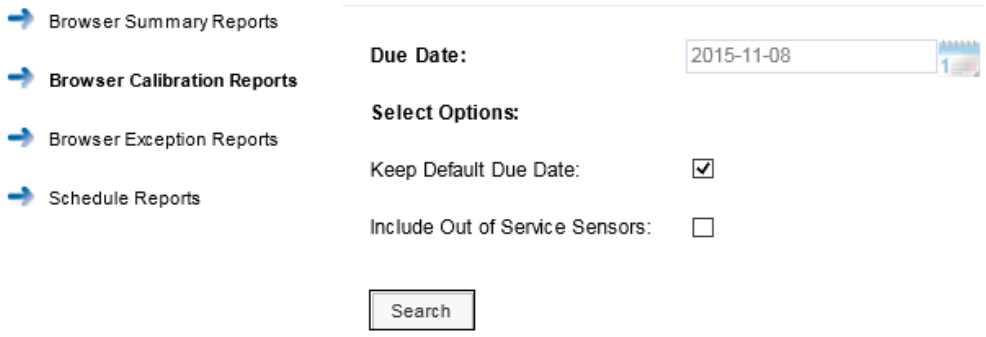


Figure 204

By default, a Report will be generated for all sensors which need to be calibrated one month from today's date. If you wish to select a different due date, clear the 'Keep Default Due Date' tick box then click the **Due Date** calendar and select the required date. There may be Sensors on your Site which are out of service, but may still be due for calibration. If you wish to include such sensors in the Report select 'Include Out of Service Sensors' tick box if. Click **Search** to generate the specified Report.

6.3 Exception Reports

(Reports>Browser Exception Reports)

Reports on ongoing alarm conditions, by Sensor or by Zone.

Selecting **Reports>Browser Exception Reports** gives the **Browser Exception Report** dialog box, see Figure 205 below for example.

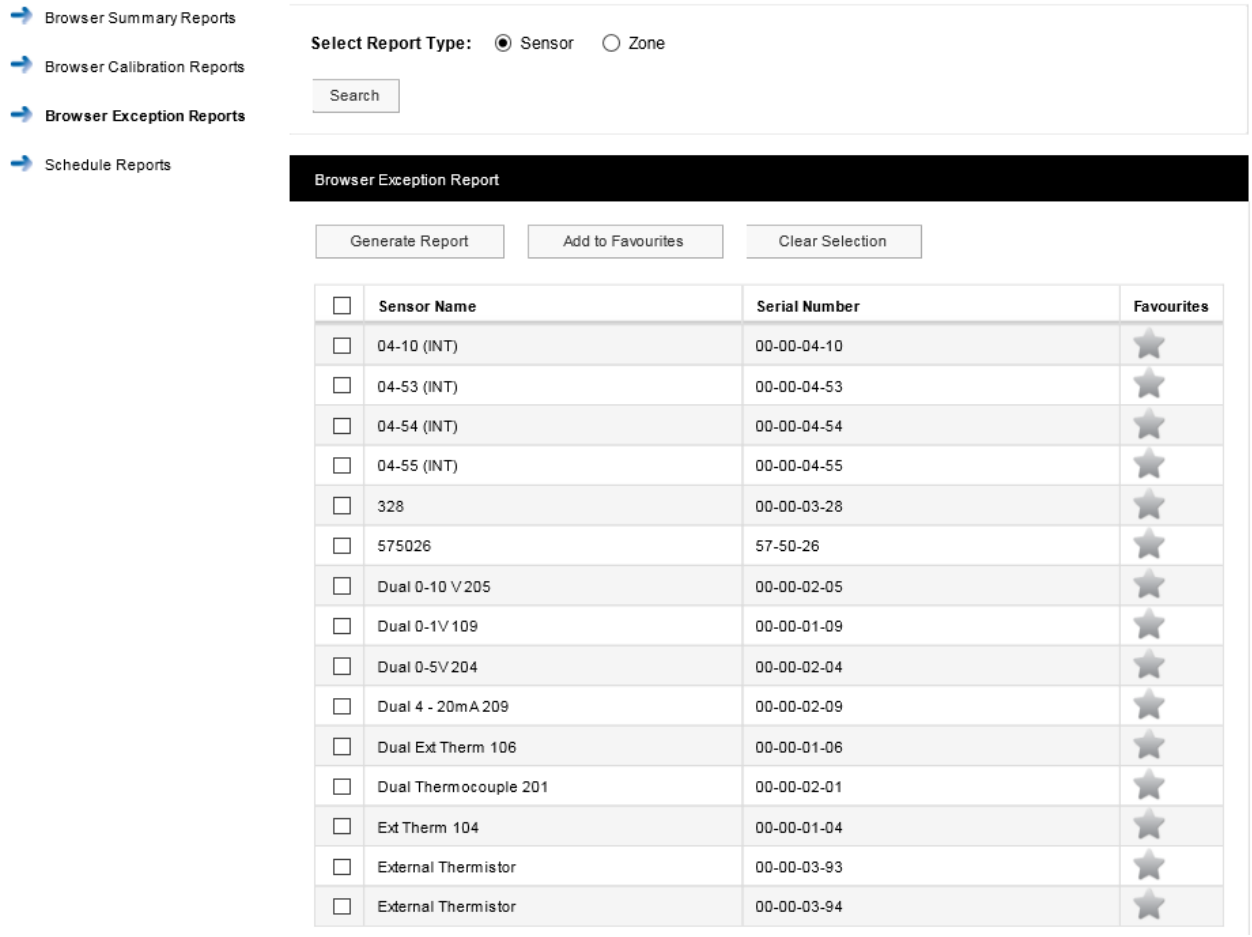


Figure 205

The sensor list is for all sensors of all types across your Site. To report on one or more Sensors:

1. Ensure that the Sensor option button is selected.
2. Select the sensor(s) of interest from the **Sensor Name** list. If the list of sensors is long you may need to click on to see the next page in the sensor list. To select all sensors in the list simply click in the tick box next to **Sensor Name** at the top of the list.
3. Select **Generate Report**.

This gives a report in .pdf format. See Figure 206 below for example.

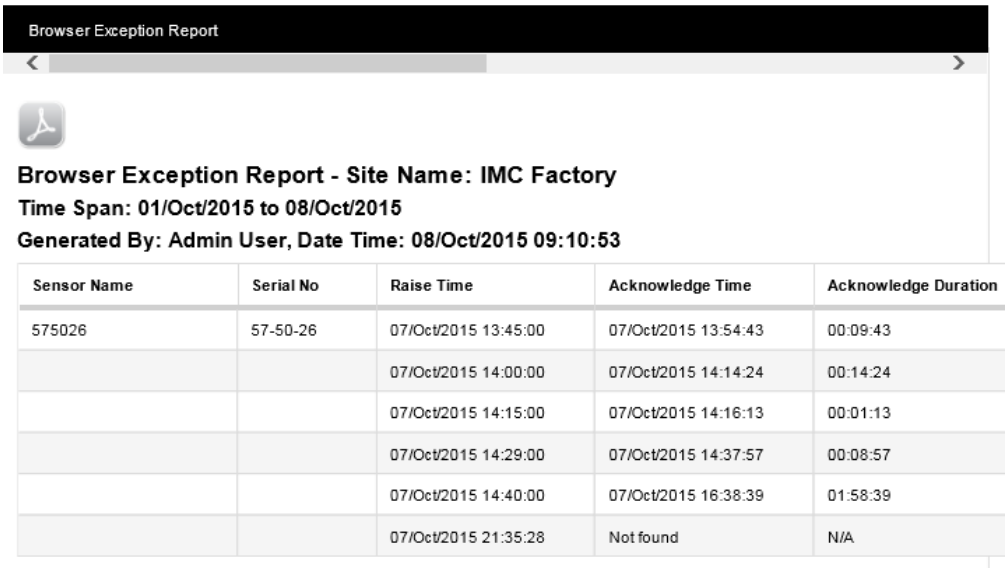


Figure 206

Note that you need to use the scroll bar at the top to see all of the Report. If you wish to save the report, click on to give the standard browser **Save** dialog box (example below is for Internet Explorer):

Select **Save** or **Save as** to save the .pdf file to the required location.

There may be sensors that you often wish to report on. You can specify these as 'favourite' sensors. To do this, select the grey star symbol next to the sensors of interest. The star colour changes to blue and the row containing the sensor becomes highlighted. See Figure 207 for example:

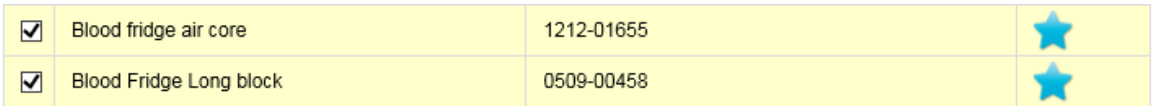


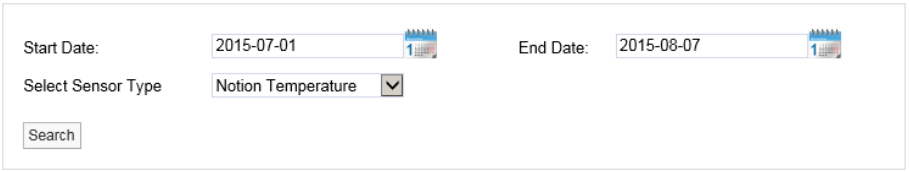
Figure 207

Having specified your 'favourite' sensors, select **Add to Favourites**. If you then nominate other sensors as 'favourites' select the grey star for the sensors of interest then select **Update Favourites**.

Your favourite sensors will then move to the top of the Sensor List and **Generate Report** will then generate a report for your favourite sensors.

Having generated a Report, to generate Exception Reports for a selected sensor **type** over a specified date range, first use the icon to choose the required Start and End dates (or enter the required dates directly into the Start Date and End Date boxes), then select the required sensor type from the Select Sensor Type pull-down list. Click **Search** to generate the specified Report.

Note: you will only see the date range selection controls:



after you have already generated a Report.

To report on a **Zone**, ensure that the Zone option button is selected. Click **Search** to generate a list of Zones for your Site. See Figure 208 for example.

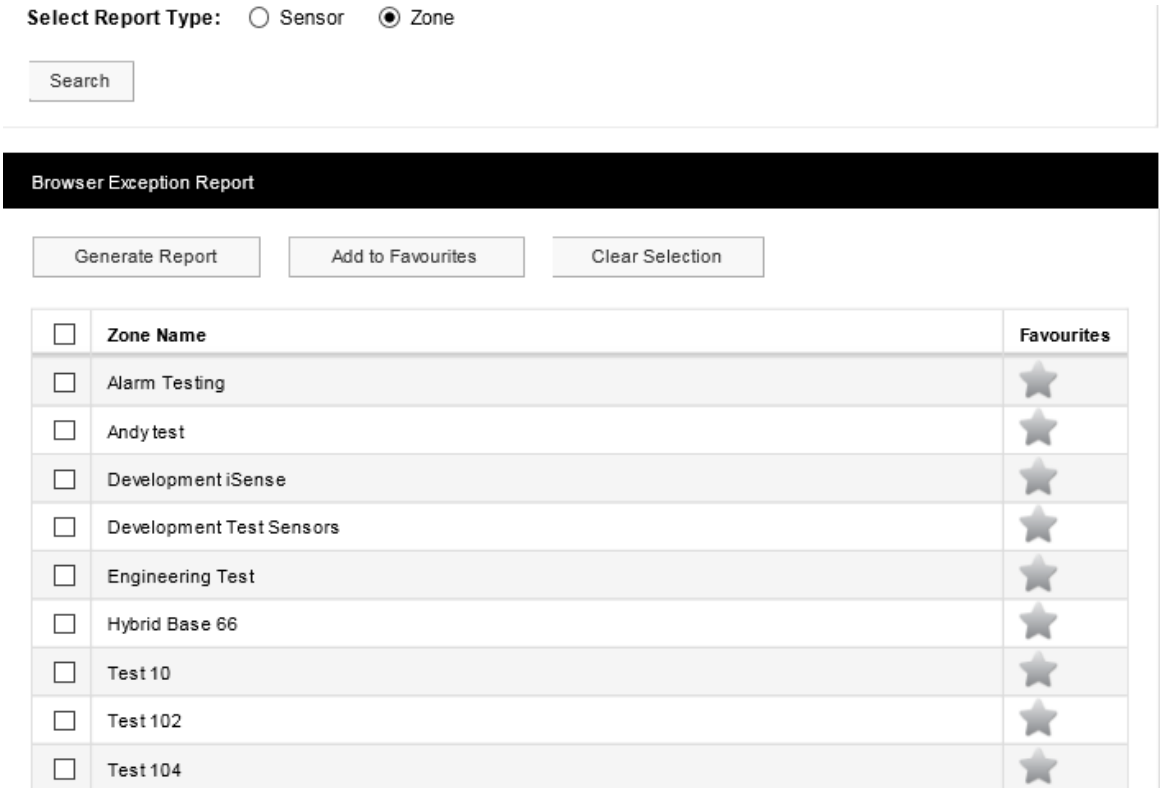


Figure 208

To generate a report for all sensors in a Zone simply select the Zone of interest from **Zone Name** list then select **Generate Report**. You can select 'favourite' Zones, or sensor types and date ranges using the same methods as detailed above for sensors.

6.4 Scheduled Reports

(Reports>Schedule Reports)

These cover a variety of Report types, which can be set up to start and end at predefined dates/times and can run at predefined intervals.

For example:

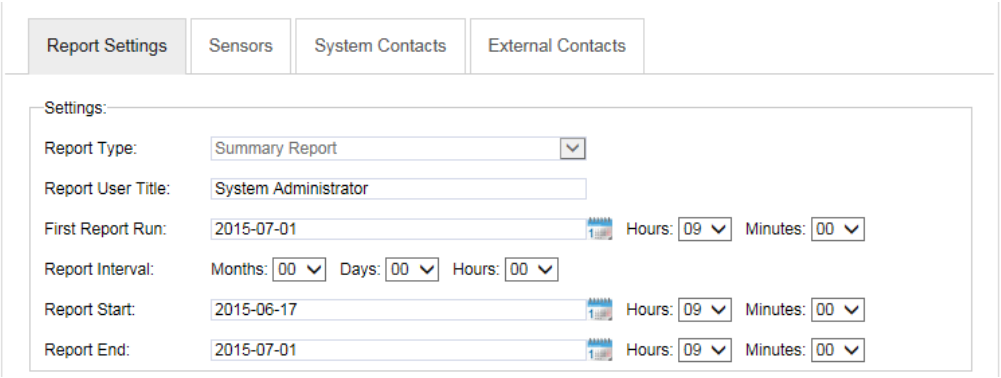


Figure 209

The above would generate a .pdf report which would be emailed to the System Administrator user(s). See Figure 210.

Time Span: 17/Jun/2015 to 01/Jul/2015

Summary for Sensor of Type: Notion Temperature

Sensor Name	Id	Min	Max	Mean	Spread	MKT
Office 1 10 01	-1	22.2	36.5	25.2	14.3	25.14
Workstation 1 50 03	-1	22.2	33.3	25.3	11.1	25.15

Summary for Sensor of Type: Notion Temperature/Door

Sensor Name	Id	Min	Max	Mean	Spread	MKT	Min	Max	Mean	Spread	N/A
Entry Hall and Door 50 02	-1	22.2	34.5	25.2	12.3	25.12	N/A	N/A	N/A	N/A	N/A
Stores B and Door 50 05	-1	18.5	38.6	25.3	20.1	25.15	N/A	N/A	N/A	N/A	N/A

Summary for Sensor of Type: Notion Dual Temperature

Sensor Name	Id	Min	Max	Mean	Spread	MKT	Min	Max	Mean	Spread	MKT
Stores C Stores D 50 16	-1	-90.4	26.4	23.5	116.8	-67.63	21.7	77.5	24.6	55.8	24.37

Summary for Sensor of Type: Notion Temperature/RH

Sensor Name	Id	Min	Max	Mean	Spread	MKT	Min	Max	Mean	Spread	N/A
Stores A 50 17	-1	0.0	327.7	5.9	327.7	1.79	0.0	327.7	10.3	327.7	N/A

Figure 210

The Sensors to be reported on and the Contacts who are to be emailed the report are defined in a similar way to the method used for Email Alert Groups, see section 2.5.1.

As an example, the steps to set up and run the Scheduled Report shown in Figure 210 might be:

1. Select **Reports>Schedule Reports**. Note ➜ **Add New Settings** on the side menu is highlighted – we are defining a new Report.
2. Select **Summary Report** from the **Report Type:** pull-down list.
3. Enter a title for the Report in the Report User Title box, for example 'Sys Admin Summary Report'.
4. Select a date and time for the first Report run using the First Report Run: controls. This should be later today or any time in the future.
5. Report Interval is the length of time between repeated runs of the Report, for example an interval of one day would give daily Reports. You don't have to specify a Report Interval, this would give a 'one off' Report.
6. Use the Report Start: and Report End: controls to specify the time span for the Report. This would typically be dates in the past, but could be dates in the future (although if, for example you specified a start date one week in the future and end date two weeks in the future you would have to wait 2 weeks before you saw a Report). In our example 17 June 2015 has been set at the start date, 1 July 2015 as the end date.

Note: you should set an Interval, with no Report Start or Report End time, or a Report Start and Report End time, (but no Interval).

7. Having set up the Report dates, we now need to specify the Sensor data that we wish to report on. Click the **Sensors** tab, then click Add Sensors to give the **Add Sensors** dialog box, see Figure 217 below for example:

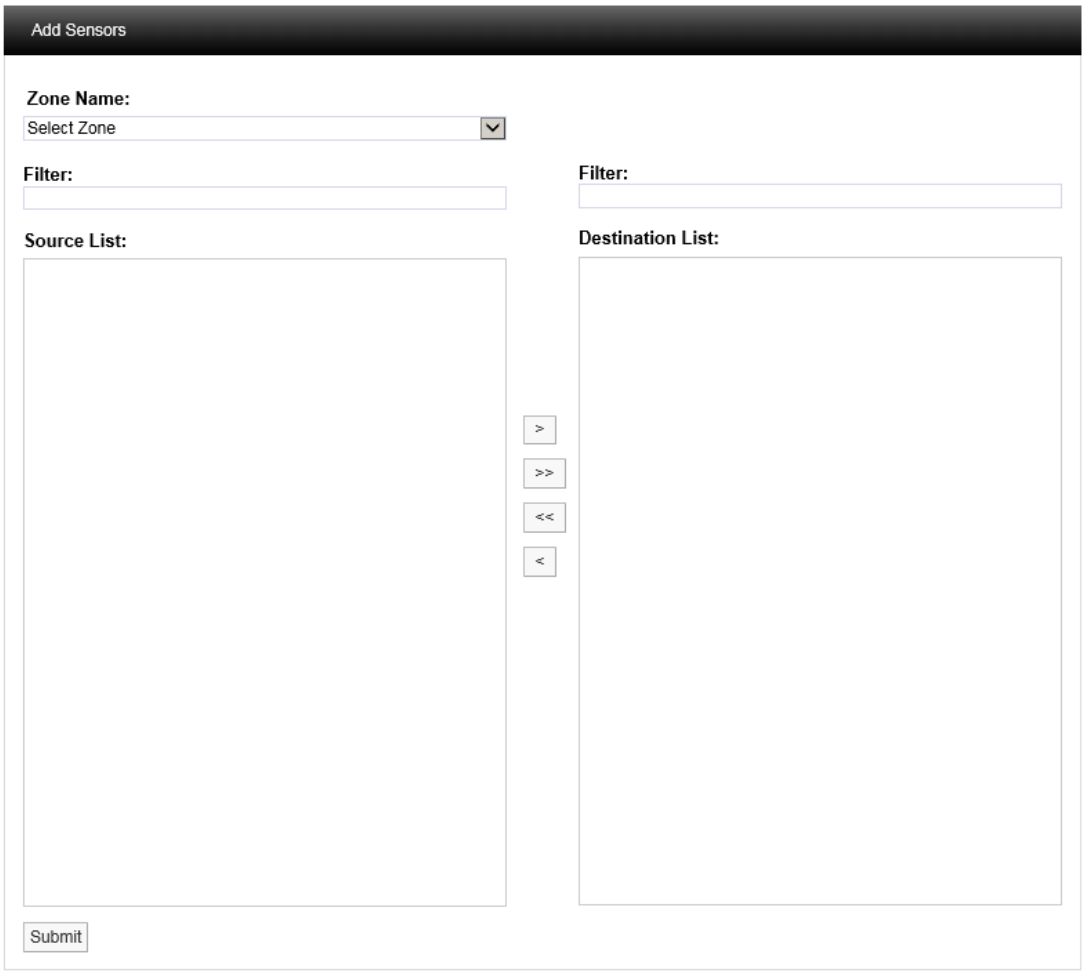


Figure 211

8. Select the Zone that contains the sensors you wish to report on from the **Zone Name** pull-down list. The **Source List** becomes populated with the sensors in the selected Zone. See Figure 212 below for example:

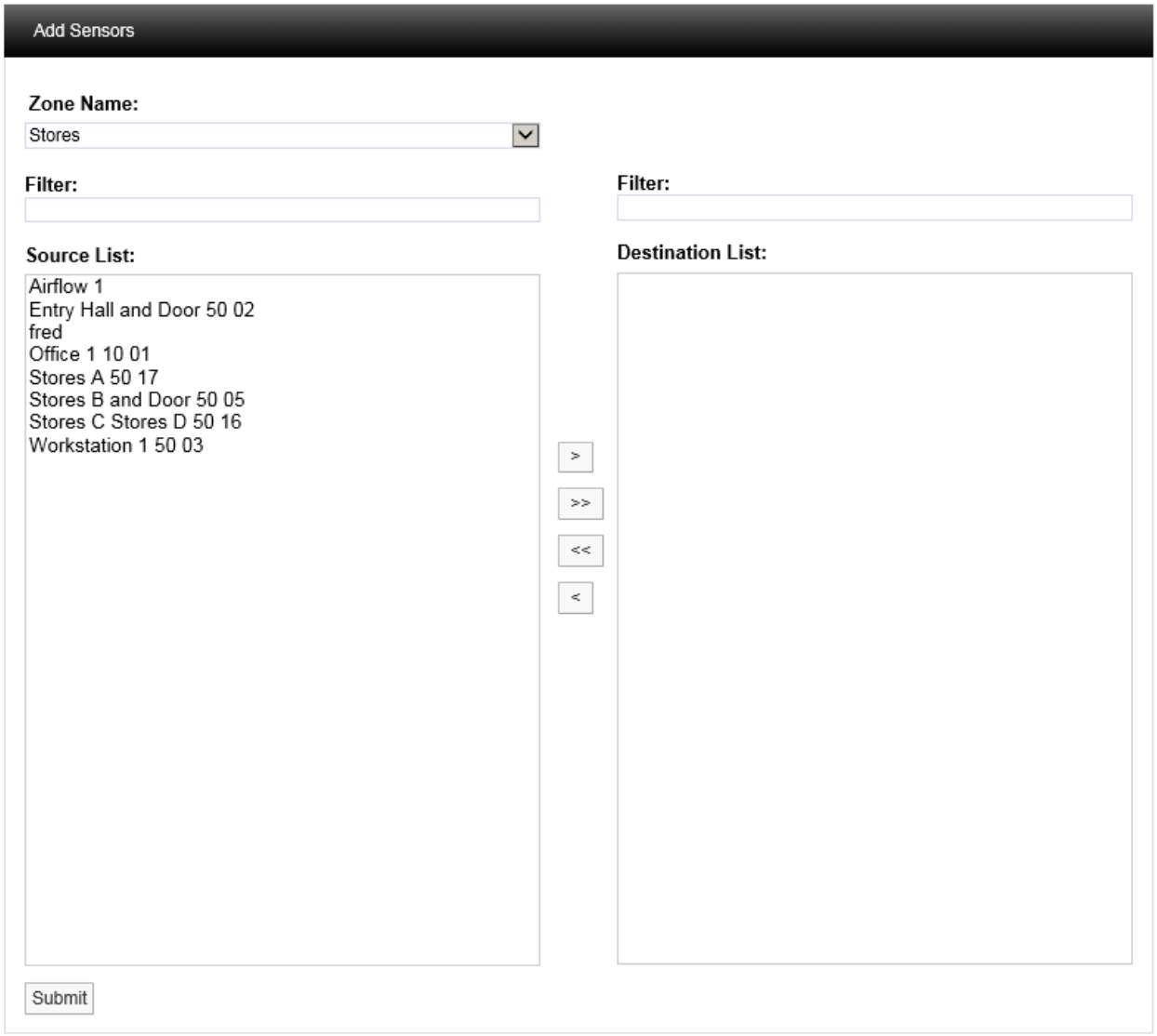


Figure 212

9. Select a sensor in the **Source List** that you wish to report on, and select > to transfer it to the **Destination List**. To transfer all sensors in a single operation click >>. When the Zone name list is long the required Zone can be found by using the **Filter**. See Figure 213 for an example of a populated Destination List.

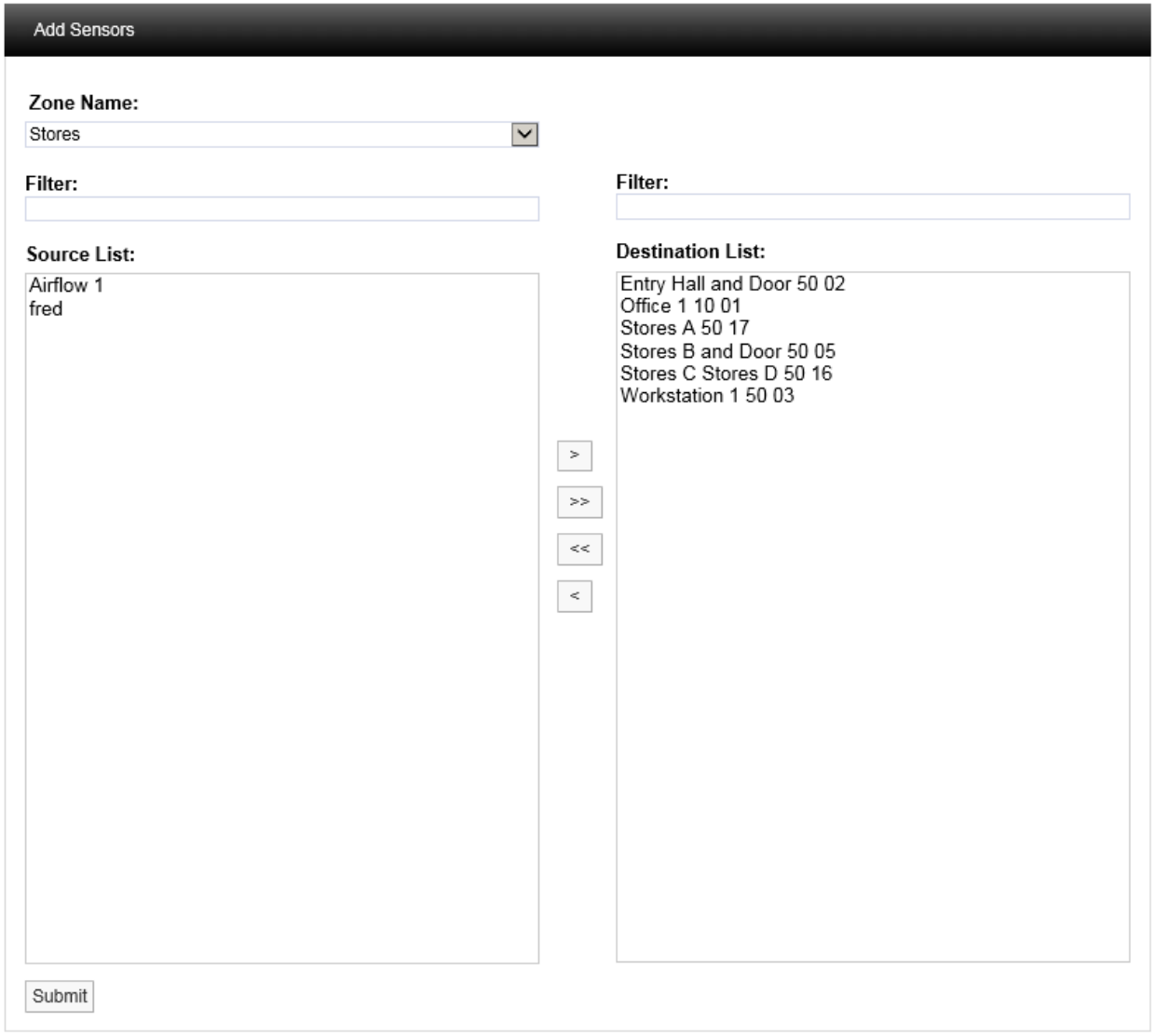


Figure 213

10. When satisfied with your selections, select **Submit**.
11. Now we need to specify a list of Users (System Contacts) that the report will be emailed to. Click the **System Contacts** tab, then click Add Contacts to give the **Add Contacts** dialog box. See Figure 214 below for details.

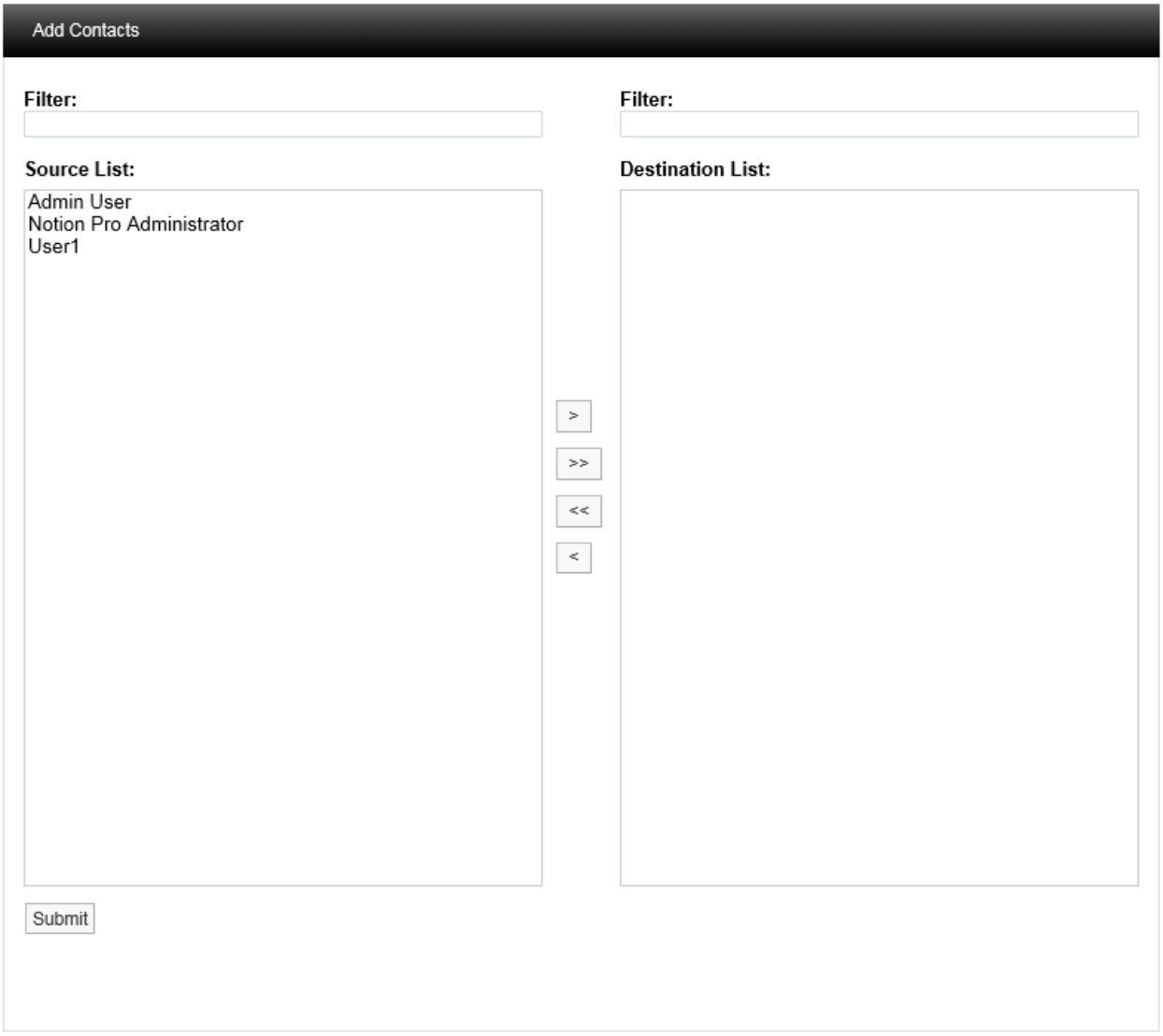


Figure 214

12. Populate the **Destination List** for **System Contacts** using the same methods that you used to populate the **Destination List** for **Sensors** (see step 9 above). When satisfied with your selections click **Submit**.
13. If any **External Contacts** have been set up and you wish to send the Report to them, select the **External Contacts** tab and populate and **Submit** it in the same way as for System Contacts.
14. When satisfied with all of your Report Settings, select **Submit** under the **Add Scheduled Report Settings** banner.

The Scheduled Report you have defined will now be added to the **View Scheduled Reports** window. See Figure 215 below.

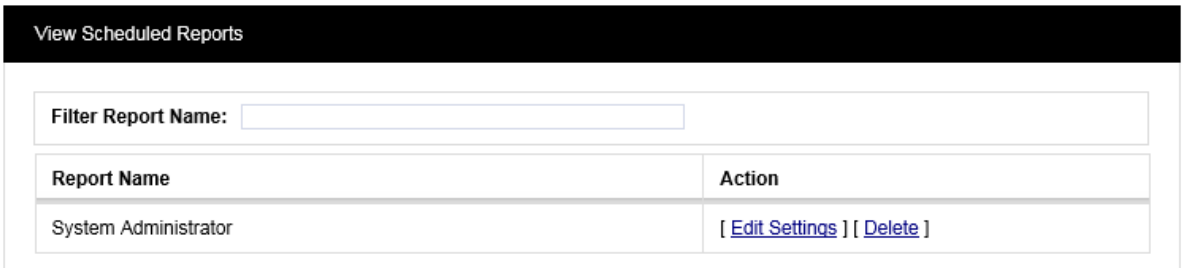


Figure 215

To change the Report settings, click on Edit Settings.

Note: If your Email Server has been set up to limit the maximum allowed email/attachment size, then **Scheduled Reports** in excess of the size limit will be blocked by your Email Server. Note that because there is no standard mechanism for feeding this eventuality back to the email client, Notion Pro cannot know that these emails have been blocked by the server. Most Email Servers inform the sender of this situation by placing a message in the sender account's Inbox.

If Scheduled email Reports are not being sent, check the Inbox for the sender account you set up in Notion Pro.

7 System Logs

Notion Pro has a series of **System Logs** for keeping track of critical events such as system activity, alarm activity and SMS activity.

To access the System Logs select **Logs** from the main menu, see Figure 216 below.

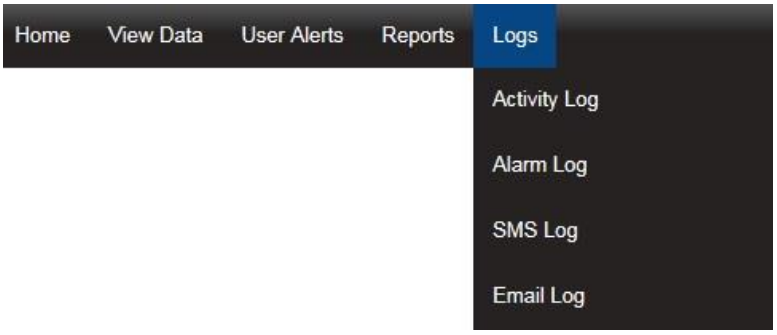


Figure 216

7.1 Activity Log

The **Activity Log** contains all the user activity on the system such as logging in and out and editing. To access the Activity Log select **Logs>Activity Log** from the main menu. The **Activity Logs** window appears, see Figure 217 below.

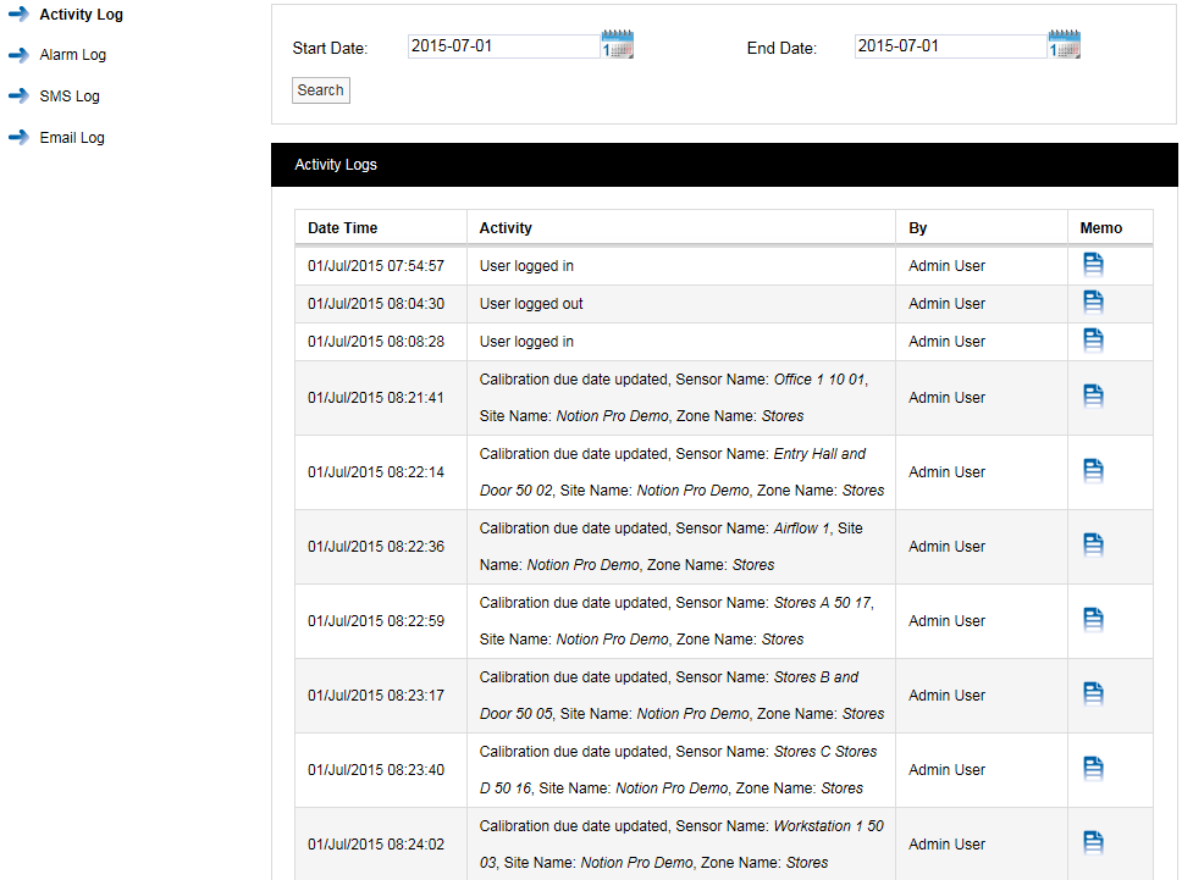


Figure 217

The Activity Log follows system events. Each entry is date and time stamped with a description of the action carried out or activity and the user.

There is a memo field that may or may not contain any memos, for example an activity such as User logged out would not have a memo as it is created by the system when the user logs out. If required you can select the memo icon next to an activity and add a memo. See Figure 218 below.

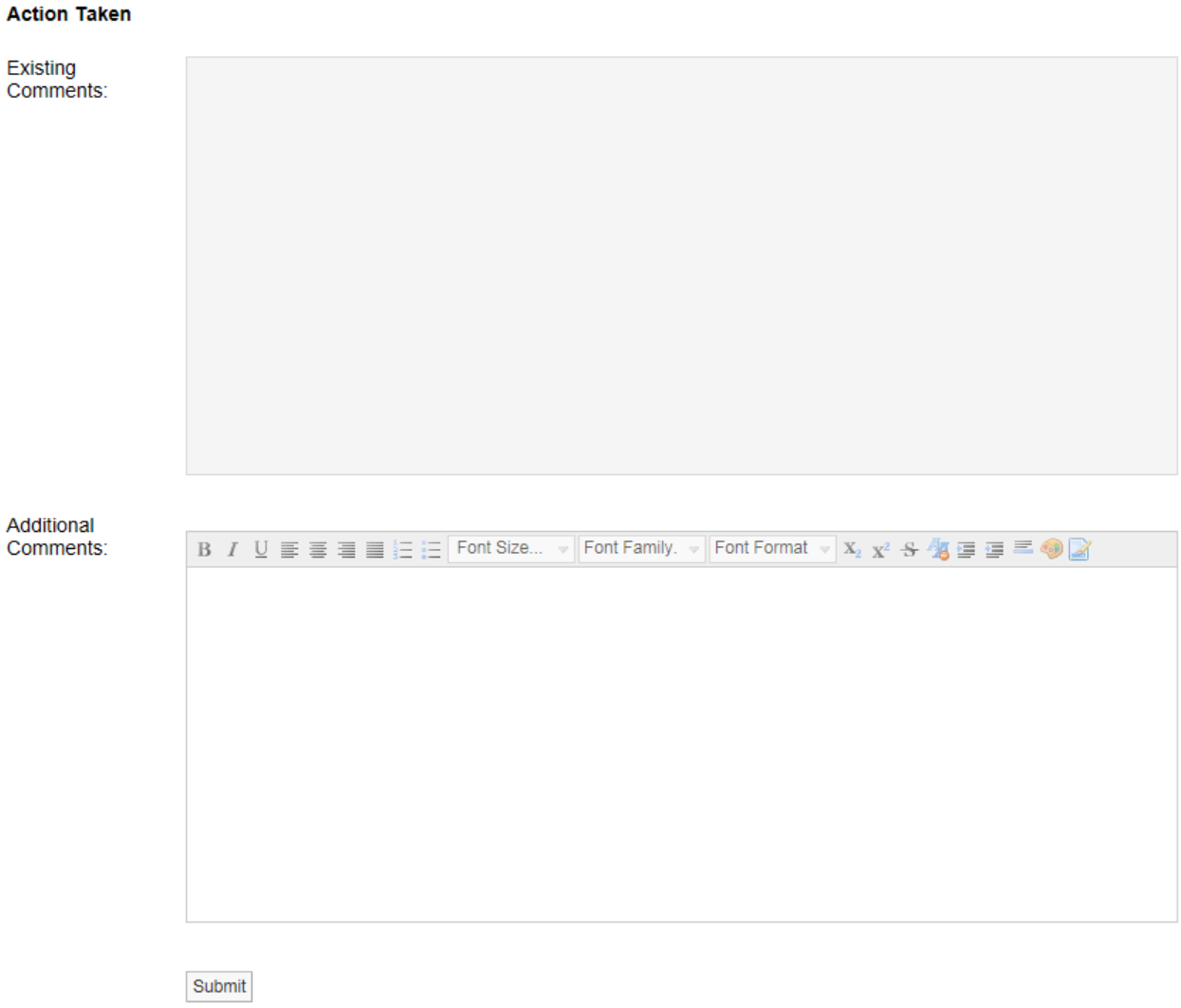


Figure 218

When happy with memo select **Submit**.

The memo will now be saved in the top section under existing comments, these comments are date and time stamped and are identified by user and are now not editable, see Figure 219 below.

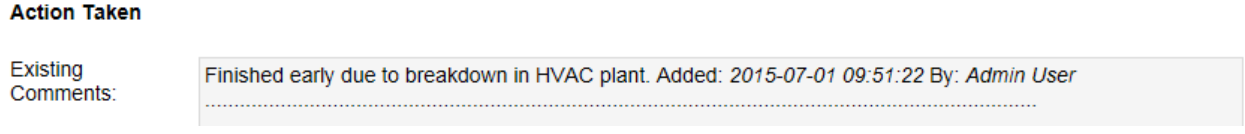


Figure 219

Additional comments can be added at any time.

To search back through previous Activity Logs use the **Search** function, see Figure 220 below.

Figure 220

Use the two calendars to select a **Start Date** and **End Date** and select **Search**. All Activity Logs between these dates will be displayed.

To move through available log pages, use the blue left and right arrows at the bottom of the page. The single blue arrows will step through one page at a time, the double blue arrows will take you to either the first page or the last page of the search, see Figure 221 below.

Figure 221

7.2 Alarm Log

The **Alarm Log** contains all the alarm activity on the system. To access the Alarm Log select **Logs>Alarm Log** from the main menu. The **Alarm Logs** window appears, see Figure 222 below.

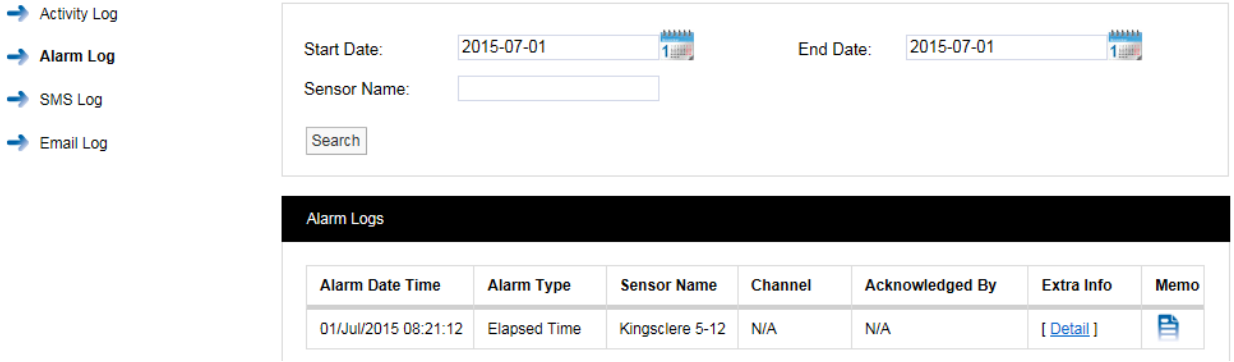


Figure 222

The Alarm Log contains date and time stamped data, **Alarm Type**, **Sensor Name**, **Channel**, **Acknowledged By**, **Extra Info** and a **Memo**. **Extra Info** is a link to a floating tip, the tip contains Site and Zone name information.

The Memo contains information on alarm reasons and action taken. Additional notes can be added at any time. These notes are not editable. Notes are added by following the steps in **Activity Logs** above.

More Alarm Logs can be viewed by using the calendar **Search** function.

To move through available **Alarm Log** pages, use the blue left and right arrows at the bottom of the page. The single blue arrows will step through one page at a time. The double blue arrows will take you to either the first page or the last page of the search.

7.3 SMS Log

The **SMS Log** contains entries for all system SMS activity. To access the SMS Log**,** select **Logs>SMS Log** from the main menu. The **SMS Logs** window appears, see Figure 223 below.

Figure 223

The SMS Log contains date and time stamped data, **Activity** details, **Contacts** and a **Details** or memo field.

The SMS **Details** contains details of the message sent including User name and the contact number that the SMS message was delivered to, see Figure 224 below.

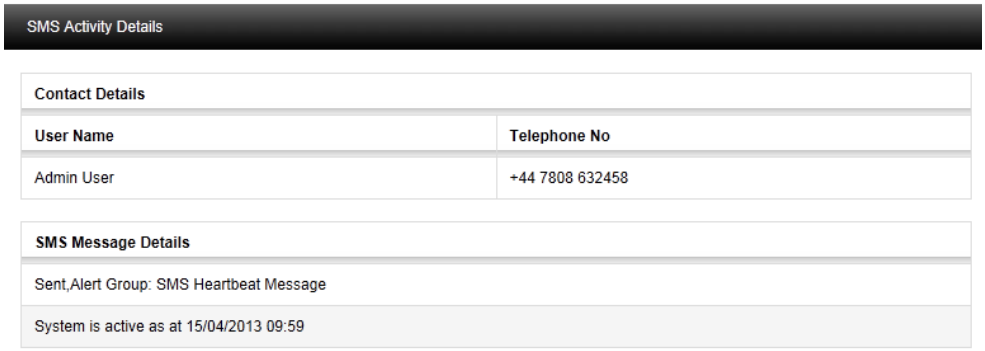


Figure 224

The example shown above is a regular system heartbeat message sent to the Admin User. More SMS logs can be viewed by using the calendar search function.

To move through available SMS log pages, use the blue left and right arrows at the bottom of the page. The single blue arrows will step through one page at a time. The double blue arrows will take you to either the first page or the last page of the search.

7.4 Email Log

The **Email Log** contains entries for all system email activity. To access the Email Log**,** select **Logs>Email Log** from the main menu. The **Email Logs** window appears, see Figure 225 below.

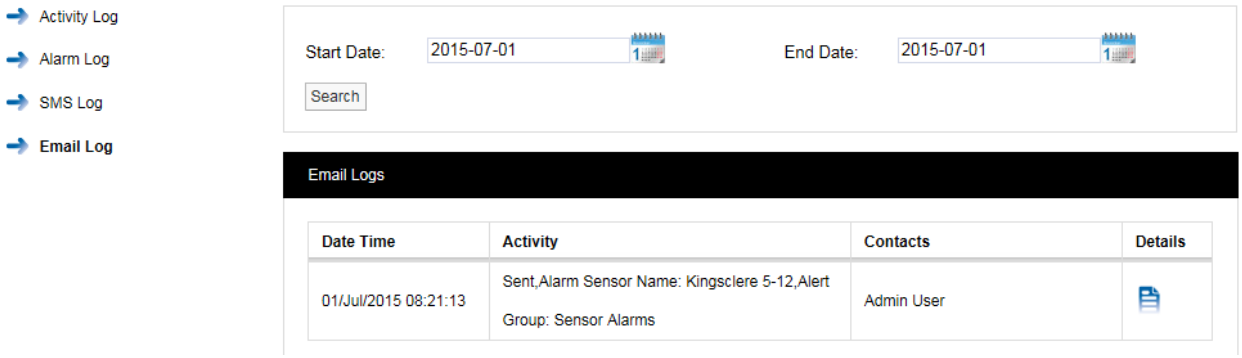


Figure 225

The **Email** log contains date and time stamped data, **Activity** details, **Contacts** and a **Details** or memo field.

The Email **Details** contains details of the message sent including User name and the contact email address that the **Email** was sent to, see Figure 226 below for example.

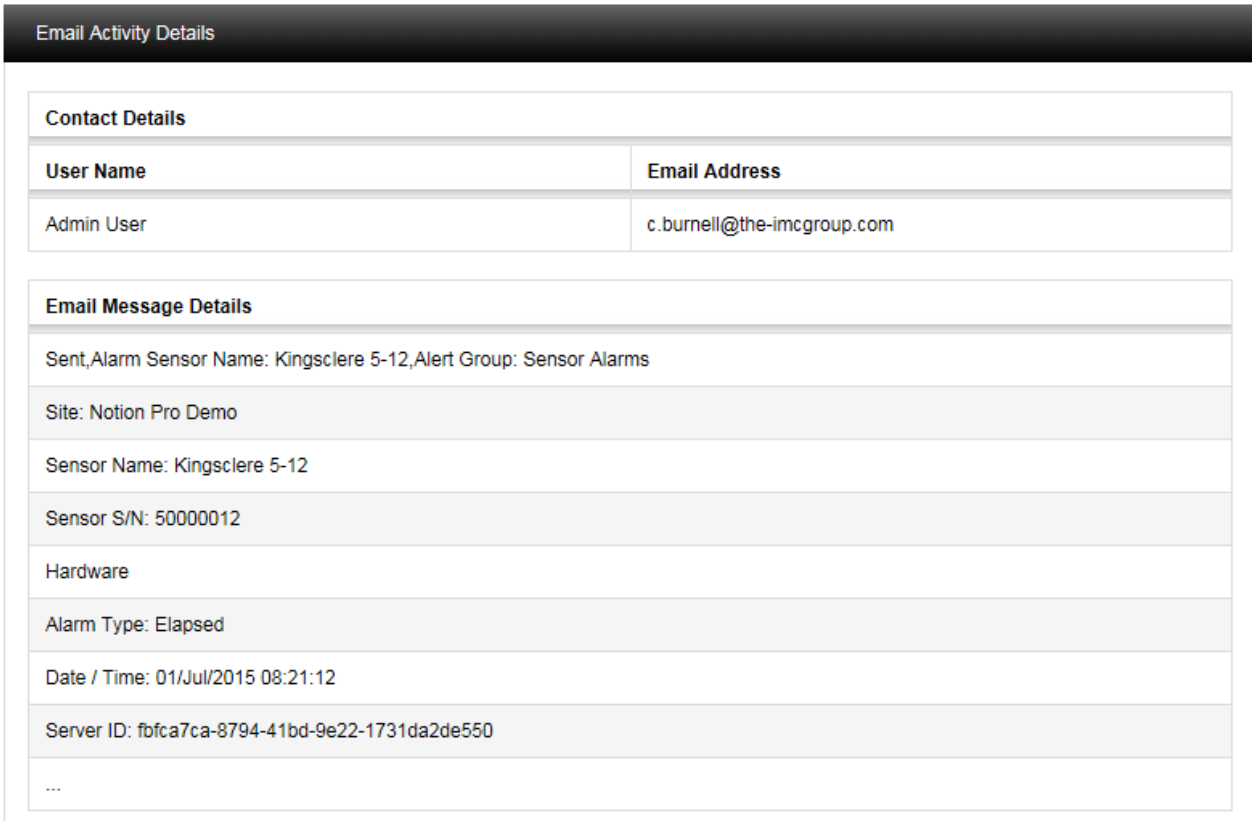


Figure 226

8 Sensor Groups

Notion Pro has the capability to group sensors of the same type together into **Sensor Groups**. The Sensor Groups feature is extremely useful for grouping sensors of the same time that are measuring the same parameters. Sensors from different Sites can be added to one Sensor Group.

Sensor Groups are also used to control Network Receiver Alarm Relays, SMS Module Alarm Relays, and associated MS1000 Control Interface outputs via the Local Alarms settings.

To create a **Sensor Group** select **Settings>Customise Sensor Groups** from the main meu, see Figure 227 below.

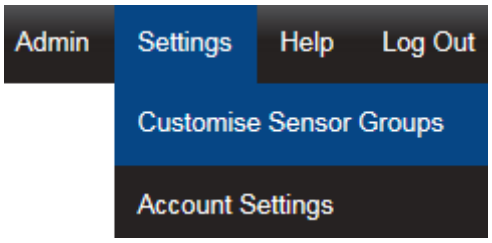


Figure 227

The **Create Sensor Group** window appears, see Figure 228 below.

8.1 Creating Sensor Groups

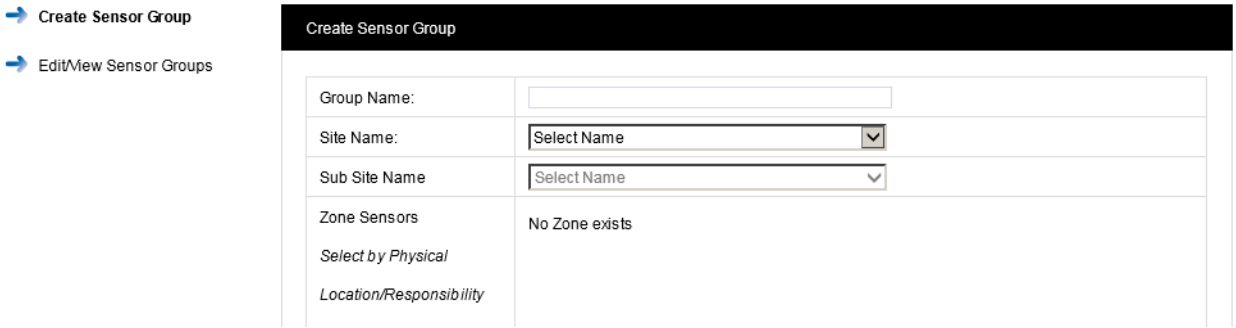


Figure 228

Enter a name for the **Group** this could be “Door Sensors”. Select the **Site** from the drop down menu next to **Site Name**. For this example we will select Notion Pro Demo. If the selected Site contains Sub Sites**,** these can be selected from the **Sub Site Name** drop down menu.

After selecting the Site the available **Zones** on that Site become visible, select the + symbol next to the **Zone** name that contains the **Sensors** that you wish to select. Here we will select the sensors which have a door channel.

Once you are happy with your selections select **Create Group**. The **View Sensor Groups** window appears, see Figure 229 below.

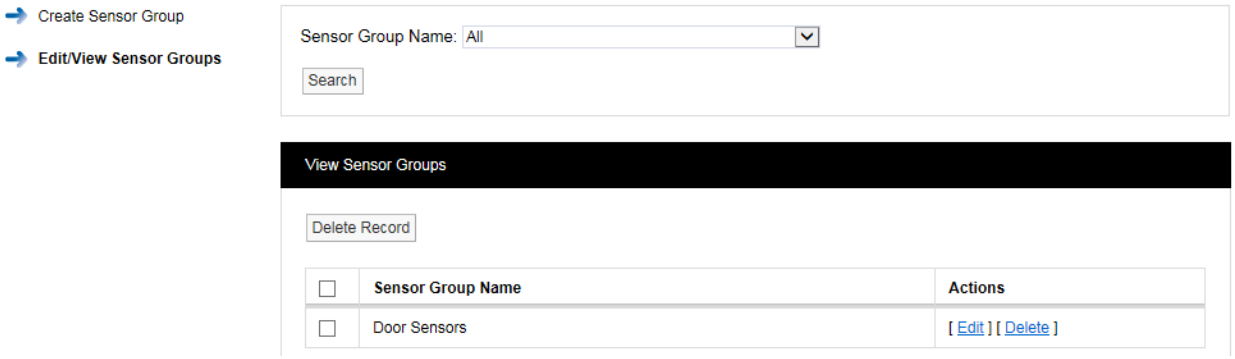


Figure 229

This list contains all the Sensor Groups that are available. Each Sensor Group can be Edited or Deleted.

8.2 Local Alarms

Sensor Groups are used to control Local Alarms on Network Receiver, Alarm Unit and SMS Unit devices. If an alarm is activated for a Sensor that is a member of the Sensor Group, then the associated Local Alarm will be activated on the device.

8.2.1 Setting up Local Alarms

Firstly create a Sensor Group, as described in section 8.1 above, adding the required Sensors.

Once the required Sensor group is created, select **Edit/View Sensor Group** in the left hand menu, see Figure 230 for example.

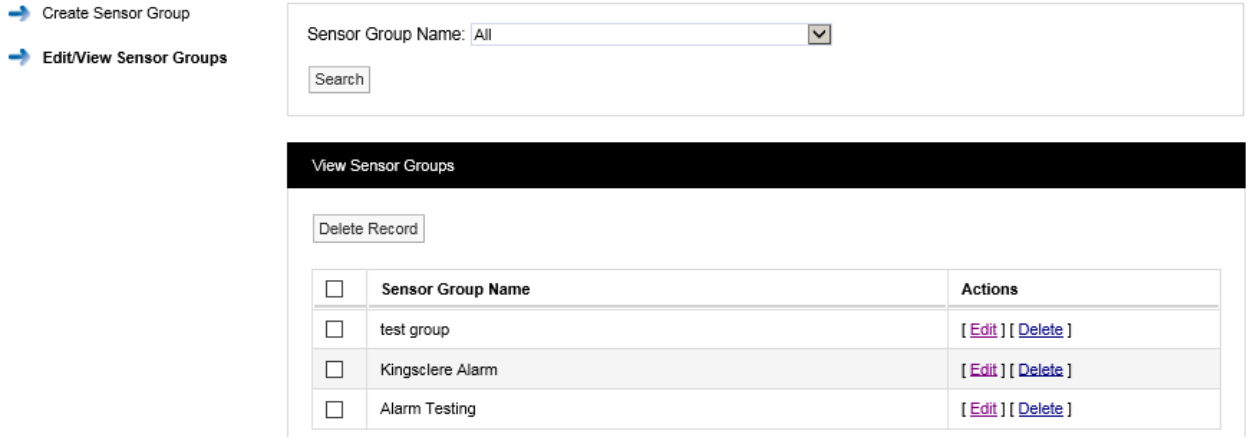


Figure 230

Now click on the Edit action for the new Sensor Group. The edit view will be displayed, see **Figure 231**.

Figure 231

Click the **Local Alarms** button to display the Local Alarms view, see Figure 232.

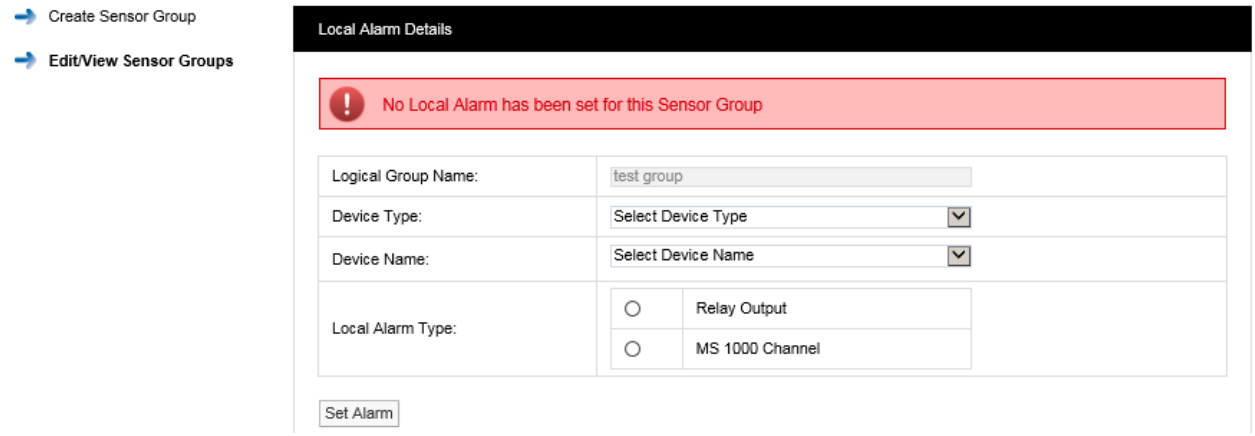


Figure 232

Click on the Device Type combo control, and select the required control device type – Notion Base [Receiver Unit], IMC Alarm Unit or IMC SMS Unit, see Figure 233, then click on the Device Name combo control and select the require device by name.

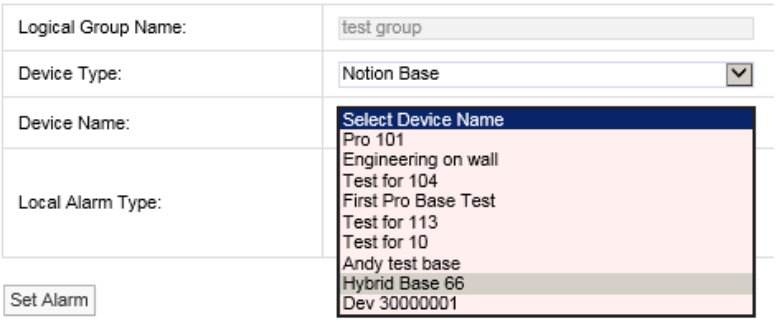


Figure 233

The view will now change to display device information and Local Alarm options, see Figure 234 for example.

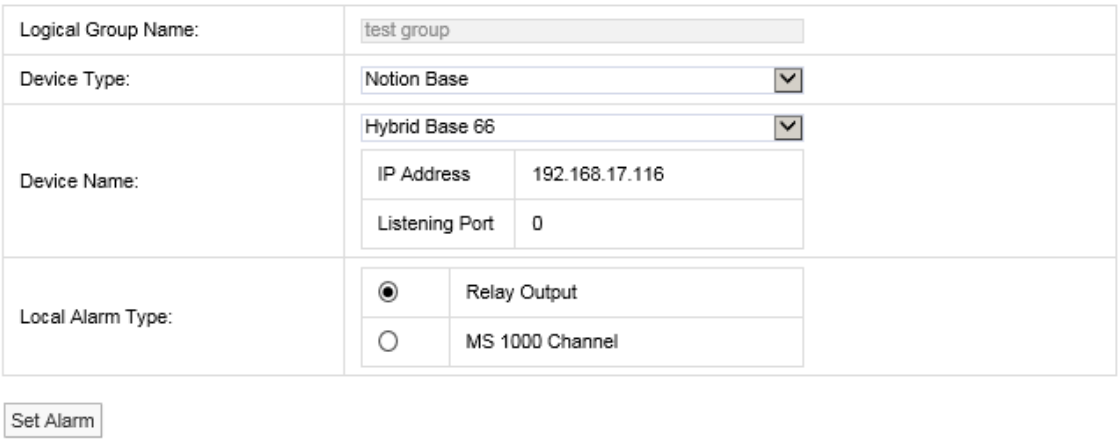


Figure 234

To use the Relay output, select the **Relay Output** option button.

If you wish to use an output on a MS1000 card; select the option button adjacent to the **MS 1000 Channel** text, this displays the MS1000 channel options, see Figure 235.

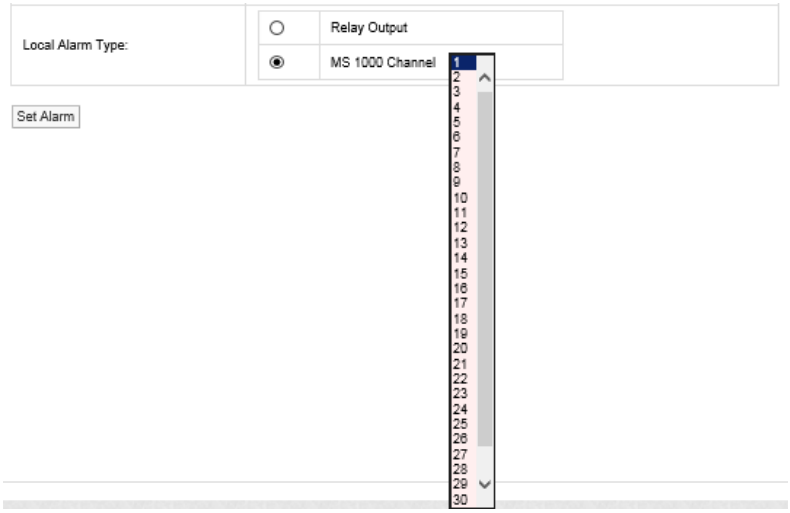


Figure 235

Select the required channel number (up to 32 channels are available). When the required Local Alarm has been selected, click **Set Alarm** to save the setting.

8.3 Viewing Sensor Groups

To view a Sensor Group select **Sensor Groups** from the **Home** menu bar to give the **Available Groups** dialogue box, see Figure 236 below.

Figure 236

The **Available Groups** dialogue gives you an alarm status summary for the sensors which form the group. Clicking View Data shows you the Live View for the sensors in that group. See Figure 237 below for example.

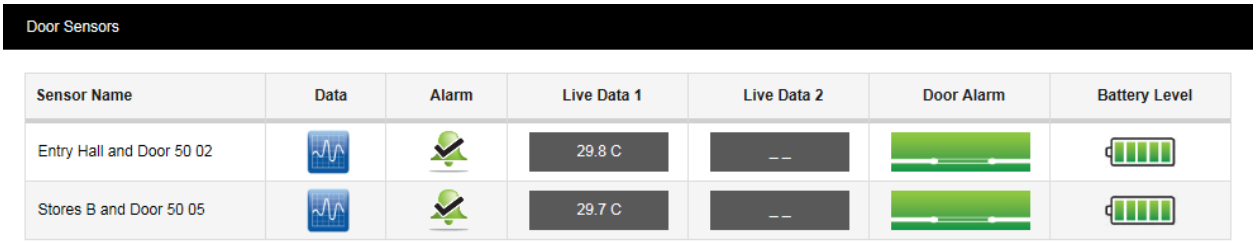
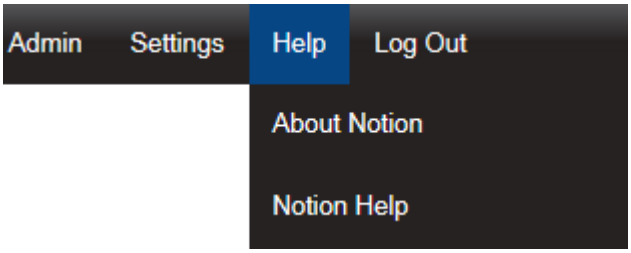


Figure 237

See Section 4 for details of the facilities available from the Live View window. You can also generate **Reports** for the sensors in the Group by clicking on Reports. See Section 6.

Note: An unlimited Sites and Sensor Groups licence can be purchased, IMC product code W604. Contact IMC Group Ltd for details.

9 Online Help



You can view task-driven Help for Notion Pro at any time during normal operation of Notion Pro by selecting **Help>Notion Help** from the menu bar. See Figure 238.

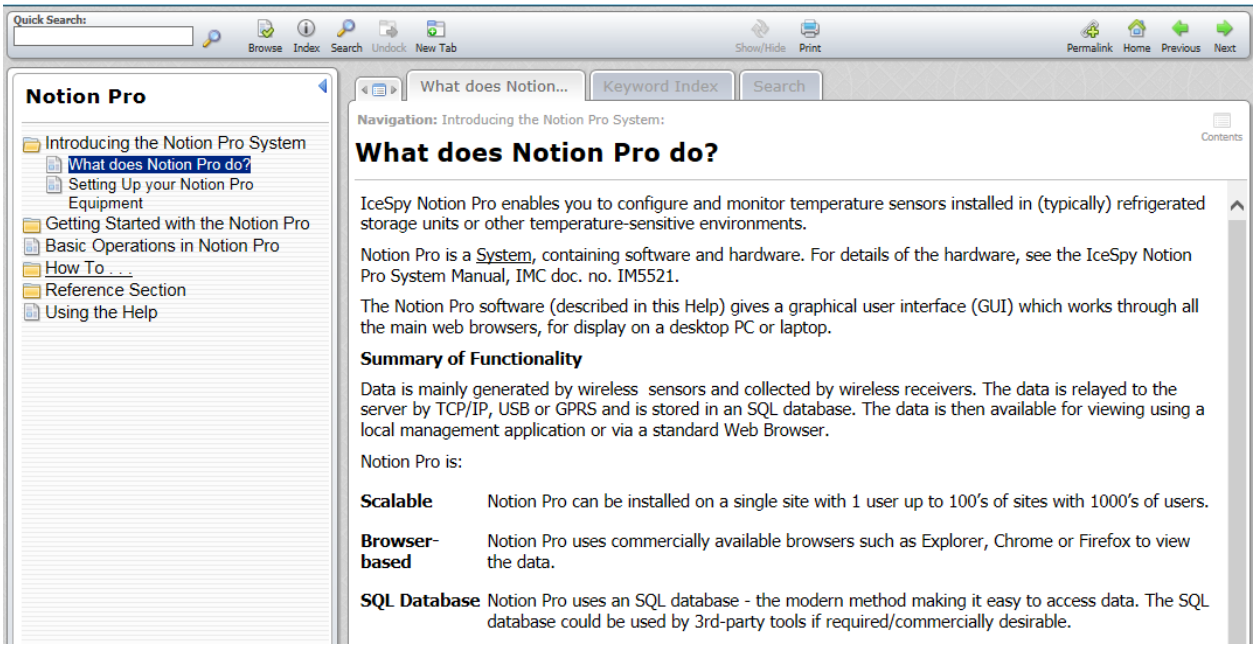


Figure 238

Help>About Notion gives the current Notion Pro version number. See Figure 239 for example.

Figure 239

10 Browser Issues

10.1 Microsoft Edge/Project Spartan (Windows 10)

The local loopback address is disabled by default in the Microsoft Edge / Project Spartan browser; this means that by default you cannot browse to <Product name> using Edge / Spartan on the local <Product Name> server. At the time of writing, the following methods are available for enabling the local loopback address:

1. Run the following command from an command prompt, running as Administrator:

```
CheckNetIsolation LoopbackExempt -a -n=Microsoft.Windows.Spartan_cw5n1h2txyewy
```

2. For build 10166 or later you may be able to use the following: open an Edge/Spartan tab and navigate to about:flags. Then under Developer Settings select the 'Allow localhost loopback' option.

Note: at the time of writing Microsoft Edge/Spartan is still an early release and access to settings is in flux. Thus neither of the above is guaranteed to work. If you have problems enabling the local loopback address please try the following:

- check Microsoft's technical support websites
- download and use another browser
- contact your System Administrator or IT support provider.