QUADNET
FIRE DETECTION SYSTEM

DUONET
FIRE DETECTION SYSTEM

Quadnet / Duonet OSP – V3.0x

(Suitable for Quadnet / Duonet control and repeater panels from V3.00)

Software Operating Instructions

(TO BE RETAINED BY THE COMMISSIONING ENGINEER)

26-1006 Issue 5

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Due to the complexity and inherent importance of a life risk type system, training on this equipment is essential and commissioning should only be carried out by competent persons.

Fike cannot guarantee the operation of any equipment unless all documented instructions are complied with, without variation.

E&OE.

Fike equipment is protected by one or more of the following patent no's: GB2426367, GB2370670, EP1158472, PT1035528T, GB2346758, EP0917121, GB2329056, EP0980056, GB2325018, GB2305284, EP1174835, EP0856828, GB2327752, GB2313690

Contents

Introduction

Quadnet / Duonet OSP is the name given to the high level software package written to enable the individual configuration of the Duonet and Quadnet fire alarm systems. The Windows based program allows the system to be set up for each application. This includes the setting of detection modes, subsequent actions to be taken and individual sound patterns. Note that whichever panel is used, there is no difference in the mode of operation of the program.

Much thought has taken place to implement operations in as simple a way as possible whilst not losing flexibility through over-simplification. Hence, complicated arrangements with three alarm stages may be arranged as required in order to tailor system operation to the client's building or safety procedures.

Tools are also included to enable you to create reports and specifications from your programming, including both configuration and event log reports.

Getting Started

System Requirements

The Quadnet / Duonet OSP configuration software is available on the Fike Software CD. In order to run the program you will require the following:

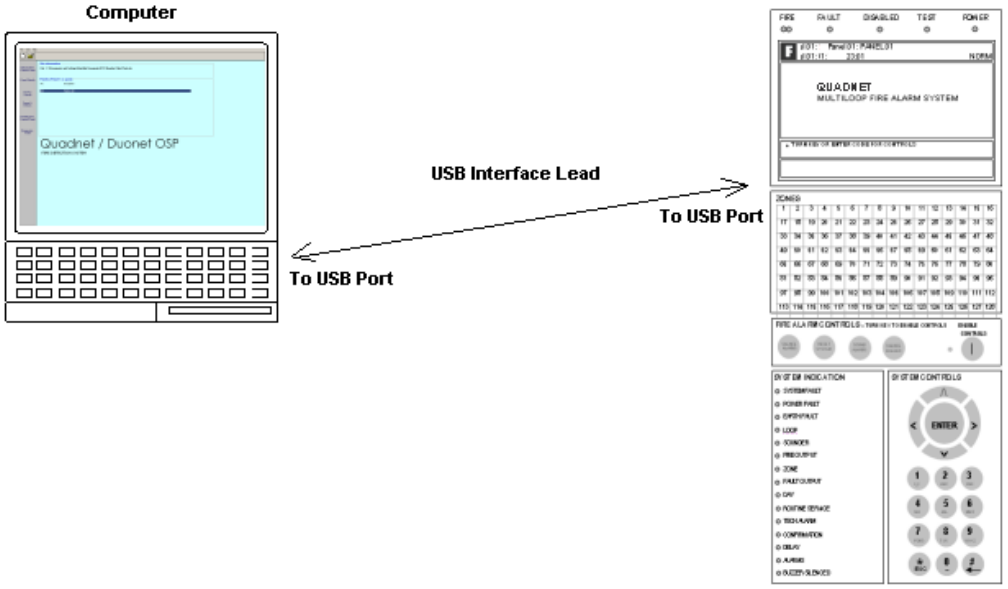
- A desktop or laptop PC running the Windows XP or Windows 7 operating system (32-bit versions) with at least 1GB RAM.
    - The PC must have a CD drive in order to install your software.
    - The PC must have a USB port for connection to the panel.
- A USB interface lead for connection of the PC to the control panel.

IMPORTANT NOTE:

OSP v3.xx must not be used with panels prior to v3.00.

Physical Connections

The USB Interface lead connects between the USB port on the control panel and any USB port on the PC.



Software Installation

In order to commence installation, insert the OSP CD-ROM in your CD-ROM drive. The disc will automatically run and open up a browser style menu screen containing a number of different directories, including one that is titled 'Software'. Open this directory and then open the directory titled 'Fike Quadnet v30x' (or Duonet OSP 3.0x.exe) - as the version may vary, simply choose the latest available. Run the 'Setup.exe' file and follow the instructions while the software loads onto your hard disk drive.

The software will be installed in the following location:

**C:\ Program Files \ Fike \ QuadnetOSP **

or

**C:\ Program Files \ Fike \ DuonetOSP **

A shortcut from the file titled 'Quadnet OSP 3.0x'. (or 'Duonet OSP 3.0x') may then be copied onto the desktop for ease of access, and labelled with the correct version number to prevent confusion with possible future releases, as shown below.

Note that USB drivers for the Quadnet / Duonet will have to be installed before the panel can be connected to the USB port.

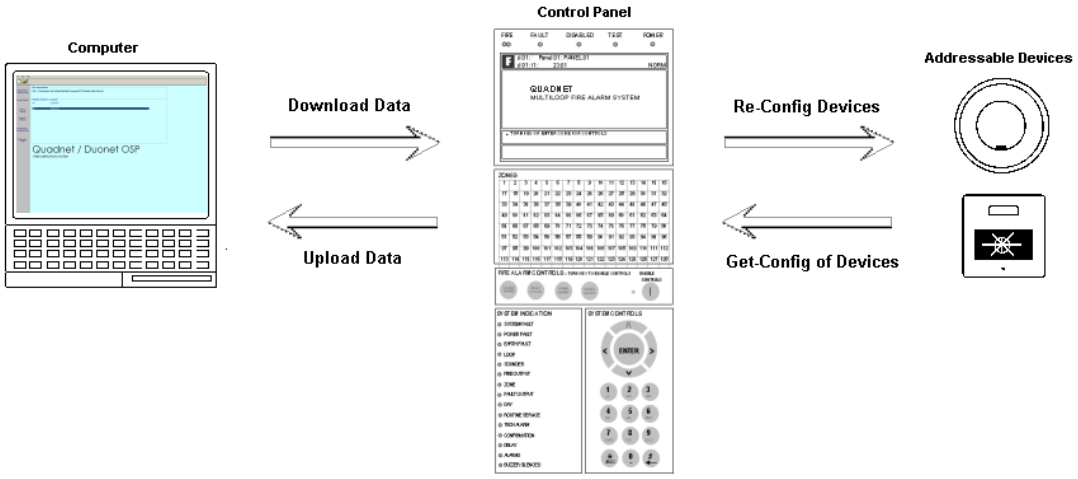
Data Transfer.

The Quadnet / Duonet is defined as an **Addressable Intelligent Detector System**, or an **Addressable Fire Detection and Alarm System with Independent Distributed Intelligence**. Distributed intelligence signifies that the signal processing is spread throughout the system in the form of a microprocessor in every device, in order that the decisions about fires and faults are taken within the detector itself.

The detector is capable of being remotely programmed for different modes of detection, sound patterns, etc. Thus we have two separate data transfer functions - get-config / re-config between devices and control panel, and upload / download between control panel and computer.

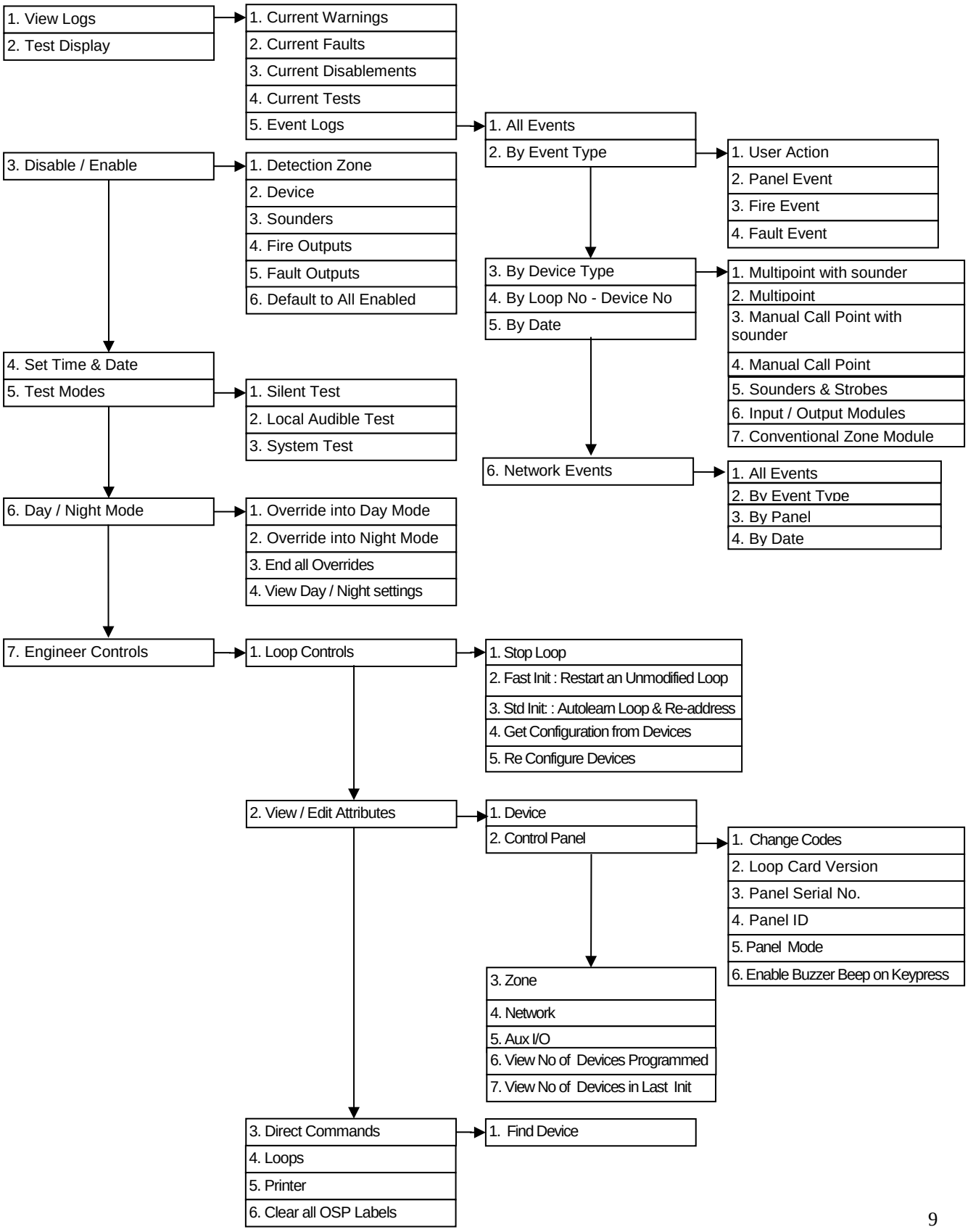
The get-config / re-config functions are operated from the control panel at 'Access level 3 (Engineer)'. If you have not entered Engineer mode at the PC, the functions will not work and the PC will display warning messages. Generally the configuration must be loaded to the control panel (get-config), before any upload to computer, and vice versa - the configuration must be loaded to the devices (re-config) after any download from computer to control panel.

If a device is to be replaced with a similar type, then after re-initialising the loop the system must be reconfigured. The control panel memory holds the system configuration data, so in the event of a device replacement, a PC is not necessarily required to reconfigure the device.

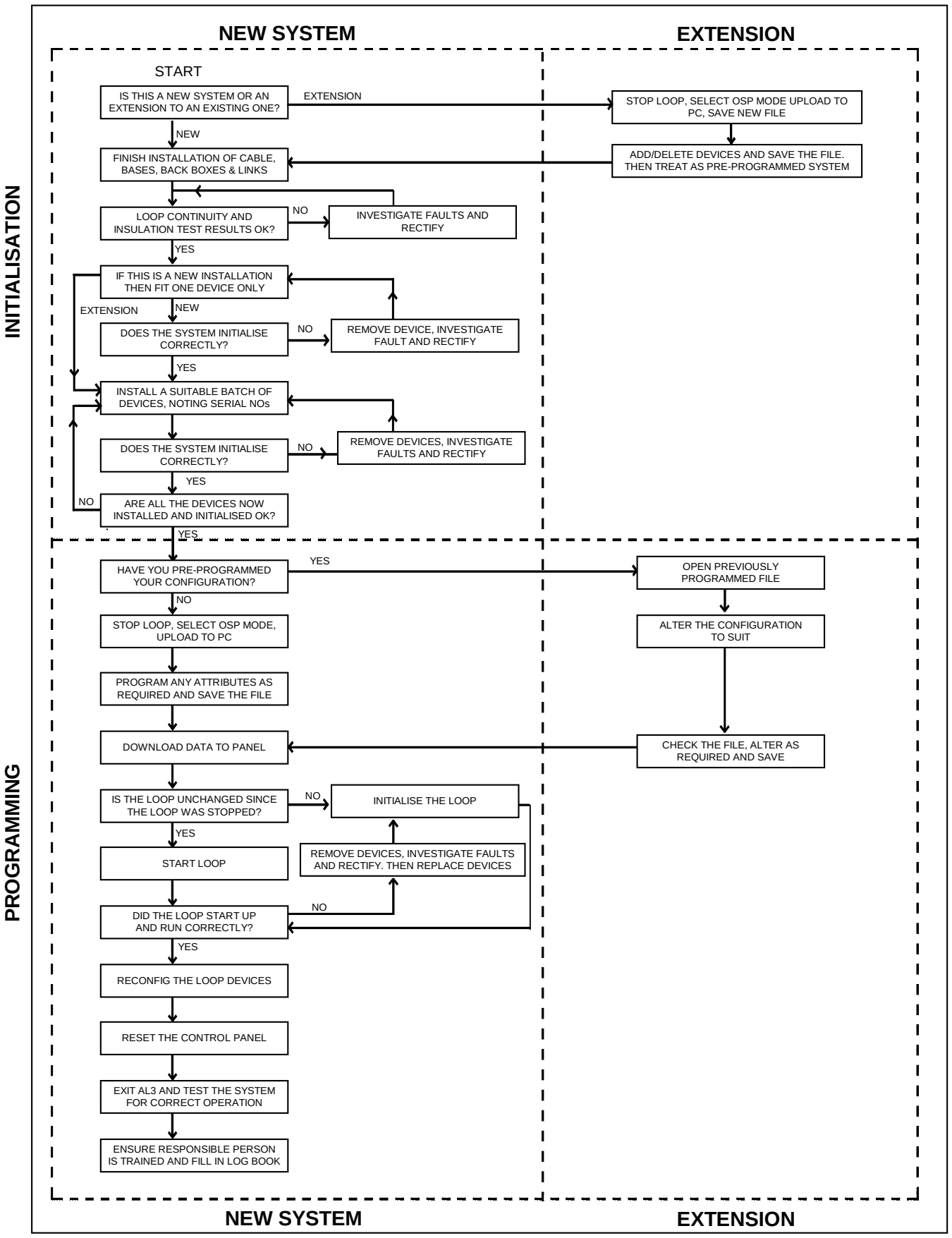


Control Panel Menu Operation

At Access Level 3 (Engineer), the main **Fire Alarm Controls** are enabled, and the following **System Controls** are accessible:



Map of System Operations



Quadnet / Duonet OSP Layout

Main Screen

The ‘Status & Menu’ screen is the front page, index and guide for programming using Quadnet / Duonet OSP. Functions are controlled via the various on-screen buttons (arranged vertically to the left of the screen) and menus (arranged horizontally at the top of the screen).

When features in the OSP program are selected by pressing buttons, Cancel and OK buttons will appear at the bottom of the screen. OK is pressed to accept any changes to the data that you make. Cancel is pressed to leave the feature without saving any data changes.

'File' Menu

The 'File' menu contains the following options:

New Site

This feature will create a 'New' configuration file with extension (*.site).

This file type may be classed as 'unlocked', allowing modifications to be made to the loop configuration.

Note that a site may consist of more than one panel.

Open Site

This feature will open an existing, or 'Old' configuration file. This function is also repeated in the form of an on-screen button in the toolbar immediately below the file menu.

i.e. 

This file type may be classed as 'locked', allowing no modifications to be made to the loop configuration. Thus you are prevented from downloading an incorrect file into a system.

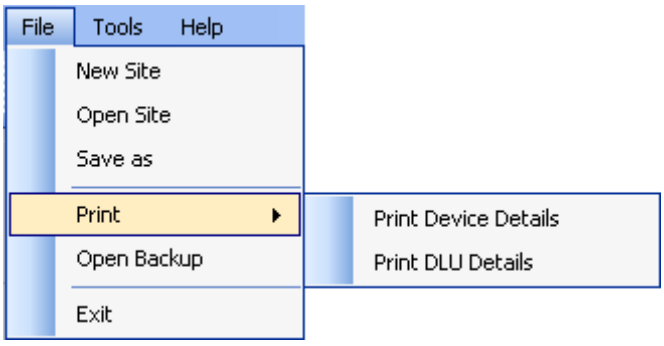
Save As

This feature will save configuration file to the file name and address of your choice. This function is also repeated in the form of an on-screen button in the toolbar immediately below the file menu.

i.e. 

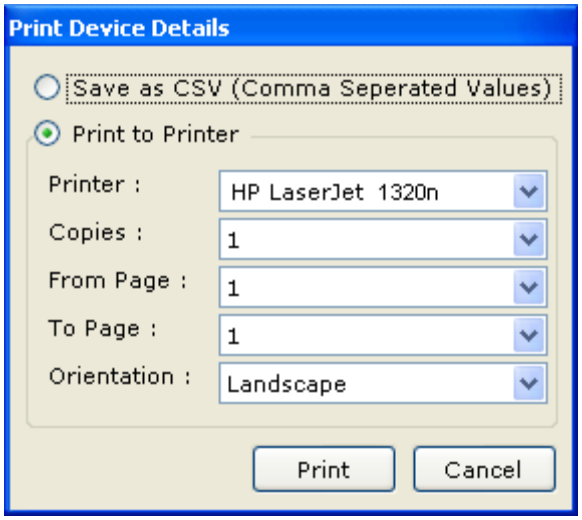
Print

This feature has two sub options as shown in the sub-menu below.



Print Device Details

This allows you to send a summary of all the devices to the printer. There is also a print button on the device details screen for this operation.



Landscape orientation (not portrait) is recommended.

For each device, the following information is given.

Loop Number
Device Number
Device Label
Serial Number
Device Type
No of Spurs
Zone No
Smoke Detection details if applicable
Heat Detection details if applicable
Sound Pattern 1 if applicable
Volume Level 1 if applicable
Sound Pattern 2 if applicable
Volume Level 2 if applicable
Sound Pattern 3 if applicable
Volume Level 3 if applicable
Alarm Confirmation (ON/OFF)

Print DLU Details

This allows you to send a summary of further information about all the devices (including DLU details) to the printer.

Landscape orientation (not portrait) is recommended.

For each device, the following information is given.

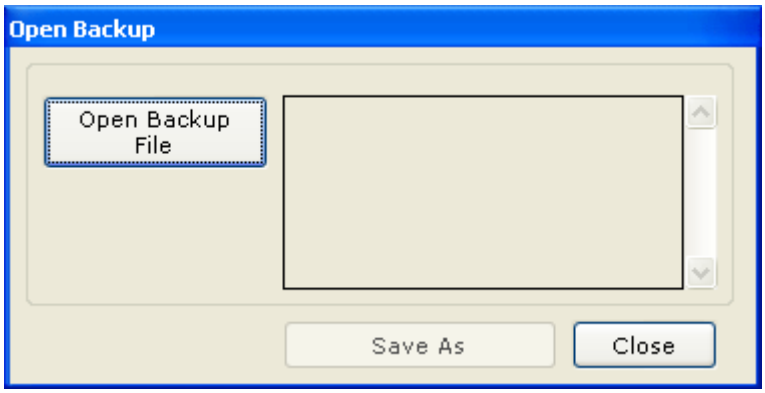
Loop Number
Device Number
Device Label
Serial Number
Device Type
Sub Type
Sound Pattern 1 if applicable
Volume Level 1 if applicable

Sound Pattern 2 if applicable
Volume Level 2 if applicable
Sound Pattern 3 if applicable
Volume Level 3 if applicable
DLU1 value
DLU2 value
DLU3 value

Open Backup

This allows you to open the backup of the previously saved configuration file. It will have been automatically created in the format *.sitebak

The screen prompt is shown below.



Exit

Exit the Quadnet / Duonet OSP program.

New Files

You will be first be prompted with a “Save As” screen for a name for the site. Site data files are saved with type “.site”.

There will then be a prompt for the language to be used.

English (United Kingdom) is the default.

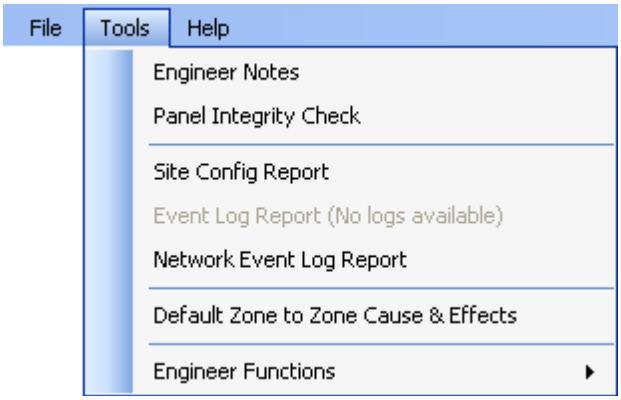
A new site data file will now be created. Initially it will consist of a single panel (Panel 001) with a single loop. With a Duonet system, up to 2 loops may be configured. With a Quadnet system, up to 4 loops may be configured.

You may now amend the configuration file as described in the following pages. This ‘New’ file does not contain initialised device address details or serial numbers.

The file may then be sent to the control panel with the download command. After download, remember to carry out the following:

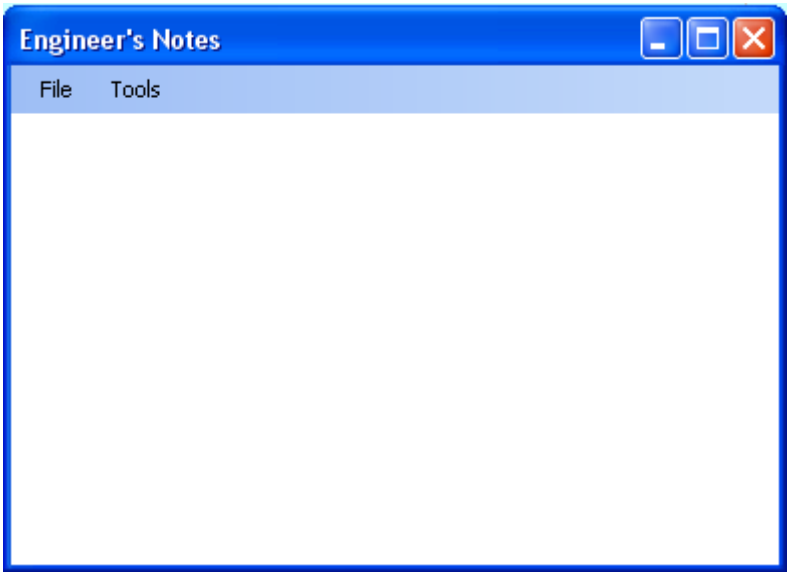
1. ‘Initialise’ Loop
2. ‘Reconfig’ data to loop devices
3. ‘Reset’ system
4. Test system for correct operation

Tools Menu

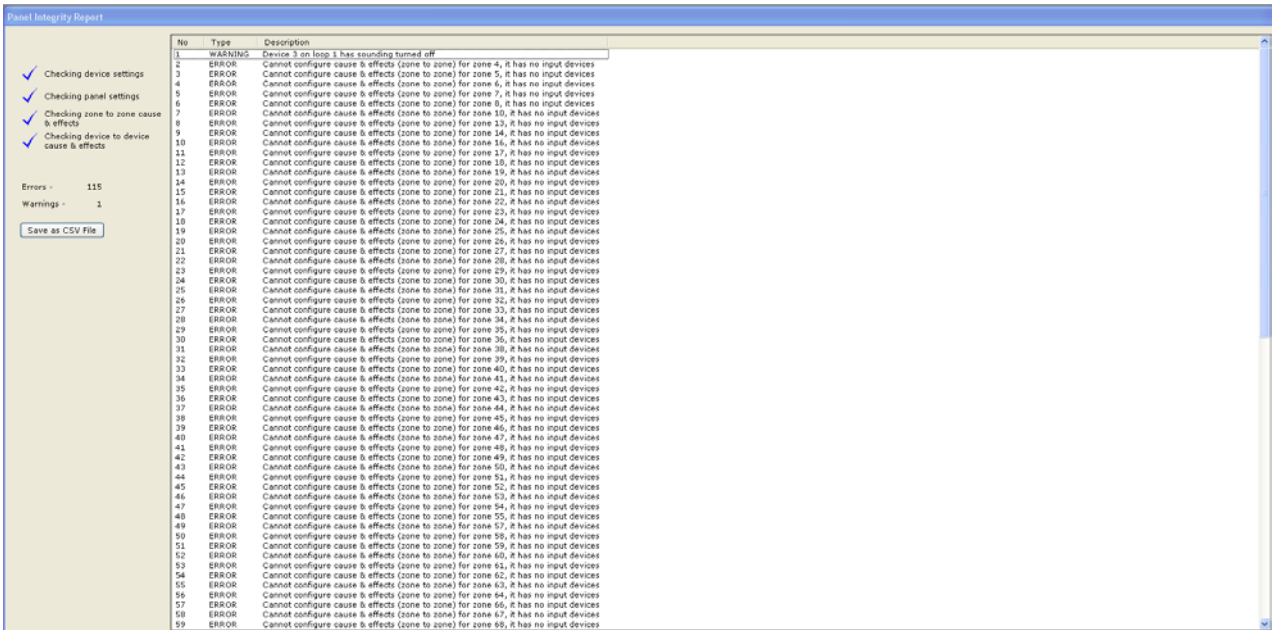


Engineer Notes

This feature allows the Engineer to enter assorted notes in free-form format. The file can be saved in “.txt” format by pressing “Save”.

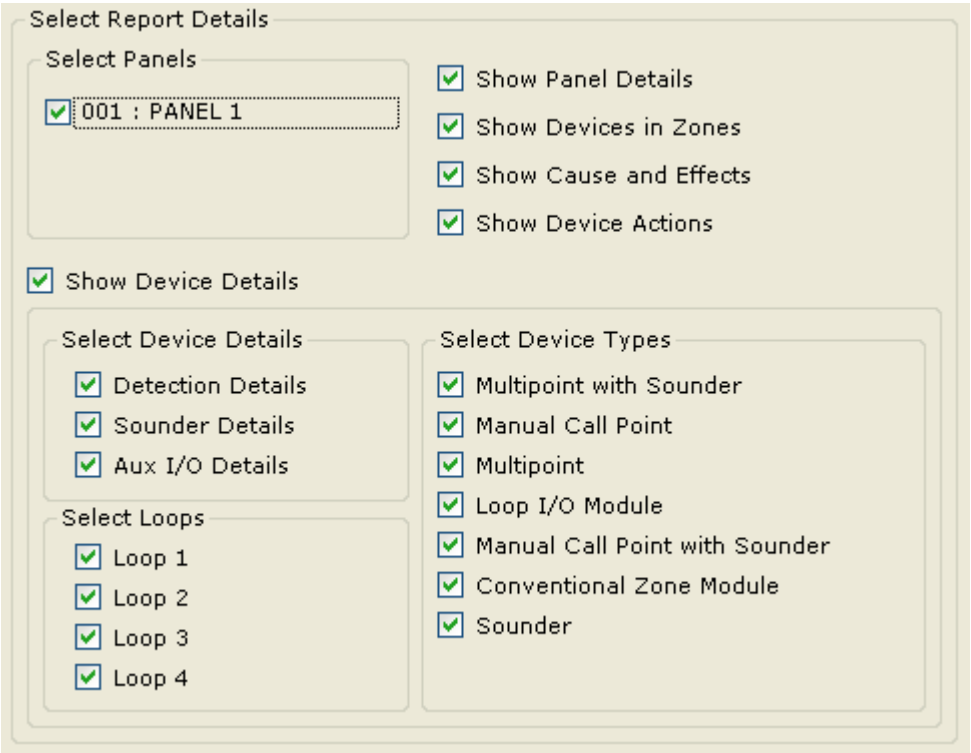


Panel Integrity Check

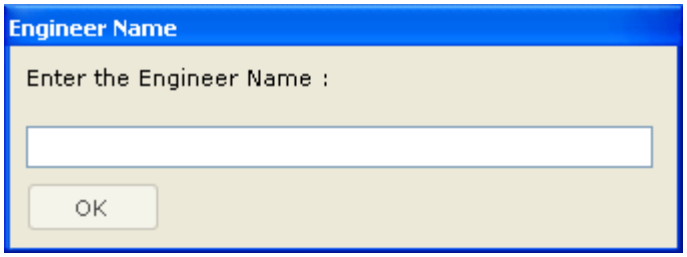


Site Config Report

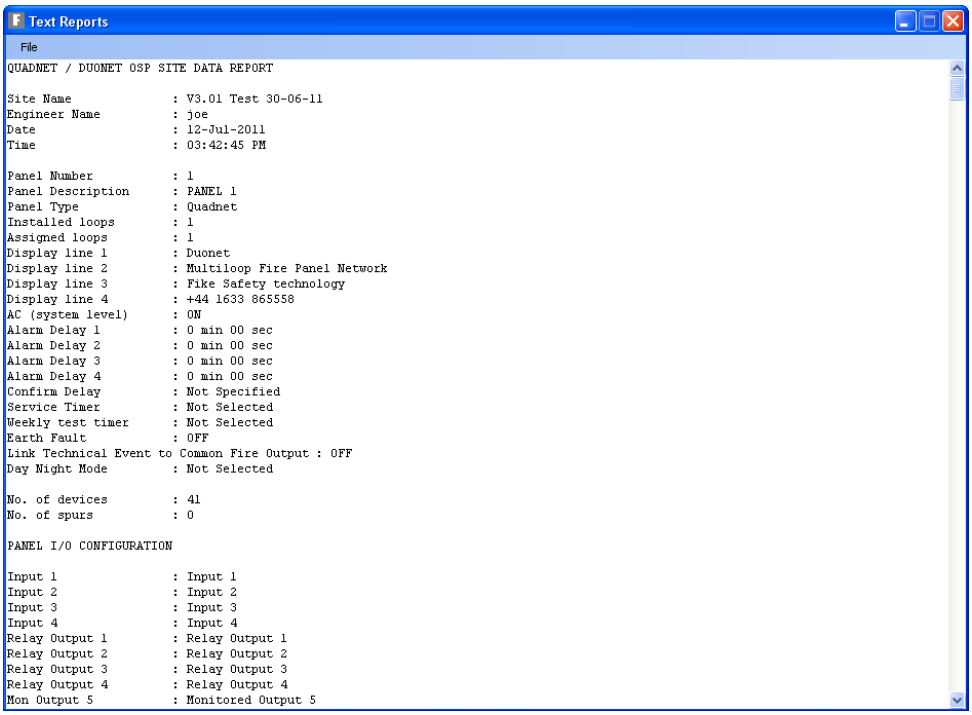
The Site Config Report option allows the creation of text files from your configuration, in the *.txt format. The following screen offers options that may be ticked so that you can select which details are included in the site report.

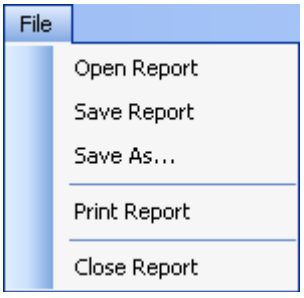


Before the report is shown, the engineer is prompted to enter a name.



A typical report is shown below.

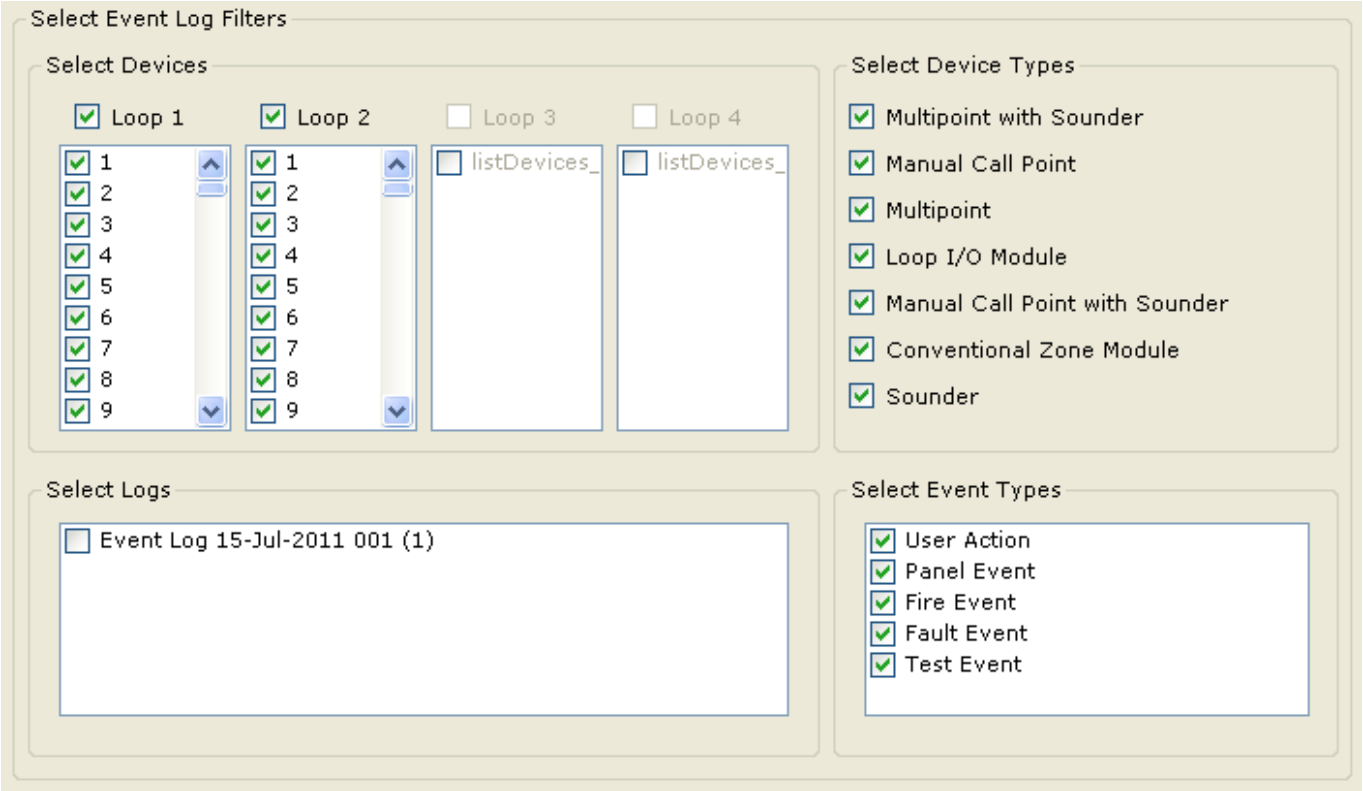




The site report file may be saved in the format ‘file_name’.txt by utilising the ‘Save As’ command in the File menu at the top of the screen. The file may be opened in Microsoft WordPad or imported into Microsoft Word. However, some fonts will cause the tabulation to alter when using Microsoft Word. The print function may be used directly from the ‘File’ menu, from within Word or WordPad.

Event Log Report

The Event Log Report option allows the creation of text files from any event logs which have previously been uploaded from the panel. The files will be in the *.txt format. The following screen offers options that may be ticked so that you can select which details are included in the event log report.



A typical report is shown below.

Event Log Report

File

QUADNET / DUONET OSP SITE EVENT LOG

Report Date: 15-Jul-2011
Report Time: 02:01:39 PM

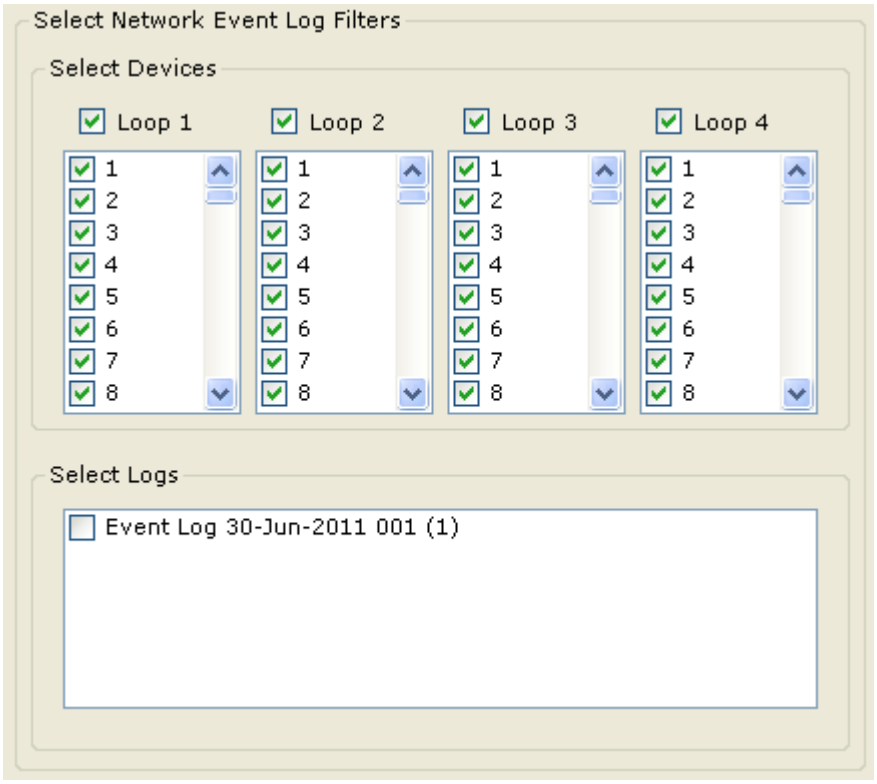
Site : V3.00 Test 15-07-11
Panel : 1
Date : 15-Jul-2011 02:01

Date	Time	Event Type	Event Sub Type	Loop	Device	Device Label	Type	Zone	Zone Label
01-Jan-1000	03:53:53	Fault Event	Device fault	1	31	LOOP 1 DEVICE 31	SDR		
01-Jan-1000	03:53:53	Fault Event	Device fault	1	30	LOOP 1 DEVICE 30	SDR		
01-Jan-1000	03:53:53	Fault Event	Device fault	1	29	LOOP 1 DEVICE 29	SDR		
01-Jan-1000	03:53:53	Fault Event	Device fault	1	28	LOOP 1 DEVICE 28	SDR		
01-Jan-1000	03:50:52	User Action	Standard init loop	1					
01-Jan-1000	03:01:32	User Action	Stop loop	1					
01-Jan-1000	02:58:52	User Action	Standard init loop	1					
01-Jan-1000	02:56:26	Panel Event	Charger failed!						
01-Jan-1000	02:55:36	Panel Event	Battery fault						
01-Jan-1000	02:55:29	User Action	AL3 entered						
01-Jan-1000	02:00:03	User Action	AL3 entered						
01-Jan-1000	12:13:45	Fault Event	Device fault	1	28	LOOP 1 DEVICE 28	SDR	128	ZONE 128
01-Jan-1000	12:13:45	Fault Event	Device fault	1	29	LOOP 1 DEVICE 29	SDR	128	ZONE 128
01-Jan-1000	12:13:45	Fault Event	Device fault	1	30	LOOP 1 DEVICE 30	SDR	128	ZONE 128
01-Jan-1000	12:13:45	Fault Event	Device fault	1	31	LOOP 1 DEVICE 31	SDR	128	ZONE 128
01-Jan-1000	12:13:15	User Action	Reset system						
01-Jan-1000	12:12:47	Panel Event	Loop card fault	4					
01-Jan-1000	12:12:46	Panel Event	Loop card fault	3					
01-Jan-1000	12:12:39	Panel Event	Loop card fault	3					
01-Jan-1000	12:10:19	User Action	OSP upload						
01-Jan-1000	12:07:29	User Action	OSP download						
01-Jan-1000	12:05:49	User Action	OSP upload						
01-Jan-1000	11:44:57	Fault Event	Device fault	1	29	LOOP 1 DEVICE 29	SDR		
01-Jan-1000	11:44:57	Fault Event	Device fault	1	30	LOOP 1 DEVICE 30	SDR		
01-Jan-1000	11:44:57	Fault Event	Device fault	1	28	LOOP 1 DEVICE 28	SDR		
01-Jan-1000	11:44:57	Fault Event	Device fault	1	31	LOOP 1 DEVICE 31	SDR		
01-Jan-1000	11:44:37	User Action	Reset system						
01-Jan-1000	11:44:07	User Action	AL3 entered						
01-Jan-1000	11:43:59	Fault Event	Device fault	1	31	LOOP 1 DEVICE 31	SDR		
01-Jan-1000	11:43:58	Fault Event	Device fault	1	30	LOOP 1 DEVICE 30	SDR		
01-Jan-1000	11:43:57	Fault Event	Device fault	1	29	LOOP 1 DEVICE 29	SDR		
01-Jan-1000	11:43:55	Fault Event	Device fault	1	28	LOOP 1 DEVICE 28	SDR		
01-Jan-1000	11:43:26	Panel Event	Loop card fault	3					
01-Jan-1000	11:43:26	Panel Event	Loop card fault	4					
01-Jan-1000	11:43:25	User Action	Reset system						
01-Jan-1000	11:43:17	Panel Event	Loop card fault	3					
01-Jan-1000	11:43:17	Panel Event	Loop card fault	4					

As with the site report file, the event log report may be saved in the format ‘file_name’.txt by utilising the ‘Save As’ command in the File menu at the top of the screen. The file may be opened in Microsoft WordPad or imported into Microsoft Word. However, some fonts will cause the tabulation to alter when using Microsoft Word. The print function may be used directly from the ‘File’ menu, from within Word or WordPad.

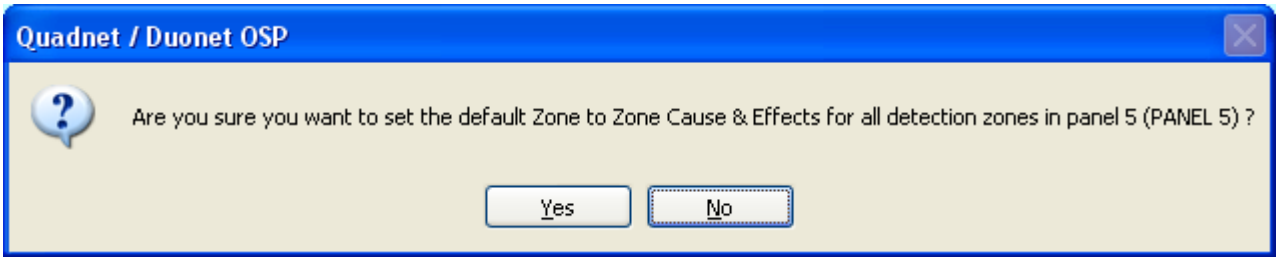
Network Event Log Report

A network event log report may be made in the same way as an event log report. Note that the options which can be selected are fewer as this event log only covers network events.



Default Zone to Zone Cause & Effects

This feature can be used to reset the default Zone to Zone cause and effect data for the currently selected panel to the original factory settings. An “Are You Sure” prompt is given.



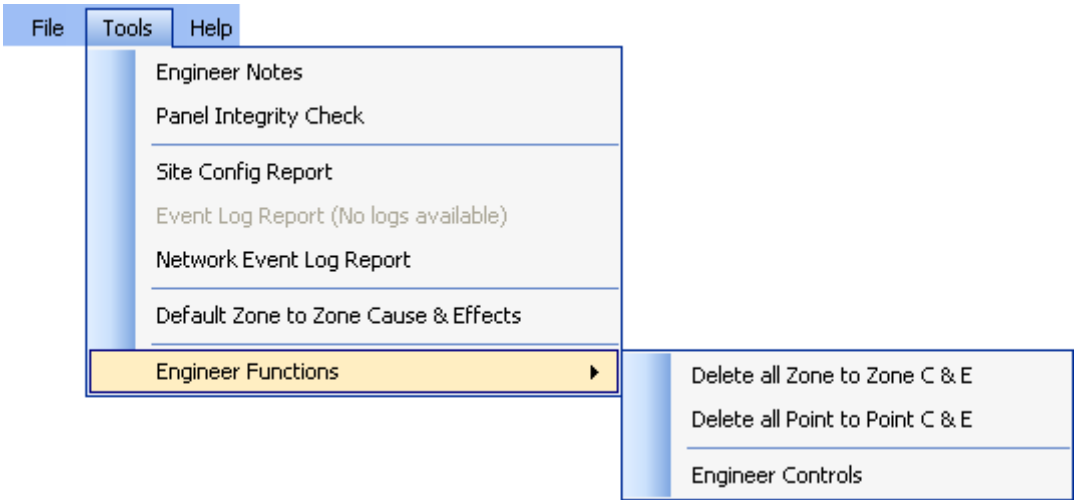
For each of the 128 detection zones, the settings will be as follows

Group 1 – ALL Zones (1-28) selected. Links for Smoke alarm /MCP/heat/input set to Alarm stage 3. No delays used.

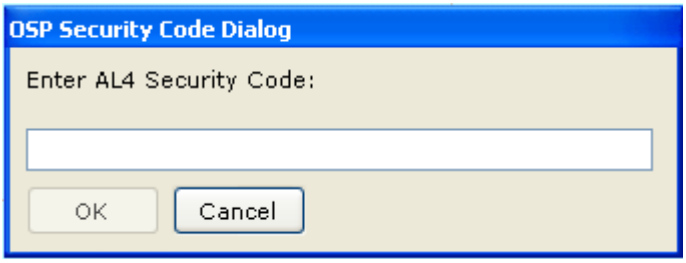
Group 2 – NO Zones selected. No links set.

Engineer Functions

Certain functions are provided for use by qualified engineers only. These have the drastic effect of deleting all zone to zone Cause and Effect or deleting all point to point Cause and Effect and so they are password protected.



Before any of the Engineer Functions can be used, the engineer must enter an AL4 security code.

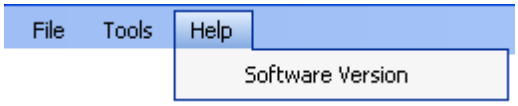


Engineer Controls

The Engineer Controls option is for the use of our engineers only. They can access this feature using a special security code.

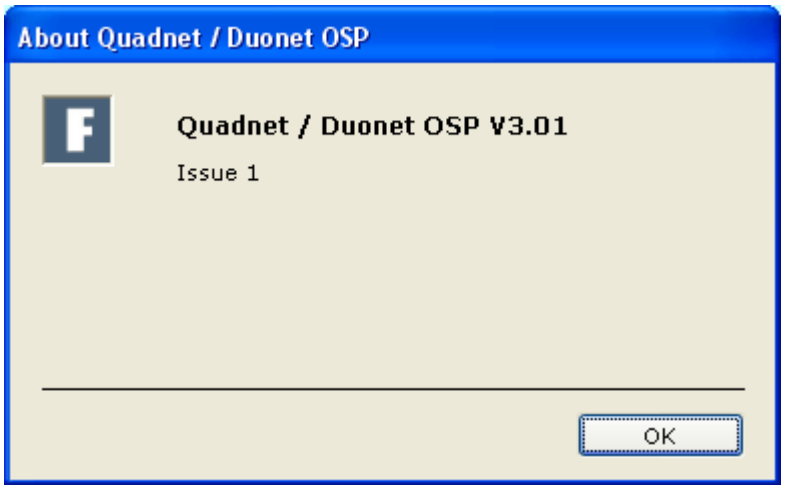
'Help' Menu

The Help Menu contains a single option which will display the current software version.



About Page

The About Page obtained from the Help menu gives details of the current software version of the OSP program. An example is shown below.



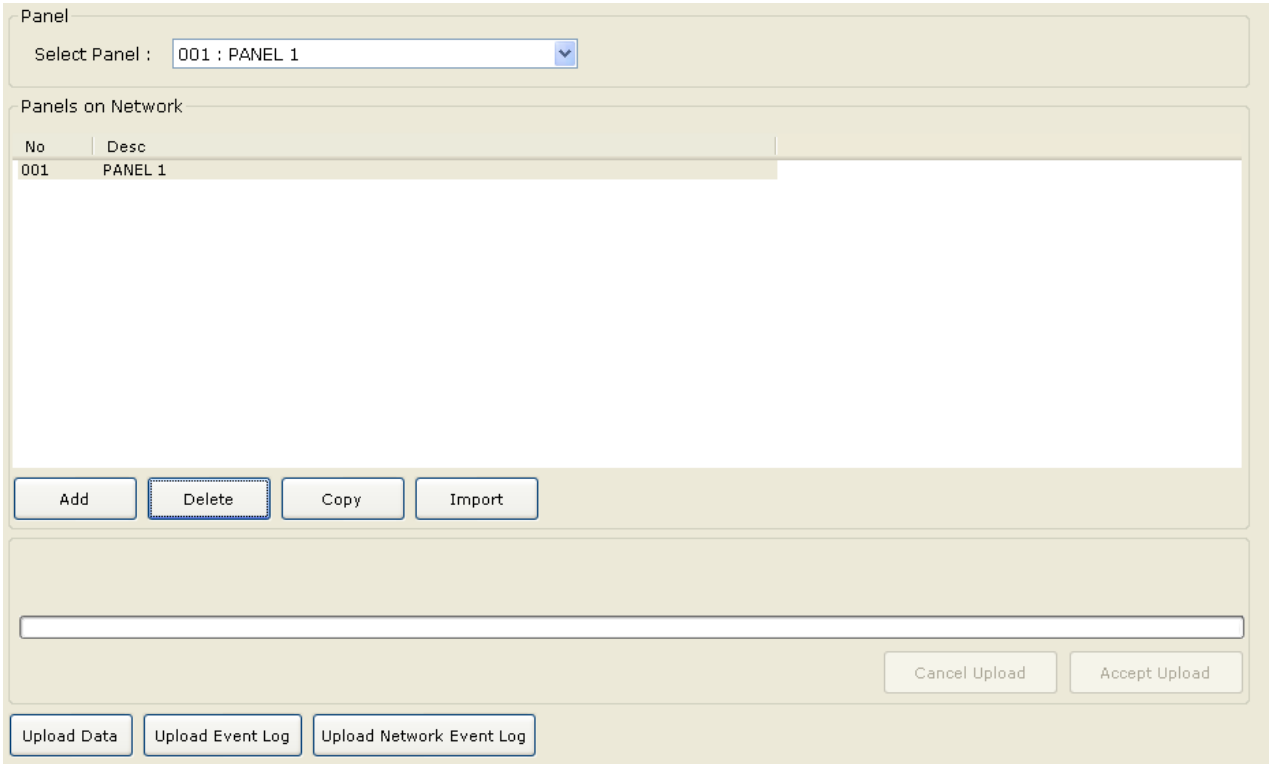
Upload Data from Panel

Note that before uploading panel data, a site data file (either newly created or an existing file) must have been opened on the PC.

Prior to an Upload of the configuration from the control panel to the PC, or a Download of the configuration from PC to the control panel, it is necessary for the panel to be in 'Access Level 3 (Engineer Mode)'. The panel must be connected to the PC via a USB lead.

Note that if the panel is left for a period of time, it will log itself out of Access Level 3 (Engineer Mode) so it is best to check that it is in Engineer mode before doing anything at the PC.

The upload button is found to the left of the main screen



Add

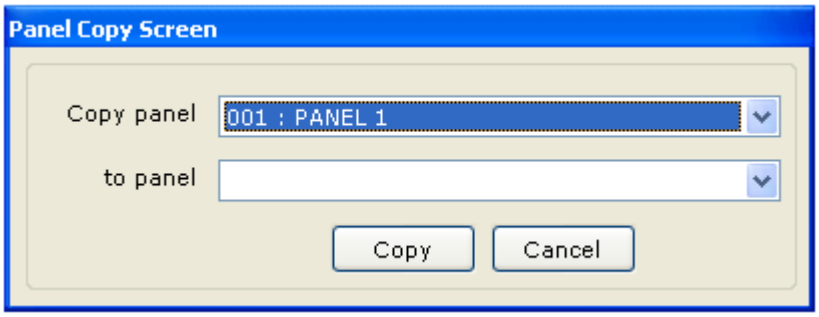
The Add button on the upload screen allows you to add a new panel to the current configuration on the PC. This feature is also available on the "Panel Details" screen available from the "Panel Details" button.

Delete

The Delete button on the upload screen allows you to delete a panel to the current configuration on the PC. This feature is also available on the "Panel Details" screen available from the "Panel Details" button.

Copy

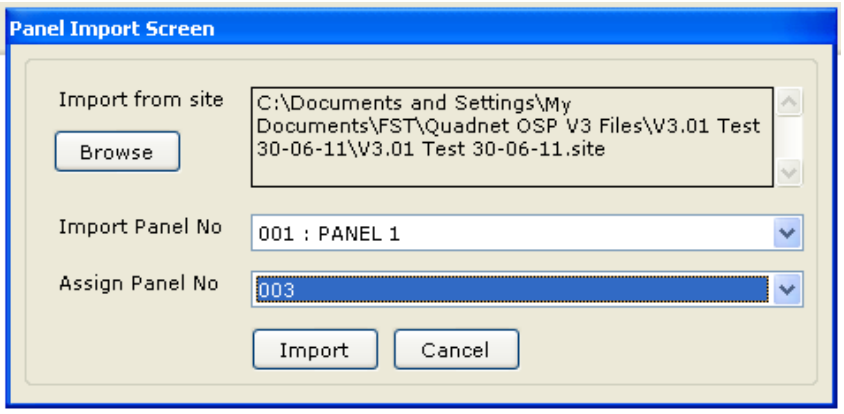
The Copy button on the upload screen allows you to copy the details from an existing panel to a new panel number on the PC. This feature is also available on the “Panel Details” screen available from the “Panel Details” button.



In the above example, we have selected Panel 001 from that site and the data from that panel will be copied into Panel 008 in our configuration. The data may only be copied to a panel number that does not already exist in the configuration. If you want to copy the data to an existing panel, the existing panel should first be deleted using the Delete button.

Import

The Import button allows you to browse for a DIFFERENT site and copy the details of a panel on that site to any panel number on the PC. This feature is also available on the “Panel Details” screen available from the “Panel Details” button.

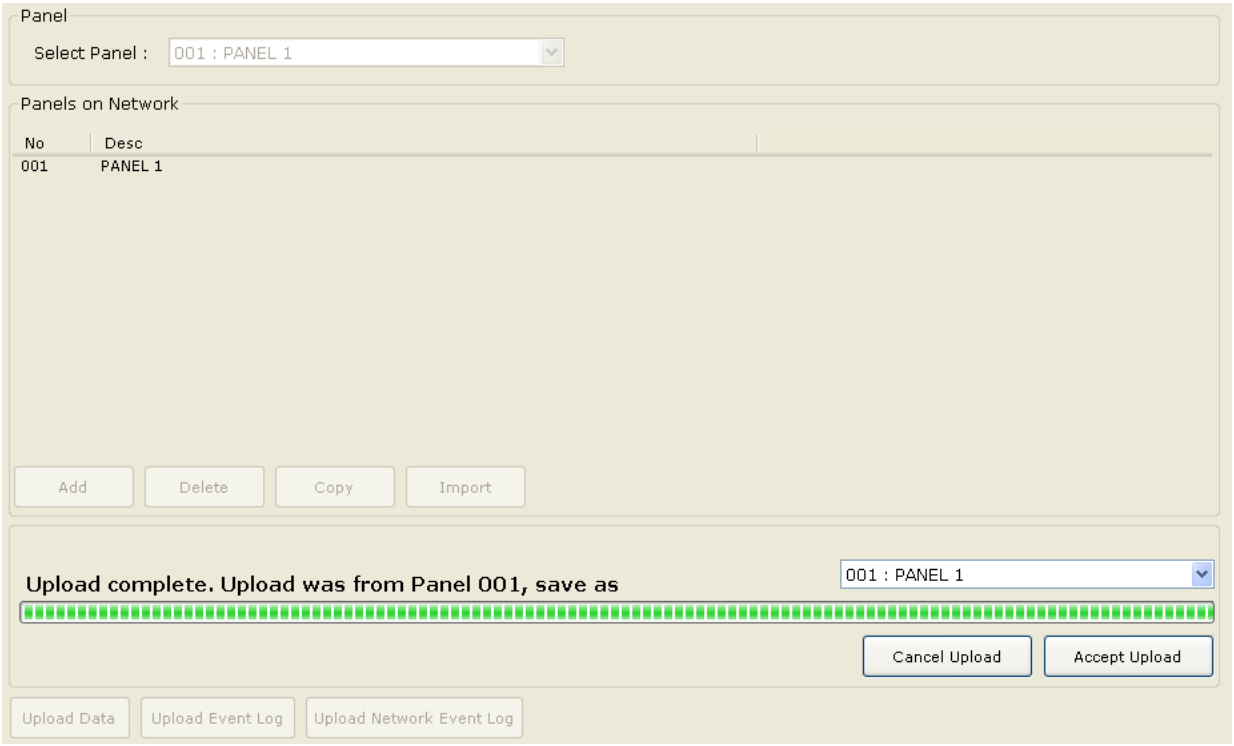


In the above example, we have picked a different site named Test 30-06-11.site. We have selected Panel 001 from that site and the data from that panel will be copied into Panel 003 in our configuration. It does not matter whether Panel 003 already exists in our configuration, but if it does, any data will be overwritten.

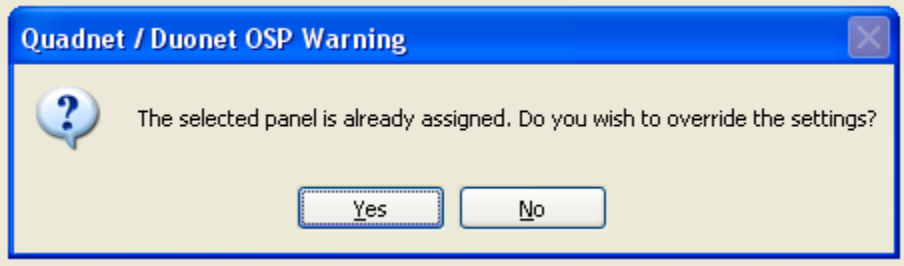
Upload Data

The Upload Data button allows you to upload data from the currently connected panel. A progress bar is shown while the data is uploading. If there is a problem, a warning will be given. If this happens, you should disconnect the USB and re-connect it before trying again. Also remember that the panel must be in Engineer Mode.

Note that you must select a panel in the PC configuration which will be given the uploaded data. When this has been selected you can press the Accept Upload button as shown in the example screen below.



If the panel that you have chosen already has data assigned to it, a prompt as follows will be given so that you can change your mind.



Upload Event Log

It is possible to upload the event log from a panel. It is necessary for the panel to be in 'Access Level 3 (Engineer Mode)' and the panel must be connected to the PC via a USB lead.

You can save event logs with different dates and times from more than one panel on the PC.

Event logs can be viewed at a later date and a hard copy made using the Event Log Report feature in the Tools menu.

Upload Network Event Log

It is possible to upload the network event log from a panel. It is necessary for the panel to be in 'Access Level 3 (Engineer Mode)' and the panel must be connected to the PC via a USB lead.

You can save network event logs with different dates and times on the PC.

Network event logs can be viewed at a later date and a hard copy made using the Network Event Log feature in the Tools menu.

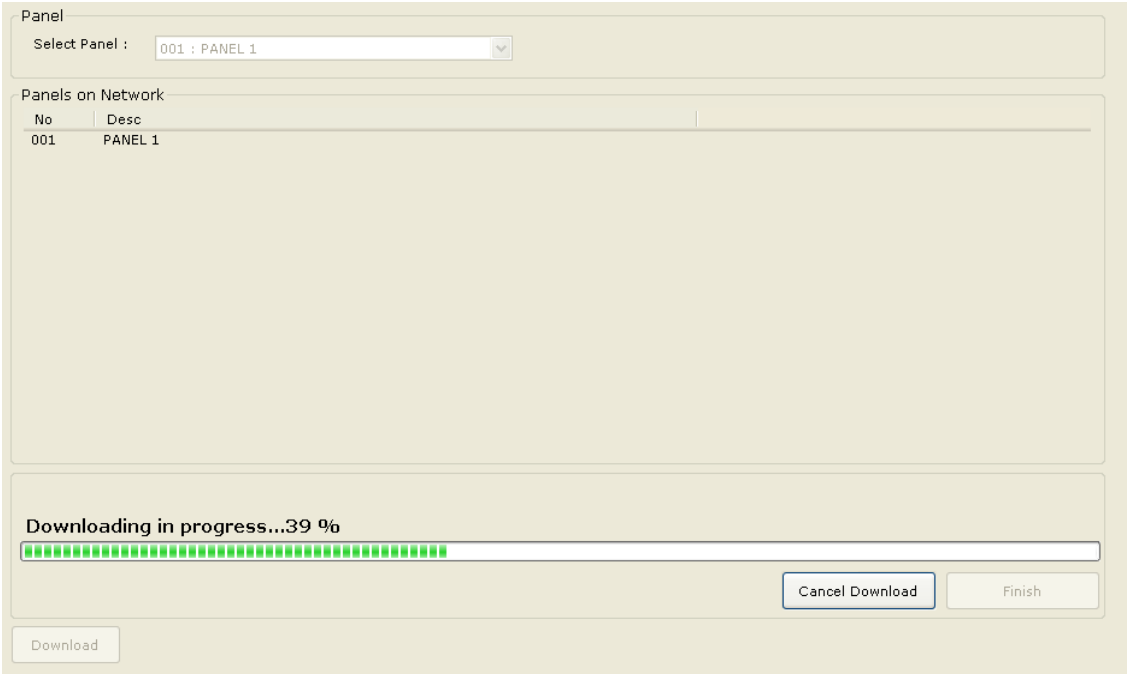
Download Data to Panel

Prior to a Download of configuration data from PC to the control panel, it is necessary for the panel to be in 'Access Level 3 (Engineer Mode)'. The panel must be connected to the PC via a USB lead.

Note that if the panel is left for a period of time, it will log itself out of Access Level 3 (Engineer Mode) so it is best to check that it is in Engineer mode before doing anything at the PC.

The download button is found to the left of the main screen. On pressing it, the following screen is obtained.

The Download button on this screen allows you to download configuration data from a selected panel in the PC configuration to the panel to which the PC is connected. A progress bar is shown while the data is downloading (as shown below).



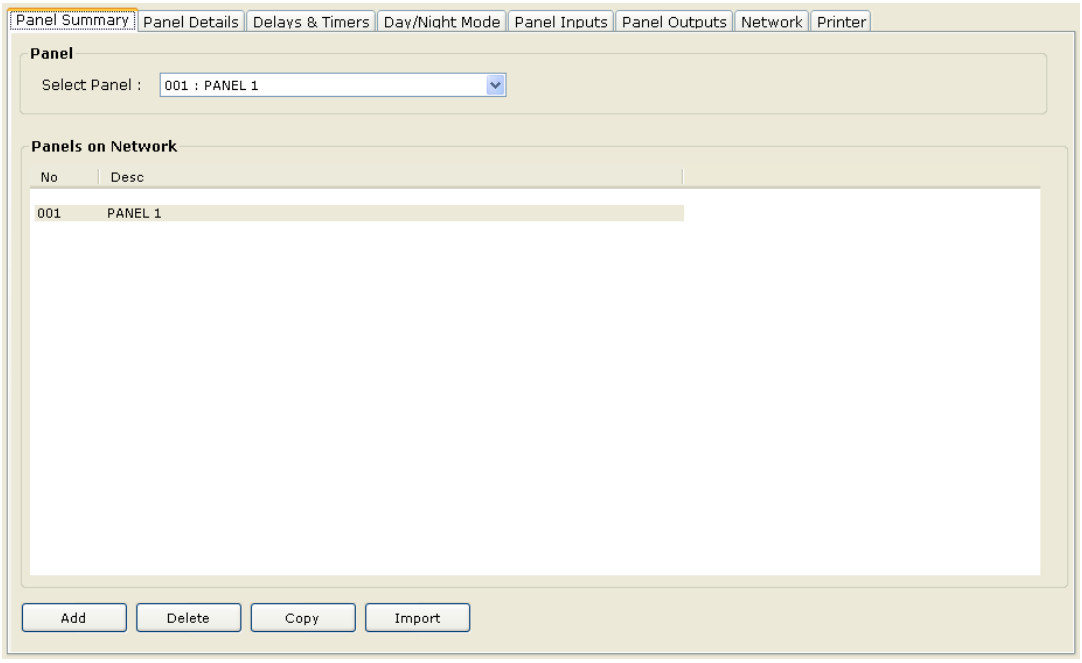
If there is a problem, a warning will be given. If this happens, you should disconnect the USB and re-connect it before trying again. Also remember that the panel must be in Engineer Mode.

It is recommended that you do not use the Cancel Download button once downloading has begun.

When the downloading is complete, press the Finish button.

Panel Details

Clicking on the 'Panel Details' button brings up the following screen.



Note that there are eight tabs on this screen, each of which is described below.

Panel Summary

On this tab you can use the four buttons at the bottom of the screen to add/delete panels from the configuration data as follows.

Add

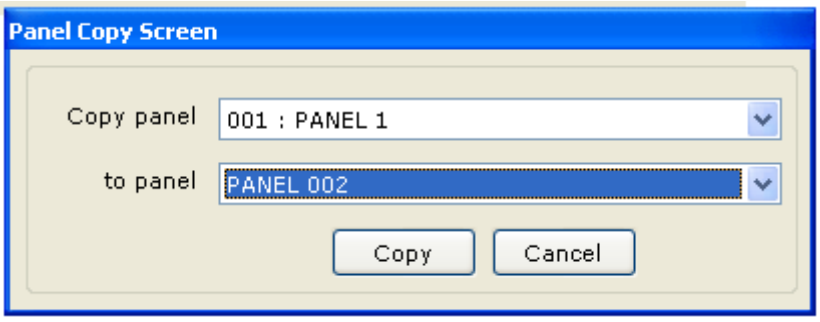
The Add button on the upload screen allows you to add a new panel to the current configuration on the PC. This feature is also available on the “Upload Data” screen available from the “Upload from Control Panel” button.

Delete

The Delete button on the upload screen allows you to delete a panel to the current configuration on the PC. This feature is also available on the “Upload Data” screen available from the “Upload from Control Panel” button.

Copy

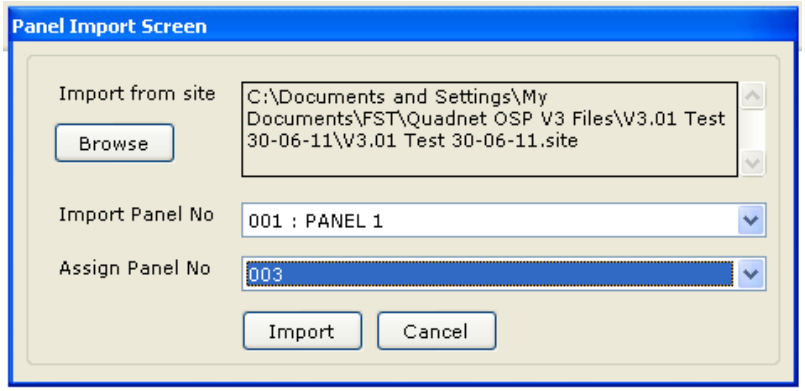
The Copy button on the upload screen allows you to copy the details from an existing panel to a new panel number on the PC. This feature is also available on the “Upload Data” screen available from the “Upload from Control Panel” button.



In the above example, we have selected Panel 001 from that site and the data from that panel will be copied into Panel 002 in our configuration. The data may only be copied to a panel number that does not already exist in the configuration. If you want to copy the data to an existing panel, the existing panel should first be deleted using the Delete button.

Import

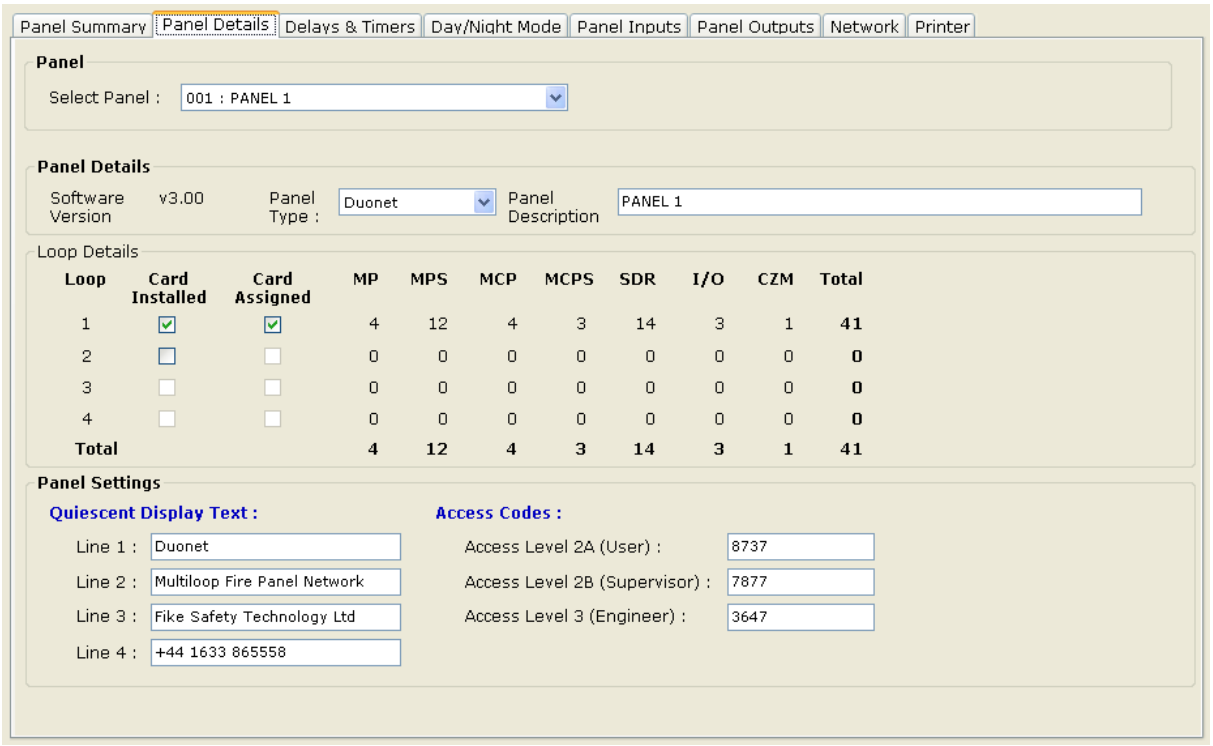
The Import button allows you to browse for a DIFFERENT site and copy the details of a panel on that site to a panel number in the current configuration. This feature is also available on the “Upload Data” screen available from the “Upload from Control Panel” button.



In the above example, we have picked a different site named Test 30-06-11.site. We have selected Panel 001 from that site and the data from that panel will be copied into Panel 003 in our configuration. It does not matter whether Panel 003 already exists in our configuration, but if it does, any data will be overwritten.

Panel Details

The Panel Details tab is shown below.



In the top section you can select the panel and the details of the selected panel will appear in the bottom half of the screen where they may be edited.

Panel Modes

The available panel modes are

Quadnet (with up to 4 loops)
Duonet (with up to 2 loops)
Repeater (with no loops) – this is purely to relay information to remote parts of a panel network.

Panel Description

A panel description (up to 14 characters) may be allocated to the panel.

Loop Details

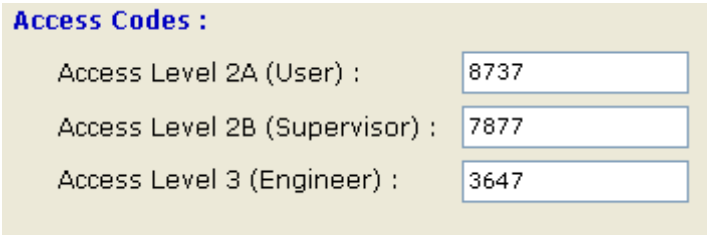
In the Loop Details section the quantity of the different types of devices on each loop are shown.

Quiescent Display Text

You can set up four lines of user-definable text which is shown on the panel when it is in a quiescent state. The default text is shown in the sample screen above.

Codes

The control panel access codes may be changed as required on this screen.



The default codes for Access Level 2A (user), Access Level 2B (user) and Access Level 3 (engineer) are shown above. They may be changed to any combination of 4 digits.

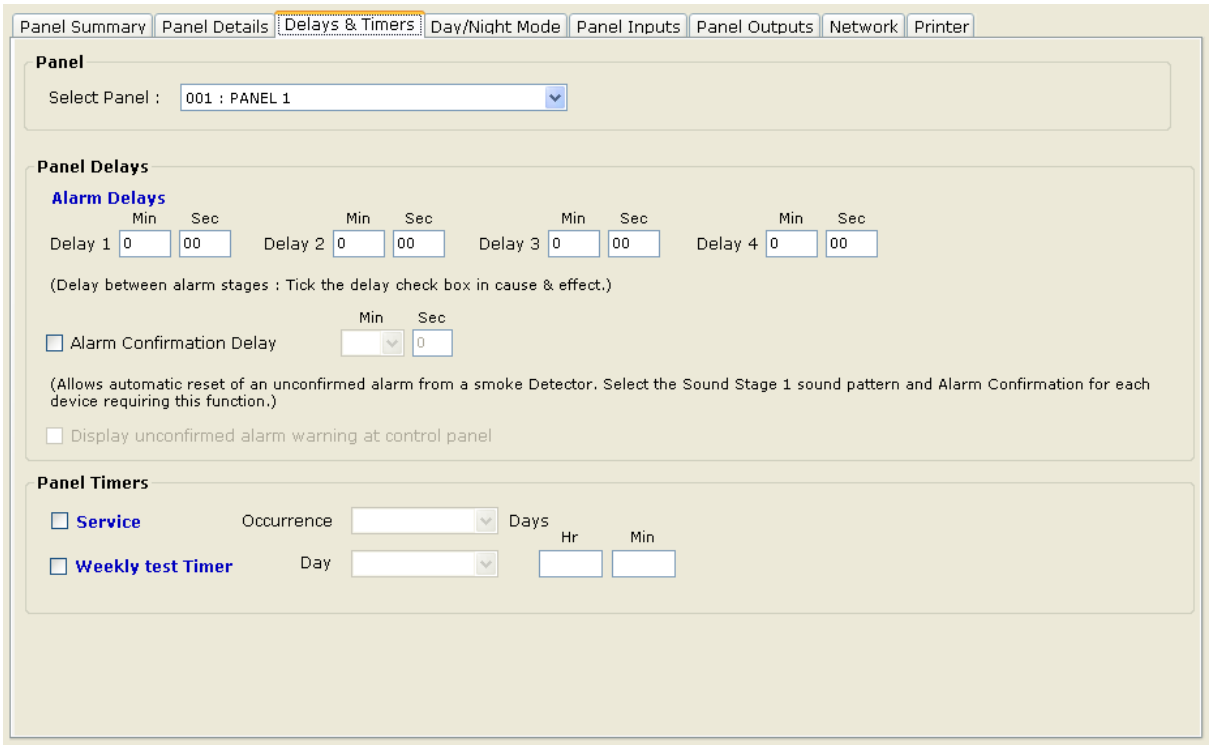
Upload and download may only be carried out from Access Level 3 (engineer). Changing the engineer code will restrict access to those unauthorised to make such changes.

A **Back Door** code can be provided if the codes chosen are lost. If this is required, contact your supplier with the following information:

1. The control panel serial number
2. The control panel software version number
3. The site name and details
4. Your details
5. Written authorisation from the legal owner of the system to request back door codes for the system.

Delays & Timers

The Delays and Timers tab is shown below.



Alarm Delays

Four alarm delays can be programmed with values between 0:00 and 10:00 minutes.

An Alarm Confirmation delay may be set up so that when an alarm occurs, it is not immediately reported. The system will wait until the end of the delay time and then check that the alarm is still present. If it has cleared, the device which was in alarm will be reset and no further action need be taken.

The delay time for alarm confirmation can be programmed from 1:00 – 4.00 minutes. You must ensure that stage 1 sound pattern is active for every device with alarm confirmation. This option cannot be used at the same time as alarm delay.

There is a tick box to decide whether any unconfirmed alarm warning should be displayed at the panel.

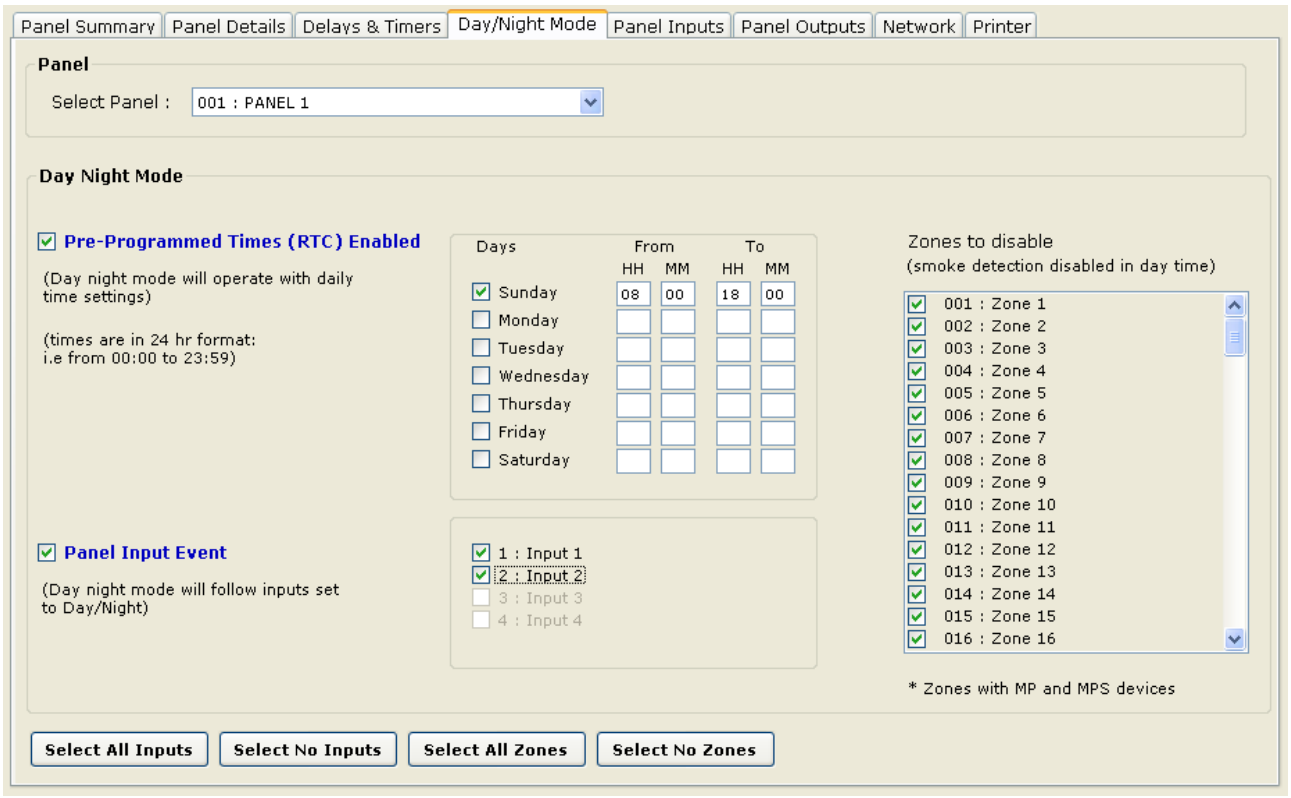
Panel Timers

You can program how often the service timer is to occur so that the end-user is prompted to call for a service. Options are 90, 180 and 360 days.

You can also specify a day and a time (hours and minutes on the 24 hour clock) for a weekly test to be performed on the panel. Leave the fields blank if you do not want a weekly test.

Day/Night Mode

The Day / Night mode tab is shown below.



Pre-programmed Times (RTC) Enabled

You can set times throughout the week (hours and minutes on the 24 hour clock) for day/night mode to be operational by filling in the Days “From To” Table as shown in the tab. There can only be one such time range set up per day.

You can also specify (using the zone tick boxes) which zones are to be disabled during the selected times. This could for example be used to disable smoke detection in a zone during the day while enabling it at night.

Note that the zone list can be scrolled down and that there are 128 possible zones. Zones with MP or MPS devices are shown with an asterisk by their number (e.g. Zones 002 and 005 in the example above).

The “Select Zones” button will put a tick in all the zone boxes. The “Select No Zones” button will clear all the zone tick boxes.

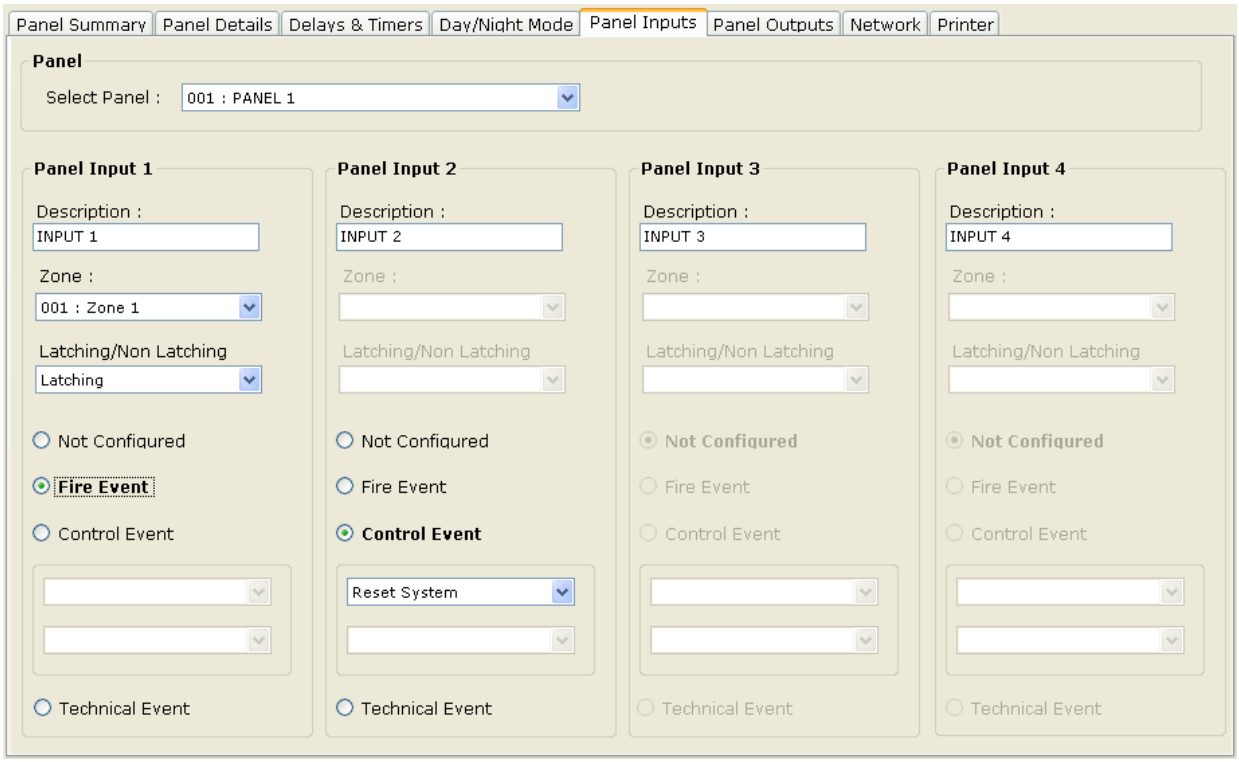
Panel Input Event

With this option, you can configure the system so that day / night mode will follow any panel inputs set to day/night mode.

The “Select All Inputs” button will put a tick in all the input tick boxes. The “Select No Inputs” button will clear all the input tick boxes.

Panel Inputs

The Panel Inputs tab is shown below.



For the Quadnet panel, up to 4 Panel Inputs can be configured on this tab.

For the Duonet panel, up to 2 Panel Inputs can be configured on this tab.

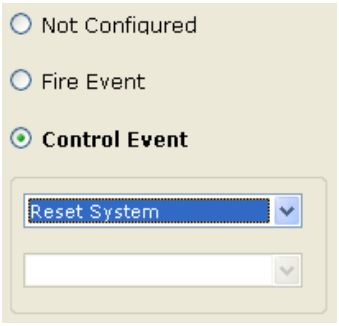
A Panel event can be configured as a Fire Event, a Control Event, a Technical Event, or left unconfigured.

Fire Event

A Panel Input configured as a Fire Event will have an associated zone (Zone 1 in the above example). It can also be selected to be latching or non-latching. These values may be changed using the pull-down selection lists.

Control Event

A Panel input can be configured as any of the types of Control Event as shown in the pull-down selection list below. Note that “Day Night Mode” may not be possible unless Day/Night mode has been selected (with zones) on the Day/Night mode tab.

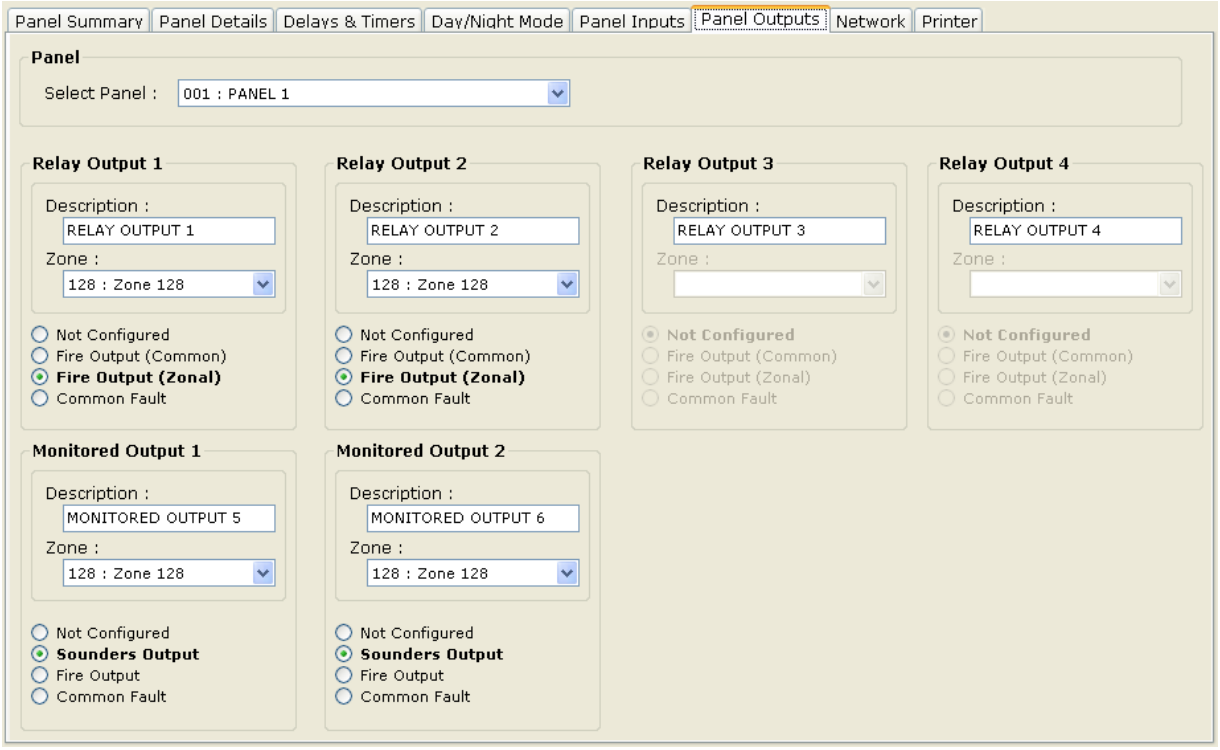


Technical Event

A Panel Input configured as a Technical Event will have an associated zone. It can also be selected to be latching or non-latching. These values may be changed using the pull-down selection lists. Note that when a Technical Event takes place, there will be no indication on the panel display and the Fire LED will not light.

Panel Outputs

The Panel Outputs tab is shown below.



Relay Outputs

For the Quadnet panel, four relay outputs (1-4) may be configured so that they will be activated when certain conditions occur. Selection is made via radio buttons.

For the Duonet panel, outputs 3 and 4 are not available and they are greyed out.

A Common Fire Output is activated by any Fire on the system.

A Zonal Fire Output (a zone must be specified in the range 1-128) is activated by a Fire in the specified zone.

A Common Fault Output is activated by any Fault on the system.

Monitored Outputs

Two monitored outputs (numbered 5-6 for the Quadnet and 1-2 for the Duonet) may be configured so that they will be activated when certain conditions occur. Selection is made via radio buttons. Note that on the Duonet backplane (Rev B), these outputs are labelled outputs 3 and 4.

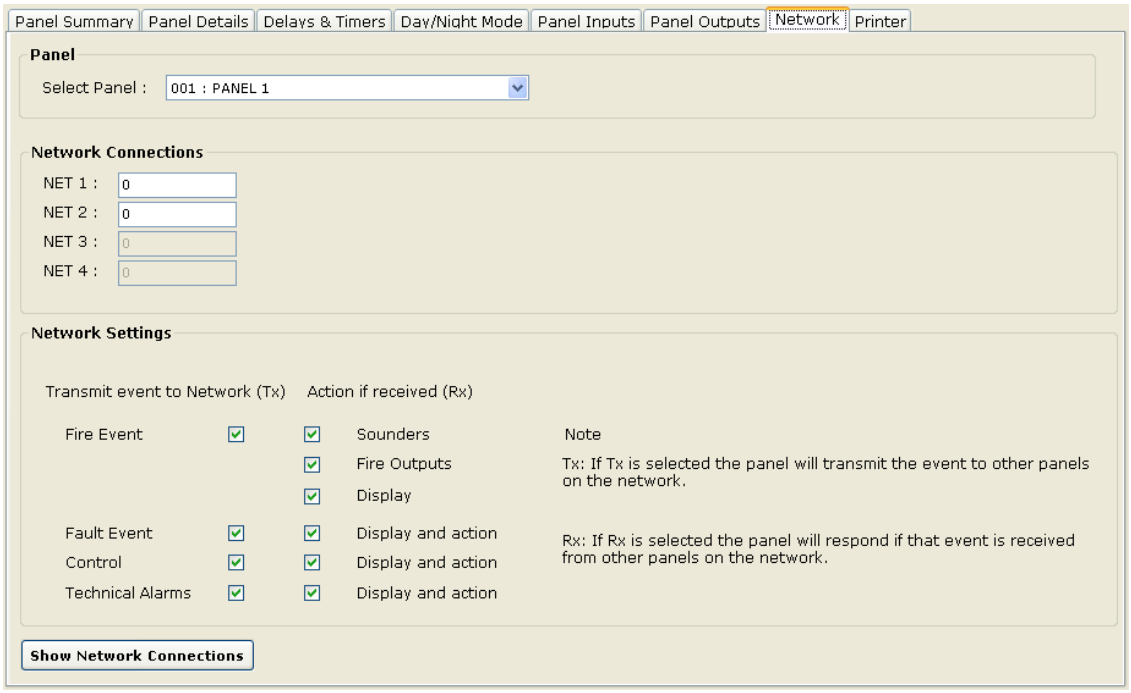
Sounder Output (a zone must be specified in the range 1-128) is activated by Sounders in the specified zone and stops on silence command.

A (Zonal) Fire Output (a zone must be specified in the range 1-128) is activated by a Fire in the specified zone and stops on reset command.

A Common Fault Output is activated by any Fault on the system.

Network

The network tab is shown below.



On this tab you can specify (for your chosen panel) which events are transmitted to the panel network. This is done by ticking the relevant boxes in the “Transmit Event to Network” list.

You can also select whether the chosen panel is to react to any events received from the network. The choices are made by ticking the relevant boxes in the “Action if Received” list.

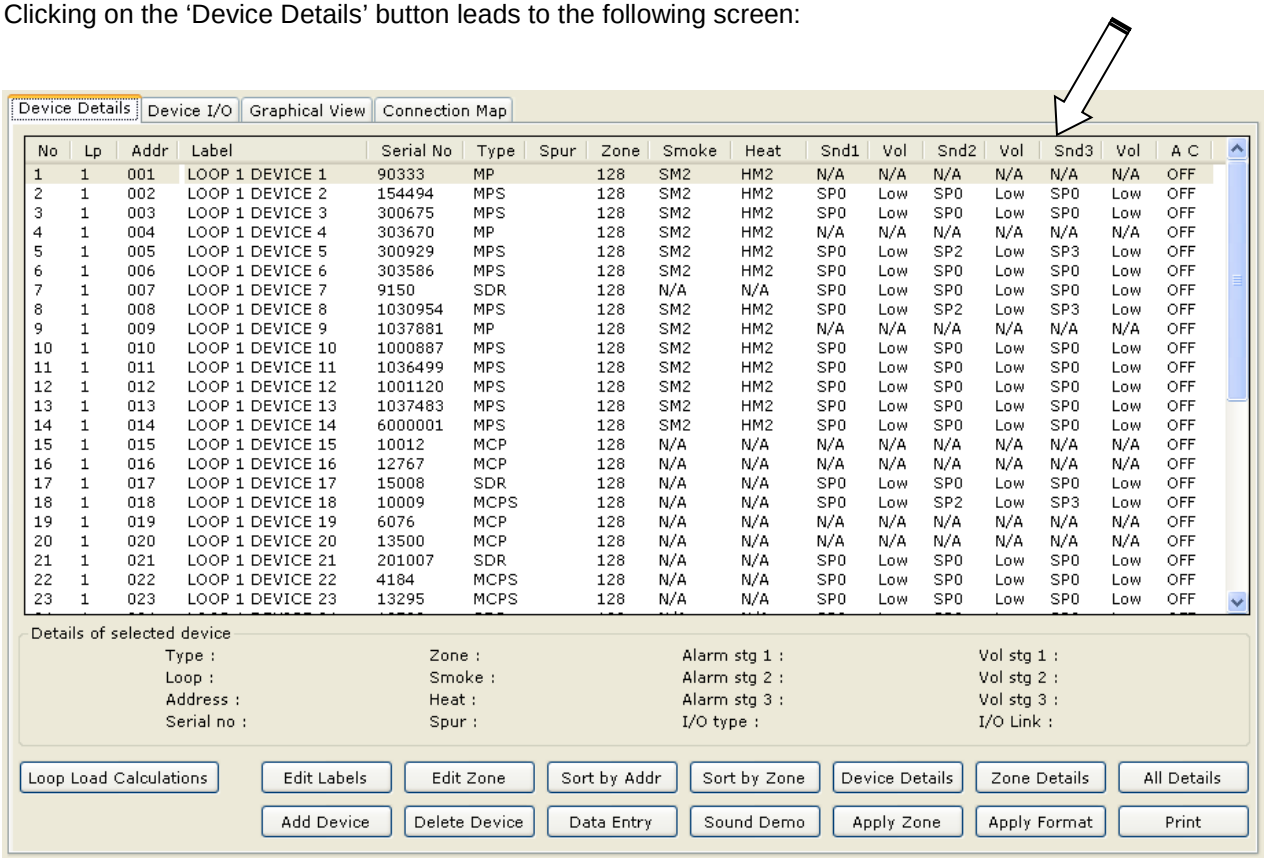
Printer

The printer tab is shown below.

You can select whether the printer is to be enabled on the panel and if so, you can specify which types of event are printed. Options are Fire Events, Fault Events, Panel Events and All Events.

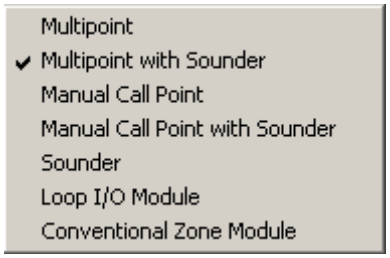
Device Details - Device Details Tab

Clicking on the 'Device Details' button leads to the following screen:



You can right click on fields as follows to edit the fields. The selection lists below have a tick by the default values.

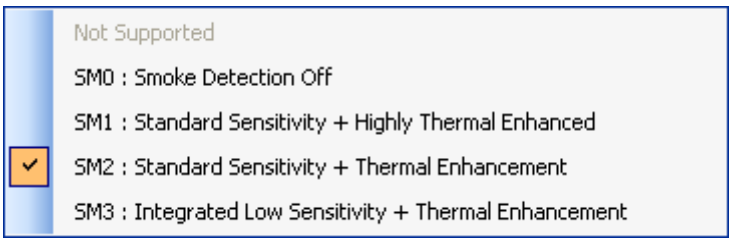
Type (only available with NEW data)



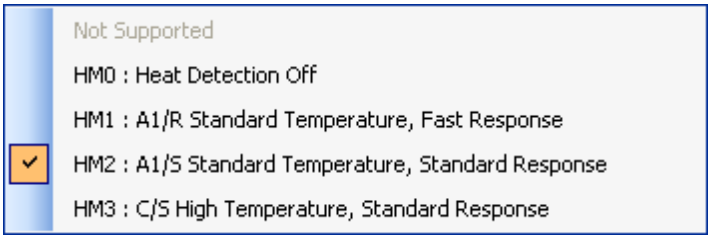
Zone (only available with NEW data)

A list of all 128 zones is displayed (128 is default)

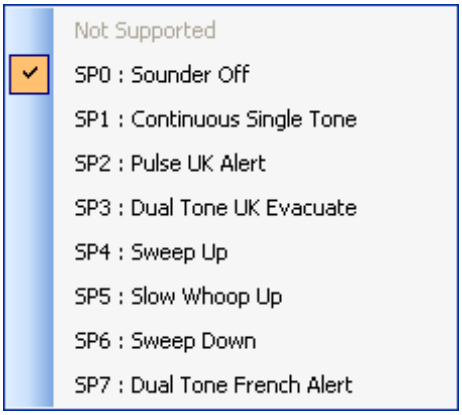
Smoke Detector (if applicable for the type)



Heat Detector (if applicable for the type)



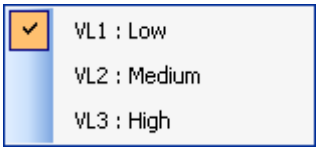
Alarm Stages for Sounders (3 Stages) (if applicable for the type)



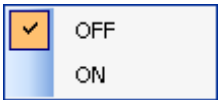
The system may operate with a total of two out of three Alarm Stages where the sound pattern selected at 'Sound Stage X' will operate.

Alarm Stage	Description	Actions	Next Stage
1.	Alarm Confirmation	Allows local warning and automatic reset of an unconfirmed alarm from a smoke detector. The system does not enter a Fire state until the alarm is confirmed.	**Either 2 or 3**
2.	Alert	Early warning stage. Sounders only are activated.	**3**
3.	Evacuate	Full alarm condition, sounders and remote fire outputs are activated.	**-**

Volume Levels for Sounders (3 stages) (if applicable for the type)



AC (Alarm Confirmation)



The Multipoint detector/sounder incorporates '**Alarm Confirmation Technology'** to reduce unwanted alarms. This enables a detector to generate a local warning in response to the presence of smoke, allowing any persons within the area to react accordingly. If the presence of smoke is removed within the Alarm Confirmation Delay time then the sounder will reset automatically, but if the smoke presence continues after the alarm confirmation delay time, then an alarm will be generated.

The activation of any Heat detector (even in the same device as the smoke detector in 'Alarm Confirmation') generates an instant alarm (depending on the programming of the system 'Cause & Effect').

An 'Alarm Stage 1' sound pattern must be used for every multipoint detector requiring the 'Alarm Confirmation Delay'.

Edit Labels

The device labels are of critical importance in an addressable fire alarm system, so in order to avoid accidentally changing them, the labels are 'write protected' by the Edit Labels button. Simply click on this button to activate the 'Edit Mode', and click again to deactivate it when you have finished.

Device labels may be up to 23 alphanumeric characters long. Remember to press ENTER on your PC keyboard to indicate that you have finished editing the selected label.

Edit Zone

The zone numbers may be edited in a similar way as the labels. In order to avoid accidentally changing them, the zones are 'write protected' by the Edit Zone button. Simply click on this button to activate the 'Edit Mode', and click again to deactivate it when you have finished.

Sort by Address

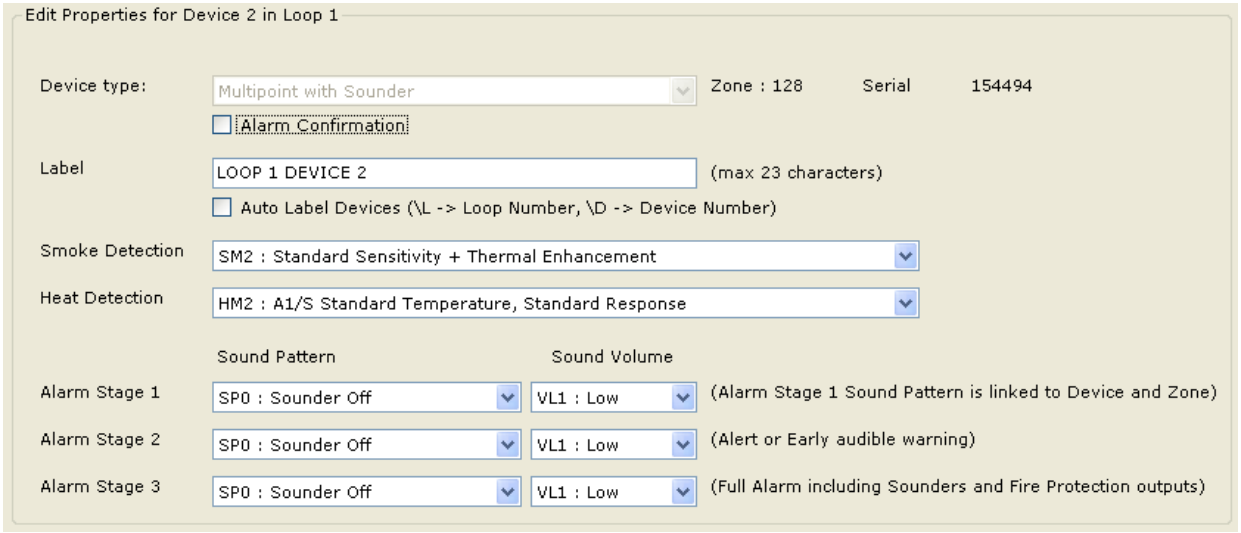
This button will rearrange the order of the devices as seen on the screen so that they are in order of address. It does NOT renumber the actual order of the devices on a loop.

Sort by Zone

This button will rearrange the order of the devices as seen on the screen so that they are in order of zone. It does NOT renumber the actual order of the devices on a loop.

Device Details

This button allows you to edit properties as shown for the current device. You can also double-click on the current device to obtain this screen.

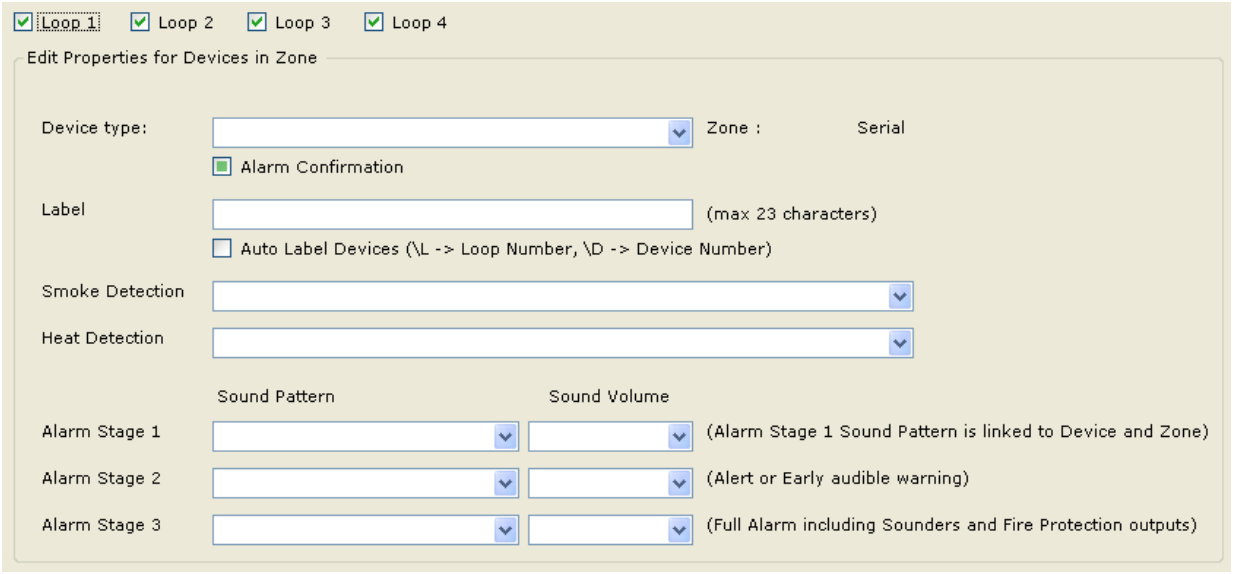


The 'Device Details' button changes only the fields that have had entries changed. This is done for the selected device only.

Zone Details

This button allows you to edit properties as shown for the zone associated with the point that was currently highlighted when the button was pressed.

Note that you can select which loop(s) are to have their details changed using the loop tickboxes.

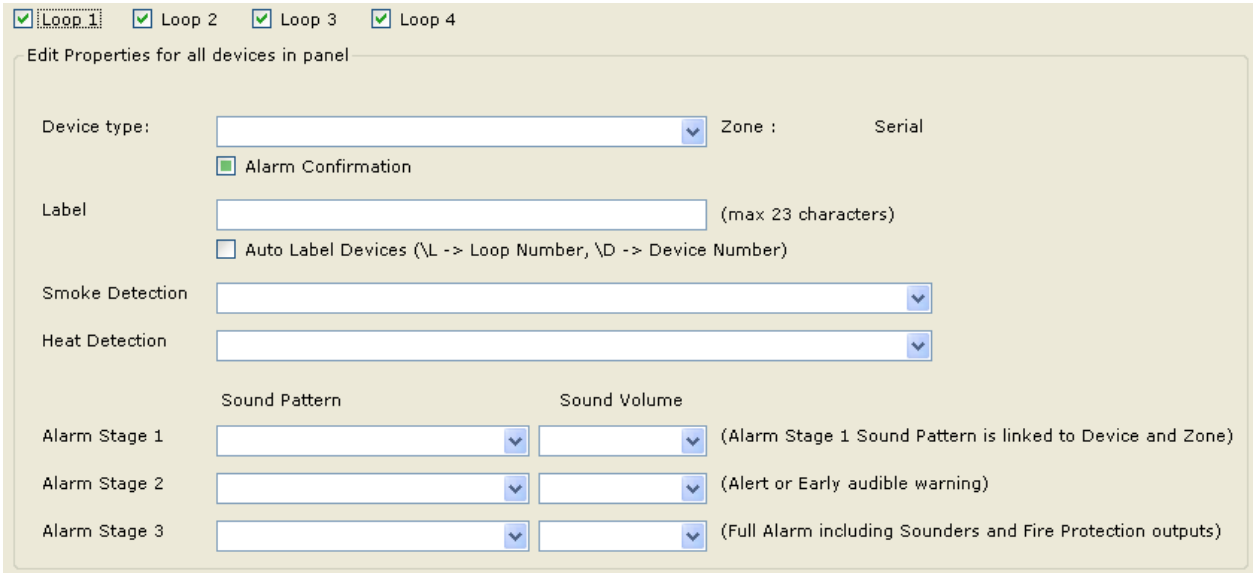


The 'Zone Details' screen changes only the fields that have had entries changed. This is done for **all** the devices that are in the same zone in the selected loops.

All Details

This button allows you to edit properties as shown for all points on selected loop(s) in the currently chosen panel.

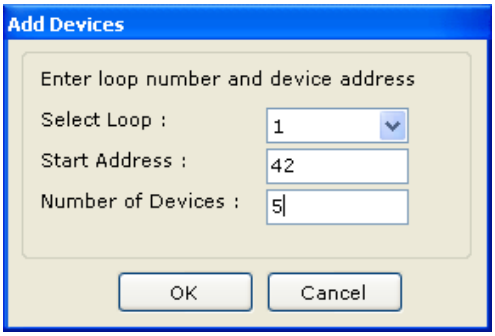
Note that you can select which loop(s) are to have their details changed using the loop tickboxes.



The 'All Details' screen changes only the fields that have had entries changed. This is done for **all** devices that are in the selected loops in the panel and should be used with great caution.

Add Device

This button allows you to add one or more new devices to the system. The prompt given is as follows.

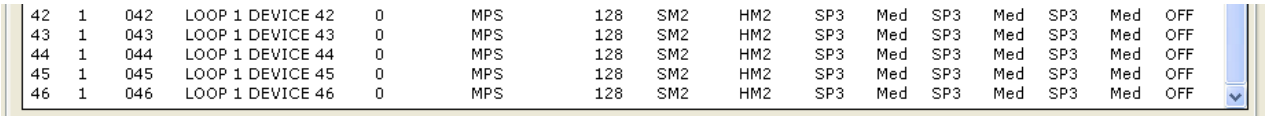


Note that the start address must either be in the existing range of addresses or be the address immediately after the last address in the list. The system will not allow any gaps.

If the start address lies within the range, the specified number of new devices will be added and devices with higher addresses will be moved down the list to make room for the new devices.

Note that the maximum number of devices per list is 200.

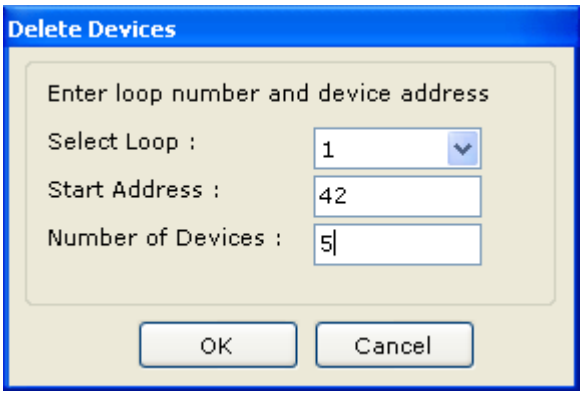
The new devices will have default values as shown in the example below where 5 new devices have been added starting with address 42 on loop 1. You can then edit the fields so that the correct types are used together with your choice of alarm stage parameters.



42	1	042	LOOP 1 DEVICE 42	0	MPS	128	SM2	HM2	SP3	Med	SP3	Med	SP3	Med	OFF
43	1	043	LOOP 1 DEVICE 43	0	MPS	128	SM2	HM2	SP3	Med	SP3	Med	SP3	Med	OFF
44	1	044	LOOP 1 DEVICE 44	0	MPS	128	SM2	HM2	SP3	Med	SP3	Med	SP3	Med	OFF
45	1	045	LOOP 1 DEVICE 45	0	MPS	128	SM2	HM2	SP3	Med	SP3	Med	SP3	Med	OFF
46	1	046	LOOP 1 DEVICE 46	0	MPS	128	SM2	HM2	SP3	Med	SP3	Med	SP3	Med	OFF

Delete Device

This button allows you to delete one or more new devices from the system. The prompt given is as follows.

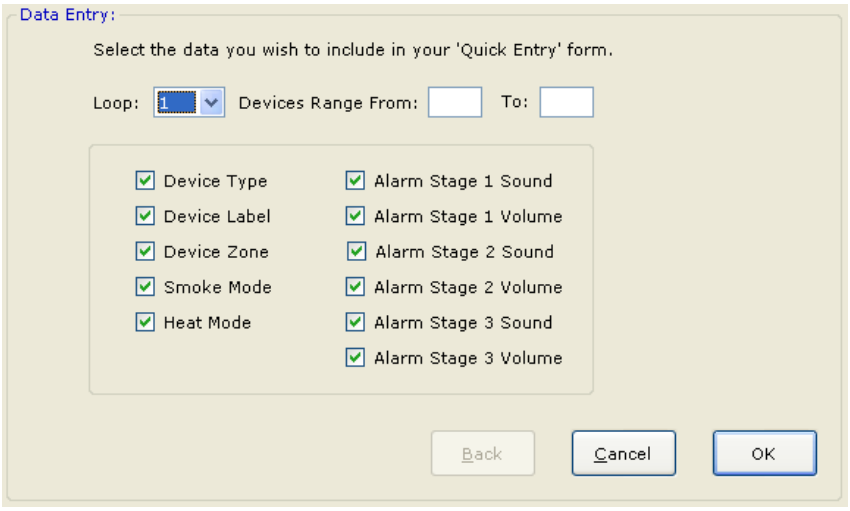


Note that the start address must be in the existing range of addresses.

When the devices have been deleted, devices with higher addresses will be moved up the list to remove any gap.

Data Entry

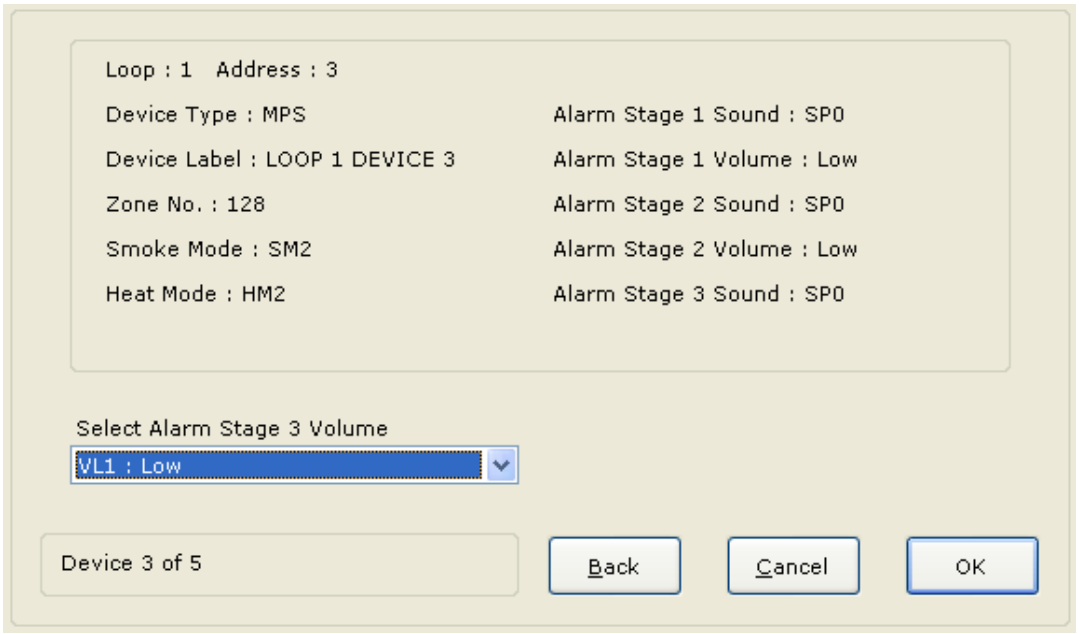
The “Data Entry” button allows you to modify data fields quickly.



Enter the loop number and the range of addresses that you wish to modify.

Tick only the boxes for fields that you want to modify.

Then click on OK. A prompt screen will then be shown.



Prompts will be given with the possible entries for each field in turn. Select your choice and press OK. The fields already configured will be shown on the screen above the option box.

The Back button allows you to undo any changes that you have made. This will only work on the current device being edited. You cannot go back to the previous device.

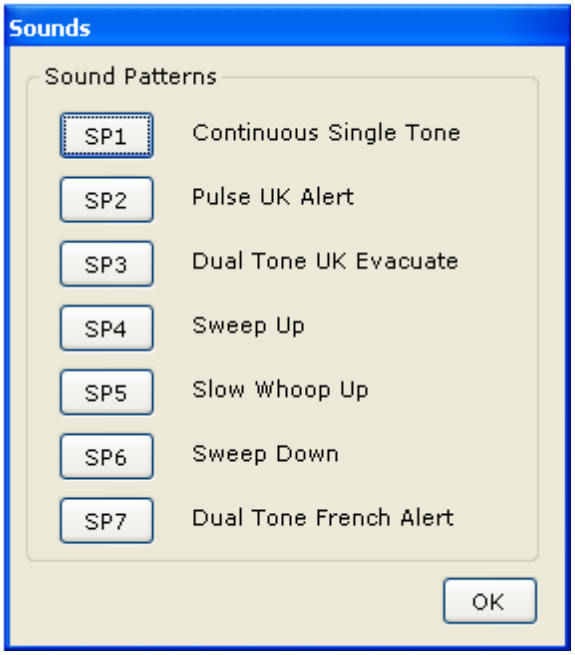
In the above example, all the fields except for the last two (Alarm Stage 3 Sound and Alarm Stage 3 Volume) have been configured and the user is being prompted to select a value for Alarm Stage 3 Sound.

The Cancel button allows you to discard all changes made in the “Data Entry” section.

Sound Demo

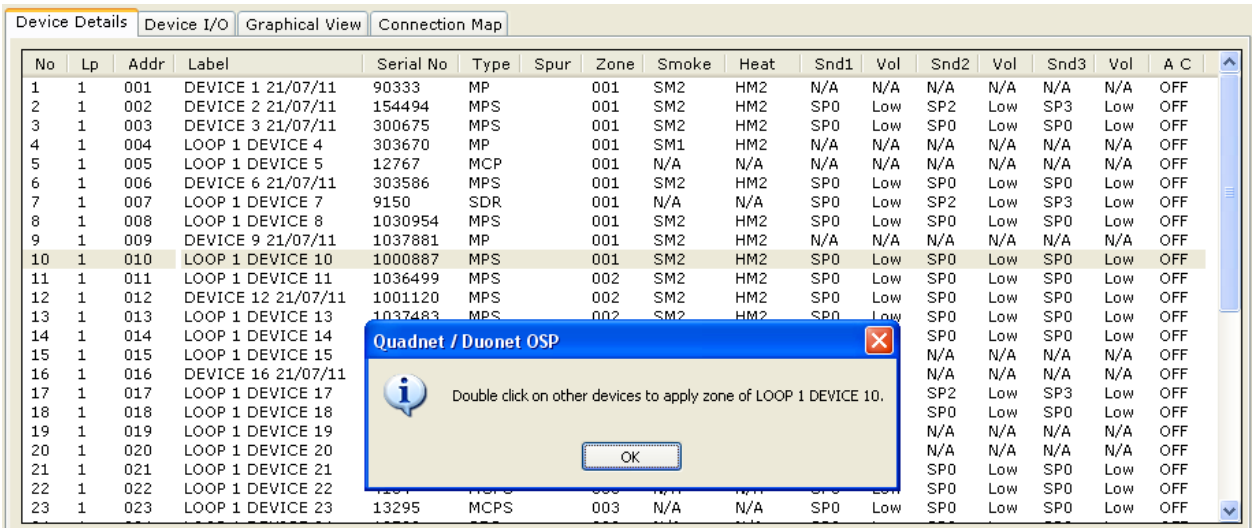
The seven available sound patterns may be demonstrated audibly if your computer has suitable sound facilities by using the “Sounds” button.

The following screen will be displayed. Clicking the buttons marked SP1 – SP7 will demonstrate that sound pattern through the computer speakers.



Apply Zone

This button allows you to quickly transfer addresses to a chosen zone. Highlight a device in the table with the desired zone number. Now click the Apply Zone button. A prompt will appear as shown below.

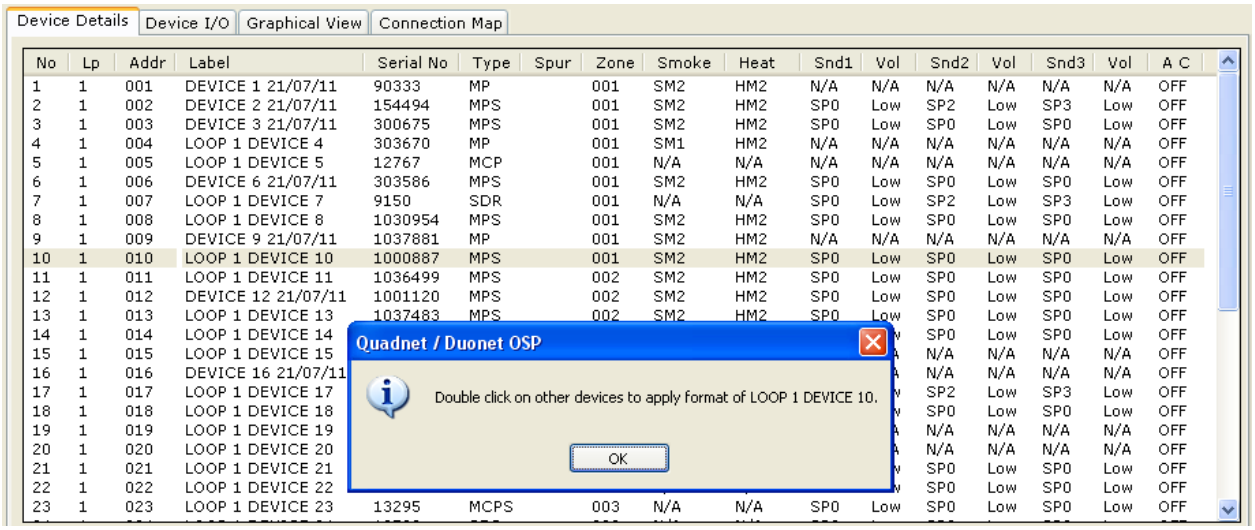


No	Lp	Addr	Label	Serial No	Type	Spur	Zone	Smoke	Heat	Snd1	Vol	Snd2	Vol	Snd3	Vol	A C
1	1	001	DEVICE 1 21/07/11	90333	MP		001	SM2	HM2	N/A	N/A	N/A	N/A	N/A	N/A	OFF
2	1	002	DEVICE 2 21/07/11	154494	MPS		001	SM2	HM2	SP0	Low	SP2	Low	SP3	Low	OFF
3	1	003	DEVICE 3 21/07/11	300675	MPS		001	SM2	HM2	SP0	Low	SP0	Low	SP0	Low	OFF
4	1	004	LOOP 1 DEVICE 4	303670	MP		001	SM1	HM2	N/A	N/A	N/A	N/A	N/A	N/A	OFF
5	1	005	LOOP 1 DEVICE 5	12767	MCP		001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OFF
6	1	006	DEVICE 6 21/07/11	303586	MPS		001	SM2	HM2	SP0	Low	SP0	Low	SP0	Low	OFF
7	1	007	LOOP 1 DEVICE 7	9150	SDR		001	N/A	N/A	SP0	Low	SP2	Low	SP3	Low	OFF
8	1	008	LOOP 1 DEVICE 8	1030954	MPS		001	SM2	HM2	SP0	Low	SP0	Low	SP0	Low	OFF
9	1	009	DEVICE 9 21/07/11	1037881	MP		001	SM2	HM2	N/A	N/A	N/A	N/A	N/A	N/A	OFF
10	1	010	LOOP 1 DEVICE 10	1000887	MPS		001	SM2	HM2	SP0	Low	SP0	Low	SP0	Low	OFF
11	1	011	LOOP 1 DEVICE 11	1036499	MPS		002	SM2	HM2	SP0	Low	SP0	Low	SP0	Low	OFF
12	1	012	DEVICE 12 21/07/11	1001120	MPS		002	SM2	HM2	SP0	Low	SP0	Low	SP0	Low	OFF
13	1	013	LOOP 1 DEVICE 13	1037483	MPS		002	SM2	HM2	SP0	Low	SP0	Low	SP0	Low	OFF
14	1	014	LOOP 1 DEVICE 14									SP0	Low	SP0	Low	OFF
15	1	015	LOOP 1 DEVICE 15									N/A	N/A	N/A	N/A	OFF
16	1	016	DEVICE 16 21/07/11									N/A	N/A	N/A	N/A	OFF
17	1	017	LOOP 1 DEVICE 17									SP2	Low	SP3	Low	OFF
18	1	018	LOOP 1 DEVICE 18									SP0	Low	SP0	Low	OFF
19	1	019	LOOP 1 DEVICE 19									N/A	N/A	N/A	N/A	OFF
20	1	020	LOOP 1 DEVICE 20									N/A	N/A	N/A	N/A	OFF
21	1	021	LOOP 1 DEVICE 21									SP0	Low	SP0	Low	OFF
22	1	022	LOOP 1 DEVICE 22									SP0	Low	SP0	Low	OFF
23	1	023	LOOP 1 DEVICE 23	13295	MCPS		003	N/A	N/A	SP0	Low	SP0	Low	SP0	Low	OFF

After pressing OK, you can double click on any other devices in the list and they will be assigned to your chosen zone. To exit from this feature, click on the Apply Zone button again.

Apply Format

This button allows you to quickly copy configured data from one address to another. Highlight the device to be copied from in the table. Now click the Apply Format button. A prompt will appear as shown below. In the example, the data will be copied from Loop 1 Device 10.



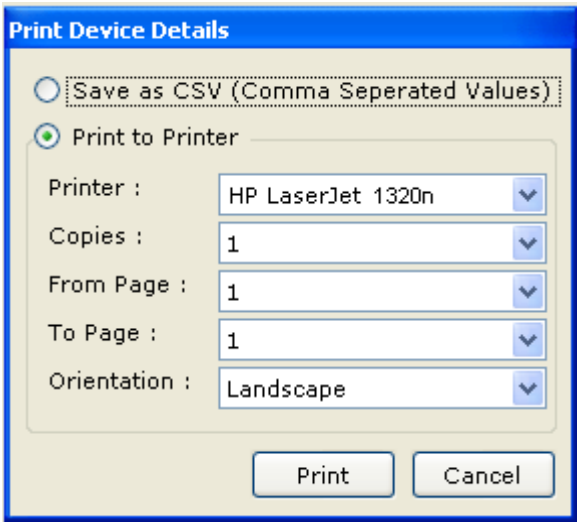
No	Lp	Addr	Label	Serial No	Type	Spur	Zone	Smoke	Heat	Snd1	Vol	Snd2	Vol	Snd3	Vol	A C
1	1	001	DEVICE 1 21/07/11	90333	MP		001	SM2	HM2	N/A	N/A	N/A	N/A	N/A	N/A	OFF
2	1	002	DEVICE 2 21/07/11	154494	MPS		001	SM2	HM2	SP0	Low	SP2	Low	SP3	Low	OFF
3	1	003	DEVICE 3 21/07/11	300675	MPS		001	SM2	HM2	SP0	Low	SP0	Low	SP0	Low	OFF
4	1	004	LOOP 1 DEVICE 4	303670	MP		001	SM1	HM2	N/A	N/A	N/A	N/A	N/A	N/A	OFF
5	1	005	LOOP 1 DEVICE 5	12767	MCP		001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OFF
6	1	006	DEVICE 6 21/07/11	303586	MPS		001	SM2	HM2	SP0	Low	SP0	Low	SP0	Low	OFF
7	1	007	LOOP 1 DEVICE 7	9150	SDR		001	N/A	N/A	SP0	Low	SP2	Low	SP3	Low	OFF
8	1	008	LOOP 1 DEVICE 8	1030954	MPS		001	SM2	HM2	SP0	Low	SP0	Low	SP0	Low	OFF
9	1	009	DEVICE 9 21/07/11	1037881	MP		001	SM2	HM2	N/A	N/A	N/A	N/A	N/A	N/A	OFF
10	1	010	LOOP 1 DEVICE 10	1000887	MPS		001	SM2	HM2	SP0	Low	SP0	Low	SP0	Low	OFF
11	1	011	LOOP 1 DEVICE 11	1036499	MPS		002	SM2	HM2	SP0	Low	SP0	Low	SP0	Low	OFF
12	1	012	DEVICE 12 21/07/11	1001120	MPS		002	SM2	HM2	SP0	Low	SP0	Low	SP0	Low	OFF
13	1	013	LOOP 1 DEVICE 13	1037483	MPS		002	SM2	HM2	SP0	Low	SP0	Low	SP0	Low	OFF
14	1	014	LOOP 1 DEVICE 14									SP0	Low	SP0	Low	OFF
15	1	015	LOOP 1 DEVICE 15									N/A	N/A	N/A	N/A	OFF
16	1	016	DEVICE 16 21/07/11									N/A	N/A	N/A	N/A	OFF
17	1	017	LOOP 1 DEVICE 17									SP2	Low	SP3	Low	OFF
18	1	018	LOOP 1 DEVICE 18									SP0	Low	SP0	Low	OFF
19	1	019	LOOP 1 DEVICE 19									N/A	N/A	N/A	N/A	OFF
20	1	020	LOOP 1 DEVICE 20									N/A	N/A	N/A	N/A	OFF
21	1	021	LOOP 1 DEVICE 21									SP0	Low	SP0	Low	OFF
22	1	022	LOOP 1 DEVICE 22									SP0	Low	SP0	Low	OFF
23	1	023	LOOP 1 DEVICE 23	13295	MCPS		003	N/A	N/A	SP0	Low	SP0	Low	SP0	Low	OFF

After pressing OK, you can double click on any other devices in the list and the data from your selected device will be copied to them. Note that the label (text description) and serial number will not be copied.

To exit from this feature, click on the Apply Format button again.

Print

This button allows you to print the table of device details on a printer. A prompt is given as follows so that you can select printer details.



Press the Print button to send the data to the chosen printer. Note that the “Save as CSV” button can be used to save the data in CSV (Comma Separated Values) format. The file could then be opened in a spreadsheet program such as Microsoft Excel.

Device Details - Loop Loading Screen

In order to allow a method of calculating the maximum loop loading that the system will support, each device has a rating assigned in Device Loading Units (DLUs). A maximum of 450 DLU are permissible on the loop. This relates to the load presented in alarm and does not necessarily affect an input device.

The Quadnet / Duonet OSP programming software v3.00 or later (v3.04 or later required for the latest devices) automatically keeps control of the quantity and will provide warnings if the limits are exceeded.

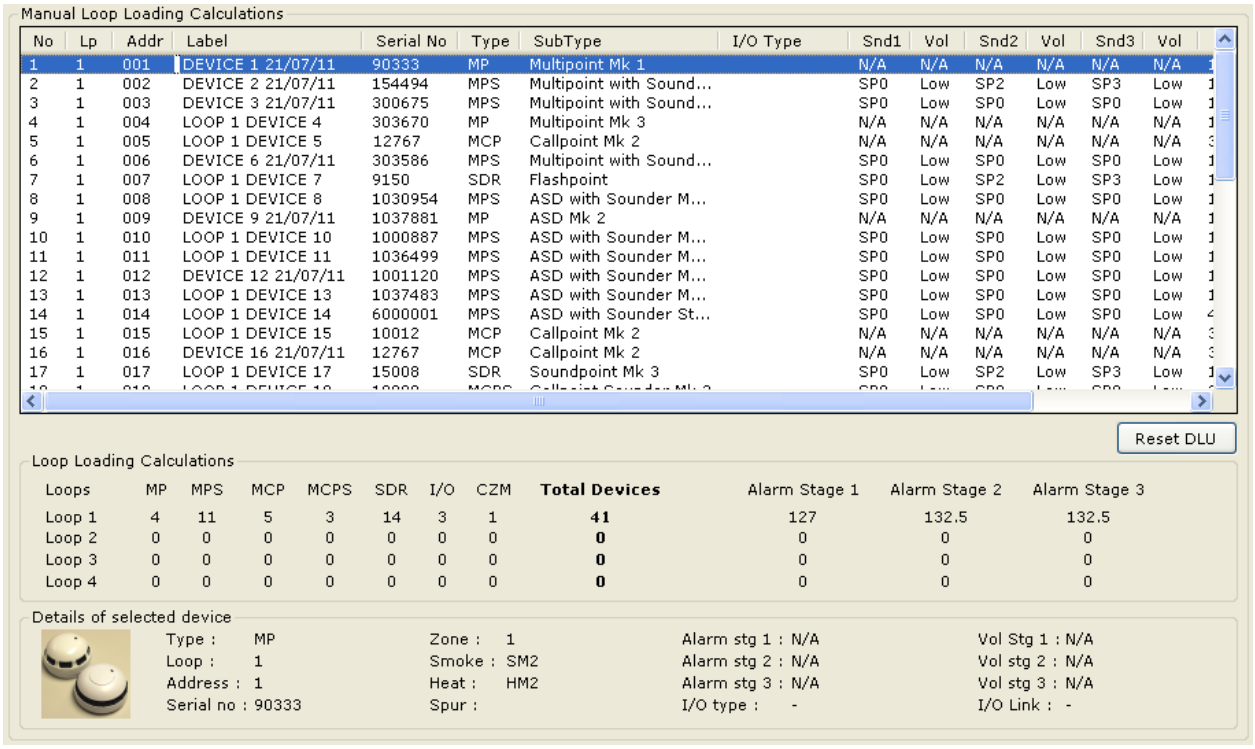
The main types of current (and earlier) devices and their loadings are listed below.

PRODUCT DESCRIPTION			DLU RATING			
Type	**Product Code**	**Subtype**	**SP0 - Off**	**Low**	**Medium**	**High**
MP	203 0003	Multipoint Mk3	1	-	-	-
	205 0003	ASD Mk3	1	-	-	-
MPS	203 0001	Multipoint with Sounder Mk3	1	1.5	4.5	6
	205 0001	ASD with Sounder Mk3	1	1.5	4.5	6
	205 0012	ASD with Sounder/Strobe Mk3	4.5	5	8	10
MCP	403 0006 403 0007	Manual Call Point Mk3	3	-	-	-
SOUNDER	313 0001 313 0002	Soundpoint Mk3	1.5	2	4	5.5
	323 0001	Hipoint Mk3	1.5	2	4	5.5
	303 0013	Bell Mk2	2	22	22	22
	303 0012 303 0022	Flashpoint	1.5	4.5	6.5	8
	326 0021 326 0023	Sounder/Strobe	9	9.5	11.5	13
	326 0001 326 0003	Sounder	1.5	2	4	5.5
	326 0015	Strobe	9	-	-	-
I/O	803 0006	Loop I/O Module Mk2	10.5	-	-	-
CZM	803 0010	Conventional Zone Module (Loop Powered)	23.5	-	-	-
	803 0010	Conventional Zone Module (Ext PSU)	3.5	-	-	-
ANCILLARY	803 0003 803 0005	Multipoint I/O Module (in Relay Base) Multipoint I/O Module (in Box)	3	-	-	-
	600 0092	Remote Indicator	0.5	-	-	-

OSP will not be able to identify all subtypes of devices on existing systems but can identify all subtypes in production as of March 2010.

Loop Load Calculations

To get details about the DLU values, use the “Loop Load Calculations” button on the Device Details screen. A typical display is shown below.



No	Lp	Addr	Label	Serial No	Type	SubType	I/O Type	Snd1	Vol	Snd2	Vol	Snd3	Vol
1	1	001	DEVICE 1 21/07/11	90333	MP	Multipoint Mk 1		N/A	N/A	N/A	N/A	N/A	N/A
2	1	002	DEVICE 2 21/07/11	154494	MPS	Multipoint with Sound...		SP0	Low	SP2	Low	SP3	Low
3	1	003	DEVICE 3 21/07/11	300675	MPS	Multipoint with Sound...		SP0	Low	SP0	Low	SP0	Low
4	1	004	LOOP 1 DEVICE 4	303670	MP	Multipoint Mk 3		N/A	N/A	N/A	N/A	N/A	N/A
5	1	005	LOOP 1 DEVICE 5	12767	MCP	Callpoint Mk 2		N/A	N/A	N/A	N/A	N/A	N/A
6	1	006	DEVICE 6 21/07/11	303586	MPS	Multipoint with Sound...		SP0	Low	SP0	Low	SP0	Low
7	1	007	LOOP 1 DEVICE 7	9150	SDR	Flashpoint		SP0	Low	SP2	Low	SP3	Low
8	1	008	LOOP 1 DEVICE 8	1030954	MPS	ASD with Sounder M...		SP0	Low	SP0	Low	SP0	Low
9	1	009	DEVICE 9 21/07/11	1037881	MP	ASD Mk 2		N/A	N/A	N/A	N/A	N/A	N/A
10	1	010	LOOP 1 DEVICE 10	1000887	MPS	ASD with Sounder M...		SP0	Low	SP0	Low	SP0	Low
11	1	011	LOOP 1 DEVICE 11	1036499	MPS	ASD with Sounder M...		SP0	Low	SP0	Low	SP0	Low
12	1	012	DEVICE 12 21/07/11	1001120	MPS	ASD with Sounder M...		SP0	Low	SP0	Low	SP0	Low
13	1	013	LOOP 1 DEVICE 13	1037483	MPS	ASD with Sounder M...		SP0	Low	SP0	Low	SP0	Low
14	1	014	LOOP 1 DEVICE 14	6000001	MPS	ASD with Sounder St...		SP0	Low	SP0	Low	SP0	Low
15	1	015	LOOP 1 DEVICE 15	10012	MCP	Callpoint Mk 2		N/A	N/A	N/A	N/A	N/A	N/A
16	1	016	DEVICE 16 21/07/11	12767	MCP	Callpoint Mk 2		N/A	N/A	N/A	N/A	N/A	N/A
17	1	017	LOOP 1 DEVICE 17	15008	SDR	Soundpoint Mk 3		SP0	Low	SP2	Low	SP3	Low

Loops	MP	MPS	MCP	MCPS	SDR	I/O	CZM	**Total Devices**	Alarm Stage 1	Alarm Stage 2	Alarm Stage 3
Loop 1	4	11	5	3	14	3	1	**41**	127	132.5	132.5
Loop 2	0	0	0	0	0	0	0	**0**	0	0	0
Loop 3	0	0	0	0	0	0	0	**0**	0	0	0
Loop 4	0	0	0	0	0	0	0	**0**	0	0	0

The lower section of the screen provides a summary of attributes for the highlighted device. Note that the device serial number is located in the lower left hand corner of this box.

Versions of the Quadnet / Duonet OSP before V2.02 did not identify the subtype. V2.02 and above of the Quadnet / Duonet OSP uses the type and serial number to calculate the subtype and all devices produced from March 2010 can be identified as well as many previous ones. However, it is not always possible to do this with early devices (as noted in the table above).

The loop loading calculations box gives a running total of the DLU values for the alarm stages on each loop, together with a breakdown of each loop by device type. If any Alarm Stage DLU totals exceed 450, they are printed in bold red text and a warning is given on leaving the screen so that the system can be reconfigured with lower volume stages 1-3 or possibly with devices deleted or put onto a different loop.

Reset DLU button

This button will reset the subtypes of any devices which have had their sub-types reconfigured by the user. The sub-types of any such devices will be returned to the default type.

Device Types

The device types are listed below. The device is depicted pictorially in the left hand lower corner in order to provide quick verification, as follows:

Picture	Type	
 Subtypes  **Multipoint**  **ASD**	MP	Multipoint Detector Sub Types: Multipoint Mk 1 Multipoint Mk 2 Multipoint Mk 3 ASD Mk 1 ASD Mk 2 ASD Mk 3 Note: Early Multipoint detectors with no sounders may be reported as the equivalent MPS device (with sounder) in which case the sound patterns must be configured to SP0.

Picture	Type	
 Subtypes  **Multipoint Sounder**  **ASD Sounder**  **ASD Sounder Strobe**	MPS	Multipoint Detector with Sounder. Sub Types: Multipoint with sounder Mk 1 Multipoint with sounder Mk 2 Multipoint with sounder Mk 3 ASD with sounder Mk 1 ASD with sounder Mk 2 ASD with sounder Mk 3 Note: Early Multipoint detectors with no sounders may be reported as the equivalent MPS device (with sounder) in which case the sound patterns must be configured to SP0. Subtypes ASD with sounder/strobe Mk 1 ASD with sounder/strobe Mk 2 ASD with sounder/strobe Mk 3 Note: Early Multipoint detectors with sounders and strobes may be reported as the equivalent ASD device with sounder but no strobe.

Picture	Type	
 Subtypes 	MCP	Manual Call Point Sub Types: Manual Call Point Mk 1 Manual Call Point Mk 2 Manual Call Point Mk 3

Picture	Type	
 Subtypes 	MCPS	Manual Call Point with sounder Sub Types: Manual Call Point with sounder Mk 1 Manual Call Point with sounder Mk 2

Picture	Type	
 Subtypes       **Strobe - No Sounder**	SDR	Sounders Sub Types: Soundpoint Mk 1 Soundpoint Mk 2 Soundpoint Mk 3 Hipoint Mk 1 Hipoint Mk 2 Hipoint Mk 3 Bell Mk1 Bell Mk2 Flashpoint NSR Sounder / Strobe NSR Sounder without Strobe NSR Strobe without Sounder Note: Early devices with subtypes SoundPoint, HiPoint or Bell will be reported as “Flashpoint”.

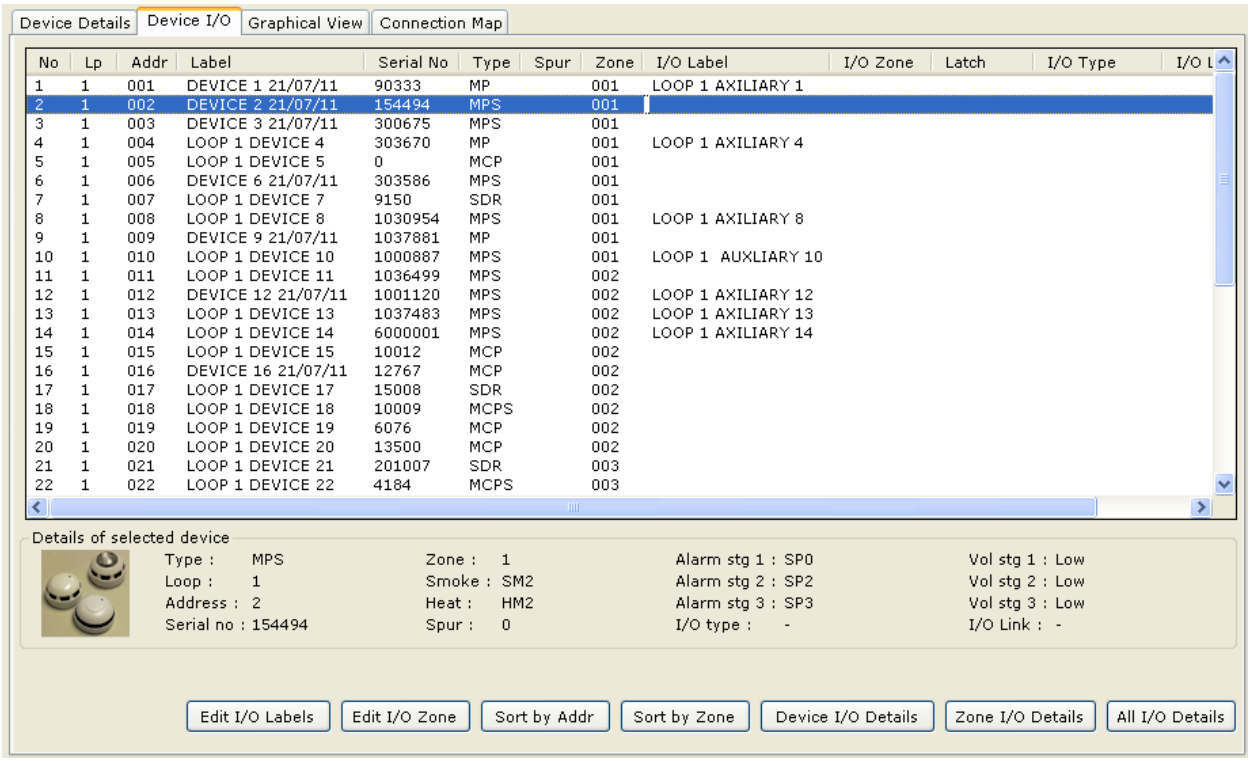
Picture	Type	
 Subtypes 	I/O	Loop I/O Module Sub Types: Loop I/O Module Mk 1 Loop I/O Module Mk 2

Picture	Type	
	CZM	Conventional Zone Module
Subtypes 		Sub Types: Conventional Zone Module Mk 1 Conventional Zone Module Mk 2

Versions of the Quadnet / Duonet OSP before V2.02 did not identify the subtype. Quadnet / Duonet OSP v2.02 and later use the device type and serial number to calculate the subtype. With this version all devices produced from March 2010 can be identified as well as many previous ones. It is possible to override the detected subtype on the “Manual Loop Loading Calculations” screen by highlighting the subtype field and right-clicking on the field. A list of available subtypes for that type of device is then shown. Note however, that these override values are NOT sent to the panel and will be lost the next time the loop data is uploaded from the panel.

Overriding the subtype is only to be used when the correct item cannot be automatically detected by the system. This feature should be used with caution and on the advice of Fike technical support. It must not be used to artificially reduce the configured loop loading as this could have an adverse effect on the system during an alarm condition,

Device Details - Device I/O Tab



Edit I/O Labels

The I/O labels are of critical importance in an addressable fire alarm system, so in order to avoid accidentally changing them, the labels are ‘write protected’ by the Edit I/O Labels button. Simply click on this button to activate the ‘Edit Mode’, and click again to deactivate it when you have finished.

I/O labels may be up to 24 alphanumeric characters long. Remember to press ENTER on your PC keyboard to indicate that you have finished editing the selected label.

Edit I/O Zone

The I/O zone numbers may be edited in a similar way as the labels. In order to avoid accidentally changing them, the I/O zone numbers are ‘write protected’ by the Edit Zone button. Simply click on this button to activate the ‘Edit Mode’, and click again to deactivate it when you have finished. Note that you cannot edit the I/O zone number if it has not yet been set up. This can be done with the “Device I/O Details” button.

Sort by Address

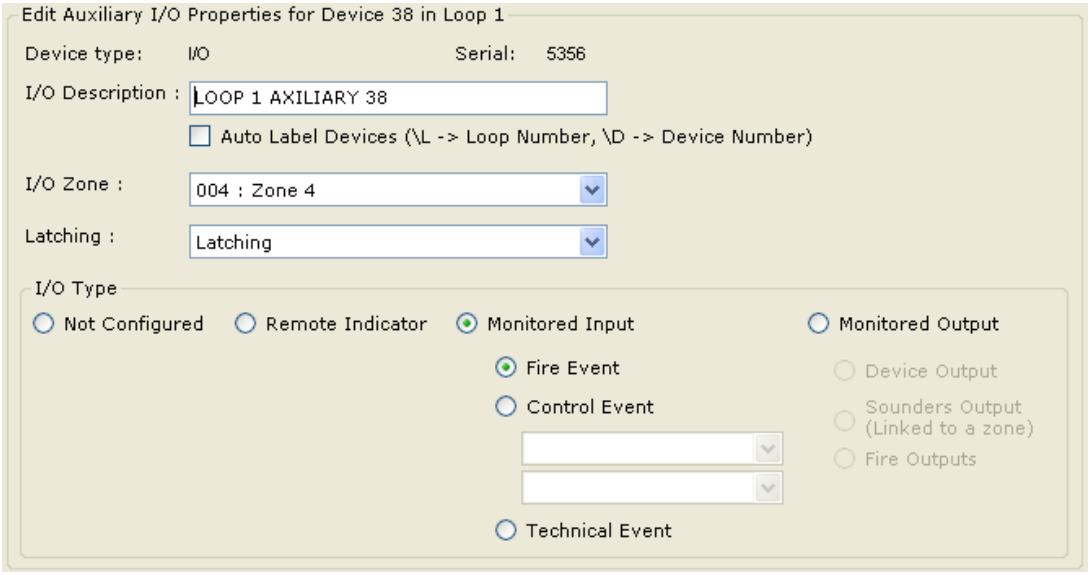
This button will rearrange the order of the devices as seen on the screen so that they are in order of address. It does NOT renumber the actual order of the devices on a loop.

Sort by Zone

This button will rearrange the order of the devices as seen on the screen so that they are in order of zone. It does NOT renumber the actual order of the devices on a loop.

Device I/O Details

The following is only applicable to devices of the following types - MP, MPS or I/O - which can be configured for Auxiliary I/O properties. Devices of other types will be “Not Configured”. If this button is pressed, you can edit the auxiliary I/O properties for the chosen device only.



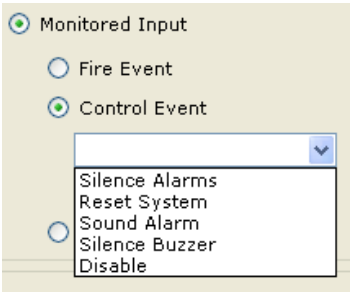
There are 3 possible auxiliary types.

1 Remote Indicator (LED).

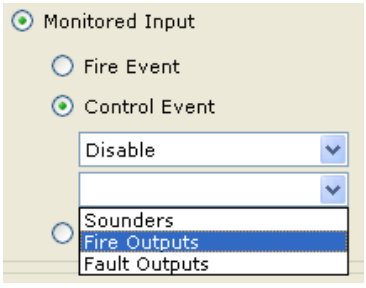
This can be selected with a radio button. Note that if selected, this will increase the DLU value for the loop.

2 Monitored Input

This can be selected with a radio button. Note that if selected, you will have to specify whether it is to be a Fire Event, a Control Event or a Technical Event. Note that there are several types of Control event as shown below.

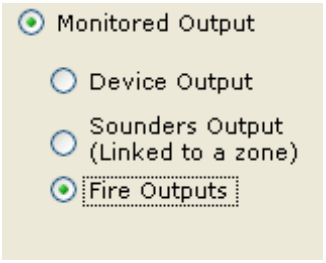


If Disable is chosen as the Control event you will have to further specify whether Sounders, Fire Outputs or Fault Outputs are to be disabled.



3 Monitored Output

This can be selected with a radio button. Note that if selected, you will have to specify whether it is to be a Device Output, Sounder Output (linked to a zone) or a Fire Output

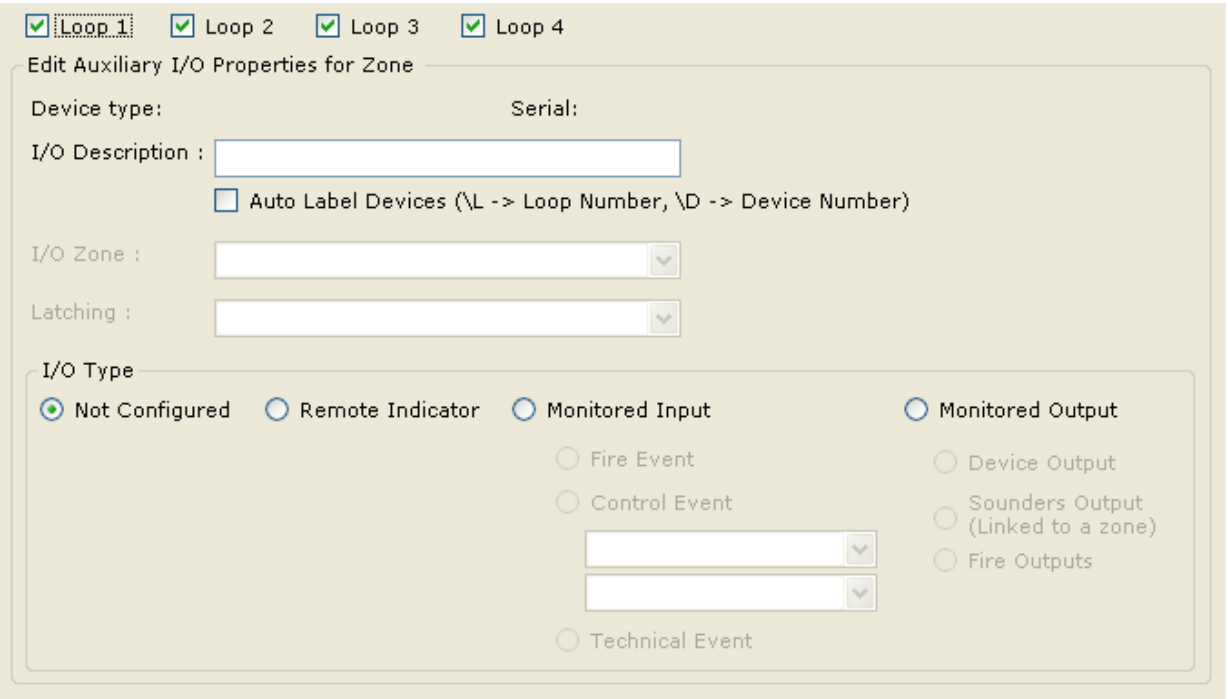


Zone I/O Details

The following is only applicable if you have highlighted a device which has one of the following types - MP, MPS or I/O.

If this button is pressed, you can edit the auxiliary I/O properties as shown for the zone associated with the point that was currently highlighted.

Note that you can select which loop(s) are to have their details changed for devices in the same zone using the loop tickboxes.

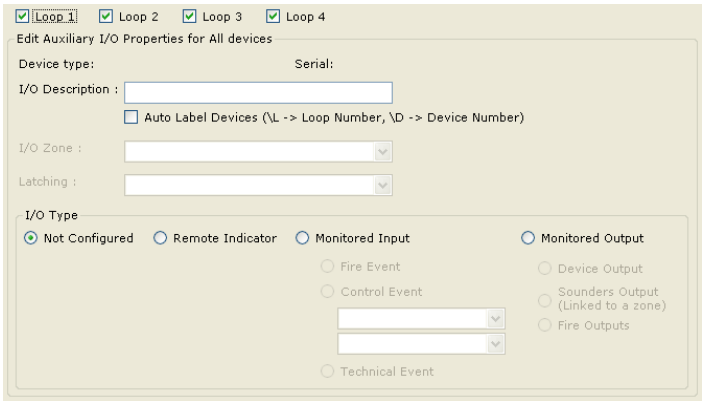


The ‘Zone Details’ button changes only the fields that have had entries changed. This is done for **all** the devices that are in the selected loops in the zone.

All I/O Details

This button allows you to edit auxiliary I/O properties as shown for all relevant points (i.e. with type MP, MPS or I/O) on selected loop(s) in the currently chosen panel.

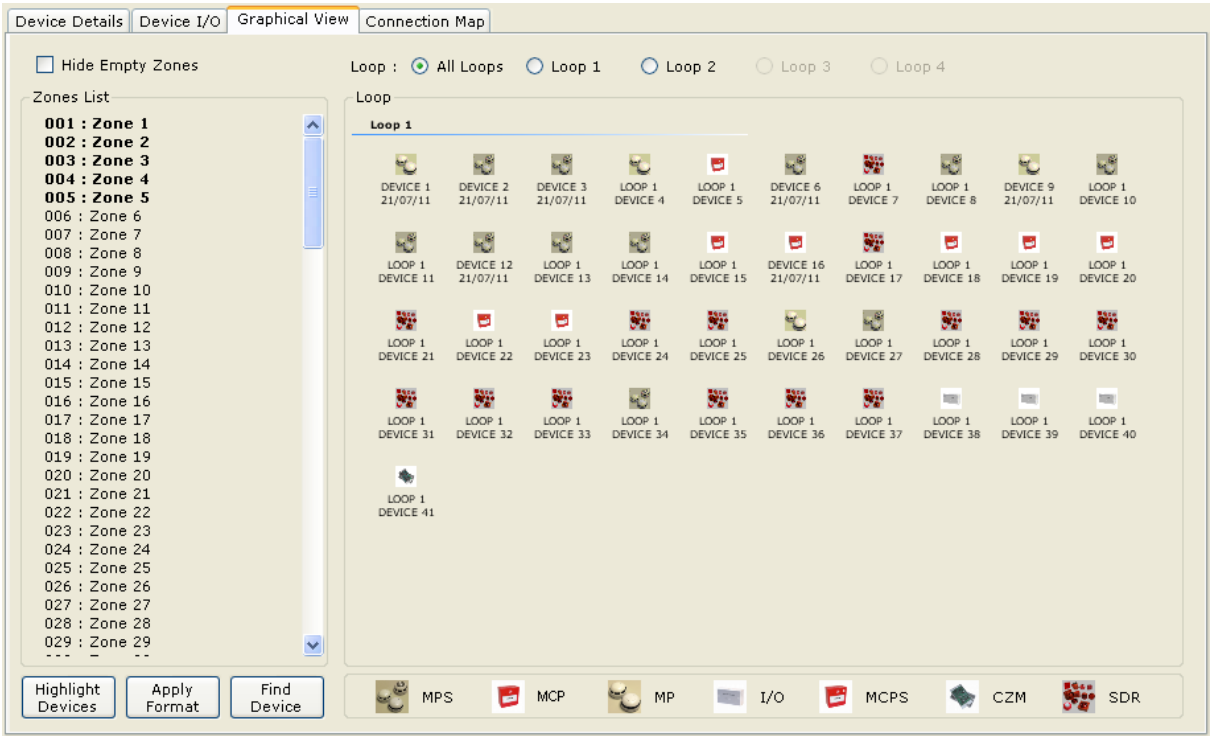
Note that you can select which loop(s) are to have their details changed using the loop tickboxes.



The ‘All Details’ button changes only the fields that have had entries changed. This is done for **all** devices that are in the selected loops in the panel and should be used with great caution.

Device Details – Graphical View Tab

This tab can be used to display an overall view of all the devices configured for the currently selected panel.

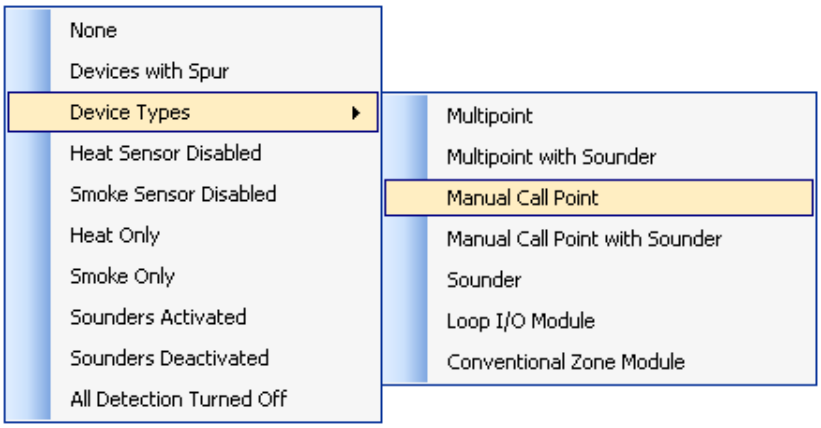


There is a different symbol for each possible type of device. A typical display is shown above.

Zones which currently contain devices are shown in **bold type** on the left hand side of the screen.

The “Hide Empty Zones” tickbox can be used to remove zones which currently have no devices configured from the list.

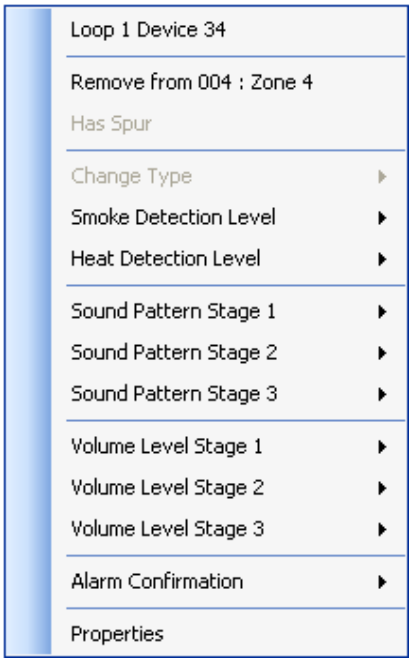
The “Highlight Devices” button can be used so that devices of the selected sort are shown with a thick black border around them on the diagram. The list of options is given below.



Note that the device types are shown in a sub-menu.

Editing a Device

If you right-click on a device, a menu similar to that shown below will be shown.



You can now edit any of the available fields for the device. The options are as described in the Device Details Tab section of this manual.

Note that if you click on Properties, you will get the Edit Properties screen for editing the properties of a single device as described in the Device Details Tab section of this manual.

Apply Format

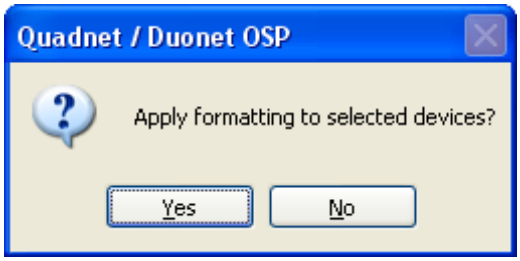
This button allows you to quickly copy configured data from one address to another.

Press the button and the following prompt appears.

Click on the OK on the prompt. Now click on the device from which you would like to copy data. The chosen device will turn blue.

The following prompt will appear.

Click on the OK on the prompt and then click on the devices which are to receive the same formatting as the first device. They will turn black as you click on them When all devices have been selected, click on the OK button at the bottom of the screen. The following prompt will be shown, allowing you to cancel if necessary by clicking on “No”.



Click on “Yes” for the copy process to take place.

Note that this feature can only be used once. To perform more formatting, you must exit the Graphical View tab and then select the tab again

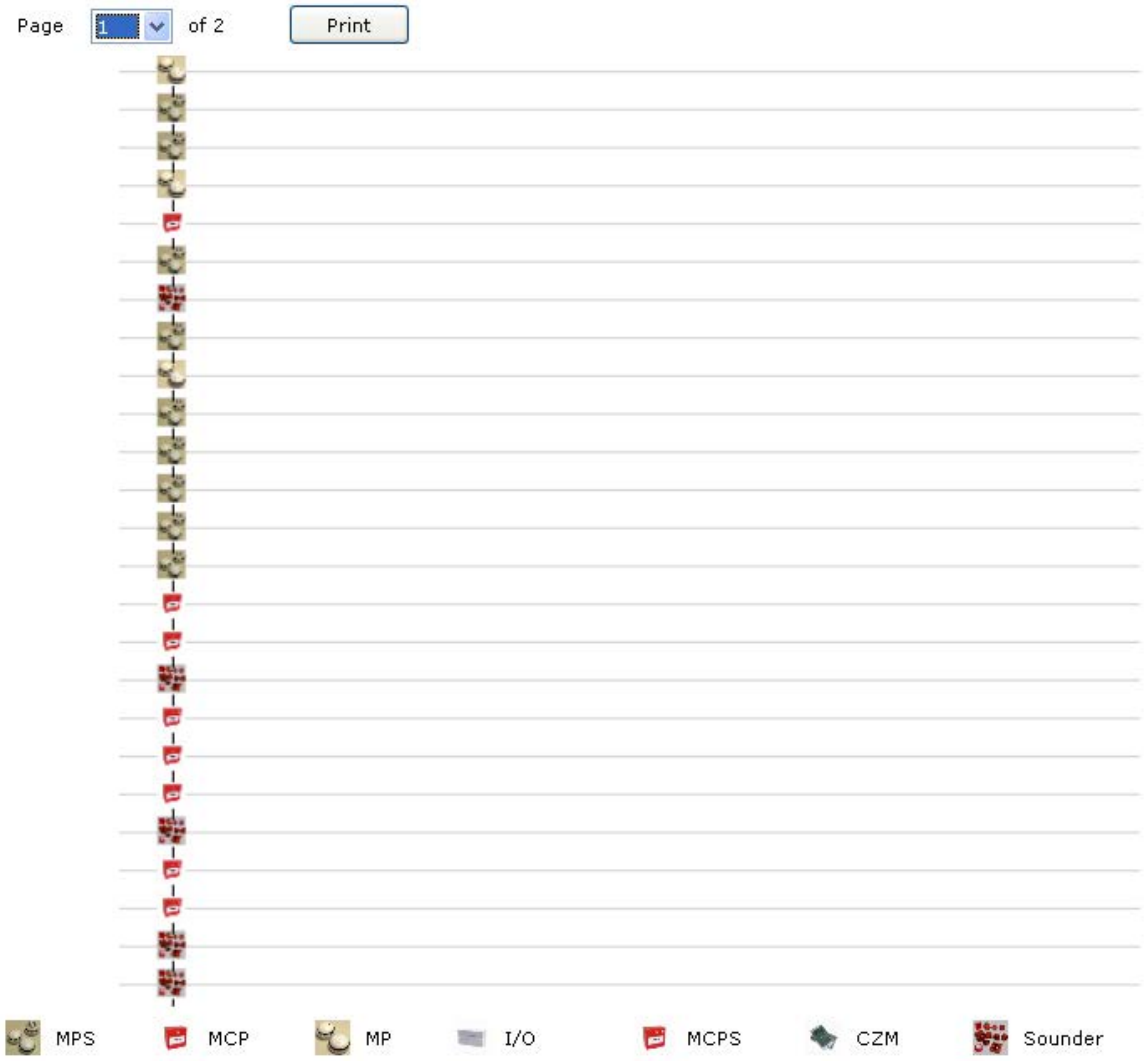
Device Details – Connection Map Tab

This tab shows a graphical display showing how the devices on a selected loop are connected.

The loop is selected with the loop radio buttons at the top of the screen. More details are shown on this screen than on the Graphical View tab and you will need the scrollbars to see all the devices on the loop.

Note that the same symbols as on the Graphical View tab are used.

A Print button is available to send a copy of the connection map to the printer.



Note that you can select the page to be printed using the pull-down selection box at the top left of the screen. However, when you press Print, there is no option to select a printer. Your default Windows printer will be used.

You can exit this screen without printing by clicking on the Close (X) box in the top right of the screen.

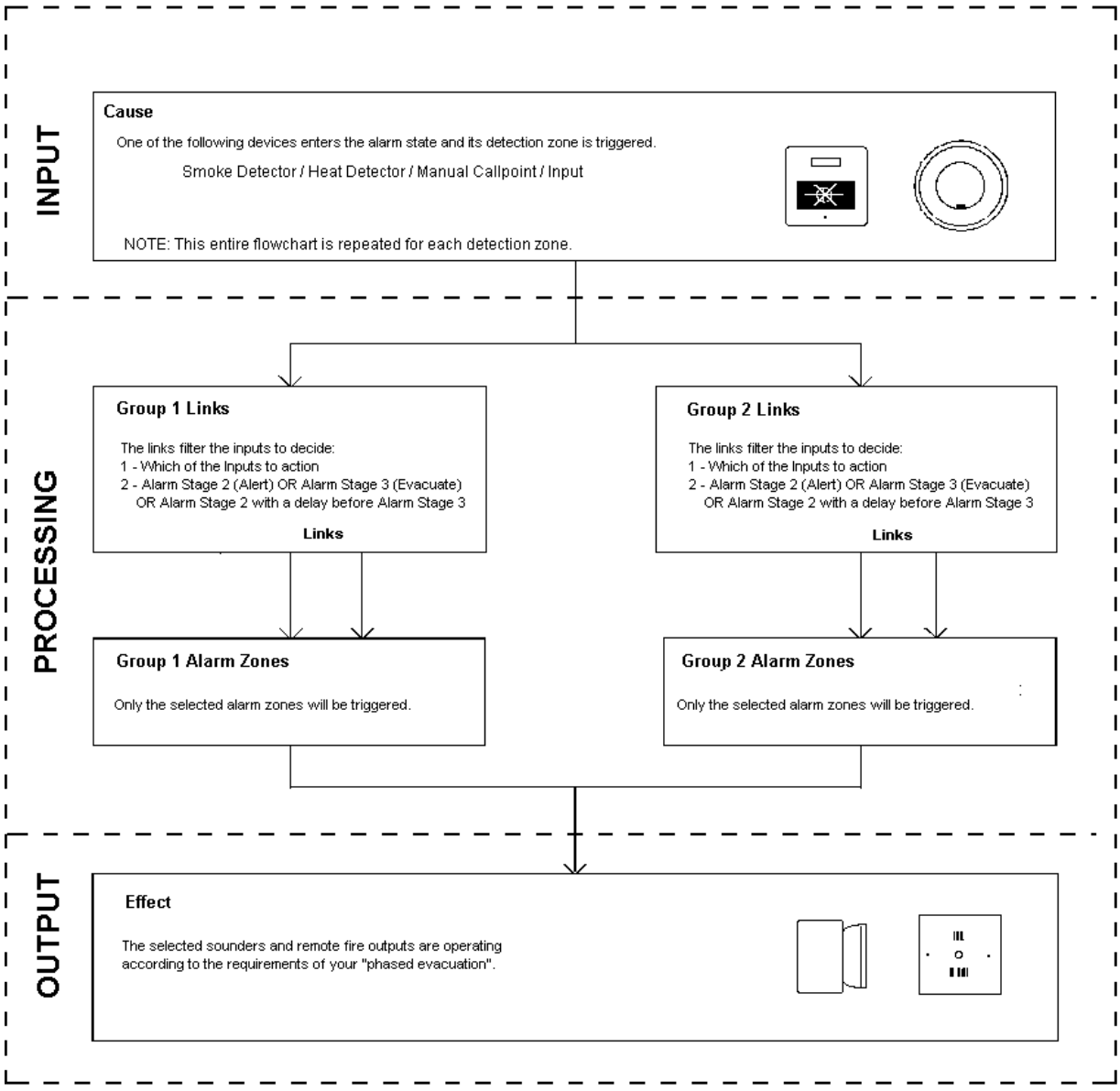
Cause & Effect

Many systems simply operate all sounders and fire protection outputs immediately following the activation of any device. This is known as ‘Instant Alarms’.

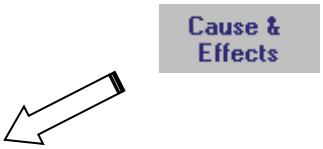
Sometimes it may be desirable to delay the alarm response, or maybe only to sound the alarms in a certain area, and this may well depend upon the area of origin of the activated device. This is known as ‘Phased Evacuation’.

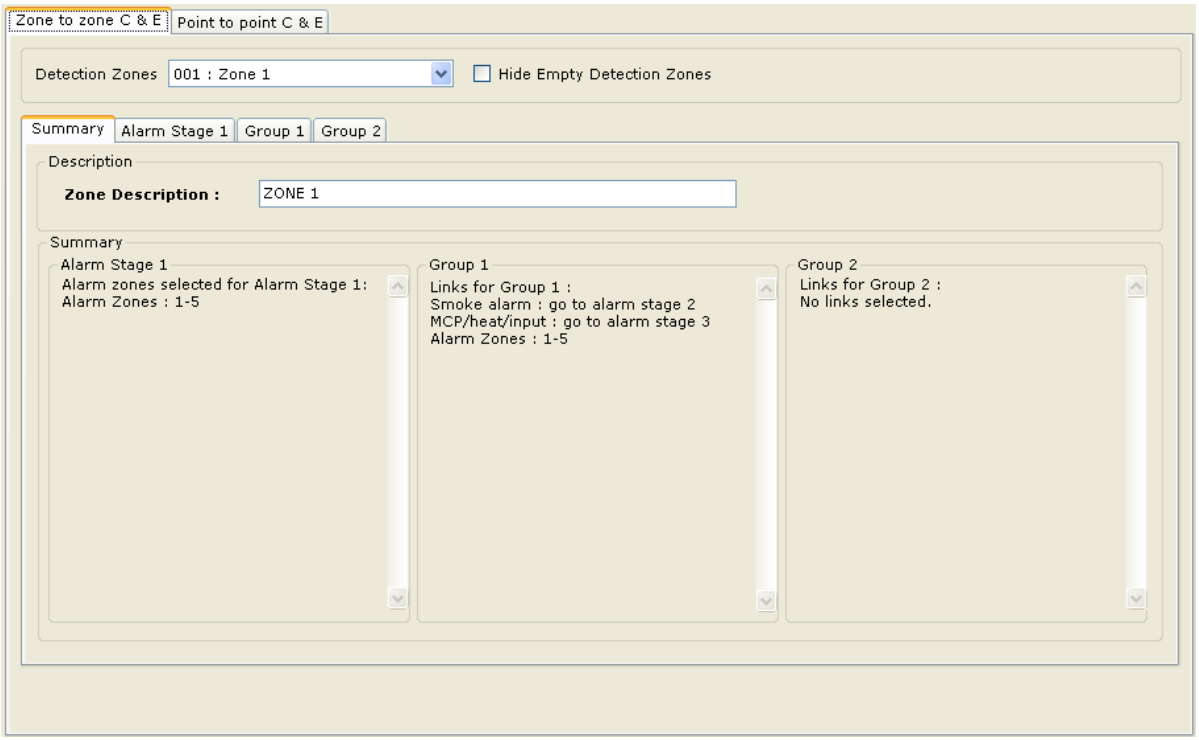
The ‘Cause & Effect’ area allows programming of different types of zonal based ‘Phased Evacuation’.

The flow chart below explains how the Quadnet / Duonet ‘Cause & Effect’ operates:



Clicking on the 'Cause & Effect' button will bring you to the following screen.





Zone to Zone Cause and Effect

For the majority of simple systems we recommend that a full alarm (stage 3) should be given in all zones for any input type (one out, all out).

If any different 'Cause & Effect' actions are required then follow the instructions in the "Cause and Effect Wizard" which can be found on the Alarm Stage 1 tab. These will remind you of the steps to carry out as listed below.

The initial tab shown on the Zone to Zone Cause and Effect Screen is a summary. Alarm zones 1-5 have been selected for Alarm Stage 1. Cause and Effect links have been set up in Group 1. Group 2 has not had any links set up.

Please note that only two Groups of Zone to Zone Cause and Effect can be set up. Groups 3-6 are currently not available.

Step 1 – Select Detection Zone

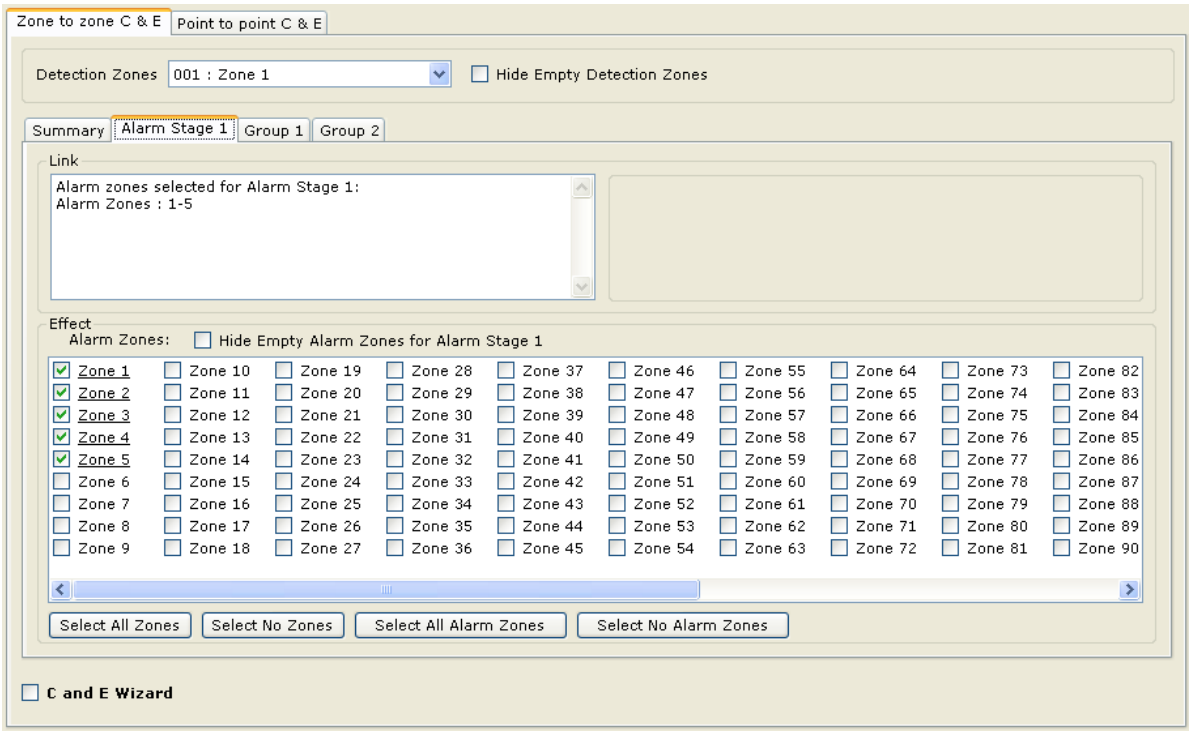
Select the detection zone which contains the inputs which will CAUSE the outputs to be turned on at the top of the screen.

As there are 128 possible detection zones, a tickbox "Hide Empty Detection Zones" has been provided. If ticked, this will remove all "empty" detection zones from the pull-down zone list, i.e. all detection zones which do not contain input devices. This makes selecting the correct zone easier to carry out.

Note that you can edit a description for the selected zone. The default text provided is of the form ZONE xxx.

Step 2 – Select Alarm Stage 1 Tab Alarm Conformation

Select the Alarm Stage 1 tab. A typical screen is shown below.



Note that there is a “Hide Empty Alarm Zones for Alarm Stage 1” tick box. If this is ticked only zones which have output devices in them will be included in the list. If this box is NOT ticked, all 128 zones are shown (as in the above screen) and you will have to use the scroll bar to see them all. Note that zones which are not empty (i.e. with output devices in them) are shown with their description underlined. In the above example, these are zones 1 to 5.

Step 3 – Select Alarm Zones for Alarm Stage 1

Put ticks in the boxes for the alarm zones to be affected when the chosen detection zone (zone 1 in our example) has an input in alarm.

There are four buttons which may make ticking the boxes easier.

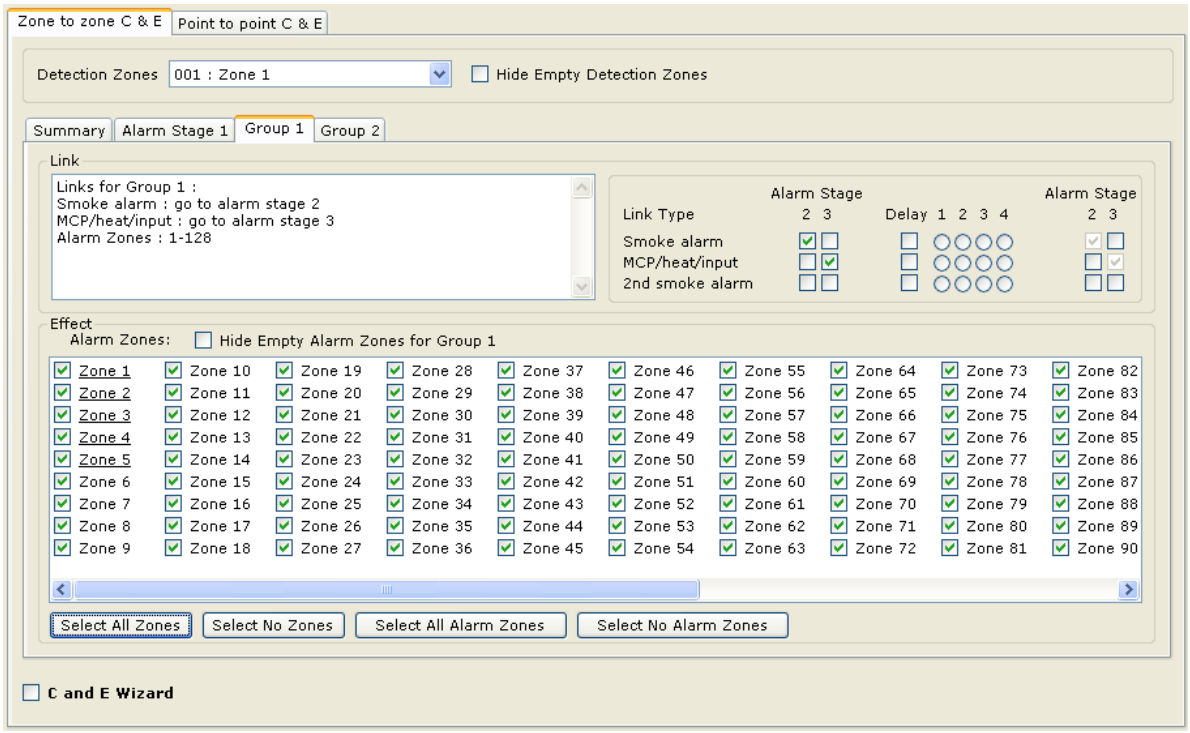
Select All Zones – This will tick all 128 boxes.

Select No Zones – This will remove the ticks from all 128 boxes.

Select All Alarm Zones – This will put ticks in all the non-empty alarm zone tickboxes – i.e. the ones that have output devices in them and which have their descriptions underlined. In the above example, these are zones 1 to 5.

Select No Alarm Zones – This will remove all ticks from all the non-empty alarm zone tickboxes – i.e. the ones that have output devices in them and which have their descriptions underlined. In the above example, these are zones 1 to 5.

Step 4 – Select Group 1 Tab



A summary of all the currently programmed links is given in the box labelled **Link.**

Step 5 – Select Links for Group 1

There are 3 link types as follows

Smoke alarm
MCP/heat/input
2nd smoke alarm

These links are like filters, and only the options selected will allow a following action to happen (i.e. sounders on). The Alarm Stage chosen here will cause the sounders activated to operate with the sound pattern set earlier in the Device Details screen.

You can program which alarm stages are to result when your chosen link type occurs.

The options are

Alarm stage 2 – Delay 1– Alarm Stage 3
Alarm stage 2 – Delay 2– Alarm Stage 3
Alarm stage 2 – Delay 3– Alarm Stage 3
Alarm stage 2 – Delay 4– Alarm Stage 3
Alarm stage 2 – No Delay
Alarm stage 3 – No Delay

Note that the 4 possible delay lengths are configured in the Panel Details Delays and Timers tab. This must be done before any delay type is selected here. Otherwise an error message will be given.

Note that you cannot select both Smoke alarm and 2nd smoke alarm simultaneously for your links.

Use the summary box labelled Link at the top to check your selections before proceeding.

Step 6 – Select Alarm Zones for Group 1

Select the required Alarm Zones for Group 1. These are the areas in which the sounders and outputs will operate when a Group 1 link is activated. Alarm Zones left unchecked will not operate.

Put ticks in the boxes for the alarm zones to be affected when the links from the chosen detection zone (zone 1 in our example) cause further alarm stages to occur.

There are four buttons which may make ticking the boxes easier.

Select All Zones – This will tick all 128 boxes.

Select No Zones – This will remove the ticks from all 128 boxes.

Select All Alarm Zones – This will put ticks in all the non-empty alarm zone tickboxes – i.e. the ones that have output devices in them and which have their descriptions underlined. In the above example, these are zones 1 to 5.

Select No Alarm Zones – This will remove all ticks from all the non-empty alarm zone tickboxes – i.e. the ones that have output devices in them and which have their descriptions underlined. In the above example, these are zones 1 to 5.

Use the summary box labelled Link at the top to check your selections before proceeding.

Step 7 – Select Group 2 Tab (Optional)

This is done in the same way as Step 4 above.

Step 8 – Select Links for Group 2 (Optional)

This is done in the same way as Step 5 above.

Step 9 – Select Alarm Zones for Group 2 (Optional)

This is done in the same way as Step 6 above.

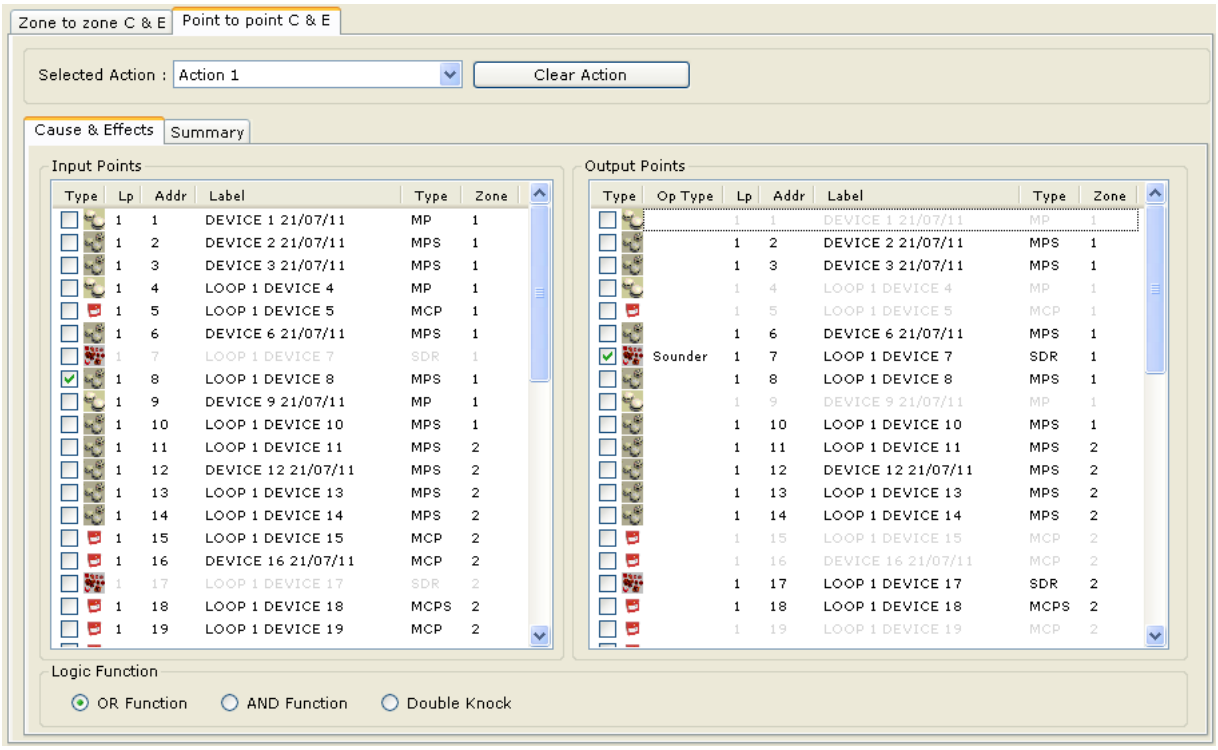
Step 10 – Save Data

Data for the detection zone is saved by clicking on OK. Cancel can be used to leave the screen without saving data.

Point to Point Cause and Effect

As well as configuring Zone to Zone cause and effects, it is also possible to configure point input to output cause and effects. Up to 50 of these “Actions” may be set up. If both zone to zone & point to point cause & effects are used together, the zone to zone actions will be acted on first. Point to point cause and effect should not be used for time critical actions.

A typical screen is shown below. The Cause and Effect tab is shown. A summary tab is also available.



Three different modes of input combination are possible.

OR Function With the OR function the configured outputs will be activated whenever ANY of the inputs in the input list occur.

AND Function With the AND function the configured outputs will only be activated whenever ALL of the inputs in the input list occur.

Double Knock Function The configured outputs will only be activated when TWO OR MORE of the inputs in the input list have occurred. They will not be activated if only one input has occurred.

The inputs and outputs are selected by putting ticks in the relevant boxes.

The Clear Action button will remove ALL ticks from ALL boxes for the currently selected Action.

Note that scroll bars are necessary to view all inputs and outputs current configured in the system.

In the Input Points list any devices which do not contain inputs are greyed out. For example, in the above sample screen, address 7 is greyed out as it is a sounder.

In the Output Points list any devices which do not contain outputs are greyed out. For example, in the above sample screen, address 15 is greyed out as it is a manual callpoint.

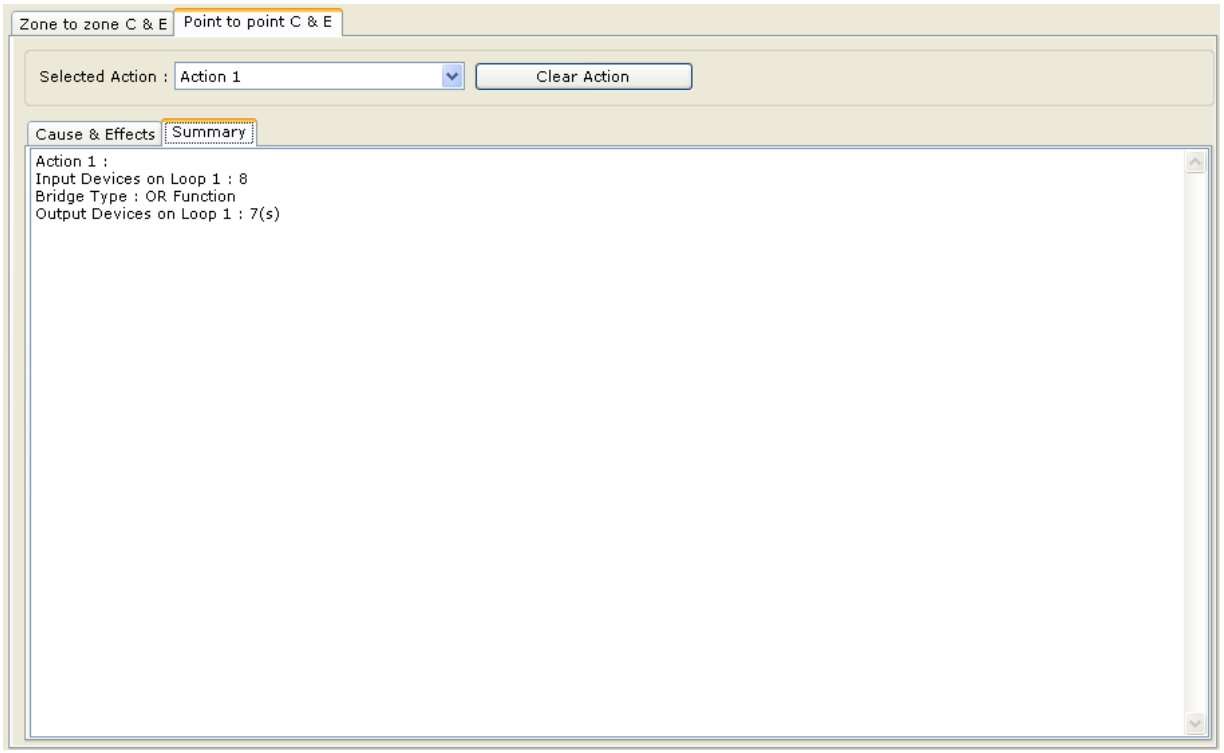
Note that devices such as MPS may have auxiliary outputs configured as fire outputs or device outputs as well as sounders. If this is the case, you can select which is to be activated in the output list. The default chosen is “Sounder” (as in the above example screen) but you can change this to Output if an auxiliary

output has been configured. Auxiliary outputs are configured on the Device I/O tab in the Device Details section.

You can use the summary tab to check your selections. A typical summary tab is shown below.

Note that each Action has to be configured separately.

You can use the summary tab to check your configuration. A typical summary tab is shown below.

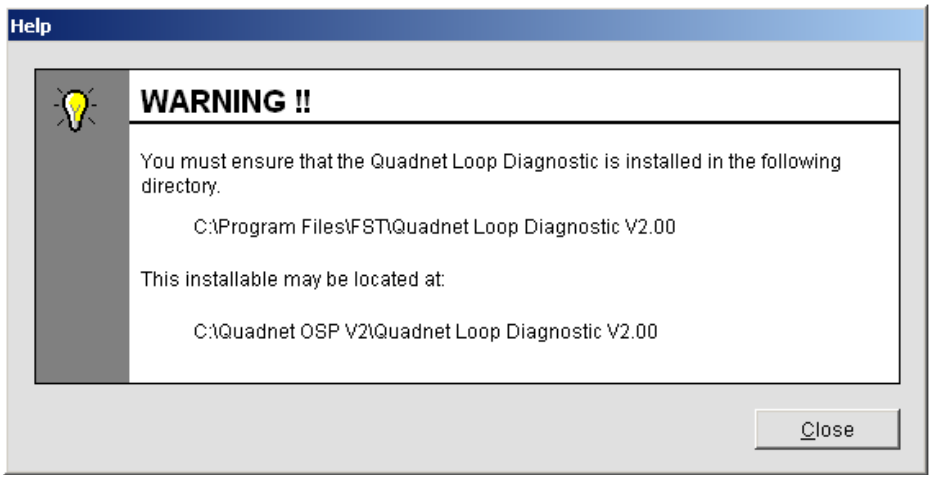


Note that the output devices will have (s) to indicate sounders and (o) to indicate outputs.

Diagnostics

Before diagnostics can be used, the Quadnet Loop Diagnostic program must have been installed on the PC. If this has not been done, a warning screen is displayed.

A typical warning screen is shown below.

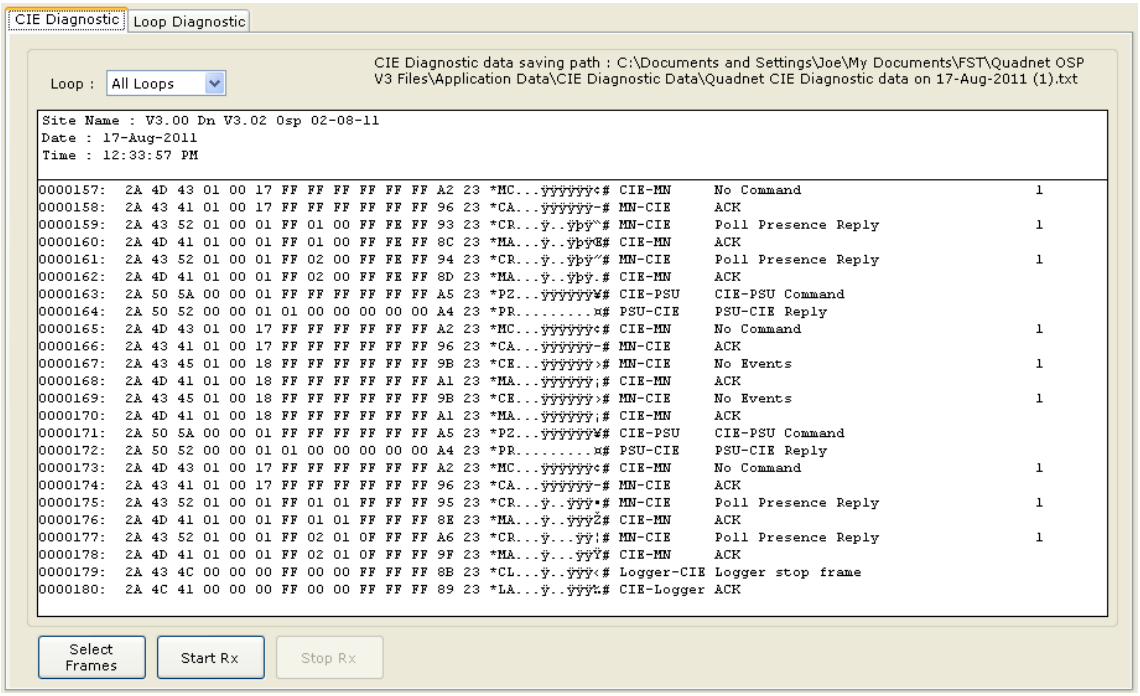


This program is primarily for the use of Fike engineers. There are 3 tabs as follows:

CIE Diagnostics
Loop Diagnostic

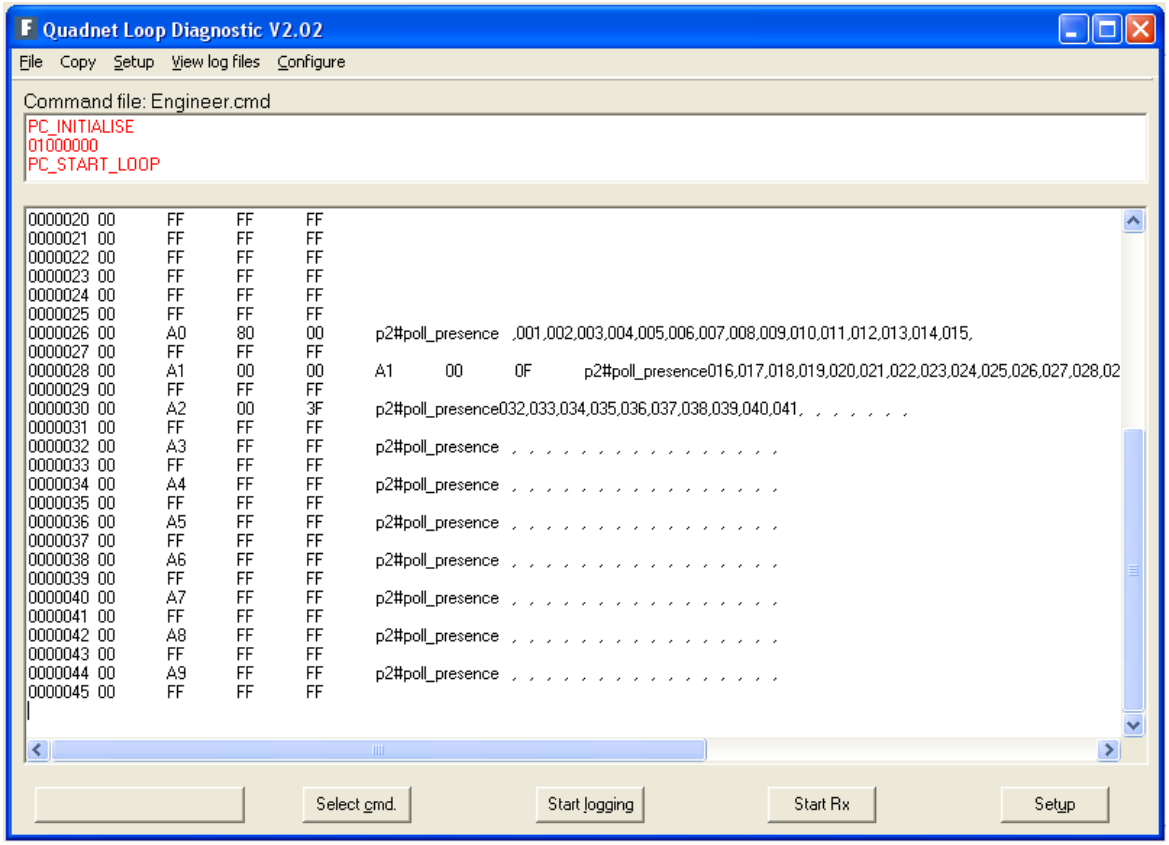
CIE Diagnostic

This tab allows the engineer to view the data packets being sent around the system.



Loop Diagnostic

This tab allows the engineer to view the data packets being sent around the loops on the panel.



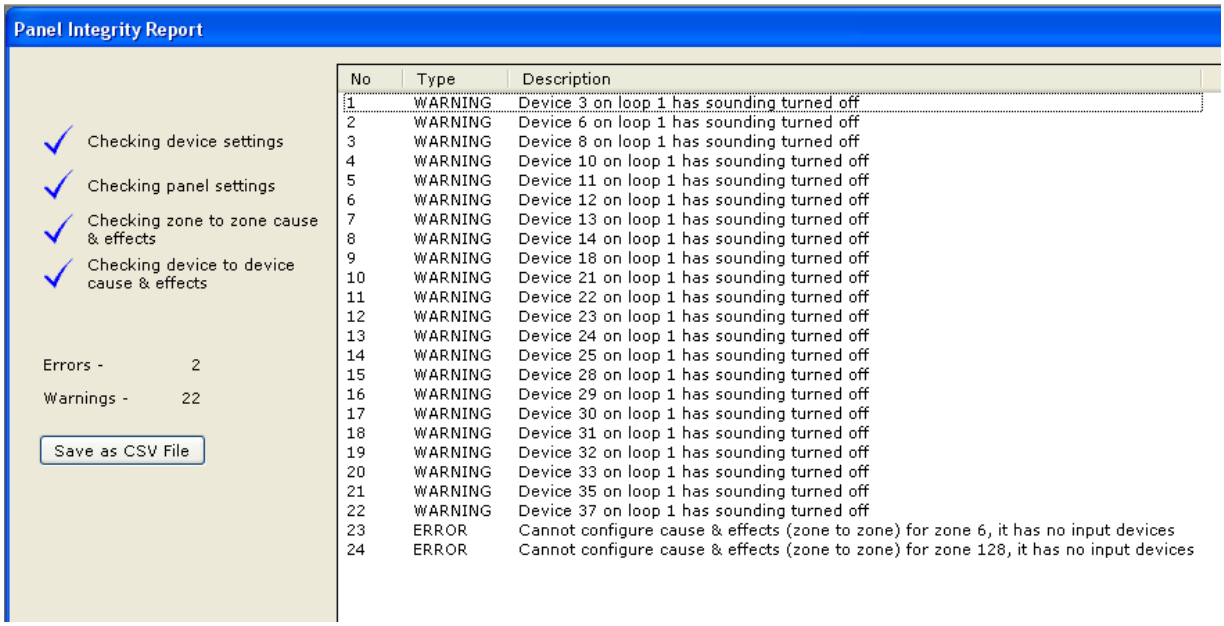
Panel Integrity Check

This feature can be found under the Tools dropdown menu and allows the currently configured data to be checked for inconsistencies and errors.

The following are checked.

Device settings
Panel Settings
Zone to Zone Cause and Effects
Device to Device Cause and Effects

A typical report is shown below. In the example, alarm zones have been configured for cause and effect to turn on outputs in zone 1 group 1. However, no such outputs have been set up.



No	Type	Description
1	WARNING	Device 3 on loop 1 has sounding turned off
2	WARNING	Device 6 on loop 1 has sounding turned off
3	WARNING	Device 8 on loop 1 has sounding turned off
4	WARNING	Device 10 on loop 1 has sounding turned off
5	WARNING	Device 11 on loop 1 has sounding turned off
6	WARNING	Device 12 on loop 1 has sounding turned off
7	WARNING	Device 13 on loop 1 has sounding turned off
8	WARNING	Device 14 on loop 1 has sounding turned off
9	WARNING	Device 18 on loop 1 has sounding turned off
10	WARNING	Device 21 on loop 1 has sounding turned off
11	WARNING	Device 22 on loop 1 has sounding turned off
12	WARNING	Device 23 on loop 1 has sounding turned off
13	WARNING	Device 24 on loop 1 has sounding turned off
14	WARNING	Device 25 on loop 1 has sounding turned off
15	WARNING	Device 28 on loop 1 has sounding turned off
16	WARNING	Device 29 on loop 1 has sounding turned off
17	WARNING	Device 30 on loop 1 has sounding turned off
18	WARNING	Device 31 on loop 1 has sounding turned off
19	WARNING	Device 32 on loop 1 has sounding turned off
20	WARNING	Device 33 on loop 1 has sounding turned off
21	WARNING	Device 35 on loop 1 has sounding turned off
22	WARNING	Device 37 on loop 1 has sounding turned off
23	ERROR	Cannot configure cause & effects (zone to zone) for zone 6, it has no input devices
24	ERROR	Cannot configure cause & effects (zone to zone) for zone 128, it has no input devices

Routine Operations

Programming a New Installation

Generally, the simplest manner in which to program a new installation is to let the control panel find its own loop configuration upon initialisation, and then to modify this. It is suggested that you proceed as follows:

1. **Initialise the system**. The control panel will interrogate the loop to build up a database of the configuration. Ensure that the correct number of devices has been found and that initialisation is complete.

2. **Upload the configuration.** Upload the original configuration from the control panel and save it as 'Filename original', i.e., 'HarloweHouse original'. It is good practice to keep this file and not over-write it with another. If any confusion exists it is handy to investigate the original configuration.

3. **Verify the position of the devices.** Use the device serial numbers to ensure that your 'As-wired' drawings or connection schematic is correct. The upload configuration will be correct so amend your notes to reflect this.

4. **Program as required.** Configure the control panel and device attributes as required.

5. **Save this file.** Save the file as 'Filename final', i.e., 'HarloweHouse final'. The download option is available without saving the file, but it is good practice to save the file in any case.

6. **Download the file into the control panel.** After download remember to carry out the following:

   'Start' or 'Initialise' Loop
   'Reconfig' data to loop devices
   'Reset' system
   Test system for correct operation.

Adding and Deleting Devices on Existing Systems

As the address of a device may change if the loop configuration is modified it is important to carry out the operation in a certain manner in order to avoid the need to reprogram the system from that point onwards.

This is only necessary if the configuration of devices on the loop is changed, i.e., adding or removing devices. This procedure **is not** required if a 'like' device is swapped, or if an optical chamber is replaced.

1. **Upload the original.** Upload the original configuration from the control panel and save it as 'Filename original', i.e., 'HarloweHouse original'. It is important to keep this file and not over-write it with another in case anything goes wrong.
2. **Physically add or remove the required devices** Physically add or remove the required devices to the system**,** record the serial numbers of the detectors, and initialise the system to find the modified loop configuration. Make sure that you know which address numbers are to be added and which are to be deleted as the system will renumber the addresses to remove any gaps.
3. **Add or remove the required devices to the configuration file.** It is generally easier to add or remove devices in order, starting at the lowest address and working up towards the highest address.
4. **Set the new devices as required.** Configure the device type, smoke and heat modes, sound patterns and volumes, I/O types and set the zone allocation. Any added devices will not yet have serial numbers.
5. **Download the file into the control panel.** First check and save the configuration file as 'Filename new', i.e., 'HarloweHouse new'. After download remember to carry out the following:
   Start or **Initialise** Loop
   Re-config data to loop devices
   Reset system
   Test system for correct operation.
6. **Upload from the fire panel and save the file.** The data will now have the correct serial numbers for any devices which have been added. This will be the finished version of the file.

Programming Loop Inputs and Outputs

The Multipoint detector/sounder has an inbuilt input/output function known as the Multipoint Auxiliary I/O. This may be programmed within the 'Device Details' + Device I/O Tab section by selecting the required device and then clicking on 'Device I/O Details' at the bottom. The required attributes may then be selected.

I/O Options

I/O options may be configured to suit your individual applications as described below. Further details of the electrical configuration may be found in the *Engineering and Commissioning Instructions.* The Loop Powered I/O Module is programmed in a similar manner, but with fewer options. The table indicates whether an EOL resistor is necessary. Note that if Auxiliary I/O is set to 'Not Configured', it will not require an EOL resistor.

	Description	Action	Group	EOL	MP I/O	Loop I/O
1.	**NOT CONFIGURED**	The aux I/O will not change state		None	Y	Y
2.	**REMOTE INDICATOR**	Output will follow the fire and fault indication of the Multipoint. The LED will require a 10K series resistor - Default setting	LED	None	Y	N
3.	**MONITORED INPUT**	The input will monitor for fire (680R) and fault (3K3 EOL), and trigger the system into the fire state, indicating 'Aux input' on the display.		3K3		
4.	**MONITORED OUTPUT**	The output will monitor for fault (3K3 EOL) and the output will cause the relay on the 'I/O Interface Module' to change state.		3K3		
		Device – The relay will follow the fire state of the host detector independent of control panel instruction, including during alarm confirmation.	Device		Y	N
		Alarm Zone – The relay will follow the Alarm Zone of the host device.	Sounder		Y	Y
		Auxiliary (I/O) Zone – The relay will follow the I/O zone. Setting the output type to either Sounder or Output (= Remote Fire Output) in 'Cause & Effect' will determine the 'Output Group'	Sounder / Remote Fire		Y	Y

Output Groups

The operations of the output groups are shown in the table below.

	Group	Description	Activate/Start	Deactivate/Stop
1.	**LED**	Remote Indicator	Mimic host device fire and fault LED	
2.	**DEVICE**	Follow fire state of host device	Alarm commencement of host device	Reset of host device
3.	**SOUNDER**	Sounder output	Alarm commencement	Silence
4.	**REMOTE FIRE**	Fire Protection Output	Alarm commencement	Reset

Programming Panel Inputs and Outputs

I/O Options for Panel Inputs / Outputs

They may be configured to suit your individual applications as described below. Further details of the electrical configuration may be found in the *Engineering and Commissioning Instructions.* Note that if monitored inputs or outputs are set as 'Not Configured', they will not require EOL resistors.

Description		Option	Action	Group	EOL
1.	**OUTPUT 1**	Not configured	The relay will not change state		None
		Fire Output (Common)	The relay coil will energise in any fire condition	Fire Prot	None
		Fire Output (Zonal)	The relay coil will energise in a fire condition from the specified zone		None
		Common Fault	The relay coil will de-energise in any fault condition		None
2.	**OUTPUT 2**	Not configured	The relay will not change state		None
		Fire Output (Common)	The relay coil will energise in any fire condition	Fire Prot	None
		Fire Output (Zonal)	The relay coil will energise in a fire condition from the specified zone		None
		Common Fault	The relay coil will de-energise in any fault condition		None
3.	**OUTPUT 3 (NOT AVAILABLE ON DUONET)**	Not configured	The relay will not change state		None
		Fire Output (Common)	The relay coil will energise in any fire condition	Fire Prot	None
		Fire Output (Zonal)	The relay coil will energise in a fire condition from the specified zone		None
		Common Fault	The relay coil will de-energise in any fault condition		None
4.	**OUTPUT 4 (NOT AVAILABLE ON DUONET)**	Not configured	The relay will not change state		None
		Fire Output (Common)	The relay coil will energise in any fire condition	Fire Prot	None
		Fire Output (Zonal)	The relay coil will energise in a fire condition from the specified zone		None
		Common Fault	The relay coil will de-energise in any fault condition		None
5.	**MON OUTPUT 5 (MON OUTPUT 1 ON DUONET)**	Not configured	The relay will not change state		None
		Sounder s Output (Zone must be specified)	The output will energise in any fire activation from specified zone, de-energise on silence	Sounder	10k
		Fire Output (Zone must be specified)	The output will energise in any fire activation from specified zone, de-energise on reset	Fire Prot	10k
		Common Fault	The relay coil will de-energise in any fault condition		10K
6.	**MON OUTPUT 6 (MON OUTPUT 2 ON DUONET)**	Not configured	The relay will not change state		None
		Sounder s Output (Zone must be specified)	The output will energise in any fire activation from specified zone, de-energise on silence	Sounder	10k
		Fire Output (Zone must be specified)	The output will energise in any fire activation from specified zone, de-energise on reset	Fire Prot	10k
		Common Fault	The relay coil will de-energise in any fault condition		10K

7.	**INPUTs 1 to 4 (Inputs 3 & 4 NOT AVAILABLE ON DUONET)**	Not configured	The input is inactive		None
		Fire Event input Latching (for specified zone)	A 680 ohm firing resistor will trigger a fire state in specified Detection Zone) and clear on **Reset System**		3k3
		Fire Event input Non-Latching (for specified zone)	A 680 ohm firing resistor will trigger a technical alarm state in specified Detection Zone) but will clear when the firing resistor is removed		3k3
		Technical Event input Latching (for specified zone)	A 680 ohm firing resistor will trigger a technical alarm state in specified Detection Zone) and clear on **Reset System**		3k3
		Technical Event input Non-Latching (for specified zone)	A 680 ohm firing resistor will trigger a fire state in specified Detection Zone) but will clear when the firing resistor is removed If the EOL is O/C a fault will be generated.		3k3
		Control event	Silence Alarms Reset System Sound Alarm Silence Buzzer Day/Night Mode Disable Sounders Disable Fire Outputs Disable Fault Outputs		3k3

INPUTS 2-4 have the same options as for INPUT 1 in the above table.

Output Groups

The operations of the output groups are described below:

	Group	Description	Activate/Start	Deactivate/Stop
1.	**SOUNDER**	Sounder output	Alarm commencement	Silence
2.	**FIRE PROT**	Fire Protection Output	Alarm commencement	Reset

Quadnet Outputs

Outputs 1 to 4 are derived from single pole change over ‘volt-free’ relay contacts which are not fault monitored. The relay contacts are rated at 30VDC / 1A max.

The default setting for output 1 causes the relay to operate as a **Common Fire** output where the relay is energised in the fire condition. The default setting for output 2 causes the relay to operate as a **Common Fault** output where the relay is de-energised in the fault condition. Various other states may also be set using the OSP programming software. However, to meet the requirements of EN54-2, Outputs 1 and 2 must be left as **Common Fire** and **Common Fault** respectively.

The default setting for outputs 3 and 4 causes the relay to operate as a **Common Fault** output where the relay is de-energised in the fault condition. Various other states may also be set using the OSP programming software.

Monitored Outputs 5 and 6 are monitored circuits which may be configured to monitor for open and short circuit faults with a 10k EOL resistor, and to be activated with a stage 3 alarm.

Quadnet Inputs

Inputs 1-4 may be configured to monitor for open and short circuit faults using a 3k3 EOL resistor, and to activate an alarm link using a 680R ‘firing’ resistor.

Duonet Outputs

Outputs 1 and 2 are derived from single pole change over ‘volt-free’ relay contacts which are not fault monitored. The relay contacts are rated at 30VDC / 1A max.

The default setting for output 1 causes the relay to operate as a **Common Fire** output where the relay is energised in the fire condition. The default setting for output 2 causes the relay to operate as a **Common Fault** output where the relay is de-energised in the fault condition. Various other states may also be set using the OSP programming software. However, to meet the requirements of EN54-2, Outputs 1 and 2 must be left as **Common Fire** and **Common Fault** respectively.

Monitored Outputs 5 and 6 are monitored circuits which may be configured to monitor for open and short circuit faults with a 10k EOL resistor, and to be activated with a stage 3 alarm.

The default setting for these monitored outputs causes the circuits to operate as **Common Fire Sounder Circuits,** where the outputs turn on in the alarm condition. Various other states may also be set using the OSP programming software.

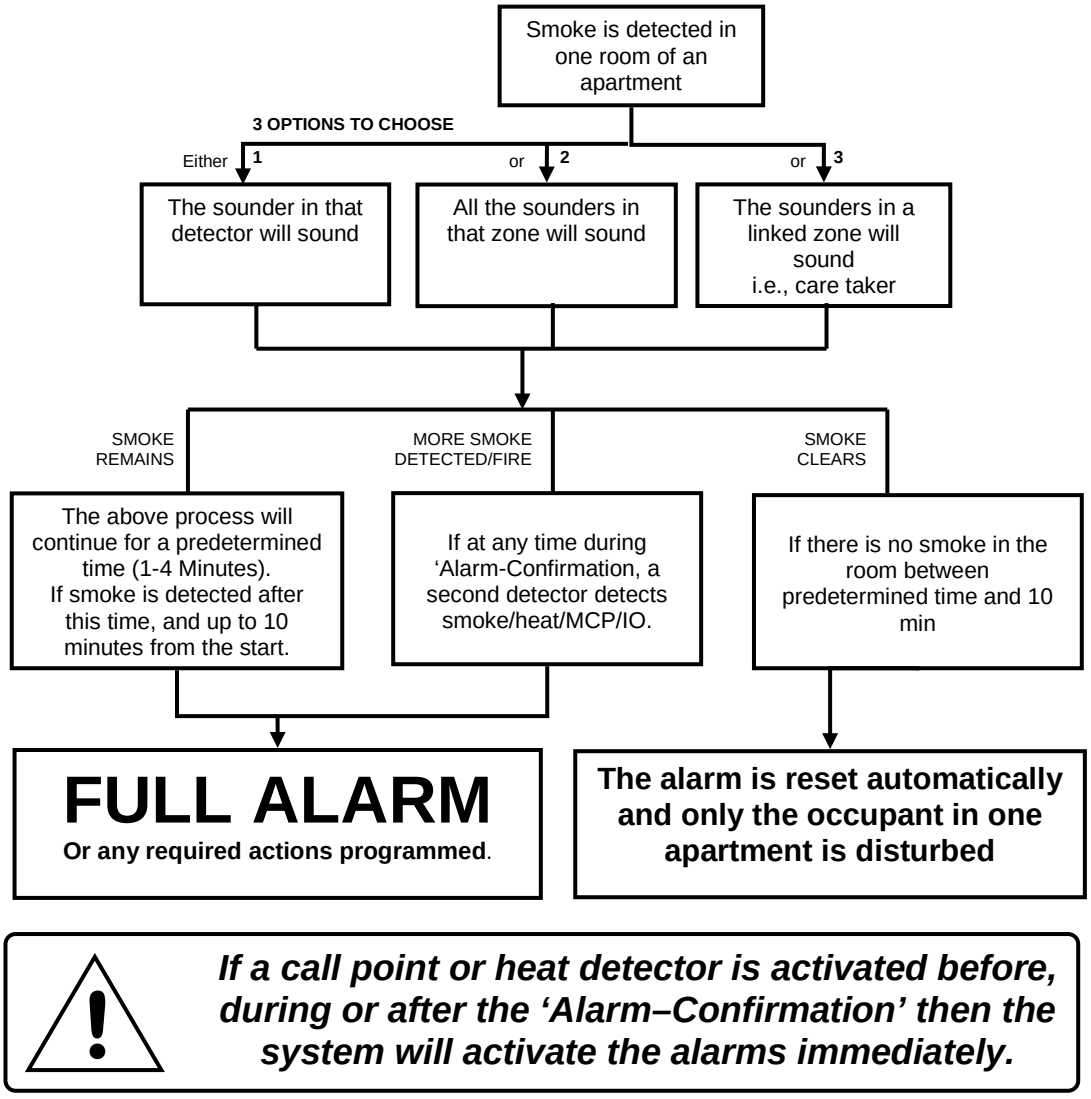
Duonet Inputs

Inputs 1-2 may be configured to monitor for open and short circuit faults using a 3k3 EOL resistor, and to activate an alarm link using a 680R ‘firing’ resistor.

Programming Alarm Confirmation

Alarm Confirmation Technology (ACT) is the process whereby a smoke detector may be configured to issue a localised warning in specific regions, prior to sounding a general alarm. This is generally of great benefit in dwelling areas where smoke, steam or cooking fumes may trigger a Multipoint detector.

The following diagram demonstrates some of the possibilities:



If a call point or heat detector is activated before, during or after the 'Alarm–Confirmation' then the system will activate the alarms immediately.

This function affects the smoke detector only, and operates before the control panel enters the Fire state. Thus, the system 'Cause & Effect' does not need to be adjusted as **Alarm Confirmation takes place before the programmed Cause & Effect sequence is reached**.

In order to activate this function, set the attributes detailed in 'System details' and ensure that 'Stage 1' sound settings have been programmed for every device requiring Alarm Confirmation. Note that Alarm Confirmation cannot be programmed at the panel. It must be done using the OSP program.

Alarm Confirmation Delay

An Alarm Confirmation delay may be set up so that when an alarm occurs, it is not immediately reported. The system will wait until the end of the delay time and then check that the alarm is still present. If it has cleared, the device which was in alarm will be reset and no further action need be taken.

The Alarm Confirmation Delay timers is located within the 'Panel Details' area on the 'Delays and Timers' tab and may be set to give the required Alarm Confirmation Delay time.

The use of this feature allows an automatic reset of an unconfirmed alarm from a smoke detector. It also allows an Alarm Stage 1 sound pattern for each device required, in the 'Device Details' section.

At the end of the 'Alarm Confirmation Delay' time the system will check the detector again to see if the activation has cleared. If so then the device will reset and no further action need be taken.

The sounder operates during the chosen 'Alarm Confirmation Delay' time, and stops for the final 20 seconds, during which time the device is reset to check for further smoke presence.

During the 'Alarm Confirmation Delay', the activation of an additional smoke detector into 'Alarm Confirmation' will cause the delay time to cease and an instant alarm to be generated.

If, however, the detector is still activated when the alarm confirmation delay is finished, then the entire system will go into alarm, operating all the sounders programmed in the 'Cause & Effect' area.

For a further time period (10 min - 'Alarm Confirmation Delay'), the activation of the same smoke detector will cause an instant alarm (depending on the programming of the system in 'Cause & Effect').

The activation of any Heat detector (even in the same device as the smoke detector in 'Alarm Confirmation') generates an instant alarm (depending on the programming of the system 'Cause & Effect').

Alarm Stage 1

These attributes may be set for each device which is to utilise Alarm Confirmation. Smoke detectors without the attributes will operate in a standard manner (depending on the programming of the system 'Cause & Effect').

The 'Alarm Stage 1' sound pattern must be used in conjunction with the 'Alarm Confirmation Delay'.

If Alarm stage 1 is set then the sounder **in that device only** operates if its smoke detector is in alarm (unless zonal confirmation is set - then all sounders on that zone will operate). This is 'Alarm stage 1'. The device will revert to 'Alarm stage 2 or 3' when Alarm stage 1 is off. (Any subsequent actions may need to be programmed as required under the 'Cause & Effect' section).

If you require the alarm confirmation signal to operate sounders on other zones, then alarm confirmation cause and effect can be programmed by selecting the zones in Alarm Stage 1 under the 'Cause & Effect' section

The activation of any Heat detector (even in the same device as the smoke detector in 'Alarm Confirmation') generates an instant alarm (depending on the programming of the system 'Cause & Effect').

Example Configurations

Following are some examples of the configuration required for varying single and multi stage alarm scenarios.

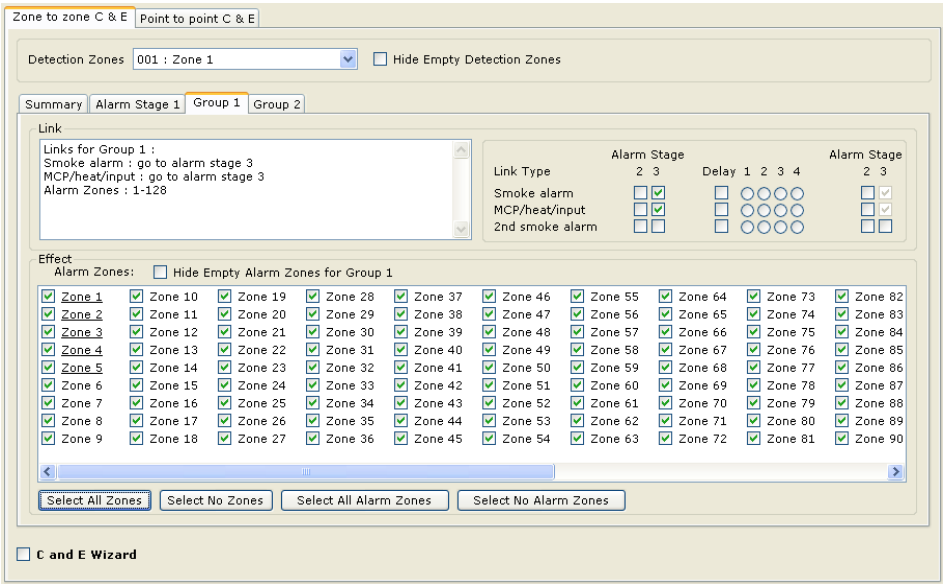
Group 1 and/or group 2 may be set up as shown in the examples on the following pages. Remember that these groups need to be configured for every 'Detection Zone' required. As the highest priority event always overrides all lower priority events, the groups may be programmed in any order.

This list is not exhaustive and you may find many different ways of configuring your alarm response. Consultation with the End User and the relevant Fire Authority is essential.

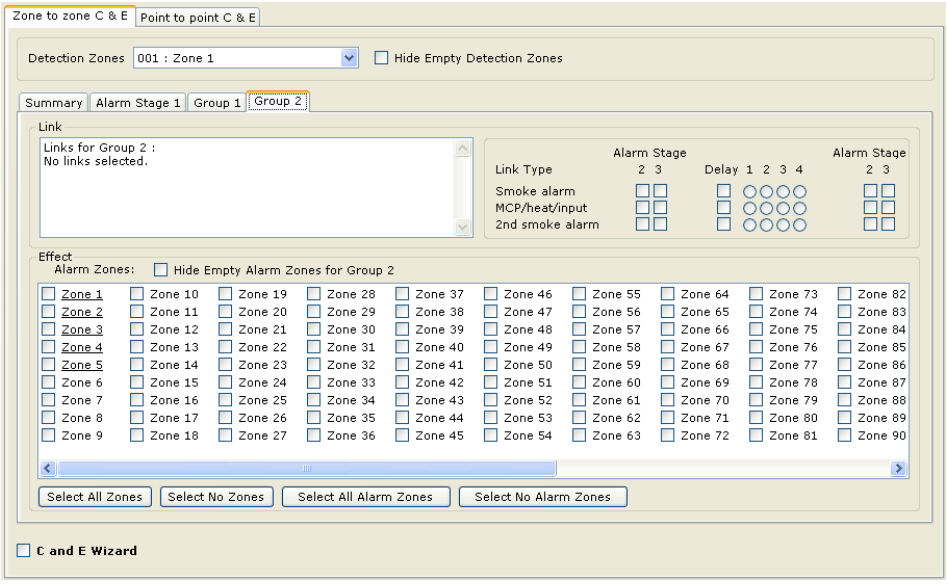
In these examples, the panel Monitored outputs 5 and 6 have been put into zones 67 and 68 respectively. Panel Monitored outputs are configured on the Panel Outputs tab on the Panel Details screen.

Instant Alarms

If you require an instant alarm response to any detector, manual call point or input alarm then set Group 1 as follows. This is the standard default configuration supplied with new systems, so generally this will not need any alterations.



Group 2 should be set with the links unticked.



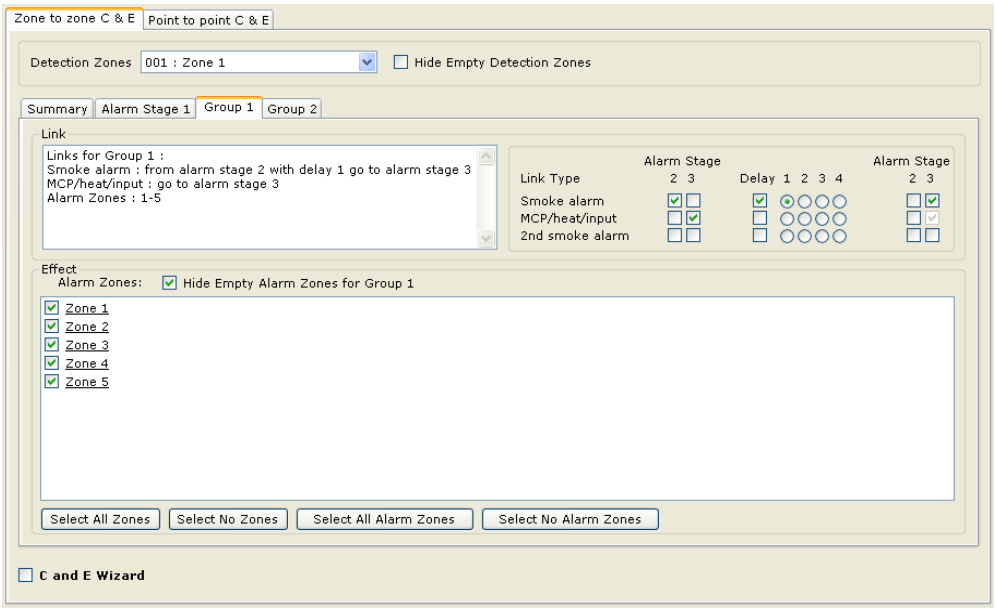
Any fire input (i.e. smoke, heat, call point input), from this Detection Zone (Zone 1) will cause an ‘Alarm stage 3 (Evacuate)’ sound in Alarm Zones 1 - 128.

Remember that the group 1 and 2 configuration must be set for every ‘Detection Zone’ required (not just for Zone 1), both on initial commissioning and during any future alterations to the system.

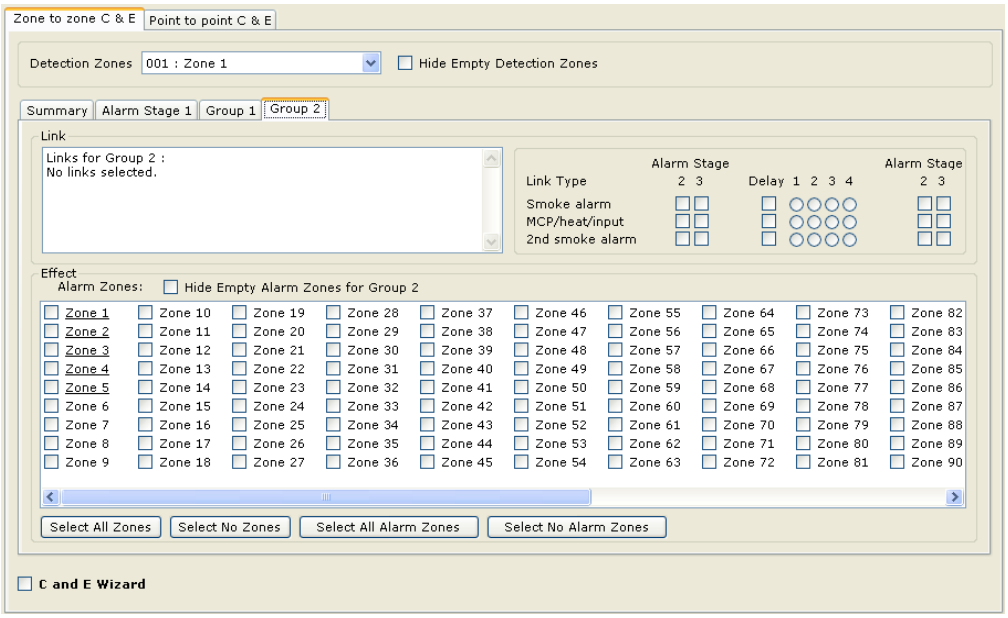
Note the selection of Alarm Zones 67 and 68 (in Group 1) to enable the operation of the two conventional sounder circuits (Monitored Outputs 5 and 6) at the control panel.

‘Smoke Alert’

An early warning (Alert) maybe raised in the event of a smoke detector triggering, in order to give time for staff to investigate. Heat detection and manual call points should normally be left with an instant response. To achieve this result set Group 1 as follows.



Note that Group 2 should be set with all the links unticked as shown below.



In this example, we have programmed Zone 1.

Any smoke alarm input on Detection Zone 1 (Zone Basement) will cause an ‘Alarm stage 2 (Alert)’ sound in Alarm Zones 1 to 5. Note that the “Hide Empty Alarm Zones” box has been ticked, making it easier to see which zones are actually involved in the outputs.

After a time delay (configured earlier as Alarm Delay 1 in the Delays and Timers tab on the Panel System Details screen), the sound will change to an ‘Alarm stage 3 (Evacuate)’ sound.

This sound will also be used on a heat or call point activation but with no delay.

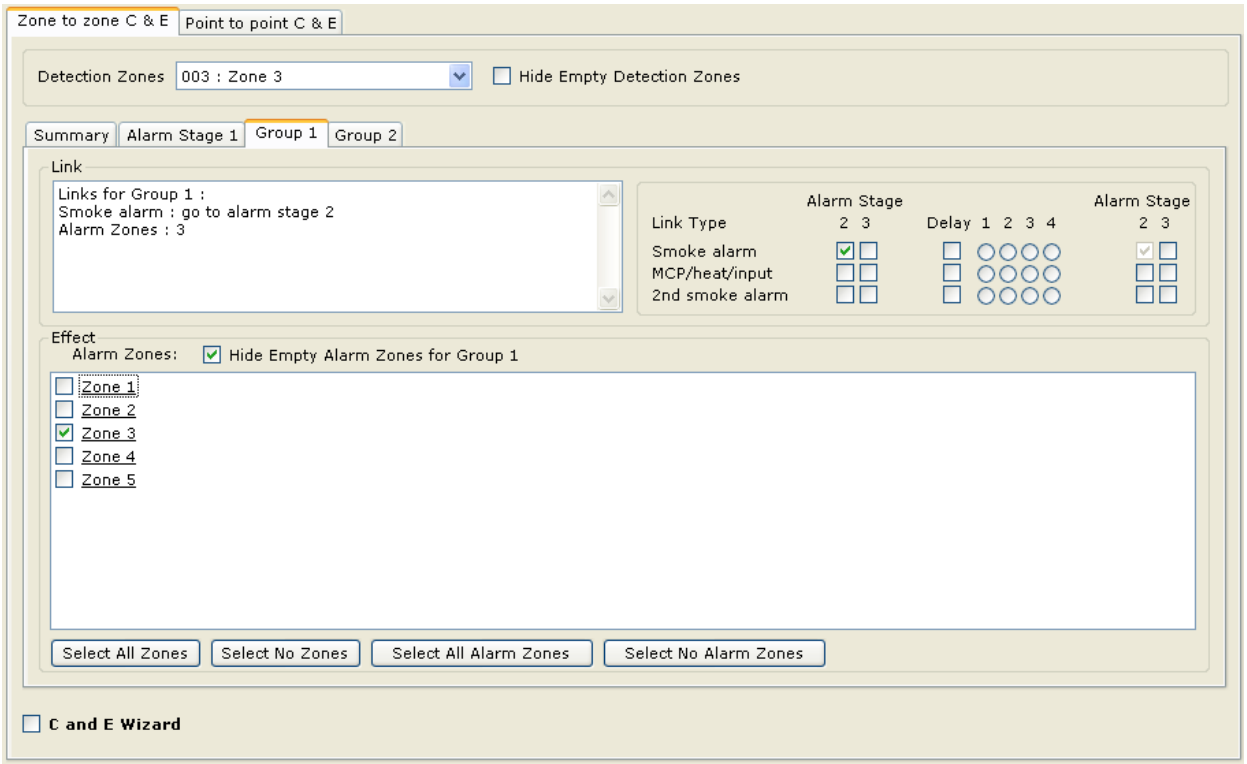
Note the selection of Alarm Zones 67 and 68 (in Group 1) to enable the operation of the two conventional sounder circuits (Monitored Outputs 5 and 6) at the control panel. These are only triggered from the ‘Alarm stage 3’ activation.

Remember that the group 1 and 2 configuration must be set for every ‘Detection Zone’ required (not just for Zone 1), both on initial commissioning and during any future alterations to the system.

Phased Evacuation

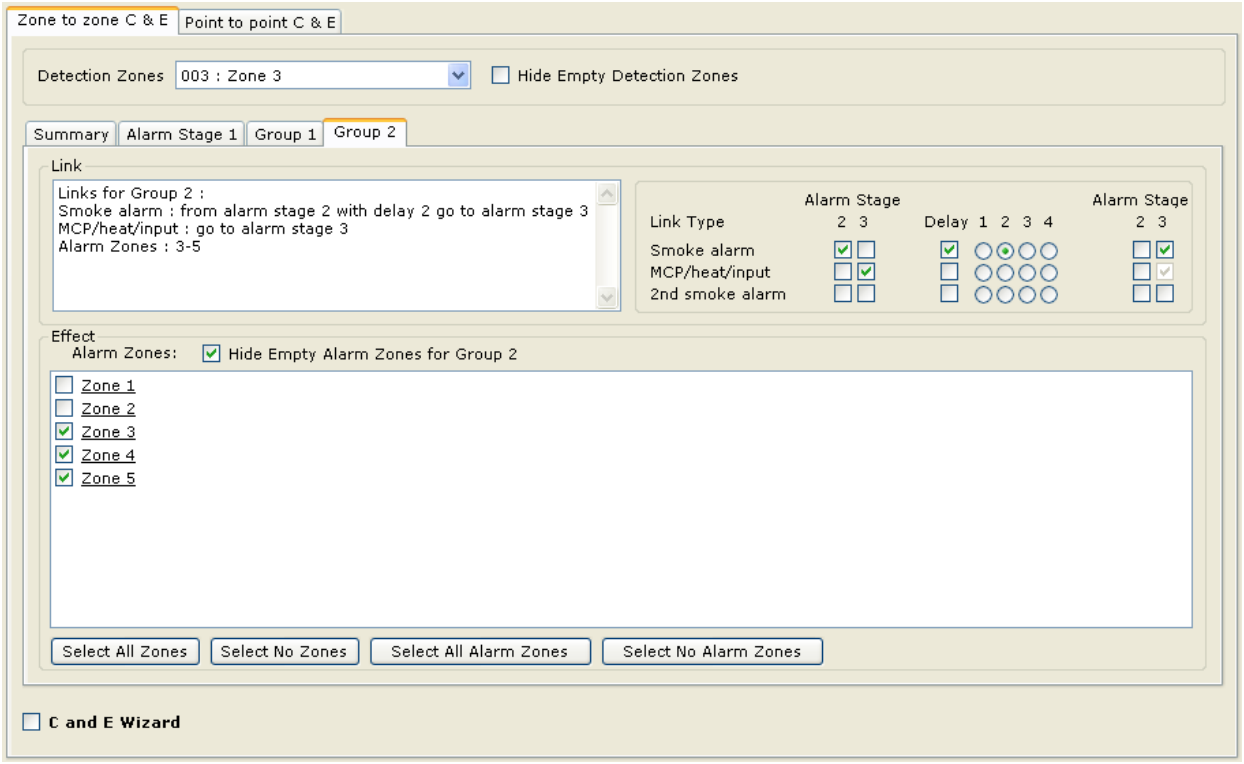
Alternatively, an early warning (Alert) can be raised within the local area in the event of a smoke detector triggering, in order to give time for staff to investigate. Heat detection and manual call points should normally be left with an instant response, but possibly phasing the evacuation from the critical areas.

To achieve this result set Group 1 as follows.



Note that Group1 has been configured to only report the event (using alarm stage 2) to zone 3. The result is localised to the zone where the fire occurred.

Set Group 2 as follows.



In this example, any smoke alarm input on Detection Zone 3 will cause an ‘Alarm stage 2’ sound in Alarm Zone 3 only (because of the setting of Group 1). After a time delay (configured earlier as Alarm Delay 2 in the Delays and Timers tab on the Panel System Details screen), or immediately after a heat or call point activation, the sound will change to an ‘Alarm stage 3’ sound in Alarm Zones 3,4 and 5.

Thus, an Alarm Stage 2 (Alert) is generated on the same zone as the smoke detector activation. After a time delay, or immediately after a heat alarm or manual call point activation, an Alarm Stage 3 (Evacuate) is generated on that zone and also zones 4-5.

Thus, only the area at highest risk is initially evacuated, in order to avoid evacuating the entire site at one go.

Remember that the group 1 and 2 configuration must be set for every input ‘Detection Zone’ required (not just for Zone 3), both on initial commissioning and during any future alterations to the system.

Alarm Confirmation / Warden Call

The following example shows a configuration suitable for use in sheltered housing complexes. This configuration was originally designed in response to an enquiry from a client, and has since been implemented effectively on many sites.

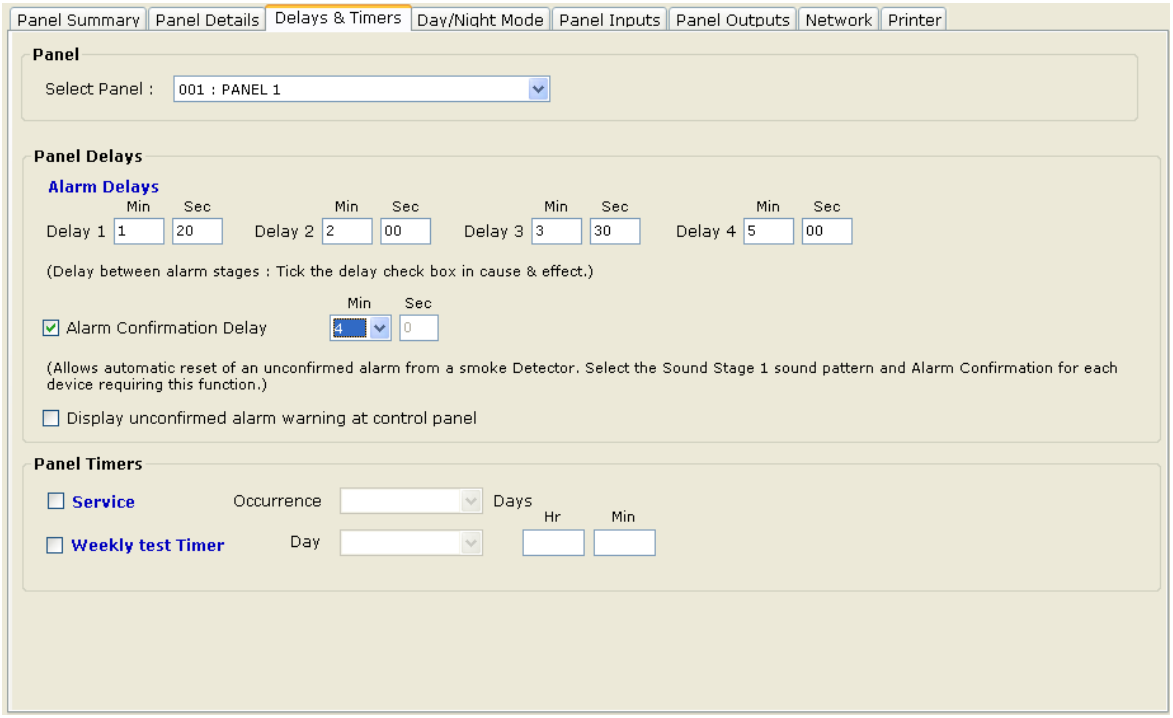
It is required that the system will minimise false alarms from sheltered housing apartments, whilst providing accurate warning of real fire situations.

The Multipoint detection in the apartments utilises the I/O Interface base to signal through the warden call system to the warden (or central station if the warden is off site). This is combined with alarm confirmation in order to provide a means of aborting a full alarm if the occupant is able to remove the cause of a false alarm.

To achieve this result, configure the system as follows:

Panel Details

Within the Panel Details section, select a value for the **Alarm Confirmation Delay.** This is done on the Delays and Timers tab.

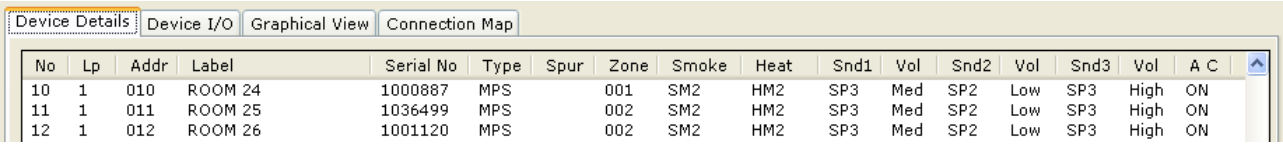


In our example, an Alarm Confirmation delay of 4 minutes 00 seconds has been set up.

Device Details

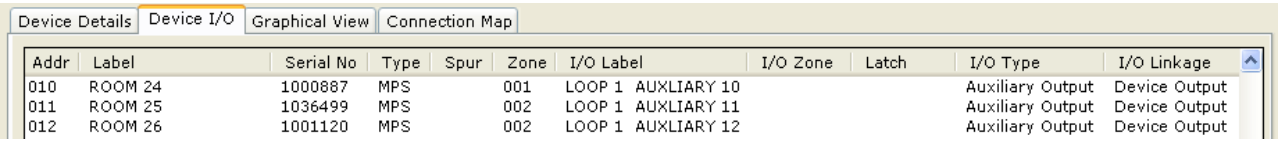
Set the devices within the apartments as follows, with the Alarm Stage 1 sound pattern selected to SP1, SP2 or SP3.

Set the devices within communal areas, corridors and escape routes as follows, with the Alarm Stage 1 sound pattern set to SP0 (off).

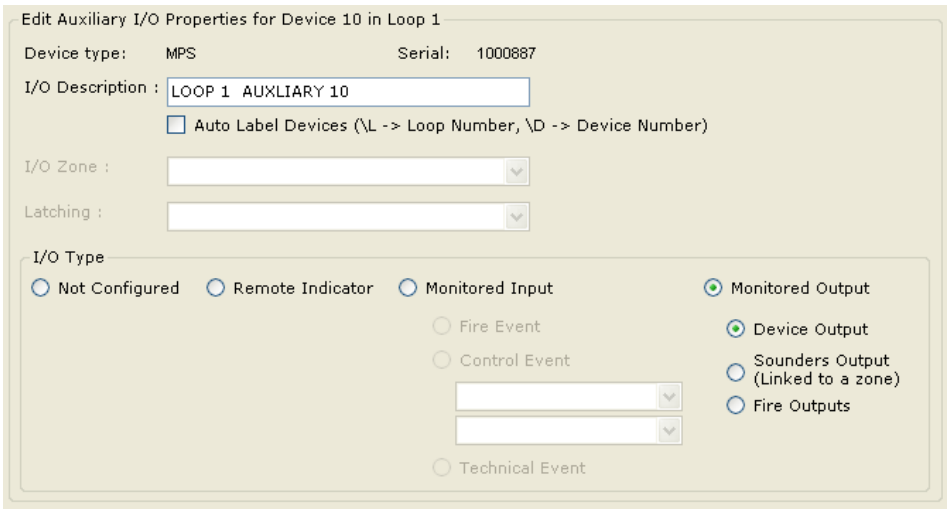


Alarm confirmation has been turned ON for the devices within the apartments (Rooms 24, 25 and 26).

Also using the Device I/O tab, set the I/O linkage to **Monitored Output / Device** for each of the devices within the apartments. Thus I/O Interface base relays will operate only when its host smoke detector triggers.

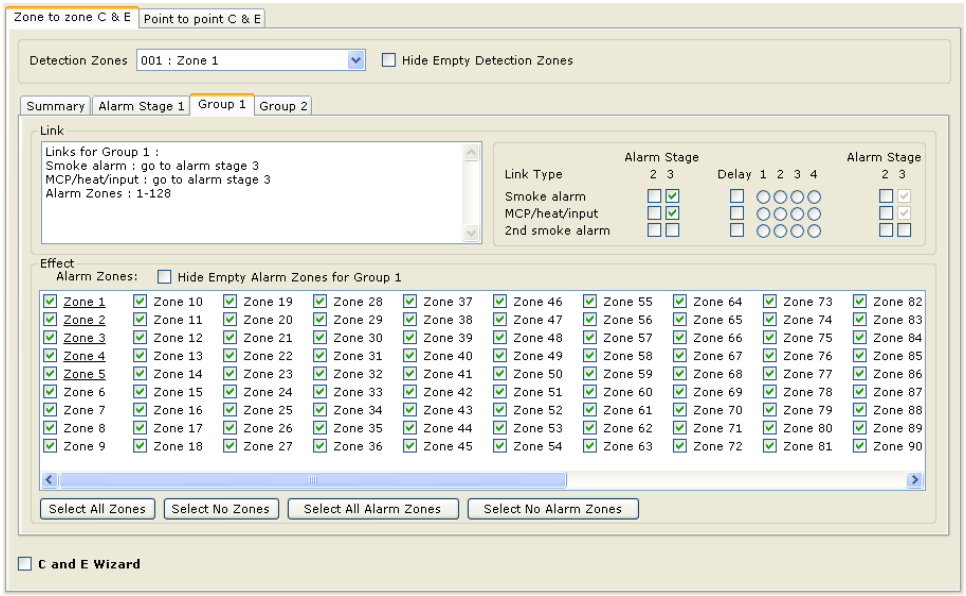


Use the Device I/O Details button to obtain the following screen to select the I/O type Monitored Output – Device output as follows. Device 10 is shown as an example.



Cause & Effect

The Cause & Effect section should be set as for instant alarms as described previously (this is the default setting). Set Group 1 as shown below. Remember to set this for each of the detection zones with inputs. Group 2 does not need to be set.



The Alarm Confirmation routine takes place before the system enters the alarm state.

In this example, an ‘Alarm stage 3’ sound will operate in all Alarm Zones in response to the operation of the following:

1. A heat detector anywhere on the system
2. A manual call point anywhere on the system
3. A smoke detector (excluding those set for Alarm Confirmation in the apartments)
4. Final confirmation of a smoke detector within an apartment.
5. The start of Alarm Confirmation from a second smoke detector within an apartment

Whilst a single smoke detector within an apartment is in its alarm confirmation stage, it will operate its own local sounder only, and trigger the I/O interface base relay to which it is attached. Thus, if this is connected to the local warden call unit, the warden is able to rapidly establish contact with the occupier and verify the alarm status of the alarm. If the cause of an unwanted is removed within the selected 4 minute Alarm Confirmation delay period then the device will reset and a full alarm will be avoided.

Remember that the group 1 and 2 configuration must be checked for every input ‘Detection Zone’ required, both on initial commissioning and during any future alterations to the system.

Technical Data

Duonet Control Panel

	Duonet Control and Indicating Equipment	
No. of zones	128 zones	
Number of loops	Up to 2 loops via plug-in loop cards	(1 included as standard with panel)
No of devices	Maximum of 200 devices *or* maximum of 450 DLUs per loop	(whichever is reached first)
Device labels	23 characters	
LCD display	Graphic display Field 1 (top) Field 2 Field 3 Field 4 (bottom)	 Control Panel Information Window Active Information Window Prompt Window Network Information Window
Event log	1000 events	
Inputs and Outputs	Relay Outputs x2 Monitored Outputs x2 Monitored Inputs x2	Volt free contacts SPCO 30V DC @ 1A max per contact 2 x 24V conventional monitored outputs Fire, Fault, Signal, Technical Alarm 10k EOL, 200mA max per circuit 2 x resistance monitored inputs 3k3 EOL, 680R firing resistor

Quadnet Control Panel

	Quadnet Control and Indicating Equipment	
No. of zones	128 zones	
Number of loops	Up to 4 loops via plug-in loop cards	(1 included as standard with panel)
No of devices	Maximum of 200 devices *or* maximum of 450 DLUs per loop	(whichever is reached first)
Device labels	23 characters	
LCD display	Graphic display Field 1 (top) Field 2 Field 3 Field 4 (bottom)	 Control Panel Information Window Active Information Window Prompt Window Network Information Window
Event log	1000 events	
Inputs and Outputs	Relay Outputs x 4 Monitored Outputs x 2 Monitored Inputs x 4	Volt free contacts SPCO 30V DC @ 1A max per contact 2 x 24V conventional monitored outputs Fire, Fault, Signal, Technical Alarm 10k EOL, 200mA max per circuit 4 x resistance monitored inputs 3k3 EOL, 680R firing resistor

OSP Version Compatibility

The following table explains the compatibility of the various versions of the Duonet/Quadnet system:

PANEL VERSION	RECOMMENDED OSP VERSION					
	V0.367	V2.04	V3.04			
Panel Versions up to v1.29	√					
Panel Versions v1.34 to v2.xx		√				
Panel Versions v3.xx			√			

Technical Support

For further technical support please contact your distributor. Do not call the Fike Safety Technology technical support department unless your distributor has first given their advice and attempted to rectify the issue.

Technical support will not be available if the instruction manual has not been read and understood. Please have this instruction manual available whenever you call for technical support. Due to the complexity and inherent importance of a life risk type system, training on this equipment is essential, and commissioning should only be carried out by competent persons.

Configuration Sheets

Device Details Record your device attributes on the following form. Copy as required for all devices in the system.

SITE DETAILS:

DEVICE ADDRESS	**SERIAL NUMBER**	**DEVICE DESCRIPTION (23 CHARACTERS MAX)**	**ZONE**	**DEVICE TYPE**	**SMOKE MODE**	**HEAT MODE**	**ALARM CONF'N**
E.g., 1	*35415*	*Gnd Flr Front Office*	*1*	*MPS*	*SM2*	*HM2*	*NO*

SOUND PATTERN IN ALARM CONFIRMATION:	SOUND PATTERN IN ALARM:	ALARM CONFIRMATION DELAY TIME (0:30 – 7:00 MIN):	DEVICE TYPE OPTIONS: MP / MPS / MCP / MCPS / IO / CZM / FP / SP / HP / BELL / SS

Detection Zone/Alarm Zone Details Record your zonal 'Cause & Effect' here. Copy as required for all zones.

Note:
On a network of control panels, there can be up to 128 zones on each panel (local zones). Version 3 repeater and control panels will illuminate the zone LED corresponding to the zone in alarm on each networked control panel.

If there were 4 networked panels on a system there could be a total of 512 separate zones but all numbered in the range 1-128. This means there could be four different zone 1s, four different zone 2s etc.

It is recommended that on networked systems using version 3 panels, zones are configured so there are a maximum of 128 zones on the whole system and there are no duplications.

SYSTEM DETAILS:	**DETECTION ZONE:**

GROUP 1:			
LINKS TO GROUP 1:		Stage 2	Stage 3
LINK IF MCP/HEAT/INPUT			
LINK IF SMOKE			
LINK IF SECOND SMOKE			
DELAY (1,2 3 or 4)			

GROUP 2:			
LINKS TO GROUP 2:		Stage 2	Stage 3
LINK IF MCP/HEAT/INPUT			
LINK IF SMOKE			
LINK IF SECOND SMOKE			
DELAY (1,2 3 or 4)			

ALARM ZONES TO ACTIVATE FROM GROUP 1:			
ALARM ZONE 1		ALARM ZONE 65	
ALARM ZONE 2		ALARM ZONE 66	
ALARM ZONE 3		ALARM ZONE 67	
ALARM ZONE 4		ALARM ZONE 68	
ALARM ZONE 5		ALARM ZONE 69	
ALARM ZONE 6		ALARM ZONE 70	
ALARM ZONE 7		ALARM ZONE 71	
ALARM ZONE 8		ALARM ZONE 72	
ALARM ZONE 9		ALARM ZONE 73	
ALARM ZONE 10		ALARM ZONE 74	
ALARM ZONE 11		ALARM ZONE 75	
ALARM ZONE 12		ALARM ZONE 76	
ALARM ZONE 13		ALARM ZONE 77	
ALARM ZONE 14		ALARM ZONE 78	
ALARM ZONE 15		ALARM ZONE 79	
ALARM ZONE 16		ALARM ZONE 80	
ALARM ZONE 17		ALARM ZONE 81	
ALARM ZONE 18		ALARM ZONE 82	
ALARM ZONE 19		ALARM ZONE 83	
ALARM ZONE 20		ALARM ZONE 84	
ALARM ZONE 21		ALARM ZONE 85	
ALARM ZONE 22		ALARM ZONE 86	
ALARM ZONE 23		ALARM ZONE 87	
ALARM ZONE 24		ALARM ZONE 88	

ALARM ZONES TO ACTIVATE FROM GROUP 2:			
ALARM ZONE 1		ALARM ZONE 65	
ALARM ZONE 2		ALARM ZONE 66	
ALARM ZONE 3		ALARM ZONE 67	
ALARM ZONE 4		ALARM ZONE 68	
ALARM ZONE 5		ALARM ZONE 69	
ALARM ZONE 6		ALARM ZONE 70	
ALARM ZONE 7		ALARM ZONE 71	
ALARM ZONE 8		ALARM ZONE 72	
ALARM ZONE 9		ALARM ZONE 73	
ALARM ZONE 10		ALARM ZONE 74	
ALARM ZONE 11		ALARM ZONE 75	
ALARM ZONE 12		ALARM ZONE 76	
ALARM ZONE 13		ALARM ZONE 77	
ALARM ZONE 14		ALARM ZONE 78	
ALARM ZONE 15		ALARM ZONE 79	
ALARM ZONE 16		ALARM ZONE 80	
ALARM ZONE 17		ALARM ZONE 81	
ALARM ZONE 18		ALARM ZONE 82	
ALARM ZONE 19		ALARM ZONE 83	
ALARM ZONE 20		ALARM ZONE 84	
ALARM ZONE 21		ALARM ZONE 85	
ALARM ZONE 22		ALARM ZONE 86	
ALARM ZONE 23		ALARM ZONE 87	
ALARM ZONE 24		ALARM ZONE 88	

ALARM ZONE 25		ALARM ZONE 89	
ALARM ZONE 26		ALARM ZONE 90	
ALARM ZONE 27		ALARM ZONE 91	
ALARM ZONE 28		ALARM ZONE 92	
ALARM ZONE 29		ALARM ZONE 93	
ALARM ZONE 30		ALARM ZONE 94	
ALARM ZONE 31		ALARM ZONE 95	
ALARM ZONE 32		ALARM ZONE 96	
ALARM ZONE 33		ALARM ZONE 97	
ALARM ZONE34		ALARM ZONE 98	
ALARM ZONE 35		ALARM ZONE 99	
ALARM ZONE 36		ALARM ZONE 100	
ALARM ZONE 37		ALARM ZONE 101	
ALARM ZONE 38		ALARM ZONE 102	
ALARM ZONE 39		ALARM ZONE 103	
ALARM ZONE 40		ALARM ZONE 104	
ALARM ZONE 41		ALARM ZONE 105	
ALARM ZONE 42		ALARM ZONE 106	
ALARM ZONE 43		ALARM ZONE 107	
ALARM ZONE 44		ALARM ZONE 108	
ALARM ZONE 45		ALARM ZONE 109	
ALARM ZONE 46		ALARM ZONE 110	
ALARM ZONE 47		ALARM ZONE 111	
ALARM ZONE 48		ALARM ZONE 112	
ALARM ZONE 49		ALARM ZONE 113	
ALARM ZONE 50		ALARM ZONE 114	
ALARM ZONE 51		ALARM ZONE 115	
ALARM ZONE 52		ALARM ZONE 116	
ALARM ZONE 53		ALARM ZONE 117	
ALARM ZONE 54		ALARM ZONE 118	
ALARM ZONE 55		ALARM ZONE 119	
ALARM ZONE 56		ALARM ZONE 120	
ALARM ZONE 57		ALARM ZONE 121	
ALARM ZONE 58		ALARM ZONE 122	
ALARM ZONE 59		ALARM ZONE 123	
ALARM ZONE 60		ALARM ZONE 124	
ALARM ZONE 61		ALARM ZONE 125	
ALARM ZONE 62		ALARM ZONE 126	
ALARM ZONE 63		ALARM ZONE 127	
ALARM ZONE 64		ALARM ZONE 128	

ALARM ZONE 25		ALARM ZONE 89	
ALARM ZONE 26		ALARM ZONE 90	
ALARM ZONE 27		ALARM ZONE 91	
ALARM ZONE 28		ALARM ZONE 92	
ALARM ZONE 29		ALARM ZONE 93	
ALARM ZONE 30		ALARM ZONE 94	
ALARM ZONE 31		ALARM ZONE 95	
ALARM ZONE 32		ALARM ZONE 96	
ALARM ZONE 33		ALARM ZONE 97	
ALARM ZONE34		ALARM ZONE 98	
ALARM ZONE 35		ALARM ZONE 99	
ALARM ZONE 36		ALARM ZONE 100	
ALARM ZONE 37		ALARM ZONE 101	
ALARM ZONE 38		ALARM ZONE 102	
ALARM ZONE 39		ALARM ZONE 103	
ALARM ZONE 40		ALARM ZONE 104	
ALARM ZONE 41		ALARM ZONE 105	
ALARM ZONE 42		ALARM ZONE 106	
ALARM ZONE 43		ALARM ZONE 107	
ALARM ZONE 44		ALARM ZONE 108	
ALARM ZONE 45		ALARM ZONE 109	
ALARM ZONE 46		ALARM ZONE 110	
ALARM ZONE 47		ALARM ZONE 111	
ALARM ZONE 48		ALARM ZONE 112	
ALARM ZONE 49		ALARM ZONE 113	
ALARM ZONE 50		ALARM ZONE 114	
ALARM ZONE 51		ALARM ZONE 115	
ALARM ZONE 52		ALARM ZONE 116	
ALARM ZONE 53		ALARM ZONE 117	
ALARM ZONE 54		ALARM ZONE 118	
ALARM ZONE 55		ALARM ZONE 119	
ALARM ZONE 56		ALARM ZONE 120	
ALARM ZONE 57		ALARM ZONE 121	
ALARM ZONE 58		ALARM ZONE 122	
ALARM ZONE 59		ALARM ZONE 123	
ALARM ZONE 60		ALARM ZONE 124	
ALARM ZONE 61		ALARM ZONE 125	
ALARM ZONE 62		ALARM ZONE 126	
ALARM ZONE 63		ALARM ZONE 127	
ALARM ZONE 64		ALARM ZONE 128	

Your Notes

Your Notes

Important Points

- You will need a **PC with a serial port, the Quadnet / Duonet OSP** software and a Quadnet / Duonet **USB Lead** (page 6).
- How to get your set-up ready **Getting Started** (page 7).
- How to go about **programming your first system** (page 67).
- **Cause & Effect** and how to program it (page 57).
- How to program **Loop Inputs and Outputs** to interface the system to other equipment (page 69).
- How to program **Alarm Confirmation** to reduce unwanted alarms in dwelling places (pages 36 + 73).
- **Programming Examples** of different approaches to your system operation (page 75).
- How to **Add/Delete/Swap** devices on a software allocated addressing system (page 68).

If you have any further queries, please contact your supplier for further information