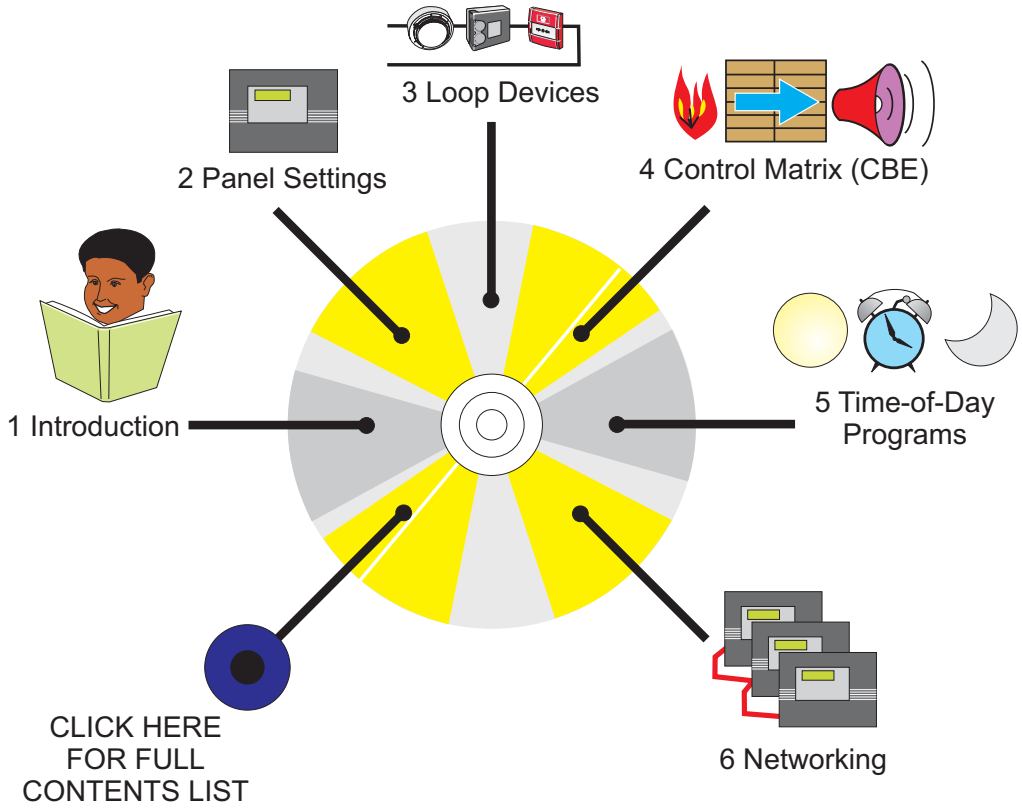
NOTIFIER®
by Honeywell

ID3000/ ID2000

fire panel
configuration tool
manual

997-291 Version 3.05b November 2010

Quick Contents Reference by Section



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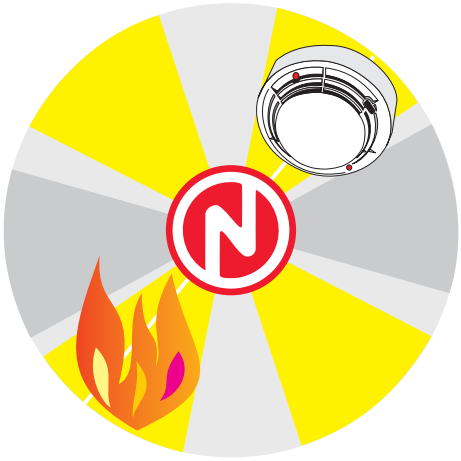
1 Introduction



The ID3000/ID2000 Fire Panel Configuration Tool (PN: 020-558) allows the user to:

a. Configure panel settings, loop devices, the Control Matrix and a network by using a PC remote from the fire panel.

b. Receive the existing configuration from the fire panel to the PC, and send a new or edited configuration from the PC to the fire panel.

c. Configure an IDR-6A repeater.

Throughout this manual the ID3000/ID2000 Fire Panel Configuration Tool is referred to as 'the Tool' and the fire panel as 'the panel'.

Be aware that...

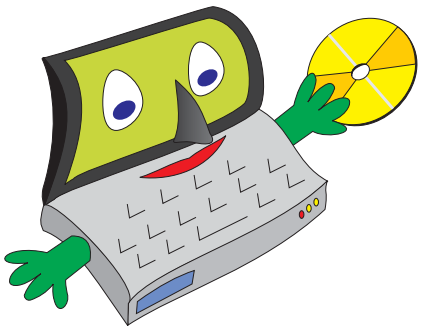
This manual is not intended to be a fire detection system design guide and should only be used by (or under the supervision of) a qualified system design engineer.

It is assumed that the system has been designed in accordance with the requirements of EN54 Part 14, BS 5839 Part 1:1988 and other local codes of practice that are applicable.

Some features of the panel may, if used inappropriately, contravene the requirements of EN54. This manual includes warnings (see example opposite) where there is the possibility of such an occurrence.

Cross-references (in bold type) in this manual include links. For example, click on (see Section 4) to go to that Section.

EN54-2: 13.7 Maximum of 512 Sensors and/or MCPs per panel unless ELIBs are used.



1.1 PC Specification

The minimum specification for the PC is:

a. Pentium Class Processor.

b. Windows XP with service pack 2 with 128MB memory.

c. 120MB disk space available.

d. CD-ROM.

e. SVGA 1024 x 768 colour display.

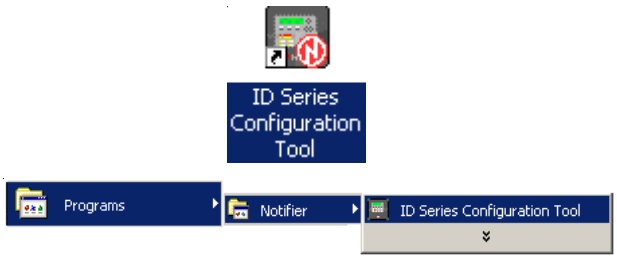
Note: To ensure that the Tool's windows are all displayed correctly, the PC's Control Panel/Display/Appearance tab/Scheme option must be left at its default setting.

1.2 Installation

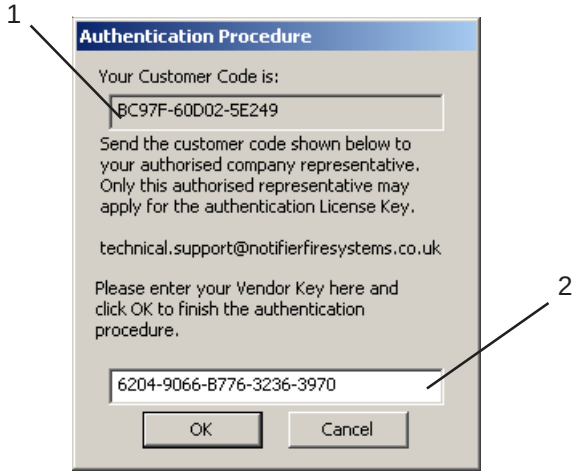
To install the Tool:

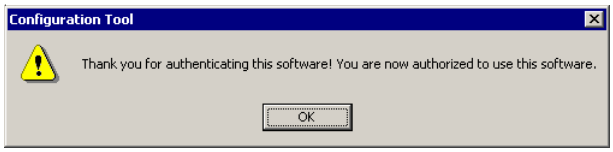
1 The CD should auto-run (if it does not, click on 'Setup.exe').

2 Follow the on-screen prompts to complete the process.



See 'Help' menu 'About' option for the current authentication status of the Tool.





1.3 Starting the Tool

Do one of:

a. Double-click on the Tool icon.

b. Select 'Programs/Notifier/ID Series Configuration Tool' from the PC's 'Start' menu.

The Tool uses standard windows methods of opening, closing, selecting etc.

1.3.1 Authentication Option

If the Tool is authenticated, upon first communication with any panel **using panel software version 4.21e or above** an authentication code is sent to the panel. Subsequently, that panel can only communicate with an authenticated version of the Tool. If panel authentication is not required, do not authenticate the Tool. To authenticate the Tool:

1 Note the customer code and send it to your company's authorised representative. **Only the authorised representative may apply for the authentication licence key**. The customer code may be submitted (together with the other requested data) using an electronic Authentication passcode request, available by e-mail from:

technical.support@notifierfiresystems.co.uk

2 Notifier will e-mail the electronic passcode request form back yo your company's authorised representative with the licence key (valid for a specific PC only).

If the Tool is later installed on a different physical drive or partition, or if a licence expiry warning is displayed (given at 30 and 7 days), the registration procedure must be repeated.

1.4 Connecting a PC to the Panel

Use a suitable data communications cable. The panel requires a male RS232 9-way D-type connection from the cable. To connect the PC:

Caution: Direct connection of a PC to the panel's RS232 connector P1 will cause an earth fault with potential damage to the PC. Either use an isolated RS232 link or (temporarily) disable the fault monitoring circuit (steps 1 and 2 below). If an earth fault already exists (LED next to link JP1 illuminated yellow), DO NOT connect additional equipment likely to cause earth faults as damage may result (i.e. inhibiting the monitoring will not protect the equipment).

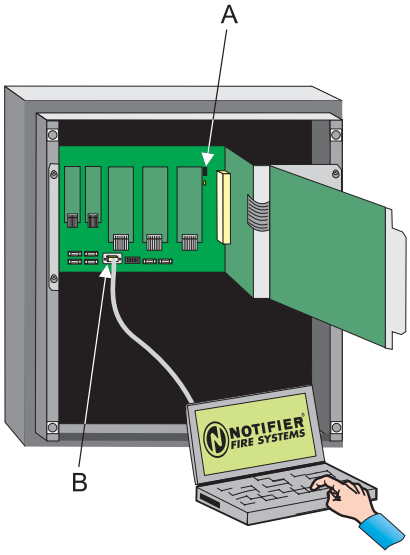
1 Disable the earth fault monitoring circuit by removing the jumper link on JP1 (A) at the top right-hand corner of the Base PCB. The PCB is marked 'EFD' above the link.

2 Wait for at least one minute after disabling the fault monitoring circuit, then use the data communications cable to connect the PC to the RS232 connector P1 (B) on the Base PCB.

3 When the data transfer is complete (either from panel to PC or PC to panel, see **Section 1.5.7**), disconnect the PC from the panel.

4 Enable the earth fault monitoring circuit by replacing the jumper on JP1. To comply with EN54-2: 8.2.4c, earth fault monitoring MUST be enabled.

Incorrect connections could result in damage to the comms port of the PC. The panel's RS232 connector P1 is NOT an isolated port.



EN54-2: 8.2.4c Earth Fault Monitoring is required.

1.5 Tool Overview and Menus

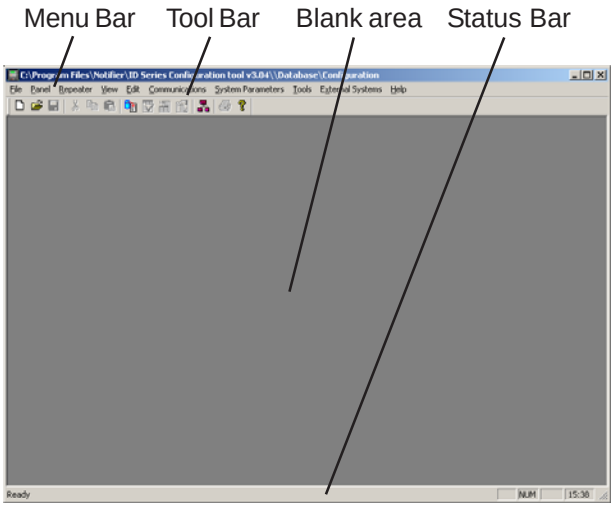
The Tool allows you to configure panel settings, loop devices, Control Matrix rules, time-of-day programs and network parameters.

1.5.1 Tool Language Setting

To change the language (if more than one is available), click on the Language Setting icon or shortcut (or select 'Start/Programs/Notifier/ National Language Setting') and select the required language from those listed. Press <ENTER> on your PC to exit the language selection window. The Tool's windows will now use the selected language - this does NOT set the panel language (see **Section 2.1**).

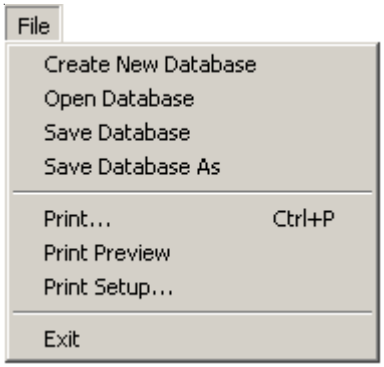
1.5.2 Tool Window

This window consists initially of a menu bar, a tool bar, a status bar and a blank area.



DEFAULT DATABASE

The Tool is supplied with a database, 'configuration.mdb', which is used by default if no other database is selected.



A full printout of summary and detail uses a lot of paper! Use Print Preview to choose the information to be printed.

1.5.3 File Menu

This menu has the following options:

a. Create New Database - allows a new database to be saved (via a 'Browse' window).

b. Open Database - allows existing database to be selected (via a 'Browse' window).

c. Save Database - saves changes to opened database.

d. Save As - copies the open configuration to a new database.

e. Print - prints loop configuration data. Print Preview displays the printable data. It has buttons (shown at left) to:

i Select which pages of printable information (summary and detail) are displayed by the preview.

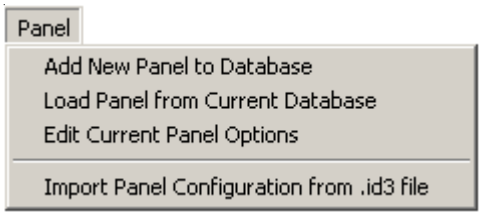
ii Zoom in and out of the displayed page(s).

iii Print via a standard window.

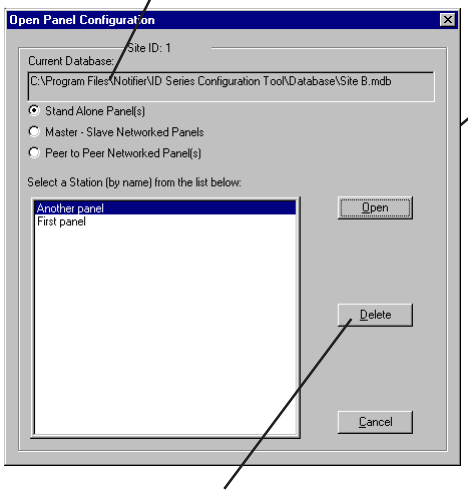
iv Close the Print Preview.

Note: To print panel settings, see **Section 2**. To print the Control Matrix, see **Section 4.2.3**. To print zone descriptions, see **Section 1.5.9**.

f. Standard windows functions - Print Setup and Exit.



Pathname of current configuration database is displayed here



To delete a panel, select it and click on 'Delete'. (Does not delete a Master/Slave network panel's entry in the network configuration; **Section 6.2.2** describes the network delete button).

1.5.4 Panel Menu

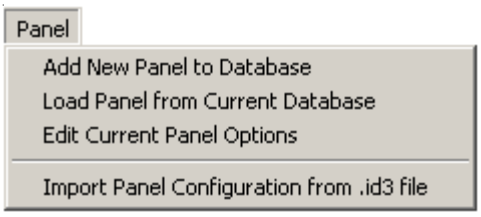
This menu has the following options:

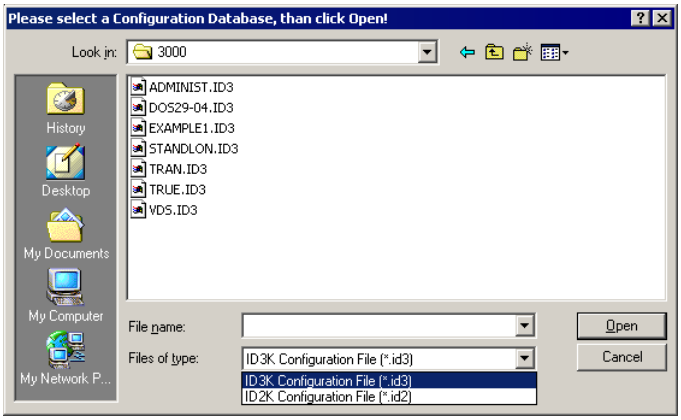
a. Add New Panel to Database - displays the Create New Panel Configuration window (see **Section 2**). When saved, the panel is added to the current database.

b. Load Panel from Current Database - displays the Open Panel Configuration window. Only panels which have the network type currently selected on the radio buttons are shown; double-click the panel or click 'Open'. Panels are listed in order by address.

If the panel you want is not displayed, check that you have selected the correct Site ID - see Section 1.5.9.

Note: When loading or saving a mixed-protocol configuration an advisory message is displayed if VIEW™ devices have been allocated addresses in the range 76-99. When a CPU PCB with increased memory, i.e. CPD-compliant version, is fitted in the panel the VIEW™ address limit is not imposed. However, as the WCT is unaware as to which CPU PCB is fitted in the panel this message is displayed to advise of a possible configuration non-compliance.





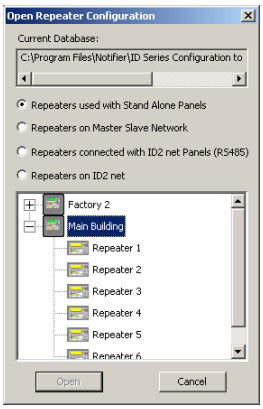
Panel Menu (continued)

c. Edit Current Panel Options. Displays the Modify System Options window (same as the Create New Panel Configuration window but for an existing panel).

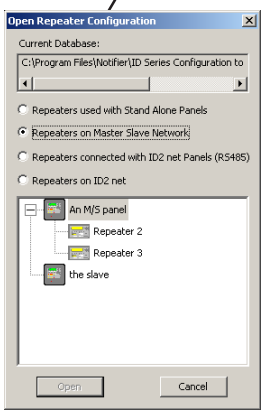
d. Import Panel Configuration. Used to convert a configuration file produced by the DOS Tool into the format used by this windows Tool, for subsequent use with panel software version 4. The file to be converted is selected via a standard windows Open window. A further window allows selection of the database into which the file is to be saved. **If the DOS file is for a Master/Slave network and the new configuration is to be ID²net,** refer to **Section 6.3.1** before you begin.

Note: Use the Files of type drop-down list to select ID2000 (.id2) or ID3000 (.id3) configuration files.

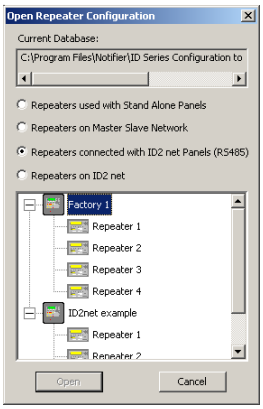
Note: Type '.id3': If the maximum zone number in the DOS file is less than 255, the Tool assumes the panel is an ID2000. A warning is displayed with an option to convert the configuration to an ID3000 panel or leave it as an ID2000.



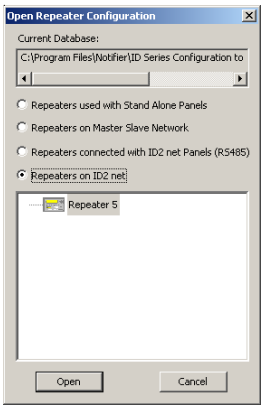
Stand-alone Panels



Master/Slave Network



ID²net Panel, RS485 Repeater



ID²net RS232 Repeater

1.5.5 Repeater Menu

This menu has a single option which allows an IDR-6a repeater to be configured with the following:

a. Network address

b. Panel function and zone type

c. Network details (type and location text)

d. Repeater language

e. Selected bitmap or default bitmap

f. Access level (1 or 2) for Mute Buzzer

g. Event option (Alarms only or All events)

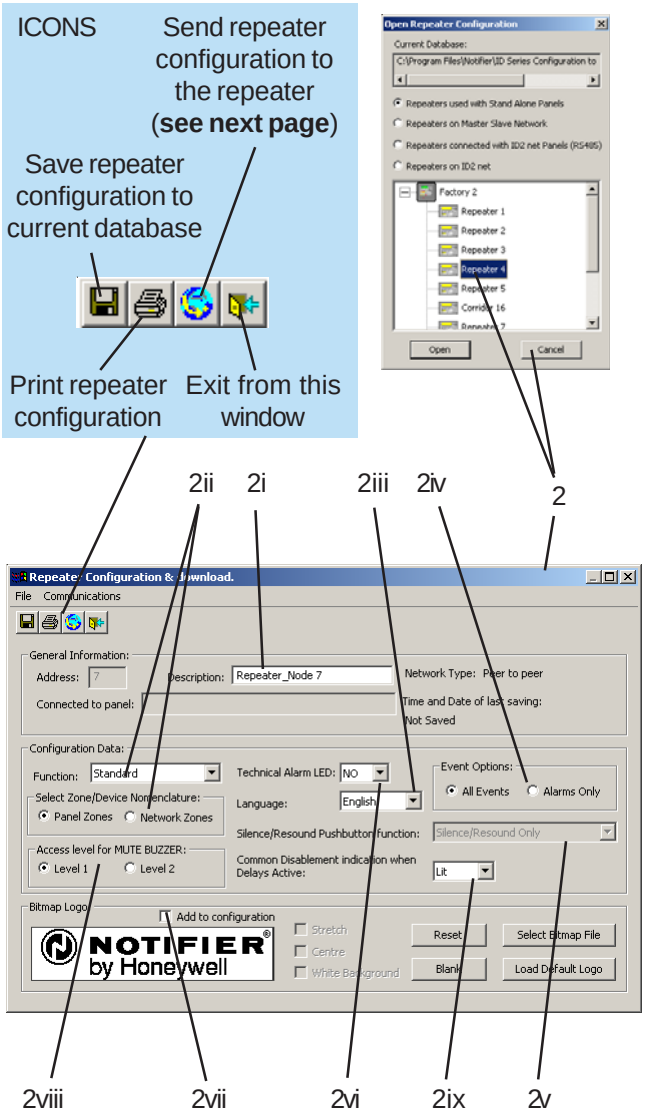
h. LED mode (Pre-alarm or Technical alarm indication)

i. Silence/Resound Pushbutton Mode (Disable sounders or not)

j. Common Disablement LED lit/not lit with active delays.

Select Configure and Send Data to display the Open Repeater Configuration window.

1 Use the radio buttons to display the required panel and repeaters (no panel is displayed for the ID²net repeaters option). Only those panels for which repeaters are configured on the Specification tab and/or Network Setup are available for selection.



2 To configure a repeater, highlight it and then select Open. The Configuration and Download window is displayed (the address and associated panel are display-only fields). Configure the following:

i The repeater name (maximum 32 characters).

ii Select the repeater function (Standard/VdS/AFNOR) and zone type (Network/Local) from the drop-down list and radio buttons.

iii Select the repeater display language.

iv Select whether the repeater displays All Events or fire Alarms Only.

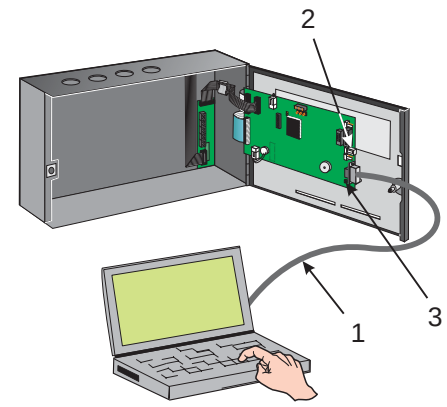
v The Silence/Resound Pushbutton option is only available if the VdS function is selected in (ii) above. It must be set to 'Silence/Resound Only' (the default) **unless** the repeater's pushbutton is labelled 'Akustik AN-/Anstellen', in which case select the 'Silence/Resound and Disablement' option. Provides compatibility with older German systems.

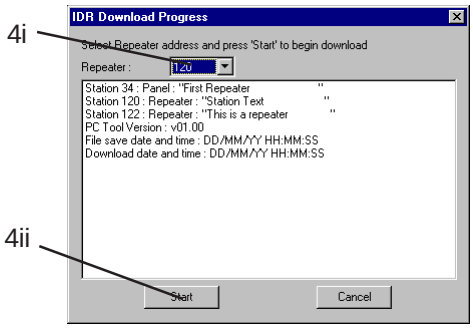
vi Select whether the repeater has a Technical Alarm LED - if YES, the Pre-Alarm LED is used for this purpose.

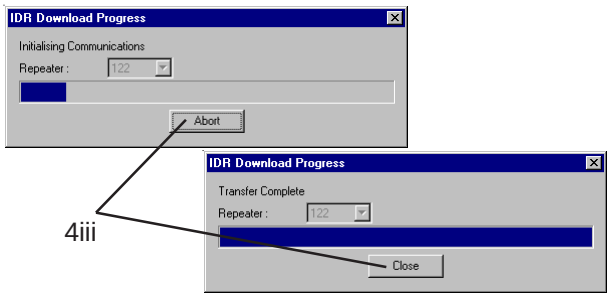
vii To send a bitmap (logo), select it as described in **Section 1.5.10** (or select Load Default Logo to revert to the default) and then check the Add to Configuration box.

viii Select the access level at which the repeater's Mute Buzzer pushbutton can be operated (level 2 = keyswitch operation).

ix Select 'Not Lit' if the Disablement LED is not required to be lit when delays are active.







Send Repeater's Configuration

When the repeater's configuration has been saved (**see previous page**), send it to the repeater as follows:

Note: This procedure assumes that the repeater's address switches (1-6) are all set to '0' and that switches 7 and 8 are set as described in the repeater manual.

1 Use a suitable data communications cable to connect the PC to the repeater.

2 Place a link across the Program Enable (PE) connector.

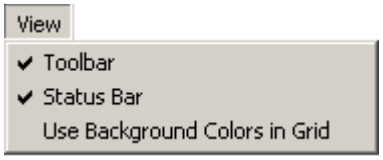
3 Press and release the Reset switch.

4 At the Tool's Configuration and Download window, select the 'Send' icon. The Repeater Download Progress window is displayed.

i Select 'Start'. A progress bar and status message are displayed.

ii An 'Abort' option is provided but **if used the repeater memory will be left in a corrupt state.** When the transfer is complete, 'Close' is displayed - select this to end the process. (If an error occurs during the send, 'Retry' and 'Cancel' options are provided.)

When the configuration has been sent, disconnect the Program Enable link and the data communications cable, then press the Reset switch on the repeater.



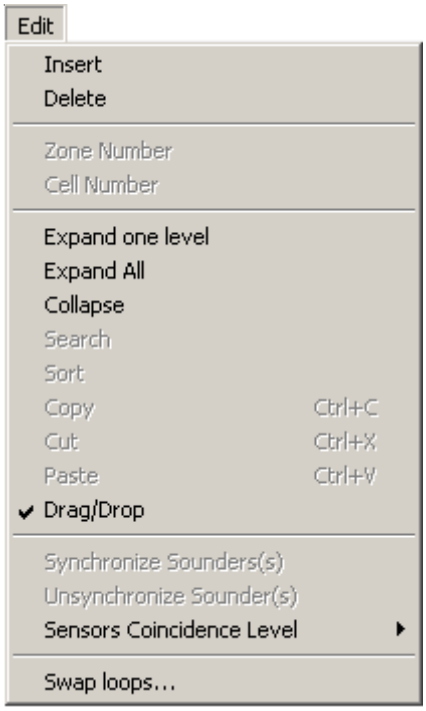
1.5.6 View Menu

This menu has the following options:

a. Toolbar - displayed or hidden

b. Status Bar - displayed or hidden

c. Background Colours display - either on or off (default).



1.5.7 Edit Menu

This menu is only available after a panel has been configured. It has the following options:

a. Insert or Delete a device at a highlighted location in the current panel configuration. These functions are described in **Section 3.1**

b. Expand or collapse the loop display in the current panel configuration

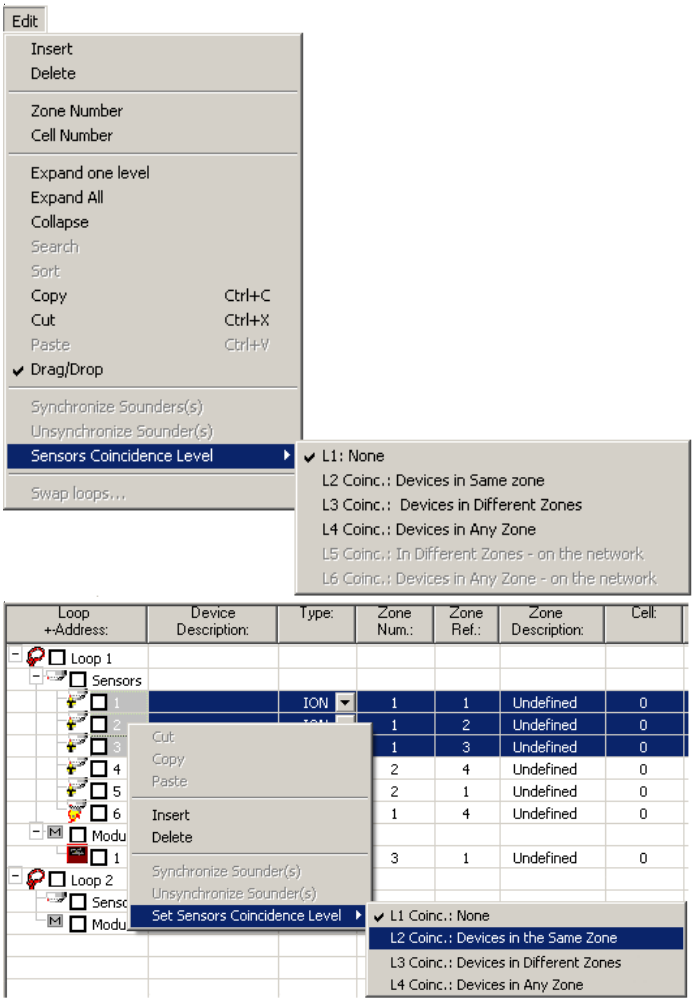
c. Search - provided for future development

d. Sort - not used

e. Standard windows functions - Copy, Cut and Paste

f. Set the device edit 'drag and drop' option on or off

g. With the global option Synchronize Sounders on loops using OPAL or Enhanced Protocol selected any modules (type BELL) can have their synchronized pulsing output turned OFF. This is important where non-compatible type BELL devices are used on the same system as OPAL or enhanced protocol-compatible devices.



h. Sensors Coincidence Level. One or more sensors can be selected as the input(s) to a coincidence rule (note - this is not a control matrix rule). When selecting this option the current coincidence level for the sensor is shown - it is marked with a tick. Coincidence can be specified using the following filters:

- Level 2: Same zone
- Levels 3 & 5: Different zones (stand-alone or networked)
- Levels 4 & 6: Any zone (stand-alone or networked).

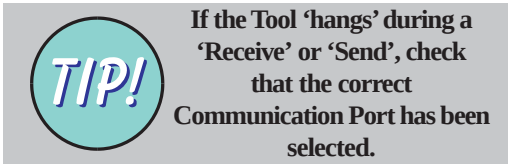
Note: An advisory note is displayed when downloading a configuration to the panel when coincidence levels other than 'None' (default) are selected.

The context-sensitive menu, displayed by right-clicking on one or more sensors, provides an alternative method of setting coincidence levels.

i. Swap Loops... The device content of two loops may be exchanged with each other (swapped). Refer to Section 3.1 Select a Device for more details.

1.5.8 Communications Menu

'Send to Panel' is only available when a panel configuration is displayed in the Tool window

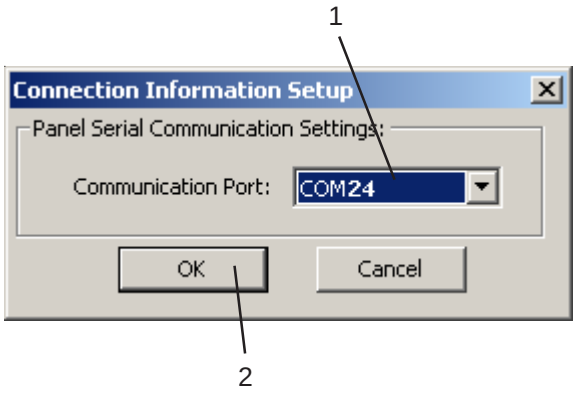


This menu has the following options:

a. Set up COM Port. Displays the Connection Information Setup window.

b. Receive from Panel. Prompts for the required database (via an 'Open' window), then prompts for a Level 3 passcode and displays the 'Receive' window (see next page). Used to copy the panel's configuration into the Tool. Connect the PC (see **Section 1.4)** and then select Receive from Panel.

c. Send to Panel. Prompts for a Level 3 passcode, then displays the 'Send' window (next page +1). Used to load the configuration to the panel. Connect the PC (see **Section 1.4**) and then select Send to Panel.

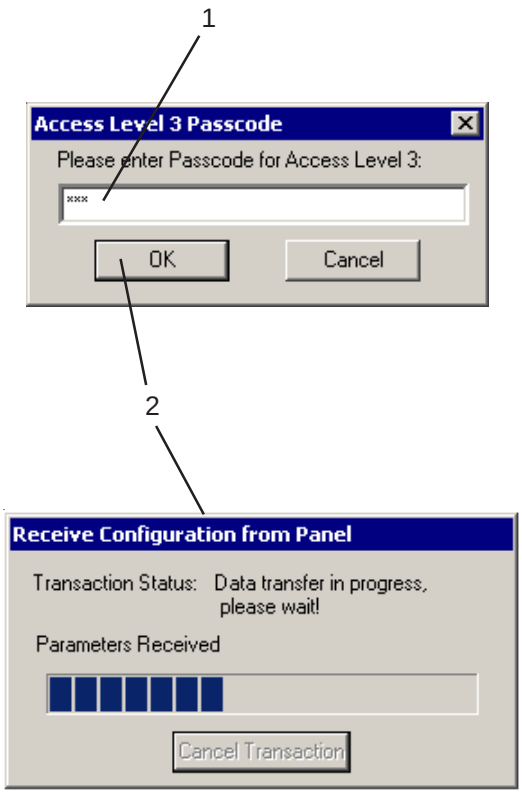


Connection Information Setup Window

Allows the communications port for your PC tool to be set. The application automatically finds and displays the available communication port(s).

1 Use the drop-down menu to select the port you are going to connect for upload/ download.

2 Select OK.



Receive Configuration from Panel

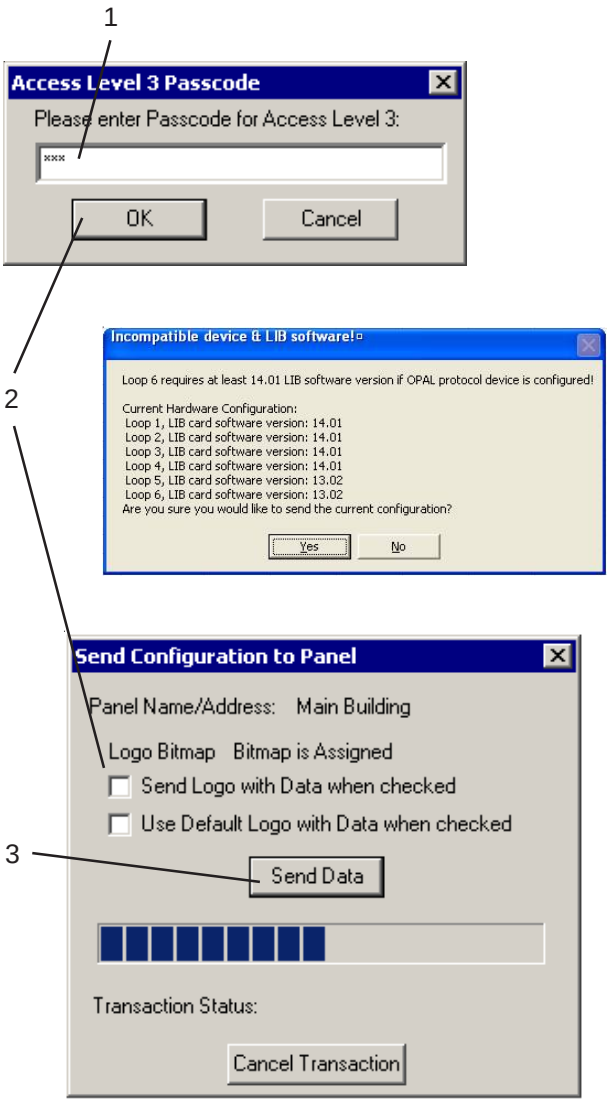
This allows you to copy the panel's configuration into the selected database.

1 Enter the panel's access level 3 passcode.

2 Click OK. The Receive Configuration from Panel window is displayed. For a short time it is possible to abort (via the Cancel Transaction button, which becomes greyed when the data transfer commences). Progress is shown by the bar and by 'Transaction Status' messages. When the data transfer is complete, the panel's configuration is displayed automatically.

Note: If the data communications cable is connected and the Communication Port is correct yet you get an error message, click OK and try again - the panel was probably busy.

If the Tool 'hangs' during a 'Receive', check that the correct Communication Port has been selected.



Send Configuration to Panel

This allows you to load the configuration from the PC to the panel:

1 Enter the panel's access level 3 passcode.

2 Click OK. The Send Configuration to Panel window is displayed (but see note). If a bitmap has been selected (**Section 1.5.10**), check the top box to send it to the panel. Check the bottom box to use the panel's default logo, or neither box to use the panel's current logo.

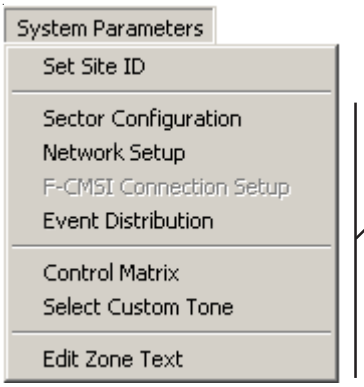
Note: With panel software version 4.30, or later, if the configuration file contains at least one OPAL protocol device and the panel has one or more LIB PCBs with software version prior to 14.01, the user is warned that there is a LIB/loop device incompatibility issue. Select YES to continue, any OPAL devices will be polled using CLIP protocol, or NO to abort configuration download.

3 Select 'Send Data' (until this is done it is possible to abort, via the Cancel Transaction button, which becomes greyed when the data transfer commences). With panel firmware version 4.30, or later, before the configuration data is transferred the firmware version is momentarily displayed. Progress is shown by the bar and by 'Transaction Status' messages. When prompted at the panel, press the panel's ✓ button. When the data transfer is complete, the Tool displays a 'Download Complete' message.

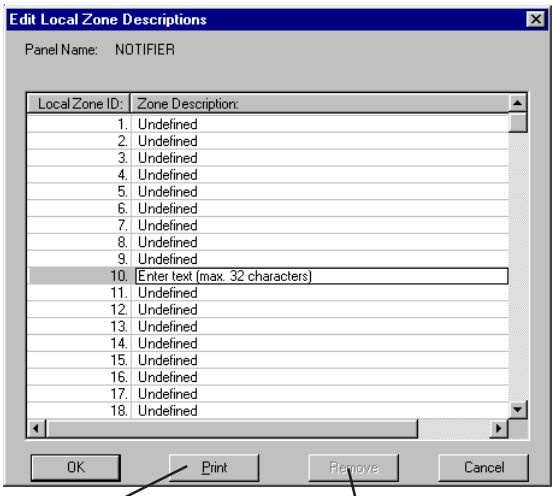
If the configuration has mixed protocol on at least one loop and one or more VIEW devices are located within address range 76-99, a message is displayed to advise that there is a possible configuration limitation unless the correct CPU PCB is fitted (see **Section 1.5.4**).

If the Tool 'hangs' during a 'Send', check that the correct Communication Port has been selected.

Note: If the data communications cable is connected and the Communication Port is correct yet you get an error message, click OK and try again - the panel was probably busy.



Available if a configuration is open in the Tool



Prints zone descriptions

Network zones only: if a network zone number is no longer used, highlight the zone number then select 'Remove' to delete it

1.5.9 System Parameters Menu

This menu has the following options:

a. Set Site ID. Displays the Site Setup and Customer Details window. See next page.

b. Sector Configuration. Opens the ID²net network sector configuration window (see **Section 6.3.3** for assigning panels to sectors).

c. Network Setup. Displays the Network Setup History window (see **Section 6.2.2** or **6.3.2** for Master/Slave network or ID²net respectively).

d. F-CMSI Connection Setup is for use with the F-NF3000 Panel only.

e. Event Distribution. Applies to ID2000 with Master/Slave network - displays the Event Distribution window (see **Section 6.2.2**).

f. Control Matrix. Displays the Edit CBE Rules window (see **Section 4.2**).

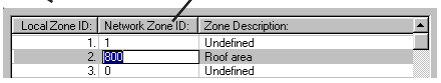
g. Select Custom Tone. Applies to ID3000 with OPAL loop protocol only. Define a sounder tone and volume for advanced sounders (see **Section 3.2.3**).

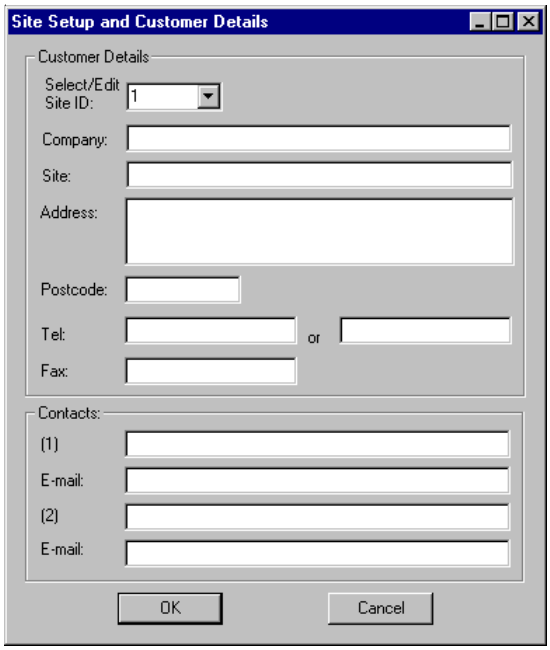
h. Edit Zone Text. Applies to ID3000 only (see below for further information).

Edit Local Zone Descriptions Window

This window allows direct text entry of the Zone description (these descriptions can also be edited on the panel's loop configuration, see **Section 3.2**). Remember, entries are restricted to a maximum of 32 characters.

Network zones: click here to sort





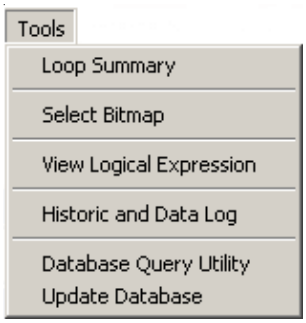
Site Setup and Customer Details Window

This window allows entry of site details (customer/contacts). These details are used by the Tool to distinguish between otherwise identical configurations. They are NOT sent to the panel.

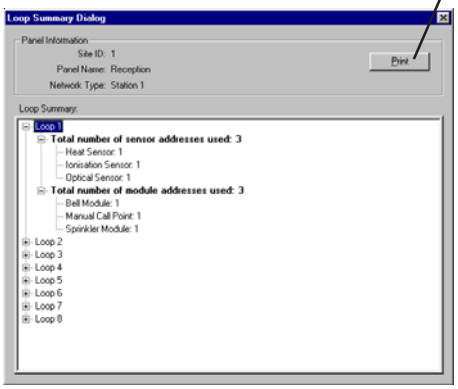
To move to the next line of the address, press the Ctrl key together with either the carriage return or Enter key.

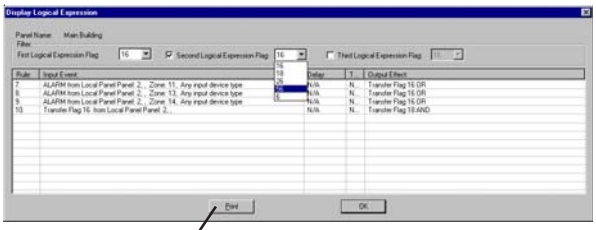
Note: Version 2.03, or above, of the Tool supports multiple databases, therefore each site can have its own database. Previous versions of the Tool used a single database split into a number of Site IDs. The Site ID option is now only provided for backwards compatibility, to allow access to these IDs. It is not intended for new Site IDs to be added; instead, create a new database for each site.

To change the Site ID (range 1 to 255), select from those existing in the drop-down list. The Tool can then access the configuration data associated with that Site.



Prints loop summary





Prints logical expression Control Matrix entries

1.5.10 Tools Menu

This menu has the following options:

a. Loop Summary. Displays the Loop Summary Dialogue window (see opposite). For each loop, this window shows the total number of sensor addresses used and the total number of module addresses used. These totals are then subdivided into the total number of each type of sensor or module.

b. Select Bitmap. Displays the Select Bitmap Logo window, which allows a user-created bitmap to be used on the panel's LCD in place of the default NOTIFIER display. See **next page** for further information.

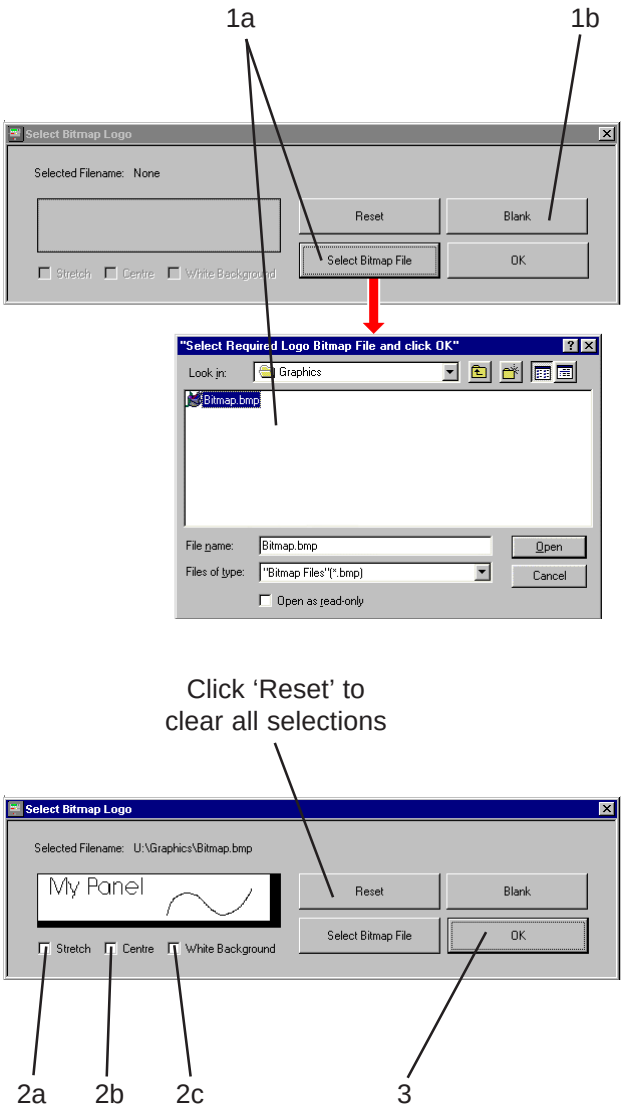
c. View Logical Expression. The Display Logical Expression window (see opposite) shows Control Matrix entries associated with a maximum of three logical expression Transfer Flag(s). Select the first flag from the drop down list of logical expression flags. If further flag(s) are required, check the second and/or third boxes and select these flag(s) from their respective drop-down lists.

Note: Entries which only use a non-logical expression flag **are** displayed if the flag is also used as the input in an entry which has one of the selected Transfer Flag(s) as its output.

d. Displays the Set Connection for Historic and Data Log window (see **Appendix 1**).

e. Displays the Database Query Utility (see **Appendix 2**).

f. Update Database - Only required if problems are encountered when saving a file, due to potential compatiblity issues with much earlier databases.



Custom Logo Bitmap

The bitmap must be monochrome (white areas appear green on the panel display), maximum size 240 pixels wide and 52 pixels high. If smaller it is placed in the top left of the display. If larger, an error message is displayed.

The bitmap is not saved in the configuration (it is cleared from the Tool when the configuration is closed) so it must be selected before the configuration is sent to the panel or repeater.

1 Either:

a. Select the required bitmap, or

b. Select a blank (default: all-black) display.

2 If the chosen bitmap is smaller than 240 x 52 pixels, options are provided to:

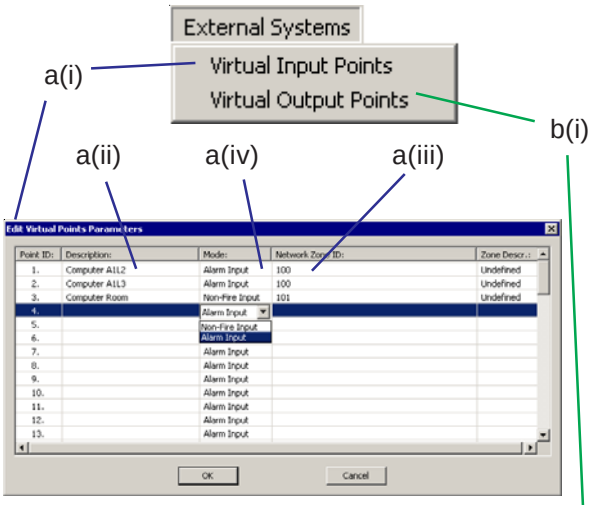
a. Stretch it to full size (if this box is checked the remaining options are then greyed).

b. Centre the bitmap.

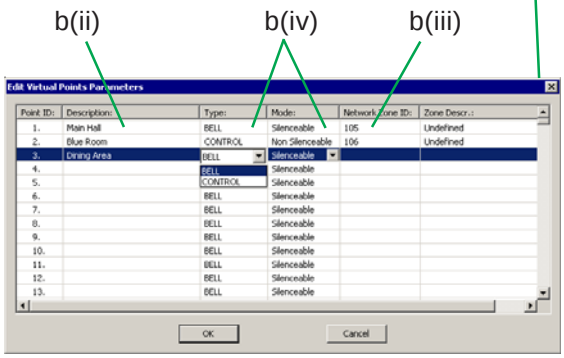
c. Select the colour of unfilled areas (or of the blank). Check box for white (appears green on the panel display), or uncheck for black.

If the bitmap is full size these options are greyed.

3 Click OK to close the Select Bitmap Logo window and retain the bitmap, then Send the panel configuration (**Section 1.5.8**) or repeater configuration (**Section 1.5.5**). (Closing the window by its '✕' button will clear the bitmap from the data buffer).



VIRTUAL INPUT POINT WINDOW



VIRTUAL OUTPUT POINT WINDOW

1.5.11 External Systems Menu

This menu has options to configure Virtual Points; these exist in an external system (e.g. a Voice Alarm Panel). Virtual Points communicate with the Fire Alarm Panel via an RS232 link (i.e. not via the loops) and are used as inputs or outputs to the Control Matrix. There are two types:

a. Virtual Input Points (VIPs) - A maximum of 64 can be configured.

b. Virtual Output Points (VOPs). A maximum of 512 can be configured.

To configure a VIP or VOP:

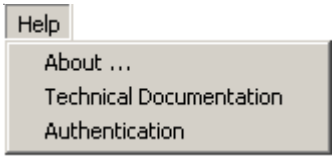
i From the External Systems Menu, select 'Virtual Input Points' or 'Virtual Output Points'.

ii Name the Point (maximum 32 characters).

iii Allocate a zone number. VIPs and VOPs **must** be in a zone before they are recognised by the Control Matrix. There is no limit to the number of VIPs and VOPs that can exist in a zone. However, in VdS mode they cannot be placed in the same zone as sensors or MCPs (DKMs) and they do not have reference numbers.

Note: Zone descriptions are not editable here; refer to **Section 1.5.9**.

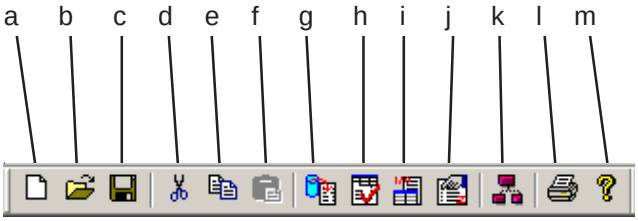
iv VOPs: select the type (BELL or CTRL) and the mode (Silenceable or Non-silenceable). The VOP will be included in Control Matrix rules using the chosen type. VIPs: select type (Alarm or Aux). The VIP will be displayed on the appropriate tab on the panel.



1.5.12 Help Menu

This menu has options to display the Tool version number/authentication status and this manual. The 'Authentication' option is described in **Section 1.3.1**.

1.5.13 Toolbar Options



The following icons are provided:

a. New. Creates new database.

b. Open. Opens new database.

c. Save. Saves current panel to current database.

d. Cut. Standard windows function.

e. Copy. Standard windows function.

f. Paste. Standard windows function.

g. Load Panel Configuration from current database window (see **Section 1.5.4**).

h. Displays the Modify System Options window (see **Section 2**).

i. Control Matrix. Displays the Control Matrix Input and Output Rules window (see **Section 4.2**).

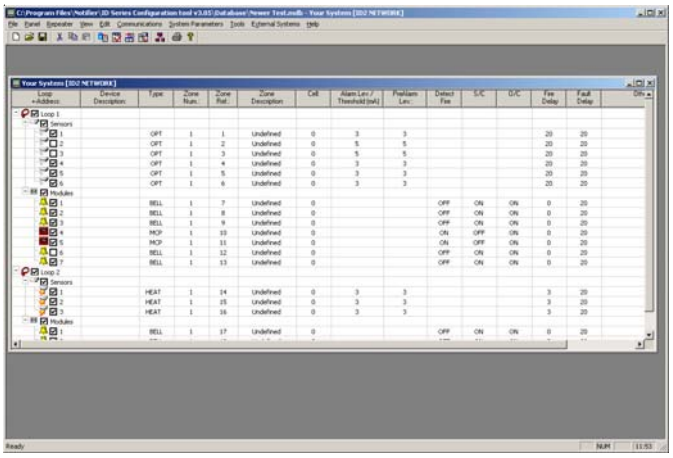
j. Displays the Edit Local Zone Descriptions window (see **Section 1.5.9**).

k. Displays the Network Sector configuration editor. See **Section 6.3.3**.

l. Print. See **Section 1.5.3**, File Menu.

m. About. See **Section 1.5.12**, Help Menu.

1.5.14 Loop Display



This pictorial representation of the panel's loops is displayed in the blank area of the Configuration Tool window when either:

a. An existing configuration file is opened, or

b. When a panel has been specified (See **Section 2.1**) in a new configuration file.

Devices can be inserted, deleted or edited as described in **Section 3.1** onwards.

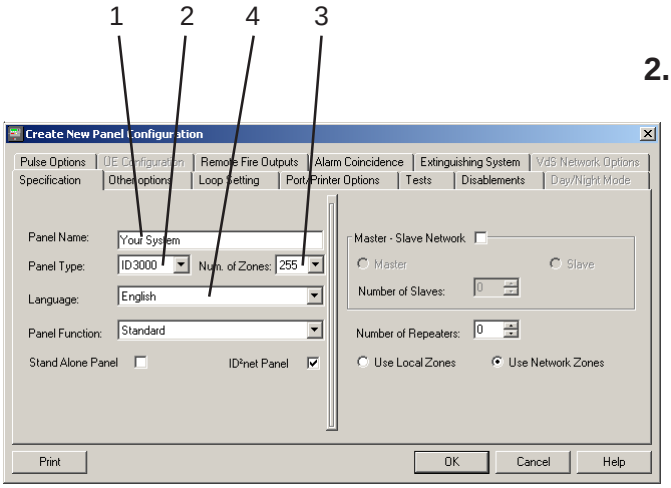
2 Panel Settings Configuration

The Create New Panel Configuration window is displayed when 'New' is selected. The Modify System Options window is displayed instead when 'Edit Panel Options' is selected.

When all edits are complete, click OK. To exit the window and discard the edits, click Cancel.

To print the panel settings configuration, click Print.

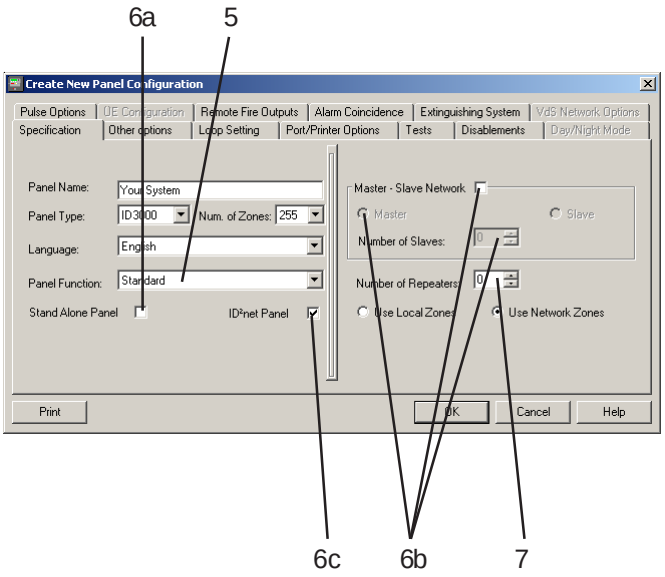
After OK has been selected, the zone type set in step 8 cannot be changed.



2.1 Specification Tab

This tab is displayed by default when the window is first opened. Edit as follows:

1. Enter the Panel Name (ID3000: maximum 32 characters; ID2000 maximum 40 characters). This is compulsory; until the name is entered, the OK button is greyed.
2. Select the Panel Type (ID3000 or ID2000, or F-NF3000. The latter is not described in this manual).
3. **ID2000 only** - select the number of zones (either 16 or 80) depending upon whether the extension chassis is fitted or not. The number of zones for an ID3000 is fixed at 255.
4. Select the **panel** Language from those listed (does not affect the Tool's language).



5 Select the panel function; 'Standard', 'VdS'* (Germany), 'Benelux Sprinkler Panel' or 'Swiss'. This selection also determines which options can be configured by the Tool. *ID3000 only.

6 Check the required network option (this selection affects subsequent network editing):

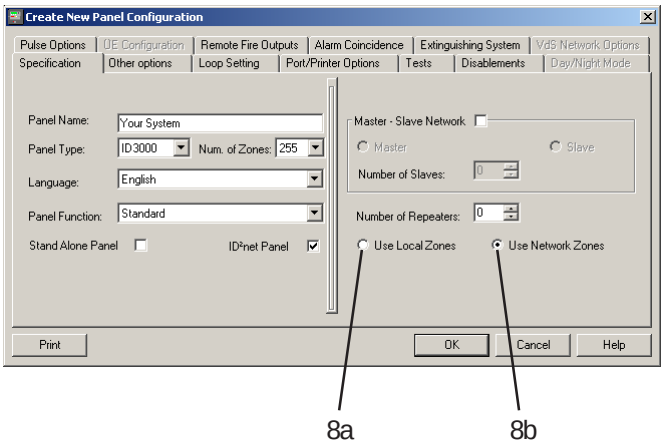
a. Stand Alone Panel. There is one Standard panel and no network. Up to 31 repeaters may be connected to the panel. Up to 255 Stand Alone panels can be configured for a given Site ID.

b. Master-Slave Network. Use the radio buttons to select this panel's type, either Master or Slave. If Master, use the spin buttons to select the Number of Slaves on the network (range 1 to 7). See **Section 6.2**.

Note: Subsequent network configuration is done for the Master, so configure a Master panel before configuring any Slaves.

c. ID²net Peer to Peer Network Panel. Available on **ID3000 only**. See **Section 6.3**.

7 Use the spin buttons to set the Number of Repeaters connected to the panel via RS485 (irrespective of the network option selected in step 6). Do not include repeaters connected to the ID²net via RS232.



8 Select the appropriate radio button:

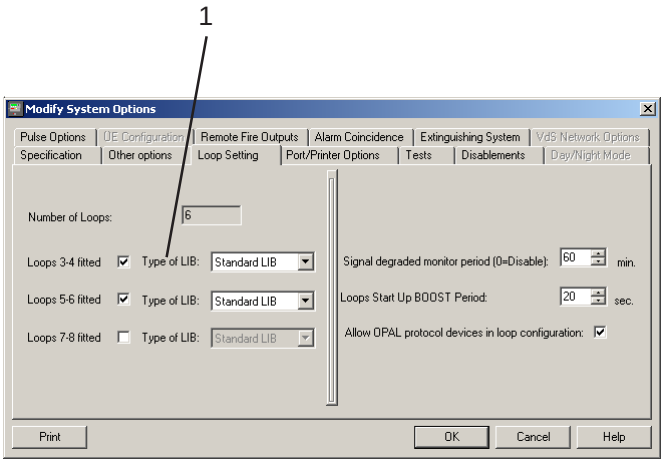
a. Local. Uses zones local to the panel.

b. Network (**ID3000 only**). Zone numbers are allocated across the network.

After OK has been selected, the zone type set in step 8 cannot be changed. No method of conversion is provided.

Further information is given in **Section 6.2.1** if a Master/Slave Network is chosen in step 6, or **Section 6.3.1** if an ID²net Network is chosen.

2.2 Loop Setting Tab



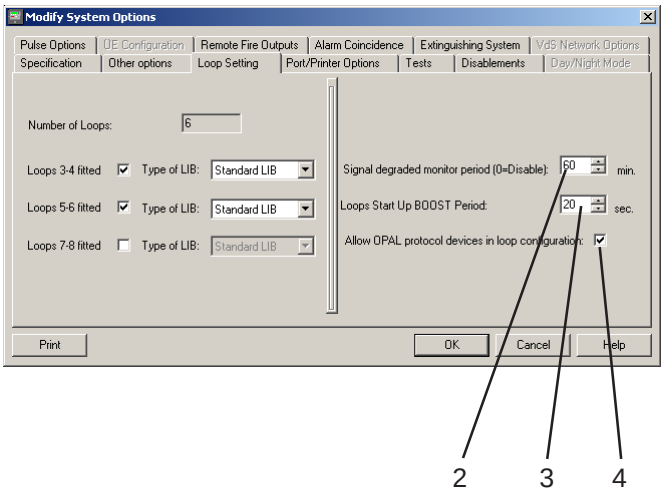
Set the number of loops to that present on your panel.

Edit as follows:

1 Check the Loops 3-4 fitted, Loops 5-6 fitted, and Loops 7-8 fitted boxes as appropriate to your panel. **ID3000 only**: For each pair of loops fitted, select the appropriate Type of LIB, either Standard LIB or E(nhanced)LIB. The total Number of Loops is displayed automatically (if no boxes are checked, the total is 2, i.e. those on the Base PCB).

Note: ELIBs must be used if there are more than 512 monitored points on the system. Selecting the ELIB Type on the Tool means that the panel will indicate a fault if ordinary LIBs are fitted. This is used to confirm compliance with EN54. No fault is indicated if Standard LIB is selected but ELIBs are fitted.

EN54-2: 13.7
Maximum of 512 Sensors and/ or MCPs per panel unless ELIBs are used

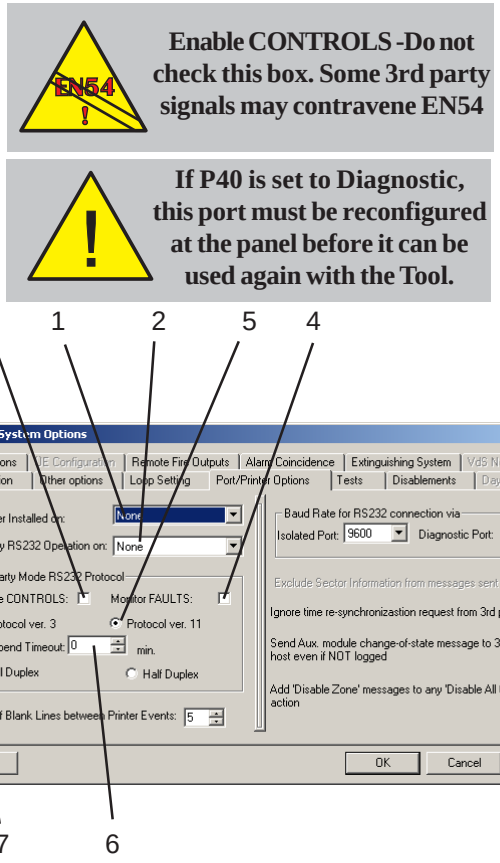


2 Use the spin buttons to set the Signal Degraded Monitor Period in minutes. For each device, the system counts the number of corrupted responses within the time, and issues the 'Signal Degraded' fault message if the number exceeds 1600. The longer the period, the MORE sensitive the panel is to reporting such faults. 0 = these faults are suppressed.

3 Use the spin buttons to set the Loops Start Up BOOST period, which is used to ensure the loops power up correctly when there are many devices (greater than 16) between isolators. Loop fault reporting is deferred during this period.

4 The OPAL/Clip protocol checkbox of each loop device may be toggled (display/hide) using this checkbox. With WCT version 3.05, or later, this option is checked by default, i.e. the loop devices' checkboxes are shown.

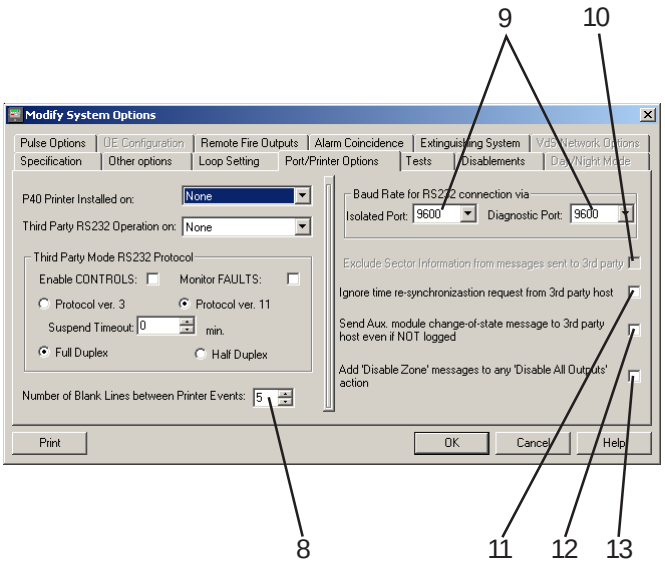
Note: However, for WCT versions 3.03 and 3.04 OPAL protocol will be selected as the default when installed on a PC with an English-language operating system AND the configuration tool language is English; the OPAL 'switch' on the Loop Setting tab is checked automatically. If neither of the above conditions exists then the OPAL switch is not checked. Also, when the tool uploads a panel configuration which contains at least one OPAL device, the OPAL switch, again, is automatically checked.



2.3 Port/Printer Options Tab

Edit as follows:

1. If a P40 printer is installed, select which port it is connected to, otherwise select None.
2. If a third party link is used to interface the panel with customised automatic equipment, e.g. a computer, select which port it is connected to (None = no link). Details of the protocol used are available from NOTIFIER.
3. If a third party link is used, check the Enable CONTROLS box if the panel will accept Mute Buzzer, Evacuate, Silence Sounders, Reset, Test and Disablement signals from the external equipment, or leave unchecked if it will not. **EN54 - Do not check this box.**
4. If a third party link is used, check the Monitor FAULTS box if the data link is continuously monitored (a fault is reported by the panel if the link fails), or leave unchecked if not.
5. Select the version of Protocol to be used (fixed at version 11 if ID^{2}net network is used).
6. Select whether a request to the external equipment to suspend communications is subject to a time limit (0=no limit). If communications are not restored within the entered time, the panel reports a fault.
7. Select Full or Half Duplex (applies to Isolated Port only).



8 Set the number of blank lines between printouts. The default of '5' enables the last printed line of a printout from the PRN-ID or PRN2000 printer to be visible at the paper exit louvre. The panel automatically reduces this to '1' when several events are printed in quick succession.

9 The RS232 Isolated Port or the Diagnostic Port baud rate may be changed. This should be left at 9600 baud.

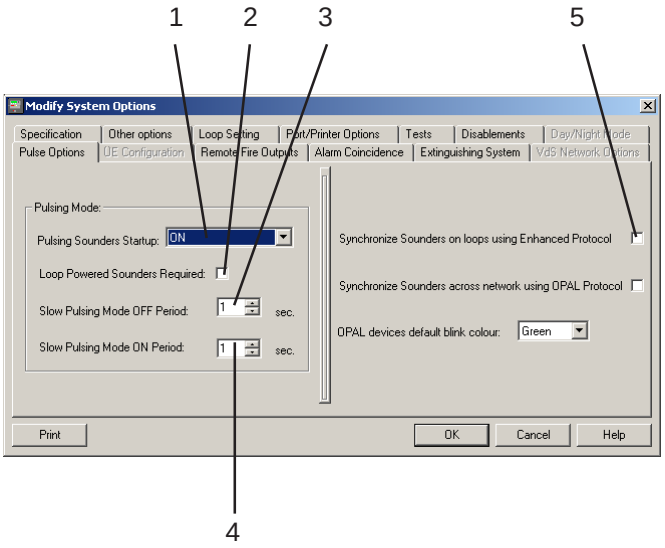
10 If the panel is on an ID^{2}net network and event filtering is employed, selection of this option excludes any sector information from being sent to the third-party protocol Host.

11 When the panel is connected to a third-party host the request from the host for a time re-synchronization will be ignored by the panel if this option is selected.

12 When selected an AUX module change-of-state message is sent to the third party host, even if the global NOT LOGGED condition is set.

13 Will add individual zone disablement messages to any 'Disable All Outputs' actions.

2.4 Pulse Options Tab



Based on one of the following PULSING scenarios:

a. No sounder devices are compatible with Enhanced protocol only - pulsing synchronization must not be selected.
b. Enhanced compatible and non-compatible sounder devices are both being used across panel - pulsing synchronization is selectable; non-compatible sounders must be excluded.
c. **Using** only Enhanced compatible sounder devices - full pulsing synchronization is permissable.

The options available through the Pulse Options tab enable the system to be configured to meet one of these site installations.

This setting is used in conjunction with the Module PULSE options (**Section 3.2.2**) to define the pulsing pattern of those modules for which SLOW PULSE is selected during the loop device configuration. Edit as follows:

1 Set the Pulsing Sounders Startup option. This should normally be set to ON. However, if a large number of loop sounders are required to pulse simultaneously, exact synchronisation may not be possible, especially on startup when the ON period may be extended. If this occurs, set to Follow Phase. There will be a slight delay before the sounders first sound.

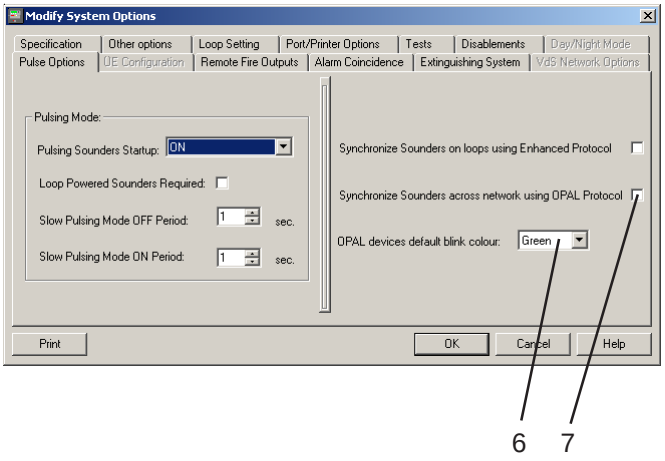
2 Check the Loop Powered Sounders Required box if some sounders are going to be pulsed, otherwise the pulse may not be satisfactory. If no sounders are to be pulsed, or only CMX modules are to be fitted on the system, then do not check this box.

Note: This does not set pulsing on; whether a sounder pulses or not is defined in the Control Matrix (see **Section 4.3.2**).

3 Set the OFF period (range 1 to 128 seconds).

4 Set the ON period (range 1 to 128 seconds).

5 Check the Synchronize Sounders on loops using Enhanced Protocol box where all/any enhanced protocol-compatible sounder modules are being used. This is a global

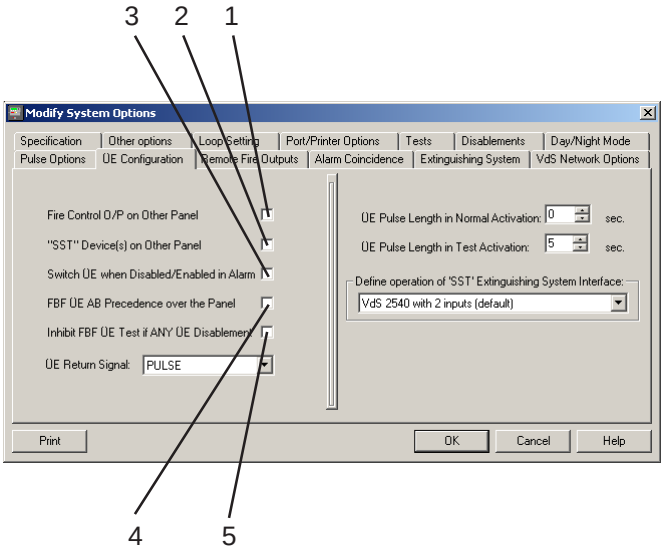


option and where non-compatible sounders are used these must be individually excluded from any control matrix pulsing rules.

6 Select the colour of OPAL devices' LEDs - Green (default) or red are available options.

7 Select if sounder synchronization using OPAL protocol is required across the ID^{2}net network.

2.5 ÜE Configuration Tab



Only available when VdS mode is selected on the Specification Tab. These settings allow the panel interaction with the FBF and ÜE to be configured. Edit as follows:

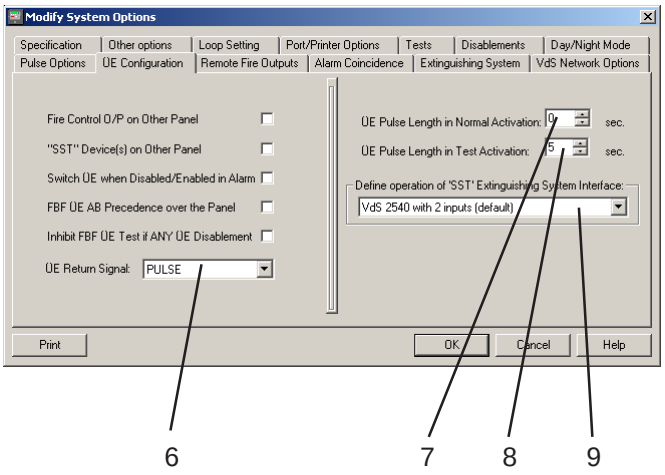
1 Check this box if there are fire control devices on another panel in the network. This ensures that the FBF Brandfallsteuerung AB pushbutton and lamp operate correctly.

2 Check this box if the panel being configured does not have any SST devices, but another panel in the network does. This ensures that the SST pushbutton works correctly.

3 Determines effect when ÜE AB/AN is pressed and released while the panel is in alarm. If box is unchecked there is no effect, if checked ('Munich' option) the ÜE activates/deactivates with successive operations of the pushbutton.

4 If this box is checked, the FBF has priority over the ÜE. This does NOT conform to DIN 14661 and is provided to allow compatibility with earlier standards.

5 If this box is checked, the FBF cannot test the ÜE if the latter has been disabled **anywhere**. If this box is not checked, the FBF cannot test the ÜE if the latter has been disabled **at this panel**.



6 Set to either STEADY or PULSE according to the type of signal returned by the ÜE. PULSE avoids the panel reporting a fire if the ÜE return signal appears to reset while the panel is in alarm.

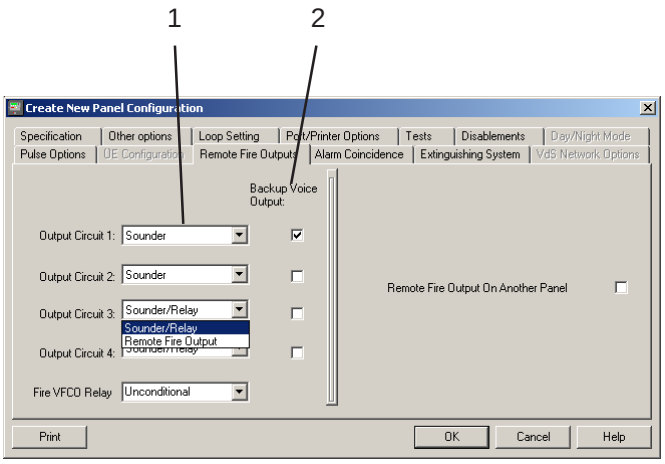
7 Set normal activation pulse length (range 1 to 60 seconds, or 0 for continuous) dependent upon the type of ÜE connected.

8 Set test pulse length (range 1 to 60 seconds). This is the minimum time the ÜE is activated when the FBF's ÜE Test pushbutton is pressed (may may be extended by holding in that pushbutton).

9 Select the method used by the panel to interface to the extinguishing system (SST). The default setting is 'VdS 2540 with 2 inputs'.

2.6 Remote Fire Outputs Tab

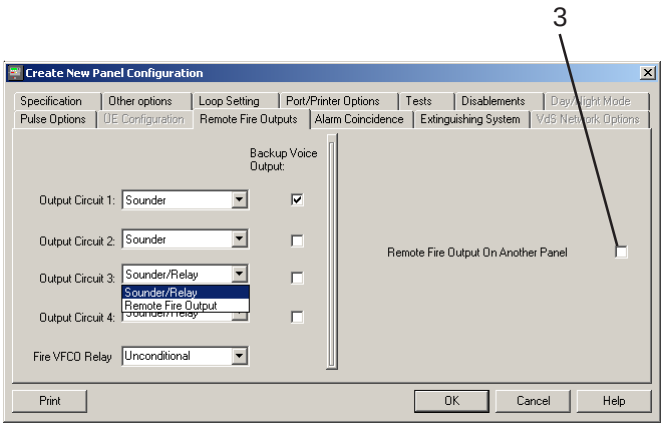
These settings allow each of the four internal sounder/relay circuits and the Fire VFCO Relay to be configured in software as remote fire outputs (i.e. outputs that are subject to the Day Mode two-stage investigation time, see **Section 2.9**). Edit as follows:



1 Set each Output Circuit and the relay to the required function. Output Circuits 3 & 4 are only available when any selectable option other than VdS mode is set on the Specification Tab. In VdS mode, to configure a ÜE set Circuit 1 or 2 to Remote Fire Output **and** configure a hardware link. If the Fire VFCO Relay is set to Remote Fire Output then its operation follows that of the ÜE with respect to delayed mode, disablement etc.

Note: If Output Circuit 3 or 4 is set to Sounder/Relay, then the Sounder or Relay function is determined by a hardware link. Links are described in the panel's Installation and Commissioning Manual.

2 Optional: if any Voice Outputs have been configured, select one sounder/relay circuit as backup.

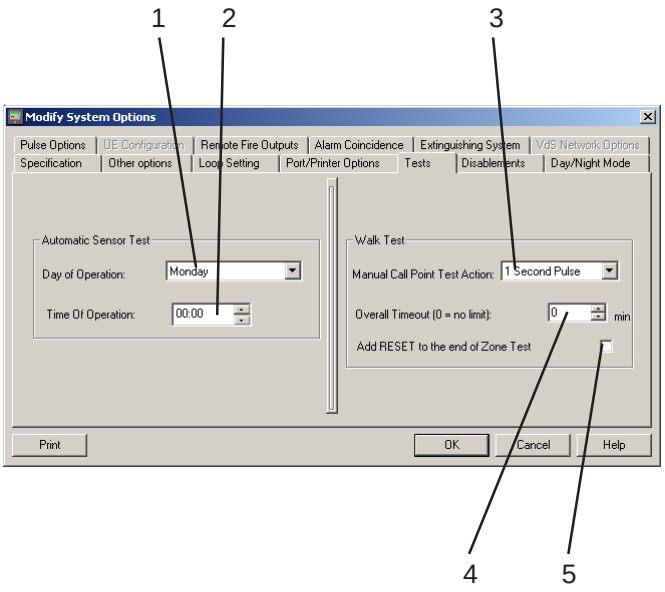


3 Required for Master/Slave network only, and dependent on panel mode:

a. Standard. Check this box if there is a Remote Fire Output on another panel on the network but not on this panel. This allows Day/Night modes to be configured for this panel, and ensures the Day Mode and Fire O/P Disable pushbuttons work correctly on the panel.

b. VdS. If no ÜE is configured on this panel, check this box (for same reasons as described for ‘Standard’ above).

2.7 Tests Tab



This window sets Automatic Sensor Test and Walk Test parameters. Edit as follows:

1 Set which day of the week analogue sensor tests will occur, or 'Daily' if every day, or select 'Not set' if these tests are not required.

2 If a day of the week or 'Daily' was set in step 1, use the spin buttons to set the time of day at which the test is to start.

3 Select what happens when a Manual Call Point (MCP) is set into alarm during a walk test. The options are for the MCP to operate the sounders for either:

a. A 1 second pulse, or

b. Continuously while the MCP remains in alarm ('Follows MCP').

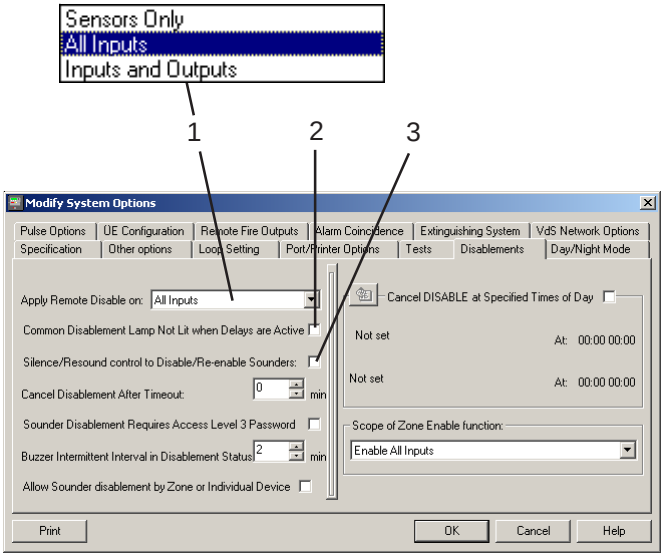
4 If required, set an automatic timeout for walk test (range 1-720 minutes). To maintain EN54 compliance, **set to 0** (no timeout).

EN54-2: 10.1 (b)
Tests must be started and stopped manually.

5 If required, a RESET action can be applied at the end of a zone walk test. Tick the box to select this function.

2.8 Disablements Tab

This window sets various parameters associated with disablements. Edit as follows:



1 If a remote switch is connected, or the Master panel (Master/Slave Network) is required to disable zones at a Slave, or the 3rd party option is used, select what will be disabled (sensors only, sensors and input modules, or sensors, input and output modules).

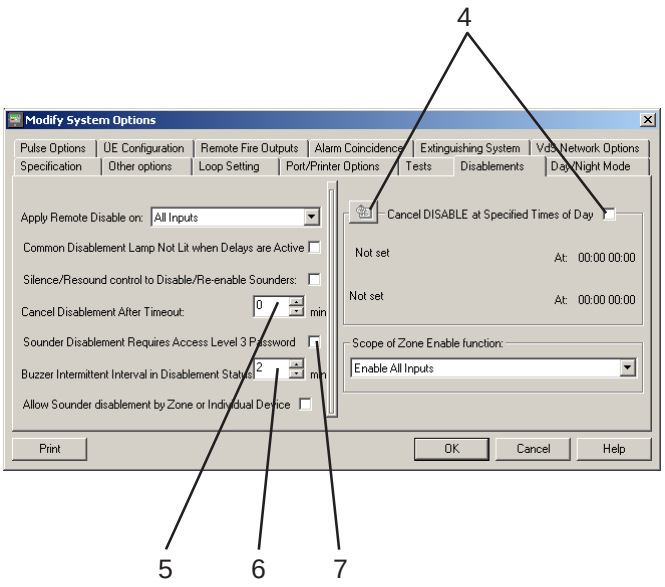
Note: If a non-fire input is set to disable zones in the Control Matrix (**Section 4.3.2**), the devices that will be disabled are those selected in step 1.

2 Check this box if the panel's common DISABLEMENT LED is **not** to illuminate when the DELAYS ACTIVE LED is lit.

Note: The default configuration is that a delay active does not illuminate the common disablement LED. EN54-2 : A1:2006 removes the requirement that a delay should be indicated as a disablement. Select as appropriate in accordance with local fire regulations.

3 Only available when 'VdS' mode is set on the Specification Tab. If this box is checked, the function of the panel's Silence/Resound pushbutton (Akustik AB-/Anstellen) becomes Disable/Enable (Akustik AB/AN). The latter is not EN54-compliant, so leave the box unchecked unless the pushbutton's label as supplied with the panel is 'Akustik AB/AN'.

EN54-2: 7.8
The 'Silence/Resound' control is required.



4 Check the box if the disablement is to be controlled by a time-of-day program, then edit the times as described in **Section 5.3**. **Does not comply with EN54 - see warning after step 5.**

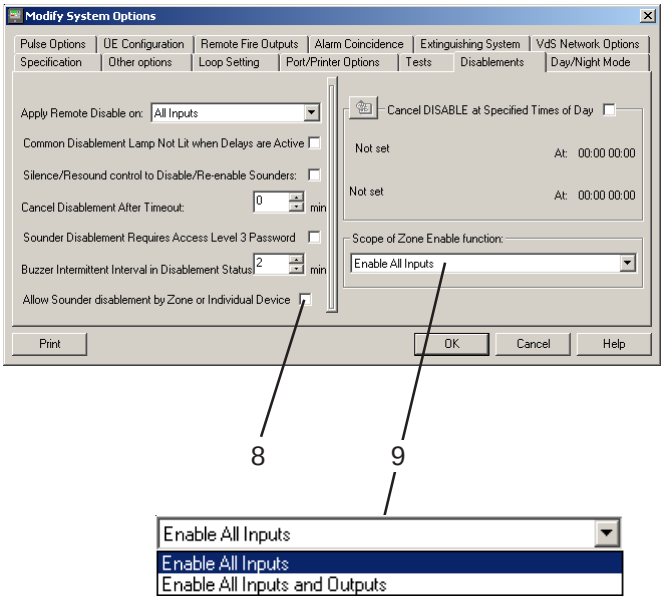
5 If the disablement is to end automatically after a timeout, use the spin buttons to enter the time period, range up to 1440 minutes (24 hours). If there is a second disablement during the time period, the timer is restarted. **Does not comply with EN54.**

EN54-2: 9.1.2 Disablement and re-enablement MUST be a manual operation at Access level 2.

6 Set the required buzzer time interval during disablement, range 2 to 120 minutes.

7 Set the sounder disablement access level. Normally, to comply with EN54-2, level 2 should be selected (leave box **unchecked**). Check the box to configure sounder disablement at level 3.

EN54-2: 9.1.2 Sounder disablement must be at Access level 2.



8 Check box to disable sounders by zone or an individual device.

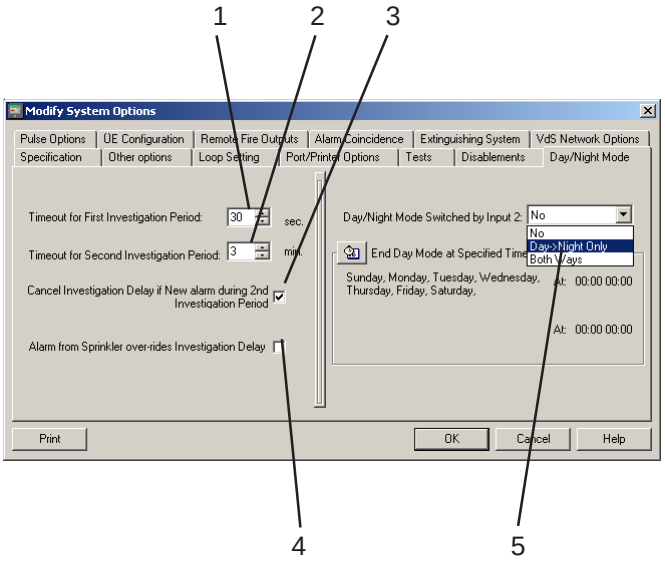
EN54-2: 9.4.2
Disablement of sounders - requires unmaskable and individual indication.

To comply with this requirement do not allow sounder disablement by zone or individual device.

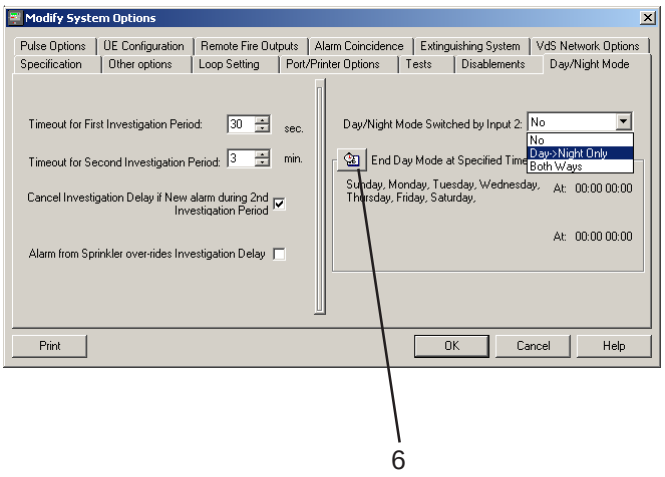
9 To enable a zone's inputs only or both inputs and outputs make the appropriate selection from the drop-down menu.

2.9 Day/Night Mode Tab

This tab is only available if a remote fire output has been configured. For VdS, also ensure that a ÜE is configured in the panel hardware. This tab allows configuration of a two-stage investigation time which delays activation of the fire output(s)/ÜE (does **not** delay sounders). Edit as follows:



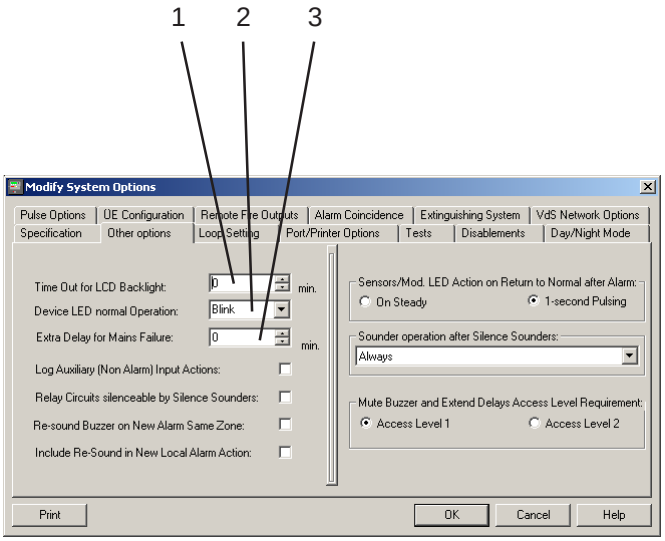
1. Use the spin buttons to set the first-stage time, range 0 to 120 seconds. This time is initiated by an alarm if Day Mode is set active (by the panel's DAY MODE pushbutton or by a remote switch).
2. Use the spin buttons to set the second-stage investigation time, range 1 to 10 minutes. This time is initiated when the panel's EXTEND DELAY pushutton is pressed while the first-stage time is active; it replaces (is not added to) the first stage time.
3. Select whether or not the delay is cancelled if there is a new alarm during the second investigation period (box is checked by default).
4. Select whether type SPRINKLER acts in the same way as type MCP (box is left unchecked by default).
5. Select whether a change of state at Input 2 of the panel results in a change from Day Mode to Night Mode, or Day/Night in either direction, or has no effect.



6 If Day Mode is required to be cancelled automatically, set the end times (up to two per day) using the Time-of-day program (see **Section 5**). **This does not comply with EN54.** There are no start times; Day Mode cannot be started automatically. Manual methods of cancellation (the DAY MODE pushbutton or Input 2) remain available if automatic cancellation is configured.

EN54-2: 9.1.2
Disablement and re-enablement MUST be a manual operation at Access level 2.

2.10 Other Options Tab



Edit as follows:

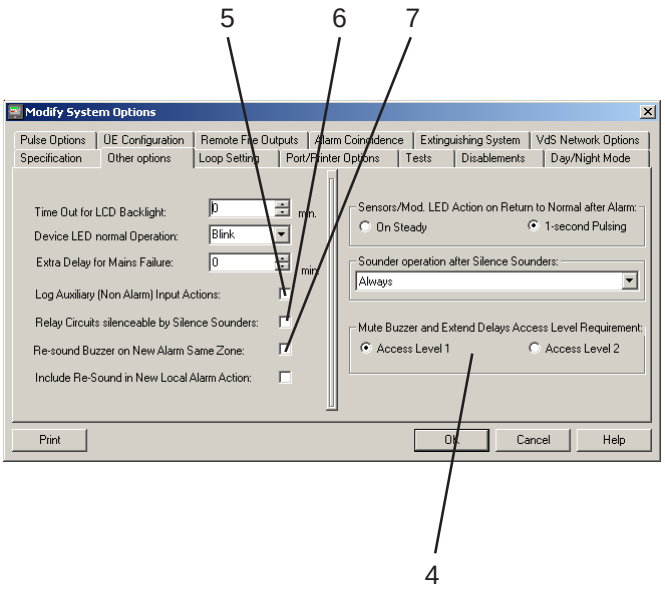
1 Use the spin buttons to set the length of time the backlight remains on (when not in alarm and with the mains supply present) after the last operation of a panel pushbutton. Range 1 to 600 minutes, or set to '0' if backlight is to be lit constantly.

Note: In alarm, the backlight remains on constantly. If not in alarm and the mains fails, the backlight remains on for one minute only.

2 Panel factory default is BLINK. If you select NON-BLINK, the LEDs on **all sensors and modules (for ID3000, only if configured to 'Follow Panel Setting')** will not blink during normal scanning (takes effect a few minutes after power-up or panel configuration). They will still light when the device is in alarm or in some test or fault conditions.

Note: The 'Follow Panel Setting' option is provided on the device's 'Edit' window. This window also allows devices to be individually configured for blink/non-blink.

3 Set the additional time delay between mains failure and fault indication. This would normally only be altered if the system suffers from frequent mains failures of more than a few seconds. The range is 0 to 360 minutes (6 hours). There is a delay of about 5 seconds even when this parameter is set to 0.



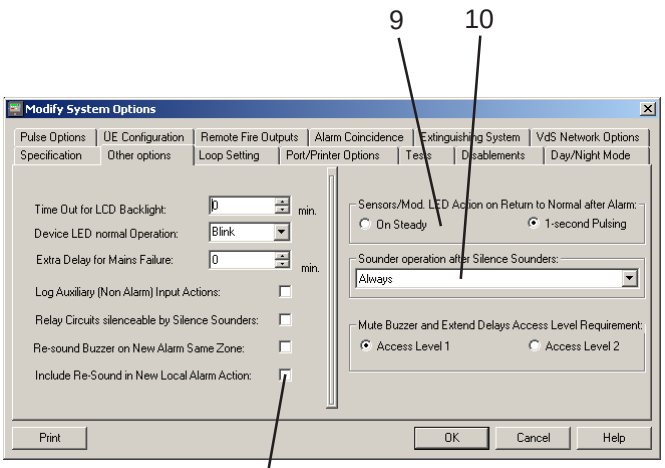
4 **ID3000**: Select the access level for the MUTE BUZZER and EXTEND DELAY pushbuttons; either access level 1 or level 2. Either complies with EN54. **ID2000**: affects MUTE BUZZER and ACCEPT pushbuttons.

5 Check this box if AUX inputs are recorded in the event log as separate events and the AUX tab is to be displayed at the panel when the input is active. **Stand-alone panels:** DO NOT check box, because the inputs will be linked via the Control Matrix to other actions (e.g. RESET) which themselves will already be logged (avoids filling the log with trivial events). **Master/Slave Network panels:** DO check box if Control Matrix rules use AUX inputs on remote panels (otherwise the event will not be sent over the network - is sent on ID^{2}net network).

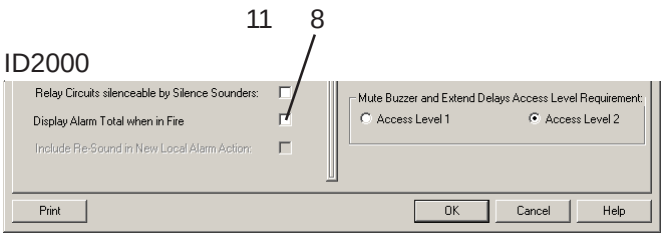
Note: 'Logged' overrides any individual AUX module 'Not Logged' setting (**Section 3.2.2**).

6 Check this box if the internal sounder/relay circuits 3 and 4, when configured in hardware as relay circuits, are switched off when the SILENCE/RESOUND pushbutton is operated to silence the sounders.

7 **ID3000 only**: If this box is checked, the panel's buzzer will re-sound if there is a new alarm **in the same zone**. If unchecked, the panel's buzzer only re-sounds if the alarm is from **a different zone**.



ID3000



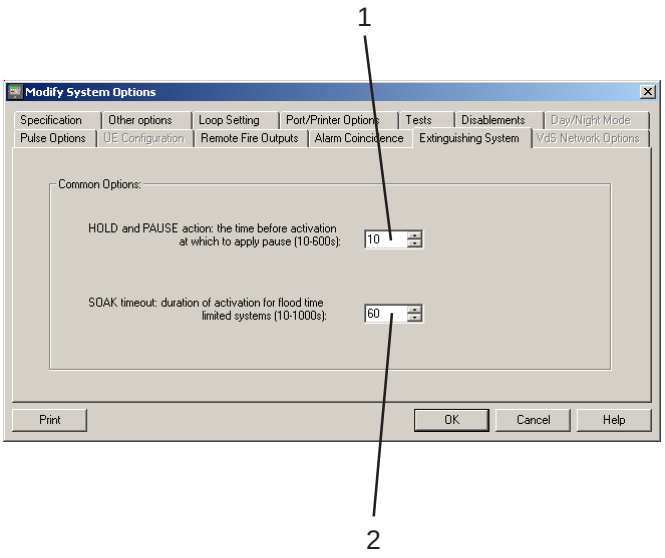
ID2000

8 **ID2000 only**: If set the total number of devices indicating a fire is shown on the top line of the panel's LCD, otherwise it is not shown.

9 If a device indicates an alarm and then the alarm condition is removed, then by default its LEDs pulse. If it is required that the LEDs remain on then select the 'Steady' option.

10 After SILENCE SOUNDERS has been actioned sounder operation can be configured to: always respond to a new alarm; respond to a new alarm in a zone not already in alarm; respond to a second alarm in a zone already in alarm; or never to respond. The re-sound default is 'Always'.

11 This option must only be used in consultation with appropriate technical guidance. This function has now been superseded by the configurable option described above (item 10).



2.11 Extinguishing System Tab

Edit as follows:

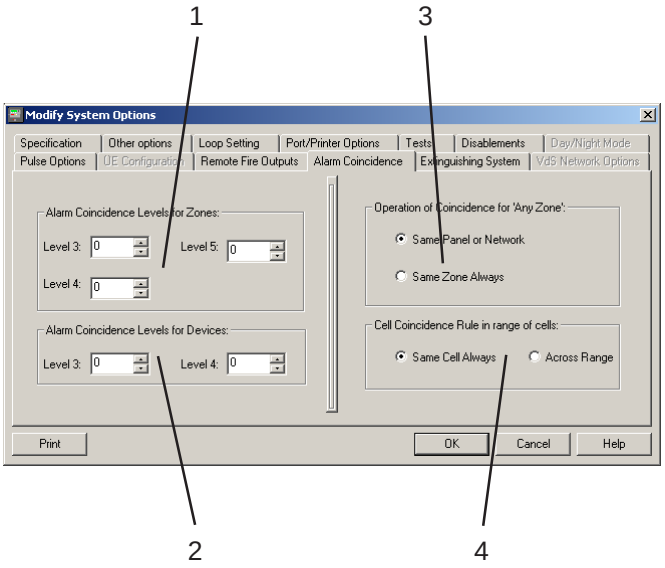
1 Set the number of seconds before the release is activated at which the PAUSE occurs in the ULI and IRI HOLD modes (see **Section 4.1.4.4**).

2 Set the flood duration time. This time is used if 'Soak Timer' is selected on an Alarm Control Matrix entry.

CAUTION:
This product is not compliant with EN 12094-1.
Fire extinguishing installations in Europe are required to be certified as compliant to this standard.

2.12 Alarm Coincidence Tab

Allows multiple zone or device coincidence to be configured at the input of a Control Matrix entry. Edit as follows:



1 For each Zones level (where 'level' indicates the position on the panel's Control Matrix 'Multiple Zone Coincidence Rule' menu), enter the number of zones that must be in alarm at the Control Matrix input.

2 For each Devices level (where 'level' indicates the position on the panel's Control Matrix 'Select Coincidence Rule' menu), enter the number of devices that must be in alarm at the Control Matrix input.

The configured values then become available for selection for the Control Matrix Input Event (**Section 4.3.1**).

3 Select the scope of device coincidence when the Control Matrix input zone selection is ANY ZONE:

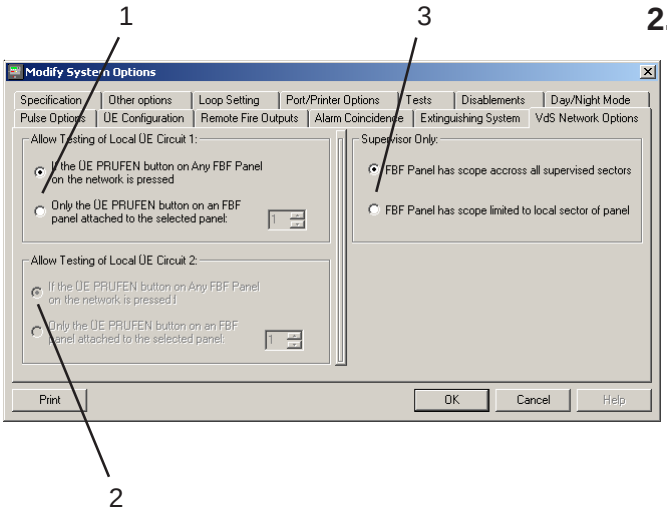
a. The devices must be on the same panel, or (networked panels) on any panel of the network. This is the default.

b. The devices must be in the same zone.

4 Select the scope of device coincidence in cells:

a. Two or more devices in alarm in the same cell. This is the default.

b. Two or more devices in alarm within the selected range of cells.



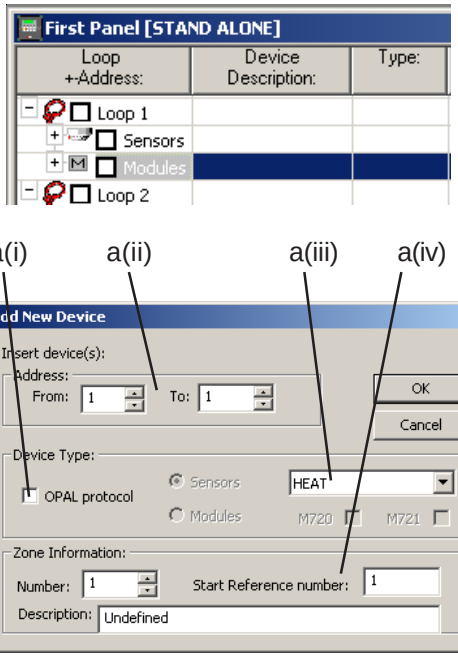
2.13 VdS Network Options

Only available when VdS mode is selected on the Specification Tab. These settings configure how the testing of the ÜE circuits, using the ÜE PRUFEN button on the FBF panel, are performed. Testing can be carried out from any FBF panel on the network or from the FBF panel connected directly to the panel where the test is to be performed. Edit as follows:

1 This is available only if a Remote Fire Output has been configured for sounder circuit 1. Select the appropriate option for local ÜE circuit 1. If the option for a dedicated panel is selected use the spin buttons to select the panel node (node range up to 63) that has the FBF panel attached.

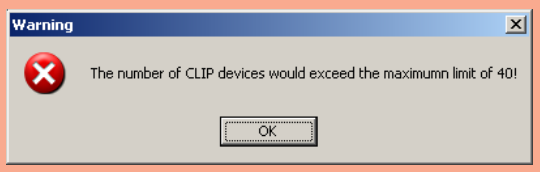
2 This is available only if a Remote Fire Output has been configured for sounder circuit 2. Select appropriate option as for step 1, if applicable.

3 This is only configurable with networks with one or more superviser panels. Select whether actions from the FBF panel affects all sectors supervised by the fire control panel, or whether the scope of action is limited to the panel's local sector.



TIP! **To save time, enter an address range of identical devices, then edit the device types and parameters.**

The number of CLIP device addresses on a mixed-protocol loop is limited to 40. The following warning is displayed if this limit is reached:



3 Loop Devices Configuration

This section describes how to add, delete and edit configured loop devices.

3.1 Select a Device

a. To add a new device: on the required loop, highlight either 'Sensor' or (as shown above left) 'Module', then choose 'Insert' from the 'Edit' menu or right mouse-button menu (see next page). The Add New Device window is displayed. Select the:

i OPAL protocol (ID3000 only). Check the box for each OPAL protocol device added. For CLIP protocol devices leave this box un-checked.

Note: An ID3000 loop can support a mixture of CLIP and OPAL protocol devices. However, there is a limit of 40 CLIP device **addresses** supportable on a mixed-protocol loop.

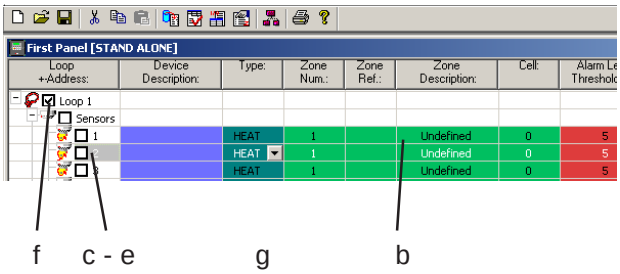
ii Device address or (to add a group of devices) a range of addresses. See below for extra information about VdS mode. See **Section 3.2.1** for extra information about device type GAS.

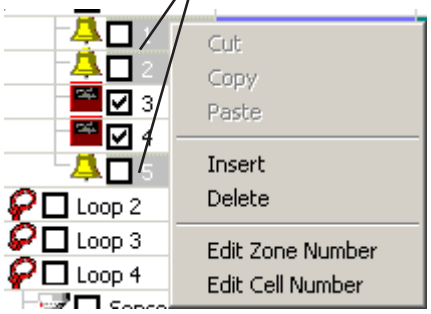
iii Device type from the list.

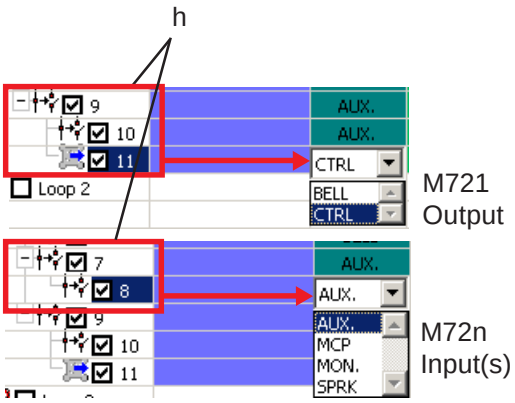
iv Zone number, start reference number (network zones) and zone description.

ADDING MULTIPLE DEVICES IN VdS MODE

The maximum number of devices that can be added as a group is restricted to the maximum number allowed in a single zone, i.e. 32.







b. To edit a device address, in the loop display click in the first column and press ‘Enter’. Type a new loop address.

c. To move a device to another loop, highlight the device and use Drag/drop (if enabled on the ‘Edit’ menu) to move to (e.g.) ‘Sensor’ on the required loop, or use cut and paste.

d. To move a device within a loop, click on the device in the Loop Address column, press ‘Enter’, enter the new address and then press ‘Enter’ again.

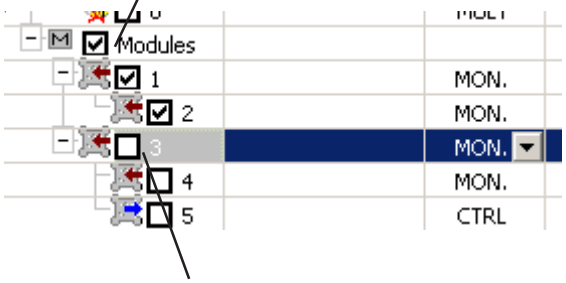
e. To delete a device: highlight the row in the loop display and then choose ‘Delete’ from the ‘Edit’ menu or right mouse-button menu, or press the delete key.

f. Change loop protocol. Check the appropriate boxe(s) to select OPAL protocol, either by loop or individual loop devices (OPAL selection not available for ION or VIEW sensors).

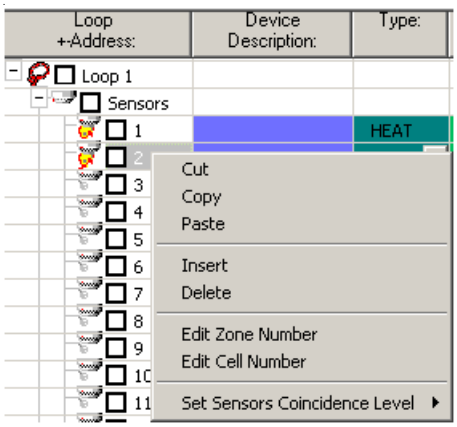
g. To select multiple devices hold down the <Ctrl> key when making the selection. The selections can be made across device type and loop.

h. OPAL Multi-address modules.These modules may be inserted, cut/copy and pasted as with other loop devices. However, these devices take up more than one OPAL address: 2 for the M720 and 3 for the M721. Each input type may be changed (see options shown at left). The output of the M721 defaults as type CTRL but can be changed to type BELL.

OPAL M720 multi-module



'M721' multi-module now using three consecutive CLIP addresses. The available input types are restricted to the OPAL selections: AUX, MCP, MON, SPRK.



Note: If, after adding an M720 or M721 module to the loop (these can only be selected as an OPAL device) and the loop protocol or first module address is changed to CLIP, note that the OPAL 'nested' address layout is retained. The squares are no longer checked for any affected devices as these modules are no longer treated as OPAL multi-modules. The example at left shows M720 and M721 modules on a loop where the protocol of the latter has then been changed to CLIP. This module is now treated as three consecutive CLIP module types: MON, MON and CTRL.

Right mouse-button menu

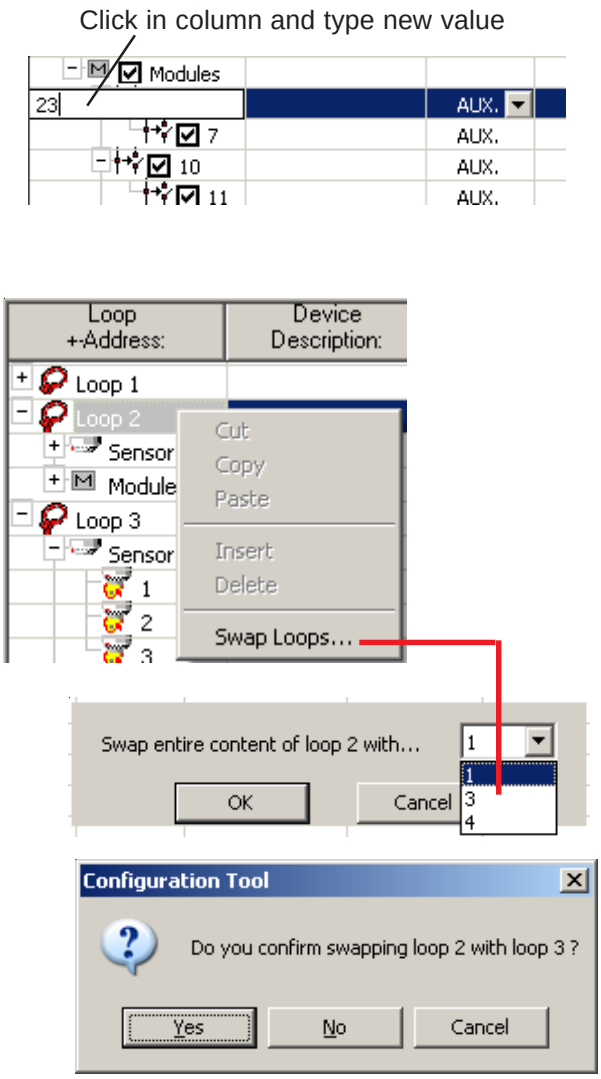
Cut, Copy and Delete apply to a highlighted device. These are standard windows functions.

Insert applies to a highlighted loop (i.e. either the 'Sensors' or 'Modules' row is highlighted. It displays the Add New Device window.

Paste applies to devices and loops. If a device is highlighted, that device is overwritten by the pasted device. If a loop is highlighted ('Sensors' or 'Modules' as appropriate), the device is inserted at the first available address in that loop.

When selected, one or more sensors can be selected as part of a coincidence rule.

All the above functions are also available on the Edit menu.



Quick Edit Function

Many device properties can be edited simply by clicking in the appropriate column of the device to be edited and just enter the new value. In the example at left, an M720 module is being moved from addresses 6 and 7 to 23 and 24 (any subsequent addresses are moved automatically).

'Swap Loops' Function

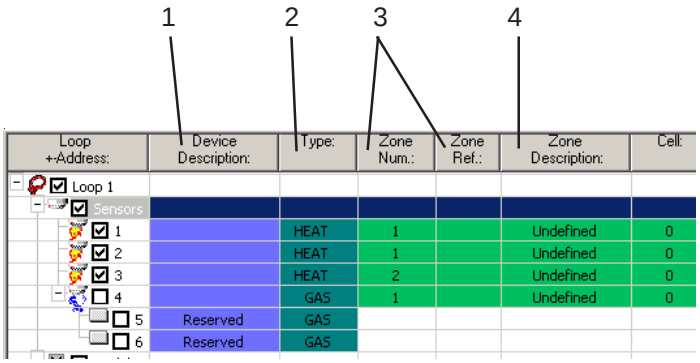
The loop devices of one loop can be transferred, or swapped, very easily with the content of another detection loop. Simply highlight the desired loop from which the devices are to be swapped and press the right-hand mouse button (if you select all the loop devices the option is still available). The 'Swap Loops...' option is available for selection.

You will then be prompted for the destination loop. In this example, the panel has four loops and the content of loop 2 may be swapped with the content of loops 1, 3 or 4.

In the example illustrated loop 3 is the chosen destination. Having selected the loop, you are then asked to confirm the selection.

Note: This function is also selectable from the Edit menu.

3.2 Edit Device



Detailed information is given for sensors. For modules, most of the parameters are edited in the same manner as for sensors, therefore only the differences are described.

3.2.1 Sensors

1 **Device Description**. Enter the device text if required (ID3000 maximum 32 characters, ID2000 maximum 40 characters).

2 **Type**. From the drop down list, select the required device.

3 **Zone Number**. Enter the required number (the range depends upon the Panel and Zone types selected on the Specification Tab [**Section 2.1**]). For network zones, enter the device Reference Number (see opposite).

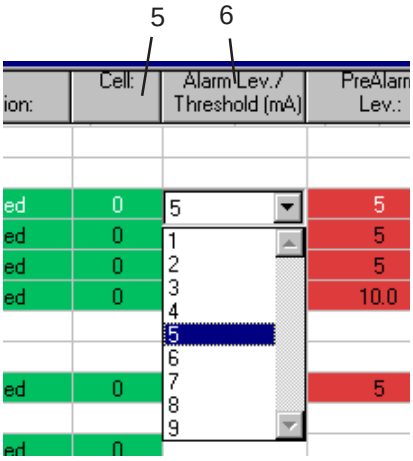
4 **Zone Description** (ID3000 only). Enter the zone text (maximum 32 characters). This text is automatically displayed on the Edit Local Zone Descriptions window (**Section 1.5.9**); subsequent edits on that window are automatically reflected here.

GAS SENSOR INTERFACES IIG1 & IIG4

IIG1 requires three consecutive sensor loop addresses; the lowest is type GAS and the others are reserved. Depending upon configuration of the device itself, IIG4 requires up to four consecutive type GAS sensors to be inserted, each using three consecutive addresses.

NETWORK ZONES - DEVICES

VdS only: Max. of 10 MCPs or 32 other devices per zone. MCPs cannot be mixed with other device types. Devices are given a reference number within the zone, range 1-10 (MCPs) or 1-32 (other device types). **Standard only**: Max. of 99 devices per zone, each with a reference number in range 1-99.



SENSITIVITY

The Alarm and Pre-alarm values are upper thresholds, i.e. an alarm occurs if the sensor reading equals or exceeds the threshold.

GAS SENSOR INTERFACE

The Gas Sensor Interface Alarm, Pre-alarm and Fault levels are all editable values in the range 4 to 20mA instead of pre-set levels. Enter the new value in tenths of milliamps. All digits must be entered including the digit after the decimal point, even if it is zero. The decimal point is not displayed during the entry. Example: to set 6mA, enter 60.

5 Cell Number. If required, enter a cell number for the device (optional - used in the Control Matrix and by VIEW sensors).

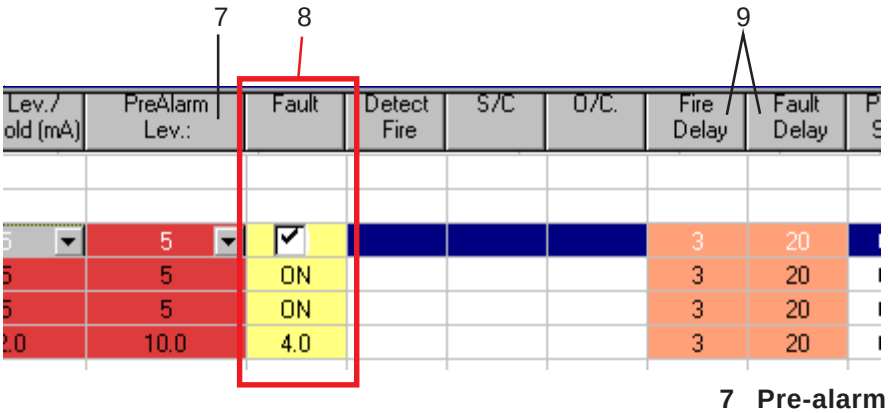
6 Alarm Level/Threshold. From the drop down list, select the sensitivity level.

CLIP protocol: Up to 9 pre-set levels are available for each sensor [except SMART 4 and MULTI/Optiplex]; for all sensor types (except SMART and MULTI) the default setting is '5'. '1' is the most sensitive, '9' the least sensitive.

Note: The default sensitivity levels of analogue sensors are '5' for both Fire and Pre-alarm, except SMART 4 and MULTI/Optiplex, when the pre-alarm default setting is '2'. This is pre-set to comply with appropriate standards (EN54 Part 7). The levels should only need adjustment in special circumstances. VIEW, SMART 4 and MULTI are described in **Section 3.2.1.1**. In VdS mode the default level for HEAT sensor alarm is '3' instead of '5'.

OPAL protocol: Each sensor type has up to 6 pre-set levels for alarm and pre-alarm available, except VIEW which still operates under CLIP protocol control on an OPAL loop.

Note: The default sensitivity levels of analogue sensors for both Fire and Pre-alarm is '3'. VIEW devices are supported on OPAL protocol loops as CLIP devices and, therefore, count towards the imposed limit of 40 CLIP devices on an OPAL loop.



VERIFICATION DELAYS - SENSORS

Device Type	Default	Maximum
Fire Alarm		
ION	3	5 (VdS mode: 30)
OPTICAL	20	30
HEAT	3	5
MULTI	3	5
Fault/Pre-Alarm		
All sensors	20	100

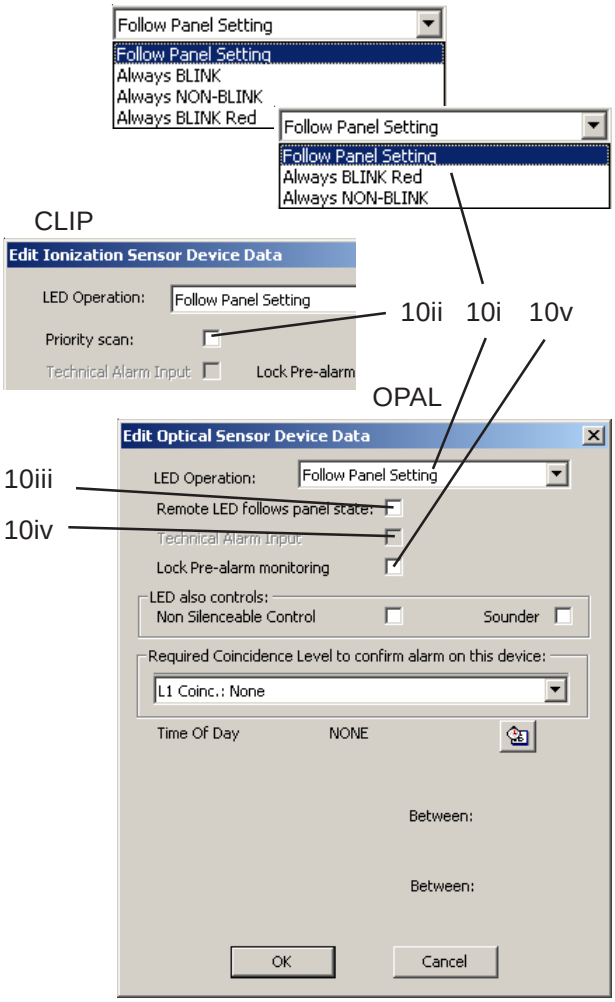
The Fire delay is ignored during walk test.

The Fault delay also applies to analogue level pre-alarms (you are advised to retain a delay to allow for sensor 'settling' time, especially after power-up). 'Device Missing' faults are not delayed.

7 **Pre-alarm Level/Threshold**. From the drop-down menu, select the sensitivity level. If Pre-alarm is not required, set to '0'. MULTI is different - see **Section 3.2.1.1**.

8 **Fault Level/Threshold**. This column was displayed with WCT versions prior to 3.05 but has now been removed; it was editable only for the Gas Sensor Interface (this can be done using the Edit Device Data window). For other sensors this parameter was always ON (EN54-2: 8.3 requires fault supervision for sensors to be on).

9 **Fire Delay/Fault Delay**. To minimise the occurrence of unwanted alarm or fault indications, a verification delay is recommended between signals being received from the sensor and the fire/pre-alarm/fault condition occurring. Retain the defaults (see opposite) unless specific site conditions make a change necessary. Verification delays are not applicable to VIEW sensors.



Benelux Sprinkler Panel: Technical Alarm contravenes EN54-2: 5.6, 6 by lighting the zonal FIRE LED.

10 Other Functions (Select the required device, then press the 'F2' or 'Enter' key to display the Edit Device Data window, which contains parameters applicable to the sensor).

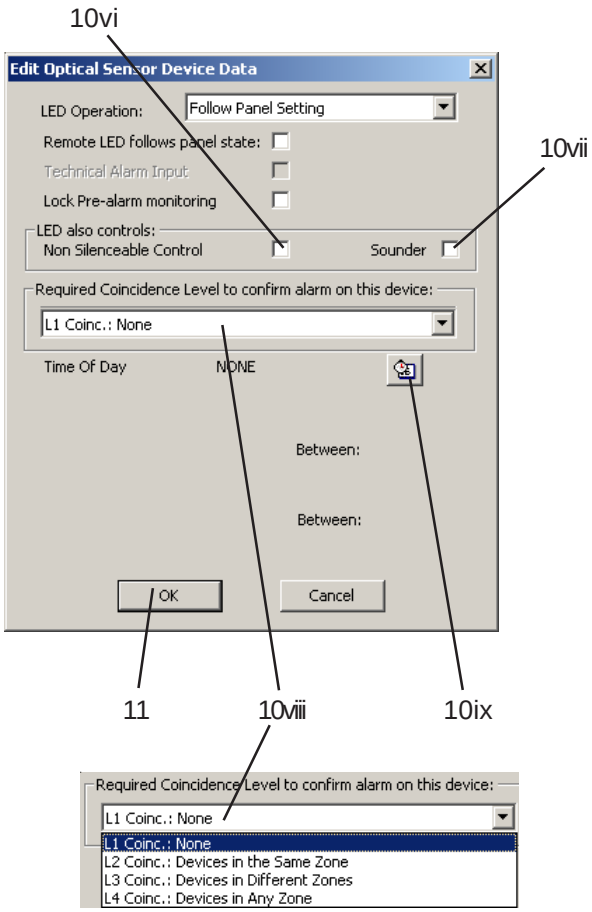
i **LED Operation** (ID3000 only): select whether the sensor's LEDs follow the panel setting (**Section 2.10**) or are set to blink or not (non-blink) or to always blink red (OPAL devices only). If BLINK red is the global setting, there is no 'Always Blink Green' option.

ii **Priority Scan** (CLIP protocol only): to scan a sensor at intervals of less than one second, select 'ON'. A maximum of 43 devices per loop can be designated as priority. However, to obtain a 1-second scan interval do not designate more than 21 devices per loop as priority (the scan rate becomes lower as more devices are designated).

iii **Remote LED follows panel state** (OPAL only): select if a sensor's remote LED is to light under the control of the panel in alarm.

iv **Technical Alarm** (GAS Sensor: all modes. Other sensors: Benelux Sprinkler Panel only). If this option is selected, **the sounders do not operate**. Instead, the NON-FIRE ACTIVE LED illuminates on all panels on the network. Relays and other modules operate as in a fire condition. ID3000: device is displayed on Tech. Alarm tab instead of Fire tab.

v **Lock Pre-alarm monitoring**. If **not checked** (default) and Time-of-Day (TOD) is used to vary alarm sensitivity (step 10[viii]), Pre-alarm sensitivity changes with TOD by the same amount



that is set for Alarm. Also, for MULTI/SMART sensors, Pre-alarm is ignored at those times when Thermal-only mode L6 is in operation for Alarms as a result of a Control Matrix rule or TOD.

If **checked**, the Pre-alarm sensitivity remains fixed at the level selected in step 6. Also, for MULTI/SMART sensors, Pre-alarm is no longer ignored at those times when Thermal-only mode is in operation for Alarms.

vi **Non Silenceable Control**. Use with the DH500 AC/DC duct detector when auxiliary equipment is driven in parallel with the sensor LED. Control of this auxiliary equipment is then independent of the SILENCE/RESOUND pushbutton - it is only switched off by operating the RESET pushbutton.

vii **Sounder**. Use with the B601BH base with integral sounder. If this option is selected, the sounder will be silenced by operation of the panel's SILENCE/RESOUND (to silence) or RESET pushbuttons.

viii Set the required device coincidence level for alarm confirmation: None; Devices in same zone; Devices in different zones; Devices in any zone. Default coincidence level is 'None'.

ix To vary sensor sensitivity at different times of day, select Time-of-day Program. Refer to **Section 5** for further information. An icon is displayed in the 'Other Functions' column to indicate that a TOD Program is set for this device.

11 To exit, click OK.

3.2.1.1 VIEW, MULTI and SMART Sensors

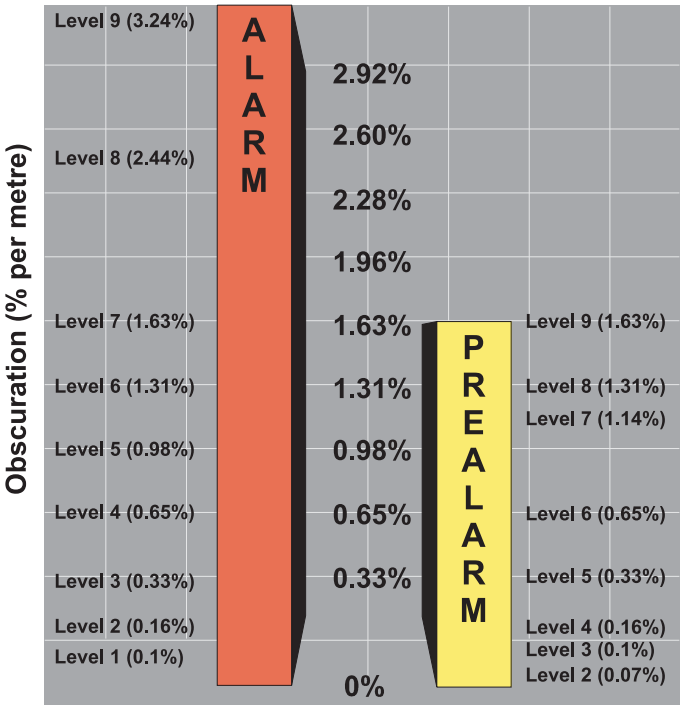
VIEW™ Sensors

Very Intelligent Early Warning (VIEW™) sensors are able to detect very small amounts of smoke resulting from an incipient fire, such as smouldering wiring insulation. Because VIEW™ sensors have an enhanced sensitivity and the ability to discriminate between airborne smoke and dust particles, a representatively narrower percentage band, expressed as a 'percentage per metre obscuration', is used to set their sensitivity than is used on other types of sensors.

Note: The term 'percentage per metre obscuration' describes the smoke saturation level per unit volume of air. Normal sensors typically detect a fire condition between 3%/m and 5%/m obscuration.

VIEW™ sensors can be configured using nine sensitivity thresholds for pre-alarm and alarm. Level 1 (L1) is the most sensitive and level 9 (L9) the least sensitive. Pre-alarm can be disabled by selecting level 0 (L0).

The diagram shows smoke obscuration for each of the nine level selections. The standard sensitivity is set at 2.44%/m (L8) or less, high or enhanced sensitivity is between 2.44%/m (L8) and 0.98%/m (L5) and very high sensitivity is 0.98%/m (L5) or lower %/m.



Co-operative Multi-sensing: example

Loop	Address	Type	Zone	Cell	
2	10	VIEW	3	-	group
2	11	VIEW	3	-	
2	12	VIEW	3	-	
2	13	VIEW	3	84	group
2	14	VIEW	3	84	
2	15	VIEW	3	84	
2	16	VIEW	3	88	group
2	17	VIEW	3	88	
2	18	VIEW	3	88	
2	19	VIEW	3	110	group
2	20	VIEW	3	110	

Co-operative Multi-sensing

Co-operative sensing is carried out automatically between sensors in the same zone with consecutive addresses and in the same cell, or no cell. An example of VIEW™ sensor co-operative grouping is given opposite.

VIEW™ Sensor Sensitivity

Most local codes of practice require that very low levels of alarm sensitivity selection be tested on-site before implemention. Alarm sensitivity level 6 (L6) and below generally require a 90-day test to ensure the sensor environment is suitable for a higher sensitivity setting. This is not required for high levels of pre-alarm sensitivity selection.

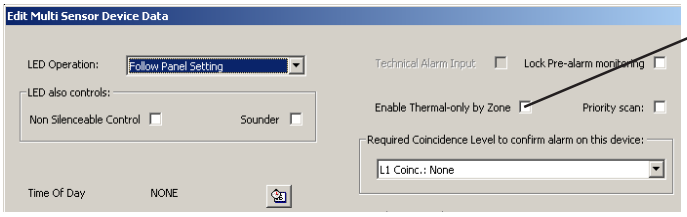
Calibration

Each VIEW™ sensor has to be calibrated on first operation with the panel. The procedure is given in the Panel Configuration manual.

Multi-criteria (MULTI) Sensor Levels

Sensitivity Levels	MULTI Sensor Default Settings
L0	No Pre-alarm (ID3000)
L1 (Most)	
L2	For Pre-alarm Threshold
L3	
L4	
L5 (Least)	For Alarm Threshold
L6	Thermal-Only mode (Optiplex)

Pre-Alarm threshold value MUST be LOWER than the Alarm threshold value to be effective.



MULTI Sensors

When configuring the Alarm and Pre-alarm sensitivity for MULTI sensors, there are only five sensitivity levels, as shown opposite.

'Optiplex' MULTI sensors (SDX-751TEM) have an additional Thermal-Only mode (i.e. sensor does not respond to smoke), L6. Normally, these sensors would be configured at, for example, L5 for Alarm, with the Thermal-Only mode invoked via a Time-of-Day program or the panel's Day Mode pushbutton. See **Section 5.3**.

For Pre-alarm to operate, the Pre-alarm Threshold MUST be set at least one level below the Alarm Threshold (set to equal or above if Pre-alarm is not required [or to L0, ID3000 only]). In Thermal-Only mode (L6), Pre-alarm applies to both smoke and heat, unless L6 is linked to Time-of-Day or Day Mode with Lock Pre-alarm monitoring (see **Section 3.2.1,** bullet item 10iv) not set, in which case there is NO Pre-alarm in L6 mode.

Thermal Mode by Zone (Optiplex only)

All Optiplex sensors in a zone or range of zones **and for which this box is checked** can be set to their Thermal-Only mode by the Control Matrix.

Note: An Optiplex sensor can be configured to enter Thermal-Only mode both via Thermal Mode by Zone and via Time-of-Day or Day Mode pushbutton.

SMART Sensors

The system supports Self-optimising Multi-criteria Alarm Recognition Technology (SMART) sensors.

SMART sensors have the following detection capabilities:

- SMART 2 & SMART 3 sensors - photoelectronic (optical), infra-red and thermal. Learnt as type MULT.
- SMART 4 sensors - Carbon monoxide and photoelectronic (optical), infra-red and thermal. Learnt as type SMART 4.

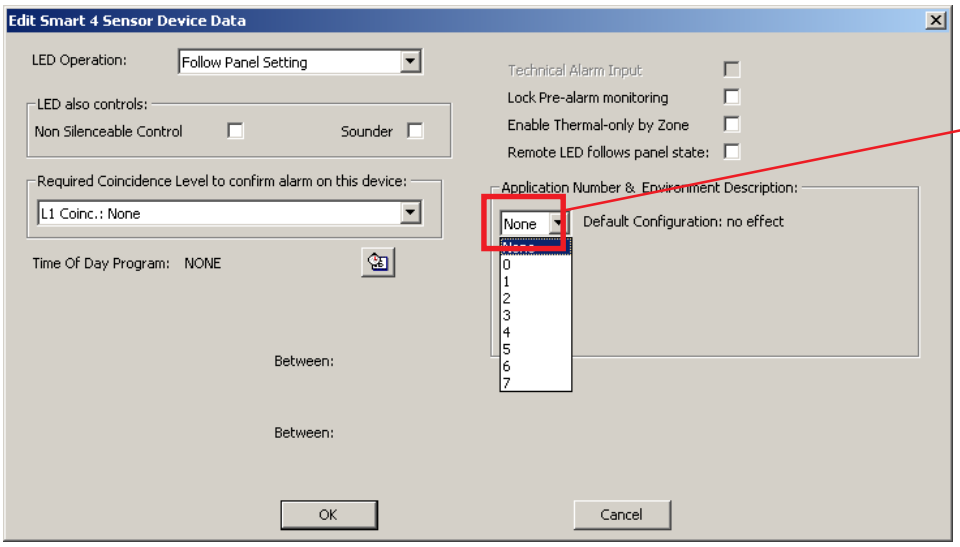
All SMART sensors have a thermal-only mode as described on the previous page for Optiplex. SMART 4 has a unique device type, unlike Optiplex/SMART 2/SMART 3, which are type MULTI with a thermal-only mode (alarm level 6; when the thermal-only mode is selected the type is automatically changed to 'Optiplex').

The Alarm and Pre-alarm levels and defaults are as described for Optiplex, and the verification delays are the same as for a MULTI sensor.

The maintenance status of SMART 4 sensors is stored in a log and can be retrieved using the Historic and Data Log Tool as described in **Appendix 1**.

Application Numbers for SMART Sensors

To further minimise false alarms SMT4 devices with OPAL Protocol may be configured to work more effectively in different types of 'nuisance' environment. This is achieved using sensitivity presets called 'application numbers'. Each application number corresponds to a different combination of sensitivity level settings of the various detection elements of the sensor, expressed using the range of values '0 - 7' for active profiles and 'None' for the 'no effect' setting (default).



None: No effect default).

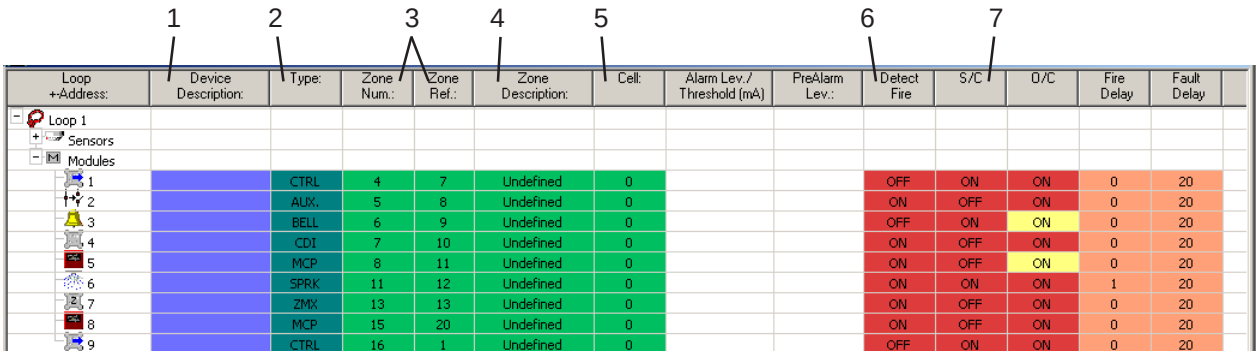
0-7: Select the appropriate application number in order to reduce false alarms from the typical nuisance environments listed.

By default, when selecting a SMART 4 device type this function is inactive and a setting of 'None' is indicated.

For guidance, a table describing each application number and its corresponding nuisance environment is provided below. Select the desired application number.

Application Number	Possible 'Nuisance' Environment: Application Details	Recommended Alarm Threshold setting
NONE	- Vacuum cleaning - dust causing photo sensor only alarm. Default configuration: no effect.	4
0	- Hotel bedroom near shower. Steam and ROR in heat from sensor near bathroom door - Boiler rooms. Dust and ROR heat causing false alarms. Heat response changed.	4 4
1	- Student dormitories, smoking hotel rooms. Small appliance cooking/cig. smoke	5
2	- Insect alarms. Uses Photo element only. - Condensation in attics and similar unheated spaces, e.g. pump houses, service intake rooms, etc. Uses Photo element only. - Heavy manufacturing. Photo element alarms from dust/dirt (may also include welding) - Strobes in industrial areas. Photo element alarms from dazzling light/welding.	5 5 5 4
3	- Dusty environments (and settled dust turbulence in the chamber before drift alarm reached. Uses Photo element only. - AHU rooms and lift motor rooms. False alarm from 'dust burst' reduction.	5 5
4	- Synthetic smoke in discotheques and dazzling lights from strobes. Photo sensor alarm threshold raised to maximum; CO enhancement significantly reduced. - Bar areas - photo sensor alarm from steam from glass washers/cigarette smoke. - Smoking areas - alarm from photo and CO sensors' response due to cigarettes, etc.	5 5 5
5	- Car parks and loading bays with trucks with upward exhaust pipes or poor operating engines. Includes traffic build-up in cities. Alarm from Photo, CO ROR heat sensors. - Kitchens including industrial, canteens and retirement homes - Photo alarms from burning food and ROR alarms from ovens being opened.	5 5
6	- Paint shops and repair shops. Alarm from photo and ROR sensor elements. This Application may include welding and vehicles running inside building.	5
7 (*)	- Extremely long-lasting optical-only stimulus (special disco fog, anti-burglar smoke, misty/ /foggy area, etc.). Long lasting (>10 minutes) optical stimulus which is not caused by an incipient fire.	5

* APPLICATION 7 WARNING - This setting must be treated with EXTREME CAUTION - Do not select without consulting your local fire officer. For further information regarding this setting, contact Technical Support or your Regional Sales Manager.



AUXILIARY MODULES

- Cannot generate an alarm of Fire.
- Are not included in zone operations*.
- Must be referred to individually (not by zone) in the Control Matrix.
- Generate non-latching Control Matrix output operation.
- Are treated in the usual way, if faulty.
- Cannot have a delayed output.

* Exception: if the zone only has AUX inputs then Disable All Inputs will disable the AUX modules.

LOOP BOOSTERS

Only the following can be edited: device description, zone, cell and (network zones) reference numbers, S/C (default ON), fault delay, priority scan and LED Blink. The following cannot be edited: Detect Fire (always OFF), O/C (always ON) and fire delay.

3.2.2 Modules

1 **Device Description** - edit as for sensors.

2 **Type** - edit as for sensors.

3 **Zone Number** - edit as for sensors

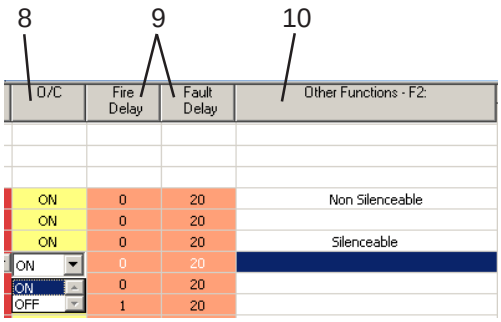
4 **Zone Description** (ID3000 only) - edit as for sensors

5 **Cell Number** - edit as for sensors.

6 **Detect Fire**. Set the module's alarm supervision option ON or OFF. For MCPs, alarm **cannot** be set off.

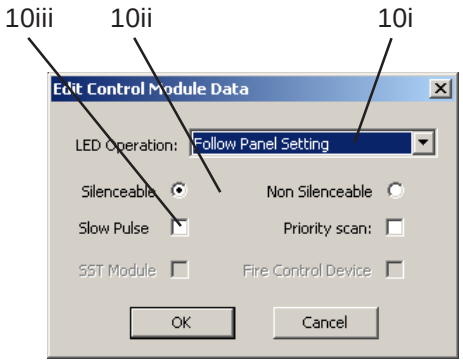
7 **S/C**. Set the module's short-circuit (S/C) supervision option ON or OFF. S/C supervision is not supported for CDI and CLIP protocol ZMX modules and should be left off (a S/C in the supervised zone is detected as an O/C fault).

CAUTION: ZMX Logical device type. Short-circuit supervision is only supported if it is an M710-CZ physical device type.



VERIFICATION DELAYS - MODULES

Device Type	Default	Maximum
Fire Alarm		
MCP, CDI, ZMX, CTRL	0	2
Monitor	1	100
Sprinkler monitor	40	100
Fault (S/C, O/C)		
All modules	20	100



8 **O/C**. Set the module's open-circuit (O/C) supervision option ON or OFF. For CMX modules used as outputs and with disabled supervision (see data sheet) and for CMX-10R modules, O/C supervision must be set to off, otherwise these modules will remain in an O/C fault condition.

9 **Fire/Fault Delay**. Enter the required delays (the defaults are given opposite). If a module is walk-tested, the delay is ignored.

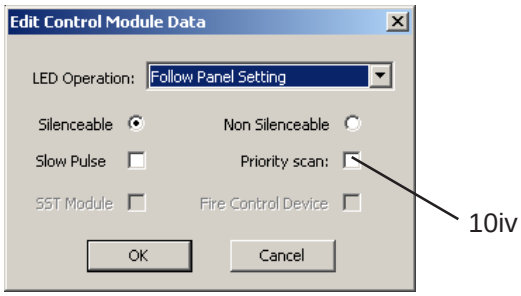
Note: You are advised to retain a delay on the S/C and O/C fault events (the same parameter is common to both) to allow for module 'settling' time, especially after power-up. If S/C monitoring is off, do not set a fire delay unless the equipment function makes this necessary, and **never** for an MCP. If it is on, a fire delay of 1 second is recommended to stop the transition of an S/C through fire being reported as a fire alarm.

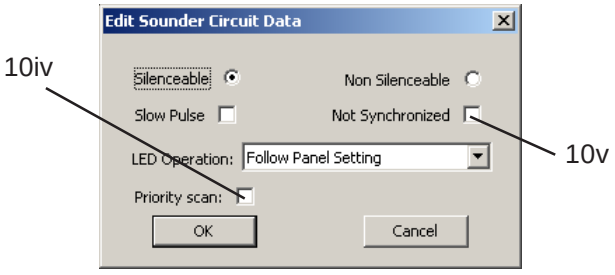
10 Other Functions (press F2 to display the Other Functions window, which contains parameters applicable to the module).

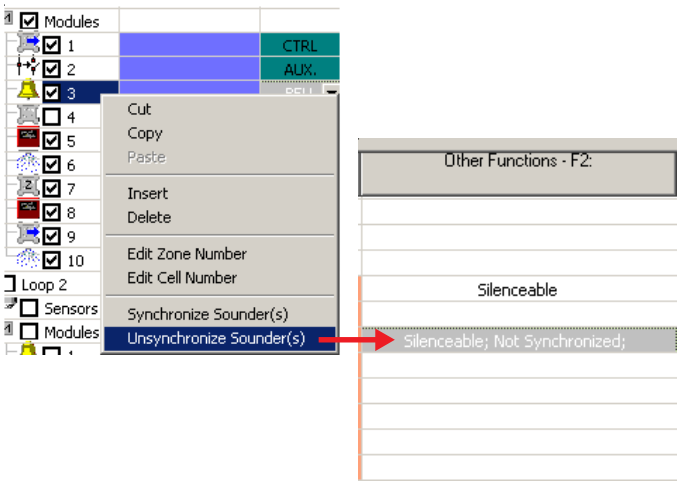
i **LED Blink** (ID3000 only) - edit as for sensors.

ii **Silenceable/Non-Silenceable**. For CMX modules of types BELL and CTRL. If Non-silenceable is selected, the output is not switched off when the panel's SILENCE/RESOUND pushbutton is operated to silence the sounders (default is Silenceable).

iii **Slow Pulse** (CLIP loops only). For CMX modules of types BELL and CTRL. Determines the pulse rate if the module is set to pulse by the Control Matrix (**Section 4.3.2**). If Slow Pulse is selected, the output will pulse at the user-defined







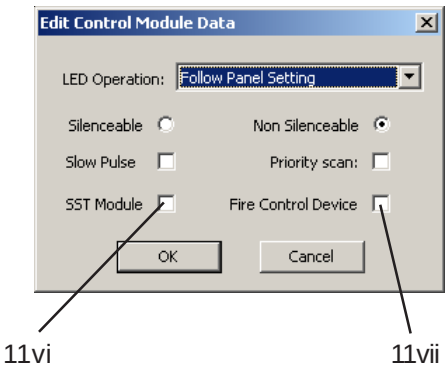
rate and pulse length (**Section 2.4**). If this function is not selected, the default rate is used (1 second on, 1 second off).

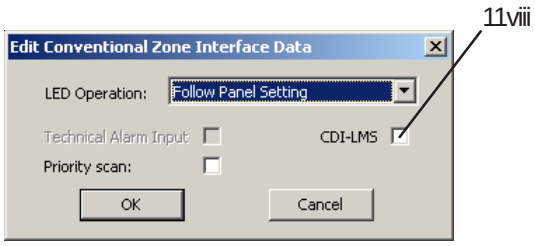
Note: If the loop is heavily loaded with devices (especially sounders), select one of the Slow Pulse options to ensure adequate synchronisation of the sounders.

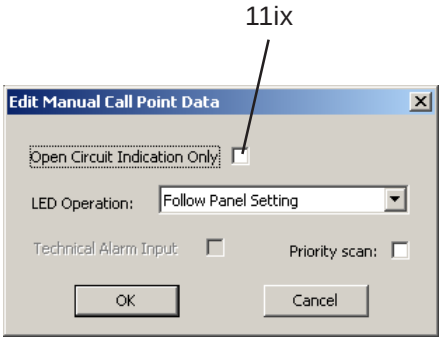
iv **Priority Scan** - edit as for sensors. **If CDI or ZMX modules are used to connect conventional MCPs**: to meet the response time specified in BS5839 Part 1 para. 20.2(b), set these modules to priority and do not exceed 21 priority devices per loop.

v **Not Synchronised** (CLIP loops only). Option for modules of type BELL only. Allows the selection of individual sounders to be excluded from the panel global setting of PULSING (refer to **Section 2.4 Pulse Options** Tab). This is a useful way to exclude any sounders that are not enhanced protocol-compatible so that they can be configured as **not** synchronized. This action must be taken even if these sounders are never to be included in a Control Matrix PULSING rule.

Upon selection of the 'Synchronize Sounder(s)' or 'Unsynchronize Sounder(s)' option while editing devices of type BELL, the tool automatically displays the 'Other Functions' column to confirm the change of device status. A *synchronized* status is the default once the global option is set and, consequently, selecting 'Synchronize' will clear the *unsynchronized* status of any selected device(s), if changed to *unsynchronized* at an earlier time.





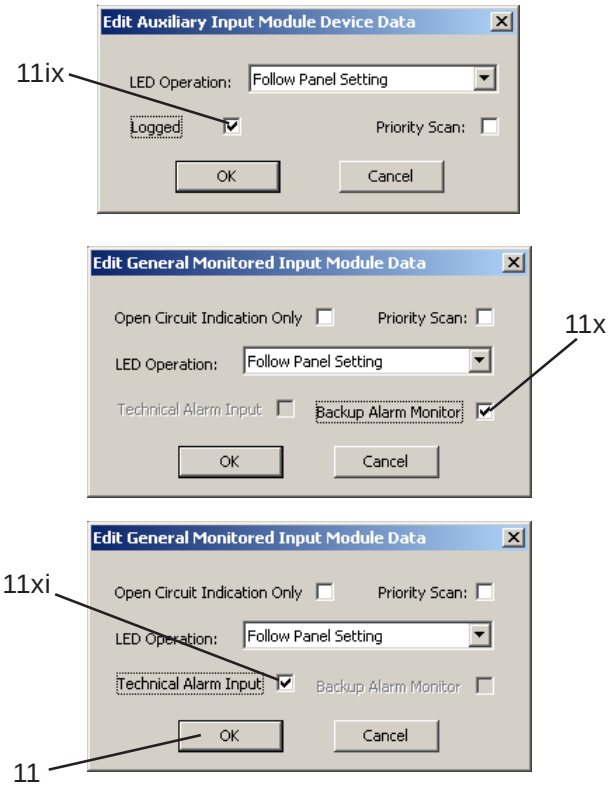


vi **SST**. For CMX modules of type CTRL in VdS mode only. This function disables the module when the panel's SST AB/AN pushbutton is operated.

vii **Fire Control Device**. For CMX modules of type CTRL in VdS mode only. If this function is selected, then the module is disabled by the Brandfallsteuerung AB pushbutton on the FBF. Enablements of SST devices are blocked if they are held disabled by Brandfallsteuerung AB, and *vice versa*.

viii **CDI-LMS**. In VdS mode, CDI or ZMX modules can be set to CDI-LMS. Activation of the CDI-LMS input then results in appropriate indications at the panel and FBF.

ix **Open Circuit Indication Only**. For modules of types MON, MCP, SPRINKLER and ASPIRATOR, intended for use in VdS mode. If this function is selected, their open circuit status is INDICATION (the Technischer Alarm LED illuminates, non-latching), otherwise it is defined as FAULT (fault message displayed). In Standard mode, the setting displays 'OPEN CIRCUIT' instead of fault.



Benelux Sprinkler Panel: Technical Alarm contravenes EN54-2: 5.6, 6 by lighting the zonal FIRE LED.

x **Logged/Not Logged**. For modules of type AUX only, set individually as 'logged' (recommended for fire-critical equipment) or 'not-logged' (overridden by panel 'Log' setting, see **Section 2.10** for further information).

xi **Backup Alarm Monitor** (MON modules on ID²net only): If device is intended to relay alarm status from a neighbouring panel to provide backup if the ID²net fails, select this option to ensure that alarms are treated correctly by the panel. Do not include the device in zone-specific or device-specific Control Matrix rules. Backup Alarm Monitor cannot be set at the same time as Technical Alarm Input.

xii **Technical Alarm** (Benelux Sprinkler Panel only). If this option is selected, **the sounders do not operate**. Instead, the NON-FIRE ACTIVE LED illuminates on all panels on the network. Relays and other modules operate as in a fire condition. Only effective if 'Detect Fire' supervision is set to ON. Not available for modules of types BELL, CTRL and AUX. ID3000: device is displayed on Tech. Alarm tab instead of Fire tab.

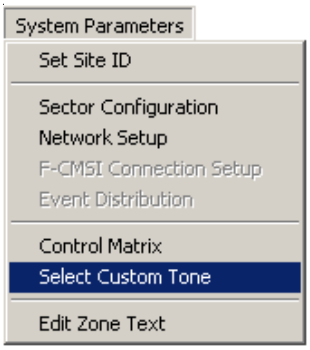
11 To exit, click OK.

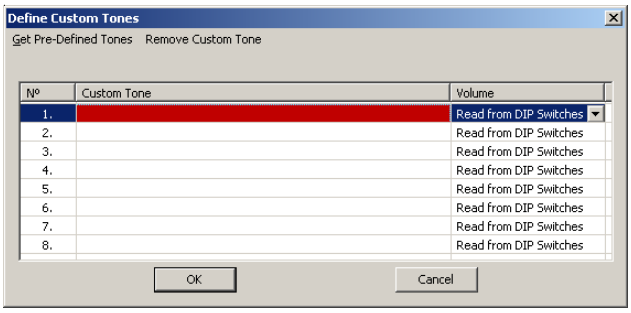
3.2.3 Define Sounder Tone Slots

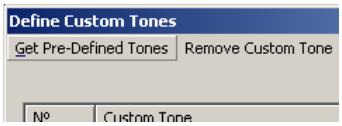
This configuration option applies to OPAL protocol loop sounder/strobe devices only.

The device sounder tone and volume setting is normally configured using the device's DIP switches located on the base of the device. However, the panel can override the DIP switch settings by setting up a maximum of 8 sounder tone slots from the 32 available with these advanced electronic-type sounders. Once configured, these tone slots can be selected as part of a Control Matrix output rule.

From the 'System Parameters' menu select the 'Select Custom Tone' option. Next, a screen listing eight available tone slots is displayed with the first slot highlighted.



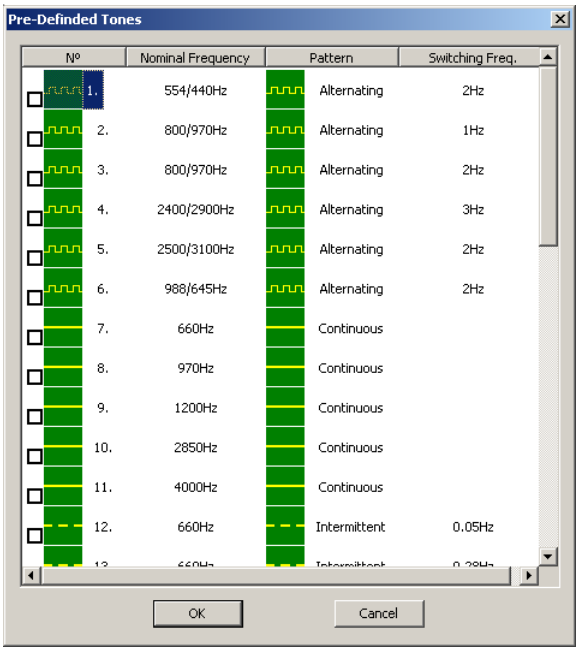


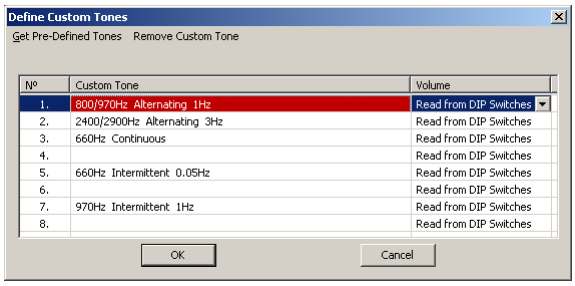


Tone slots can be configured individually, leaving gaps if so desired, or as an entire group of 8. If individual tone slots are to be configured these must first be selected in the list. If configuring all eight tone slots it is not important which tone number is highlighted (tone slot 1 is highlighted by default); however, if less than 8 custom tones are selected the first and subsequent slots numbers are 'taken'.

Note: See overleaf for details about precedence rules.

To configure the tone slots select 'Get Pre-Define Tones' in the top-left hand corner of the Define Custom Tones screen.





A list of all 32 available sounder custom tones is displayed, as shown at left. Check the appropriate boxes adjacent to the listed tone. While selecting tones the maximum of 8 is exceeded a warning is displayed (see below left) and the last device selected is ignored.

Select ‘OK’. The selected custom tones are now listed. In the example shown slot numbers 1, 2, 3, 5 and 7 have been used.

To delete a custom tone, highlight it in the list and select ‘Remove Custom Tone’.

Precedence Rules

Which slots are used are not important as the panel ignores any unconfigured tone slots when configuring Control Matrix output rules. However, tone slot ‘seniority’ **is** considered if two or more rules, all active, are configured to activate in different modes. Tone slots allocated to higher numbers have ‘seniority’ or precedence over lower numbers.

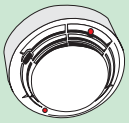
To avoid situations occurring where there is a conflict of sounder output modes, a set of precedence rules are imposed. Refer to **Section 4.1.3 Output Event Statement** for further details on precedence rules.

4 Control Matrix Configuration

4.1 Introduction

The Control Matrix defines which outputs activate in response to a defined event (e.g. alarm) at specified inputs. This is also known as Control-by-Event (CBE).

The Control Matrix can have up to 512 entries (Rules). Each Rule consists of an input event statement and an output event statement.

 INPUT	 OUTPUT
RULE 1	
RULE 2	
RULE 3	
RULE ...	
RULE 512	

It is your responsibility to ensure compliance with EN54-2.

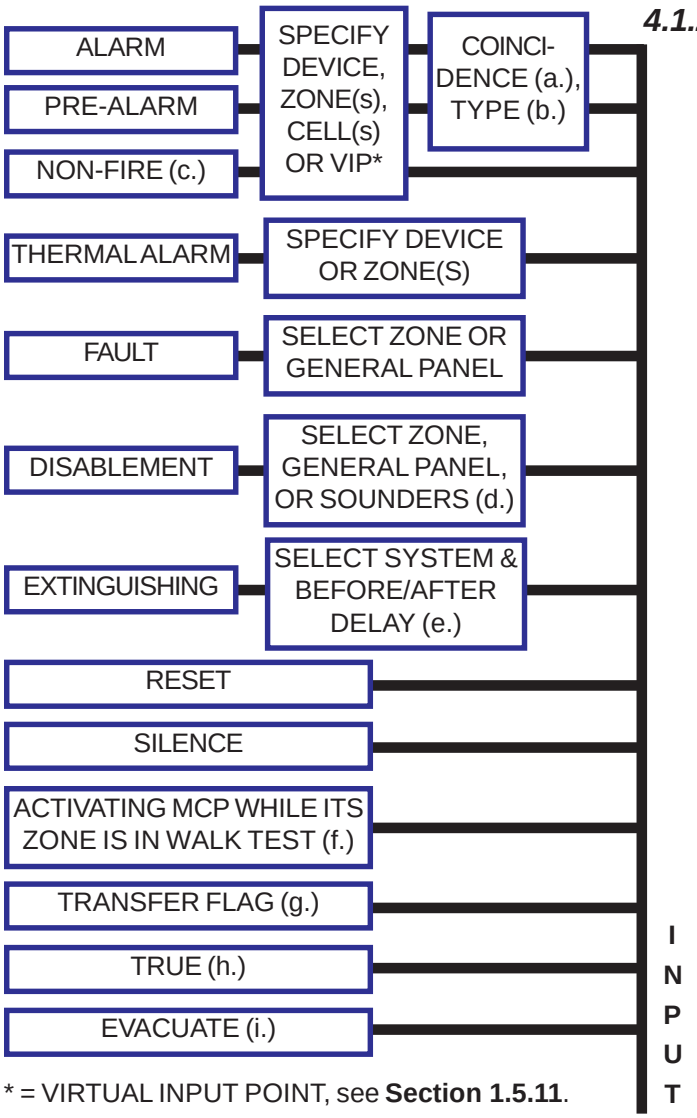
Default Rules are:

INPUT: Any Zone
OUTPUT: All Zones, Bell

INPUT: EVACUATE pushbutton
OUTPUT: All Zones, Bell

4.1.1 EN54 Requirements

To ensure compliance with the requirements of EN54, each panel is factory-configured with two default Rules. These may not be appropriate for your installation. However, if you delete either or both defaults it is then your responsibility to ensure that the installation remains EN54-compliant.



* = VIRTUAL INPUT POINT, see **Section 1.5.11**.

4.1.2 Input Event Statement

A simplified diagram showing valid inputs is given below. More detail is given in **Section 4.3.1**. For inputs 'Alarm', 'Pre-alarm' and 'Fault' the output is latched, otherwise it is unlatched.

a. If two devices co-incidence and a specific type are applied, the type check is carried out on the second device only (the one which completes the co-incidence). It is best to avoid this combination and arrange for all devices to be included in the co-incidence group to be put in a specific zone or cell. If the input is 'Alarm', zone co-incidence is also available. 3+ devices: type check applies to all.

b. Types are: Any (no restriction), Heat, Ionisation, Optical, Any analogue sensor, MCP, VIEW, Smoke + Heat*, Any sensor + MCP*, VIEW + any sensor*, or MULTI. (*these are co-incidence combinations).

c. From AUX module. Non-fire also available from panel Base PCB INPUT 1 and 2 with no further selections except (ID^{2}net only) the panel number. These can be used for class change; their outputs can only be active on closing contact input, not on opening contact input.

d. If a remote fire output is configured, its disablement is also available as an input to the control matrix.

e. See **Section 4.1.4**.

f., g., h & i. are described on the next page.

f. If there is no entry of this type in the Control Matrix, the actions in walk test are those defined in the Control Matrix for the MCP that is operated. With or without a walk test Control Matrix entry, actions apply only at the local panel **except** in the case where there **is** a walk test Control Matrix entry **and** an ID²net.

g. Used to: (i) transfer the output of one Control Matrix entry to the input of another, when both entries have a delay configured, (ii) allow logic combinations (**Section 4.1.5**). Up to 128 separate transfer flags can be used.

EN54-2: 9.1.2 Disablement and re-enablement MUST be a manual operation

h. TRUE allows output(s) to be disabled/enabled under control of a Time-Of-Day (TOD) program. To disable when the TOD program is **not** active (Control Matrix action active when TOD period is not), use a Control Matrix entry with input statement 'TRUE' and output statement consisting of a TOD program and the output(s) to be disabled/enabled.

Note: If output(s) are disabled/enabled by other means during the TOD-initiated period, the TOD-driven state is re-asserted by any subsequent TOD status change (e.g a sensor undergoes a sensitivity change) or at the beginning and end of the configured period.

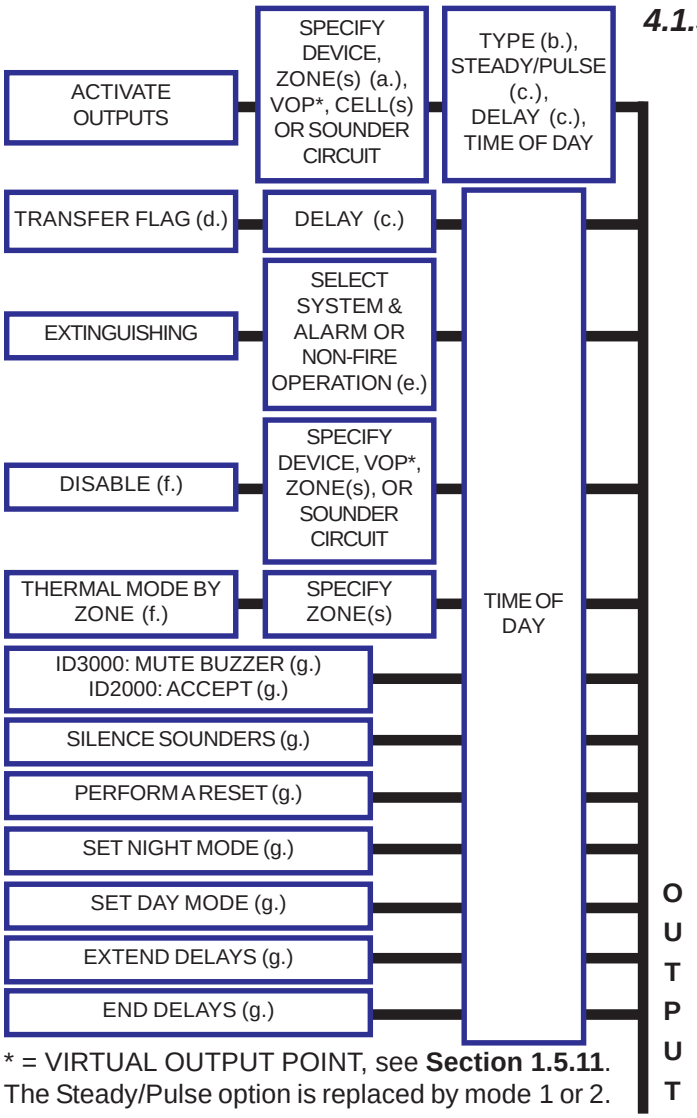
i On a network, the panel from which this input is activated can be specified.

Input	Device Co-incidence
Specified zone on another panel	Two sensors in alarm in the specified zone
Any zone on any panel	Two sensors in alarm anywhere in the network (including on different panels)

Specific information for network

Outputs are applied only at the panel which directly controls them (as stand-alone panels), but inputs may be defined as originating at a different panel. For example, to relate an output operation on a device supervised by Slave 1 (on a Master/Slave network) to an input originating at the Master, the Control Matrix must be edited at Slave 1.

For network inputs, the definition 'Device Co-incidence' depends upon the definition of the input (see opposite).



* = VIRTUAL OUTPUT POINT, see **Section 1.5.11**.
The Steady/Pulse option is replaced by mode 1 or 2.

4.1.3 Output Event Statement

A simplified diagram showing valid outputs is given below. More detail is given in **Section 4.3.2**. The available outputs depend upon the selected input (refer to panel documentation for further information).

a. The output zone does not have to be the same as the input zone. 'Any Zone' includes the internal sounder circuits.

b. Available if 'Zone' is specified. Types are: No restriction, Bell, Control. Sounders 3 and 4 can be configured in hardware as relay outputs but are referred to as 'Sounders' in the Control Matrix. Selecting 'No restriction' will drive sounders 1-4 even if 3 and 4 are set as relays. Selecting 'Bell' will drive sounders 1 & 2, also 3 & 4 if they are configured as sounders. Selecting 'Control' will drive 3 & 4 only if they are configured as relays.

c. Not applicable if input is 'Disablement', 'Reset', 'Silence' or 'MCP in walk test'. Delay also not available for Non-fire or TRUE inputs.

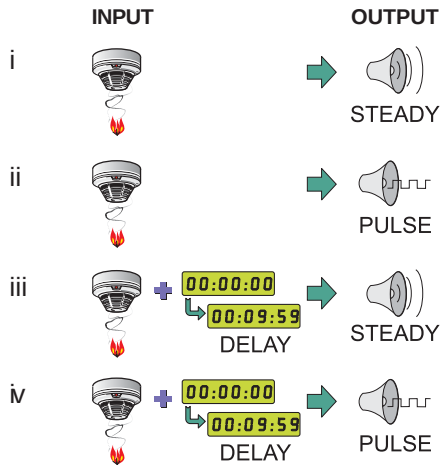
d. Used to: (i) transfer the output from one Control Matrix entry to the input of another, when both entries have a delay configured, (ii) allow logic combinations (**Section 4.1.5**). Up to 128 separate transfer flags can be used.

e. See **Section 4.1.4**.

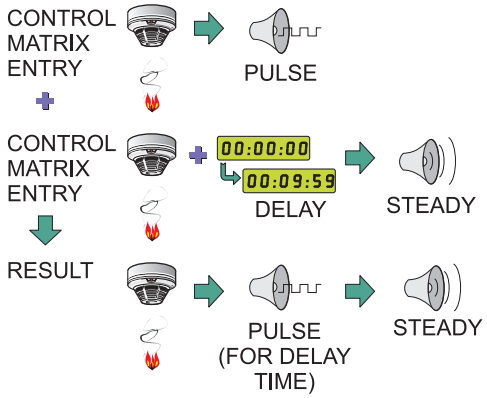
f. These outputs are only available if the input is NON-FIRE EVENT or TRUE.

g. These outputs are only available if the input is NON-FIRE EVENT.

OUTPUT MODES:



EXAMPLE USE OF PRECEDENCE RULES:



[1] With software v2.15, or later, and enhanced protocol-compatible sounders pulsing synchronization is a selectable feature.

Output Modes

Each output statement can be configured to operate in one of four modes. These give combinations of steady or pulse, immediate or delayed operation, where:

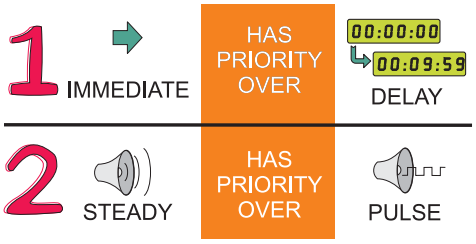
a. Delay is user-programmable up to 10 minutes.

b. Steady = continuous.

c. Pulse = either 1 second ON, 1 second OFF or the user-defined period (see **Section 2.4** Pulsing Sounder Modes) or configured OPAL sounder tones slots are selected. If two or more circuits are pulsing, the panel tries to synchronize[1] their operation.

Pulse and Delay are not available if the input is RESET or SILENCE/RESOUND.

If two Control Matrix entries try to set an output in two different modes at the same time, the following precedence rules apply:



In the example, one output is immediate pulse and the other delayed steady. The immediate pulse has priority over the delayed steady mode. At the end of the delay, steady has priority over pulse. The output is therefore in pulse mode for the delay time, then it changes to steady mode.

OPAL Protocol Sounder Devices

Tool software version 3.01, or later, supports advanced sounder devices with configurable sounder tones. Only OPAL loop protocol supports the configuration of these tones. When used on CLIP protocol loops the enhanced protocol-compatible sounders still function as described above.

Each sounder output can be configured to use:

a. One of 32 distinct tone patterns

b. One of three volume settings (LOW, MEDIUM or HIGH) configured using the device's DIP swiches.

A system may be configured to use only 8 of the 32 possible patterns offered.

These sounders are subject to precedence rules. Refer to **Section 4.3.2 Output Event** for details.

CAUTION:
This product is not compliant with EN 12094-1.
Fire extinguishing installations in Europe are required to be certified as compliant to this standard.

INPUT	OUTPUT	ASSOCIATED PARAMETERS
ALARM (zone or device)	Exting. System No. n	Release mode Delay Soak Time Co-incidence rules
NON-FIRE (device)	Exting. System No. n	Abort/Manual/ Off/Hold (mode)/ CO2 Reserve**/ Weight Loss**
Exting. System No. n	Individual Device	Before/after delay

** ID3000 only

4.1.4 Extinguishing System Function

4.1.4.1 Types of Control Matrix Entry

There are three types of Extinguishing System Control Matrix entry:

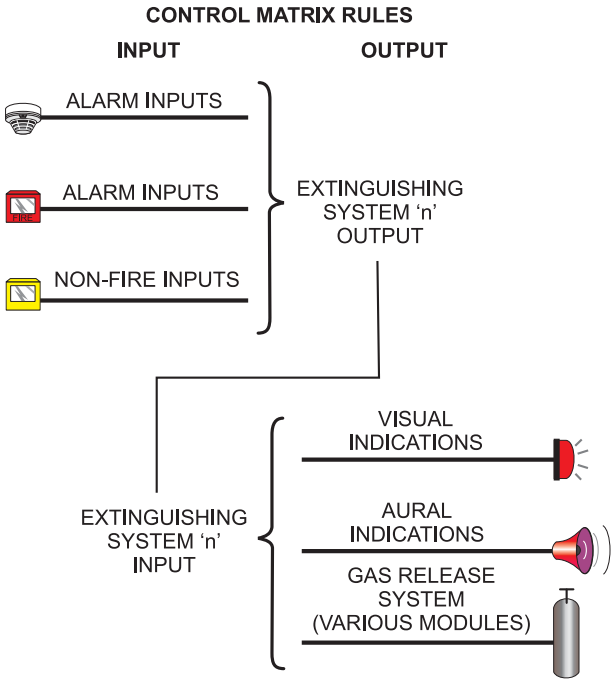
a. Alarm, used to initiate the release in response to a device or zone in alarm. Up to **32** separate Extinguishing Systems can be configured on a panel; the **output** of the alarm entry is a reference to one of these.

b. Non-fire, used to configure an Auxiliary module as a device type unique to Extinguishing Systems. The **output** of this entry is a reference to one of the 32 Extinguishing Systems.

c. Extinguishing, used to activate/deactivate a device in response to one or more alarm and non-fire entries. The **input** of this entry is one of the 32 Extinguishing Systems.

The 32 available systems work independently of one another and do not interact. However, it is possible to configure the same input device to influence two or more systems, or (less likely to be used) two or more systems to act on the same output device.

4.1.4.2 Minimum Configuration



A minimum configuration requires:

a. At least one Control Matrix alarm entry. If an AUTO/MANUAL ONLY switch is installed, at least two alarm entries will be required (one for the auto + manual case and one for the manual only case). If an IMMEDIATE release switch is provided, an alarm entry is required for this case also.

b. A Non-fire Control Matrix entry to define each Extinguishing System-unique switch on the system (e.g. Abort, Hold etc.).

c. An Extinguishing Control Matrix entry for each module that is activated/deactivated in response to the alarm and non-fire entries (e.g. sounders, strobes, direction valve, release module etc.).

More complex systems may require numerous rules, including alarm rules that do not have an extinguishing system as an output (e.g. a rule to activate sounders when sensors detect an alarm but the extinguishing system is set to OFF).

Use co-incidence rules to prevent non-fire devices activating the release when there is no alarm.

4.1.4.3 Device Selection

All modules that are required to activate a Non-fire Control Matrix entry must be configured as type AUX.

The Immediate release switch should be type MCP or MON.

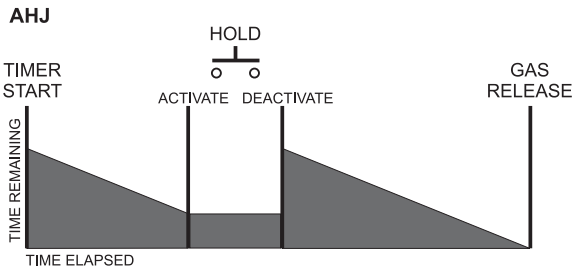
Control Modules used to activate the direction valve and the release valve MUST be configured as NON-SILENCEABLE.

All modules of type CTRL **must** be set to non-silenceable so that the panel's SILENCE/RESOUND pushbutton does not control the extinguishant release. Set their open-circuit supervision OFF.

4.1.4.4 HOLD Options

The HOLD switch may have one of four effects on the delay timer. Each effect has a three-character name:

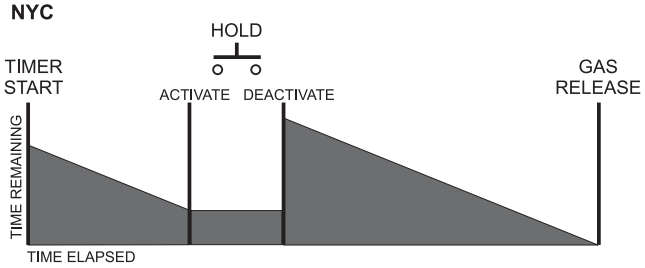
AHJ - When HOLD is deactivated, the timer starts again from its configured value.



To configure this mode:

1. Set non-fire to 'HOLD mode: RE-START or Extend Timer'.
2. Leave activation delay at the panel's default value (60 seconds).

NYC

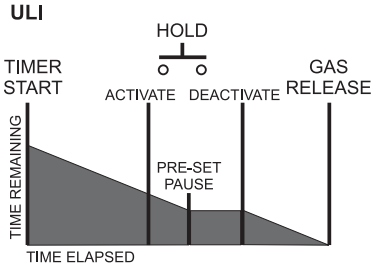


NYC - When HOLD is deactivated, the timer starts again from a length of time longer than its configured value.

To configure this mode:

1. Set non-fire to 'HOLD mode: RE-START or Extend Timer'.
2. Set activation delay to a period longer than the panel's default value of 60 seconds.

ULI

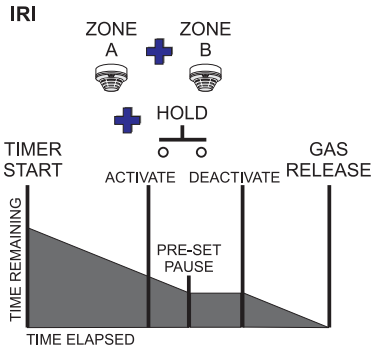


ULI - When HOLD is activated, the timer is paused at a configured number of seconds before release. When HOLD is deactivated the timer restarts from this pause time.

To configure this mode:

1. Set non-fire to 'HOLD mode: Run timer then PAUSE'.
2. Ensure the Alarm entries are 'Auto Release' or 'Manual Release' **without** 'Over-ride HOLD'.

IRI

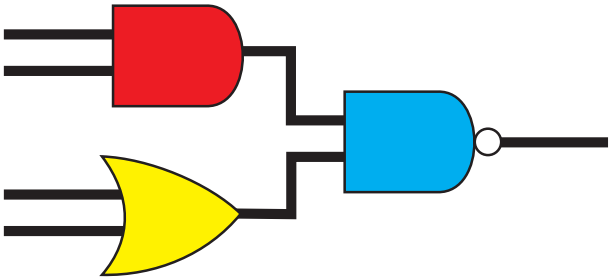


IRI - As ULI but HOLD switch activity is ignored if two or more zones are in co-incident alarm.

To configure this mode:

1. Set non-fire to 'HOLD mode: Run timer then PAUSE'.
2. Ensure the Alarm entries are 'Auto Release' or 'Manual Release' **with** 'Over-ride HOLD'.
3. Ensure Alarm entries have the 'Multiple Zone Coincidence' option selected.

4.1.5 Logic Operations with Transfer Flags



Logic Operations are a powerful enhancement to the Control Matrix. Check all entries carefully to avoid unexpected results.

A number of Control Matrix entries can be logically combined by using the same Transfer Flag number (range 1 to 128) in their **output** statement. The input statement must be Alarm, Pre-alarm, Non-fire (AUX), another Transfer Flag or TRUE. Any Control Matrix entries that have the numbered output Transfer Flag in their **input** statement are then activated in accordance with the logic combination. Example entries are given in **Section 4.1.5.1**. Input Transfer Flags can be from remote panels (ID^2net only, see **Section 6.3.2**).

If an output (whether referred to explicitly or by its inclusion in a zone, cell or device type) is controlled both by a Control Matrix entry that includes a logical operation **and** by an entry that does not include a logical operation, the effect is an implied 'OR' between these entries.

Restrictions on the availability and use of transfer flags:

a. If a Transfer Flag number has already been used for another purpose, it is not available for logic operations and all selections are greyed with Non-logic selected.

b. If a Transfer Flag number has already been used for a logic operation on another Control Matrix entry, it is not available for another purpose. The 'No Logic Relationship' option is not available.

4.1.5.1 Example Logic Operations

Precedence: All entries which have the 'AND' operator together with the inverse of all entries which have 'AND-NOT' are AND'ed together. The result is then OR'ed with all entries which have the 'OR' operator.

Note: The order in which the entries appear in the Control Matrix has no effect.

If any entries have an AND-NOT operator, there must be at least one entry with an AND operator using the same Transfer Flag.

Example 1 - **Outputs** in Zone 20 are activated if: **Inputs** in Zone 3 or Zone 4 are activated, or **inputs** in both Zone 1 and in Zone 5 are activated (Zone co-incidence) but **no inputs** in Zone 2 are activated.

The logic statement is:

(Zone 1 **AND** (**NOT** Zone 2) **AND** Zone 5) **OR** Zone 3 **OR** Zone 4 will activate Zone 20.

This example uses Transfer Flag 26.

Example 1 - Use of logic operations

INPUT STATEMENT	OUTPUT STATEMENT
Zone 1	Flag 26 [AND]
Zone 2	Flag 26 [AND-NOT]
Zone 3	Flag 26 [OR]
Zone 4	Flag 26 [OR]
Zone 5	Flag 26 [AND]
Flag 26	Activate Zone 20

Example 2 - Use of two Transfer Flags

INPUT STATEMENT	OUTPUT STATEMENT
Zone 1	Flag 26 [OR]
Zone 3	Flag 26 [OR]
Zone 4	Flag 26 [OR]
Flag 26	Flag 28 [AND]
Zone 2	Flag 28 [AND-NOT]
Zone 5	Flag 28 [AND]
Flag 28	Activate Zone 20

Example 2 shows how to use two Transfer flags so that 'OR' operations are performed before 'AND' operations. **Outputs** in Zone 20 are activated if **any input** in Zones 1, 3 or 4 is activated **in co-incidence with any input** in Zone 5, but **no inputs** in Zone 2 are activated.

The logic statement is:

(Zone 1 **OR** Zone 3 **OR** Zone 4) **AND** (**NOT** Zone 2) **AND** Zone 5 will activate Zone 20.

Note: This example uses Transfer Flags 26 and 28. The numbering of Transfer Flags has no significance other than to identify them.

Example 3 - Logic operations with delayed output

INPUT STATEMENT	OUTPUT STATEMENT
Zone 1	Flag 26 [AND]
Zone 2	Flag 26 [AND-NOT]
Zone 3	Flag 26 [OR]
Zone 4	Flag 26 [OR]
Zone 5	Flag 26 [AND]
Flag 26	[Delay 60s] activate Zone 20

Examples 3 and 4 show how to incorporate a delay (delays cannot be included in the same entry as the logical operation).

Example 3 is the same as Example 1 apart from the delay in activating the output, Zone 20.

Example 4 - Logic operations with delayed input

INPUT STATEMENT	OUTPUT STATEMENT
Zone 1	Flag 26 [AND]
Zone 2	Flag 26 [AND-NOT]
Zone 3	[Delay 60s] Flag 31
Flag 31	Flag 26 [OR]
Zone 4	Flag 26 [OR]
Zone 5	Flag 26 [AND]
Flag 26	Activate Zone 20

In Example 4 the delay is on the input, for Zone 3 only.

Example 5 - Input priority

INPUT STATEMENT	OUTPUT STATEMENT
Zone 21	Flag 1 [AND]
Zone 22	Flag 1 [AND-NOT]
Zone 23	Flag 1 [OR]
Flag 1	Flag 2 [AND]
Zone 24	Flag 2 [AND-NOT]
Flag 2	Activate Sounder Circuit 3

Example 5 shows how to arrange inputs (in this case zones) in priority:

i An input from Zone 21 activates sounder circuit 3, unless

ii There is an input from Zone 22, in which case the sounder circuit is turned off, unless

iii There is an input from Zone 23, in which case the sounder circuit is turned on, unless

iv There is an input from Zone 24, in which case the sounder circuit is turned off.

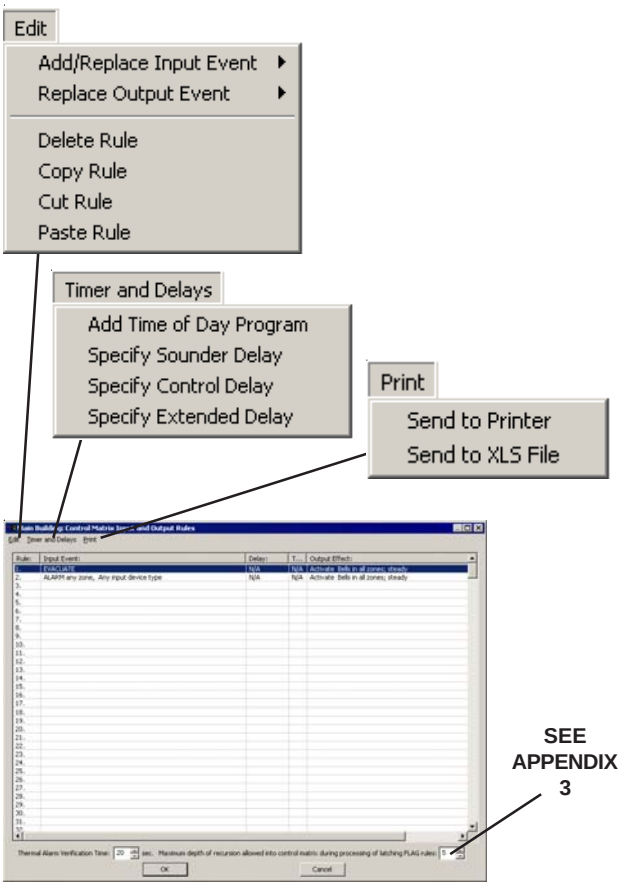
Thus Zone 24 has priority over Zone 23, which in turn has priority over Zone 22, which in turn has priority over Zone 21.

The logic statement is:

((Zone 21 **AND** (**NOT** Zone 22)) **OR** Zone 23) **AND** (**NOT** Zone 24) will activate sounder circuit 3.

An additional example is given in **Appendix 3**.

IF YOU DO NOT AMEND OR DELETE THE PANEL'S DEFAULT ENTRIES (**SECTION 4.1.1**), THEY WILL OVERRIDE ANY CREATED ENTRIES.



EDIT MENU APPLIES TO HIGHLIGHTED LINE. OPTIONS ARE ALSO AVAILABLE VIA THE RIGHT MOUSE BUTTON.

4.2 Review/Edit Control Matrix Entries

Select 'Control Matrix' from the System Parameters menu. The Control Matrix Input and Output Rules window is displayed. In the example opposite, the only entries are the defaults (see **Section 4.1.1**).

4.2.1 Review Entries

To view the existing Rules, either use the scroll bars or place the cursor in the Rule column and use the keyboard up and down arrow keys.

4.2.2 Amend/Create/Delete Entry

Highlight an existing rule (to amend or delete) or an empty line (to create a new entry). Select the appropriate option from the Edit menu:

a. Add/Replace Input Event, to change the rule's input or create a new rule. See **Section 4.3.1**.

b. Replace Output Event, to change the rule's output. See **Section 4.3.2**, which also describes the time-of-day and timer options.

c. Delete Rule, to delete the input and output.

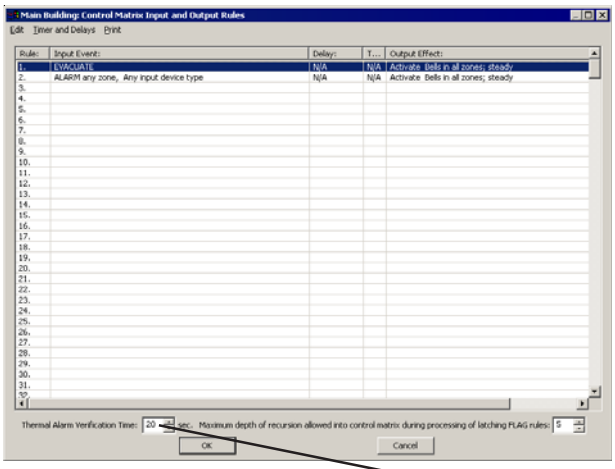
d. Copy Rule - use if an input or an output is to occur again in another rule.

Click OK to accept edited Rules, or Cancel to reject them. The Cut and Paste Rule options allow rules to be moved (for ease of reading. There is no effect on the Control Matrix operation).

4.2.3 Print Menu

The Print menu has options to print all rules, via a standard Print window, or to create a '.xls' file of the Control Matrix.

4.2.4 Thermal Alarm Verification Delay



If a Control Matrix Rule:

INPUT: Alarm
OUTPUT: Remote fire output *n*

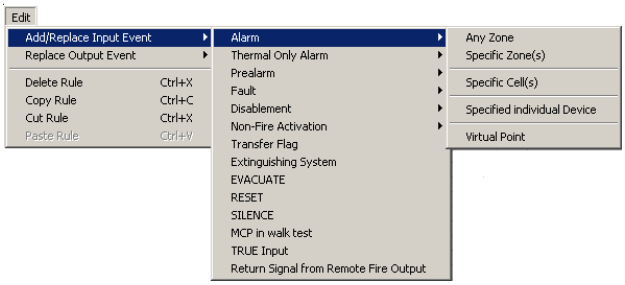
is used in conjunction with another Rule:

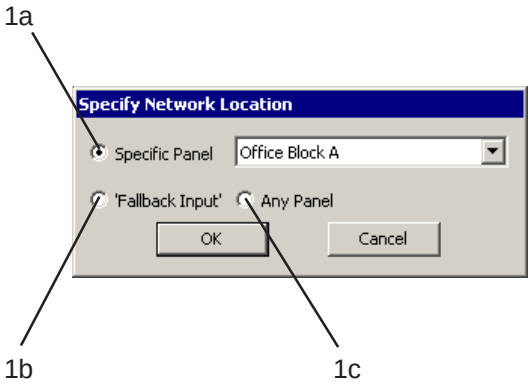
INPUT: Thermal alarm
OUTPUT: Remote fire output *n*

then the remote fire output is operated after the configured Day Mode delay unless the alarm is thermal, in which case the remote fire output is operated immediately.

However the thermal alarm remains subject to a verification delay. The verification time panel setting allows this delay to be adjusted from its default (20 seconds) to give the desired activation timing for the above Control Matrix requirement.

Note: By default, all input events are associated with the output 'All bells, all zones' until the output event is defined.





4.3 Defining a Control Matrix Rule

4.3.1 Input Event

The Alarm event is described in detail, followed by brief descriptions of each other event type. Options may not apply to all event types.

Alarm

Select whether the input is from Any zone, a Specific zone or range of zones, a Specific cell or range of cells, from a Virtual Input Point, or from an individual device. Appropriate windows are displayed in sequence.

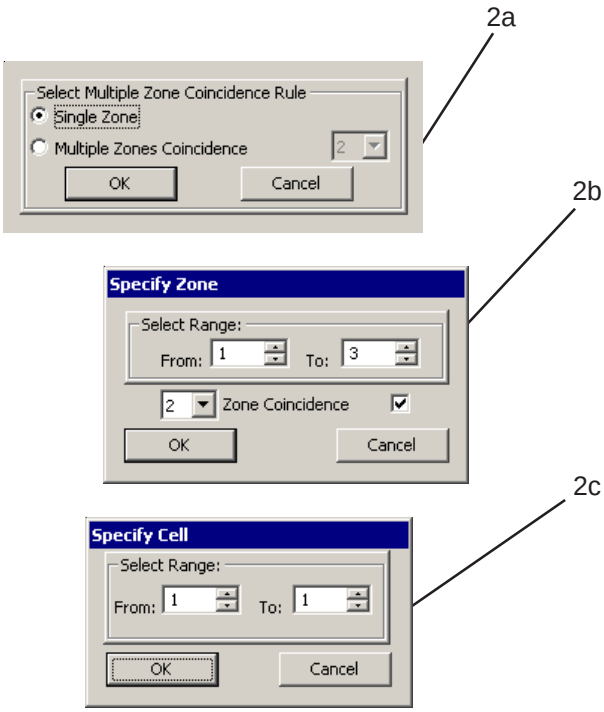
1 Specify Network Location. For network panels only, choose one of:

a. Specific Panel. From the drop-down list, choose the panel from which the input will be received. Available only if local zone numbering is used, or with network zones if 'Specific Cell(s)' or 'Specified Individual Device' is chosen (zone type is selected on the Specification tab, see **Section 2.1**).

b. 'Fallback Input'. Choose this if the Rule only applies when the panel has lost contact with part of the network (on Master/Slave network, only applies to Master panel, should it lose contact with fallback-configured Slaves). 'Specific Panel' is set automatically as being the local panel.'

c. Any Panel.

Then click 'OK'.



Multiple zone coincidence: for the Control Matrix entry to be valid, the number of coincident zones must not exceed the chosen zone range.

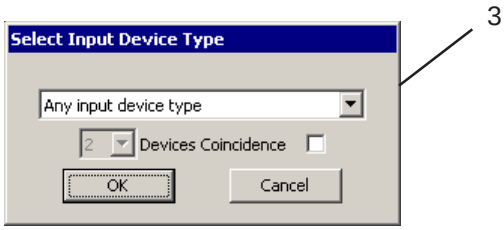
2 Specify Zone(s) or Cell(s), dependent upon the event chosen in step 1. Also allows Zone Coincidence to be set. Possible options are:

a. Any zone. The options are for the input alarm to be from a single zone only, or from the number of alarms selected in the drop-down list*.

b. Specific Zone(s). Allows the zone number or range (maximum difference of 32) to be selected. Also allows the number of zones that must be in coincident alarm to be set as in (a) above (if box is unchecked there is no coincidence).

c. Specific Cell(s). Maximum range is 32.

Note: *The available numbers of zones or devices are '2' plus those configured on the Alarm Coincidence tab (**Section 2.12**). Zone coincidence is only available for the input event type 'Alarm' and when Any zone or a range of zones is specified.



EN54-2: 7.1.4
CAUTION: Do not include MCPs in a coincidence group.

To avoid configuring MCPs into the coincidence group you must configure two separate Control Matrix Rules:

i) The first should define the MCP Device Type (e.g. Any Manual Call Point) without coincidence.

ii) The second should define an input Device Type (e.g. Any Analogue Sensor) with coincidence.

The use of zone coincidence and restricted-by-type in the same Control Matrix entry is not supported in the panel.

3 Select Input Device Type. Zones only - select whether the input device is of any type or restricted. Zones and cells - select the number of devices that must be in coincident alarm (for zones, must be in the same zone. For cells, may be in the same cell or across a range, as set in **Section 2.12)**. If box is unchecked there is no coincidence. Device coincidence is not available for zones if zone coincidence is already set.

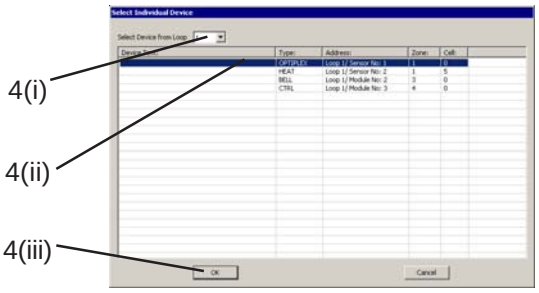
Note: If the 'Any zone' event is selected, then for device coincidence to occur the devices must either be in the same panel (or network) or be in the same zone, depending upon the ANY ZONE panel setting (**Section 2.12**).

Note: The following 'Input Device Type' options are provided for use with the Alarm input and the extinguishing system output, but are available for any Alarm input:

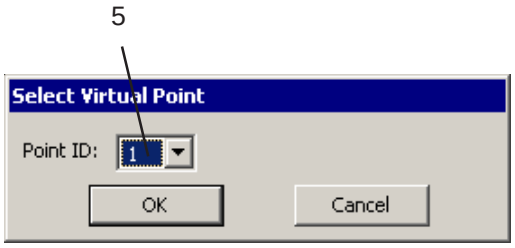
Smoke and Heat Sensor
Sensor and MCP
VIEW and Other Sensor

If any of these are chosen, Devices Coincidence is not available.

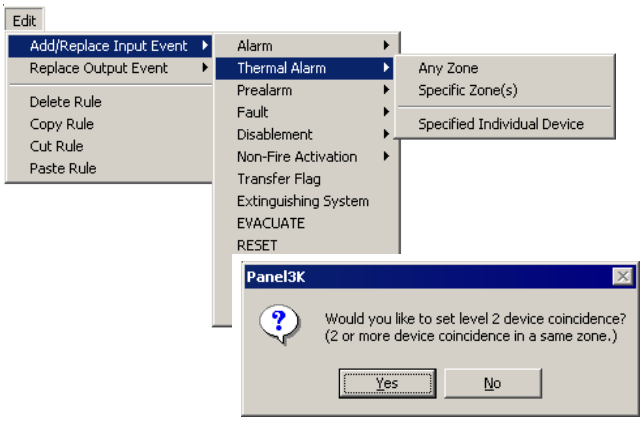
'Any Input device type' includes Virtual Input Points within the selected zone(s).



4 If the input event is Alarm, Specified Individual Device, then instead of the zone or cell selections the Select Individual Device window is displayed. (i) Choose the zone from the drop-down menu, (ii) highlight the required device and then (iii) click 'OK'.



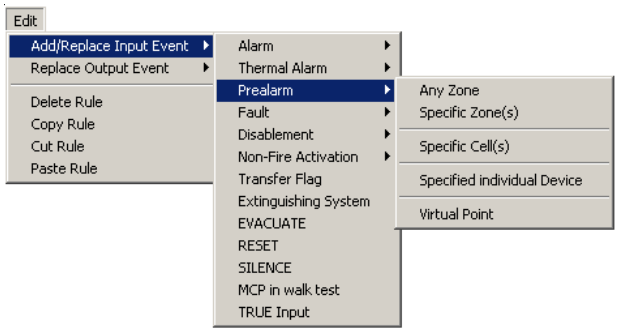
5 If the input event is Alarm, Virtual Input Point, then select the required Point from those available in the Select Virtual Point window and then click 'OK'.

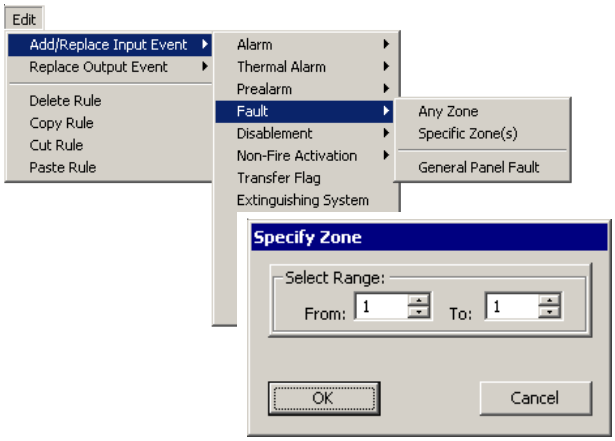


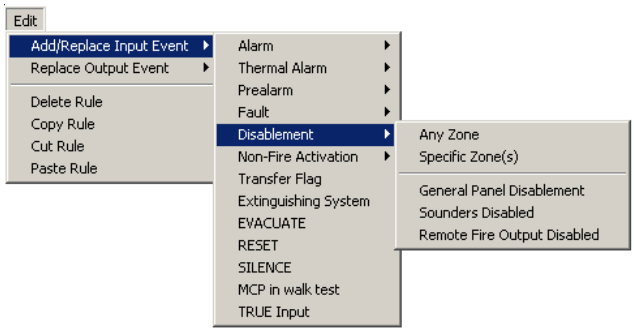
Thermal Alarm

These options apply only to Optiplex and SMART sensors. The input is active when a sensor detects a **thermal** alarm (any normal alarm rules configured for the active sensor will also become active). The sensors can be selected by zone (Any or specified) or by individual device.

The option to set 2-devices coincidence is then provided. Devices in alarm must be in the same zone or cell, or in a range of cells if this option is configured (refer to **Section 2.12**). Multiple device coincidence is not available.







Pre-Alarm

The options are similar to those available for Alarm, however:

a. Zone coincidence is not available.

b. Device coincidence is only available for two devices.

Fault

Select the source of the fault:

a. Any zone, which includes PSU, panel and system faults that are not attributable to a zone.

b. A specified zone or range of zones (there is no coincidence option).

c. General Panel Fault, which selects any fault as the input.

d. Virtual Input Point (future development).

Disablement

Select the source of the disablement:

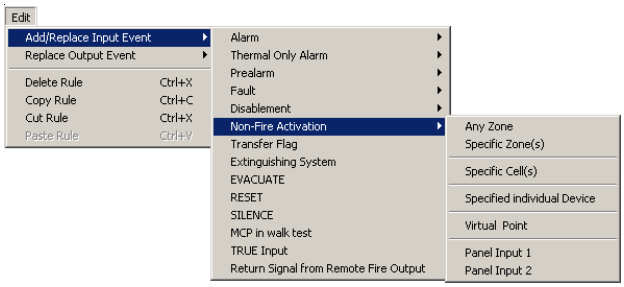
a. Any zone.

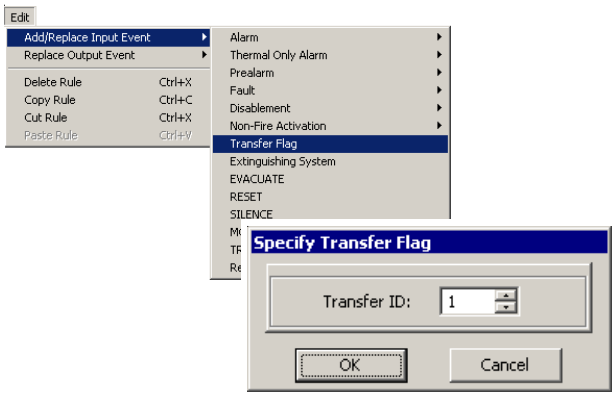
b. A specified zone or range of zones (there is no coincidence option).

c. General (any input or output that causes the panel's DISABLEMENT indicator to light).

d. A sounder circuit or remote fire output.

e. Virtual Input Point (future development).





Non-fire Activation

Select the required input:

a. Zone or cell or Any zone.

b. Individual device (restricted to devices of type AUX).

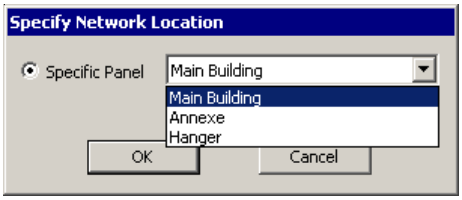
c. Panel input 1 or 2. On ID²net configurations only, the panel can be specified.

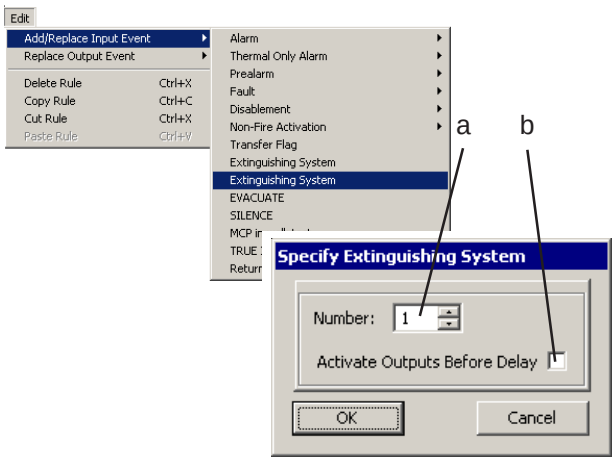
Zone and device co-incidence options are not available.

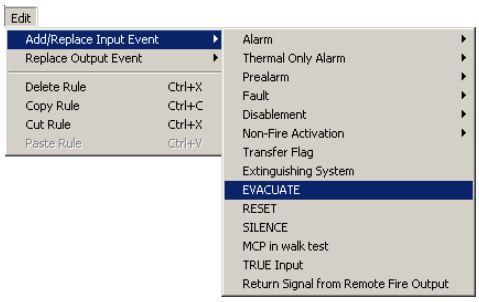
Transfer Flag

Select one of the 128 available transfer flags. These flags allow the output from another Control Matrix rule to be used as the input to this rule.

Note: If the panel is on an ID²net the Specify Network Location window is displayed. Select which panel the Transfer Flag is received from. The Specify Transfer Flag window is then displayed.







Extinguishing System

a. Select one of the 32 available systems.

b. Use the 'Activate Outputs Before Delay' check box to select whether the output action is to occur before (box checked) or after (box unchecked) the delay configured in the Control Matrix output statement. 'Before Delay' does not override the delay; it allows an output to be activated before the timer expires (e.g. use for warning lamps, sounders, and the directional valve). Use 'After Delay' for the releasing valve.

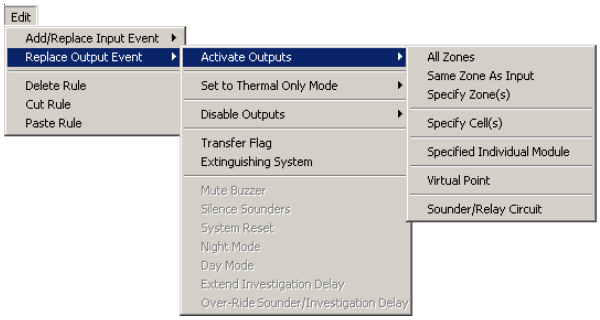
CAUTION:
This product is not compliant with EN 12094-1.
Fire extinguishing installations in Europe are required to be certified as compliant to this standard.

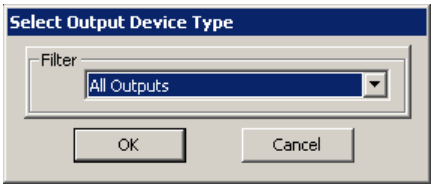
Evacuate, Reset, Silence, MCP in Walk Test, TRUE

These options require no further definition, except that Evacuate can be from Any panel or a specific panel.

Remote Signal from Remote Fire Output

In VdS mode, digital input 2 can be configured to provide a return signal from the remore fire signal routing equipment. With the panel function set to VdS mode activation of a fire alarm routing equipment return signal drives this indicator.





DEVICE TYPE: To use a module type 'CDI' as an output, use a standard CMX module rather than a CDI or ZMX; the type designation CDI is still used but is not literally true in this case. Set its Fire supervision off, which disables its normal function as a CDI input.

Do not use this configuration if a special operation, not covered by standard CDI configuration, is required. There is no need to create specific Control Matrix entries to reset standard CDI or ZMX modules. Instead, designate the modules as type CTRL and then individually link to RESET.

4.3.2 Output Event

The options available depend both on the output event and on the input event to which it is a response. The Activate output event is described in detail, followed by brief descriptions of each other event type.

Note: By default, when a new Input Event is created, the Output Event is set to Activate all Outputs in all zones, steady. This default should then be edited to create the required Output Event.

Sounder output options available also depend on the loop polling protocol selected: CLIP or OPAL.

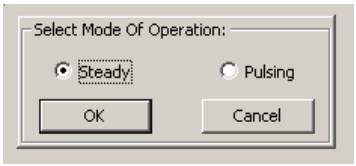
Activate Outputs

The following may be selected:

a. All zones. The output can be in any zone. Prompts allow selection of:

(i) Device Type. Select the required output type restriction from the drop-down list. If an output delay is to be imposed, the delayed outputs to sounders **must** be separated from delayed outputs to other kinds of output, therefore only select 'All Bells'.

Note: If 'All Bells' or 'All Outputs' is selected, then any Virtual Output Points within the zone(s) are included. In addition, if 'All Zones' are selected, the internal sounder circuits are included.



PULSING
'Pulsing' is **not** available for inputs: DISABLEMENT, SILENCE SOUNDERS, RESET, 'Any MCP operated in zone walk test' or Transfer Flag, nor for outputs: DISABLE, SILENCE SOUNDERS, MUTE Internal BUZZER, RESET, Set NIGHT mode, Set DAY mode, Extend Delays, End Delays, Transfer Flag, Set Thermal-only mode, or Extinguishing System.

OPAL Sounders/Strobes

The following options can be selected as part of a Control Matrix Rule:

a. Sounder(s) and strobe(s) – use the tone and volume configured by the DIP switches

b. Strobe(s) only

c. Sounder(s) only – use the tone and volume configured by the DIP switches

d. Sounder(s) only – use the tone and volume defined in one of the configured tone slot.

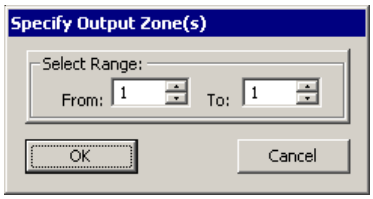
ii CLIP protocol. Either Pulsing [to pulse the output at either 0.5Hz or, if the device is so-configured (**Section 3.2.2**), at the slower, user-defined rate (**Section 2.4**)] or Steady [the output is continuous]. only.

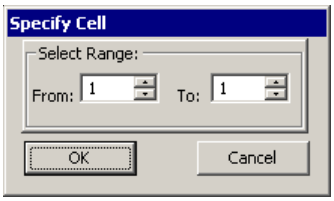
OPAL protocol. Up to 8 sounder output Tone slots can be configured (**Section 3.2.3**) to provide: steady, intermittent (pulsing) or sweep (frequency modulated) patterns.

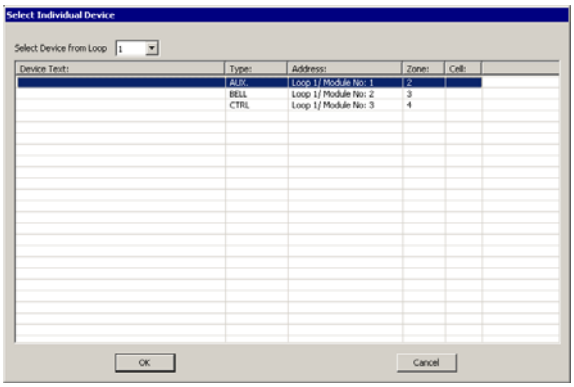
A situation may occur when there is a conflict of sounder output modes. In such cases, the panel software applies a set of 'precedence' rules, as described below, to ensure that such conflicts are resolved.

If two or more rules, all active, are configured to activate sounders in different modes then the precedence rules applied are as follows:

- Sounders Only and Strobes can operate fully independently of one another – they have no mutual precedence.
- All Custom Tone activations have precedence over Control Matrix option selections (a. and c. as listed at left).
- Custom Tones – the higher the Tone Slot number, the higher the precedence. It is recommended that the highest priority, i.e. most urgent, tone/volume is set as Custom Tone number 8.







b. Same zone as input. Input must be 'Any Zone' and is valid only if local zones are used.

c. Specify Zone(s). Use the spin buttons to specify the zone (both boxes set to the same zone) or range of zones (max. 32) to be the output.

d. Specify Cell(s). Select in the same manner as described in (c.) above for Zone(s).

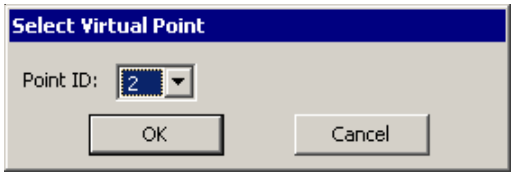
e. Specified Individual Module. Select device from those already configured on the selected loop.

LOOP BOOSTER(S)

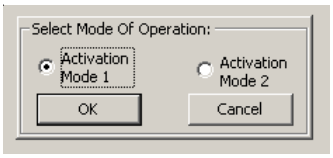
A Loop Booster can only be selected as an individual device if the input is Non-Fire Activation or TRUE and the output 'Action' is 'Disable'. If the Loop Booster's zone is included in an output the other devices in the zone are activated but the Loop Booster is not, even if the Device Type is set to 'All Devices'. Operation of the Loop Booster is controlled automatically by the panel and not by the Control Matrix rules.

INPUT MODULES

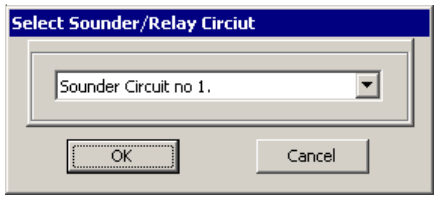
If you select an input module (e.g. an MCP) as an output, the Control Matrix action will only be to turn on that module's LEDs.



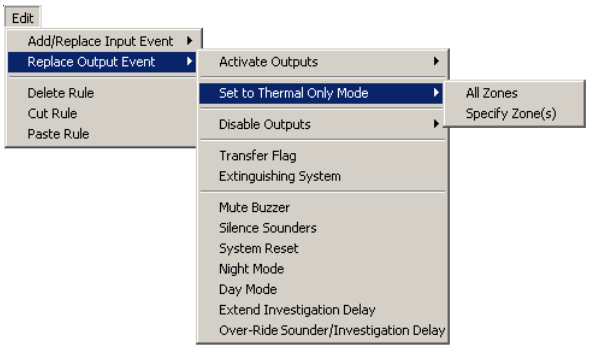
f. Virtual Output Point. Select the required Point from those available in the Select Virtual Point window.



Select whether the Virtual Output Point operates in mode 1 or mode 2.

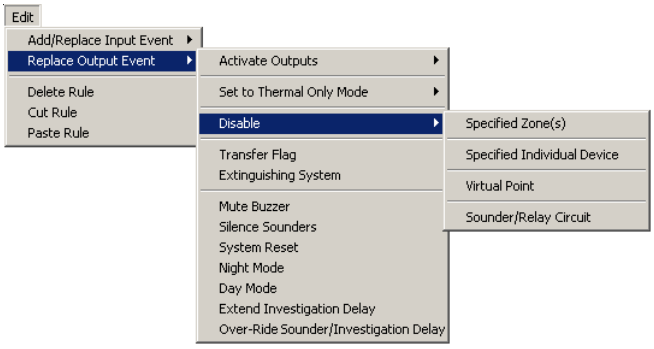


g. Sounder/Relay Circuit. Select the required circuit.



Set to Thermal-Only Mode

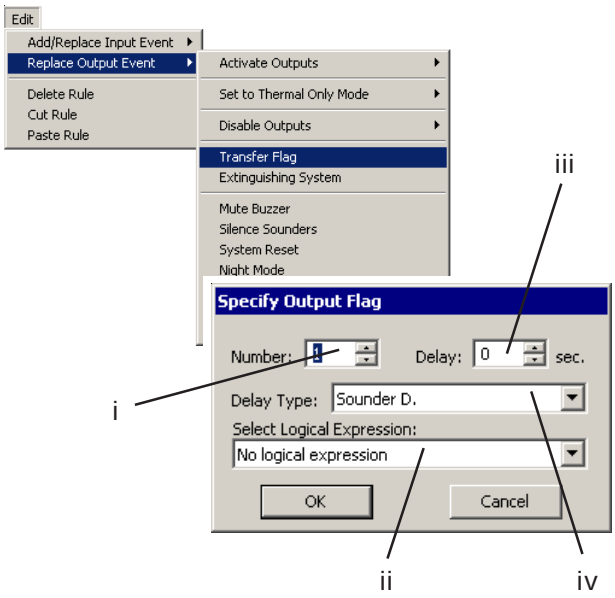
If the input is Non-Fire Activation or TRUE Input, configured Multi-criteria sensors (**Section 3.2.1.1**) in selected zone(s) are set to Thermal-Only mode L6 while the input is active. Not available for cells.



Disable

If the input is Non-Fire Activation or TRUE Input, the output or device is disabled by the event. There is no All Zones option.

Note: When 'disable zones' is selected for a Non-fire input, the devices that are disabled are those defined on the Disablements tab (**Section 2.8**).



SOUNDER DELAY - FURTHER INFORMATION. Select this option to delay any sounders from operating immediately, even if different sounders are scheduled to operate immediately on the same alarm. Do NOT select Sounder Delay if this timer is used only to change the mode of operation of the sounders (i.e. from pulsing to steady) in accordance with the precedence rules as described in **Section 4.1.3** sub-heading Output Modes; use Control Delay instead. **CAUTION -** Misuse of this option could render the system EN54 non-compliant.

Transfer Flag

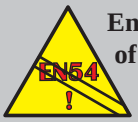
This selection is used to transfer the output of this Control Matrix entry to the input of another entry, when both entries have a delay configured. Also allows logic combinations of Control Matrix entries. **Section 4.1.5** describes restrictions on the use of transfer flags with logic operations.

i Set the Transfer Flag number, range 1 to 128.

ii Select the required use of the Transfer Flag, either 'No logical expression' or one of the available logic operators.

iii If 'No logical expression' is chosen for this Transfer Flag, use the spin buttons to set the delay time (maximum 600 seconds in 5 second increments, 0 = no delay).

iv From the drop-down list, select the type of delay: either Sounder Delay for delays that must be turned on by a user action at access level 2, or Control Delay for unconditional delays. There is also a Sounder Delays (Extendable) option - Control Matrix entries with this option set are cancelled when the panel's EXTEND DELAY (ID3000) or ACCEPT (ID2000) pushbutton is operated. **See the next page for further details.**

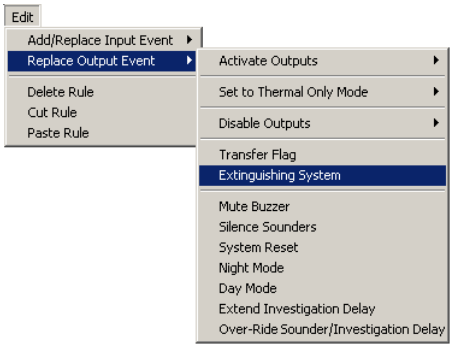


Ensure that the requirements of EN54 are complied with - see opposite.

Example Sounder Delay (Extendable)

INPUT	OUTPUT	DELAY
Any Zone	All Sounders	Sounder Delay 30s (Extendable)
Any Zone	All Sounders	Sounder Delay 10 minutes

In this example, if EXTEND DELAY (ID3000) or ACCEPT (ID2000) is not pressed within 30 seconds the sounders operate after that time. If EXTEND DELAY/ACCEPT is operated within 30 seconds, the sounders operate after 10 minutes. Both rules are cancelled by SILENCE SOUNDERS or RESET.

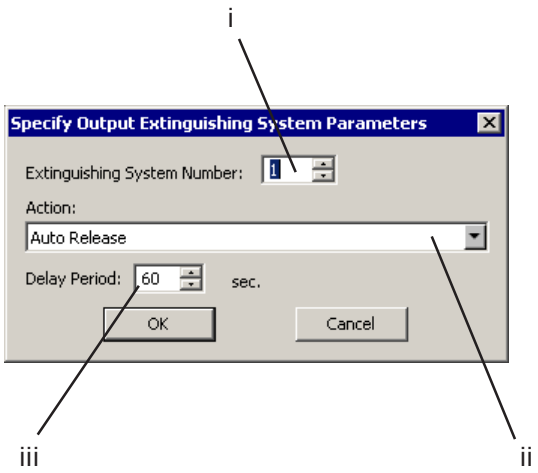


Note: Any Sounder or Sounder/Relay circuits that are configured as Remote Fire Outputs will **not** be delayed; the Day Mode function (**Section 2.9**) must be used to delay Remote Fire Outputs.

Extinguishing System

The available options depend upon whether the Input is **Alarm** or **Non-Fire Activation** - see the following pages for further information.

CAUTION:
This product is not compliant with EN 12094-1.
Fire extinguishing installations in Europe are required to be certified as compliant to this standard.



Immediate Release is for use during commissioning only and must never be installed in the manned room.

Extinguishing - if input event was alarm...

i Select which of up to 32 Extinguishing Systems the input applies to.

ii. Select the release mode for this entry (modes are listed below).

Auto Release - will apply when the sensors signal an alarm (Auto/Manual/Off set to Auto).

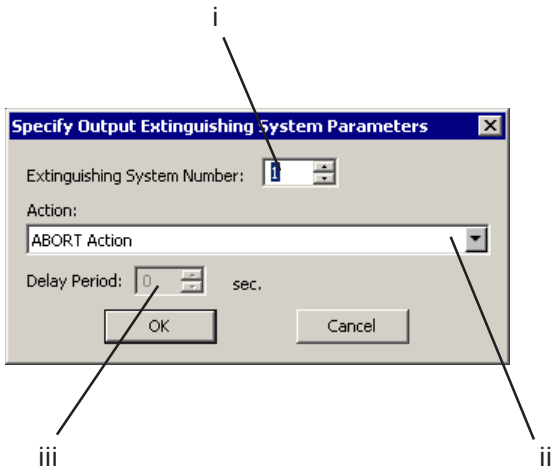
Manual Release - will apply when the Manual Release is operated (Auto/Manual/Off set to either Auto or Manual).

Immediate Release - will apply when the Immediate Release input is operated (release is immediate and overrides ABORT, OFF and HOLD - **see warning opposite**).

For any of these, if 'Soak Timer' is selected, the release will turn off after a delay (configured in the panel settings for all extinguishing systems), otherwise it will operate indefinitely (until the panel is reset).

For Auto Release and Manual Release only, if 'Over-ride' is selected, the release will override the HOLD input (for use with HOLD mode IRI, **Section 4.1.4.4**), otherwise the HOLD input will override the release.

iii Set the (control) delay before the output is activated (delay cannot be zero. Delay is not applicable to 'Immediate Release').



Extinguishing - if input event was non-fire...

i Select which of up to 32 Extinguishing Systems the input applies to.

ii Select the corresponding action from those listed below.

ABORT Action - Aborts the release.

Switch to MANUAL - Sets system to Manual Only.

Switch to OFF - Sets system to Off.

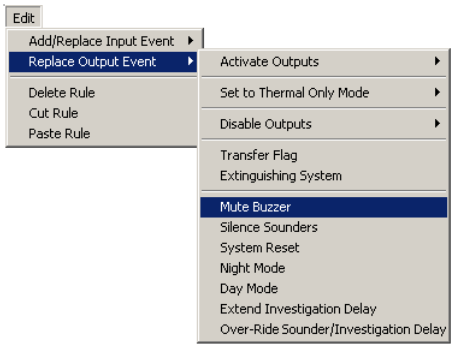
HOLD mode: RE-START or Extend Timer. Use with modes AHJ and NYC (**Section 4.1.4.4**). Timer is either re-started or extended when HOLD is released, depending upon the delay (step iii).

HOLD mode: Run timer then PAUSE. Use with modes ULI and IRI (**Section 4.1.4.4**). Timer is paused when HOLD is operated, and resumes when HOLD is released.

ID3000 only: Indicate RESERVE CO2 Selected. The LCD displays 'Reserve CO2 Bank Selected'.

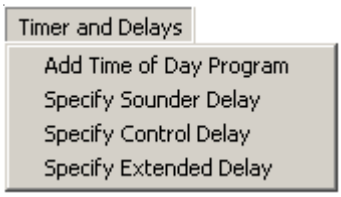
ID3000 only: Weight Loss. The LCD displays 'Extinguishant WEIGHT LOSS Indicated'.

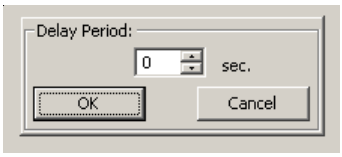
iii If the input was Non-fire with Hold mode: RE-START or Extend Timer', set the (control) delay before the output is activated; either leave at the 60 seconds default for HOLD mode AHJ, or set a greater value for mode NYC (delay cannot be zero).



Mute Buzzer, Silence Sounders, System Reset, Night Mode, Day Mode, Extend Investigation Delay and Over-Ride Sounder/Investigation Delay

These options are only available if the input is Non-Fire Activation.



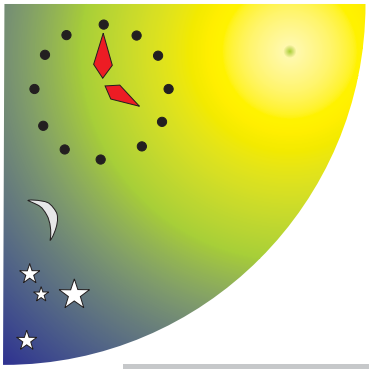


Time of Day and Delays

If a time-of-day period is required during which the Control Matrix Rule does **not** take effect, select 'Add Time of Day Program' and edit the required time-of-day period as described in **Section 5.3**.

To delay the output, select the required type of delay (**see the Transfer Flag description**) and then enter the delay time.

Note: Delay is not available for the following inputs: DISABLEMENT, TRUE, SILENCE SOUNDERS, RESET, Any MCP operated in walk test, Extinguishing or NON-FIRE EVENT, nor if the output is specified as 'Same Zone as Input'.



EN54-2: 9.1.2 Disablement and re-enablement MUST be a manual operation.

Start time earlier than end time = DAY period.

Start time later than end time = NIGHT period.

Start time and end time both 00:00 = period not in use.

Start time same as end time but NOT 00:00 = special program for use with manual override (see **Section 5.2**)

5 Time-of-day Configuration

5.1 Introduction

A Time-of-day (TOD) program allows the following functions to operate in a time-dependent manner:

a. Sensor sensitivity (**Section 3.2.1** step 11).

b. Control Matrix actions (**Section 4.3.2**).

c. Cancelling all disablements on the panel (non EN54-2 compliant) (**Section 2.8** step 4, or **Section 2.9** step 4 for Day Mode).

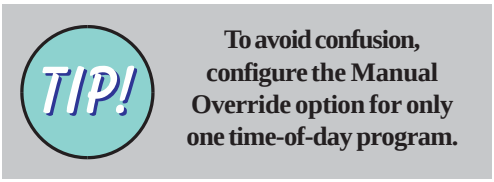
The panel can be configured with up to seven TOD programs which operate independently of each other. Only one program can be applied to any one sensitivity or action.

A typical TOD program consists of one or two daily periods specified by start and end times, with an optional alternative for weekends. Ensure that there is no inconsistency between weekend and weekday times. If the TOD program is used to cancel all disablements, start times are irrelevant and so are omitted.

To specify a 'complete' 24-hour period, split the 24 hours into two parts, e.g. one from 00:00 to 12:00 and the other from 12:00 to 00:00.

The times in different TOD programs may overlap each other but this is not recommended.

5.2 Manual Override



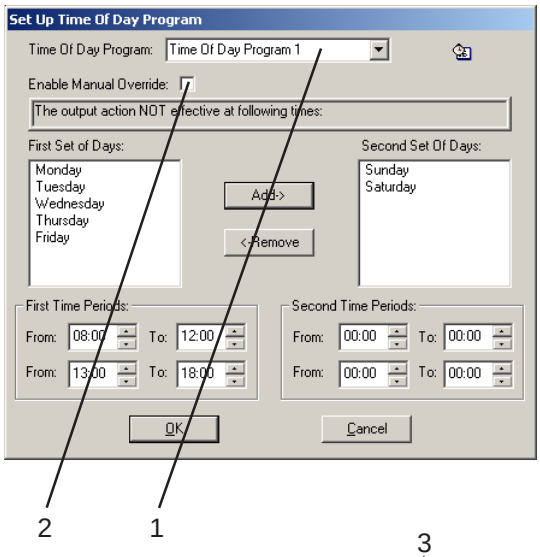
If manual override is configured for the TOD program, the action of the program can be reversed by the operator at the panel.

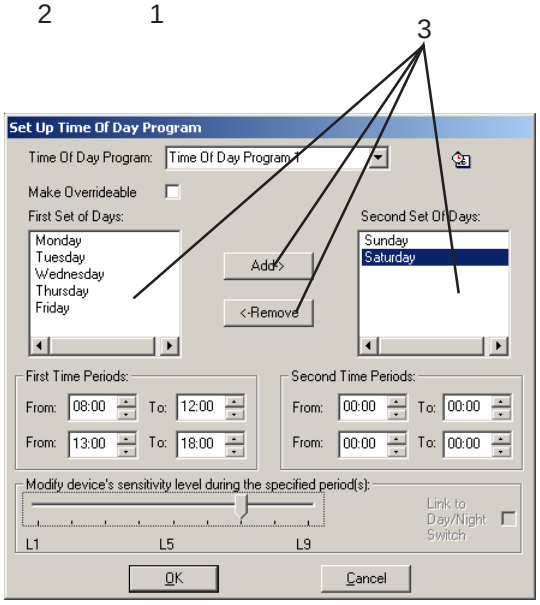
Special Case

If identical non-zero start and end times are set and manual override is configured and is then operated, the TOD program becomes active. Associated Control Matrix actions are then suppressed until the time next reaches the start/end time, on the same day or the next day. (If manual override is not configured, the TOD program remains permanently disabled.)

Disablement/Enablement Override

Manual override can be used to enable a one-shot advance on the next programmed change-over time for disablement/enablement. For example, if a zone is disabled using TOD from 21:00 to 19:30 and manual override is operated at 20:00, the zone will be enabled and not be disabled again until the following day at 19:30.





5.3 Editing Procedure

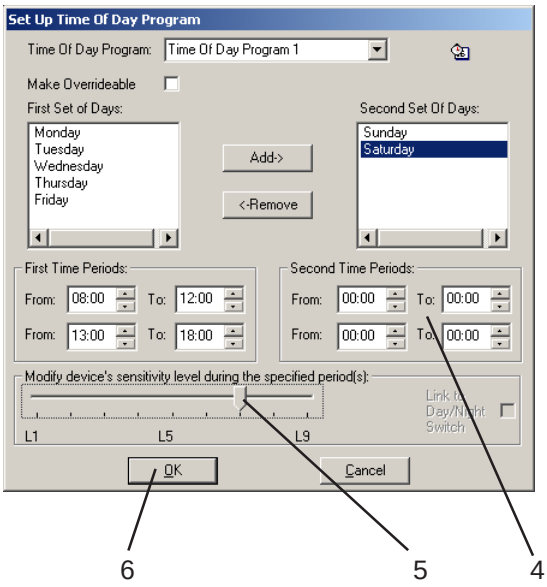
The Set Up Time of Day Program window allows an existing TOD program to be selected for use with the parameter (e.g. sensor sensitivity) being configured. It also allows the TOD program to be edited, or a new TOD program to be created (i.e. edit a TOD program which has nulled parameters). The window's layout varies dependent upon the parameter being configured (top illustration shows disablement, bottom shows sensor sensitivity).

To select or edit/create a TOD program:

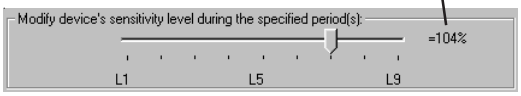
1 From the drop-down list, select the TOD program. If no changes are required, go to step 6. To edit/create, follow steps 2 to 6.

2 Check the Make Overrideable box if manual override is to be available for this program, otherwise leave unchecked.

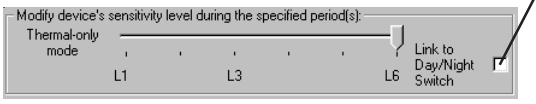
3 By default all days are listed in the left hand 'First Set of Days'. To move days between the 'First' and 'Second' sets, select the day to be moved, then click Add (to go from 'First' to 'Second') or 'Remove' (to go from 'Second' to 'First'). For example, 'First' can be used for weekdays and 'Second' for weekends.



ID2000 only. The panel displays the sensitivity of analogue sensors (except VIEW and MULTI) in percentages. The percentage equivalent to the currently-selected TOD-modified level is shown at the right of the slider.



Optiplex only. See box opposite.



4 Use the spin buttons to set the required start and end times for each set of days. Use the keyboard arrow keys (or click the mouse in the appropriate area) to select whether hours or minutes are affected by the spin buttons. The minutes are automatically adjusted to the nearest ten. See **Section 5.1** for further information.

5 If the TOD program applies to a sensor, use the slider to set the device's sensitivity level during the specified period. The sensitivity level set in **Section 3.2.1** is used outside of the specified period.

6 When all TOD program parameters have been entered, click OK to finish.

Link to Day/Night Switch

Any sensor can be configured such that sensitivity reduction is controllable at the panel's Day Mode switch. In the Time-of-Day program, set the sensitivity but leave **all** times at '0'. Check the 'Link to Day/Night Switch' box. (Do not set a TOD program specifically for this device, it would conflict with the Day/Night mode selection process. A TOD program can be set for Day/Night mode as described in **Section 2.9)**.

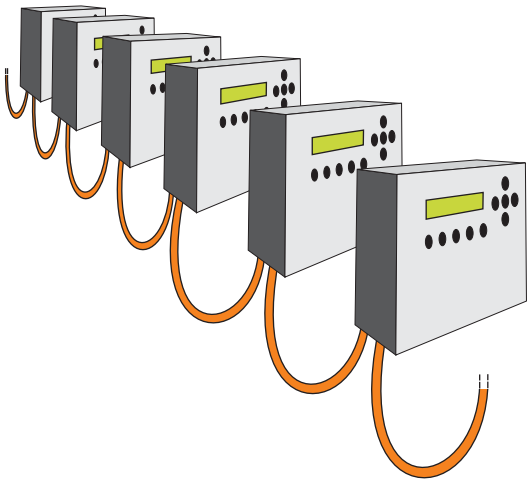
Multi-criteria sensors with Themal-Only mode

L6 can be invoked either by the Time-of-Day program or by the Link to Day/Night Switch (see above).

Note: Although it is possible to configure L6 as alarm and set a higher level in step 5, this is not recommended since any day/night linkage will operate the wrong way round.

6 Network Configuration

Note: References in this Section to ID²net, VdS mode and network zones **apply to ID3000 only**.



6.1 Introduction

The Tool can be used to configure two different types of network:

a. MASTER/SLAVE. This is described in **Section 6.2**. One Master panel communicates with up to 31 other stations on the network, of which up to 7 can be other panels. In the special case where there are no other panels, the Master is known as a Standard (Standalone) panel.

b. ID²net Peer-to-Peer. This is described in **Section 6.3**. Panels can be assigned to the first 32 station addresses in a non-filtered environment **or** the first 63 addresses with filtering. Repeaters can be assigned to any address with or without filtering. Also, up to 31 repeaters can be connected directly to the panel which they are repeating (i.e. they are **not** connected via the network).

   The ID²net Peer-to-Peer network can support network event message filtering, with panel software version 4.51, or above.

The two types of network are incompatible, i.e. all panels in the network must be configured for the same type.

6.2 Master/Slave Network

6.2.1 Introduction

The network consists of **one** Master panel, a number of Slave panels and a number of repeaters. These are collectively known as 'stations'. Up to 32 stations may be connected, subject to the following restrictions:

a. There must be one Master panel. This has overall control of the network; it receives all networked messages from the Slave panels and its configuration determines how these are acted upon and redistributed.

b. Up to seven Slave panels. These have independent control of their own loop and report any local events to the Master panel.

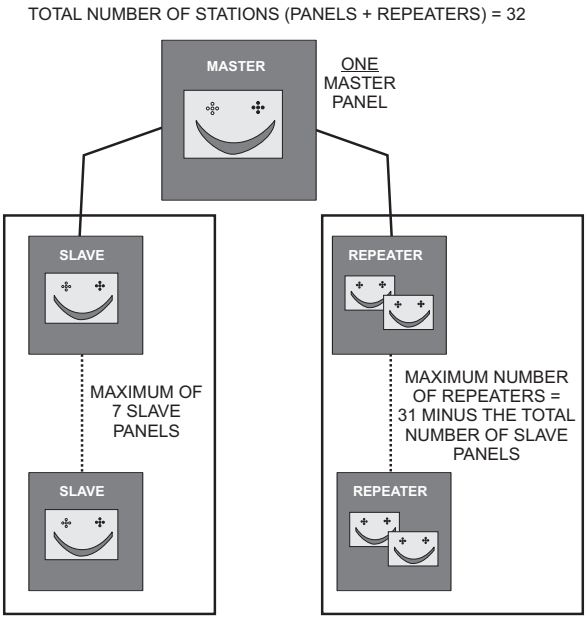
c. Up to 31 repeaters, provided that the total number of stations does not exceed 32 (i.e. if there are three Slaves then up to 28 repeaters can be connected).

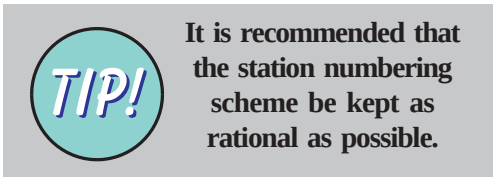
Each station has a station number in the range 0 to 31. The master is always station 0 and the slaves are in the range 1 to 7.

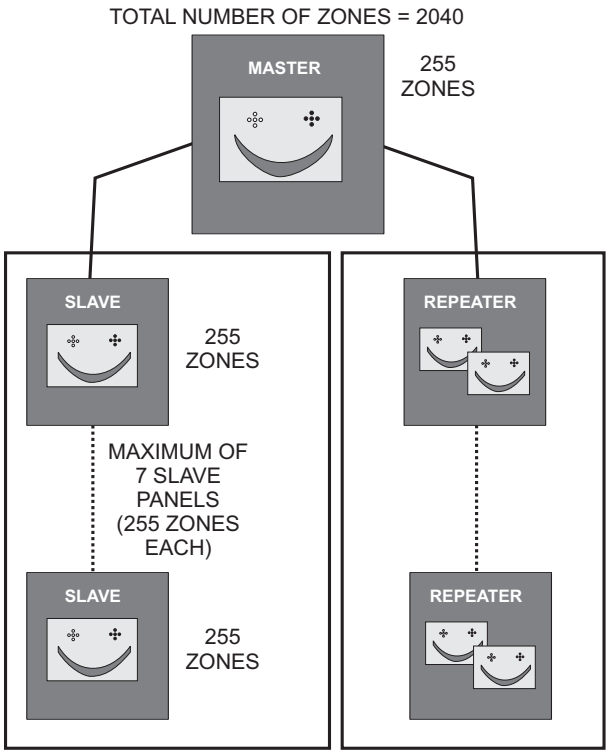
The repeater must be associated with the panel which it is to repeat. Repeaters can be associated with panels in any order and two or more repeaters can be associated with the same Slave panel.

Stand Alone

If the network has just one panel and a number of repeaters, the panel's station type is 'Standard' instead of 'Master'.







Number of zones on network

There are two types of zone numbering available on the Master/Slave network, available in both Standard and VdS modes:

a. Local.

b. Network.

Local

The maximum number of zones on a network is 2040, made up as follows:

a. One Master with 255 zones.

b. Up to 7 Slaves with 255 zones each.

The zones are numbered in the range 1 to 255 for each panel.

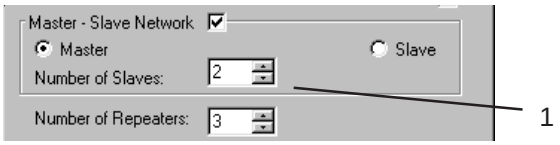
If zone indicator lamps are fitted, they only indicate the status of that panel's zones.

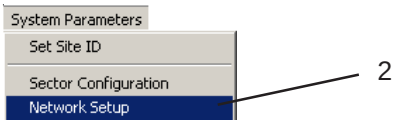
Network

The maximum number of zones on a network is 2040, made up as described for Local. However, the zones are numbered in the range 1 to 8192 across the network. Each number must be unique on the network. The panel has an internal software table which maps the network zone number to its internal zone number (1 to 255).

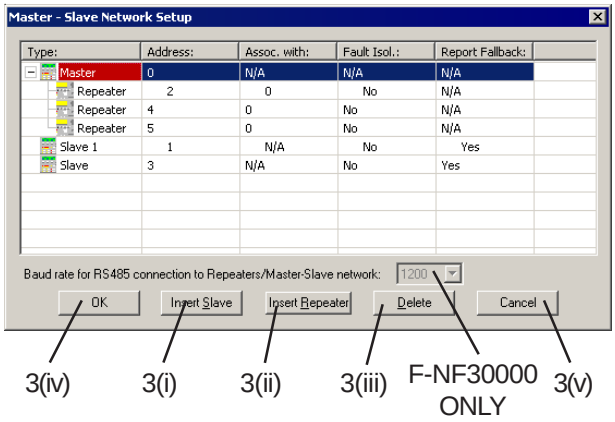
If zone indicator lamps are fitted, they indicate the status of the network zone numbers up to a maximum of 256; higher numbers are NOT indicated.

Note: The special case of a Stand Alone panel (with or without repeaters) is configured solely at the Specification Tab.





Slaves for which a panel name is displayed: THESE NAMES ARE OVERWRITTEN if a received Slave configuration has different (or no) names. To retrieve the correct names, re-open and save each of the Slave configurations.



6.2.2 Procedure

To configure the panel for Master/Slave network operation, do the following for the Master (the Tool creates the data for Slaves automatically):

1 At the Specification Tab (**Section 2.1**) configure the number of Slaves and repeaters on the network.

2 Select 'Network Setup' on the System Parameters menu. The Master-Slave Network Setup window is displayed with a tabular view of the Master and Slaves. To view the repeaters, click on the '+' to the left of the panel graphic (or click on '-' to hide the repeaters). All repeaters are initially shown below the Master (see step 5). Slaves for which a panel has already been configured are shown by their panel name, others are just shown as 'Slave'.

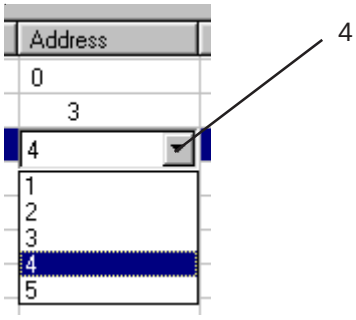
3 The network configuration can be modified in the Network Setup window (subject to the limits given in **Section 6.2.1**). Use the cursor to highlight one of the panels, then:

i Insert Slave. A Slave panel is added at the end of the table.

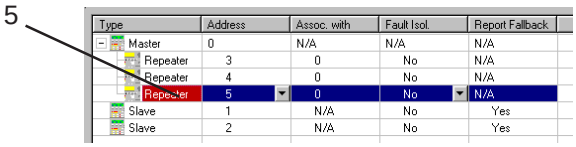
ii Insert Repeater. A Repeater is added at the end of the list of Repeaters for the panel.

iii Delete the highlighted panel or repeater (the 'Delete' key on your PC also does this).

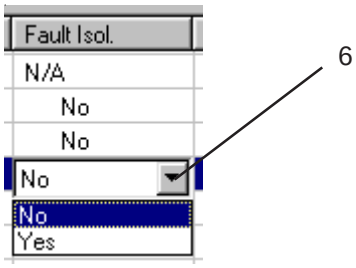
iv OK to save changes [or Cancel (v) to discard them].



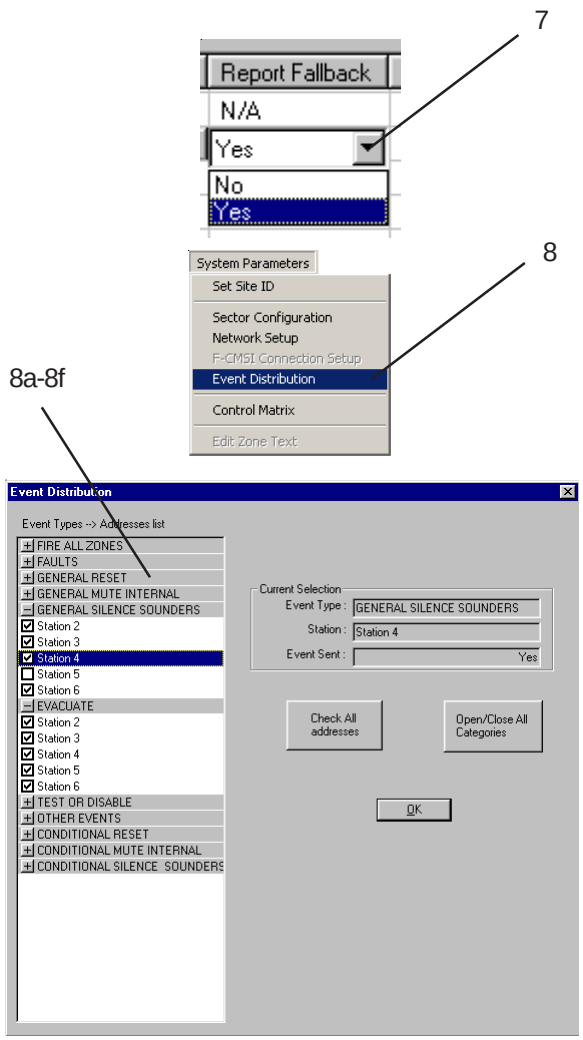
4 To change the address of the highlighted panel or repeater, select an address from the drop-down list. The existing address is swapped with that of the panel/repeater currently using the selected address. The maximum address available depends upon the number of stations currently configured (so do step 3 first). Addresses are subject to the restrictions given in **Section 6.2.1**.



5 The display shows repeaters as a sub-list below the panel being repeated (the repeater/panel relationship is known as 'association'). To change the association, select the repeater and drag it to the required panel.



6 Select Fault Isolation 'Yes' or 'No' (by default, a fault is indicated if there is a communications failure between the Master and a station on the network. To prevent this [e.g. if only part of the network is installed], select 'No' for that station).



EVENTS ARE NOT DISPLAYED UNTIL A MASTER-SLAVE NETWORK IS CONFIGURED

7 Select Report Fallback 'No' or 'Yes' (by default, if the Master loses communication with a Slave panel then any Control Matrix Rules for which 'Fallback Input' is selected [see **Section 4.3.1**] will be invoked when their input statement becomes true. To prevent this for a specific Slave panel, select 'No' for that panel).

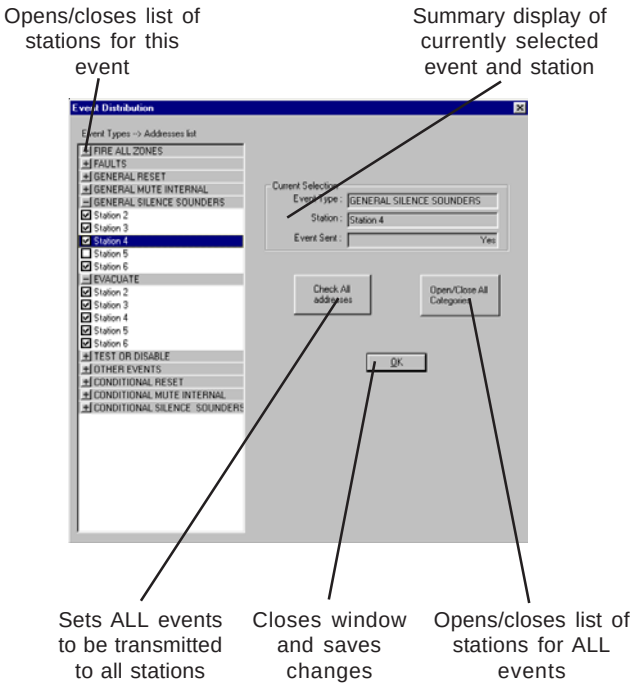
Note: Station Names are configured automatically from those entered on the Specification Tab (**Section 2.1**) for the Master and each Slave.

Event Distribution (ID2000 Master/Slave only)

8 For each event that is transmitted on the network, select (check box) which station(s) it is sent to from the panel at which it occurs. By default, all events are sent to all stations. **It is unlikely that this will need to be changed**; if you do so, note:

a. Events sent from a Slave (to another or to a repeater) have to be sent to the Master also.

b. Pushbutton events except Evacuate have 'Conditional' and 'General' options. If both options are sent, the pushbutton has effect regardless of the origin of any alarms or faults. If only 'Conditional' is sent, the control has an effect at the other panel only if the the alarm or fault originated at the panel at which the pushbutton was pressed and there are no alarms or faults originating at any other panel. It is not meaningful to send only 'General'.



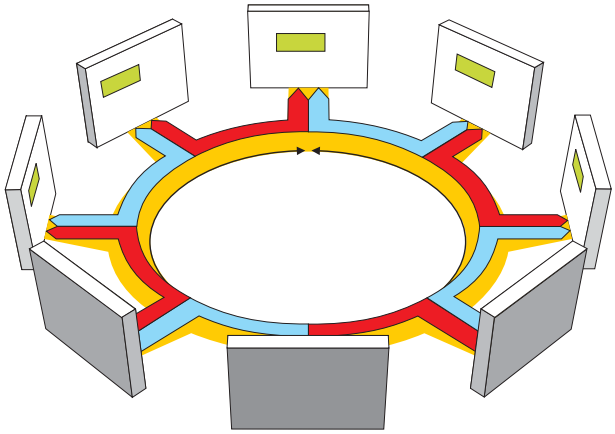
Zones 65 to 80 event distribution is set automatically to that configured for zone 1.

c. FAULTS/AUX EV. refers to all possible faults that can be detected by a panel, including Power Supply Fault and System Fault. This entry must also be enabled to allow the control matrix in other panels to use AUX device inputs and Pre-Alarm events.

d. TEST/DISABLEMT., when set, allows a walk test to be set up at a panel other than that at which the pushbutton is pressed. It also allows zones to be enabled/disabled at a remote panel, but only from the Master.

e. OTHER EVENTS covers events other than those in b. - d. above; for example, transmission to another panel to allow recording on a printer installed at that panel. Use caution when enabling this option; increased network usage may cause communications problems.

f. Fire in Zone(s). This can be done for all zones (copied automatically into the individual zone entries) or differently for each of zones 1 to 64 (the all zones entry then becomes invalid). The ID2000 may be configured with up to 80 zones - the distribution for zones 65 to 80 is set automatically to that configured for zone 1. BE AWARE OF THIS WHEN CONFIGURING ZONE 1.



MASTER/SLAVE TO ID²NET CONVERSION

Always start with Slave 1 (change to ID²net on Specification Tab then Save), then Slave 2 and so on in order - do the Master last. This ensures that Slave 1 becomes Panel 1, Slave 2 becomes Panel 2 etc. The Master becomes Panel 8. Most of the Control Matrix input statements then continue to refer to the correct panel. **However,** 'Fallback' rules (which on Master/Slave always apply only to the Master) will continue to refer to Panel 0 (meaningless on ID²net) instead of Panel 8. These rules must be deleted. New 'Fallback' rules can be configured if desired.

6.3 ID²net Peer-to-Peer Network

6.3.1 Introduction

This network is fault-tolerant and provides the transmission path integrity required by EN54-2: 12.5.3.

Up to 125 stations can be networked in a loop. Panels can be assigned to the first 32 station addresses in a non-filtered environment **or** the first 63 addresses with filtering. Repeaters can be assigned to any address with or without filtering.

See overleaf and **Section 6.3.3 Sector Configuration** for more details on filtering.

Each station has two independent peer-to-peer networks, one to either adjacent station (see illustration at left). A token-passing protocol is used. Both nodes on a network have the same status, but the one with the token is **temporarily** the master and has the authority to transmit. Thus there is no requirement to configure a panel as a master or slave.

Each panel has an address on the network. The addresses do not have to be sequential, and gaps are allowed.

Up to 31 repeaters can be connected to a panel via its Isolated RS485 port. These repeaters can only repeat the panel to which they are physically connected.

Network Event Filtering

With Configuration Tool software version 2.14, or above, ID²net network status message and control action filtering is available as a configurable option. This feature allows the network to be partitioned so that control panels and repeaters located in each geographical area (sector) respond only to events and control actions raised within its own sector; all other network events and control actions are filtered out, i.e. ignored.

A maximum of 63 sectors can be configured on an ID²net network.

Note: An ID²net network can support up to 63 panels in a filtered environment providing a limit of 32 panels per sector is imposed.

The system allows control panels to be configured as 'supervisors' if they are required to display network events or respond to control actions in one or more specified other sectors, in the same way that any node behaves on a non-filtered network.

Repeaters cannot be configured as supervisors.

This feature is not available for Master/Slave networks.

Refer to **Section 6.3.3** for configuration details.

Number of zones on network

There are two types of zone numbering available on the ID²net, available in both Standard and VdS modes:

a. Local.

b. Network.

Local

The maximum number of zones on a network is: 32 panels x 255 zones per panel = 8160.

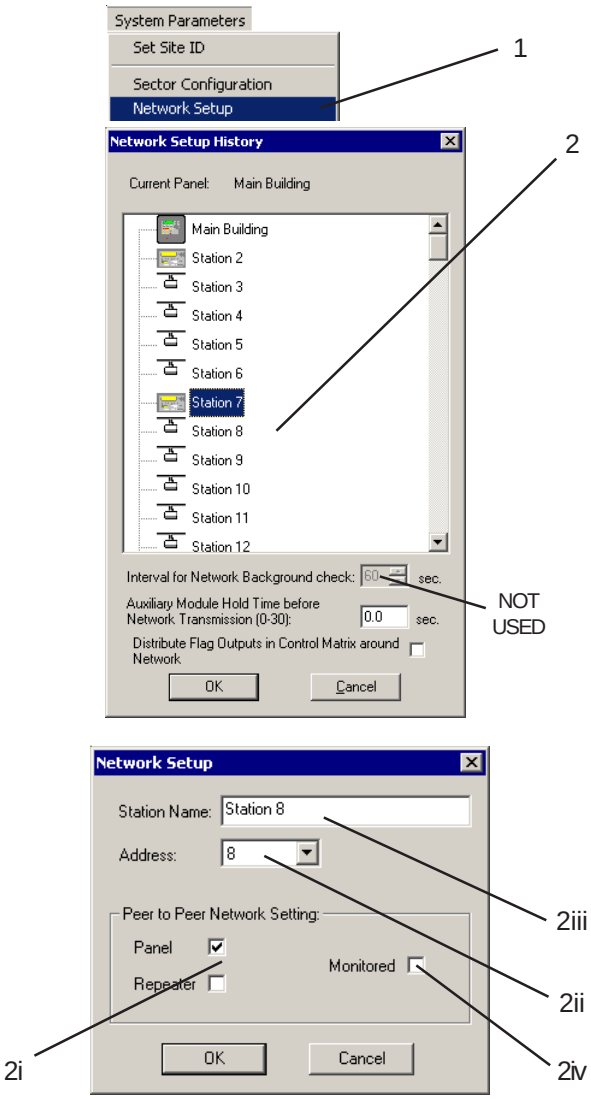
The zones are numbered in the range 1 to 255 for each panel.

If zone indicator lamps are fitted, they only indicate the status of that panel's zones.

Network

The maximum number of zones on a network is 8160, made up as described for Local. However, the zones are numbered in the range 1 to 8192 across the network. Each number must be unique across the network. The panel has an internal software table which maps the network zone number to its internal zone number (1 to 255).

If zone indicator lamps are fitted, they indicate the status of the network zone numbers up to a maximum of 256; higher numbers are NOT indicated.



6.3.2 Procedure

To configure the panel for ID²net network operation, do the following:

1 Select 'Network Setup' on the System Parameters menu. A graphic illustration of the network is displayed. A 'Station' may be a panel, a repeater, or unused - the corresponding icon is shown. Station addresses cannot be set to 'panel' for addresses above: 32 (without filtering) or 63 (with filtering).

2 Each **panel** is configured automatically on the network when its own configuration is saved. To edit a station, double-click it to display the Network Setup window for that station:

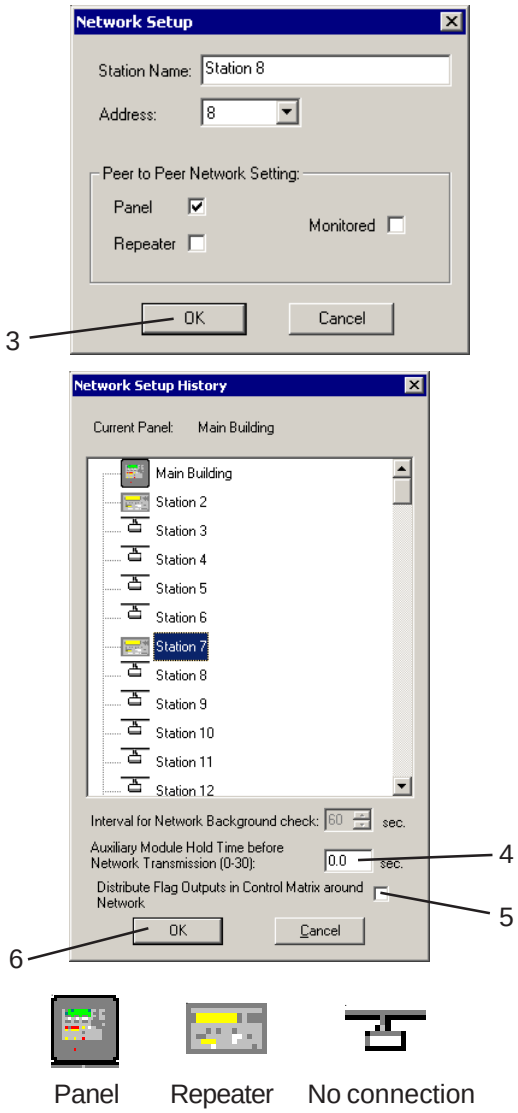
i Check either 'Panel' or 'Repeater'. Cannot be changed if a Panel configuration exists.

ii Use the spin buttons to set the station address on the network.

iii Enter the Station Name (cannot be changed for panels if already set on the Specification Tab [**Section 2.1**]).

iv Panels only: check the 'Monitored' box unless the panel is not currently installed (in which case leave it unchecked to prevent error messages occurring - remember to re-configure this when the panel does get installed!).

Note: Repeaters connected to the panel via the RS485 link are configured on the Specification Tab.



Note: Control Matrix 'Fallback Input' Rules are invoked automatically when there is a communications loss with a fixed number of panels; this number is not user-configurable.

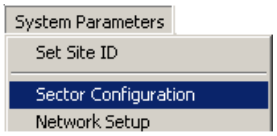
3 When all edits are complete for this station, click on 'OK'.

4 If the system contains a large number of AUX modules that may be logged at once, there could be network delays if an alarm occurs. To prevent this, several AUX 'logs' can be reported in a single message by setting a time delay. **This option should normally be left at 0.** The available range is 0 to 30 seconds in 1 second increments (leading zeroes are required). If a delay is necessary, it should be **as low as possible** - consult NOTIFIER Technical Support.

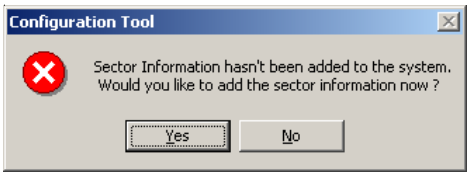
5 In the Control Matrix input statement, transfer flags are available from remote panels only if this box is checked at the remote panel(s) (**may adversely load the ID²net bandwidth** and is not required for many systems so default is unchecked).

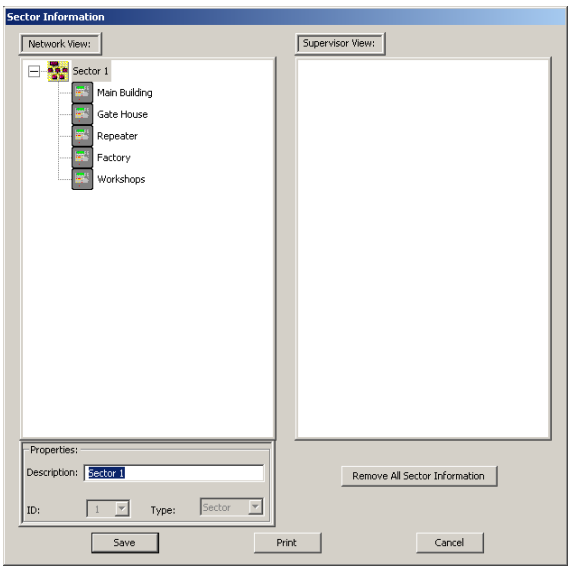
6 When all edits are complete for the network, click on 'OK'.

Note: To obtain a complete network, the configuration file for each station must be saved. If, during configuration editing, two different unsaved stations are given the same number, one station will be re-numbered automatically and a message will be displayed to confirm this.



Network Sector





6.3.3 Sector Configuration

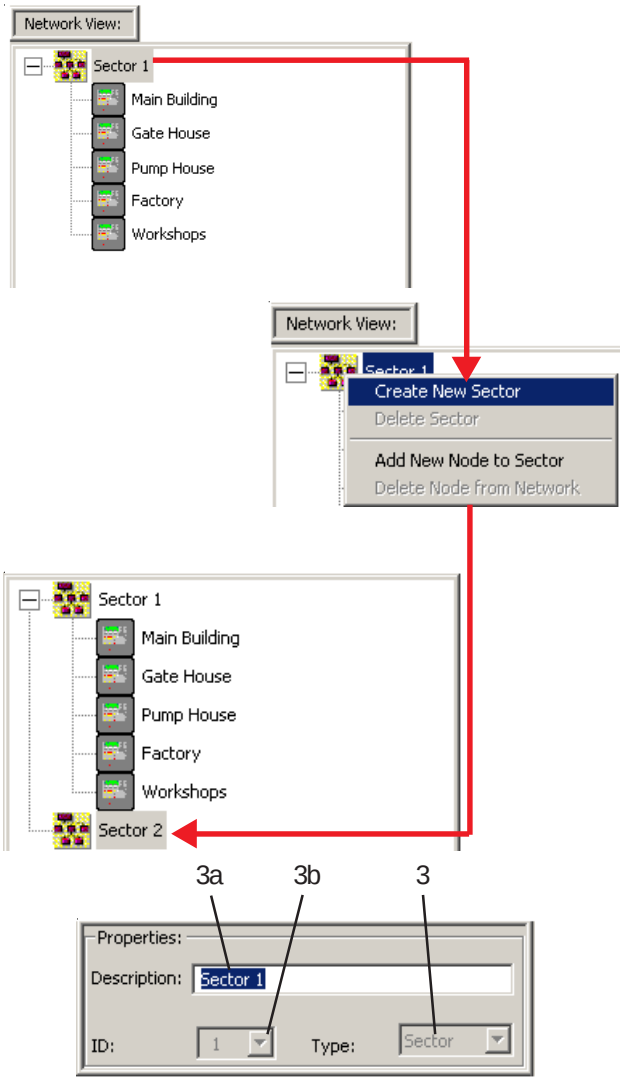
Once the network has been completely configured with control panels and repeaters, the network can be partitioned so that control panels and repeaters located in each geographical sub-network (sector) respond only to events and control actions arising within the same sector, while network events and control actions arising from other sectors are filtered out, i.e. ignored. To configure network event filtering go to the System Parameters menu to select the Sector Configuration option as follows:

Note: If you have a panel configuration open you will be prompted to close it before selecting this option.

1 Select the Sector Configuration option. If the network is not yet set up for filtering the configuration tool alerts you to this fact by displaying the warning shown at left. After confirming that you require to add sector information the Sector Information screen is displayed as below left. This screen features a simple two-window structure: the left-hand window is the Network View and the right-hand window is known as the Supervisor View.

The complete ID^{2}net network configuration is displayed in the Network View window whilst the Supervisor View window is empty.

2 Sectors can be created using the Network View window and the allocation of panels and repeaters to sectors can also be carried out here. In addition, each sector and node ID can be edited using the properties box below this window.



Network View

Initially, all panels and repeaters are allocated to sector 1, but this can easily be changed.

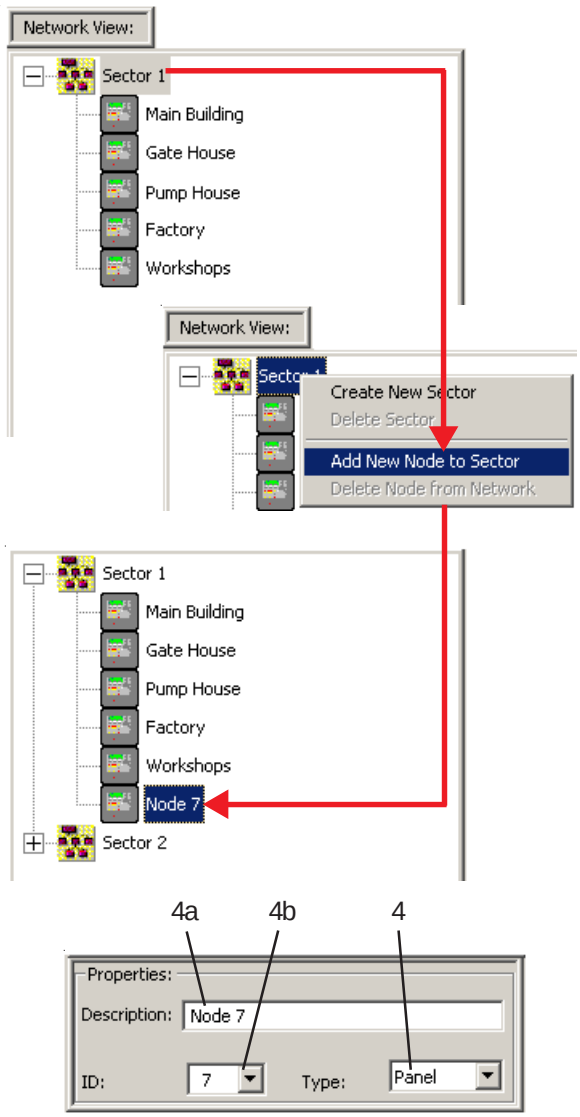
3 To add another sector right-click anywhere on the 'Sector 1' line and select the 'Create New Sector' option. The newly-created sector is added to the bottom of the network tree. All the relevant information about the new sector is displayed in the Properties box below. The new sector will take the next available ID number, in this example '2' with the 'Type' identified as 'Sector' in the Properties box - this is greyed out as it cannot be changed. However, the sector name and ID number may be edited as follows:

a. To change the sector description, highlight the default text and type a new name for the sector (a maximum of 32 characters is permissable).

b. To change the sector ID, use the spin button to select another ID from the drop-down list - only unused ID numbers will be shown (a maximum of 63 sectors are permissable).

Moving a Node

To move a node from one sector to another just simply select the node (panel or repeater) and 'drag and drop' it to the desired sector.



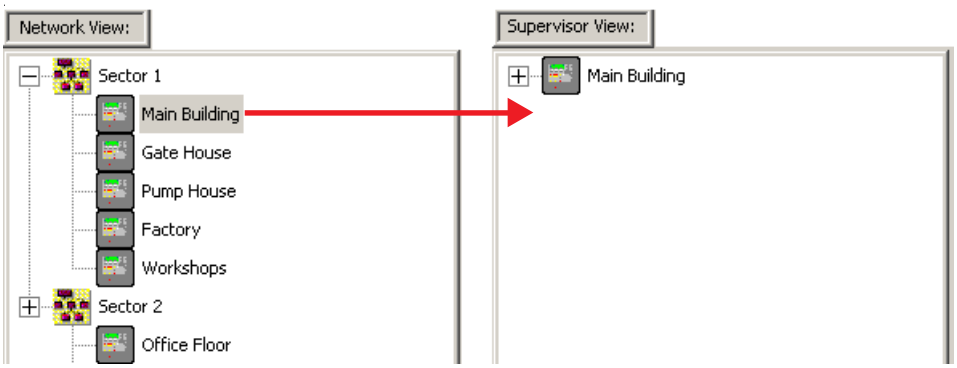
4 To add another node to the network right-click the sector icon or text box and select the 'Add New Node to Sector' option. The new node is added to the sector, with the default of 'panel'. If this new node is a repeater, not a panel, change this in the 'Type' box by selecting 'Repeater' from the drop-down menu.

a. To change the node description, highlight the default text and type a new name for the node (a maximum of 32 characters is permissable).

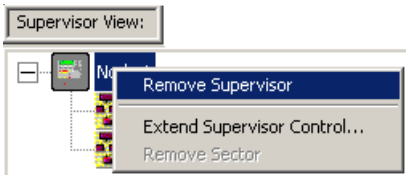
b. To change the node ID, use the spin button to select another ID from the drop-down list - only unused ID numbers will be shown (a maximum of 63 are permissable)

Supervisor View

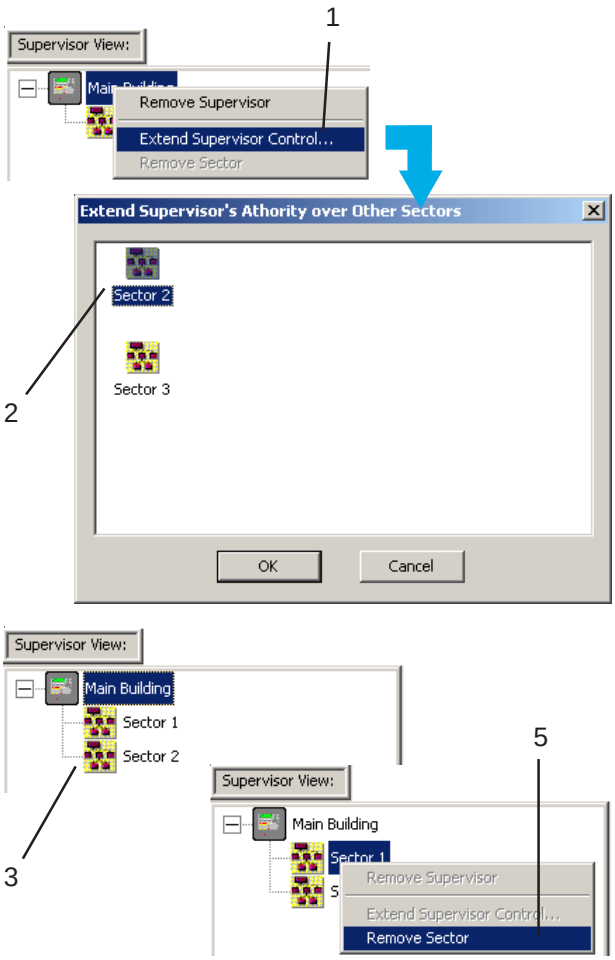
This window does not contain any sector information as all network nodes are allocated initially to one sector, i.e. Sector 1 and no supervisor panels have been assigned. To assign a panel as a supervior, simply select the panel and, holding down the left mouse button, drag the node across to the Supervisor View window.



In the example above, 'Main Building' panel in Sector 1 has now been assigned to the network with supervisor status. Repeat this procedure for all other panels that are to have supervisor status.



If the wrong panel was dragged across select <CANCEL>, or right-click on the unwanted supervisor panel and select 'Remove Supervisor' to delete it from the Supervisor View window. This will not remove it from the Network.



Supervisor View (Cont'd)

Any supervisor panel can be configured to have visibility of network messages and control actions from panels outside of its own sector. **Repeaters cannot be configured as supervisors**. This is done as follows:

1 Selecting the supervisor panel with the right-mouse button choose the 'Extend Supervisor Control...' option.

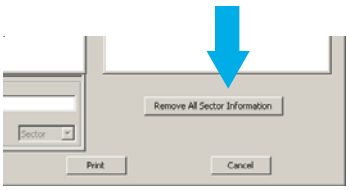
2 From the displayed dialogue box, select one or more from the list of sectors (hold down the <SHIFT> key to select non-contiguous sectors or <CTRL> key to select a range of sectors) and press <OK>.

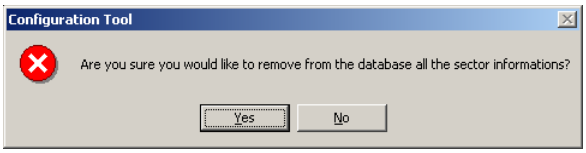
3 The sector(s) are included below the supervisor panel.

4 Repeat the procedure for all supervisor panels on the network.

5 To remove a sector from a panel's supervision, right-click on the sector reference and select 'Remove Sector' from the drop-down menu. The selected sector will be removed from the list associated with that supervisor.

6 When all supervisor panels have been proceseed press the <Save> button.

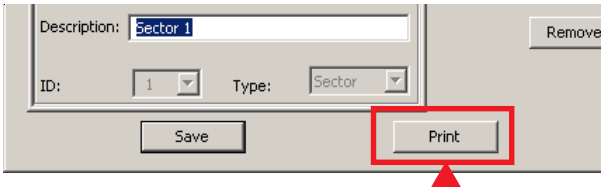




Supervisor View (Cont'd)

Sector information can be removed completely by selecting the 'Remove All Sector Information button' located below the Supervisor View window.

The warning message, at left, is displayed before this can be carried out. Select <Yes> to continue; <No> to cancel this action.



Printing Sector Information

Use the Print button at the bottom-centre of the Sector Information screen if you require a hard copy of the configured sectors of the ID²net network. The print out contains such information as:

i Node ID

ii Panel type (panel or repeater)

iii Panel description

iv Sector ID of panel/repeater

v The range of sectors over which a supervisor panel has control.

Appendix 1: Historic & Data Log Tool

The Historic & Data Log Tool allows the following:

a. Extraction of the panel's historic event log.

b. Initiation of a data log for a specific sensor.

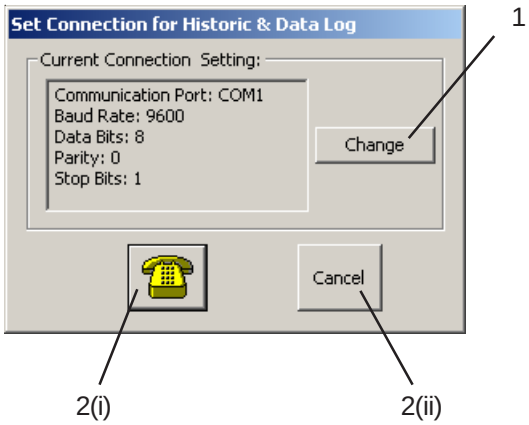
c. Extraction of a data log for a specific sensor from the panel. This log is either initiated in (b) above, or is configured via the panel's Log/Display/Print menu.

d. Extraction of the panel's current analogue values for all sensors and modules.

e. Extraction of the panel's software version number.

Initiation

Start the Tool from the desktop icon or from the Start Menu (path shown above). The Set Connection for Historic Data Log window is displayed, with the current communications details:



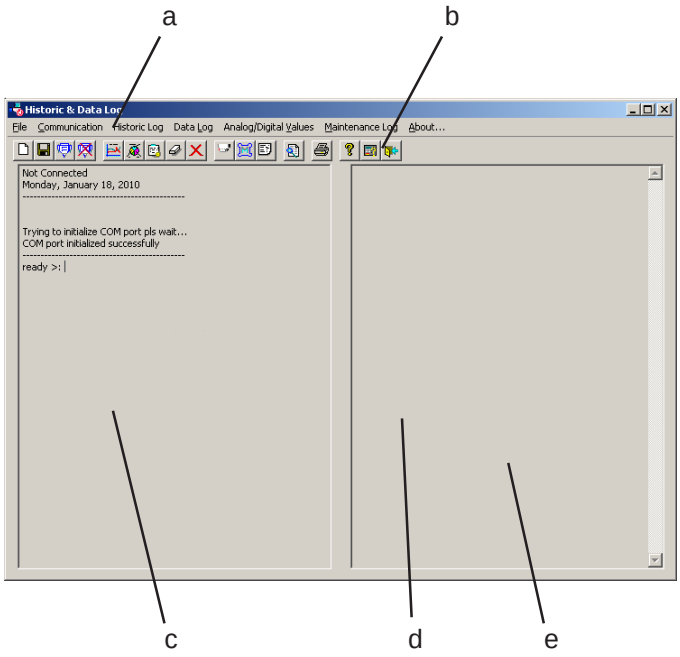
1 If necessary, select 'Change', then edit the settings as described in **Section 1.5.8**.

2 Either:

i Connect to the panel, OR

ii Remain disconnected.

In both cases the Historic and Data Log window is displayed (see next page).



Historic and Data Log Window

This window has the following areas:

a. Menus, described on the following pages.

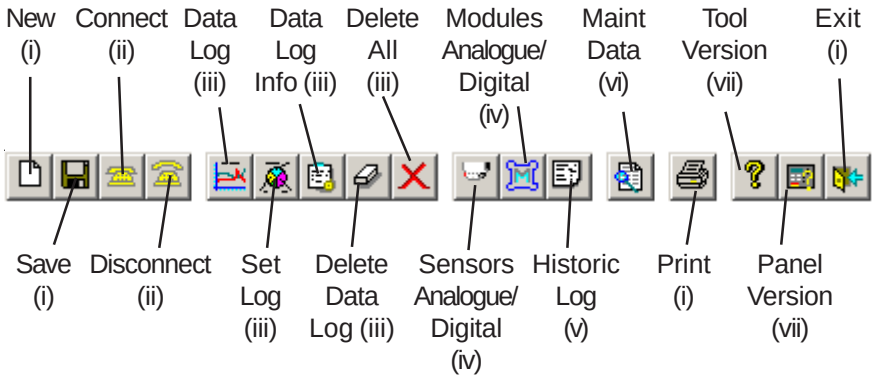
b. Icons which provide quick access to the majority of menu options. See below.

c. Status display area. This shows whether the Tool is communicating with (connected to) the panel, and what requests have been made to the panel via the Tool's menus and icons.

d. Data display area. This shows the historic log and data log contents that have been extracted from the panel via the Tool.

e. Menu available using the right-hand mouse button. This allows data to be selected, copied, cut, and pasted. The options available depend on previous selections (e.g. paste is only available when data has been copied). It is also possible to select data by dragging the mouse across it. Selected data can be pasted into other PC applications.

Icons



(i) - Option is on File menu

(ii) - Option is on Communication menu.

(iii) - Option is on Data Log menu.

(iv) - Option is on Analogue/Digital Values menu.

(v) - Option is on Historic Log menu.

(vi) - Option is on Maintenance Log menu.

(vii) - Option is on About... menu.

File Menu

This menu has the following options:

a. New. Displays a 'Save' window to allow creation of a file to which log data is saved when the 'Save' option is used.

b. Save. Saves log data to the file created in (a).

c. Print. Prints the data currently displayed in the data display area of the Historic & Data Log window.

d. Exit. Closes the Historic & Data Log Tool.

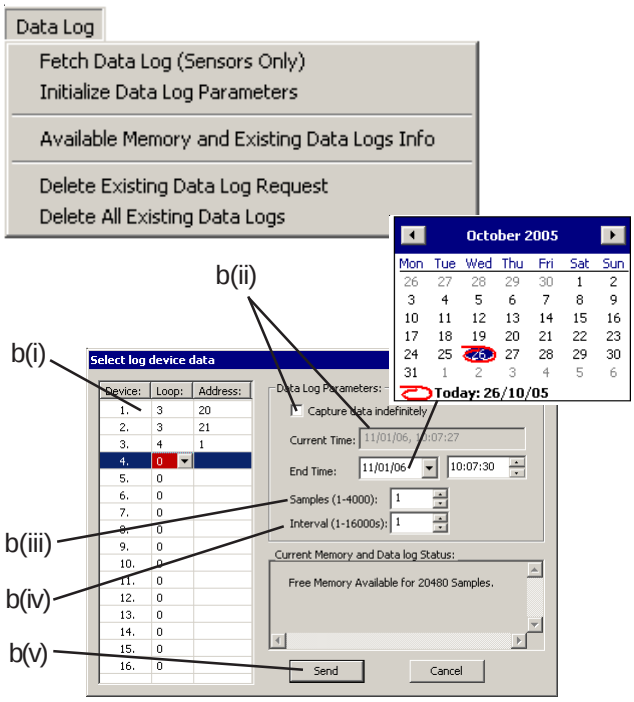
Communication Menu

This menu has the following options:

a. COM Setup. Displays a setup window identical to that used by the Fire Panel Configuration Tool itself (see **Section 1.5.8**).

b. Connect. Allows the Historic & Data Log Tool to communicate with the Fire Control Panel - initializes the comm. port to enable data communication. Ensure that the data communication cable is in place.

c. Disconnect. The Historic & Data Log Tool disconnects from the Fire Control Panel.



Historic Log Menu

This menu has one option:

a. Request Data. The Request Historic Log Event window is displayed. Either:

i Select 'Fetch all entries', or

ii Select each numeric field in turn and use the spin buttons or PC keyboard to enter the required values for a partial log request.

Select 'Send'. The panel's historic log is extracted from the panel and is displayed in the Historic & Data Log window.

Data Log Menu

This menu has the following options:

a. Fetch Data Log. Provided a data log has been configured either at the panel or at the Tool [see (b) below), the data is displayed in the Historic & Data Log window.

b. Initialise Data Log Parameters. The Select Log Device Data window is displayed:

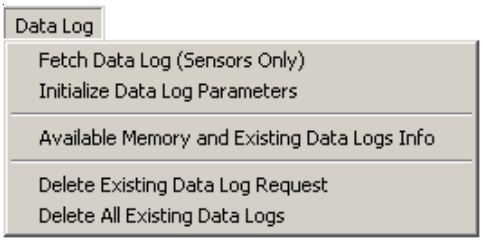
i Select the device(s) (loop and address).

ii If checked, selects indefinite log. If unchecked, enter the End Date for the log (from the calendar) and the End Time.

iii Select the number of Samples.

iv Select the Interval between samples.

v. 'Send' the above to the panel.



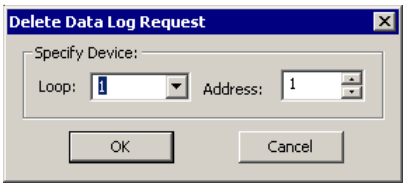
Data Log Menu (continued)

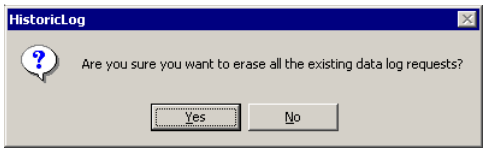
c. Available Memory and Existing Data Logs info. Displays information about currently-enabled logs (e.g. number of samples) in:

i The 'Current Memory and Data Log Status' area of the Select Log Device Data window.

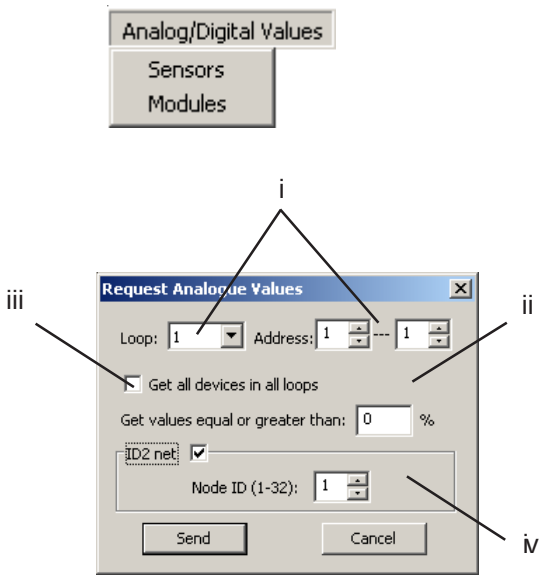
ii The data display area of the Historic and Data Log window.

d. Delete Existing Data Log Request. Select the device (loop and address) to be removed from the log.





e. Delete All Existing Data Logs. Select Yes to confirm this request.



Analogue/Digital Values Menu

This menu has the following options:

a. Sensors.

b. Modules.

In either case the Request Analogue Values window is displayed to allow:

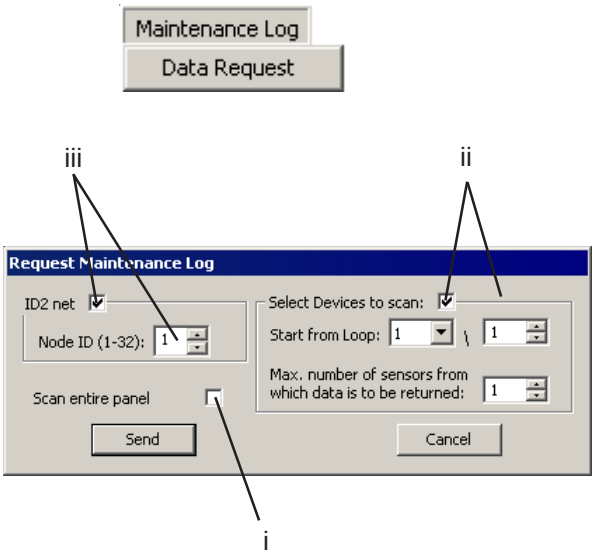
i Selection of a loop and of an individual device address or range of addresses.

ii Set the minimum value (as a percentage) to be displayed.

iii Used to select analog/digital data from all devices in all loops.

iv If the panel is connected to an ID^{2}net network, the analogue values from sensors on remote panels can be obtained. Select the appropriate node (network address).

Select 'Send'. A snapshot of the analogue values is then displayed in the Historic & Data Log window.



Maintenance Log Menu

This menu has one option:

a. Data Request, which Displays the Request Maintenance Log window. This allows the panel's maintenance log for SMART sensors to be displayed in the Historic and Data Log window. Select which sensors are included:

i Select 'Scan the entire panel' to display the log for all SMART sensors on the panel.

ii Select 'Devices to scan', then select the loop number and address at which the scan is to start and the number of devices (that are in a maintenance condition) from which log data is to be obtained before the scan stops.

iii If the panel is connected to an ID²net network, the log applicable to SMART sensors on a remote panel can be displayed. Select the appropriate node (network address).

Select 'Send'.

About Menu

This menu has the following options:

a. Version Info. Displays the version number of the Historic & Data Log Tool.

b. Get Panel Version. Displays the software version number in the Historic & Data Log window.

Appendix 2: Database Query Utility

The Database Query Utility allows the loop device configuration to be sorted by:

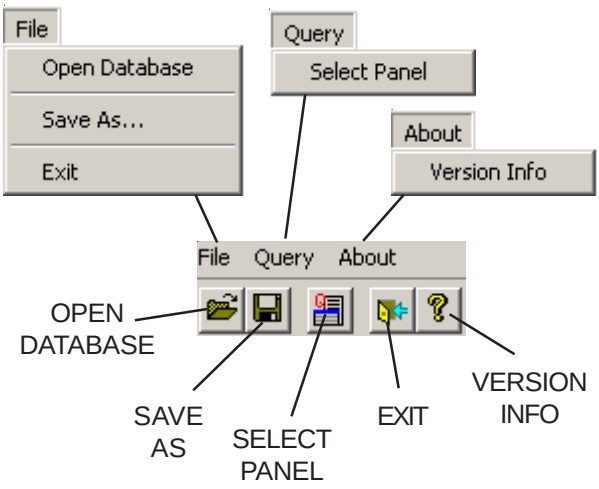
a. Device loop address.

b. Zone number.

Initiation

Start the Tool from the desktop icon, from the Start Menu (path shown below) or from the Configuration Tool 'Tools' menu. The Database Query Utility window is displayed.

Menus and Icons



The following options are available from the menus and icons (see illustrations opposite):

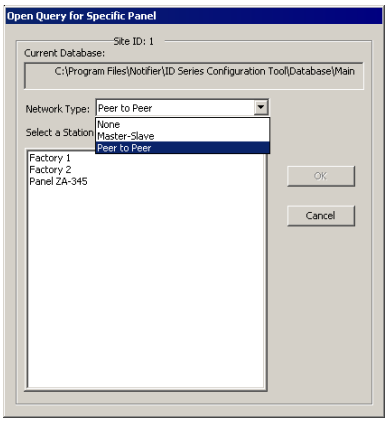
1 Open Database. Select the database in which the panel configuration resides.

2 Save As. Saves the contents of the Database Query Utility window to a .xls file (via a Save window).

3 Exit. Closes the Database Query Utility.

4 Select Panel. Displays the Open Query for Specific Panel window (**see next page**).

5 Version Info. Displays the version number of the Database Query Utility.



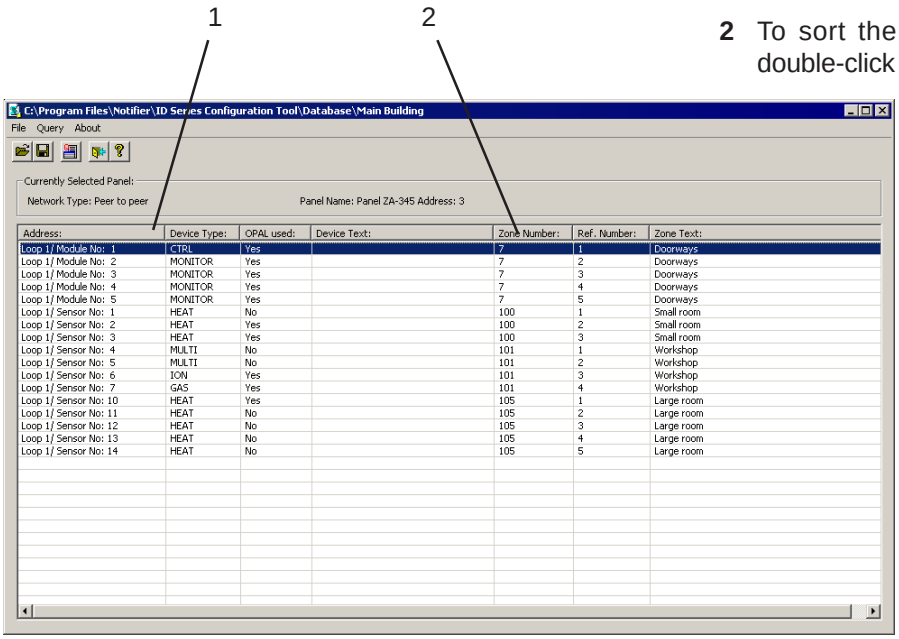
OPEN QUERY FOR SPECIFIC PANEL WINDOW

Database Query

Select the Database, then click the 'Select Panel' icon. On the Open Query for Specific Panel, choose the network type from the drop-down list (none = stand-alone panels), then highlight the required panel and click 'OK'. The following data from that panel's configuration is then displayed: loop number and device address, device type, device text, zone number, reference number and zone text.

1 To sort the database by loop number and device address, double click on the 'Address' heading.

2 To sort the database by zone number, double-click on the 'Zone Number' heading.



DATABASE QUERY UTILITY WINDOW

Appendix 3: Additional Logic Example

Note: This example can only be configured if the panel software version is 4.35 or above (see lamp test).

It may be required to configure the Control Matrix so that a rule will only operate if certain other rules have not already operated.

In this example there are five zones. An alarm in any zone will operate a specific control module, e.g. an alarm in zone 3 will operate control module 3. After this has occurred, a subsequent alarm in any of the other zones does not result in its corresponding control module operating. The output from zone 3 remains active until the panel is reset.

Note: The zone numbers, flag numbers and module numbers used in the example are arbitrary, and the rules can be entered into the Control Matrix in any order (rule numbers are given in the example solely so that they can be referred to in the manual).

More than one group of inputs and outputs can be configured to operate in this mutually-exclusive manner, but for each the rules **must** be configured as follows:

(continued)

Example - Lockout

RULE	INPUT STATEMENT	OUTPUT STATEMENT
1	Zone 1	Flag 11 [AND]
2	Zone 2	Flag 12 [AND]
3	Zone 3	Flag 13 [AND]
4	Zone 4	Flag 14 [AND]
5	Zone 5	Flag 15 [AND]
6	Flag 11	Flag 11 [OR]
7	Flag 12	Flag 12 [OR]
8	Flag 13	Flag 13 [OR]
9	Flag 14	Flag 14 [OR]
10	Flag 15	Flag 15 [OR]
11	Flag 11	Flag 100 [OR]
12	Flag 12	Flag 100 [OR]
13	Flag 13	Flag 100 [OR]
14	Flag 14	Flag 100 [OR]
15	Flag 15	Flag 100 [OR]
16	Flag 100	Flag 11 [AND-NOT]
17	Flag 100	Flag 12 [AND-NOT]
18	Flag 100	Flag 13 [AND-NOT]
19	Flag 100	Flag 14 [AND-NOT]
20	Flag 100	Flag 15 [AND-NOT]
21*	Flag 11	Activate Control Module 1
22*	Flag 12	Activate Control Module 2
23*	Flag 13	Activate Control Module 3
24*	Flag 14	Activate Control Module 4
25*	Flag 15	Activate Control Module 5

* These rules can be on a different panel from rules 1-20.

1 A single unique transfer flag must be allocated to each input required to operate in the manner described above. These flags must be local to the panel in which these rules are programmed. In this example, flags 11 to 15 correspond to zones 1 to 5. Any input could be used instead of a zone, with additional flags if required e.g. to OR two non-adjacent zones, or zones from different panels.

2 For each of the inputs, a rule of the type 'input sets flag *n* [AND]' must be set. See rules 1 to 5 in the example.

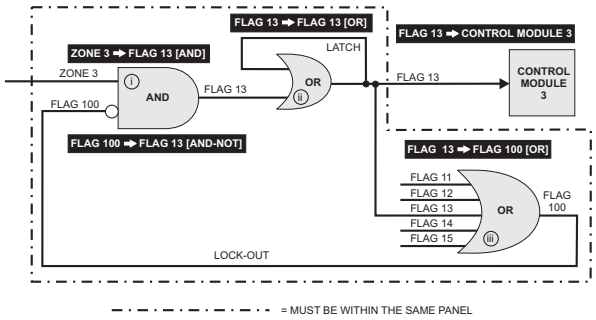
3 A flag must be allocated for lock out (see illustration and subsequent text for definition of lock out) - in this example it is flag 100. This flag must be local to the panel in which these rules are programmed.

4 To implement lock out, each input requires rules of the following types to be configured: 'flag *n* sets flag *n* [OR]' (see rules 6 to 10), 'flag *n* sets lock out flag [OR]' (see rules 11 to 15) and 'lock out flag sets flag *n* [AND-NOT]'. See rules 16 to 20 in the example.

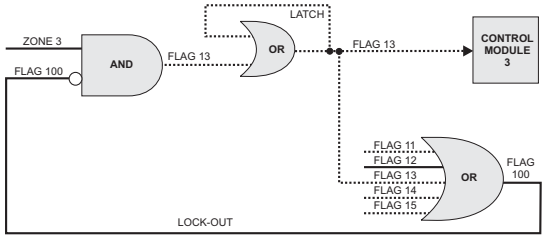
Note: The panel does not implement lock out unless at least one rule of the type 'flag *n* sets flag *n* [OR]' is configured.

5 Configure rules to drive the outputs (additional flags can be used if required). See rules 21 to 25 in the example.

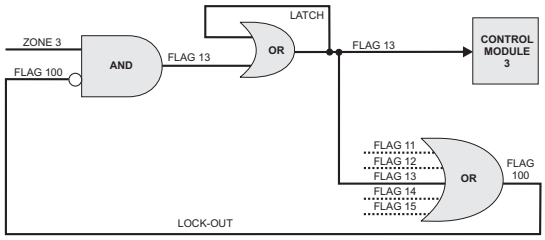
Note: Rules of steps 2 and 4 (Rules 1-20 in the example) must all be in the same panel (it does not have to be the panel at which the inputs or monitored, nor the panel from which the outputs are driven).



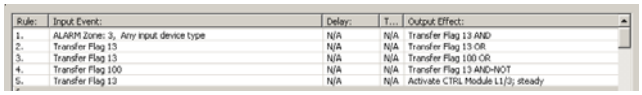
solid lines = active
dotted line = inactive



a - zone 2 (flag 12) in alarm first



b - zone 3 in alarm first



Rule:	Input Event:	Delay:	T...	Output Effect:
1.	ALARM Zone: 3, Any input device type	N/A	N/A	Transfer Flag 13 AND
2.	Transfer Flag 13	N/A	N/A	Transfer Flag 13 OR
3.	Transfer Flag 13	N/A	N/A	Transfer Flag 100 OR
4.	Transfer Flag 100	N/A	N/A	Transfer Flag 13 AND-NOT
5.	Transfer Flag 13	N/A	N/A	Activate CTRL Module L1/3; steady

The illustration shows the effect on zone 3 - the corresponding Control Matrix rule for each step is shown in inverse text:

i If zone 3 detects an alarm, flag 13 is subsequently set if, and only if, flag 100 is not already set.

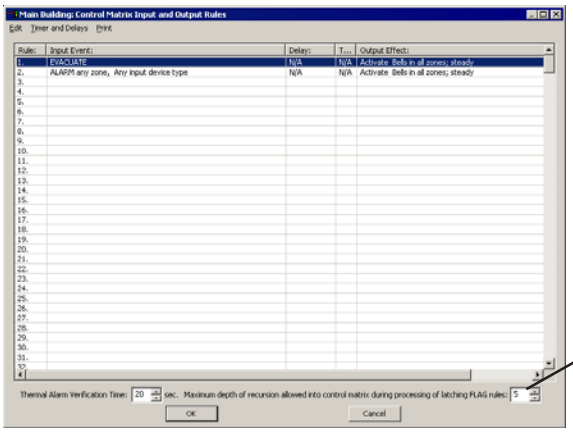
ii If flag 13 is set, then to prevent the Control Matrix from processing inputs associated with zones 1, 2, 4 or 5, flag 13 is latched by an OR logic operation and then used to set flag 100.

iii Flag 100 is set if **any** of flags 11 to 15 are set (corresponding to zones 1 to 5). Thus:

a. If zone 1, 2, 4 or 5 is already in alarm, then flag 100 prevents flag 13 from being set and thus control module 3 does not operate.

b. If zones 1, 2, 4 or 5 are not in alarm, then flag 100 is not set, allowing flag 13 to be set and control module 3 to operate. Flag 13 then sets flag 100 (see ii above), which then prevents flags 11, 12, 14 and 15 being set.

The locked out state is latched until the panel is reset.



To ensure that the panel does not begin processing another input BEFORE the locked out state occurs, the panel will process a number of flag-type rules in sequence, i.e. it is looking to see if a lock-out is configured. The number is pre-set, but can be adjusted if necessary on the Control Matrix Input and Output Rules window.

This option sets the number of flag-type rules processed in sequence by the panel before it starts processing another input, i.e. the panel is looking to see if a lock-out is configured. It should not normally need changing from its default (5).

To determine the optimum setting for this parameter, count the highest possible number of **sequential** steps involving **flag** outputs, in this panel's control matrix, from the initial alarm input **until the lock-out flag** (flag 100 in the example) has been reached. There is no need to count steps which do not progress towards the lock-out flag. In the example the applicable steps are rule 3 followed by rule 13, thus the parameter need only be set to 2.

It is not harmful to *slightly* over-specify the parameter; leaving it at its default (5) normally gives satisfactory performance. If set too low, the panel may start processing another input before detecting the lock out. If set too high, the panel may perform unnecessary processing of Control Matrix flags, slightly delaying the reporting of subsequent alarms.