Ampac

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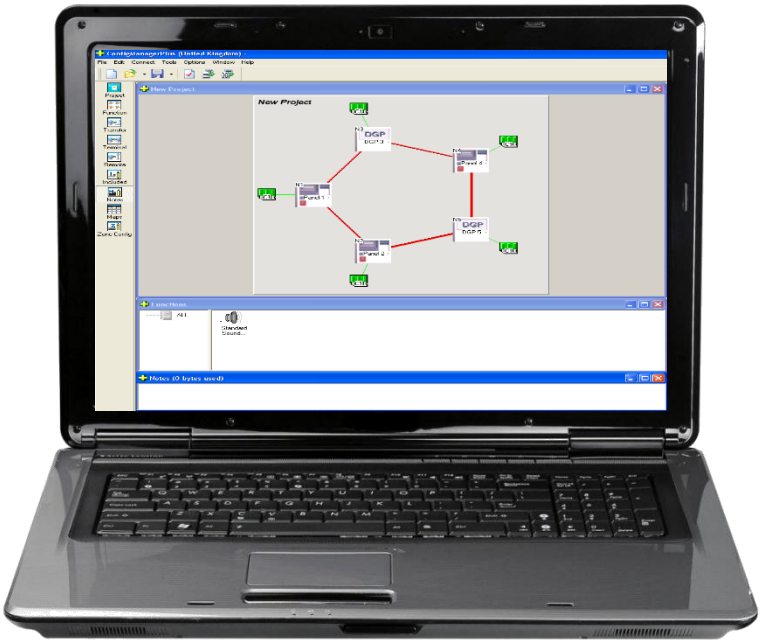
ConfigManager PLUS



Programming Software for FireFinder PLUS

Fire Alarm Control Panel

MAN 3016 – 9

A **Halma** company

Contents

1 About This Manual 1
1.1 Introduction 1
1.2 General Requirements 1
1.3 Symbols 1
2 Installation 2
3 The Functions Menu and Tool Bar 3
3.1 The Menu Bar 3
3.1.1 File 3
3.1.2 Tools 4
3.1.3 Options 5
3.1.4 Window 11
3.1.5 Help 12
4 Creating a New Project 13
4.1 The Systems Settings Dialogue Box 13
4.1.1 Base Settings 13
4.1.2 Display settings 14
4.1.3 System Interface (*SmartGraphics*) 15
4.1.4 Quick Set settings 15
4.1.5 Configuration Version 16
4.1.6 Global Settings 17
4.2 The New Project Screen 18
4.3 The Project View 19
4.3.1 Panel Settings or Editing 19
4.3.2 Setting or Editing the Controller Module Types: 20
4.3.3 Controller (Loop and I/O) Setting or Editing 22
4.4 Controller Settings (Addon Modules) 25
4.4.1 Brigade Board 26
4.4.2 8 Way Conventional Zone 31
4.4.3 32 Way Indicator Card 33
4.4.4 SmartTerminal/NFS SmartTerminal 37
4.4.5 Agent Release 39
4.4.6 Fan Control 42
4.4.7 Switch and Indicator 50
4.4.8 8 Way Relay Board 52

4.4.9 16 Way Input Board 53
4.4.10 HLI Expander....54
4.4.11 8 Way Sounder Control 57
4.4.12 Zone Control Card....57
4.4.13 Conventional Network Board 58
4.4.14 Bar Display Card....58
4.4.15 EvacU EWCIE (OWS) Front Panel Card 59
4.4.16 SmartView add-on (Comms 2)....60
4.4.17 Nimbus add-on (Comms 2)....60
4.4.18 EvacU Elite EWCIE add-on 61
4.4.19 EvacU Elite & FireFinder Plus Combo system....63
5 The Module Data (Loop and Device) Entry Spreadsheet 65
5.1 Type and Device Configuration 65
5.2 The Extended Menu and Toolbar 68
5.2.1 File....68
5.2.2 Edit 69
5.2.3 Search....70
5.2.4 View 71
5.2.5 Tools....72
5.2.6 Transfer 72
5.2.7 Clicking Tool Bar Icons; 73
5.3 Zone Configuration Options 74
5.3.1 Normal: 74
5.3.2 Dependency A (EN54-2 and AS7240-2):....74
5.3.3 Dependency B (EN54-2 and AS7240-2):....75
5.3.4 Dependency C (EN54-2 and AS7240-2):....76
5.3.5 Delays to Outputs (EN54-2 and AS7240-2): 76
5.3.6 AVF (AS4428.1): 76
5.4 Loop and Device Configurations 77
5.4.1 Edit Sensor Properties....77
5.4.2 Manual Call Point Settings (XP95) 80
5.4.3 Input/Output Settings 80
5.4.4 Day/Night Settings 83
5.4.5 Alarm Delay Facility – ADF (AS1670-1:2015)....84
6 Functions 85
6.1 The Function View 85

7 Expanding the System 89
7.1 Adding a Panel....89
7.2 Adding a Data Gathering Point....90
7.2.1 Global Access....91
7.2.2 Panel, Loop or Group Access 91
8 Network Panels....92
9 Introduction to Programming....93
9.1 Boot Software: 93
9.2 Application Software: 93
9.3 Configuration Software: 93
10 Hardware Requirements 94
11 Configuration Programming 95
11.1 Transfer – Transfer Wizard 96
12 Remote Controller....100
13 Function Programming....101
13.1 Function F1 - Standard Function 102
13.2 Function F2 - Fan Fault Indicator....102
13.3 Function F3 - Alarm Buzzer (Aus / NZ only) 103
13.4 Function F6 – Panel Fault Output....103
13.5 Function F8 - Latched 1668 Fan Start-Stop with Reset (UK only) 104
13.6 Function F9 – Isolate Control (Aus / NZ only) 104
13.7 Function F10 – Alarm Enable (Aus / NZ only) 105
13.8 Function 11 - Triple Group Function....105
13.9 Function F12 - Multipurpose Grouping Function 106
13.10 Function F13 - Configurable Alarm Buzzer (UK only)....106
13.11 Function F14 - Configurable Master Reset Output....107
13.12 Function F15 - Configurable Nodal Alarm Buzzer (Aus / NZ only)....107
13.13 Function F17 – Sounder Control....108
13.14 Function F20 – Mains Fail/Door Holder 110
13.15 Function F22 – Push Button Fan Control (Aus / NZ only) 111
13.16 Function F24 - Latched 1668 Fan Start-Stop Control with Reset and Stop Switch....112
13.17 Function F26 - General Purpose Timer 113
13.18 Function F29 - Configurable Nodal Printer Off-Line 113
13.19 Function F30 - Configurable Nodal Fault Output 114
13.20 Function F33 - Output Fault Function (UK only)....114
13.21 Function F35 – Isolate Control with Master Reset 115

13.22 Function F36 - FastSense Control 115
13.23 Function F37 – Sounder Timeout (UK only) 116
13.24 Function F38 – Maintenance Fault Output 119
13.25 Function F39 – Forced Night Mode Function 119
13.26 Function F42 – Sensor Isolate Control 120
13.27 Function F45 - Day-Night Output Function 120
13.28 Function F47 - Nodal Buzzer Silence Function (Aus / NZ only) 121
13.29 Function F48 - Nodal DBA Activation Function (NZ only) 121
13.30 Function F49 - Nodal SGD/ASE Activation Function (Aus / NZ only) 122
13.31 Function F52 - Gas Function 122
13.32 Function F53 – Class Change (Evac) 123
13.33 Function F61 - Enhanced Discovery Multisensor Alarm Output 123
13.34 Function F63 - Multipurpose Grouping Function (Unique) 124
13.35 Function F65 - Dependency A Inhibit Alarm Outputs 124
13.36 Function F66 - Dependency A Alarm Outputs 125
13.37 Function F67 - Dependency B Alarm Outputs 125
13.38 Function F68 - Dependency C Alarm Outputs 126
13.39 Function F69 - Delay-To-Output/ADF Alarms 126
13.40 Function F70 - Nurse Fire Station (NFS) (Aus / NZ Only) 127
13.41 Function F71 - Standard Function (Enhanced) 127
13.42 Function F72 – Pre-alarm, Fault, Isolate, Local Alarm, and Investigate Alarm 128
13.43 Function F73 – AM Group Function (Aus / NZ only) 128
13.44 Function F74 - Wagner Function 129
13.45 Function F75 - Forced Night Mode Function 130
13.46 Function F77 - SmartGraphics Fan Control Function 130
13.47 Function F81 – Modbus Toggle Output Function 131
13.48 Function F84 - Override Alarm/Fault Function 131
13.49 Function F85 Disable Alarm Output 132
13.50 Function F87 Nodal Main Fail/Door Holder 132
13.51 Function F88 AAF Group Dual-Event Output Function 133
13.52 Function F90 External Sounder Function 134
13.53 Function F91 Manual OWS Events for AM Device 134
13.54 Function F92 SmartView Device Logger 135
13.55 Function F95 Modulaser Control 136
13.56 Function F96 Discovery Sounder Beacon Function 137
13.57 Function F98 Timer Function 138

13.58 Function F99 Dual Fan Control with Priority Function 139
13.59 Function F109 Sounder Control Function (NZ Only).....140
14 EEprom Settings Window 141
15 Event Logs.....142
16 System Search Tool 142
17 Device Analogue Value Table.....143

1 About This Manual

1.1 Introduction

Configuration Manager PLUS:

- Is a software tool designed and written by AMPAC Technologies Pty. Ltd to enable users to create configuration files for transfer to and from the ***FireFinder PLUS*** Fire Alarm Control Panel.
- Is a universal program that meets the required standards of several different countries.
- Has been tested and verified on Windows XP, Vista and Win7 operating systems.

Included in the ***FireFinder PLUS*** configuration is:

- A spreadsheet component for entering the configuration data for the loops / sensors, zones (loop/conventional) and the inputs/outputs either in the panel or on the loops.
- A graphical interface for the entry of function data for input and output control.
- System networking ability.

1.2 General Requirements

The ***FireFinder PLUS*** FACP has been designed and manufactured from high quality commercial components so as to comply with major world standards. To ensure these standards are not compromised in any way installation staff and operators should;

- ✓ Be qualified and trained for the task they undertake;
- ✓ Be familiar with the contents of this manual prior to the installation, commissioning or operation of a ***FireFinder PLUS*** control system;
- ✓ Observe anti-static pre-cautions at all times; and
- ✓ Be aware that if a problem is encountered or there is any doubt with respect to the operational parameters of the installation the supplier should be contacted.

1.3 Symbols

ⓘ Important operational information

☞ **Note:** Configuration considerations

Observe antistatic precautions

2 Installation

If necessary firstly consult the Introduction to Programming and Hardware Requirement Sections 9 and 10 for cabling information.

To install the software first insert the CD into the disk drive and click on the Setup.exe file. ***ConfigManager PLUS*** will then automatically guide the operator through the installation.

To run the program, assuming the icon to the default Program Folder was added during the set-up procedure, click on the icon on the screen.

Alternatively, locate the folder C:\Program Files\ConfigManagerPlus1 via My Computer or Windows Explorer and double click on the ConManPlus1.exe file.

3 The Functions Menu and Tool Bar

Running ***ConfigManager PLUS*** will bring up a window with a Menu and Tool-bar in the top left hand corner of the screen as shown in the diagram below.

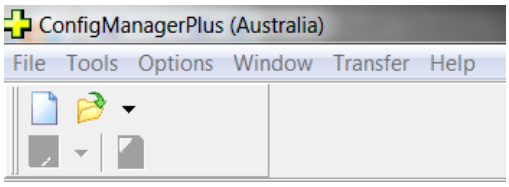


Figure 1: The Functions Menu and Tool Bar

3.1 The Menu Bar

3.1.1 File

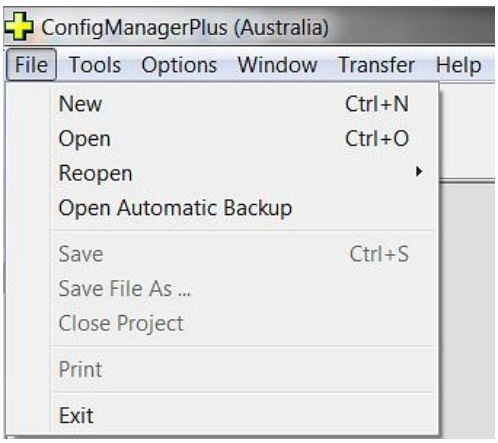


Figure 2: The "FILE" Drop Down Box

This menu gives access to the following functions:

New (Project) [CTRL + N]

Select this option to start a new project. The System Settings Dialogue Box will appear as a result.

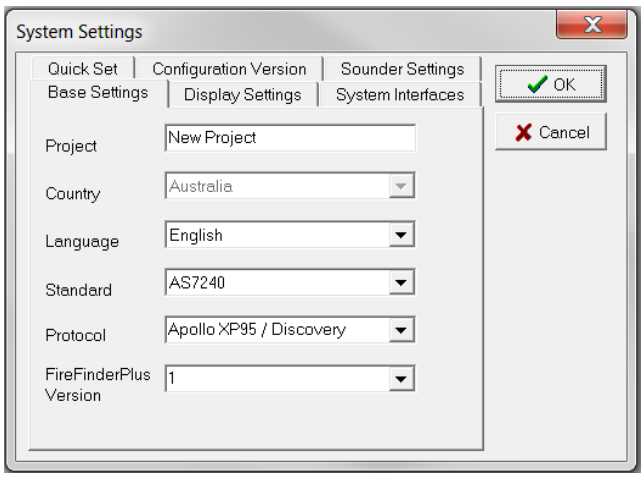


Figure 3: The Systems Settings Dialogue Box

Open (Project) [CTRL + O]

This will load of a previously saved project. The Open Project dialogue box will appear, locate the file to be opened and click on Open. Configuration Files are saved with the *.ffp extension.

Re-Open (Project)
Re-Open loads a previously saved project. A list of the 10 most recent projects will appear, from this list select the file to be opened. Configuration Files are saved with the .ffc extension.

Open Automatic Backup
This opens a file that has automatically been saved by ***ConfigManager PLUS***.

Save – (only selectable once a "Project" has been created)
Saves a file as a named file. The project name is usually the preferred option.

Save File As – (only selectable once a "Project" has been created)
Saves a file as an alternatively named file.

Close Project – (only selectable once a "Project" has been created)
Closes the Project after prompting Yes / No, Cancel to save.

Print – (only selectable once a "Project" has been created)
To print the network point and double click on the Node and follow the prompts.

Exit
To close down the Configuration Manager program select Exit. If changes have been made to the current project and have not been saved then the operator will be asked if they wish to save the file.

3.1.2 Tools

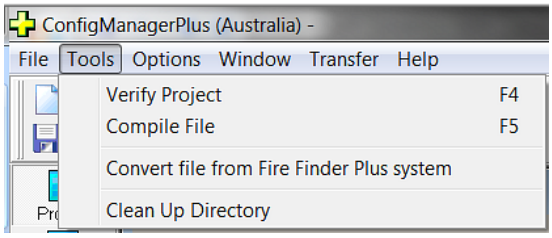


Figure 4: The "Tools" Selection Box

Verify Project
The verify function (F4) will verify there are no errors or omissions in the project.

Compile File
The compile file (F5) must be done every time that a modified file is to be downloaded to the ***FireFinder PLUS*** panel. This ensures that the data format is correct as per the required structures.

Convert File from *FireFinder PLUS* System
This will convert the information previously uploaded from the ***FireFinder PLUS*** FACP into a format such that it can be imported for use by ***ConfigManager PLUS.***

Clean Up Directory
The clean up directory function will automatically erase unnecessary files that have been created during the compile process.

3.1.3 Options

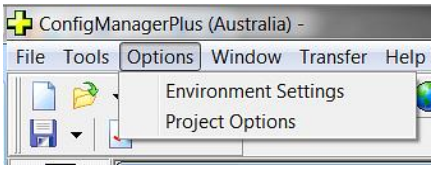


Figure 5: Options Selections

3.1.3.1 Environment Settings

Clicking on this option will display the Environment Settings Options Dialogue Box as seen below.

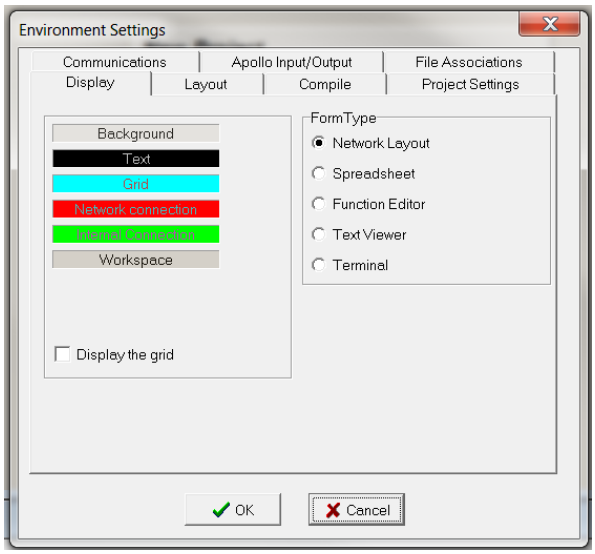


Figure 6: The Environment Settings Dialogue Box

From this dialogue box the following features to be set are:

Colours - Display

The colour of the various elements in the program can be set by selecting this tab. For each Form Type indicated on the right hand side simply click on the indicator and the colours selected will be shown on the left hand side. To modify these colours click on the colour and a colour selection chart will appear. Select the preferred colour, and press OK on the form.

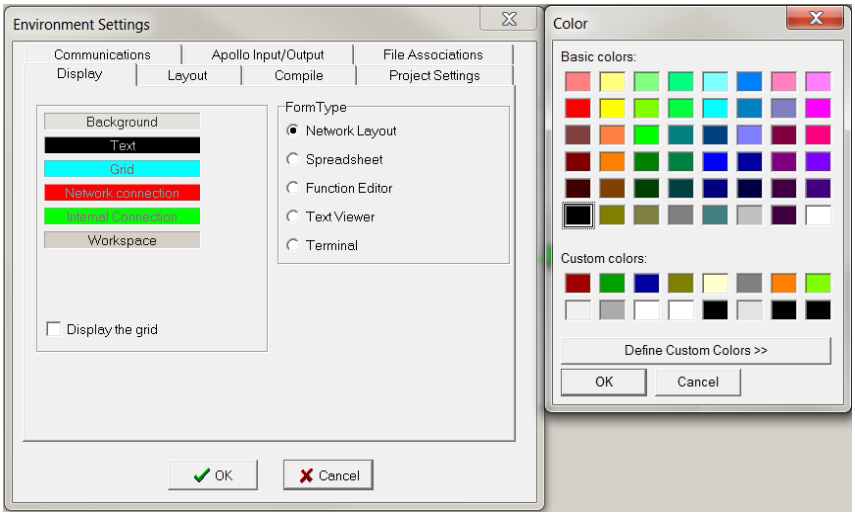


Figure 7: The Environment Settings Display Colors Settings

3.1.3.2 Layout

This option sets the format of the screen at start up.

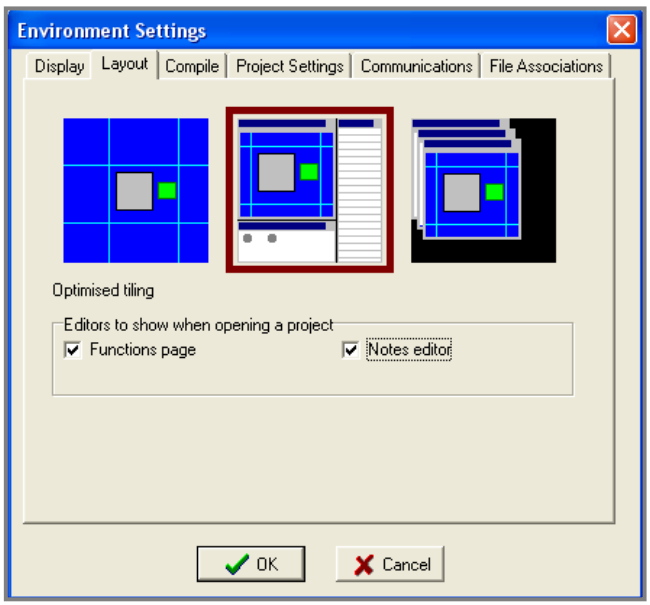


Figure 8: Layout Dialogue Box – with only "Functions Page" Ticked

☑ **Function Page (left hand tick box):** When ticked and a new project is started a window will open, as shown below, allowing functions to be edited.

☑ **Notes Editor (right hand tick box):** When ticked and a new project is started a window will open, as shown below, allowing notes to be added to the current project.

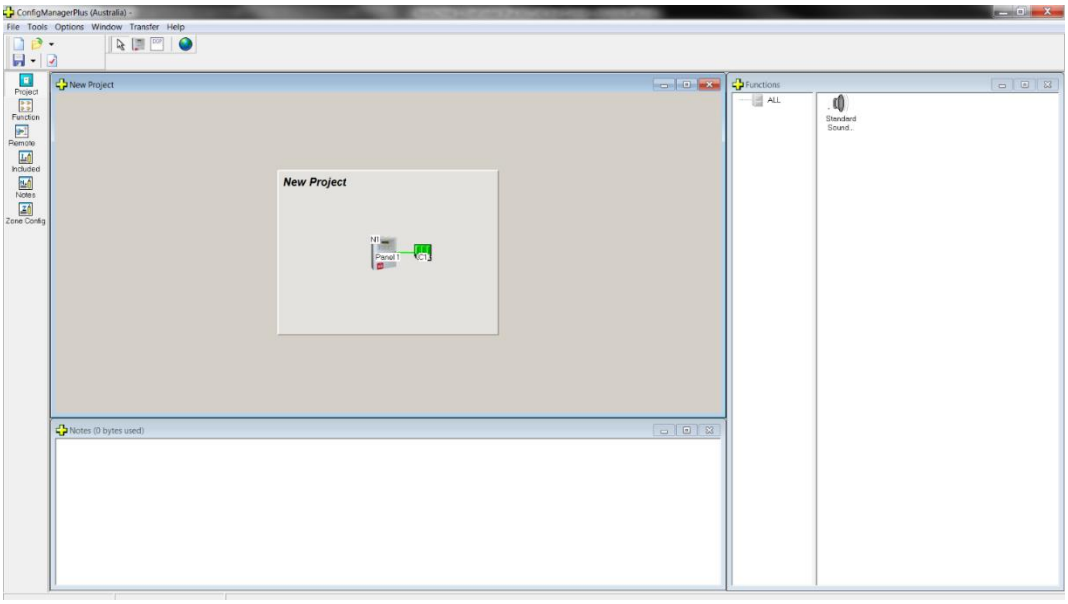


Figure 9: New Project showing Notes and Functions Windows if both are "Ticked"

3.1.3.3 Compile

Set options to display the compiled file and to choose whether to validate included text as functions. In most instances these will both be set to be on.

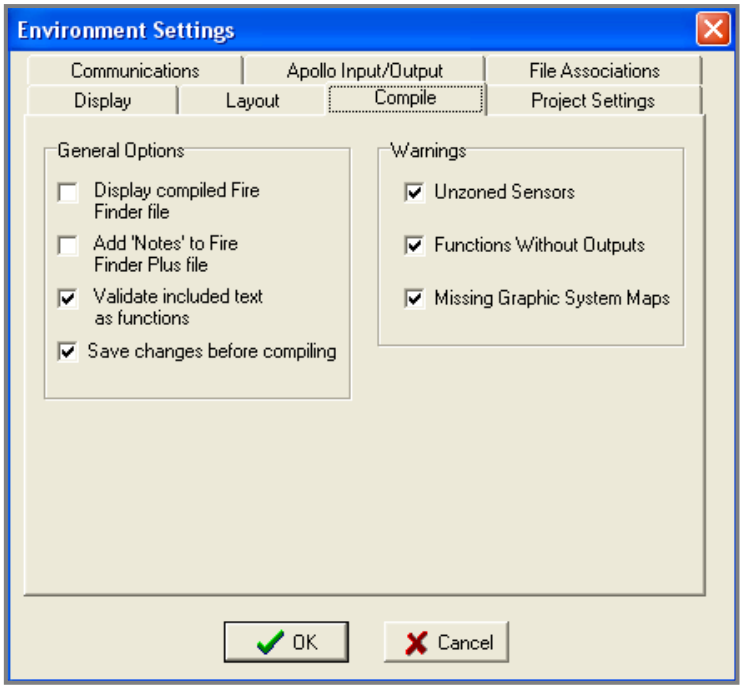


Figure 10: Compile Dialogue Box

General Options (left hand tick boxes in Fig 11)

☑ **Display compiled *FireFinder Plus* file:** Selecting this tab option will display the compiled ***FireFinder PLUS*** file. This means that, after compiling the project the *.dat file is displayed in a window on the screen. *This is mainly for the advanced user and is usually not selected*.

☑ **Add 'Notes' to *FireFinder PLUS* File:** Allows notes to be added to the file.

☑ **Validate included text as functions:** This feature is used when SPECIAL functions are included in a project. SPECIAL functions are functions that are written in text form and included in the project in the INCLUDED file.

☑ **Save changes before compiling:** Automatically saves any changes before compiling.

Warnings (right hand tick boxes in Fig 11)

A warning will be indicated during the Compiling process that the checked features do not meet the required criteria and must be corrected.

☑ **Un-zoned Sensors**

☑ **Functions Without Outputs**

☑ **Missing Graphic System Maps**

3.1.3.4 Project Settings:

Set the “Options” for the project

Default Customer Text: Here 4 lines of default customer text (e.g. name) are entered. This saves having to enter the company's name for every configuration.

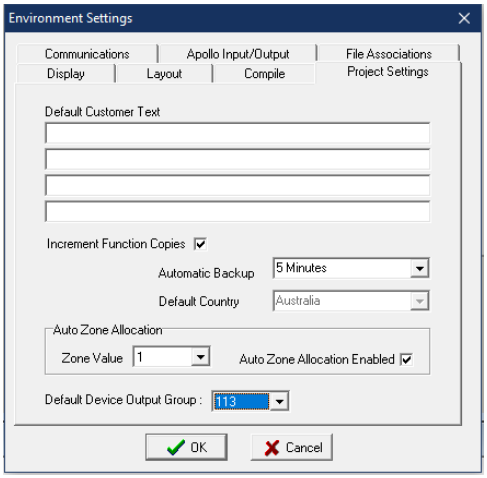


Figure 11: Project Creation Dialogue Box

Increment Function Copies: Click on the tick box to enable. Enable when copying or cloning Functions to automatically increment the number of the device’s inputs and outputs (1 to 3). Should a mistake be made when numbering the device, an error message will appear.

Automatic Backup: Select the timing for automatic periodic backup of the project from the drop down box (5, 15, 30, 45, 60 minutes or NEVER).

Default Country: Set by default (hence greyed out) to the country where the panel is to be installed.

Auto Zone Allocation Value: Open the drop down box to select a value (0-999). This will automatically assign zones when making multiple entries in the Module Data Entry screen**.**

Auto Zone Allocation Enabled: Click on the tick box to enable the auto zone allocation

Default Device Output Group: This setting will apply a default Output group number to Loop device outputs.

3.1.3.5 Communications

This tab will display a page to set the port and methodology used to communicate with the ***FireFinder PLUS***.

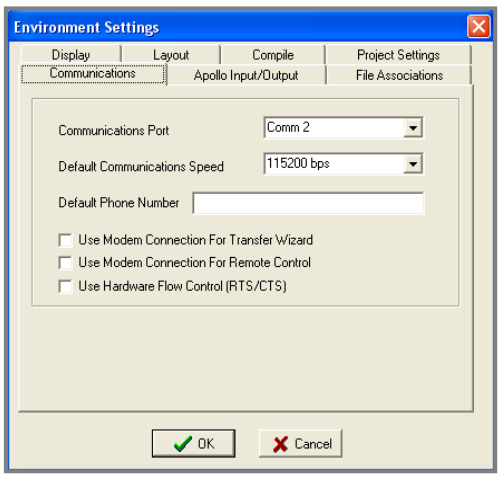


Figure 12: Communication Dialogue Box

Normally;

☑ ***Communications Port:*** *Comms 1 – 32. Default Port is 2.*

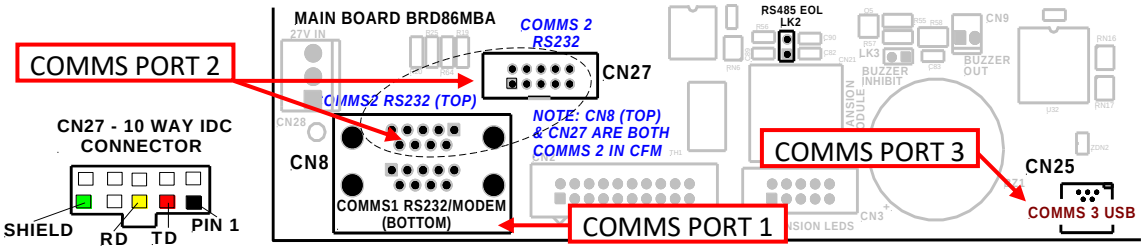


Figure 13: Comms Port Location on the Main Board and Port Numbering

☞ **Note:** *The modem I/O port is a Dual DB9 connector (CN8 situated on the lower left hand corner of the Main Board) is normally used for programming of the FACP via the serial port of a PC. There is also a USB connector (CN25) provided to allow programming of the FACP from a USB port of a PC.*

☑ ***Default Communications Speed:*** *The speed or baud rate of the communications used to communicate to the **FireFinder PLUS** and no adjustments are required by the user. Default speed is 115200 bps.*

☑ ***Default Phone Number:*** *Enter the phone number to be auto dialed for modem connection*

☑ ***Use Modem Connection for Transfer Wizard:*** *Tick if the Transfer Wizard is to be used as the communication vehicle.*

☑ ***Use Modem Connection for Remote Control:*** *Tick if remote control is via a modem*

☑ ***Use Hardware Flow Control (RTS/CTS):*** *Tick if hardware control is used for the transfer of data.*

3.1.3.6 File Association

Tick the check box if the project *.ffp files are to be associated with ***ConfigManager Plus*** - Australia.

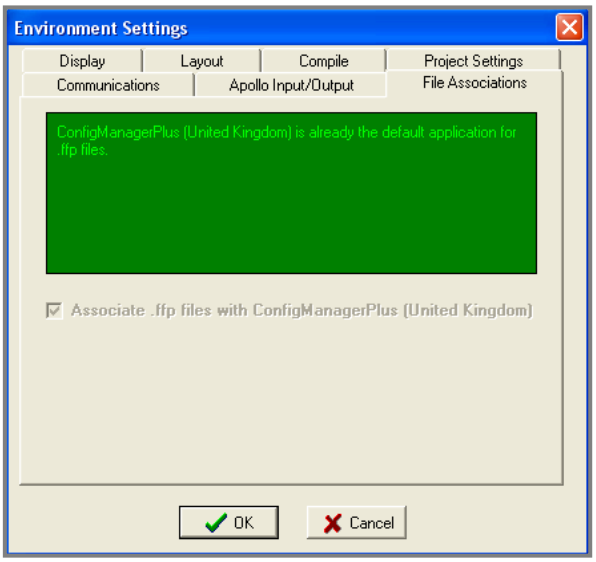


Figure 14: File Association Selection Box

☞ **Note:** ***The displayed message confirms the status***

3.1.3.7 Apollo Input/Output

This tab sets the default "zone configuration" of the Apollo/AMPAC loop device's inputs when a IO device is added to the loop. Each is simply selected by clicking on the appropriate check box. This setting is used when the loop module is first created.

For example, if the "First input active only" is selected, then new IO device that is added subsequently will have its first input automatically set to "General" and the remaining as "Inactive"; if the "All inputs active" is selected, then the new IO device will have all its inputs set to "General" automatically.

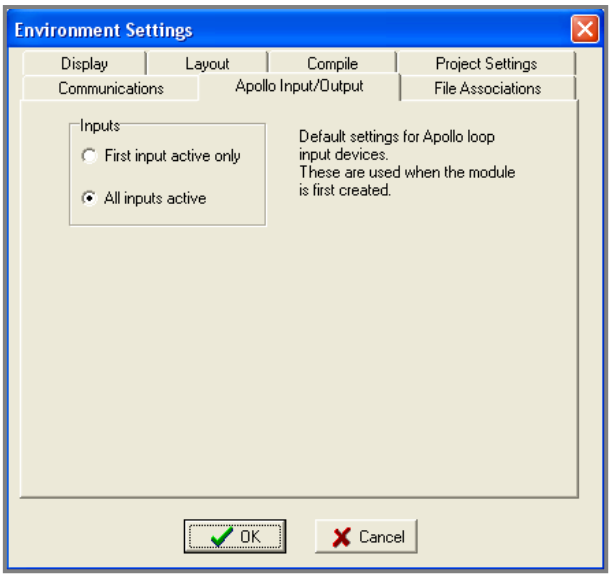
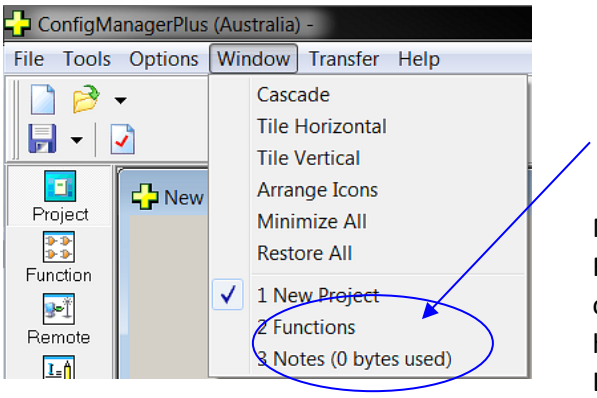


Figure 15: Apollo Input / Output Screen

☞ **Note:** ***Only one choice can be selected***

☑ ***First input active only:*** Tick if required or ☐ ***All inputs active:*** Tick if required.

3.1.4 Window



Note: New Project, Functions and Notes will only be shown if they have been "ticked in the Layout selection *screen*

Figure 16: Window Drop Down Box

Cascade - Displays windows stacked and cascading from the top left to the bottom right of the screen.

Tile Horizontal - Displays Project and Function windows top edge to top edge.

Tile Vertical - Displays Project and Function windows right edge to left edge.

Arrange Icons - Arranges minimised image windows within the program screen.

Minimise All - Iconizer's all active windows to the bottom left hand corner of the screen.

Restore All - Returns all active windows to those selected prior to "Minimise All".

3.1.5 Help

Figure 17: Help Drop Down Box

Contents

This is the on screen help file that provides a PDF version of this manual.

About

Displays the following screen giving the user the Version of ***ConfigManager PLUS*** being used, direct access to the Ampac website (highlighted in blue) and communication access (highlighted in blue).

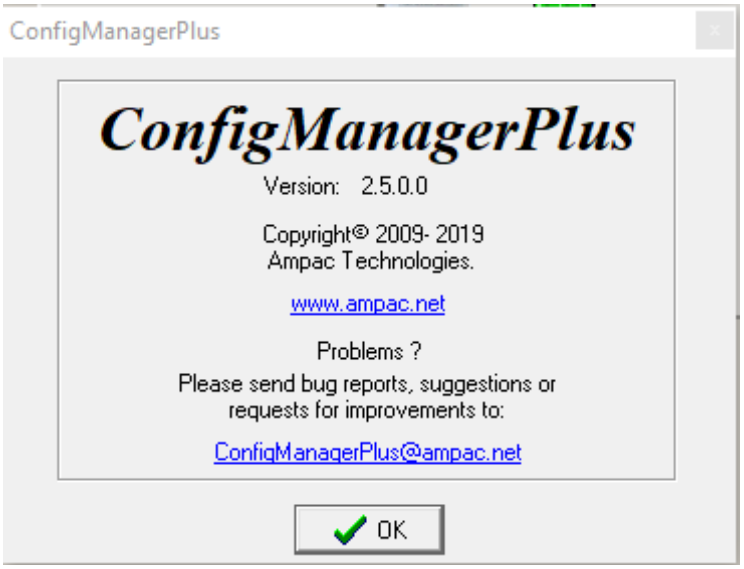


Figure 18: About Screen

4 Creating a New Project

To create a new project either click on the **New Project Icon** on the tool-bar, **Ctrl + N** or;

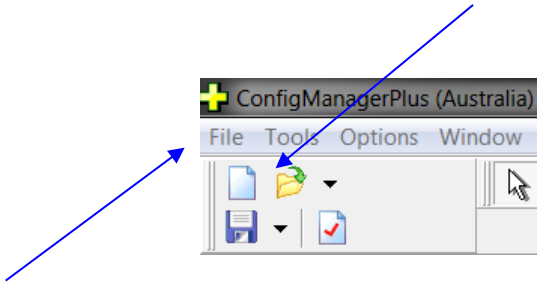


Figure 19: Selecting a New Project

Select: **File/ New Project**. This will bring up the System settings dialogue box as shown below.

☞ **Note:** Remember the Options / Environmental Settings MUST be entered before starting a new project.

4.1 The Systems Settings Dialogue Box

4.1.1 Base Settings

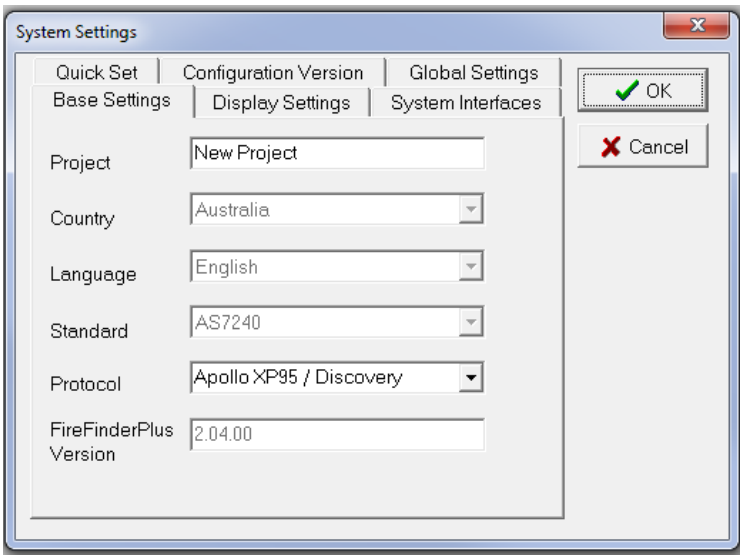


Figure 20: The System Settings Dialogue Box

Enter all the information described in the sub-headings set out below. Once completed press **OK**. If there are any errors the operator will be prompted to correct them.

☞ **Note:** To edit System Settings at a later date click on the "Globe" icon in the Tool Bar.

Project

Enter the project name. Naming is optional though it is advisable to make projects distinctive so they are easily identifiable at a later date.

Country
The drop-down list box defaults to the country particular to the version of software and takes into consideration the different panel functionality in different countries (not editable).

Standard
The drop-down list box defaults to the national standard particular to the version of software (not editable).

Language
The drop-down list box displays the default language being used for the standard (not editable).

Protocol
Use the drop-down list box to select the required option to become active.

FireFinderPlus Version
Displays the configuration structure's version currently in use (not editable).

4.1.2 Display settings

The display settings, sets the LCD message that will be displayed when the ***FireFinder PLUS*** LCD is in its normal state. The text on each line may be up to 40 characters long.

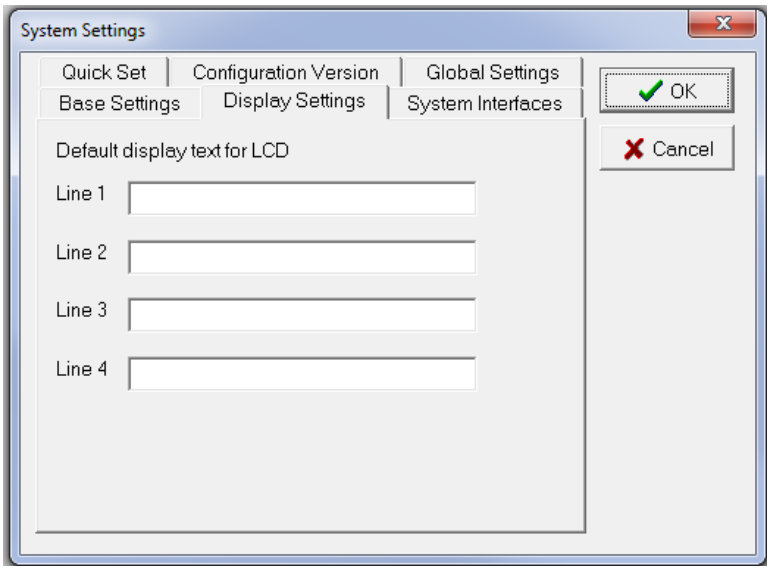


Figure 21: The Display Settings Dialogue Box

4.1.3 System Interface (*SmartGraphics*)

The Graphic Interface Fitted check box is selected if a ***SmartGraphics*** Interface is being installed in the system. This tick box turns on the "Map" allocation column in the Loop Device configuration spreadsheet (Refer section 5).

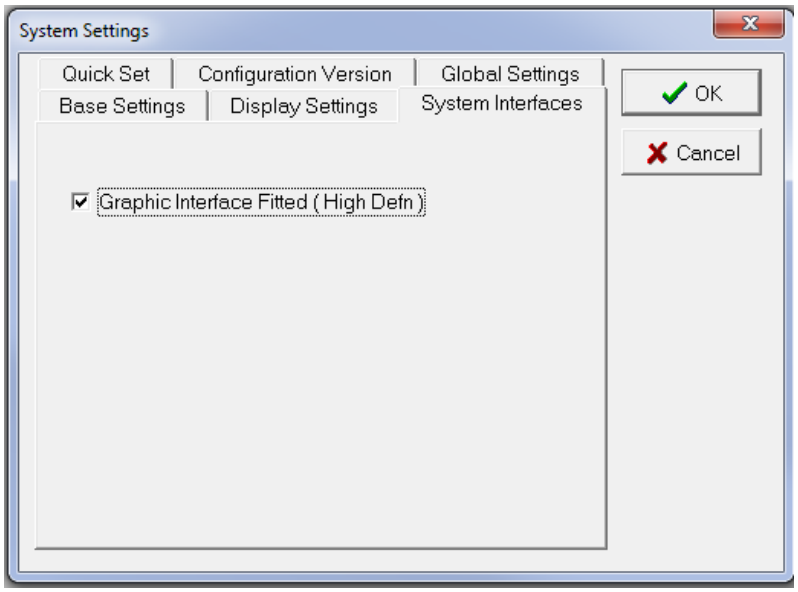


Figure 22: The Quick Set Dialogue Box – Selecting "Graphic Interface"

4.1.4 Quick Set settings

This option will save a considerable amount of work as it will automatically set up the required number of panels, DGP's and / or mimics.

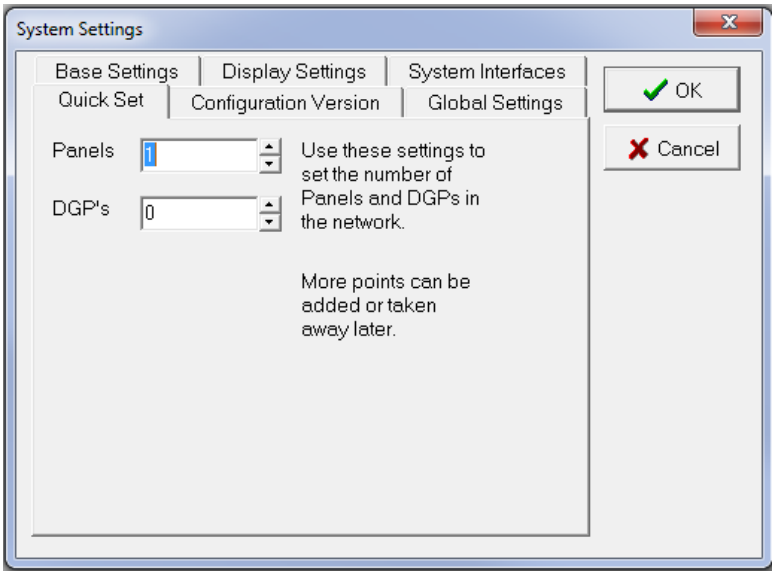


Figure 23: The Quick Set Dialogue Box

Panels

This sets the number of panels in the system. For non-network projects this will be set to one (1).

DGP's

Data Gathering Points (DGP's). This entry is used if DGP's are configured on a network. DGP's being a Slave FACP that, has no front panel controls, communicates directly with and is under the control of the Master FACP.

4.1.5 Configuration Version

Allows editing of the configuration versions for ease of traceability

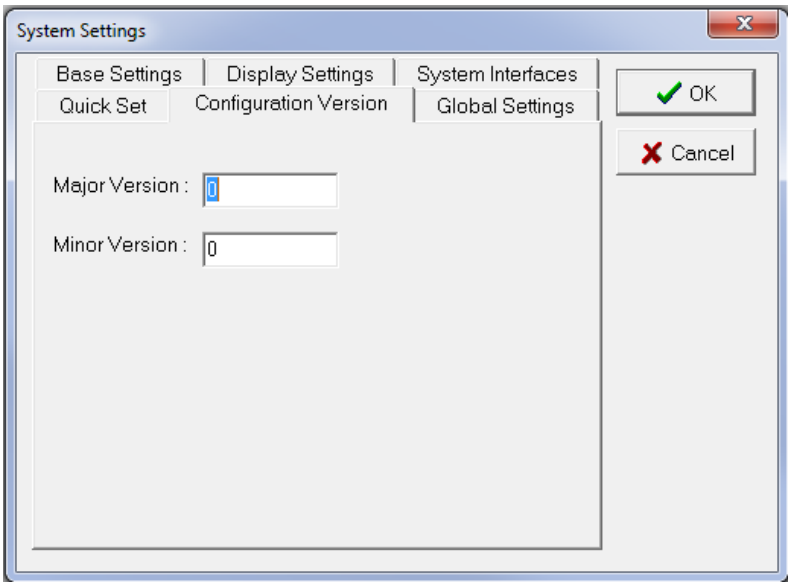


Figure 24: The Configuration Dialogue Box

The major and minor version information indicates changes that are made via the ***ConfigManager PLUS*** and ***FireFinder PLUS*** respectively.

That is,

Major Version: Each update via the ***ConfigManager PLUS*** increments the Major Version Number and clears the Minor Version Number to zero.

Minor Version: Each update via the ***FireFinder PLUS*** panel's programming increments the Minor Version Number.

Note that if the Major or Minor version number reaches 65535, it shall then remain at this value unless being reset manually via ***ConfigManager PLUS***. On the creation of a new configuration for the first time, ***ConfigManager PLUS*** software defaults both the Major and Minor Version Number to zero.

4.1.6 Global Settings

4.1.6.1 Alert Tone Global Setting

The Global Alert Tone pulse ON and OFF times can be set here.

4.1.6.2 ADF Timeout Global Setting

The default timeout for ADF groups can be set here. This will override all previous ADF timeouts that may have been set at on the Module Data Spreadsheet.

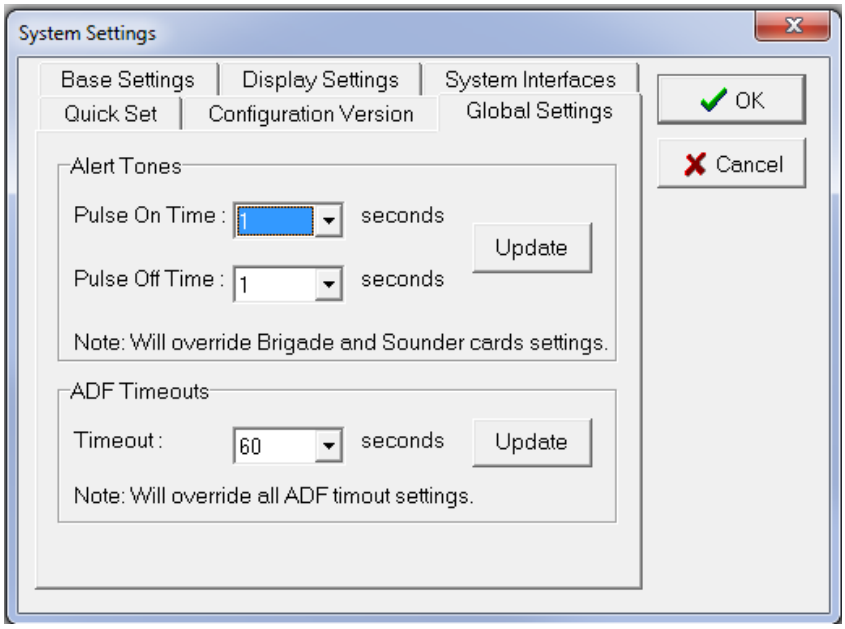


Figure 25: The Sounder Settings Dialogue Box

4.2 The New Project Screen

When all of the options above have been determined and the OK button has been clicked the following screen will be displayed. This may vary depending on the options selected in the layout options dialogue box. Each of these areas will be discussed in detail on the following pages.

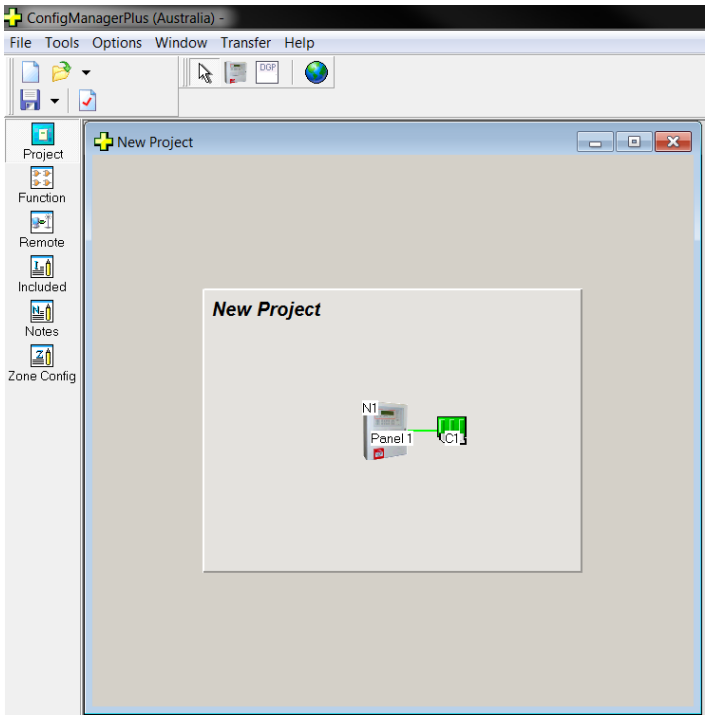


Figure 26: New Project Screen

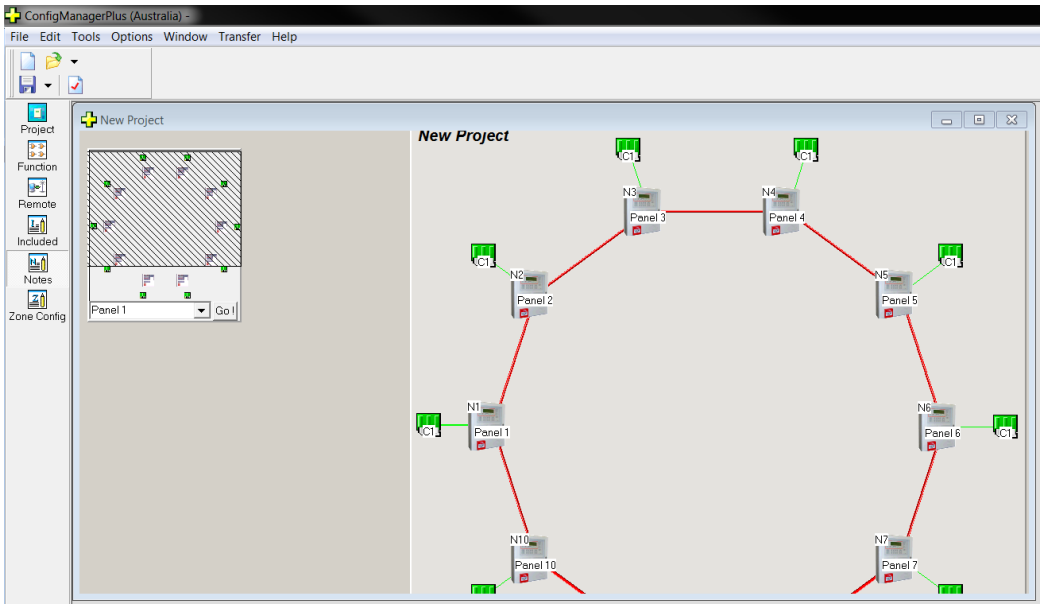


Figure 27: New Project Screen with Cross Hatch Screen

☞ **Note:** The cross hatch screen is used to move the Project Screen around the Monitor Screen so as to locate or centre specific parts of the system. For larger systems with multiple panels a panel can be selected from the drop down screen, selecting " Go " and that panel is automatically centered.

4.3 The Project View

The screen below is a typical view that will be seen by the operator when a single panel is to be programmed. The Panel represents the hardware which is common in all panels. C1 represents the controller that interfaces with up to 8 slave modules.

☞ **Note:** It is recommended that the panel section is programmed first followed by the controller.

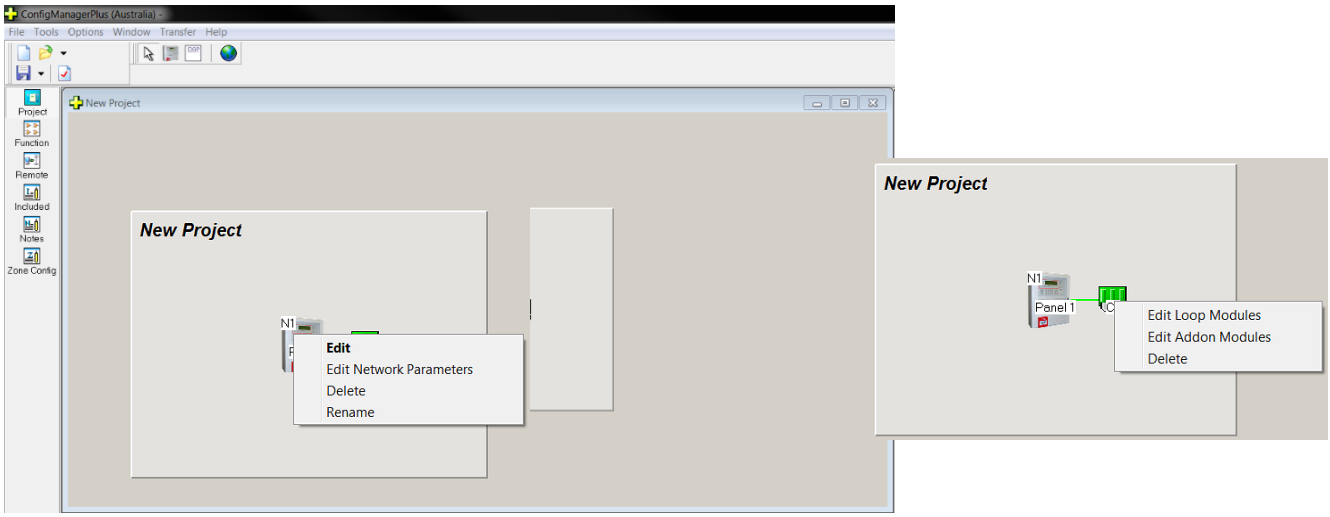


Figure 28: The Project View with Edit Options for the Panel & Controller

It is possible to **edit the parameters of the panel** by right clicking on the icon as shown above. Similarly it is possible to ***edit the module types*** as shown.

4.3.1 Panel Settings or Editing

Double click on the Panel to set or edit the Panel configuration.

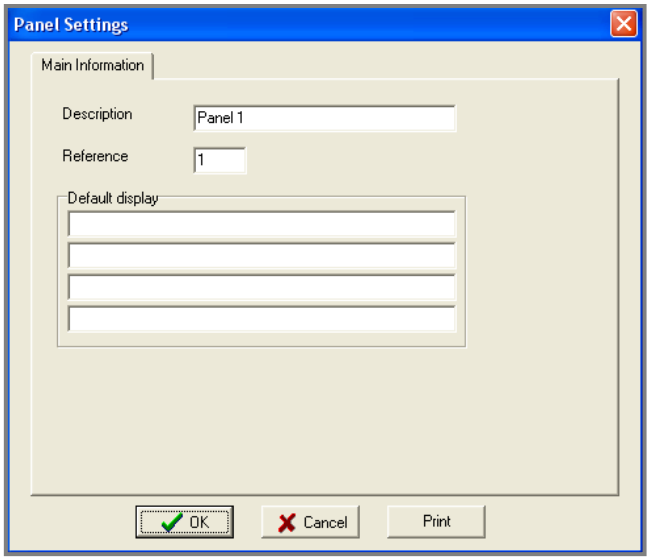


Figure 29: The "Main Information" Edit options for the Panel

☞ **Note:** Click on OK to go to or return to the main project screen at any time.

Main Information (Edit)

Shown above is the default screen ready for the "Main Information" to be entered.

Description: Default is Panel 1. This can be changed to a more apt description by simply deleting the text Panel 1 and typing a new description. This description will appear next to the panel in the "Project" screen.

Reference: Node number of the Panel (Networking). Default is 1 for a single panel and the "node NX" number as seen in the Project Screen for network panels.

Default Display: Type in the preferred FACP LCD front panel default information. (Default empty).

Network Parameters:

Right click on the Panel Icon and select Edit Network Parameters to set Global Access.

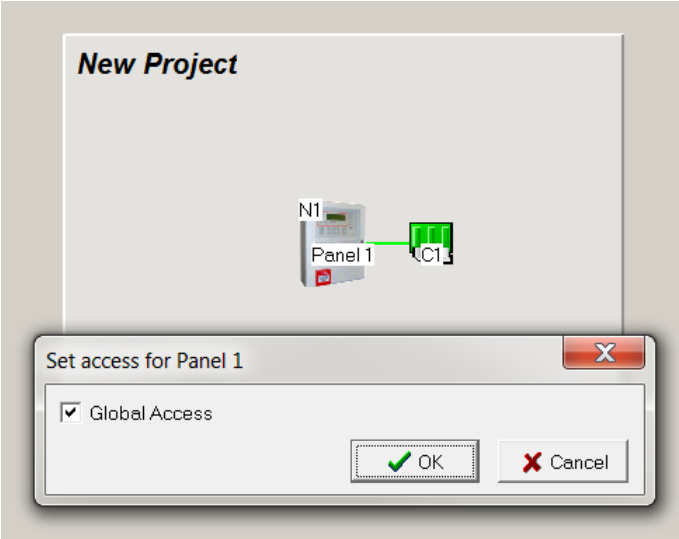


Figure 30: The Panel Access or Network Parameters Screens

If Global Access is assigned to a Panel they will see or monitor the entire system. If it is not set then the various panels, Loop/s and Group/s will have to be assigned by way of the Set Access screen. In other words the panels Loop/s and or Group/s that a Panel, DGP and / or Mimic will see or monitor must be individually entered.

4.3.2 Setting or Editing the Controller Module Types:

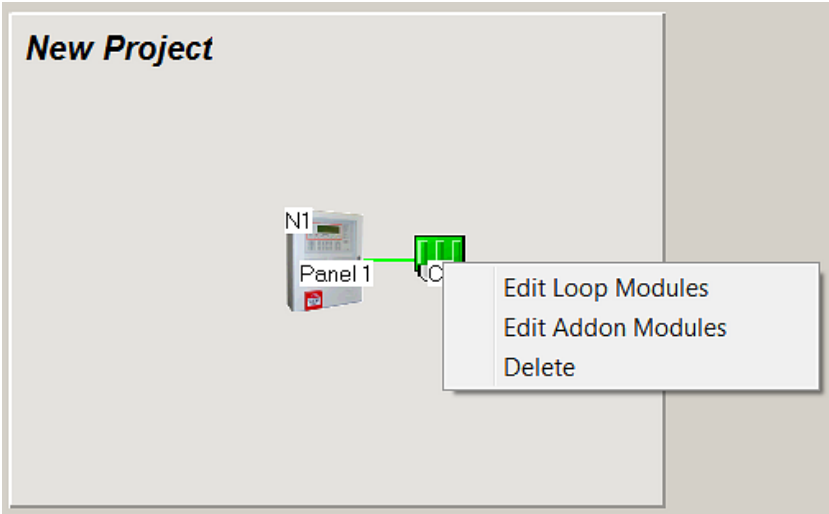


Figure 31: The Edit options for the CONTROLLER

4.3.2.1 Edit Loop Modules

Right click on the Controller and select “Edit Loop Modules Types” from the drop down screen. Using the “Classic” screen click the down arrow within the “Type” column to display the drop down box from which the module type is selected by clicking on it.

The Description and Ref [Reference] No [Number] is automatically assigned. The reference number represents whether the module is the first, second, third etc. of its **type.** For example if two Apollo modules are fitted the first module would have a ref. No. 1 and the second module would have the number ref No. 2. These numbers are unique over the whole system. They are generated automatically and should not need to be altered. For advance users the numbering does not have to be continuous and can be altered to suit specific applications.

Alternatively the “Graphic” screen can be used. This screen uses the click and drag method where the module type from the top of the screen is clicked on and dragged to the required position 1 to 8.

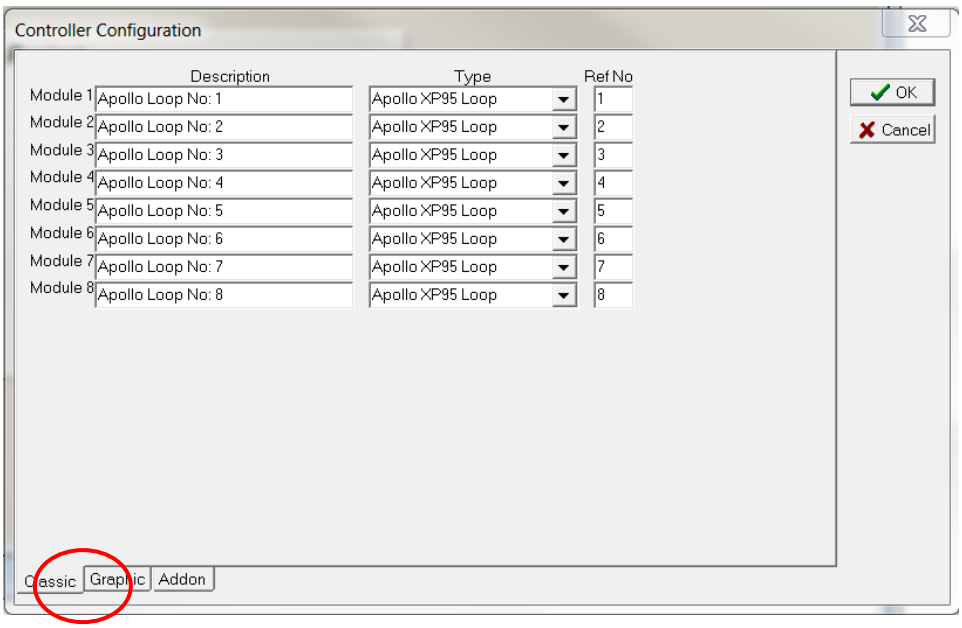


Figure 32: Edit Loop Module Type 'Classic View'

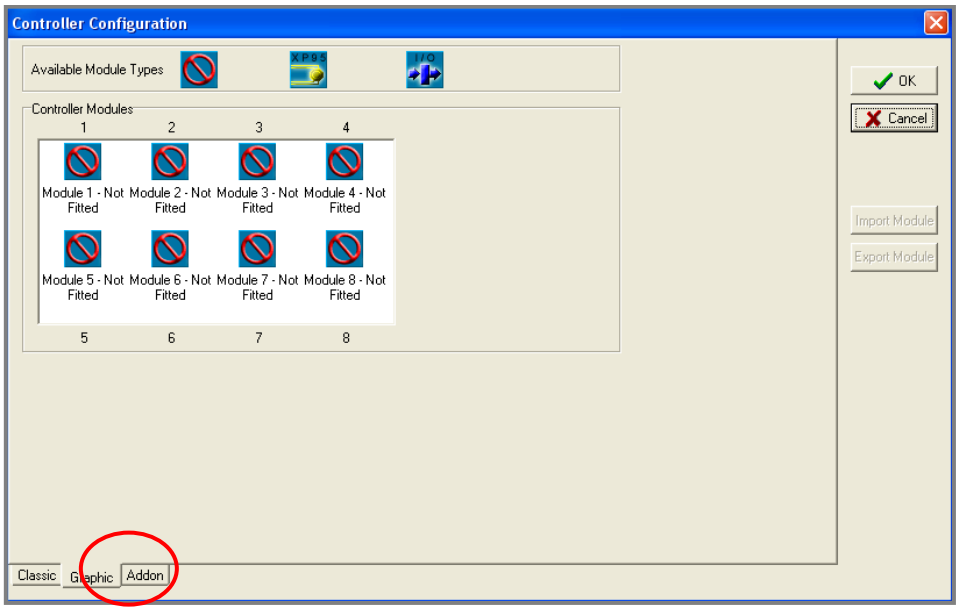


Figure 33: Edit Loop Module Type 'Graphic View'

4.3.2.2 Rearranging Module Order

Method 1: Select *Graphic* then click and drag each Module into the required order.

Method 2: Select *Classic*. Save and Import the modules to be rearranged. This is done by changing the *Type* to *Not Fitted* and selecting *OK*, the drop down screen shown below will appear, click *Yes*, then *Save* to a preferred file location. To reapply or Import a Module select the Controller Configuration option Graphic, select the available Module number then *Import Module*, repeating the process in the desired order for each Module.

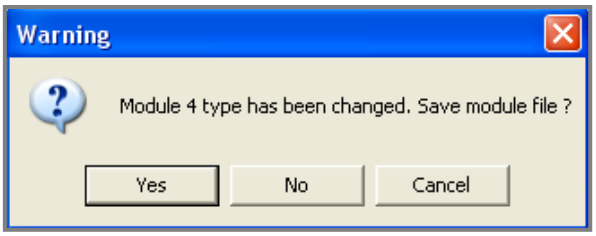


Figure 34: Warning Pop up Box

4.3.3 Controller (Loop and I/O) Setting or Editing

To access the Controller "Setting / Editing" facility double left click on the Controller "C1"

<u>Edit LOOP Modules.</u> To physically edit each Loop Device parameter left click in the appropriate square and enter or change the existing setting / information.

Refer to section 5 for full editing details of Loops and devices.

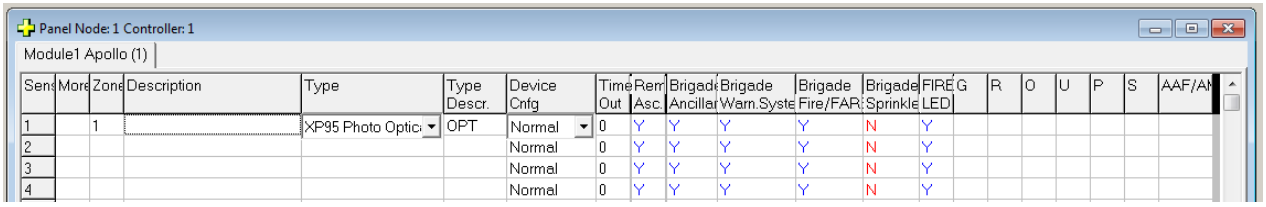


Figure 35: Controller Settings - Apollo XP95 Loop Module

<u>Edit Module Input / Output.</u> Here the Input and Output descriptions can be edited and the Inputs and Outputs can be made active / inactive. To physically edit the description click in the box and edit from the keyboard in the normal way. To set an Input or Output to active / inactive double click on the "Y" [Yes] active or "N" [No] inactive. Note – the Input will automatically change to "Y" (yes) if an "Input Description is inserted. This can be made inactive again by double left clicking on "Y"

Input Output settings

Displays Both Inputs and Outputs

Input setting only

Displays Inputs only

Output setting only

Displays Outputs only

For Input / Output settings the Input/Output module page displays:

1. The input (or output) numbers
2. An associated "Type In" descriptor
3. An option to determine if the input (or output) is to be **active.** To select if a module is to be active or inactive left-click on the box to toggle the contents between Y(Yes) or N(No).

To enter the descriptor just left-click on the box where you want to enter the data and type it in.

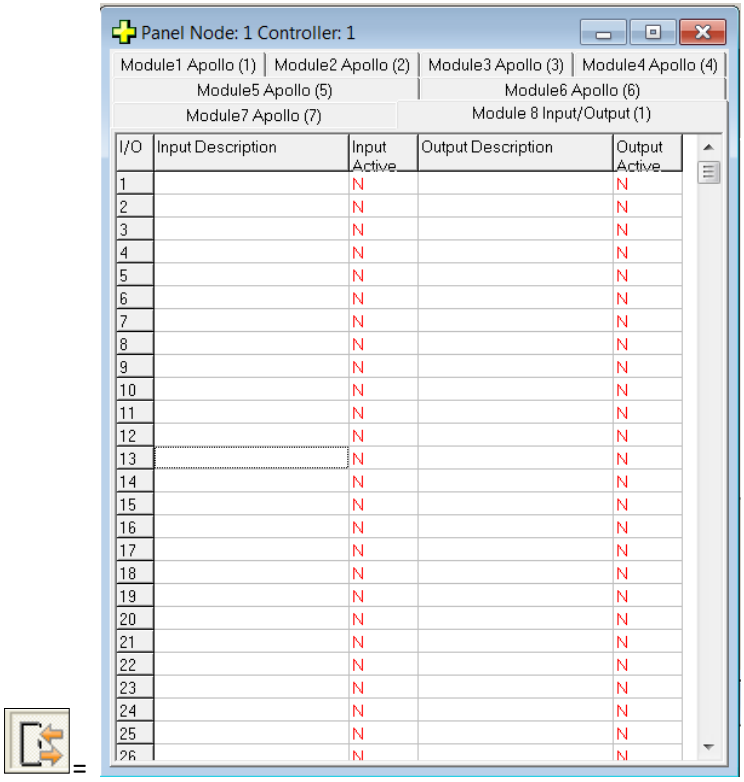


Figure 36: Controller Setting - Input / Output Module showing I/P and O/P Selection

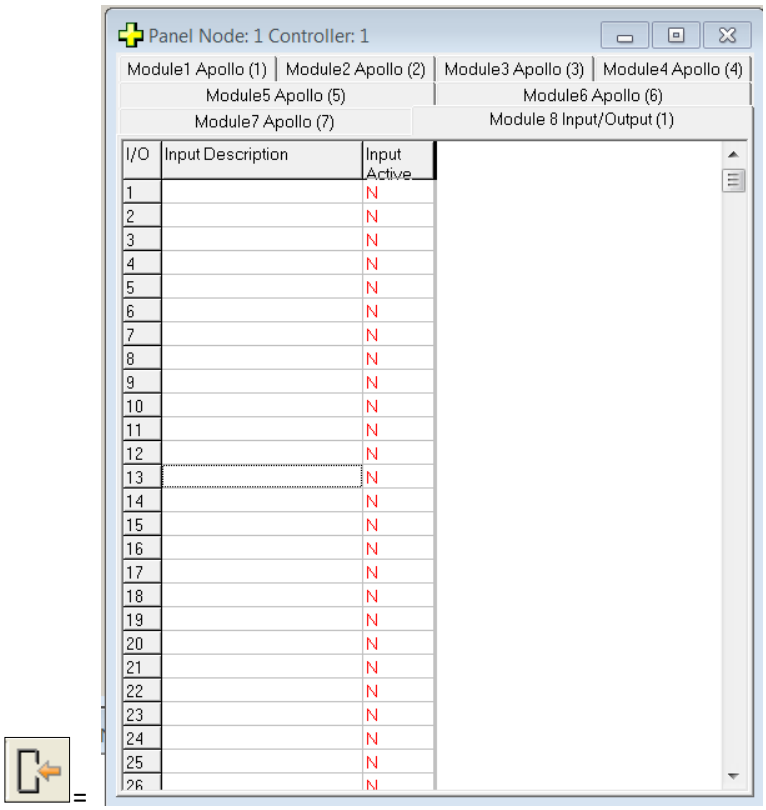


Figure 37: Controller Setting - Input / Output Module showing I/P Selection Only

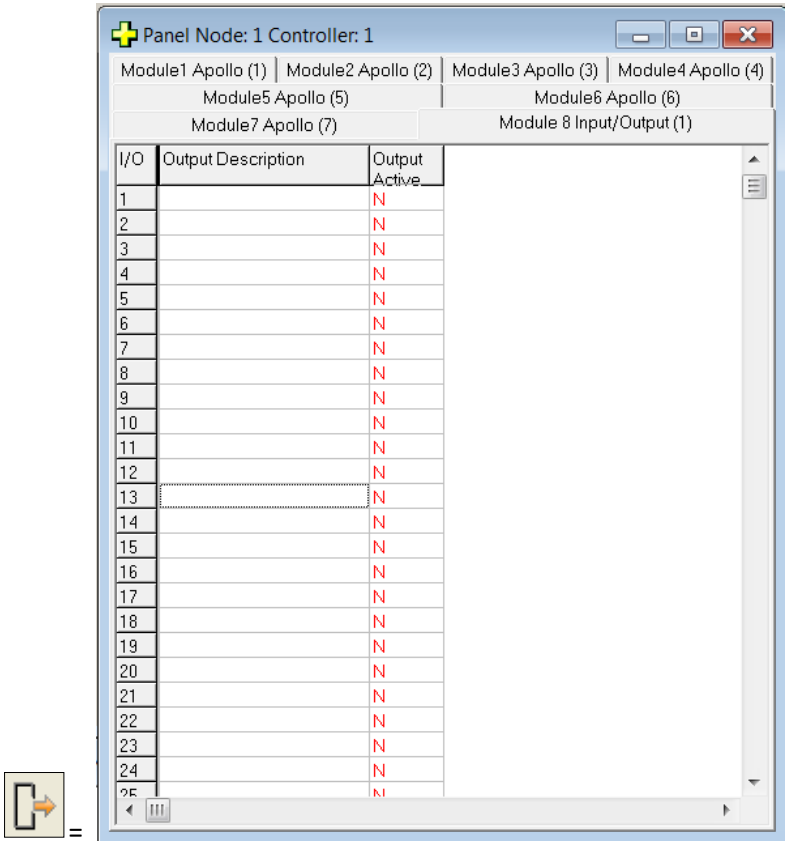


Figure 38: Controller Setting - Input / Output Module showing O/P Selection Only

4.4 Controller Settings (Addon Modules)

Right click on the Controller “C1” and select “Edit Addon Module” from the drop down screen.

Click the down arrow within the “Type” column to display the drop down box from which the Addon module type is selected by clicking on it.

The “Addr No” for each type is automatically assigned. The physical address (dip switch) of the module needs to match this.

Click on the “Edit” button to configure the Addon module.

☞ **Note:** *Selecting an “Agent Release” and “Fan Control (with Termination Board Fitted)” automatically reserves the next Addon Ref no. – observe that the next record is disabled and greyed out as seen below - “Addon Ref No 6 and 8”.*

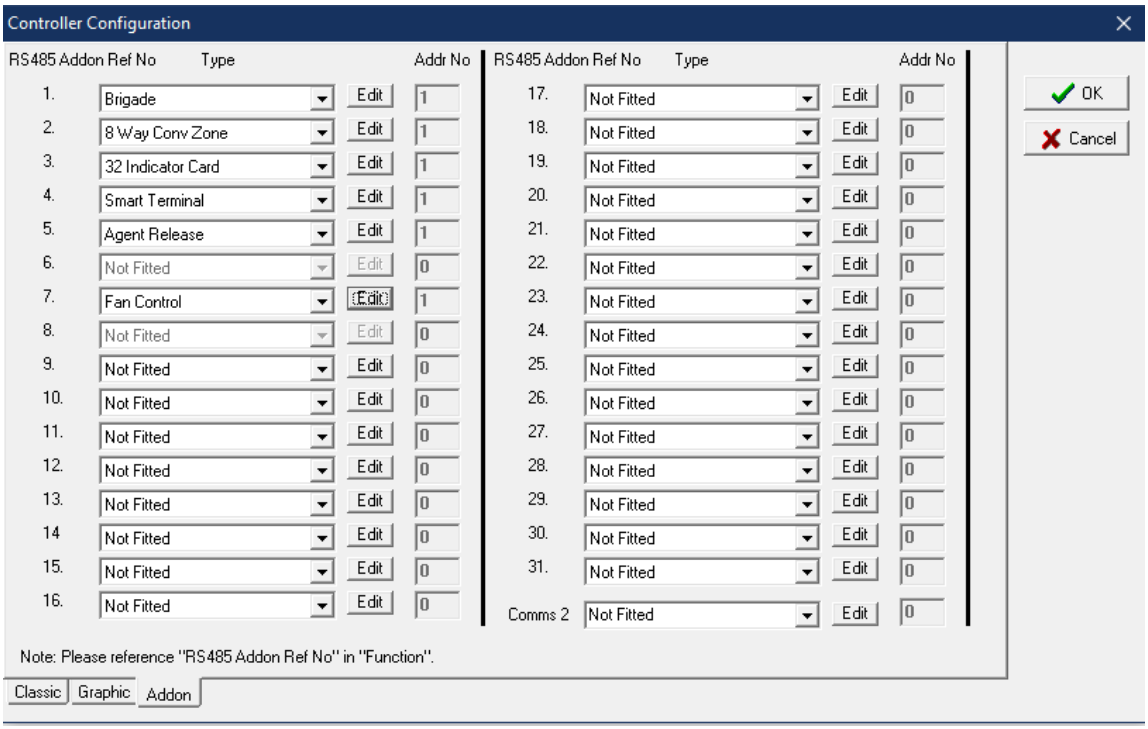


Figure 39: Controller Edit Addon Module Types

4.4.1 Brigade Board

ⓘ It may be necessary to select the first “Input” and change the “Config Type to MCP in the first instances to be able to edit this facility.

Select “Brigade” from the “Config Type” column on the “Addon Module” page and click on the “Edit” button. Clicking on the “Edit MCP Property” button displays the dialogue box for the MCP input configuration.

The Brigade Board addon is limited to one per node and must be the first Addon Referenced if fitted as automatically allocated Addon No address 1.

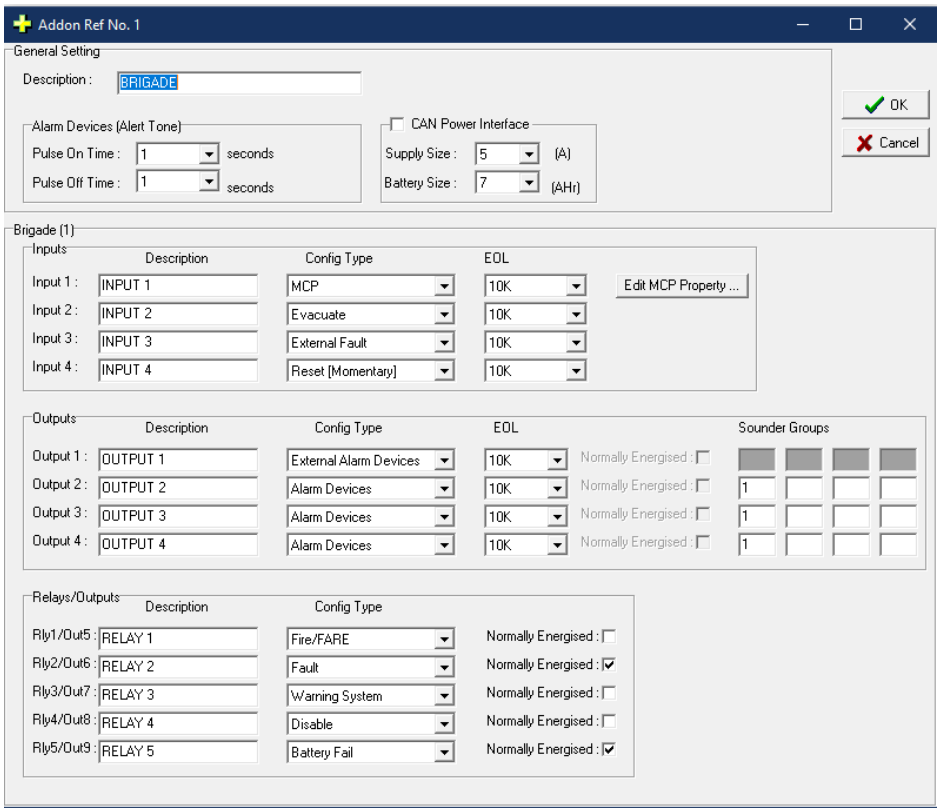


Figure 40: Controller Edit Addon Brigade Module

Description: This field is editable

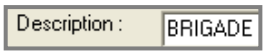


Figure 41: Brigade Board Description Field

Supply / Battery Size: This field is set via the drop down boxes for the power supply and size of the batteries installed.

Figure 42: Brigade Board Supply and Battery Size Info9rmation setting

Pulse On/Off Time: These settings are meant for the Brigade board Outputs configured as “Alarm Device” outputs (“alert” tone).

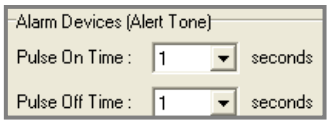


Figure 43: Brigade Board Alert Tone On Off Times

4.4.1.1 Brigade Inputs:

Description: There are 4 inputs available and each can be configured for a different purpose based on its "Config Type" normally describing the location of the Brigade Board. Click in the box to enter the description.

☞ **Note:** *that only the first input can be configured as an MCP for "Editing purposes – clicking on the "Edit MCP Property" button brings a window for the configuration of the MCP settings.*

Config Type:

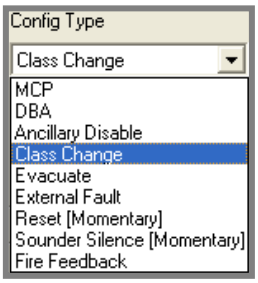


Figure 44: Brigade Module Config Type Input Options

Input EOL: - The available options for are.

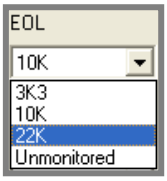


Figure 45: Brigade Input EOL Options

Brigade MCP Property Settings:

Config The available options for "Config" are Latching and Non Latching.

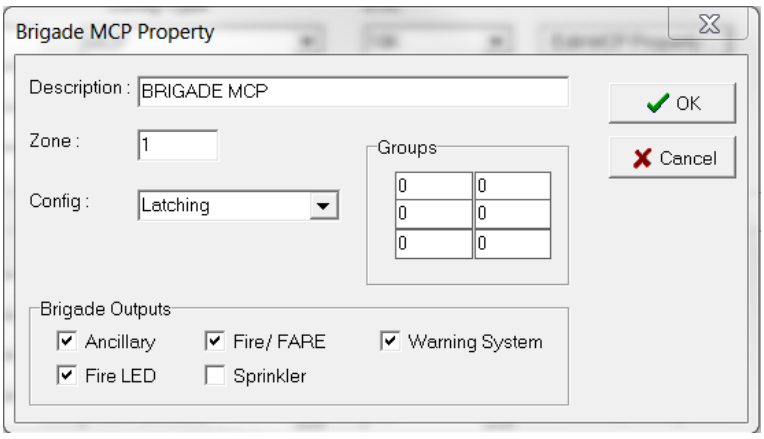


Figure 46: Controller Edit Addon, Brigade Module Config Latching– MCP

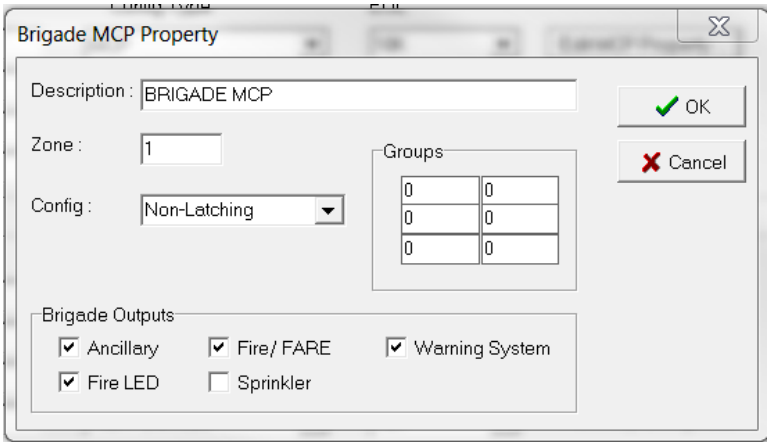
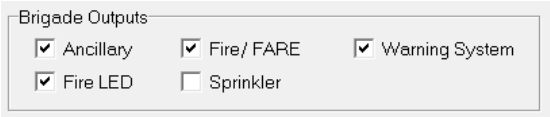


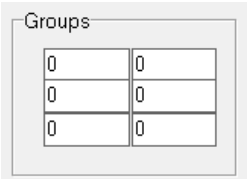
Figure 47: Controller Edit Addon, Brigade Module Config Non-Latching– MCP

Brigade MCP Outputs:



Five checkboxes (Ancillary, Fire/FARE, Warning System, Fire LED, and Sprinkler) are used to determine which outputs will be activated by MCP when activated.

MCP Groups



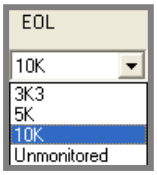
The "Group" column allows the user to enter up to 6 group numbers that are associated with I/O programming that will be activated when the MCP is activated.

4.4.1.2 Brigade Monitored Outputs

There are 4 outputs available and each can be configured for a different purpose based on its "Config Type".

Figure 48: Brigade Output Selection Options

Output EOL - The available options for “EOL” are.



Output - Normally Energised

The checkboxes defines the state of the outputs when the panel is in the “Normal” state. Outputs configured as “Fault” default to Normally Energised

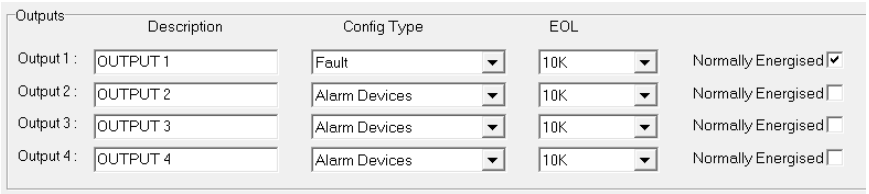


Figure 49

Sounder Groups

“Sounder Groups” are <u>only</u> available to outputs configured as “Alarm Devices”.

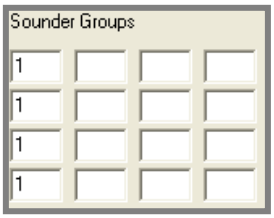


Figure 50: Sounder “Group Allocation” Entry

4.4.1.3 Brigade Relays/Outputs:

There are 5 relays available and each can be configured for a different purpose based on its “Config Type”. The available options for the “Config Type” are;

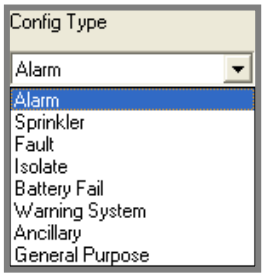


Figure 51: Relays Config Type Selection Options

Relay - Normally Energised

The checkboxes define the state of the relays when the panel is in the normal state.

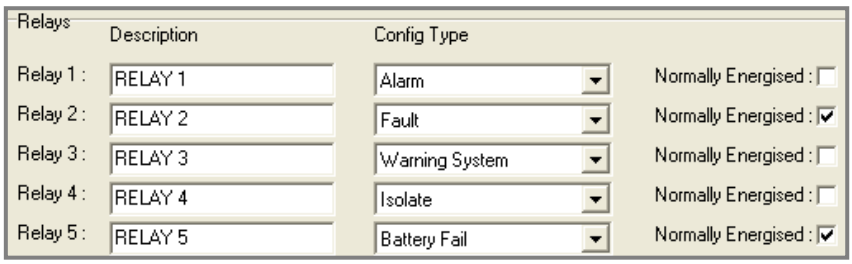


Figure 52: Relay Normally Energised Settings

☞ **Note:** *Default "Normally Energised" settings above.*

4.4.2 8 Way Conventional Zone

Select “8 Way Conv Zone” from the “Type” column on the “Addon Module” page and click on the “Edit” button.

Each Card [8 Way Conv Zone (X)] is automatically allocated an Add No address from 1 to 15.

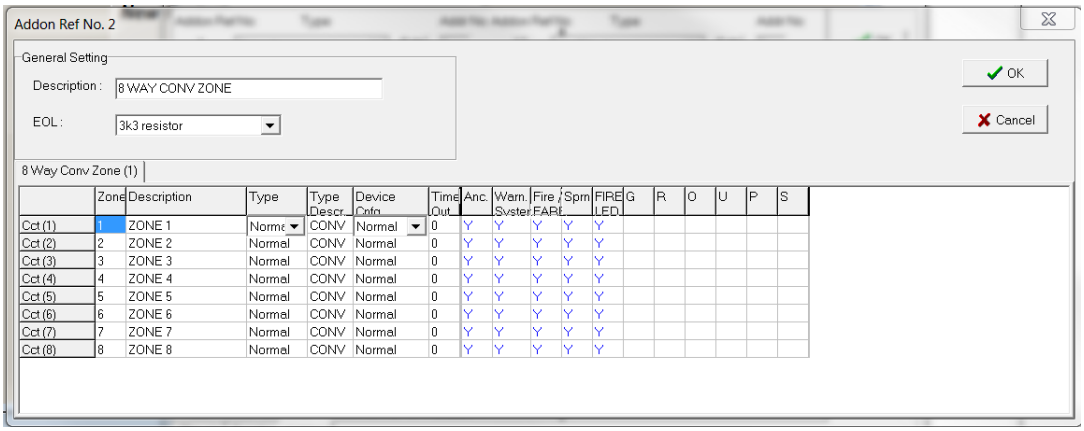


Figure 53: Controller Edit Addon 8 Way Conv Zone Module

Description: Normally describe the location of the 8 Way Conv Zone. Click in the box to enter the description.

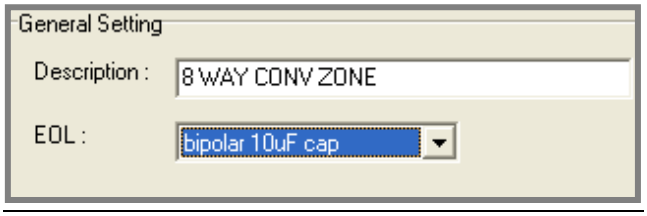


Figure 54: General Setting – Description / EOL Box

EOL: This defines the end of line setting for the 8 circuit inputs on board.

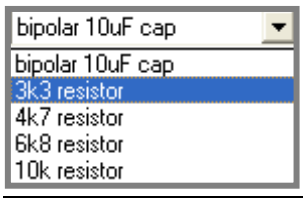


Figure 55: EOL Selection Drop Down Box

Circuit (1 to 8): The circuit number is set and cannot be modified.

Zone: The zone number must be a number between 1 and 2500.

Description: The description is limited to 33 characters and may contain numbers or characters.

Type: There is two types to choose from:

Normal: default setting

Combined: short and open circuits generate an Alarm condition (New Zealand Feature)

Type Descr: The type descriptor is automatically entered by the program. This may be modified if required but it is limited to 6 characters.

Device Cnfg: The Device Configuration column uses a drop down list box to display the options that a device may be set to; these are;

Figure 56: Device Configuration Drop Down Box

Time Out: This column is the used to enter the time out for the Self Reset configuration. A maximum of 999 seconds is allowable (60 seconds is considered a norm). An error message will be displayed if the operator attempts to enter something greater than 999 seconds.

ANC, WARN SYSTEM, Fire/FARE, SPRNKLR: These columns can be set to yes or no . If yes any outputs programmed as these types will activate when the applicable Zone is active.

Fire LED: The Fire LED refers to the Front Panel Fire LED (i.e. determines if an alarm event on the device in question is added to alarm buffer). This normally set to Yes.

Groups: The next six columns allow the user to enter up to 6 group numbers against each device. These group numbers are only used for I/O programming.

4.4.3 32 Way Indicator Card

Select “32 Indicator Card” from the “Type” column on the “Addon Module” page and click on the “Edit” button.

Each Card [32 Indicator Card (X)] is automatically allocated an Add No address from 1 to 15.

Description Normally describes the location of the 32 Indicator Card. Click in the box to enter the description.

Select Board Type: There are three board types that can be chosen from – refer to image below.

The required board is selected by “checking” the appropriate board.

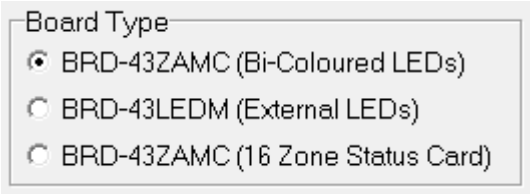


Figure 57: Board “Type Selection

Zone LED Statuses: These have default configurations depending on the Board Type Selected and are only applicable when the LED’s are set for “Zone” Activation.

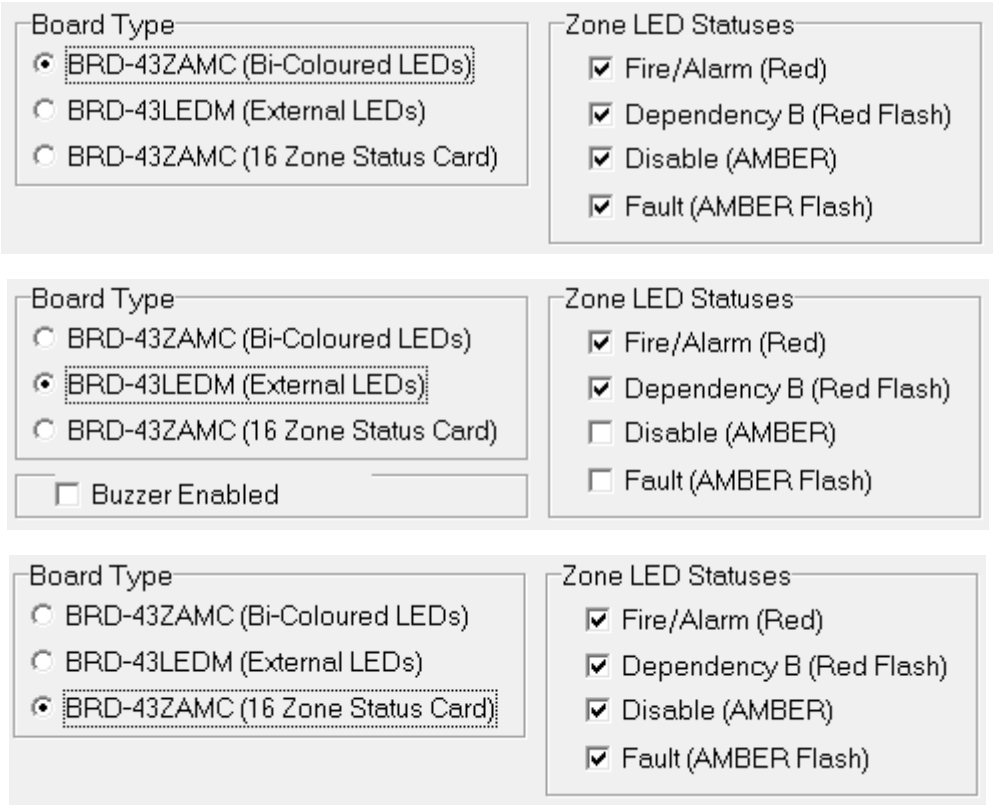


Figure 58: Zone LED Statuses

To alter the activation “Input Type” double click on the Activation field and edit using the pop up screen.

4.4.3.1 BRD43ZAMC (Bi-Coloured LED) option

This board allows for the configuration of the LED colour and mode as long as the “Activation” is not a zone input (Refer Led (10) in the image below).

A zone input in the Activation column disables the corresponding columns for LED colour and mode.

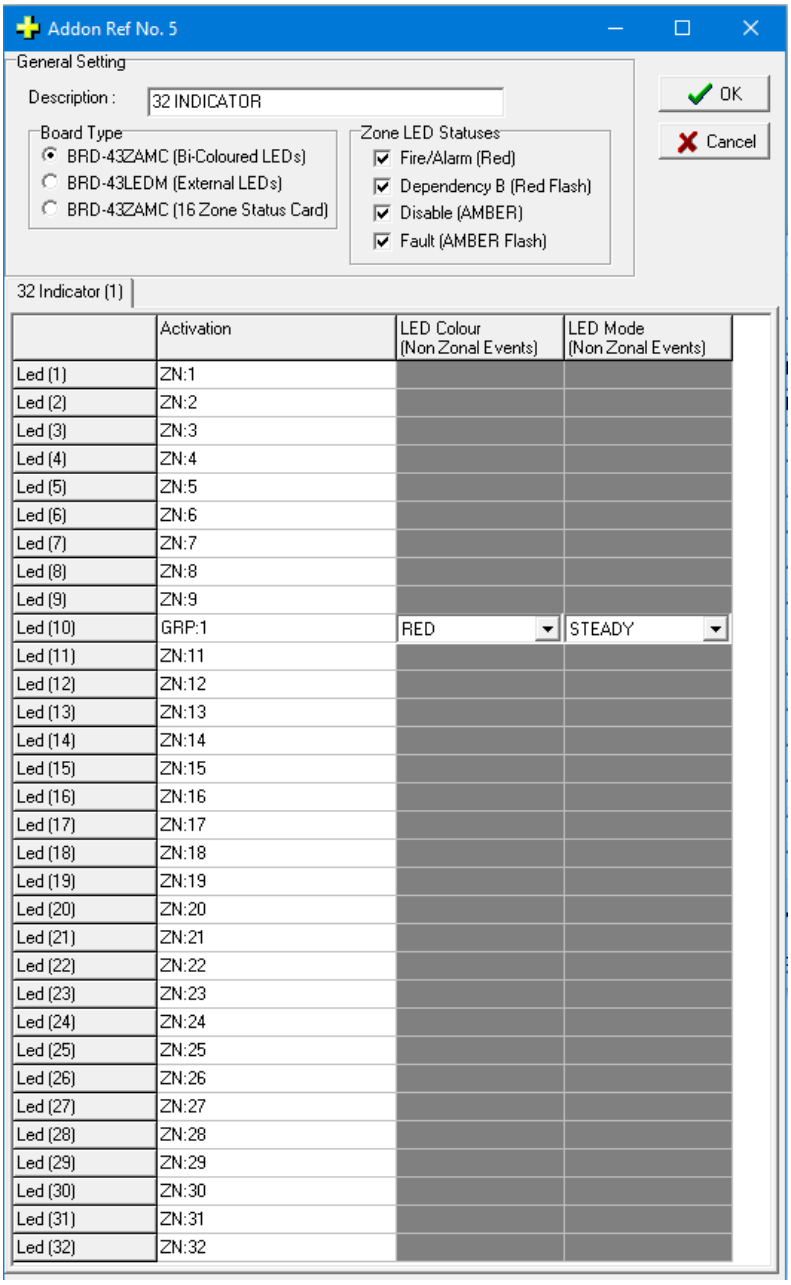
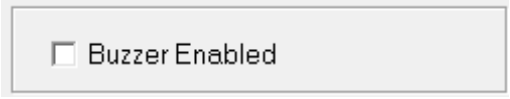


Figure 59: Controller Edit Addon 32 Indicator Card

4.4.3.2 BRD43LEDM (External LED) option

This board does not allow for the configuration of the LED colour and mode as the LED's are hard wired LEDs connected to the board.

The setting for the "Zone LED Status" is limited to either the first two or last two selections. These limitations are due to its single LED characteristics of the board.

The Buzzer Enabled option 

(if ticked) allows the on board buzzer to operate. This is generally used when the BRD43LEDM is mounted external of the Fire Panel. (This option is not available in the NZS4512 verasion).

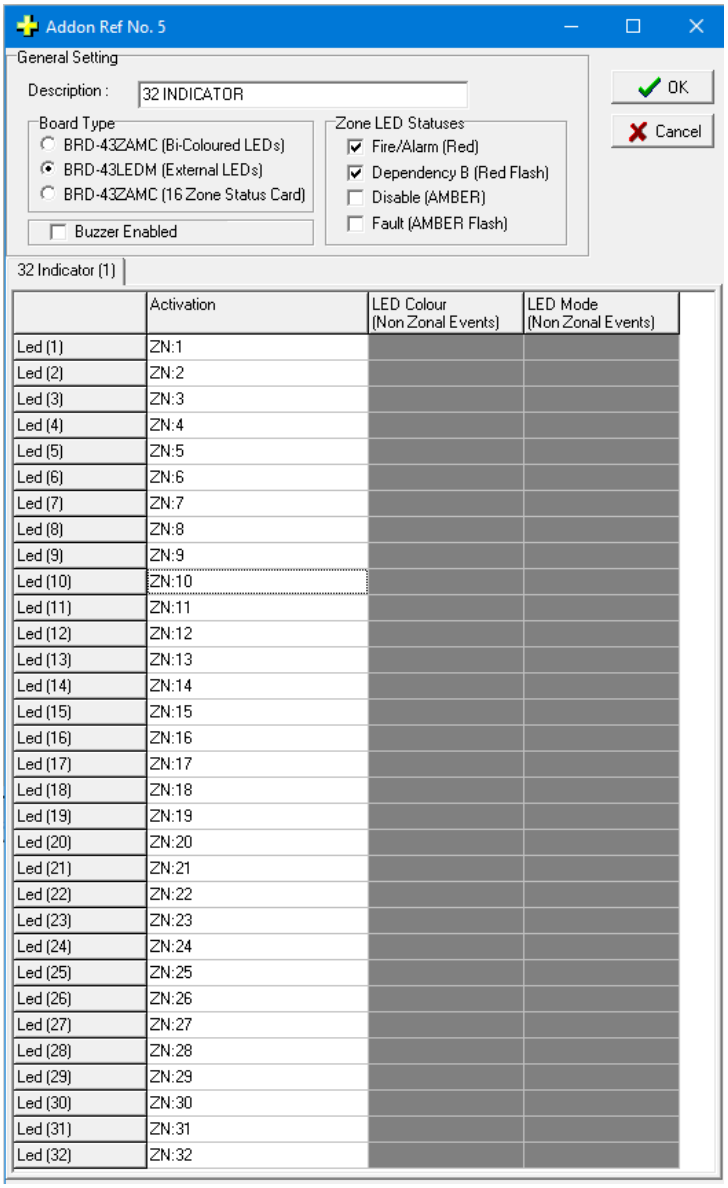


Figure 60: Controller Edit Addon 32 Indicator Card

4.4.3.3 BRD43ZAMC (16 Zone) option

This option only has 16 Zones and only allows Zone Activation therefore the Zone LED Statuses will always apply.

There are two LED's associated with each Zone. A Fire/Alarm LED and a common Disable/Fault LED.

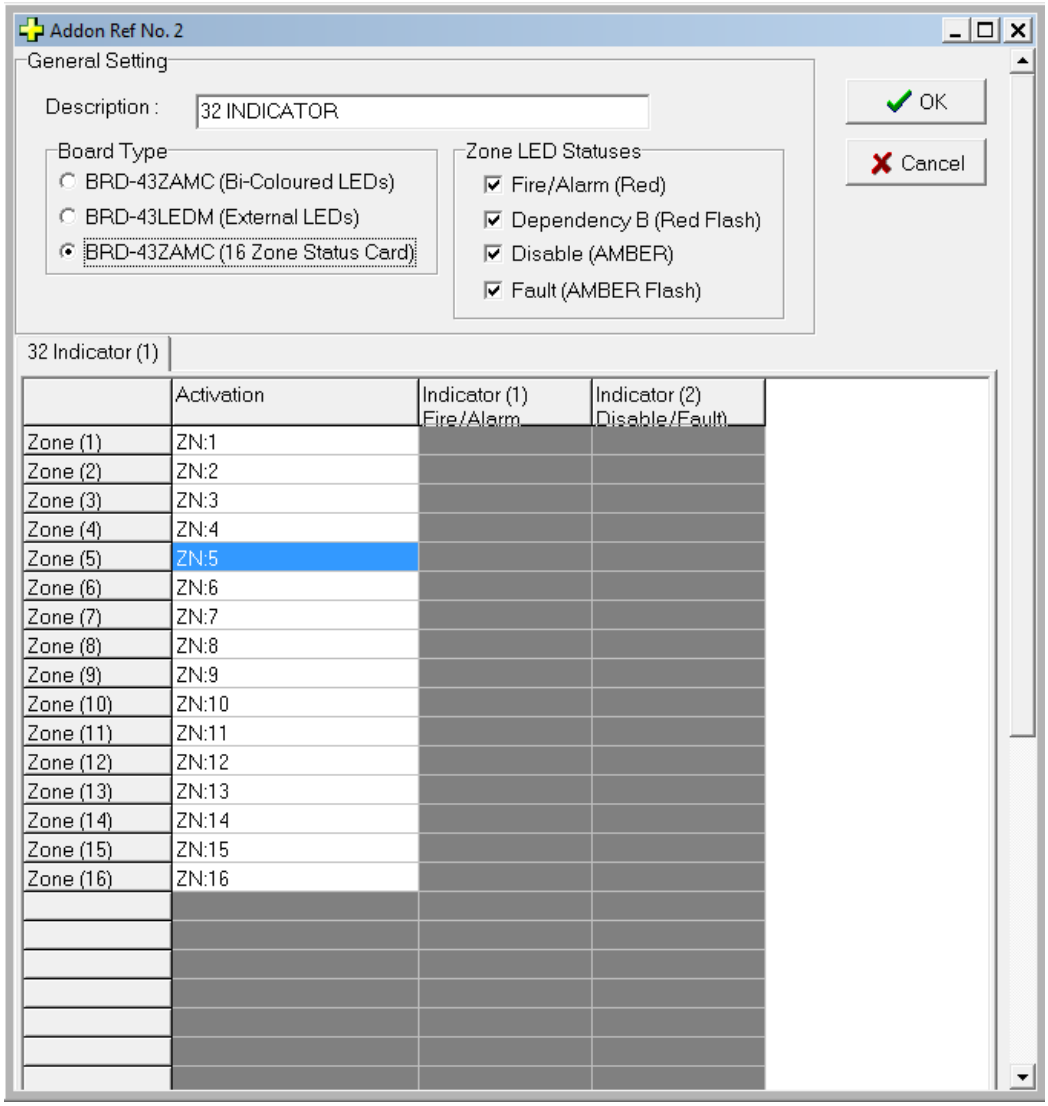


Figure 61: Controller Edit Addon 32 Indicator Card

4.4.4 SmartTerminal/NFS SmartTerminal

Select “Smart Terminal” from the “Type” column on the “Addon Module” page and click on the “Edit”.

Description – (Type in)

The description should be a name given to the ***SmartTerminal*** or its physical location

Reporting Parameters

☞ **Note –** *The Smart terminal reporting and resetting parameters are dependent on the panels Global/Local setting (refer section 4.3.1).*

Double click in each of the “Report” boxes to display and set the, “Y” (Yes reports the parameter) and “N” (No does not report the parameter) “Alarms, Faults, Disables” parameters that ***SmartTerminal*** will display on each ***SmartTerminal*** at each location.

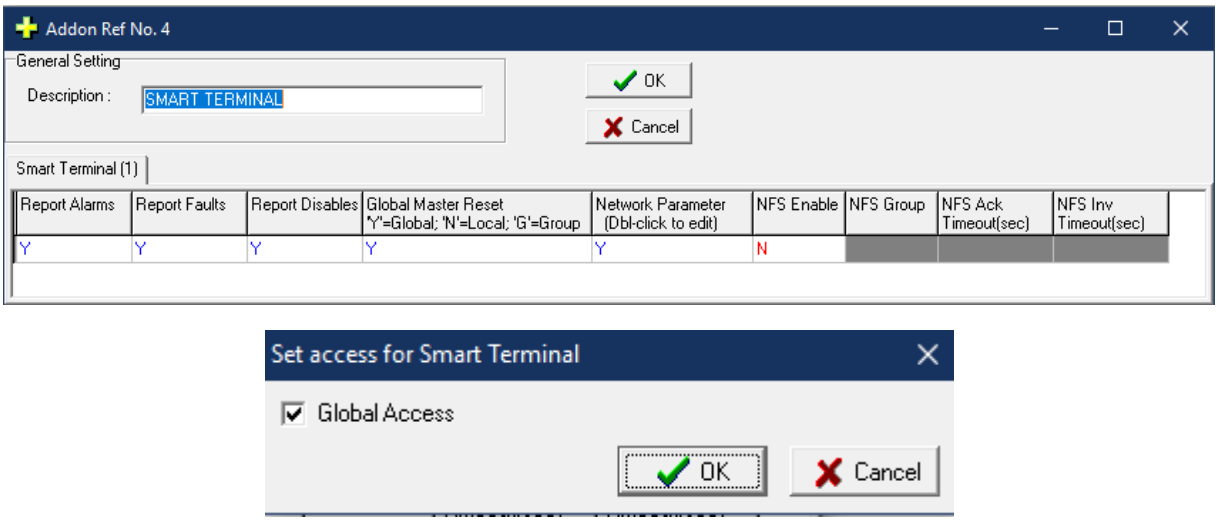


Figure 62: Smart Terminal Set up Screen & Global Access is Set by “Network Parameter” _ NFS NOT ENABLED

Global Master Reset

This setting determines what devices the Smart terminal can report and reset

Global “Y” option – will report status of and reset all devices.

Local “N” option – will report status of and reset devices that have been selected by double clicking Network Parameter tab and selecting the applicable panel and loop

Group “G” option – will report status of and reset devices within a specific group that have been defined on the Loop and Device module settings (refer section 5)

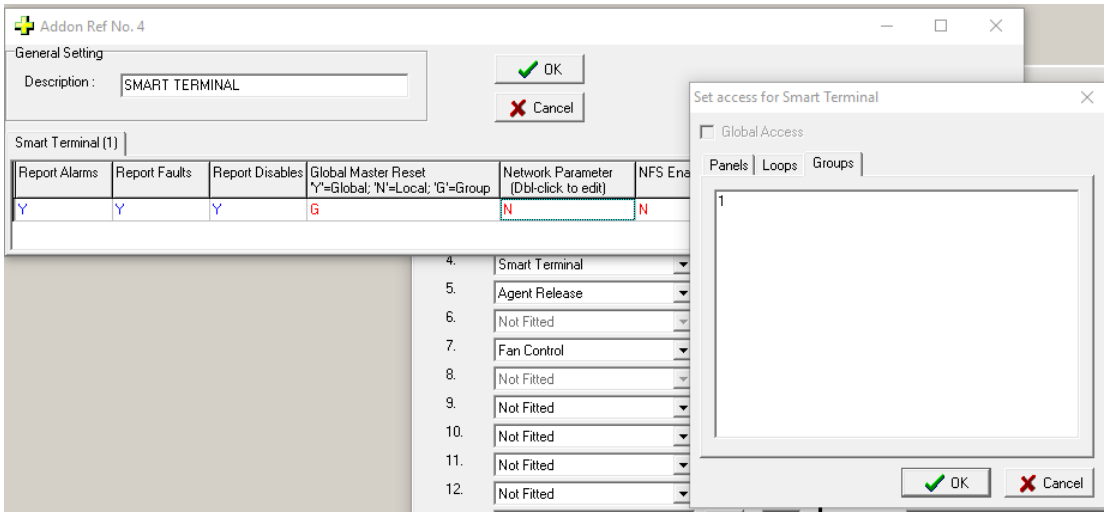


Figure 63: Smart Terminal set to Group 1 devices only

☞ **Note – *NFS*** *is used when a "**Nurse Fire Station** SmartTerminal" is installed.*

☞ **Note**: *When "NFS Enable" is set to "N" then the columns (Report Alarms/Fault/Disable, Global Master Reset and Network Parameter) are enabled (i.e. **not** grey out), and the columns (NFS Group/Ack Timeout/Inv Timeout) are disabled (i.e. grey out).*

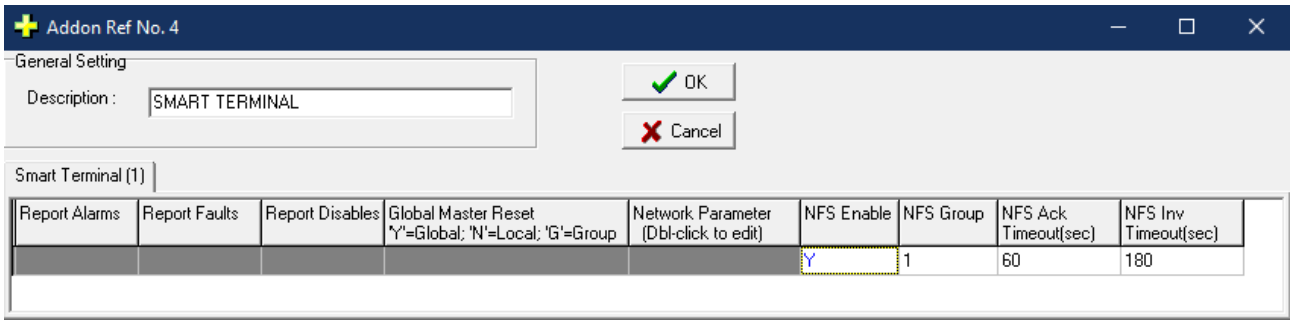


Figure 64: Smart Terminal Set up Screen – NFS ENABLED

☞ **Note** *When "NFS Enable" is set to "Y" then the columns (Report Alarms/Fault/Disable, Global Master Reset and Network Parameter) are disabled (i.e. grey out), and the columns (NFS Group/Ack Timeout/Inv Timeout) are enabled (i.e. **not** grey out).*

☞ **Note:** *A maximum of 30 **SmartTerminal's** can be used in the configuration of the FACP and Each Card [Smart Terminal (X)] is automatically allocated an Add No address from 1 to 30.*

4.4.5 Agent Release

Select “Agent Release” from the “Type” column on the “Addon Module” page and click on the “Edit” button.

☞ **Note:** *An Agent Release Addon module always has a termination board fitted and therefore the next record is automatically reserved for it (as shown below. Observe that the next record is disabled and greyed out automatically after the “OK” button is clicked. An error message will be displayed if the next record (required for the termination board) is used or unavailable:*

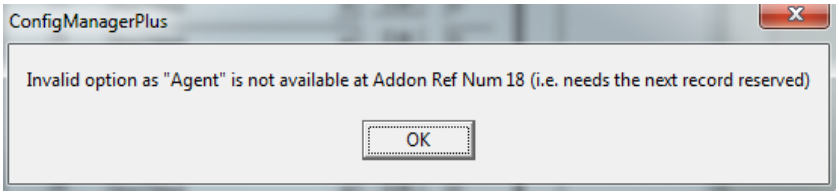


Figure 65: Agent Release Error Message – Next Record Used or Not Available

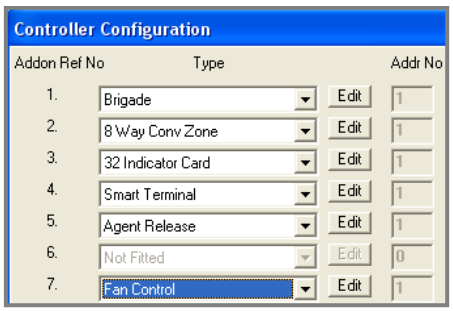


Figure 66: Note the Addon Ref No / “Type” is Greyed for the Termination Board

Description: Description would normally describe the location of the agent release point. Click in the box to enter the description

Agent Release (X): Each Card is automatically allocated an Add No address from 1 to 8.

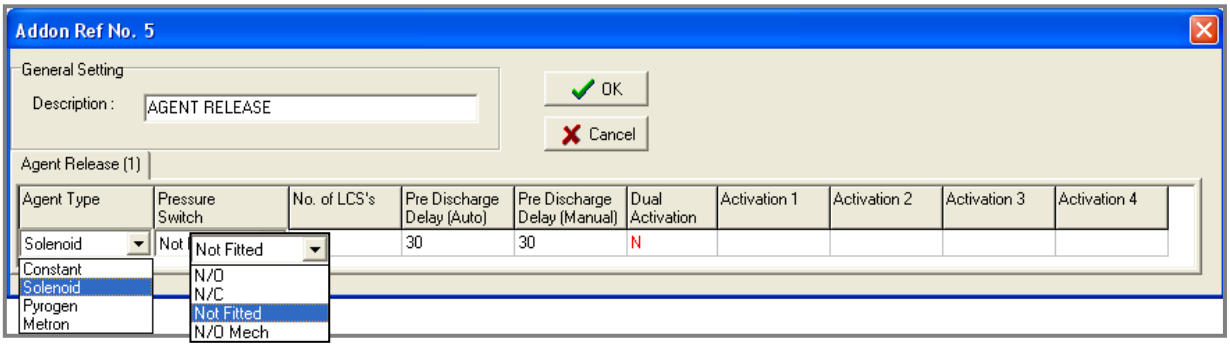


Figure 67: Controller Config Edit - Agent Release Set Up Screen – note both drop down boxes can not be selected at the same time

Agent Type: The Agent Type can be selected using the drop down screen and clicking on the preferred type. The types are;

- Constant: The agent is released until the source has been emptied of its contents
- Solenoid: The agent is released under the control of a solenoid valve fitted to the source of the agent
- Pyrogen / Metron: Pyrogen / Metron are specialised release products

Pressure Switch: Again use the drop down box to allocate the type of contact the release mechanism uses, N/O (Normally Open), N/C (Normally Closed) or N/O MECH (manual) activation with an alarm.

No Of LCS's: The number of Local Control Station, 1 to 7, is entered by clicking in the box and typing in the identifying number of the LCS.

Pre Discharge Delay (Auto): Automatic discharge of the agent can be delayed by up 255 seconds. Click in the box and type in the required delay. If the delay entered is greater than 255 an error message will be displayed.

Pre Discharge Delay (Manual): Manual discharge of the agent can be delayed by up 255 seconds. Click in the box and type in the required delay. If the delay entered is greater than 255 an error message will be displayed.

Dual Activation: Dual Activation is set to yes "Y" if two Activation 1 to 4 inputs are required to activate stage 1, stage 2 release.

Activation 1 to 4: To set the input, double click within the "Activation" 1 to 4 box of each for card and use the Edit Input dialogue box to set the type of input which is to activate release. The sequence is, if any of the inputs are activated stage one will commence, when the second input from the list is activated stage 2 will be initiated.

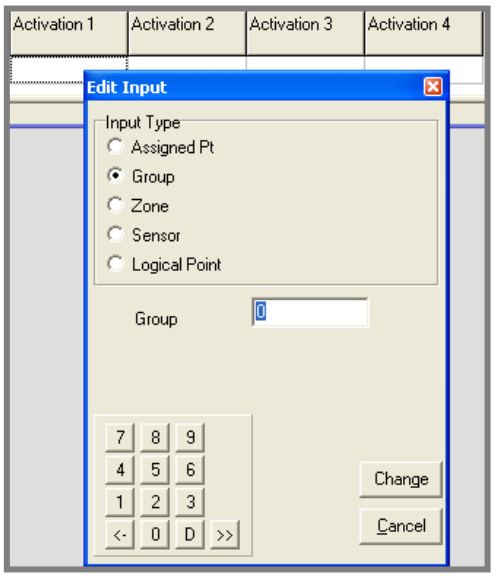


Figure 68: Activation 1, 2, 3, 4 Edit Input Dialogue Box

☞ **Note:** *The "System Inoperative" output will operate (turn on) when all zones or group used in the Activation columns are "Disabled" or in "Fault".*

When "Dual activation" is used if 50% or more of the configured Activation columns are "Disabled" or in "Fault" the "System Inoperative" output will operate.

The **Edit Input dialogue Box** is used to enter all information relating to the selected Activation column. First select the type of input (eg. Group etc) then use the keypad to enter the specifics of the input (eg Group number).

Changing or Entering Data;

< = backspace deletes single entries,

D = highlights data and **D**elete,

Tab(keyboard) = Tabs to the next box.

☞ **Note:** *To remove an entry all together left click within the "Activation" entry box and "CUT".*

4.4.6 Fan Control

Select “Fan Control” from the “Type” column on the “Addon Module” page and click on the “Edit” button.

Each Fan Control Card is automatically allocated an Add No address from 1 to 15 and each card can control up to 4 fans.

Description – Normally enter the location of the Fan Control Card. Click in the box to enter the description.

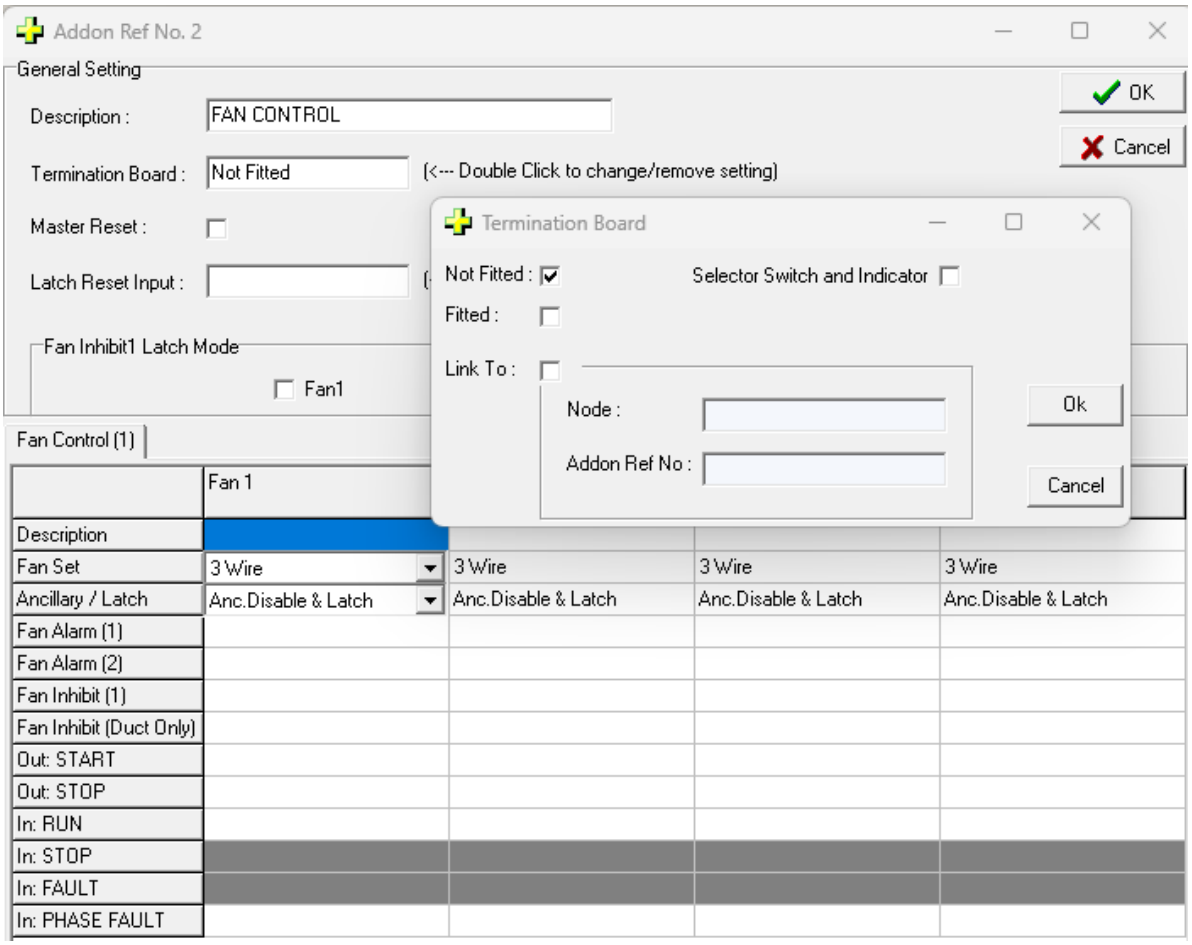


Figure 69: 3,4,5 Wire Options with Termination Board

NOT Fitted (greyed out areas are not programmable)

Termination Board Options – There are four options for the Fan Control Termination board setting –

1. “Not Fitted” option. When loop based I/O’s are used for fan control interfacing.
2. “Fitted” option. This is where a Fan termination board is installed in the panel. This option will reserve the next RS485 Addon Reference Number.
3. “Link To” option. Selecting “Link To” allows dual controls of another Fan Control card and the connected fans.
4. Selector Switch and Indicator option. Allows the Fan Control Module to be used for other general purpose controls other than fans.

Master Reset - “Tick” Enables Master Reset of the Fan Controls. This is not available when the Switch and Indicator option is used.

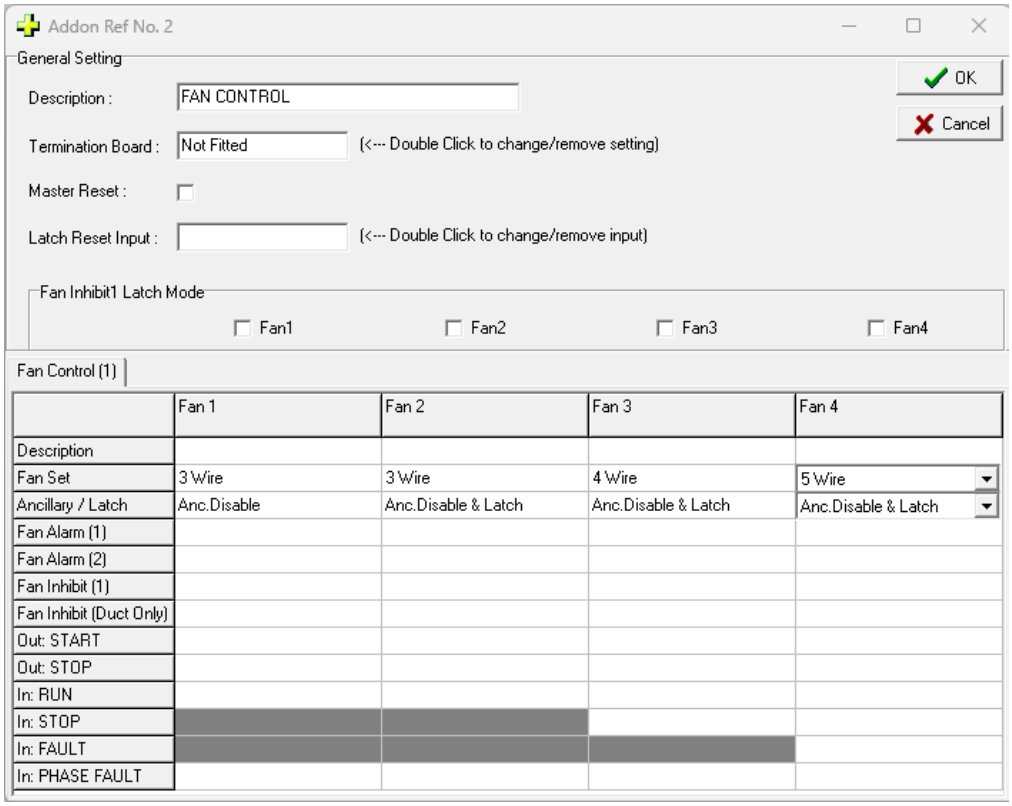


Figure 70: Controller Config Edit - Fan Control 3,4,5 Wire and Anc. Disable/ Anc. Disable & Latch Set Up Screens – Note both drop down boxes can not be selected at the same time and ***greyed out areas are not programmable***

	Fan 1
Description	

Description – Enter a descriptive location of the Fan

Fan Control (1)

	Fan 1	Fan 2	Fan 3	Fan 4
Description				
Fan Set	3 Wire	4 Wire	5 Wire	3 Wire

Fan Set - Select 3 wire, 4 wire or 5 wire system to be used.

Fan Control (1)

	Fan 1	Fan 2	Fan 3	Fan 4
Description				
Fan Set	3 Wire	4 Wire	5 Wire	3 Wire
Ancillary / Latch	Anc. Disable Only	Anc. Disable & Latch	Anc. Disable & Latch	Anc. Disable & Latch

Ancillary/Latch Reset Input - select the required input

Fan Alarm Inputs (1), (2) - Fan Alarm inputs are typicall used to Start Fans

Double Click in blank space of the appropriate Fan to Edit Fan Alarm Inputs via the pop up screen below.

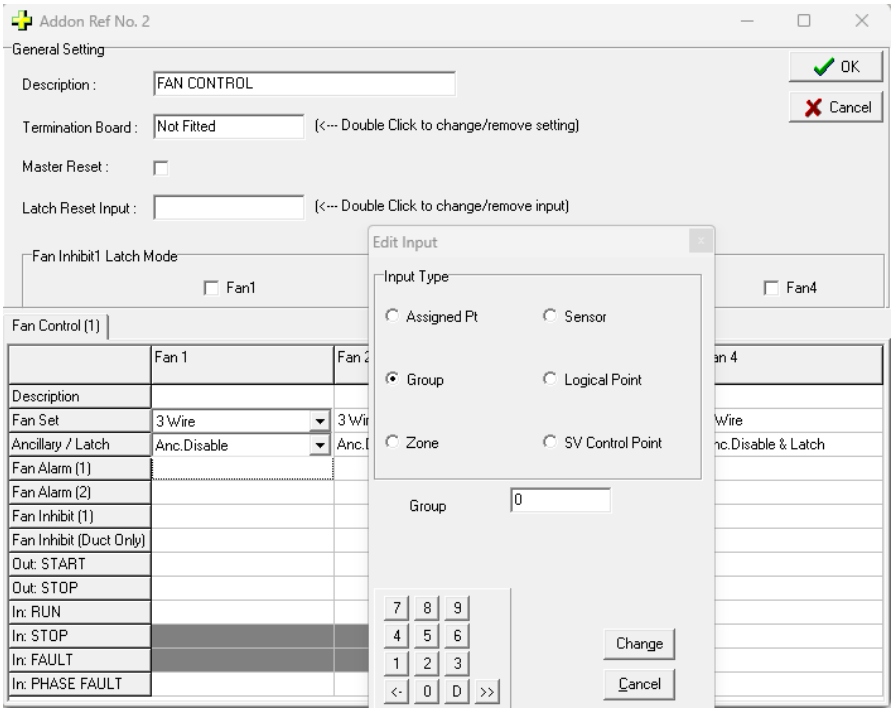


Figure 71:Edit Fan Alarm Inputs

Fan Inhibit (1), (Duct Only) – Inhibit inputs are typically used to Stop fans.

Double Click in blank space of the appropriate Fan to Edit Fan Inhibit Inputs via the pop up screen below.

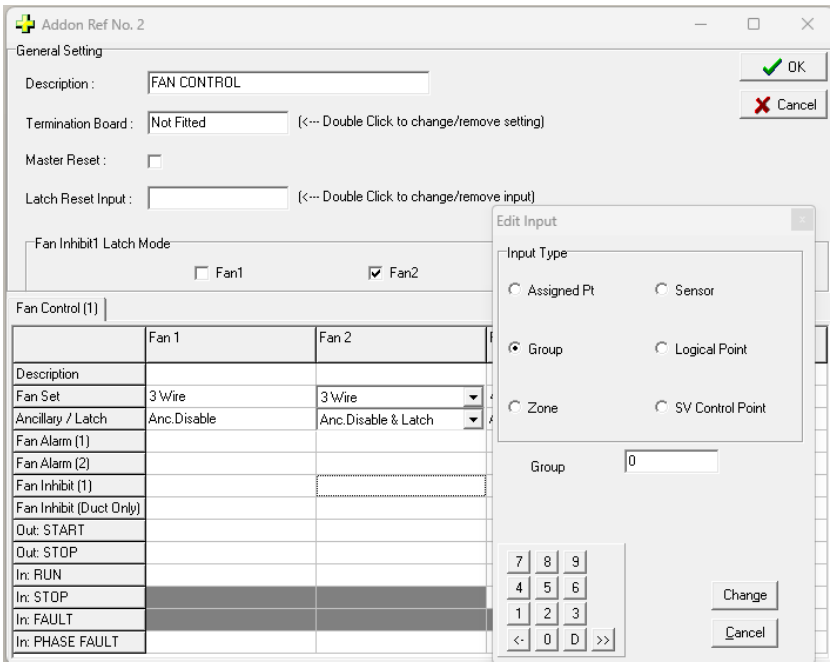


Figure 72: Edit Fan Inhibit

Fan Inhibit 1 is Non latching by default. The input can be made to Latch by selecting the applicable Fan Latch mode option box. If the input is set to latched the Fire Mode LED on the Fan Module will be ON and a Fire Mode Reset must be pressed to clear the latch condition.

☞ **Note:** The Fire Mode LED will only turn on when Groups, Zones or a Sensor is used. *A logic point will not turn on the LED.*

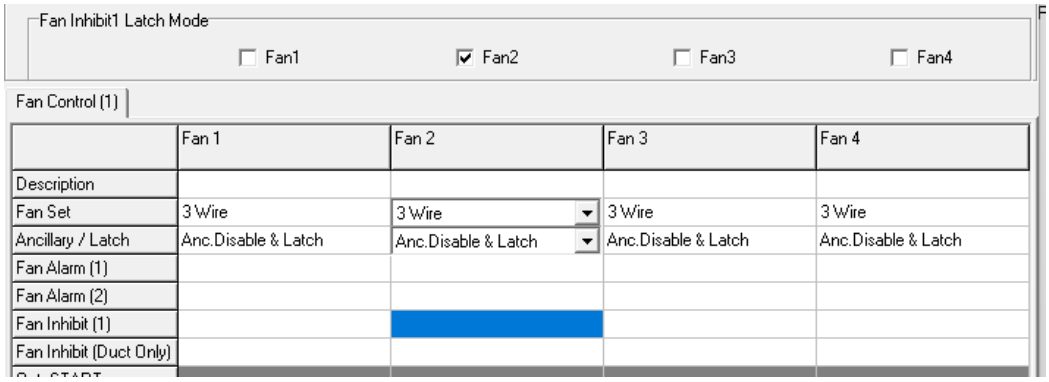


Figure 73: Edit Out: Start and Out Stop

Fan Inhibit (Duct Only) is Non latching.

Out: Start and Out Stop Setup Pop Up Screen

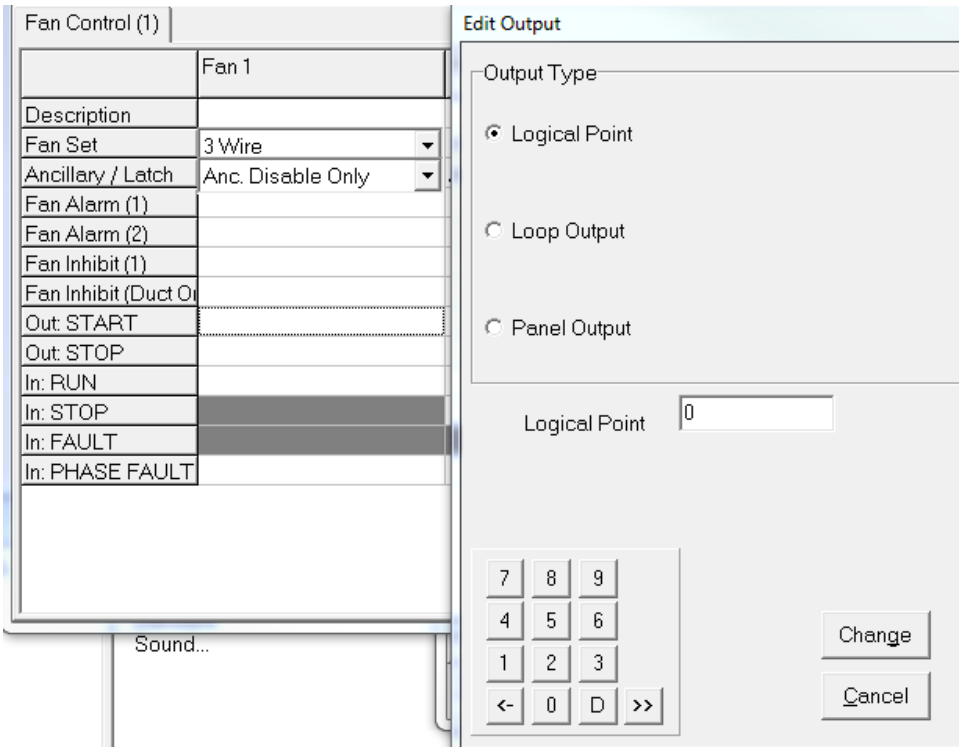


Figure 74: Edit Out: Start and Out Stop

In: Run, In: Start, In: Stop In: Phase Fault Setup Pop Up Screen

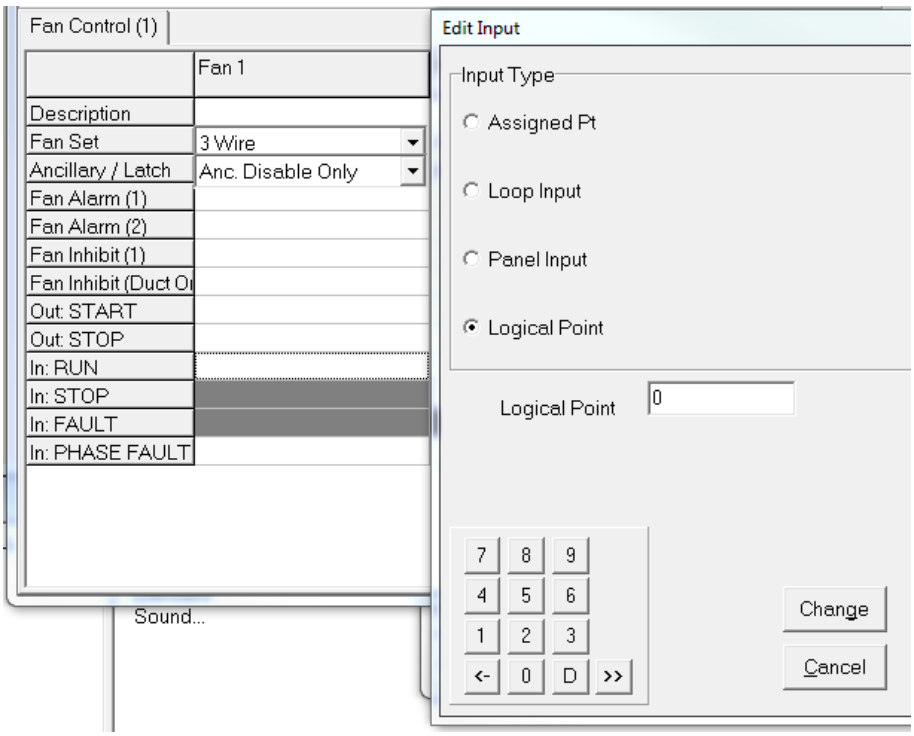


Figure 75: Edit In: Run, Start, Stop

☞ **Note:** *When a Termination board is fitted these "Out" and "IN" selections will be disabled.*

4.4.6.1 Fan Control with panel Termination board ("Fitted")

Utilises the Termination Board to control and monitor the fans. Settings are entered directly into the screen shown below (Termination Board set to "Fitted").

To set the input, double click within edit box of the **"Latch Reset Input"**, "Fan Alarm (1 & 2)" and "Fan Inhibit (1 & 2)" and use the Edit Input dialogue box to set the desired input accordingly.

☞ **Note:** that this mode does not permit the "Out: Start/Stop" and "In: Run/Stop/Fault" settings since they are driven via the termination board directly.

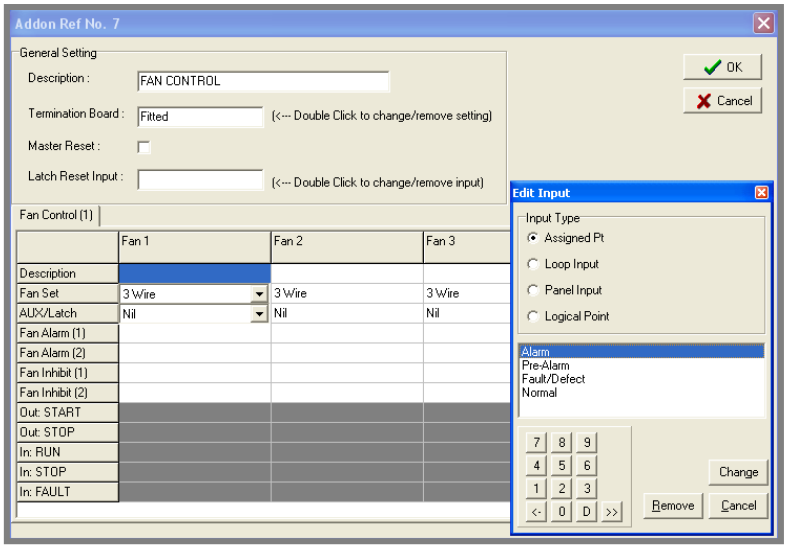


Figure 76: Fan Control With Termination Board

☞ **Note:** If the next Addon module record is used or unavailable, the “Fitted” checkbox will not be made available for user selection in the “Termination Board” window as shown in the following:

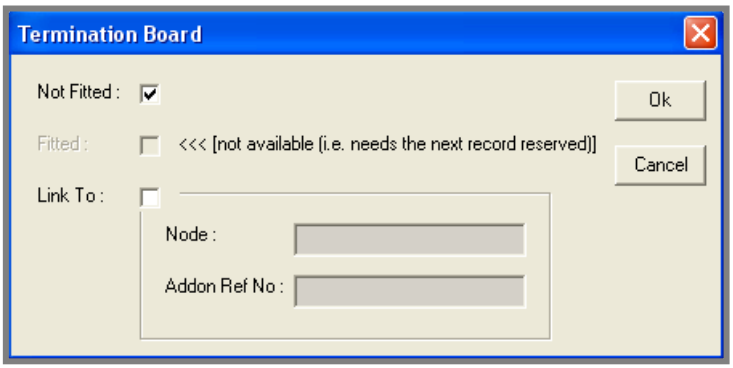


Figure 77: Fan Control Termination Board “Not Available” Message

4.4.6.2 Fan Control Loop Based ("Not Fitted")

This configuration normally interfaces to the FACP via a 3I/O Module. Settings are entered directly into the screen shown below (note Termination Board set to "Not Fitted").

To set the input, double click within edit box of the **"Latch Reset Input"**, "Fan Alarm (1 & 2)", "Fan Inhibit (1 & 2)", "Out: Start/Stop" and "In: Run/Stop/Fault", and use the Edit Input/Output dialogue box to set the desired input/output accordingly. Note the following:

- "3 Wire" permits "Out: Start/Stop" and "In: Run" settings
- "4 Wire" permits "Out: Start/ Stop" and "In: Run/Stop" settings
- "5 Wire" permits "Out: Start/ Stop" and "In: Run/Stop/Fault" settings

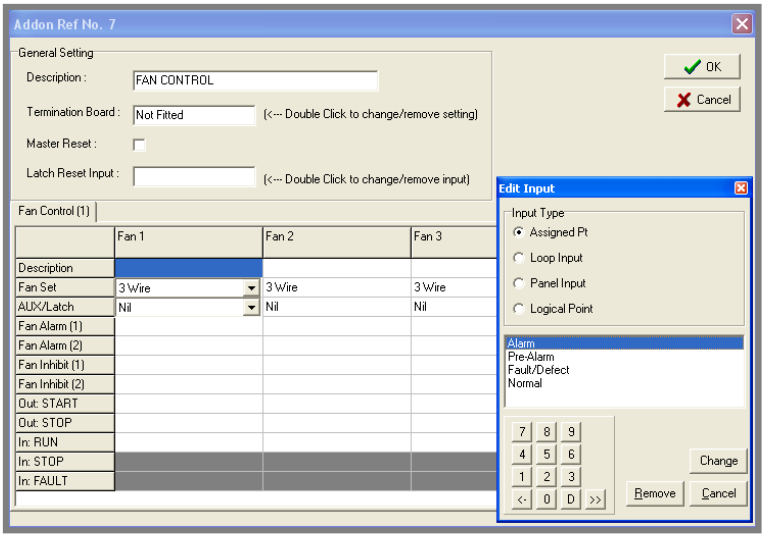


Figure 78: Fan Control – Termination Board NOT FITTED

4.4.6.3 Dual Fan Control ("Linked To N:x A:y")

This configuration permits a two way fan control in a networked system by linking a fan card to another. For example, pressing the "fan start" button on the "linked to" fan card has the same effect on the fan card that is being linked to and vice versa.

Note that in this mode, only the description fields are available for user input since it uses the same configuration as the fan control that it is linked to.

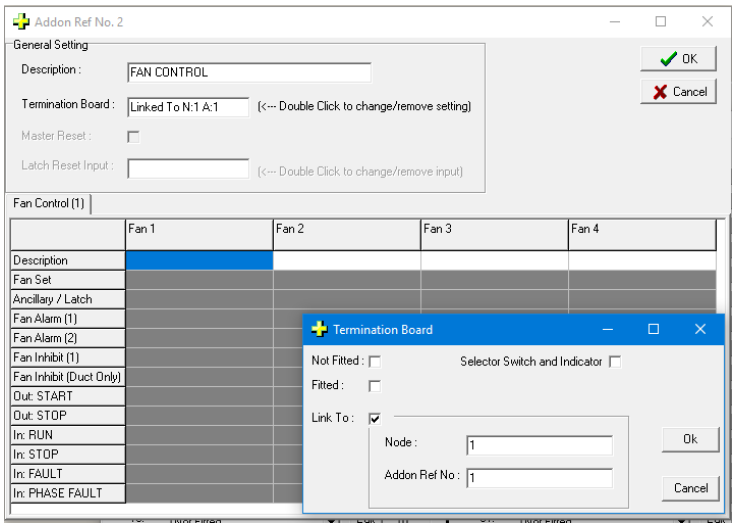


Figure 79: Fan Control with Dual Control

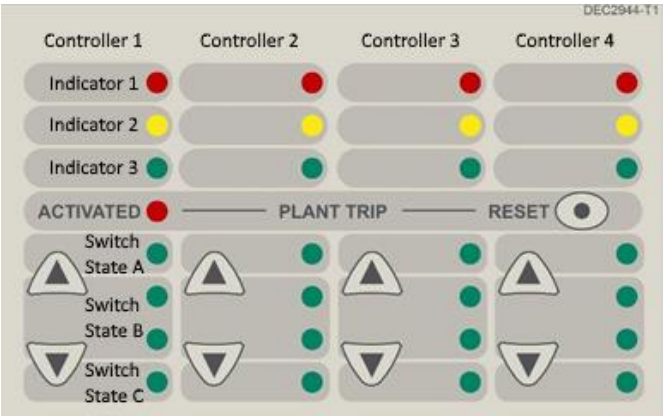
4.4.6.4 Fan Controls used as Selector Switch and Indicator

This configuration permits the Fan Controls to be used as general purpose switch and indicators.

Switch State Out A, B and C fields: These fields are mapped to the ON / AUTO / OFF controls on the fan control module. For example (using the image below), if Controller 1 ON switch is pressed and set to the "ON" state, "Switch State Out A" will be ON and "LP1: AD:1 O:1" (loop 1 device 1 output 1) will be ON

Indicator 1, 2 and 3 fields: these fields are mapped to the RUN / FAULT / STOP indicators of the fan control module. For example (using the image below), - If "LP1: AD:1 IN:1" (loop 1 device 1 input 1) is ON, "Indicator 1" (RUN) of Controller 1 will be ON

Switch State In A, B and C fields: These fields are used for remote activation. For example (using the image below), - If Controller 1 is currently in the "Out A" (ON) state, when Switch State IN C ("LP1: AD:2 IN:3") is ON, then Controller 1 will be changed to the "Out C" (OFF) state.



☞ **Note:** The Switch State In priority is A, B then C. For example (using the image below) if all the inputs associated with Loop 1 Address 2 are ON then the Switch State will be in the A position.

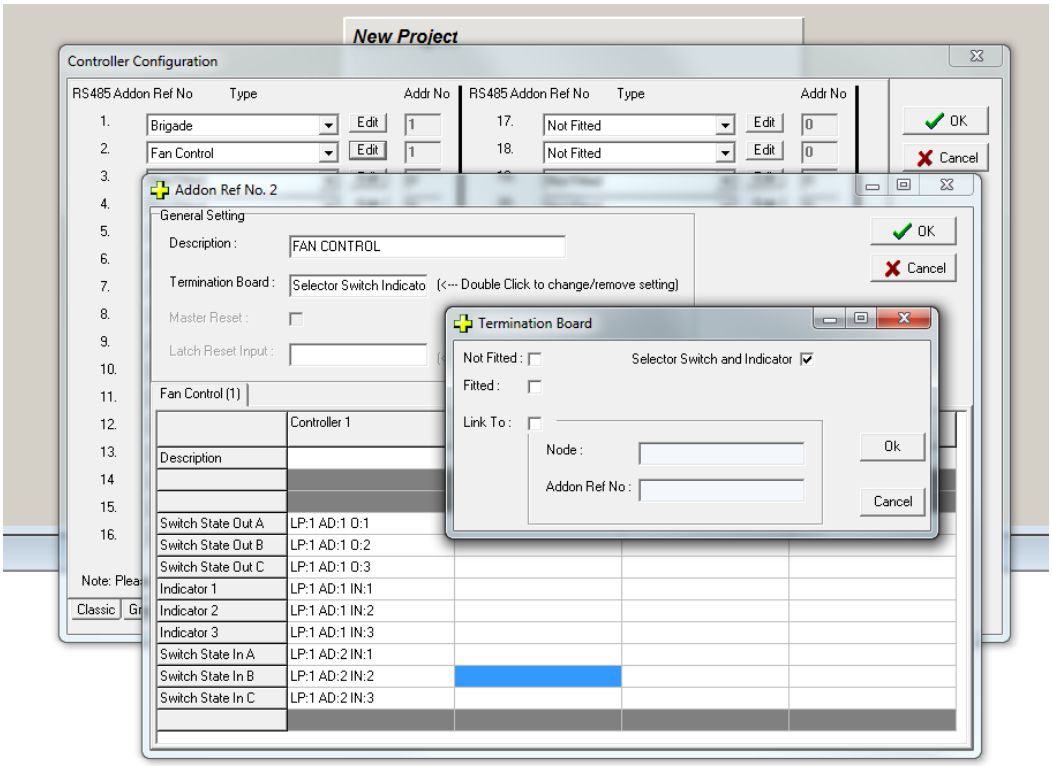


Figure 80: Fan Control is a general Switch and Indicator

4.4.7 Switch and Indicator

Select “Switch & Indicator” from the “Type” column on the “Addon Module” page and click on the “Edit” button.

Each Card [Switch & Indicator (X)] is automatically allocated an Add No address from 1 to 15.

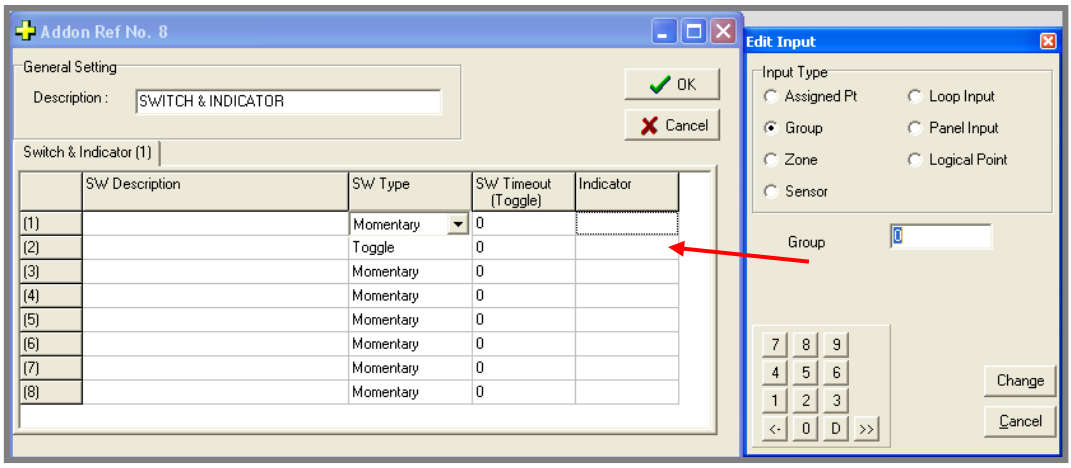


Figure 81: Edit Switch & Indicator Set Up Screen with Momentary Switch Selection “Input Type”

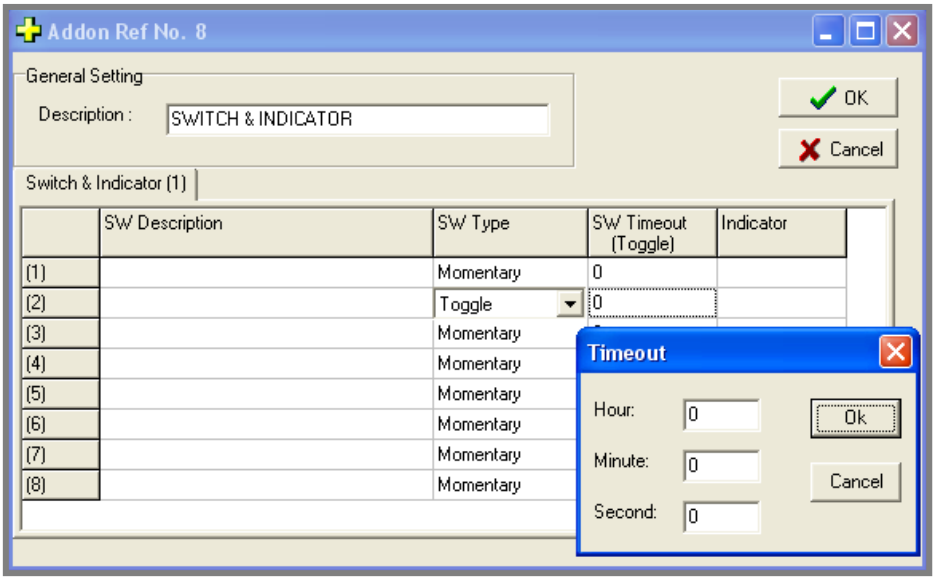


Figure 82: Edit Switch and Indicator Set Up Screen with Toggle Switch Selection & Time Out

First enter a functional descriptor for the switching operation then selecting the “SW Type” of switching operation – “Momentary” or “Toggle”.

The LED output (Indicator) on the card can be set to be turned onto “flashing” or “steady”. “Flashing” indicates an externally driven activation on the output (Indicator). “Steady” indicates a visual indication that a “toggle on” operation is active.

There are two modes for the “SW Type” – Momentary and Toggle. “Timeout” only applies to “Toggle” switch type. The minimum timeout is 0 and the maximum is 86400 seconds. A timeout value of zero implies “no timeout” – that is, manual action from the user is required to reset the previously “latched” condition. Externally driven activation on LED output (i.e. Indicator) only applies to “Momentary” switch type.

Momentary – "Time out" of course will not be selectable and the "Input" shall be set by double clicking in the appropriate switched line under "Indicator" and setting the "Input Type" via the Pop up screen.

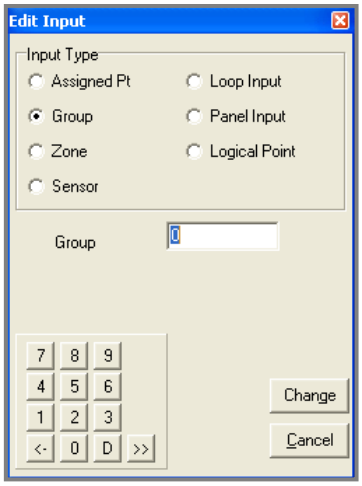


Figure 83: Edit Switch Indicator Momentary "Input Type" Selection Pop Up Screen

Toggle – Selecting "Toggle" will result in the operator being requested to enter a "Time Out" period of operation via the Pop Up Screen shown below.

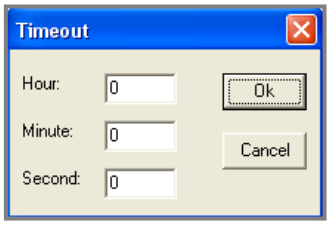


Figure 84: Set Toggle "Timeout" Pop Up Screen

4.4.8 8 Way Relay Board

Select “8 Way Relay” from the “Type” column on the “Addon Module” page and click on the “Edit” button.

Each Card [8 Way Relay (X)] is automatically allocated an Add No address from 1 to 15.

Firstly enter a “Description” of the relays operation then double left click on the appropriate line under “Activation” to select the input to operate the relay.

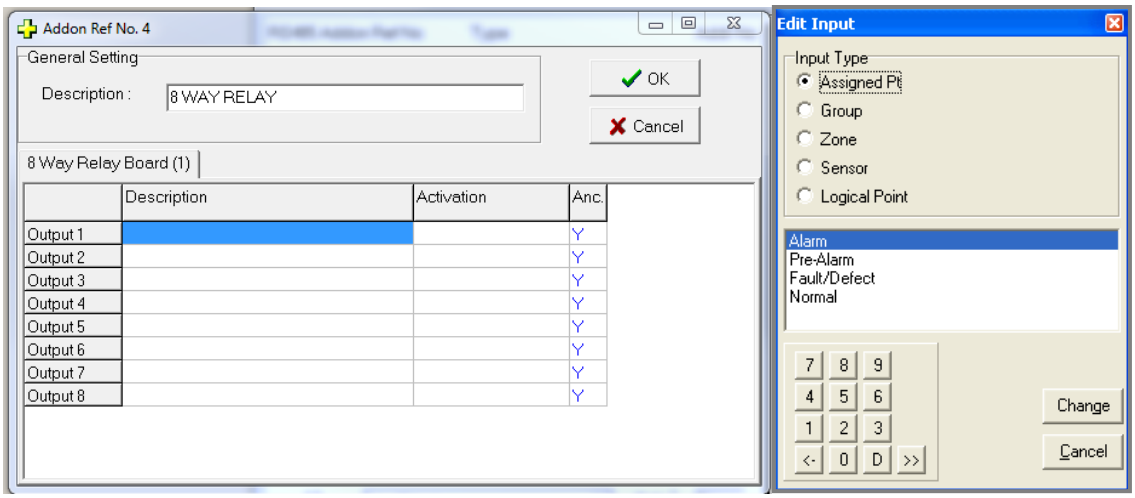


Figure 85: Edit 8 Way Relay Board – Screen and Control Input Settings (Assigned Point) ”Pop Up” Screen

***Activation**: Double click on the “Activation” column box of the corresponding output and enter the desired activating condition of the output in question.*

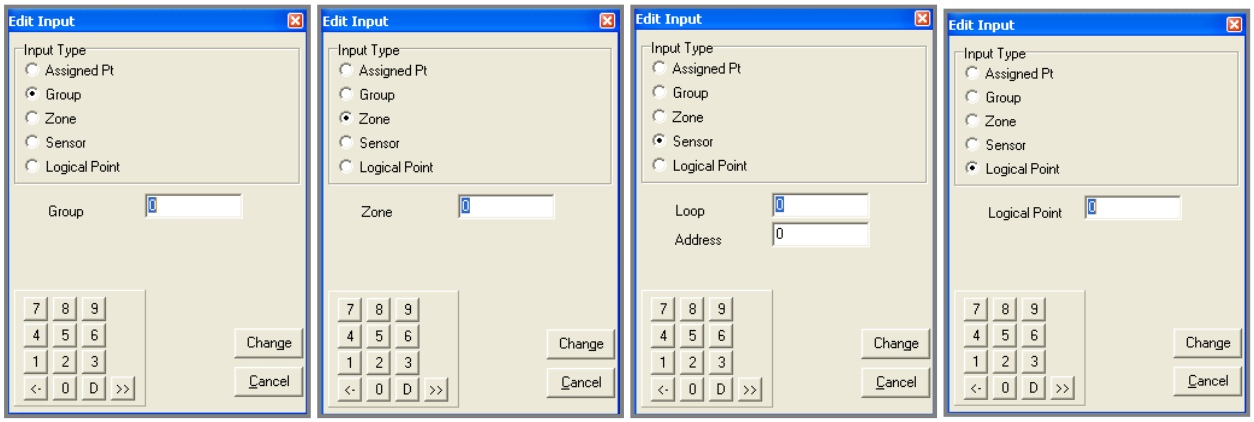


Figure 86: Activation Input Pop Up Selection Screens for each “Input Type”

Anc.: This column allows you to associate the selected relay with the Ancillary Disable button

4.4.9 16 Way Input Board

Select “16 Way Input Board” from the “Type” column on the “Addon Module” page and click on the “Edit” button and enter a functional descriptor for each input

Each Card [16 Way Input Board (X)] is automatically allocated an Add No address from 1 to 15.

Description would normally describe the location of the 16 Way Input Board. Click in the box to enter the description.

These inputs are designed to be used externally – e.g. by way of a “Function”.

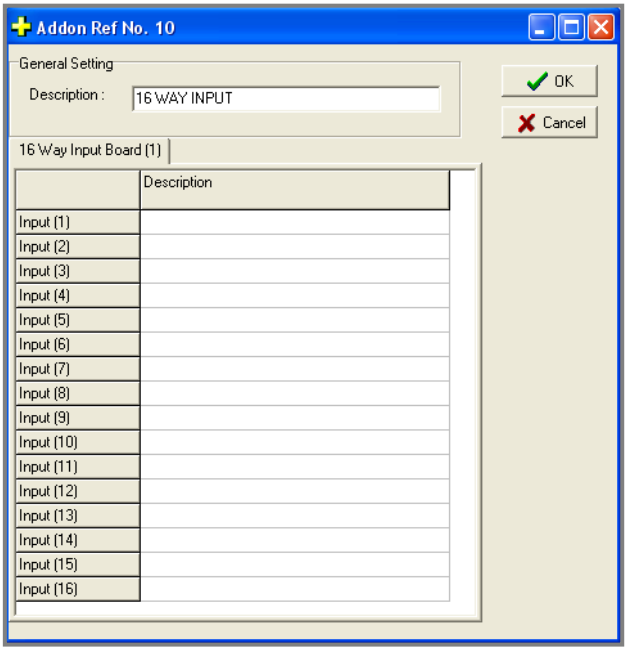


Figure 87: 16 Way Input Board Entry Screen

4.4.10 HLI Expander

Select “HLI Expander” from the “Type” column on the “Addon Module” page, click on the “Edit” button and enter a functional descriptor for each input.

Each Card [HLI Expander (X)] is automatically allocated an Add No address from 1 to 3. The valid combination for this Addon module is 1 x “High Level Interface”, 1 x “Graphics System Interface / Modbus Interface” and 1 x “EV3000 HLI”.

☞ **Note:** that it is invalid to have both “Graphics System Interface” and “Modbus Interface” in a node.

Description would normally describe the location of the HLI expander. Click in the box to enter the description.

Interface Type Select (Check) the appropriate interface type from the four displayed.

High Level Interface

This provides a text based output for dumb interfaces like “Nurse Call” and “Paging Systems”.

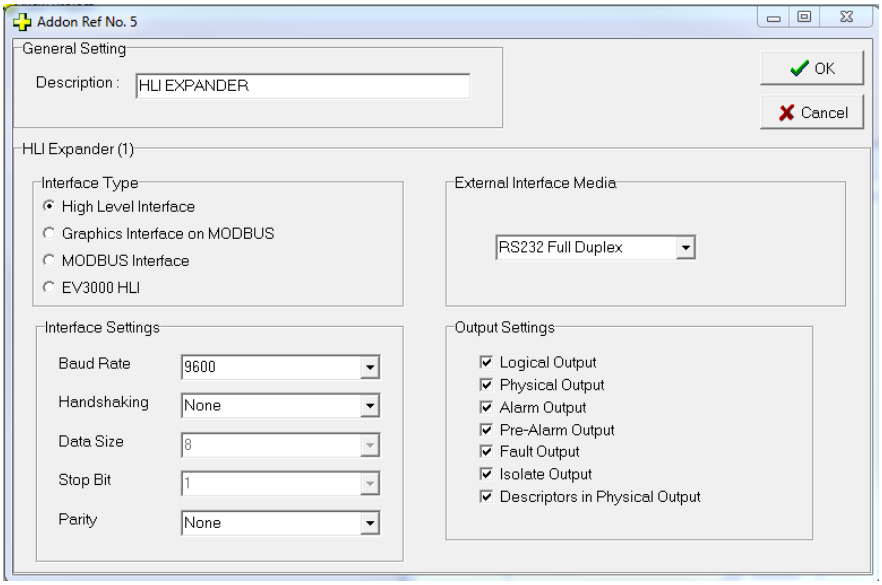


Figure 88: HLI Settings Pop Up Screen – High Level Interface (HLI)

Graphics System Interface

This provides for a 2 way interface for the AMPAC *SmartGraphics* interface system.

The "Graphics Folder" is used to define the location of where the ***SmartGraphics*** files (tag_copy.ci, advalm.dbf, variable.dbf) are to be written to.

The "Graphics Unit Name" is used to prefix the values for "Tag", "Desc" and "Expr" in the advallm.dbf file, and the "Name" in the variable.dbf file.

The "Graphics Unit Name Tag Prefix" is used for the "Unit" in the variable.dbf file.

☞ **Note***: the above are system wide settings for Folder, Unit Name and Tag Prefix and is applied to all Graphics System Interface Addon modules.*

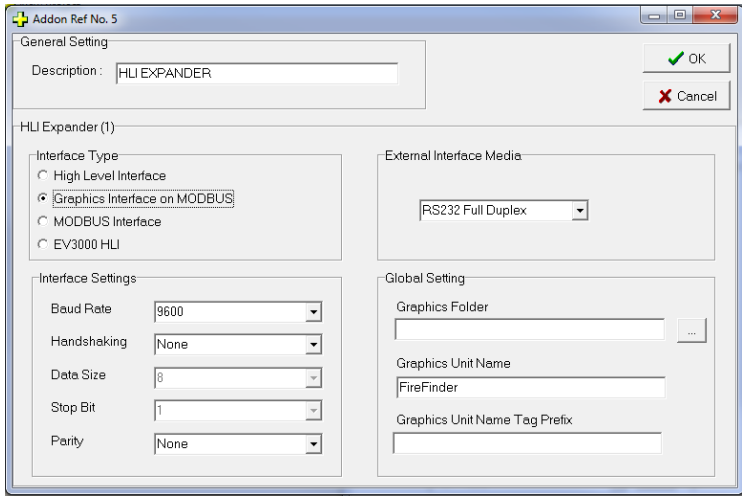


Figure 89: HLI Settings Pop Up Screen – Graphics System (Smartgraphics) Interface

Modbus Interface

This provides for a 2 way intelligent Modbus RTU standard interface for BMS and PLC based systems.

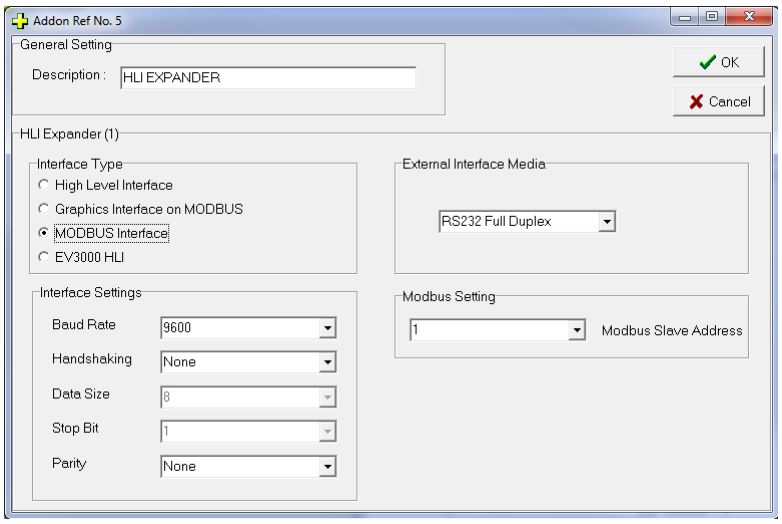


Figure 90: HLI Settings Pop Up Screen – Modbus Interface

Edit EV3000 HLI Interface

This provides for an intelligent interface for connection to the AMPAC EV3000 EWIS system.

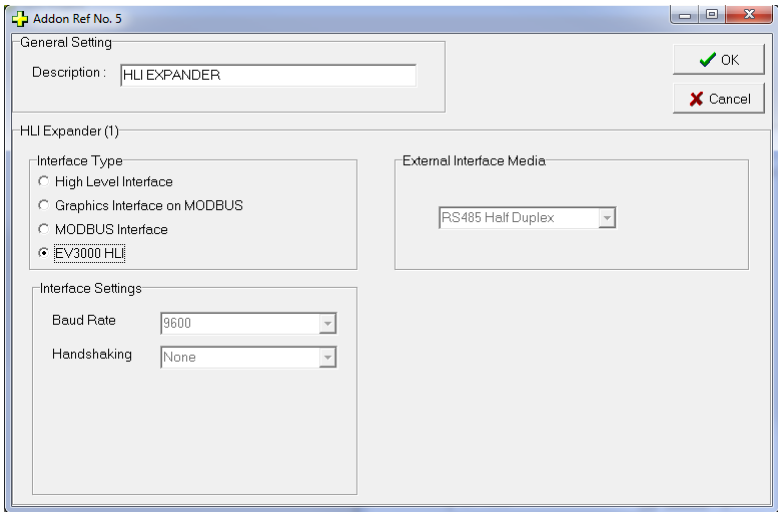


Figure 91: HLI Settings Pop Up Screen – EV3000 HLI

4.4.11 8 Way Sounder Control

Select “8 Way Sounder Control” from the “Type” column on the “Addon Module” page and click on the “Edit” button and enter a functional descriptor for each input.

Each Card [8 Way Sounder (X)] is automatically allocated an Add No address from 1 to 15.

Description would normally describe the location of the 8 Way Sounder. Click in the box to enter the description.

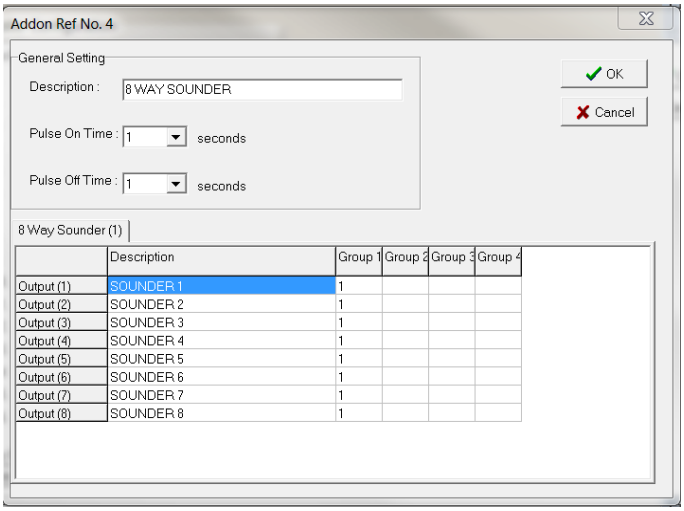


Figure 92: 8 Way Sounder Settings

Pulse On/Off Time These settings are applied to all the 8 sounder outputs (“Alert” Tone).

Group (1…4) The valid input for a sounder group is 0 to 255.

4.4.12 Zone Control Card

Select “Zone Control Card” from the “Type” column on the “Addon Module” page, click on the “Edit” button and enter a functional descriptor for each input.

Each Card [Zone Control Card (X)] is automatically allocated an Add No address from 1 to 15.

Description would normally describe the location of the Zone Control Card. Click in the box to enter the description.

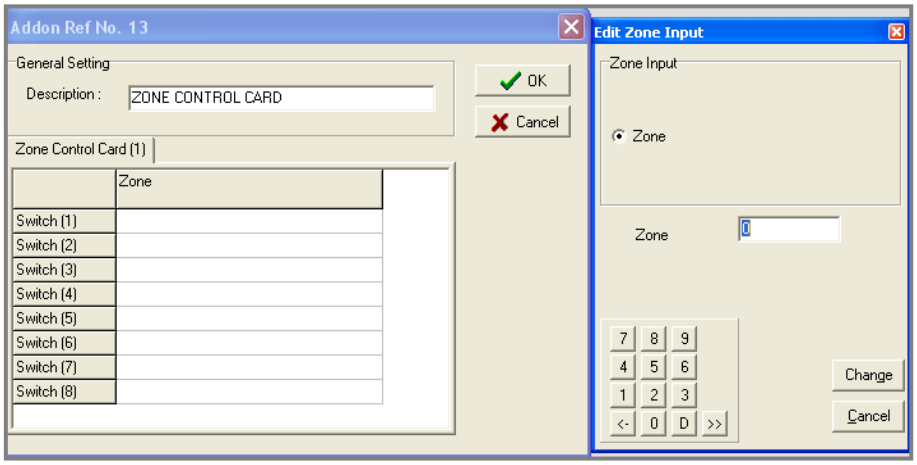


Figure 93: Zone Control Card – Zone Allocation Screen

Switch (1…8): *Double click* on the Switch edit box and enter the zone number in question.

4.4.13 Conventional Network Board

Select “Conventional Network Board” from the “Type” column on the “Addon Module” page and click on the “Edit” button and enter a functional descriptor for each input.

Each Card [Conventional Network Board (X)] is automatically allocated the Add No address 1 and is limited to one per node.

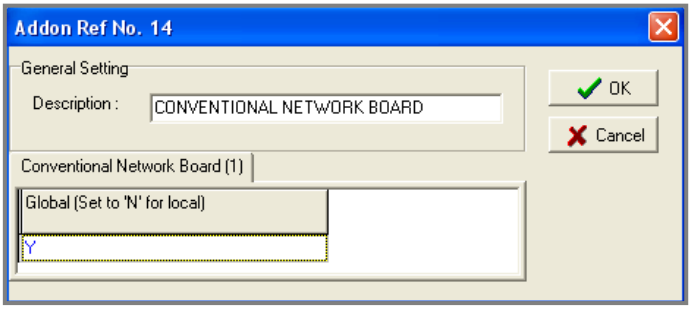


Figure 94:Conventional Network Board – Setting Local / Global Parameter

<u>Global</u> *Double click* on the “Y” [Yes] sets the board as “Global”, “N” [No] as “Local”.

4.4.14 Bar Display Card

Select “Bar Display Card” from the “Type” column on the “Addon Module” page and click on the “Edit” button and enter a functional descriptor for each input.

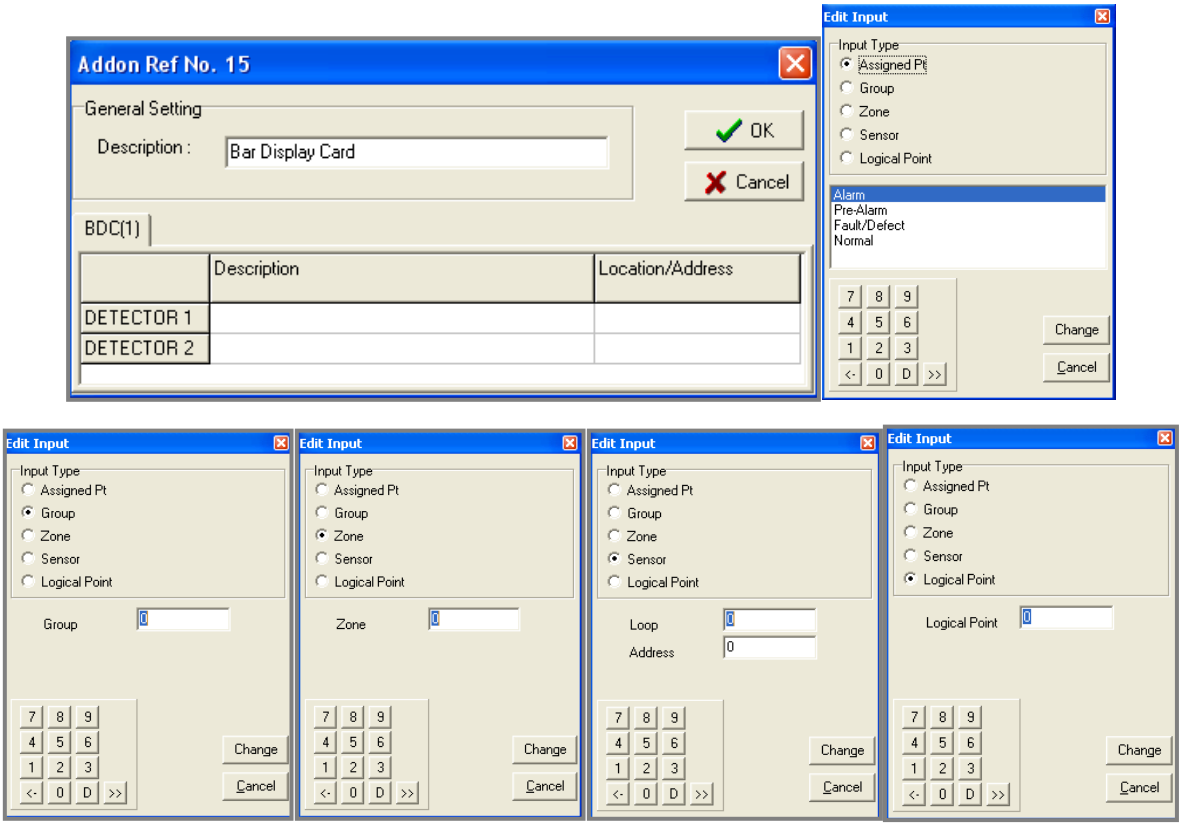
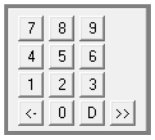


Figure 95: The Edit Bar Display Card Screen & Location Address Input Type Pop Up Screens



Reminder - Numeric keypad for data entry

< = Delete last or highlighted entry - **D** = Delete highlighted entry **>>** = Highlight entry

4.4.15 EvacU EWCIE (OWS) Front Panel Card

Select "EWCIE Front Panel" from the "Type" column on the "Addon Module" page and click on the "Edit" button and enter a functional descriptor for each input.

Each Card is automatically allocated an Add No address of 1 and is limited to one per node.

Up to eight OWS Amplifiers can be programmed to operate with one EWCIE Front Panel

Description would normally describe the location of the EWCIE Front Panel. Click in the box to enter the description.

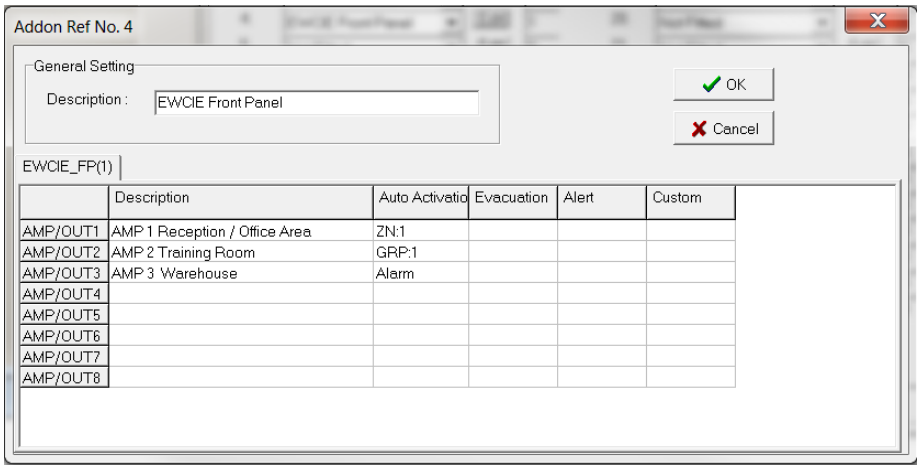


Figure 96: EWCIE Front Panel

AMP/OUT (1..8) Description Enter a meaningful description for each amplifier fitted in the panel

Auto Activation Assign what will trigger the amplifier. Assigned points, groups, Zones, Sensors or logical points can all be used. *Double Click* in the field to bring up the input type box.

Evacuation, Alert and Custom Refer to MAN3072 for the detailed programming of these fields.

4.4.16 SmartView add-on (Comms 2)

Select “SmartView” from the Comms 2 drop down option then click on the “edit” button.

Select the desired “External Interface” communication protocol (RS232 or RS422) and set the applicable interface settings.

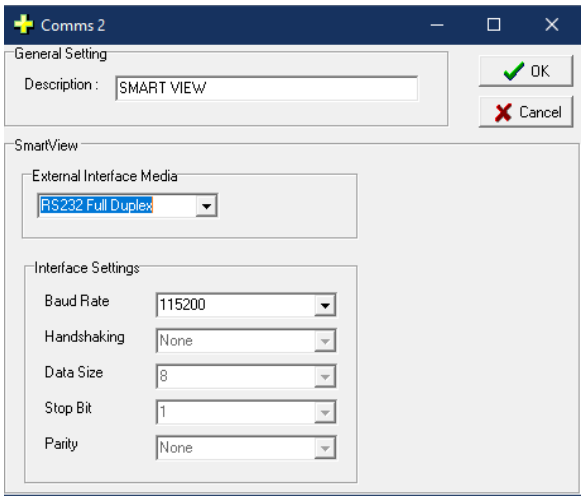


Figure 97: SmartView editing window

4.4.17 Nimbus add-on (Comms 2)

Select “Nimbus” from the Comms 2 drop down option then click on the “edit” button.

Nimbus is defaulted to RS232 communication protocol at 38400 baud rate.

Set the applicable output settings.

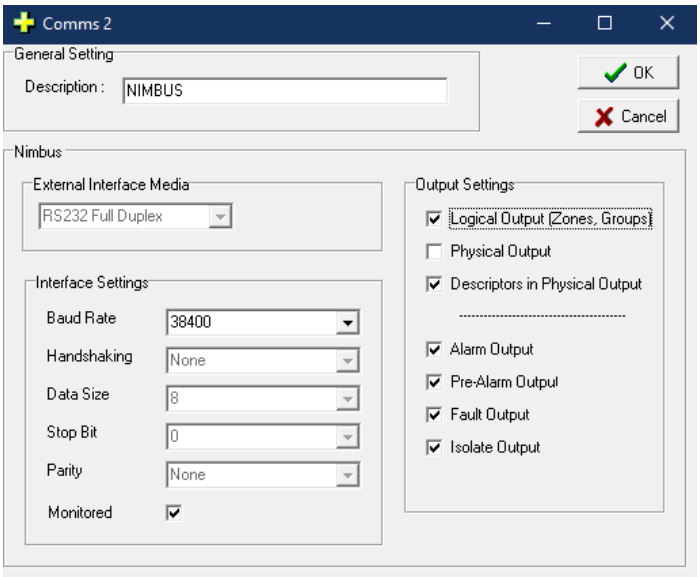


Figure 98: Nimbus editing window

4.4.18 EvacU Elite EWCIE add-on

Select “EvacU Elite” from the “Type” column on the “Addon Module” page and click on the “Edit” button.

The module is automatically allocated an Add No address of 1 and is limited to one per node.

Description defaults to EvacU Elite and can be edited by clicking in the box to enter the description

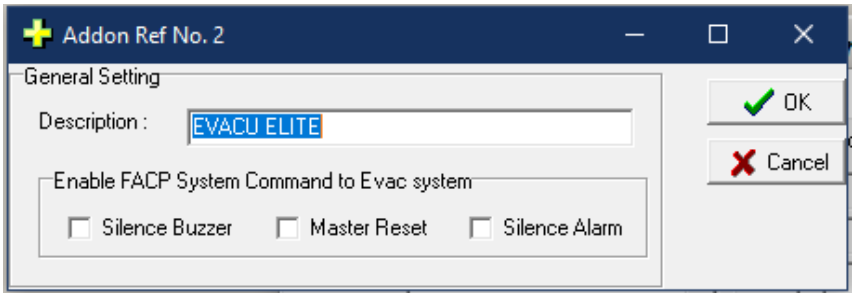


Figure 99: EvacU Elite editing window

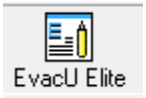
The property box allows for the option to have the Fire panel to have common controls for Silence buzzer, Master Reset and Silence Alarm. By default these are all unselected.

☞ **Note:** *To meet the requirements of AS4428.16:2020 the Master Reset and Silence Alarm must be left unticked.*

☞ **Note:** *To meet the requirements of EN54-16:2008 clause 7.6.1 Silencing of the voice alarm condition from the CIE and clause 7.7.1 Reset of the voice alarm condition from the CIE the Master Reset and Silence Alarm must be ticked.*

The Evacu Elite addon module hardware is a Multipurpose Interface Card that is mounted and also configured in the EvacU Elite system rack and connects to the FACP addon using a RJ45 cable.

For the addon to function the EvacU Elite Virtual Output table in Configmanager Plus must also be configured.

This is accessed by selecting the 

icon on the left side pane.

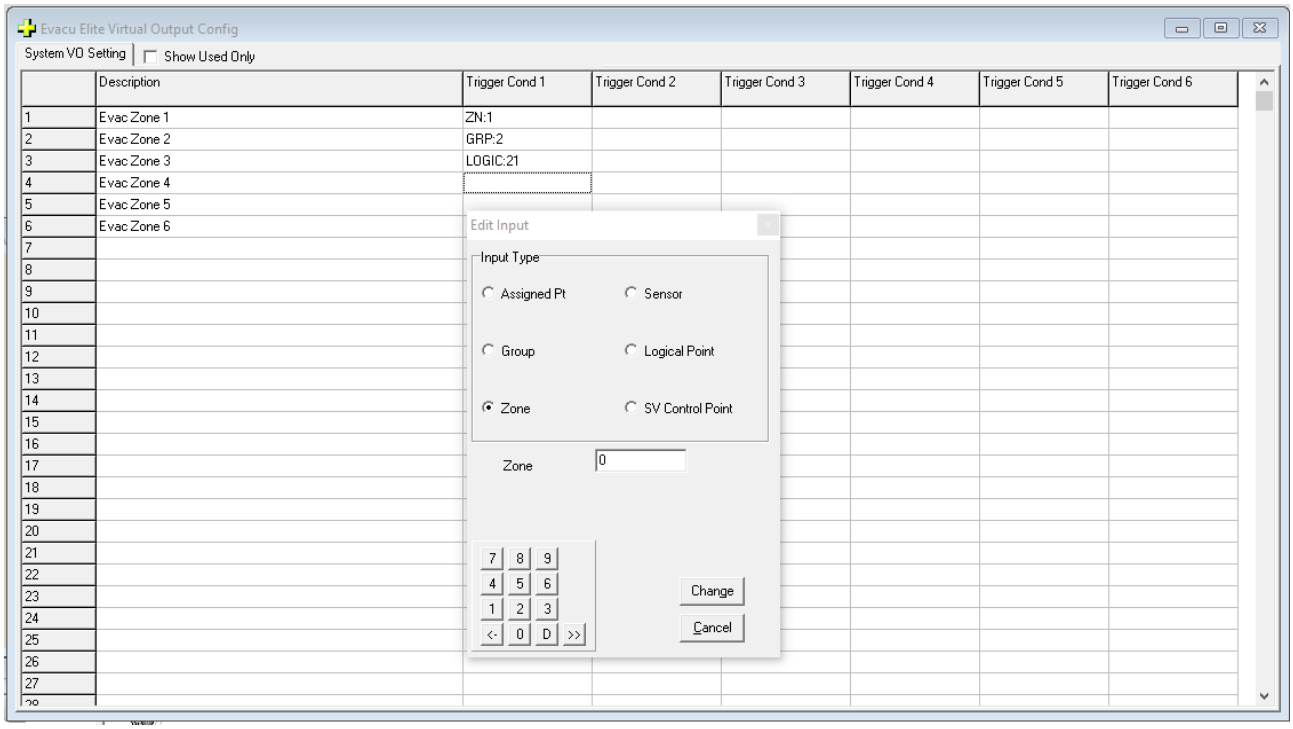


Figure 100: EvacU Elite Virtual Output table

The table allows for up to 512 virtual outputs to be configured.

Each Virtual output can have up to six trigger conditions, that can be generated by

Assigned points,

Detector Groups,

Detector Zones,

Individual Sensors,

Logical points derived from other functions and

Smart View control points.

Each virtual output will relate to a Evacu Elite virtual input in the Evacu Elite config tool (EvacuWiz Plus) and can then be configured accordingly (refer to MAN3142 Evacu Elite Programming manual).

4.4.19 EvacU Elite & FireFinder Plus Combo system

An Evacu Elite and FireFinder Plus combo system may share the same PSU that is used in the Evacu Elite.

In systems that are manufactured with this option there is a requirement for the system to know that a CAN Power Interface (CPI) board is fitted so that the FireFinder Plus CIE is able to monitor the status of the common PSU.

☞ **Note:** Refer to applicable FireFinder Plus Installation and Commissioning manuals for CPI connection details.

On the Brigade board Addon module this is set by selecting the CAN Power interface option which overrides the standard FireFinder Plus Supply and Battery size settings.

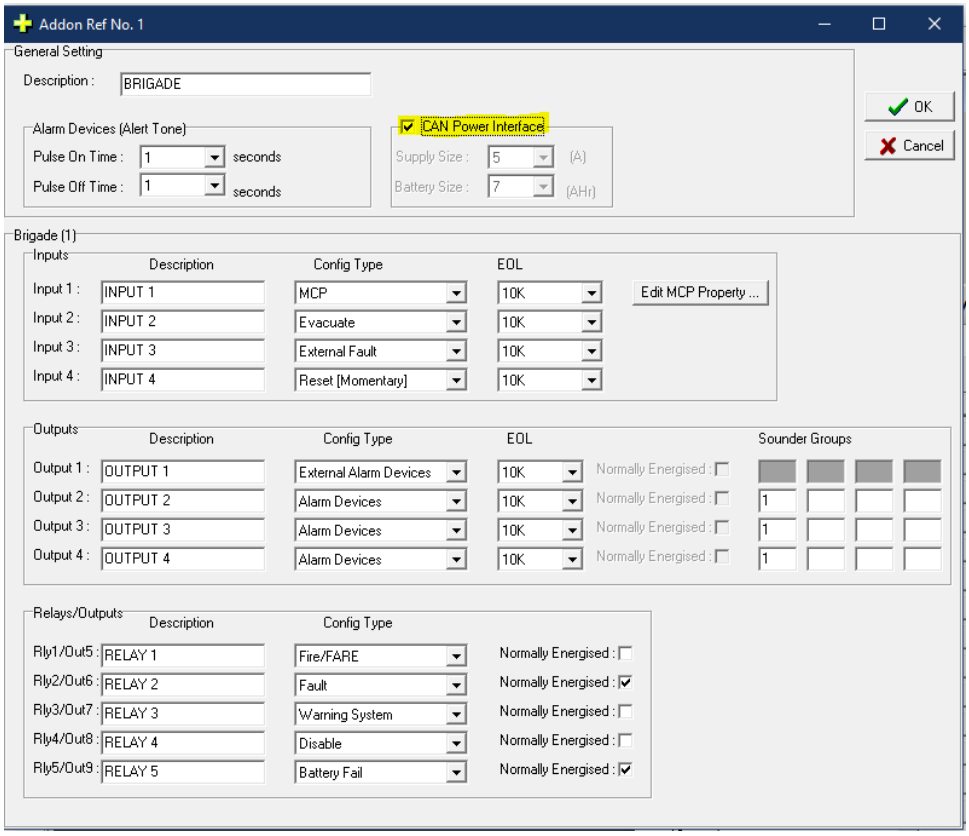


Figure 101: Combo system CAN Power Interface setting

Selecting this option will reserve Addon Reference number 2 on the Addon setting window as shown in the image below as the CPI module is see as an Addon to the FireFinder Plus.

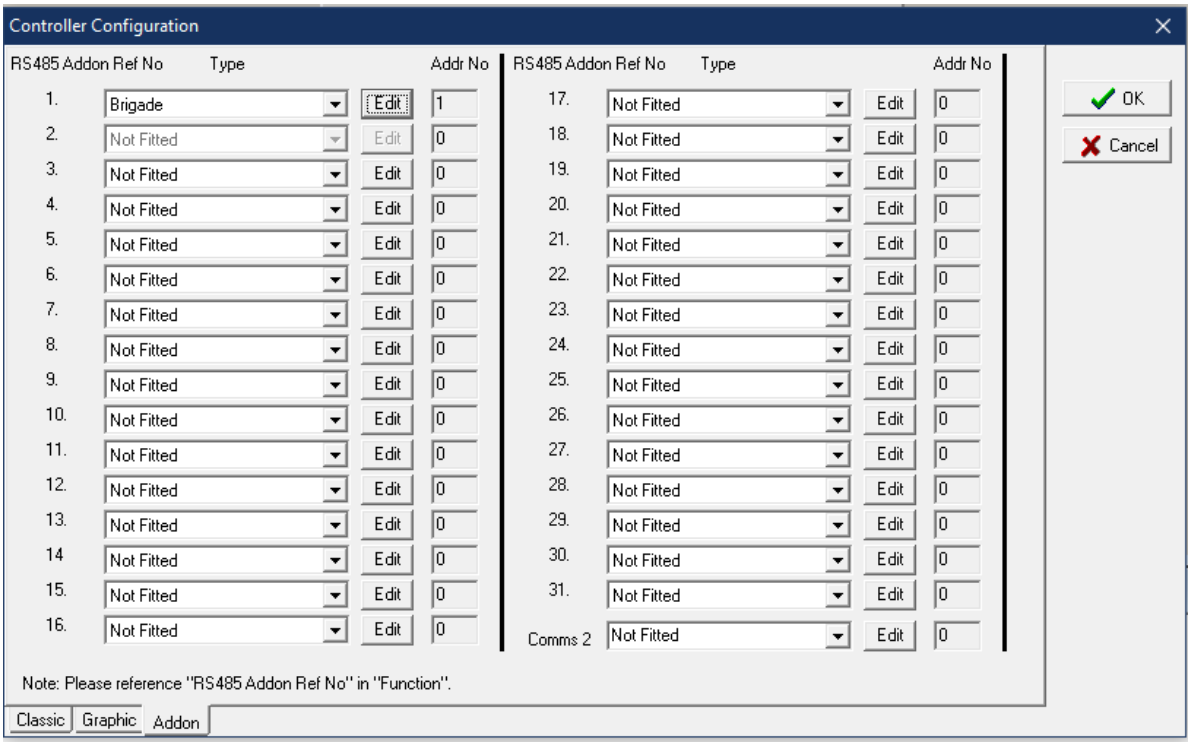


Figure 102: CAN Power Interface setting Addon Reference

5 The Module Data (Loop and Device) Entry Spreadsheet

Once all the Module data for the panel has been entered, the next step is the entry of specific data for each module. This is done via the Module Data Entry Spreadsheet. To access the Spreadsheet double click on the Controller (C1)

☞ **Note:** *If the Controller Configuration Information has not been entered the Controller Configuration Dialogue Box will appear rather than the spreadsheet shown below.*

The Module Data entry Spreadsheet appears as a window with a row of tabs along the top, one for each module. To enter the data for a module, click on the tab and in the area below a spreadsheet will appear in which you enter the data.

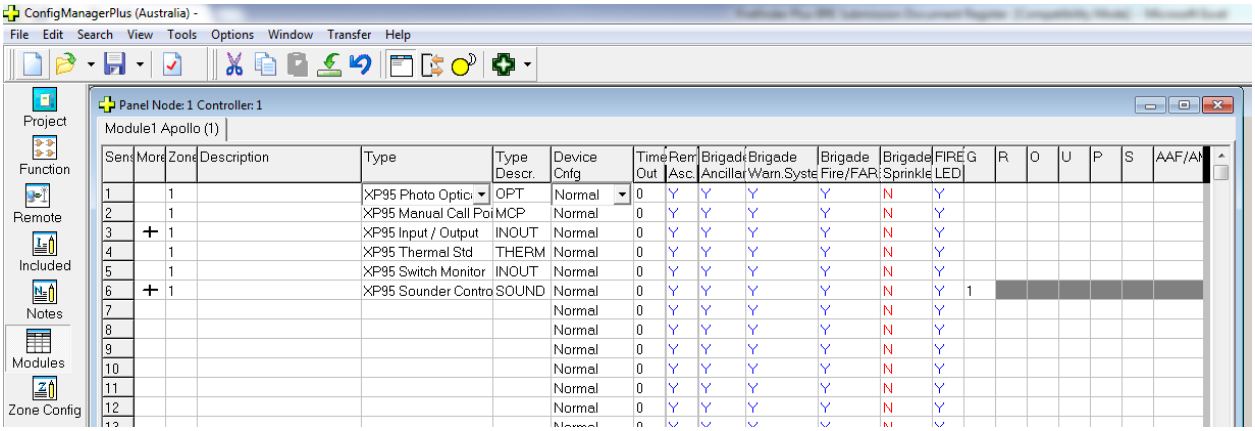


Figure 103: Apollo Module Data Entry Spreadsheet

5.1 Type and Device Configuration

To select the "Type" of module or device click on the item from the drop down menu within the spreadsheet or the in the tool bar or right click in the box and use the "Select Device" as shown above.

The screens below are those presented using the icon in the Tool Bar.

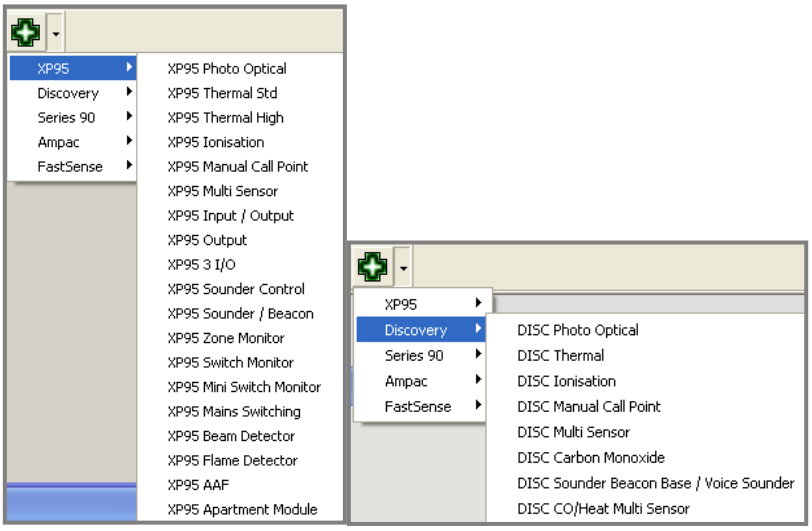


Figure 104: Device Type - XP95 & Discovery Selections

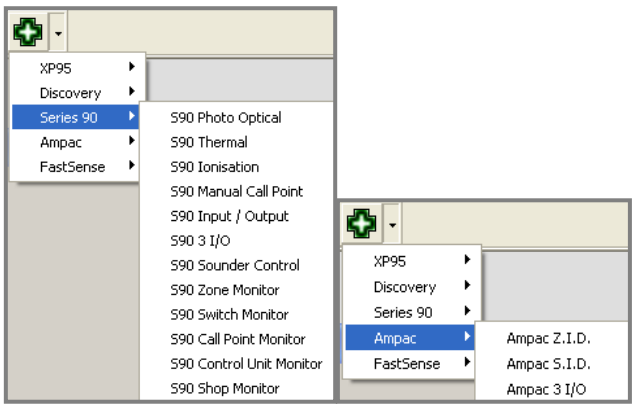


Figure 105: Device Type – Series 90 & Ampac Selections

The appropriate "Device Config" is then selected from the second drop down box.

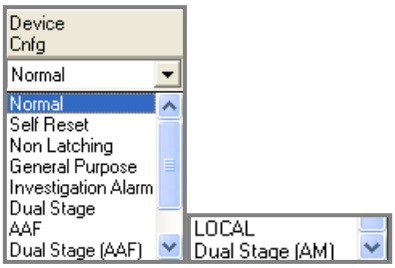


Figure 106: Device Configuration (Device Cnfg) Type

If a device is selected, such as I/O Modules, that requires programming or settings the "More" column will indicate this by automatically inserting a + in the column. Double clicking on the + will open another screen in which control data for that device can be entered. This is covered in more detail later in the manual under Input / Output Settings.

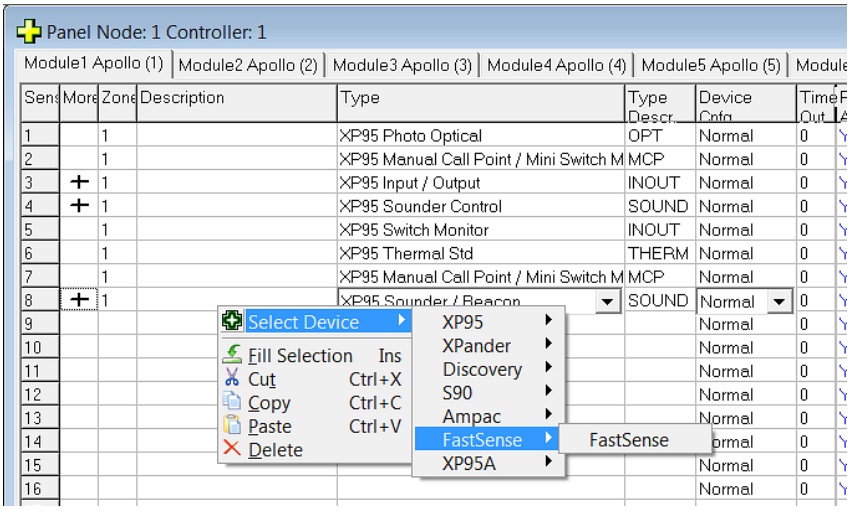


Figure 107: Short Cut Selection Window

☞ **Note:** *This shortcut selection screen (as above) is selected by right clicking within a column within which a selection is to be entered.*

Select Device categorises the types of devices that can be selected

Fill selection is used to fill and number multiple sensors of the same type. This is done by entering the first description or type etc then left clicking on it and dragging the Cursor down to the last desired insertion point.

Cut, Copy, Paste and Delete are used to edit either single or multiple entries in the normal way.

5.2 The Extended Menu and Toolbar

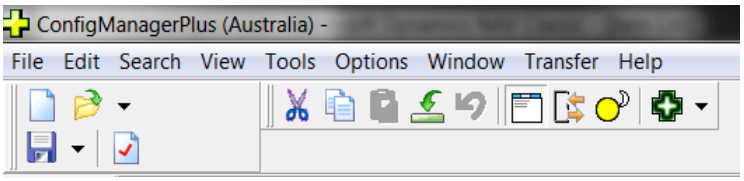


Figure 108: The Extended Functions Menu and Toolbar

5.2.1 File

New (Project) [CTRL+N]

Select this option to start a new project. The "Project Manager" dialogue box will appear as a result.

Open [CTRL+O]

Open loads a previously saved project. The "Open Project" dialogue box will appear, locate the file to be opened and click on Open. Configuration Files are saved with the .ffc extension.

Reopen

Re-open allows the user to select from a list of previously opened files.

Open Automatic Backup

Opens the automatic saved backup file.

Save [CTRL+S]

This option is initially greyed out until a project has been created or opened a project. It will save the project to the location from which it was opened, overwriting the older version. Note that the operator will not be queried as to whether they want to do this. If working on a new project that has not been saved before the "Save Project As" dialogue box will appear instead, this is described under the next heading.

Save File As

This option is initially greyed out until a project has been created or opened. It will bring up a dialogue box to enter the file name to use for the project and to locate or create the folder in which to save it.

Close Project

This option is initially greyed out until a project has been created or opened. Click here to close the project. A Dialogue Box will asked whether or not to save it, if yes and the project has never been saved before the "Save Project As" dialogue box will appear as described above.

Print

Selecting this will bring up the Print dialogue box. From here the printer can be set up. Once everything has been checked select OK and the Module Data Entry Spreadsheet will be printed.

Exit

To close down the Configuration Module program select Exit. If changes have been made to the current project and have not saved then a Dialogue Box will asked if the operator wishes to save it now.

5.2.2 Edit

Undo [Ctrl+Z]

This will take the operator back one step in case an error has been made or a change is required while entering data into the Module Data Entry Spreadsheet. Undo can go back up to 20 steps. Holding down Ctrl and pressing Z will also implement this function. Note – this function will be greyed out at the start of a project as there will be nothing to undo.

Delete [Del]

This will clear a highlighted area on the spreadsheet. To highlight an area left click on the spreadsheet and without releasing the mouse button drag it across the area to be selected such that it is all highlighted in black. Alternatively left click on the spreadsheet, then hold down shift on the keyboard and left click somewhere else on the spreadsheet. The intervening area will be highlighted.

This function can also select by right clicking on the area to be deleted. This will bring up a menu from which to select Delete.

Copy [Ctrl+C]

After highlighting an area of the spreadsheet or selecting a single entry click on copy (or hold down Ctrl and press C) to copy it to the clipboard so that it can be pasted into another area of the spreadsheet or into another program.

This function can also be selected by right clicking on the area to be copied. This will bring up a menu from which Copy Selection can be selected.

Cut [Ctrl+X]

After highlighting an area of the spreadsheet or selecting a single entry click on Cut (or hold down Ctrl and press X) to copy it to the clipboard so that it can be pasted into another area of the spreadsheet or into another program. Unlike the Copy function however, the contents of the selected area will be deleted.

This function can also be selected by right clicking on the area to be copied. This will bring up a menu from which Copy Selection can be selected.

Paste [Ctrl+V]

This function will insert the contents of the clipboard into the spreadsheet starting from the currently selected location, assuming the data is applicable to the application. Data can not be pasted from an external application into the spreadsheet via this function, however by right-clicking and selecting Paste Descriptions.

☞ **Note:** *Paste **can only be done** in the **Descriptions** by this method.*

Advanced

- This feature allows editing of **Module settings** / description and to view the default parameters for that module.

Note: It is not recommended to adjust any of these settings without consulting Ampac Technical Support

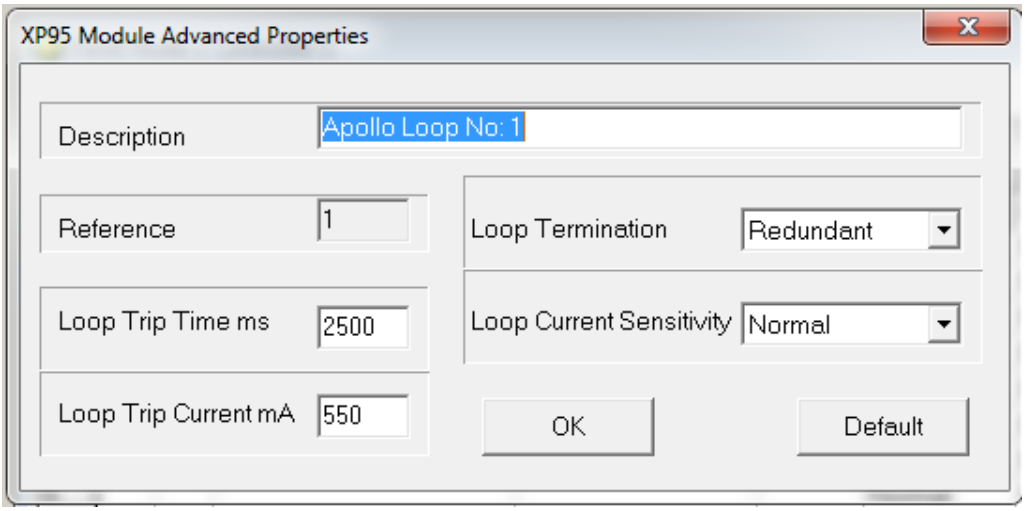


Figure 109: Advance Editing of I/O Module Pop up Screen

Replicate

This feature works by copying the last change made to all selected cells with the same original contents as the cell that was edited. All other cells selected or not, remain unaffected. For example if it was required to change all Heat A devices to Heat C, change one of these devices configuration to Heat C, select all devices, then Edit | Replicate.

Copy Change To Highlighted

When an area is highlighted and a change is made to a selected area, if **Copy change to highlighted** is used then the change is made to all of the relevant areas in the highlighted section. For View Highlights, add Highlights refer to that Section

Replicate On Highlighted

When an area is highlighted and a change is made to a selected area, if **Replicate on highlighted** is used then the change is made to all of the relevant areas in the highlighted section.

5.2.3 Search

Search

This option allows the operator to search for text when editing modules.

Search Again F3

This allows the user to search for text again.

Replace In Description

This option allows the user to replace letters or words in the description fields.

5.2.4 View

Add Highlights

When this option is selected the “Select Parameter to Highlight” box appears. Select an option as shown and type in a parameter that is referred to in the region selected. In this case the word detector is entered. Selecting OK highlights all devices with the “Description - Detector

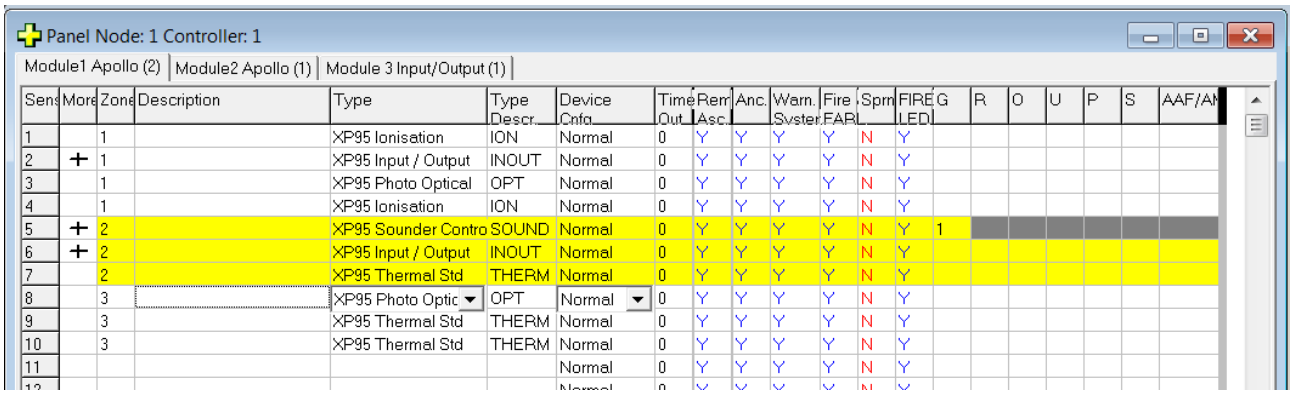


Figure 110: Highlighted Screen

Remove highlights

This simply removes the highlights on the selected screen.

The following three options from the View drop down screen if selected takes the operator directly to the appropriate working screen. Another method of selecting these options is to left click on the icons as shown below.

Edit descriptions, groups, brigade settings

View input / output settings – see also Input /Output Modules

Edit day / night settings

5.2.5 Tools

Verify Project [F4]

This function checks that the project produces a valid ***FireFinder PLUS*** configuration file. Any errors will be displayed on the screen.

Compile File [F5]

This function will create the ***FireFinder PLUS*** configuration file for the current project. This is the file that is actually sent to the ***FireFinder PLUS***.

A **SAVE FILE AS** dialogue box will appear so that you can select the file name and location of the file you are creating. The file created is a text file with a .dat extension.

By using the Compile tab of the Environment Settings you can select to display the Compiled ***FireFinder PLUS*** File and a window will appear showing the contents of the file after it has been generated.

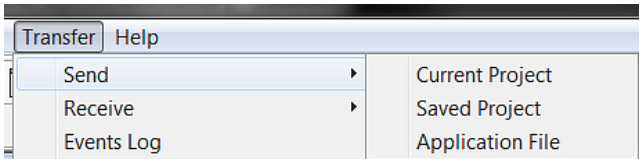
Convert File from *FireFinder PLUS*

This will convert the information previously uploaded from the ***FireFinder PLUS*** panel into a format such that it can be imported for use by ***ConfigManagerPLUS.***

Clean Up Directory

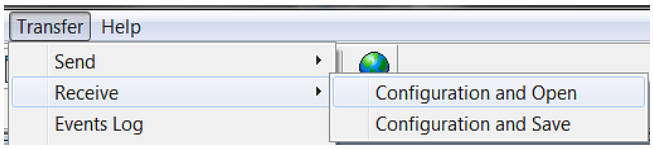
Used to cleanup file locations and unused files within that location.

5.2.6 Transfer



Send

This function is used to Send either the current project config or a saved project config into the panel/s. It is also used for sending updated application software.



Receive

This function is used to Receive a panel config from the panel and open it up a project in the programming tool or save to a directory on the pc.

Events Log

This function is used to download the panels event logs.

5.2.7 Clicking Tool Bar Icons;

Project

View displays the current project screen

Functions

View displays the Functions screen

Remote

Controller displays a graphical screen from which the FACP can be remotely controlled

Included

Text Editor displays the written Functions screen for editing a written Function

Notes

Editor displays an enter text screen for storing note on the project

Modules

Edit View displays the modules in the configuration for editing, adding or deleting

Maps

displays the map name and the description of each page in the graphics configuration

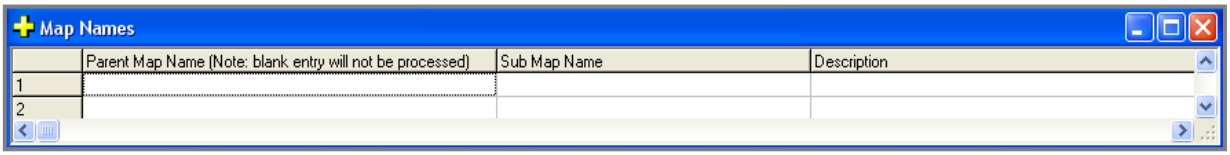


Figure 111: Entering Map Names and Screens

Main Map with no Sub Map

To set up a main map with no sub map -> provide a map name for the “Parent Map Name” and leave the “Sub Map Name” blank. For example, set Map (row) 1: Parent Map Name = "mainmap" and leave Sub Map Name blank.

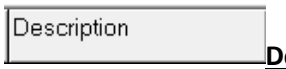
Main Map with 2 Sub Maps

To set a main map with 2 sub maps -> use the same map name for the “Parent Map Name” of two records and provide an unique “Sub Map Name” for each. For example, set Map (row) 1: Parent Map Name = "mainmap" and set Sub Map Name = submap1; set Map (row) 2: Parent Map Name = "mainmap" and set Sub Map Name = submap2.

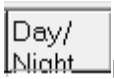
"tagcopy.ci" file includes a function “PageSum” that stores the parent-sub map records information. Note that a parent map with no sub maps will not be added to this function.

5.3 Zone Configuration Options

Zone Config displays the zone table configuration of the system. This is used to set zone(s) into its respective mode (i.e. Normal, dependency A/B/C or Delay-to-output) based on the BS EN54-2 1998 and AS7240-2 CIE standards.



Description: Zone description (e.g. location details)



Day/Night:

1. If set to 'Y', both the "Day Mode" and "Night Mode" settings will be used by the FACP.
2. If set to 'N', only the "Day Mode" settings will be used.

Day Mode or Night Mode:

Allows the Zone to be configured and operate in one of the six modes as follows depending on the time of day/night:

5.3.1 Normal:

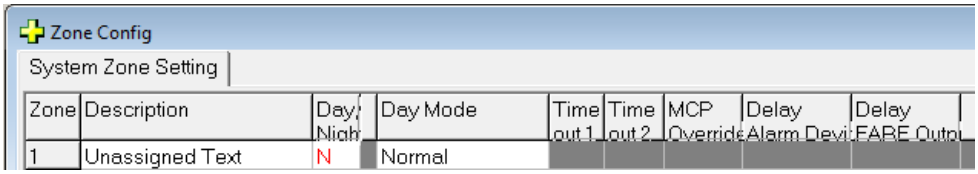


Figure 112: Normal Zone settings

No special zone functionality. Zone alarms and outputs are immediately activated.

5.3.2 Dependency A (EN54-2 and AS7240-2):

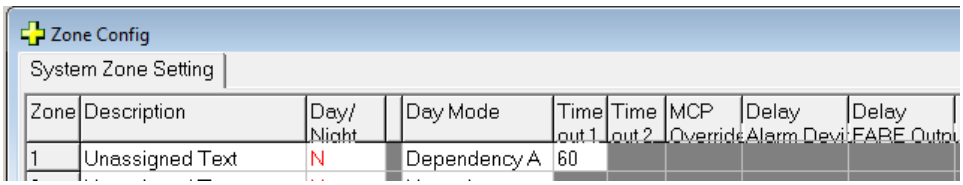


Figure 113: Dependency A settings

When a device in this zone goes into alarm the first alarm signal from the device is not reported and the fire alarm condition is inhibited until a confirmation alarm signal from the "same" detector or another detector in the same zone is received.

The confirmation time is set to 30 secs and can not be changed.

If there has been no confirmation alarm during the first 30 seconds the Time Out 1 counter starts.

Time Out 1 is used to set the time to cancel the initial alarm state. This can be set from 60 seconds up to a maximum value of 1740 seconds.

If another alarm is received during the Time Out time the Zone will enter the full alarm state without requiring another confirmation alarm.

☞ **Note:** Dependency A zone settings DO NOT apply to Manual Call Points configured in the zone

5.3.3 Dependency B (EN54-2 and AS7240-2):

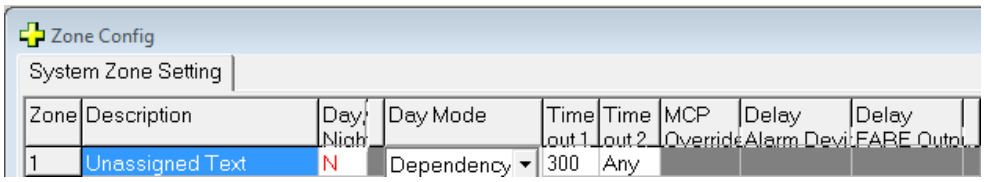


Figure 114: Dependency B settings

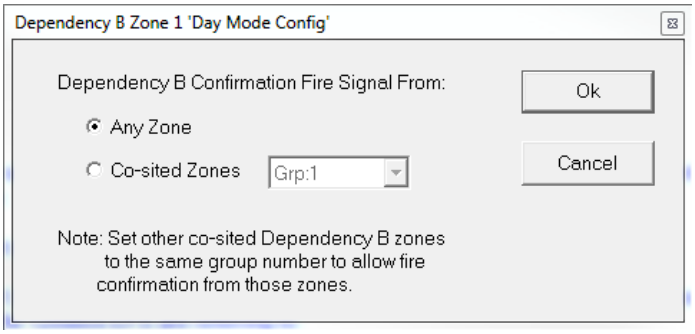
When a device in this zone goes into alarm the first alarm signal from the device is indicated on the panel but the fire alarm condition is inhibited until a confirmation alarm signal is received from another detector in the same or different zone.

Time Out 1 is used to set the time to cancel the initial alarm state. This can be set from 300 seconds up to a maximum value of 1800 seconds. A manual Reset will also cancel the initial alarm state.

If there has been no confirmation alarm during the first 60 seconds the time Out 1 counter starts.

If another alarm is received during this time the Zone will enter the full alarm state without requiring a confirmation alarm.

Time Out 2 column allows the user to configure whether the different confirmation zones are co-sited (that is a zone that is next to the zone determined by a Group number) or any zone.



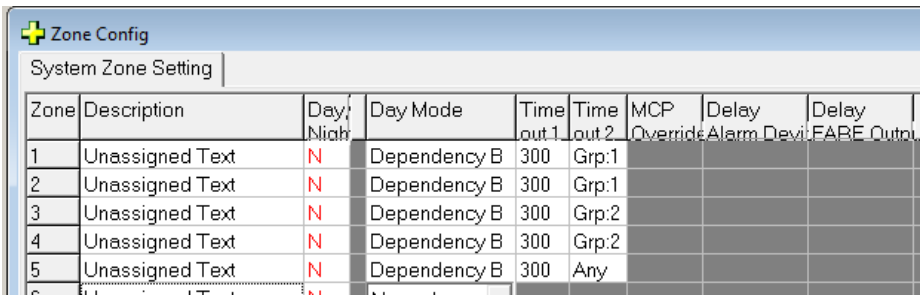


Figure 115: Dependency B Zone Grouping

☞ **Note:** Dependency B zone settings DO NOT apply to Manual Call Points configured in the zone

5.3.4 Dependency C (EN54-2 and AS7240-2):

Zone Config

System Zone Setting

Zone	Description	Day/ Nigh	Day Mode	Time out 1	Time out 2	MCP Override	Delay Alarm Devi	Delay FARE Outpu
1	Unassigned Text	N	Dependency C				Y	Y

Figure 116: Dependency C settings

When a device or a MCP in this zone goes into alarm, the panel will enter the fire alarm condition however the outputs associated to alarm devices and the FARE output can be delayed.

5.3.5 Delays to Outputs (EN54-2 and AS7240-2):

Zone Config

System Zone Setting

Zone	Description	Day/ Nigh	Day Mode	Time out 1	Time out 2	MCP Override	Delay Alarm Device	Delay FARE Output
1	Unassigned Text	N	Delay to output	60	300	Y	Y	Y

Figure 117: Delays to output settings

This allows delays to be configured to Alarm Device and FARE outputs.

Time Out 1 sets the initial delay period.

Time Out 2 sets the extended delay that the user can select on the panel by pressing the Enter button if the delay Time out 1 is not long enough.

The combined delay (Time out 1 + Time out 2) must be between 1 and 600 seconds.

The MCP Override option allows the delays to be applied to MCP's or not. The default is all MCP's will turn outputs on and not start the delay time.

The delay can be overridden at any time by pressing the Delay Override button.

5.3.6 AVF (AS4428.1):

Zone Config

System Zone Setting

Zone	Description	Day/ Nigh	Day Mode	Time out 1	Time out 2	MCP Override	Delay Alarm Device	Delay FARE Output
1	Unassigned Text	N	AVF	120				

Figure 118: AVF settings

When a device in this zone goes into alarm the first alarm signal from the device is not reported and the fire alarm condition is inhibited until a confirmation alarm signal from the "same" detector is received.

The confirmation time is set to 20 secs and can not be changed.

If there has been no confirmation alarm during the first 20 seconds Time Out 1 counter starts.

Time Out 1 is used to set the time to cancel the initial alarm state. This can be set from 120 seconds up to a maximum value of 300 seconds.

If another alarm is received by the same detector or another detector during Time Out 1 time, the Zone will enter the full alarm state without requiring another confirmation alarm.

☞ **Note:** AVF zone settings DO NOT apply to Manual Call Points configured in the zone

5.4 Loop and Device Configurations

Selecting Loop module tab on the Module Data entry Spreadsheet will display the page for entering the data for that module. The tool bar will also have the following buttons made active.

Edit description, groups, Brigade settings

View input / output settings

Edit day / night sensitivity settings

Add device to currently selected address

Select the tool for the settings you wish to enter.

5.4.1 Edit Sensor Properties

Selecting this option will display a page on the spreadsheet like that shown below.

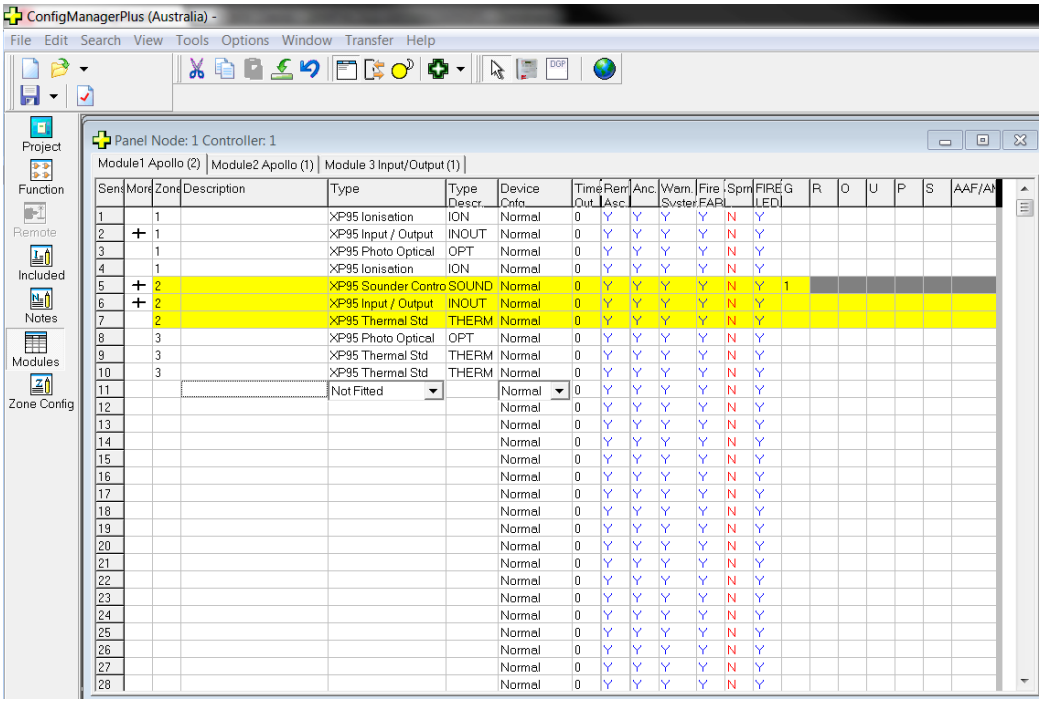


Figure 119: Sensor Properties

Sens (Sensor)

The sensor number is set and cannot be modified.

More +

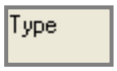
Clicking on this box will reveal more information about the device only if it is an I/O device.

Zone

The zone number is mandatory and must be a number between 1 and 1024.

Description

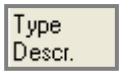
The description is limited to 33 characters and may contain numbers or characters.



Type

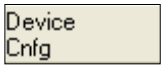
The type of device is selectable from a drop down list box.

☞ **Note:** *Along with other devices* ***FastSense*** *is selected from this drop down box.*



Type Descr (Description)

The type descriptor is automatically entered by the program. This may be modified if required but it is limited to 6 characters.



Device Cnfg (Configuration)

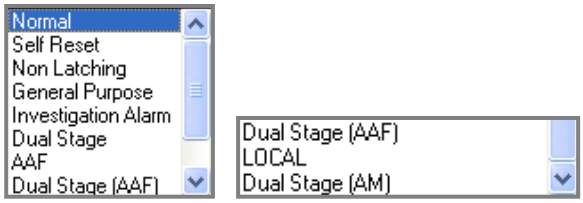


Figure 120: Device Config Drop Down Screen

The Device configuration column uses a drop down list box to display the options that a device may be set to, these are;

NORMAL – which is a normal or latching configuration for the zone. This configuration will allow the detector to go straight into alarm when it detects smoke (alarm calling).

Self Reset – The detector will be reset automatically after a predetermined period.

Non Latching – this is non-latching. The detector will automatically return to normal after a predetermined period when the source of the alarm e.g. smoke is removed.

General Purpose – ***Used for input output devices***. When set to general purpose any activated input is not displayed on the LCD. When using sub addressing input output units are set to general purpose. Clicking on the + (more) button will then allow you to set inputs for other options e.g.: Inactive, General (set a Function), Latching, Non latching, Fault. The **ADDRESS** will be the sequential number assigned to the device / sensor when the description is entered in the Module screen. The **SUB-ADDRESS** is the INPUT designator (1 to 3) that is assigned to the description entered for a particular INPUT. To access this screen click on the + icon in the Module screen.

Heat A - Used with XP95 Heat Detectors (Rate of Rise)

Heat B - Used with XP95 Heat detectors (Fixed Temp)

Heat C - Used with Discovery Heat Detectors (Rate of Rise)

Heat D - Used with Discovery Heat Detectors (Fixed Temp)

Investigation Alarm - Used with AAM modules. Allows for an investigation period before the device goes into full alarm.

Dual Stage – this option is only available for the Discovery Multi-sensor (default mode, night mode, heat mode only). During stage 1 the device LED will be activated.

ADF – allows the device to be associated with an ADF group. Refer section 5.4.5

AAF – the Alarm Verification Facility allows for the system to verify that smoke has been present in a smoke detector for 10 seconds before the system will go into alarm. AVF is not recommended for I/O devices as an input is either "ON" or "OFF".

Dual Stage (AAF) – this option is only available for the Discovery Multisensor (default mode only).

LOCAL - this option is only available for devices to be associated with an AM device via the AAF/AM column.

Dual Stage AM – this option is only available for the Discovery Multisensor (default mode only).

External Sounder – this option is used to associate a Loop sounder to the "External Alarm Device Disable" button. Requires a Function 90 to be configured.

Time Out **Time Out**

This column is the used to enter the time out that is used only for Self Resetting, investigate alarm devices, and dual stage devices. A maximum of 999 seconds is allowable. *If something greater than 999 seconds is entered an error message will be displayed when the project is compiled.*

Rem Asc. **Remote Association**

Set to Y allows the remote LED to be illuminated on Alarm, set to N disables the remote LED and will not be illuminated on Alarm although if the LED was under program control within a Function this setting will be over ridden. An example of its use is where a detector is located in a concealed space (e.g. Ceiling void) and the remote LED is mounted on the ceiling in full view.

Brigade Ancillary **Ancillary Association**

Set to Y allows the device to be associated with Brigade Board outputs configured as Ancillary Type. If the applicable detector goes is activated then outputs configured as Ancillary type will activate.

Brigade Warn.System **Warning System Association**

Set to Y allows the device to be associated with Brigade Board outputs configured as Warning System Type. If the applicable detector goes is activated then outputs configured as Warning System type will activate.

Brigade Fire/FARE **Fire/FARE Association**

Set to Y allows the device to be associated with Brigade Board outputs configured as Fire/FARE Type. If the applicable detector goes is activated then outputs configured as Fire/FARE type will activate.

Brigade Sprinkler **Sprinkler Association**

Set to Y allows the device to be associated with Brigade Board outputs configured as Sprinkler Type. If the applicable detector goes is activated then outputs configured as Sprinkler type will activate.

FIRE LED **Alm (Alarm) LED**

Is the Front Panel Alarm LED. This normally set to Yes.

G R O U P S **Groups:** The next six columns allow the user to enter up to 6 group numbers against each device. These group numbers are only used for I/O programming.

Map **Map:** If graphics have been installed this column will be active and display the graphics page the device will be displayed.

5.4.2 Manual Call Point Settings (XP95)

Two options are available:

XP95 MCP – Fire which is used for Alarm calling

XP95 MCP – Emergency which is used for Evacuation and other none Alarm calling (AS1670.1:2015)

Selecting these will pre-configure the output option columns as per the image below.

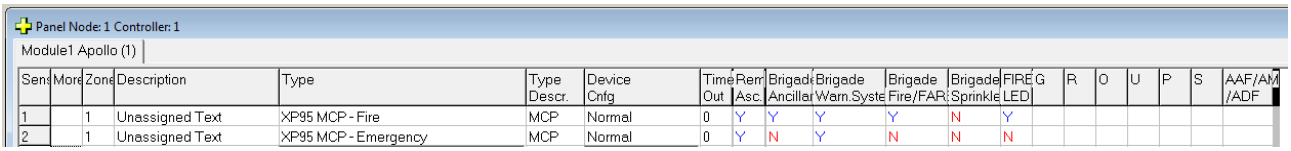


Figure 121: Device Type – MCP Selections

5.4.3 Input/Output Settings

If there is any device on the loop which has input or output, select the Input/Output icon for I/O Module or the More + column settings button in the Sensor Properties screen to show the I/O Settings page.

Some boxes in a spreadsheet will be filled with the background colour, data entry is prohibited in these boxes.

Clicking on the More + column presents the module edit screen.

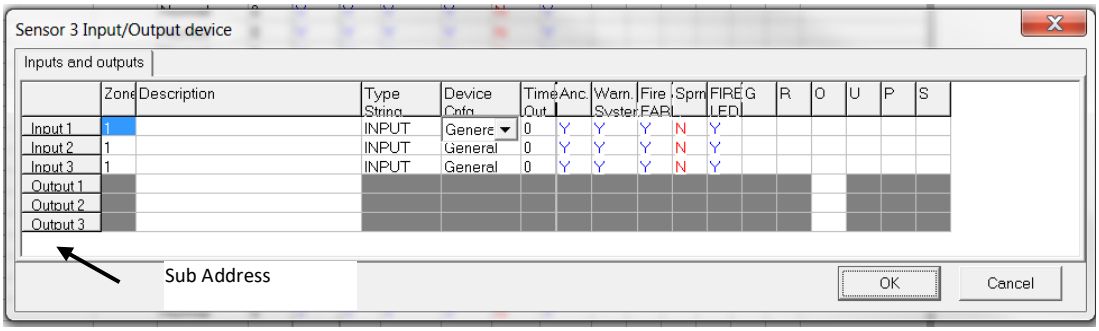


Figure 122: The Module Apollo I/O Settings Screen

The address and sub-address of an I/O device is determined by where the device is entered into the table in the Panel Node X Controller (address) and the Sensor Input/Output device (sub-address) screens.

The drop down screen under the heading of Device Configuration (Device Config) in the Sensor Input/Output device screen (double click on the + icon in the Panel Node X Controller screen) consists of;

1. **Inactive:** Sets the input so that it will not respond to a change of state at the input. An example of its use would be where one or two inputs of a 3 I/O device are not used.
2. **General:** General is selected when a non alarm calling device is used or where an input / output is used in a "Function". The change of state at the input is actioned, displayed on the LCD and entered into the Logs.
3. **Latching:** If an alarm is initiated the alarm condition input will be considered to be on by the FACP, will be displayed on the LCD, is entered into the Logs and requires manual "Acknowledgement" and "Reset".
4. **Non-latching:** If an alarm is initiated the alarm condition input will be considered to be on until the alarm input is removed, the input will then be seen to be in its normal state and the FACP will display the condition on the LCD, is entered into the Logs and automatically "Acknowledges" the alarm.
5. **Fault:** If a fault condition is seen at the input to the I/O it will initiate the fault sequence as set in the configuration, display the condition on the LCD, enters it into the Logs and automatically "Acknowledges" the fault.

To view and print the settings select the icon and print.

Panel Node: 1 Controller: 1

Module 1 Input/Output (1) | Module2 Apollo (1)

Sens.	Zone	Description	Type String	Device Cnfg	Time Out	FIRE LED	G	R	O	U	P	S
Sens. 9		Sounder Control 1										
Output 1				General								
Output 2				General								
Sens. 10		I/O 1										
Input 1	1		INPUT	General	0	Y						
Input 2	1		INPUT	General	0	Y						
Input 3	1		INPUT	General	0	Y						
Output 1				General								
Output 2				General								
Output 3				General								
Sens. 11		Sounder Control 2										
Output 1				General								
Output 2				General								

Figure 123: The Module Apollo I/O View and Print Screen

☞ **Note:** *To edit this information / screen return to the Edit Sensor Properties, double click on the More + box then edit in the new screen, returning by exiting in the normal way.*

Panel Node: 1 Controller: 1

Module 1 Input/Output (1) | Module2 Apollo (1)

I/O	Input Description	Input Active	Output Description	Output Active
1		N		N
2		N		N
3		N		N
4		N		N

Figure 124: Module Edit I/O Screen

I/O: The I/O number is set and cannot be modified.

Input Description: The description is limited to 33 characters and may contain numbers or characters.

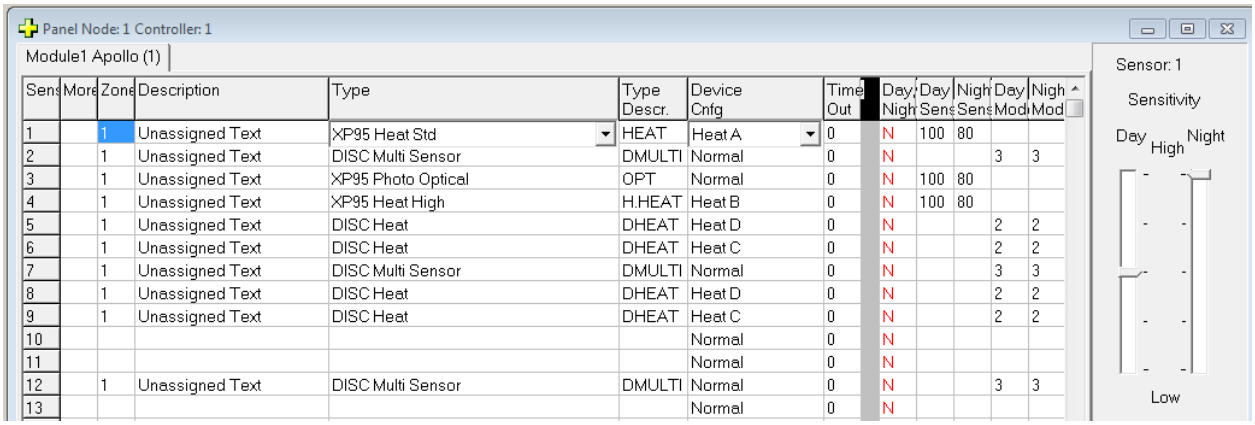
Input and Output Active: Toggling the values in this column will activate or deactivate the input or output.

Output Description: The description is limited to 33 characters and may contain numbers or characters.

Input / Output, Active / Inactive: Toggling the values in this column will activate or deactivate the input or output.

5.4.4 Day/Night Settings

If Day/Night settings are not required then this section may be ignored. If they are required select the icon and the screen below will be displayed.



Sens	More	Zone	Description	Type	Type Descr.	Device Cnfg	Time Out	Day/ Nigh	Day Sens	Nigh Sens	Day Modi	Nigh Mod
1		1	Unassigned Text	XP95 Heat Std	HEAT	Heat A	0	N	100	80		
2		1	Unassigned Text	DISC Multi Sensor	DMULTI	Normal	0	N			3	3
3		1	Unassigned Text	XP95 Photo Optical	OPT	Normal	0	N	100	80		
4		1	Unassigned Text	XP95 Heat High	H.HEAT	Heat B	0	N	100	80		
5		1	Unassigned Text	DISC Heat	DHEAT	Heat D	0	N			2	2
6		1	Unassigned Text	DISC Heat	DHEAT	Heat C	0	N			2	2
7		1	Unassigned Text	DISC Multi Sensor	DMULTI	Normal	0	N			3	3
8		1	Unassigned Text	DISC Heat	DHEAT	Heat D	0	N			2	2
9		1	Unassigned Text	DISC Heat	DHEAT	Heat C	0	N			2	2
10						Normal	0	N				
11						Normal	0	N				
12		1	Unassigned Text	DISC Multi Sensor	DMULTI	Normal	0	N			3	3
13						Normal	0	N				

Figure 125: The Day / Night Settings page (Note Sensitivity & Mode Default Settings)

To activate the day/night settings on a device, click in the Day/Night column in the spreadsheet, this will toggle between Y and N, set the entry to Y.

XP95 & *FastSense* Day / Night Settings

The two sliders on the right of the page show the Day/Night sensitivity settings; by moving them you change the values in the Day/Sens. and Night/Sens. Columns.

The lower the number the more sensitive the detector. The number is a percentage of the normal level of the initiating factor that would cause an alarm. E.g. an analogue return value of 55 for an alarm would return approximately 47 for a setting of 80%. Once set the sensitivity has to be enabled via the Function Menu on the panel for it to take control.

Discovery Day / Night Mode Settings

Selecting a Discovery device will enter a default value of 3 for both day and night. To set it for a particular mode click on the inserted number, delete and enter a new value between 1 and 5. Entering any other value will result in an error message, delete the entry and re-enter. E.g. In relation to Smoke detectors ***the least sensitive setting is Mode 5 while Mode 1 is the most sensitive***.

For each device applicable Mode settings refer to MAN3050 Discovery Product Guide.

☞ **Note:** *MCP's will return a default value of 15; this value can not be changed*.

5.4.5 Alarm Delay Facility – ADF (AS1670-1:2015)

The ADF is initiated by an alarm condition from an optical/smoke detector.

To meet the requirements of AS1670-1 an optical/smoke detector and a loop sounder must be placed into an ADF group.

The optical/smoke detector and loop sounder must first be set as ADF in the Device cnfg column and should be associated to a ADF Group in the AAF/AM/ADF column.

When sprinklers are not used a heat detector must also be added to the ADF group (refer image above) the heat detector can not be set as ADF in the Device cnfg column.

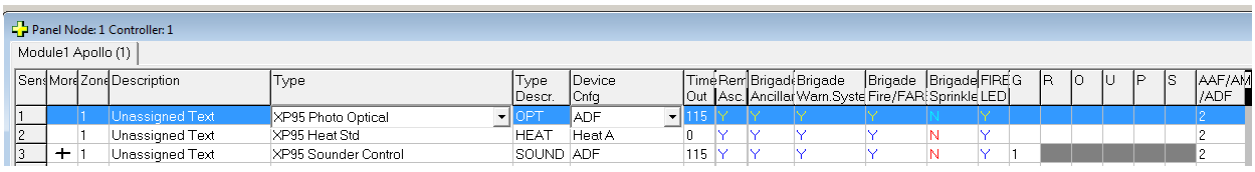


Figure 126: ADF Group example with 115 sec delay

☞ **Note:** ADF group numbers are limited between 2 and 1024

☞ **Note:** Devices in ADF groups can not be placed in Zones that are configured for Dependency's or AVF

☞ **Note:** Errors during compiling will present if one of these devices are not in the group

☞ **Note:** If there is no Heat detector associated with the ADF Group a Warning message will present during compiling. This can be ignored if Sprinklers are used.

Devices in ADF groups may have an associated delay set for the group. This delay can be set from 0 to 300 seconds by entering the time in the Time Out column.

Alternatively if all ADF groups need to have the same delay time a Global ADF timeout can be set in the Project/System Setting/Global Settings window.

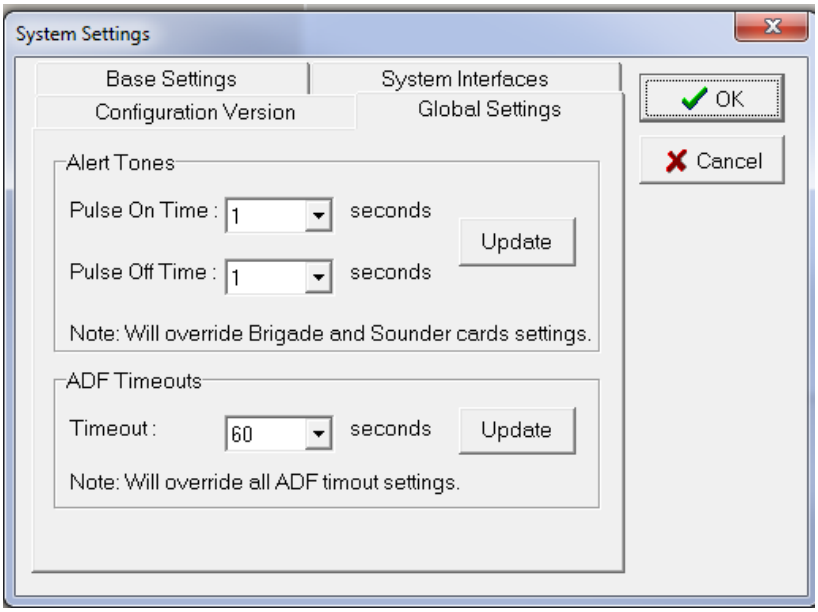


Figure 127: ADF Global timeout setting

6 Functions

This section of the program allows the operator to enter data that will allow the panel to activate outputs in accordance with the pre-determined conditions of specified alarm devices or inputs. See Appendix B for a full description of each Function, in particular “default” Function 17.

Function Icon

6.1 The Function View

Selecting the Function Icon will display a range of options as shown below

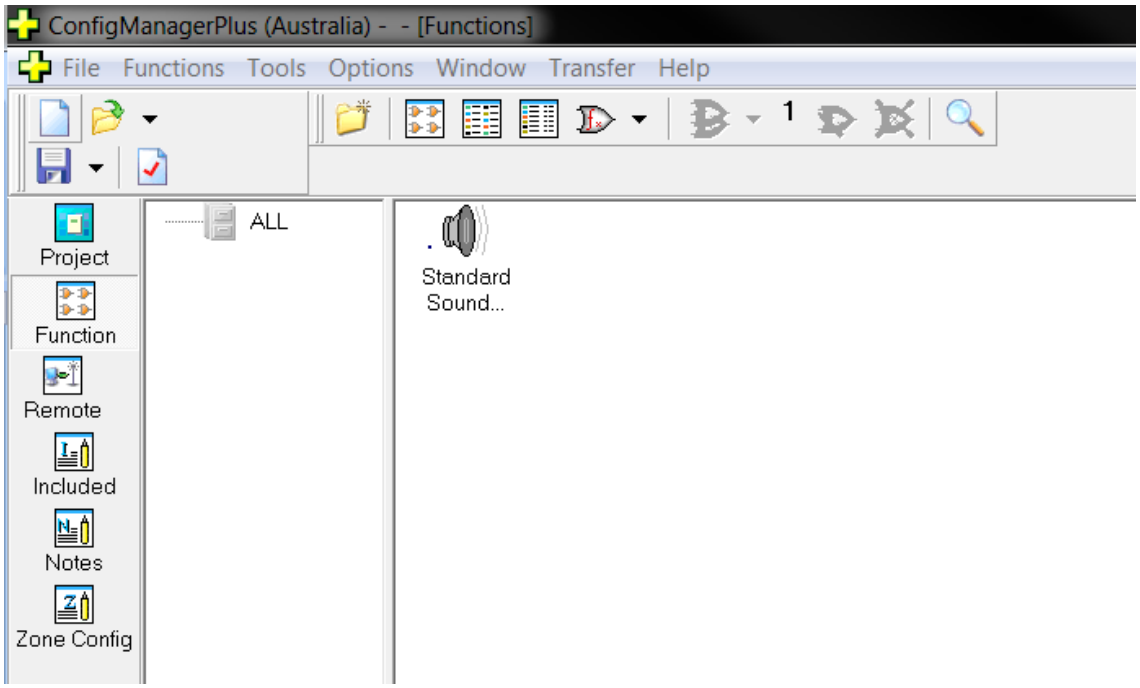


Figure 128: The Function Screen Displaying New Functions & Selection Menus

Once a Function is selected it can be modified to suit a particular purpose. A special feature is the availability of the Filing cabinet. This operates in the same way as the Microsoft Word and allows the saving of a Function (using Click and Drag) in the filing cabinet or folder within the cabinet for reuse at a later date.

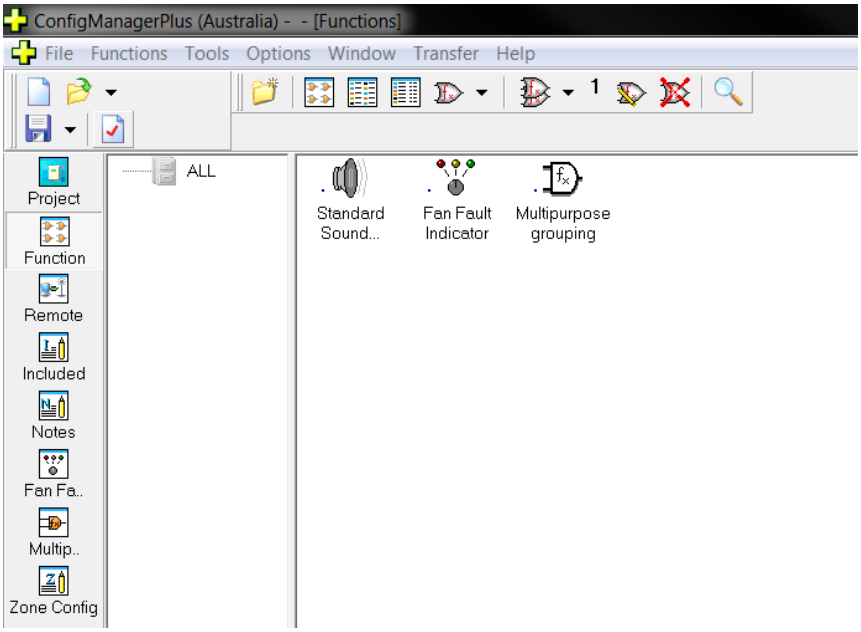


Figure 129:– The Secondary Control Icons are now Displayed – When a function is selected

New Functions

As seen above by selecting this icon a box will appear on the screen with a selection of functions that can be scrolled through or by selecting the arrow head a complete list will be presented.

Clone Function n Times

This option allows the operator to create the selected number of copies. Using the Project Creation tab of the Environment Settings you can select weather the cloning of a function automatically increments the entries in each selected box.

Edit Function

This will bring up a list box of the functions currently in the system from which you can select the one you wish to edit. After selecting the function you wish to edit, that function's window will appear.

Delete Function

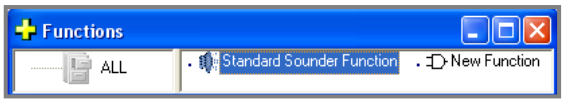
Select this option to remove a previously created function from the project.

Special Functions

Selecting the “Included” Tab from the extended functions tool bar opens a text editor for the inclusion of special functions. This is an advanced feature that should not be used by the novice user. If you require a ***FireFinder PLUS*** function that is not currently handled by ***ConfigManager PLUS*** you can use this feature to enter text that contains the function and it will be included in the final configuration. This must be done in conjunction with an AMPAC office.

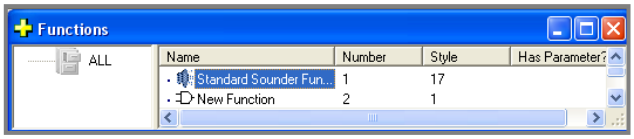
Display Large Function Icons

Functions in use are displayed as large Icons in the Functions Screen



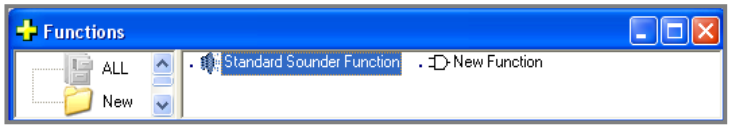
Display Small Function Icons

Functions in use are displayed as small Icons in the Functions Screen



Display Function List

Functions in use are listed by name in the Functions screen.



New Function Folder

Create a Folder to store specific, repetitive Functions for use in a project.

Find Function with given Parameter

Finds a Function that uses specific parameters as seen in the drop down box below.

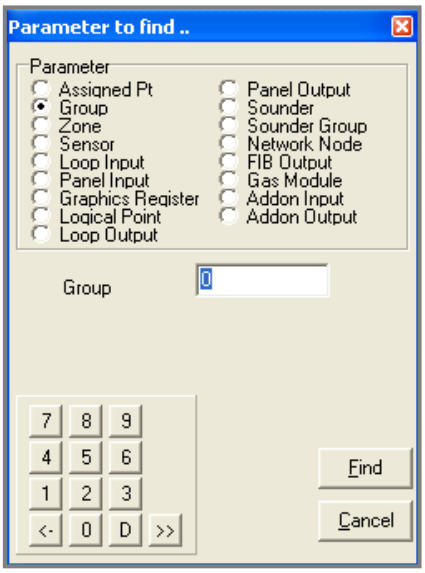


Figure 130: Find Function with Given Reference

☞ **Note:** *For a description of each Function refer to the Appendix – Function Descriptions*

To configure a function, select **Functions / New function.** This will bring up a Function window as shown below.

Each function will have its own Function Window. This graphically displays all the elements of the function.

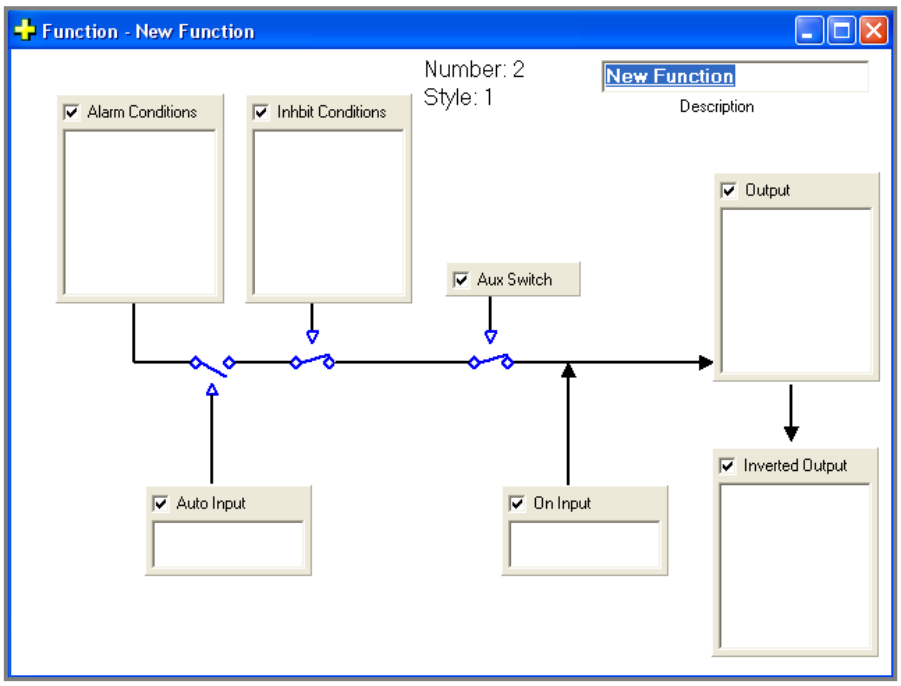


Figure 131: Function Window

Up to 4 Windows can be opened at once, although the operator may have as many functions as required in the system. Selecting **Functions / Edit Function** will give present a list of all the functions currently defined in the project. The operator can then sort them alphabetically or numerically to find the one to be edited.

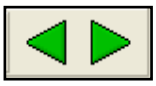
At present there are a number of functions supported by the configuration tool. These should be sufficient for programming 90% of all required functions.

Once a functions window has been selected, the functions menu and tool-bar will change to provide the operator with what is required while working on functions.

Each box in the functions window represents a logical part of the function. If it is required make sure the check box in its top left-hand corner is ticked. If it is not require it uncheck the box and that logical component will not take part in the function.

Right click or double click on a box to allocate its parameters. A menu will appear displaying the options of Add/Change or Delete.

To add a new parameter, click on **Add/Change** and a dialogue box will appear so that the input or output type and number can be set.


These keys allow the operator to move to the “next” or “previous” Function in use.

7 Expanding the System

The basic ***FireFinder PLUS*** has the capacity to support up to eight slave CPU's which in turn may be any one of the two types of hardware mentioned, Apollo XP95 loops or Input/Output boards. There are also 31 Addon modules that can be configured at each panel. In addition to these, other types of configurations are possible.

On the tool bar shown below there are a number of items that can be selected and added to the basic configuration.

Add Panel

Add Data Gathering Point

In this option, only the "Project name" and the option to include "Smart Graphics" are available.

7.1 Adding a Panel

If a panel/s (N2, N3) are added to the system it will have to be set up for the required parameters. This is done in the same way as entering control parameters for Panel 1.

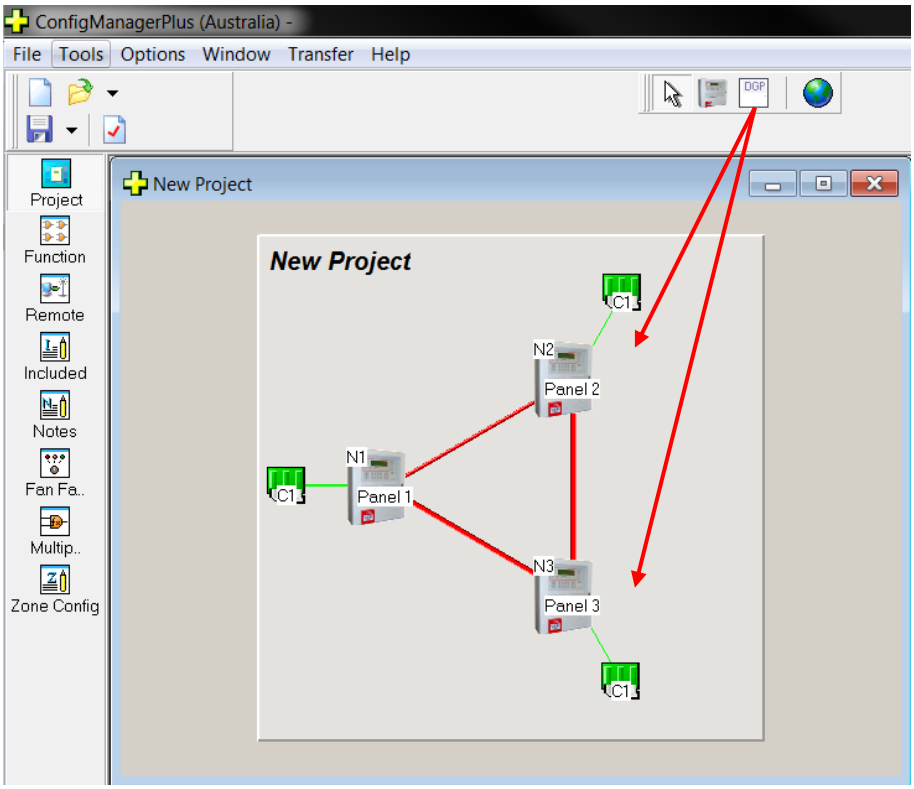


Figure 132: Adding Panels to a Screen

7.2 Adding a Data Gathering Point

To add a Data Gathering Point to the system left click on the DGP icon as shown so that is highlighted. Then left click on the Panel 2 and the DGP will be added.

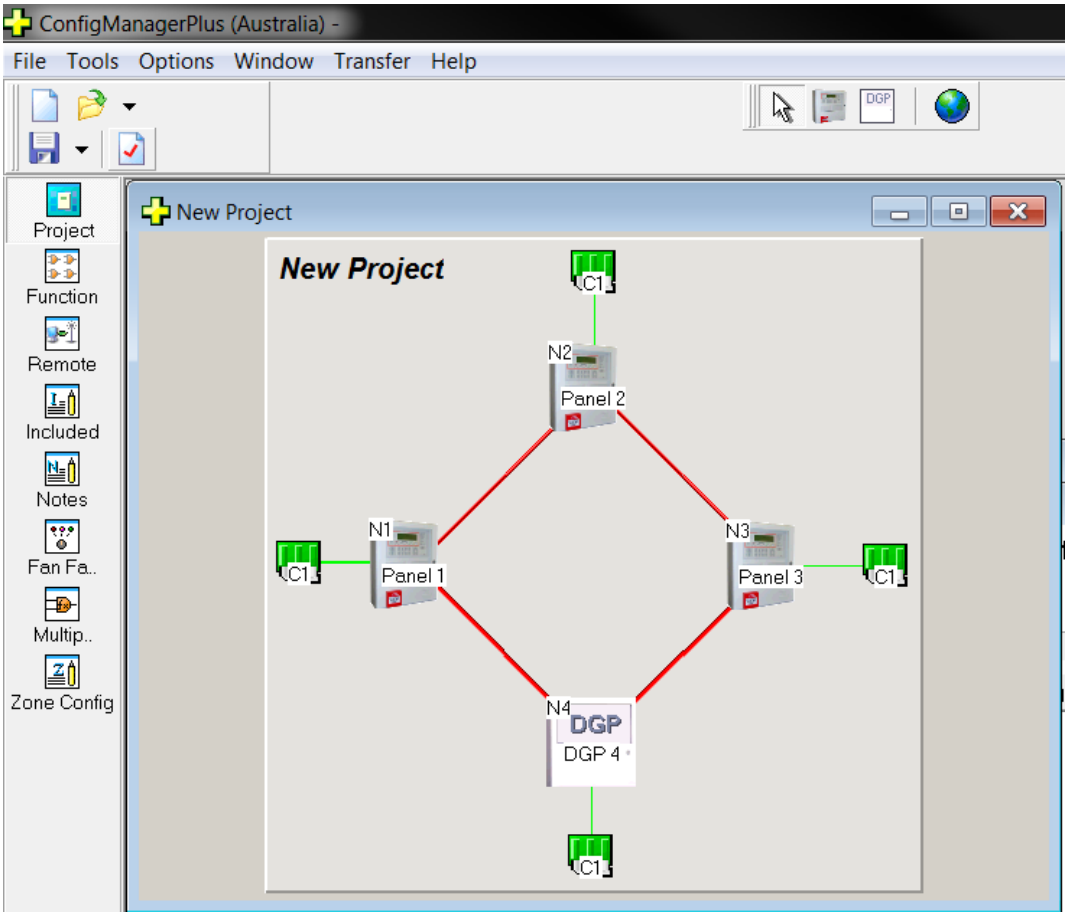


Figure 133: Adding Data Gathering Points (DGP) Screen

Once added, double click on the DGP to open the screen shown below. Here the description and the node numbering (Reference) of the DGP can be edited. In practice it is best to rely on the auto-numbering of "Reference".

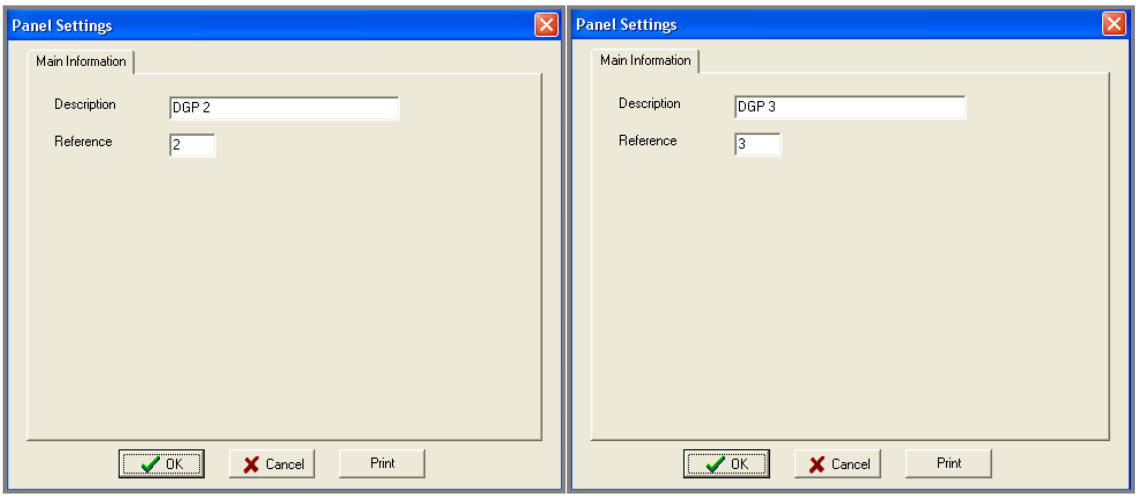


Figure 134: Adding a Data Gathering Point (DGP) Screen

C1 – the Controller parameters are then set in the same way as the others.

7.2.1 Global Access

Global Access refers to the access that any node in the network has to any other node in the same network and is accessed by right clicking on the Panel and selecting EDIT NETWORK PARAMETERS. The access refers to what the LCD will display and also what I/O functions will be operated on, and what testing is allowed. For stand alone panels the default is set to Global as the panel has full access to itself. This means for a stand alone panel with global access all of the I/O functions will be activated and all of the configuration will be displayed as required.

In a network this is selectable for each node in the network.

Selection Buttons [only available in the Panel screen]
Invert Selection: Selects / de-selects the highlighted panels.
Select None: De-selects all Panels shown on the screen and is of particular use on larger networks.

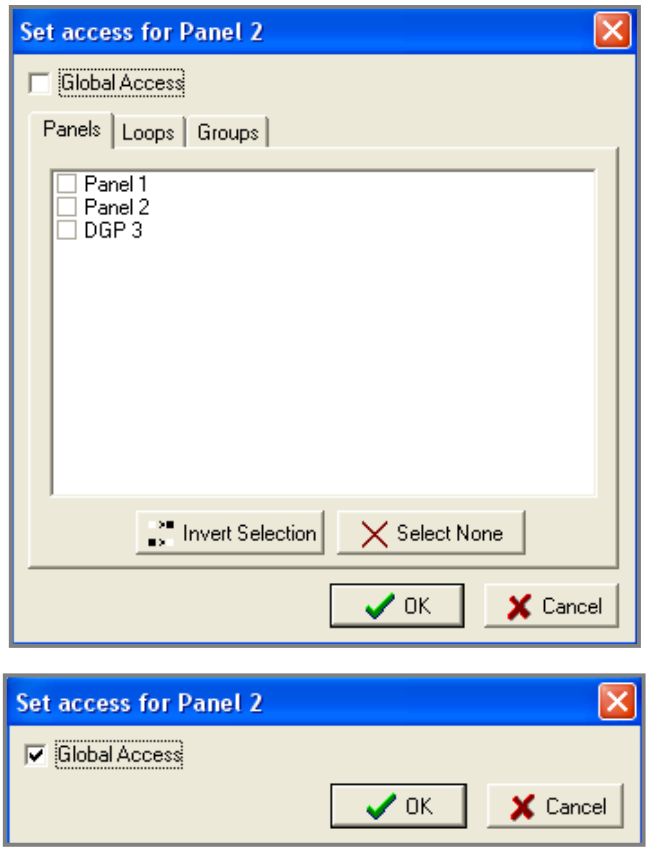


Figure 135: Panel, Loop, Group and Global Access screens

7.2.2 Panel, Loop or Group Access

If Global access is not selected then the user has the option to select any combination of Panels, Loops or Groups. This option allows the user then to determine what parts of the system any node may display, test, or affect the I/O (cause and effect).

The **LCD** access may be set to Global, Panel, Loop, or Group access. If the user only wanted particular information to be displayed then by selecting the Panels Loops or Groups option they could limit the information displayed. For example if the groups option was selected and group 2 was entered then only zones or devices with group 2 selected in the Group columns of the data entry spreadsheet would be displayed. If Loop 1 was entered then all of the devices on loop 1 only would be accessed, and finally if panels 1 and 2 were entered then only information from panels 1 and 2 would be accessed. The access for the mimic can be defined by either panels, loops or groups.

8 Network Panels

Networked panels are configured in a similar way to an individual panel. In a network each panel is configured with the hardware that is fitted into that particular cabinet (in the same way a stand – alone panel is). The main difference is the access levels that are set for each panel.

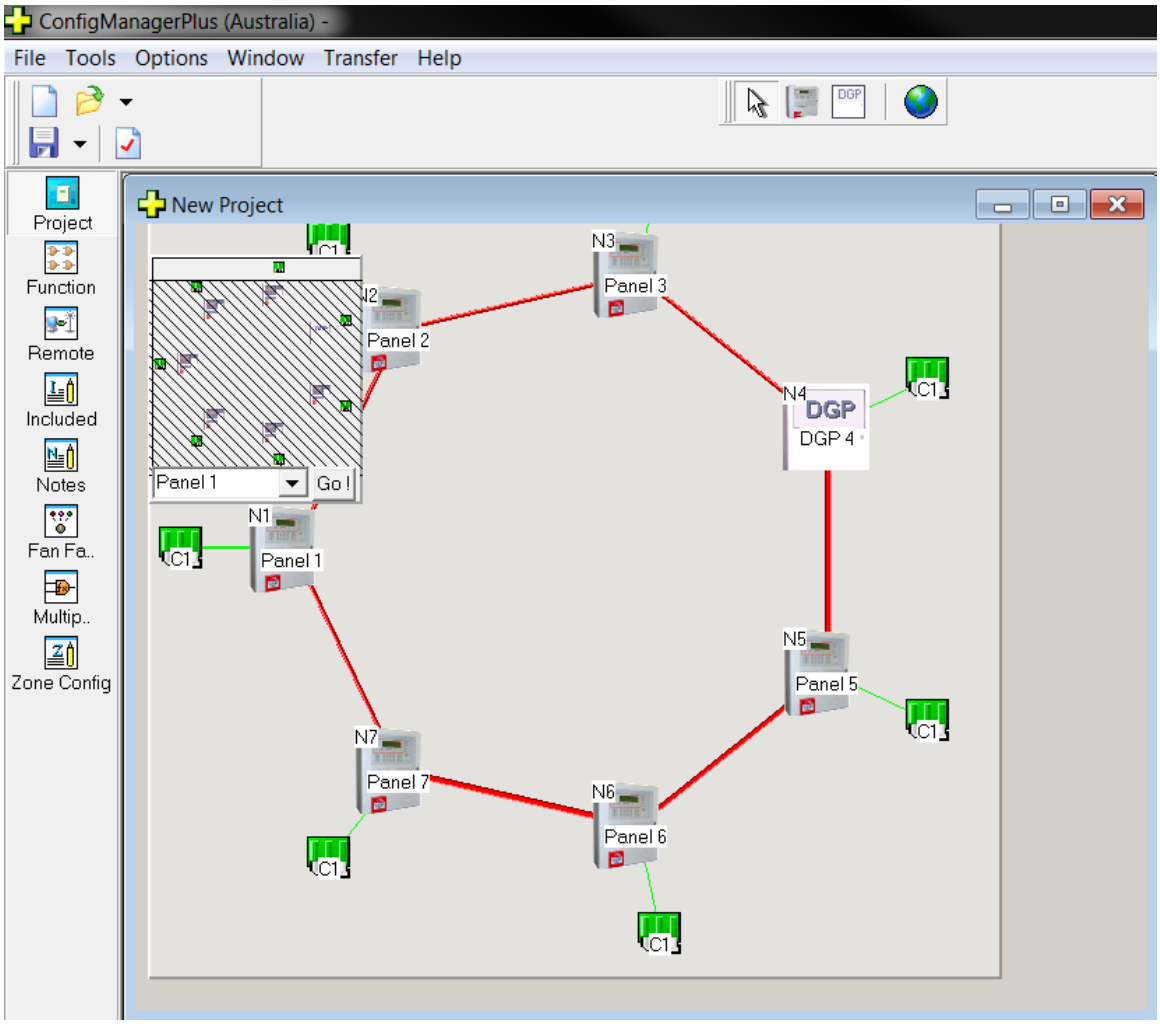


Figure 136: Networked Panels, DGP's, Mimics and Controllers

Again click on each controller to set its parameters. The user will configure the modules in each panel according to what is physically on site. It is normal to configure each panel in order. If this is not done the modules will be automatically assigned module numbers as they are entered. Once all of the zone/sensor information is entered, click on each panel and then set the access levels.

☞ **Note:** *Default access is set to global*.

9 Introduction to Programming

The ***FireFinder PLUS*** Fire Alarm Control Panel may be programmed from a computer / laptop either directly or via a modem. This manual outlines a number of programming options available to the operator. There are three areas of software that will be discussed as well as single panel programming and network programming.

All of the software except for the BOOT software is stored in FLASH memory.

The Boot software is stored in EPROMS on the main CPU board.

The EEPROM on board the BRD86MBA is used to store Controller node address and number, hardware and revision number and debug output control.

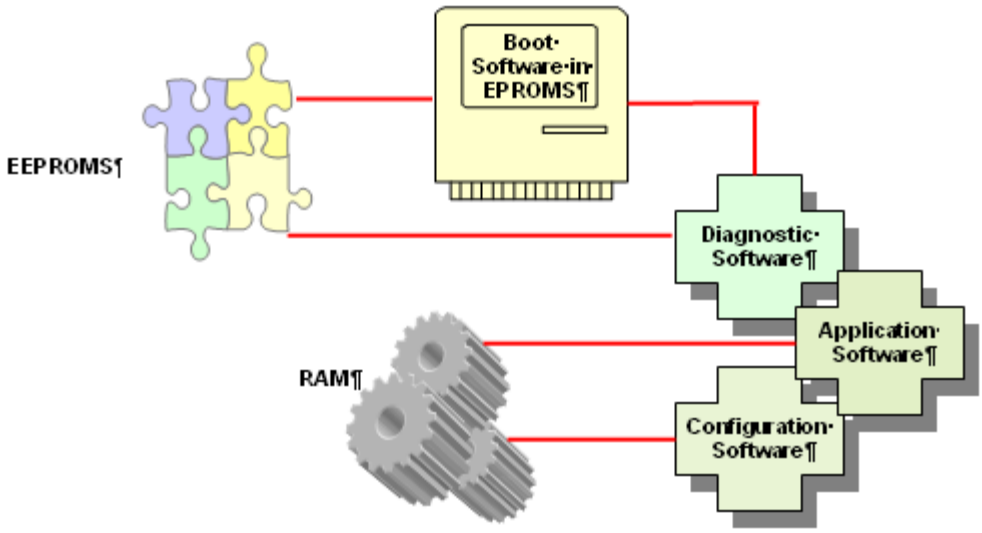


Figure 137: Areas of Software

9.1 Boot Software:

This is the start-up software that the panel uses to start and communicate with the laptop / computer during some of the programming. **This software is stored in EPROM's. In normal operation this software is unlikely to be changed**.

9.2 Application Software:

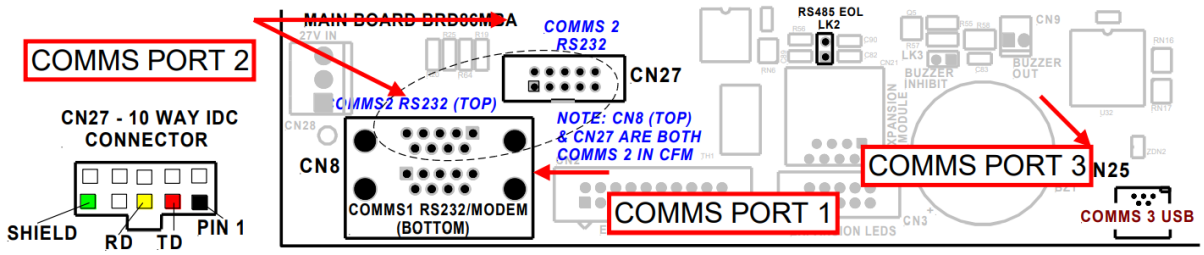
This is the software that the panel uses to run during normal operation. The application software includes a diagnostic mode to enable the operator to interrogate and control functions of the panel. In normal operation this software is unlikely to be changed.

9.3 Configuration Software:

This is the information (software) that the user down-loads to the panel to enable the panel to identify hardware such as modules and field devices. When a program change is made using the ***ConfigManager PLUS*** program, a data file is created. This data file is then down-loaded into the ***FireFinder PLUS***.

10 Hardware Requirements

The modem I/O port is a Dual DB9 connector (CN8 situated on the lower left hand corner of the Main Board BRD86MBA) that is normally used for programming of the FACP via the serial port of a PC or Laptop. There is also a USB connector (CN25) provided to allow programming of the FACP from a USB port of a PC.



The Controller also has the required hand shaking to support connection to a Modem, thus allowing the FACP to be programmed from a remote site that has an established telephone connection. This allows the system software to be upgraded by simply transmitting a file via the serial port of the PC or Modem external to the FACP. Diagnostic facilities are also available via the same connection.

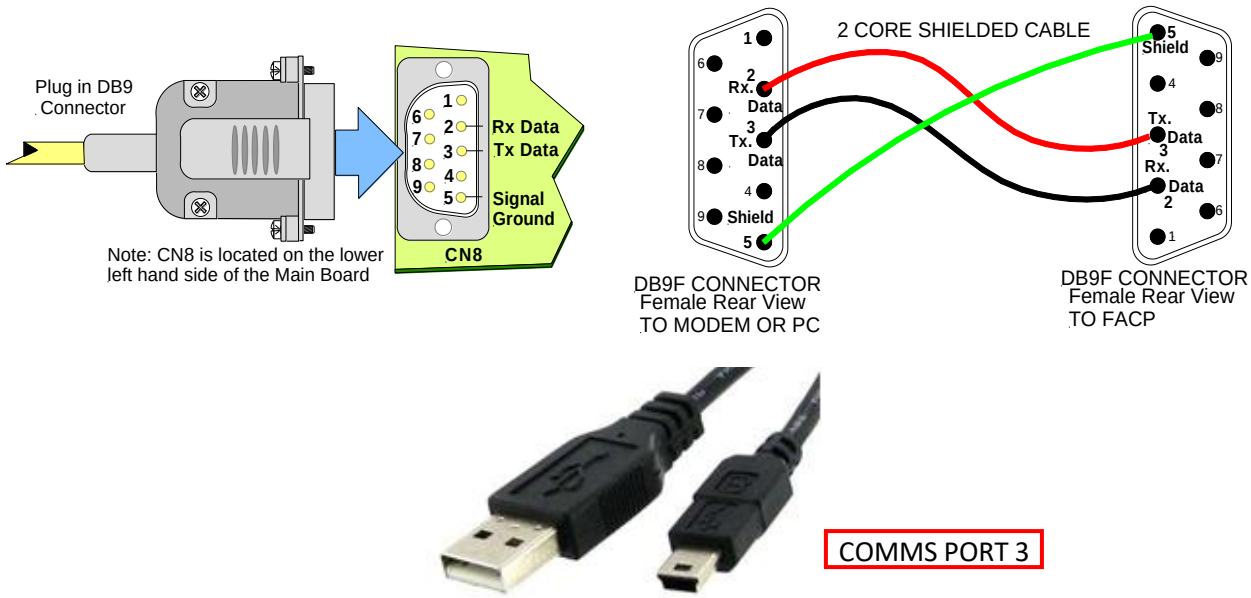


Figure 138: FireFinder PLUS Debug Cable Connections

☞ **Note:** *the DB9F to DB9F cable is not sensitive to which end is plugged in to the* ***FireFinder PLUS*** *or serial port of the PC or vice versa.*

The connections between the PC/Modem and the panel are crossed. i.e. TD connects to RD.

Make sure the ***ConfigManager PLUS*** program is set to use the port you have connected the cable to and set up the configuration as follows:

Bits per second:	115200
Data bits:	8
Parity:	None
Stop bits:	1
Flow Control:	None

11 Configuration Programming

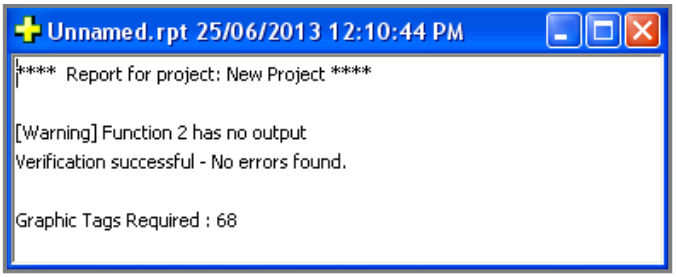
It is good practice to retrieve the configuration data from the panel before doing any programming.

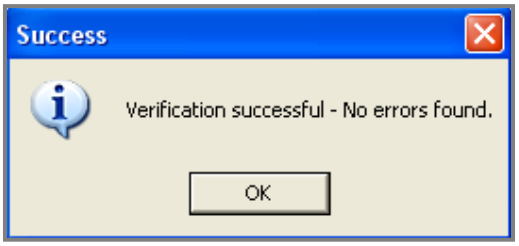
CONNECT YOUR PC / LAPTOP TO THE FIREFINDER PLUS VIA THE DEBUG/MODEM PORT OR USB PORT ON THE BACK OF THE PANEL USING THE CORRECT CABLE. (Available from AMPAC)

ⓘ **IMPORANT!!!**

Retrieve the configuration file from the panel before doing any programming. This provides an emergency backup. Save any changes to the configuration file as a different file name.

Verify the Project – The following "Report" will be displayed





The report will provide a list of all compiling errors and warnings.

Where Errors are present, these must be fixed, however warnings will still allow the project to be complied.

Save the Project –

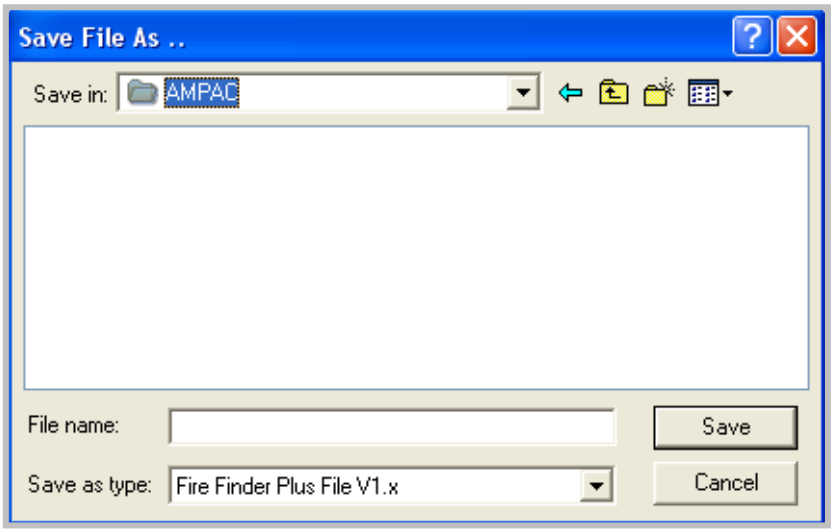
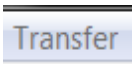


Figure 139: Verify Report and Backup File Creation Screens

Once a configuration has been created and saved;

Compile the file using or (F5 save created file *.dat). This is the file that is sent to the FACP. Connect the PC to the FACP and check communications.

11.1 Transfer – Transfer Wizard

To Transfer panel / and panel network configurations to and from the fire panel/network use the 

menu option.

Send

This function is used to Send either the current project or a saved project into the panel/s. It is also used for sending updated application software.

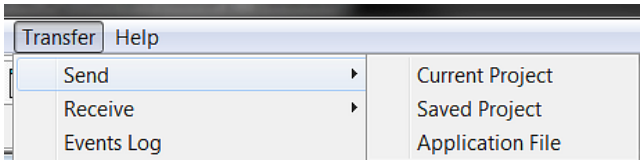


Figure 140: Transfer – Send options

The Send function will automatically verify and compile the project and request that the file is saved before sending the config file to the panel.

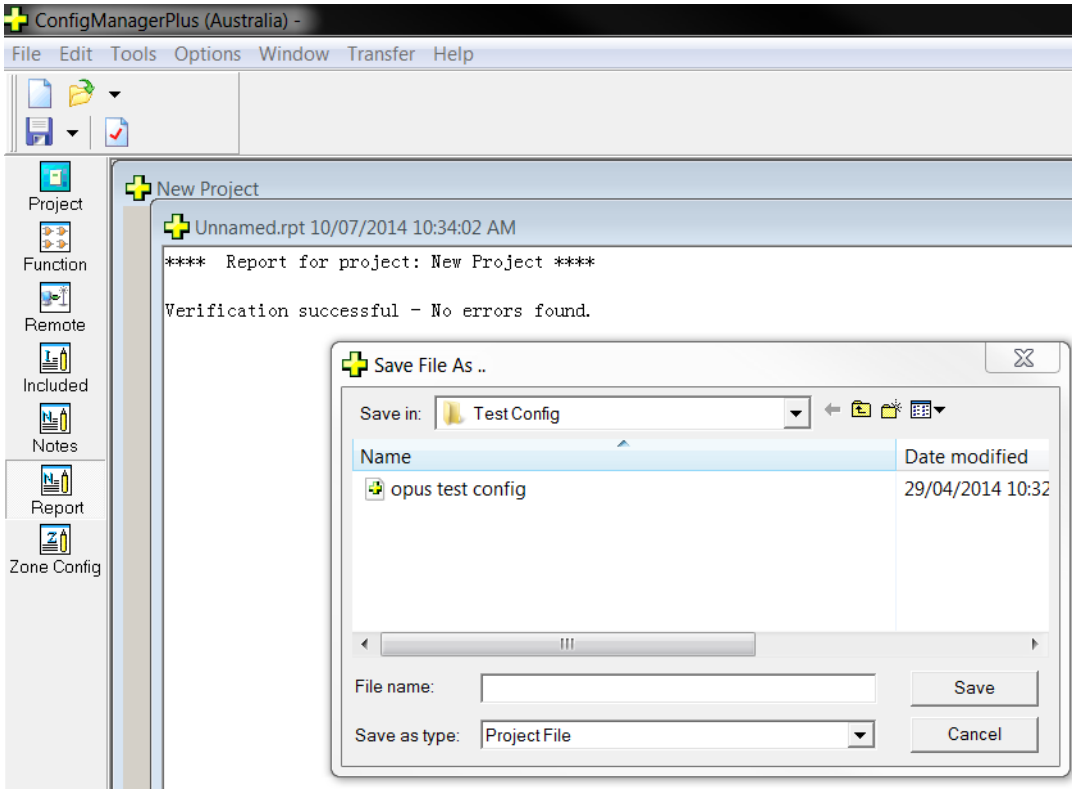


Figure 141: Transfer – Send , verify and Save as

The project will be saved as a DAT file (the file format that is sent to the panel) and as a FFP file (the file format that is used by the Configmanager Tool)

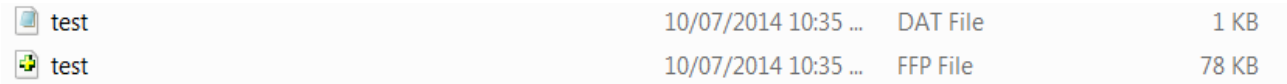


Figure 142: Transfer – Send saved file types

If there are any configuration errors or warnings the tool will not proceed with the file transfer

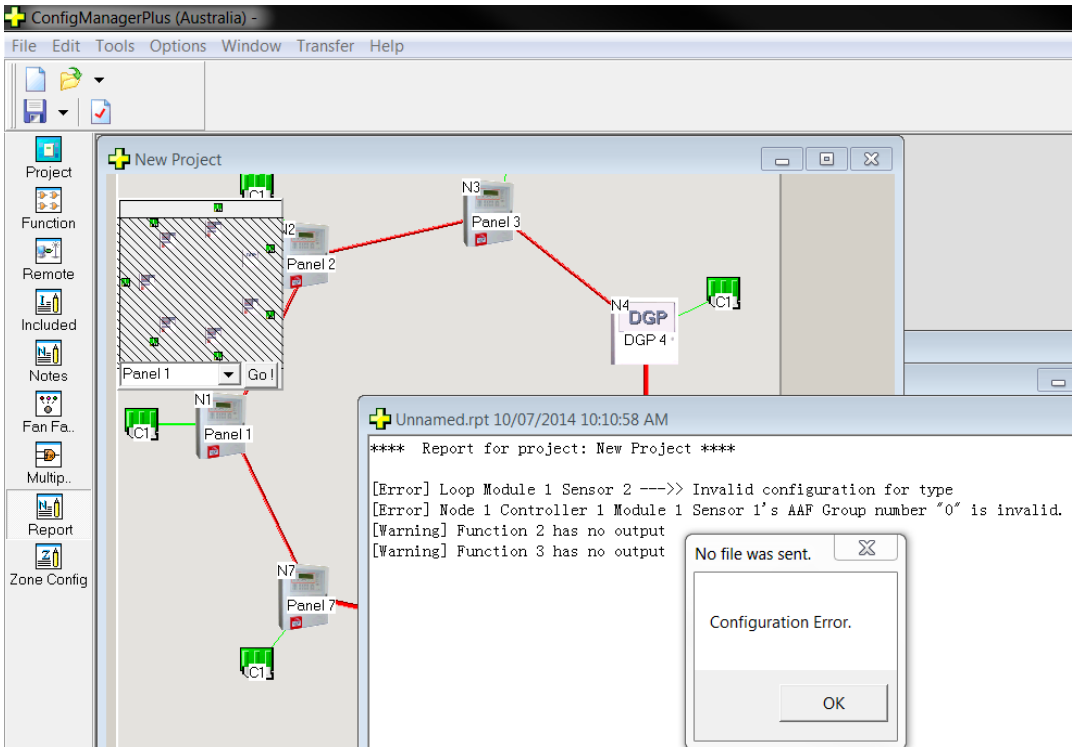


Figure 143: Transfer – Send Configuration Error

If the configuration is error free but there is a communication error a "Transfer Wizard Error" screen will appear

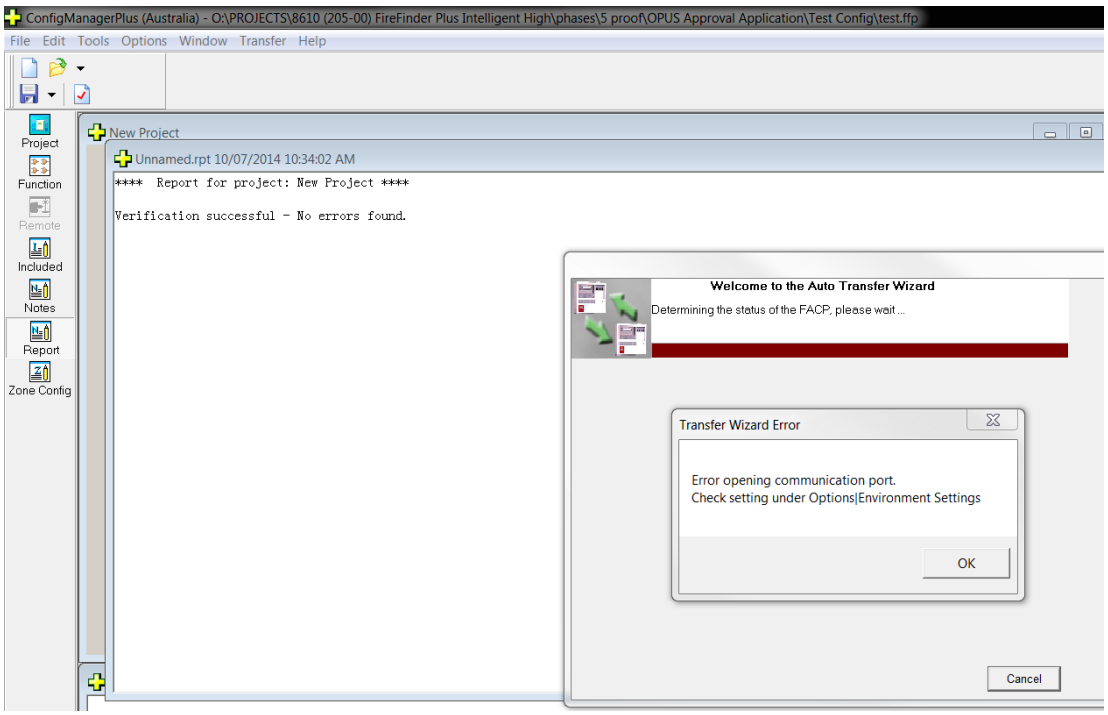


Figure 144: Transfer – Send Communication Error

If no errors exist the Transfer wizard will automatically place the panel/network into diagnostic mode and start the transfer process

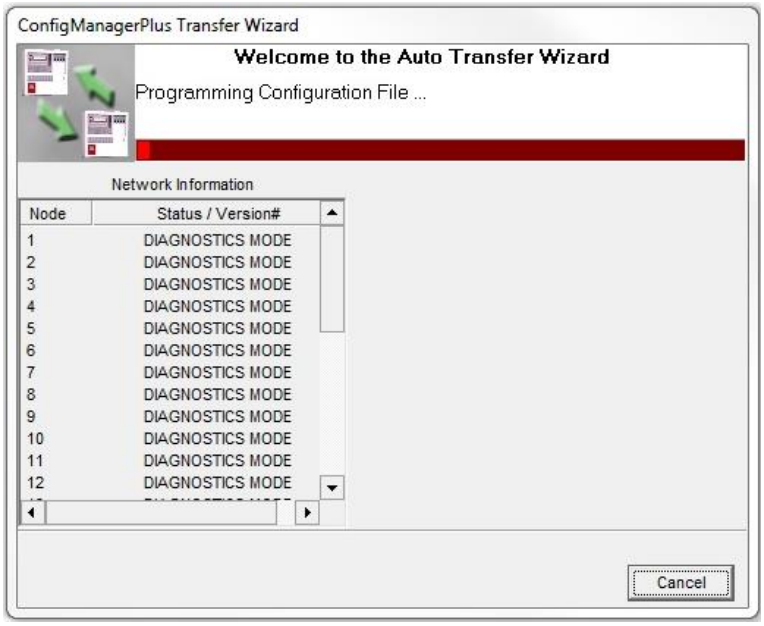


Figure 145: Transfer – Diagnostic Programming Config File

Once the file transmission is completed the panel / network will automatically be put back into application mode.

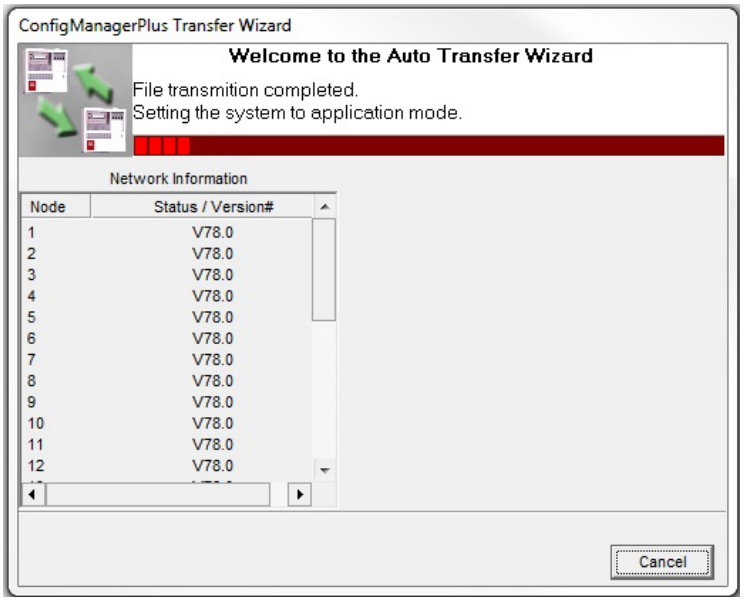


Figure 146: Transfer – Application mode Programming Config File

Once the panel / network has successfully returned to application mode the wizard will notify the programmer that the file transfer is completed.

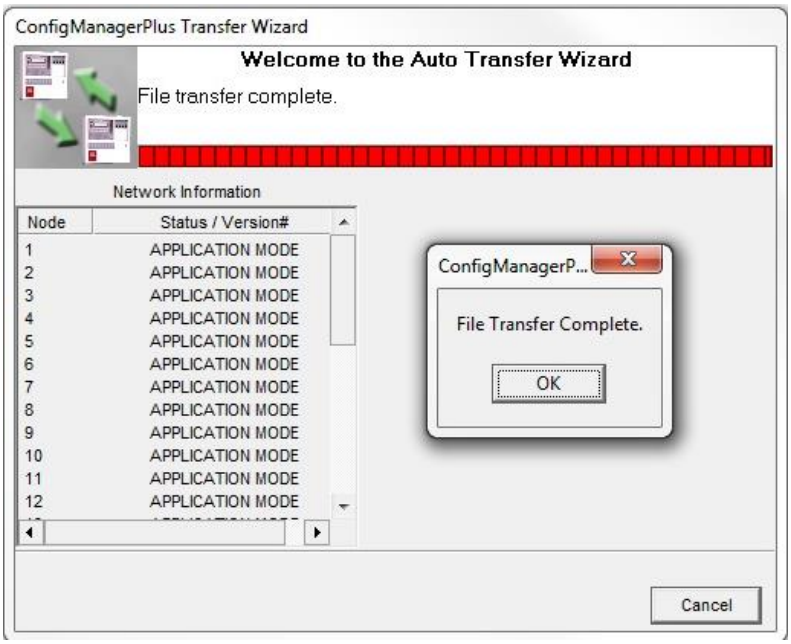


Figure 147: Transfer – Complete

Receive

This function is used to receive a panel config from the panel and open it up a project in the Configmanager programming tool or save to a directory on the pc.

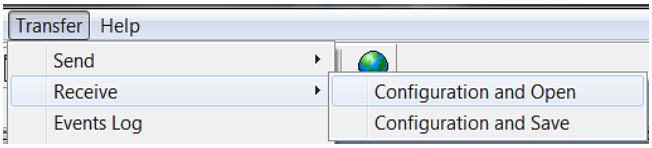


Figure 148: Transfer – Retrieve options

If there is a communication error a “Transfer Wizard Error” screen will appear

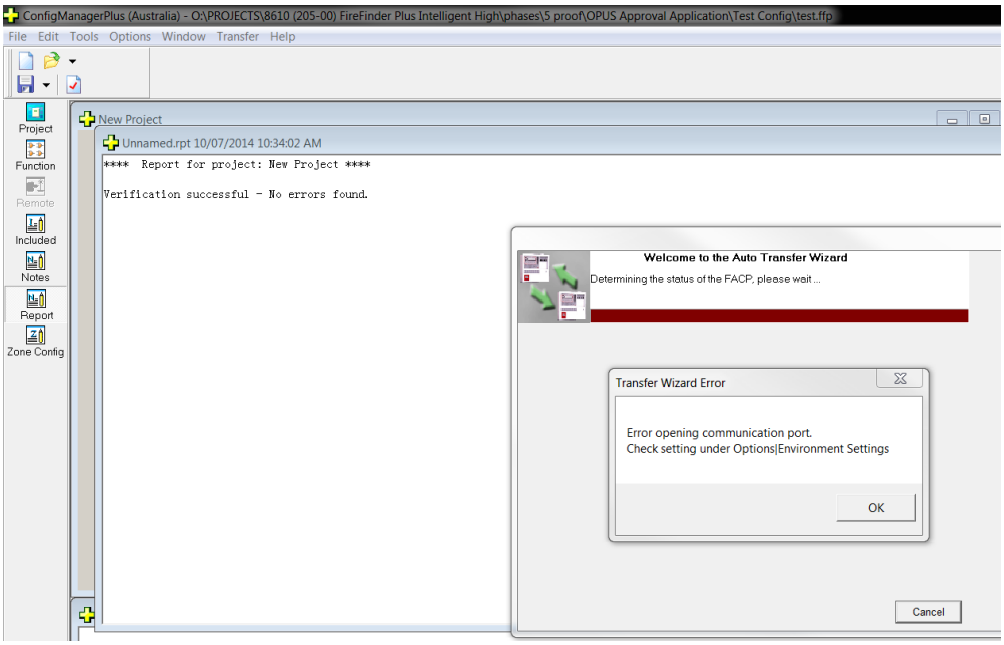
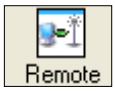


Figure 149: Transfer – Communication Error

12 Remote Controller

Click on the “Remote” icon 

to launch the “Remote Control” application. This application allows the user to operate the FACP remotely.

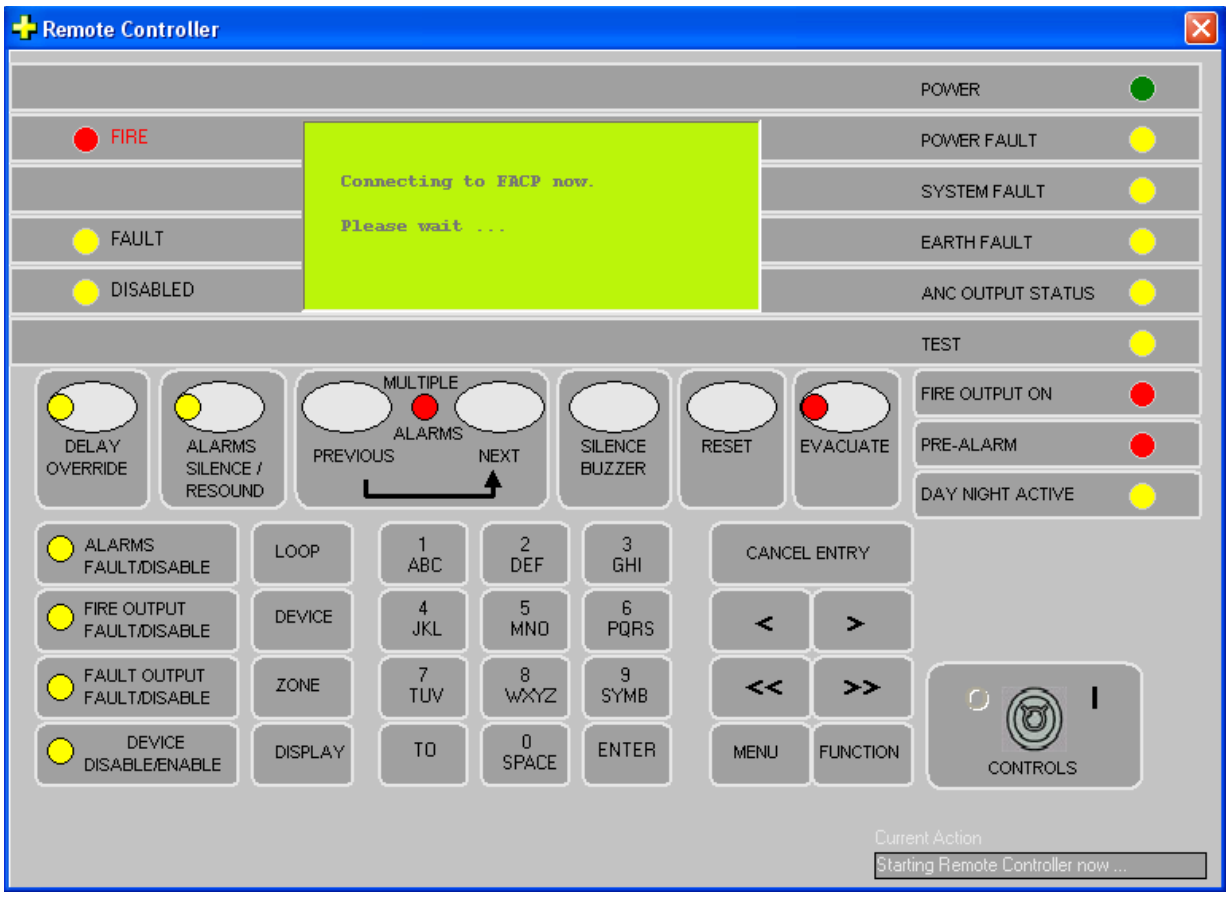


Figure 150: Remote Screen Establishing Comms with the FACP (UK Screen Shown)

If the communication setting is valid, the “Remote Control” window will be displayed, otherwise an error message will be displayed with the appropriate error message.

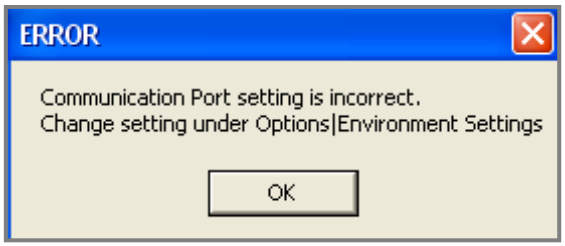


Figure 151: Remote Control Comms Error Message

Note that all the keys (buttons) will only be enabled (i.e. clickable) when the connection with the FACP is established successfully.

Ensure that the “Remote Control” application is working correctly. Note that some lags between the key presses may be observed.

Click on the icon to close this application.

13 Function Programming

ConfigManager Plus includes many predefined graphical functions that can be used to provide various cause and effects based on different input conditions, outputs and panel controls.

Functions are typically driven by inputs that determine outputs.

Inputs can be any of the following depending on the function being used:

- Assigned Point
- Group
- Zone
- Sensor
- Modbus register or Coil
- Logical Point
- Loop Input
- Panel Input
- Addon Input

Outputs can be any of the following depending on the function being used:

- Logical Point
- Loop Output
- Panel Output
- Addon Output
- Output Group
- Sounder Group
- Modbus Register or Coil
- FIB Output
- Loop Sounder

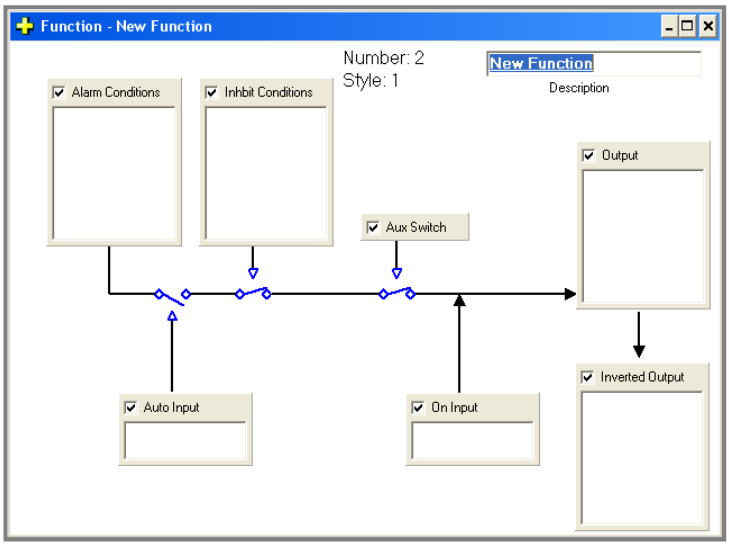
The number of Functions is limited to 4096

The number of Logical Points is limited to 2048

There are several assigned points that can not be allocated as a Logical point. The Assigned Points are:

- 1 – Alarm
- 2 – Pre-Alarm
- 3 – DBA (NZ Only)
- 4 – Fault
- 5 – Normal
- 1001 – Disable
- 4096 – ADF Alarm

13.1 Function F1 - Standard Function

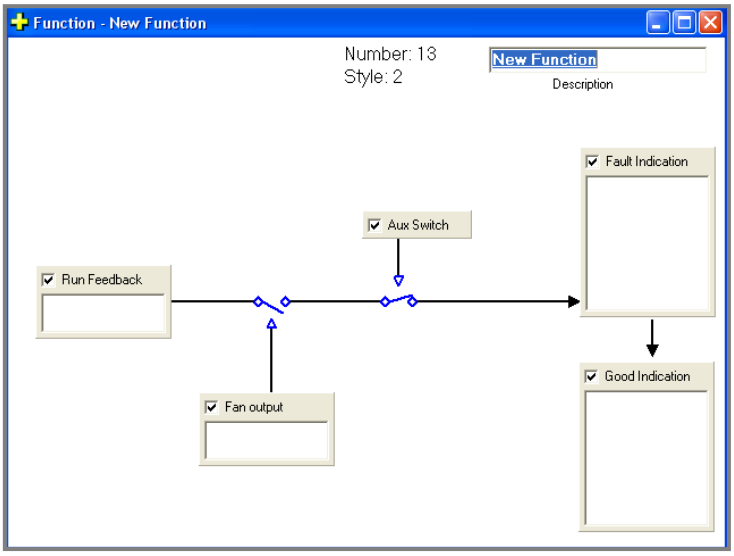


Description

The output is switched ON (and inverted output switched OFF) when:

1. The Alarm Conditions input is ON,
2. The Auto input is ON, and any alarm device (group, zone or sensor) is in alarm and not isolated, and all the inhibit devices are not in alarm, and providing the Aux Switch is normal

13.2 Function F2 - Fan Fault Indicator

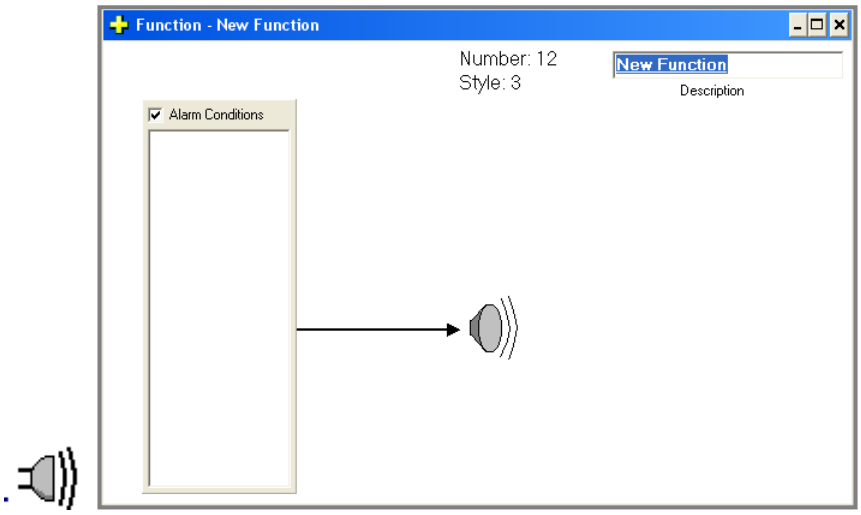


Description

The Fan fault indicator is turned On, when the fan start output is On and the run feedback from the fan is Off.

The fan run and stop indicators are driven from the Run feedback input using Function 1

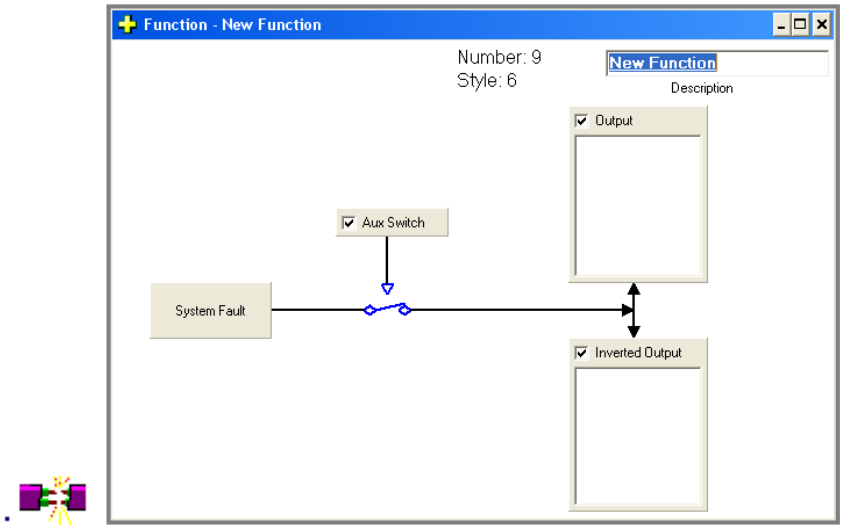
13.3 Function F3 - Alarm Buzzer (Aus / NZ only)



Description

The panel buzzer is turned on when any of the specified devices go into alarm. The panel buzzer can then be muted. If a new alarm occurs within the specified devices, then the buzzer will resound.

13.4 Function F6 – Panel Fault Output

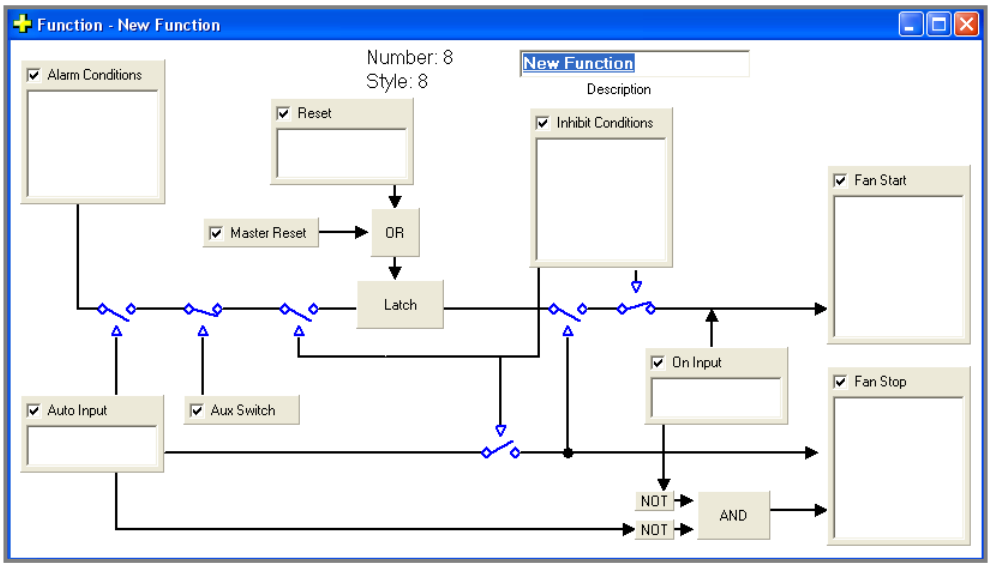


Description

The output is switched on and complementary output is switched off under the following conditions:

1. Any sensor or zone is in fault and not isolated	**9.** Warning output monitoring is in fault
2. Any module in the panel is in fault	**10.** Fault output monitoring is in fault
3. Any Apollo fire loop is in fault	**11.** Brigade silence is on (NZ only)
4. Brigade card is missing	**12.** Alarm Signaling Device (ASE) is in fault (if fitted)
5. Battery is missing	**13.** DBA is in fault
6. Battery has failed	**14.** Expansion Module is in fault
7. Bell output monitoring is in fault	**15.** Fan Expansion Module is in fault
8. Auxiliary output monitoring is in fault	**16.** External LED Mimic is in fault

13.5 Function F8 - Latched 1668 Fan Start-Stop with Reset (UK only)



Description

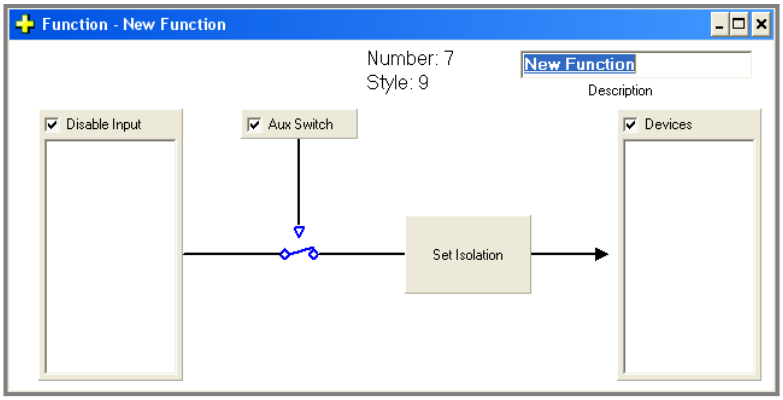
The internal output is latched ON, when the fan switch is in the auto position and any of the alarm devices are in alarm (and not isolated), providing the plant is not isolated (assuming plant enabled)

Activating the reset input or activating master reset with the master reset enable On clears the internal output.

The fan start output is turned on if the fan switch is in the ON position or if the switch is in the AUTO position and the internal output is on and all the inhibit devices are normal or isolated. Otherwise the fan start output is off.

The fan stop output is turned on if the fan switch is in the OFF position or if the switch is in the AUTO position and any of the inhibit devices are in alarm (and not isolated).

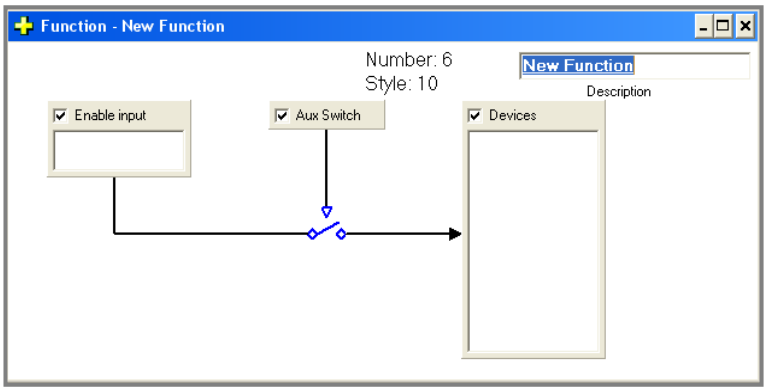
13.6 Function F9 – Isolate Control (Aus / NZ only)



Description

When the Disabel input is ON and the Aux Switch is satisfied, then the devices are automatically isolated. If the specified devices are returned to normal via the front panel, then they are automatically isolated again.When the Disable input is turned OFF, the specified devices are returned to normal. The devices can then be isolated and returned to normal via the front panel.

13.7 Function F10 – Alarm Enable (Aus / NZ only)



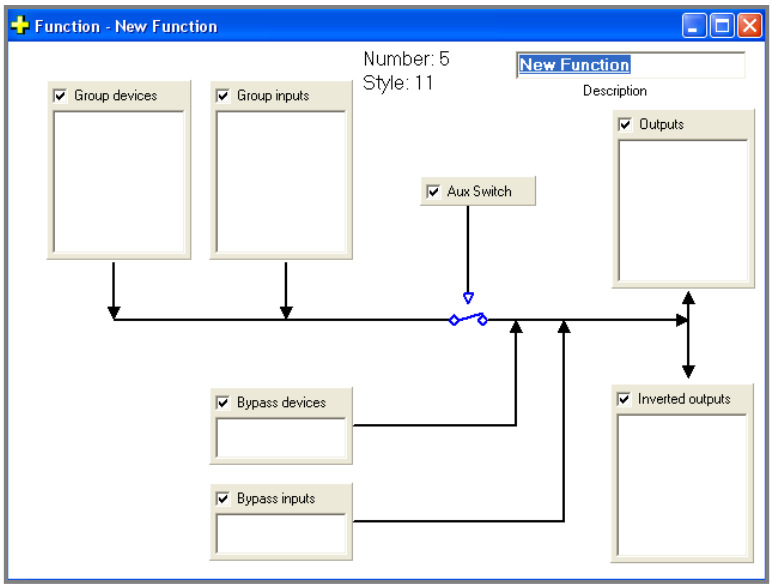
Description

When the enable input is ON and the plant is satisfied, then the devices are sent an alarm enable command. For the alarm enable command to take effect, the devices are to configured as type s_aam, and also be in INV ALARM. When in INV ALARM and the alarm enable command is received, the device goes into alarm.

This is used for the AAM requirements for the Department of Defense.

When the input is OFF, the alarm enable command is removed.

13.8 Function 11 - Triple Group Function

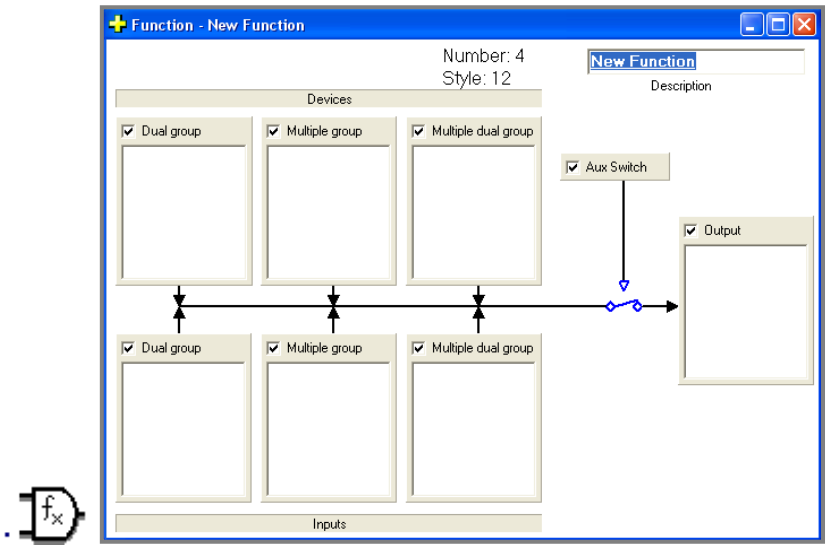


Description

The On output is switched ON (and Off output switched OFF) when:

1. Any one of the plant bypass single group alarm devices are in alarm
2. Any one of the plant bypass single group inputs are On
3. Any three of the triple group alarm devices are in alarm, proving the plant is normal (if the plant enable parameter is active)
4. Any three of the triple group inputs are On, proving the plant is normal (if the plant enable parameter is active)

13.9 Function F12 - Multipurpose Grouping Function

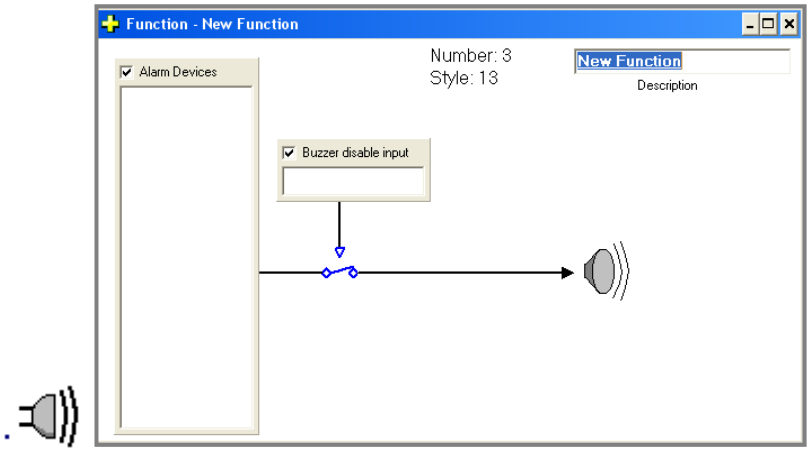


Description

The On output is switched ON when:

1. Any two devices in any of the zones or groups specified in the dual group of alarm devices are in alarm, providing the plant is normal (if the plant enable parameter is active)
2. Any two inputs in the dual group inputs are On, providing the plant is normal (if the plant enable parameter is active)
3. All of the multiple group alarm devices are in alarm, providing the plant is normal (if the plant enable parameter is active)
4. All of the multiple group inputs are On, providing the plant is normal (if the plant enable parameter is active)
5. Any group of the multiple dual group devices are in alarm
6. Any group of the multiple dual group inputs are On

13.10 Function F13 - Configurable Alarm Buzzer (UK only)



Description

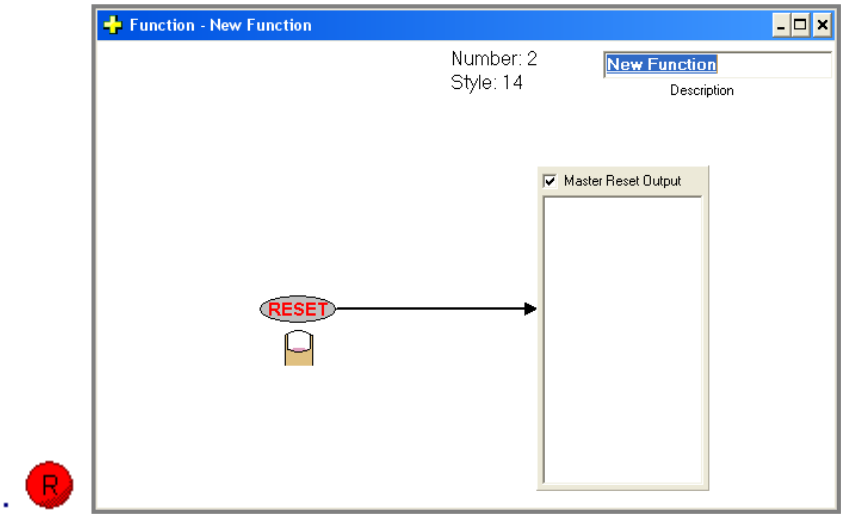
The panel buzzer is turned on when any of the specified devices go into alarm, providing the disable input is Off.

The panel buzzer can then be muted. If a new alarm occurs within the specified devices, then the buzzer will resound.

13.11 Function F14 - Configurable Master Reset Output

Note: EEPROM Location AD defines the *latch-timeout* seconds where

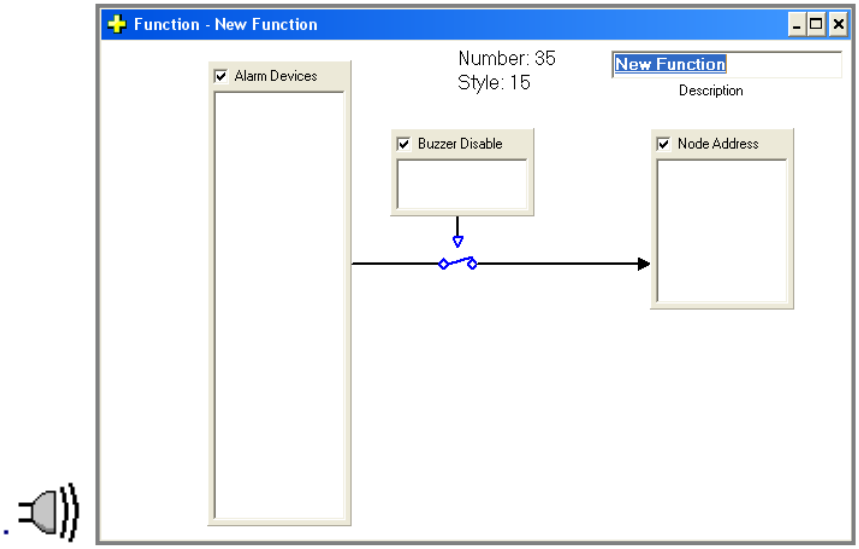
0xFFFF = 10 seconds (default) and 0x000A = 10 seconds (minimum).



Description

When Master Reset is depressed, the specified output is turned on for *latch-timeout* seconds.

13.12 Function F15 - Configurable Nodal Alarm Buzzer (Aus / NZ only)

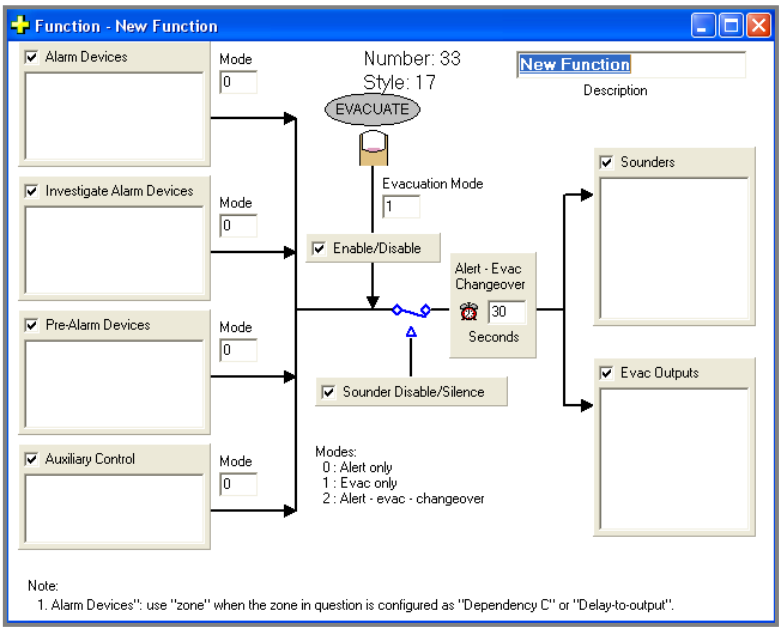


Description

The panel buzzer is turned on when any of the specified devices go into alarm, providing the disable input is Off and the node address matches that of the particular panel.

The panel buzzer can then be muted. If a new alarm occurs within the specified devices, then the buzzer will resound.

13.13 Function F17 – Sounder Control



Description

The function controls sounder tones, based upon the alarm state of selected devices, auxiliary control input, sounder or warning system isolate controls and manual evacuate controls.

Note: Bell isolate does not affect the sounders.

EN54

Sounder disable –will disable the warning system isolate.

Sounder silence – will silence the sounders, until activated by the next alarm condition.

Evacuate – activate sounders (unless sounders are disabled)

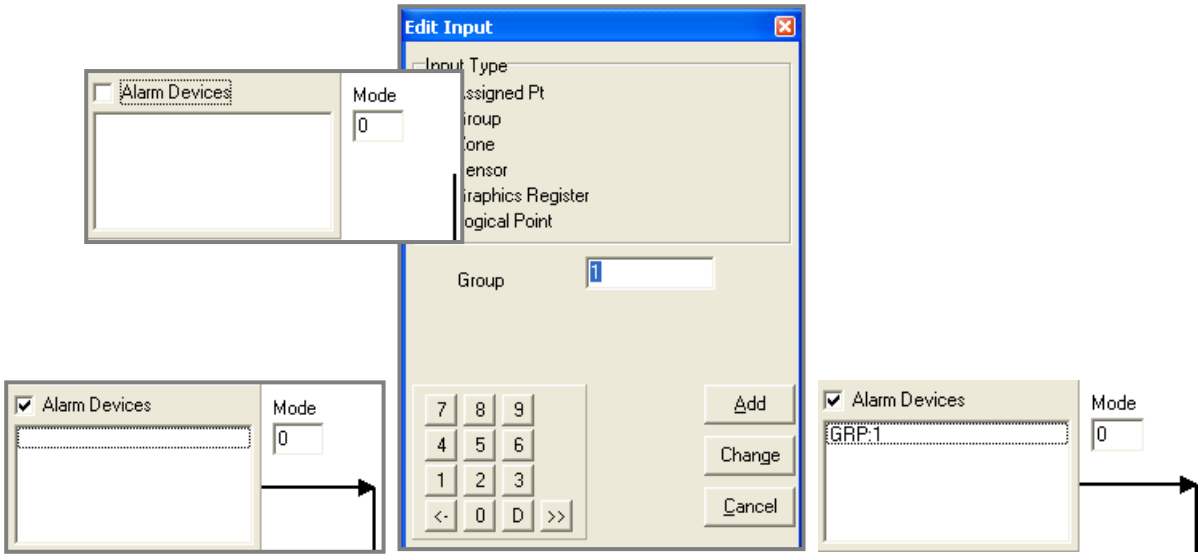
If any of the devices are in an alarm condition (unacknowledged, acknowledged, pre or investigate) or the auxiliary control input is on, and the sounders are not isolated, or if the manual evacuate control is active, then the sounder(s) will be activated in the specified mode.

Note a different activation mode can be specified for the manual evacuate control, auxiliary control, alarm devices, investigate alarm devices and pre-alarm devices.

Alarm Devices - Setting / Editing Input Type

Click the “Alarm Devices” Check Box ☑ to set to active. Note this will complete the displayed circuit.

Double left click within the “Alarm Devices” to access the “Edit Input” Pop Up screen and set the “Input Type”. In the example below this is Group 1 (GRP.1)



Repeat the exercise for the remaining "Devices / Control". Should there be an omission / incorrect setting an error message

will be displayed

Mode: This is set according to the following table

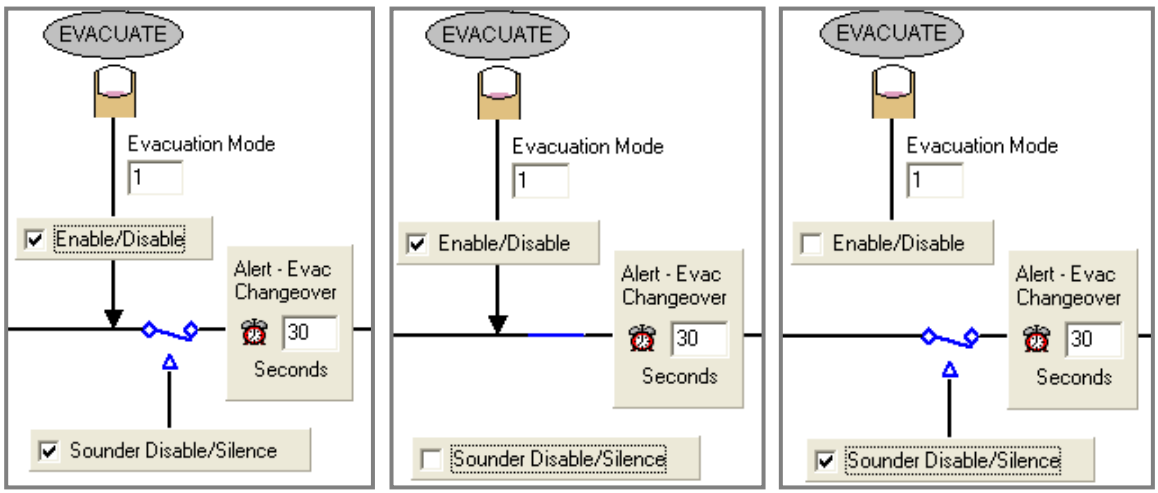
Modes:
0 : Alert only
1 : Evac only
2 : Alert - evac - changeover

as shown in the Function screen.

Setting the operational Parameters of "Evacuate, Sounder Disable / Silence"

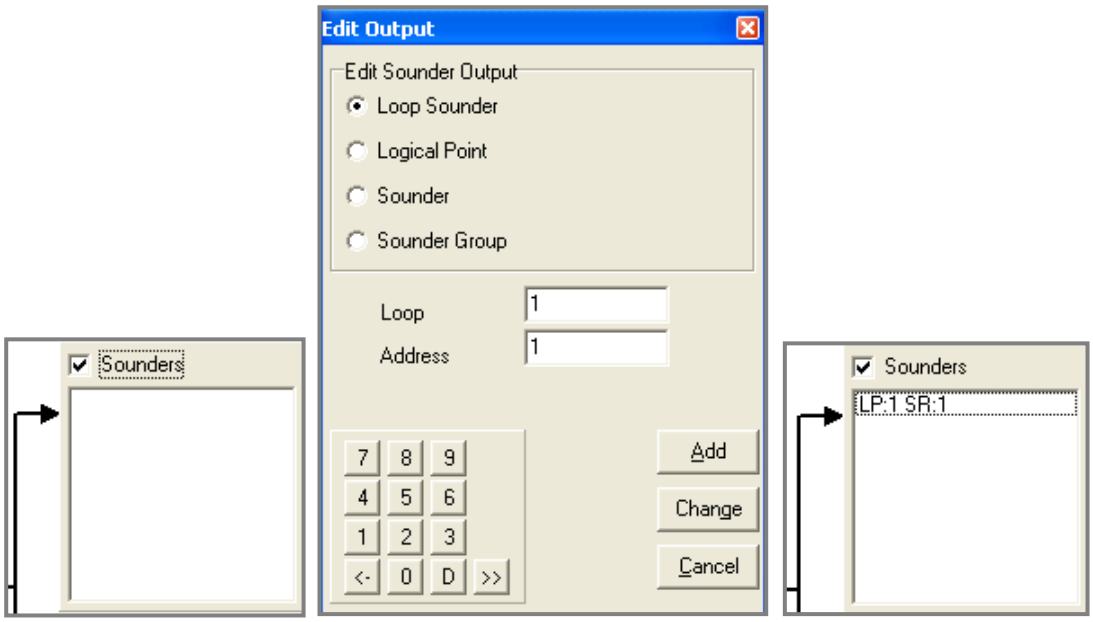
Click on the Check Box ☑ to set the desired result to be active.

The Alert – Evac changeover time is set by simply clicking within the box and entering the required period.

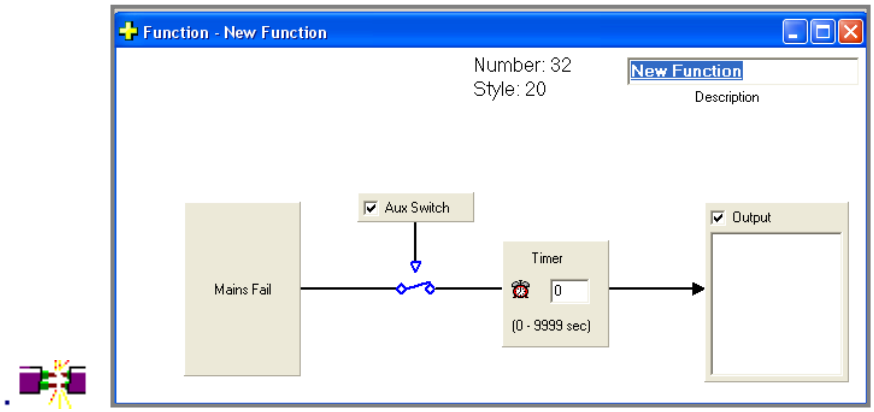


Setting the Sounder and Evac Outputs

This is achieved using the same methodology as that for “Inputs” as seen below.



13.14 Function F20 – Mains Fail/Door Holder

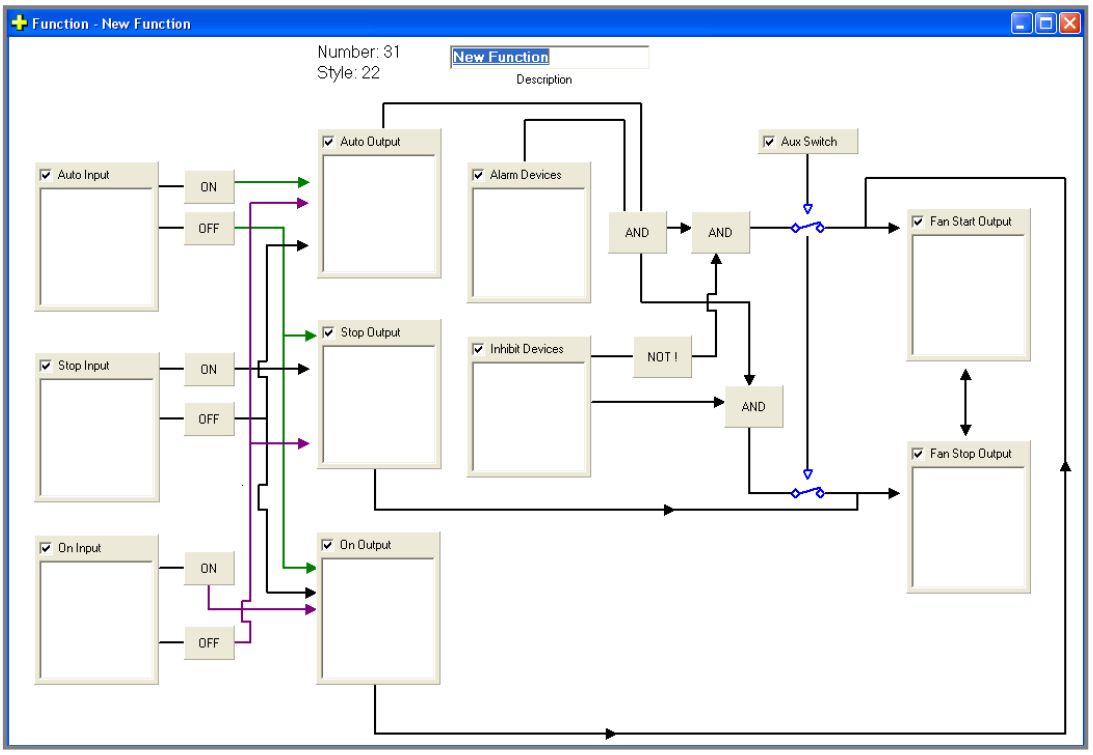


Description

The function is to control door holders in the event of a mains fail.

The specified outputs are switched On in the advent of a mains fail after an optional runon timer has expired.

13.15 Function F22 – Push Button Fan Control (Aus / NZ only)



Description

The function is a fan control. Since there are dual controls, push buttons instead of three position switches have been used. To show the switch setting, on, auto and stop indicators have been provided.

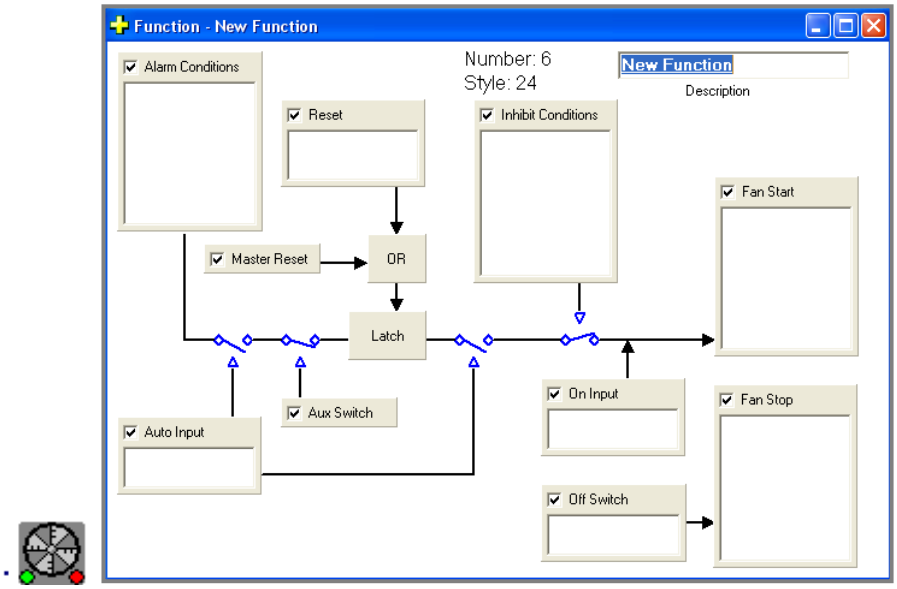
The logic is in two sections.

The first section handles lighting the appropriate indicator. Note at least 1 indicator must be on, so if all indicators are off (situation at powerup), then by default the auto indicator is lit. If two buttons are pressed at the same time, then the priority has been set as auto, on, then stop.

The second section handles the fan logic. When in the auto position the fan is controlled by the alarm and inhibit devices. Switching to the on position forces the fan On and switching to the stop position forces the fan Off.

In the event there is a network failure and the panels controlling the fan are unable to communicate with each other, then the function will operate locally. Hence the panels controlling the fan may become out of synch with one another, depending on which buttons have been pressed. When the network is restored the panels will re-synch. If any panel has its auto indicator ON, then the fans will be put into auto, followed by on and then stop.

13.16 Function F24 - Latched 1668 Fan Start-Stop Control with Reset and Stop Switch



Description

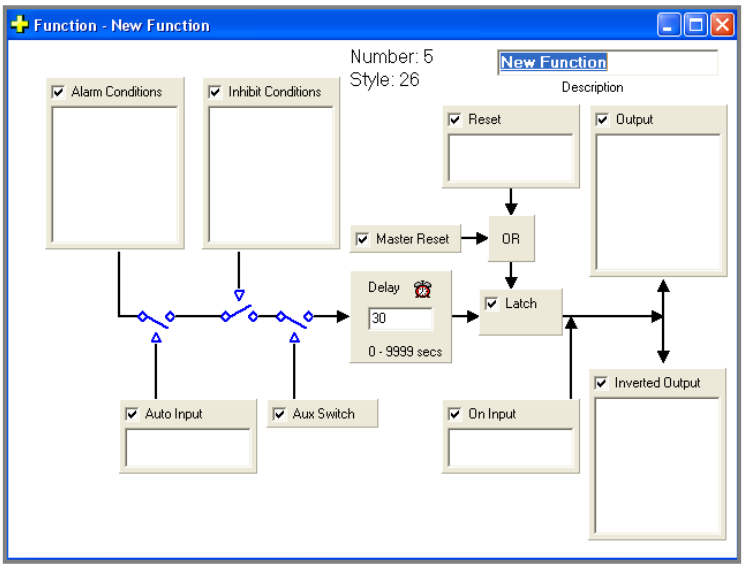
The internal output is latched ON, when the fan switch is in the auto position and any of the alarm devices are in alarm (and not isolated), providing the plant is not isolated (assuming plant enabled)

Activating the reset input or activating master reset with the master reset enable On clears the internal output.

The fan start output is turned on if the fan switch is in the ON position or if the switch is in the AUTO position and the internal output is on and all the inhibit devices are normal or isolated. Otherwise the fan start output is off.

The fan stop output is turned on if the fan switch is in the OFF position or if the switch is in the AUTO position and any of the inhibit devices are in alarm (and not isolated).

13.17 Function F26 - General Purpose Timer



Description

The fan start output is switched ON (and fan stop output switched OFF) when:

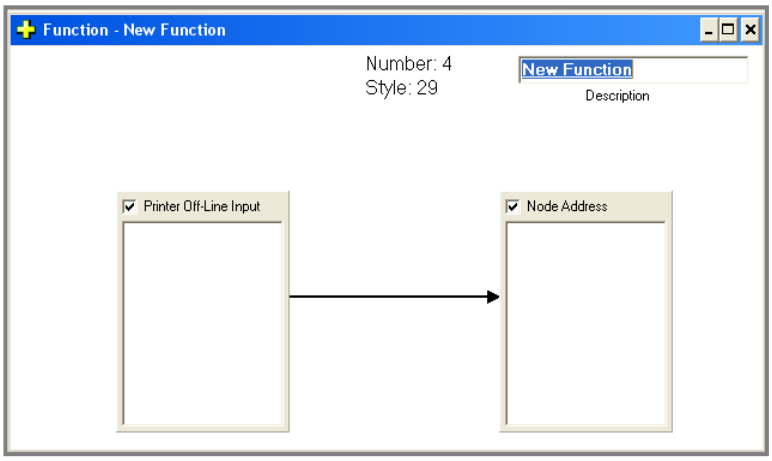
The Auto input is ON, and any alarm device (group, zone or sensor) is in alarm and not isolated, and all the inhibit devices are not in alarm, and providing the plant is normal if the plant enable parameter is active (set to 1).

OR

The On input is ON,

The 1668 control switch has three positions, ON, AUTO and OFF. The function only has inputs corresponding to the ON and AUTO positions. Since the switch can only be in one position at any one time, the OFF position is detected by the auto and on inputs both being Off.

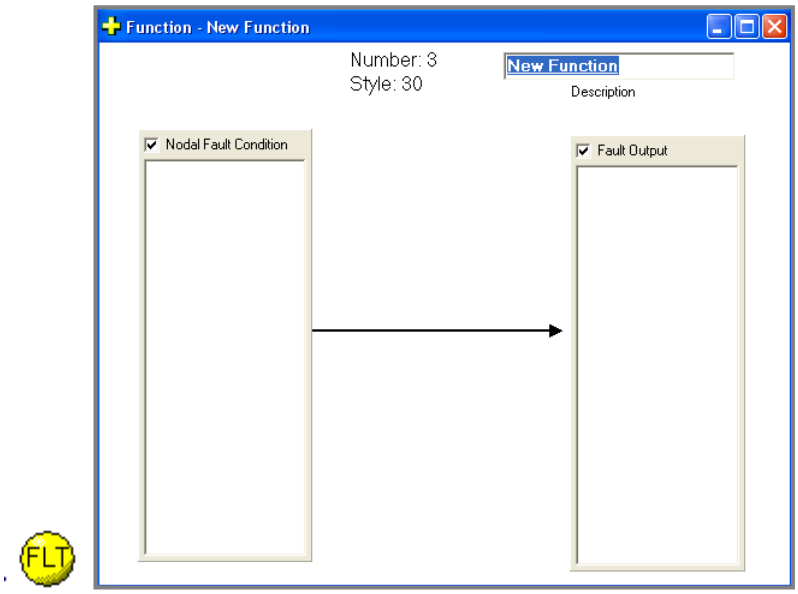
13.18 Function F29 - Configurable Nodal Printer Off-Line



Description

This function forces the panel printer off-line when the configured input is activated. It has priority over the on/off-line control in the panel printer menu.

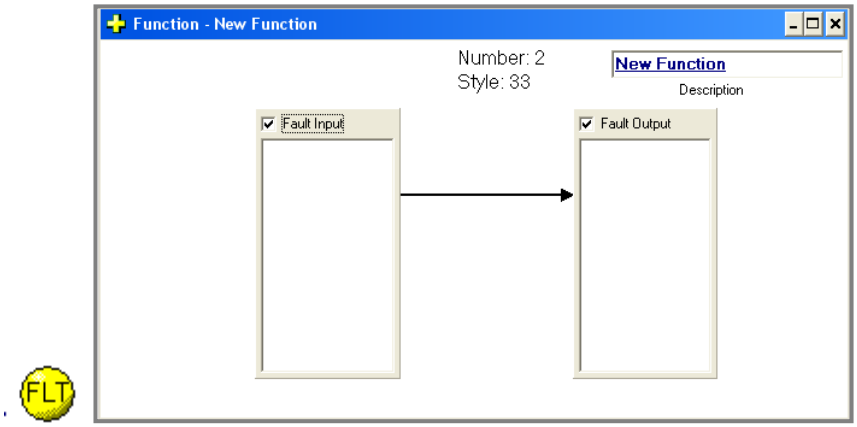
13.19 Function F30 - Configurable Nodal Fault Output



Description

This function allows a common fault output on a panel basis. The fault output does not include faults from devices which have been isolated.

13.20 Function F33 - Output Fault Function (UK only)



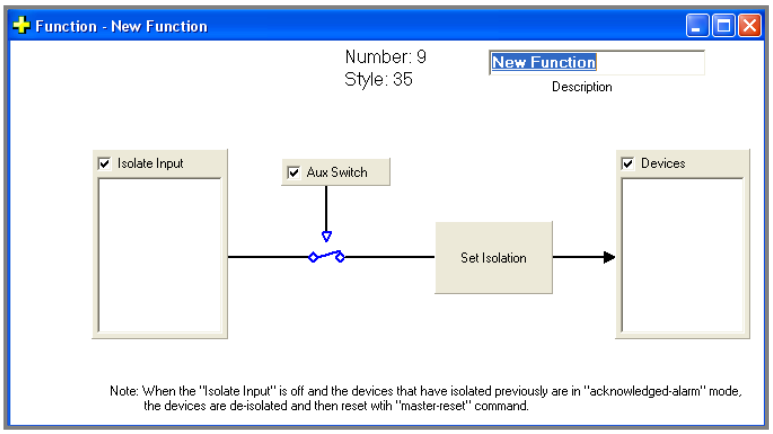
Description

The active state of the Input drives the Output into fault.

Supported Input types: Loop input, Panel input, Logical point

Supported Output types: Panel output, Loop Output

13.21 Function F35 – Isolate Control with Master Reset



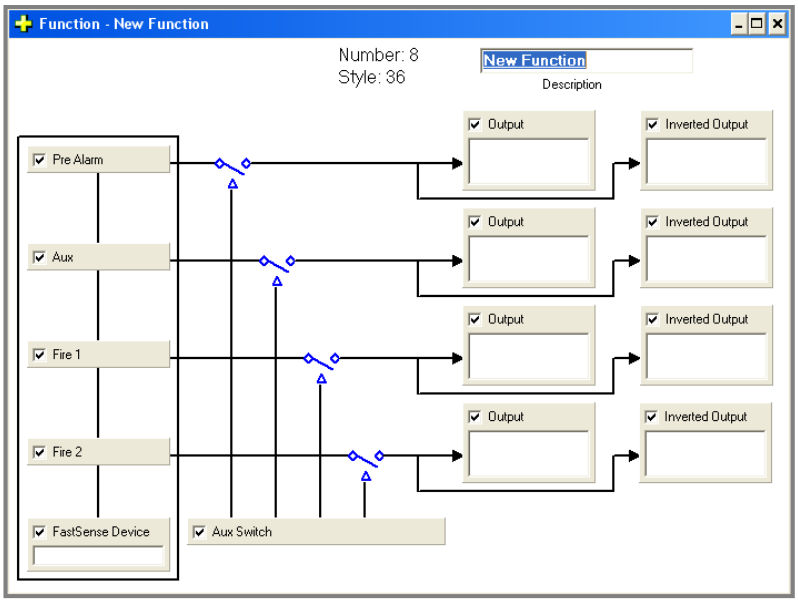
Description

When the isolate input is ON and the plant is satisfied, then the devices are automatically isolated. If the specified devices are returned to normal via the front panel, then they are automatically isolated again.

When the isolate input is turned OFF, the specified devices are returned to normal. If the devices are in acknowledged alarm, then they are automatically reset

The devices can then be isolated and returned to normal via the front panel.

13.22 Function F36 - FastSense Control



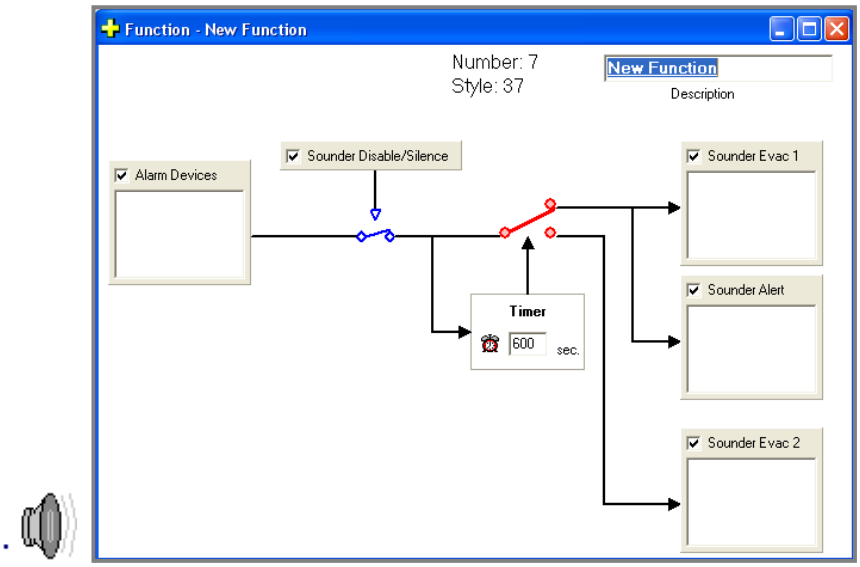
Description

The FastSense device has four alarm status conditions associated with it:

1. Pre-Alarm
2. Auxiliary Alarm
3. Fire 1
4. Fire 2

This function allows the user to drive loop outputs, panel outputs, and/or logical points according to the individual status conditions of the FastSense device.

13.23 Function F37 – Sounder Timeout (UK only)



Description

There are four requirements for MS1404 sounder programming. These have been addressed in this function.

Function 37 is a timeout function which activates a sequenced or all call evacuation in the event of an unattended alarm. When an alarm is activated the FACP can be programmed using function 37 to cater for the four MS1404 sounder requirements stated below:

1. The FACP will activate the local panel buzzer only. A programmable 0 – 10 minute timer is also activated. If the FACP remains unattended (panel is reset or bells are manually activated via the evacuate switch) for the preset time the FACP will activate all the bells on the system.

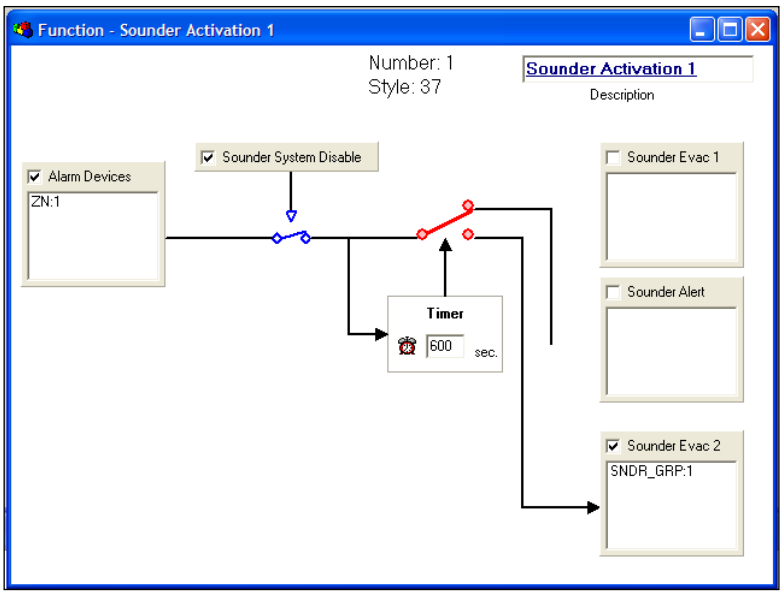


Figure 1: Function 37 Configuration Example 1

When Zone 1 goes into alarm, the local panel buzzer is activated as per normal panel operation. Function 37 when configured as illustrated above will activate the timer countdown, and after the set 10 minute (600sec) timeout period has expired, Sounder Group 1 will be activated.

2. The floor or zone in alarm will immediately go into the evacuate mode (the evacuate mode is a continuous/steady output). A programmable 0 – 10 minute timer is also activated. If the FACP remains unattended (bells have not been silenced) for the preset time the FACP will activate all the bells on the system.

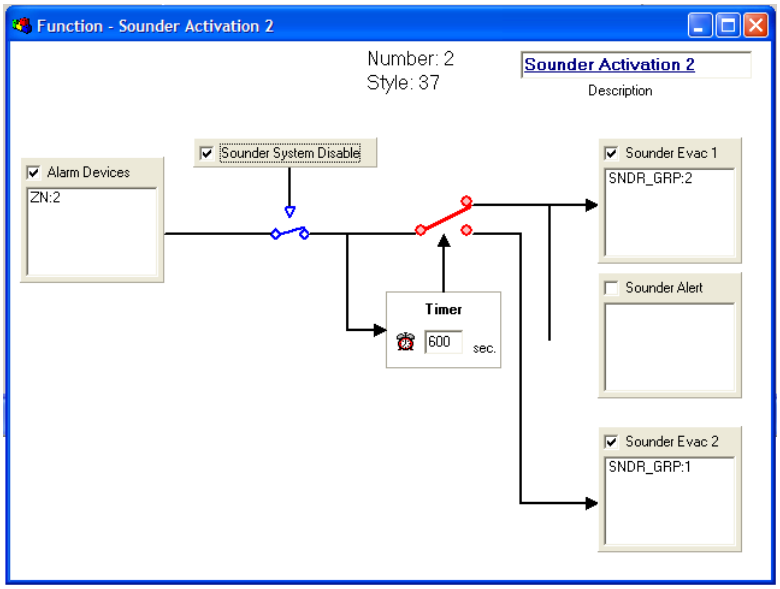


Figure 2: Function 37 Configuration Example 2

All the sounders in Zone 2 are grouped in sounder group 2. When Zone 2 goes into alarm, sounder group 2 is activated and so is the countdown timer. After the set timeout period has expired, Sounder group 2 will be de-activated, and sounder group 1 will be activated immediately.

3. The floor or zone in alarm will immediately go into the evacuate mode (the evacuate mode is a continuous/steady output) the adjacent floors or area (one each way) will immediately go into alert mode (the alert mode is a pulsing output with an on time of 2 seconds off time 2 seconds on time). A programmable 0 – 10 minute timer is also activated. If the FACP remains unattended (bells have not been silenced) for the preset time the FACP will activate all the bells on the system.

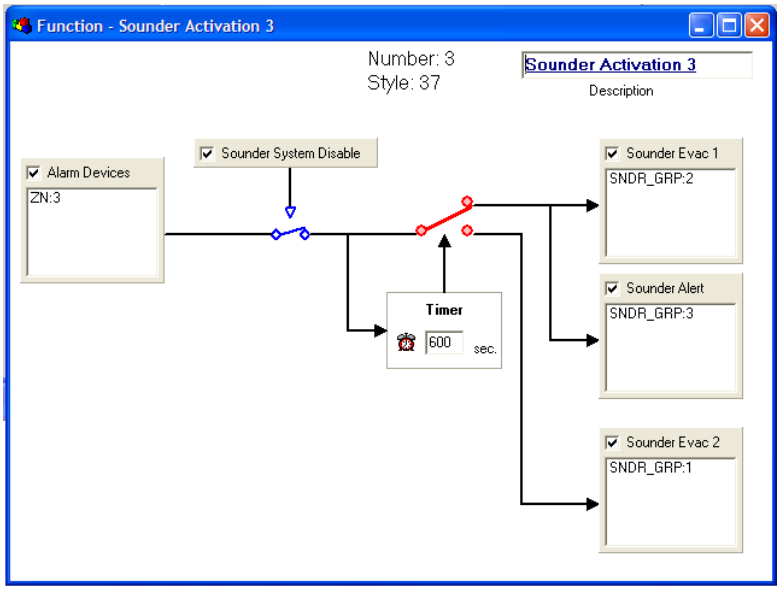


Figure 3: Function 37 Configuration Example 3

In the above example, all sounders in Zone 3 are grouped in sounder group 2. All the sounders in the adjacent floors to Zone 3 are grouped in sounder group 3. When Zone 3 goes into alarm, All sounders in sounder group 2 will sound the evacuate tone, all sounders in sounder group 2 will sound the alert tone, and the timer countdown will be activated. After the timeout period has expired, all sounders in sounder groups 2 and 3 are de-activated, and sounder group 1 will sound the evacuate tone.

Function 37 also supports logical points, and several instances of function 37 can be linked using logical points for staged evacuations in multi-storey buildings.

Note: The panel currently only supports 1sec ON/1sec OFF alert mode.

4. The system activates all bells immediately after an incoming alarm.

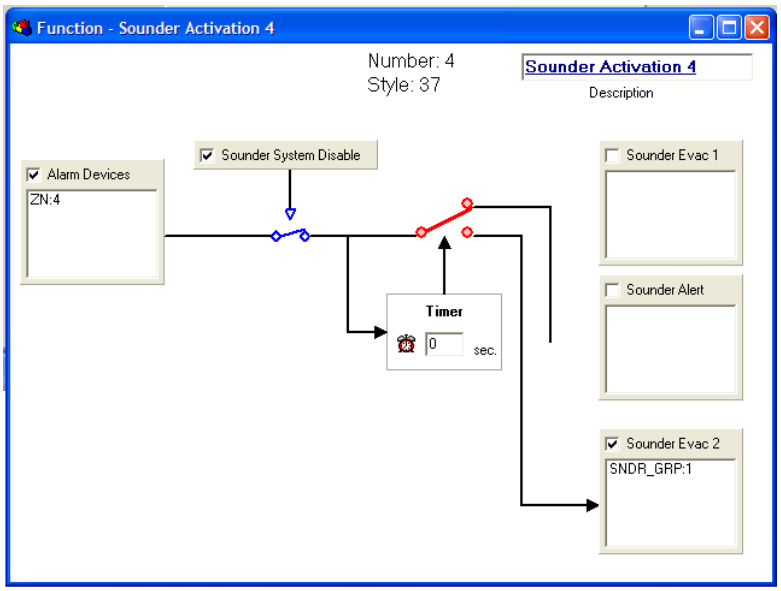


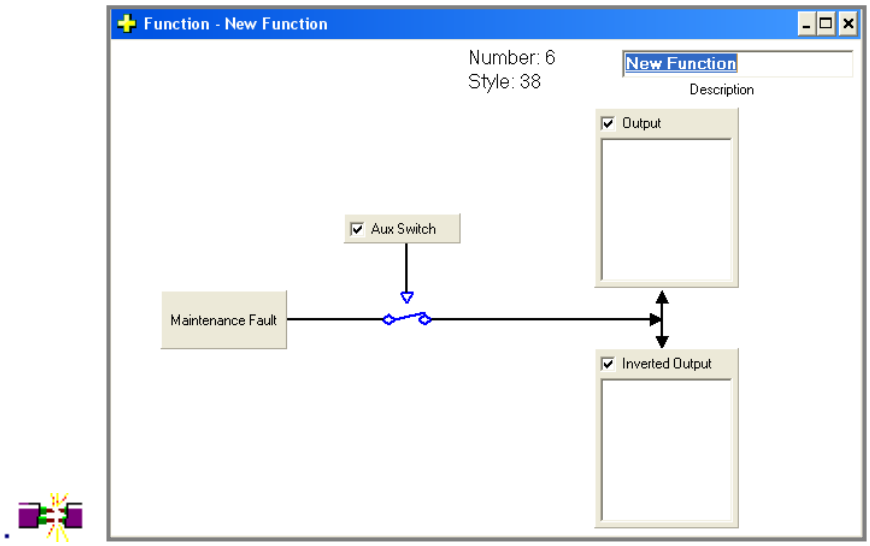
Figure 4: Function 37 Configuration Example 4

In the above example, the timeout period is set to 0, and the Sounder Evac 1 and Sounder Alert boxes are de-selected. When Zone 4 goes into alarm, all sounders in Sounder group 1 will activate immediately.

The Alarm Devices box also allows the user to include an assigned point. If the ALARM assigned point is used in the Alarm Devices box in the above example, any alarm in the system will activate sounder group 1 immediately.

Timer: If the FACP is attended within the pre-set time and the bells/sounders are silenced, the timer will reset. The timer is only activated by an Alarm condition and shall reactivate with a second alarm condition if the bells have been silenced from the first alarm condition.

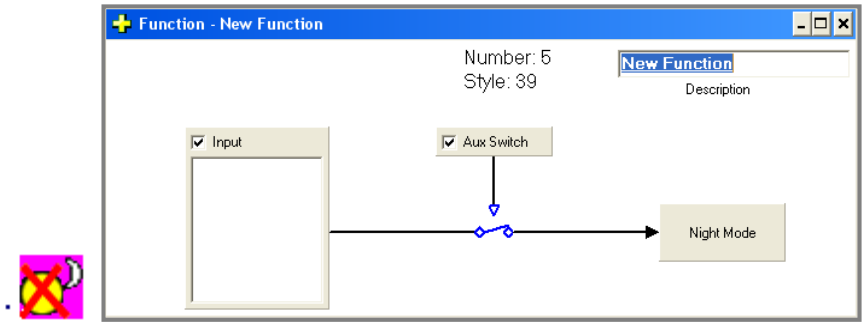
13.24 Function F38 – Maintenance Fault Output



Description

The On output is switched on and complementary output is switched off if a device maintenance fault is present on the panel.

13.25 Function F39 – Forced Night Mode Function



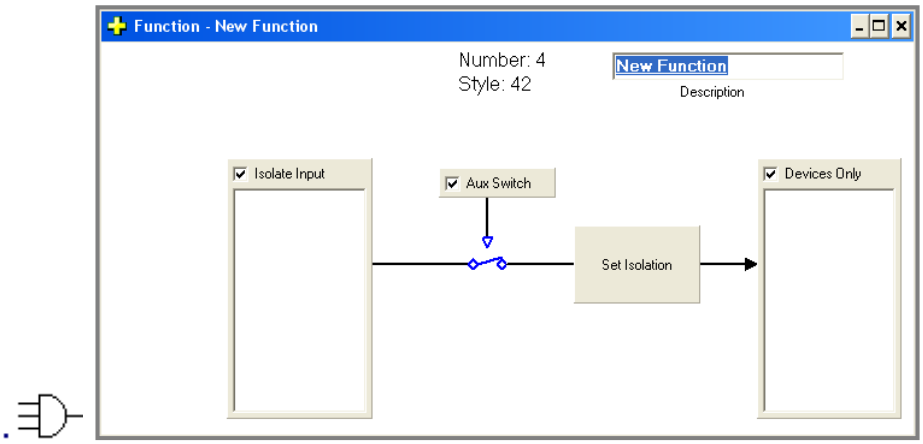
Description

When the input is ON and the plant is satisfied, then the panel is forced into night mode. If the input is off the panel returns to normal operation.

This function operates independently of day/night settings and has priority over them. Day/night modes operate as normal if function 39 input is not activated or function 39 is not configured.

Note: Only one instance of this function can exist in any configuration.

13.26 Function F42 – Sensor Isolate Control



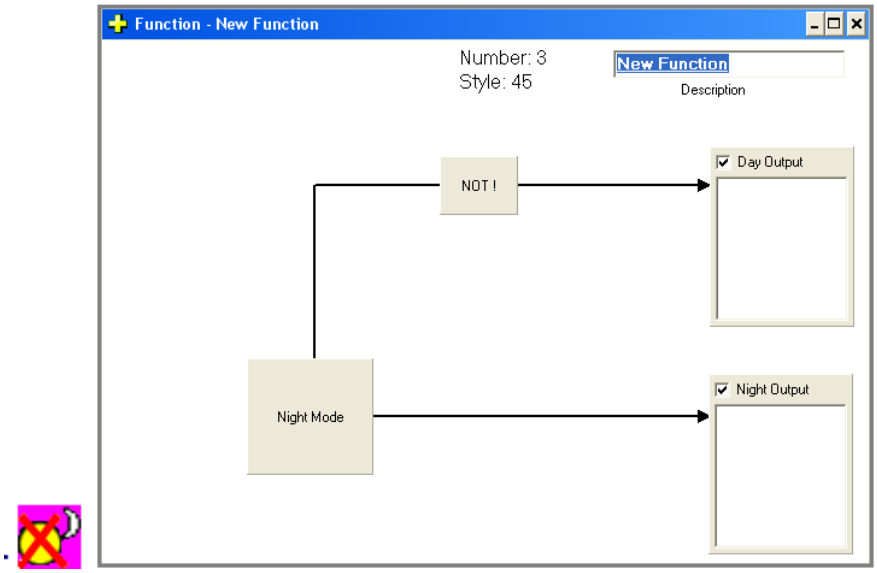
Description

This function operates exactly the same as function 9, but only sensor parameters are allowed for Parameter 3. This allows for much faster function execution.

When the isolate input is ON and the plant is satisfied, then the devices are automatically isolated. If the specified devices are returned to normal via the front panel, then they are automatically isolated again.

When the isolate input is turned OFF, the specified devices are returned to normal. The devices can then be isolated and returned to normal via the front panel.

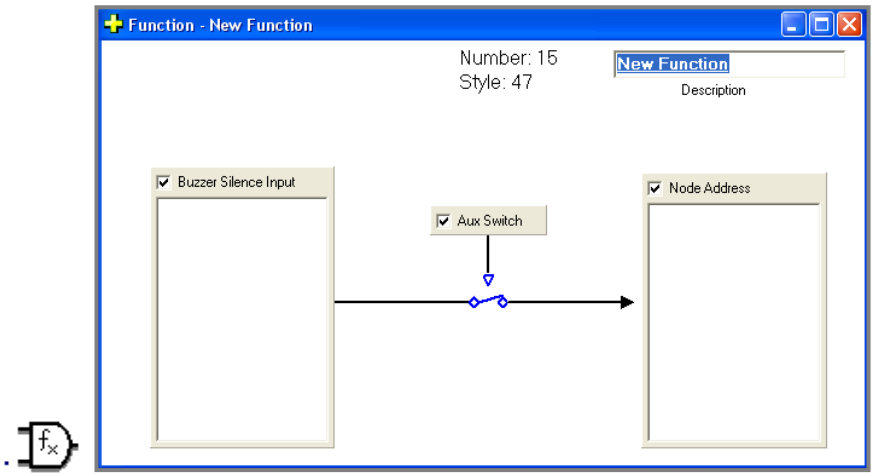
13.27 Function F45 - Day-Night Output Function



Description

Turn on the Day's Output and turn off the Night's Output if the Day-Night mode is either disabled completely OR enable and currently in the Day Mode; otherwise (i.e. in the Night Mode), turn on the Night's Output and turn off the Day's Output.

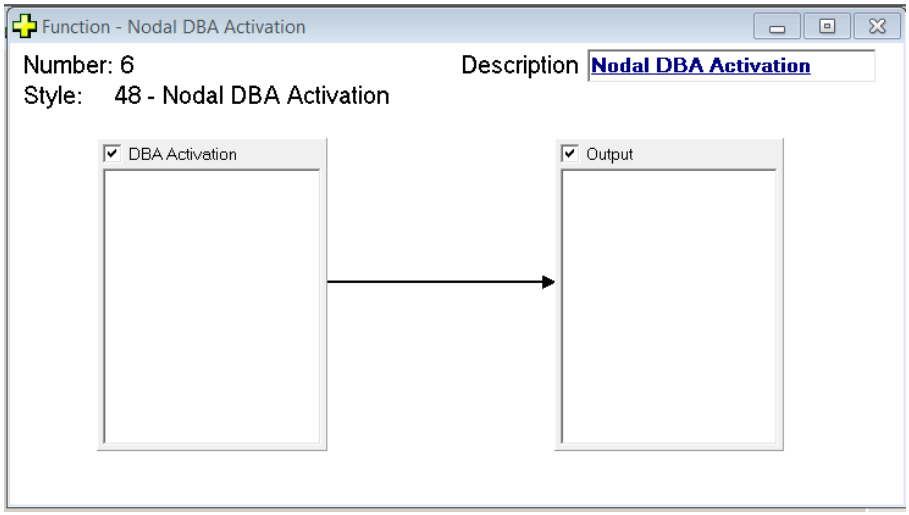
13.28 Function F47 - Nodal Buzzer Silence Function (Aus / NZ only)



Description

Silence the configured panel's buzzer if any of the Inputs is On, given that (plant enable is On and not isolated) OR (plant enable is Off); otherwise re-enable the buzzer if it has been silenced previously.

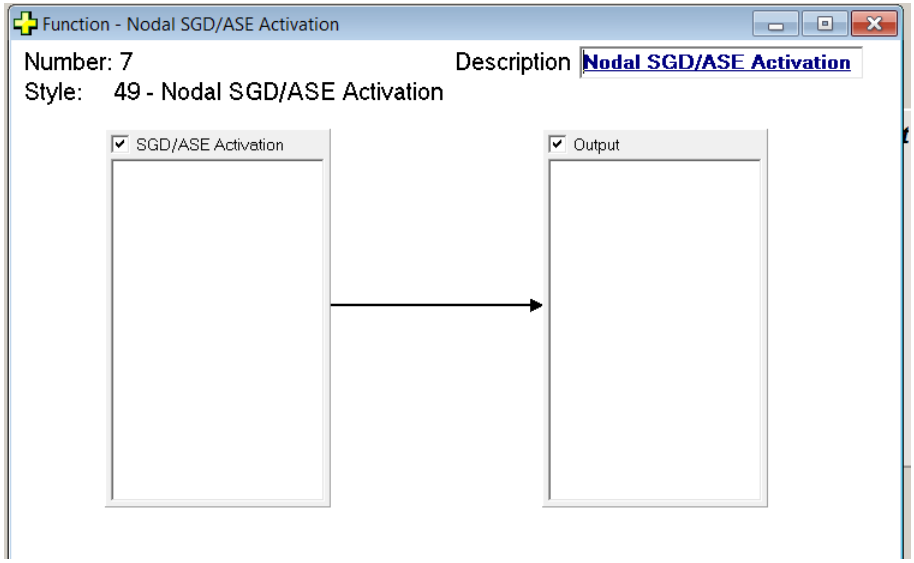
13.29 Function F48 - Nodal DBA Activation Function (NZ only)



Description

Certain outputs will turn on when the DBA is activated on a chosen Network Node.

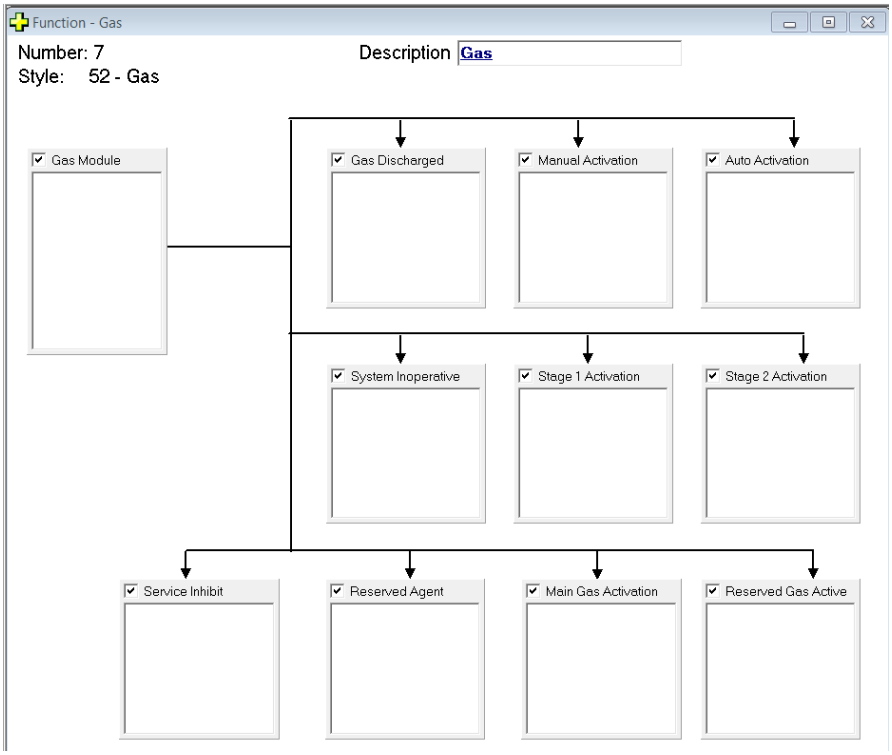
13.30 Function F49 - Nodal SGD/ASE Activation Function (Aus / NZ only)



Description

Certain outputs will turn on when the SGD/ASE is activated on a chosen Network Node..

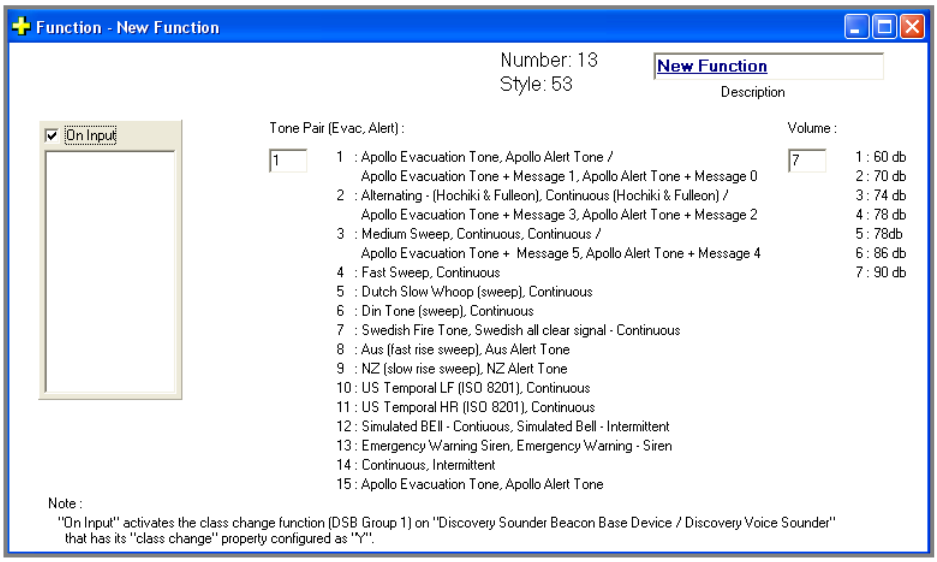
13.31 Function F52 - Gas Function



Description

Turn on the configured outputs appropriately when the configured (i.e. local) gas module's main conditions (i.e. gas discharged, manual activation, auto activation, stage 1 activation, stage 2 activation, system inoperative and service inhibit) becomes true.

13.32 Function F53 – Class Change (Evac)

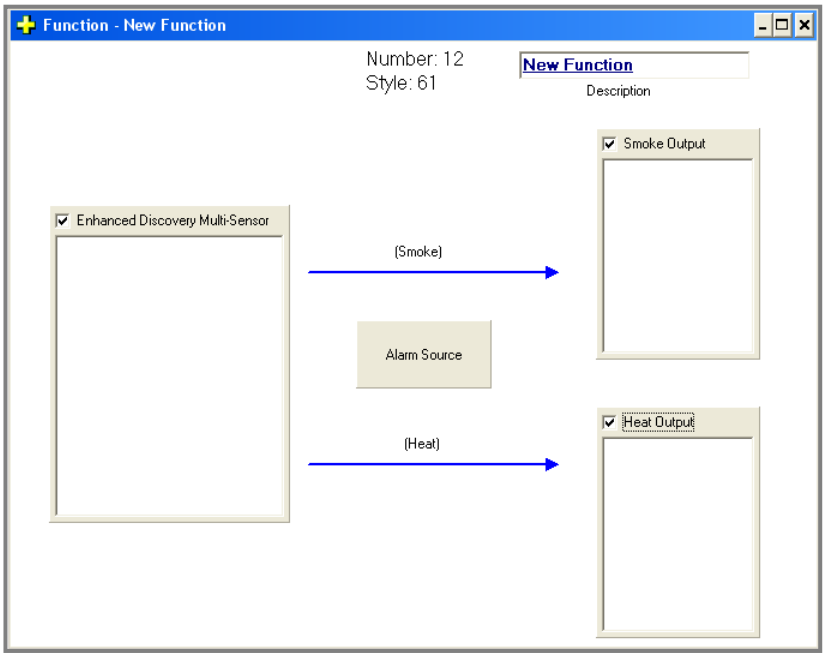


Description

Issue a Discovery Sounder Group Global **ON** command to DSG group 1 if any of the activation input is true while the *"reset condition"* is not true. A Discovery Sounder Group Global **OFF** command to DSG group 1 is issued when all of the activating inputs are off or the *"reset condition"* is true.

Note that a *"reset condition"* is when there is a (general fire alarm condition) or (any of the sounders is activated as a result of function 17 & 37 or general fire alarm condition).

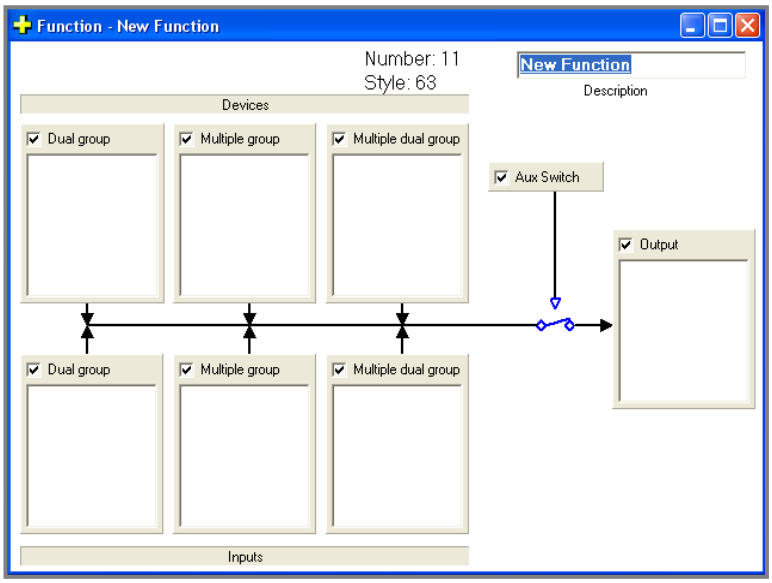
13.33 Function F61 - Enhanced Discovery Multisensor Alarm Output



Description

This function turns on the "smoke" or "heat" outputs accordingly based on the alarm source of the configured enhanced Discovery Multisensor.

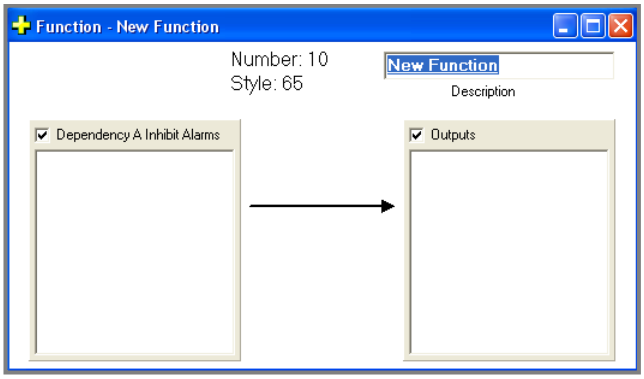
13.34 Function F63 - Multipurpose Grouping Function (Unique)



Note: This function works exactly like function 12 except that *uniqueness* is added to the processing of the group alarm counter for the "Devices". For example, Loop 1 Sensor 1 & 2 are configured to be in group 1 and Loop 1 Sensor 3 & 4 are configured to be in group 2; if Loop 1 Sensor 1 & 2 are both in alarm, these two events are considered as one alarm event since they are from the group.

Please refer to the "Function 12" document for more details of its operations.

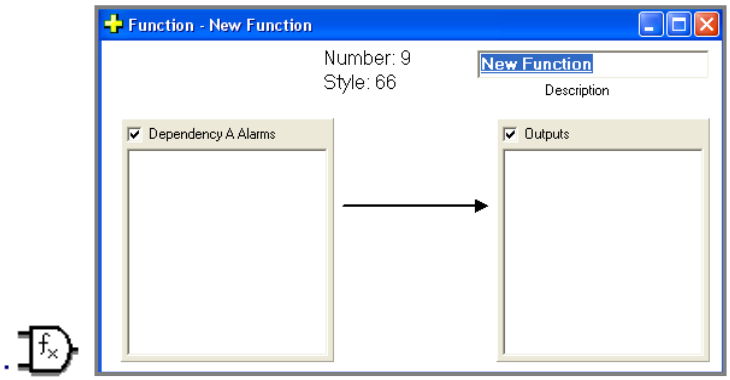
13.35 Function F65 - Dependency A Inhibit Alarm Outputs



Description

The Outputs are switched ON when there is a Dependency A Inhibit Alarm.

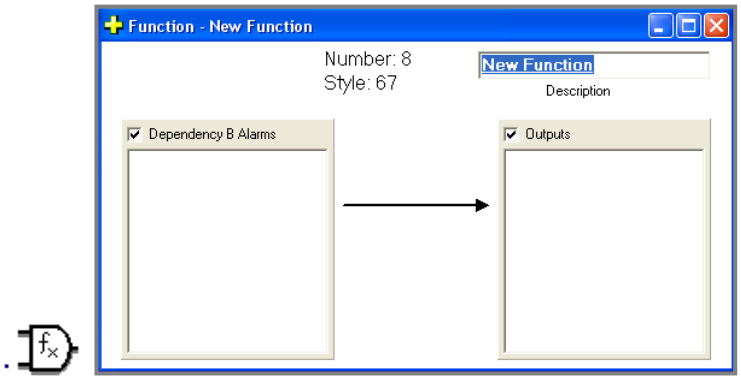
13.36 Function F66 - Dependency A Alarm Outputs



Description

The Outputs are switched ON when there is a Dependency A Alarm.

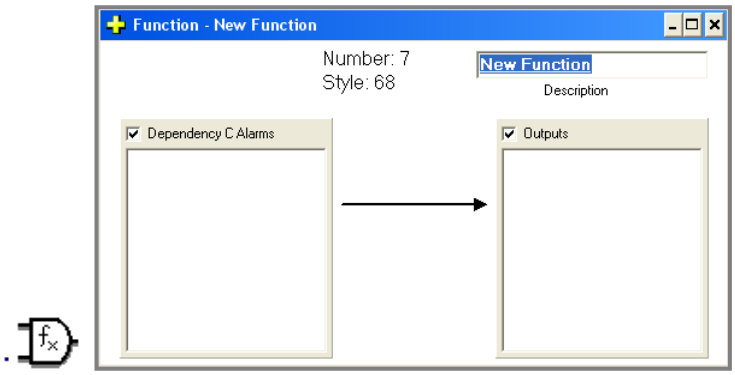
13.37 Function F67 - Dependency B Alarm Outputs



Description

The Outputs are switched ON when there is a Dependency B alarm.

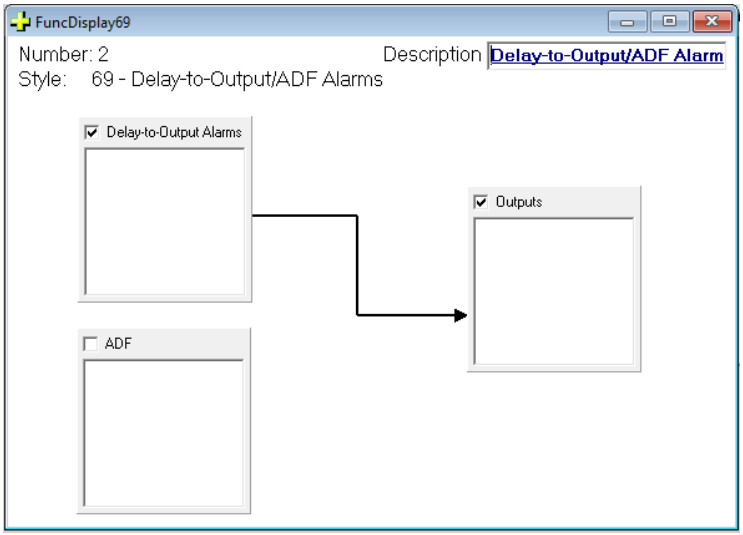
13.38 Function F68 - Dependency C Alarm Outputs



Description

The Outputs are switched ON when there is a Dependency C alarm.

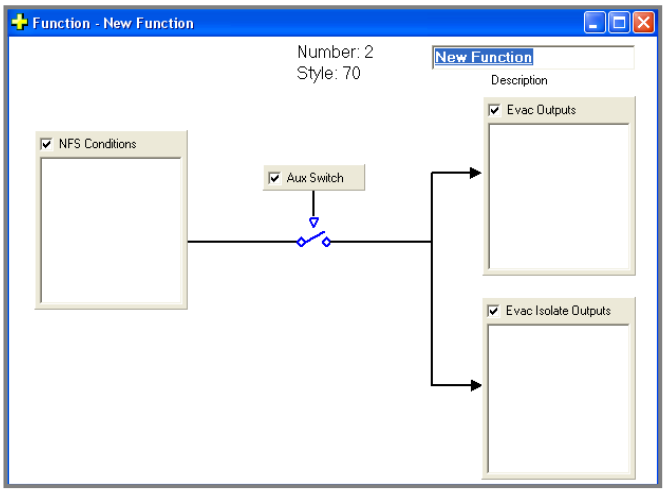
13.39 Function F69 - Delay-To-Output/ADF Alarms



Description

The Outputs are switched ON when there is a Delay-To-Output Alarm configured or ADF groups are configured.

13.40 Function F70 - Nurse Fire Station (NFS) (Aus / NZ Only)



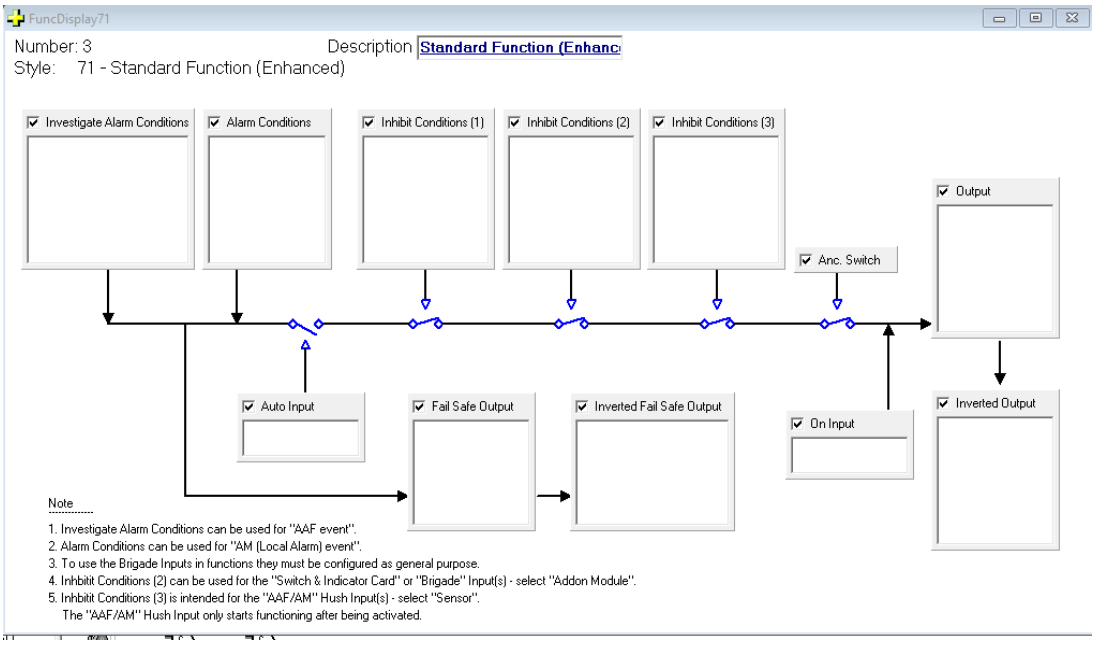
Description

Used in conjunction with the Nurse Fire Station LCDA

The Evac outputs are switched ON when:

1. Any NFS associated with the group is in the evac state
2. Any alarm device is in alarm and not isolated
3. Otherwise the Evac-Isol Outputs are switched ON when Evac outputs are switched OFF and;
4. Any NFS associated with the group is in the evac-isol state

13.41 Function F71 - Standard Function (Enhanced)



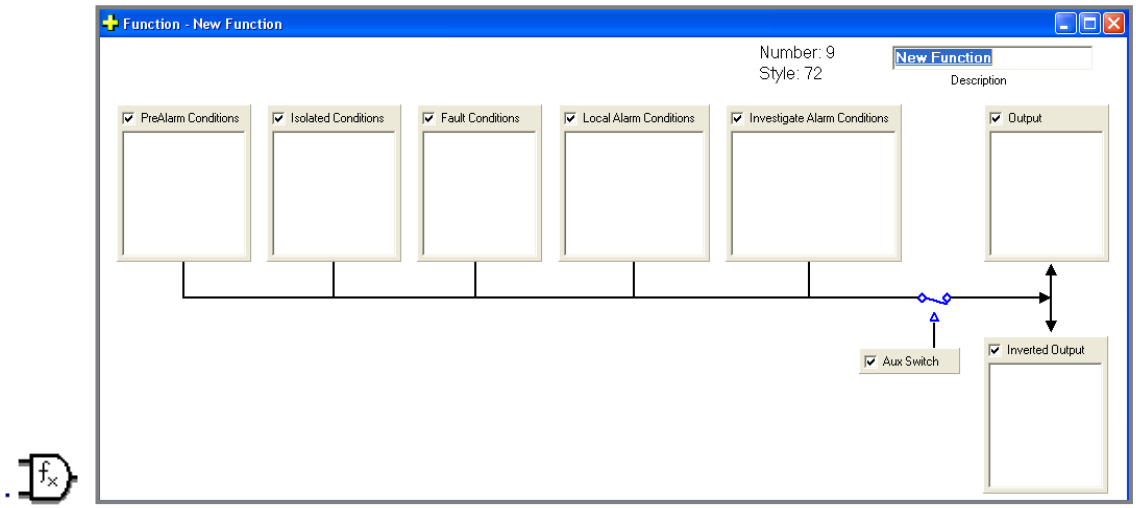
Description

The output is switched ON (and inverted output switched OFF) when:

The On input is ON,

The Auto input is ON, and ((any alarm device (group, zone or sensor) is in investigate alarm) or (any alarm device (group, zone or sensor) is in alarm and not isolated)) and all the inhibit devices (1) are not in alarm, and all the inhibit devices' input (2) are not active, and all the inhibit devices' hush input (3) are not active and providing the plant is normal if the plant enable parameter is active.

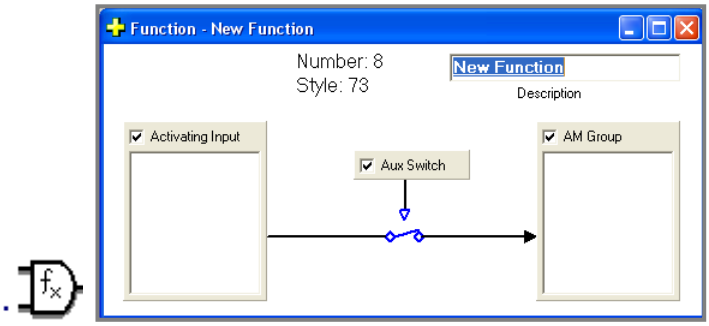
13.42 Function F72 – Pre-alarm, Fault, Isolate, Local Alarm, and Investigate Alarm



Description

The function controls an output (and its complement) based on a device being in the pre-alarm or fault or isolate or local-alarm or investigate alarm condition.

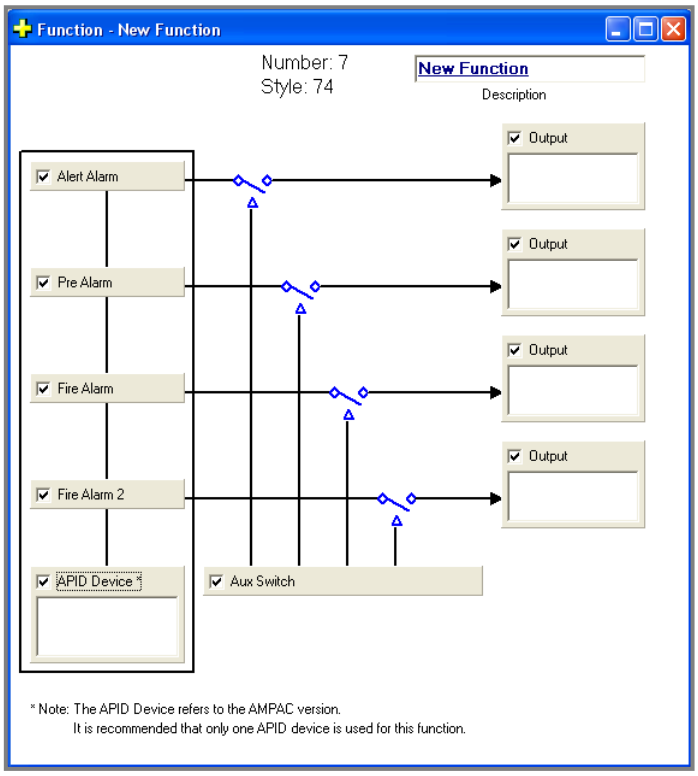
13.43 Function F73 – AM Group Function (Aus / NZ only)



Description

The function activates the AM device specified by the AM group number.

13.44 Function F74 - Wagner Function



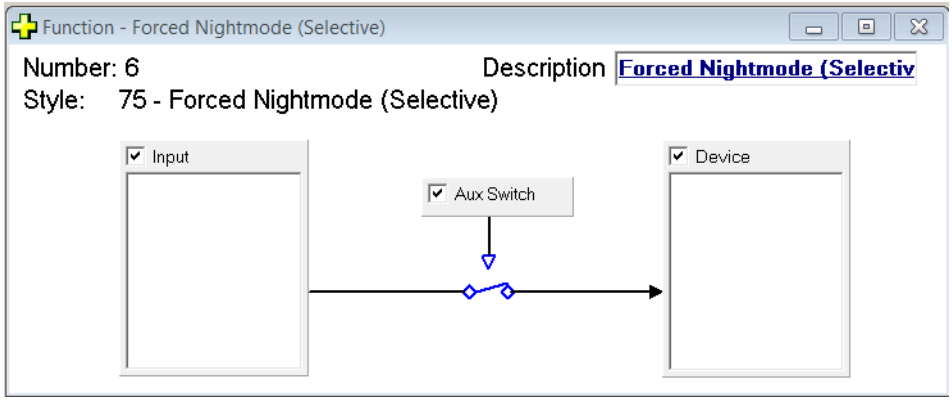
Description

The APID device has four alarm status conditions associated with it:

1. Alert-Alarm
2. Pre-Alarm
3. Fire-Alarm
4. Fire-Alarm 2

This function allows the user to drive loop outputs, panel outputs, and/or logical points according to the individual status conditions of the APID device.

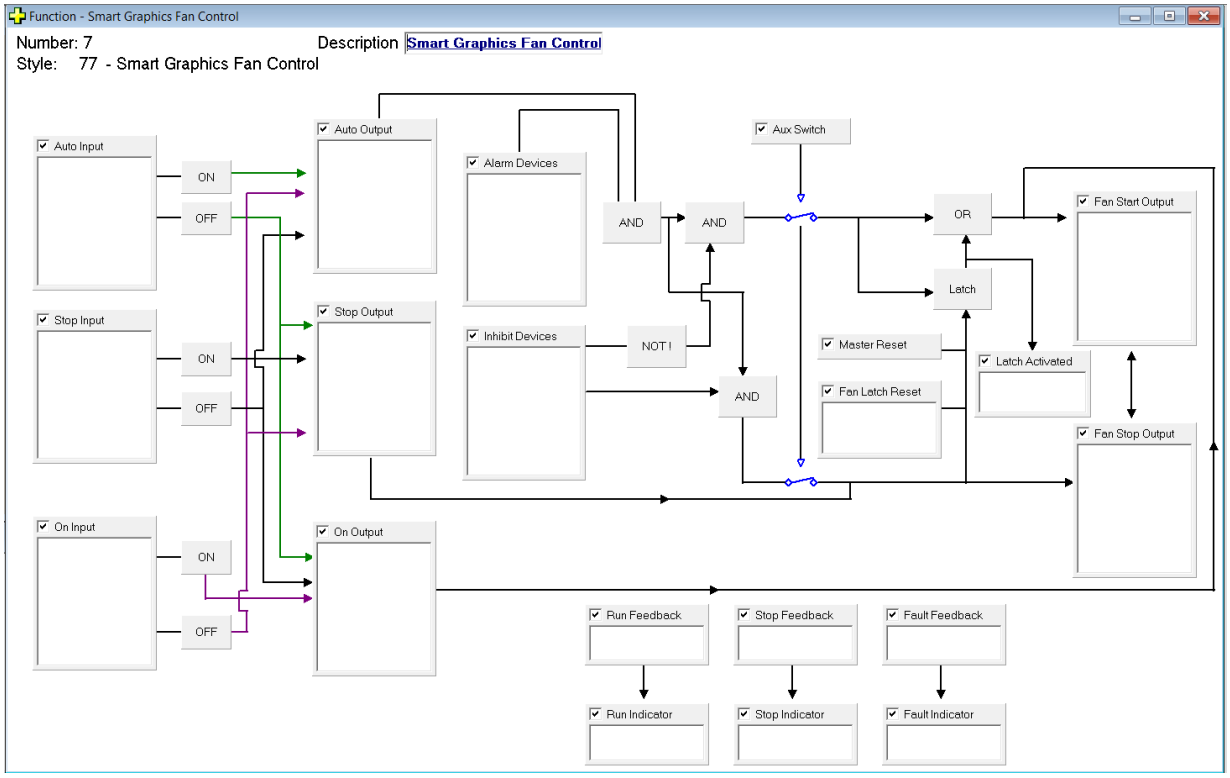
13.45 Function F75 - Forced Night Mode Function



Description

If the Input is ON the chosen devices will be forced into Night Mode setting:

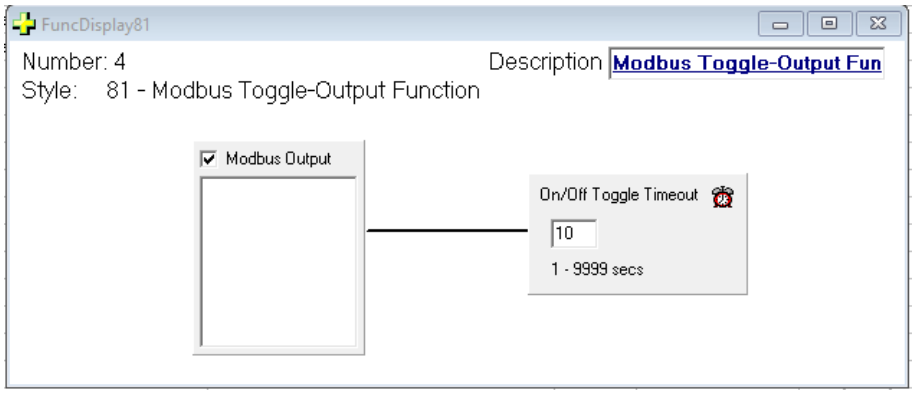
13.46 Function F77 - SmartGraphics Fan Control Function



Description

This Function is used when Fan Controls are graphically controlled using the Smart Graphics Product:

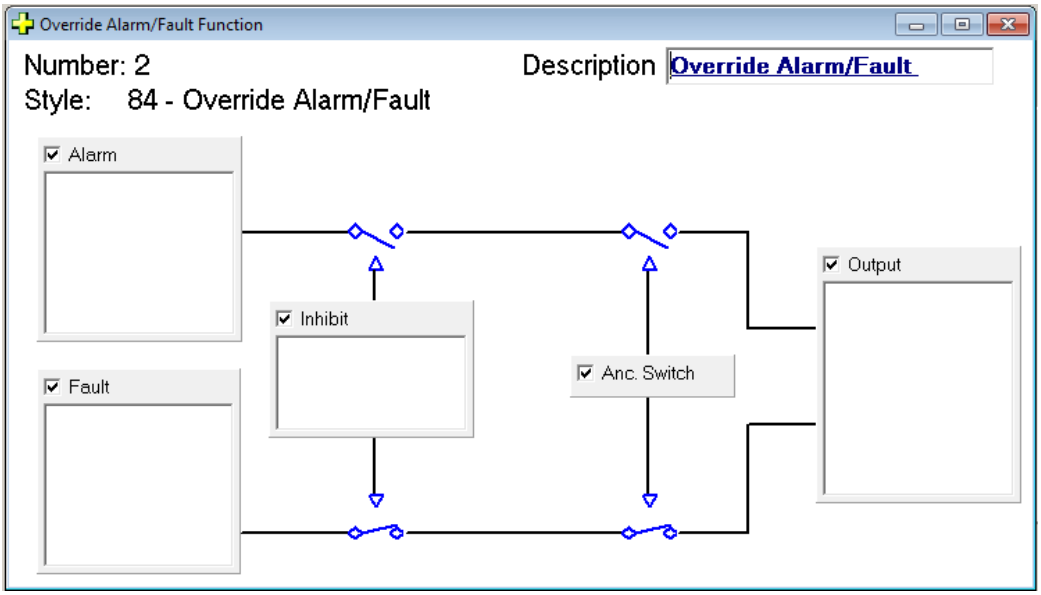
13.47 Function F81 – Modbus Toggle Output Function



Description

This function serves as a toggle function to turn on and off the configured Modbus output for a configured period of time. This can be used for as a heartbeat for Modbus application.

13.48 Function F84 - Override Alarm/Fault Function



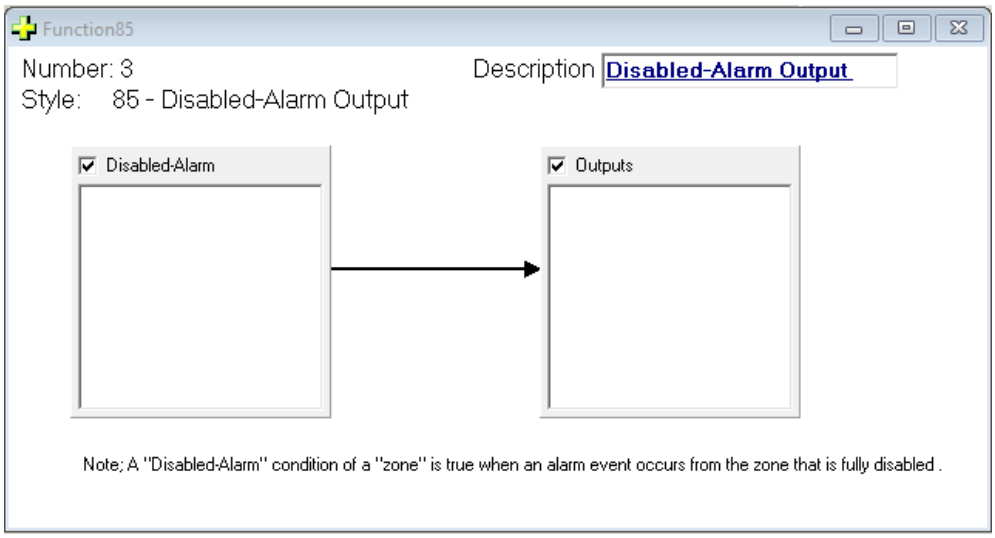
Description

This function sets the status of the specified conventional zones into Alarm or Fault if the listed input conditions are satisfied. Ancillary Disable and Inhibit input points, if active, override function action on outputs.

Disabled output items won't be affected by this function.

Alarm condition has higher priority than Fault which means if both Alarm and Fault inputs are satisfied then Alarm condition wins. Any Alarm to Fault or Fault to Alarm condition change goes through Normal state.

13.49 Function F85 Disable Alarm Output



Description
A Disabled-Alarm condition of a Zone or Sensor will generate an output

13.50 Function F87 Nodal Main Fail/Door Holder

☞ **Note:** This is an “Included Text” function therefore there is no graphical image.

Description
The function is to control door holders in the event of a mains fail from the configured node/panel.

The specified outputs are switched on in the advent of a mains fail from the configured node/panel after an optional run-on timer has expired.

Parameters

Parameter 1: Plant enable. Set to IN to enable plant isolate control, or IF to disable.
Parameter 2: Timeout (in seconds)
Parameter 3: Output
Parameter 4: Node Address

Example

F 87 4 IN; T60; OL4.45.1; N2;

Function 87 with 4 parameters
Plant enable is active
Timeout is set to 60seconds
Output is on loop 4 sensor 45 output 1
Node is node 2.

If the plant is normal and the node 2 has a mains fault for 60 seconds
Then turn on the output on loop 4 sensor 45 output 1
Else If the plant is isolated or the mains is detected
Then turn off the output on loop 4 sensor 45 output 1

13.51 Function F88 AAF Group Dual-Event Output Function

☞ **Note:** This is an “Included Text” function therefore there is no graphical image.

Description

This function activates the output when the configured AAF group has >= 2 local alarm events. The output is latched ON until a Master-reset command is received or the “anc switch isolate” switch is ON or there are < 2 local alarm events

Parameters

Parameter 1: Plant Enable. Set to IN to enable plant isolate control, or IF to disable.
Parameter 2: AAF Group
Parameter 3: Output

Example

F 88 3 IN; G111; OI222;

Parameter 1: Plant Enable
Parameter 2: AAF Group 111
Parameter 3: Logical Point 222

If (Ancillary Disable is configured and is not ON) and (AAF group local alarm event is >=2)

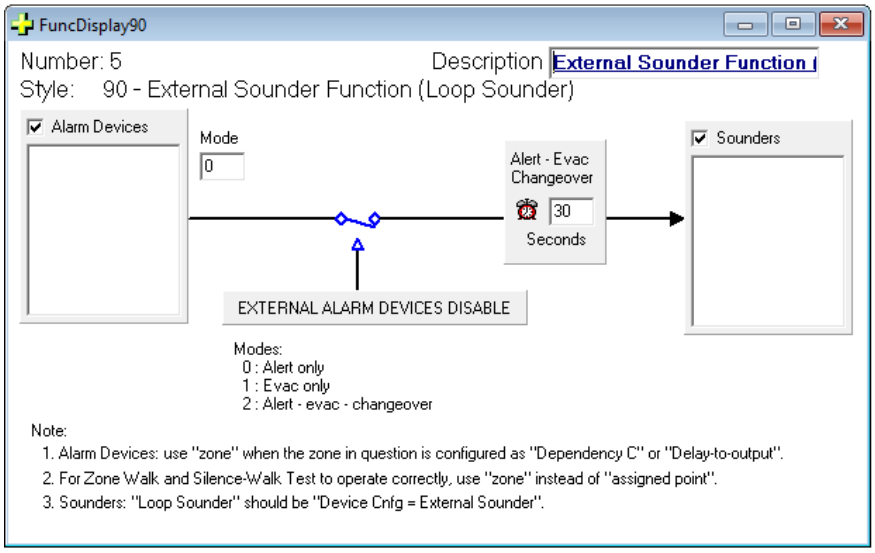
Then turn on logical point 222

Else if (Ancillary Disable is configured and is ON) OR (Master-Reset command is ON) OR (AAF group local alarm event is <2)

Then turn off logical point 222

End if

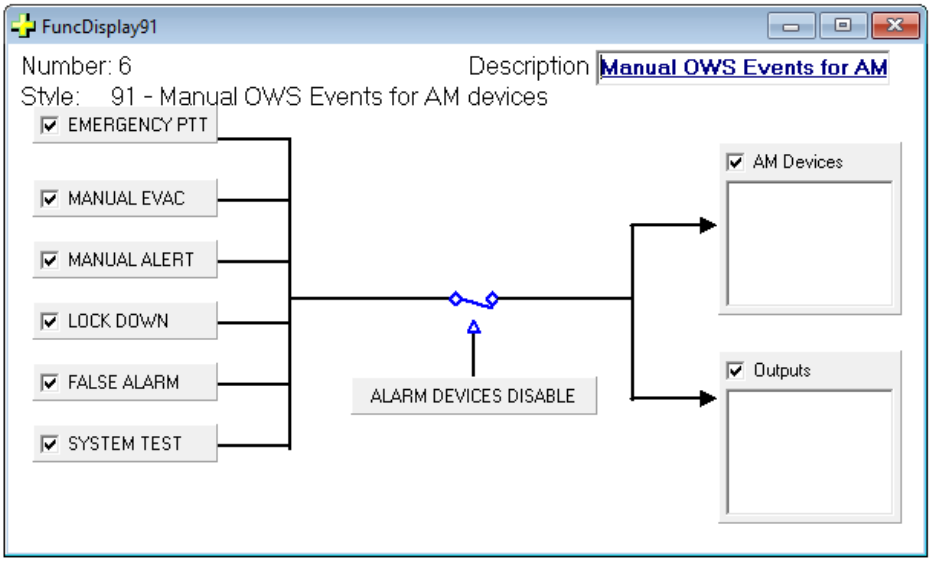
13.52 Function F90 External Sounder Function



Description

The function activates the sounders based on the trigger condition. The sounder can be de-activated via the “External Alarm Device Disabled” key.

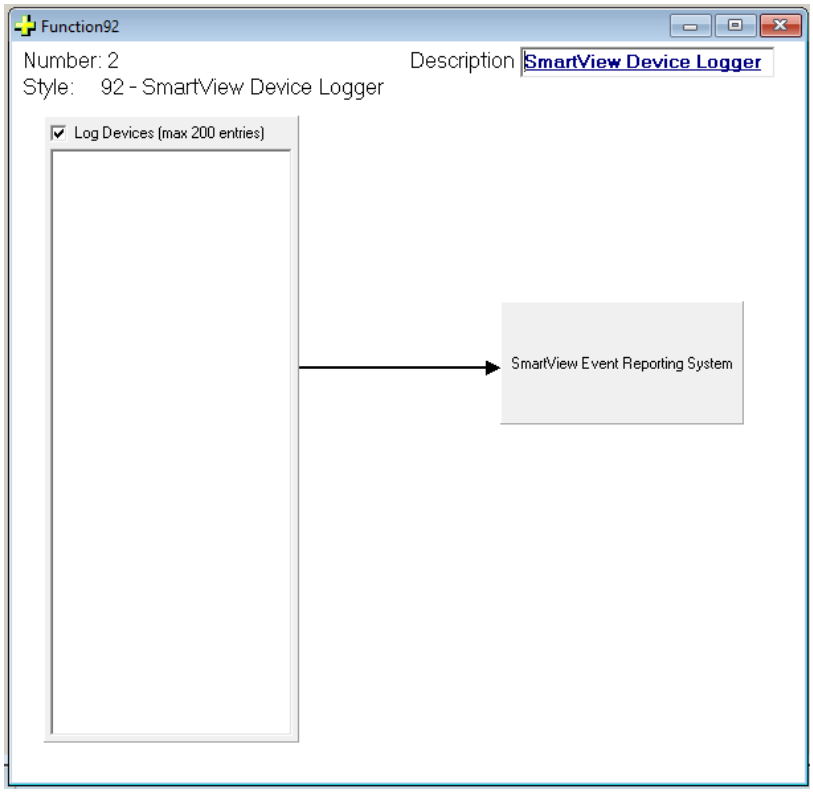
13.53 Function F91 Manual OWS Events for AM Device



Description

The function activates the AM devices’ 100V line output and configured outputs when any of the configured OWS events (system wide) is true. A “Alarm-Device-Disable” event will deactivate this function.

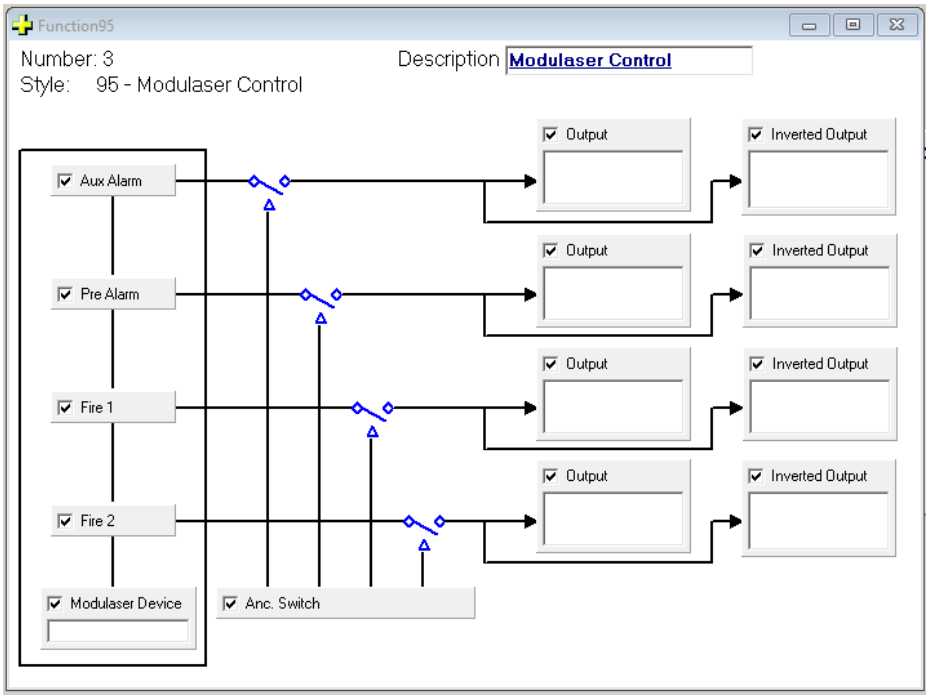
13.54 Function F92 SmartView Device Logger



Description

This function sets the configured loop devices to transmit to SmartView on any analogue value update. The maximum number of the devices for this function is 200 and each system can only support 1 such function.

13.55 Function F95 Modulaser Control



Description

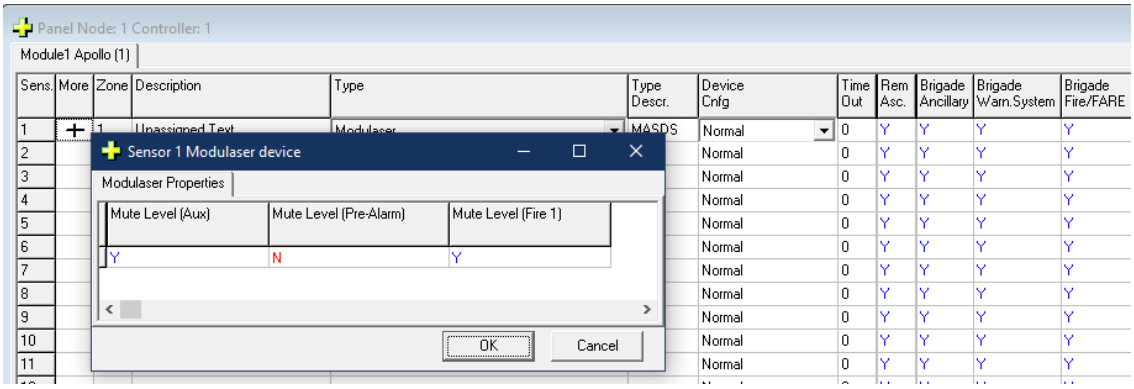
The Modulaser device has four alarm status conditions associated with it:

- Pre-Alarm
- Auxiliary Alarm
- Fire 1
- Fire 2

This function allows the user to drive loop outputs, panel outputs, and/or logical points according to the individual status conditions of the Modulaser device.

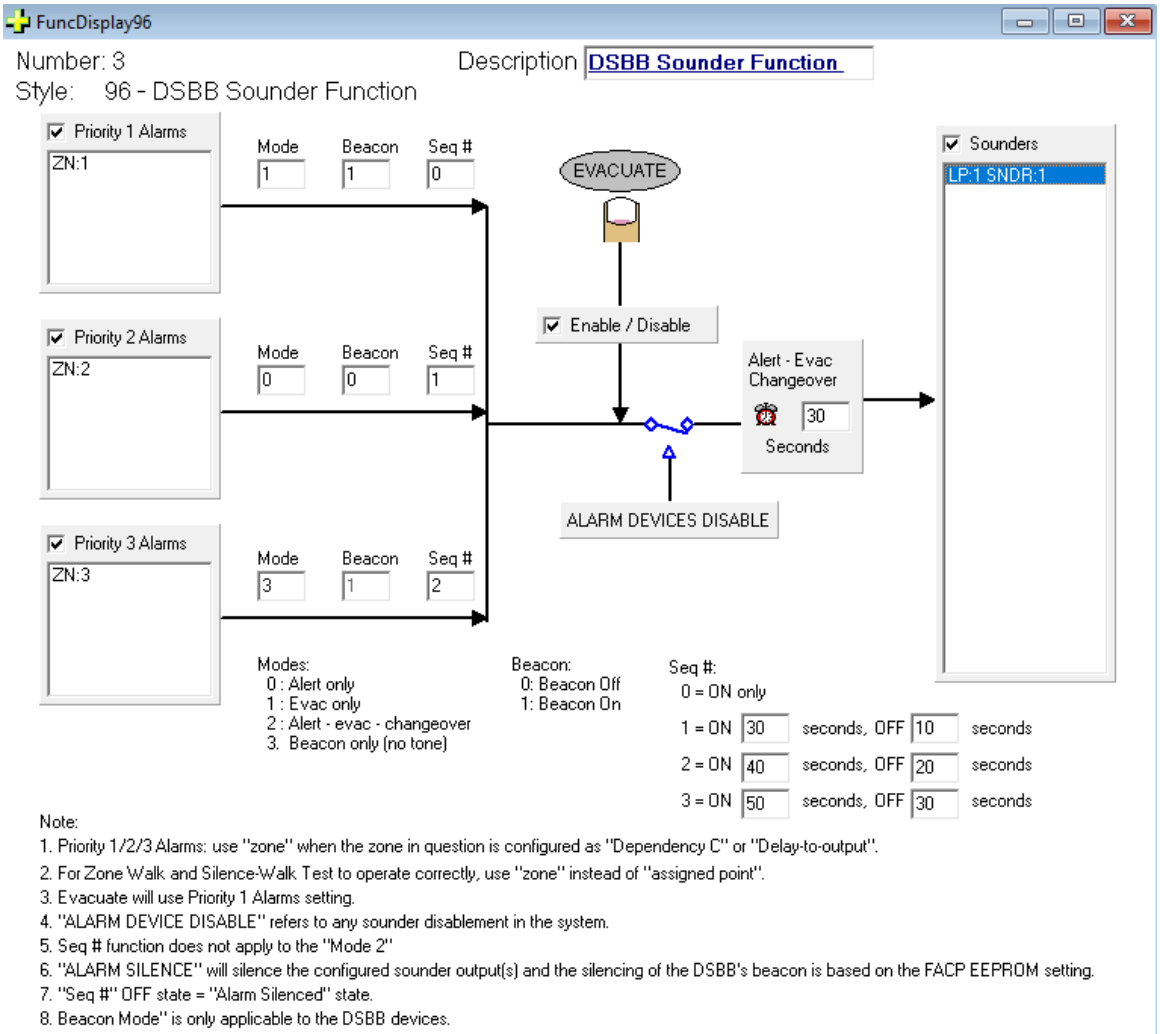
By default, Aux alarm, pre-alarm and Fire 1 are muted and will not operate the outputs unless these options have been un-muted at the Loop Device level (see below showing Pre-Alarm is unmuted).

Fire 2 operates by default and can not be muted.



Note that the status is derived by the device's analogue value.

13.56 Function F96 Discovery Sounder Beacon Function



Description

The function operates the configured DSBB devices based on the 3 priority settings. Each priority setting defines the sounder and beacon mode of the DSBB device(s); priority 1 is the highest priority and 3 is the lowest.

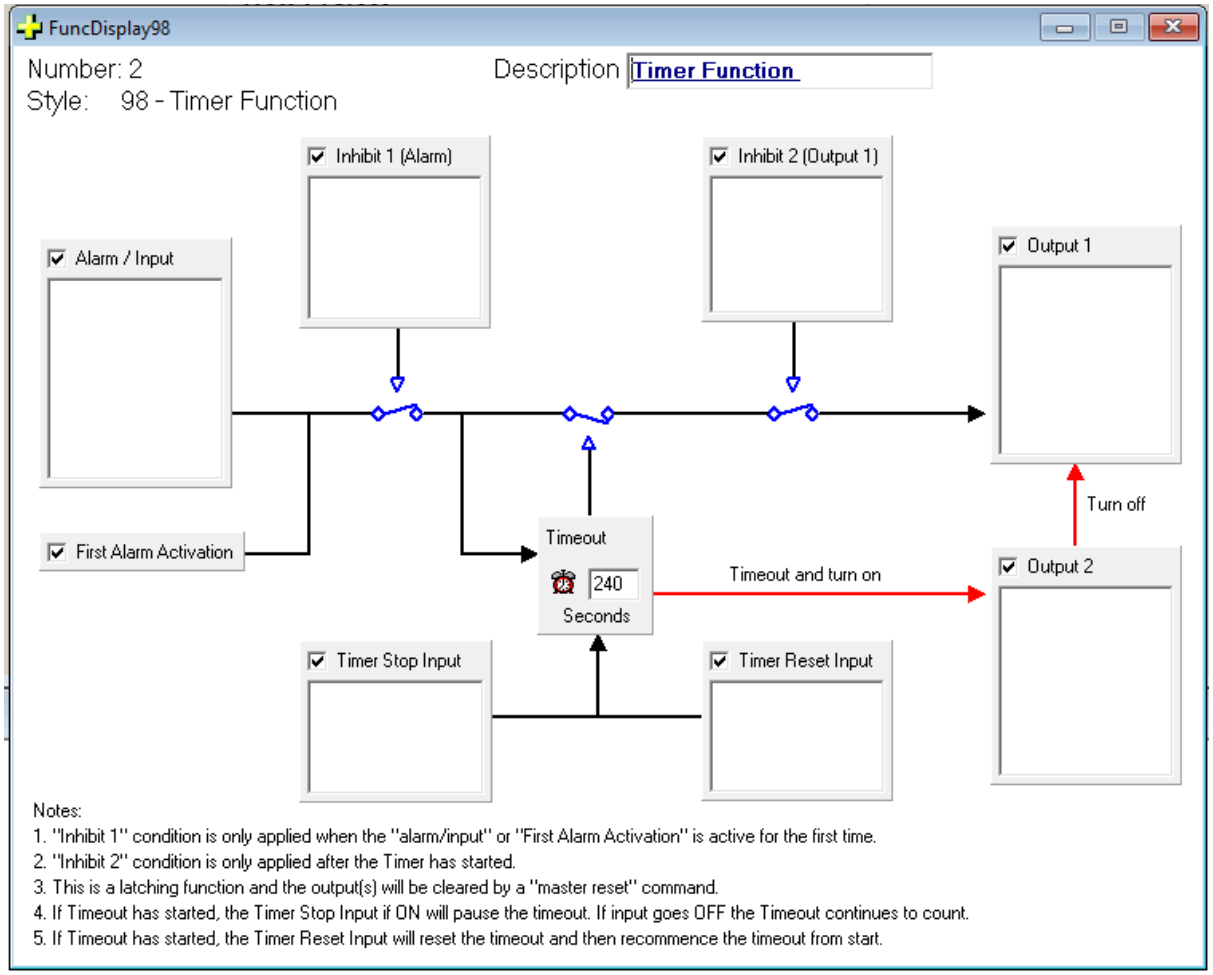
A option to confirgure alternative ON / OFF sequencing is also provided to create custom specific tone sounds and timing

Note:

1. Sounder Tones are selectable at the Loop device level

2. Class-Change function 53, if also used, has a lower priority against this function.

13.57 Function F98 Timer Function



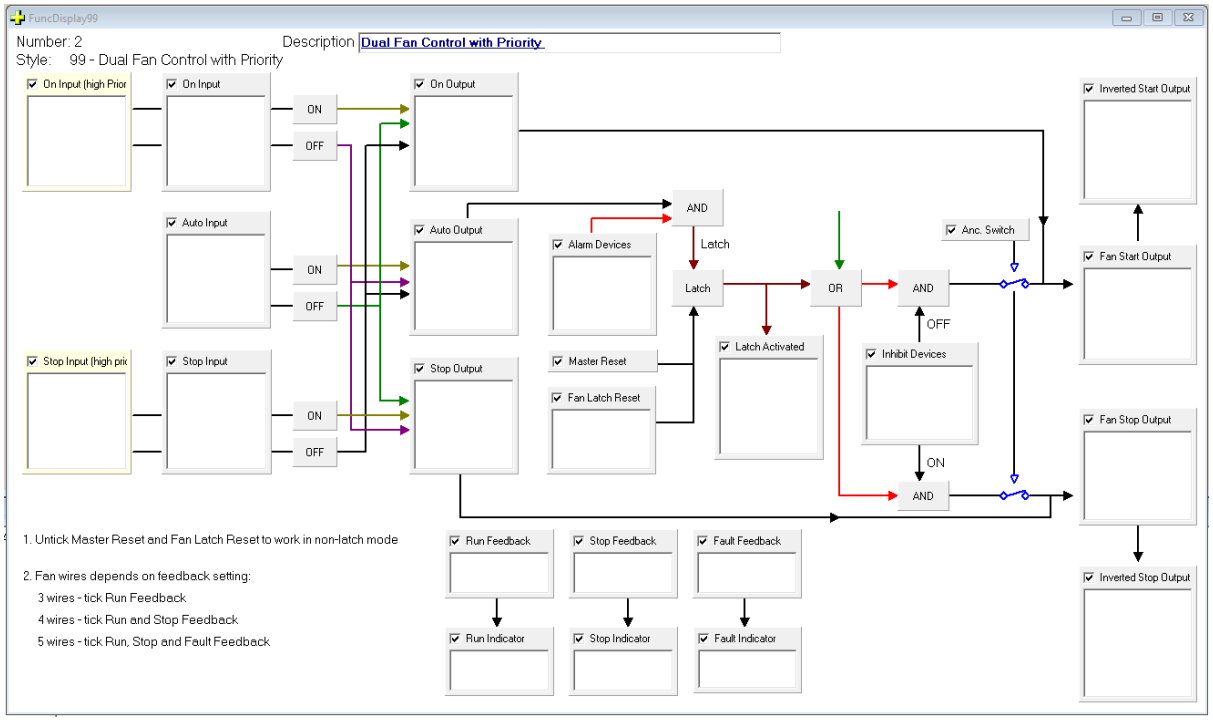
Description

The function operates the configured Output 1 on the First Alarm Activation or any Alarm/Input events, provided the Inhibit 1 condition is not true. This alarm input event will then trigger the timer function to commence. During this counting down period, if Inhibit 2 condition is true, Output 1 will be de-activated but this does not affect the timer function. Once the timer's time-out condition is true, Output 1 will be de-activated and Output 2 will be activated.

The timer can be stopped and/or reset by other conditions

All outputs are turned off after a Maser Reset event.

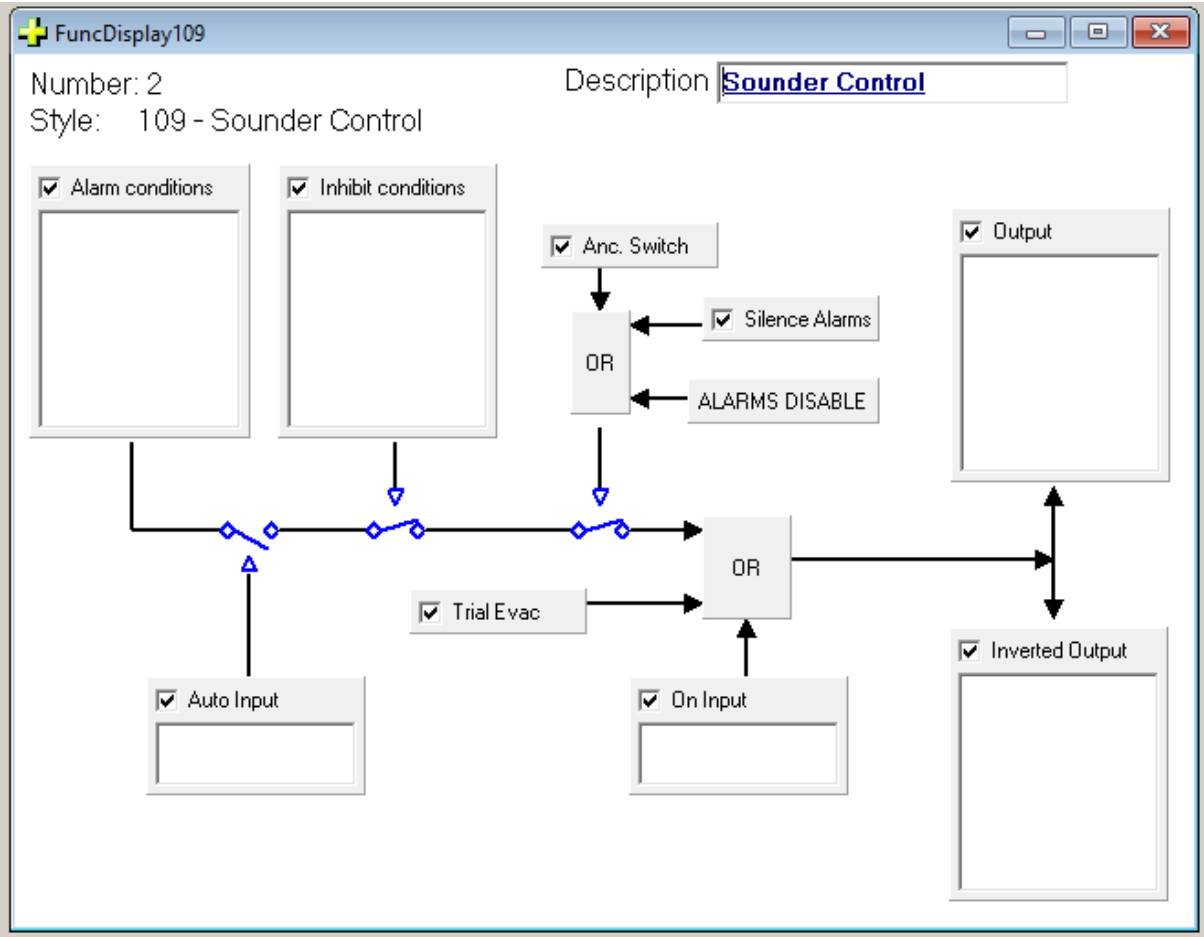
13.58 Function F99 Dual Fan Control with Priority Function



Description

This function allows hardwired fan controls to be configured and controlled by two sets of controls in two different locations. One set of controls, identified by the yellow ON and STOP High Priority input boxes, will override the other ON and STOP input controls.

13.59 Function F109 Sounder Control Function (NZ Only)



Description

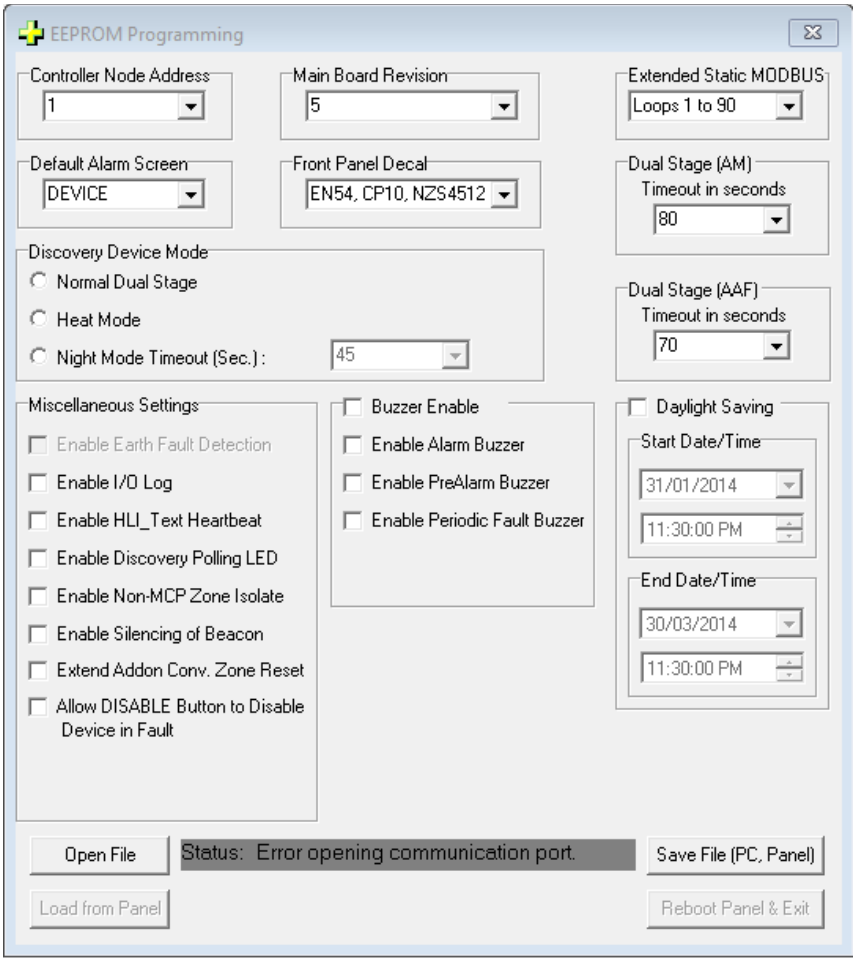
The Sounder On output is switched ON (and Sounder Off output switched OFF) when:

- The On input is ON,
- The Trial Evac switch is ON
- The Auto input is ON, and any alarm device (group, zone or sensor) is in alarm and not isolated, and all the inhibit devices are not in alarm, and providing Brigade Silence if OFF (i.e. if it is enabled) and there are no Alarms Disable and the Anc Switch is normal (i.e. if it is enabled)..

14 EEprom Settings Window

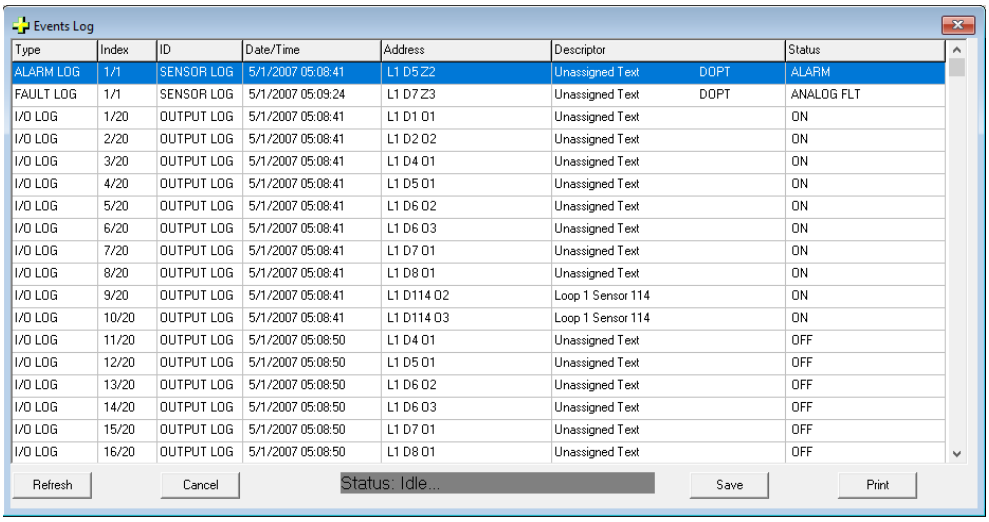
Various EEprom settings can be changed to alter depending on system requirements.

Consult your local CSO to gain access to these.



15 Event Logs

The panels/system events can be obtained by using the Events Log option available via the Transfer drop down list.



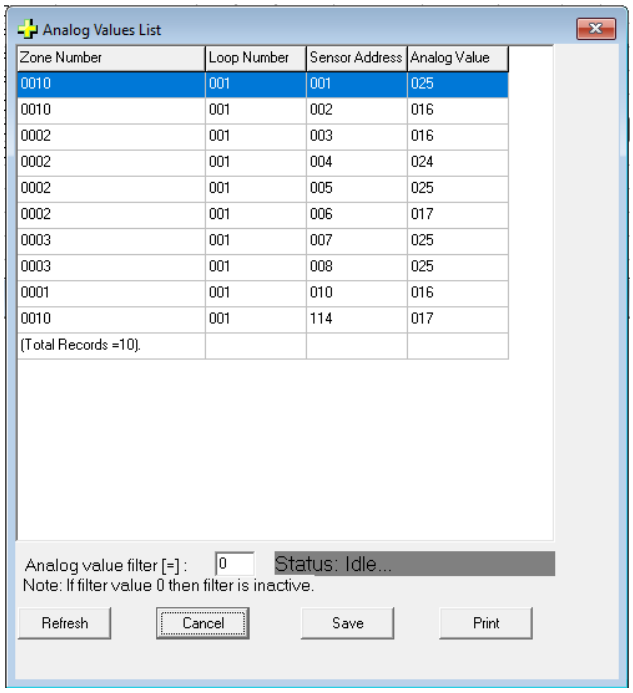
Type	Index	ID	Date/Time	Address	Descriptor		Status
ALARM LOG	1/1	SENSOR LOG	5/1/2007 05:08:41	L1 D5 Z2	Unassigned Text	DOPT	ALARM
FAULT LOG	1/1	SENSOR LOG	5/1/2007 05:09:24	L1 D7 Z3	Unassigned Text	DOPT	ANALOG FLT
I/O LOG	1/20	OUTPUT LOG	5/1/2007 05:08:41	L1 D1 O1	Unassigned Text		ON
I/O LOG	2/20	OUTPUT LOG	5/1/2007 05:08:41	L1 D2 O2	Unassigned Text		ON
I/O LOG	3/20	OUTPUT LOG	5/1/2007 05:08:41	L1 D4 O1	Unassigned Text		ON
I/O LOG	4/20	OUTPUT LOG	5/1/2007 05:08:41	L1 D5 O1	Unassigned Text		ON
I/O LOG	5/20	OUTPUT LOG	5/1/2007 05:08:41	L1 D6 O2	Unassigned Text		ON
I/O LOG	6/20	OUTPUT LOG	5/1/2007 05:08:41	L1 D6 O3	Unassigned Text		ON
I/O LOG	7/20	OUTPUT LOG	5/1/2007 05:08:41	L1 D7 O1	Unassigned Text		ON
I/O LOG	8/20	OUTPUT LOG	5/1/2007 05:08:41	L1 D8 O1	Unassigned Text		ON
I/O LOG	9/20	OUTPUT LOG	5/1/2007 05:08:41	L1 D114 O2	Loop 1 Sensor 114		ON
I/O LOG	10/20	OUTPUT LOG	5/1/2007 05:08:41	L1 D114 O3	Loop 1 Sensor 114		ON
I/O LOG	11/20	OUTPUT LOG	5/1/2007 05:08:50	L1 D4 O1	Unassigned Text		OFF
I/O LOG	12/20	OUTPUT LOG	5/1/2007 05:08:50	L1 D5 O1	Unassigned Text		OFF
I/O LOG	13/20	OUTPUT LOG	5/1/2007 05:08:50	L1 D6 O2	Unassigned Text		OFF
I/O LOG	14/20	OUTPUT LOG	5/1/2007 05:08:50	L1 D6 O3	Unassigned Text		OFF
I/O LOG	15/20	OUTPUT LOG	5/1/2007 05:08:50	L1 D7 O1	Unassigned Text		OFF
I/O LOG	16/20	OUTPUT LOG	5/1/2007 05:08:50	L1 D8 O1	Unassigned Text		OFF

16 System Search Tool

A Search tool is available to assist with locating loops and addons across system. Press “Control “F” to bring up the tool.

17 Device Analogue Value Table

A list of all the system loop device analogue values can be downloaded via the transfer drop down list.



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NOTE: Due to AMPAC's commitment to continuous improvement specifications may change without notice.