



Fire detection and evacuation solutions that save lives.



EvacU^{Elite}

Programming Manual

MAN3142-6

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1 Certification Information

EVACU ELITE EMERGENCY WARNING AND INTERCOMMUNICATION SYSTEM

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CONFORMS TO: AS4428.16
AS4428.4
AS7240.4
EN54.16
EN54.4

ACTIVEFIRE CERTIFICATE OF COMPLIANCE NUMBER afp-3761
LPCB Certificate No: 966d

2 Purpose

This manual is a programming manual for the Ampac EvacUElite. It will assist personnel who wish to programme EvacUElite. It is written generically for all Global markets.

Technicians and programmers should firstly read the *installation manual* to familiarise with EvacUElite hardware then use this programming manual to learn the programming basics and system building blocks.

Once the above two points are accomplished, using the Config FAQ manual reveals how common applications (and deeper topics) can be understood and programmed.

2.1 Scope

The information within this manual is only available to and for the use of personnel engaged in the programming of the EvacUElite.

It is assumed the user of this manual is familiar with the operation of EWCIE and EICIE as required by the relevant product standards (AS 4428.4 and AS 4428.16).

The terminology used in this manual is consistent with the terminology used in the AS4428 product standards.

2.2 References

2.2.1 EvacU Elite System Manuals:

- MAN3137-x EvacU ^{ELITE} Install and Commissioning Manual Aus / NZ
- MAN3144-x EvacU ^{ELITE} Install and Commissioning Manual EMEA
- COS010-x EvacU ^{ELITE} Consultant Specification Aus / NZ
- COS011-x EvacU ^{ELITE} Consultant Specification EMEA
- MAN3142-x EvacU ^{ELITE} Programming Manual – Global
- MAN3169-x EvacU ^{ELITE} EvacUWiz Plus Config Function FAQs – Global
- -x relates to document **version number**

2.2.2 Australian Standards

AS 4428.4	Fire Detection, Warning, Control, and Intercom Systems – Control and indicating Equipment. Part 4: Emergency intercom control and indicating equipment.
AS 4428.16	Fire Detection, Warning, Control, and Intercom Systems – Control and indicating Equipment Part 16: Emergency warning control and indicating equipment.
AS 7240.4	Fire detection and alarm systems Part 4 Power supply equipment
AS 1670.4	Fire Detection, Warning, Control, and Intercom Systems – System Design, Installation and Commissioning. Part 4: Emergency warning and intercom systems

3 System overview

3.1 General

The EvacU ^{ELITE} has been designed to meet the requirements of an Emergency Warning Control and indicating Equipment (EWCIE) and Emergency Intercom Control and Indicating Equipment (EICIE), conforming to AS 4428.4 and AS4428.16. The power supply component of the EvacU ^{ELITE} conforms to AS 7240.4

Certificates of Conformity from Activfire are available which verify conformance to AS 4428.4, AS 4428.16 (Grade 1) and AS 7240.4

The EWCIE and EICIE functionality are integrated on the EvacU ^{ELITE}

The EWCIE is the central component of an Emergency Warning System (EWS). Other components of an EWS are:

- Manual call points (MCPs)
- Loudspeakers
- Visual Alarm Devices (VADs)
- Warning equipment for people with hearing impairment
- Transmission path isolators (TPIs) – if fitted.

The EICIE is the central component of an Emergency Intercom System (EIS). Other components of an EIS are:

- Warden Intercom point (WIP) handsets
- Transmission path isolators (TPIs) – if fitted

Emergency Warning and Intercom System (EWIS) is a system where the Emergency Warning has been integrated with the Emergency Intercom.

The EvacU ^{ELITE} is capable of being arranged to function stand-alone or in a networked and/or distributed configuration.

3.2 Access levels

The product standards AS 4428.4 and AS 4428.16 define access levels for the indications and controls relating to mandatory functions. Section 6 details the controls and indicators and specifies the required access level.

There are four access levels.

Access level 1 – is used by persons having a general responsibility for safety supervision. All mandatory indications are visible at access level 1 – without prior manual intervention. This is achieved by viewing the indicator via the Perspex sheet fitted to the outer door of the cabinet. Refer to figure 4-1.

Access level 2 – is used by persons having a specific responsibility for safety and who are competent and authorised to operate the EvacU ^{ELITE} in the quiescent condition, emergency warning condition, fault warning condition, disabled condition, and test condition. Entry to access level 2 is achieved by opening the outer door by unlocked the 003 keyed door locks.

Access level 3 – is used by persons who are competent and authorised to re-configure the site-specific data held within the EvacU ^{ELITE} and maintain the EvacU ^{ELITE} in accordance with manufacturer's published instructions. Entry to access level 3 is achieved by entering a User ID and password on the touchscreen keypad. Opening the inner door by removing the securing screws gives access inside the panel allowing the programmer to plug into the DCPU mini-USB port.

Access level 4 – Used by persons who are competent and authorized by the manufacturer to either repair the EWCIE or alter its firmware, thereby changing its basic mode of operation. E.g. upgrading software pack.

4 System Description

4.1 General

The EvacU ^{ELITE} is a modular EWIS that consists of several cards supported in one or more universal rack frames, with a scalable power supply and graphical user interface, housed in a metal cabinet. The cabinet is available in two cabinet sizes: 13U and 24U.

Both cabinets can accommodate a FireFinder ^{PLUS} in the top section when a COMBO solution is required.

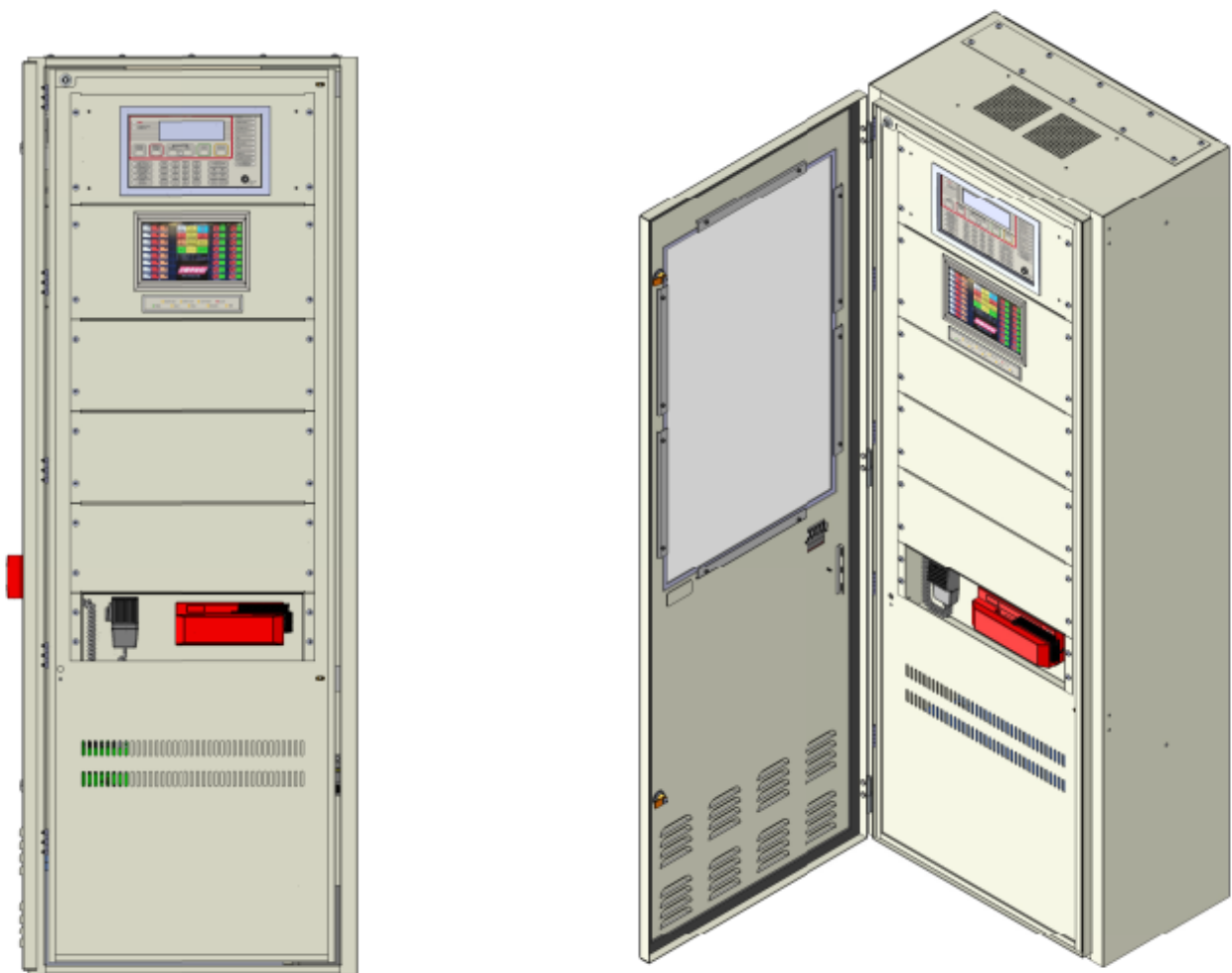


Figure 4-1 - EvacU ^{ELITE} and FireFinder ^{PLUS} 24U COMBO unit - external view.

Figure 4-1 above shows an external view of the EvacU ELITE and FireFinder PLUS. The cabinet size is 24U. Cabinet has been designed so all controls are 750mm from floor level.

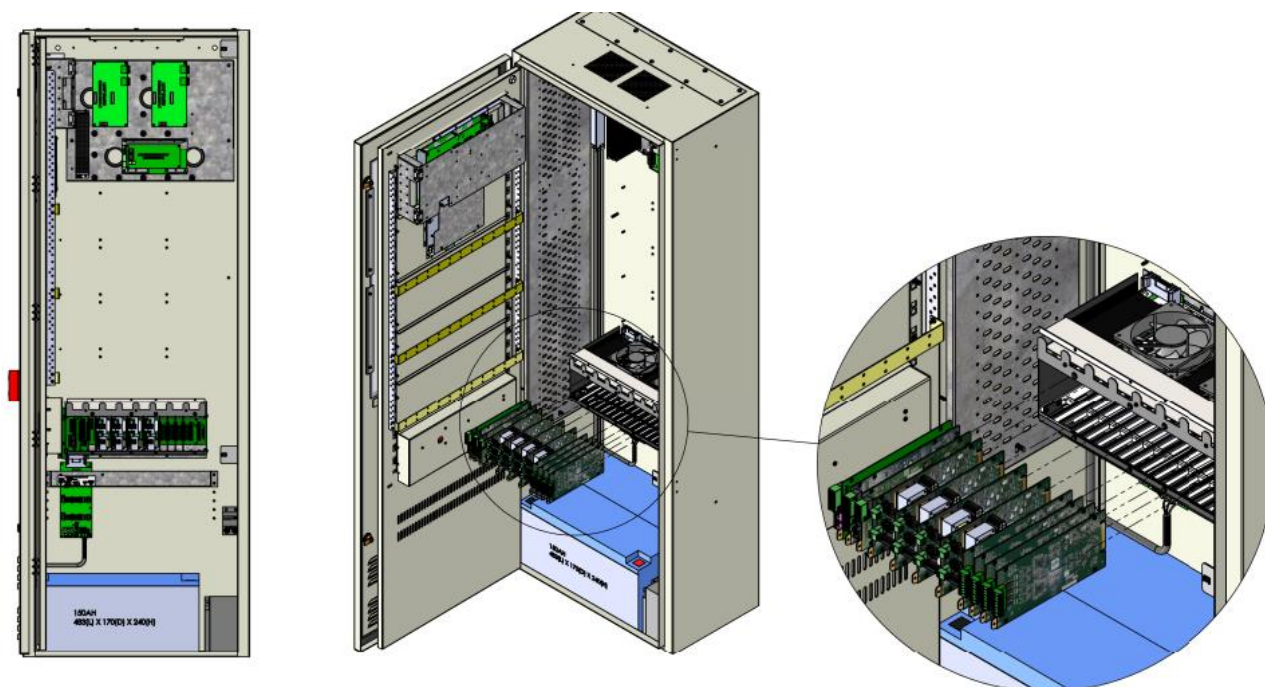


Figure 4-2 Evacu ^{ELITE} and FireFinder ^{PLUS} COMBO unit internal view.

Figure 4-2 shows the internal view of the Evacu ^{ELITE} and FireFinder ^{PLUS}. The cabinet size is 24U. This configuration shows a single universal rack frame with several cards fitted, scalable power supply and single graphical user interface fitted.

4.2 System Components

4.2.1 Universal Rack

Universal rack holds the various cards. Card types are:

Board ID	Abbreviation	Description
BRD63CPUx-A	DCPU	Distribution CPU (Mandatory for each rack)
BRD63CPUx-B	DCPU-B	Special Build DCPU Board used with PAIC and NIC for (Bosch Praesensa Interface)
BRD63NICx-A	NIC	Network interface card (attached to the DCPU in the first rack only)
BRD63MOCx-A	MOC	Multi-purpose output card
BRD63MICx-A	MIC	Multi-purpose interface card
BRD63LPAx-A	LPA	Dual 25W amplifier
BRD63LPAx-B	LPA	50W amplifier
BRD63HPAx-B	HPA	150W amplifier
BRD63ILCx-A	ILC	Quad radial EIS line card
BRD63LILCx A	LILC	Dual loop EIS line card
BRD63NICx B	PAIC	Public Address Interface Card (Bosch Praesensa)
BRD63AICx A	AIC	Audio Interface Card
BRD63GUIx C	RPC	Remote Paging Console (GUI)

The number and type of cards fitted to a rack depends on the site configuration.

The 24U cabinet can accommodate 5 universal racks and the 13U cabinet can accommodate 2 universal racks.

The rack is fitted with an all-purpose backplane. The back plane of the rack performs the following:

- Delivery of power to each card
- Communications between the DCPU and each slot for the transfer of control information and the streaming of audio.

Each rack has a dedicated DCPU slot and 16 slots for cards. The LPA and HPA each require 2 slots. The NIC when fitted occupies 1 slot adjacent to the DCPU.

4.2.2 Power Supply

Power supply consists of up to three power supply modules (the 13U cabinet can accommodate 2 power supply modules). The first module which is always fitted is the main and controls the charging of the batteries, and the second and third modules are secondary units which are fitted depending on the alarm current required for the cabinet (depends on the number and type of amplifiers fitted and the number of MOCs fitted)

Each power supply module consists of an off the shelf Meanwell power supply and an Ampac designed power control card.

4.2.3 Graphical User Interface (GUI)

The GUI provides the user interface via one or more colour touch screens and a LED membrane.

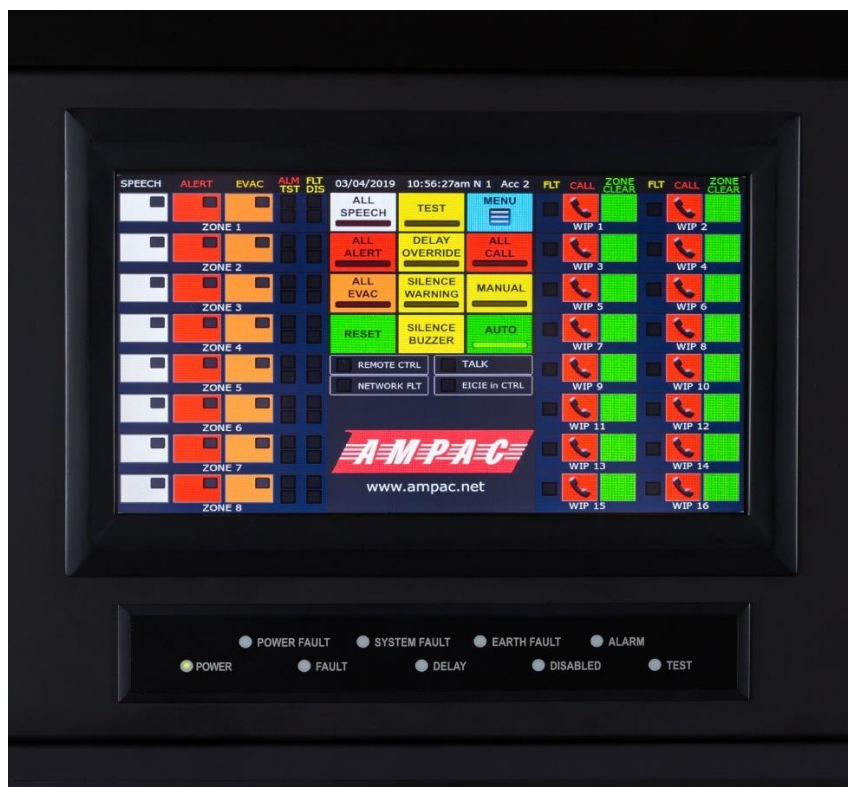


Figure 4-2 Main GUI and LED membrane.

The Main GUI has the system wide controls, and individual controls for emergency zones and WIP handsets – according to the site-specific data.

Where more individual controls are required, additional secondary GUIs are added. The 13U cabinet supports up to 4 GUIs and the 24U cabinet space supports up to 8 GUIs. Each Node may be configured with up to 20 GUIs maximum.

The LED membrane has dedicated indicators for system wide conditions.

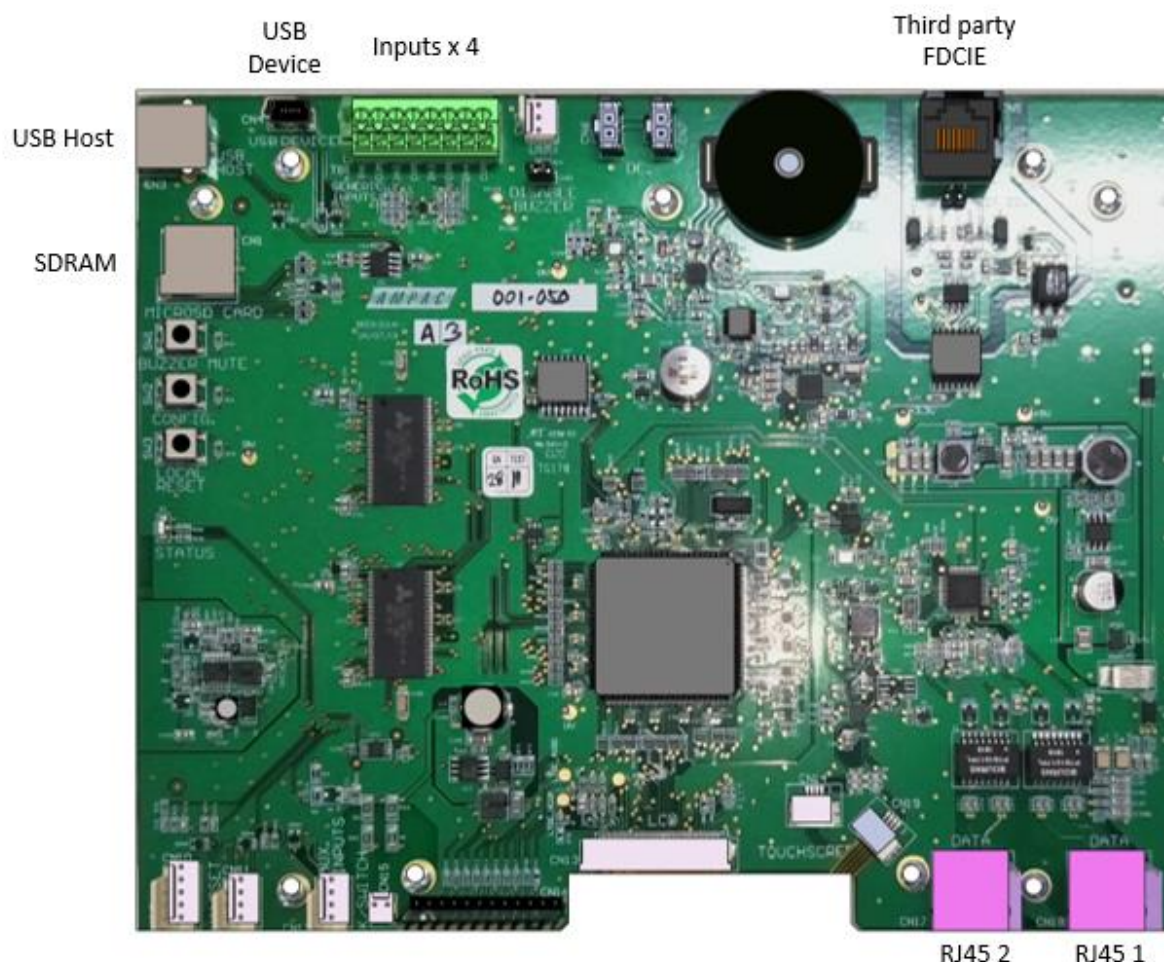


Figure 4-3 Graphical user interface

The touchscreen is a 9-inch TFT LCD 800 x 480 with LED backlighting and resistive touch screen.

USB Host	Used to update firmware and configuration files by USB Flash drive
USB Device	Connection to the PC Programming App
SDRAM	SDRAM card socket
Inputs x 4	The GUI inputs should not be used to connect external sources outside of EvacUElite. Use MIC for such applications - Inputs 1 & 2 are monitored c/w EOL selection and Action type available. - Inputs 3 & 4 are Not monitored (Action type available) When fitted: Input 1 is dedicated to the front panel MCP. Input 4 is dedicated to the door switch.
Third party FDCIE	Isolated RS 485 link to interface to third party FDCIE / Graphics interface
RJ45 1	Connection to Distribution CPU
RJ45 2	Connection to Slave GUI

4.2.4 Universal Rack Cards

4.2.4.1 Distribution CPU (DCPU)

Each rack has a dedicated slot for a DCPU.

The DCPU has the link to the GUIs and controls the cards in the rack frames by issuing commands and routing the required audio down the rack all-purpose back plane.

The DCPU fitted to rack 1 (closest to the power supply) is the main DCPU for the cabinet.



Figure 4-4 Distribution CPU

The distribution CPU provides the following connections:

Audio 1 & 2	Analog line level audio input (hot, cold and shield), 10kΩ impedance, max input +4dBu
Input 1 & 2	Supervised input, selectable EOL, common reference.
Relay 1	Double pole, single throw (1 x NO, 1 x NC, 2 x COM)
Relay 2 & 3	Single pole, double throw (COM, NO, NC)
Mini USB	For future use
RJ45 1	Provides a CAT5/6 ethernet connection to the front panel GUI
RJ45 2	Redundant CAT 5/6 ethernet connection to the front panel GUI / Remote paging console

4.2.4.2 Multi-purpose output card (MOC)

Occupies one slot.

Provides eight single ended supervised outputs, suitable for driving alarm warning devices such as strobes (VADs) or vibrating pads.

Each pair of outputs can be configured as a reverse polarity output, suitable for driving Ampac alert/evac strobes. Refer to section 8.3 for suitable alert and evac strobes.



Figure 4-5 Multi-purpose output card.

Outputs 1, 2, 3, 4, 5, 6, 7 and 8	Single ended supervised output/ paired output (voltage reversal), max 2 amps per output and 6 amps per card. Selectable EOL (3K3, 4K7, 10K). Output voltage range 12 to 28VDC.
-----------------------------------	--

4.2.4.3 Multi-purpose interface card (MIC)

Occupies one slot.

Provides eight supervised inputs, two relay outputs and a high-level interface to the Ampac FireFinder ^{PLUS} Add On Bus.



Figure 4-6 Multi-purpose interface card.

Input 1, 2, 3 and 4	Single ended inputs, common floating reference (max 30VDC) with selectable EOL (3K3, 4K7, 10K)
Input 5, 6 and 7	Differential inputs, individual floating reference (max 30VDC) with selectable EOL (3K3, 4K7, 10K)
Input 8	Differential input, with floating reference (max 30VDC) with fault feedback (user selectable resistance) <i>Can be connected to 3rd Party FIP (Warning System/VACIE Isolate (24V O/P) with fault monitoring between</i>
Relay 1 and 2	Single pole, double throw (COM, NO, NC), 48 VDC/30VAC, 0.5 A @30VAC
Serial	RS232C serial port, with CTS and RTS available. Currently unused
FACP	Add On bus connection to the Ampac FireFinder ^{PLUS}

4.2.4.4 Dual 25Watt Amplifier Card (LPA)

Occupies two slots.

Class D amplifier with 2 x 25-watt independent audio outputs with DC monitoring



Figure 4-7 Dual 25-watt amplifier.

Max Drive Voltage	100V rms @ full load
Distortion	$\leq 0.1\%$ @ 25Watt x2
Frequency Response (AS 4428.16)	400 Hz to 10kHz +/- 1dB w.r.t. 1kHz 200 Hz to 12kHz +/- 3dB w.r.t. 1kHz
SNR	≥ 70 db
Speaker Circuit Monitoring	DC, nominal 47k Ω

4.2.4.5 50Watt Amplifier Card (LPA)

Occupies two slots.

Provides one 50watt audio output with DC monitoring.



Figure 4-8 50-watt amplifier.

Max Drive Voltage	100V rms @ full load
Distortion	$\leq 0.1\%$ @ 50 Watt
Frequency Response (AS 4428.16)	400 Hz to 10kHz ± 1 dB w.r.t. 1kHz 200 Hz to 12kHz ± 3 dB w.r.t. 1kHz
SNR	≥ 70 db
Speaker Circuit Monitoring	DC, nominal 47k Ω

4.2.4.6 150Watt Amplifier Card (HPA)

Occupies two slots.

Provides one 150watt amplifier with an integrated 4way audio splitter. Each audio output is individually switchable, and DC supervised with a nominal 47k Ω .

Audio output #1 is rated at 150watt, and the remaining audio outputs (2, 3 and 4) are rated at 75watt.

One BGM Source can be configured per 150-Watt Amplifier

Eight 150-Watt amplifiers can be fitted into each Universal rack.

Maximum of 20 per node (assuming no other modules are fitted)

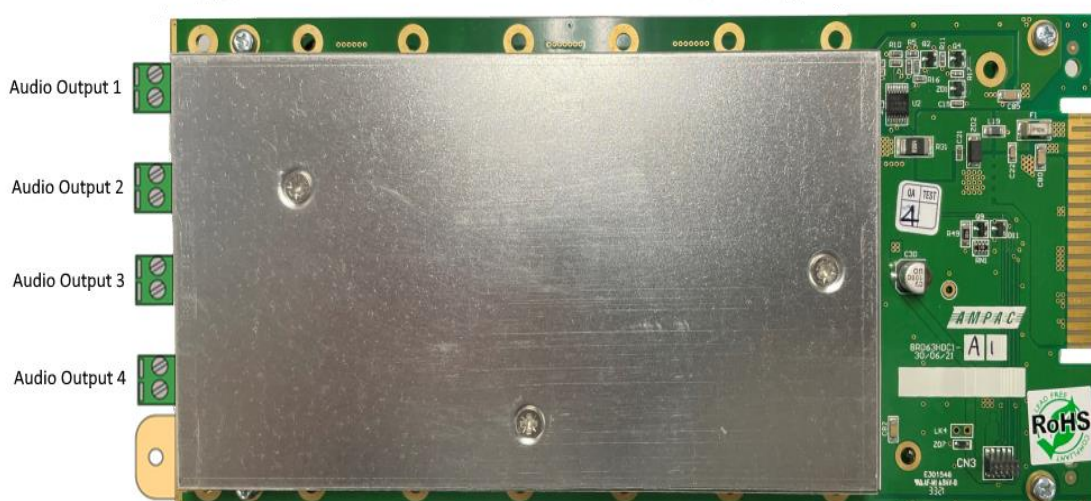


Figure 4-9 150-Watt Amplifier card

Max Drive Voltage	100V rms @ full load
Distortion	$\leq 0.3\%$ @ 150-Watt x 1
Frequency Response (AS 4428.16)	400 Hz to 10kHz ± 1 dB w.r.t. 1kHz 150 Hz to 12kHz ± 3 dB w.r.t. 1kHz
SNR	≥ 70 db
Speaker Circuit Monitoring	DC, nominal 47k Ω

4.2.4.7 Quad Radial EIS line card (ILC)

Occupies one slot.

Provides 4 individually supervised interfaces to a handset and associated manual call point.



Figure 4-9 Quad radial EIS line card.

WIP handset 1, 2, 3 and 4	Four Inputs for Ampac EvacU ^{ELITE} WIP handsets (polarity insensitive). Up to 2 Ampac MCPs can be connected to each handset.
Cabling recommended	1.5mm ² 2 Core for cable runs <1km. Refer install manual 0.75 ² mm 2 Core for cable runs <250m. Max length 1 km, line impedance 600Ω, bandwidth 3K4 Hz.

4.2.4.8 Dual Loop EIS line card (LILC)

Occupies one slot.

Provides 2 individually supervised fault tolerant loop interfaces for handsets and associated manual call points.

Each loop supports up to 20 handsets with associated manual call points.



Figure 4-10 Dual loop EIS line card.

LOOP 1/2 IN/OUT	Inputs for Ampac EvacU ^{ELITE} Loop WIP handsets. Up to 2 Ampac MCPs can be connected to each handset. Max of 20 handsets per loop.x 2
Cabling recommended	1.5mm ² 2 core Unscreened Twisted Pair for loops up to 1000m , with 8-10 twists per meter minimum 0.75mm ² 2 core Unscreened Twisted Pair for loops up to 400m, with 8-10 twists per meter minimum Note: Using Screened & Twisted 1.5mm cable (instead of unscreened) on Loop WIPs reduces Loop distance capacity to 480m.

4.2.5 Networking

4.2.5.1 General

The EvacU^{ELITE} is capable of being arranged to function stand-alone, networked or a distributed configuration.

For a networked or distributed configuration, a Network Interface Card (NIC) is required.

The NIC supports the fault tolerant (loop topology) connectivity between cabinets.

There are 4 different physical communication links supported:

- RJ45 Ethernet connection – where the cabinets are 100m or closer together – using CAT 5e/6 UTP type cable.
- 2 Core Copper 0.75mm² *Shielded & Twisted pair* with a *minimum* of 8-10 twists per meter suitable for distances up to 750m using Flex DSL SFP technology. Requires SFP OEM 3105 x 2
- Multi-Mode Fibre optic – using dual fibre for distances up to 550m. Requires SFP OEM3097 x2
- Single Mode Fibre optic – using single fibre (OEM3095 and OEM3096) or dual fibre (OEM3094 x 2) for distances up to 10,000m.

Note VDSL SFPs OEM 3087* and 3088* modules were made obsolete by the manufacturer.

*Used on EvacUElite copper networks from product release in 2021 until June 2025

Side A	Side B	Description
OEM3105	OEM3105	Flex DSL – 2 core copper cable for distances up to 750m
OEM3094	OEM3094	Single mode dual fibre – for distances up to 10,000m
OEM3095	OEM3096	Single mode single fibre – for distances up to 10,000m
OEM3097	OEM3097	Multi-mode dual fibre – for distances up to 550m

A network can be a mixture of the above physical communication links.

4.2.5.2 Network Interface Card (NIC)

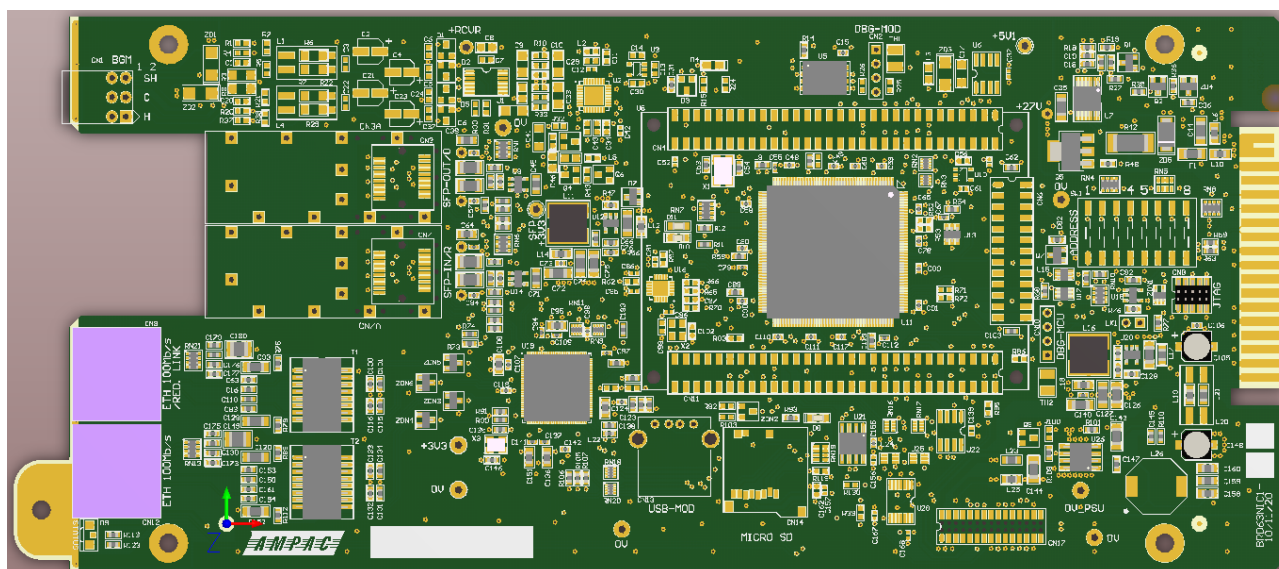
The NIC is connected to the DCPU to form a two-card stack. The NIC occupies slot 1 of the rack.



Figure 4-11 Network interface card

Audio 1 & 2	Analog line level BGM audio input (hot, cold and shield), 10kΩ impedance, max input +4dBu
SFP Transceiver 1 & 2	These are small form-factor pluggable (SFP) transceiver sockets
Ethernet 1 & 2	Ethernet RJ45 connectors

4.2.6 Public Address Interface Card PAIC – Bosch Praesensa HLI Interface



Please refer to the installation manual **MAN3137-X** and **Bosch CSIRO** application note specific to this interface for more details.

The PAIC board is a NIC Card variant (Option B) which contains less components.

The configuration procedure is explained later in this manual MAN 3142

4.2.7 Remote Paging Console

4.2.7.1 General

The remote paging console (RPC) is a field connected ancillary device configured to the EWIS system.

The unit consists of a desk mounted **RPC GUI Touchscreen'** with a gooseneck microphone.

It provides additional **Public address system'** features using the EWIS speaker system. Paging Consoles are treated as a secondary priority (Ancillary item) which get overridden during Emergency Alarm events.

Each RPC is configured to control specific **Paging Zones** and or **Paging Groups** defined within the Node tree.

RPC units connect to an Ethernet port on the main DCPU Rack 1

Section 6.17 elaborates further.

Also, [MAN 3137-x](#) EvacUElite Installation and Commissioning

[MAN 3189-x](#) RPC Operators User Manual

[MAN 3190-x](#) RPC Installation Guide

5 Configuring a system

5.1 General

Following is the power up screen of the application.

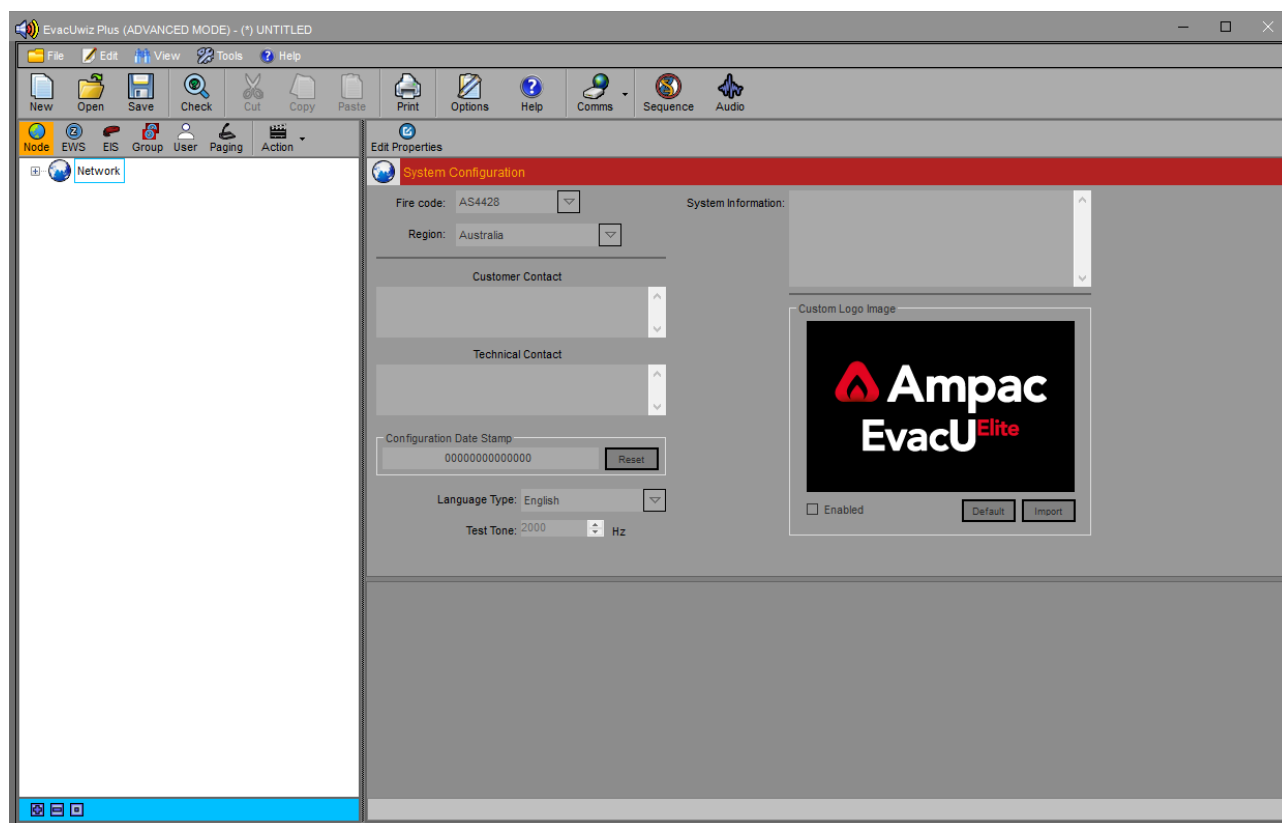


Figure 5-1 Power Up Screen

The screen is broken into several sections, as follows:

- Menu bar – situated at the top of the screen and has the drop-down menus.
- Tool bar – situated below the menu bar and has the common commands (available from the drop-down menus) and tools for creating sequences and audio streams.
- Tree View - located on the left-hand side of the screen below the Tool bar. Displays five different views of the system (Nodes, Emergency Warning System (EWS), Emergency Intercom System (EIS), Groups and Users) and has a dedicated tool bar to select the view.
- Properties view – located on the right-hand side screen below the Tool bar and displays the properties of the item currently selected in the tree view.
- Action menu – provides context sensitive commands, based on the selected item in the tree view.
- List view – located below the Properties view and displays a list of items at the same hierarchy as the selected item.

5.2 Menu Bar

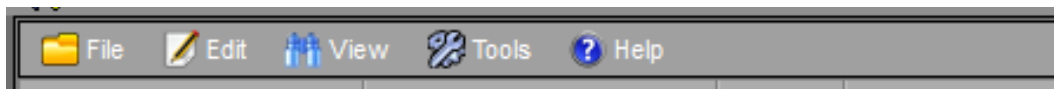
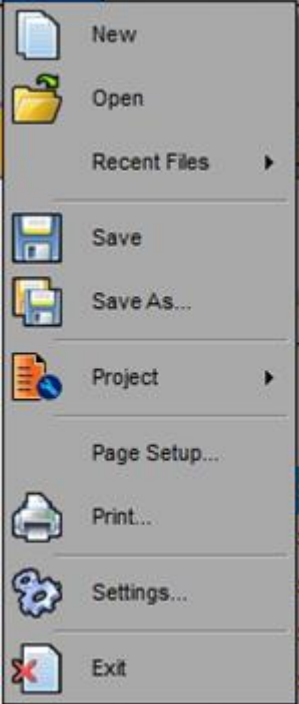


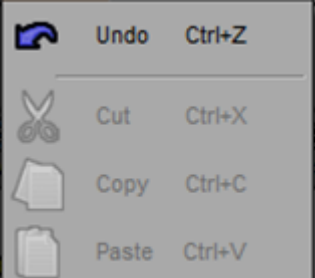
Figure 5-2 Menu Bar

Has menus for File, Edit, View, Tools, and Help

5.2.1 File menu.

	New – creates a configuration file. File type is Ampac XML. Open – to open an existing configuration file in Ampac XML format. Recent Files – quick access to recently opened configuration files. Save – save current configuration file. Save As – save the current configuration file to a different file name. Project – has options to export the Ampac XML format file in binary format (suitable for downloading to the EvacU^{Elite}), to import a binary file, to convert a binary file to Ampac XML and convert from Ampac XML to binary format. Page Setup – for printing Print – the current configuration file. Settings – nothing implemented at this stage. Exit – exit the application.
--	---

5.2.2 Edit menu.

	Undo – undo the last change. Cut – remove the highlighted section and copy to the clipboard. Copy – copy the highlighted section to the clipboard. Paste – paste the contents of the clipboard.
---	---

5.2.3 View menu

Not implemented.

5.2.4 Tools

Displays the Options dialog box:

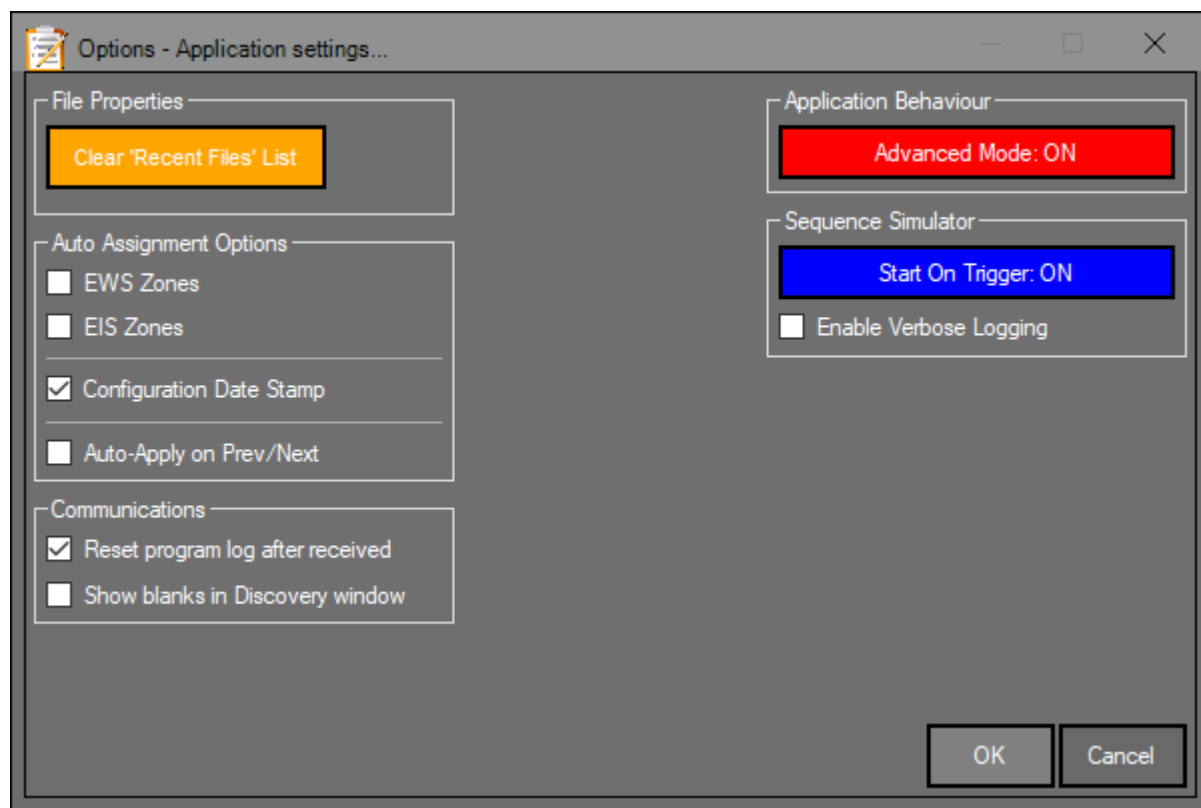


Figure 5-3 Option Dialogue Box

Options dialog box to:

- Clear recent file list
- Enable auto assignment of EWS zones.
- Enable auto assignment of EIS zones.
- Add a date stamp to the configuration file.
- Application behaviour – switches Advanced mode On and Off. Advanced mode allows editing of advanced parameters. Advanced parameters are highlighted throughout the manual by the

Available in Advanced Mode Only

following.

In **Advanced Mode** users see the full range of settings available and more on-screen information

5.3 Tool Bar

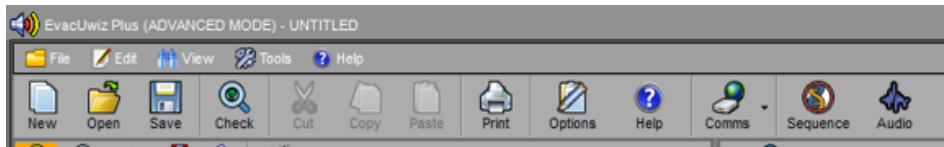


Figure 5-4 Tool Bar

New – creates a configuration file. File type is Ampac XML.

Open – to open an existing configuration file in Ampac XML format.

Save – save current configuration file.

Check – Check the current project configuration file for errors.

Cut – remove the highlighted section and copy to the clipboard.

Copy – copy the highlighted section to the clipboard.

Paste – paste the contents of the clipboard.

Print – the current configuration file.

Options – Displays the option dialogue box – refer section 5.2.4.

Help – Displays the help file.

Sequence – launch the sequence handler, refer section 12.0 Sequencing.

Comms – Open a communications window with the target system.

Audio – create audio streams – refer to section 11.0 Audio

5.4 Tree View

The Tree View has the following tool bar.



The Node control displays the system hardware and allows editing of the hardware. Refer to section 5.5.1.

The EWS control displays the emergency zones and allows zones to be added, deleted, and edited.

The EIS controls display the EIS Zones (WIP handsets) and allows handsets to be added, deleted, and edited.

The Group control displays the groups configured in the system and allows groups to be added, deleted, and edited.

The User control displays the users configured in the system, and allows users to be added, deleted, and edited.

The Paging control displays the Paging Zones and Paging Groups configured in the system and allows paging zones or groups to be added deleted and edited.

The Action control is context sensitive to the selected item in the tree view.

5.5 Properties View

The Properties view displays the properties of the item selected in the tree view. There are several items in the system:

5.5.1 Node

Have the following items for node **Additions to be released in future software updates.*

Tree View	Name
Network	System Configuration
Network->Audio	Audio Configuration
Network->Node (1...64)	Node Configuration
Network->Node (1...64)->LCD Touchscreen->GUI (1...20)	GUI Configuration
Network->Node (1...64)->Modules->Rack (1...5)	Rack Configuration
Network->Node (1...64)->Module ->Rack (1...5)->Slot (1...16)	Dual 25W Amplifier 50W Amplifier 150W Amplifier Multi-Purpose Output Card (MOC) Multi-Purpose Interface Card (MIC) Quad Radial EIS Line Card (ILC) Dual loop EIS Line Card (LILC) Bosch Praesensa (PAIC) * Audio Interface Card (AIC)*
Network->Node (1...64)->Network Interface Card	Network Configuration
Network->Node (1...64)->Power Supply->Primary	Power Supply Configuration
Network->Node (1...64)->Power Supply->Secondary (1...2)	Power Supply Configuration
Network->Node (1...64)-> Remote Paging Consoles (1-8) *	Remote Paging Consoles*
Network->Node (1...64)->SmartView *	SmartView Interface*
Network->Node (1...64)->Virtual Inputs	Virtual Inputs Configuration (VIN)

For further detail, refer to section 6.0.

5.5.2 EWS

Displays the properties for the emergency zones. Refer to section 7.0.

5.5.3 EIS

Displays the properties for the emergency intercom handsets. Refer to section 8.0.

5.5.4 Groups

Displays the properties for the groups – collection of emergency zones. Refer to section 9.0.

5.5.5 Users

Displays the properties for users. Refer to section 10.0.

5.5.6 Paging

Displays the properties for Paging. Refer to section 6.17 and section 11.

5.5.7 Action.

Is a context sensitive menu – which displays menu which is the same as right clicking on the selected item in the tree view.

For example, if the tree view is displaying Node, and a node is selected, then the Action menu is the same as right clicking on the Node image. If the LCD Touchscreen is selected, then the Action menu is same as right clicking on the LCD Touchscreen image.

5.6 List View

See Fig 5-6. The list view displays a list of items at the same hierarchy as the selected item in the Properties View.

This example shows how a **'Rack'** is software configured and explains which slots are consumed by each module type between (rack slots 1 -16)

This is based on the Rack and Node you are viewing.

In list view it is possible to **Edit & move modules around** to reconfigure the rack slots or other configured Properties E.g. Nodes, LCD Touchscreens GUIs, Racks, PSU modules.

In doing so any field 'input data' you have already entered (E.g. Zone numbers and check boxes) are retained and will follow the module.

You can also use List Views to copy existing nodes (and paste) to quickly build a larger configuration.

Right clicking within the list displays the following menu:

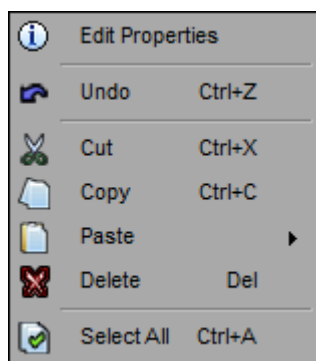


Figure 5-5 List View Menu

This menu allows management of the items displayed in the list.

For example, if a module in a rack is selected in a properties view, then the list view will show all modules in the rack. See figure 5-6.

Node	Rack	Slot		Module Type	Descriptor
01	1	1		Not Available	
01	1	2		Dual 25W Amplifier	Dual 25W Amplifier
01	1	3			
01	1	4		50W Amplifier	50W Amplifier
01	1	5			
01	1	6		150W Amplifier	150W Amplifier
01	1	7			
01	1	8		Multi-Purpose Interface Card	Multi-Purpose Interface Card
01	1	9		Multi-Purpose Output Card	Multi-Purpose Output Card
01	1	10		Public Address Interface Card	Public Address Interface Card
01	1	11		Interface Line Card	Intercom Line Card
01	1	12		Interface Line Card	Intercom Line Card
01	1	13		Interface Line Card	Intercom Line Card
01	1	14		Loop Interface Line Card	Loop Intercom Line Card
01	1	15		-	
01	1	16		-	

Figure 5-6 List view of modules in a rack.

Using the menu (figure 5-5), modules can be cut, copied, pasted (appended to the end or inserted into the list or over existing entry) and deleted. There is also an undo selection.

The descriptor can be edited from the List View

This applies to Nodes, LCD Touchscreens, Racks, Modules in a rack, and Power supplies.

Node	Name	Networked	Racks	GUIs	Amplifiers	Modules
01	Node 1	☒	2	2	3	7
02	Node 2	☒	2	1	3	7

Figure 5-7 List view of nodes.

Node	Index	Name	Master	Inputs	W/P
01	01	Touch #1	☒	4	0
01	02	Touch #2	☐	0	0

Figure 5-8 List view of LCD touchscreens (GUIs)

Node	Index	Slots	Modules	Inputs	Outputs
01	1	13	10	4	3
01	2	0	0	4	3

Figure 5-9 List view of Universal racks.

Node	Name	Module Type	Max Power
01	Main supply	Primary	1200
01	Secondary #1	Secondary #1	1200
01	Secondary #2	Secondary #1	1200

Figure 5-10 List view of Power supplies.

6 Node

6.1 General

The Node view is selected via the Node on the Tree View Tool Bar. Refer to figure 6-1.

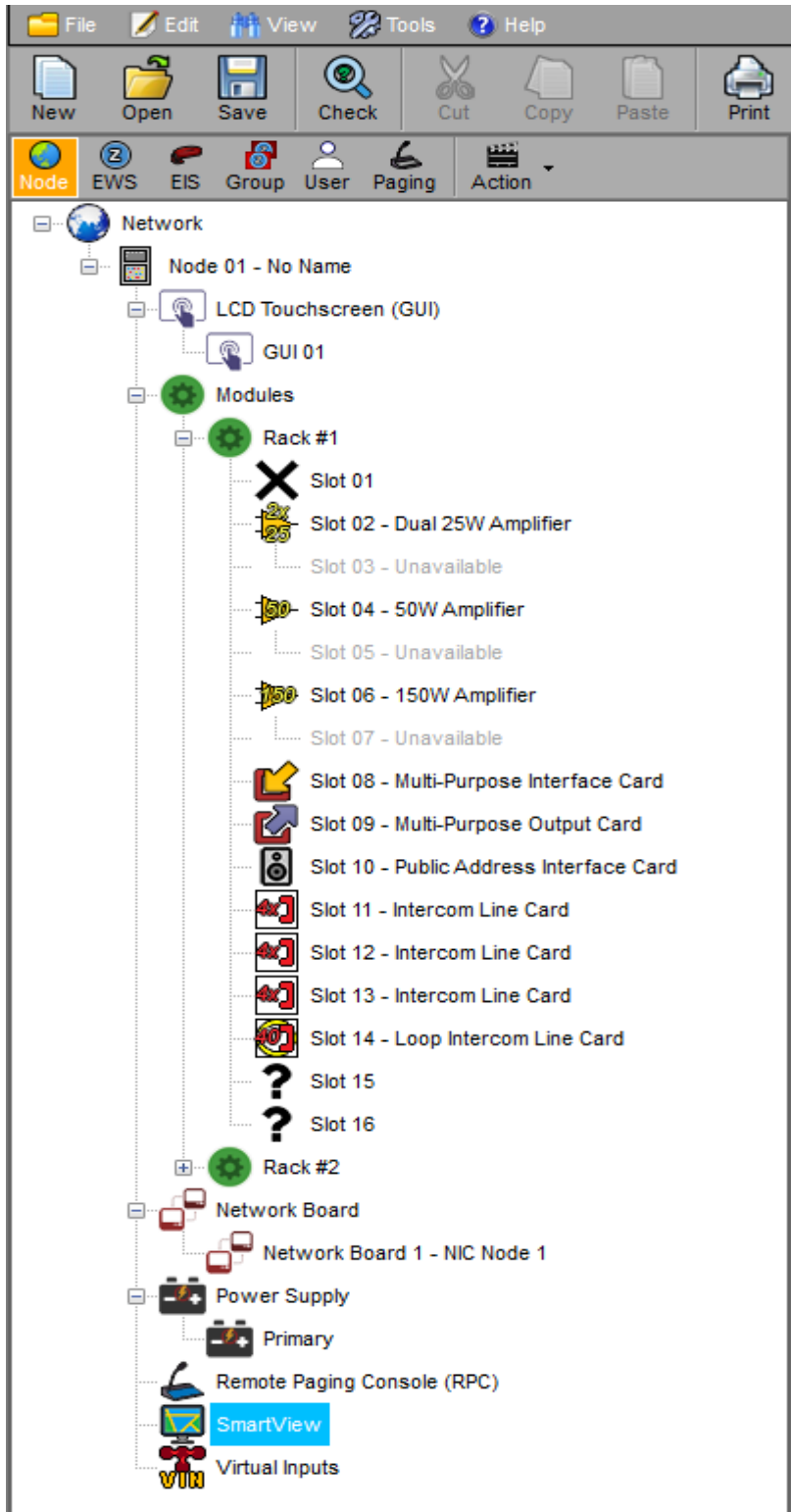
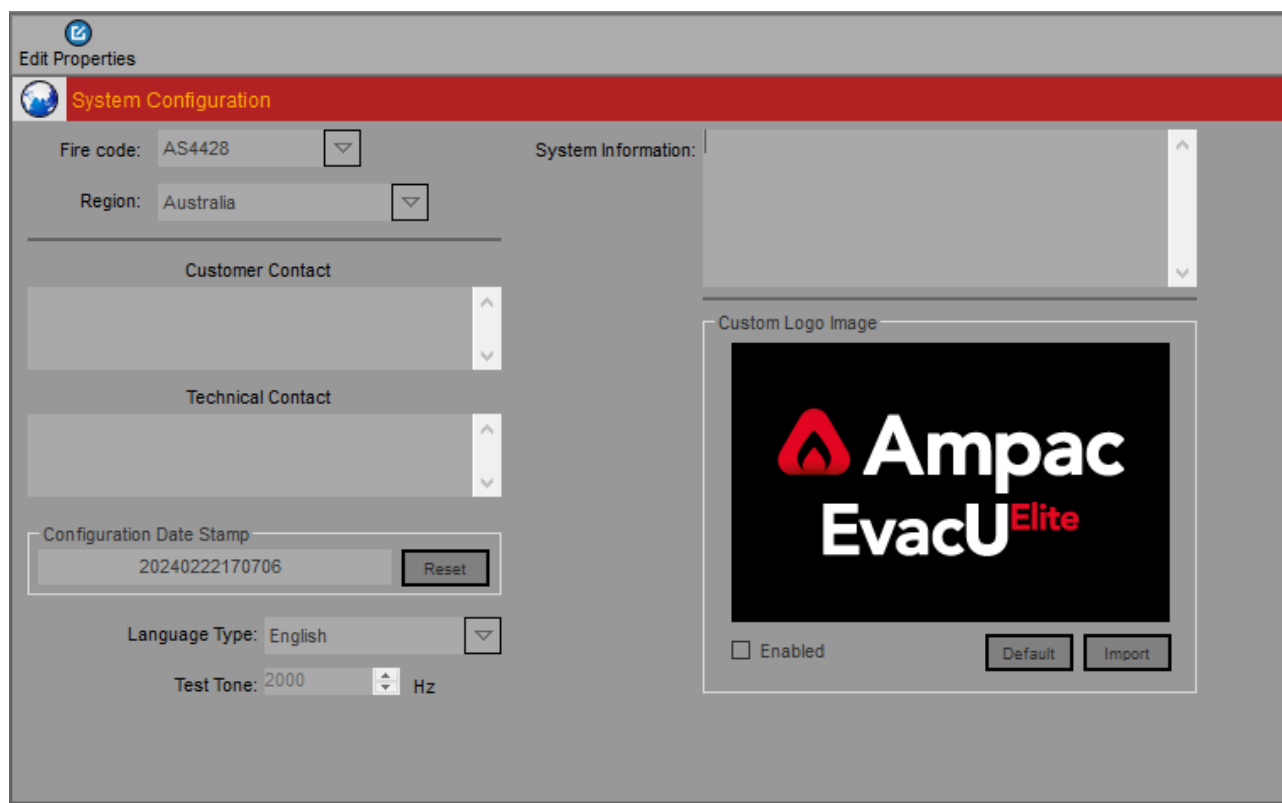


Figure 6-1 Node tree view

6.2 System configuration

To display the System configuration, select the Network icon  in the tree view.

Following is the dialogue box associated with the system. Refer to figure 6-2.



The image shows a 'System Configuration' dialogue box. It has a title bar 'Edit Properties' and a red header 'System Configuration'. The main area is divided into several sections: 'Fire code:' with a dropdown menu showing 'AS4428'; 'Region:' with a dropdown menu showing 'Australia'; 'Customer Contact' with a text input field; 'Technical Contact' with a text input field; 'Configuration Date Stamp' with a text input field showing '20240222170706' and a 'Reset' button; 'Language Type:' with a dropdown menu showing 'English'; 'Test Tone:' with a text input field showing '2000' and a 'Hz' unit; 'System Information:' with a large text input area; and 'Custom Logo Image' with a preview of the Ampac EvacU Elite logo, an 'Enabled' checkbox, and 'Default' and 'Import' buttons.

Figure 6-2 System configuration dialogue box.

Provides the following editable fields:

Fire Code – Can be set to EN54 for Europe, AS 4428 for Australia and NZS4512 for New Zealand

Customer Contact details – entered as text.

Technical Contact details – entered as text.

Configuration Date Stamp – generated automatically.

System Information – entered as text.

The above information is displayed on the help screen of the EvacU ^{ELITE}

Custom Logo Image – to be displayed on the main GUI, has an enable tick box and option to upload a graphics file (BMP, JPG, PNG)

Important A compatible **Logo image (physical size of image 259x 91)** must be loaded otherwise it may cause problems.

A new version **Ampac Brand Logo** (shown above) can be imported to update an older Brand logo

Refer to file Ampac EvacUElite 259x 91.bmp

6.3 Audio configuration

When using V1.2.2.X EvacUWiz Plus or later version, the Audio Channels are **automatically created**.

Channels get assigned to every zone you create in the config file.

The EvacUWiz Plus tool optimises the Qty of Audio channels based on the number of amplifiers; racks; nodes; and EWS control widgets you configure.

In most systems all channels deliver **the same audio stream sources** so the default settings will usually suffice for most projects without alterations (Alert, Evac, and Test streams) Transparent may be used for an alternative message stream (E.g. Lockdown, Test or False alarm message)

You can configure exceptions quickly when you need an alternative stream on a specific amplifier(s)

Check the **Sound Profile** shown on each Amplifier O/P

This detail is shown on each amplifier respectively.

You can edit the sound profile to suit your needs.

*The amp configuration below indicates the **sound file installed** should comprise of 4 audio streams *

Sound Profile						Select Previous
Evac	Alert	Test	Transp	Fault	Active	
1	2	3	4	0	0	

- **Review Amplifier Mapping** summary below

Notice the Actions column RHS which summarises what streams are involved with each amplifier.

Go Tools / Amplifiers / Expand All.

Notice Audio **Channel** Number and any **BGM ID Source Paging** or **Groups** assigned to each.amplifier

Amplifiers - System Display									
Location	Amplifier	Output	Zone	Group	Paging Zone	BGM	Channel	Actions	
N:01,R:1,S:02,O:0	AMP 2x25W - Du...								
N:01,R:1,S:02,O:1		Output 1	1	0	0	0	1	ALRT.EVAC.TRAN.SPCH.TEST.TONE	
N:01,R:1,S:02,O:2		Output 2	1	0	0	0	1	ALRT.EVAC.SPCH.TEST.TONE	
N:01,R:1,S:04,O:0	AMP 50W - 50W ...								
N:01,R:1,S:04,O:1		Output 1	1	0	0	1	1	ALRT.EVAC.SPCH.TEST.TONE	
N:01,R:1,S:06,O:0	AMP 150W - 150...								
N:01,R:1,S:06,O:1		Output 1	1	0	0	0	1	ALRT.EVAC.SPCH.TEST.TONE	
N:01,R:1,S:06,O:2		Output 2	1	0	0	0	1	ALRT.EVAC.SPCH.TEST.TONE	
N:01,R:1,S:06,O:3		Output 3	1	0	0	0	1	ALRT.EVAC.SPCH.TEST.TONE	
N:01,R:1,S:06,O:4		Output 4	1	0	0	0	1	ALRT.EVAC.SPCH.TEST.TONE	

Expand All

Collapse All

Export

(Group: Global Status = 1000)

Close

Streams are collections of audio samples. E.g. An approved tone followed by a verbal action message.

Refer section 12 how to use **Audio Editor** to construct a stream from one or more samples and assign an ID.

Each audio channel supports 4 states, and each state has an associated stream.

The states are:

- Evac – Evac condition stream,
- Alert – Alert condition stream
- Transparent – Used for “Bespoke tone/ Message Streams
- Test – Test Tone stream

The (node rack and slot) detail the amplifier location. Each universal rack can support up to 32 audio channels.

E.g. Eight amplifiers having four streams each.

6.4 Node configuration

To display the node configuration, select the Node icon  Node 01 - No Name in the tree view.

To add, delete or edit a node, right click on the Node icon  Node 01 - No Name

Following is the dialogue box associated with each node in the system.

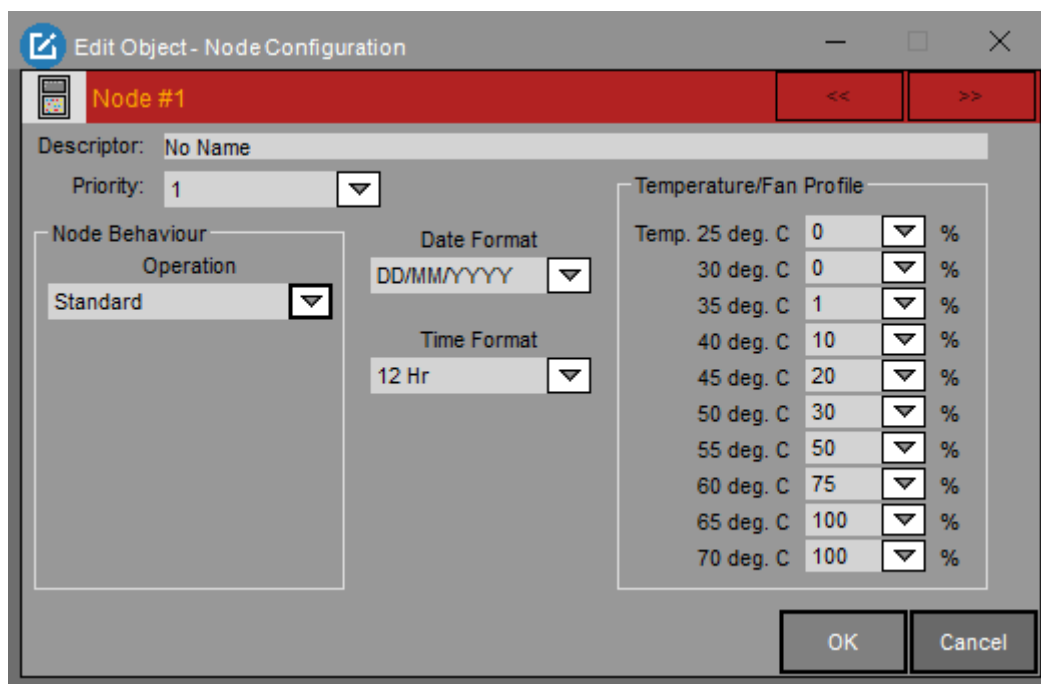


Figure 6-3 Node configuration dialogue box

Each node in the system can be configured as follows:

Descriptor – Unique descriptor string

Priority – sets the priority of the node. This is used when the system is in manual (EWS) and when multiple master EIS handsets are off hook.

Update Behaviour – not functional.

Errors – not functional

Date Format – Sets the required date format from the drop-down box.

Time Format – Sets the required time format from the drop-down box.

Available in Advanced Mode Only

Temperature / Fan profile – Controls the running profile of the fans with respect to cabinet temperature.

The fans will activate when the ambient temperature inside the cabinet exceeds 35 deg C.

6.5 GUI configuration

To add GUIs to the node, right click on the LCD Touchscreen icon  and select Add GUI. The first GUI to be added is labelled GUI 1 and is the primary GUI. Subsequent GUIs (2 thru to 7 are the secondary GUIs.

To display the GUI configuration, click on the appropriate GUI icon  .

6.5.1 Primary GUI

The primary GUI of the node has an associated dialogue box as follows:

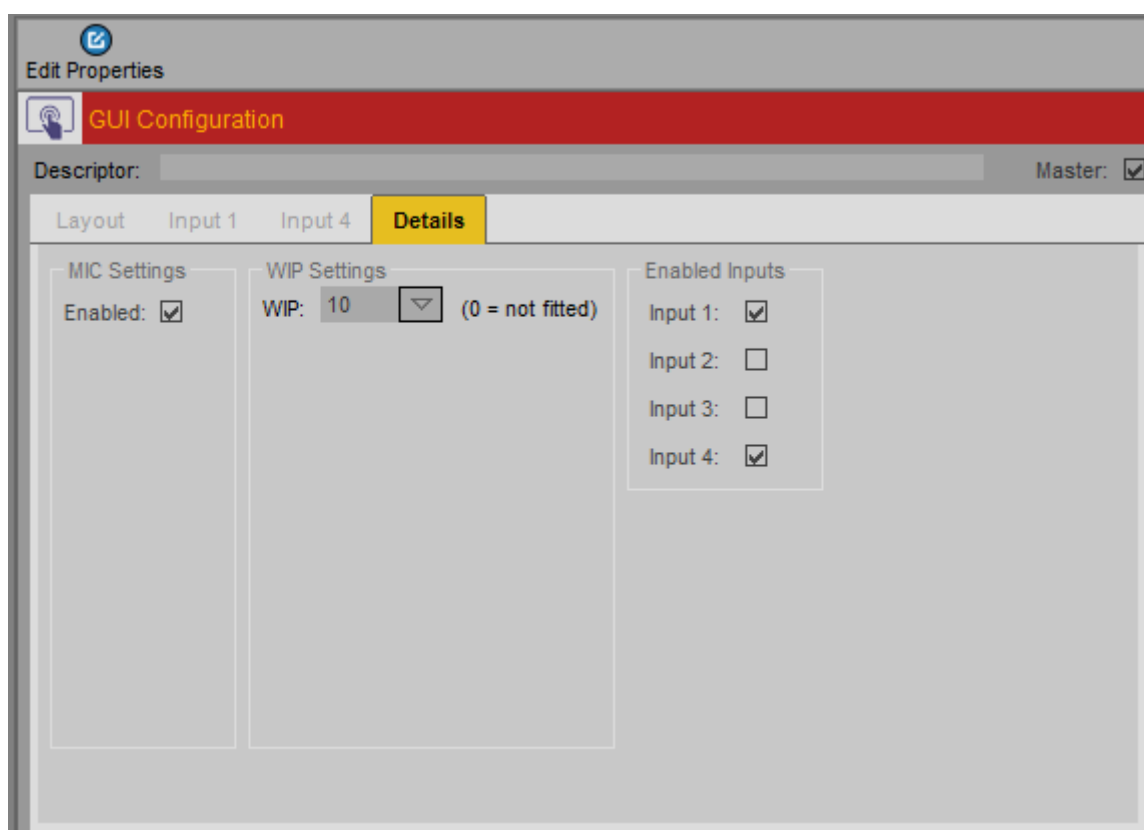


Figure 6-4 Primary GUI dialogue box

The DETAILS tab allows the following properties to be edited:

- Emergency microphone enable.
- Master WIP handset enable.
- In the WIP Settings field. Insert the **Master WIP ID** number for this panel (EIS Widget Number)
- 4 digital inputs can be enabled on the GUI.

If the inputs are enabled, then tabs for INPUT 1 thru to INPUT 4 will be displayed. If an input is not enabled, then it's tab will not appear.

- GUI inputs should not be connected to external sources. **If external configure MIC inputs instead.**
- GUI Input 1 is used for Panel MCP function (when fitted) Configure Latching
- GUI Input 4 is used for Panel Door switch (when fitted) Configure Non-Latching
Refer Fig 6-6 to see how Door switch is configured.

6.5.1.1 Layout Tab

The LAYOUT tab allows the display of the GUI to be configured. The GUI display is broken into 3 sections, and each section can be configured individually for EWS, EIS or CONTROL via a drop-down box. Refer to Fig 6-5.

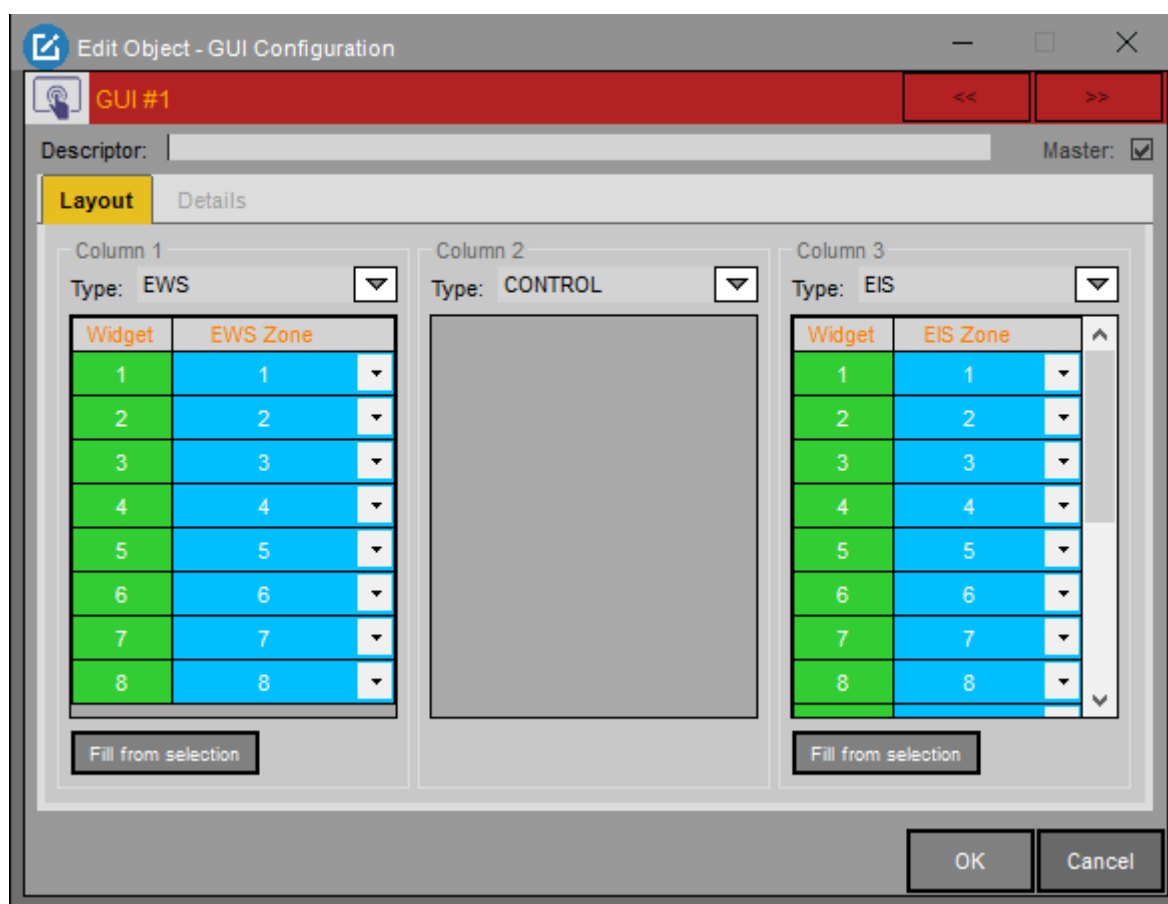


Figure 6-5 GUI Display configuration.

The EWS has 8 entries, and each entry is assigned to an emergency zone.

The EIS has 16 entries, and each entry is assigned to a WIP handset.

The middle section within the primary GUI shown above is assigned to CONTROL.

The CONTROL contains the system wide controls and provides access to the MENU system. By default, this is assigned to the middle section.

Note. In some cases, customers choose to ONLY **display Master controls** on the Primary GUI.

This provides user benefits because when the user accesses the panel **Menu**, they **do not** lose visibility of any EWS or EIS control widgets. In the case above you would lose sight of the widgets detailed left and right when the master controls are used

6.5.1.2 Input Tab

The INPUT tab allows the inputs to be configured. Refer to Figure 6-6

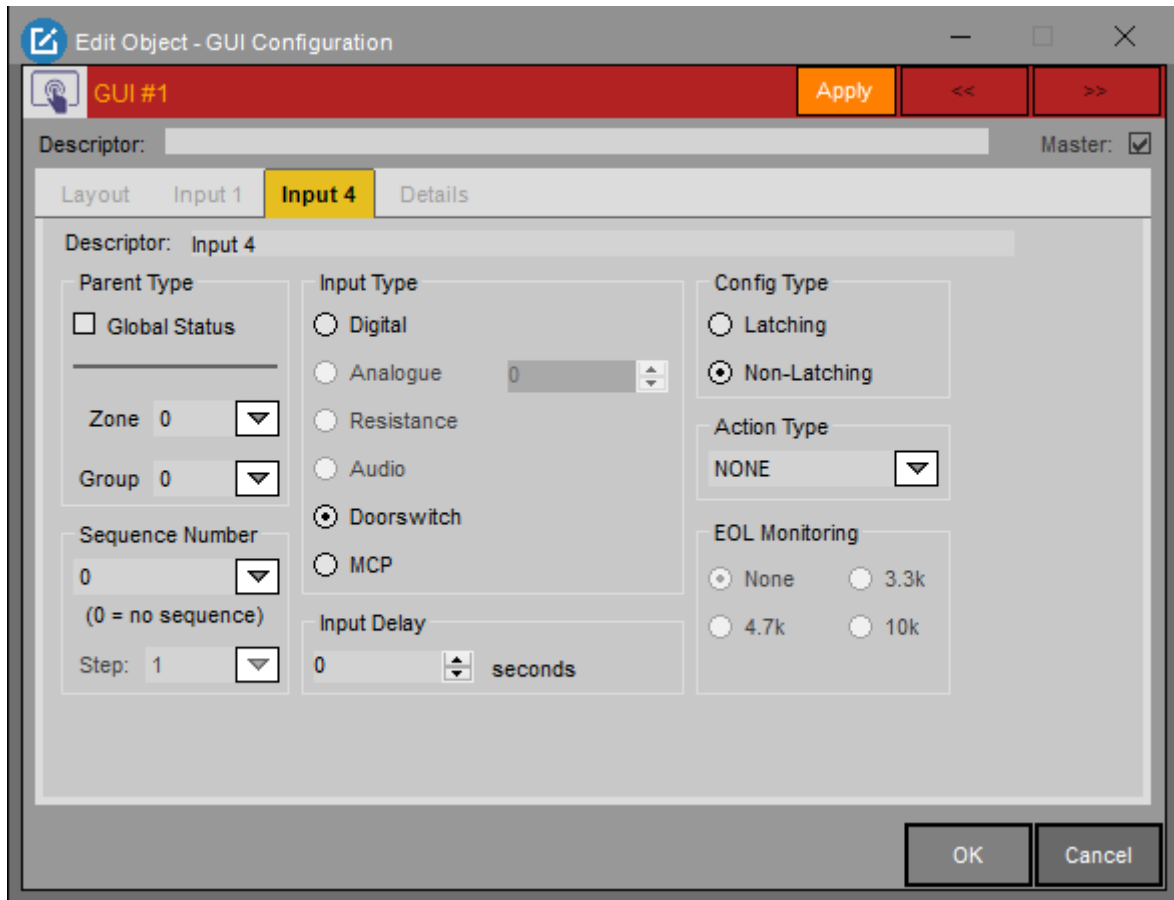


Figure 6-6 Input configuration

Each input (whether it's a MIC a DCPU or a GUI) has the following common **configuration properties**:

Descriptor – text field

Zone Number – can be assigned to a zone – via a drop-down box.

Group Number – can be assigned to a group number – via a drop-down box.

Sequence Number – can be assigned to trigger a sequence. Sequence and the step within the sequence is specified via a drop-down box.

The inputs on the GUI are digital, so they can be assigned to the type:

- Digital
- Door switch (used for access levels)
- Front panel MCP

The input can be assigned a delay – before the input is recognised as being activated. Delay is specified in seconds.

Input can be configured as:

- Latching – where the input remains activated until the system is reset.
- Non latching – where the input can self-reset.

Action type – is the activated condition of the input. Options available from drop down box:

- None – Select when programming the Door Switch
- Active – generates an active condition – ***not used in the current implementation.***
- Alert – generates an alert condition – used if the input is assigned to a sequence, zone, or group.
- Evac – generates an evac condition – used if the input is assigned to a sequence, zone, or group.
- Fault – generates a fault condition – used if the input is assigned to a zone, or group.
- Transparent – generates a transparent condition – Transparent input is used to trigger a bespoke message stream or trigger a sequence number (E.g. Lock down Special message)
- Silence – used to configure the input as a silence command – used if the input is assigned to a zone or group.
- Reset – used to configure the input as a reset command – used if the input is assigned to a zone or group.
- Disabled – used to configure the input as a disabled command – used if the input is assigned to a zone or group.

EOL monitoring – Options for none or a selection of resistive end of lines

6.5.2 Secondary GUI

There are two build variants of the GUI – the primary and secondary.

Each node can configure **up to 20 GUI maximum**. Subject to physical rack space! One primary GUI and up to 7 secondaries will fit into 1 x 24U cabinet. One primary and 3 secondaries fit an empty 13U cabinet.

The secondary GUIs do not support the 4 inputs, emergency microphone or the master WIP handset.

The Dialogue box for a secondary GUI only has the LAYOUT tab. See figure 6-7.

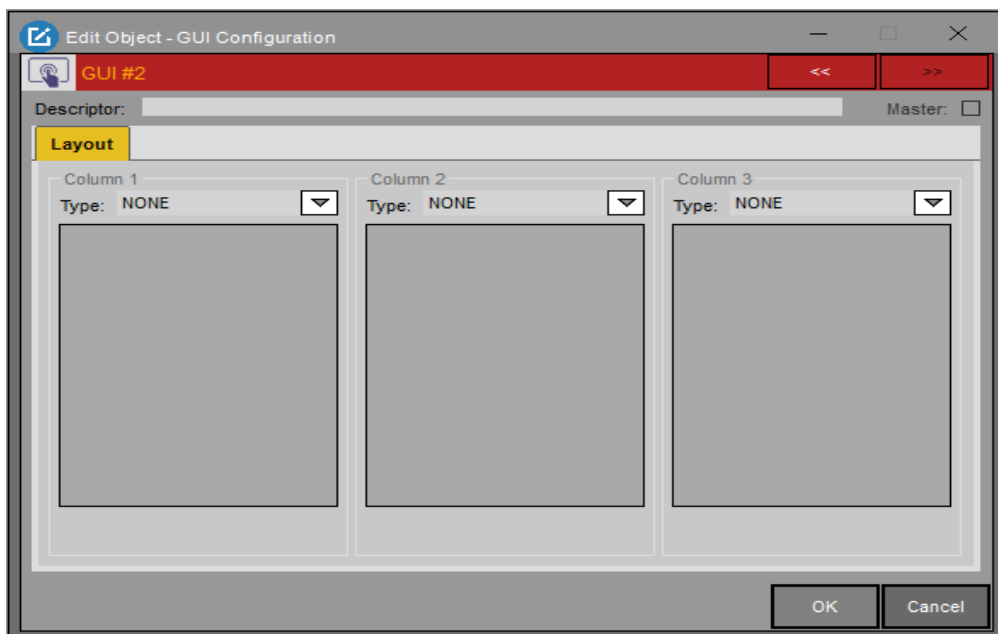


Figure 6-7 Secondary GUI layout dialogue box.

The configuration options for each section are EWS and EIS only. No CONTROL option is available. Refer to section 6.5.1.1

6.6 Rack configuration.

To Add Racks to the node, right click on the Modules icon  and select Add Rack. Up to 5 Racks are supported in a 24U cabinet and 2 racks in a 13U cabinet.

To edit, fill or add more racks, right click on the Rack icon .

To edit the Rack configuration, click on the Rack icon .

Following is the dialogue box associated with each Rack within a node.

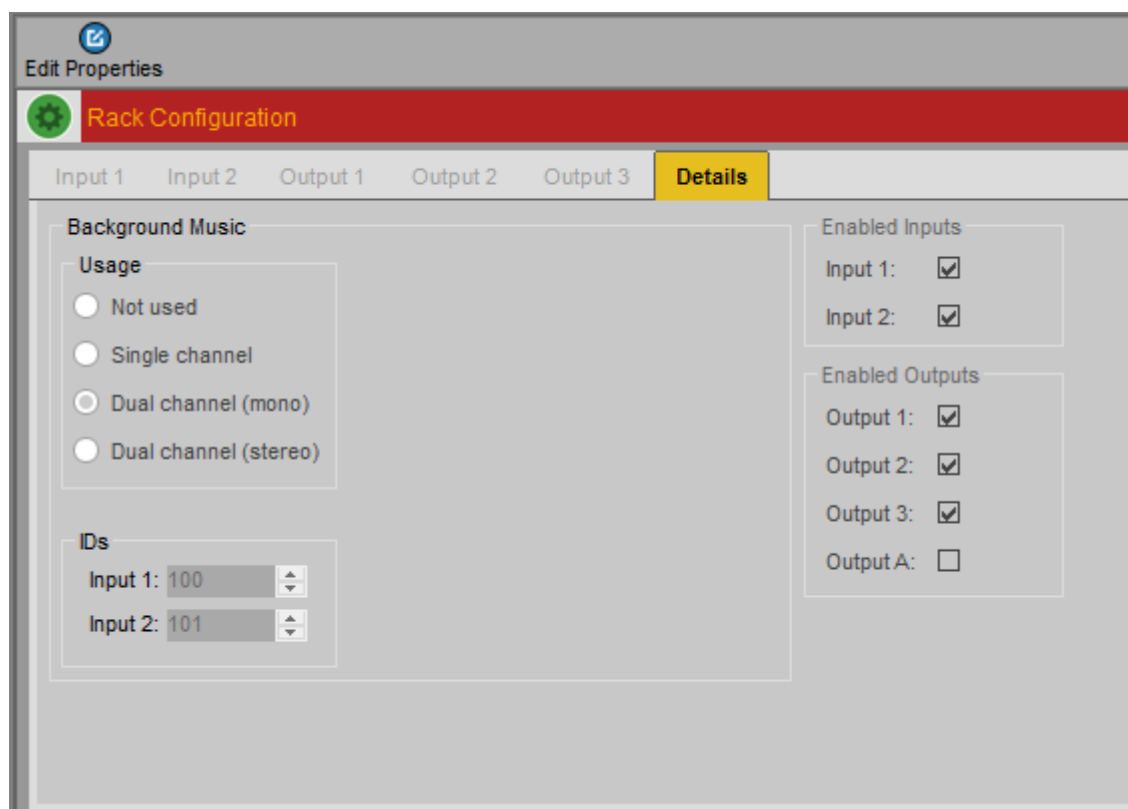


Figure 6-8 Rack configuration dialogue box.

Each rack is fitted with a CPU Board (in rack slot 0). Each CPU board supports the following:

- 2 x analogue audio inputs for background music (BGM)
- 2 x digital inputs
- 3 x relay outputs

Refer to figure 6-8, the DETAILS tab allows configuration of the BGM channels, ***the enabling of the inputs and enabling the outputs***. When the inputs and outputs are enabled, the corresponding tabs appear.

6.6.1 Background Music

The background music inputs can be configured for:

- not used
- single mono channel
- dual mono channels
- one stereo channel

The background music inputs are assigned IDs which are unique numbers and are used to assign a BGM input source to one or more amplifiers. Every Rack fitted (containing modules) will contain a CPU board in slot 0.

Each CPU provides connections for a further two BGM sources.

A NIC Card (if fitted) also provides connections for 2x BGM inputs.

For local rack BGM distribution use ID numbers **starting from 100**. For each extra local BGM input increment the ID number by one. eg 101 102 103 and so on

If you are assigning a BGM source that will be distributed to another panel **across the network** the source ID numbers must be ID 1 or ID 2 (Node 1)

The attenuation of the background music inputs is set by the volume slider controls. The volume of the background music into an area within the site can be individually adjusted on the corresponding amplifier. Refer to section 6.7.

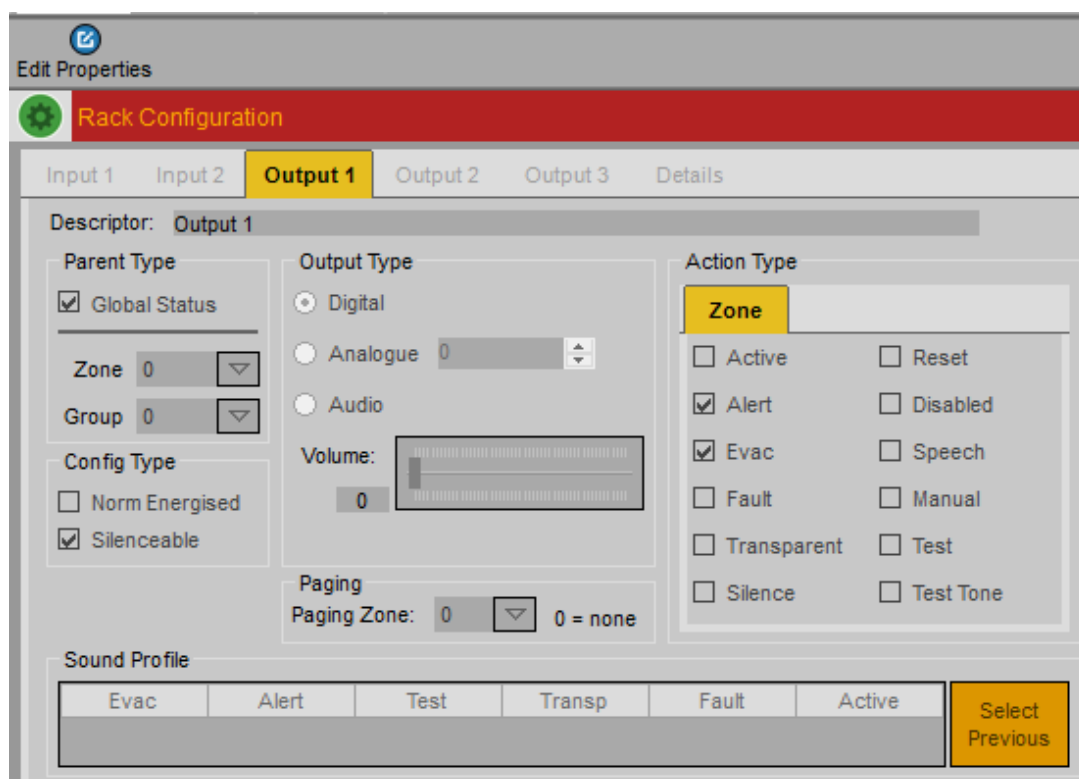
Attenuator controls are also available from within the GUI screens.

6.6.2 Inputs

The INPUT tab allows the inputs to be edited. Refer to section 6.5.1.2 (same as the inputs on the master GUI)

6.6.3 Outputs

The OUTPUT tab allows the outputs to be edited. Refer to figure 6-9.



The screenshot shows the 'Rack Configuration' window with the 'Output 1' tab selected. The 'Descriptor' is 'Output 1'. The 'Parent Type' section has 'Global Status' checked. The 'Zone' is set to 0 and the 'Group' is set to 0. The 'Config Type' section has 'Norm Energised' unchecked and 'Silenceable' checked. The 'Output Type' section has 'Digital' selected, 'Analogue' set to 0, and 'Audio' unchecked. The 'Volume' slider is set to 0. The 'Paging' section has 'Paging Zone' set to 0 (0 = none). The 'Action Type' section has 'Zone' selected, and the following actions are checked: 'Active', 'Alert', 'Evac', 'Fault', 'Transparent', 'Silence', 'Reset', 'Disabled', 'Speech', 'Manual', 'Test', and 'Test Tone'. The 'Sound Profile' section has a table with columns: Evac, Alert, Test, Transp, Fault, Active, and a 'Select Previous' button.

Figure 6-9 Output configuration.

Each output has the following properties:

Descriptor – text field

Global status – Activates this O/P from **Every Zone** (when Zone ‘Action Type’ is ticked and Activated)

Zone Number – can be assigned to a zone – via a drop-down box.

Group Number – can be assigned to a group number – via a drop-down box.

Config Type – output can be configured a normally energised (for a fail-safe output) and silence-able – meaning the output will respond to a silence command.

In some markets, the outputs use to drive the visual warning devices are required to remain ON after the audio broadcast has been silenced.

Activation delay – time delay in seconds before the output is activated.

Output type – the outputs on the rack are digital (relay).

The zonal action type – specifies what condition in the zone or group will activate the output:

- Alert – when the assigned zone or group is in the alert condition, the output will be activated (enabled by default)
- Evac – when the assigned zone or group is in the evacuate condition, the output will be activated (enabled by default)
- Fault – when the assigned zone or group is in fault, the output will be activated.
- Transparent – when the assigned zone or group is in the transparent condition, the output will be activated.
- Silence – output will respond to silence command (to the assigned group or zone)
- Disabled – activated when the assigned zone or group is disabled.
- Speech – activated when the assigned zone or group is broadcasting live speech “during PTT”.
- Test - output is activated when the assigned zone or group is in the test condition.
- Test tone – activated when the test tone is being broadcast in the zone.
- Manual– activated when the system is placed in Manual mode.

Currently not supported (Can Be ticked)

- Reset

If the output is not configured to a zone or group, then it will do nothing.

For example, to create a global fault output assign the fault action type and assign to a global group.

6.7 Dual 25-Watt amplifier configuration

Following (figure 6-11) is the dialogue box associated with each dual 25-Watt amplifier.

There are three tabs associated with the dual 25Watt amplifier, one for each amplifier OUTPUT and a DETAILS tab.

Selecting OUTPUT 1 (2) tab, displays the outputs. There are two tabs for each amplifier, the CONFIG and DETAILS. Refer to sections 6.7.2 and 6.7.3 respectively

6.7.1 Amplifier DETAILS tab

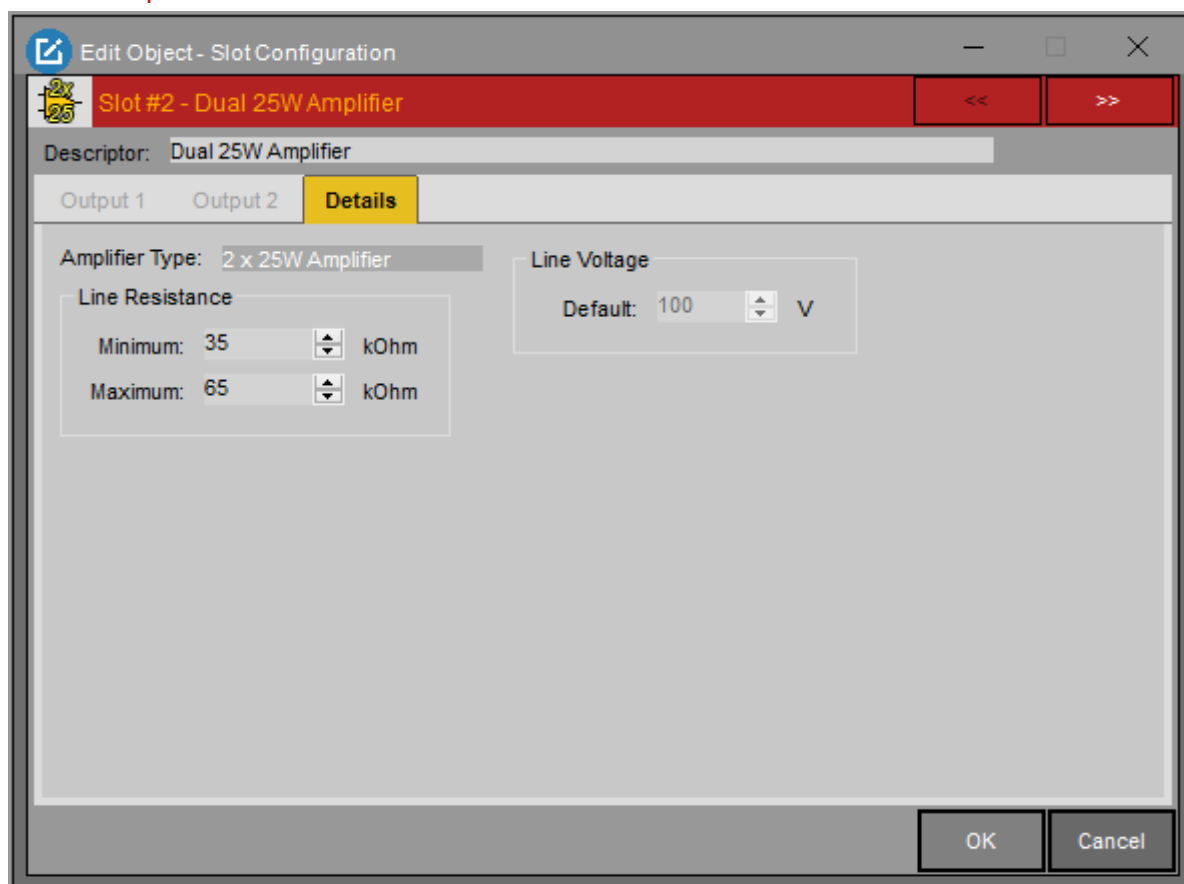


Figure 6-10 Dual 25-Watt amplifier configuration dialogue box.

As shown in figure 6-10, the DETAILS tab specifies the amplifier type.

Available in Advanced Mode Only

The amplifier line voltage is not editable.

The minimum and maximum line resistance values are editable. These values should only be changed under specific guidance from Ampac. Site cabling (capacitance and resistance value characteristics) may sometimes create issues causing amplifiers to enter a fault condition either intermittently or permanently.

The line resistance readings may be a factor so can be adjusted to cope with wider tolerances

6.7.2 Amplifier OUTPUT CONFIG tab

The CONFIG tab allows the following properties to be edited (see figure 6-11):

- Relative volumes for each of the audio types – Alert, Evac, BGM, PA and Paging via slide controls
- To set the BGM ID (source), refer to section 6.6.1 on how the BGM ID is assigned.
- Power mode – output used – not editable (always selected)

Available in Advanced Mode Only

- Mains Low power – when the system is running from mains the amplifier will be powered down in-between checking of the amplifier drive circuit – which significantly reduces the amplifier quiescent current.
- Battery Low Power – when the system is running from batteries (mains fail condition) the amplifier will be powered down in-between checking the amplifier drive circuit which significantly reduces the amplifier quiescent current.
- Test tone frequency – this is the frequency of the test tone, used to verify the amplifier is functioning correctly. The test tone frequency is currently fixed.
- Test tone threshold – this is the sensing threshold of the test tone (to verify the amplifier is functioning correctly). This value should only be changed under guidance from Ampac.

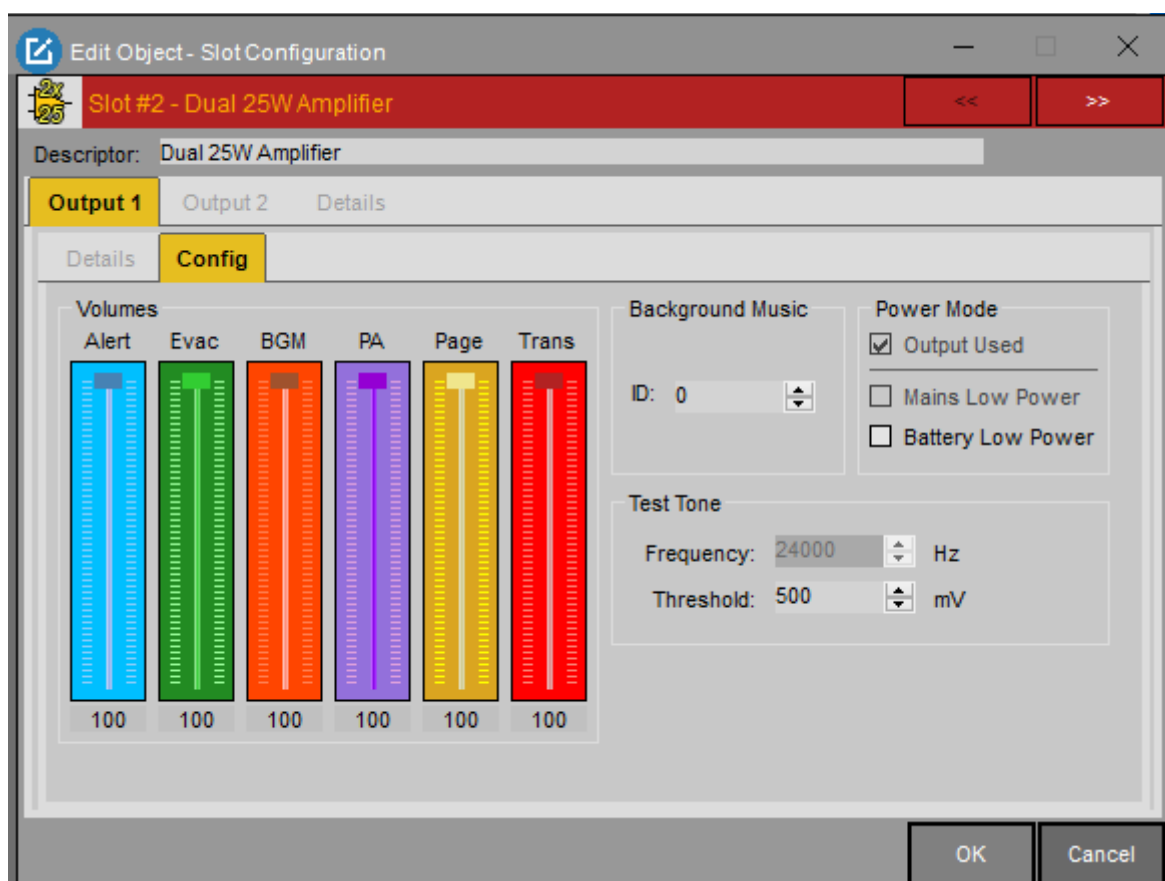


Figure 6-11 Amplifier output config.

6.7.3 Amplifier OUTPUT DETAILS tab

Refer to figure 6-12 for the DETAILS tab.

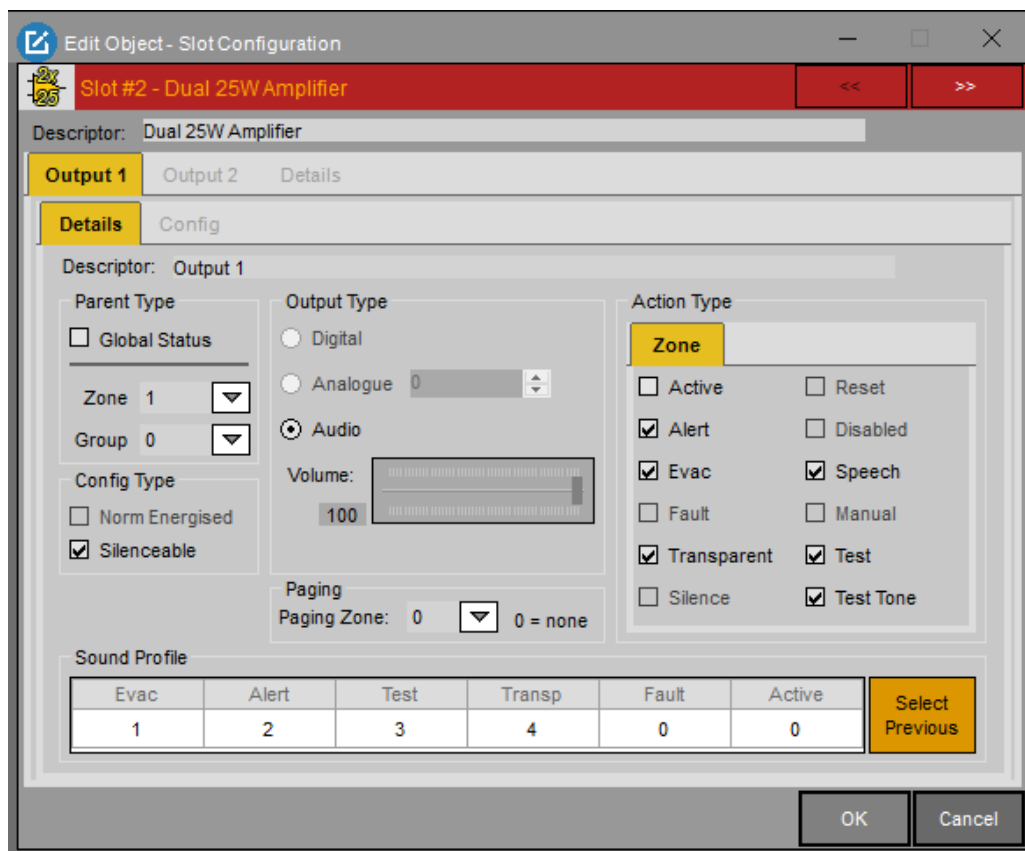


Figure 6-12 Amplifier details.

The properties available in the DETAILS tab are the same as section 6.6.3 for an output, except the:

- Output Type is set to Audio.
- Amplifier volume and channel ID can be set.
- The Speech and Test Tone action types are enabled by default.

The volume slider control is full scale. The volume controls in the config tab are relative.

The channel refers to the channel ID from section 6.3 and determines the audio stream played when the amplifier is broadcasting the alert and evacuate emergency warning signals. Other audio stream files may also be configured in bespoke ways

Config Type – Norm Energised is greyed out and does not apply to an audio output.

Config Type – Silence-able – this must be ticked for the amplifier to respond to a Silence command (selected by default)

6.8 50-Watt Amplifier configuration

The dialogue boxes for the 50-Watt amplifier match the Dual 25Watt amplifier, except there is only one O/P
Refer to section 6.7.2 for details about configuring OUTPUT CONFIG tab.

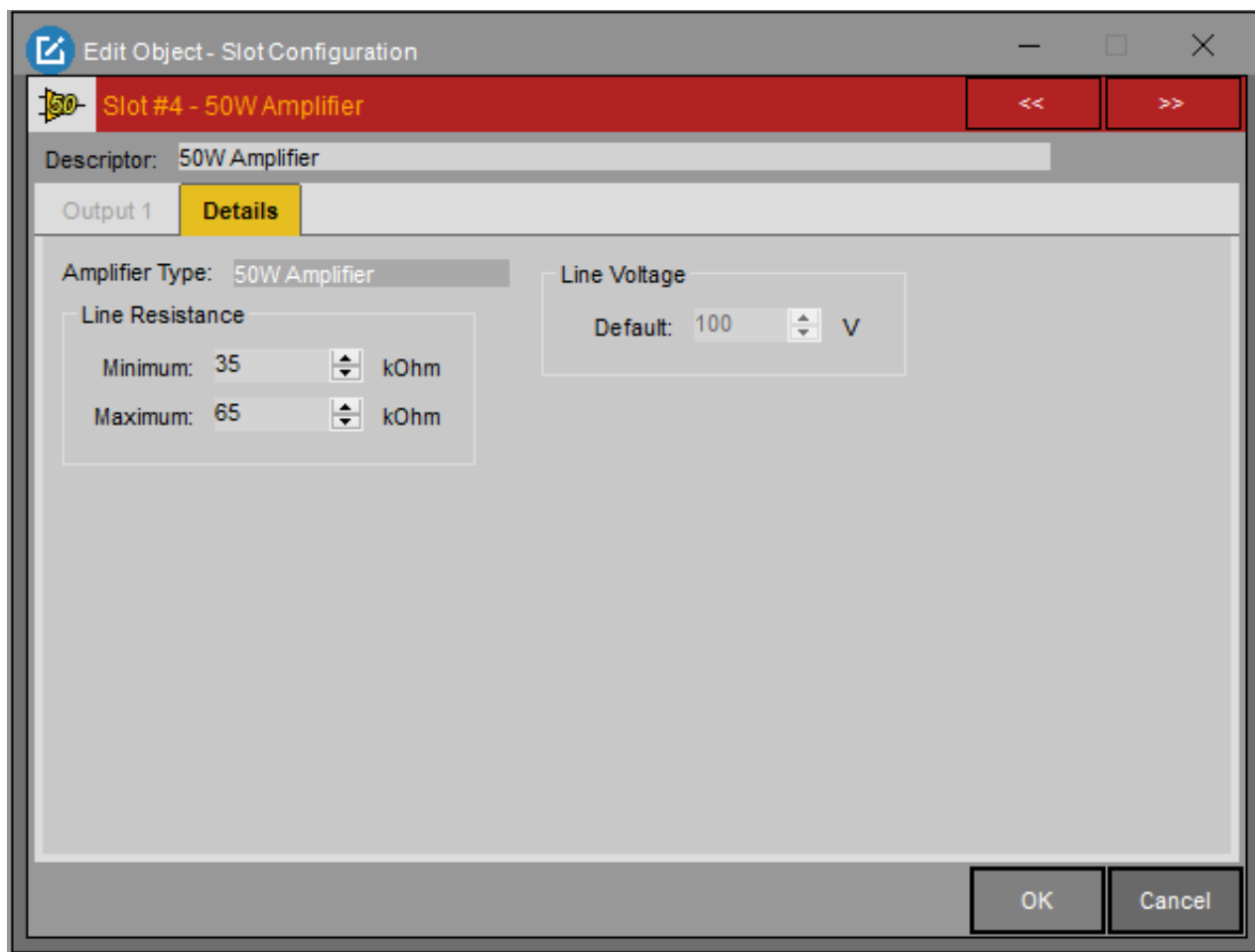


Figure 6-13 50-Watt Configuration Details Dialogue Box

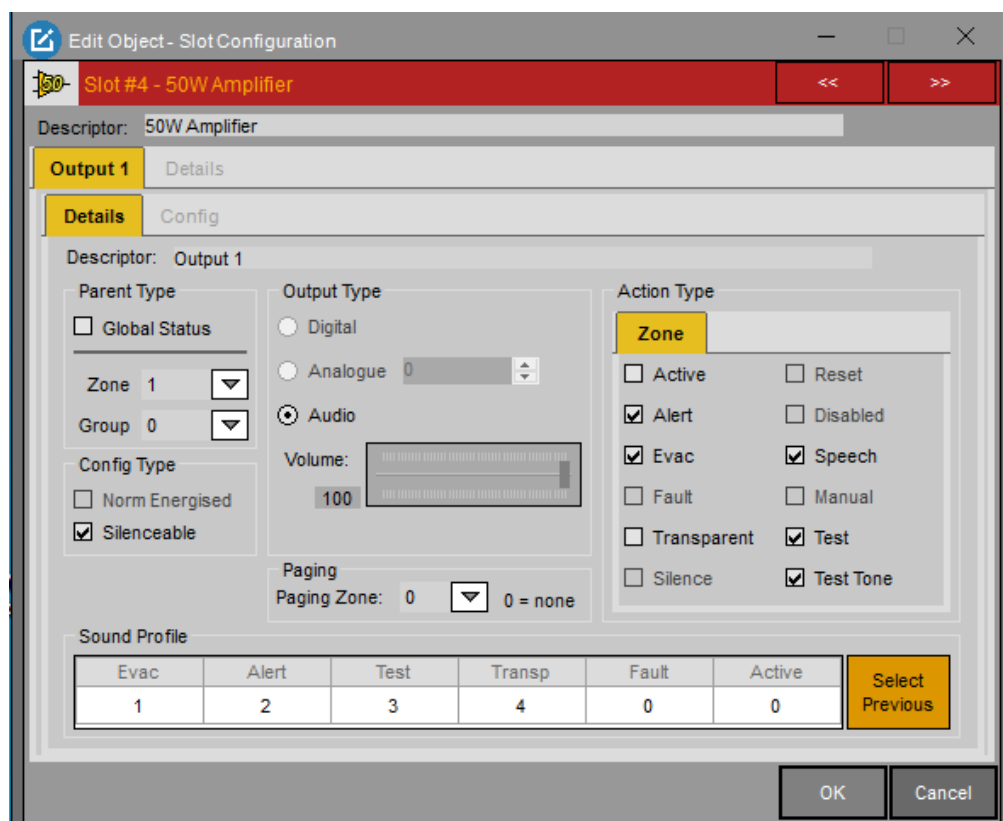
The amplifier line voltage is not editable.

The minimum and maximum line resistance values are editable. These values should only be changed under specific guidance from Ampac.

Site cabling (capacitance and resistance value characteristics) may sometimes create issues causing amplifiers to enter a fault condition.

The line resistance readings may be a factor so can be adjusted to cope with wider tolerances

Available in Advanced Mode Only



6.9 150-Watt Amplifier configuration

The 150-Watt amplifier is the same as the 50-Watt amplifier, except:

- Audio power is 150 Watts.
- Supports 4 audio outputs. The first output is rated at 150 Watts, and outputs 2, 3 and 4 are rated at 75 Watts.

The 150-Watt amplifier consists of two interconnected circuit boards and as such occupies two slots in a rack. **Due to the guide spacing in the rack, the 150-Watt amplifier cannot be fitted to slot 8, so it is recommended that the 150-Watt amplifier is used in an ODD slot (1, 3, 5, 7, 9, 11, 13 and 15) only.**

Note: The 2 x 25-Watt and 50Watt amplifiers also occupy 2 slots each, but have a single circuit board, meaning the guide spacing on the second slot is not a concern.

The dialogues box for the 150-Watt amplifier has a **DETAILS** tab, an **OUTPUT** tab for each audio output (4)

Line resistance settings are shown in **advanced mode**.

The common tab details parameters common to all audio outputs.

Refer Figure 6-14 & 6-15.

The COMMON tab has a DETAILS and CONFIG tab.

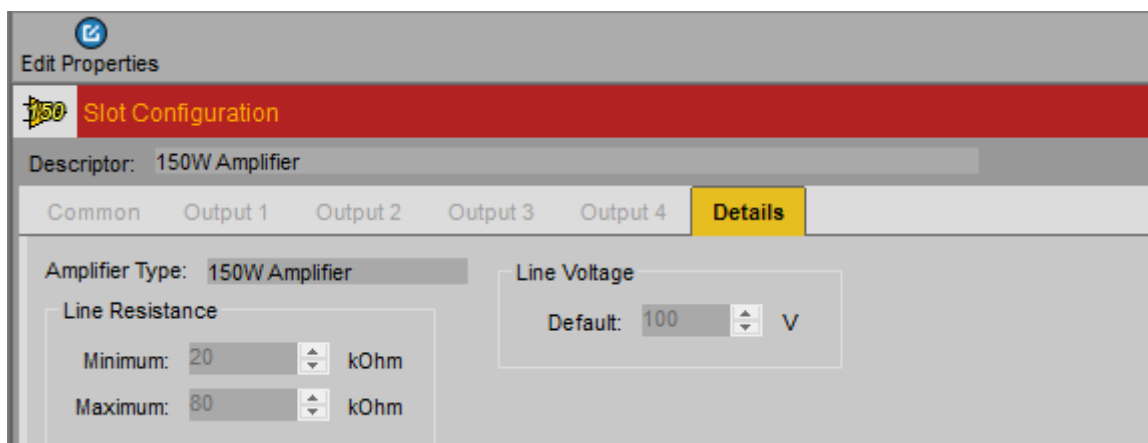


Figure 6-14 150-Watt Details Box.

Available in Advanced Mode Only

The COMMON CONFIG tab is as follows:

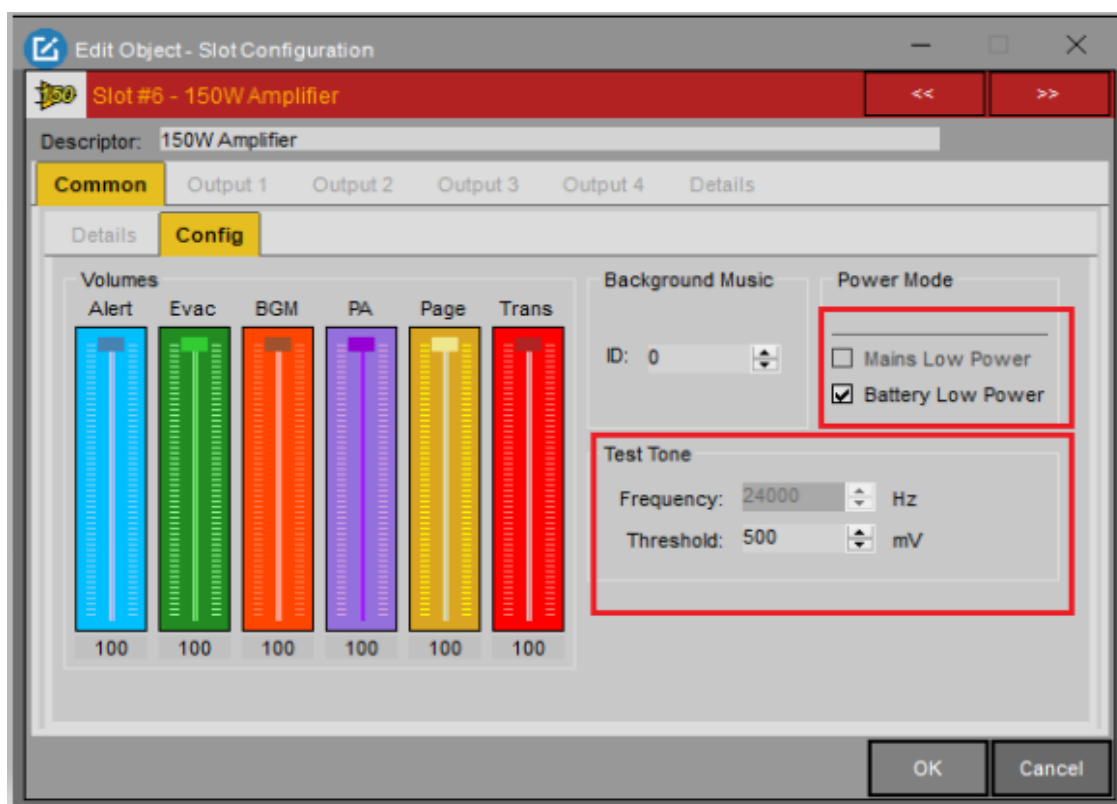


Figure 6-15 150-Watt amplifier common config dialogue box

With **common** tab **power mode** the “output used” field is not shown. It is always ON

Power mode is settable on **individual output tabs**. Example: in cases where 75 watts was connected to outputs 1&2 (150Watt load) turn off outputs,3 & 4.

The Mains Low Power setting is not editable.

A **Halma** company

Each output x 4 has a CONFIG and DETAILS tab.

View individual OUTPUT DETAILS tabs

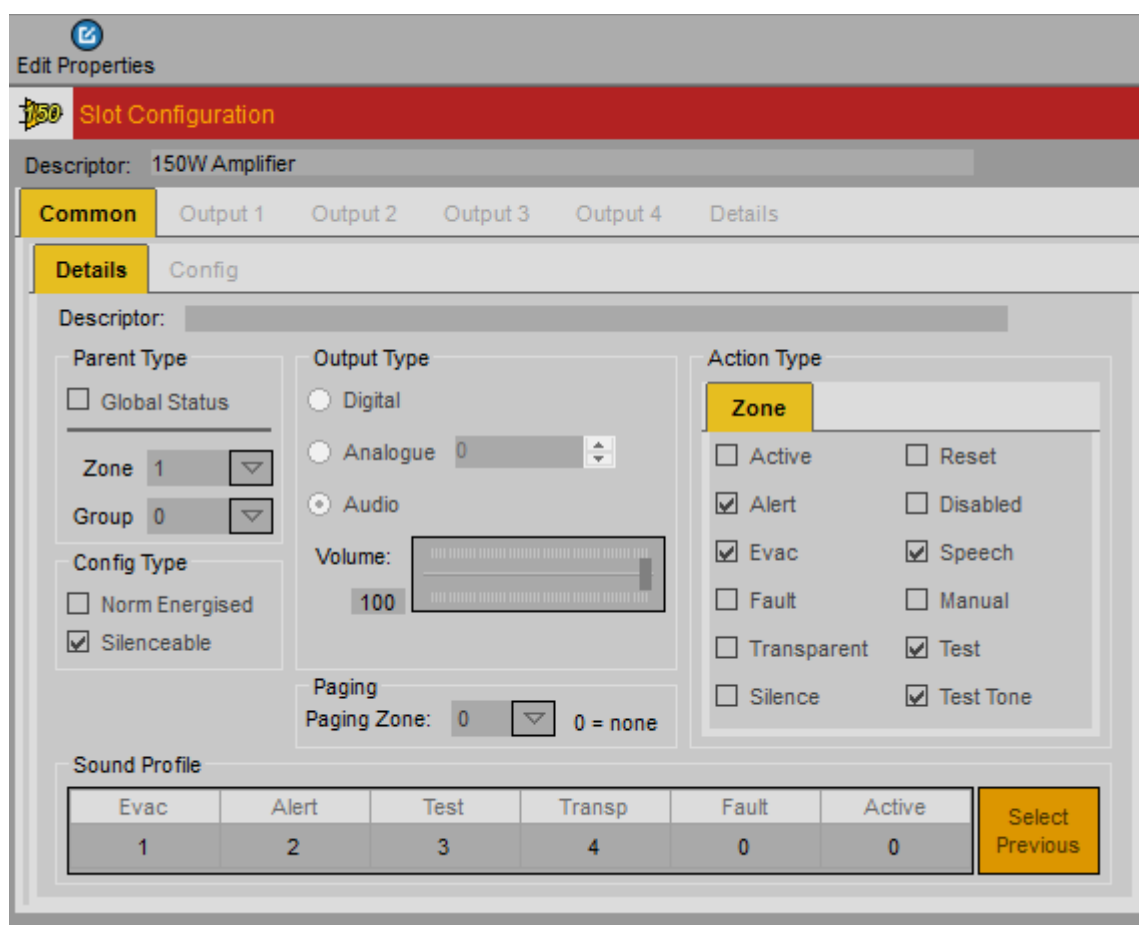


Figure 6-16 150-Watt amplifier Common - details dialogue box.

Note the 150W COMMON & DETAILS tab above **Paging Zone** field should only be populated when ONE Paging Zone is required.

When more than one Paging zone is required the four individual **Output tabs** are configured individually.

When 150W splitter circuits 1 through 4 are configured a Paging Zone can be configured to each output respectively

The individual OUTPUT CONFIG tab has only one editable field – power mode – **output used**.

This variable allows each of the **4 splitter outputs** to be individually enabled.

This should match how each 150-watt Amplifier is connected to field cabling.

4 speaker feeds or just 1?

Refer to images on next page and section 6.7.2.

Available in Advanced Mode Only

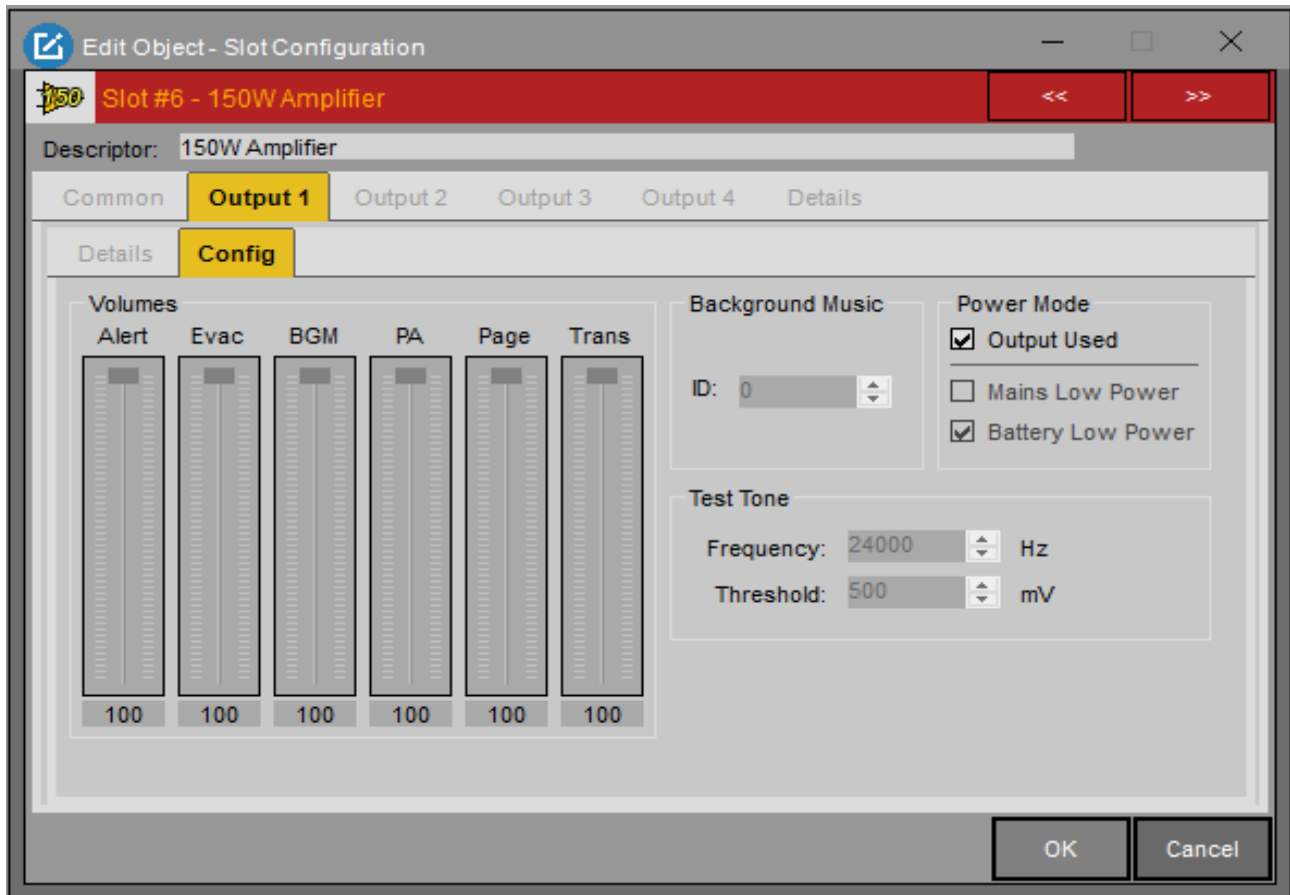
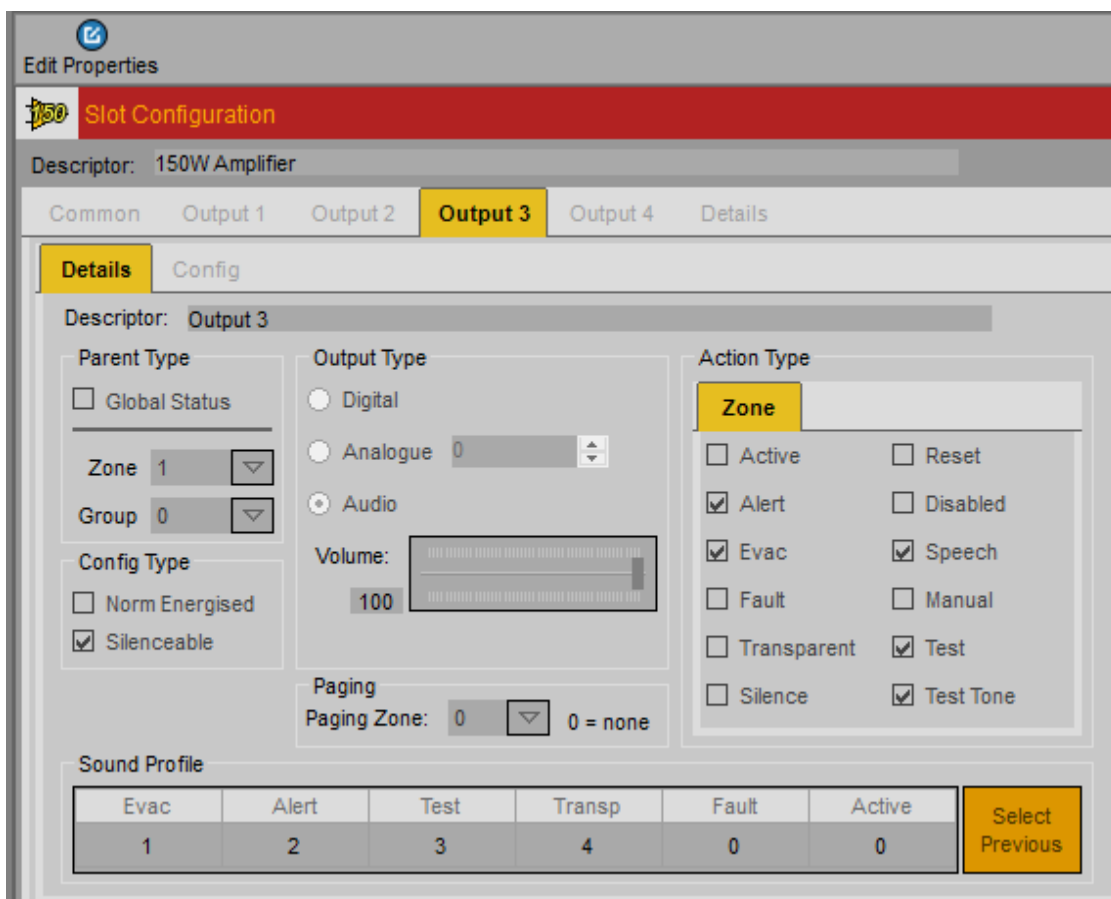


Figure 6-17 150-Watt amplifier output config dialogue box.



6.10 Multi-purpose output card configuration

Figure 6-20 is the dialogue box for the multi-purpose output card, which allows the 4 output pairs (or 8 single ended outputs) to be configured, by the OUTPUT and CONFIG tabs.

A differential O/P (Reverse voltage O/P) used for dual VAD indication is illustrated below.

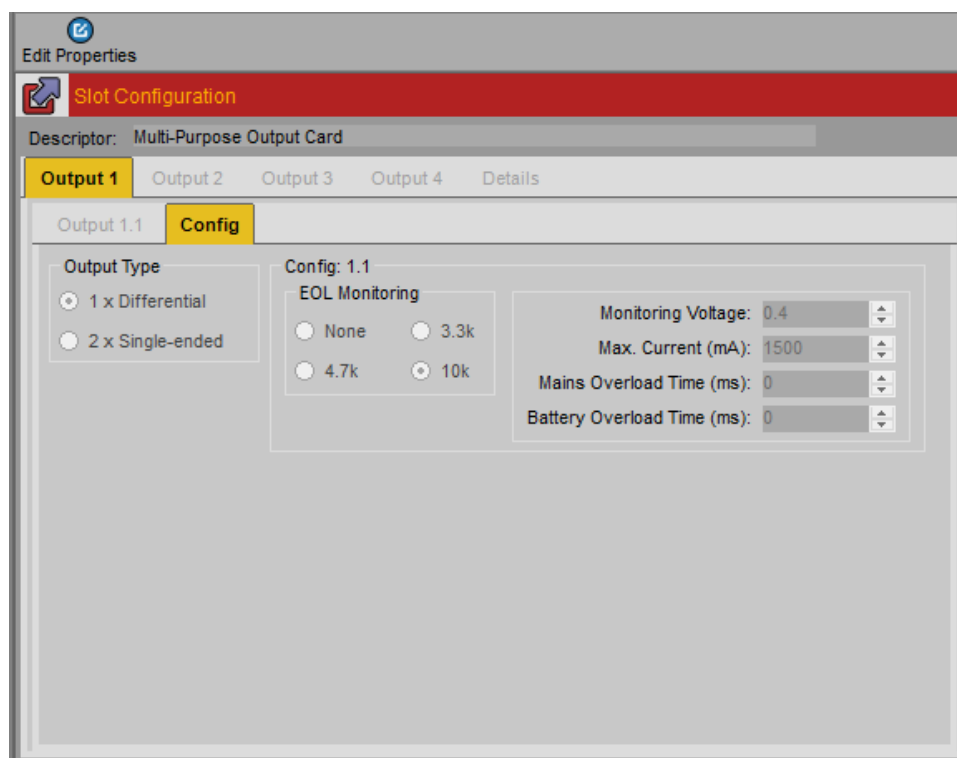
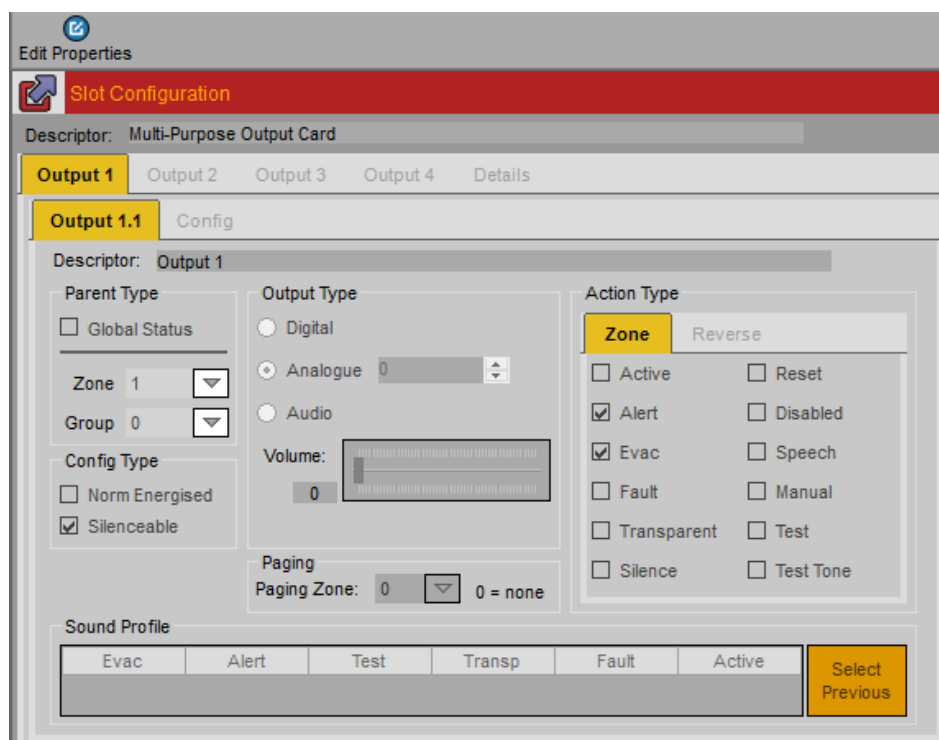


Figure 6-18 Multi-purpose output card dialogue box.



In Advanced Mode there is a DETAILS tab which allow the output drive voltage to be set.

Range 12VDC to 28VDC. Refer to figure 6-19.

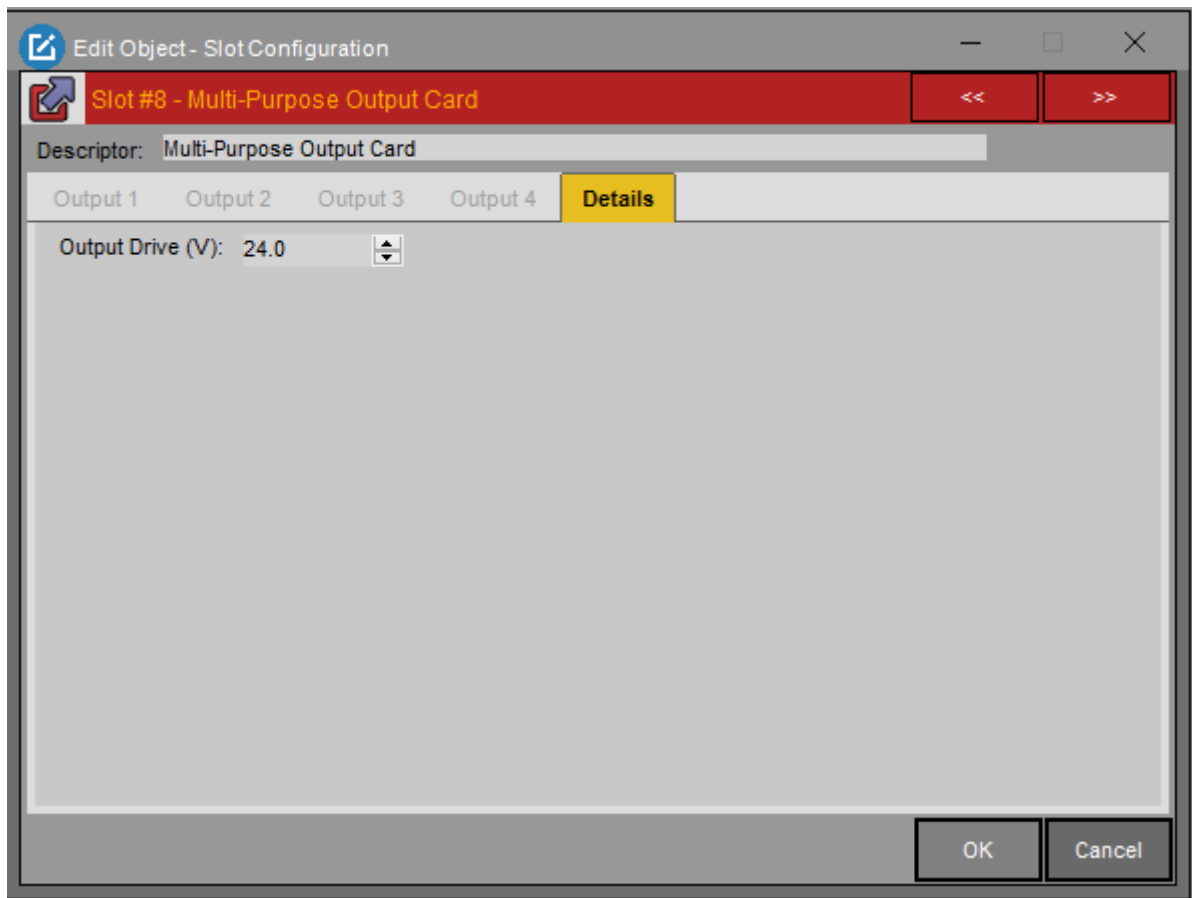


Figure 6-19 Multi-purpose output 'details' dialogue box

Available in Advanced Mode Only

Single Ended MOC Output CONFIG tab.

Refer to figure 6-20 for the OUTPUT CONFIG tab.

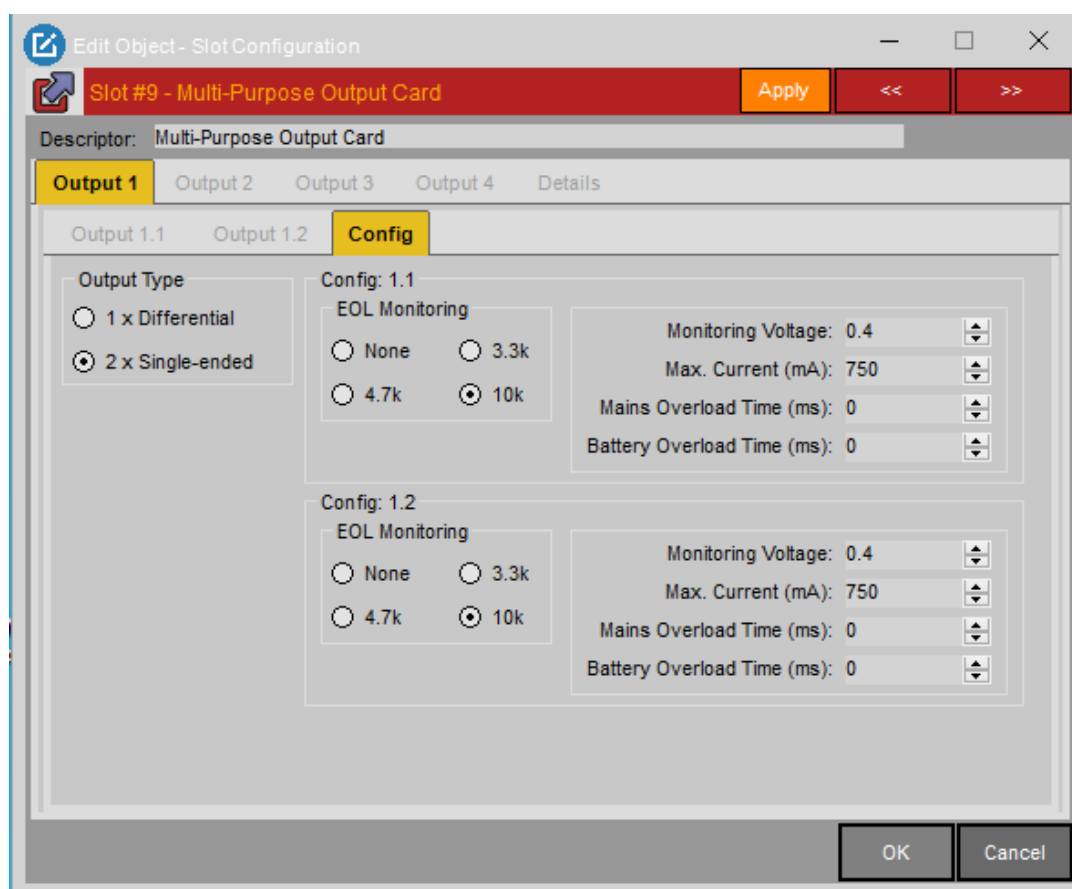


Figure 6-20 Output configuration tab for 2 x single ended

The CONFIG tab allows the following properties to be edited:

Output type – the pair of outputs can be configured as differential (polarity reversal) or single ended. If single ended is selected, then both outputs (Config 1.1 and Config 1.2 can be edited) and tabs OUTPUT 1.1 and OUTPUT 1.2 are displayed.

NOTE: The differential outputs are used to drive dual VAD units (alert and evac) over 2 core cable.

The EOL monitoring allows the end of line resistor value to be set.

Available in Advanced Mode Only

Monitoring voltage is the voltage applied to monitor the EOL resistor. In noisy environments this value may need to be increased. Care to be taken when the output is driving LED VADs, as a high monitoring voltage may partially activate the VAD.

Max current – is the maximum output current 750mA Single End O/P and 1.5 Amps when Differential.

Mains Overload time – time the output will deliver current over the maximum setting when the system is running from mains. After the timeout the current is throttled back.

Battery Overload time – same as above, except when the system is running from batteries.

6.10.1 Multi-purpose interface card configuration

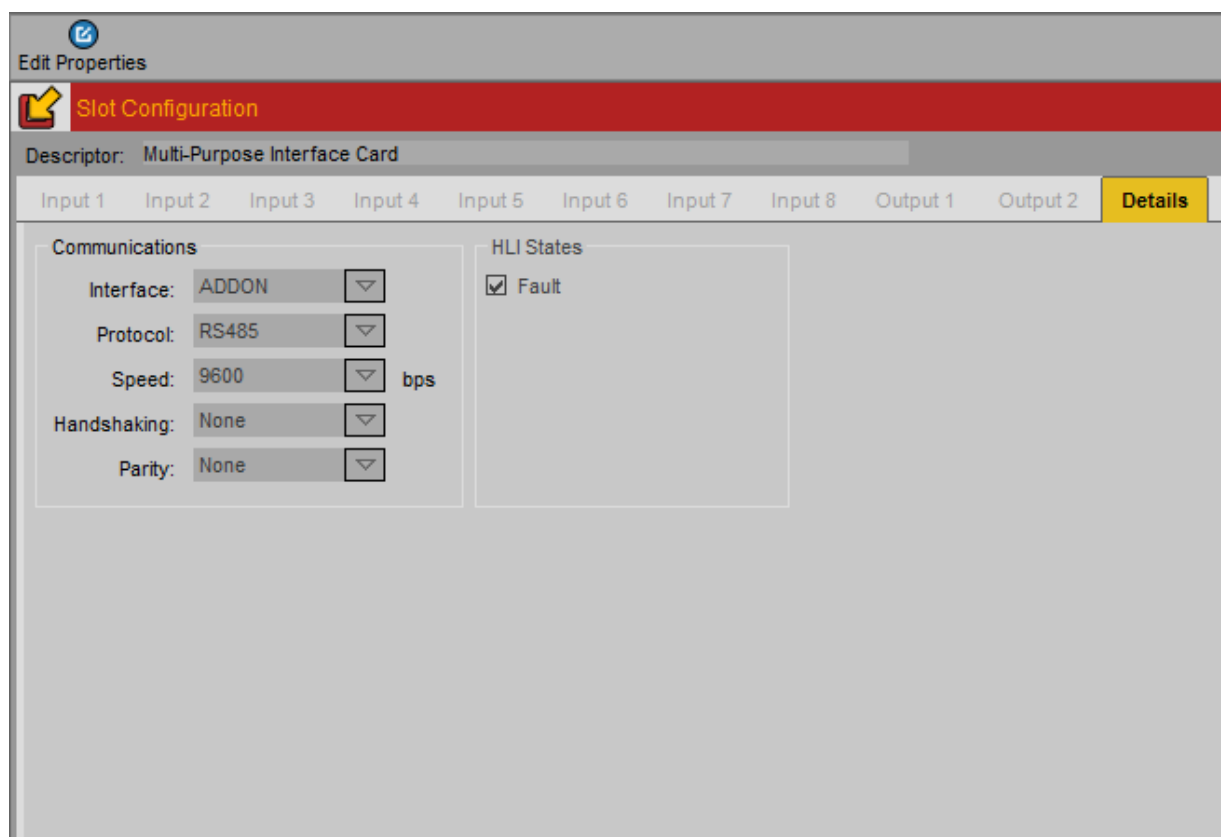


Figure 6-21 Multi-purpose interface card dialogue box

Multi-Purpose interface card has 11 tabs:

- Eight (8) tabs for the inputs. Each input has a CONFIG and DETAILS tab.
- Two (2) tabs for the outputs. Each output has a CONFIG and DETAILS tab.
- DETAILS tab (figure 6-21). ***The HLI status options – Tick boxes explain the signals sent.***

The DETAILS tab allows the serial port on the Multi-purpose interface card to be configured as a high-level interface to the FireFinder^{PLUS} FDCIE. Select **ADDON** from the drop-down box associated with the Protocol property. To edit the inputs associated with the HLI, refer to section 6.16 Virtual Inputs.

No other properties can be edited.

6.10.2 Input CONFIG tab.

Refer to figure 6-22 for the INPUT CONFIG tab.

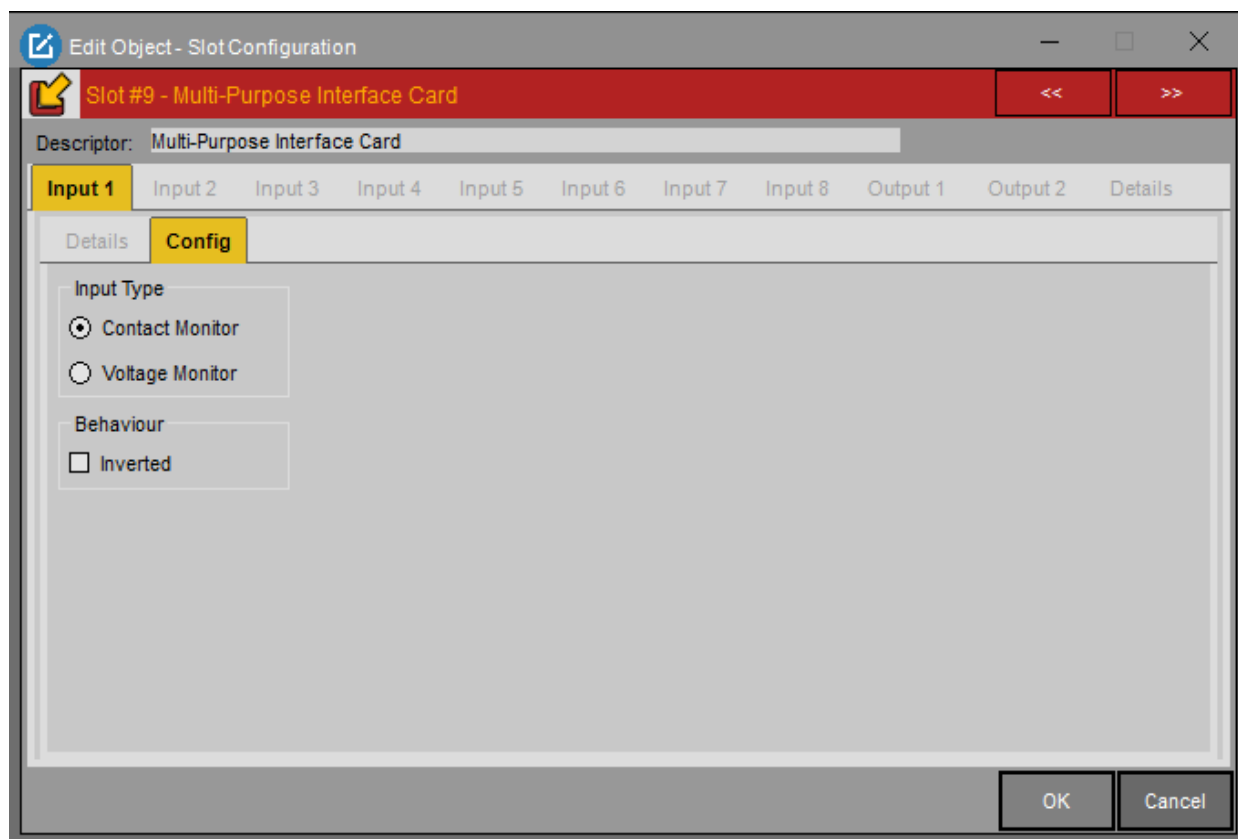


Figure 6-22 Input config tab.

Unlike the inputs on the Rack (section 6.6.2) and the Primary GUI (section 6.5.1.2), the inputs on the Multi-purpose interface have **additional properties available** on the INPUT CONFIG tab (figure 6-25)

Input type – the inputs on the Multi-purpose interface card support contact (relay) closure or can sense an analogue value.

The setting shown above ‘Voltage Monitor’ is associated to the Analogue window.

Behaviour – normal (active low) or inverted (active high)

More commonly used. The ‘Contact Monitor’ option is selected for hard contact FIP inputs or a Switch input.

When using hard contacts, it is necessary to connect a 470-ohm resistor in line. Otherwise, the system will see a short circuit on the input, and an input fault will occur.

An EOL resistor value can be configured on each input to monitor the integrity of the input connection.

10K ohm resistors are fitted into the terminal block connection of the MIC card.

6.10.3 INPUT DETAILS tab.

Refer to the figure 6-23 for the Input details tab.

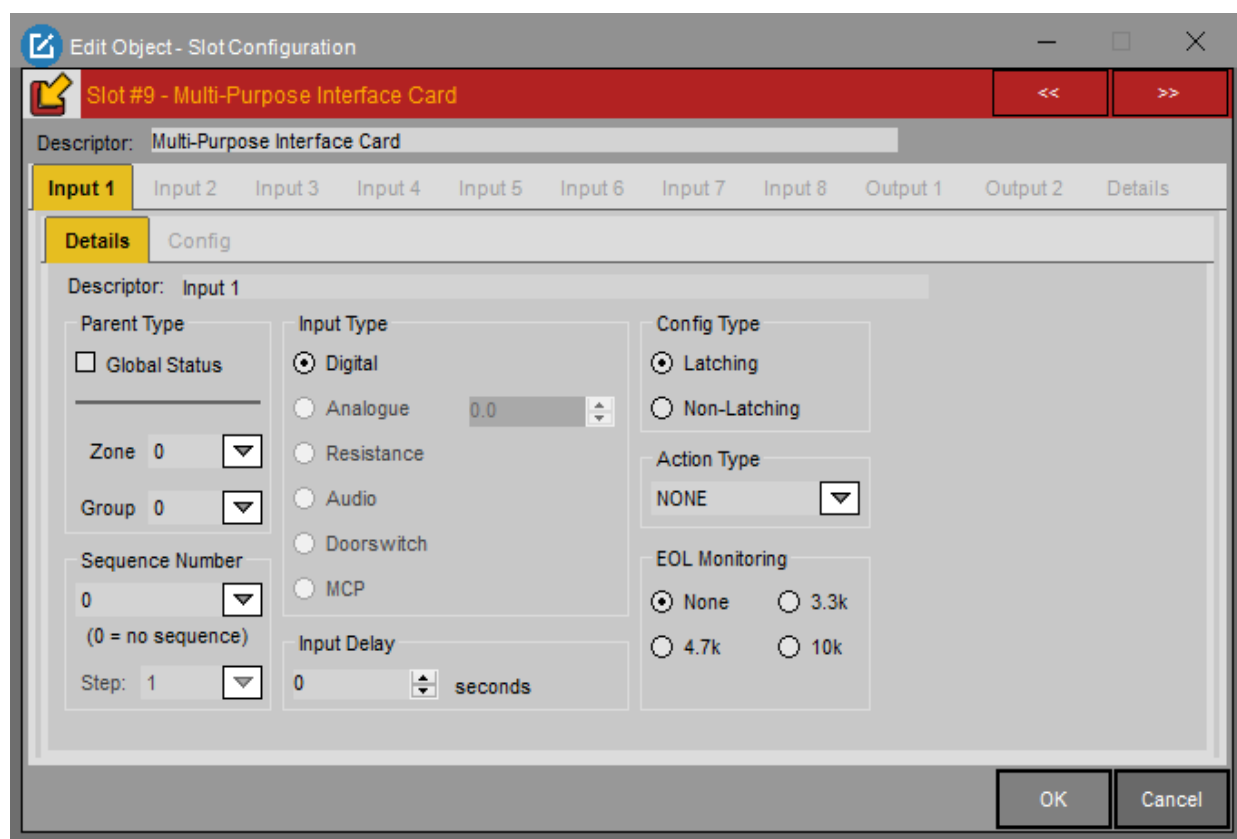


Figure 6-23 Input details tab.

Refer to section 6.5.1.2 for detail on the (input) properties.

When the Input Type on the Config tab is set to **Contact monitor**, then the Input Type on the Details tab is set to **Digital**.

When the Input Type on the Config tab is set to **Voltage monitor**, then the Input type on the Details tab is set to **Analogue**, and the threshold voltage set to the required voltage.

For Analogue Input applications, please discuss your interface objectives with Ampac technical support. We will endeavour to provide the appropriate configuration advice.

6.10.4 Output CONFIG tab.

This allows the output to be enabled. If the output is enabled, then the Output Details tab is available.

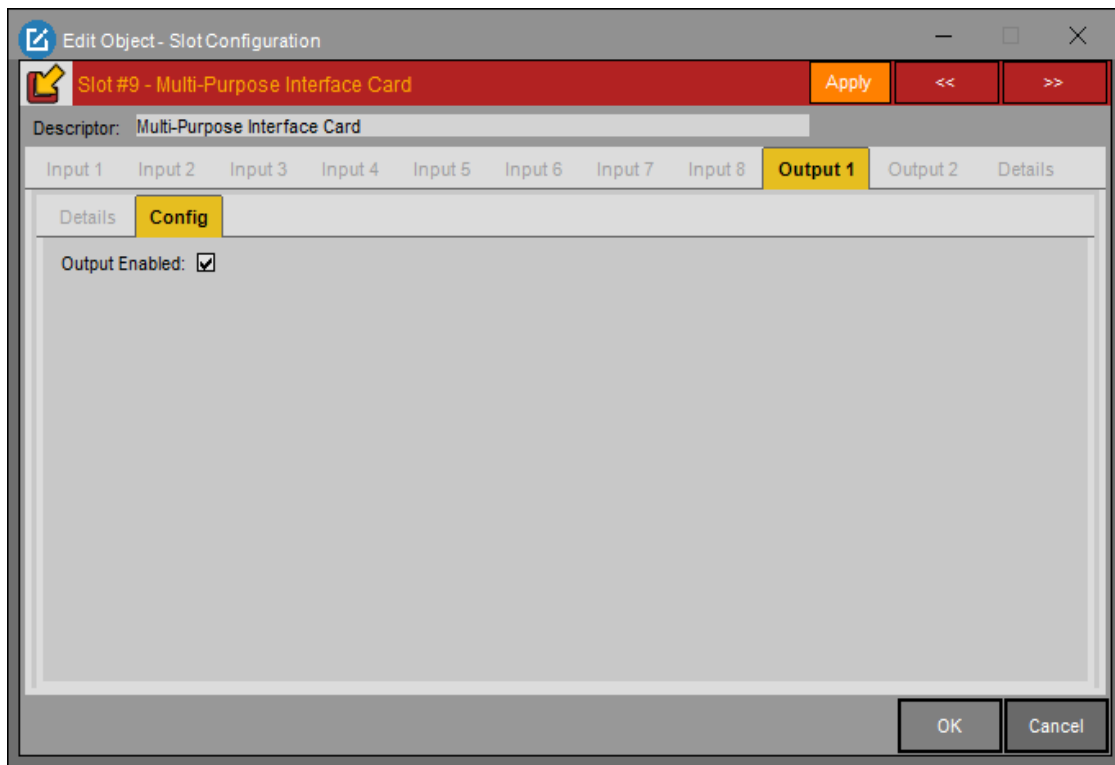


Figure 6-24 Output config tab.

6.10.5 Output DETAILS tab.

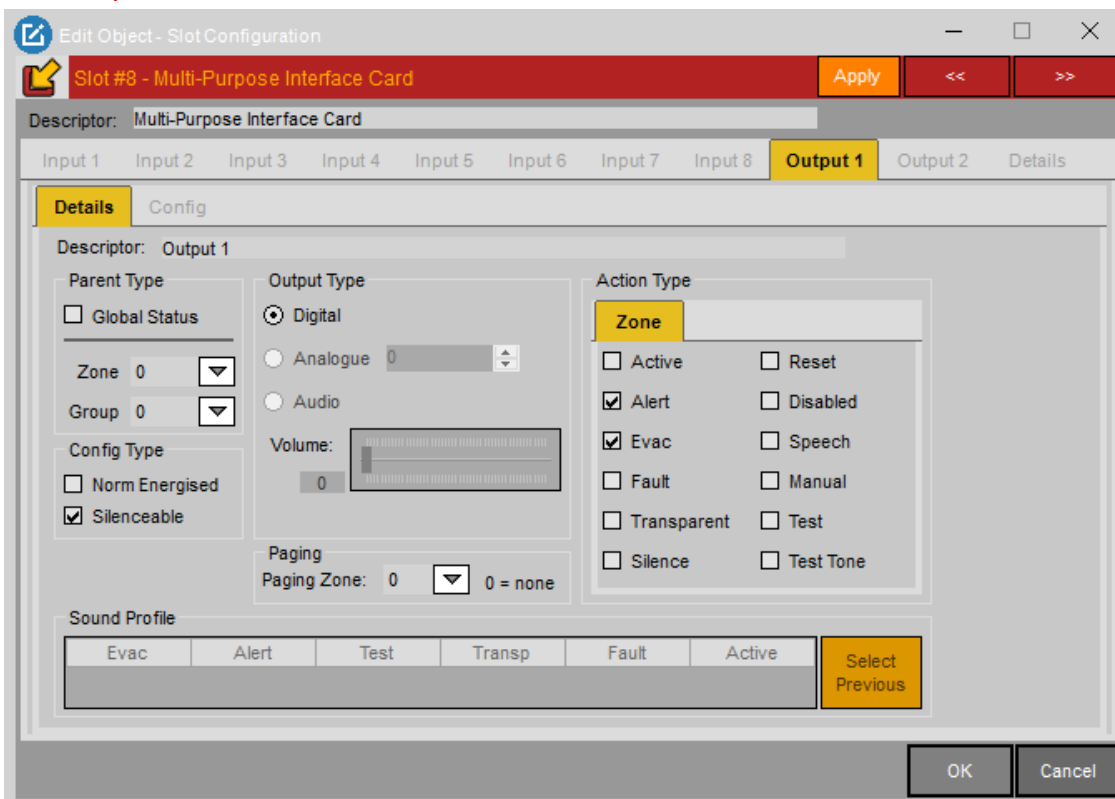


Figure 6-25 Output details tab

6.11 Quad radial EIS line card configuration

Figure 6-26 is the dialogue box for the Quad radial EIS line card (ILC)

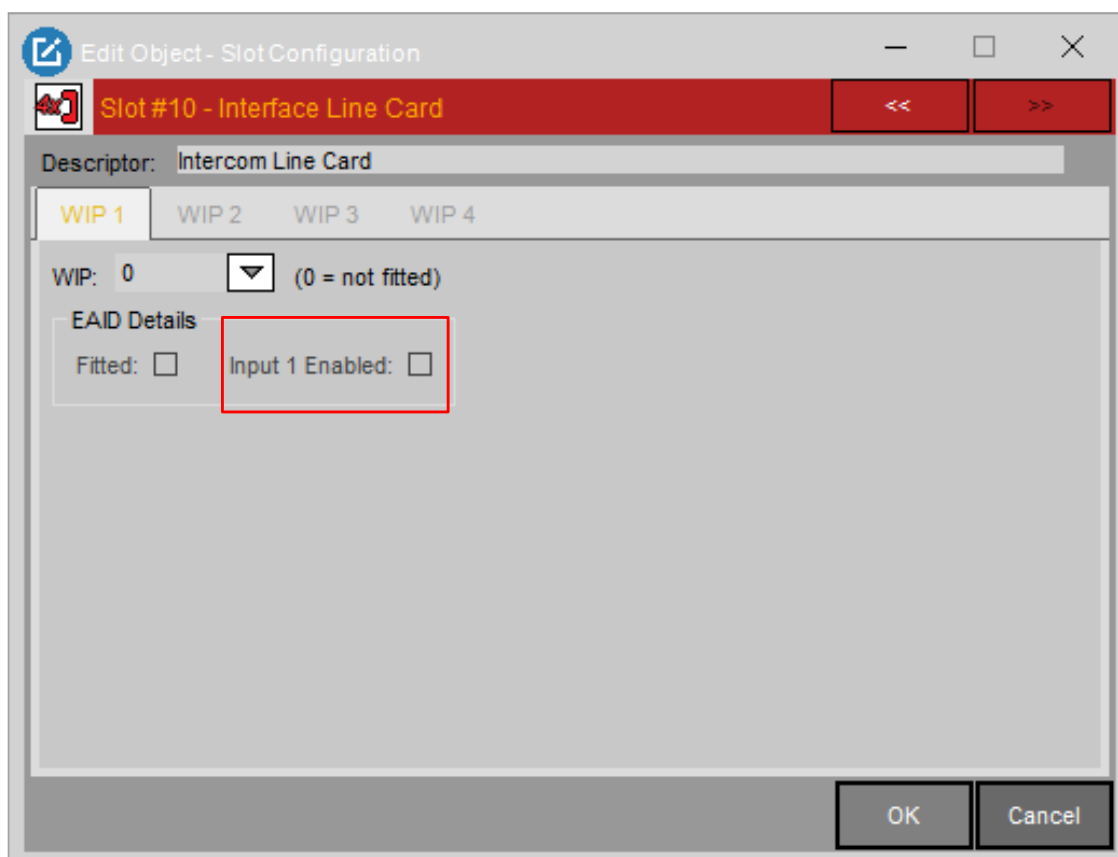


Figure 6-26 Quad radial EIS line card dialogue box.

The Quad radial EIS line card (ILC) dialogue box has up to 8 tabs, one for each WIP handset and one for each (EAID) input associated with each WIP handset – if each input is enabled.

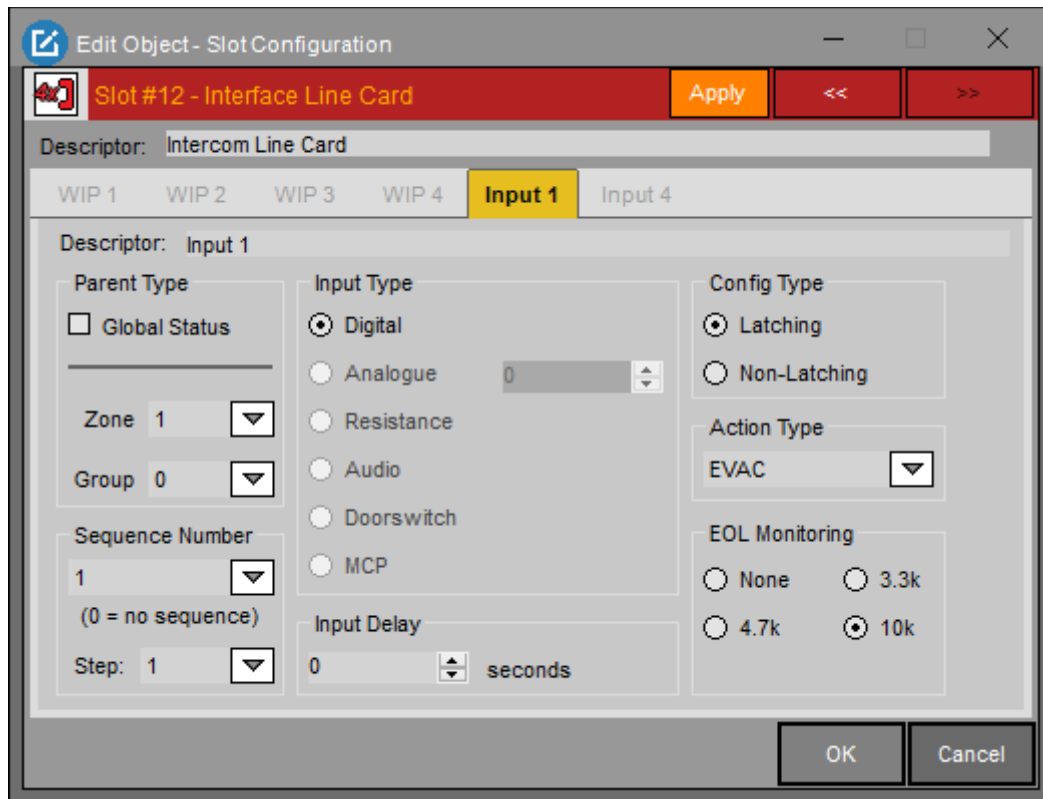
The WIP tab allows the following properties to be edited:

- Enable the WIP handset, by assigning a **WIP handset reference number** (1 or greater).
- Ticking EAID fitted will display an input tab which is used to configure each EAID input.
- The WIP reference number assigned must exist in the **EIS Zones list** and only be used once.
- **Refer to section 8.1 (EIS Zones List)**
Each WIP number you assign on the ILC should also exist in your (EICIE control layout) GUI EIS Widget numbers so that each field handset is represented in the relevant GUI screen(s)

Available in Advanced Mode Only

The WIP handset has been designed to accept an EAID or general-purpose input. At this point only the EAID is supported.

Refer to figure 6-27 for configuring the input associated with a WIP handset.



The screenshot shows the 'Edit Object - Slot Configuration' window. The title bar indicates 'Slot #12 - Interface Line Card'. The 'Descriptor' field is set to 'Intercom Line Card'. The 'Input 1' tab is selected, showing the following configuration:

- Parent Type:** ☐ Global Status
- Zone:** 1 (dropdown)
- Group:** 0 (dropdown)
- Sequence Number:** 1 (dropdown, with note '(0 = no sequence)')
- Step:** 1 (dropdown)
- Input Type:**
 - ☒ Digital
 - ☐ Analogue (value: 0)
 - ☐ Resistance
 - ☐ Audio
 - ☐ Doorswitch
 - ☐ MCP
- Input Delay:** 0 seconds
- Config Type:**
 - ☒ Latching
 - ☐ Non-Latching
- Action Type:** EVAC (dropdown)
- EOL Monitoring:**
 - ☐ None
 - ☐ 3.3k
 - ☐ 4.7k
 - ☒ 10k

Buttons at the bottom include 'Apply', '<<', '>>', 'OK', and 'Cancel'.

Figure 6-27 WIP input tab.

Typical EAID input configuration illustrated above.

- Triggering EWS Zone I when EAID is activated.
- Triggering Evac stream when input is on
- No time delay on input applied.
- Sequence Number 1 has been selected.
- 10K EOL fitted.

Fit EAID Item Number **4105-1018** with 10K EOL across R1 and NO contacts

Refer to section 6.6.2 for editing the properties.

6.12 Dual loop EIS line card configuration

Figure 6-28 is the dialogue box for the Dual loop EIS line card (aka LILC)

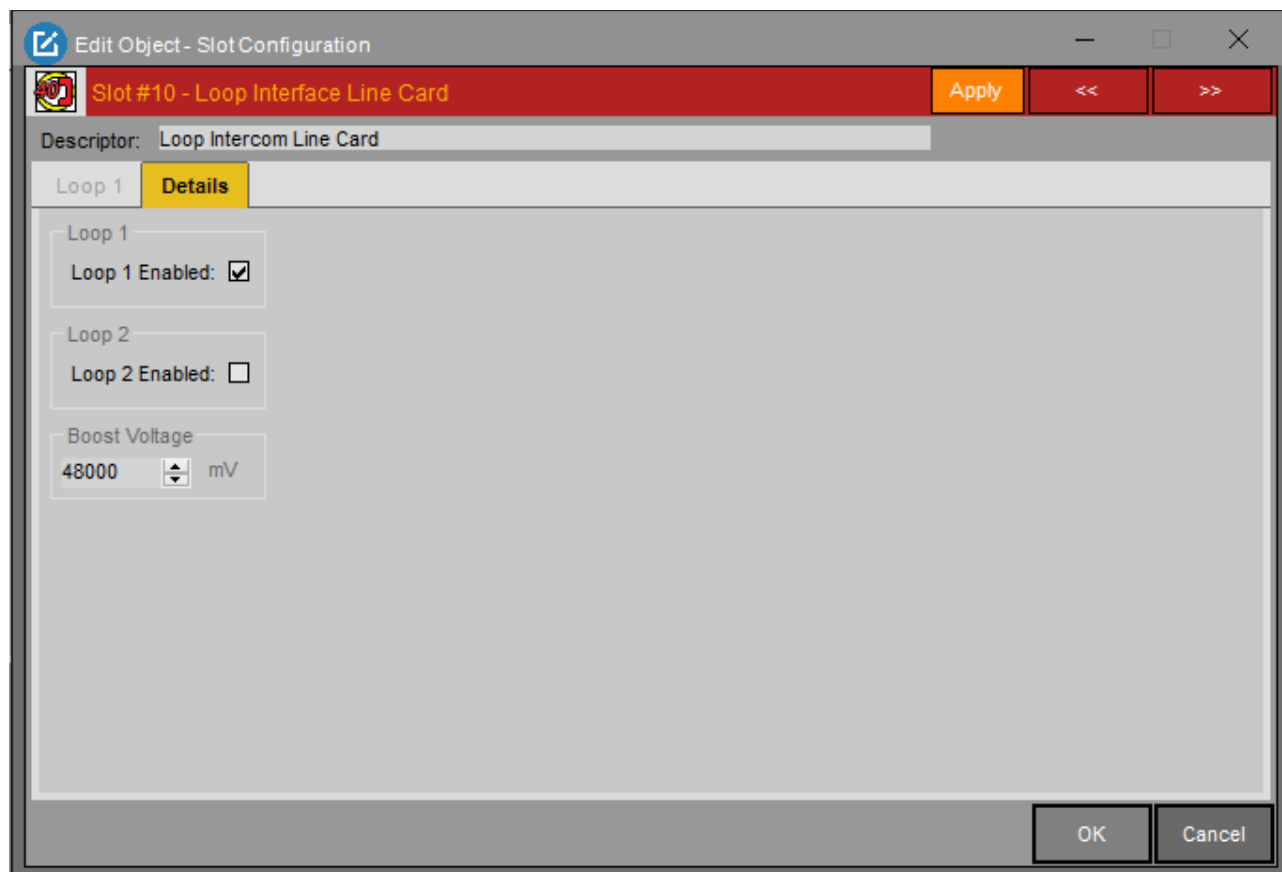


Figure 6-28 Dual loop EIS line card dialogue box.

The Dual loop EIS line card (aka LILC) has a default DETAILS tab.

The DETAILS tab allows the following properties to be edited:

- Loop #1 enable.
- Loop #2 enable.

When a loop is enabled, a tab appears so the properties of the loop can be edited.

Available in Advanced Mode Only

The boost voltage is the DC voltage applied to loop based WIP handsets. The allowable range 28 VDC to 48VDC. Default value is 48VDC.

6.12.1 LOOP tab

Refer to figure 6-29 for the Loop tab.

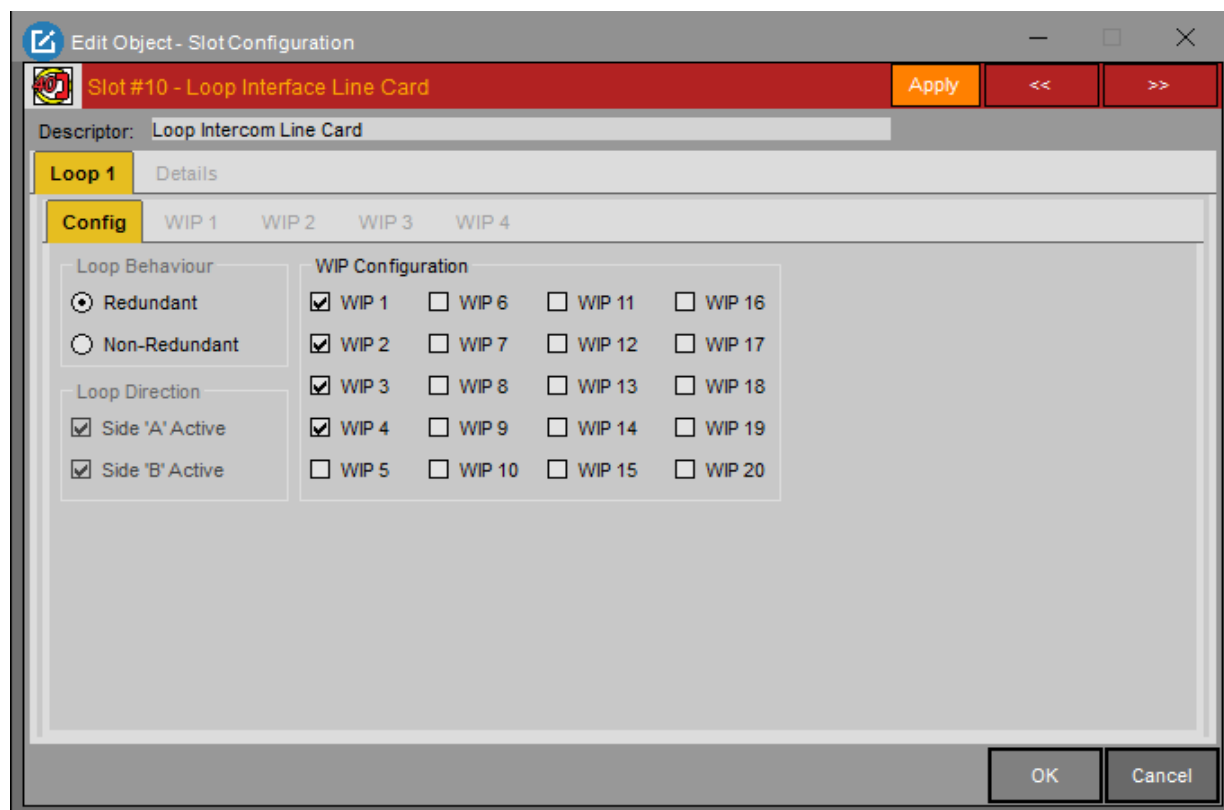


Figure 6-29 Loop tab

The Loop tab allows the following properties to be edited:

- Loop behaviour – Each loop circuit (x 2) can be configured as redundant. In this mode, each loop will support up to 20 WIP handsets, Each WIP having a unique address set from 1 thru to 20. (Handset **Item No ASS63LWIPS**)
- WIP configuration – **enables** the connected WIP handsets. If the loop behaviour is set to redundant, then 20 WIP handsets can be enabled by ticking the boxes to enable each one.
- As WIP handsets are enabled, tabs appear so the properties of each WIP can be edited.
- Each WIP must be configured. By assigning the **EIS Zone list** (WIP number) into each tab respectively (
- A GUI Layout (EIS Widget) should be assigned to provide Control Buttons for each handset)

Each WIP handset configured needs to correlate to the EIS Zone List and a GUI Widget so the configuration will compile and save

- **Alternative NON-Redundant** Each of the loop connections (consisting of 4 terminals per loop) can be configured as **non-redundant** which means the circuits become a ‘radial connection’ to each side (A and B) They can be individually configured to provide 2 radial circuits. If you include the second loop connection it offers up to 4 radial circuits – refer to Loop Direction. In the non-redundant mode.
- In **Non -Redundant** mode One handset (Item No AS63LWIPS) can be connected to each **activated** side.eg A & B. In this set up the handsets would be configured as address numbers 1,2, & 3,4 if each loop connection x 2 was use.

- Loop Direction – selection possible if the loop behaviour set to non-redundant. This allows side A and side B to be individually activated
- Loop side – this selection is enabled if the loop has been configured for non-redundant mode, to specify what side (A or B) the WIP handset is connected. In redundant mode, this selection is disabled.

6.12.2 WIP tab

Refer to figure 6-30 for the WIP handset tab.

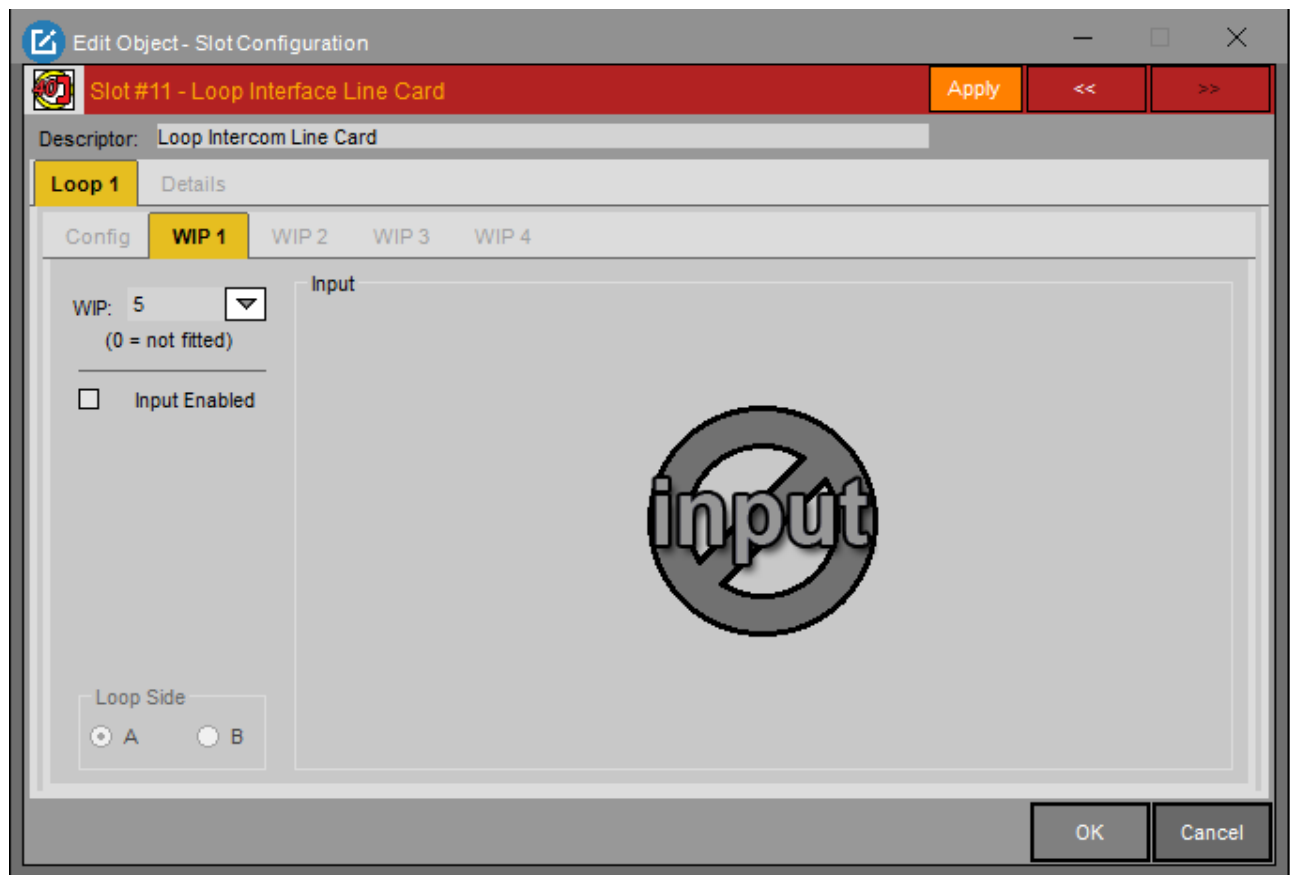
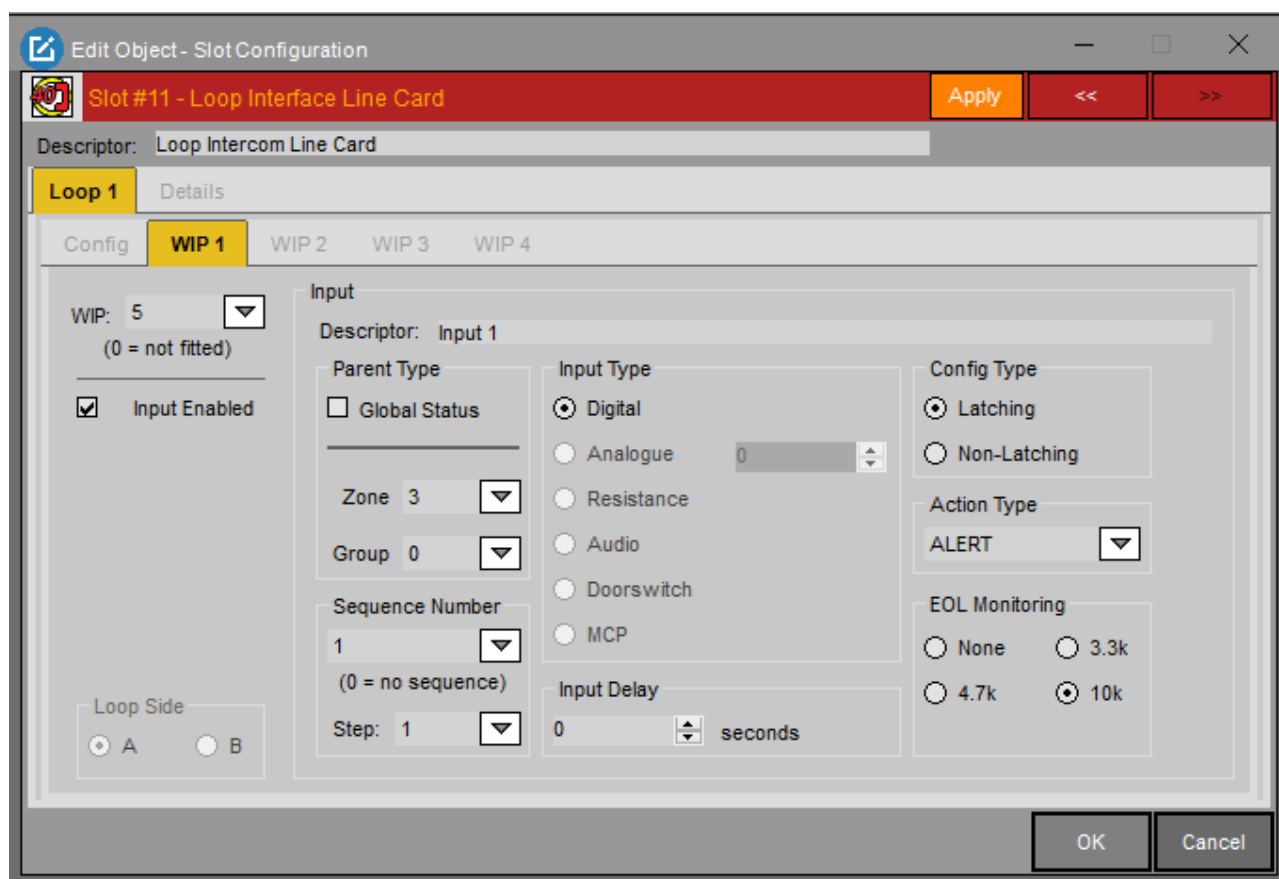


Figure 6-30 WIP handset tab.

The WIP tab allows the following properties to be edited:

- Enable the WIP handset, by assigning a WIP handset reference number (greater than 0). Refer to section 8.1.
- Every WIP configured in the system requires a **unique handset reference (EIS Zone) number**.
E.g. 1-20 then 21 40 in the case of using one fully populated Dual Loop EIS card.
- Enabling the input associated with the WIP handset is used when configuring an (EAID)

If the Input is enabled, the WIP HANDSET tab is updated – refer to figure 6-33.



The screenshot shows the 'Edit Object - Slot Configuration' window for 'Slot #11 - Loop Interface Line Card'. The 'Loop 1' tab is active, and the 'WIP 1' sub-tab is selected. The 'Input' section is expanded, showing the following configuration:

- WIP:** 5 (0 = not fitted)
- Input Enabled:** ☒
- Loop Side:** ☒ A ☐ B
- Descriptor:** Input 1
- Parent Type:** ☐ Global Status
- Zone:** 3
- Group:** 0
- Sequence Number:** 1 (0 = no sequence)
- Step:** 1
- Input Type:** ☒ Digital, ☐ Analogue, ☐ Resistance, ☐ Audio, ☐ Doorswitch, ☐ MCP
- Input Delay:** 0 seconds
- Config Type:** ☒ Latching, ☐ Non-Latching
- Action Type:** ALERT
- EOL Monitoring:** ☐ None, ☐ 3.3k, ☒ 4.7k, ☐ 10k

Figure 6-31 WIP handset tab with input enabled.

Refer to section 6.5.1.2 for configuring the input properties.

Considerations:

Only enable the input when an EAID IS fitted, otherwise the EIS widget on the GUI Screen will produce a fault due to a missing EOL resistor.

Typical fields entered in the WIP input screen are illustrated above.

- Zone number
- Sequence Number
- Config Type - Latching
- Action Type (Alert or Evac)
- EOL Monitoring Resistor – 10K.

6.13 Network interface card configuration.

To Add a network interface card to the node, right click on the Network Board icon  and select Add network Board.

To edit, click on the Network Board 1 icon .

Following (figure 6-32) is the Network interface card dialogue box.

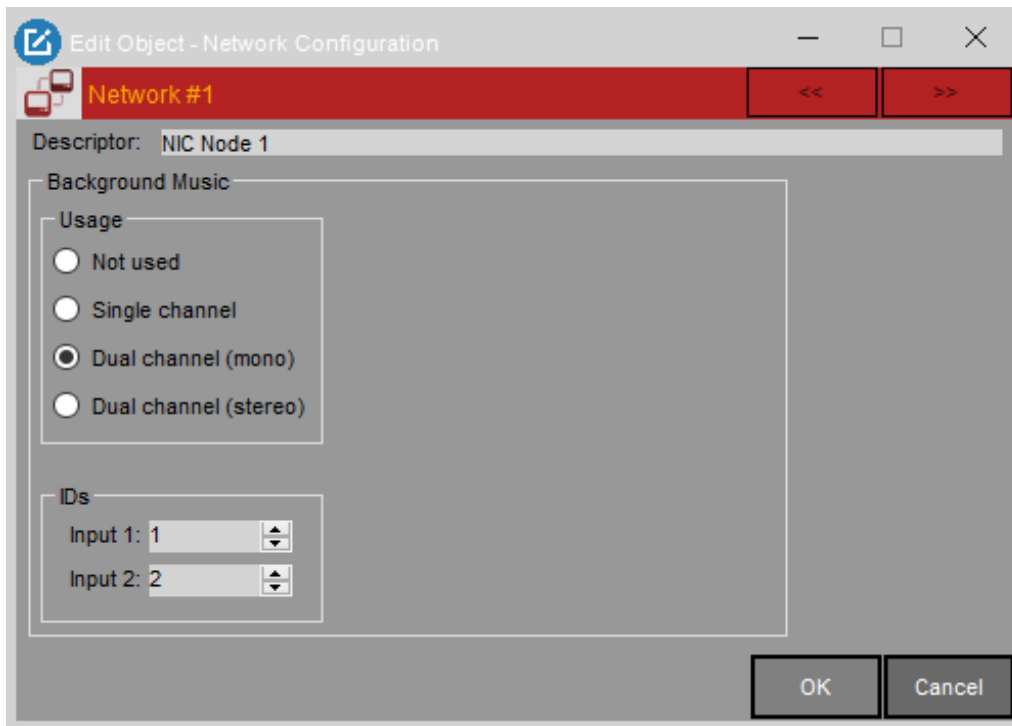


Figure 6-32 Network interface card dialogue box

The Network interface card requires no configuration for the networking function. This is handled automatically.

The Network interface card supports 2 channels of **audio input** that are used for (BGM) Background music sources.

If you are assigning BGM source ID that is distributed to other panels **across the network** the source ID numbers used must be ID 1 or ID 2 (Node 1) There is a limit of Two BGM sources of this 'global' type

Every Universal Rack fitted will include a CPU board fitted in slot 0. Each CPU module also provides connections for a further **two BGM sources**.

For **Local rack BGM** source distribution use ID numbers ≥ 100 . **Start from ID 100**.

For each extra local BGM input increment the ID number by one.eg 101 102 103 and so on. The limitation on a local panel / node is based on how many DCPUs (Racks are fitted and whether a network card is fitted

5 DCPUs x 2 BGM inputs = 10

1 x NIC =2 BGM inputs. So, 12 BGM inputs Max (per node) based on current system architecture.

Each Amplifier may be assigned one BGM ID Source number.

Refer to section 6.6.1 for information on editing the properties.

6.14 PAIC PA interface card configuration for Bosch Praesensa.

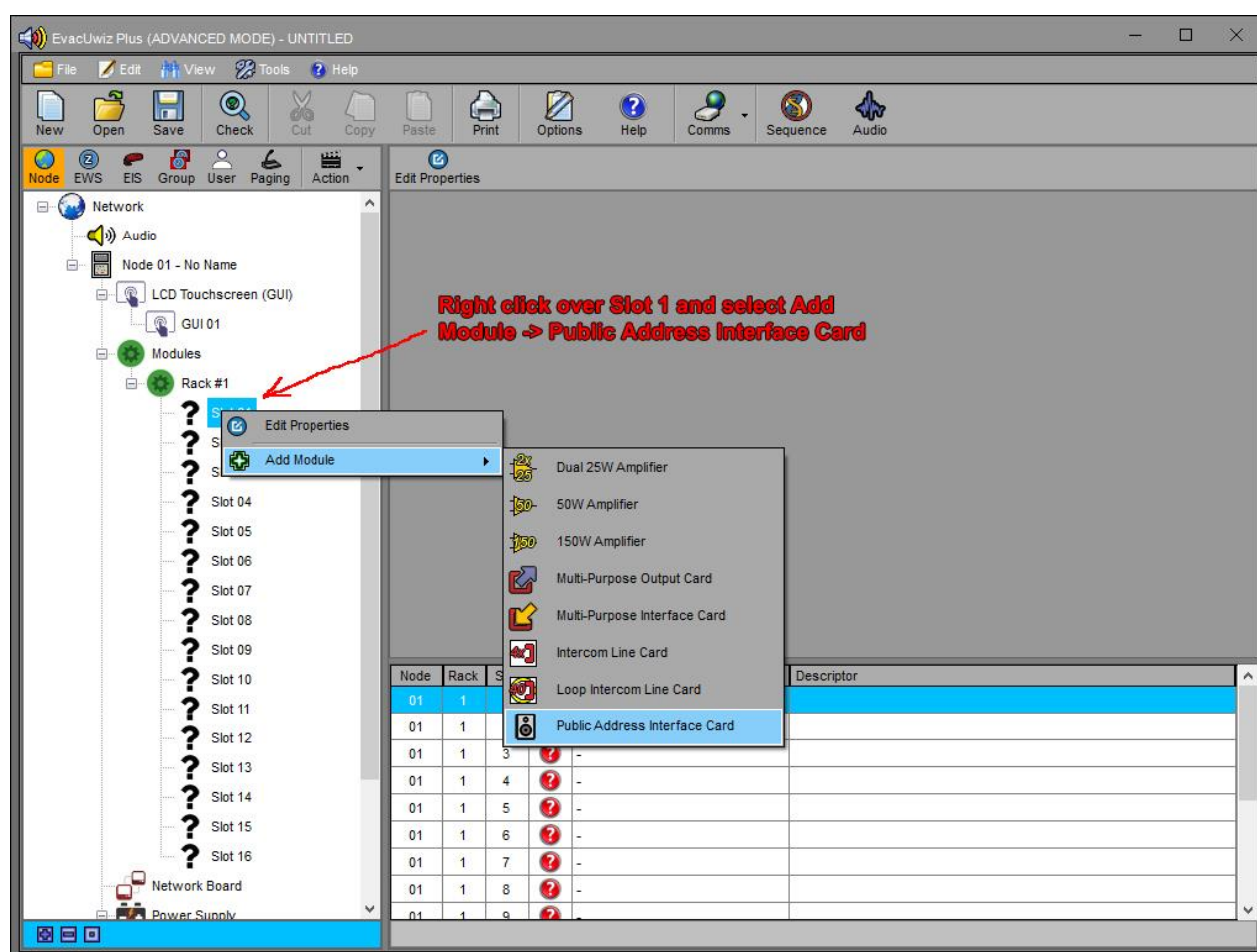
6.14.1 Configuration requirements

Note: Some screenshot captures in 6.14 may differ slightly to the Programming tool version *you are using*. This is due to continual improvements and user feedback.

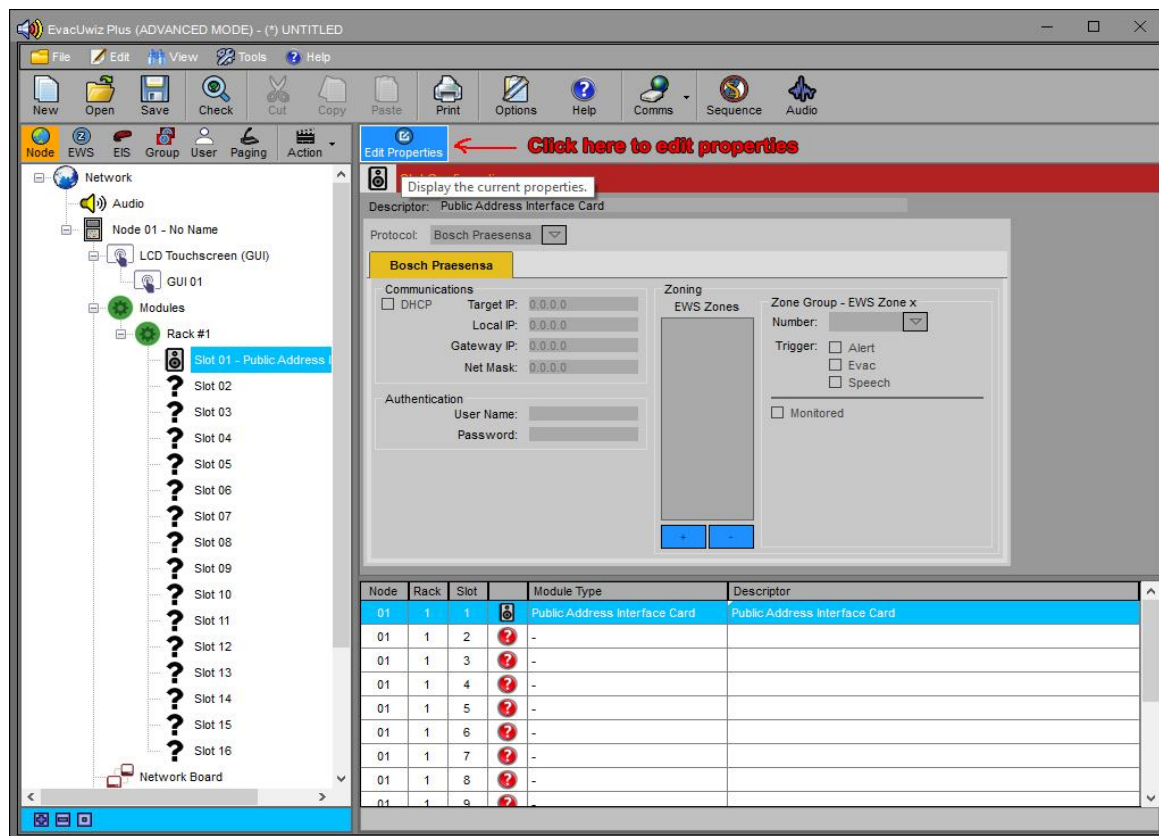
To configure PAIC requires **EvacUWiz Plus V1.2.2.2** or later version. This series of screenshots which follow illustrate all the steps necessary to set up a Praesensa interface.

If EvacUElite contains a Network Card (Slot 1 will be consumed by the NIC) so use slots 2-16.

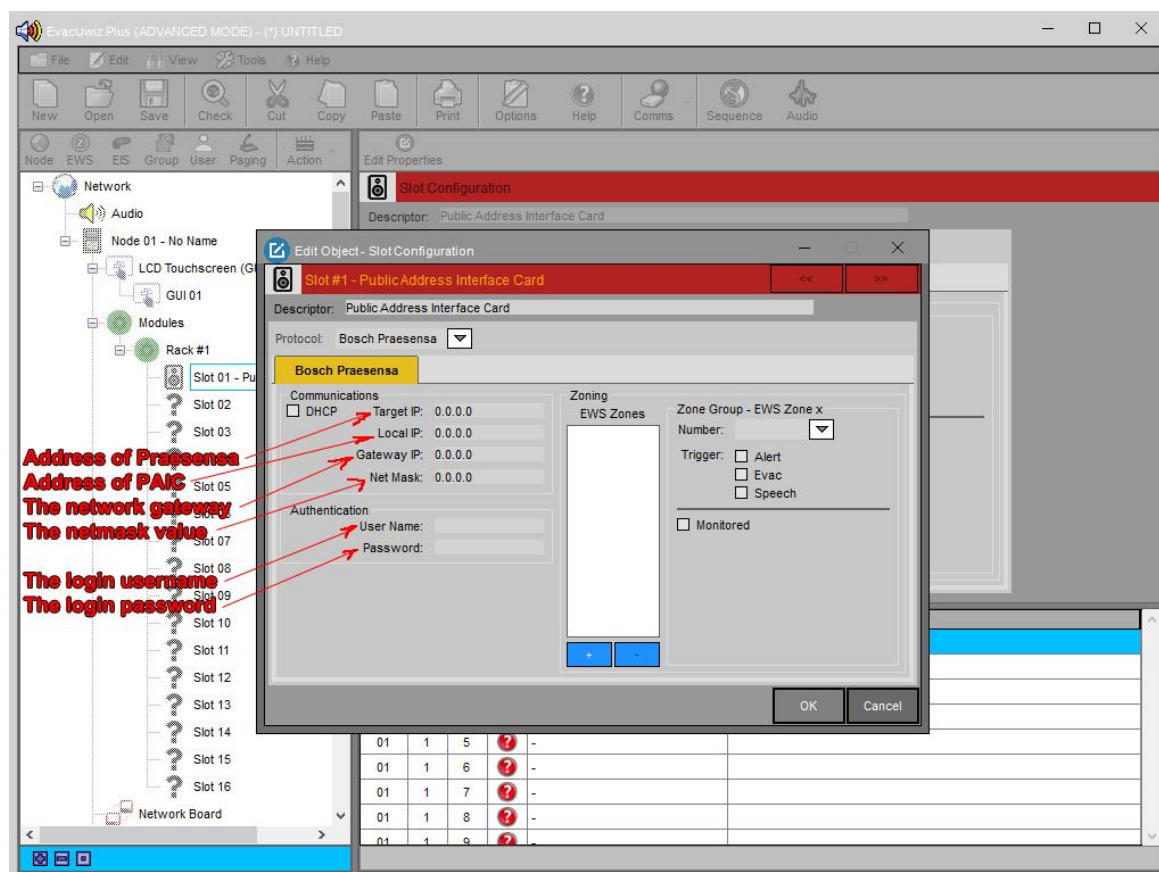
Add the Public Address Interface Card (PAIC) in an appropriate rack slot, illustrated below.



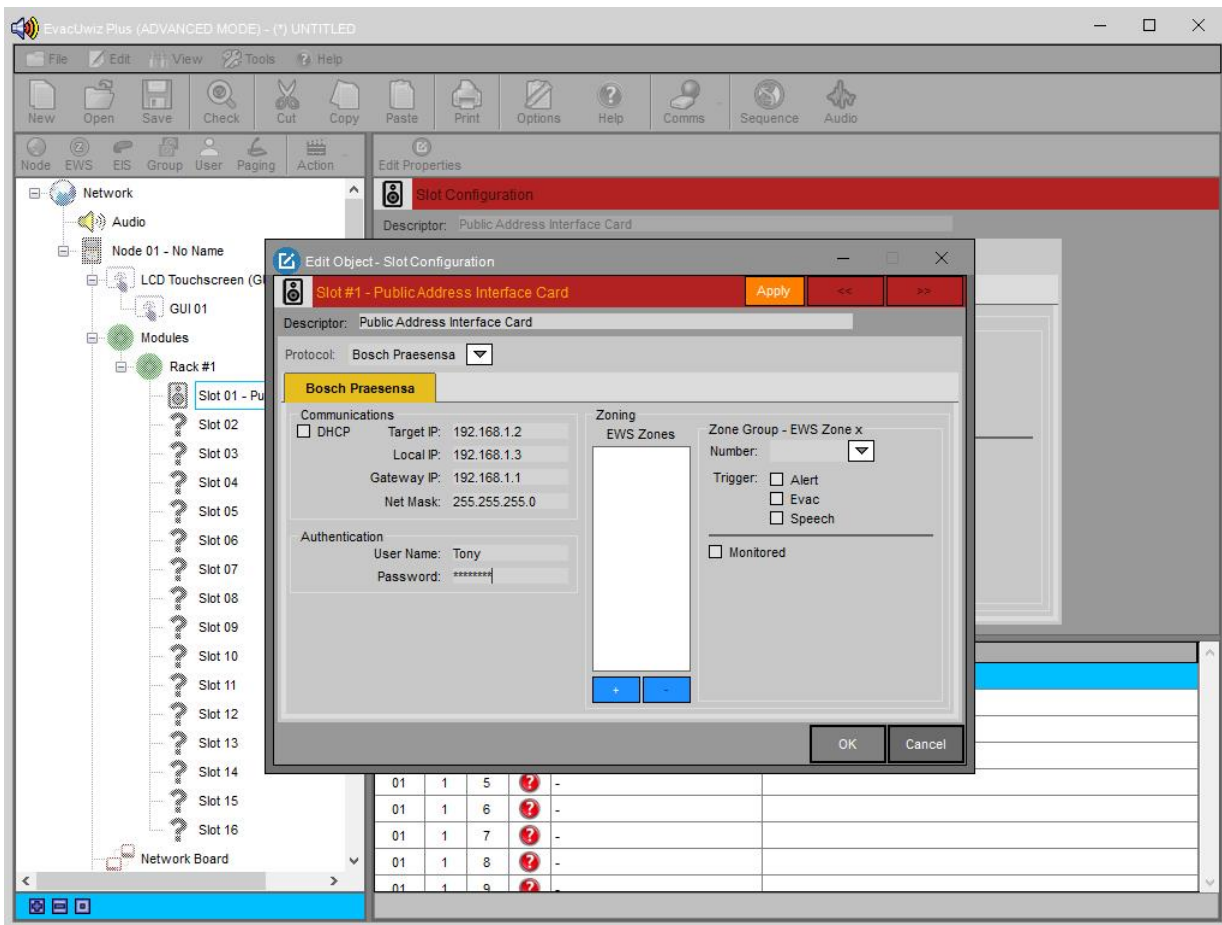
Select Edit Properties



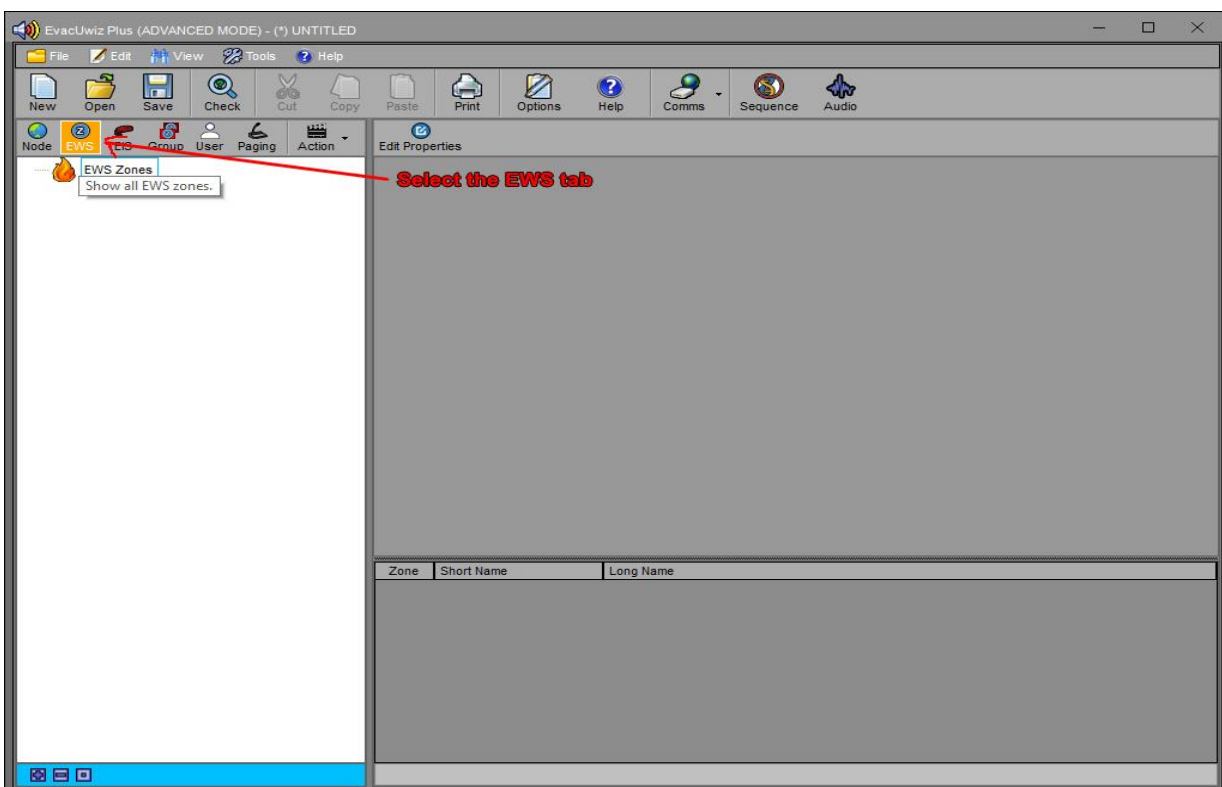
Then insert the Communication fields.



The communications fields shown filled with test values.

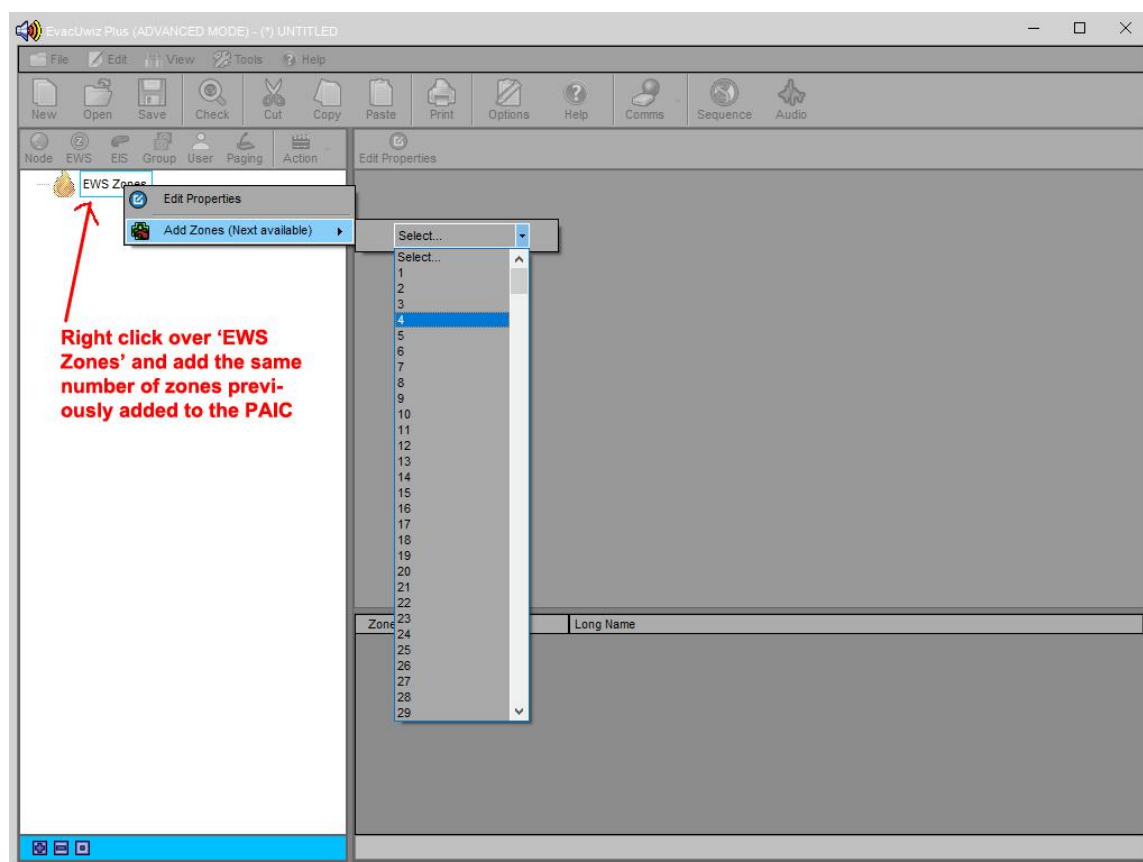


Section 7 of the manual explains how to create the MECP **EWS** zones.



Select the Total Quantity of EWS zones featuring on the MECP (Max 512)

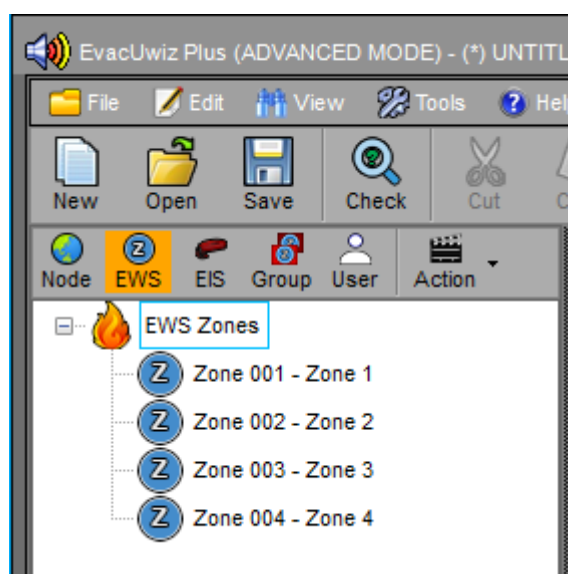
The **default values** set on each zone are fine.



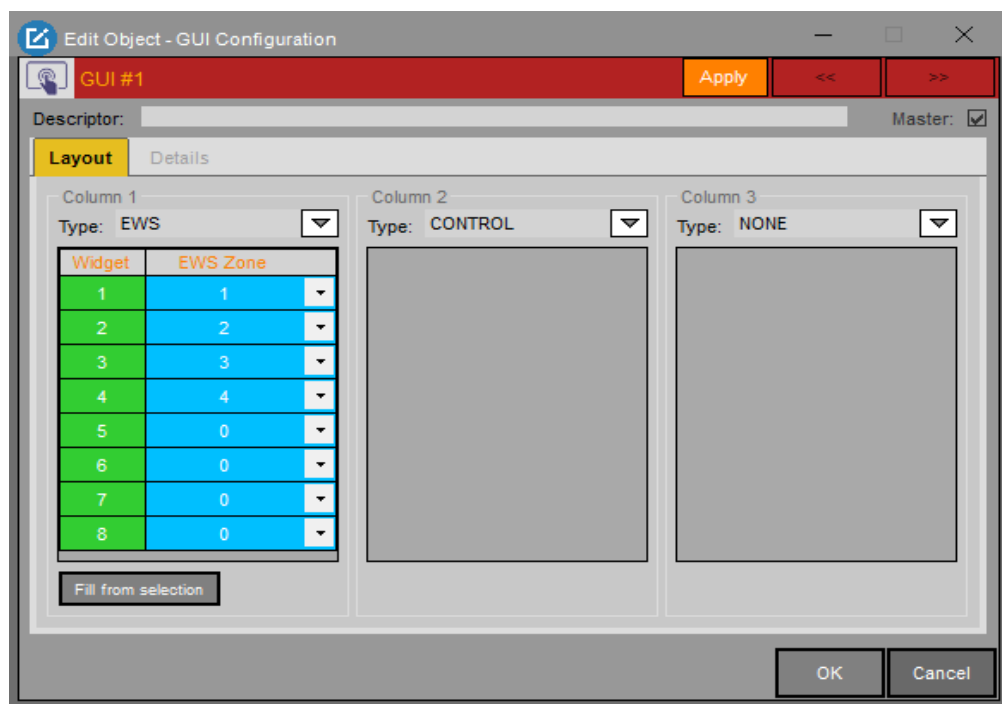
List shown below.

This is where EWS Zone descriptions are configured.

Each EWS zone on the MECP must be mapped to activate corresponding Bosch Praesensa Amplifier channel(s) which serve each Emergency Warning Zone area respectively. Multiple Amplifier channels can serve one common EWS Zone

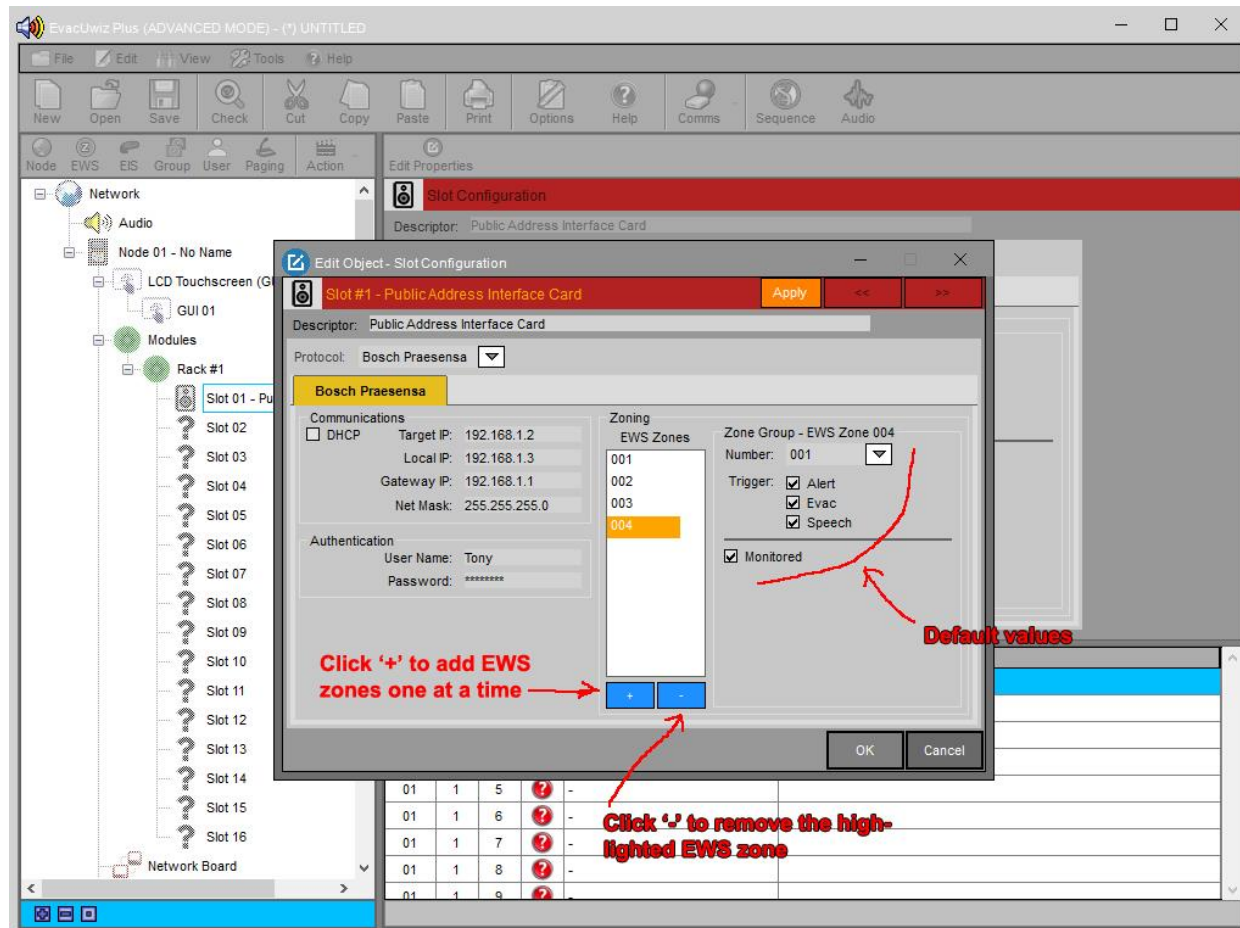


Each **EWS Zone** must exist in the **MECP GUI layout screen(s)** in your configuration file. See section 6.5.

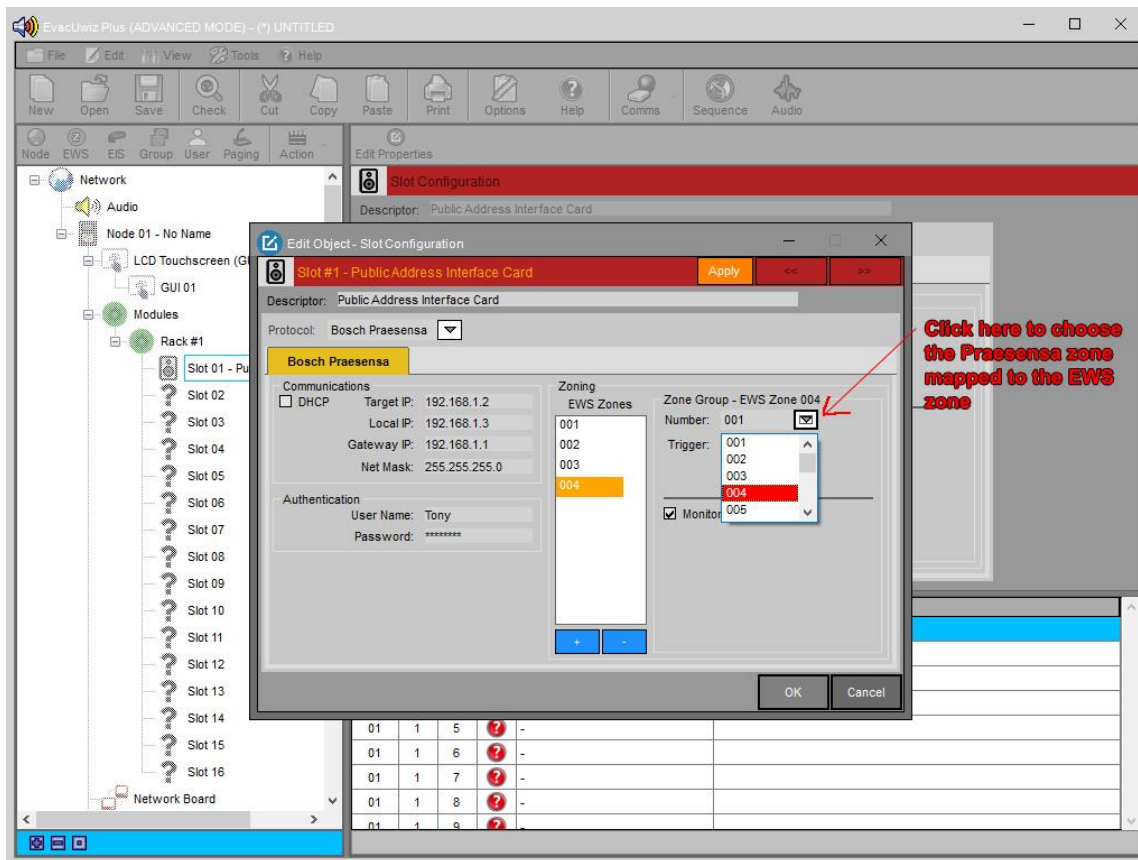


As shown on next 4 slides. Set up each Ampac EWS Zone and Praesensa Zone relationship.

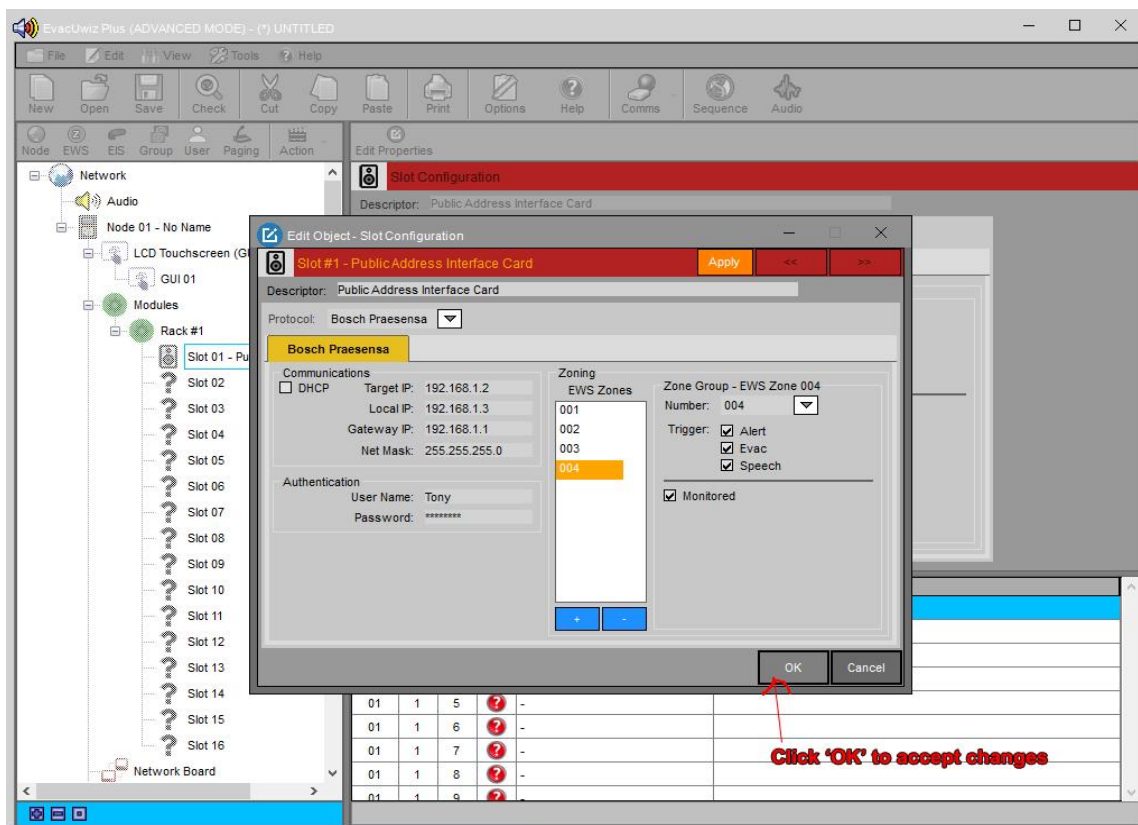
Configure each EWS Zone individually and **save** until All zone mapping is complete.



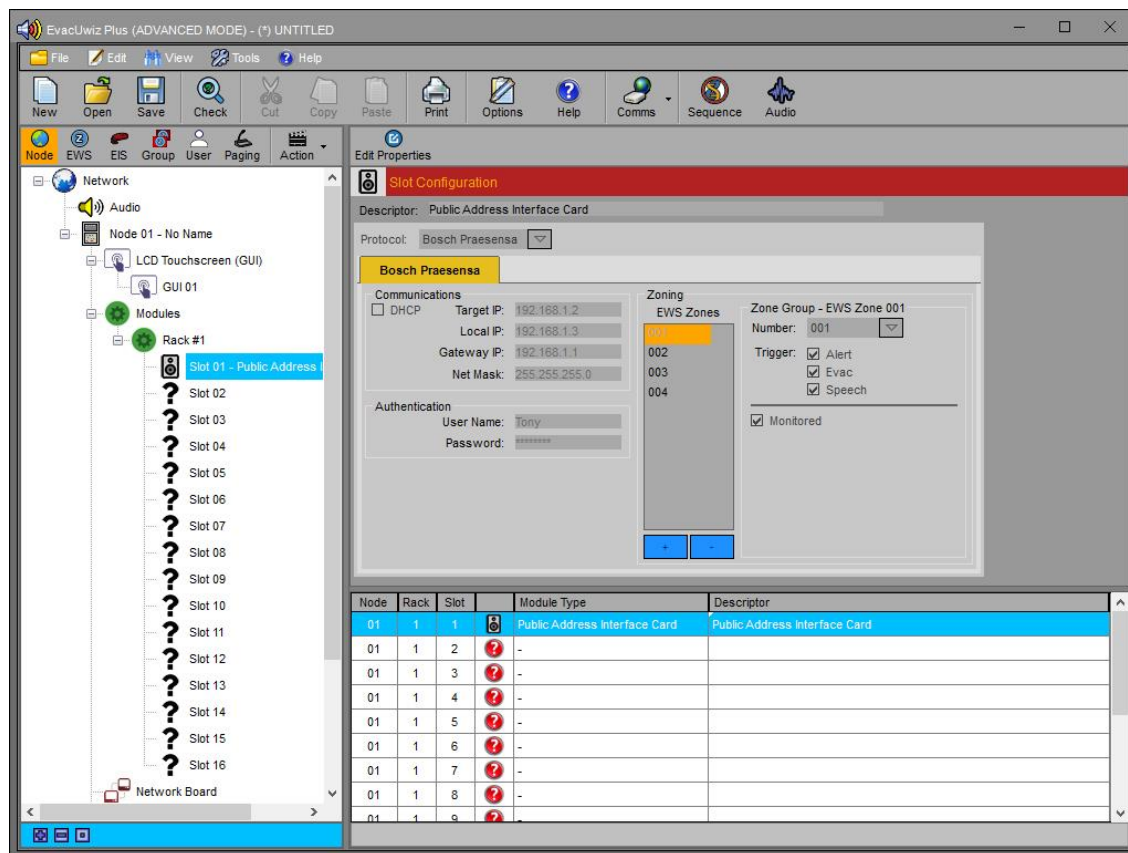
Insert Zones and zone grouping relationships



View showing PAIC successfully edited.

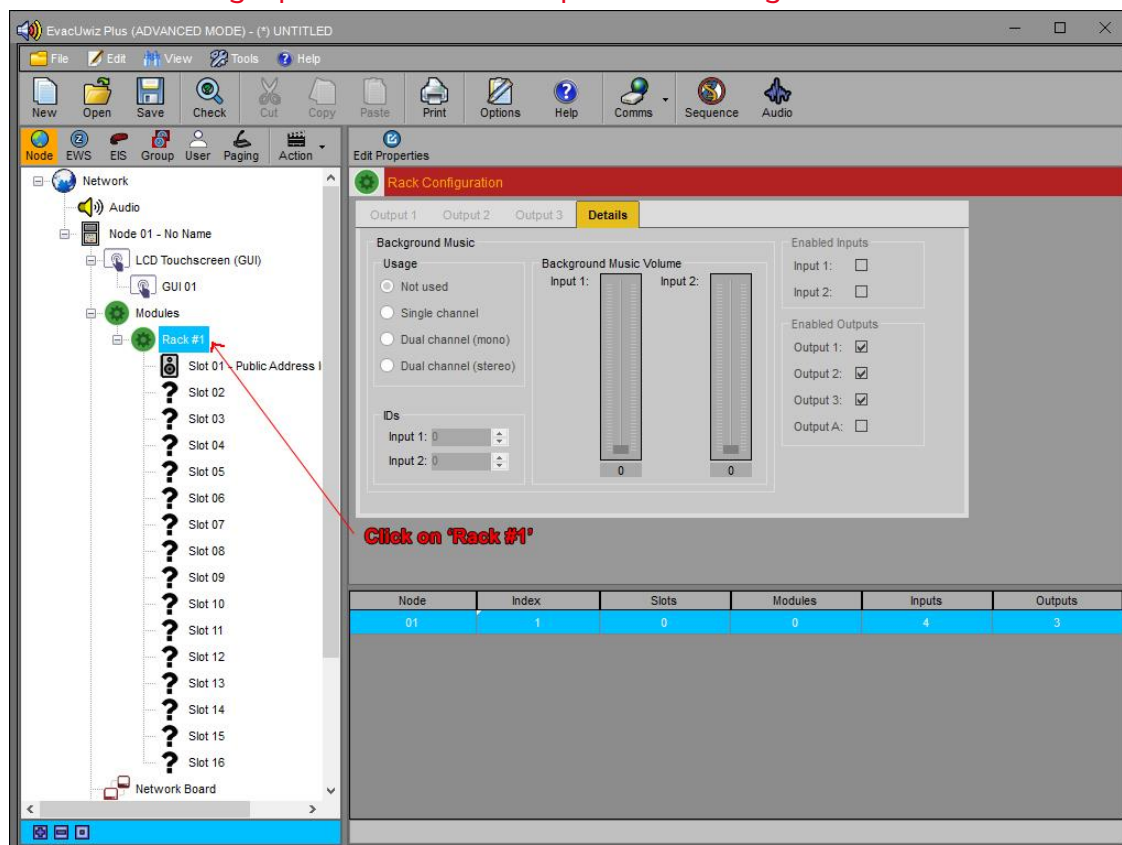


View showing PAIC details updated. In this example below EWS Zone 1 = Praesensa Zone 1



Node	Rack	Slot	Module Type	Descriptor
01	1	1	Public Address Interface Card	Public Address Interface Card
01	1	2	-	-
01	1	3	-	-
01	1	4	-	-
01	1	5	-	-
01	1	6	-	-
01	1	7	-	-
01	1	8	-	-
01	1	9	-	-

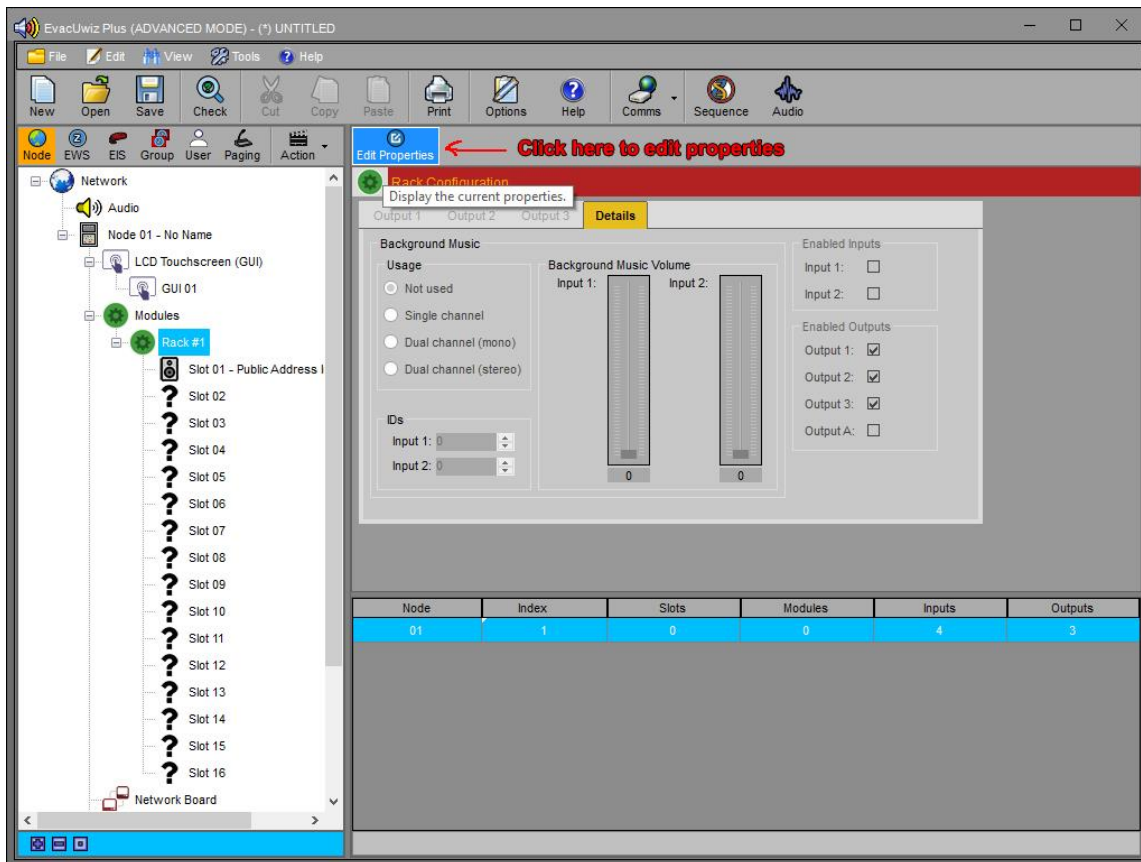
6.14.2 Setting Up the PAIC Audio input when using DCPU Audio Jack.



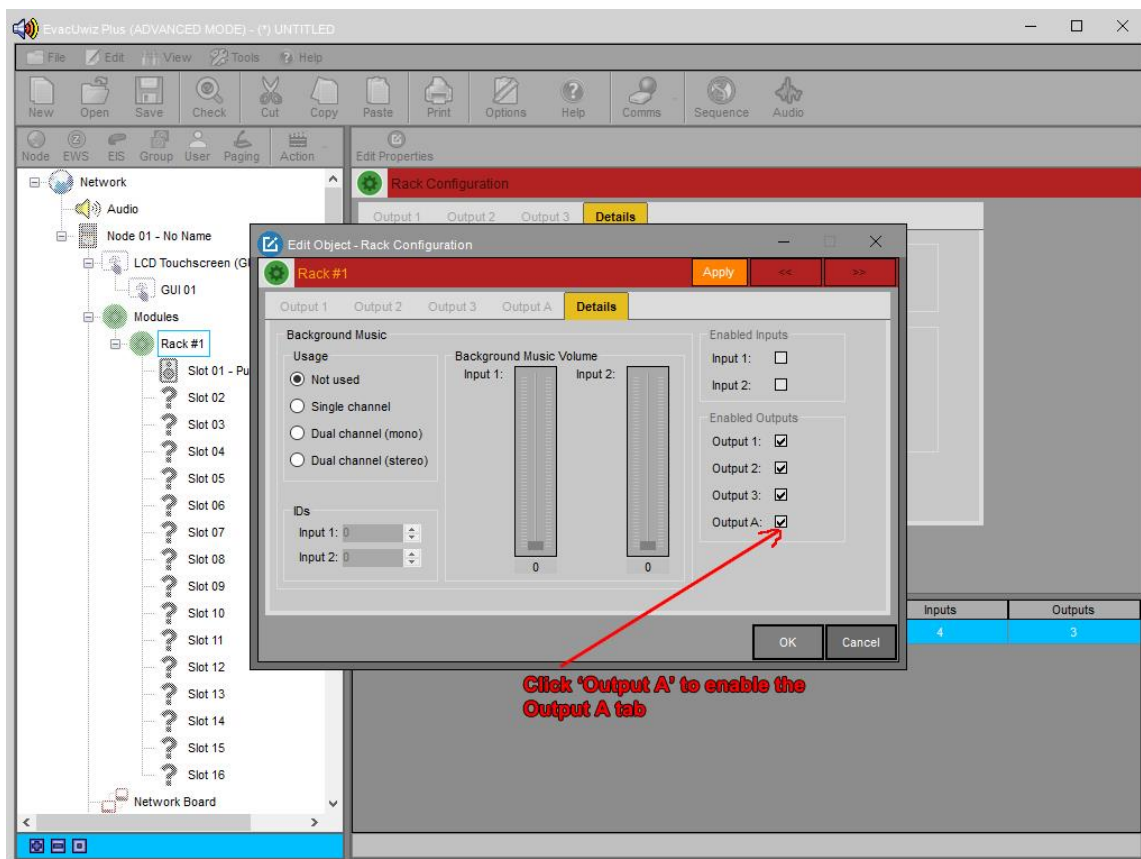
Click on 'Rack #1'

Node	Index	Slots	Modules	Inputs	Outputs
01	1	0	0	4	3

Edit the Rack settings.



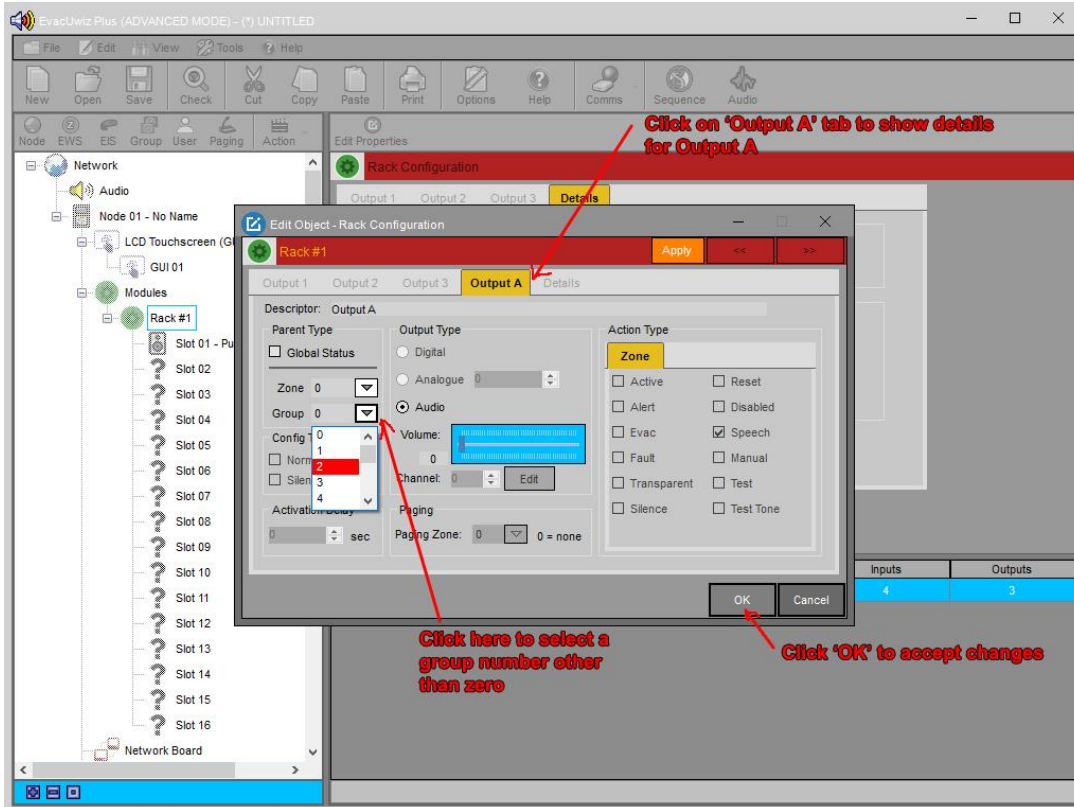
Enabling the DCPU – PAIC audio output (Output A)



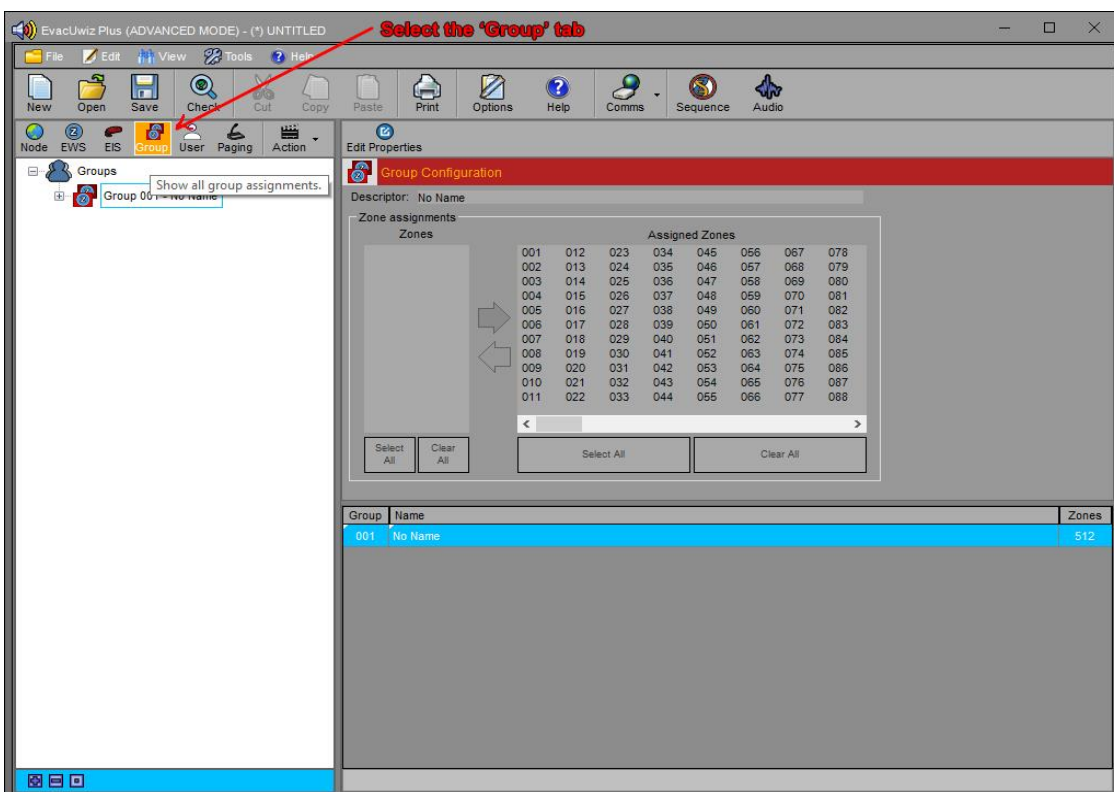
6.14.3 Configuring the Audio output's group number.

The **Audio Output Group** should contain all EWS zone numbers the Praesensa system interfaces with.

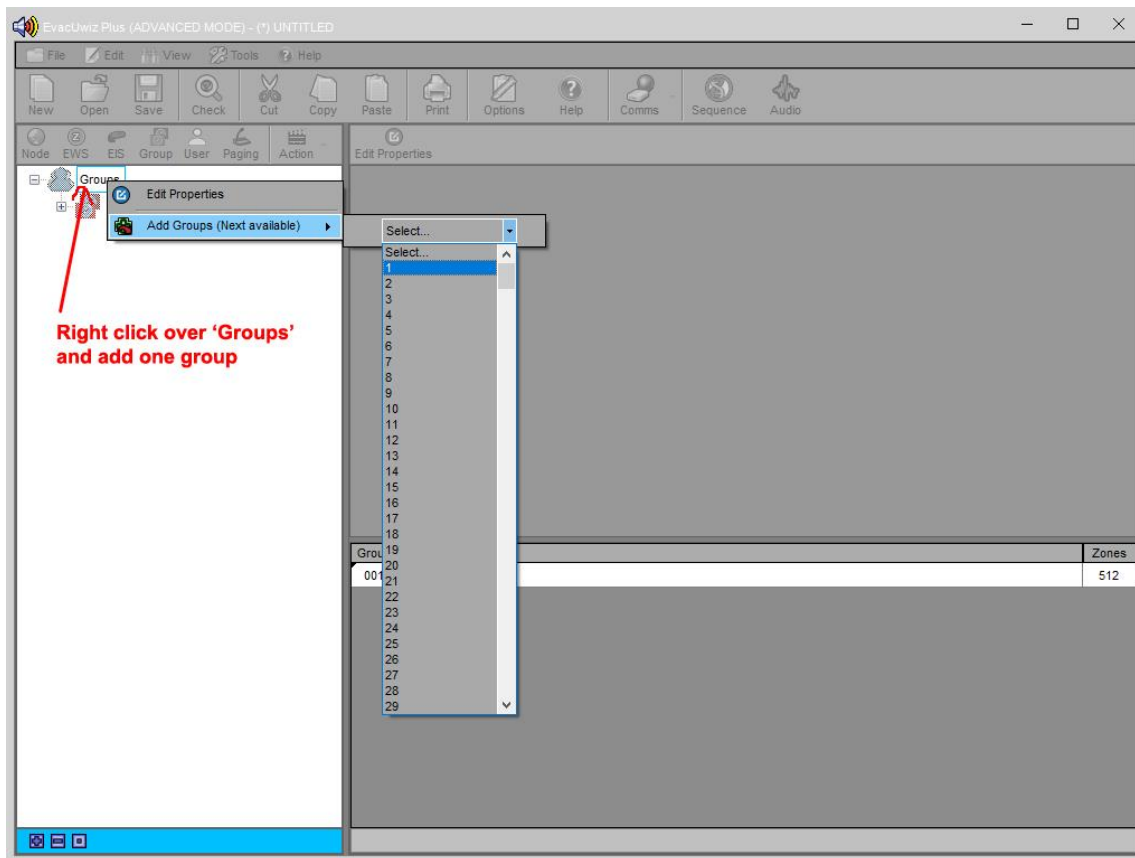
In the following illustration there are four EWS zones associated to this Group 2 audio output.



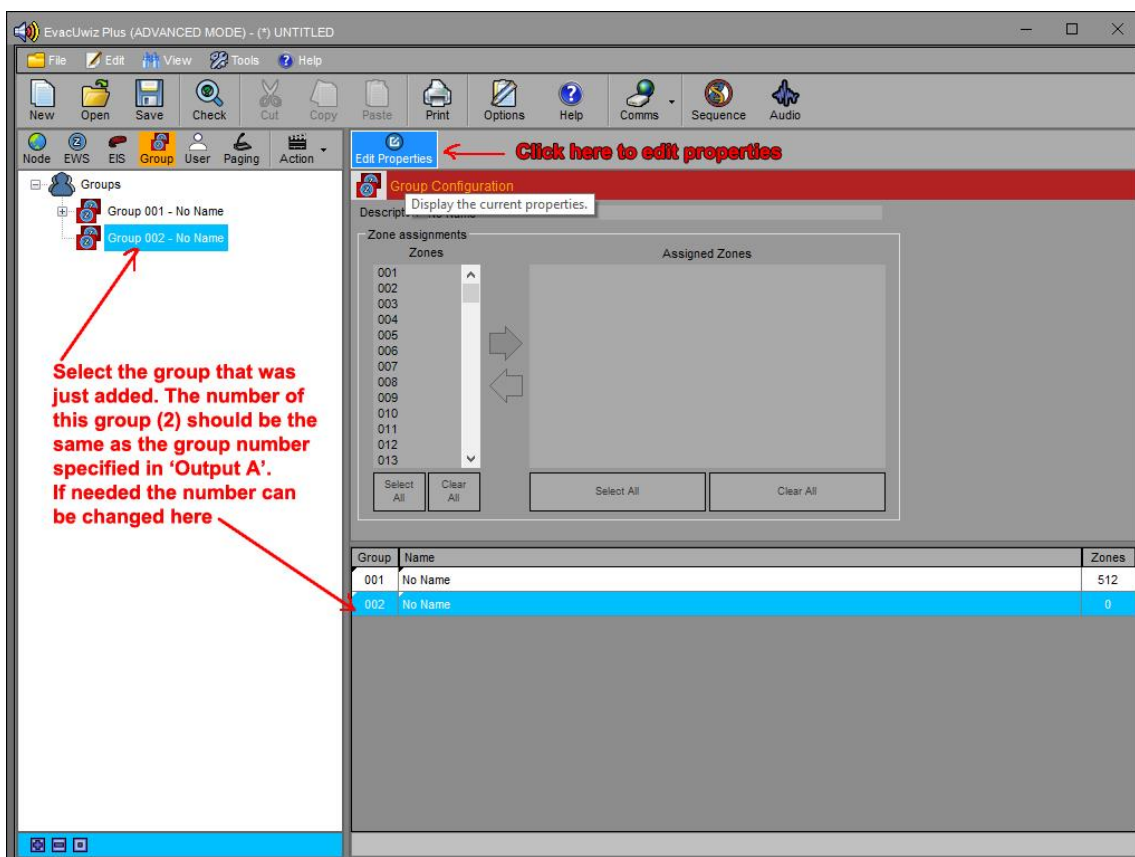
Selecting The Group tab



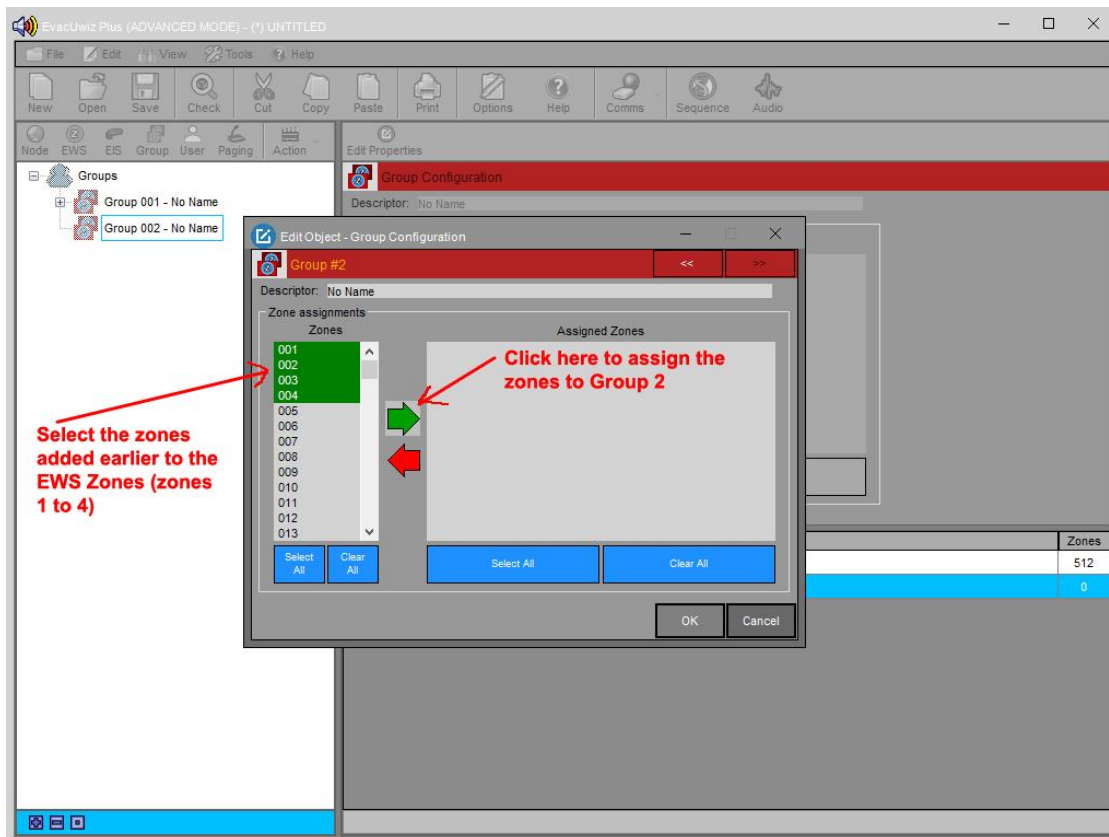
Adding a group into the configuration



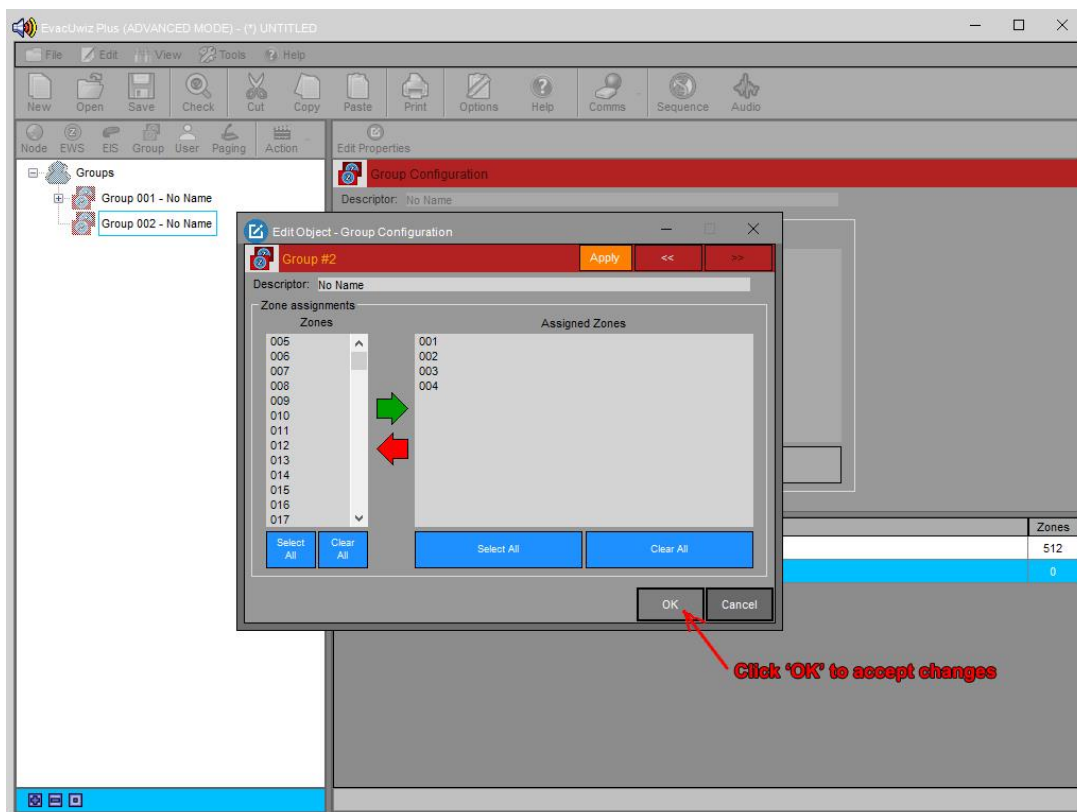
Selecting the newly added group (the number should match that for Output A)



Assigning zones to the group (002)



Finishing off the group (Zones 1-4 = Group 2)



The MECP Four EWS zones are now configured to the Praesensa system.

6.14.4 Important PAIC Configuration notes

1. The Bosch Praesensa unit expects all zones to be in sequential order and start from zone 1.
2. There must always be a zone 1 and NO gaps can exist between zone numbers.
3. These zones are different to the Evac zones. This is why we provide mapping as part of the PAIC configuration. we specify an EWS zone and then link it to a Bosch zone (zone group) via the drop box.
4. The Praesensa zone / groups are bound by the rules whereas the EWS zones don't have these rules.

e.g. if we had EWS zones 65, 66, 67, 68 and we wanted them to work with the Bosch then the associated zone groups would be 1, 2, 3, 4 ... EWS zone 65 would be linked to Bosch zone group 1, EWS zone 66 to Bosch zone group 2, etc.

Also note that EWS zones are in the range 1 to 512, but the Bosch zone groups are 1 to 256.

6.15 Power supply configuration

To Add power supply units, right click on the Power Supply icon  and select Add power supply.

To edit a power supply, click on the Primary icon  or secondary icon if more than one power supply is fitted .

6.15.1 Primary power supply

Refer to figure 6-33 for the primary power supply dialogue box.

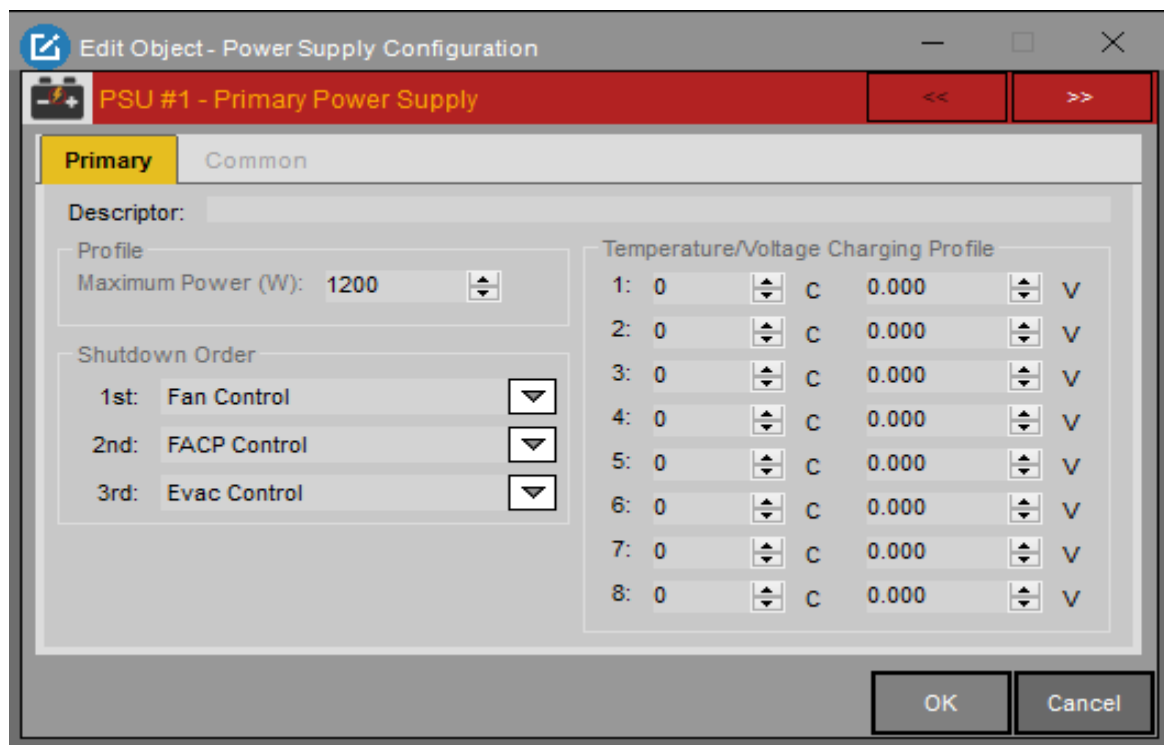


Figure 6-33 Main power supply dialogue box

The PRIMARY tab allows the descriptor to be entered.

Available in Advanced Mode Only

The maximum power is the maximum power that the **Primary power supply** can deliver. This is set at 1200Watts.

Two additional Secondary PSU modules can also be fitted which adds a further 1200Watts each respectively.

Total 3600 Watts when 3 x PSU modules are installed and configured.

The shutdown order is the order the sub systems are shut down in the event of excessive current draw. The three sub systems are:

- Fans – set at 2 amps.
- Fire Alarm Control Panel – set at 5 amps.
- Evac Control – which powers the GUI displays – set at 5 amps.

It is highly recommended that these fields are all set to NONE – as shown in Figure 6-36

The temperature/voltage charging profile fields – allows for the default charging profile to be overridden. Ampac recommends using the default charging profile (unless Ampac directs you to make specific alterations (refer to the PRIMARY & COMMON tabs)

The COMMON tab is shown in figure 6-34.

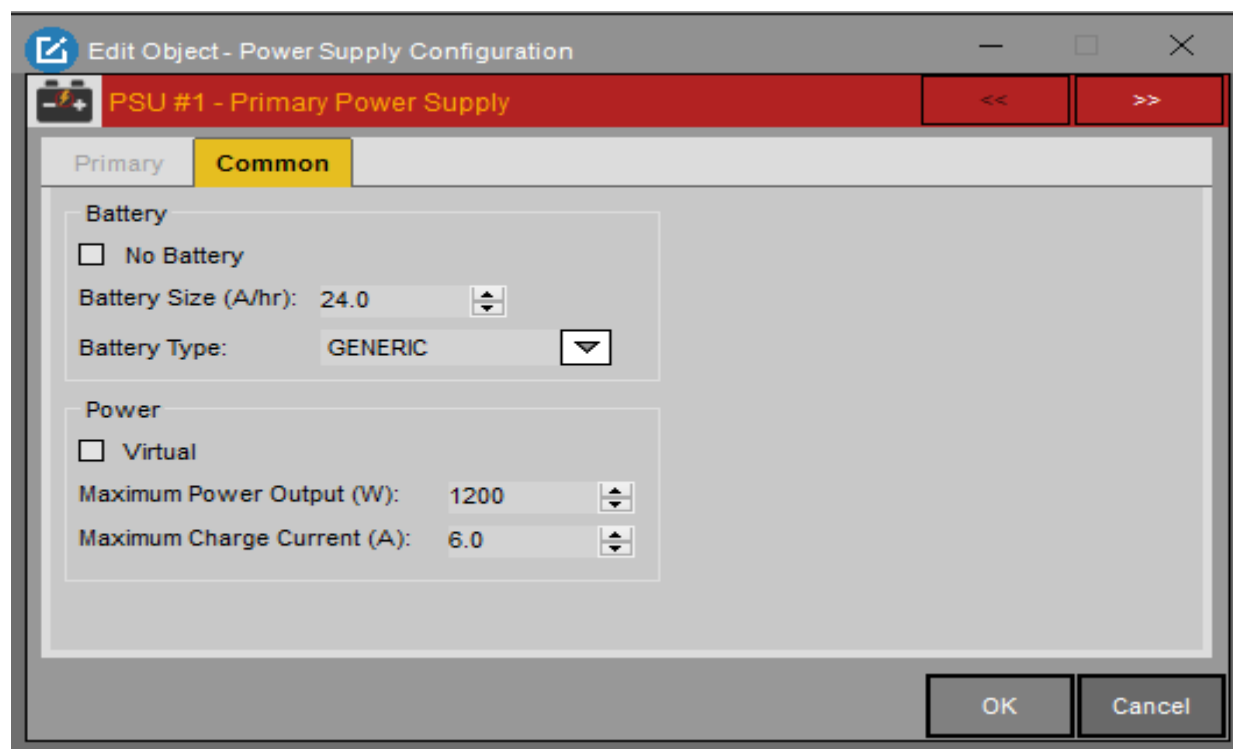


Figure 6-34 Common tab.

The No battery tick box is used when **No Battery** is fitted (typical during factory testing & demo panels etc)

The battery size installed must be specified and must match what is fitted. This is required by the power supply to set charge times and charge currents.

In the battery type field the **selection of battery manufacturer** can be applied to set the default battery charging profile. This uses the specific technical characteristics of each battery manufacturer to optimise the recharging process of each brand of battery.

Available in Advanced Mode Only

Power virtual – is used when a 3rd party power supply is used, and it masks the power supply faults. Highly recommended that this is not used.

COMMON TAB -Maximum power output – is the total power required **by the full PSU system**.

Maximum (W) value is 3600Watts.

If 3 PSU modules are fitted 3600 should be applied

When 2 PSU modules are fitted 2400 should be applied

When 1 PSU module is fitted 1200 should be applied

6.15.2 Secondary power supply

The secondary has a SECONDARY tab and COMMON tab.

Refer to figure 6-35 for the SECONDARY tab.

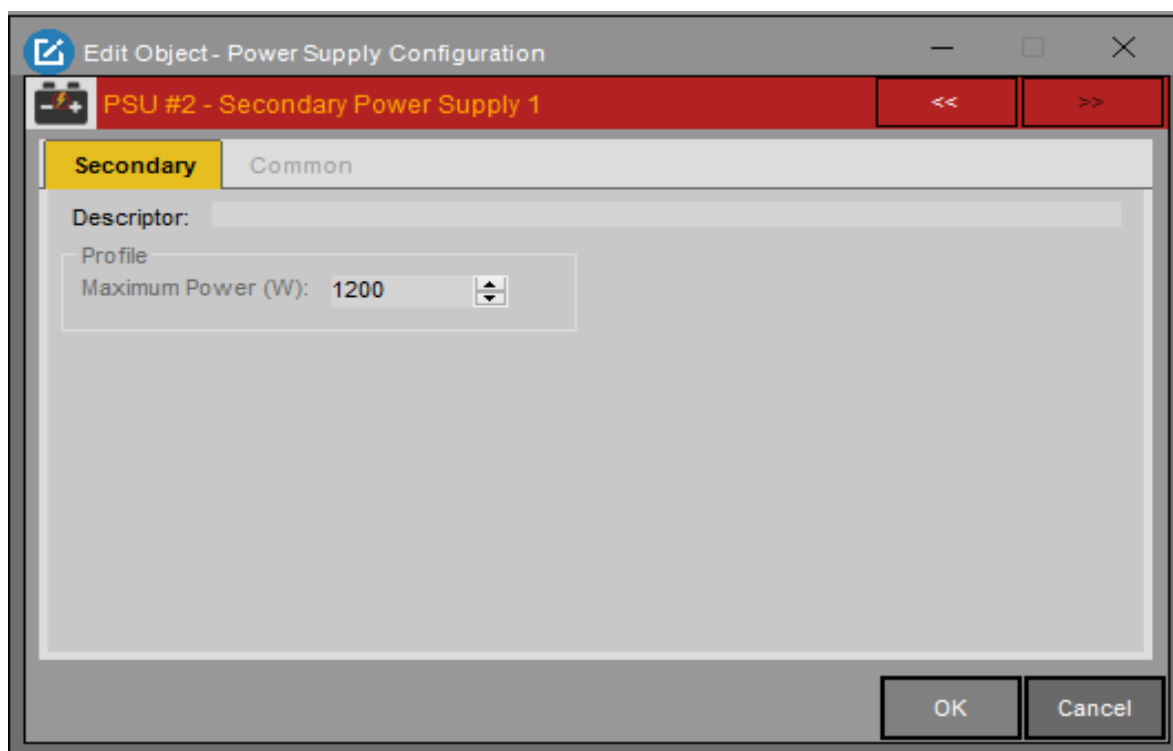


Figure 6-35 Secondary power supply

The SECONDARY tab allows the descriptor to be entered.

Available in Advanced Mode Only

The maximum power is the maximum power that the primary power supply can deliver. This is set at 1200Watts.

The COMMON tab matches the COMMON tab of the primary power supply. Refer to 6-34.

6.16 Virtual Inputs

Virtual inputs are inputs available from the HLI interface to the FireFinder ^{PLUS} FDCIE.

To edit the properties of the virtual inputs, the HLI must be enabled. Refer to section 6.11.

To select and edit the virtual inputs, click on the Virtual Inputs icon  

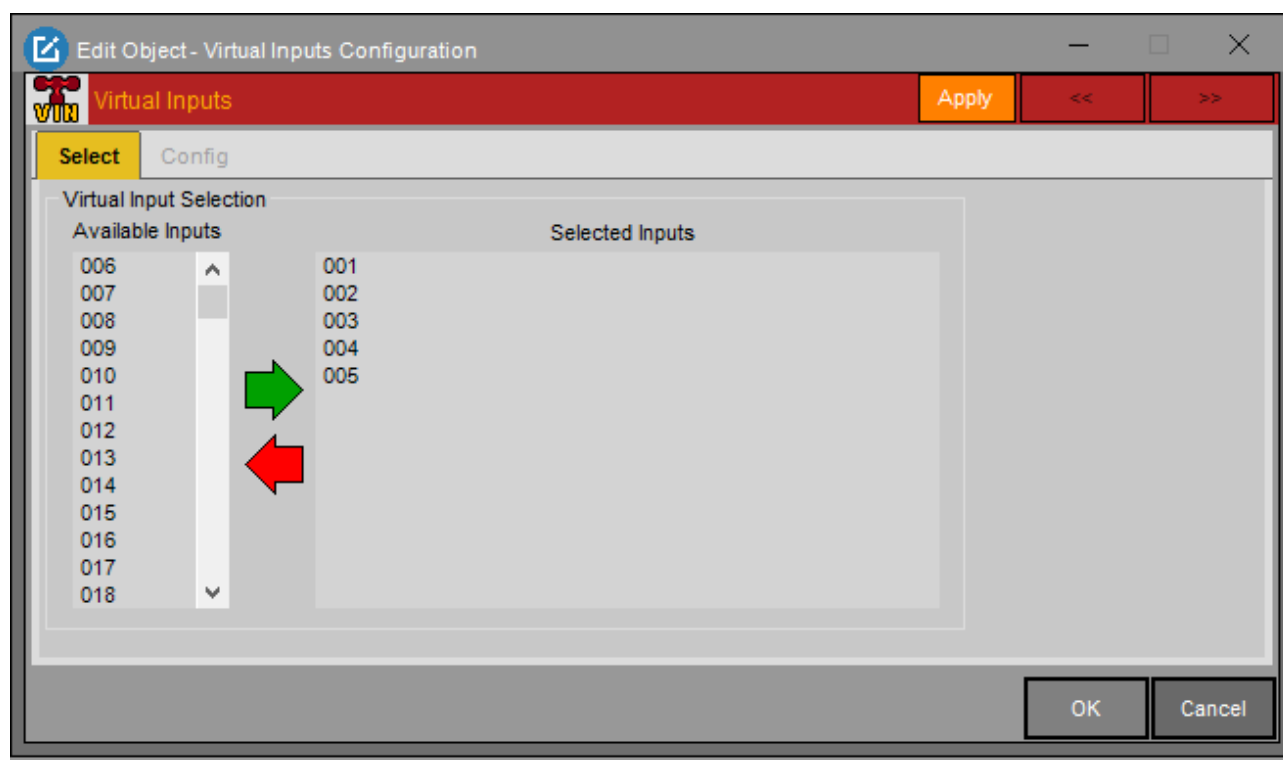


Figure 6-36 Virtual inputs dialog box.

Refer to figure 6-36 for the Virtual inputs dialogue box.

There are two tabs SELECT – which allows the virtual inputs to be selected for use and CONFIG which allows the properties of each input to be edited.

From the SELECT tab, inputs can be selected individually or collectively (using the shift key for consecutive or ctrl key for scattered) and then green or red arrow to include or remove inputs.

Inputs 1 to 5 shown selected above.

To edit each input, refer to figure 6-37.

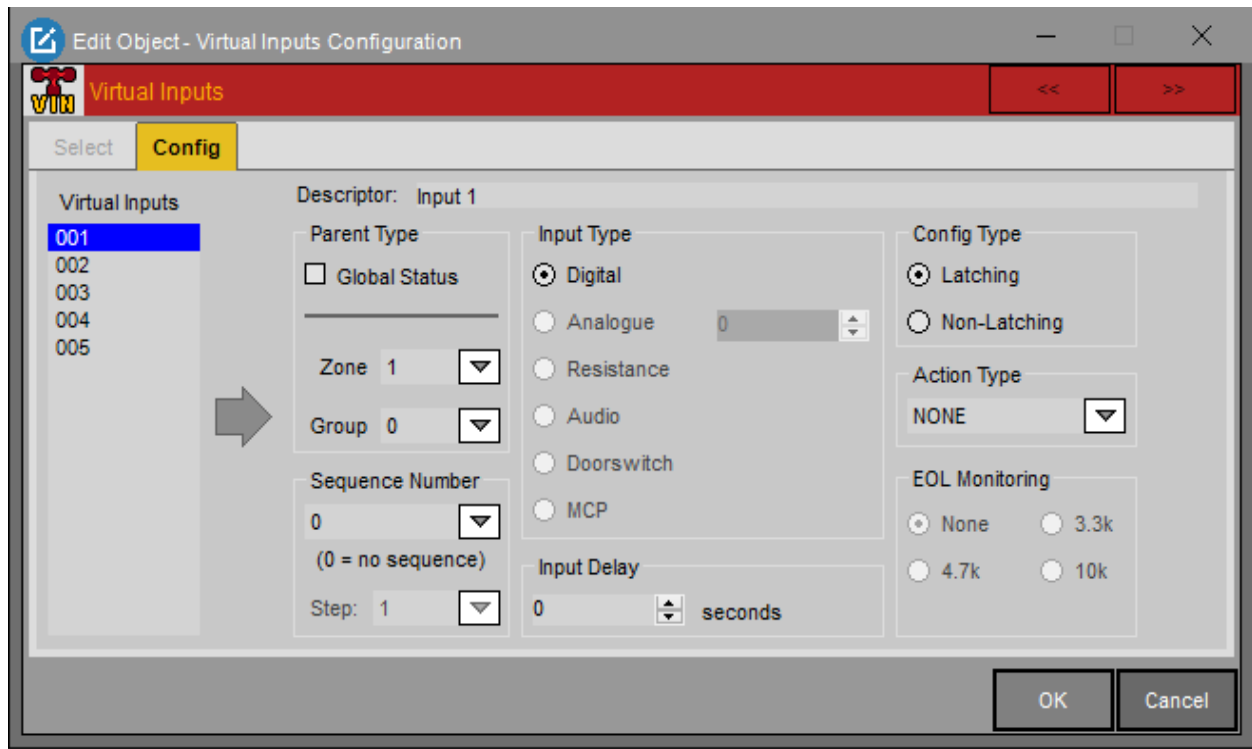


Figure 6-37 Virtual inputs config tab.

The input to be edited is selected on the left-hand column.

The properties of the selected input can then be edited. Refer to section 6.6.2 for detail on the properties.

6.17 Remote Paging Consoles

6.17.1.1 General

Each Remote Paging Console unit involves a **Unique RPC Touchscreen GUI** configured to control specific **Paging Zones** and or **Paging Groups** defined within the Node tree.

Up to 8 Remote Paging Consoles can be Configured on each Node.

A maximum of 64 RPCs *can be configured across a networked system*

A maximum of 512 Paging Zones *

A maximum of 512 Paging Groups*

The Primary DCPU card (Rack 1) provides an Ethernet connection port for RPCs. The cabling involves daisy chaining ethernet cable between each RPC unit up to 100M distance between each.

When considering the quantity of Paging Zones required consider your amplifier choice and potential configurable features of each type

Consider Amplifier selection.

<i>Amplifier Type</i>	<i>EWS Zone Outputs</i>	<i>Paging Zone Outputs</i>	<i>BGM Source ID Inputs</i>	<i>Channel Allocation (Max)</i>
Dual 25Watt	2	2	2	2
50 Watt	1	1	1	1
150 Watt	1	4	1	1



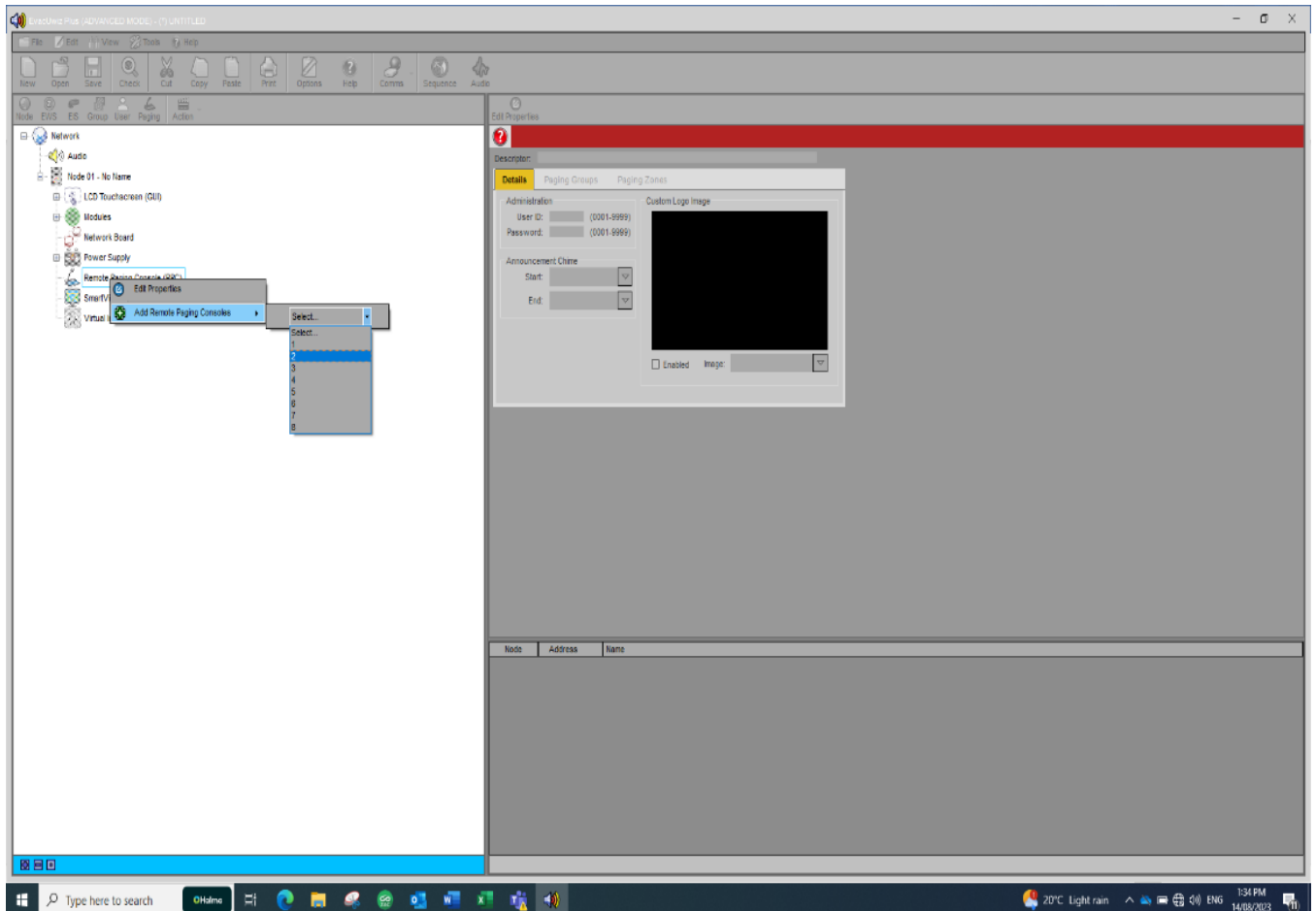
6.17.2 Configuring RPCs

Note: Some screenshot captures in 6.17 may differ slightly to the Programming tool version ***you are using***. This is due to continual improvements and user feedback.

Select the Quantity of RPCs fitted into each Node. Right click on the **RPC icon** in the node tree

In this case example 2 x RPCS are configured. Connecting to Node 1 in the system

Continue to do the same for all additional nodes that have RPCs.



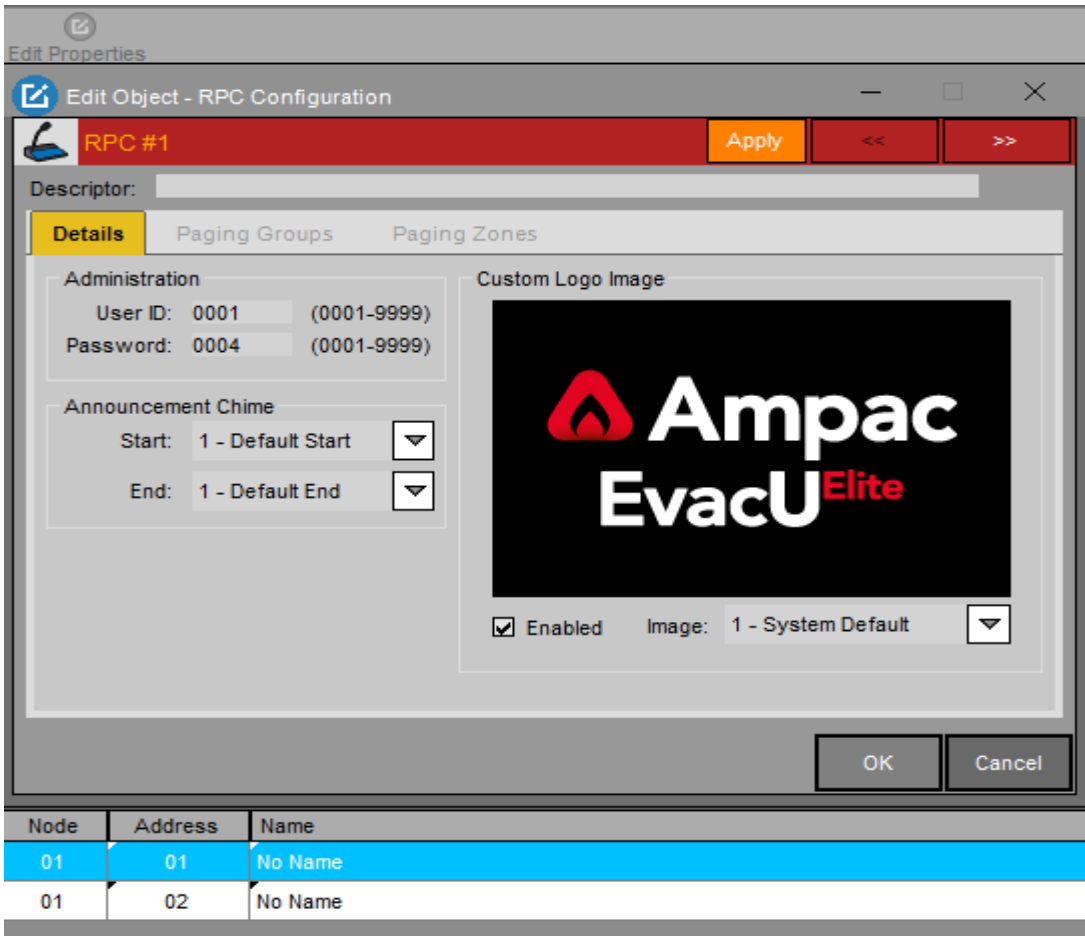
Set up the **User ID and Password** for each RPC fitted. Do each RPC unit respectively. (shown below)

For **commissioning purposes** it's OK to use same ID and Password on all RPCs fitted.

Select **Announcement Chime** setting on each RPC unit respectively. (Start / End) if required.

- For a customised RPC Logo, Set up the **Master GUI first** by importing the Customised Logo

Enabling the **Logo image** allows you to select from a default Ampac Logo or selecting the imported Customised Logo



Node	Address	Name
01	01	No Name
01	02	No Name

6.17.3 Configuring Paging Zones

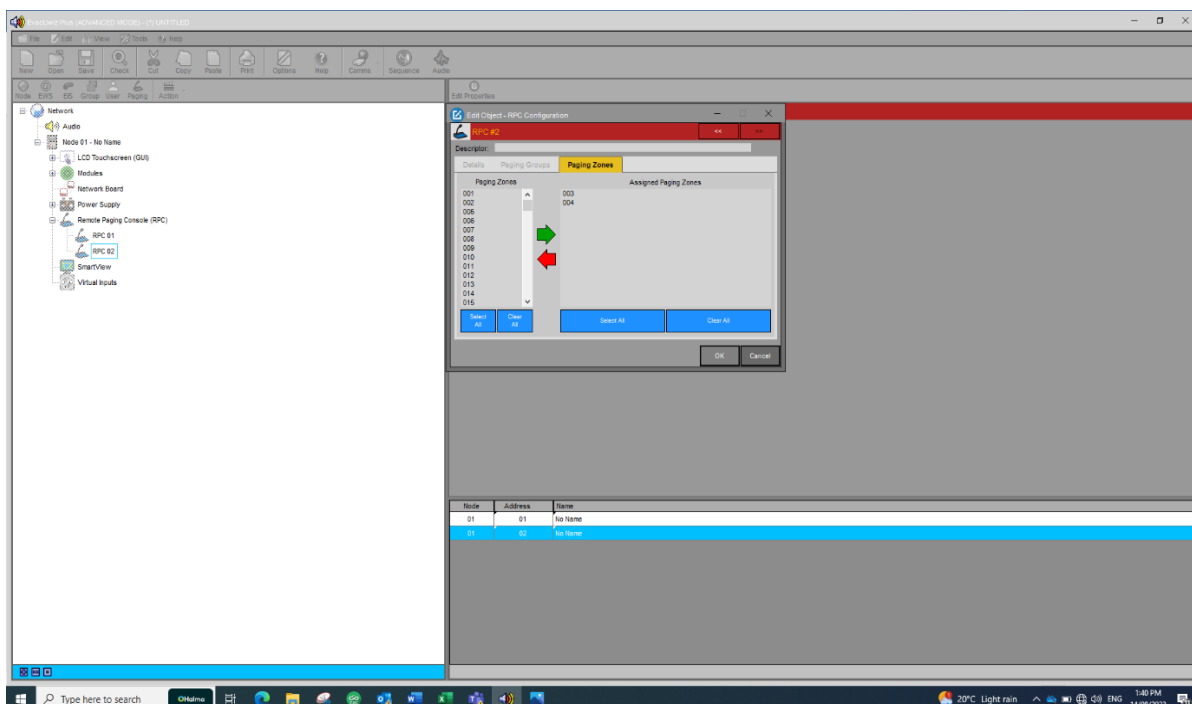
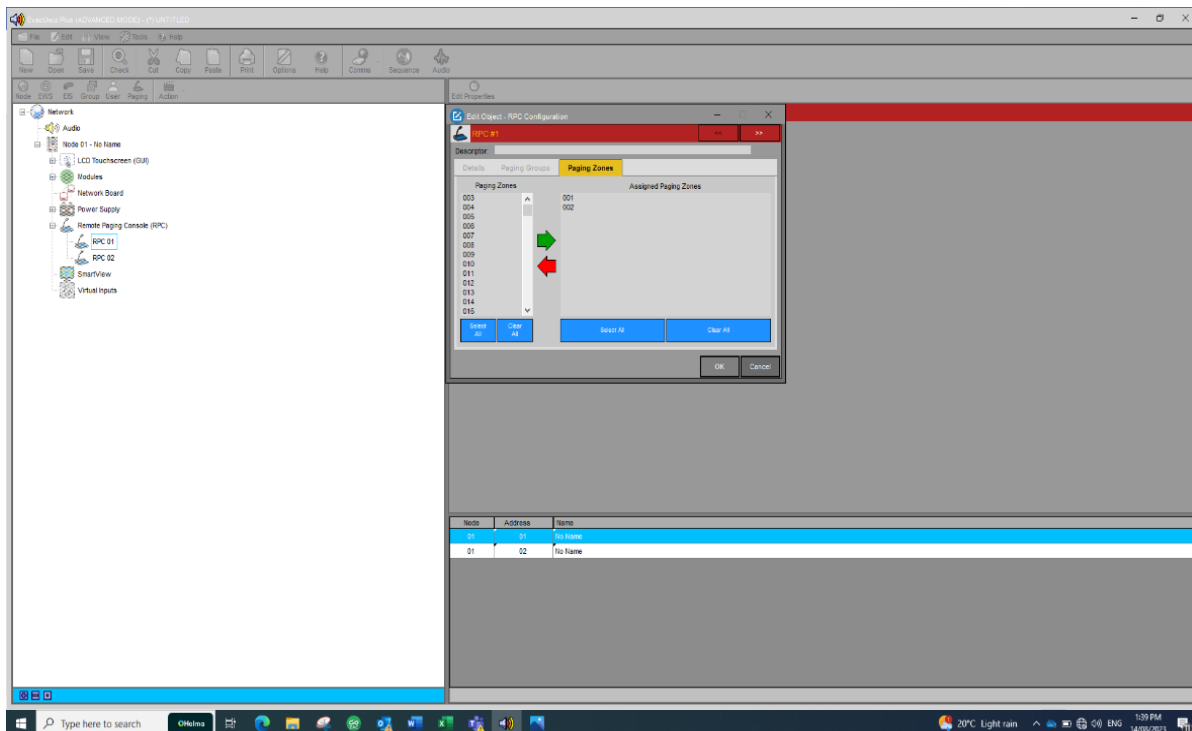
For each RPC unit select the Paging Zone numbers it will control.

See screenshots on next page which illustrate the following.

RPC1 calls Paging Zones 1&2.

RPC 2 calls 3&4

- The goal is to associate the related Paging Zones (and Paging Groups) to each RPC unit respectively. Doing so provides the desired Touchscreen controls from each RPC unit.



6.17.4 Configuring Paging Groups

For each RPC unit select the **Paging Group(s)** each will control.

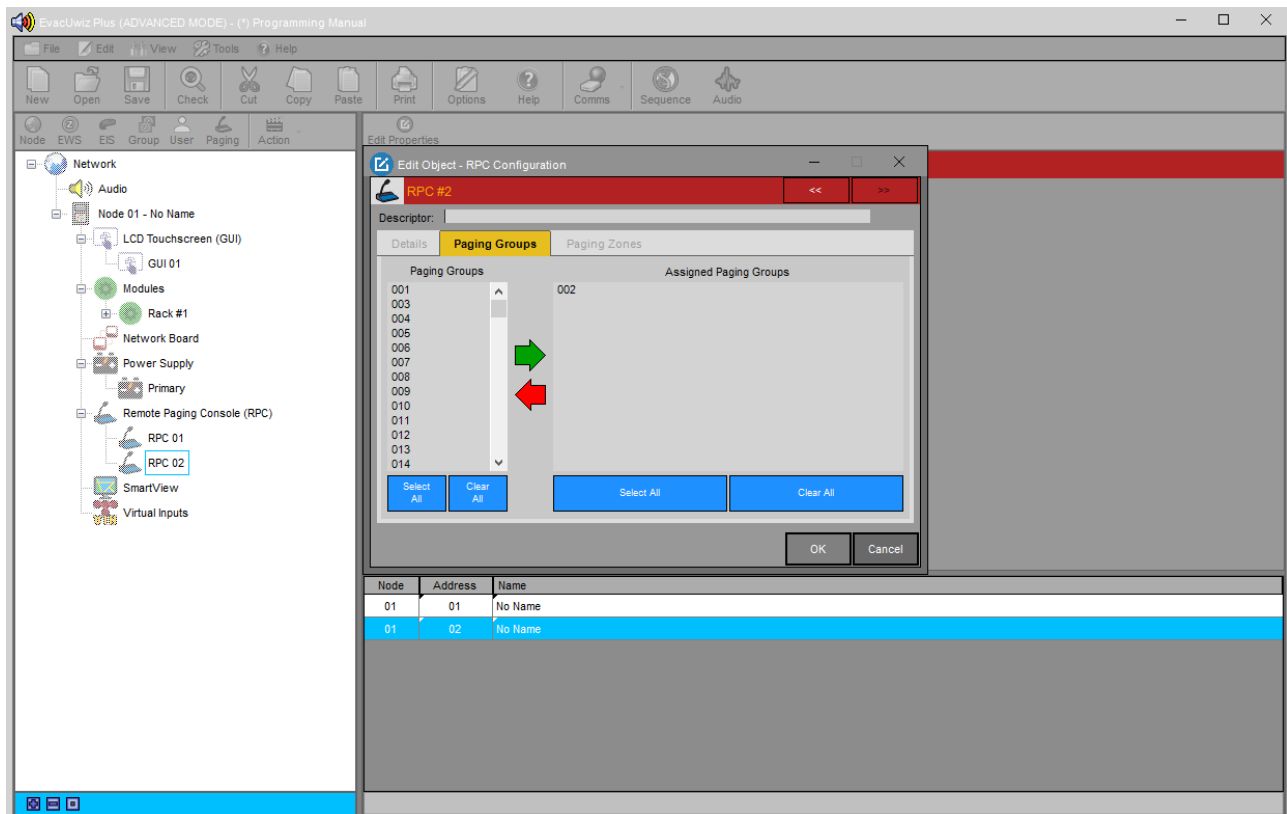
A Paging Group consists of **Multiple Paging Zones** configured as a Paging Group #

Examples of Paging Groups: In a shopping centre a group may serve an area such as:

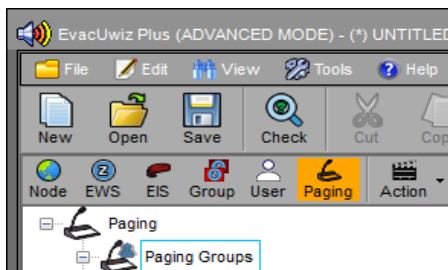
Common Mall areas; A specific retail tenant; Cinemas; Car park area or the entire building.

This allows Shopping Centre Management or an information desk RPC to easily page any area.

The screen below shows **RPC 2** is configured to just One Paging Group (Number 002)



Go into the **Paging Tab** in the **top ribbon** and set up the entire quantity of Paging Zones and Groups in the system. Like the same way you set up your EWS and EIS Zone list



Right click on the **Paging Groups** Icon

Select the quantity of Paging Groups you want to configure.

Configure each Paging Group number respectively.

Example of Paging Group 1 is shown below.

Review the Paging list includes everything you need

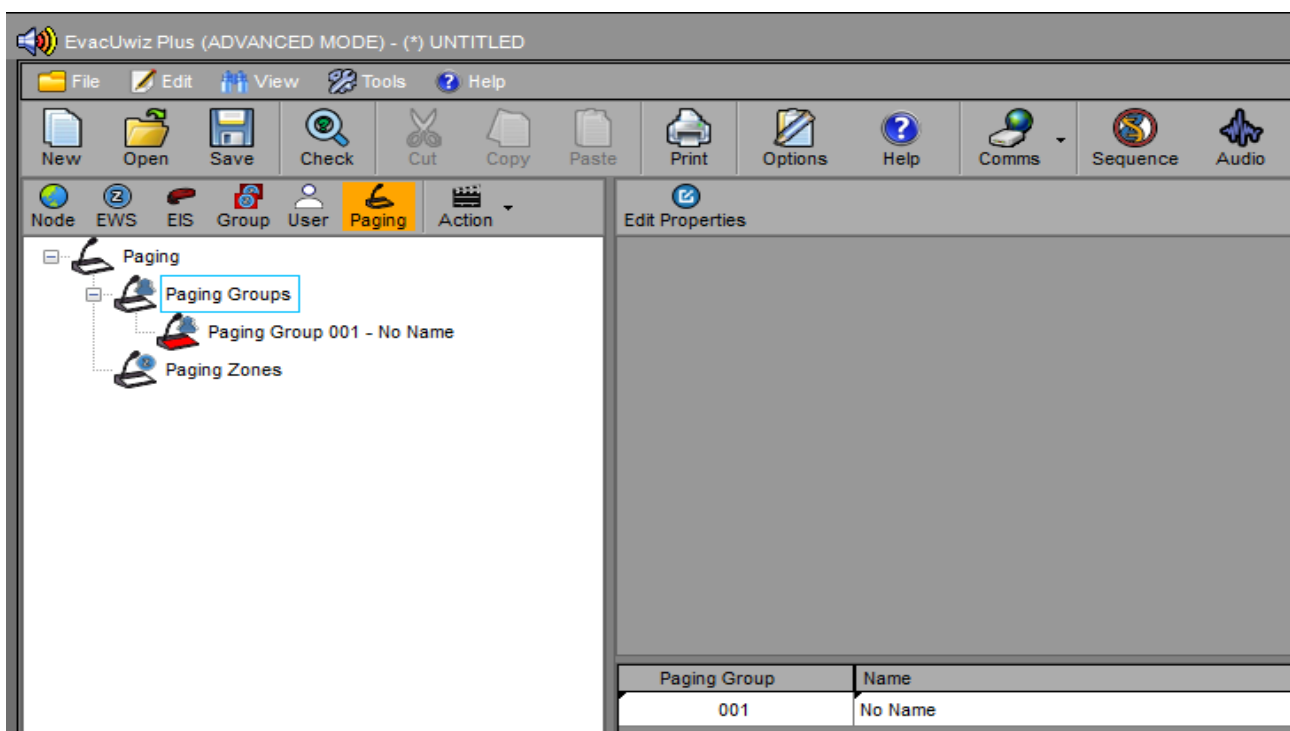
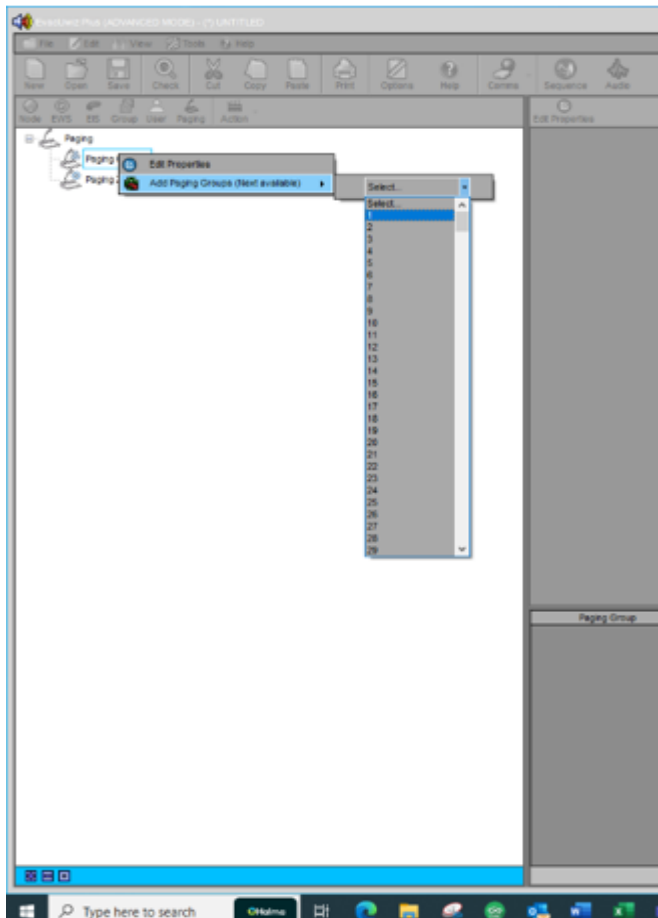
It should detail All the Paging Zones and All Paging Groups configured within the system

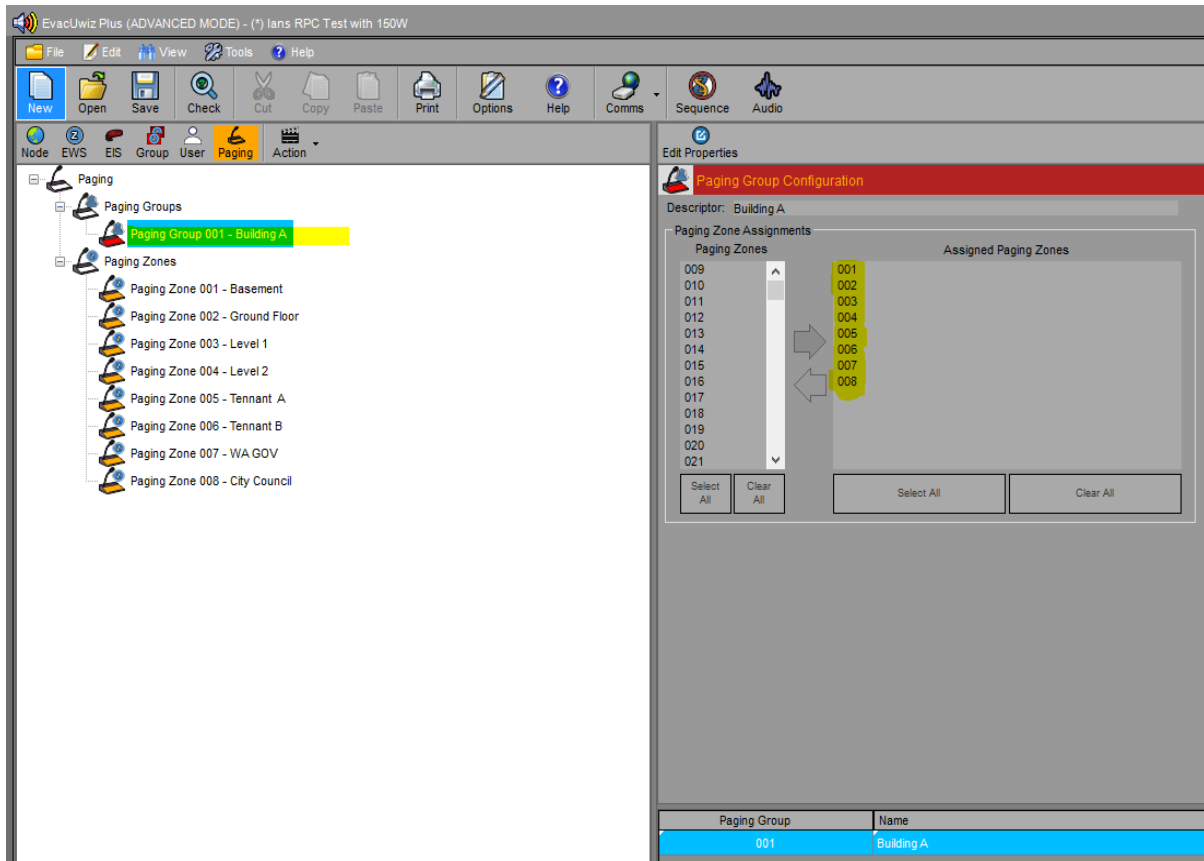
Check each Paging Group(s) contain the correct Paging Zones

- Each Paging Group becomes an RPC Touchscreen Widget in the Paging Group(s) Screen
- Each Paging Zone becomes an RPC Touchscreen Widget in the Paging Zone(s) Screen

Configuring One Paging Group, then configuring it to the Paging Zones

Right click on Paging Group Icon Select Add Paging Groups (Next available) Select Quantity

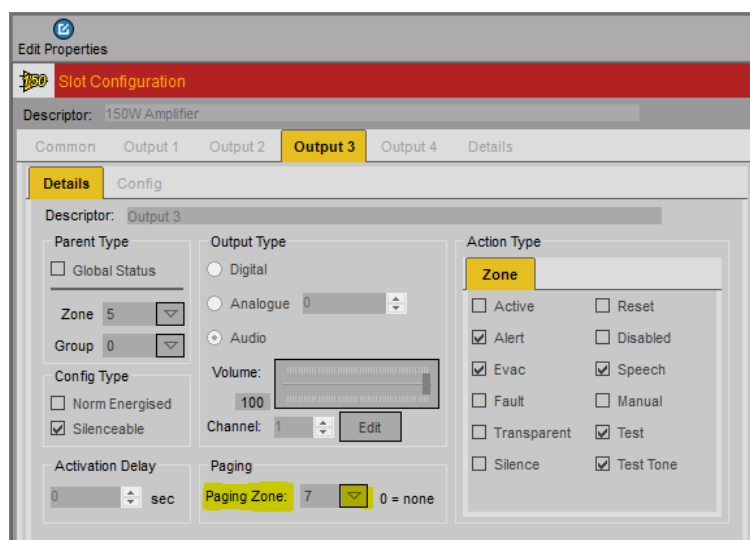
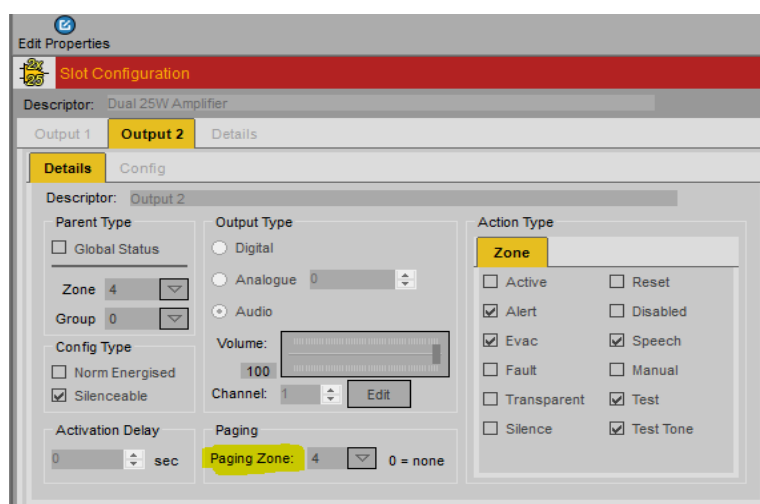
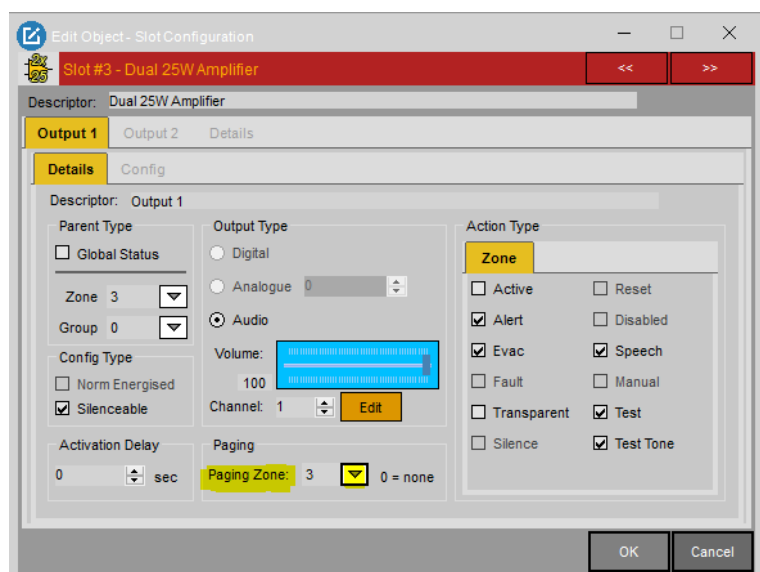




Each EWS amplifier in the system should configure to a Paging Zone number.

Dual 25W and 150W allow multiple paging zones when cabled using multiple speaker feeds.

150Watt has four respective splitter outputs which can be configured as four individual Paging Zones



From each RPC GUI **Touch screen installed**, (connected & powered) set the address's sequentially from (1-8) avoiding two units with the same address setting **on each node**.

The screenshots and concepts explained should be sufficient to configure your very first RPCs

7 Emergency Warning System

7.1 General

The EWS view is selected via the EWS icon on the Tree View Tool Bar. Refer to figure 7-1.

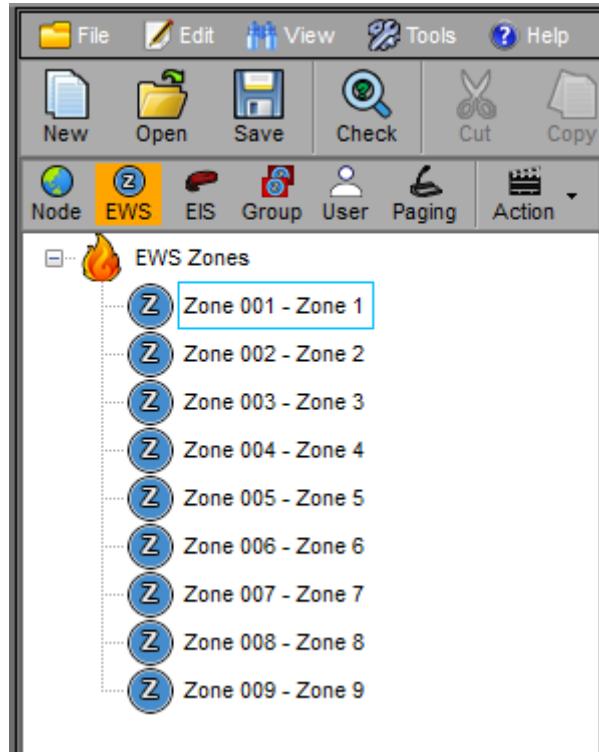


Figure 7-1 EWS Tree View

The Tree View displays all the EWS Zones configured in the system.

The Add, Delete or Edit zones right click on the EWS Zones icon  or an individual Zone icon if visible  Zone 001 - No Name

7.2 Zone Configuration

7.2.1 General

Select an individual zone icon  Zone 001 - No Name to display the Zone Configuration dialogue box.

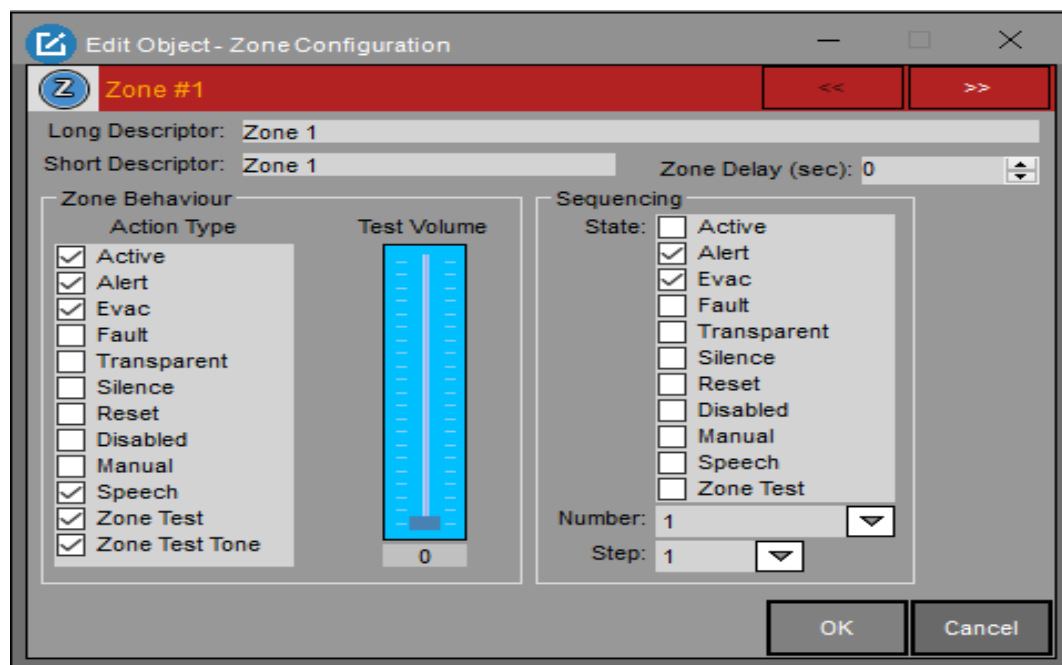


Figure 7-2 Zone configuration dialogue box.

The Zone configuration dialogue box allows the following zone properties to be edited:

- Long description – text string
- Short descriptor – text string, displayed on the GUI as the emergency zone descriptor.

A zone is collective – which contains inputs and outputs (includes audio outputs).

Inputs can be located on the GUI (primary), rack, MIC, and WIP handsets (radial and loop based).

Outputs can be located on the rack, amplifiers (2x25Watt, 50Watt and 150Watt), MOC and MIC

Each input (refer section 6.5.1.2) is assigned an action type and can be allocated to a zone.

Each output (refer to section 6.6.3) has an assigned mask – which determines when the output is activated

7.2.2 Zone Behaviour

A zone has a zone behaviour (mask) which is the action types that a zone will respond to.

For example, if an input is assigned to action type alert for zone 5, and if zone 5 behaviour has alert selected, then when the input is asserted, zone 5 will go to the alert condition, and any outputs assigned to zone 5 and configured to respond to an alert condition will activate.

By default - the zone has the following action types set :

- Active – must be set for the zone to change condition.
- Alert – supports the alert condition.
- Evac – supports the evac condition.
- Speech – supports live speech.
- Zone test – supports the test condition.
- Zone test tone – supports the zone test tone.

Inputs assigned to fault, transparent and disabled action types will cause the zone to enter these conditions if the action type is set in the zone behaviour. These action types are only available in the advanced mode.

The silence action type when set will allow the zone to be silenced from an input set to action type silence (and assigned to the appropriate zone number).

The reset action type functions the same as the silence action type.

The disabled action type functions the same as the silence action type.

Any zone will respond to the silence, reset, and disable commands from the GUI regardless of the setting of the silence, reset and disable action type in the zone behaviour.

7.2.3 Sequencing State

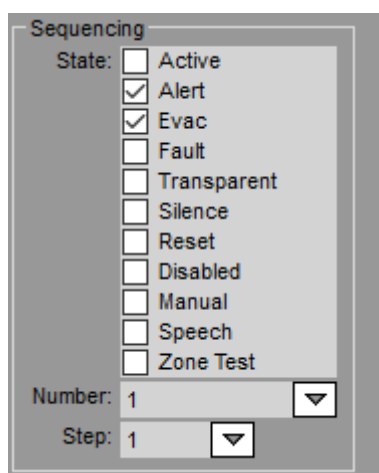
A zone has a sequencing state – which is the state a zone will trigger a sequence with. The states currently supported are alert and evac

Transparent state can initiate a specific action E.g. special messages / tones or switch on other output types.

The sequence and step within the sequence that the zone will trigger is settable via the two drop-down boxes as shown in figure 7-3.

Notice **Sequence Number 1, Step 1** will be triggered when an Alert or Evac state occurs.

For complex building or site sequencing requirements Multiple Sequences can be created in the sequence editor. Each Zone should be assigned a relevant Sequence & Step number



The image shows a 'Sequencing' dialog box. It has a 'State:' label followed by a list of action types with checkboxes: Active, Alert (checked), Evac (checked), Fault, Transparent, Silence, Reset, Disabled, Manual, Speech, and Zone Test. Below the list are two dropdown menus: 'Number: 1' and 'Step: 1'.

Figure 7-3 Sequencing State

8 Emergency Intercom System

8.1 General

The EIS view is selected via the EIS icon on the Tree View Tool Bar. Refer to figure 8-1.

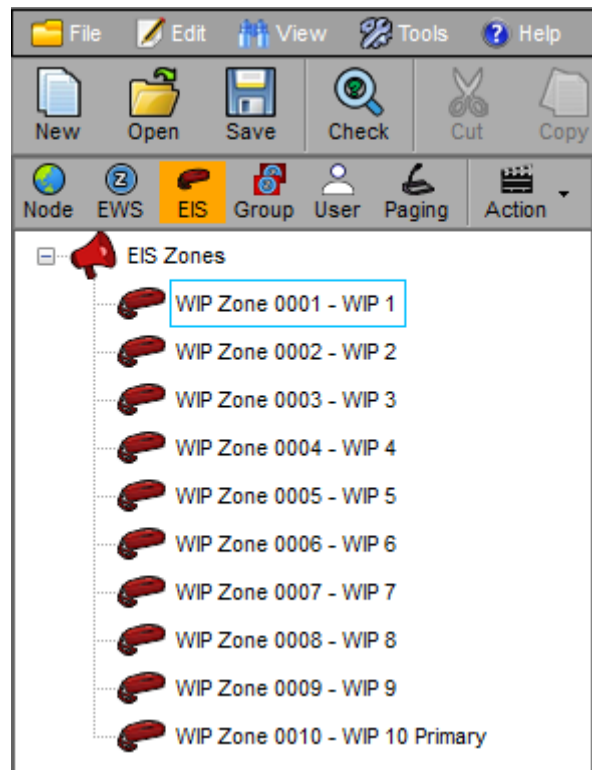


Figure 8-1 EIS Tree View

The Tree View displays all the EIS handsets configured in the system.

The Add, Delete or Edit handsets right click on the EIS handset Icon  **EIS Zones** or an individual Handset icon  **WIP Zone 0002 - No Name** if visible.

The allocated WIP number is the number that was allocated in WIP handset properties – see section 6.12 (radial) and section 6.13 (loop)

8.2 Zone Configuration

Select an individual handset icon  WIP Zone 0002 - No Name to display the WIP handset Configuration dialogue box.

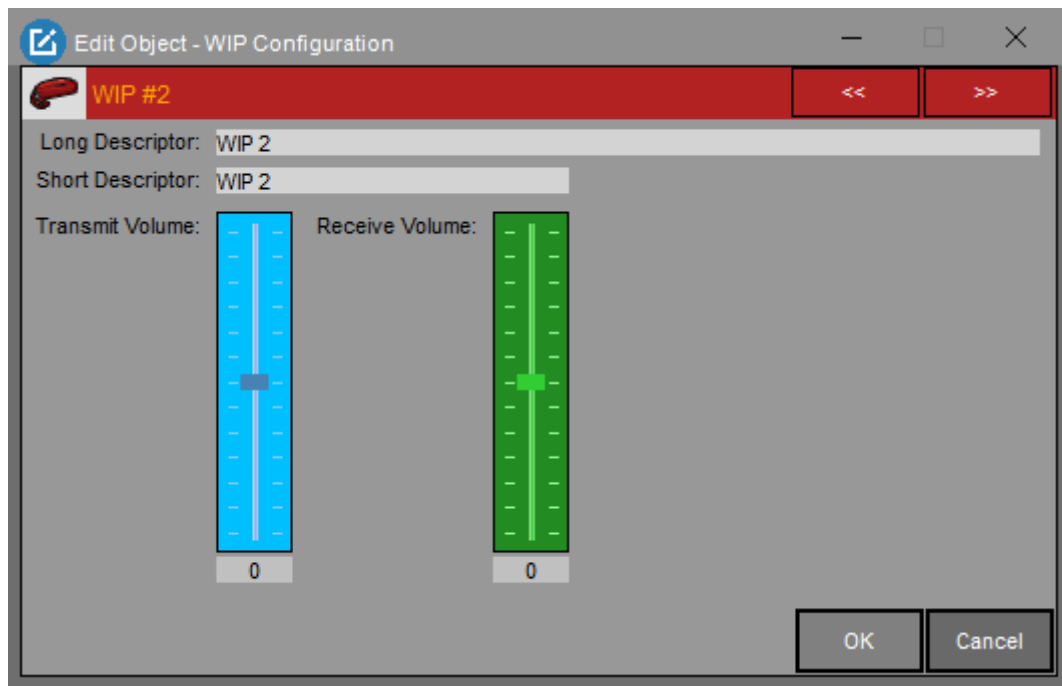


Figure 8-2 WIP handset configuration dialogue box.

The WIP handset configuration dialogue box allows the following properties to be edited:

- Long descriptor – text string
- Short descriptor – text string and displayed on the GUI as the WIP handset descriptor.
- Transmit volume for the WIP handset.
- Receive volume for the WIP handset.

There is no further configuration required for the WIP handsets. The input which can be associated with the WIP handset is configured as part of the EWS.

9 Groups

9.1 General

The Group view is selected via the Group icon on the Tree View Tool Bar. Refer to figure 9-1.

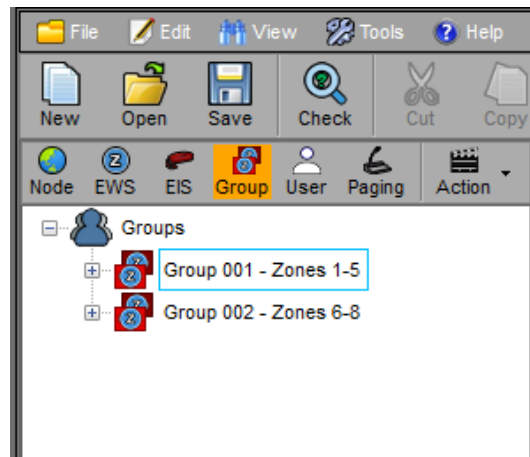


Figure 9-1 Group Tree View

The Tree View displays all the Groups configured in the system.

The Add, Delete or Edit groups right click on the Groups Icon

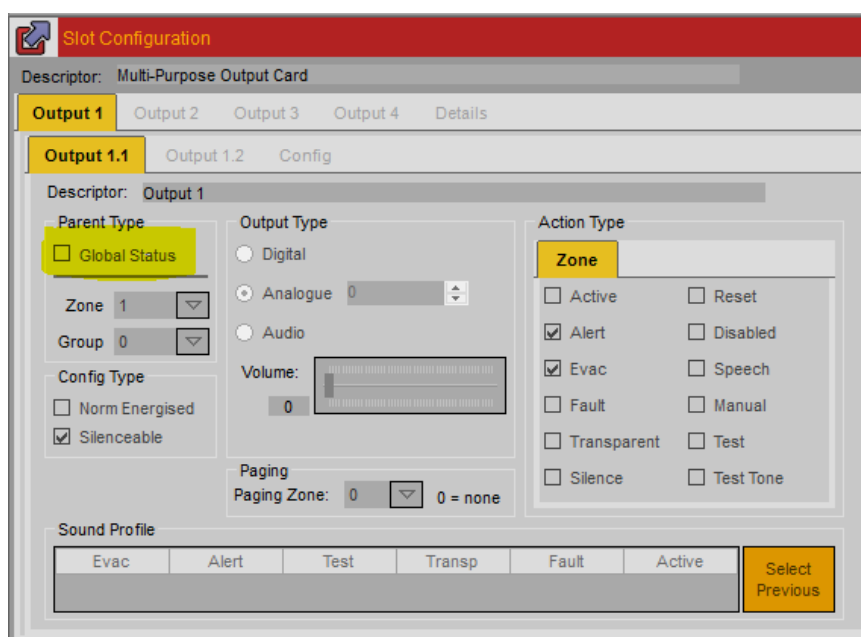


Group 001 - No Name if visible

9.2 Group Configuration

You can apply a Group function using two methods.

1. **Global** Status function
2. **Local** Group function



A **Global Status** function involves Every Zone (1 to 512) when the **tick box** is checked.

A **Halma** company

A Local group is user configurable. It involves assigning specific Zone numbers into a Group number.

Multiple Group numbers can be created.

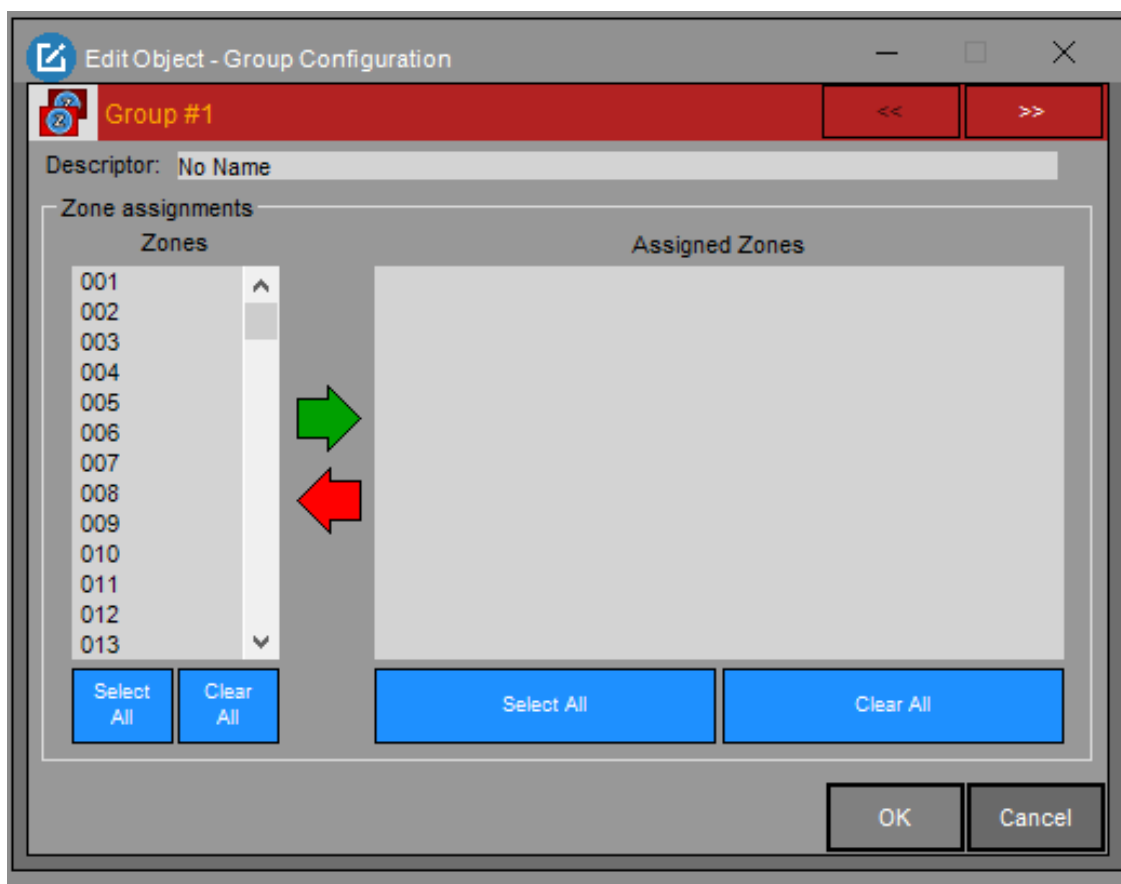
The MOC card Windows config screen below illustrates where the “Global Status” is selected.

When the Global box is selected the Zone and Group number fields are “greyed out and become **Non editable**

Global involves every zone in the system activating this MOC output when **Alert** or **Evac** status occurs on any Zone.

The Zone behaviour Actions **must include** Alert & Evac to be included in the group action.

Select an individual group icon  Group 001 - No Name to display the Group Configuration dialogue box.



In the Left-Hand column Select the multiple **Zone Numbers** you wish to involve in the Group

Then Press the Green Arrow to move those selected across to the **Assigned Zones** column.

Zones 1 to 75 feature in Group 1 shown below

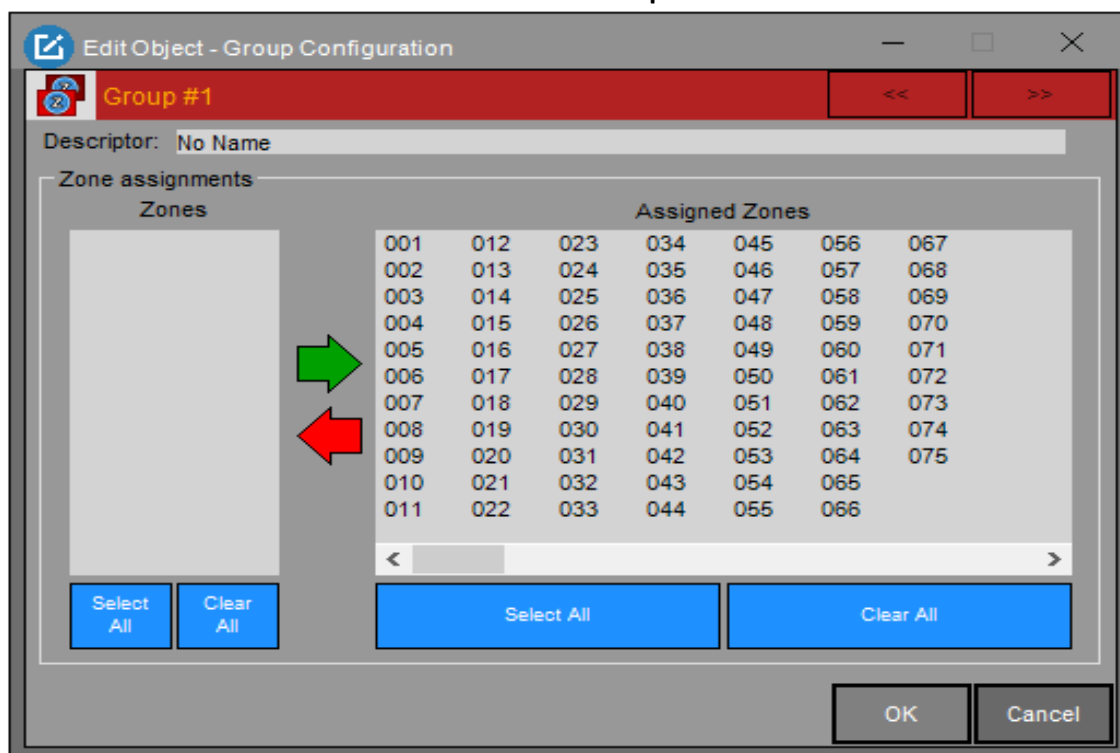


Figure 9-2 Group configuration dialogue box.

The Group configuration dialogue box allows the Descriptor to be edited and allows Emergency zones to be allocated or removed from the group using the green and red arrows

Inputs can be assigned to a group.

When an input is assigned to a group, the input is assigned to all the zones specified within the group.

For example, if an input is assigned an action type of **Silence** and is assigned to “**Global Status** function”. All zones in the system are assigned to the Global action, When the input is activated, all the zones that have their **zone behaviour “Silence” action type ticked** will be silenced.

The same can be done with a Global **Reset** input function.

This example above allows the system to be silenced and reset externally.

If an input is assigned an action type **Alert** and is assigned to **Group #1**, And zones 1 to 10 in the system configuration are assigned to **Group #1**, when the input is activated, Zones 1-10 which have their **zone behaviour “Alert” action type ticked** will be initiated with the ‘**Alert**’ Audio stream.

Same logic applies for each action type.

Application examples include General Fault Output (Hard contact to an external system)
BGM and external paging override O/Ps during Alert Evac and Speech announcements

10 Users

10.1 General

The User's view is selected via the Users icon on the Tree View Tool Bar. Refer to figure 10-1.

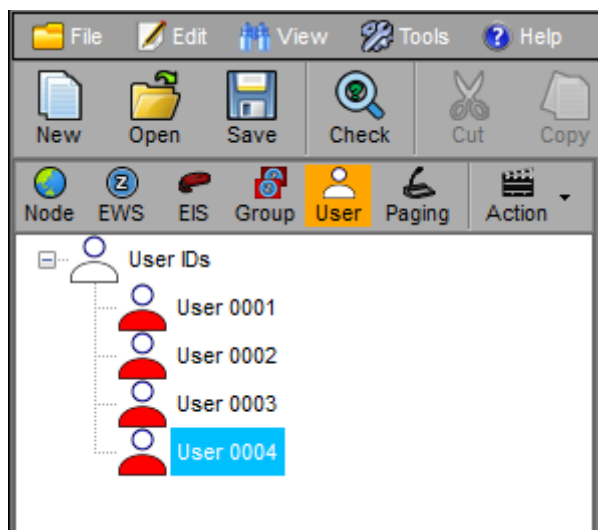


Figure 10-1 Users Tree View

The Tree View displays all the Users configured in the system.

The Add, Delete or Edit users right click on the Groups Icon

 if visible



or an individual User icon

10.2 User Configuration

Select an individual user icon  to display the User Configuration dialogue box.

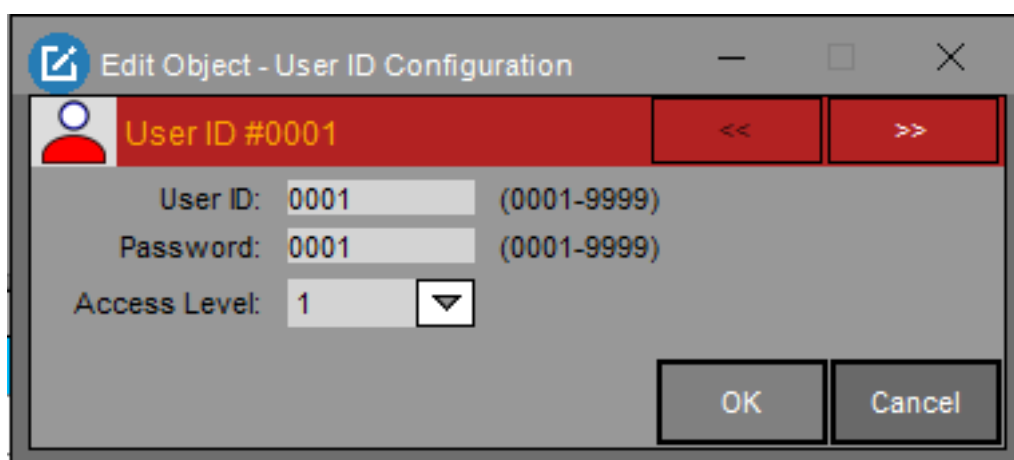
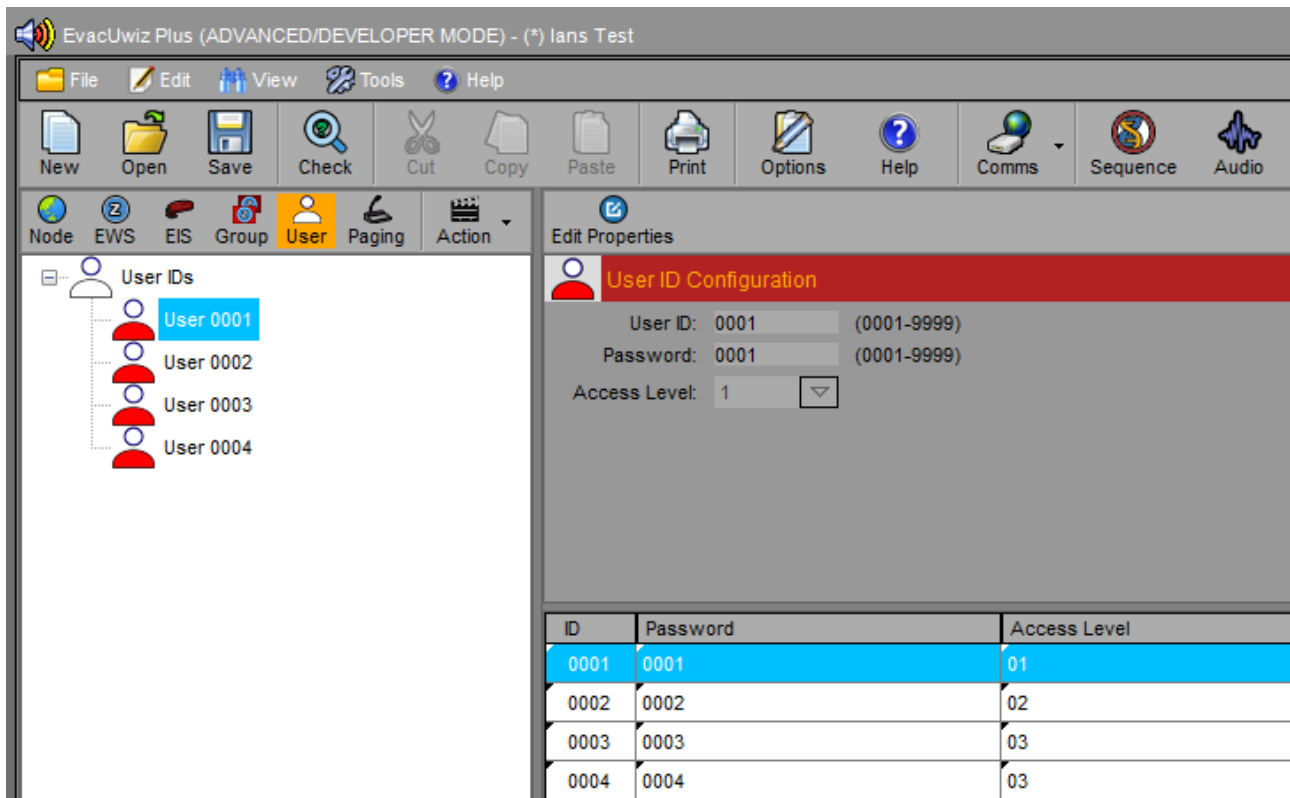


Figure 10-2 User configuration dialogue box.



The User configuration dialogue box allows the following properties to be edited:

- User ID – unique numerical identifier
- Password – 4 digit numeric
- Access level – the access level associated with the user. When the user logs into the system, the system will be at the associated access level.

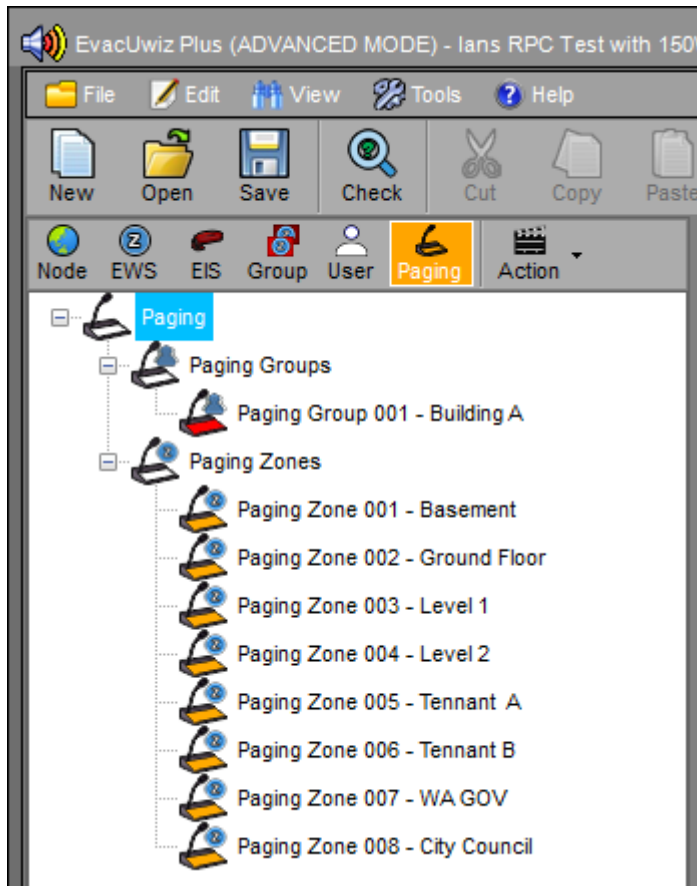
11 Paging

11.1 General

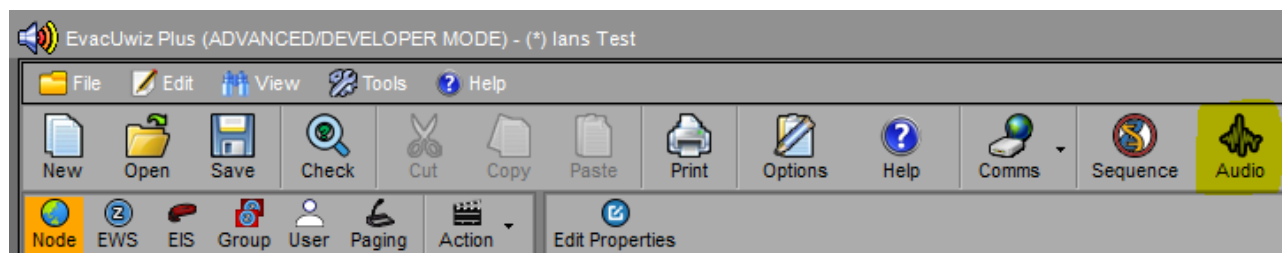
The Tree View displays all Paging Zones and Paging Groups configured in the system.

To Add, Delete or Edit Paging zones or Paging Groups right click on ANY visible icon. This will allow you to select and configure.

Refer Section 6.17 for a detailed configuration explanation.



12 Audio



12.1 General

The Audio editor creates an audio library file (extension. ESL) – which consists of one or more audio streams. The streams are assigned to audio channels, and the channels are assigned to amplifiers. Refer to section 6.3 Audio Configuration for further information on assigning audio channels to amplifiers.

Each stream is made up of one or more audio samples.

The samples are imported as WAV or MP3 files.

How the samples are combined and allocated to a stream is handed by the Audio Editor.

The audio library file (in ESL format) must be converted to a BIN file to be downloaded into the EvacU ^{ELITE}.

There are utilities under the file menu to convert from ESL format to BIN and vice versa – refer to section 11.2.

The user interface of the Audio editor consists of four sections.

Sample List	Displays the list of samples that have been loaded into the editor
Details	Displays the properties of the selected sample
Stream List	Displays the list of streams in the current audio library file
Current Stream:	Displays the play properties of the samples within the selected stream.

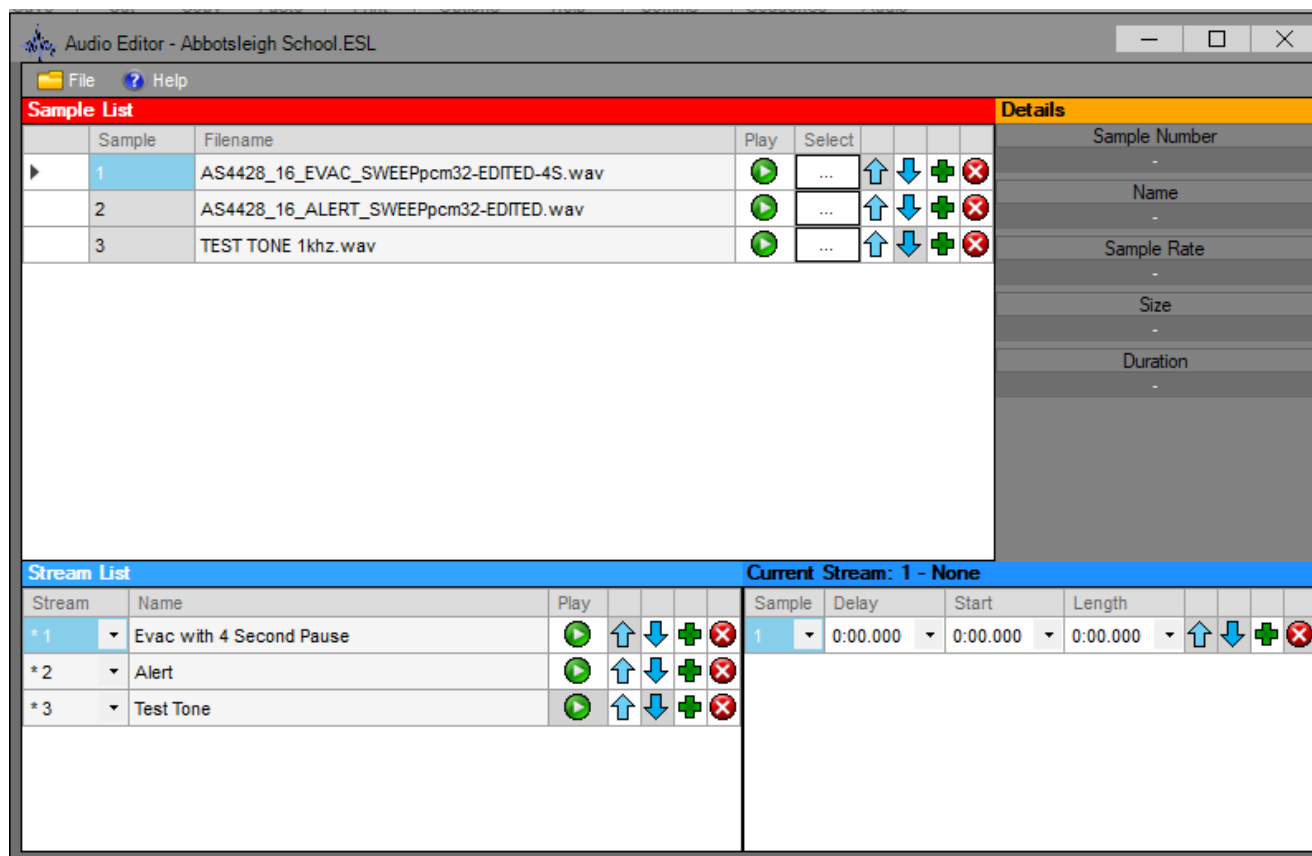
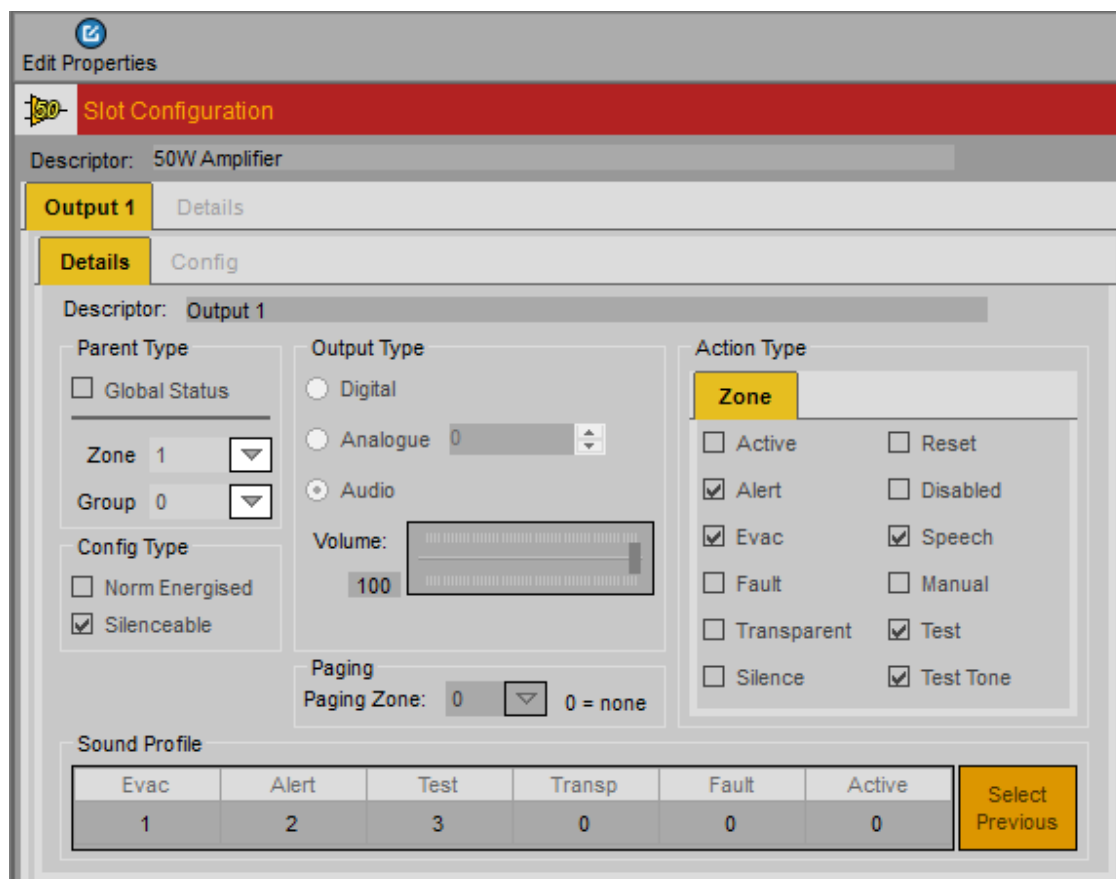
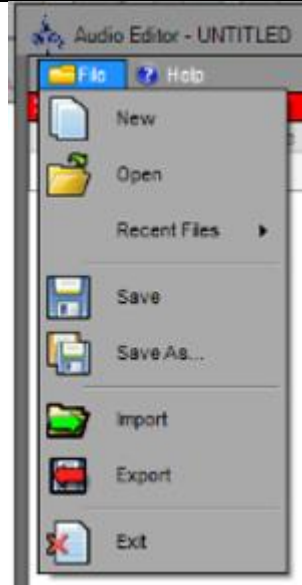


Figure 12-1 Audio editor user interface

The 3 **streams** (shown in the **stream list above**) relate to the **Sound Profile numbers** on the amplifier.



12.2 File Menu

	New – creates an audio library file. File type is Ampac ESL. Open - to open an existing audio library file in Ampac ESL format. Recent Files - quick access to recently opened audio library files. Save – – save current audio library file. Save As – save the current audio library file to a different file name. Import – creates an audio library file in ESL format from a downloadable BIN format file (*ESB) Export – creates a downloadable BIN file from an audio library file save as an *ESB file. The *ESB is the file type sent to the Panel or when using Auto Programming Config a SND Package file is used in the latest versions.
---	---

12.3 Sample List

The **Sample List** window contains the list of samples available within the library. The following tools are available to add and delete samples, adjust the order of samples appearing within the list and play the individual samples.

	Add a sample.
	Delete the selected sample from the library
	Move the selected sample down in the list
	Play the sample
	Move the selected sample up in the list
	Select the WAV or MP3 file containing the required sample

Each sample is assigned a unique sample number.

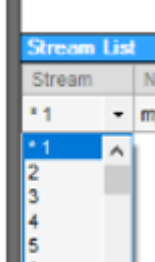
The **Details** window displays the properties of the current selected sample. Properties include:

- Sample number.
- Name of the sound file (WAV or MP3)
- Sample rate.
- File size.
- Duration of the audio

12.4 Stream List

The **Stream List** displays the list of streams in the library. With each stream entry, the following tools are available:

	Add a stream
	Delete the stream
	Move the selected stream down
	Play the stream
	Move the selected stream up

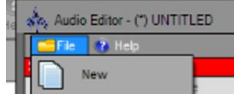
Each stream is assigned a stream ID (from 1 to 1024) from a drop-down menu.	
---	---

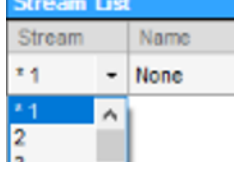
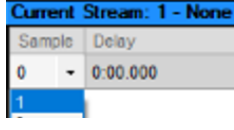
The **Current Stream:** displays the samples that have been allocated to the selected stream. Each sample in the stream has the following properties:

Sample	This is sample number – from the sample list. To change the sample, select the sample number corresponding to the desired sample
Delay	Delay before the sample is played
Start	Start point within the sample, where the sample will be played from
Length	Length of the sample to be played
	Move the sample up in the stream
	Move the sample down in the stream
	Add a new sample to the stream
	Delete the selected sample from the stream

12.5 Creating a stream

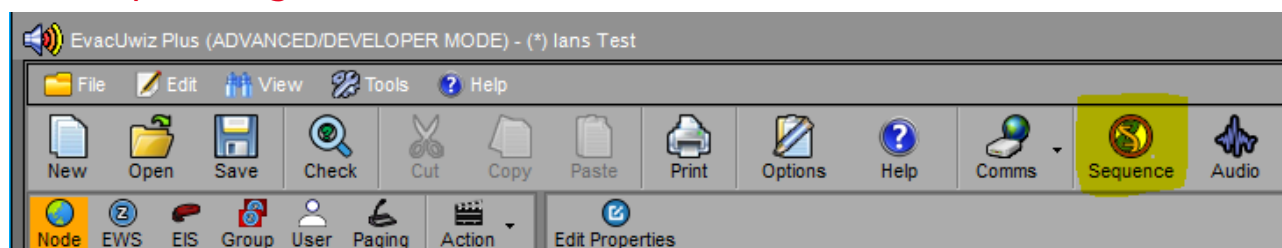
The following is a list of instructions to create a stream with a new audio library.

1	Select the Audio editor from the main tool bar	
2	From the File Menu within the Audio Editor – selected New	
3	Add an audio file to the first sample	
4	Add further audio samples as required	

5	Adjust the order of the samples as required	
6	Play samples as required	
7	Delete samples as required	
8	Create the stream by first entering a stream name (then press enter to save it) against a designated stream number (from the drop-down menu)	
9	Allocate audio samples to the stream by setting the sample number to match the required sample	
11	Set the required delay time, start time within the sample, and length of the sample	
12	Add further samples as required	
13	Adjust the order of the samples within the stream as required	
14	Delete samples within the stream as required	
15	Play the resulting stream, from the stream list	
16	Go to the File menu and save the audio library file.	

Once the stream has been created, it can be assigned to an audio channel, refer to section 6.3.

13 Sequencing



13.1 General

The sequence programming determines how the Evac ^{ELITE} responds to an alarm signal when in automatic mode.

The response is to broadcast emergency warning signals – both audially and visually to selected emergency zones in a pre-determined sequence.

The Sequence Editor is used to carry out the sequence programming.

The Sequence editor is split into three sections: **Basic**, **Advanced** and **Simulator** – selectable by tabs across the top of the sequence editor window. Refer figure 13-1.



Figure 13-1 Sequence Editor Window

13.2 Basic editing

The Basic Editing screen is viewed by selecting the BASIC tab – refer figure 13-1.

Affects all configured emergency zones.

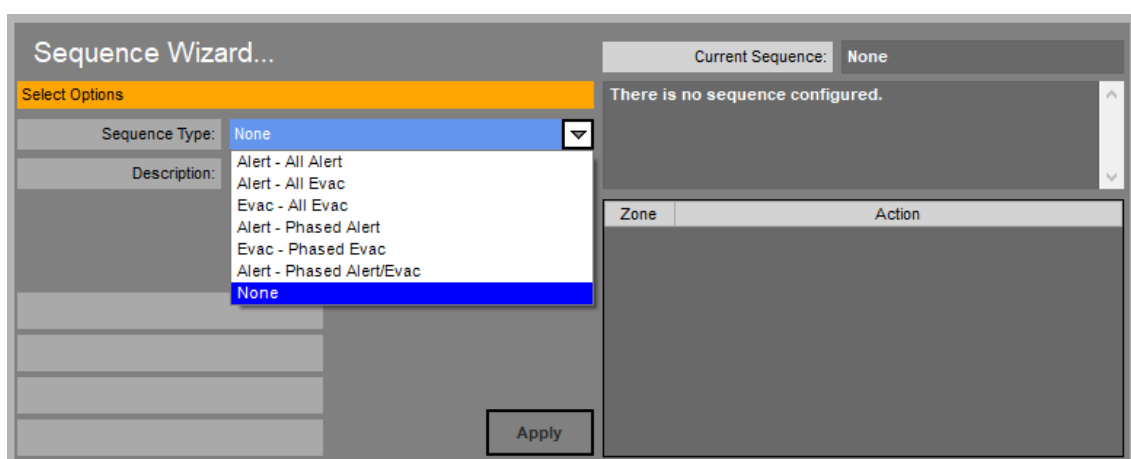
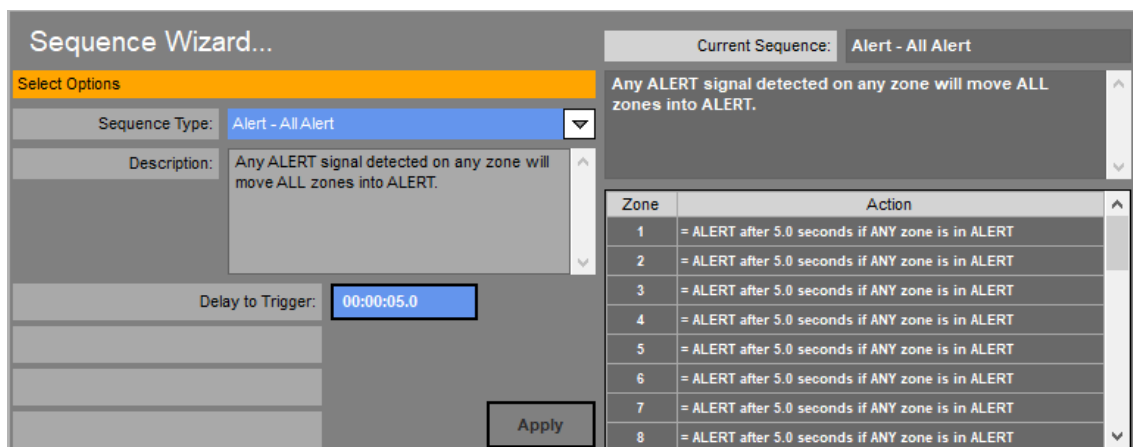


Figure 13-2 Basic Sequencing

Offers 7 options:

Alert – All Alert	Input configured as type Alert, sets all configured zones to Alert
Alert – All Evac	Input configured as type Alert, sets all configured zones to Evac
Evac – All Evac	Input configured as type Evac, sets all configured zones to Evac
Alert – Phased Alert	Input configured as type Alert, cascades alert to all configured zones, from the alarm zone
Evac – Phased Evac	Input configured as type Evac, cascades evac to all configured zones, from the alarm zone
Alert – Phased Alert/Evac	Input configured as type Alert or Evac, cascades alert and then evac to all configured zones, from the alarm zone

13.2.1 Alert – All alert:



Sequence Wizard...

Select Options

Sequence Type: **Alert - All Alert**

Description: Any ALERT signal detected on any zone will move ALL zones into ALERT.

Delay to Trigger: **00:00:05.0**

Apply

Current Sequence: Alert - All Alert

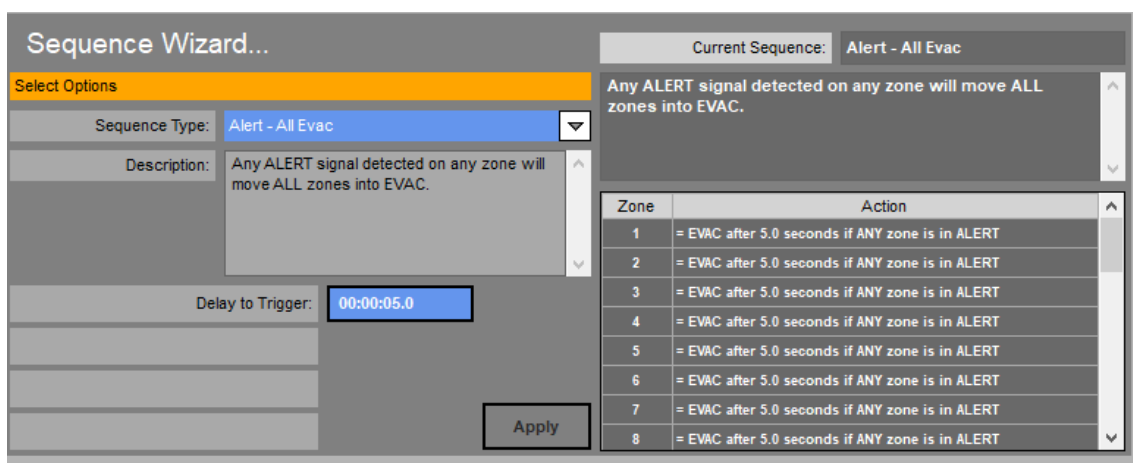
Any ALERT signal detected on any zone will move ALL zones into ALERT.

Zone	Action
1	= ALERT after 5.0 seconds if ANY zone is in ALERT
2	= ALERT after 5.0 seconds if ANY zone is in ALERT
3	= ALERT after 5.0 seconds if ANY zone is in ALERT
4	= ALERT after 5.0 seconds if ANY zone is in ALERT
5	= ALERT after 5.0 seconds if ANY zone is in ALERT
6	= ALERT after 5.0 seconds if ANY zone is in ALERT
7	= ALERT after 5.0 seconds if ANY zone is in ALERT
8	= ALERT after 5.0 seconds if ANY zone is in ALERT

Figure 13-3 Alert – All Alert

Figure 13-3 details the functionality of the Alert – All Alert sequence. The sequence is triggered by the alert condition being present in any zone (input configured as ALERT action type). The Delay to Trigger is the delay before the sequence commences. All configured zones are set to alert.

13.2.2 Alert – All Evac



Sequence Wizard...

Select Options

Sequence Type: **Alert - All Evac**

Description: Any ALERT signal detected on any zone will move ALL zones into EVAC.

Delay to Trigger: **00:00:05.0**

Apply

Current Sequence: Alert - All Evac

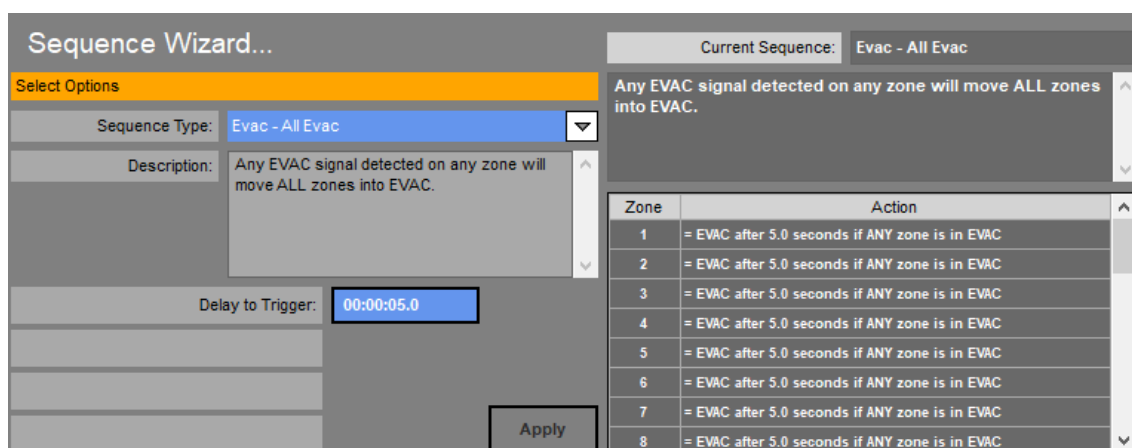
Any ALERT signal detected on any zone will move ALL zones into EVAC.

Zone	Action
1	= EVAC after 5.0 seconds if ANY zone is in ALERT
2	= EVAC after 5.0 seconds if ANY zone is in ALERT
3	= EVAC after 5.0 seconds if ANY zone is in ALERT
4	= EVAC after 5.0 seconds if ANY zone is in ALERT
5	= EVAC after 5.0 seconds if ANY zone is in ALERT
6	= EVAC after 5.0 seconds if ANY zone is in ALERT
7	= EVAC after 5.0 seconds if ANY zone is in ALERT
8	= EVAC after 5.0 seconds if ANY zone is in ALERT

Figure 13-4 Alert – All Evac

Figure 13-4 details the functionality of the Alert – All Evac sequence. The sequence is triggered by the alert condition being present in any zone (input configured as ALERT action type). The Delay to Trigger is the delay before the sequence commences. All configured zones are set to Evac.

13.2.3 Evac – All Evac



Sequence Wizard...

Select Options

Sequence Type: **Evac - All Evac**

Description: Any EVAC signal detected on any zone will move ALL zones into EVAC.

Delay to Trigger: **00:00:05.0**

Apply

Current Sequence: Evac - All Evac

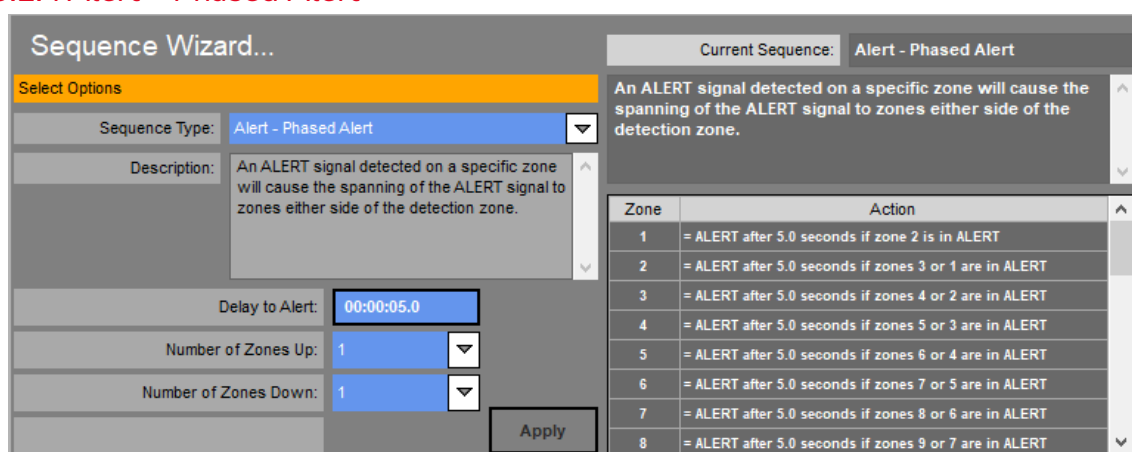
Any EVAC signal detected on any zone will move ALL zones into EVAC.

Zone	Action
1	= EVAC after 5.0 seconds if ANY zone is in EVAC
2	= EVAC after 5.0 seconds if ANY zone is in EVAC
3	= EVAC after 5.0 seconds if ANY zone is in EVAC
4	= EVAC after 5.0 seconds if ANY zone is in EVAC
5	= EVAC after 5.0 seconds if ANY zone is in EVAC
6	= EVAC after 5.0 seconds if ANY zone is in EVAC
7	= EVAC after 5.0 seconds if ANY zone is in EVAC
8	= EVAC after 5.0 seconds if ANY zone is in EVAC

Figure 13-5 Evac – All Evac

Figure 13-5 details the functionality of the Evac – All Evac sequence. The sequence is triggered by the evac condition being present in any zone (input configured as EVAC action type). The Delay to Trigger is the delay before the sequence commences. All configured zones are set to Evac.

13.2.4 Alert – Phased Alert



Sequence Wizard...

Select Options

Sequence Type: **Alert - Phased Alert**

Description: An ALERT signal detected on a specific zone will cause the spanning of the ALERT signal to zones either side of the detection zone.

Delay to Alert: **00:00:05.0**

Number of Zones Up: **1**

Number of Zones Down: **1**

Apply

Current Sequence: Alert - Phased Alert

An ALERT signal detected on a specific zone will cause the spanning of the ALERT signal to zones either side of the detection zone.

Zone	Action
1	= ALERT after 5.0 seconds if zone 2 is in ALERT
2	= ALERT after 5.0 seconds if zones 3 or 1 are in ALERT
3	= ALERT after 5.0 seconds if zones 4 or 2 are in ALERT
4	= ALERT after 5.0 seconds if zones 5 or 3 are in ALERT
5	= ALERT after 5.0 seconds if zones 6 or 4 are in ALERT
6	= ALERT after 5.0 seconds if zones 7 or 5 are in ALERT
7	= ALERT after 5.0 seconds if zones 8 or 6 are in ALERT
8	= ALERT after 5.0 seconds if zones 9 or 7 are in ALERT

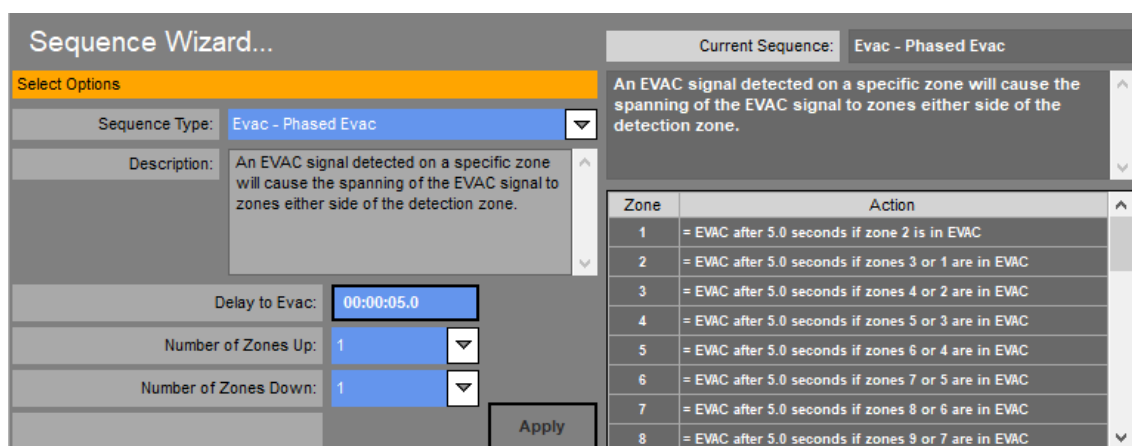
Figure 13-6 Alert – Phased Alert

Figure 13-6 details the functionality of the Alert – Phased Alert sequence. The sequence is triggered by the alert condition being present in any zone (input configured as ALERT action type). The Delay to Alert is the delay before setting the zones up and down to alert.

Consider the example – zone 5 has an input configured as action type ALERT, that becomes active. Zone 5 goes to the alert state immediately and starts the alert timer. When the delay to alert timer expires, then zone 5 + number of zones up are set to alert, and zone 5 – number of zones down are set to alert. This “stepping” continues until all zones are set to alert.

If the delay is set to 1 minute, number of zones up is set to 2 and number of zones down is set to 1, then when the input for zone 5 is activated, zone 5 goes to alert immediately, one minute later zones 6, 7 and 4 go to alert, then another minute later zones 8, 9, and 3 go to alert. This continues until all zones are set to alert.

13.2.5 Evac – Phased Evac



Sequence Wizard...

Select Options

Sequence Type: **Evac - Phased Evac**

Description: An EVAC signal detected on a specific zone will cause the spanning of the EVAC signal to zones either side of the detection zone.

Delay to Evac: **00:00:05.0**

Number of Zones Up: **1**

Number of Zones Down: **1**

Apply

Current Sequence: Evac - Phased Evac

An EVAC signal detected on a specific zone will cause the spanning of the EVAC signal to zones either side of the detection zone.

Zone	Action
1	= EVAC after 5.0 seconds if zone 2 is in EVAC
2	= EVAC after 5.0 seconds if zones 3 or 1 are in EVAC
3	= EVAC after 5.0 seconds if zones 4 or 2 are in EVAC
4	= EVAC after 5.0 seconds if zones 5 or 3 are in EVAC
5	= EVAC after 5.0 seconds if zones 6 or 4 are in EVAC
6	= EVAC after 5.0 seconds if zones 7 or 5 are in EVAC
7	= EVAC after 5.0 seconds if zones 8 or 6 are in EVAC
8	= EVAC after 5.0 seconds if zones 9 or 7 are in EVAC

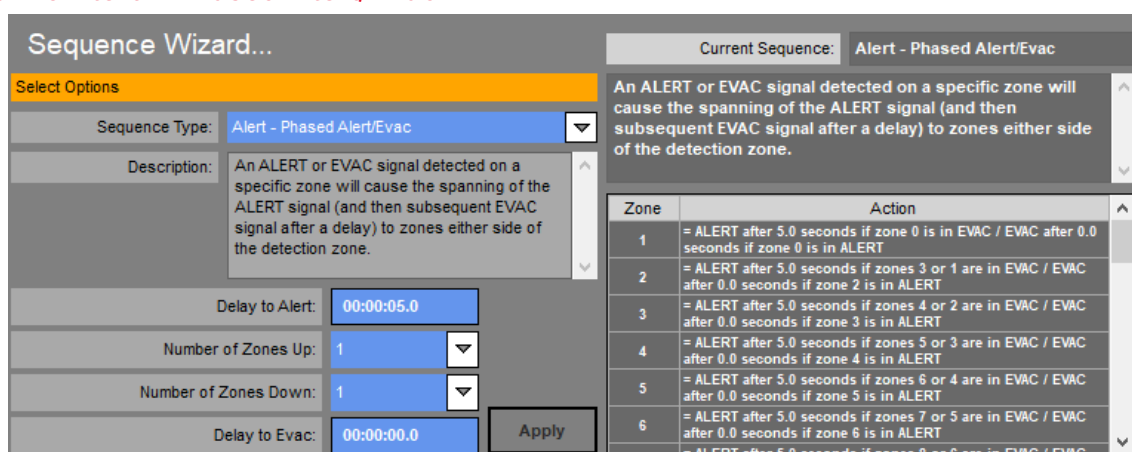
Figure 13-7 Evac – Phased Evac

Figure 13-7 details the functionality of the Evac – Phased Evac sequence. The sequence is triggered by the evac condition being present in any zone (input configured as EVAC action type). The Delay to Evac is the delay before setting the zones up and down to evac.

Consider the example – zone 5 has an input configured as action type EVAC, that becomes active. Zone 5 goes to the evac state immediately and starts the delay to evac timer. When the delay to evac timer expires, then zone 5 + number of zones up are set to evac, and zone 5 – number of zones down are set to evac. This “stepping” continues until all zones are set to evac.

If the delay is set to 1 minute, number of zones up is set to 2 and number of zones down is set to 1, then when the input for zone 5 is activated, zone 5 goes to evac immediately and timer is started, one minute later zones 6, 7 and 4 go to evac, then another minute later zones 8, 9, and 3 go to evac. This continues until all zones are set to evac.

13.2.6 Alert – Phased Alert/Evac



Sequence Wizard...

Select Options

Sequence Type: **Alert - Phased Alert/Evac**

Description: An ALERT or EVAC signal detected on a specific zone will cause the spanning of the ALERT signal (and then subsequent EVAC signal after a delay) to zones either side of the detection zone.

Delay to Alert: **00:00:05.0**

Number of Zones Up: **1**

Number of Zones Down: **1**

Delay to Evac: **00:00:00.0**

Apply

Current Sequence: Alert - Phased Alert/Evac

An ALERT or EVAC signal detected on a specific zone will cause the spanning of the ALERT signal (and then subsequent EVAC signal after a delay) to zones either side of the detection zone.

Zone	Action
1	= ALERT after 5.0 seconds if zone 0 is in EVAC / EVAC after 0.0 seconds if zone 0 is in ALERT
2	= ALERT after 5.0 seconds if zones 3 or 1 are in EVAC / EVAC after 0.0 seconds if zone 2 is in ALERT
3	= ALERT after 5.0 seconds if zones 4 or 2 are in EVAC / EVAC after 0.0 seconds if zone 3 is in ALERT
4	= ALERT after 5.0 seconds if zones 5 or 3 are in EVAC / EVAC after 0.0 seconds if zone 4 is in ALERT
5	= ALERT after 5.0 seconds if zones 6 or 4 are in EVAC / EVAC after 0.0 seconds if zone 5 is in ALERT
6	= ALERT after 5.0 seconds if zones 7 or 5 are in EVAC / EVAC after 0.0 seconds if zone 6 is in ALERT
7	= ALERT after 5.0 seconds if zones 8 or 6 are in EVAC / EVAC after 0.0 seconds if zone 7 is in ALERT
8	= ALERT after 5.0 seconds if zones 9 or 7 are in EVAC / EVAC after 0.0 seconds if zone 8 is in ALERT
9	= ALERT after 5.0 seconds if zones 0 or 8 are in EVAC / EVAC after 0.0 seconds if zone 9 is in ALERT

Figure 13-8 Alert – Phased Alert / Evac

Figure 13-8 details the functionality of the Alert – Phased Alert/Evac sequence. The sequence is triggered by the alert condition being present in any zone (input configured as ALERT action type).

The Delay to Alert is the delay before setting the zones up and down to alert.

The Delay to Evac is the delay before setting the zones up and down to evac.

Consider the example – zone 5 has an input configured as action type ALERT, that becomes active. Zone 5 goes to the alert state immediately and starts the delay to evac timer for zone 5. When the delay to evac timer expires, then zone 5 goes to evac, and starts the delay to alert timer for $5 + \text{number of zones up}$ and $5 - \text{number of zones down}$.

When the delay to alert timer expires, zones $5 + \text{number of zones up}$ and $5 - \text{number of zones down}$ are set to alert and starts the delay to evac timer for $5 + \text{number of zones up}$ and $5 - \text{number of zones down}$. This “stepping” continues until all zones are set to evac.

If the delay to alert is set to 30 seconds and delay to evac is set to 60 seconds, number of zones up is set to 2 and number of zones down is set to 1, then when the input for zone 5 is activated, zone 5 goes to alert immediately and evac timer is started, 60 seconds later zone 5 goes to evac, and the alert timer is started. 30 seconds later zones 6, 7 and 4 go to alert, and the evac timer is started. 60 seconds later zones 6, 7 and 4 go to evac, and the alert timer is started. 30 seconds later zones 8, 9 and 3 go to alert.

This continues until all zones are set to evac.

For most of the phased alert/evac sequencing, the delay to alert will be 0.

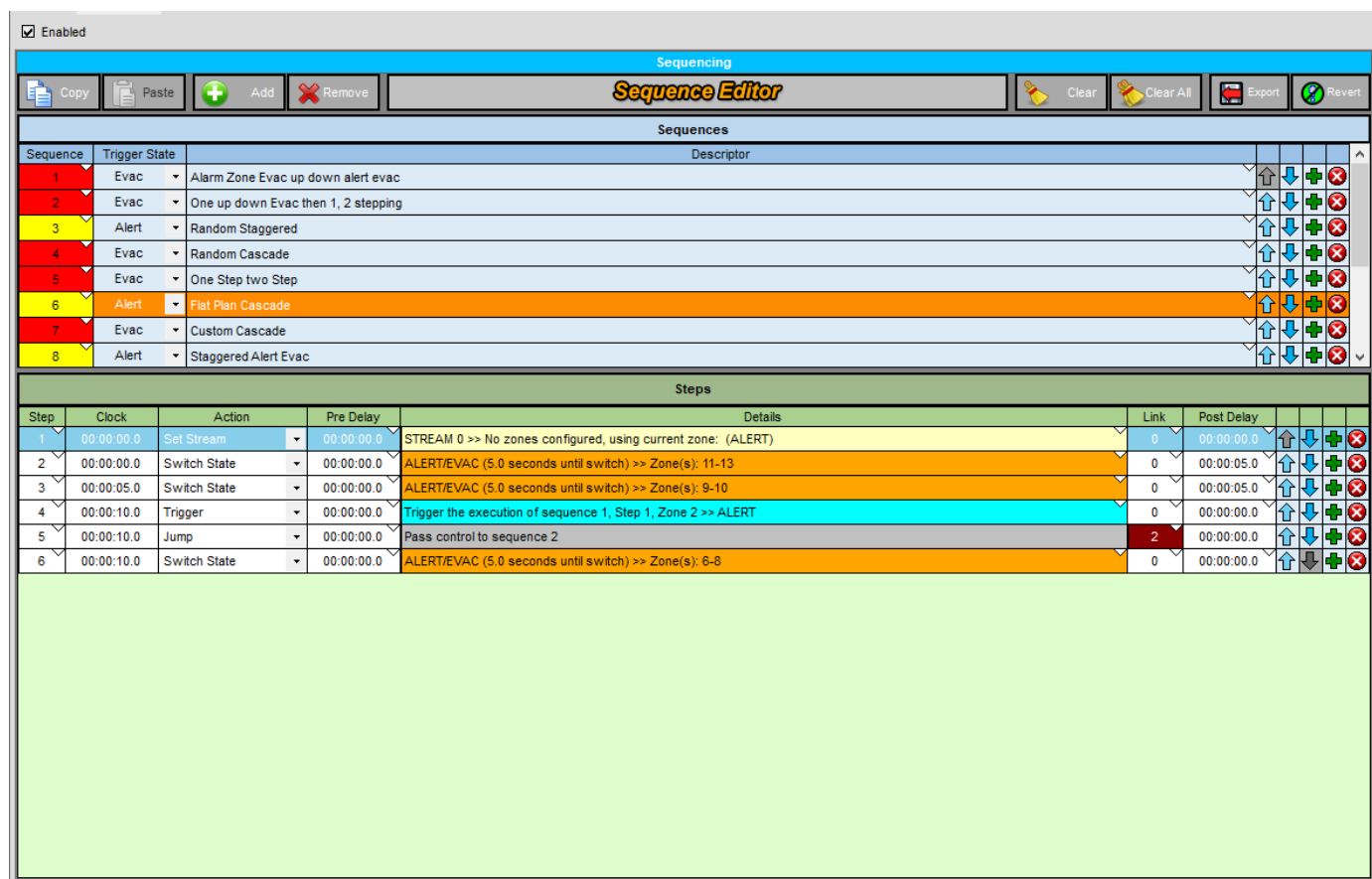
13.3 Advanced editing

13.3.1 General

The Advanced Editing screen is viewed by selecting the ADVANCED tab – refer figure 13-9.

Allows the creation of custom sequences, by specifying each step of the sequence. Each step is built by using several pre-defined actions.

Sequence Editor screen.



The screenshot displays the 'Sequence Editor' interface. At the top, there's a toolbar with 'Copy', 'Paste', 'Add', 'Remove', 'Clear', 'Clear All', 'Export', and 'Revert' buttons. Below this is a table of sequences. The 'Steps' section for sequence 6 is expanded, showing a detailed view of its steps.

Sequence	Trigger State	Descriptor	Up	Down	Reset	Delete
1	Evac	Alarm Zone Evac up down alert evac	↑	↓	↺	✖
2	Evac	One up down Evac then 1, 2 stepping	↑	↓	↺	✖
3	Alert	Random Staggered	↑	↓	↺	✖
4	Evac	Random Cascade	↑	↓	↺	✖
5	Evac	One Step two Step	↑	↓	↺	✖
6	Alert	Flat Plan Cascade	↑	↓	↺	✖
7	Evac	Custom Cascade	↑	↓	↺	✖
8	Alert	Staggered Alert Evac	↑	↓	↺	✖

Step	Clock	Action	Pre Delay	Details	Link	Post Delay	Up	Down	Reset	Delete
1	00:00:00.0	Set Stream	00:00:00.0	STREAM 0 >> No zones configured, using current zone: (ALERT)	0	00:00:00.0	↑	↓	↺	✖
2	00:00:00.0	Switch State	00:00:00.0	ALERT/EVAC (5.0 seconds until switch) >> Zone(s): 11-13	0	00:00:05.0	↑	↓	↺	✖
3	00:00:05.0	Switch State	00:00:00.0	ALERT/EVAC (5.0 seconds until switch) >> Zone(s): 9-10	0	00:00:05.0	↑	↓	↺	✖
4	00:00:10.0	Trigger	00:00:00.0	Trigger the execution of sequence 1, Step 1, Zone 2 >> ALERT	0	00:00:00.0	↑	↓	↺	✖
5	00:00:10.0	Jump	00:00:00.0	Pass control to sequence 2	2	00:00:00.0	↑	↓	↺	✖
6	00:00:10.0	Switch State	00:00:00.0	ALERT/EVAC (5.0 seconds until switch) >> Zone(s): 6-8	0	00:00:00.0	↑	↓	↺	✖

Figure 13-9 Advanced sequence editor.

Refer to figure 13-10, screen is broken into three sections:

- Tool bar
- Sequences
- Steps (of the selected sequence)

At least one sequence is selected (highlighted in orange) and at least one step within the selected sequence will be selected (highlighted in light blue).

To select multiple sequences (or steps), select one item then drag the cursor thru the adjacent item or to selected non-contiguous items use the CTRL key.

The header of the current selected window (sequences or steps) flashes. The currently selected window is the last window a selection was made in.

13.3.2 Toolbar

Toolbar applies to the active window (sequences or steps) – the active window has its header flashing.



Figure 13-10 Advanced sequence editor toolbar.

Copy – copies the selected item to the clipboard, which can be a sequence or step within a sequence.

Paste – paste the copied item from the clip board.

Add – adds another sequence or step.

Remove – removes the highlighted sequence or step.

Clear – removes all the steps from the currently selected sequence.

Clear All – removes all sequences.

Export – Creates a HTML file of the sequences – showing each step of each sequence.

Revert – Undo all changes made.

13.3.3 Sequences

13.3.3.1 General

Sequences					
Sequence	Trigger State	Descriptor			
1	Alert	Alert - Phased Alert/Evac zones 1 to 10			
2	None	Alert - Phased Alert/Evac zones 11 to 20			

Figure 13-11 Sequence Table Header

Sequence	The sequence reference number
Tigger state	The trigger state that the sequence will respond to. Set via the drop-down box. Refer to section 7.2.3
Descriptor	Editable descriptor of the sequence
	Move the sequence up one place in the list
	Move the sequence down one place in the list
	Add a sequence
	Delete a sequence

13.3.4 Steps of the sequence

13.3.4.1 General

Steps							
Step	Clock	Action	Pre Delay	Details	Link	Post Delay	
1	00:00:00.0	Dynamic Switch	00:00:00.0	ALERT/EVAC spanning from current zone by 1 zone(s) every 5.0/10.0 seconds until zone 10	2	00:00:00.0	

Figure 13-12 Steps of the sequence table header.

Step	The step number
Clock	Relative time after the sequence is triggered that the step will execute. Note – all steps with a 0:00.00.0 pre-delay will execute when the sequence is triggered
Action	The action the step takes – Change State, Set Stream, Dynamic Zone, Dynamic Switch, Switch State, Break, Halt, Trigger and Jump. See section 12.3.4.2
Pre-Delay	Delay before the step is executed
Details	Detail on the selected action.
Link	Link to another sequence – post the current step completing including any post delay
Post Delay	Delay before completing the step
	Move the step up one place in the sequence
	Move the step down one place in the sequence
	Add a step
	Delete the step

Figure 13-13 shows the Action drop down list. Refer to section 13.3.4.2 for detail on the actions.

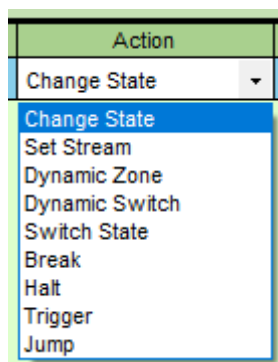


Figure 13-13 List of Actions

13.3.4.2 Action

The action determines the functionality of the step. There are 9 actions.

13.3.4.2.1 Change State

Displays the following dialog box.



Figure 13-14 Change state action dialogue box.

Sets the selected zones (or current zone if no zones selected) to the selected state. Editable fields are:

- Select the zones to change state. No zones selected – uses the current zone.
- Set the target state – alert or evac. The stream that will play is the stream associated with the alert or evac state in the audio channel assigned to the amplifier in the specified zone(s). Refer section 6.3.
- Zone - current zone less the specified offset zone. Multiple zone offset entries supported.
- Zone + current zone plus the specified offset zone. Multiple zone offset entries supported.
- Stream ID is disabled.

13.3.4.2.2 Set Stream

Displays the following dialogue box.

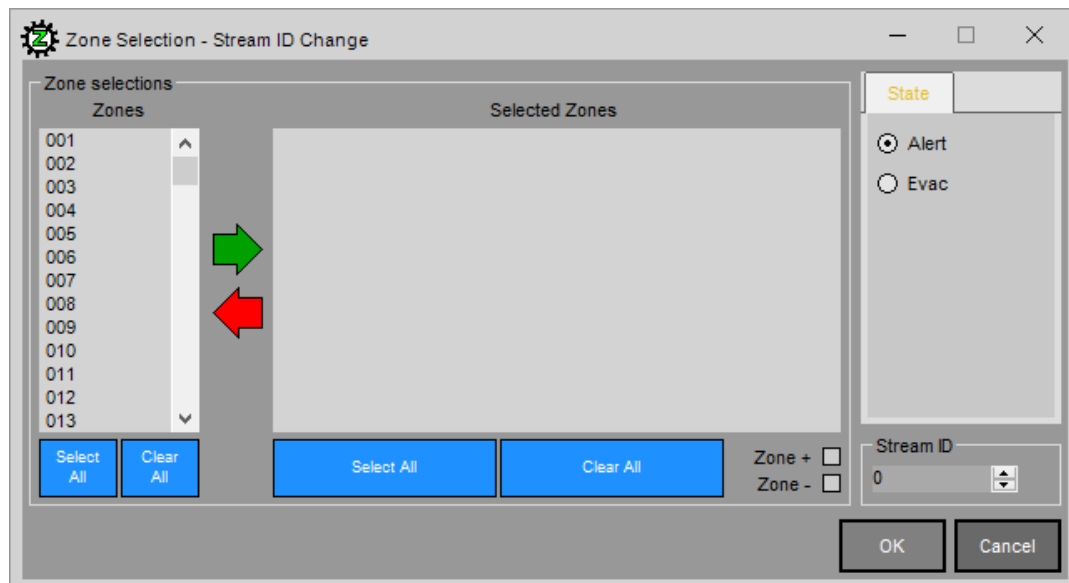


Figure 13-15 Set stream action dialogue box.

Sets the selected zones (or current zone if no zones selected) to the selected state and play the specified stream. This overrides the stream assigned to the audio channel ID for the zone (see section 6.3). Editable fields are:

- Select the zones to change state and stream (collection of audio samples). No zones selected – uses the current zone.
- The target stream is specified under Stream ID. All amplifiers assigned to the zone will play the same stream.
- The resulting state to set alert or evac.
- Zone - current zone less the specified offset zone. Multiple zones offset entries supported.
- Zone + current zone plus the specified offset zone. Multiple zones offset entries supported.
- Stream ID is enabled.

13.3.4.2.3 Dynamic Zone

This action is designed to be used for stepping (or cascading) sequencing- involving one state change – like stepping alert or stepping evac. To step up and down, 2 actions are required.

Displays the following dialogue box.

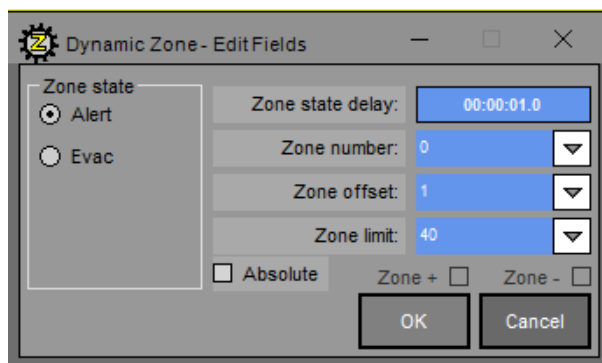


Figure 13-16 Dynamic zone action dialogue box.

Sets the current zone or specified zone to the selected state, then after the Zone state delay, the next “offset” number of zones are set to the selected state. This continues until the Zone limit is reached. Editable fields are:

- Zone state – resultant state -> specifies the resultant state of the zone.
- Zone state delay – delay between steps
- Zone number – absolute or current if 0 selected
- Zone offset – step amount.
- Zone limit – upper limit
- Absolute – sets an absolute upper limit, otherwise the upper limit is an offset to the zone number/starting zone.
- Zone+ – selection is disabled.
- Zone- – selection is disabled.

13.3.4.2.4 Dynamic Switch

This action is designed to be used for stepping (or cascading) sequencing- involving two state change – like stepping alert / evac. To step up and down, 2 actions are required.

Displays the following dialogue box.

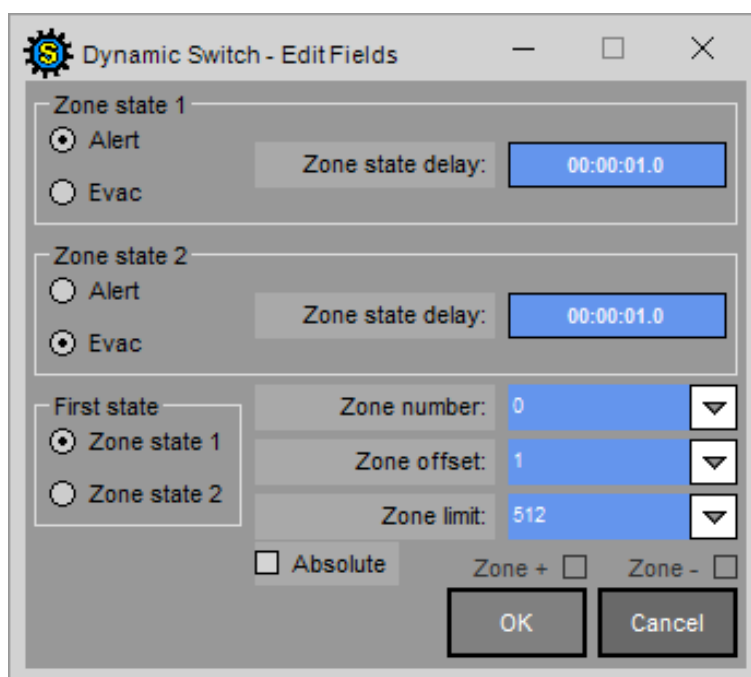


Figure 13-17 Dynamic switch action dialogue box.

Sets the current zone or specified zone to the selected state (refer to first state), then after the Zone 1 state delay, the next “offset” number of zones are set to the selected state. This continues until the Zone limit is reached. Editable fields are:

- Zone state – resultant state -> specifies the resultant state of the zone.
- Zone state delay – delay between steps
- Zone number – absolute or current if 0 selected
- Zone offset – step amount.
- Zone limit – upper limit
- Absolute – sets an absolute upper limit, otherwise the upper limit is relative to the starting zone.
- Zone+ – selection is disabled.
- Zone- – selection is disabled.

13.3.4.2.5 Switch State

Displays the following dialogue box.

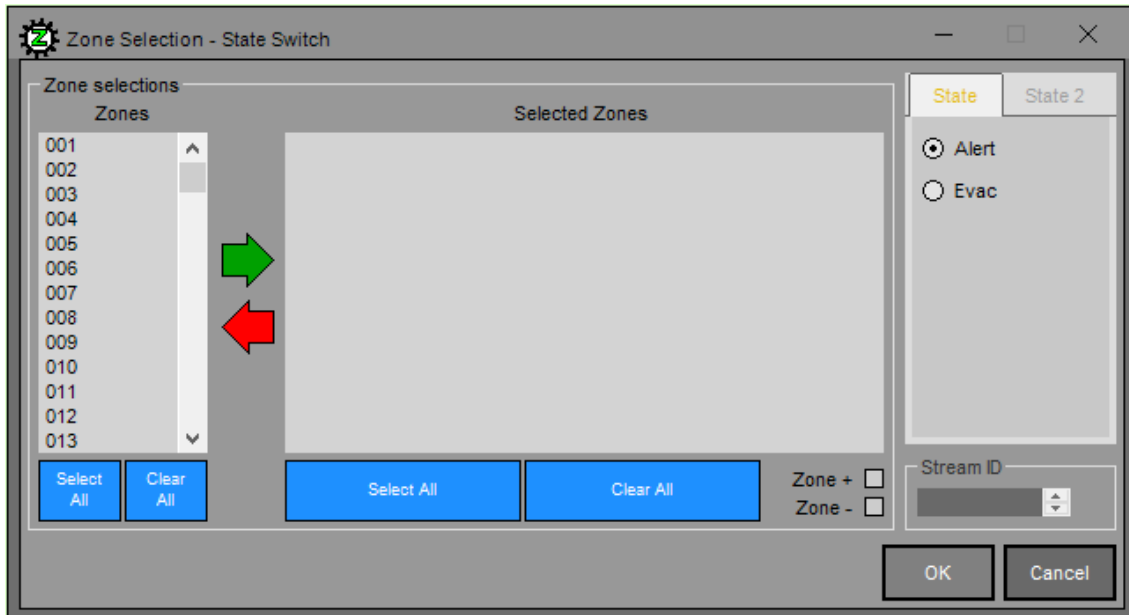


Figure 13-18 Switch state action dialogue box.

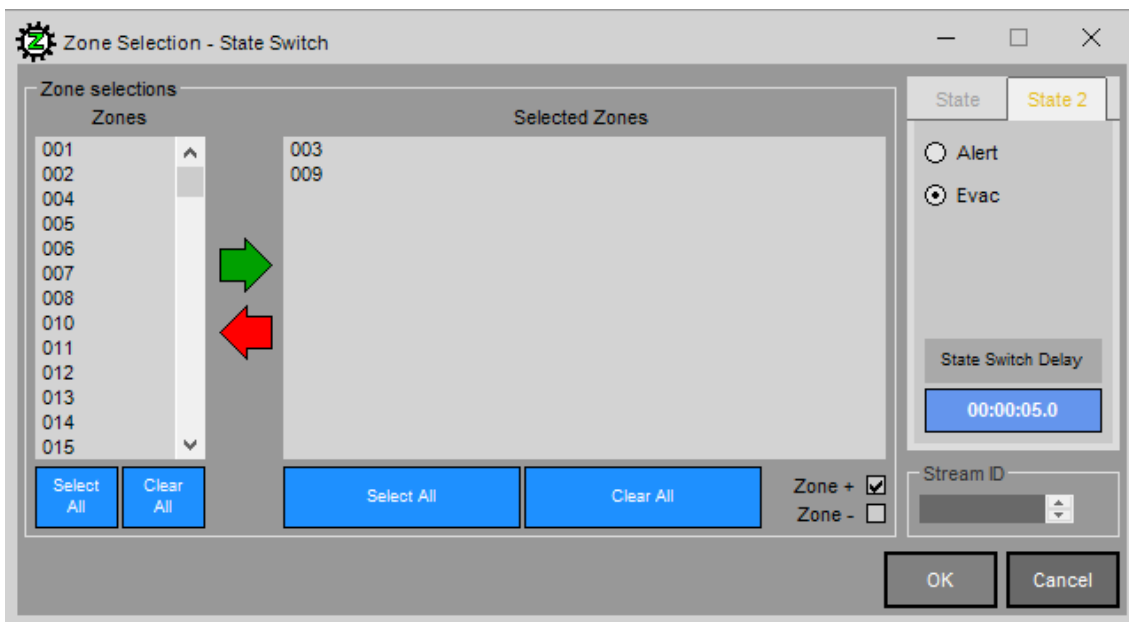


Figure 13-19 State Switch - State 2 action dialogue box.

Sets the selected zones (or current zone if no zones selected) to the selected state, then after the state switch delay (editable on the State 2 tab – see figure 13-19), set the selected zones (or current zone) to the State 2 state. Editable fields are:

- Select the zones to change state. No zones selected – uses the current zone.
- Set the initial state – alert or evac. The stream that will play is the stream associated with the alert or evac state in the audio channel assigned to the amplifier in the specified zone(s).
- Set the final (second) state (refer figure 13-9). The State Switch Delay is length of time that the initial state is held before transitioning to the final state.
- Zone - current zone less the specified offset zone. Multiple zones offset entries supported.
- Zone + current zone plus the specified offset zone. Multiple zones offset entries supported.
- Stream ID is disabled

13.3.4.2.6 Break

Halts the current sequence.

13.3.4.2.7 Halt

Halts the specified sequence.

13.3.4.2.8 Trigger

Displays the following dialogue box.

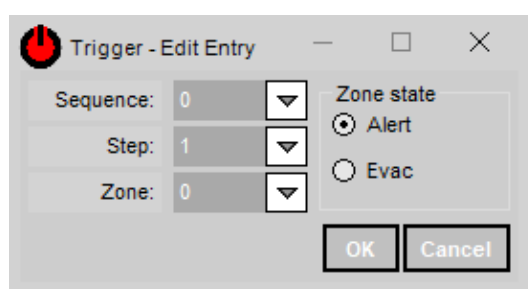


Figure 13-20 Trigger action dialogue box.

The trigger action allows a sequence to trigger another sequence (and nominate the step within the sequence) and set the zone state.

13.3.4.2.9 Jump

Specify the sequence to trigger, the step within the sequence and set the state of the triggering zone.

13.4 Simulator

13.4.1 General

The Simulator screen is viewed by selecting the SIMULATOR tab – refer figure 13-1.

The Simulator screen is shown below in figure 13- 21.

The screen is broken into several sections:

- Sequence control – start, stop, log, reset, adjust the speed of the clock, and displays a summary of the status of the zones.
- Sequence status – gives a log of the events of the sequence.
- Simulation – displays the sequence in progress and the trigger conditions.

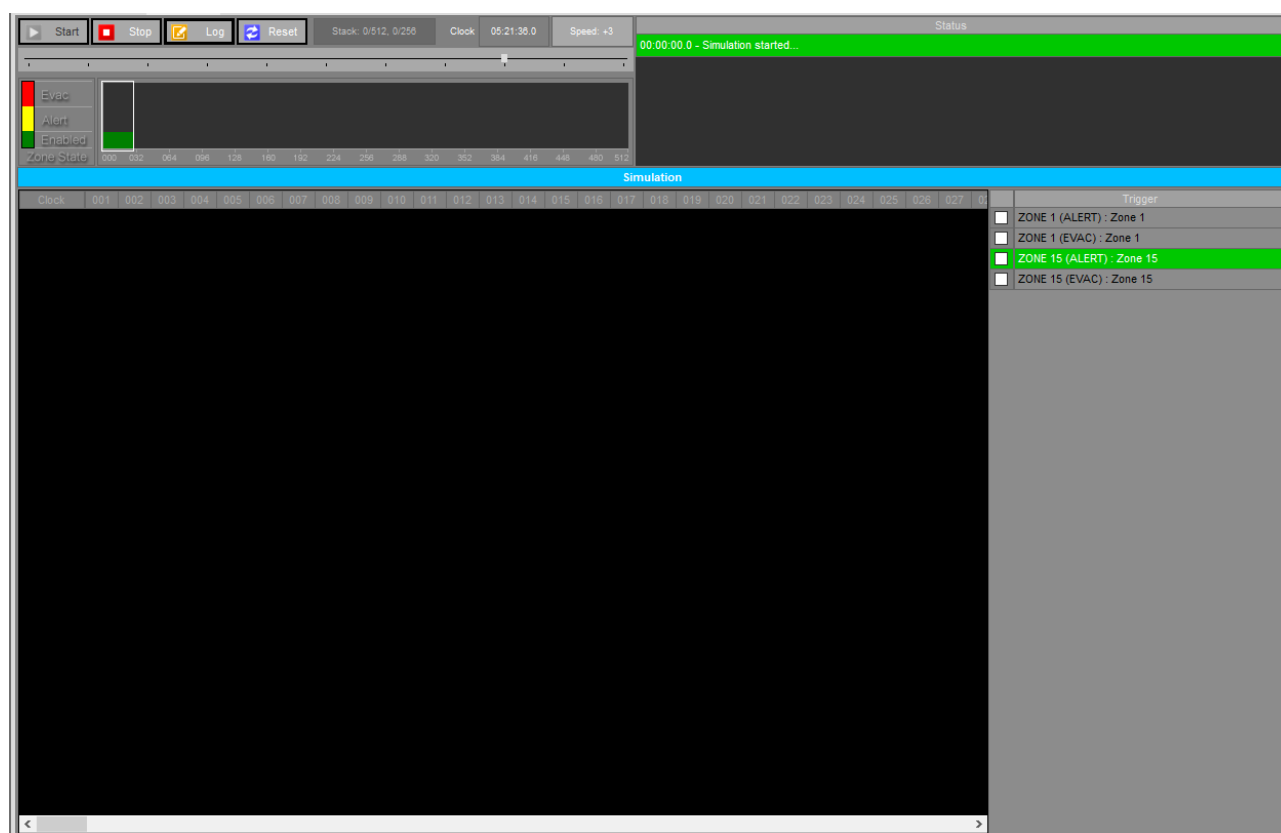


Figure 13-21 Simulator Screen

13.4.2 Sequence Control

Refer to figure 13-22 for the Sequence Control section.

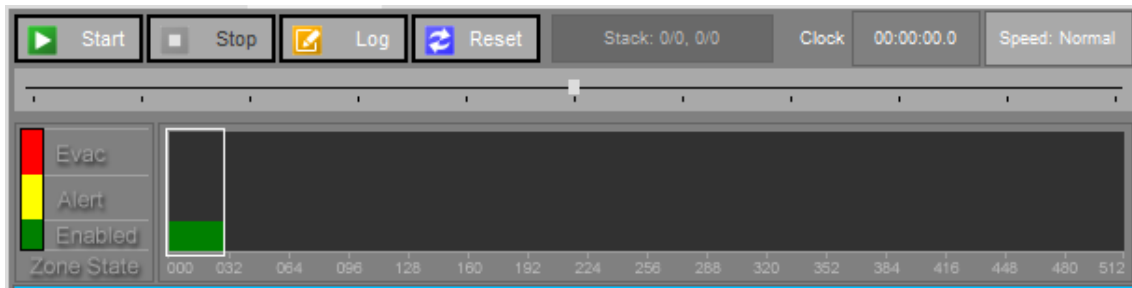
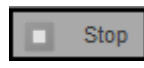


Figure 13-22 Sequence Control

 Starts the simulation running.

 Stops the simulation.

 Logs the simulation to a HTML log file.

 Resets the simulation.

 Displays the stack (which details the no. of active sequences and no. of active steps within the active sequences) clock and clock speed.

Use the sliding scale (figure 13-23) to adjust the clock speed.



Figure 13-23 Clock Speed Sliding Control

The following section (refer to figure 13-24) shows an overall status of the system.



Figure 13-24 Overall System Status

13.4.3 Sequence Status

The sequence status is a scrollable window that presents a log of the events as they occur. A copy of the scrollable window is generated in the log – section to section 12.4.2.

Refer to figure 13-25 for an example of the sequence status.

Status
00:00:11.3 - Zone 14 has moved to the EVAC state.
00:00:11.3 - Zone 18 has moved to the ALERT state.
00:00:11.3 - Zone 19 has moved to the ALERT state.
00:00:11.3 - Zone 13 has moved to the ALERT state.
00:00:14.7 - Simulation stopped.

Figure 13-25 Sequence Status

13.4.4 Simulation

Refer to figure 13-26.

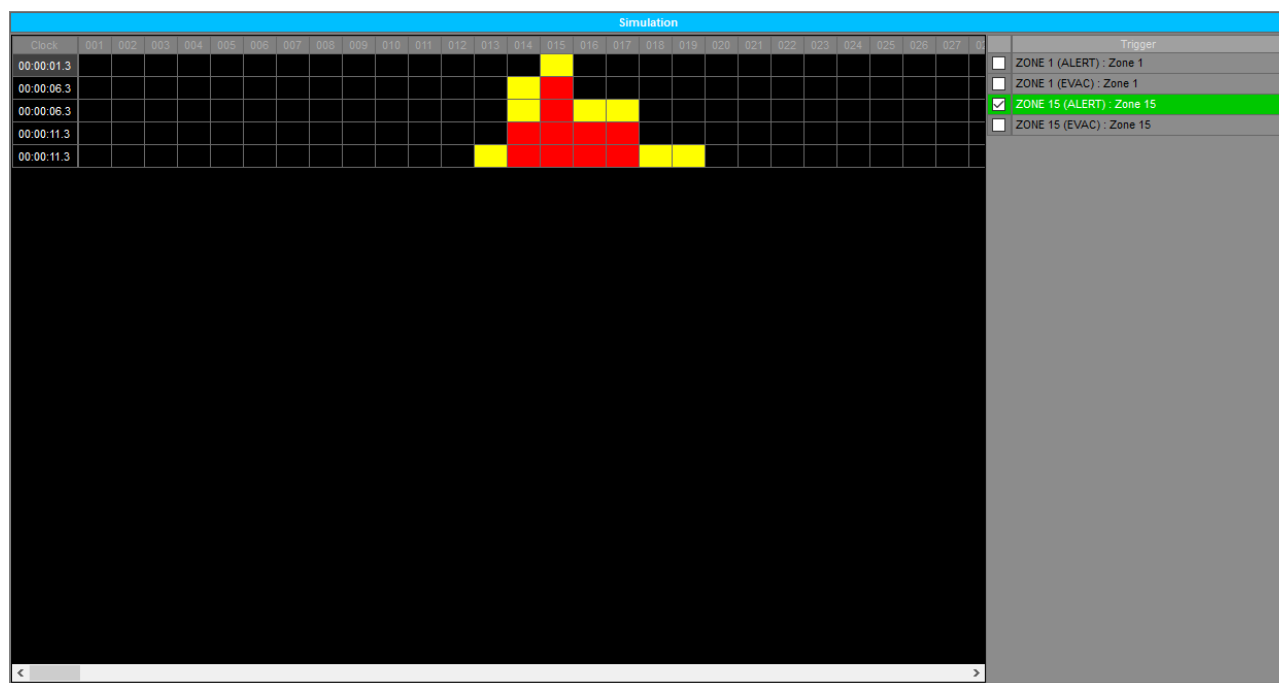


Figure 13-26 Simulation.

The simulation screen is split into two sections.

The section on the left shows the status of the zones – with reference to the clock.

The section on the right shows a list of the trigger inputs. Inputs are activated by clicking in the tick box. Zones appear as triggers if the zone is linked to trigger a sequence. Refer to section 7.2.3

13.4.5 Sequencing -Guidance and support for field Technicians

In many cases when you begin your journey attempting to create unique sequences on EvacUElite you may find it helpful, productive, or necessary to talk with the Ampac technical support team.

When you have created a few sequences, and they work correctly on the simulator you will be “up and running” and have config records detailing how you achieved those outcomes.

In the doing is where the learning happens! For Fire technicians who wish to become proficient we have created a programming help guide for EvacUElite called **Config FAQs. (MAN3169)** It answers many questions including more illustrations about Sequencing methods and a plethora of other FAQ topics.

14 Glossary Of Terms

ACKD	:	ACKNOWLEDGED
ALM	:	ALARM
BGM	:	BACKGROUND MUSIC
C	:	RELAY COMMON CONTACT (WIPER)
CN	:	CONNECTOR
CPU	:	COMMON PROCESSOR UNIT
DCV	:	DIRECT CURRENT VOLTS
EAID	:	EMERGENCY ALARM INITIATING DEVICE
EARTH:		BUILDING EARTH
ECP	:	EMERGENCY CONTROL PANEL
EDS	:	EMERGENCY DETECTION SYSTEM
EIS	:	EMERGENCY INTERCOMMUNICATION SYSTEM
EOL	:	END OF LINE
EWIS	:	EMERGENCY WARNING AND INTERCOMMUNICATION SYSTEM
EWS	:	EMERGENCY WARNING SYSTEM
FACP	:	FIRE ALARM CONTROL PANEL
FLT	:	FAULT
GND	:	GROUND (0 VOLTS) NOT EARTH
GPO	:	GENERAL PURPOSE OUTLET
I/O	:	INPUT/OUTPUT
ISOL	:	ISOLATED
MAF	:	MASTER ALARM FACILITY
MCB	:	MASTER CONTROL BOARD
MCP	:	MANUAL CALL POINT
MECP	:	MASTER EMERGENCY CONTROL PANEL
MOV	:	METAL OXIDE VARISTOR (TRANSIENT PROTECTION)
N/C	:	NORMALLY CLOSED RELAY CONTACTS
N/O	:	NORMALLY OPENED RELAY CONTACTS
PA	:	PUBLIC ADDRESS
PAIC	:	PUBLIC ADDRESS INTERFACE CARD
PCB	:	PRINTED CIRCUIT BOARDS
PRIN	:	PRINTER
P/S	:	POWER SUPPLY
PSM	:	POWER SUPPLY MODULE
REM	:	REMOTE
RPC	:	REMOTE PAGING CONSOLE
SECP	:	SECONDARY EMERGENCY CONTROL PANEL
TB	:	TERMINAL BLOCK
SGM	:	SIGNAL GENERATOR MODULE
VDU	:	VIDEO DISPLAY UNIT
WIP	:	WARDEN INTERCOM POINT

15 Definitions

Activating device - a device capable of being operated automatically or manually to initiate an alarm signal, e.g., a detector, a manual call point, or a pressure switch.

Alarm system - facility provided in a building to give an alarm in the event of fire, civil commotion, bomb threat, leakage of toxic or noxious fumes, structural damage, or other emergency.

Alarm signal - a signal given by fire alarm, or other alarm system, at the fire indicator panel (FACP) or other panel to alert wardens and other nominated personnel as necessary to commence prescribed actions.

Alarm zone - the specific portion of a building or complex identified by a particular alarm zone facility.

Alert signal - an audible signal, or combination of audible and visible signals, from the Emergency warning system to alert wardens and other nominated personnel as necessary to commence prescribed actions.

Approved and approval - approved by, or the approval of, the Regulatory Authority concerned.

Control and indicating equipment (CIE) - a combination of control equipment and indicating equipment.

Control equipment - equipment which controls the receipts and transmission of signals within the fire detection and alarm system or initiates other action.

Emergency alarm initiating device - a manually operated device by which an alarm is given to indicate an emergency.

Emergency condition - is a condition which requires the evacuation of the building or zone.

Emergency control panel (ECP) - a panel by means of which the emergency warning and intercommunication system (if any) in the building may be operated [NOTE: see also definition of master emergency control panel (MECP)].

Emergency intercommunication system (EIS) - a two-way system which provides voice communication between the controlling emergency control panel (ECP) and the warden intercommunication points (WIPS).

Emergency warning and intercommunication system (EWIS) - a combined emergency warning and intercommunication system.

Emergency warning system (EWS) - a system to provide a distinctive audible signal, verbal address, and visible signals as required, during an emergency condition.

Evacuation sequence - a pre-programmed sequence initiating alert and evacuation signals to evacuation zones as required by the Regulations Authority.

Evacuation signal - an audible signal, or combination of audible signals, from the emergency warning system to indicate to wardens and building occupants generally that an evacuation or other prescribed actions are necessary.

Evacuation zone - a specific portion of a building or complex, in which the evacuation procedures are managed by one zone warden. [NOTE: this term should not be confused with the concept of 'fire alarm zone'. Fire alarm zone may or may not cover the same area as an evacuation zone.]

Factory connections - are connections made during manufacture and should not require any field alterations.

Field connections - are connections made to FACP or ancillary equipment at the project during installation.

Firmware - the basic operating program which is not intended to be field changeable.

House warden - a person who, during an emergency, assumes control over the building and its occupants and is the prime contact with the appropriate emergency services(s).

Interface - The interconnection between equipment which permits the transfer of data.

Main equipment - equipment essential to the operation of the system including, control equipment, amplification equipment and power supply modules.

Master alarm facility (MAF) - that part of the control and indicating equipment which receives alarm and fault signals from any alarm zone facility and initiates the common signal (alarm and/or fault) for transmission to the fire control station where appropriate. Bells and other ancillary functions may be initiated from this facility.

Master emergency control panel (MECP) - a specially designated emergency control panel (ECP) that on manual operation of its key switch, takes full control of the emergency warning and intercommunication system, and overrides all other ECP's in the building.

Power Supply - that portion of the control and indicating equipment (CIE) which supplies all voltages necessary for operation of the CIE.

Regulatory Authority - an authority administering Acts of Parliament or Regulations under such Acts.

Remote auxiliary supply - power supply DC24VDC max from a remote source.

Verbal address - the mode of operation whereby verbal instruction is given from the controlling emergency control panel (ECP) to the building occupants via the loudspeaker systems.

Warden intercommunication point (WIP) - the location on a floor or evacuation zone, where equipment is provided through which instructions can be received from the controlling emergency control panel (ECP) via the emergency intercommunication system.

Zone (floor) warden - a person who, during an emergency, assumes control over a particular floor or evacuation zone under the direction of the house warden.

MAN3142-5	Added PAIC Configuration Process – Bosch Praesensa and RPC Most Screenshots illustrations are V1.2.2.2
MAN3142-6	Corrections to image reference numbers and flex DSL replaces Metanoia

UNCONTROLLED DOCUMENT

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