

Project configuration using NEOc v2.5.4

Typical configuration of a project using NEOc
v2.5.4

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1. Description

NEOc is a versatile and easy to use software used for the configuration of the NEO series devices.

2. Object

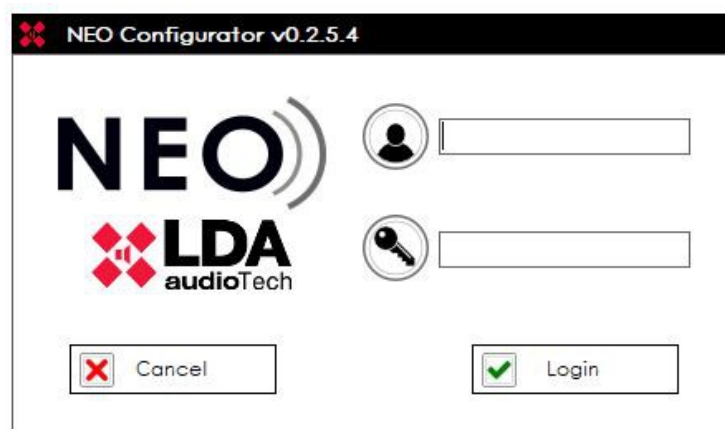
The object of this document is understanding how the configuration of a NEO project is made using NEOc software.

In the following chapters the necessary steps to do it are detailed.

3. Access

Accede to the application NEOc V2.5.4 or newer using the follower user and password:

- User: default
- Password: 1234



4. Project types

In NEOc there are two possibilities when a project is made:

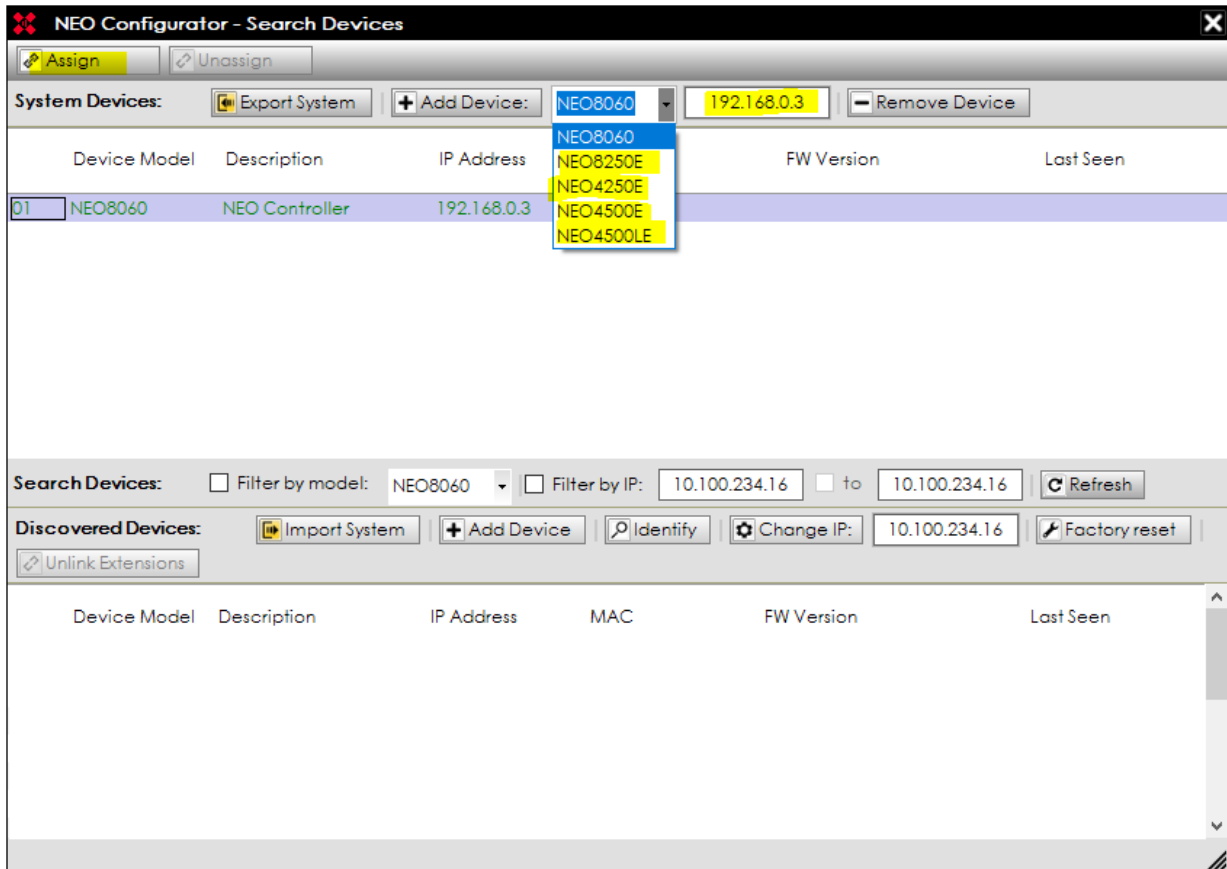
- Creating an offline project: Once the offline mode configuration is made, it will be possible to upload it in the device.
- Creating an online project: Once the software NEOc is connected to the device, changes made in the software will be made also in the device.

4.1. Creating Offline project

First, the creation of a new project should be created in order to make the required configuration for the installation that should be made.



Once selected, in the following window the devices to add in the project should be assigned:



1. Select the device model.
2. Configure IP address.
3. Assign the device to the project.

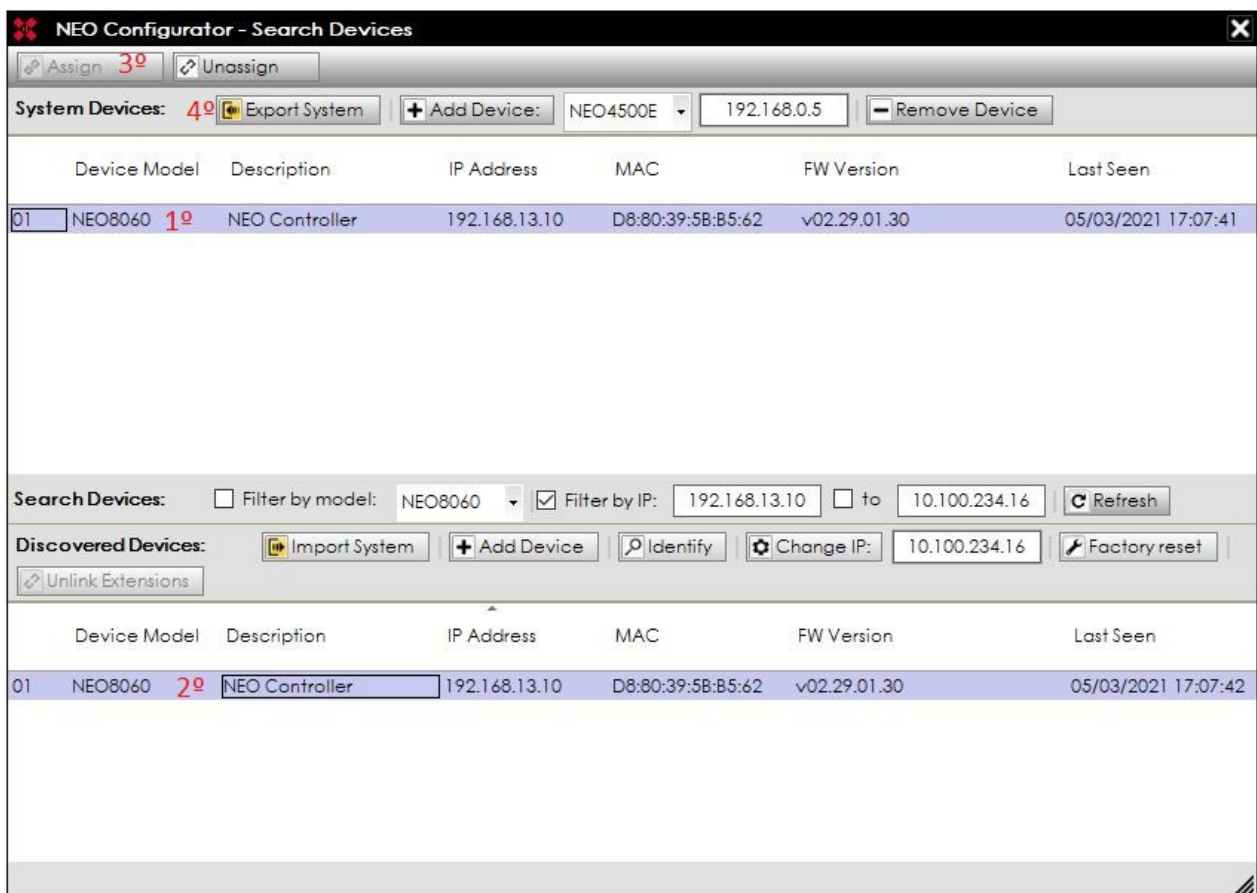
In this example, a NEO8060, a NEO8250E and a NEO4500E should be added.

Once assigned the window should be closed in order to continue making the project configuration.

4.2. Charge offline project in the device.

In order to charge an offline project to a device, the following steps must be made:

1. Select offline project.
2. Select destination device.
3. Assign it.
4. Export the project.



NEO Configurator - Search Devices

Assign **3º** Unassign

System Devices: **4º** Export System + Add Device: NEO4500E 192.168.0.5 Remove Device

Device Model	Description	IP Address	MAC	FW Version	Last Seen
01 NEO8060 1º	NEO Controller	192.168.13.10	D8:80:39:5B:B5:62	v02.29.01.30	05/03/2021 17:07:41

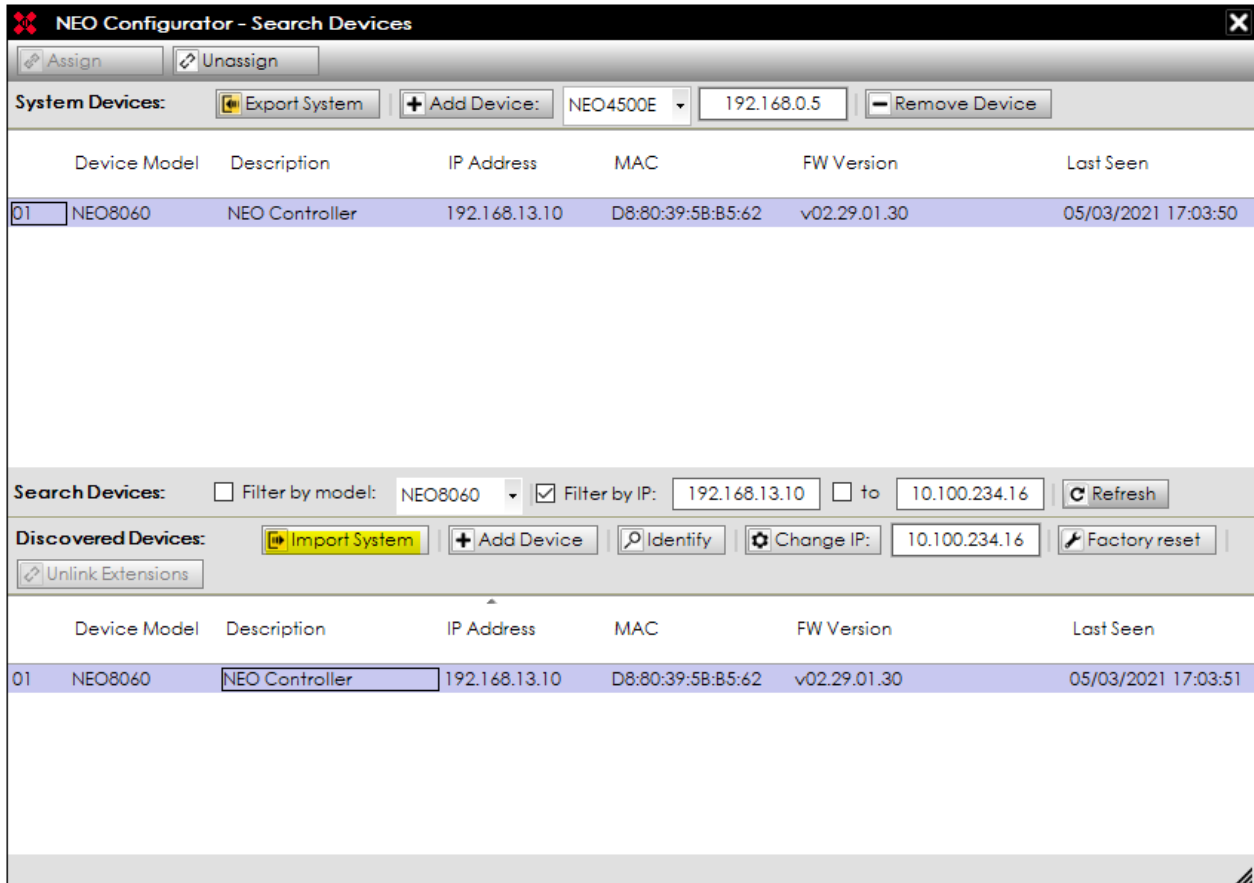
Search Devices: ☐ Filter by model: NEO8060 ☒ Filter by IP: 192.168.13.10 to 10.100.234.16 Refresh

Discovered Devices: Import System + Add Device Identify Change IP: 10.100.234.16 Factory reset Unlink Extensions

Device Model	Description	IP Address	MAC	FW Version	Last Seen
01 NEO8060 2º	NEO Controller	192.168.13.10	D8:80:39:5B:B5:62	v02.29.01.30	05/03/2021 17:07:42

4.3. Create online project

Select the device that the user would like to connect to and click on “Import system”. This way, the user can get connected to the device and make the desired changes in the configuration.



NEO Configurator - Search Devices

Assign Unassign

System Devices: Export System + Add Device: NEO4500E 192.168.0.5 - Remove Device

	Device Model	Description	IP Address	MAC	FW Version	Last Seen
01	NEO8060	NEO Controller	192.168.13.10	D8:80:39:5B:85:62	v02.29.01.30	05/03/2021 17:03:50

Search Devices: ☐ Filter by model: NEO8060 ☒ Filter by IP: 192.168.13.10 to 10.100.234.16 Refresh

Discovered Devices: Import System + Add Device Identify Change IP: 10.100.234.16 Factory reset Unlink Extensions

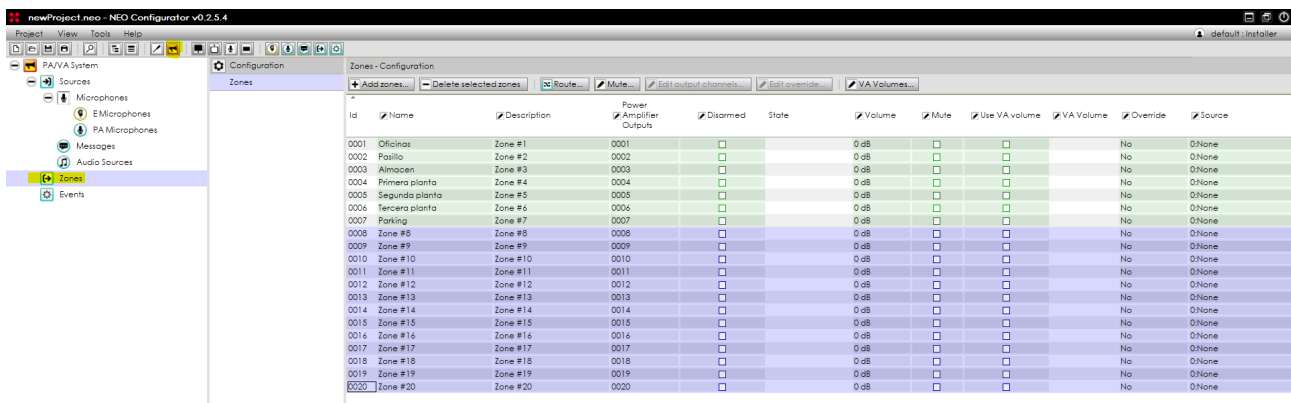
	Device Model	Description	IP Address	MAC	FW Version	Last Seen
01	NEO8060	NEO Controller	192.168.13.10	D8:80:39:5B:85:62	v02.29.01.30	05/03/2021 17:03:51

5. System configuration

5.1. PA/VA Sytem

By acceding to the menu PA/VA → Zones you can assign the zone amount used in the project.

It is recommended to name the zones using the name of the place where they will be, and delete the ones that will not be used, using the button “Delete selected zones”.



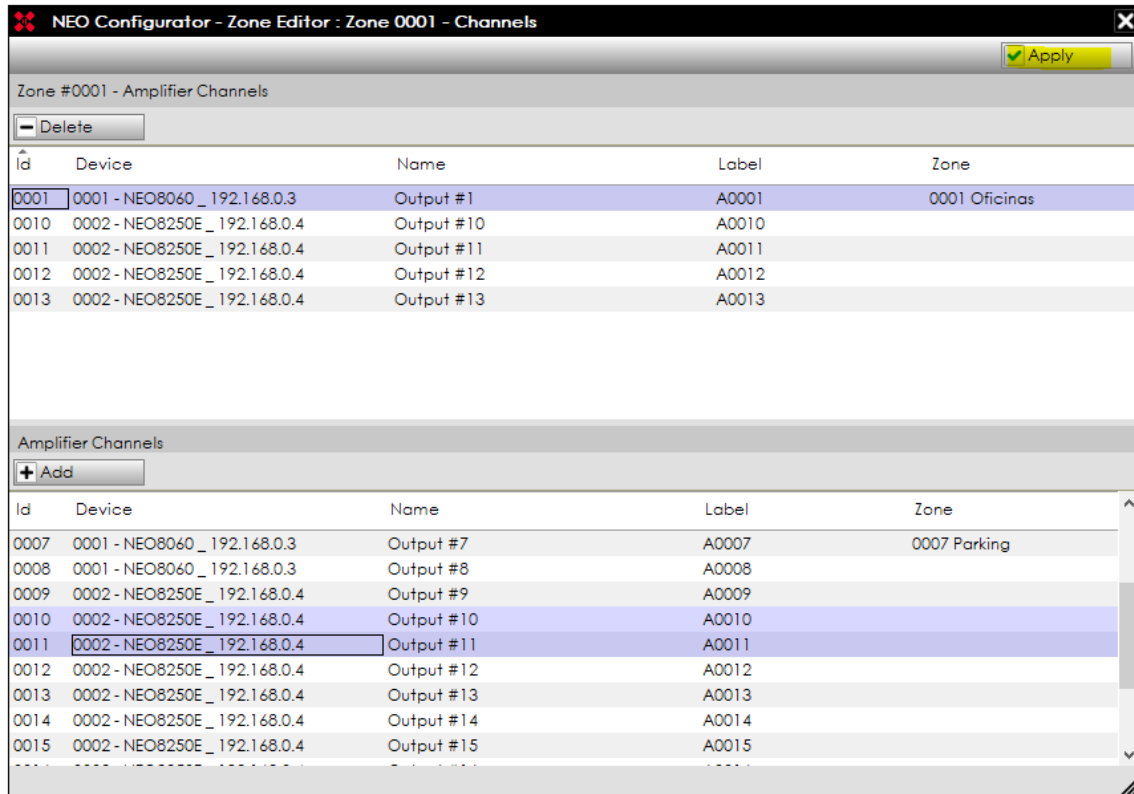
Once deleted, the grouped channels should be grouped in a zone. The difference between channels and zones is:

- Channels: Physical place where the PA/VA speakers are connected.
- Zones: Group of channels in a room or place.

In order to select the channels assigned to each zone, you should select the zone and click on “Edit output channels”.

Once the channels are selected and added, the changes must be accepted.

Note: Channels from different devices can be added.



5.2. Power amplifier outputs

The options required for the audio channels will be detailed here.

There, the user will be able to select if the channel will be used as backup and assign the channels that, in case of failure, will use the backup channel. (Remember that the wiring shall be done previously, as indicated in the user's manual).

The gain of the channels can be also configured, and activate the amplifier supervision that will warn the user in case of a failure.

Power Amplifier Outputs - Configuration															
Id	Device	Name	Zone	Zone Volume	Zone Mute	Output Volume	Total Volume	Output Mute	Vumeter	Loudness	Eq	Amplifier Supervisor	State	Is Spare	Spare Channel
0001	NEO8060 (1)	Linea 1	1	0 dB		-5 dB	-5 dB	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	None
0002	NEO8060 (1)	Linea 2	2	0 dB		-2 dB	-2 dB	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	None
0003	NEO8060 (1)	Linea 3	3	0 dB		-1 dB	-1 dB	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	None
0004	NEO8060 (1)	Linea 4	4	0 dB		+10 dB	+10 dB	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	None
0005	NEO8060 (1)	Linea 5	5	0 dB		-5 dB	-5 dB	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	Channel 8
0006	NEO8060 (1)	Linea 6	6	0 dB		-6 dB	-6 dB	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	Channel 8
0007	NEO8060 (1)	Linea 7	7	0 dB		0 dB	0 dB	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	Channel 8
0008	NEO8060 (1)	Backup				0 dB	0 dB	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	

5.3. CobraNet Inputs

In case of having CobraNet sources, they will need to be configured in NEO8060.

In order to do that, the user should indicate the bundle used for each channel.

For example, if the user uses ZES22 matrixes with audio inputs that will be distributed through CobraNet to NEO devices, those inputs shall be included in NEO.

Configuration	New CobraNet Input			
Info	+Add			
Audio Inputs				
Power Amplifier Outputs				
CobraNet - Inputs				
CobraNet - Broadcast				
Speaker Lines				
Status Inputs and Outputs				
GPIO				
Serial Ports				
FlexNet				
Access Control				
PTT Config				
Advanced				
View				
Logs				

Name	Description	Bundle	Channel
ZES22	Entrada 4	150	4

Id	Name	Description	Bundle	Channel
0009	ZES22	Entrada 1	150	1
0010	ZES22	Entrada 2	150	2
0011	ZES22	Entrada 3	150	3
0012	ZES22	Entrada 4	150	4

5.4. CobraNet Broadcast

This menu allows to configure the way in which the system controller transmits his own audio sources through a CobraNet packet to the rest of the devices in the system (Extensions).

If the system has only a NEO Master, it is not necessary to make modifications, but if it has more than one, the user shall configure them according to their needs.

Configuration	CobraNet - Broadcast	
Info	Parameter	Value
Audio Inputs	Local sources broadcast	Enabled Dinamic
Power Amplifier Outputs	Private Mode	Disabled
CobraNet - Inputs	Transmission bundle	100
CobraNet - Broadcast	Input 0001	Enabled
Speaker Lines	Input 0002	Enabled
Status Inputs and Outputs	Input 0003	Enabled
GPIO	Input 0004	Enabled
Serial Ports	Input 0005	Enabled
FlexNet	Input EMIC	Enabled
Access Control	Input MSG1	Enabled
PTT Config	Input MSG2	Enabled
Advanced		
View		
Logs		

5.5. Speaker lines

In this table, we can activate line supervision according to the type of end of line device installed on the line.

Channel protection can also be activated. This means that, when a line has a failure, the

channel will pactivate its own protection in order not to make the amplifier break.

Once active, the line measure is made at 19,5-20 Khz and calibrated using the desired tolerance.

Configuration

Info

Audio Inputs

Power Amplifier Outputs

Cobranet - Inputs

Cobranet - Broadcast

Speaker Lines

Status Inputs and Outputs

GPIO

Serial Ports

FlexNet

Access Control

PTT Config

Advanced

View

Logs

Speaker Lines

▶ Calibrate selected lines

Impedance Lower Tolerance (‰): 15 Impedance Upper Tolerance (‰): 15

Id	Name	Line status	✓ EOL Inputs (TFL1)	Impedance Measure (TFL2)	Protection System (TFL2)	✓ Nominal Impedance	Nominal Impedance A	Nominal Impedance B	Measured Impedance	Impedance Deviation
0001	Linea 1		None	Single Line	✓	166 ohm				
0002	Linea 2		None	None	□	166 ohm				
0003	Linea 3		None	Class A	✓	166 ohm	0 ohm	0 ohm		
0004	Linea 4		None	None	□	166 ohm				
0005	Linea 5		None	A+B	✓	166 ohm	0 ohm	0 ohm		
0006	Linea 6		None	None	□	166 ohm				
0007	Linea 7		None	None	□	166 ohm				
0008	Backup	Spare Channel								

5.6. Status inputs and outputs

This menu can activate the supervision of the dry contacts for the fire alarm panel or the batteries.

It can also indicate the type of signal and configuration of the status outputs that can be integrated in a central, software management, etc.

When the fire alarm panel or the battery charger configurator supervision is activated, in case of failure, the device will indicate it.

Configuration		Status Outputs				
Info		Status Outputs (Status Out) - Configuration: DIS steady - FLT blink N/C Mode: <input type="checkbox"/>				
Audio Inputs		Rec-Out Active High: <input type="checkbox"/>				
		Status Inputs				
Cobranet - Inputs		General CIE entry point 1: System Controller [192.168.0.3]				
Cobranet - Broadcast		CIE Auto-Reset: <input type="checkbox"/>				
Speaker Lines						
Status Inputs and Outputs		Description	Line	Fault	✓ Supervision	✓ N/C Mode State
	GPIO	RESET			✓	□
	Serial Ports	EMERGENCY			✓	□
	FlexNet	ZONE 1			□	□
		ZONE 2			✓	□
	Access Control	ZONE 3			□	□
	PTT Config	ZONE 4			□	□
	Advanced	ZONE 5			□	□
		ZONE 6			□	□
	View	ZONE 7			□	□
	Logs	ZONE 8			□	□
		AC fault			✓	
		Battery fault			✓	
		DC fault			✓	

5.7. GPIO

Here the user may configure the GPIO estate to configure it later using events.

Options are: input or output.

Configuration	GPIO			
Info	Id	Name	Function	State
Audio Inputs	0001	G01	Output	Low
Power Amplifier Outputs	0002	G02	Input	Low
Cabernet - Inputs	0003	G03	Input	Low
Cabernet - Broadcast	0004	G04	Input	Low
Speaker Lines	0005	G05	Input	Low
Status Inputs and Outputs	0006	G06	Input	Low
GPIO	0007	G07	Input	Low
Serial Ports	0008	G08	Input	Low
FlexNet	0009	G09	Input	Low
Access Control	0010	G10	Input	Low
PTT Config	0011	G11	Input	Low
Advanced	0012	G12	Input	Low
View	0013	G13	Input	Low
Logs	0014	G14	Input	Low

5.8. Serial Ports

In this section, the configuration of the serial port included in the NEO8060 will be shown. If no integration is carried out, it is not necessary to configure it, and the user could use it as default.

Configuration	Serial Ports	
Info	Parameter	Value
Audio Inputs	PA Serial Port (ETX) VCC Special Mode	✓
Power Amplifier Outputs	PA Serial Port (ETX) Baud rate	19200
Cabernet - Inputs	PA Serial Port (ETX) Parity	Even
Cabernet - Broadcast	PA Serial Port (ETX) Stop bits	1
Speaker Lines	PA Serial Port (ETX) Mode	RS-485
Status Inputs and Outputs	VA Serial Port Baud rate	19200
GPIO	VA Serial Port Parity	Even
Serial Ports	VA Serial Port Stop bits	1
FlexNet	VA Serial Port Mode	RS-485
Access Control		
PTT Config		
Advanced		
View		
Logs		

5.9. Flexnet

VLAN configuration if necessary, as the default is configured as follows:

- VLAN Data: 1
- VLAN Audio: 2

The "Enable Subnet Broadcast Mode" parameter enables broadcast communication to each broadcast address on the Ethernet subnet configured by the devices. This may be necessary in the configuration of certain networks due to advanced traffic filters.

Configuration	FlexNet
Info	Parameter Value
Audio Inputs	VLAN Data 1
Power Amplifier Outputs	VLAN Audio 2
Cobranet - Inputs	Enable Subnet Broadcast Mode <input type="checkbox"/>
Cobranet - Broadcast	
Speaker Lines	
Status Inputs and Outputs	
GPIO	
Serial Ports	
FlexNet	
Access Control	
PTT Config	
Advanced	
View	
Logs	

5.10. Access Control

This tab allows you to specify and modify the PIN numbers that allow access to the different levels of the NEO touch screen menus.

By default, no PIN is requested to access any level. For EN54-16 installations, a PIN must be set for each access level.

Configuration	Access Control
Info	Name Access Control Pin Number
Audio Inputs	Access Level 2 Pin 1234
Power Amplifier Outputs	Access Level 3 Confirm
Cobranet - Inputs	
Cobranet - Broadcast	
Speaker Lines	
Status Inputs and Outputs	
GPIO	
Serial Ports	
FlexNet	
Access Control	
PTT Config	
Advanced	
View	
Logs	

5.11. PTT config

By default, the NEO's front PTT microphone is supervised and does not produce any ding-dong or ringing prior to voice output. This is a requirement of the EN54-16 standard. Optionally, these settings can be modified from this tab.

Configuration	PTT Config
Info	Name <input type="checkbox"/> Value
Audio Inputs	PA ding-dong enabled <input type="checkbox"/> No
Power Amplifier Outputs	VA ding-dong enabled <input type="checkbox"/> No
Cobranet - Inputs	Disable PTT mic supervision <input type="checkbox"/> No
Cobranet - Broadcast	
Speaker Lines	
Status Inputs and Outputs	
GPIO	
Serial Ports	
FlexNet	
Access Control	
PTT Config	
Advanced	
View	
Logs	

5.12. Messages

This section must be done once the equipment is online, as it loads and assigns the messages to be used in the work.

Click on "send audio file" to add the audio files to be used.

Once added, it is necessary to assign it as an EVAC or ALERT message. To do this, select the message and click on the set EVAC or set ALERT button.

Configuration		Messages - Configuration				
Message Transfer		<div><div>+ Sending audio files...</div><div>Backup...</div><div>Remove selected</div><div>Set EVAC</div><div>Set ALERT</div></div>				
Id	VA	Name	Size	Duration	Sample Rate	
0001	ALERT	10_Alerts	361 KB	00:07	24 KHz	
0002		REC_ALERT	550 KB	00:11	24 KHz	
0003		M1_ALERTA_INTERIOR 48KHz_24bits	645 KB	00:13	24 KHz	
0004		M2_EVACUACION 48KHz_24bits	592 KB	00:12	24 KHz	
0005		M3_CONFINAMIENTO 48KHz_24bits	645 KB	00:13	24 KHz	
0006		M4_FIN DE EMERGENCIA 48KHz_24bi	270 KB	00:05	24 KHz	
0007		SIMULACRO	445 KB	00:09	24 KHz	
0008	EVAC	TEST MEGAFONIA	877 KB	00:16	24 KHz	
0009		Locucion CONFINAMIENTO	1007 KB	00:21	24 KHz	
0010		Locucion EVACUACION	697 KB	00:14	24 KHz	
0011		AviaVox - Sp - PSA-16 - after I	369 KB	00:07	24 KHz	
0012		ms1_fr_LDA	216 KB	00:04	24 KHz	
0013		ms2_fr_AL	446 KB	00:09	24 KHz	
0014		ms3_fr_EV	336 KB	00:07	24 KHz	

5.13. MPS or VAP configuration

The grouping of the zones to be made when an MPS or VAP call button is pressed. Simply double click on the required zone and add the group of zones to be called.

Configuration		Buttons	
General		Edit Zones...	
Zone Buttons			
Id	Button Panel	Name	Zone Id
1	Main	Oficinas	0001
2	Main	Pasillo	0002
3	Main	Almacén	0003
4	Main	Primera planta	0004
5	Main	Segunda planta	0005
6	Main	Tercera planta	0006
7	Main	Parking	0007
8	Main		
9	Extension 1		
10	Extension 1		
11	Extension 1		
12	Extension 1		
13	Extension 1		
14	Extension 1		

5.14. Advanced

Advanced configuration options are only available to users logged in as installers.

In terms of system configuration, only the following items will be used:

- Audio message sample rate: Allows you to set the sample rate of the loaded audio files. This parameter is volatile, it will not be saved in the project nor in the devices, and it is reset to 24KHz when the application is started. Possible values:
 - 24 KHz: Default.
 - 48 KHz: Higher quality. The higher 48 KHz sampling rate of the message may reduce the performance of the device.
- Enable echo for UDP command triggers: Enables echo mode in the event handler and the trigger will be activated through a UDP command.
- Enable Overrides and VA Volumes with PA Mics: Enables the activation of the Override output (used for attenuator cancellation) for PA microphones (ACSI or PTT), depending on the zone selection where the floor is granted. Those zones also get VA Volumes.

5.15.Events

NEO has enormous flexibility to adapt the system to a multitude of requirements thanks to the Event module. The Events module is a creation centre to automate some feature modifications, according to the individual performance needs of the system.

See section 2 point 5 for the events.

To get further information, please check our support website <https://support.lda-audiotech.com/>