

User's Manual

MANAGEMENT SOFTWARE



Model: NEO-CTRLSW
v1.0.3.0



Index

1 INTRODUCTION.....	1
2 INSTALL AND LICENSE.....	1
2.1 Install.....	1
2.2 License.....	2
2.3 Temporary License.....	4
2.4 Perpetual License.....	5
2.5 Version update.....	6
3 NEO CONTROL CONFIGURATION (EDITION MODE).....	7
3.1 User Interface general description.....	7
3.2 Connect to a NEO System.....	9
3.3 Central panels customization.....	9
3.3.1 Events panel configuration.....	11
3.4 Preferences.....	12
3.5 Add map.....	13
3.6 Add or remove zones to a map.....	14
3.7 Save, load and create new projects.....	15
4 NEO CONTROL USE (OPERATOR MODE).....	16
4.1 User Interface general description.....	16
4.2 Selecting a group of zones.....	18
4.3 Route, unroute and change source volumes.....	20
4.4 Launch events.....	20

SECURITY INSTRUCTIONS

Please read carefully these safety instructions.

1. Keep this User Manual for future reference.
2. Power connectors must stay accessible for disconnection and power cord must be placed where people will not step or stumble. Unplug the equipment from the AC/DC before cleaning.
3. The equipment must not be exposed to water and water containers must not be placed over it. Do not use liquid or sprayed detergent for cleaning. Do not expose this equipment to humid areas.
4. Do not place naked flames near the equipment.
5. Install this equipment in a safe surface. If the equipment is not in a safe surface, it may fall and be damaged.
6. The openings on the enclosure are for air convection. Do not allow overheat. **DO NOT COVER THE OPENINGS.** Leave at least 5cm of space at the sides for its correct ventilation.
7. Never open the equipment. For safety reasons, the equipment should only be opened by qualified personnel.
8. The equipment must be plugged into a grounded outlet.
9. Pay attention to connection polarity when operating the machine with a power supply (DC). Reverse connection polarity may cause damage to the equipment, or to the power supply.
10. Let staff check the equipment if any of these situations occur:
 - a) The power cord or power plug is damaged.
 - b) Liquid has penetrated inside the equipment.
 - c) The equipment has been exposed to moisture.
 - d) The equipment does not work well or does not work according to the instruction manual.
 - e) The equipment was dropped and damaged.
 - f) If the equipment has obvious signs of damage.
11. Cabling must be done only by trained personnel. Disconnect the audio inputs and outputs while making connections or disconnect the equipment from the power supply. Be sure to use the proper cables to make the connections.

1 INTRODUCTION

NEO Control is an auto-install application without a database that allows to easily control and supervise any NEO system by a remote and secure access.

Instructions and pictures at this user's manual belongs to software version **NEO Control v1.0.3.0**.

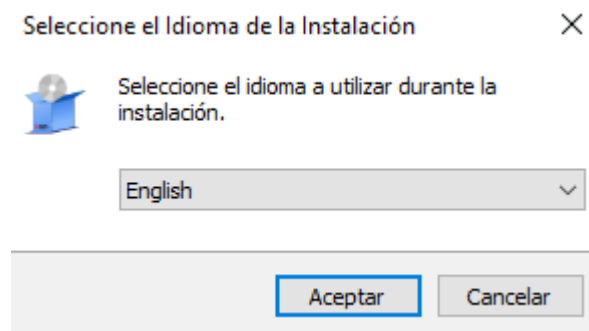
CHARACTERISTICS:

- Easy to install and configure.
- Sources routing control.
- Sources and zones volume control.
- Total system supervision (failures, evacuation mode, etc.) by zones.
- It allows to add installation drawing plans.
- Synchronized with NEO System.
- Exclusive for NEO Systems (NEO 8060 and NEO Extension units).
- One NEO system can accept up to 5 connections from NEO Control.
- NEO Control allows to control just one NEO 8060 + NEO Extensions. It does not allow to control multiple NEO systems. .

2 INSTALL AND LICENSE

2.1 Install

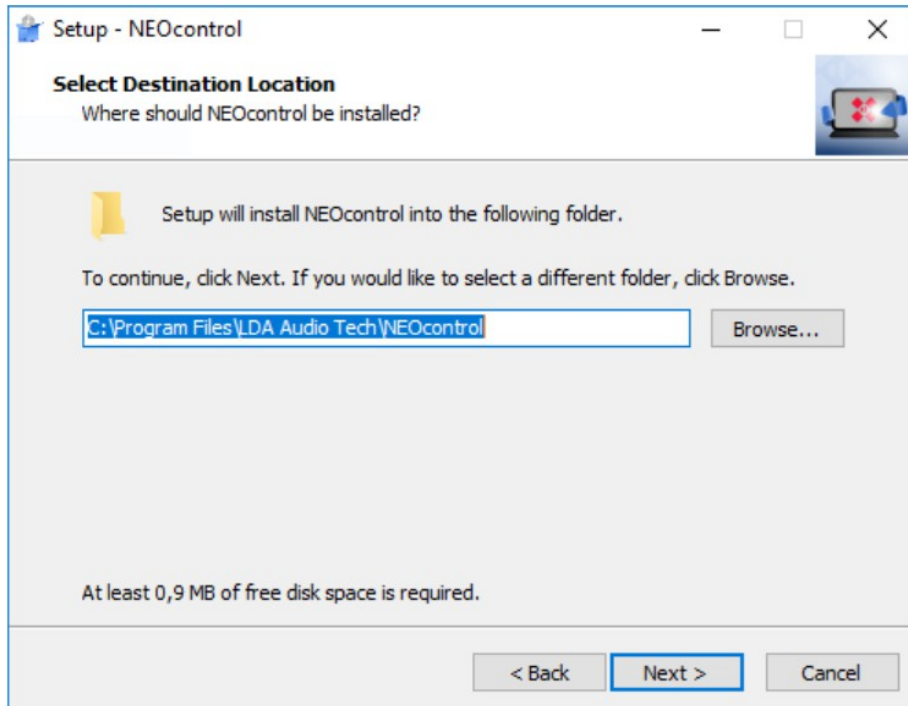
After executing the installer, a screen appears to select the language.



Picture 1: Language selection

The language chosen during the installation will fix the language in which NEO Control will run for the first time (it can be modified later in Preferences).

After choosing the language, the conditions of the installation must be accepted, and after that, the installation folder should be selected:



Picture 2: Installation screen

Finally, you can choose the options of creating a shortcut on the desktop and opening NEO Control right after the installation is finished.

2.2 License

In order to use NEO Control, it is necessary to obtain a license. There are two types of license:

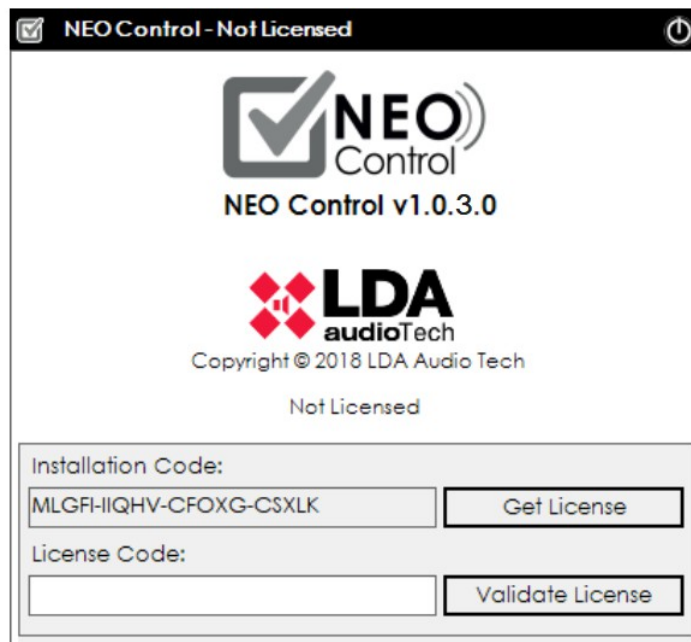
- **Temporal license:** A free license for a maximum of 30 days.
- **Permanent license:** to be purchase to the Manufacturer (LDA) or Authorized Distributor.

The license process starts when NEO Control is installed. During this process the following codes will be used:

- **Installation Code:** 20 characters code (numbers and letters) which is different for each PC where NEO Control is installed. The license of NEO Control will be always associated to this installation code, so it will not be possible to use the same license in a different PC. This code is generated according to the hardware of the PC, so if any part of it is changed (hard disk, processor, network card ...), the code will be different, so it will be necessary to re-license NEO Control. .
- **Serial Number (License Key):** 14 digits key (just numbers) obtained when a complete license for NEO Control is purchased.
- **License Code (Activation Code):** 16 characters code (numbers and letters) that allows to activate NEO Control and start to use it.

When NEO Control is executed for the first time, the screen to validate the license is shown. To get the License Code (Activation Code), it is necessary to visit the webpage:

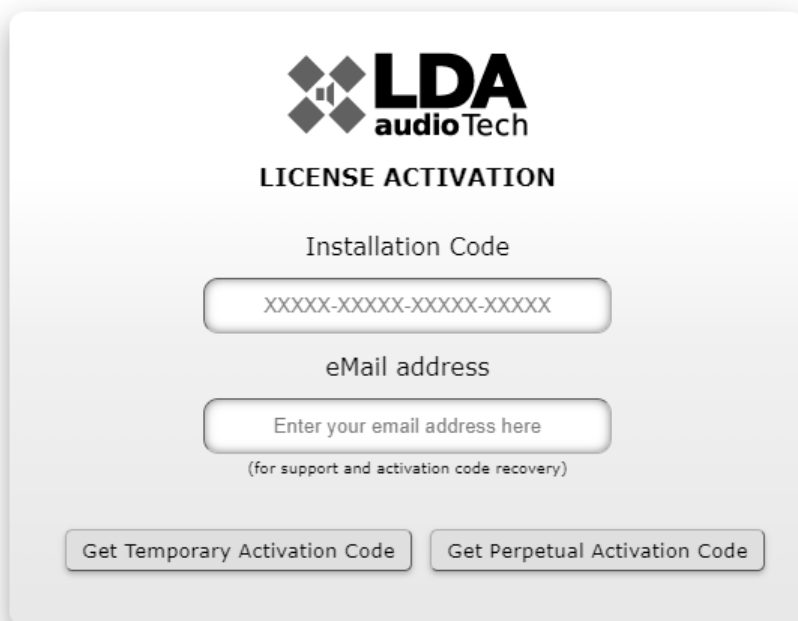
<http://license.lda-audiotech.com>



Picture 3: Validate and license acquisition screen

If you click on the “Get License” button in this window, the web browser will be opened automatically and the installation code will be automatically typed.

Once access to the web platform the following star up screen appears. Fulfil the fields *Installation Code* and eMail address and select the button to get register with a Temporary Activation Code or Perpetual Activation Code:



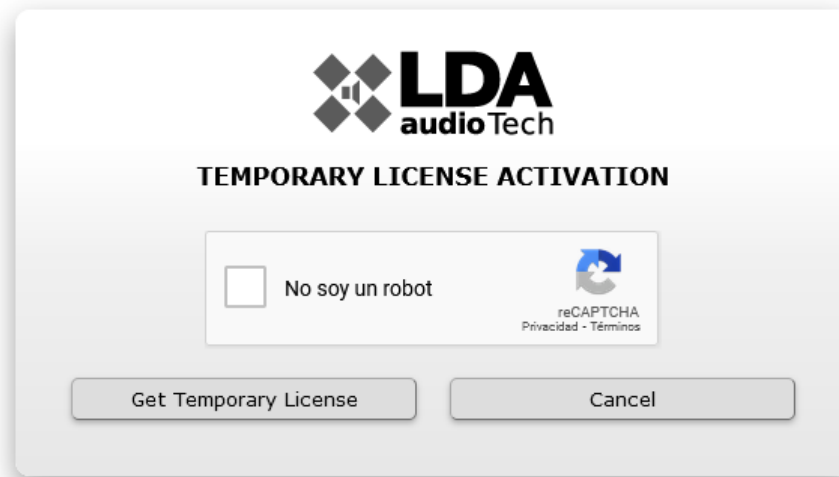
Picture 4: License activation web app

The eMail will be necessary to contact with technical support and get the software activation recovery code.

2.3 Temporary License

Temporary license allows to use the software without the need of having acquired it for a term of grace. Once this period finish, the software stops to works normally. Only an unique temporal license per computer is allowed. If you want to continue using it, you will have to acquire it in perpetuity.

After this selection, on *Get Temporary Activation Code* choose, reCaptcha validation is need:



Picture 5: Temporary License Activation web app

This will be accepted and proceed on *Get Temprrary License*, what responds with the *Activation Code*, adding some data information:

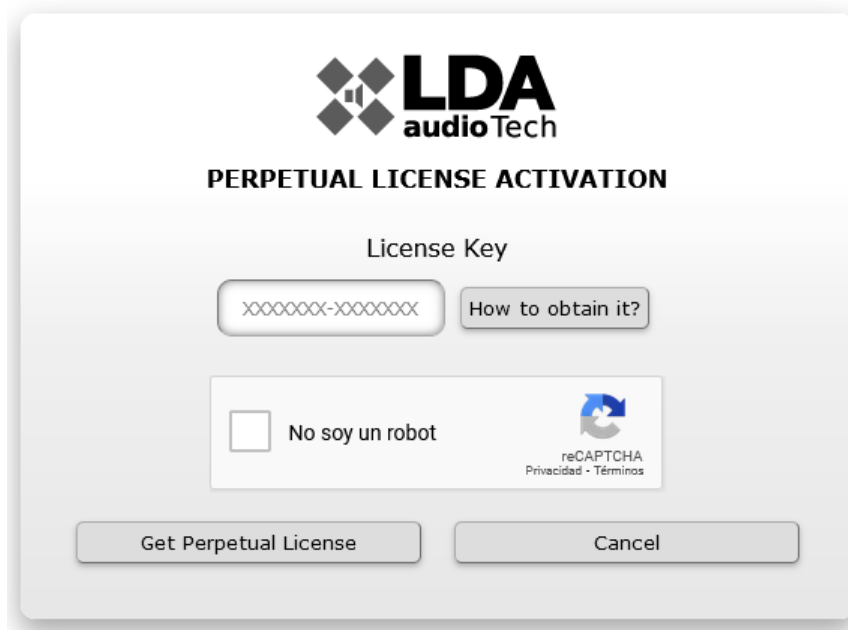


Picture 6: Temporary License Activation example

Temporary License is compose by :

- **Activation Code:** This will be introduced at the installed software due to use it with no restriction.
- **Creation date:** Register or creation date of the *Activation Code*.
- **Expiry date:** It is the date of validity of the license, once passed the date, the software will stop working.
- **Number of Days:** Validity resting time, on days.

2.4 Perpetual License



Picture 7: Perpetual License Activation web app

A *Perpetual License* allows the use of the software for life-time, without any time or feature restriction. It will appear after click on *Get Perpetual Activation Code* button with the *License Key* field and reCaptcha fulfilled.



Picture 8: Perpetual License Activation example code

- **Activation Code:** This code should be used to get the main software with a Perpetual Licence activation validated.

Once obtained the Activation Code, kindly introduce it on NEO Control, due to start and work with it.

NOTES: In case of NEO Control software were uninstalled and then installed again, it will be necessary to repeat the same license process: The License Key and the Activation Code will be the same; so it wouldn't be necessary to acquire another new License Key.

If you forget the Activation Code, it may be obtained again at the web application <http://license.lda-audiotech.com>, just introducing the original License Key.

2.5 Version update

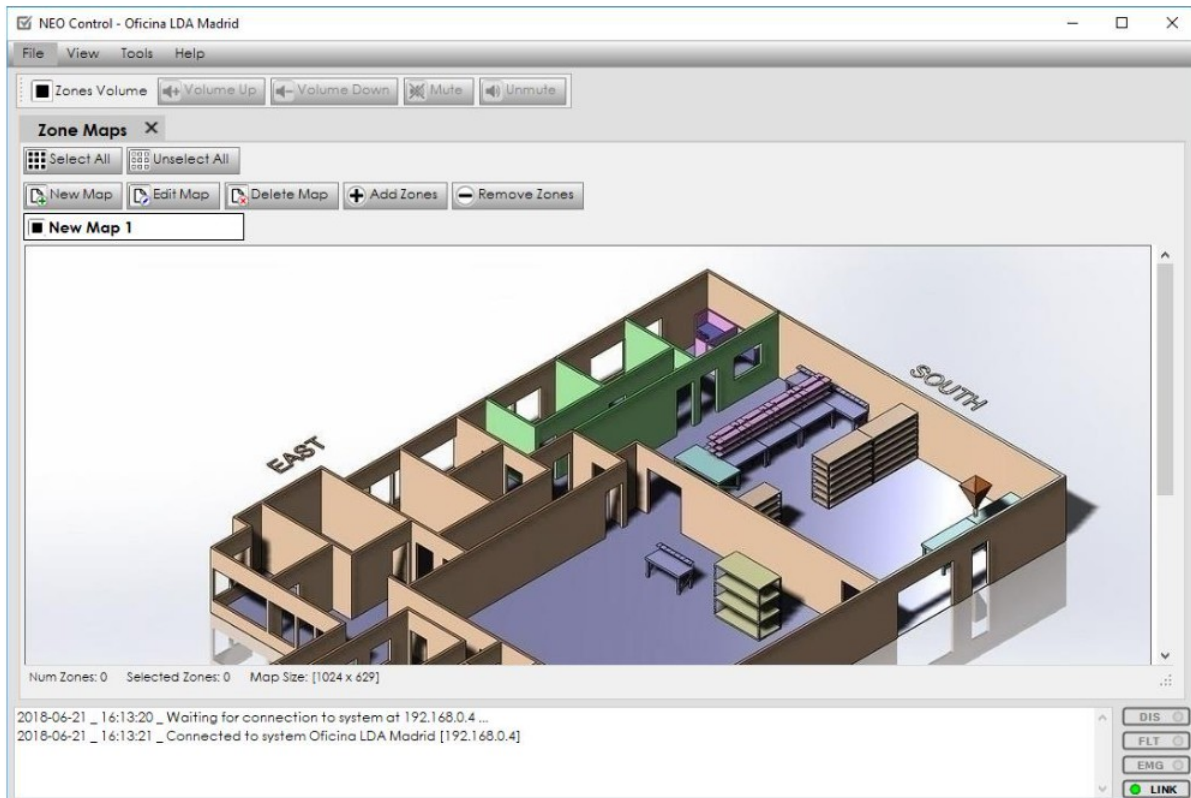
NEO Control can be updated to a new version without licensing the software again and without losing the current configuration. In order to do that, it is necessary to follow these steps:

1. Run the installer for the new NEO Control version without uninstalling the previous version.
2. The installer will detect the old version and it will propose to uninstall it. Click on the "Yes" button.
3. The installer will remove the old version automatically and will install the new version preserving the license and all the configuration parameters.

3 NEO CONTROL CONFIGURATION (EDITION MODE)

To enter into *Edition Mode*, you have to press simultaneously **Alt + Shift + C**. After finishing the configuration, you can return to the normal *Operator Mode* by pressing the same combination of keys again.

After executing NEO Control for the first time and entering the Edition Mode, the following User Interface appears:



Picture 9: Edition mode graphic interface

3.1 User Interface general description

In the Edition Mode screen the following areas are shown:

(a) MENU BAR

In the upper part of the window. It shows the general options of NEO Control: “File”, “View”, “Tools” and “Help”.

(b) “ZONE VOLUME” TOOLBAR

Under the menu bar. It shows the buttons: “Volume Up” “Volume Down”, “Mute” and “Unmute”.

(c) “ZONE MAPS” TOOLBAR

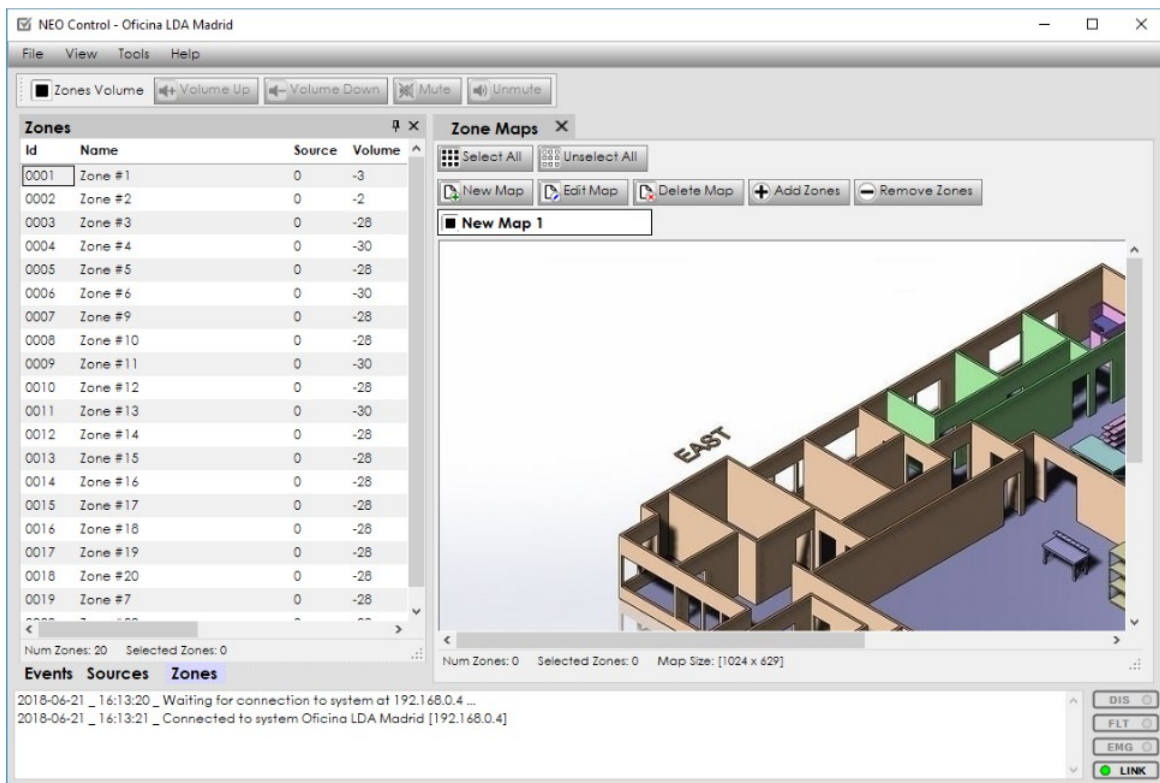
Under the “Zone Volume” toolbar. It contains the following buttons: “New Map”, “Edit Map”, “Delete Map”, “Add Zones”, “Remove Zones”, “Select All” and “Unselect All”.

(d) MONITORING PANEL

It contains a status log that allows to monitor the system with text logs and the 4 light indicators on the right side:

- **DIS:** When it is yellow, it indicates that there is a disabled zone. If no zone is disabled, the colour of the indicator is grey, as if it were turned off.
- **FLT:** When it is yellow, it indicates any error or fault in the system.
- **EMG:** When it is red, it indicates that the system is in Emergency State.
- **LINK:** When it is green, it indicates that the connection to the NEO system is active (online).

In addition to the User Interface displayed by default in Picture 9, in the “View” menu you can select up to 3 additional panels: “Events”, “Sources” and “Zones” (see section 3.3). This way, the user interface would be as shown in Picture 10.



Picture 10: Edition Mode with all panel deployed

(e) EVENTS, SOURCES AND ZONES PANELS

To the left of “Zone Maps”, these 3 panels appear grouped in 3 different tabs by default.

The monitoring panel is always fixed and visible in the lower part of the window, both in *Edition Mode* and in *Operator Mode*.

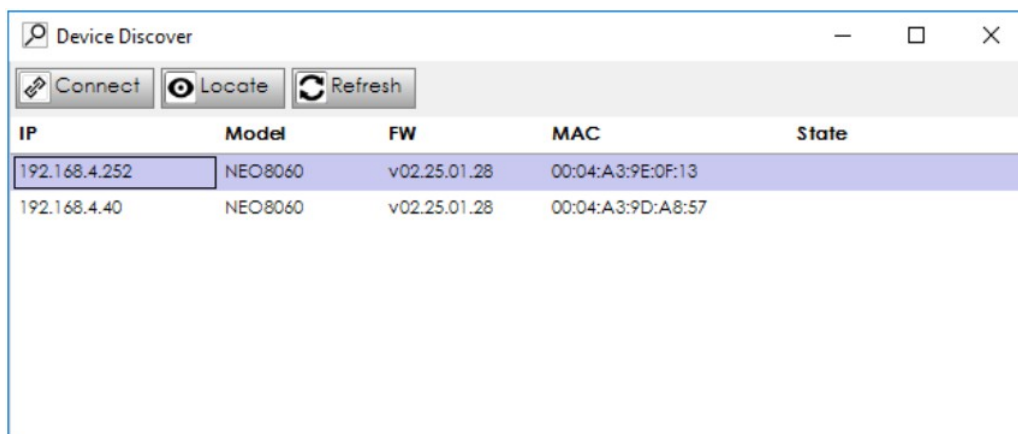
The Menu bar hides automatically when the user exits the *Edition Mode* (by pressing Alt+Shift+C)..

The “Zones Volume” toolbar can be shown or hidden from the NEO Control Preferences (see section 3.4).

The four central panels (“Sources”, “Events”, “Zones” and “Zone Maps”) can be customized (see section 3.3).

3.2 Connect to a NEO System

Press on “Tools”, and then on “Device Discover”. The following window is opened:



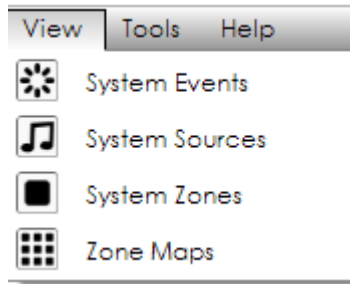
Picture 11: Device discover

This window shows a list of all the NEO systems connected on the same network. You need to select the system you want to connect and then click on the button "**Connect**". When the State LED becomes green, the system will be successfully connected.

NOTE: The button "**Locate**" makes all the physical LEDs in the selected system to blink for some moments. This helps to properly identify each physical system..

3.3 Central panels customization

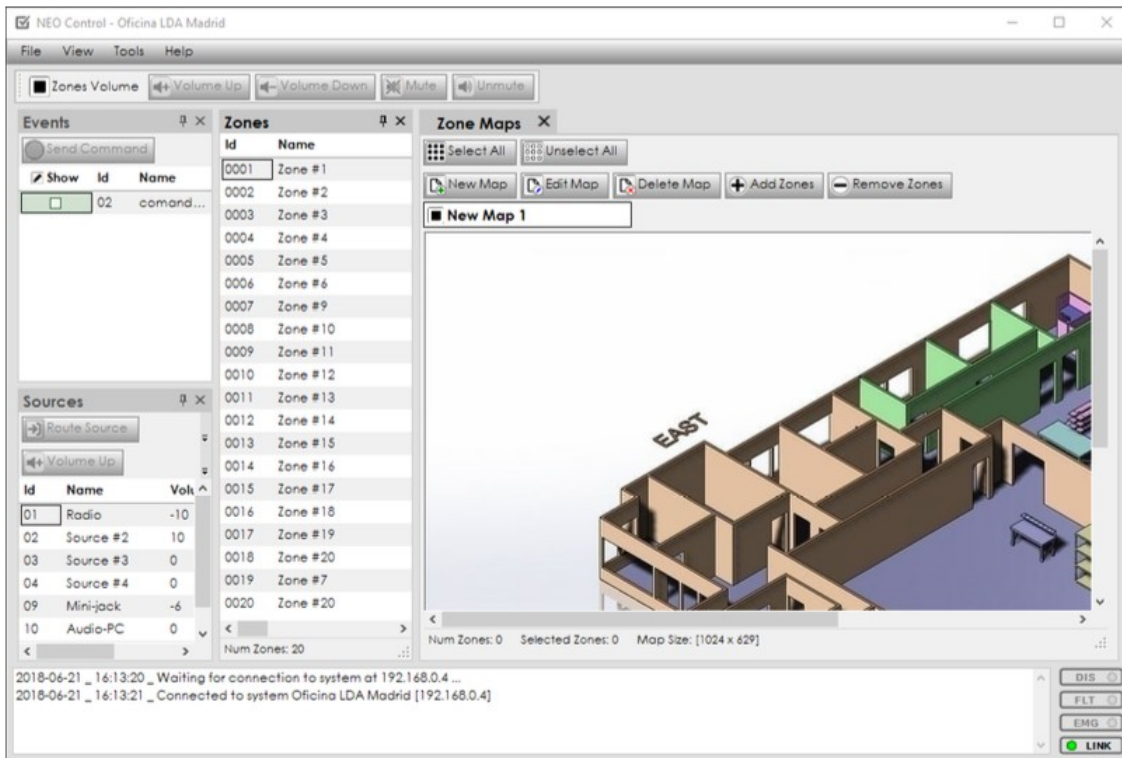
The central panels (“Sources”, “Events”, “Zones” and “Zone Map”) can be shown or hidden, selecting the corresponding option in the “View” menu.



Picture 12: View menu

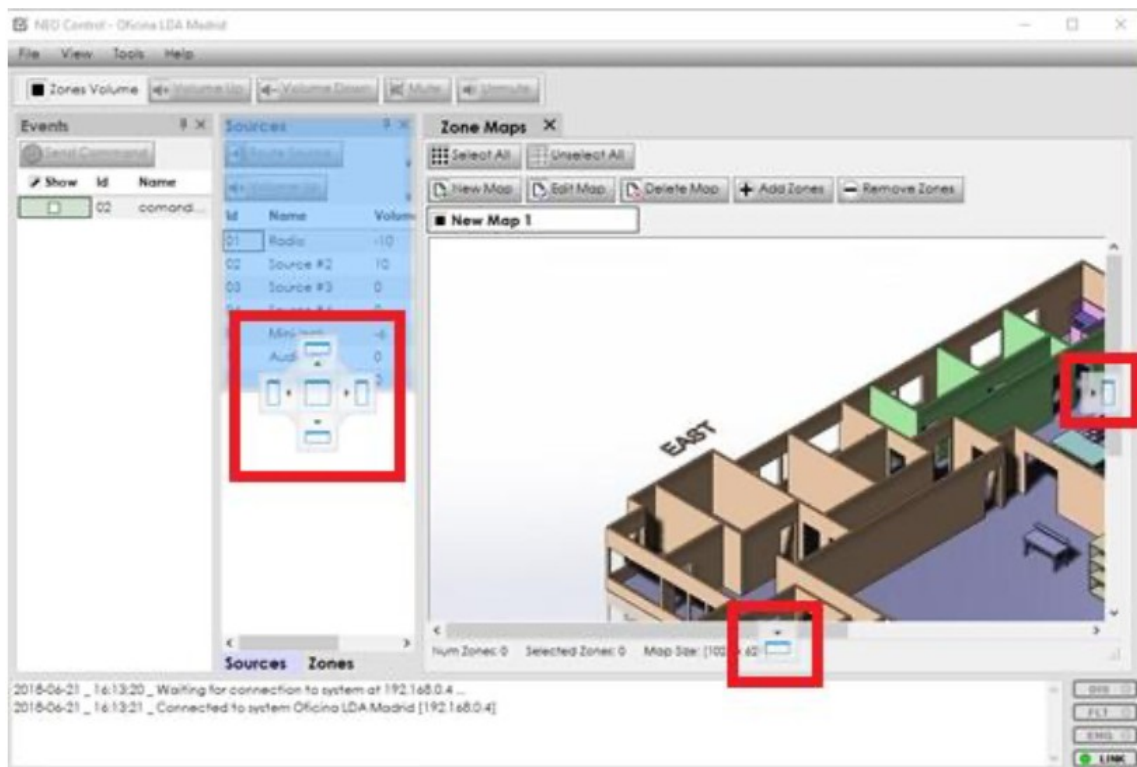
By default, these panels appear pinned. They can also be unpinned by clicking on the “pin” button, so each panel is minimized on the right side of the screen.

It is also possible to **change the panels position**, so that they are displayed side by side in different disposition (vertical or horizontal) or grouped in tabs.



Picture 13: Relocating Source, Events and Zones panels

In order to do this, you have to **click on the title of the panel and drag** it until the following widget appears :



Picture 14: Panels repositioning widget

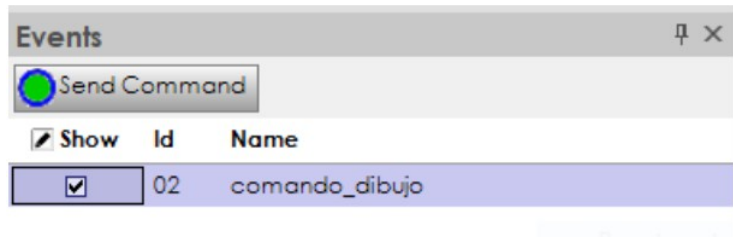
Then, you can drag the panel **to the different zones of the widget** in order to reposition the panel where desired.

It is also possible **to modify the size** of each panel by clicking and dragging on the edges of the panel.

3.3.1 Events panel configuration

The **“Events”** panel shows a list of all the events programmed in the system what are activated through UDP commands

In Edition Mode, the **“Show”** column appears allowing to select which trigger should be shown in Operator Mode.

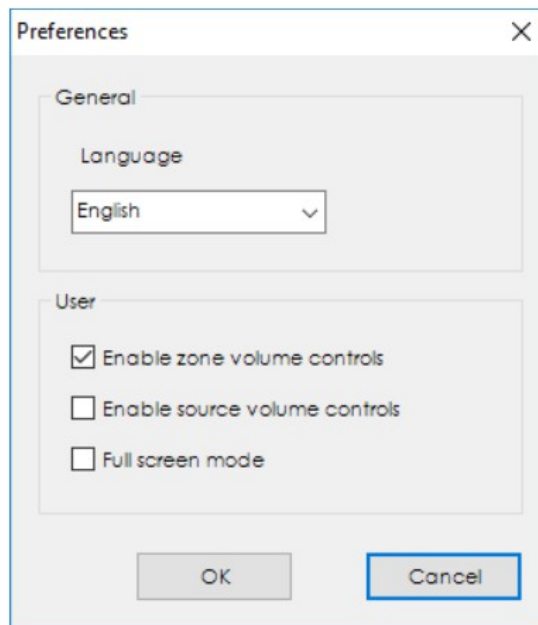


Picture 15: Events panel, Edition Mode

All these events must have been previously programmed with NEO Configurator. The list of events of NEO Control will be all UDP command triggers that have been configured using NEO Configurator.

3.4 Preferences

From "Tools" menu, the user can access to the NEO Control **Preferences** with the following options:

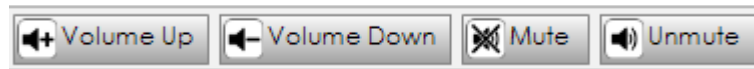


Picture 16: Preferences

- **Language:** Changes the language of the User Interface (but not the names of zones, sources or events which are already configured in the NEO system; these names can be edited manually with NEO Configurator).
- **Enable zone volume controls:** Hide or show the "Zone Volume" toolbar that appears above the panels:



- **Enable source volume controls:** Hide or show the volume and mute buttons that appear within the "Sources" panel:

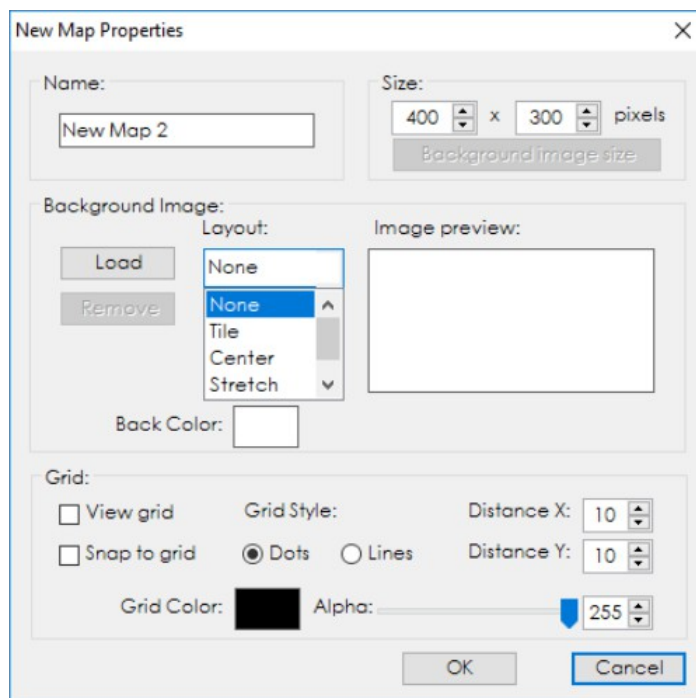


- **Full screen mode:** In this mode, NEO Control will enter full screen, hiding the NEO Control title bar and the Windows taskbar.

3.5 Add map

In order to add a new map, you should follow these steps within the Map Zones menu:

1. Press on “**New Map**” button.
2. A new window will open where we will define the properties of the map that we are going to create.



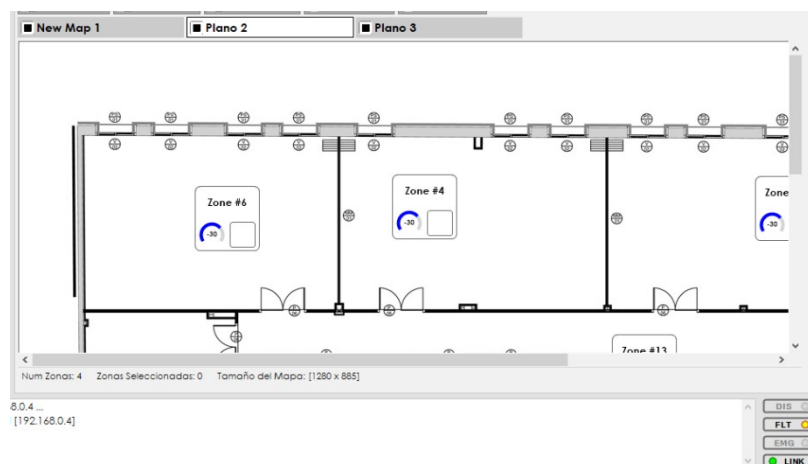
Picture 17: New map properties screen

3. In the button “**Open**” in the “Background Image” section, you will be able to select an image from your computer to use as background (like a map or drawing).
4. The style of the background image can be changed:
 - **Size:** Indicates the size of the map in pixels. It can be different from the background image. The minimum dimensions of the map should be 400 x

300 pixels.

- **Button “Background image size”:** It automatically changes the size of the map to the same pixels of the Background Image.
- **Layout:** If the image size and the map size are different, the layout type will define how the image will be adjusted to the map:
 - **None:** The image will appear in the upper left corner without changing its original size.
 - **Tile:** The image will be displayed in its original size repeated several times until it occupies the entire map.
 - **Center:** The image will appear centred on the map with original size.
 - **Stretch:** The image will be fully shown and adjusted to the dimensions of the map, modifying its aspect ratio to occupy all the available space.
 - **Zoom:** The image will be fully shown and will occupy the largest possible area of the map without modifying its aspect ratio.
- **Back Color:** The color that will be shown in the empty spaces of the map (where it is not covered by the Background Image).
- **Grid:** Optionally you can create a grid with the style, color and distance between selected points.
 - **View grid:** It shows the grid over the background image.
 - **Snap to grid:** It forces the zone buttons to be positioned at each point of the grid, even if the grid is not shown.

5. After creating the map, zones can be added as explained in the section 3.6.



Picture 18: Zone Map

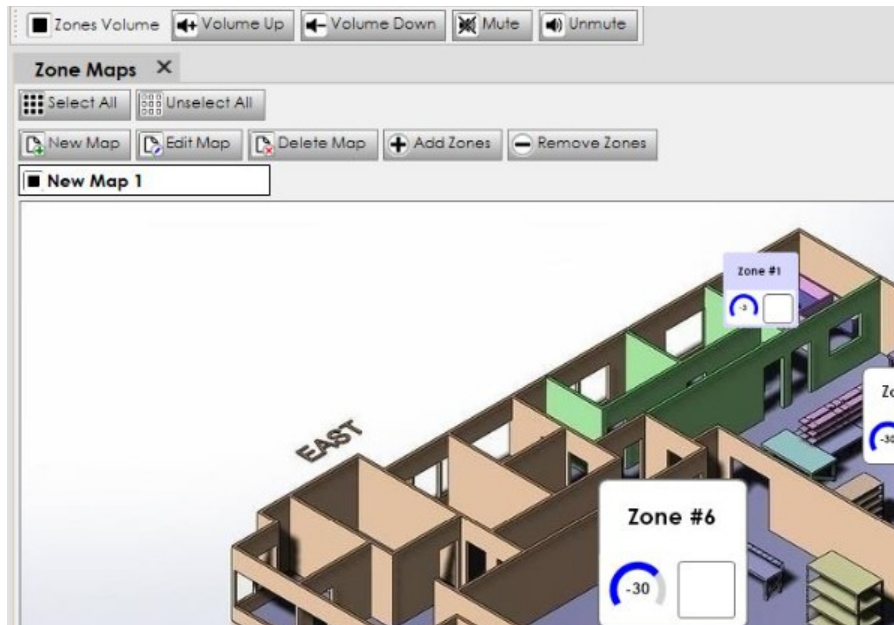
3.6 Add or remove zones to a map

In order to **add zones to a map**, first of all it is necessary to show the “Zones” panel (see section 3.3). After that, we can proceed with the following steps:

1. **Select in the “Zones” panel** those zones that you want to add to a map (see

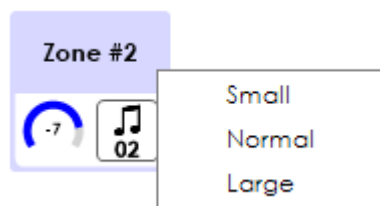
section. To select more than one zone, press and hold “Ctrl” key meanwhile the selection.

2. **Click on the map** tab where you want to add the zones.
3. Click on the button “**Add Zones**” of the “Zone Map” panel.
4. All the selected zones will be added as buttons in the upper left corner of the map.
5. The zone buttons can be **relocated** on the map. You just need to drag and drop each button to the desired position:



Picture 19: Map with several position zones locations example

6. **The size of the zone buttons may be adapted** by clicking with the secondary button on the zone button:



Picture 20: Size of the zone indicator

7. **To remove one or more zones of the map**, you have to select them and press the button “Remove Zones”.

The selected zones will be marked with a **blue background**. The zones that are not selected will have a **white background**.

3.7 Save, load and create new projects

These actions (save, load and create new projects) are mode from the “**File**” menu:



Picture 21: File menu

Trough these options you can:

- **“Save”** the NEO Control project in a file with the extension “.nct”
- **“Open”** a saved project.
- **“Create”** a new project .

In the file with **“.nct” extension** the following parameters are saved:

- IP address of the NEO Master linked in the project.
- NEO Control preferences.
- Custom position of the panels “Sources”, “Events”, “Zones” and “Zone Maps”.
- Configuration of all the Zone Maps, including the background images.

4 NEO CONTROL USE (OPERATOR MODE)

4.1 User Interface general description

Each time NEO Control is initiated, the Operator Mode User Interface is shown. Depending on how it was configured in the Edition Mode, more or less panels will appear in different positions.

After running NEO Control for the first time, the following User Interface is shown:



Picture 22: User interface in Operation Mode

To describe all the possible options, we will assume that all the NEO Control panels have been activated: "Events", "Sources", "Zones" and "Zone Maps" (see on Picture 23). In the Operator Mode screen, the following areas are shown:

(a) **“ZONE VOLUME” TOOLBAR**

It shows the buttons: “Volume Up” “Volume Down”, “Mute” and “Unmute”. These actions will be applied to the selected zones in the “Zones” panel or in the “Zones Map” (see section 4.2). To set more than one zone at the same time, press and hold “Ctrl” key meantime the selection.

(b) **“EVENTS” PANEL**

It shows the programmed events list in the system activated by UDP commands (see section 4.4).

(c) **“SOURCES” PANEL**

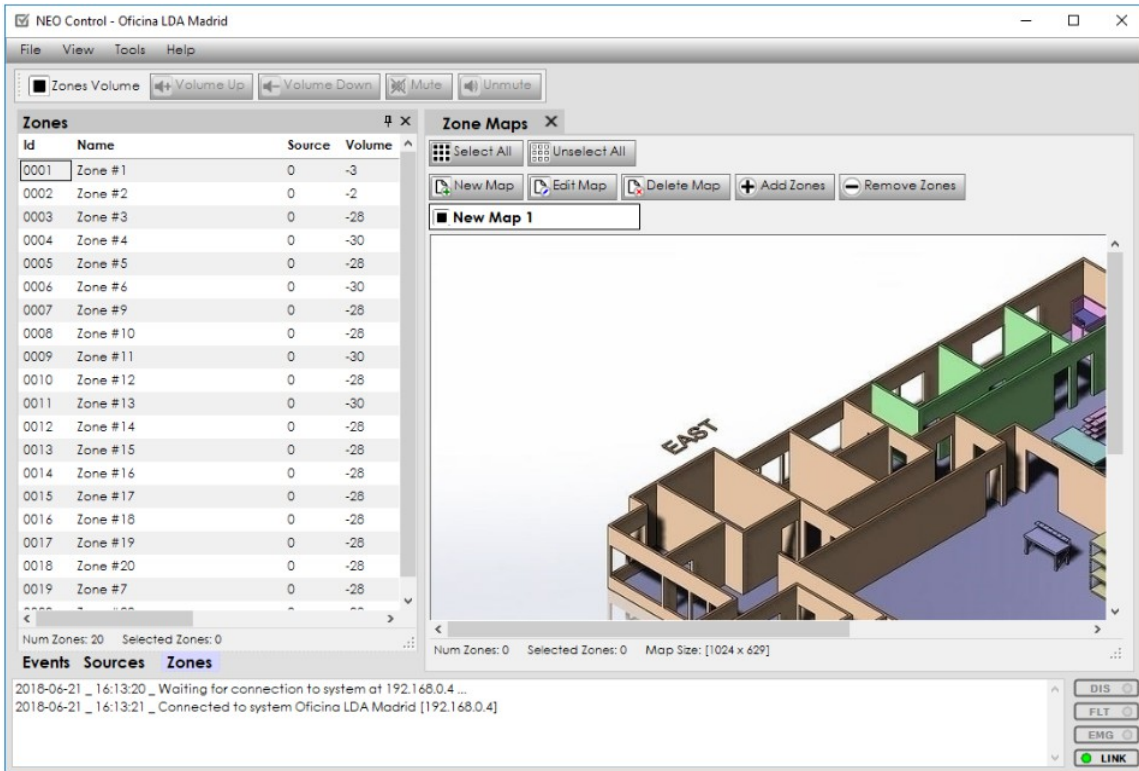
It shows all the audio sources configured in the system and (optionally) some buttons to manage its routing and volume levels (see section 4.3).

(d) **“ZONES” PANEL**

It shows all the zones configured in the system and their most important parameters, such as the sources routed in each zone, their zone volume, state, etc.

(e) **“ZONE MAPS” PANEL**

It contains one or more maps that graphically represent the zones of the NEO system. Includes the "Select All" and "Unselect All" buttons.



Picture 23: User Interface in Operator Mode with every panel deployed

(f) MONITORING PANEL

Fix at the lower panel. It contains a status log that allows to monitor the system with text logs and the 4 light indicators on the right side:

- **DIS:** When it is yellow, it indicates that there is a disabled zone. If no zone is disabled, the color of the indicator is grey, as if it were turned off.
- **FLT:** When it is yellow, it indicates any error or fault in the system.
- **EMG:** When it is red, it indicates that the system is in Emergency State.
- **LINK:** When it is green, it indicates that the connection to the NEO system is active (online).

NOTE: The monitoring panel is always fixed and visible in the lower part of the window. All the other panels and toolbars are customizable, so they could appear in different positions or not even be shown.

4.2 Selecting a group of zones

A group of zones can be selected from the “Zones” panel or from a “Zone Map”.

Zones								
Id	Name	Source	Volume	Mute	DIS	FLT	EMG	Vume
0001	Zone #1	0	-3					-100
0002	Zone #2	0	-2					-100
0003	Zone #3	0	-28					-100
0004	Zone #4	0	-30					-100
0005	Zone #5	0	-28					-100
0006	Zone #6	0	-30					-100
0007	Zone #9	0	-28					-100
0008	Zone #10	0	-28					-100
0009	Zone #11	0	-30					-100
0010	Zone #12	0	-28					-100
0011	Zone #13	0	-30					-100

Num Zones: 20 Selected Zones: 1

Picture 24: Zones panel

There are two ways of selecting a group zones **from the “Zones” panel**:

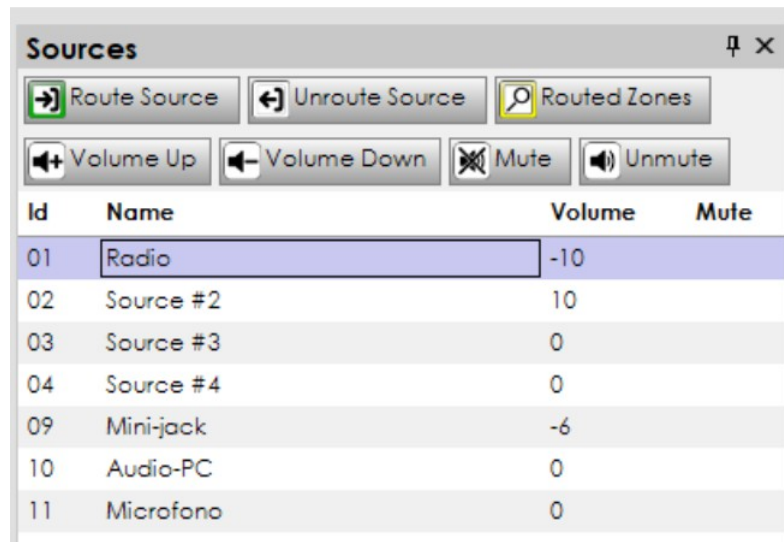
1. Using the keys **Ctrl** or **Shift** of the keyboard while clicking on different zones (as in Windows Explorer).
2. **Click on one zone and drag up or down** to select consecutive zones.



Picture 25: Zone Map in Operator Mode

To select many zones **from a Zone Map**, it is necessary to keep pressed the **Ctrl** key while clicking on the zones with the mouse.

4.3 Route, unroute and change source volumes



Picture 26: Sources panel

The **“Sources”** panel shows all the audio sources configured in the system and different buttons to manage the routing and volume levels.

- **“Route Source”** button: It routes the selected source to the zone or group of zones selected in the “Zone” panel or in the “Zone Map” (see section 4.2).
- **“Unroute Source”** button: It unroutes any source from the zone or group of zones selected. This way, those zones becomes to get “Source 0” routed.

NOTE: To unroute a source, it does not matter if a source was previously routed or not at the Source panel. NEO Control will unroute anyway that source at the zone group selection.

- **“Volume Up”** and **“Volume Down”** buttons: They change the volume levels of the selected sources.
- **“Mute”** and **“Unmute”** buttons: They mute (silence) or unmute (activate the sound) of the selected sources.
- **“Routed Zones”** button: When this button is pressed, all the zones with the selected source routed will blink for a few seconds.

4.4 Launch events

The **“Events”** panel displays the programmed events list at the device, whom launch they via UDP command.



Picture 27: Events panel in Operator Mode

These events can launch any kind of automated actions to control the system. You just need to select it from the list and click on “**Send Command**”.

Types of possible actions:

- Play pre-recorded messages.
- Activate zones volume or sources presets.
- Activate source routing presets.
- Start an emergency with preconfigured evacuation sequences.
- Activate or deactivate GPIOs or 24V override outputs.
- Send commands via Serial Port RS485.
- Send UDP commands via Ethernet.

All these events must have been previously programmed with **NEO Configurator**. The list of events of NEO Control will be all **UDP command triggers** that have been configured using NEO Configurator.

