

Muximus Network Controller

User Manual

500813



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1. Safety Precautions

To ensure the best performance from the product, please read all instructions carefully before using the device. Save this manual for future reference.

- Follow basic safety precautions to reduce the risk of fire, electrical shock, and injury.
- Do not dismantle the housing or modify the module. It may result in electrical shock or burns.
- Do not open or remove the housing of the device as you may be exposed to dangerous voltage or other hazards.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture and do not install this product near water. Keep the product away from liquids.
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on the housing, unplug the module immediately.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.
- Using supplies or parts not meeting the product specifications may cause damage, deterioration or malfunction.
- Refer all servicing to qualified service personnel.
- Install the device in a place with adequate ventilation to avoid damage caused by overheating.
- Unplug the power when left unused for a long period of time.
- Information on disposal of devices: do not burn or mix with general household waste, please treat them as normal electrical waste.

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2. Introduction

The MuxLab Muximus Network Controller (model: 500813) is a Linux-based PC that allows users to control hub-installed MuxLab products through a friendly, intuitive and easy-to-use web interface called Muximus.

When installed on a local area network (LAN), the Muximus Network Controller will scan the LAN for connected MuxLab AV over IP products allowing the user to auto-discover, configure and control the connectivity of these products through an Ethernet Web interface. The Controller may also be managed by MuxLab's MuxControl App, the 500816-IP 8 Button IP PoE Control Panel and the 500817 Touch Control Panel. The unit may also be used to manage firmware upgrades of connected MuxLab devices.

An Application Program Interface (API) is available supporting a number of third party partner control applications running on smartphones and tables.

3. Features

- Versatile Integration
- High-Quality Video
- Video Wall and Multiview Capabilities
- Low Bandwidth Requirements
- Global Distributed Installations
- Digital Signage Player Functionality
- Full integration with Dante Domian Manager
- Flexible Content Creation
- Powerful and Flexible Platform

4. Package Contents

- One (1) Muximus Network Controller
- One (1) 12VDC/2A Universal Power Supply including international plug connections for use around the world
- One (1) User manual (available via download)

Notes: Confirm that the product and accessories are all included. If not, please contact the supplier from which you purchased the unit.

5. Specifications

CPU	Intel Celeron J1800 Processor, @ 2.41GHz 4 cores
Memory	2GB DDR3
Display	Integrated Intel HD Graphics, 1x HDMI and 1x VGA
Keyboard and Mouse	USB keyboard and mouse (not required and not included)
Peripherals	three (3) USB 2.0 ports One (1) SS USB 3.0 port Two (2) Network gigabit interface One (1) VGA Video out port One (1) HDMI Video out port One (1) Audio in via 3.5mm port One (1) Audio out via 3.5mm port One (1) RS232 port
Operating System	Ubuntu 22.04 LTS
Temperature/Humidity	Operating: 0 °C to 50 °C, Storage: -20 °C to 80 °C Humidity: 10% to 90% (non-condensing)
Dimensions	5.24 x 5.00 x 1.38 inch (133 x 127 x 35 mm)
Weight	1.5lbs (0.7kg)
Accessories Included	External 12VDC @ 2A Power Adaptor
Regulatory	FCC, CE, RoHS, WEEE
Warranty	2 years
Order Information	500813 Muximus Network Controller (UPC: 627699008133)

6. Installation and Use

6.1 Product Overview

The external connections and connection indicators of the Muximus Network Controller are detailed in Figure 1 and Figure 2. Please familiarize yourself with them before installing the unit.

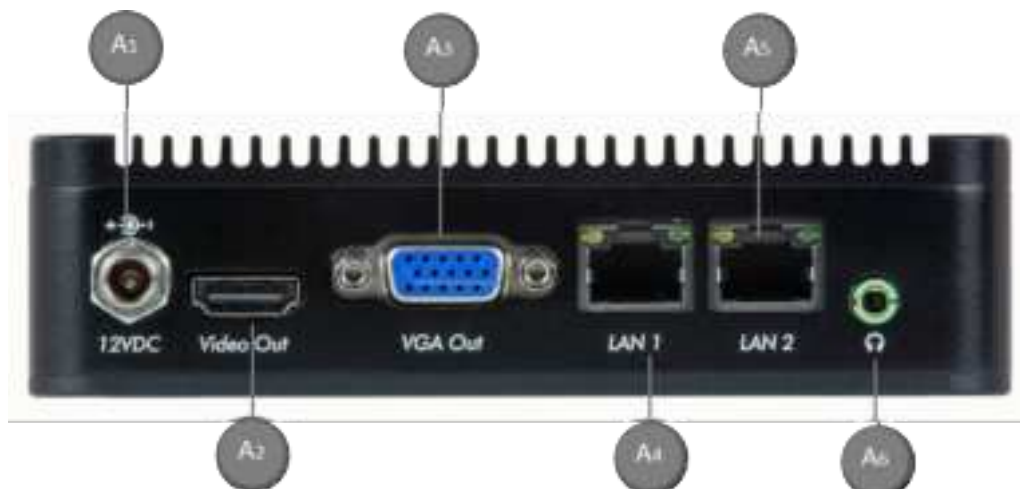


Figure 1: Rear Panel

- A1 = DC Power
- A2 = HDMI video out
- A3 = VGA video out
- A4 = RJ45 Ethernet LAN 1
- A5 = RJ45 Ethernet LAN 2
- A6 = Audio out



Figure 2: Front Panel

- A1 = Audio In
- A2 = SS USB
- A3 = 2.0 USB Ports
- A4 = RS232
- A5 = Power LED
- A6 = Power Button

6.2 Installation Procedure

Note that the examples below assume that the Ethernet Switch used does not support WiFi, and a Router with WiFi capability is required in order to communicate with smartphones and tablets for control purposes.

Setting the Ethernet Switch & Router to the same Subnet as MuxLab Devices:

The Muximis Network Controller comes with two Ethernet ports. LAN 1 is configured with a static IP address which is 192.168.168.51. LAN 1 port should be connected in to the same network switch where all the Muxlab equipment is connected. Note that LAN 2 port is configured as a DHCP client, and can be utilized for control purpose. The MuxLab AV over IP Transmitters and Receivers are set to support DHCP by default. When no DHCP server is available the AV over IP Transmitters and Receivers fallback to a static IP address of:

- 192.168.168.53 (for the 500817)
- 192.168.168.54 (for the 500816-IP)
- 192.168.168.55 (for the 500752, 500753, 500754, 500755, 500755-AMP and 500756 Transmitters)
- 192.168.168.56 (for the 500752, 500753, 500754, 500755, 500755-AMP and 500756 Receivers)
- 192.168.168.58 (for the 500758, 500759, 500770, 500771, 500773 and 500777 Transmitters)
- 192.168.168.59 (for the 500758, 500759, 500770, 500771 and 500777 Receivers)
- 192.168.168.62 (for both the 500762 and 500763 Transmitters)
- 192.168.168.63 (for the 500762 Receiver)
- 192.168.168.85 (for the 500768 Transmitter)
- 192.168.168.86 (for the 500768 Receiver)
- 192.168.168.32 (for the 500778 Transmitter)
- 192.168.168.33 (for the 500778 Receiver)
- Auto IP (for the 500760 and 500761 Transmitters and Receivers)
- No Static IP (for the 500757 Transmitter and Receiver)

These MuxLab products (Muximus Network Controller, and the AV over IP Transmitters & Receivers) work in conjunction with a PoE (PSE) Ethernet Switch (MuxLab recommends the Cisco CBS350 and Netgear M4250 Series) and a Router of your choice with WiFi capability to be able to communicate with a smartphone or tablet. The use of a smartphone or tablet to manage the MuxLab devices with third party software applications is optional and is a common method of control; however MuxLab devices may also be managed via the Muximus Network Controller web interface.

In order for the DHCP server within the Ethernet Switch to support the MuxLab device subnet, set the static IP of the Ethernet Switch to **192.168.168.1** (recommended setting). Refer to the Ethernet Switch manual for instructions on how to accomplish this. The Router with WiFi capability, must also be placed on the same subnet as the MuxLab devices and it should be set with a Static IP address, we recommend using a Static IP address of **192.168.168.2**. Refer to your Router documentation on how to accomplish this.

Setting MuxLab Devices, Ethernet Switch and Router to an Existing Subnet:

If the MuxLab AV over IP devices are being installed in an existing environment that has a working subnet already configured that cannot be easily changed, then the subnet of the MuxLab devices, the Ethernet Switch (if a new Ethernet Switch is required), and the Router with Wifi (if a new Router is required) must be changed in order to match the existing subnet. For this case we will use **192.168.2.x** as an example subnet already in place and which must be supported. Note that this is only an example and may not necessarily reflect your actual subnet address.

If the Ethernet Switch does not already reside in the example subnet of 192.168.2.x, then set the static IP of the Ethernet Switch to a free static IP address (for the sake of this example we will use an IP address of **192.168.2.1**). Refer to the Ethernet Switch manual for instructions on how to accomplish this. MuxLab also has a guide specific to the Cisco CBS350 and Netgear M4250 Series, see documents which can be found on MuxLab's website under any of the AV over IP product pages (as a download under the Operation Manual sub-category).

If the Router with WiFi does not already reside in the example subnet of 192.168.2.x, then set the static IP of the Router to a free static IP address (for the sake of this example we will use an IP address of **192.168.2.2**). Refer to your Router documentation on how to accomplish this.

The MuxLab AV over IP Transmitters and Receivers are set by default to support DHCP, and will automatically be set to the subnet specified by the DHCP Server. These units need only be physically connected into the network as described in their respective Installation Guides and by using the 500813 Muximus Network Controller to discover them. But before the MNC can be used, the new MNC subnet must also be set.

To change the subnet of the Muximus Network Controller requires a two-step process:

Process 1: Configuring the IP address of the Muximus Network Controller

Process 2: Physically installing the Muximus Network Controller in the network

Note:

- An example subnet address of 192.168.2.x of the existing network on which the Muximus Network Controller will be installed is assumed for this example process.
- The Muximus Network Controller LAN 1 port comes with a static IP address of 192.168.168.51 and with DHCP disabled. This process explains how to change it to the example subnet of 192.168.2.x.

Process 1: Configuring the IP address of the Muximus Network Controller

Refer to Figure 1 and Figure 2.

1. On the back panel of the MNC:
 - a. Plug the supplied power adaptor into the DC power jack. Ensure that the other end of the power adaptor is plugged into a power socket.
 - b. Ensure that the power switch on the front of the unit is ON position (front button • pressed in).
 - c. Connect one end of an Ethernet cable to the LAN 1 Ethernet port. Ensure that the other end of the Ethernet cable is connected to a computer.

- Set the computer to the same subnet as the Muximus Network Controller and open up an Internet browser (Explorer, Chrome, Firefox, etc.) and type the following address in the address bar near the top of the screen:

<http://192.168.168.51>

- Press **Enter** on the keyboard.
- The Muximus Network Controller Web interface **Login Screen** will appear (Figure 3).



Figure 3

- The first time the user uses the system, they must run the setup wizard to create an administrator account. Click on the **Run the Setup Wizard here** option. Figure 4



Figure 4

6. in order to create a new administrator account, please enter the required information (email, user name and password). Figure 5

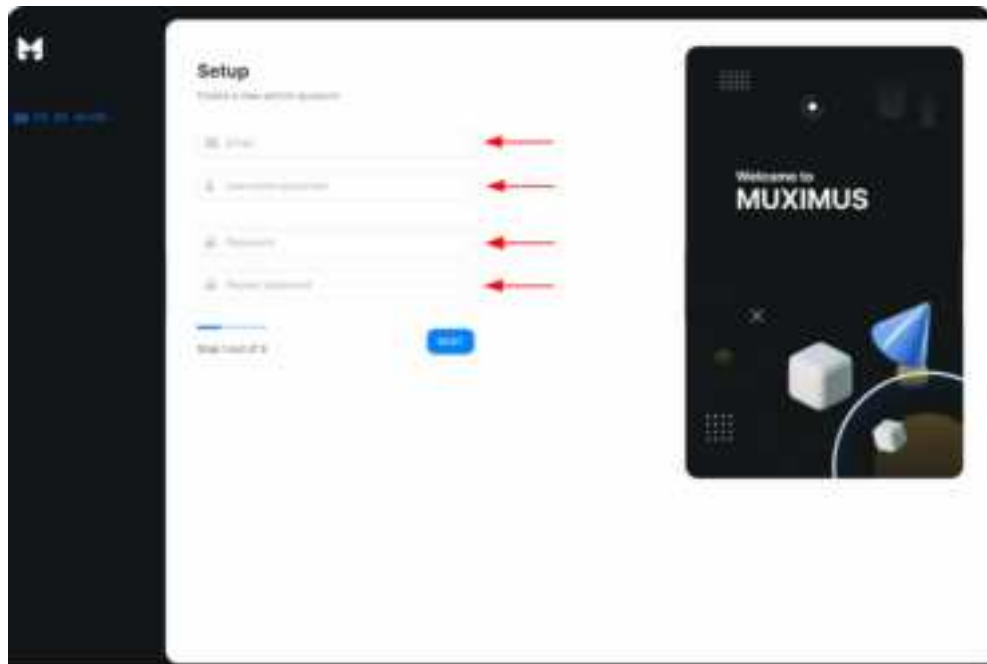


Figure 5

7. After creating the administrator account, log in by entering the email and password used to create the account and click Login.. Figure 6



Figure 6

8. After logging in, click on the settings tab and then click on the Network option. Figure 7

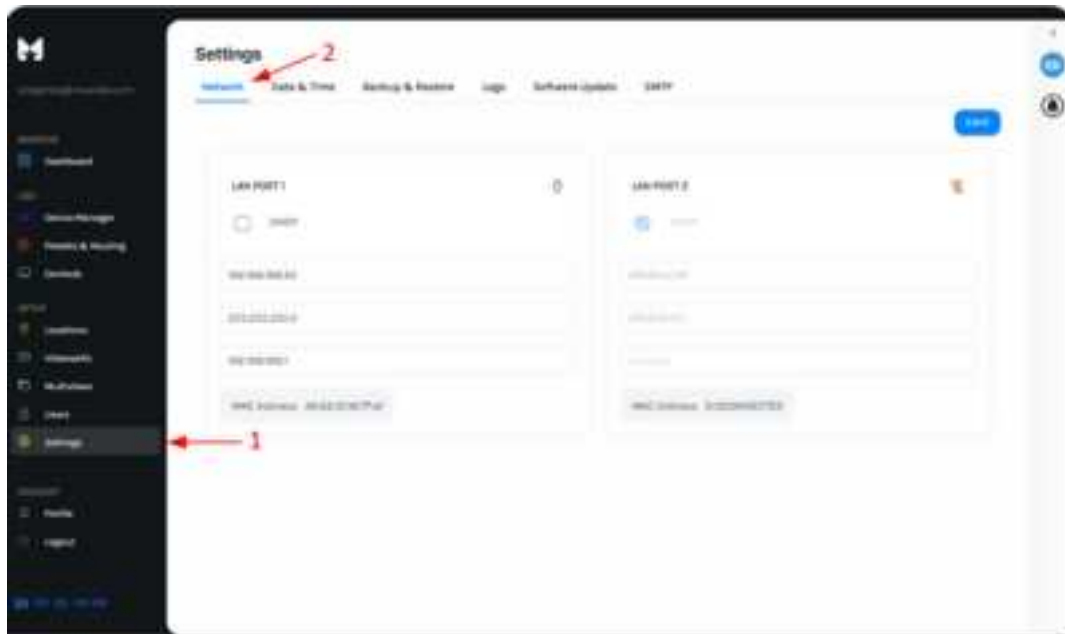


Figure 7

9. In the LAN PORT 1 section make sure the DHCP button is not selected. In the IP address field, type the first 3 entries of the IP address of the network subnet on which the Muximus Network Controller will be installed, which in our example is 192.168.2.x. Where x in our example can be any number from 3 to 254, for this example we will select "5" for a Static IP address of 192.168.2.5, see Figure 8. Just make sure the Static IP address for the Muximus Network Controller does not conflict with the Static IP address of the Ethernet Switch and the Router or any other Static IP address already pre-assigned in the given network.

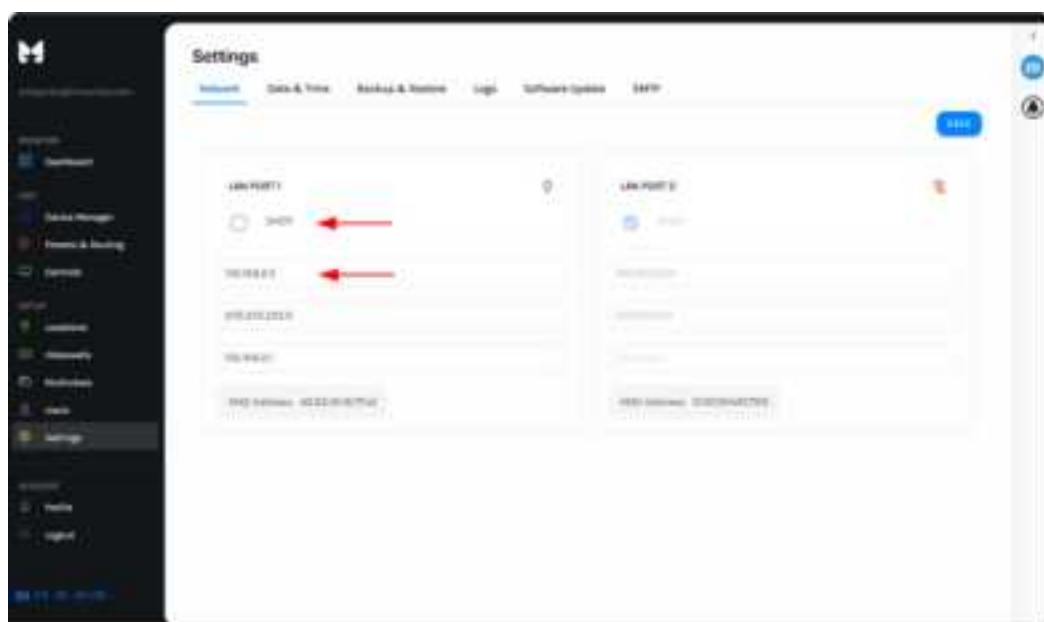


Figure 8

10. In the Network mask field, type 255.255.255.0
11. In the Router field, type the IP address of the network Router (which in our example is 192.168.2.1).
12. Click on Save.
13. The Muximus Network Controller is now configured to work with your network router.

Process 2: Physically installing the Muximus Network Controller to the network

1. Disconnect the Ethernet cable from the computer and connect it to either the Router or the Ethernet Switch. Ensure that the other end is still connected to the MNC. Also make sure that the Router is connected to the Ethernet Switch.

7. Muximus Web Interface

The Muximus Web interface allows the user to manage the Muximus Network Controller and the AV over IP product family of extenders remotely from a Windows or Mac computer, tablet, or smartphone. Make sure the device is configured with an IP address in the same subnet. Ensure that the computer is connected by an Ethernet cable to the network router on which the Muximus Network Controller is physically installed. Open up an Internet browser (Explorer, Chrome, Firefox, etc.) and type in the Muximus Network Controller IP address in the address bar near the top of the screen; Remember, by default the IP address is 192.168.168.51. The Muximus Network Controller Web interface Login Screen will appear. Figure 9



Figure 9

Enter your account email and password and click LOGIN to log in to the Muximus web interface.

After successful login, the Muximus web interface will display eleven different tabs that will allow the user to manage and control the Muximus Controller and the different Muxlab product families as well as third-party products. Figure 10

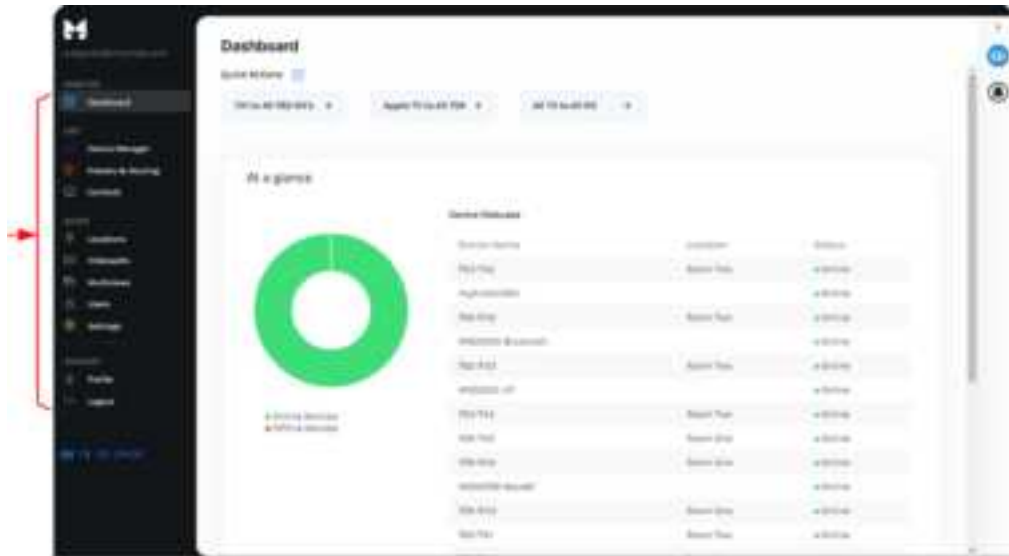


Figure 10

7.1 Dashboard

The Dashboard tab enables the users to find information about the status of the system, they will be able to see in a list all the devices connected to the network showing the name of each of them, the location to which they belong and the connection status (online or offline). Additionally, if presets have been created, the user can activate them from here as needed. Figure 11

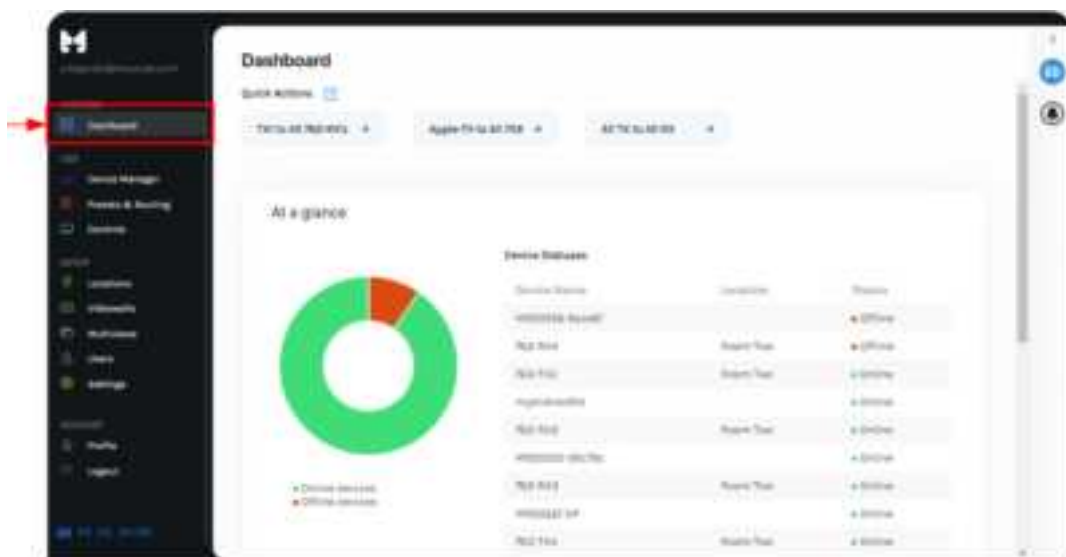


Figure 11

7.2 Device Manager

The Device Manager tap provides the User with all the options to manage the MuxLab and Dante devices connected to the network. The first time the user clicks on the "Device Manager" tab, the system will scan the network for all MuxLab transmitters and receivers and all Dante devices if a Dante Domain Manager is configured.

On this page we find 21 options to manage devices. Figure 12

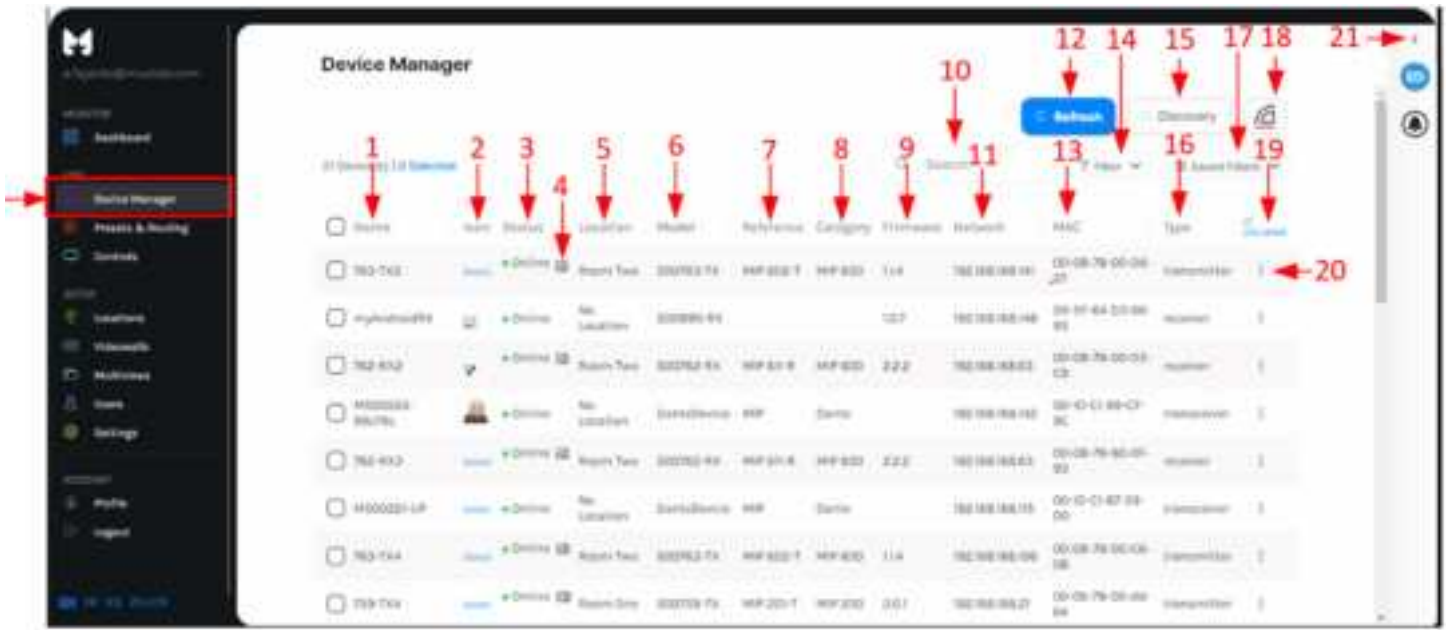


Figure 12

1. Shows the name assigned to each device, the User can assign a name to each device as required.
2. Click the "Select" button to assign a specific icon to the device. After clicking, a pop-up window will appear in which there are some images that you can use or you can download images at will to use as icons, after selecting a specific image or downloading it, click on the Save button to finish the process. Figure 13

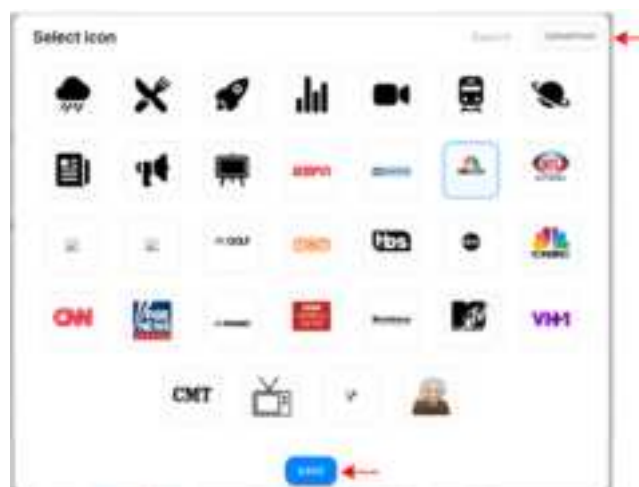


Figure 13

3. Shows device status; online or offline.
4. Clicking this button will open a window showing a preview of the content being processed by the device.
5. Shows the location to which the device has been assigned.
6. Shows the device model.
7. Shows the device reference.
8. Shows the category to which the device belongs.
9. Shows the firmware version of the device.
10. Field to enter keywords to search for devices.
11. Shows IP address of the device.
12. Clicking this button the system will scan the network for all MuxLab transmitters and receivers and all Dante devices if a Dante Domain Manager is configured.
13. Shows the MAC address of the device.
14. Clicking this button will display a pop-up window where the User can filter the device search by selecting the device type, category, status or model. Figure 14



Figure 14

15. Clicking on this button will display a pop-up window where the User can select the category or categories of the devices they are using and search for them on the network. Figure 15

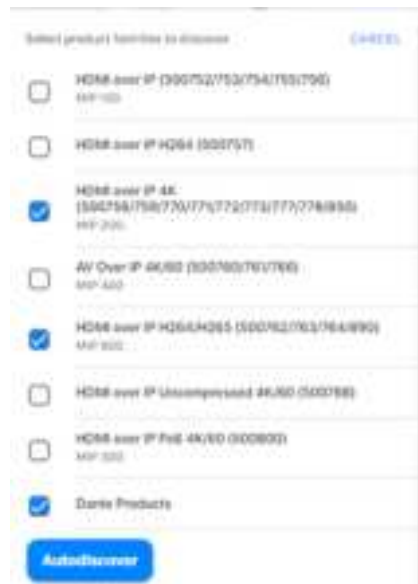


Figure 15

16. Shows the device type.
17. Clicking on this button the User will be able to save the filtering criteria by assigning a name to each of them.
18. Clicking this button will display a pop-up window where the User can enter their Dante Domain Manager information (Domain and API key) to discover and control Dante devices in Muximus. Figure 16



Figure 16

19. Clicking this button will display a pop-up window where the user can select what information about the devices they want to appear on the page. Figure 17

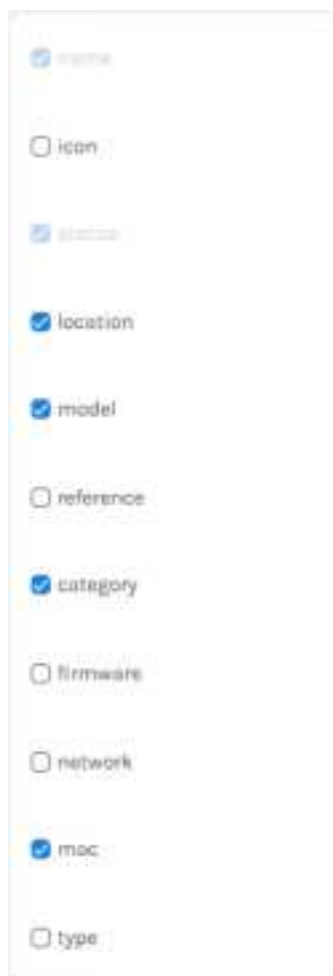


Figure 17

20. When you click on the three dots, a pop-up window will appear showing six different options (a. Device Settings, b. Firmware Update, c. Reboot, d. Copy ID and e. Delete) Figure 18.

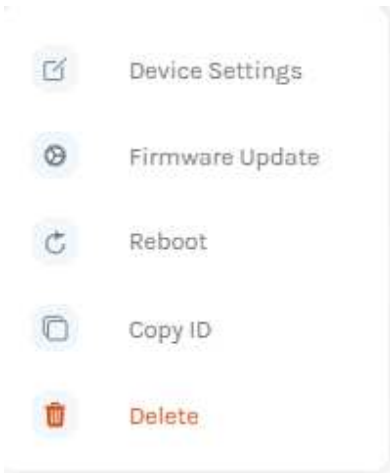


Figure 18

a.) Device Settings: This option allows the user to have complete information about the device, configure the video by selecting the protocol you need to use, select the input or output resolution, select the type of audio codec you need, configure the preview resolution, configure the port RS232 and configure the IR port. Figure 19

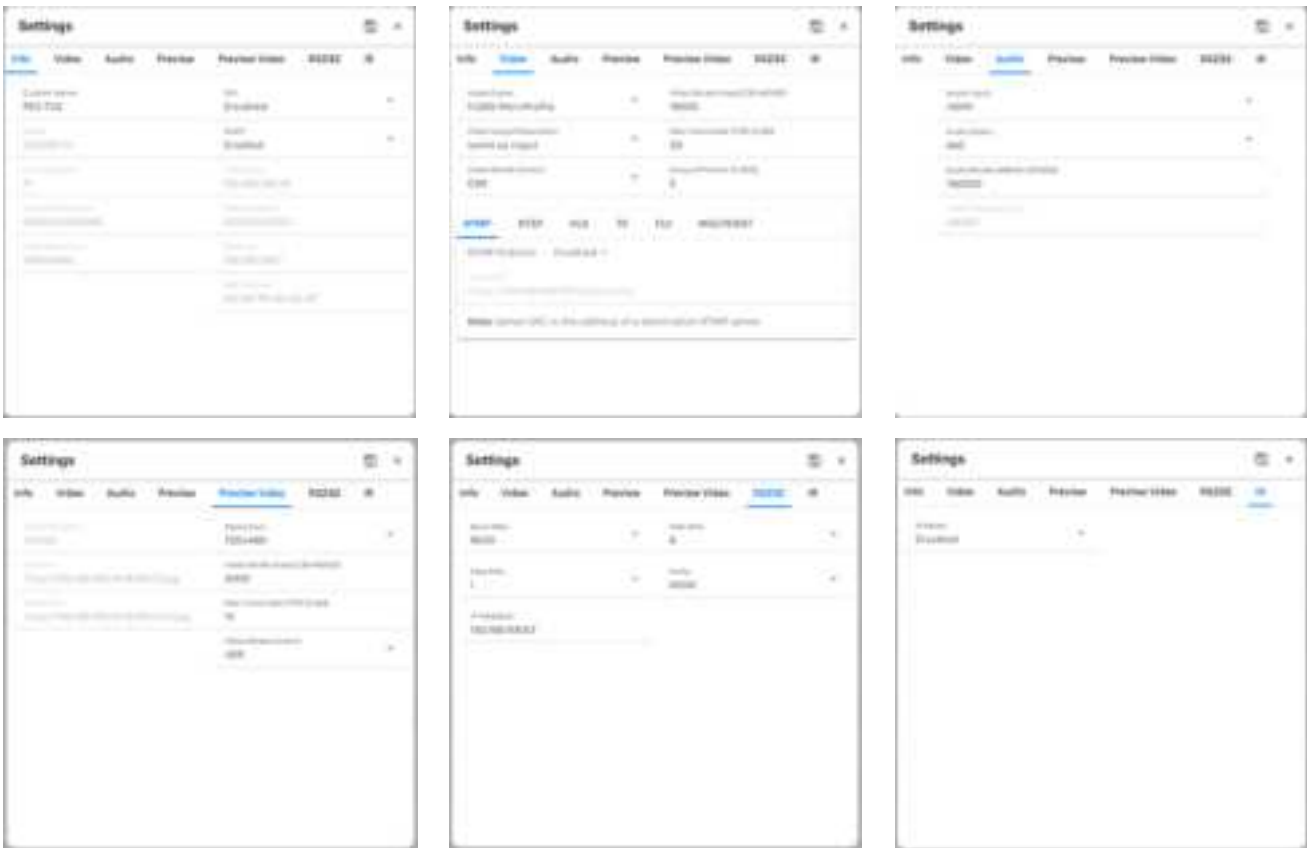


Figure 19

b.) Firmware Update: This option allows the user to update the firmware for MuxLab transmitters and receivers.

The user first selects the transmitter or receiver whose firmware needs to be updated and then clicks the UPDATE button to choose the firmware update file to be loaded onto the device in question. Once the file is selected, the firmware will be updated automatically. Figure 20



Figure 20

c.) Blink Led: This option allows the user to identify the device by flashing the LED for 15 seconds.

d.) Reboot: This option allows the user to reboot the device.

e.) Copy ID: xxxxxxxxxxxxxxxxxxxx.

f.) Delete: This option allows the user to delete the device.

21. Clicking on this button will display a pop-up window where the user can view the notifications sent by the system. Figure 21



Figure 21

7.3 Presets & Routing

The Presets & Routing tap enables the user to:

- Make connections between transmitters and receivers of MuxLab devices over IP,
- Assign video sources to the different windows created in DigiSign to the receivers devices that have the Signage player included (500890).
- Make connections between Dante devices, if a Dante Domain Manager is configured.
- Create, edit or delete Presets for the three previous options.

We have three main options (Simple Receivers, Digital Signaling and Dante). Figure 21

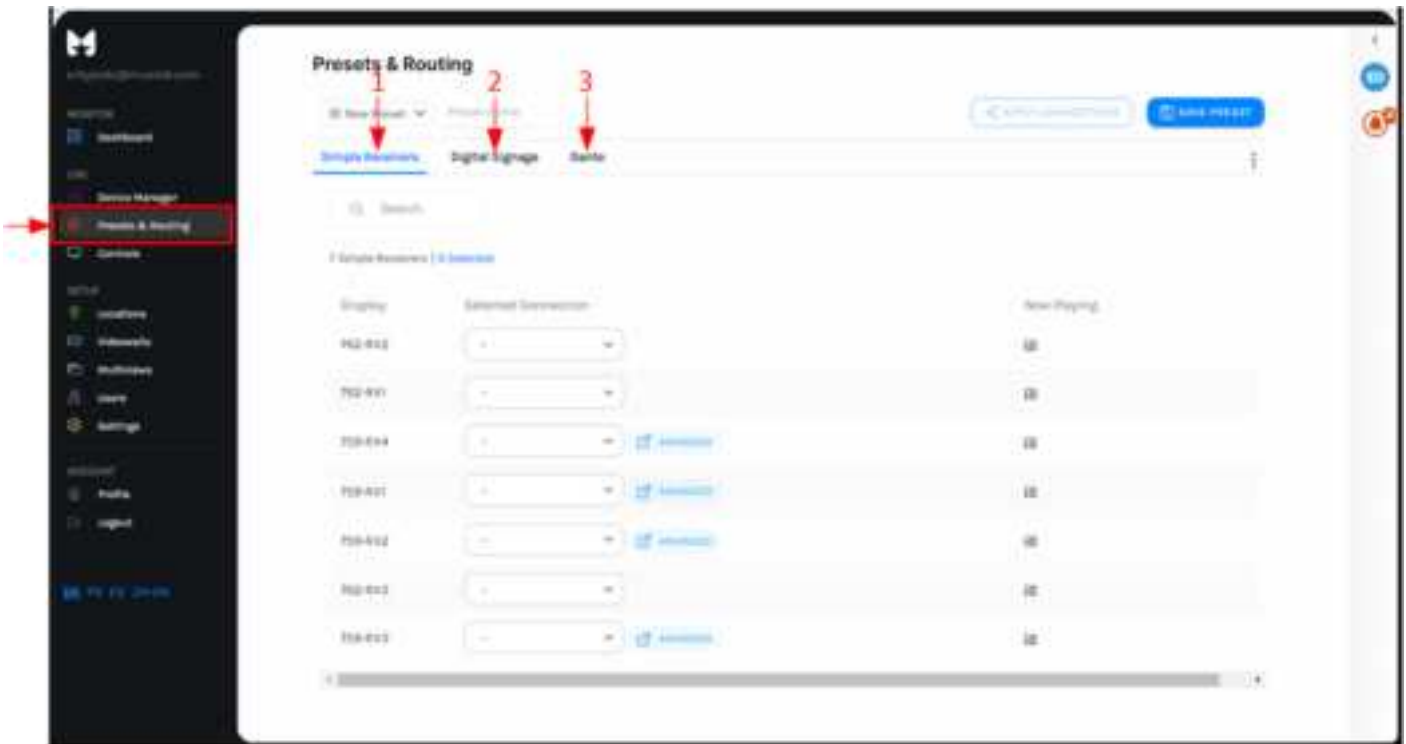


Figure 22

1. By clicking on this option, the system will show us a list of all the MuxLab transmitters and receivers that we have connected to the network, we will have the option of making connections between them and creating presets among other options. Figure 23

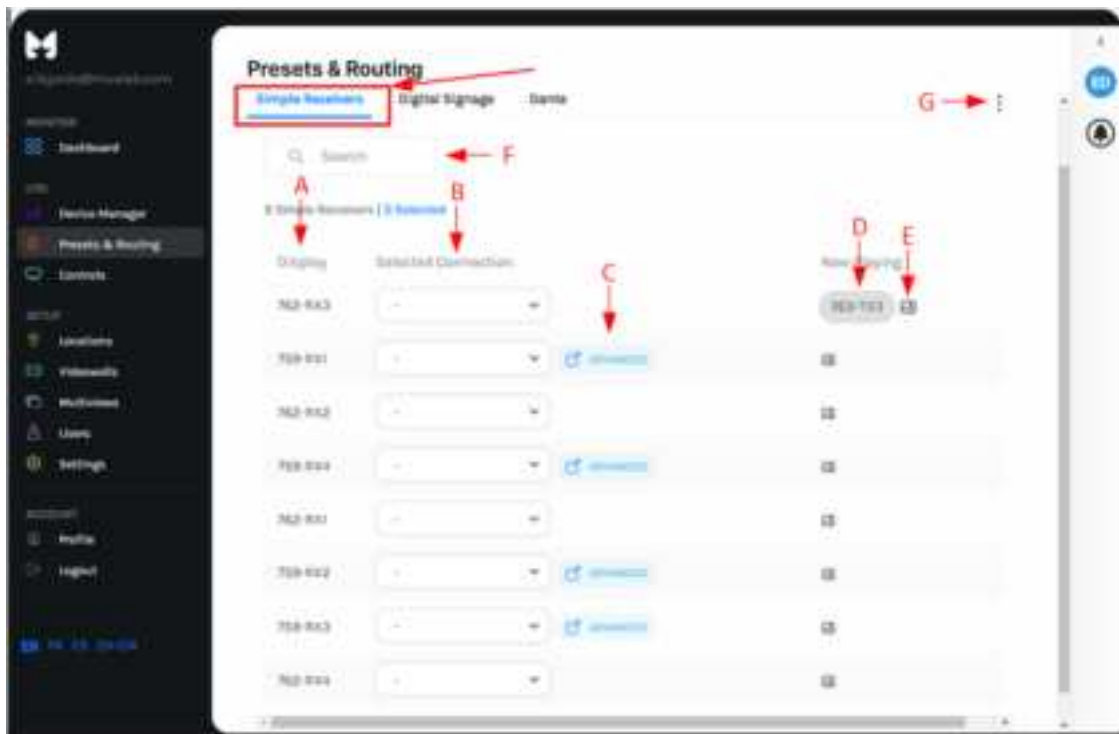


Figure 23

- A.) Display:** This is the list of MuxLab receivers that are connected to the network.
- B.) Selected Connection:** Clicking on this space will display the list of transmitters that are connected to the network and to which the corresponding receiver can be connected, there is also a "Stop" button in case you want to stop the transmission of a connection already made. In addition, There is a dash "-" that can be selected if you want a particular connection not to be affected when making other connections. Figure 24

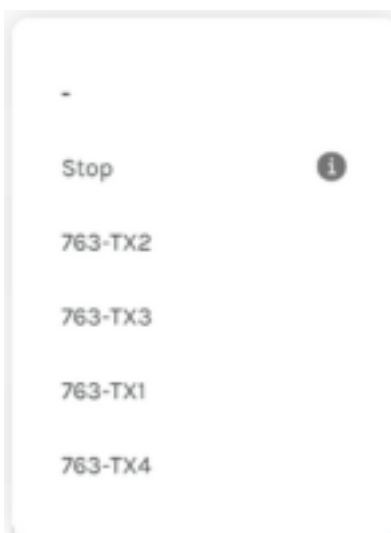


Figure 24

- C.) ADVANCED:** Clicking on the “ADVANCED” option will display a pop-up window in which the user can independently matrix the video, audio, infrared and RS232 serial port. Figure 25

Note: This option will only be displayed on models that support it.

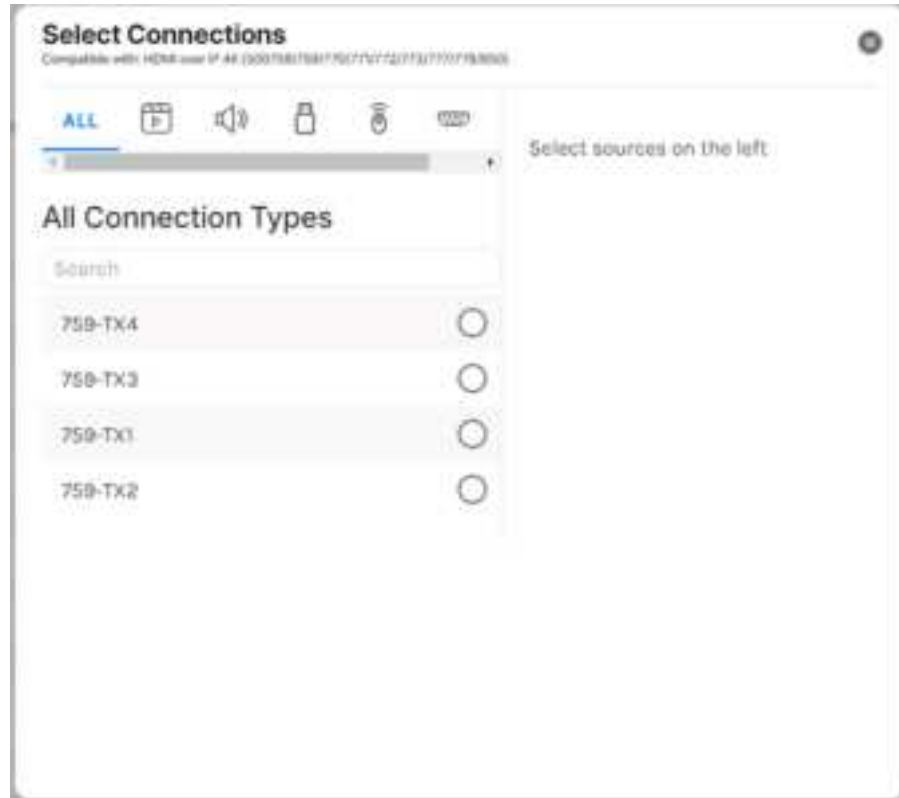


Figure 25

- D.)** Now Playing: Displays the transmitter to which the corresponding receiver is connected.
- E.)** : Clicking on the icon will display a preview of the content that the corresponding receiver is displaying.
- F.)** Search: Enter in this field the name of the receiver or receivers that will be displayed in the “Display” list.
- G.)** : Clicking on the icon will allow you to add remote sources that can be played on your receivers. You need to give the remote source a name, select the resolution, select the protocol to use, and enter the corresponding URL of the remote source. Figure 26

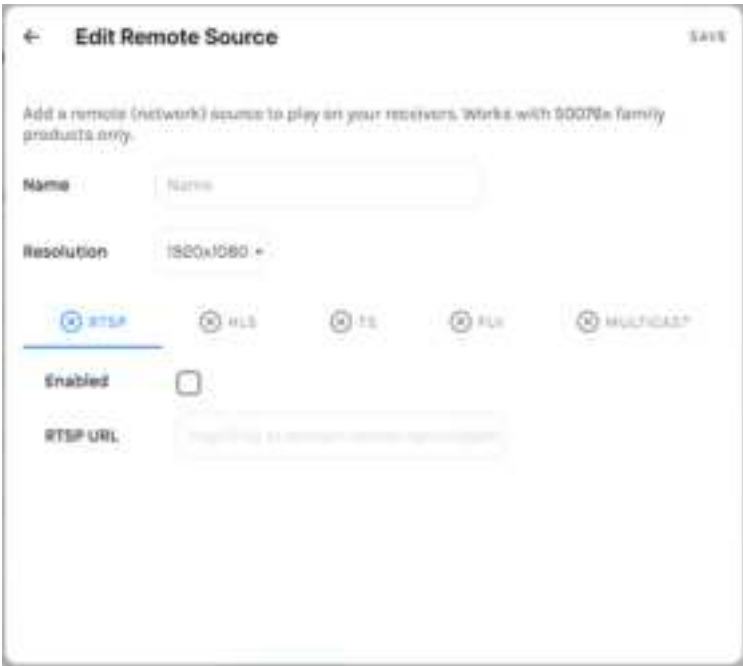


Figure 26

7.4 Controls

The Controls tap provides the User with all the options to create RS232, IR and CEC commands that can be sent via Muxlab transmitters and receivers that are connected on the network to control third party devices such as TVs, TV decoders, amplifiers, etc. To start creating a new command, click on the "New Control" button. Figure 27

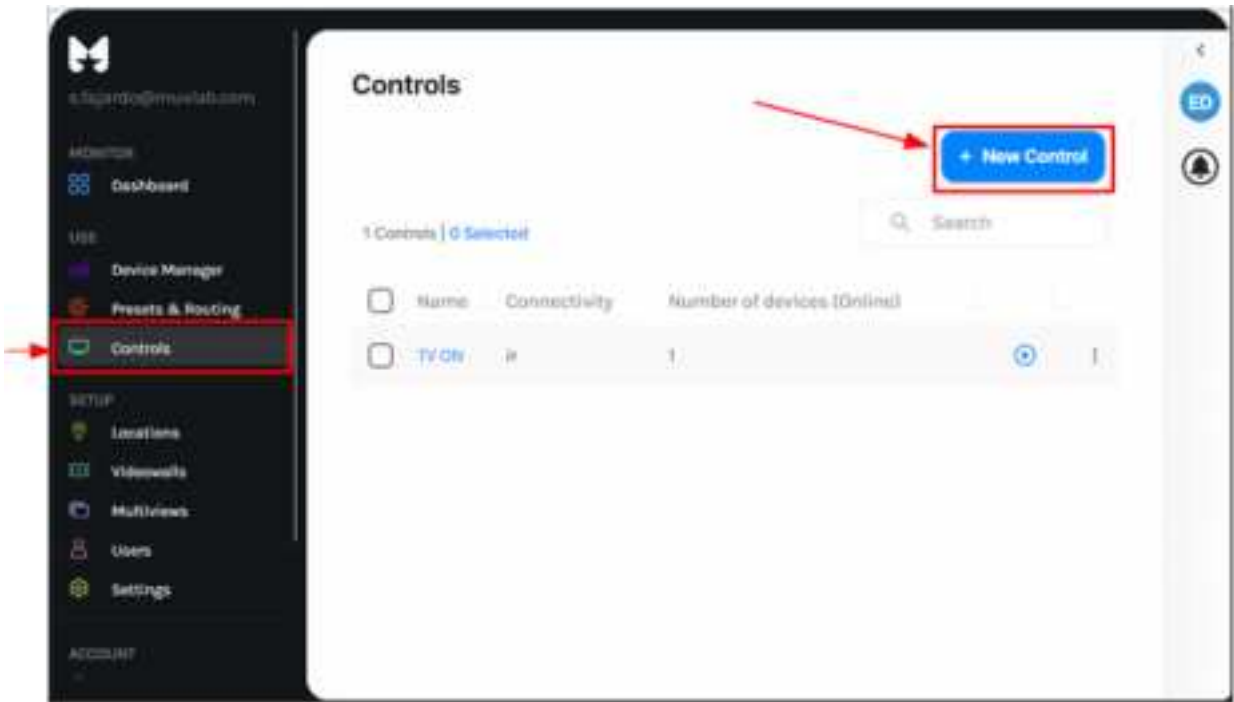


Figure 27

After clicking on the "New Control" button, a pop-up window will appear in which the user must: **1.)** Give a name to the new control command, **2.)** select the type of command and **3.)** click on the "START" button. Figure 28



Figure 28

7.4.1 New Control RS232

If the user selects to create a new RS232 control command, the system will display a new page where the user must: **1.)** enter the command in hexadecimal format, **2.)** select the device(s) to which the RS232 command will be sent, **3.)** Click the "TEST" button if you want to verify that the command works correctly and **4.)** Click the "SAVE" button to save the command. Figure 29

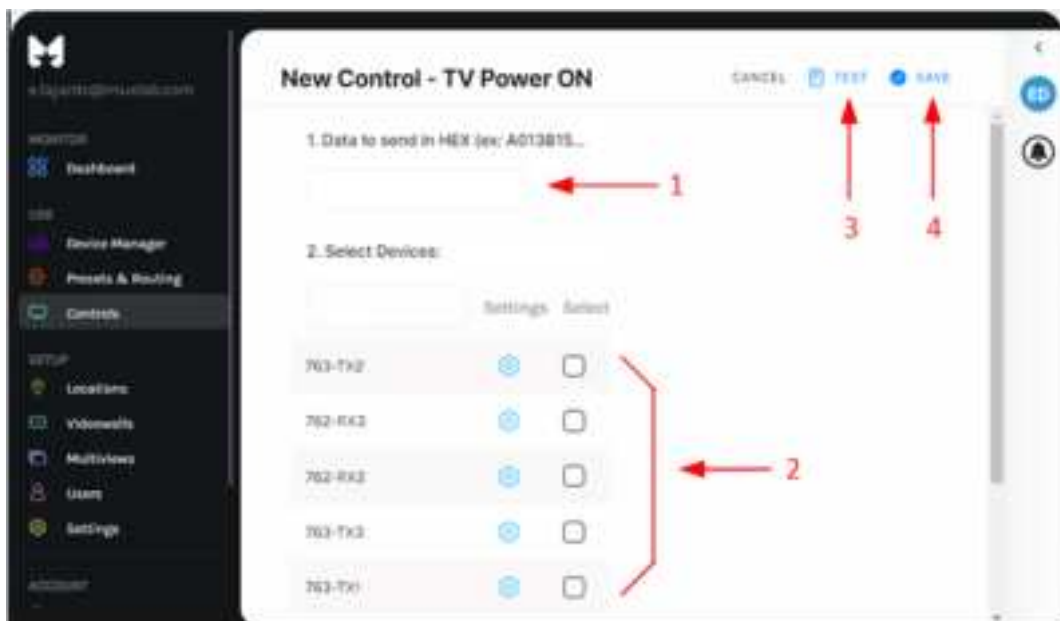


Figure 29

7.4.2 New Control CEC

If the user selects to create a new CEC control command, the system will display a new page where the user must: **1.)** select the CEC command (STAND BY, POWER ON, VOLUME UP, VOLUME DOWN, MUTE), **2.)** select the device(s) to which the CEC command will be sent, **3.)** Click the "TEST" button if you want to verify that the command works correctly and **4.)** Click the "SAVE" button to save the command. Figure 30



Figure 30

7.4.3 New Control IR

If the user selects to create a new IR control command, the user will be prompted to select the Muxlab over IP product family that will be used to send the IR command. The system will then display a new page where the user will need to: **1.)** enter the command in hexadecimal format, **2.)** click the "Read IR Code" button if the user needs to read the IR code from a specific transmitter or receiver, **3.)** select the device or devices to which the IR command will be sent, **4.)** click the "TEST" button if the user wants to verify that the command is working properly, and **5.)** click the "SAVE" button to save the command. Figure 31



Figure 31

7.5 Locations

The Locations tap offers the User the possibility to create locations and assign devices to each location to manage large installations in a simple and orderly manner. The system will also give the option to create sub-locations within locations. To start creating a new location, click on the “New Location” button. Figure 32

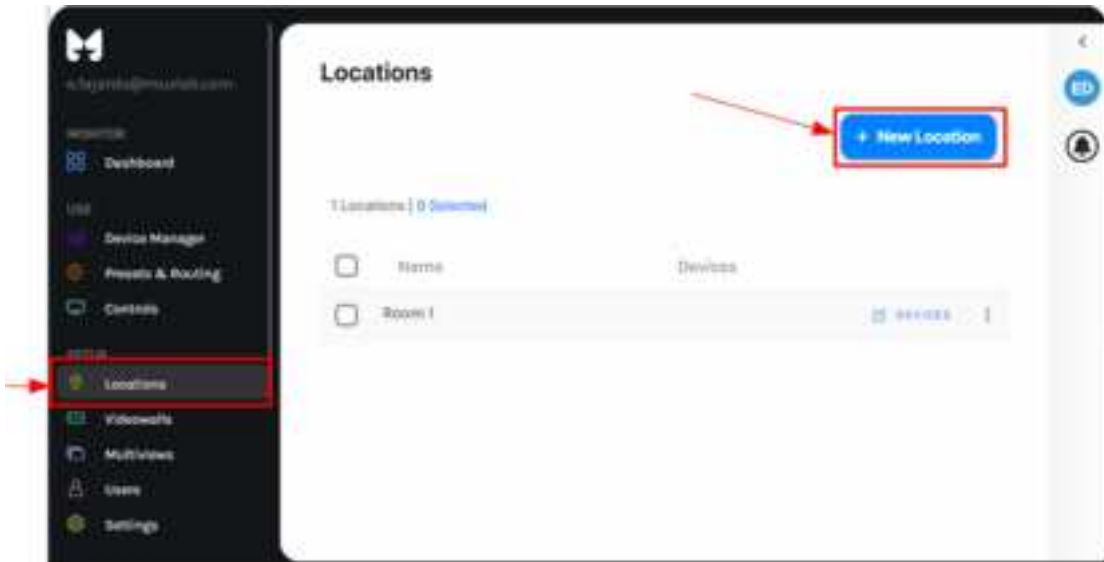


Figure 32

After clicking on the “New Location” button, a pop-up window will appear asking the user to give a name to the new location. Once the location is created, the user can assign the devices they want to belong to that location by clicking on the “DEVICES” button and selecting the devices from the list that will appear after clicking the button. Figure 33

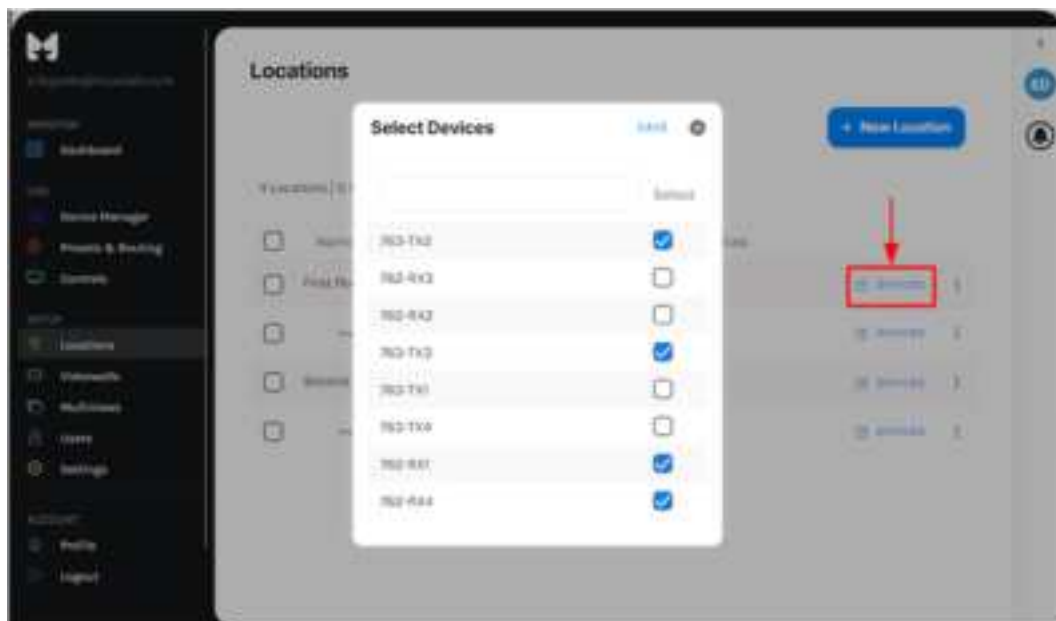


Figure 33

7.6 Videowalls

The Videowall tab allows the user to create videowalls with the required number of monitors (NxM) and composed of monitors of the same size. To start creating a new video wall, click the “New Video Wall” button, the system will guide you through four steps to create the video wall. Figure 34

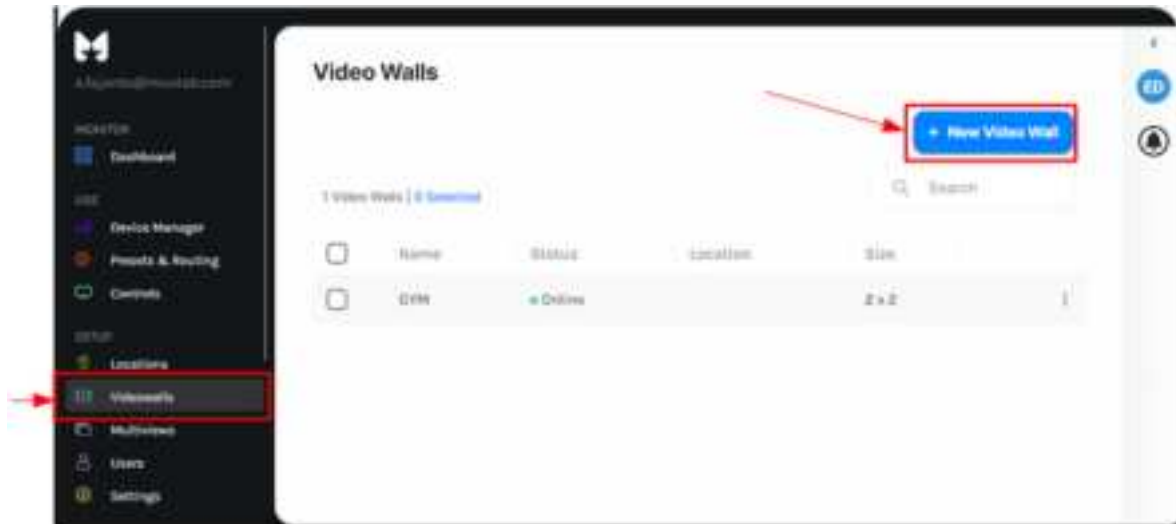


Figure 34

In the first step after clicking the “New Video Wall” button, a new window will appear asking the user to: 1.) give a name to the new video wall, 2.) Select the video wall size from a list of preset sizes or enter a custom size, 3.) Click the “NEXT” button once the video wall name and size have been entered. Figure 35



Figure 35

In the second step, a new window will appear showing a sketch of the video wall with its respective displays. The user must click on each display to select, from a list, the corresponding receiver that is connected to each display. After assigning a receiver to each monitor, click the "NEXT" button. Figure 36



Figure 36

In the third step, a new window will appear where the user can define the size of the monitors and bezels either in inches, centimeters or millimeters. After define the size and bezels, click the "NEXT" button. Figure 37



Figure 37

In the fourth step, a new window will appear showing a default "Full Videowall" layout that has a single zone comprising all monitors on the videowall.

Users can create a new layout by clicking the "NEW" button, they can also create zones in this new layout by clicking on the monitors they want to belong to the new zone and giving it a name.. Figure 38

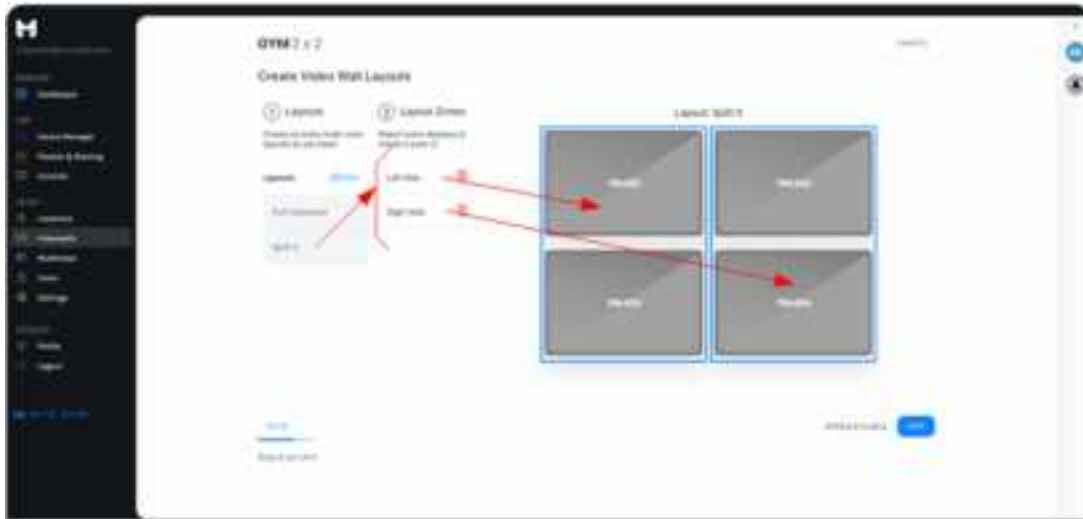


Figure 38

If the user needs to make small Shifting and Scaling adjustments, he should click on the "Shifting & Scaling" button, this button will open a new window where the user can adjust the Shifting (in pixels) and Scaling (in percentage) for each layout and each zone as needed.. Figure 39



Figure 39

Once all layouts and zones have been created and adjustments have been made, click the "NEXT" button. After clicking the "NEXT" button, a pop-up window will appear asking the user if they want to open the Presets & Routing page to begin assigning video sources to their videowall or if they want to stay on the Videowalls page.. Figure 40



Figure 40

7.6.1 Videowall Routing

When creating the first video wall, a new "Video Walls" tab will immediately appear on the "Presets & Routing" page, in this new tab the user will be able to assign video sources (transmitters) to the video walls already created by clicking on the "Visual Selector" button. Figure 41

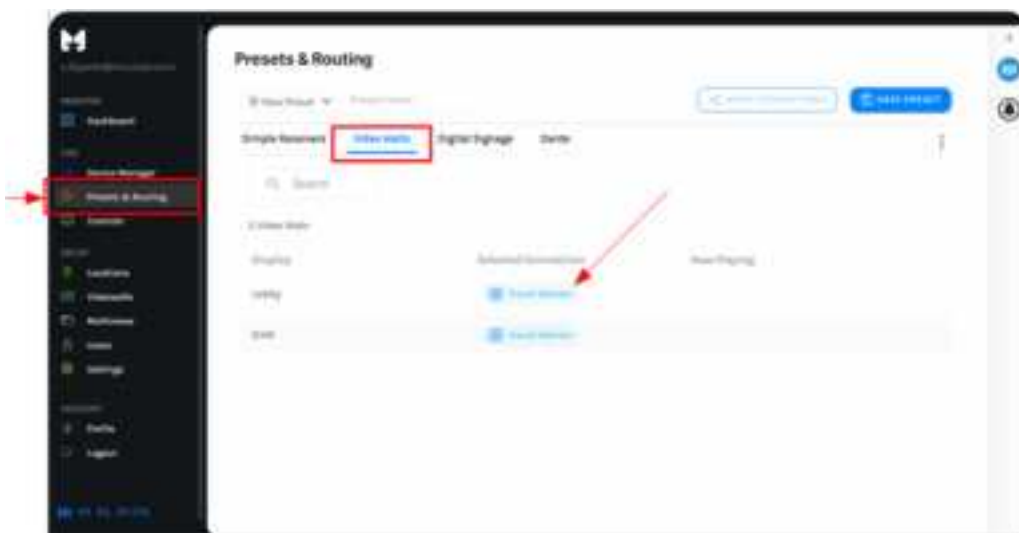


Figure 41

After clicking the “Visual Selector” button, a window will appear where the user must: 1.) Select from the list the layout to which they wish to assign video sources, 2.) Drag and drop a specific transmitter to the zone in which they wish to play the content of that transmitter, and 3.) click the “SAVE” button.. Figure 42

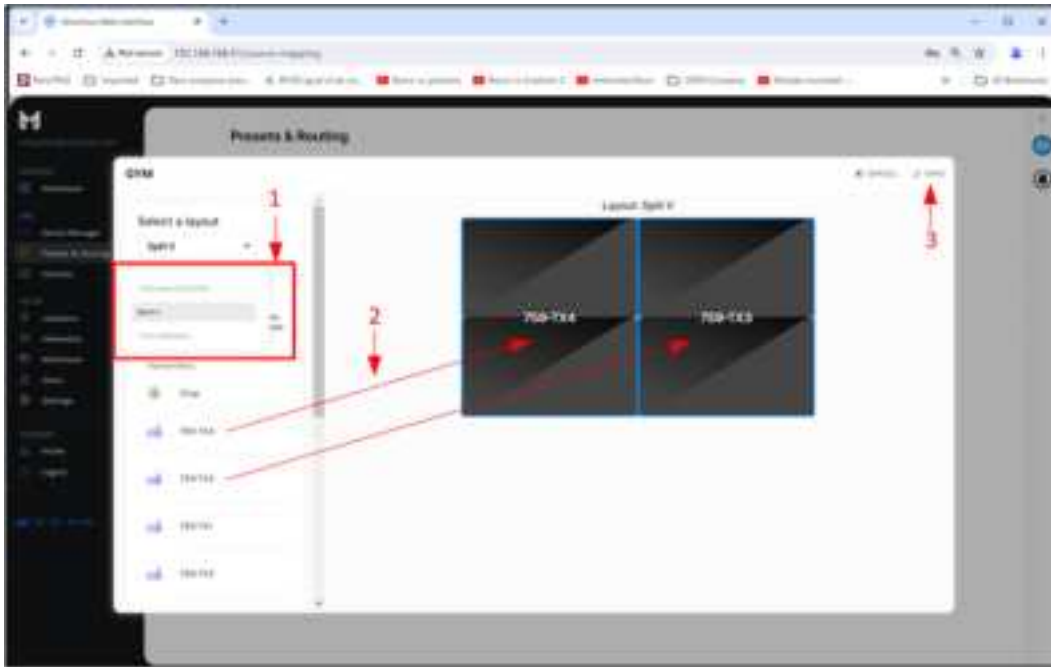


Figure 42

By clicking on the “SAVE” button the system will display the “Presets & Routing” page again, here the user can click on the “APPLY CONNECTIONS” button to perform the previously created connection and can also, if desired, create a preset for that connection.. Figure 43



Figure 43

7.7 Multiviews

The Multiview tab allows the user to define Multiview layouts for either a videowall or a single monitor. Videowall enables the user to configure an NxM display array consisting of NxM monitors, all of the same size. To start creating a new multiview layout, click the “New Multiview” button, the system will guide you through a few steps to create the Multiview layout. Figure 44



Figure 44

In the first step, after clicking the “New MultiView” button, a new window will appear asking the user to: 1.) give the name to the new Multiview layout, 2.) select whether the layout to be created is for a single monitor or a videowall, 3.) Click the “START” button once you have entered the above information. For the example below, we will select the 2x2 videowall option to create a Multiview layout, but note that the process for creating a layout for a single monitor is the same. Figure 45.



Figure 45

After clicking on the “START” button, the system will display the “Edit Multiview” page, on this page the user will find all the options he needs to create a new Multiview layout. Figure 46

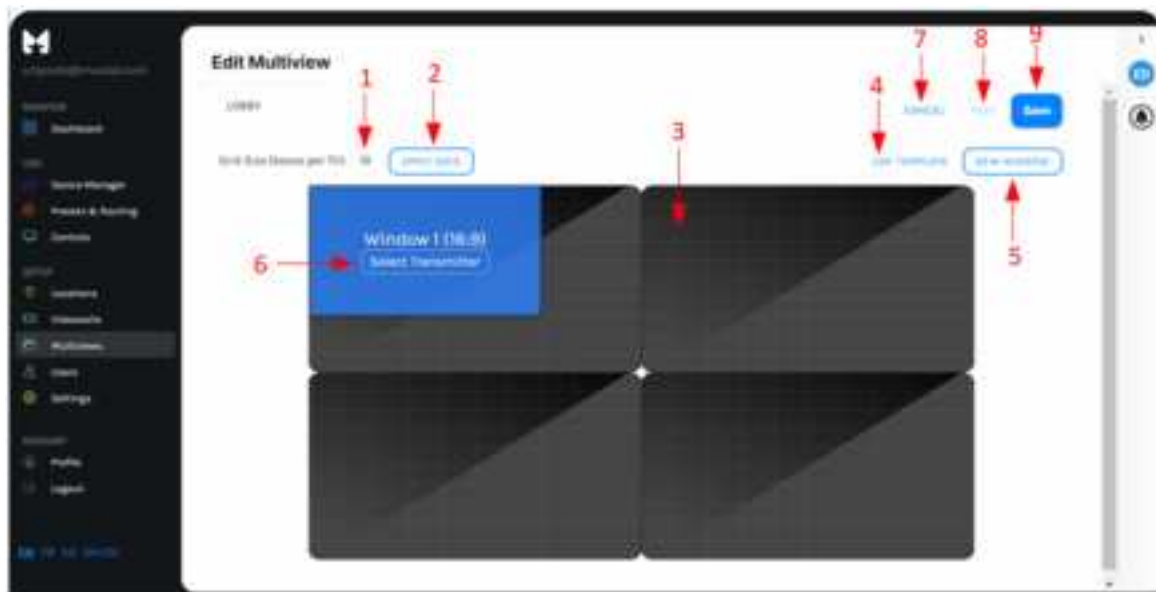


Figure 46

1. Field to modify the grid size, enter in this field the number of grids you want to be displayed on each TV.
2. Clicking this button will prompt the user to confirm the changes made to the grid size.
3. Grid that represents the main workspace where the user can create the Multiview layout by adding windows, placing them anywhere on the grid, and resizing them as needed.
4. By clicking on the “USE TEMPLATE” button, a pop-up window will appear where the user will have the option to select a Multiview layout from several suggested templates. Figure 47

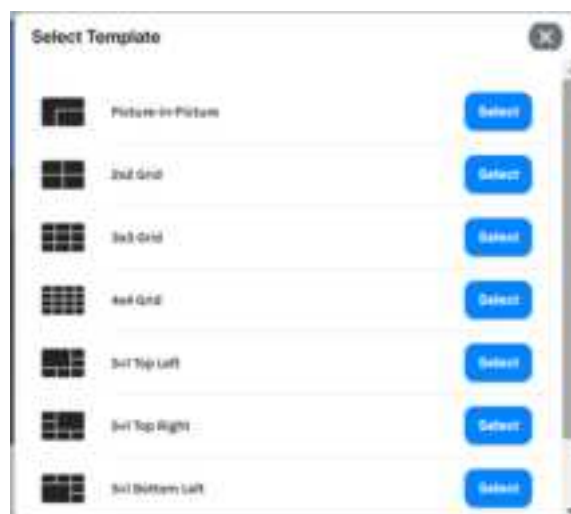


Figure 47

5. By clicking the "NEW WINDOW" button, the user will add a new window that can be placed anywhere on the grid and can be resized as the layout requires.
6. window representing a video source that can be resized and positioned anywhere on the grid. For each window you must assign a video source (Transmitter) by clicking the "Select Transmitter" button.
7. By clicking the "CANCEL" button, the user will cancel the multi-view layout creation process.
8. By clicking the "TEST" button, the user will be able to test the layout by selecting from a list the receiver on which we want the layout to be displayed.
8. Once Multiview layout have been created, click the "Save" button. After clicking the "Save" button, a pop-up window will appear asking the user if they want to open the Presets & Routing page to begin assigning receivers to their Multiview layout or if they want to stay on the Multiviews page. Figure 48



Figure 48

7.8 Users

The Users tab allows the user to manage the user accounts and the roles that will be assigned to each user account.

In this page we have two main options (Users and Roles). Figure 49



Figure 49

1. When you click on this option, the system will show you information about the user accounts already created, allowing you to edit or delete them, and will also give you the option to create new user accounts.

Here you will find seven different options.. Figure 50



Figure 50

- A.) EDIT:** By clicking the "EDIT" button, the User will be able to edit the user profile with which logged in.
- B.) Email:** Shows the email with which each user account was created.
- C.) Username:** Displays the username for each user account.
- D.) Role:** Display the Role for each user account.
- E.) Search:** Field to enter keywords and filter user account searches.
- F.)  :** Click this button if you want to edit or delete a specific user account.
- G.) New User:** Click the "New User" button if you need to create a new user account. After clicking the "New User" button, a new pop-up window will appear asking the user to: 1.) Enter the email address that will be linked to the new user account, 2.) Enter the name that will identify the new user account, 3.) Enter the password for the new user account, 4.) Select from the list the role that the new user account will perform, and 5.) Click the "SAVE" button to save the new user account information. Figure 51



Figure 51

2. When you click on this option, the system will show you information about the Roles already created, allowing you to edit or delete them, and will also give you the option to create new roles.
Here you will find four different options. Figure 52



Figure 52

- A.)** Name: Displays the name given to each of the roles.
- B.)** Search: Field to enter keywords and filter role search.
- C.)**  : Click this button if you want to edit or delete a role.
- D.)** New Role: Click the "New Role" button if you need to create a new Role. After clicking the "New Role" button, a new pop-up window will appear asking the user to: 1.) Enter the name of the new Role, 2.) Select the permissions the new role will have to manage locations, presets, devices, users, and settings, and 3.) Click the "SAVE" button to save the new Role information. Figure 53



Figure 53

7.9 Settings

The Settings tab provides the user with all the necessary options to make any necessary modifications to the Muximus controller configuration.

In this page we have six main options (Network, Data & Time, Backup & Restore, Logs, Software Update, and SMTP). Figure 54

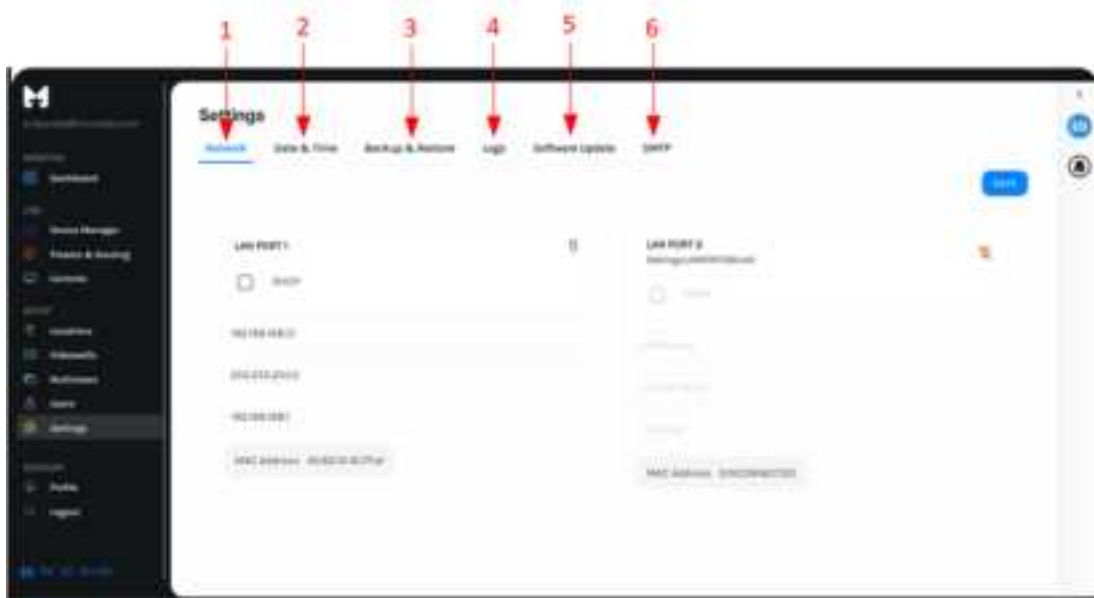


Figure 54

1. Network: On this page the user can configure the network ports of the Muximus controller. The user can assign a fixed IP address to each port or can enable the DHCP option to have the router assign an IP address to them.
2. Data & Time: On this page the user can set the date and time of the Muximus controller. Setting the correct date and time can avoid network problems and provide clearer logs.
3. Backup & Restore: On this page the user will be able to: A.) create a backup of the unit data that you can use to restore the unit data at any time, or duplicate your configuration to another unit, B.) restore the unit data from a previous backup, and C.) reset the device to factory settings, including network settings. Figure 55

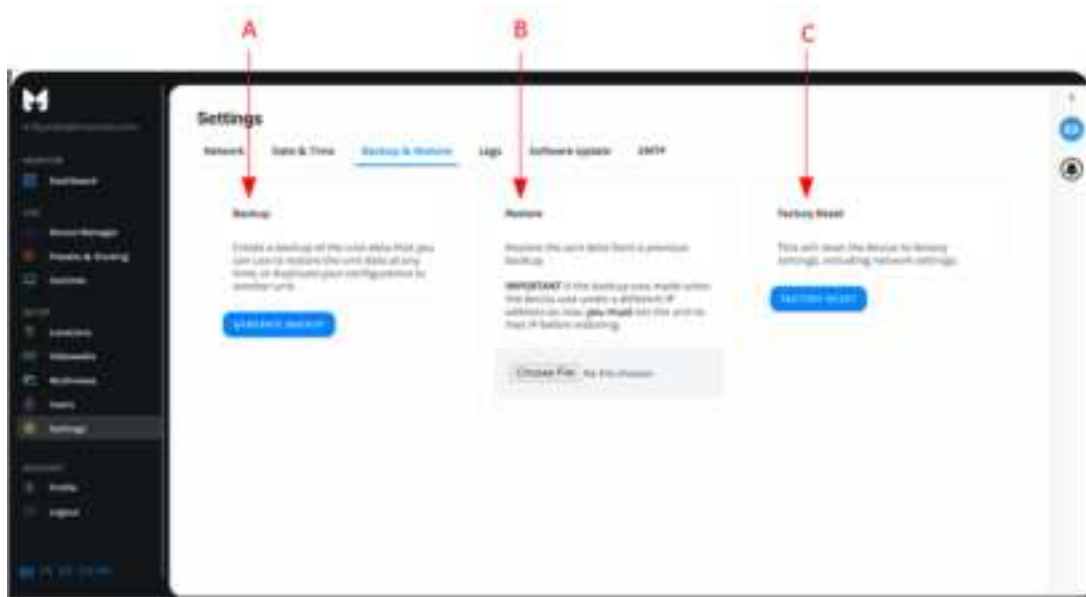


Figure 55

4. Logs: On this page the user can obtain the logs to share with technical support and obtain information about any problem.
5. Software Update: On this page the user will be able to perform a software update in case a new version is available..
6. SMTP: On this page, the user will be able to configure the SMTP service. The SMTP service can send notification emails from the Muximus controller (for example, a notification when a device is offline). Please note that only administrators receive notification emails.

7.10 Profile

The Profile tab provides information about the profile you are logged in with (email, name and role), we can also copy the API Key that will be used to control the Muximus Controller with third-party control systems. Figure 56



Figure 56

8. Application Diagram

