



Dynamic Music Distribution Quick Guide

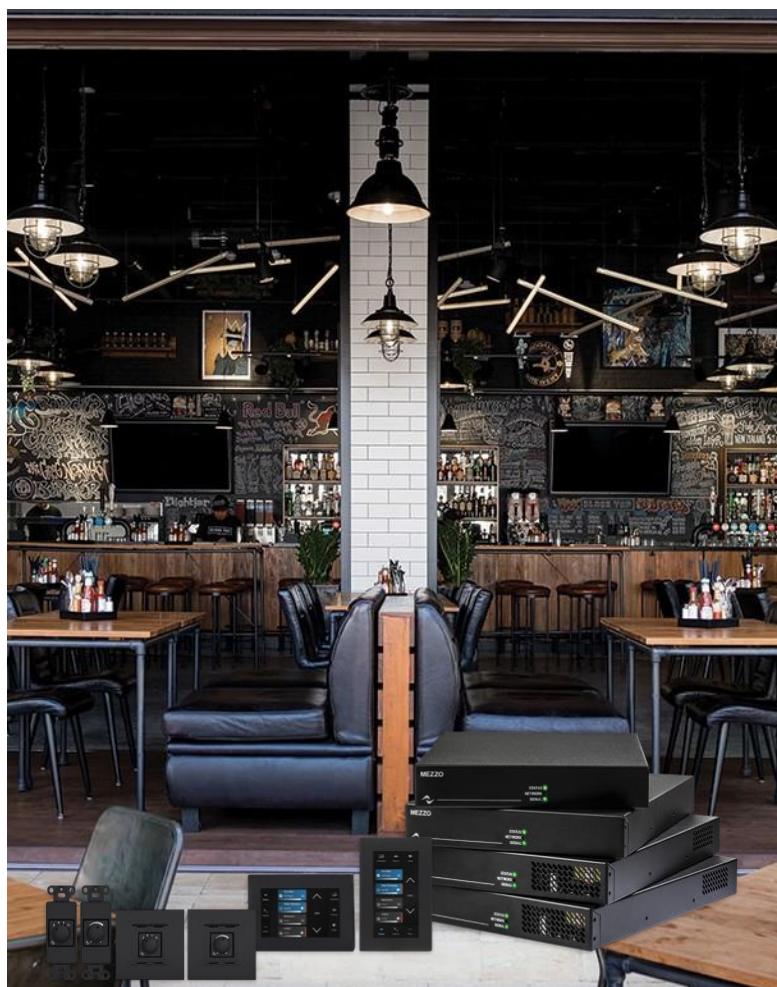


TABLE OF CONTENTS

Overview	4
DMD Components.....	4
Amplifiers	4
WM Touch.....	5
WMP.....	5
Hardware Installation	6
Designing the System in ArmoníaPlus	7
Step 1: Add the Amplifiers	7
Step 2: Add Speakers	8
Step 3: Add Sources	9
Step 4: Add Shapes and Images	10
Step 5: Link.....	11
Step 6: Add Zones	12
Sub-Zones.....	12
Step 7: Controls.....	13
WM Touch Control	13
Priority Input	14
Scenes.....	15
Step 8: Match	16
Step 9: Design Web and App Views	17
Web View	17
App View	19
Step 10: Running the System	20
Useful Links	21

Overview

Nowadays, even the simplest music distribution system relies on multiple devices to route sources, and access its functions. This traditionally called for several single-purpose devices to be added to the audio chain, which can lead to costly, overly complex, and inefficient systems.

Our solution is to integrate all those functionalities and features in one single device that includes a **routing matrix**, a **network switch**, and **digital sound processing**. This allows for lighter, more efficient systems that are easy to deploy and run.

The DMD system works by grouping the speakers into **Zones**, to which one or more sources can be assigned. The Zones control level and the active source through the controllers (WM Panel, WM Touch, Web App, and SYS Control App).

This user guide explains how to design a customized system in ArmoníaPlus, creating a user-friendly interface that allows effective management of a multi-source audio distribution system through the use of **WM Panel**, **WM Touch**, **Web App**, and **SYS Control App**.

DMD Components

Amplifiers

Mezzo series amplifiers are the perfect solution for Dynamic Music Distribution as through their DSP they can fully manage the multi-source system by distributing the audio to the speakers in an entirely autonomous way, without the need to connect mixers and other external devices.

Mezzo offers the same sound clarity, reliability, and overall build quality of any Powersoft install an amplifier in a ½ rack unit form factor. It comes with a state-of-the-art DSP, in 2 power sizes with 2 or 4 channels of output.

All models offer multiple analog input options, and the 2 channel versions feature line-level outputs.

AD versions of Mezzo add audio networking capabilities with Dante™/AES67 and an internal Gigabit Ethernet switch with a second port for daisy chaining.

The smaller versions of Mezzo are sealed designs, approved for hidden placement, such as mounted above the ceiling or tucked in a wall box.

The included rack-mounting accessories allow multiple options: 1 or 2 Mezzo in a 19" Rack, and 1 Mezzo in an 11" rack. The included wall-mount brackets allow it to be mounted on any flat surface, under a table, or on the ceiling. Rubber feet allow Mezzo to be placed on a shelf.



Mezzo Series Amplifiers

WM Touch

The WM Touch is a wall-mounted touchscreen solution aimed at remotely controlling audio system functionalities, such as zone level and source selection, system scenes recall, and system on/off. The WM Touch is designed to fit single-gang electrical boxes from all countries and can be mounted vertically or horizontally. Each box contains the frame required for wall mounting.



WM Touch controllers

Users have the freedom to choose what controls to display or hide, according to their installation needs. The WM Touch is designed to match Mezzo’s routing matrix capabilities and to flawlessly integrate into a Dynamic Music Distribution system and can be configured through ArmoníaPlus.

WMP

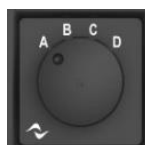
The WMP controllers are a series of wall-mounted cost-effective solutions aimed at remotely controlling system functionalities, such as zone-level control and source selection. These passive controls are sharable over the network, meaning that a passive wall controller can be connected to one amplifier via GPI and control the parameters of other devices in the same network.

WMP Level: Level controllers can be configured to adjust the level attenuation of an amplifier output or the level of single and multiple zones.



WMP Level

WMP Select: Selectors allow users to pick the source for one or multiple zones, and can also be used as scene selectors, allowing users to choose from different system configurations (scenes).

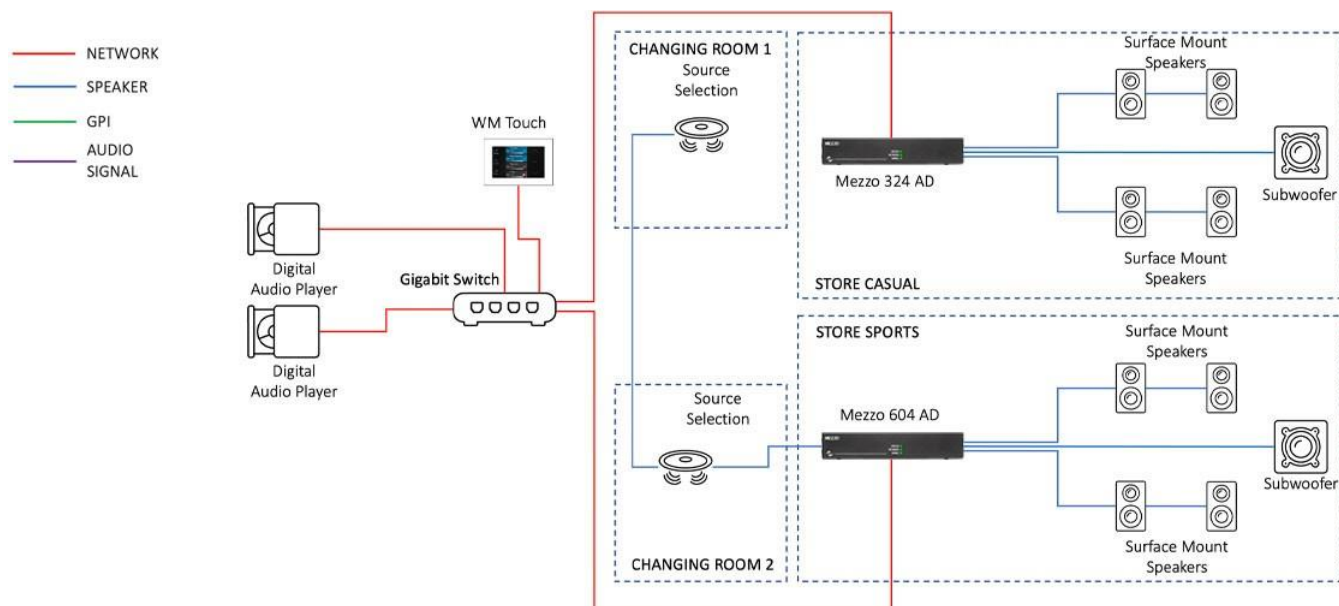


WMP Select

Any parameter controlled by a WMP will be “Read Only” on other interfaces.

Hardware Installation

To better frame the Hardware installation of the DMD, we show an example of an audio distribution project, explaining the steps for a correct hardware installation. This example project is simple to implement but uses all the components detailed in the previous section.



DMD sample project

The first thing to do is to physically connect all network devices (Amps, WM Touch, and Sources) to the switch via Ethernet cable (Cat5e), the use of managed PoE switches is recommended.

For more details on switch configuration please refer to the [network switch configurations for Dante & AES67 Technical Note](#)

The amplifiers specified in this setup are Mezzo 324 AD and Mezzo 604 AD, the first dedicated to the “STORE CASUAL” and the second to the “STORE SPORTS” and “CHANGING ROOMS”.

The next step is to connect the analog outputs of the amps to the speakers and to connect the power supply.



4 channel Mezzo output section

Designing the System in ArmoníaPlus

The system design is entirely managed through ArmoníaPlus software which is free to download at <https://www.powersoft.com/en/download/software/armoniaplus/>

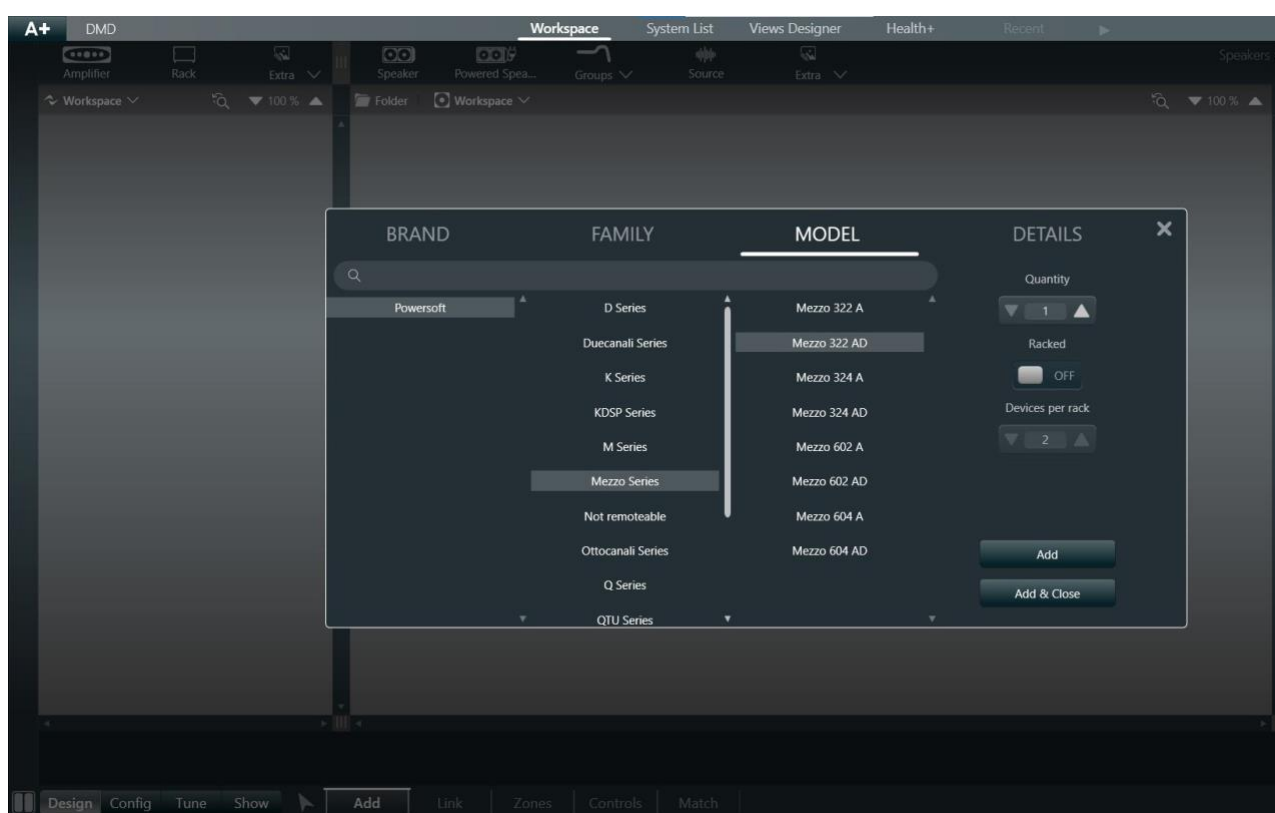
Step 1: Add the Amplifiers

By opening ArmoníaPlus and selecting “Install System”, the default screen will open in the Design > Workspace section. The screen is divided into two sections: the one on the left dedicated to the amplifiers and the one on the right dedicated to the speakers.

It is possible to add up to 10 different workspaces in the same project.

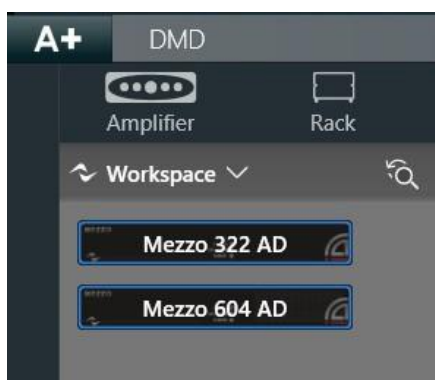
The software provides a workflow whose actions are set to be performed from left to right.

To add an Amplifier, click on **“Amplifier”** and select the Family and the Model. In this screen, there is the opportunity to insert multiple amplifiers in a rack, but in this case, we simply select the Mezzo 322 AD and click “Add”, then select the Mezzo 604 AD and click **“Add & Close”**.



Selecting Family & Model

After this first step, the selected models will appear at the top left of the workspace, as shown below.

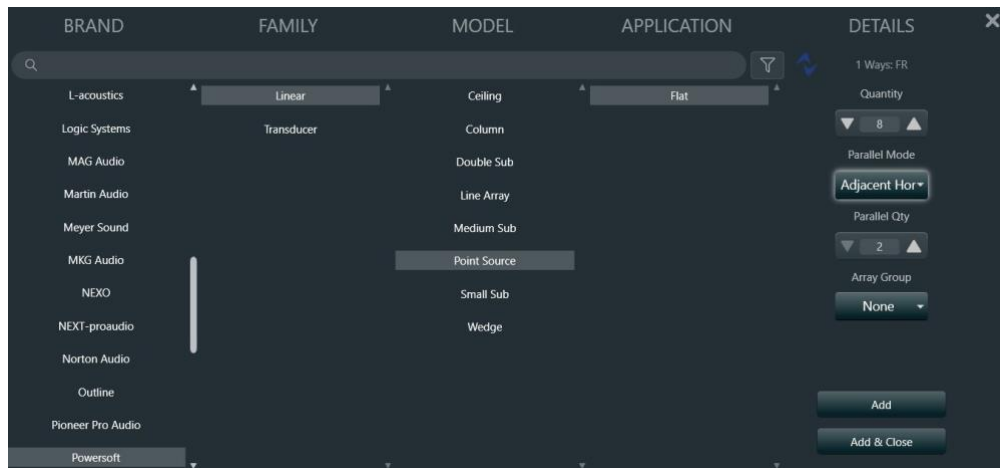


Mezzo amplifiers loaded on the workspace

Step 2: Add Speakers

Once the amplifiers have been added, it's time to set up the speakers. This project requires 8 surface mount speakers connected in pairs in parallel (two speakers per channel), 2 Subwoofer, and 2 Ceiling Speakers for the changing rooms.

To add a Speaker, go to **"Design" > "Add"** and click on **"Speaker"**. For this project, we select generic speakers under the brand **"Powersoft"** and Family **"Linear"**, the purpose of this preset is to be able to use generic speakers. For the power surface speaker select the model **"Point Source"** and Application **"Flat"**. In the Details section insert the quantity of 8 speakers, activate the Parallel Mode (Adjacent Horizontal) and select 2 as the quantity of speakers in parallel, then click **"Add"**.



Selecting speaker Family, Model, and Application

To add the subwoofer, select the model **"Small Sub"**, Application **"Flat"** and 2 as the quantity.

For the speakers of the dressing rooms select the model **"Ceiling"**, Application **"Default"**, 2 as the quantity, and activate the Parallel Mode (Adjacent Vertical).

After adding all the speakers this is the screen to arrange the objects in space, simply drag and drop the icons to imitate the layout of the initial project, select the desired icons, and right-click > **"Align"**.

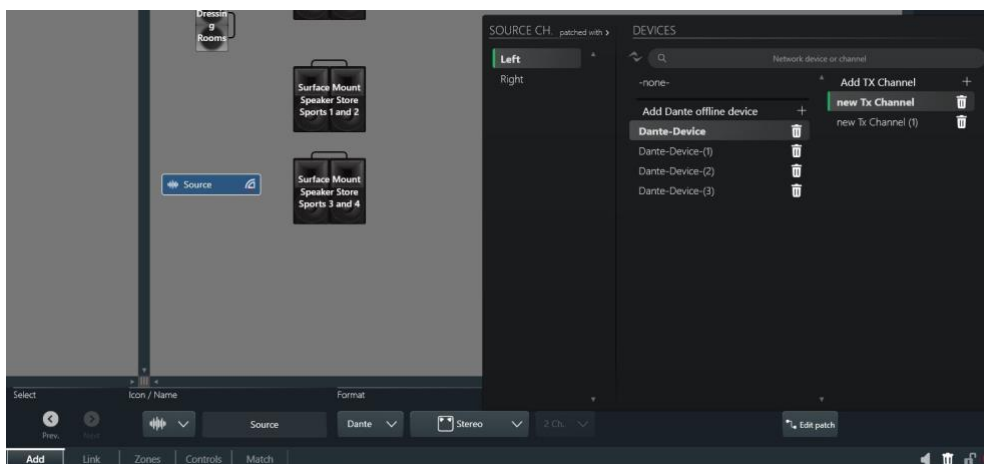


Arranging speaker icons on the workspace

To rename the speakers click the icons and edit the text in the box below.

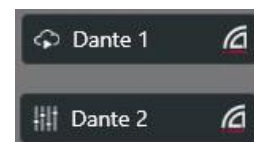
Step 3: Add Sources

To add sources, click on **“Source”**, the object **“Source”** will appear in the workspace, and clicking on it will open the source settings.



Adding a Source

In this section, it is possible to choose an Icon, change the Name, Format (Analog, AES3, and Dante), and Edit patch. For this project, we create 2 Dante Sources in Stereo, named **“Dante 1”** and **“Dante 2”**.



It is also possible to patch Mezzo’s analog inputs as sources and share those on the network. To do this, click on **“Edit Patch”** and select channel 3 of Mezzo 604 AD as left, and channel 4 as right, then turn on the option **“Share”**. Now the source will be available on all the devices in the network.

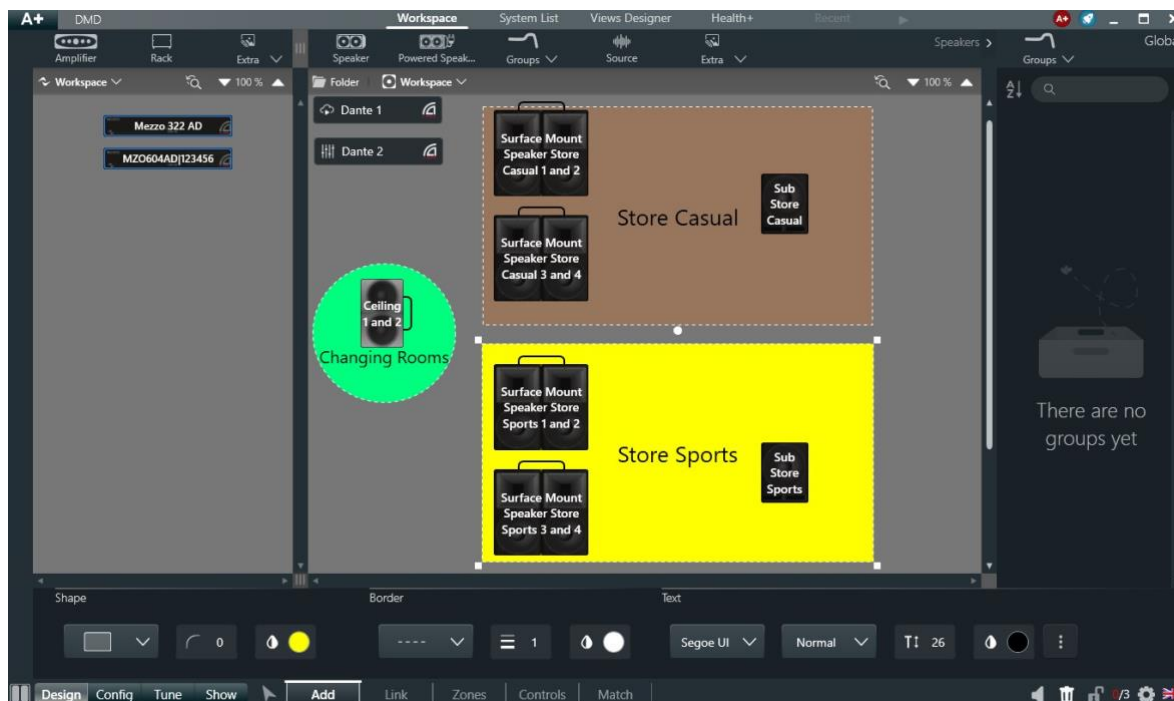
Step 4: Add Shapes and Images

To give a more understandable and effective visual impact, it is possible to insert shapes to organize the rooms of the installation. To do this click on **“Extra”** and then on **“Shape”**.

Clicking on the shape you can change the size, the type of shape, color, borders, and text.

It is also possible to import an image by clicking on **“Image”**.

This step is optional, but it is useful to make the project easier to interpret and facilitates the workflow, especially when dealing with more complex systems.

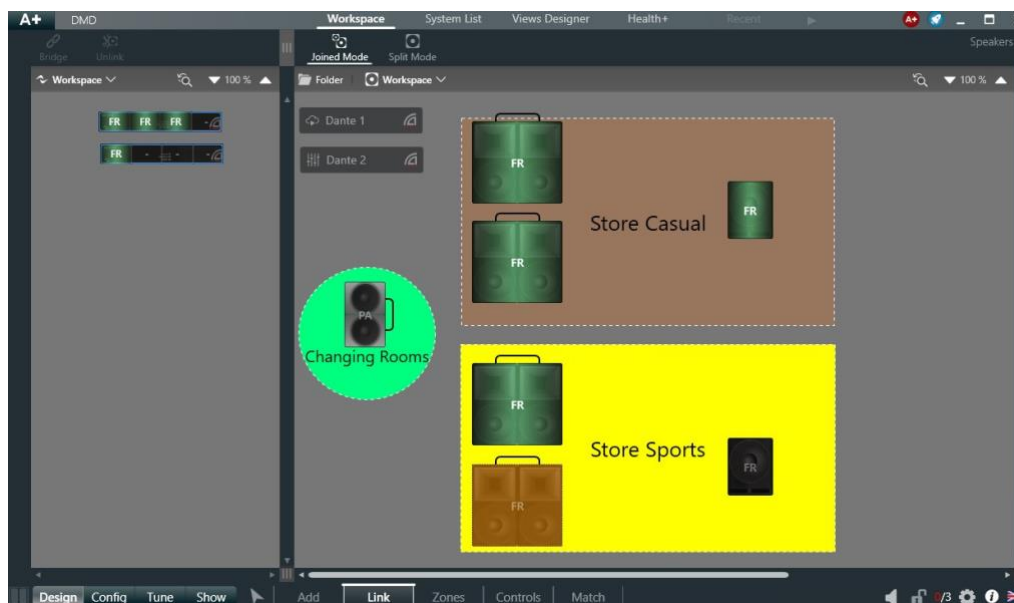


Adding shapes and colors

Step 5: Link

The next step is to link the speakers to their corresponding amplifier output channel.

To do this, click on **“Link”**, then click on the icon of the speaker - which will turn orange, indicating that the speaker is selected and will be assigned the amplifier channel that will be clicked next. Once the speaker is selected, click on the channel of the Mezzo Amplifier that you want to connect to the speaker. Both the amplifier’s channel and speaker will turn green once linked.

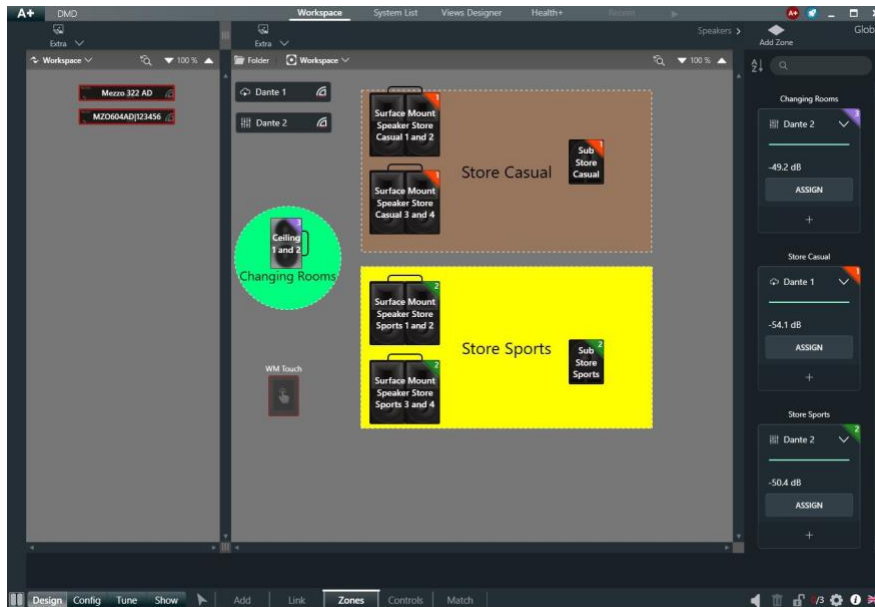


Linking speakers and amplifiers

To unlink the amplifier from the speakers, select one of the two and click the button **“Unlink”** in the top left.

Step 6: Add Zones

Organizing the speakers into Zones is essential to be able to control the System through the user interface. To open the Zones View, click on **“Zones”**, to create a new zone click **“Add Zone”**. In this case, we have to create 3 different zones: Store Casual, Store Sports, and Changing Rooms. To assign the speakers to the zones, click on **“Assign”** and select the Speakers and Sources that you want to assign to that specific zone. To complete the assignation process, click again on **“Assign”**. It’s also possible to link the speaker to the zone by clicking on the Amplifier’s channel which is linked to the speaker.



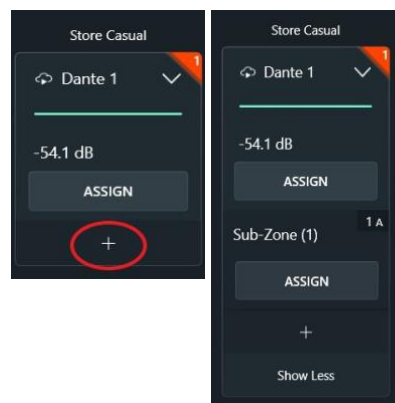
Adding Zones

When assigned, the speakers are marked in the upper right corner with the color related to their Zone. To remove a speaker from its Zone, click on **“Assign”** and select the assigned speaker that you need to remove.

Sub-Zones

It is also possible to create Sub-Zones that can control Level.

To do this, click on the **“+”** in the Zone within which you want to create a Sub-Zone. The newly created Sub-Zone can then be assigned to one or more speakers belonging to the Zone, by clicking on **“Assign”** and then on the speakers in the workspace.



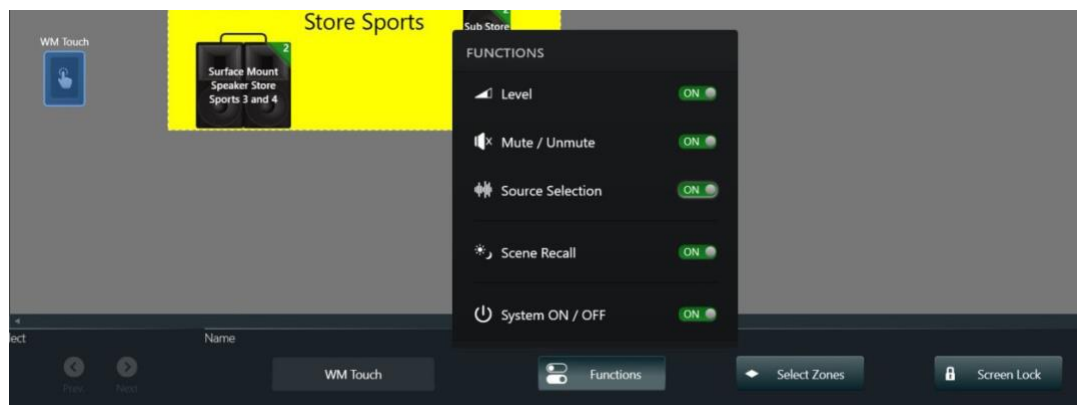
Adding Sub-Zones

Step 7: Controls

WM Touch Control

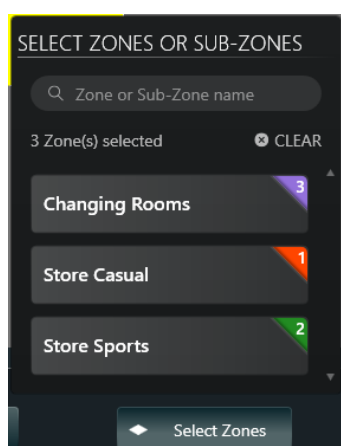
Clicking **“Controls”** on the top bar opens a list of controllers that can be added to the workspace. Click **“WM Touch”** to add a WM Touch. When the **“WM Touch”** object is selected, an operations menu appears at the bottom of the screen to configure the device.

Clicking on **“Functions”** opens a drop-down menu where is possible to select the functions that the WM Touch will be able to control, these are Level, Mute/Unmute, Source Selection, Scene Recall, and System ON/OFF.



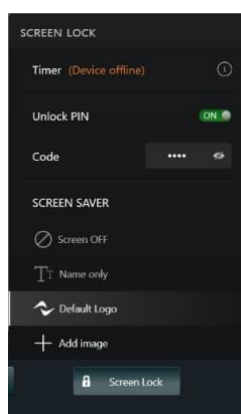
WM Touch functions

On **“Select Zones”**, click on the zones that the WM Touch will control, in this case, we have selected all 3 zones.



Selecting Zones

The section **“Screen Lock”** provides some options for configuring the screen lock: the sleep timer, an unlock pin (optional), and a screen saver, which can be text, the default Powersoft logo, or an imported image. It is possible to add multiple WM Touch, individually configuring functions and zones over which they may have control.



Screen Lock options

More information at: [How to setup and add WM Touch to your project - YouTube](#)

System Standby

System Standby is a quick and effective way to put the system in sleep mode, in order to save energy.

To set the System Standby in the controls screen, click on **“Other”**, and then on **“System Standby”**. The object will appear in the workspace; it is necessary to link it to a GPI port of one of the Amplifiers.

To do this, click on the System Standby Object and then on a GPI input of the Amplifier as shown in the figure below.



Linking the System Standby object to the amplifier's GPI

Now the System Standby is linked to the fourth GPI port of the MEZZO 604 AD. By connecting an open/closed relay contact to this port the user will be able to put the system in standby

Priority Input

It is possible to prioritize an amplifier's input so that it will be played by the system at any time by temporarily muting the other sources, without changing the zone parameters previously set. This function is useful, for example, for passing an advertisement or a voice alert that must be played by the whole system without having to manually change the source.

To set the priority input in the controls screen, click on **“Other”**, and then on **“Priority Input”**. The object **“Priority Input”** will appear in the workspace; it is necessary to link it to a GPI port of one of the Amplifiers. To do this, click on the Priority Input Object and then on a GPI input of the Amplifier as shown in the figure below.

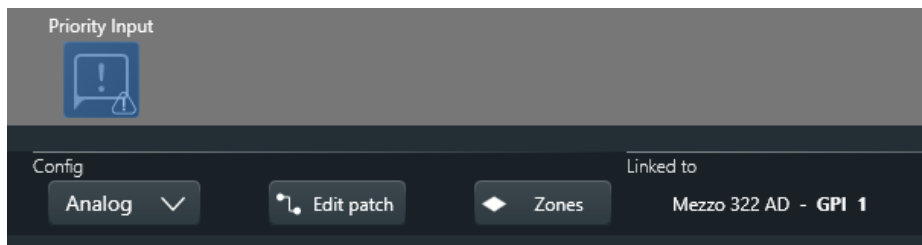


Linking the Priority Input object to the amplifier's GPI

Now the Priority Input is linked to the first GPI port of the MEZZO 322 AD.

Now it is necessary to configure the priority input (Dante, Analog, AES67, or AES3).

Then patch the source by clicking on **“Edit Patch”**, and clicking on **“Zones”** to select the zones in which you need to activate Priority Input, in this case, we select them all.



Configuring the Priority Input

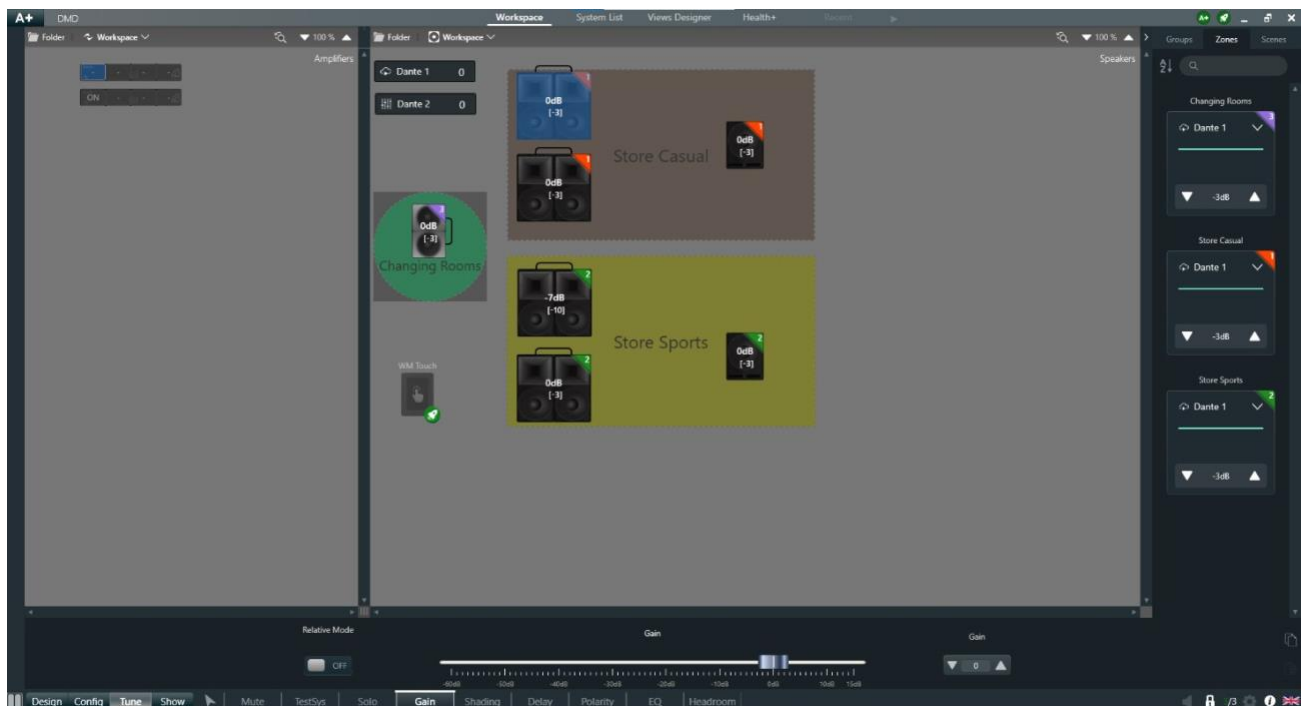
Scenes

An effective and quick way to manage the system is to save scenes that make recalling specific Level, EQ, Delay, and Mute. To create scenes in ArmoníaPlus, click on **“Tune”** and select the object in the workspace, then set the parameters.

As an example, let’s create 3 scenes: one called **“Global”** in which all the speakers play at the same volume taking the signal from the same source, one called **“Morning”**, with different sources for the two stores, and one called **“Evening”** with higher volumes and different sources.

For the first Scene (Global) we need to select the same Source for all the Zones.

To select the Source, click on **“Zones”** at the top right of the screen and select the Source **“Dante 1”** for all the Zones, then set the same level of -3dB.

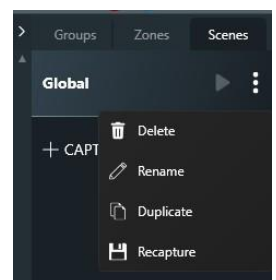


Selecting the Source on all Zones

To save this scene click on **“Capture Scene”** and assign the name **“Global”**. Now selecting the **“Global”** scene, the user will be able to recall this setting in order to play the same source at the same level in the entire system.

Clicking on the three points on the side of the scene will open a drop-down menu from which it will be possible to delete, rename, duplicate, and recapture the scene.

Then create the other two scenes (**“Morning”** and **“Evening”**) with different settings. It’s possible to create up to 10 different scenes.

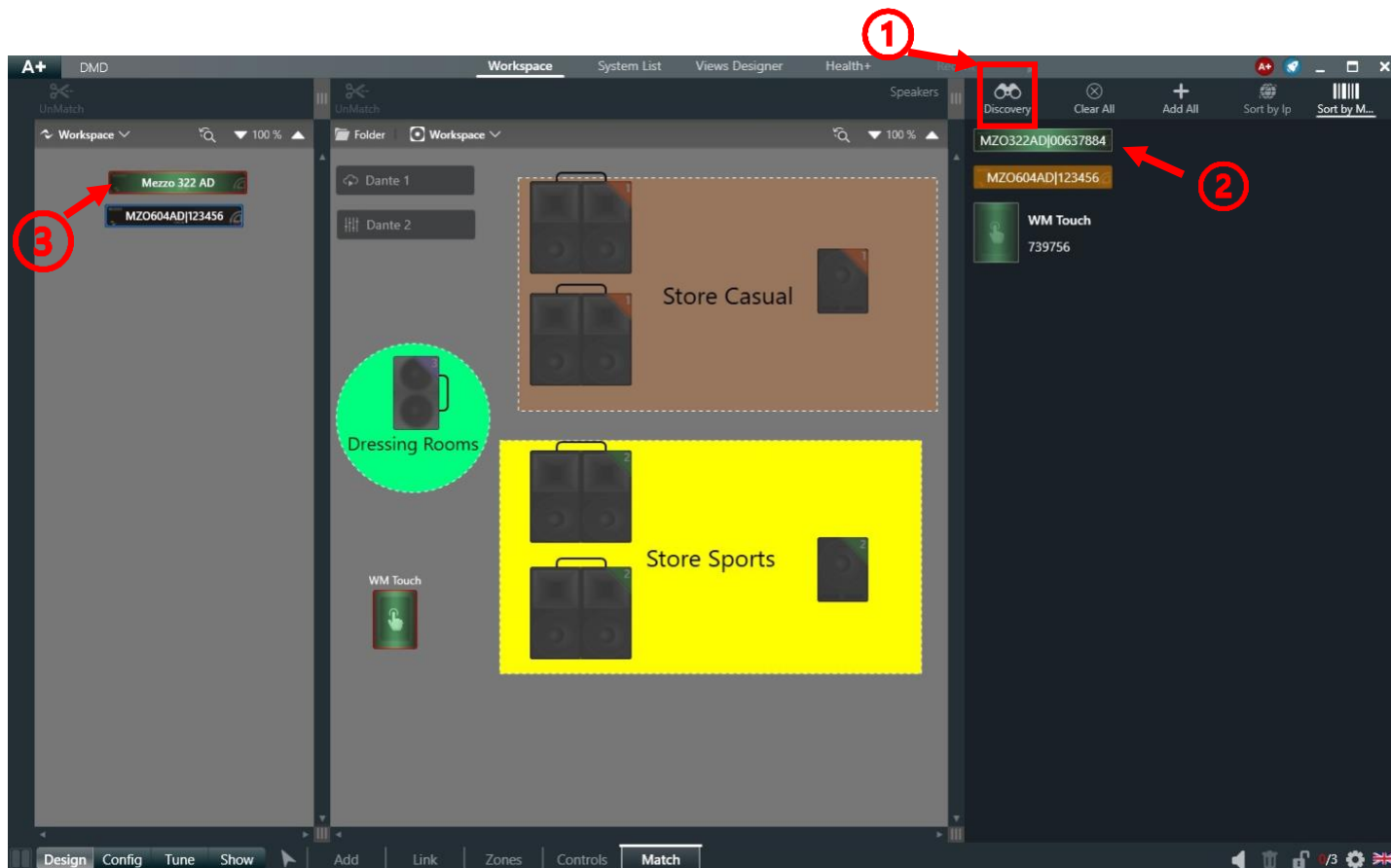


Another way to create and manage Scenes is through the Sys App, but to do it, is required to move the project to the cloud and access it from the app with the same account.

To do this, click on **“A+”** on the top corner of the screen and click on **“Move to Cloud”**.

Step 8: Match

Now it is necessary to match the virtual entities in ArmoníaPlus with the physical hardware in the network. Click on **“Match”** and then on **“Discovery”** to find the devices on the network. Once the system has found the devices, click on the Mezzo 322 AD, highlighted orange, and click on the virtual Mezzo 322 AD in the Workspace. The icons will turn green once are matched. Repeat the process also for the Mezzo 604 AD and the WM Touch.



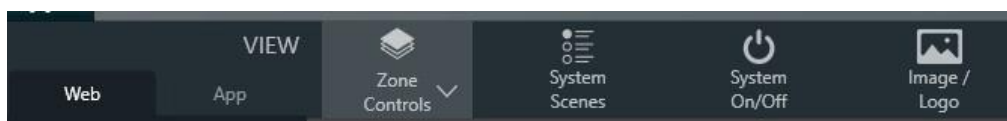
Matching the amplifiers

Step 9: Design Web and App Views

Web View

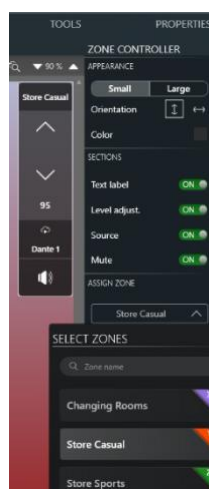
Click on **“Views Designer”** and then on **“NEW WEB APP”** to design the user interface.

In the top left bar you can select the items: Zone Controls, System Scenes, System On/Off, and Image/Logo.



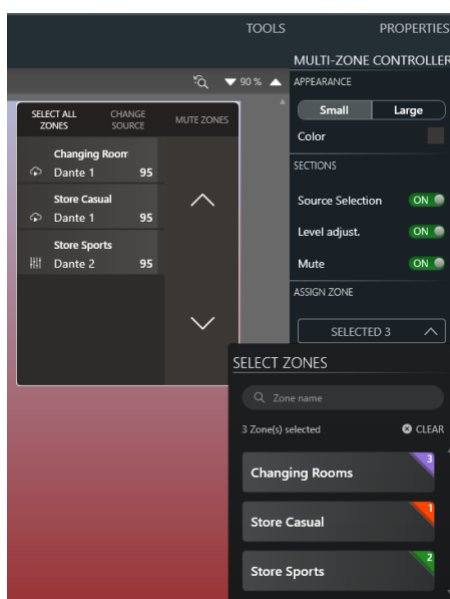
The Views Designer's top bar

On the right column, you can set the properties of the objects that are selected. Clicking on the background selects the properties of the background. It is possible to optimize the resolution for different devices, select a horizontal or vertical orientation, choose a color (even using a gradient), and import images.



Proprieties

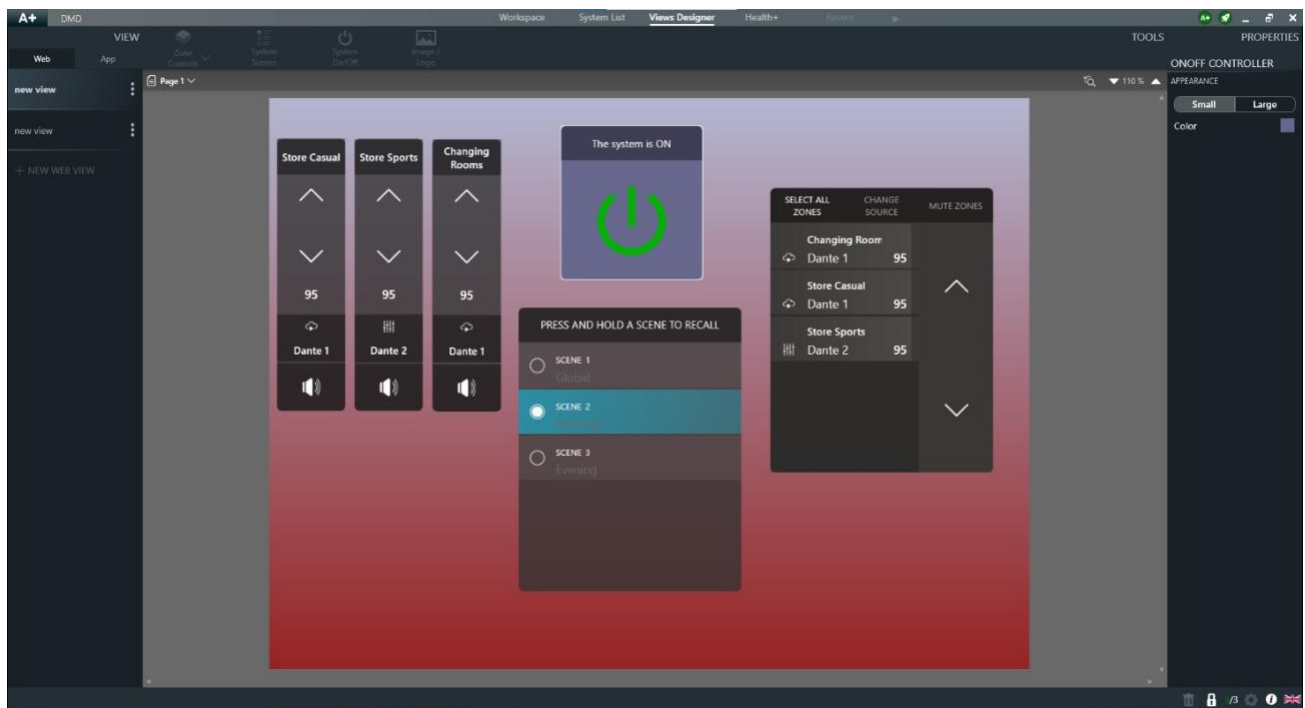
Clicking on Zone Controls makes it possible to control the zones individually by selecting **“Zone”**. Click 3 times on Zone to create 3 different controllers to assign each one to one single zone. Select the controller and manage the actions that can be performed using the controller. In this case, as shown in the image, all the sections are set to On, therefore it will be possible to view the name of the zone managed by the controller, adjust the level, select the source, and press mute.



Controller options

Clicking **“System Scenes”** will open the scenes’ controller, where you can select a predefined scene that can be recalled with a simple press and hold gesture from the control **“PRESS AND HOLD A SCENE TO RECALL”** on the Web App.

Click on **“System On-Off”** to insert the System On/Off controller to turn On/Off the whole system by pressing and holding. After adding all the controls, the Web View will look like this:



Finalized Web View example

App View

To design the App View, click on **“APP”** (top left of the screen), and then on **“NEW APP VIEW”**.

In the properties section on the right of the screen, it is possible to activate the View Functions that can be used within the app.

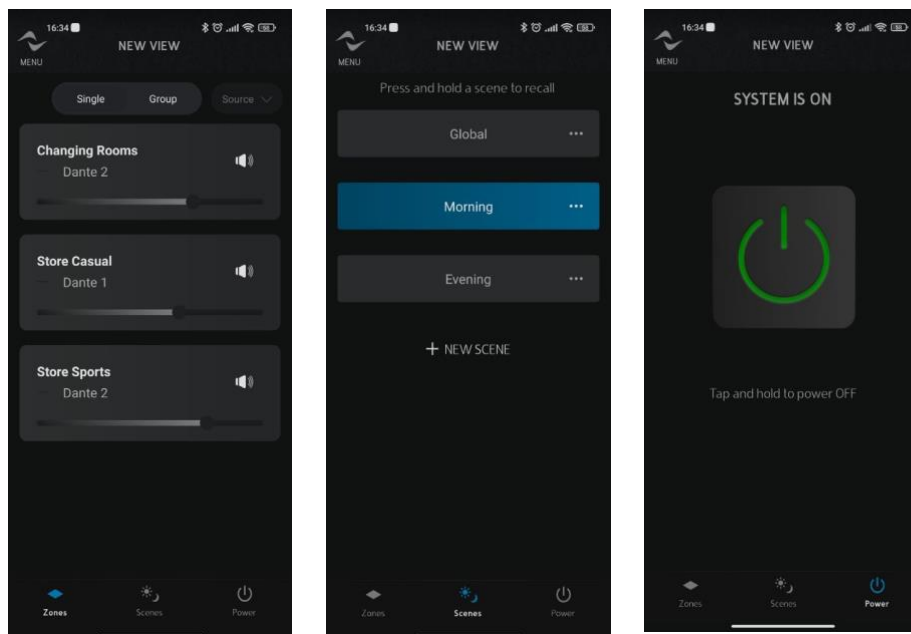
After activating the Zones Function select all the zones that you need to control through the app, also activate **“System Scenes”** to select scenes, and **“Power”** to switch the system on and off.

Again, you can set a passcode to access the app’s functions.

The app is available for free for both Android and iOS and can be downloaded at the following links:




Once the app is installed and the system is running, make sure your smartphone is connected to the same network as the system.



Finalized App View examples

Step 10: Running the System

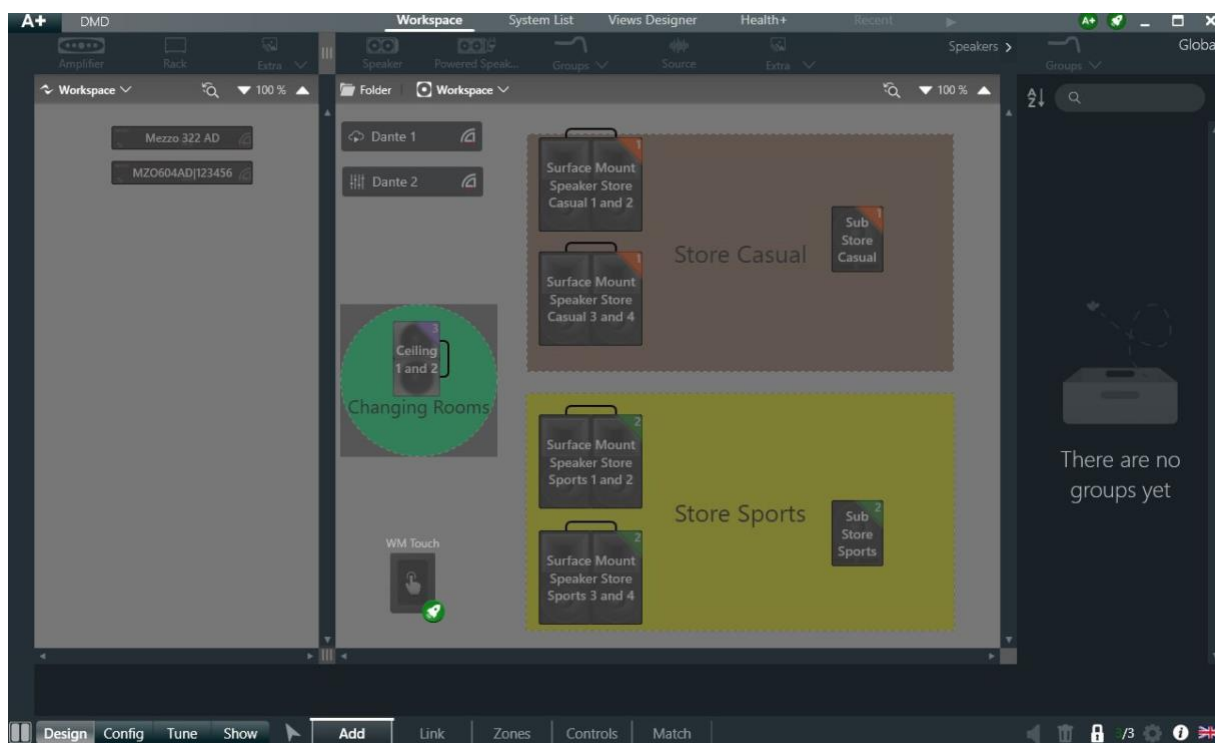
Once the project design is finished and all the devices are powered and connected to the network, click on the button in the top right of the screen  to run the system.



Running System loading window

After a few seconds, the system will be ready to run.

All zones must be assigned to at least one speaker and one source, otherwise, the system will report an error.



Running System

Useful Links

- WM Touch: [WM Touch - Powersoft](#)
- WMP Select: [WMP - Powersoft](#)
- Mezzo Series: [Mezzo Series - Powersoft](#)
- FAQs: [FAQs - Powersoft](#)



DRIVING HUMAN AUDIO EXPERIENCE

POWERSOFT S.P.A.

Via E. Conti, 5 - Scandicci (FI) 50018 - Italy

Technical Support: <https://www.powersoft.com/en/my-powersoft/support-form?type=technicalsupport>

Product Repair: <https://www.powersoft.com/en/my-powersoft/support-form?type=productrepair>

Commercial Enquiries: <https://www.powersoft.com/en/my-powersoft/support-form?type=commercialenquiries>

+39 055 73 50 230

+39 055 73 56 235

[POWERSOFT.COM](https://www.powersoft.com)