

ZimaBoard / Blade Logitech Media Server Install.

First the Why.

Way back in the past a company called Slim Devices created a network Media player. It was intended for the home audio market and could connect over wired or Wireless to a server and feed music to a HiFi. It had Phono or Digital out but no speakers and was not really intended to be used as anything other than a source connect to a hifi.

It had a Vacuum Fluorescent display that could show track name, artist name, time, and so on as well as various visualisation.

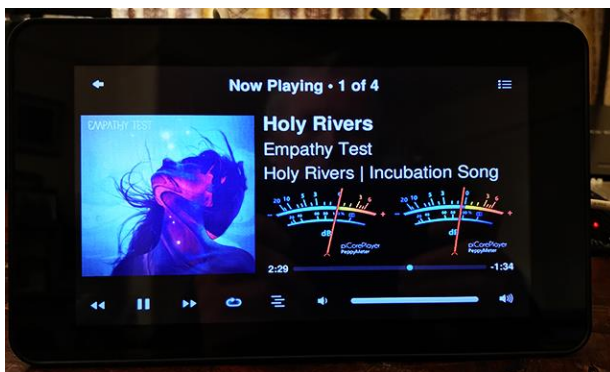


Logitech later purchased the company and expended the line added in different models to make the units more portable, in addition to the HiFi version they made a High-End Audiophile version, and some portable ones such as the mono Radio (below) and stereo Boom. They also had a touch screen version, aptly name the Touch, and remote / Hi-Fi set called the Duet.

After a few different releases Logitech decided that the increasing use of smart phones mean that these types of devices were becoming irrelevant and discontinued the entire line about 2014.



At this point you may be thinking so what? Well one of the key features of the original system was the SlimServer (later re-named to the Logitech Media Server and usually referred to as LMS). Slim Devices were big fans of Open Source and SlimServer (and the Logitech Media server) was open sourced, and anyone could use it. Of course, you really needed the Squeezebox hardware to get the best from them, but that soon changed.



Fast forward today and while the Squeezebox line is long gone, but the server software is still well maintained, and a software player currently called SqueezeLite/ SqueezePlay has been ported to many devices.

It's very easy to use cheap devices like the Raspberry Pi (pretty much any Pi that has a headphone socket, although you may want a later one if you want to use a display and Wi-Fi

and fitting a DAC gives much better sound output), Chromecasts, Simple tablet type device like the O2 Joggler, ESP32 based boards, or even an old Android Tablet.

You can even emulate a Squeezebox Touch using a Raspberry Pi and the Raspberry Pi Touch Screen, and some talented people have gone a bit further fitting it into a retro housing, adding analog dials to control volume as well as basic track selection.



Multiple players can be combined to create a muti room sound system with advanced features, such as synchronising all the music in a setup, or each system playing its own tracks.

It supports creation and playing of playlist, shuffling music all night for a party, full web management interface and pretty much anything you need in a music system. There is also good support for streaming radio and Alexa integration.

One of the good things about this setup is it is also incredibly lightweight, on a Quad Core ZimaBlade the load when feeding one Squeezebox is a usually less than half a Mb of RAM usage, and maybe 1% extra CPU load.

For more details on the LMS, setting up players search on Squeezelite, or PiCore Player. Some suitable starting links are here:

https://wiki.slimdevices.com/index.php/Main_Page.html

<https://www.picoreplayer.org/>

<https://github.com/ralph-irving/squeezeplay>

Personally, the author has Squeezebox devices in the house so wishes to keep them working.

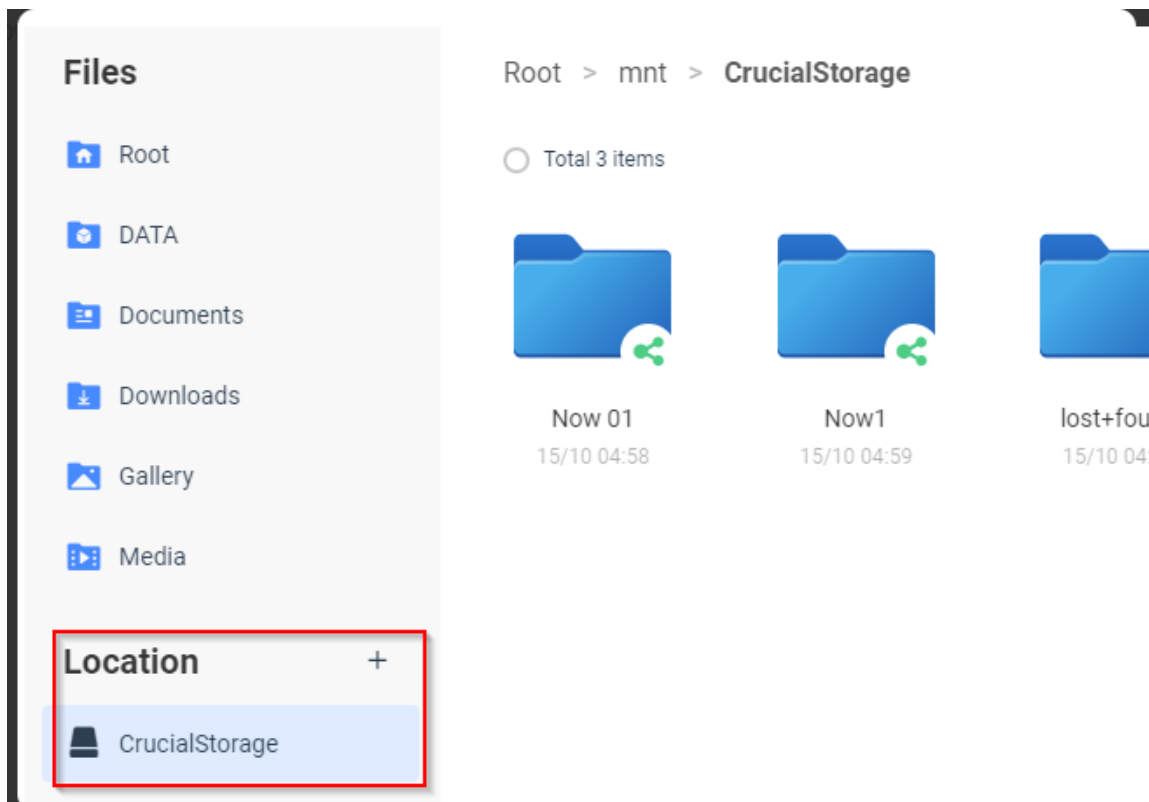
Docker Container Install and Setup

Prerequisites.

Please bear in mind that if you change defaults you may need to change some of these commands.

This tutorial assumes the drives are visible to the ZimaBoard/Blade. If they are not, you need to do some permissions or network troubleshooting. Please remember Unix is much more restrictive about permissions than Windows.

If you have your files on local storage, you should be able to see the drive in Files, my second SSD drive is called CrucialStorage. I have two folders on to test. Yes, it is Now Thats What I Call Music.



If you have your files on a network share you need to map that share first in the **Files** Application

Connect network storage ✕

Server address

! Support Samba address e.g. smb://192.168.1.1

Connect as guest

Name

Password

Connect

This results in my two media sources showing up as two drives, Note the **efi** location is the ZimaBoards eMMC as I'm using and booting from an SSD in my testing.

Files

- 🏠 Root
- ⚙️ DATA
- 📄 Documents
- ⬇️ Downloads
- 🖼️ Gallery
- 🎬 Media

Location +

- 💾 CrucialStorage
- 💾 efi
- 💻 192.168.2.40 🏠

Root > mnt > **192.168.2.40**

○ Total 3 items

IPC\$

21/10 06:44

print\$

10/03 06:45

sambashare

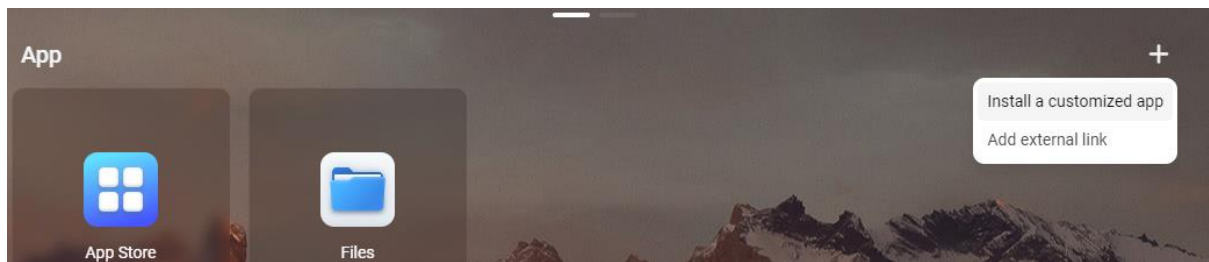
30/03/2022 06:13

Setting up the Docker on ZimaBlade

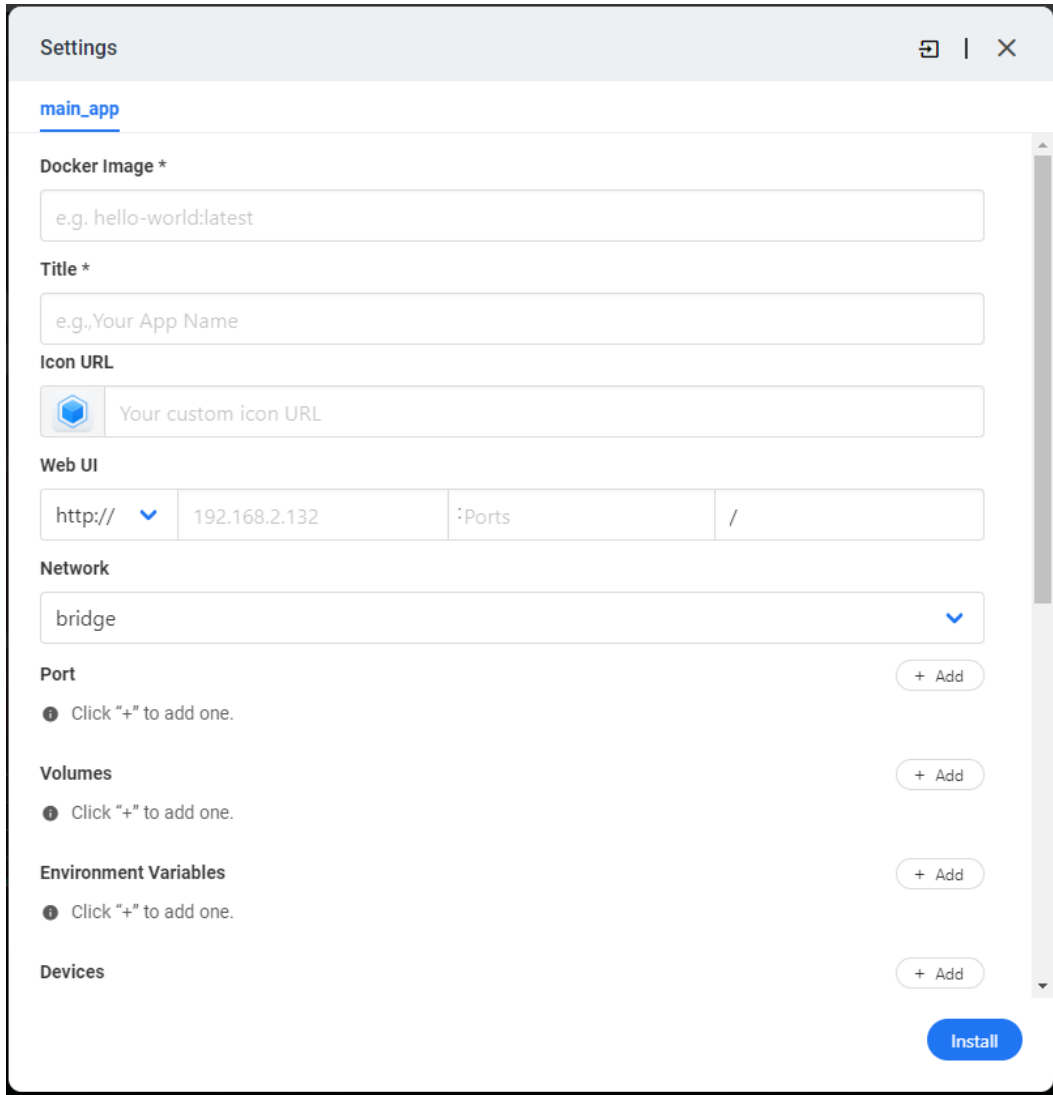
We then need to bring the Docker container down to the unit with this command.

```
docker pull lmscommunity/logitechmediaserver
```

Next, we need to tell CasaOS what it is and where it is. We do this as a **Custom App** so let's click on the + and choose to add a custom app.



The following window will appear.



For my install these are my settings. Docker gave my container the name **optimistic_hrant** yours will be different, or you can set your own name.

Docker Image	lmscommunity/logitechmediaserver
Title	LogitechMediaServer
Icon URL	https://icon.casaos.io/main/all/logitechmediaserver.png You can choose to import the LMS icon or keep a default one.
Web UI	http://192.168.2.132 :9000 /
Network	Host

The Network IP will be the IP of your ZimaBoard/Blade unless you are doing advanced networking to the containers.

IMPORTANT: DO NOT TRY AND CHANGE THE PORT FROM 9000. The ports that the hardware / software needs are hard coded into the Squeezeboxes / PiCorePlayer. Changing them will probably cause you issues.

LMS usually need the following ports open, if you have a restrictive network, you may need to open these up on your internal firewall settings:

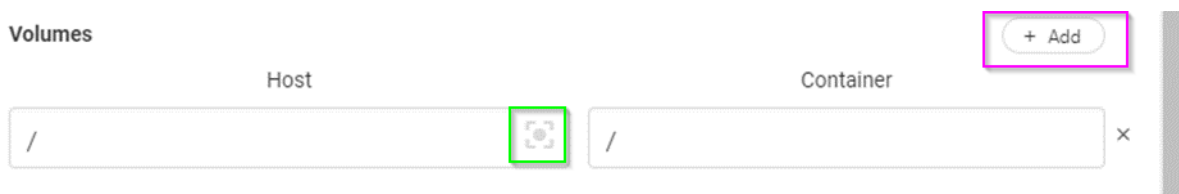
- 9000 TCP: Web GUI
- 9090 TCP: CLI (for example used by Android app Squeezer)
- 3483 TCP: Physical Squeezebox

The next set of settings refer to where you media is stored. You could keep it on the eMMC (but that is not a lot of space for music.) You could have them on a locally attached Hard Drive, or you could have them on a network share (either on or off the ZimaBoard/Blade. I'll cover the options.

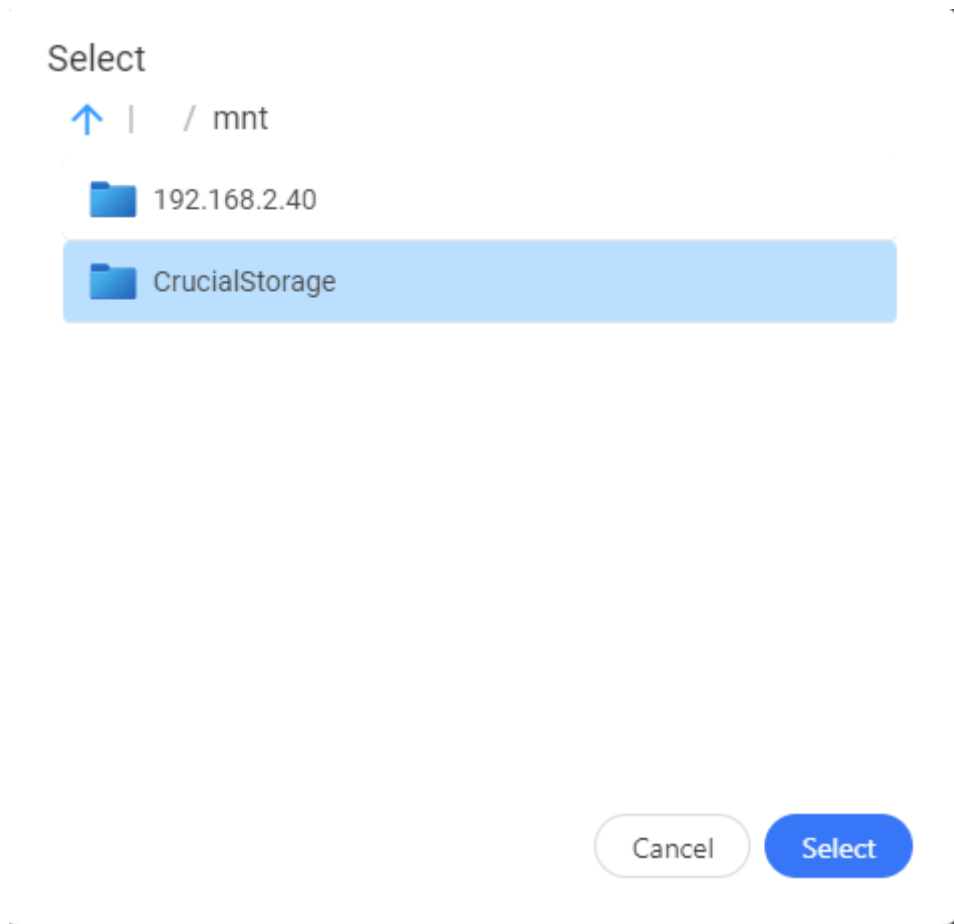
If you did not follow the prior steps, you may not see these options, you must be able to see the folder in the Files Application.

Your values will almost certainly be different to mine in this step.

Expand the **VOLUMES** box and click on the **ADD** icon (red Box) and then the Square logo (Green box) to add new music sources.

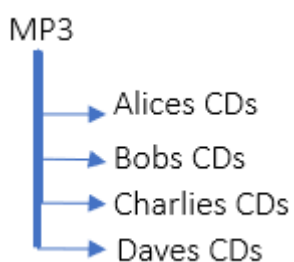


Navigate to where your music is (my sources are mapped to /mnt/xxxx on the OS and your will probably be too) and select the source.



Here you can see the two sources but I'm selecting my SSD storage. I'm also taking the TOP level so all music files below will be indexed and available.

OPTIONAL.



Depending on how your music is stored you may wish to mount music in different ways. For example - lets say I have four folders under a top level folder, one for each member of the family. This may be Alices CD's, Bobs CD's Charlies CD's and Daves CD's.

I could map the folder to the top level MP3 folder, or to the individuals folder. However, it's better to map the top level.

Repeat this for each music source, in my set up I have just mapped the top level folder on each device.

Volumes

+ Add

Host	Container
<input type="text" value="/mnt/CrucialStorage"/>	<input type="text" value="/music"/>
<input type="text" value="/mnt/192.168.2.40/sambashare"/>	<input type="text" value="/NetworkMusic"/>

Enter a name you wish to see within the application in the **Container** box, NOTE it cannot be blank.. Here I've chose **Music** for the files on the 2nd SSD, and **NetworkMusic** for my files on the network share. It does not matter what you call them, but you should label them in a way that makes sense to you.

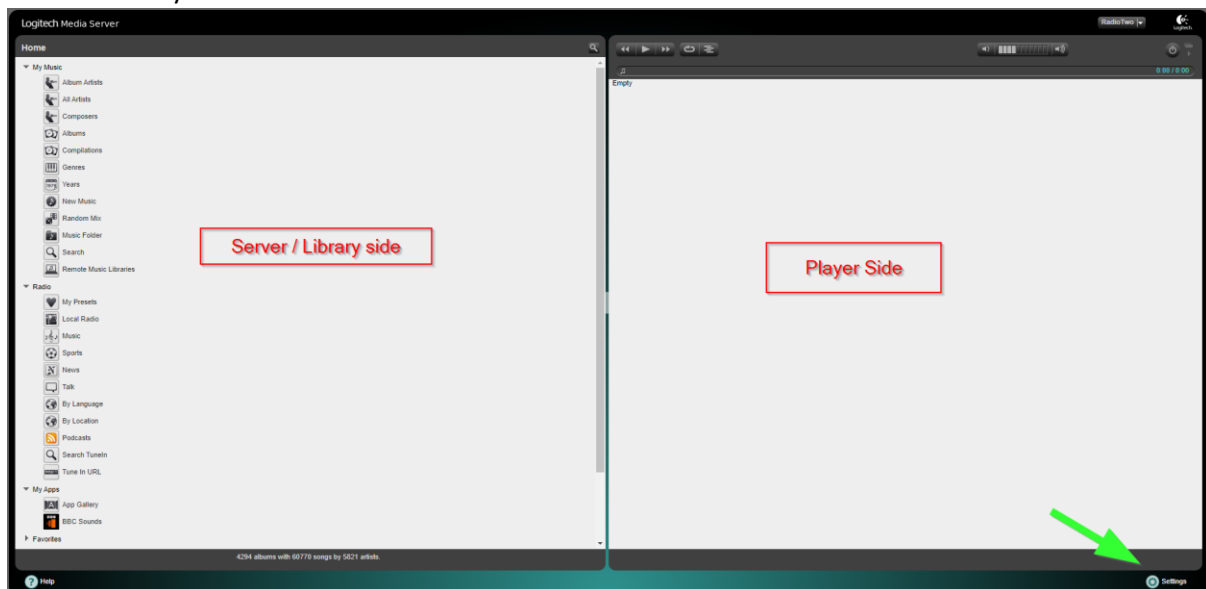
The rest of the entries on the setup page can be left at their defaults. |

This concludes the setup of the container.

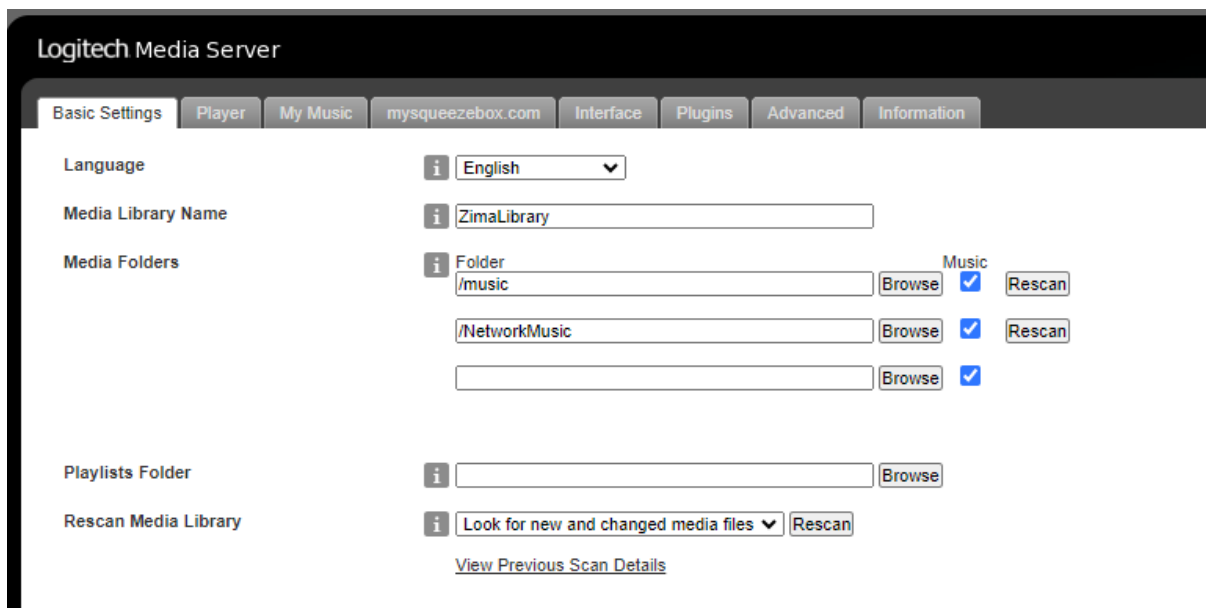
Logitech Media Server Install and Setup

Clicking the newly created Icon should start the container if it is not running. It may take a second for the server UI to be seen, and sometimes you may need to reload the page if it wasn't quite ready.

You will see the interface like this below. The left hand side is dedicated to the server and shows all your music and apps. The right hand side shows the status of your selected player. These will be covered briefly later.



To start with click Settings in the bottom right corner as shown by the Arrow. This opens the settings page in a new window.

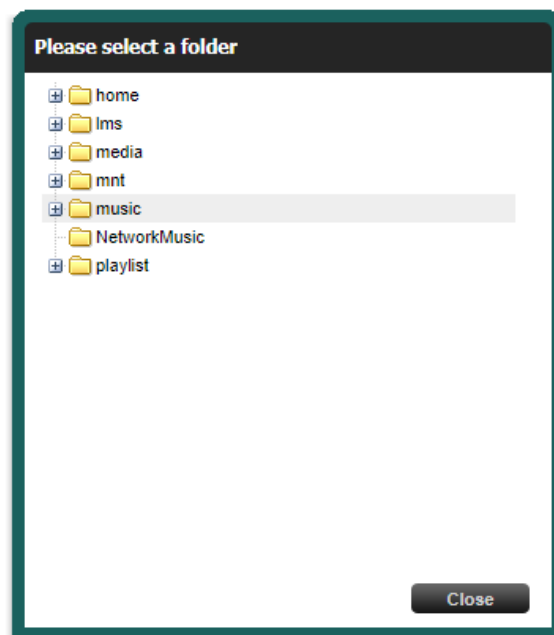


There are only a few settings needed to start the server scanning for music.

If English is not your preferred language, then the language can be changed in this window.

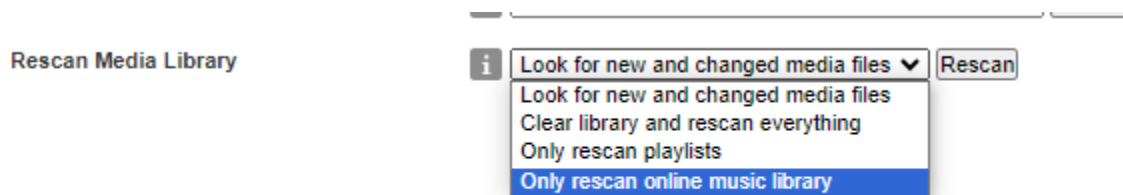
If this is your only LMS server the name is not relevant, but if you have multiple LMS server then give the sever a name that means something to you. Mines called **ZimaLibrary** so I can tell it apart from my existing Server. My other server is called Home Music Collection.

The Media Folders area tells your server where the music files live. Click on the BROWSE button and select the folder. You will recall I have two folders; in the next image I have selected Music. Note you can only have three sources, which may affect your setup choice in the prior steps. This is why I mapped the top-level folder of each source.



Remember to click **APPLY** in the bottom right corner to save changes.

If you add new files to your library later, you can click the RESCAN button to right of the individual libraries to rescan the single source OR you can choose to re-scan the library in the bottom option.



Once completed unfold the Rescan options. As this is the first time you have scanned the files select the "Clear library and rescan everything" option.

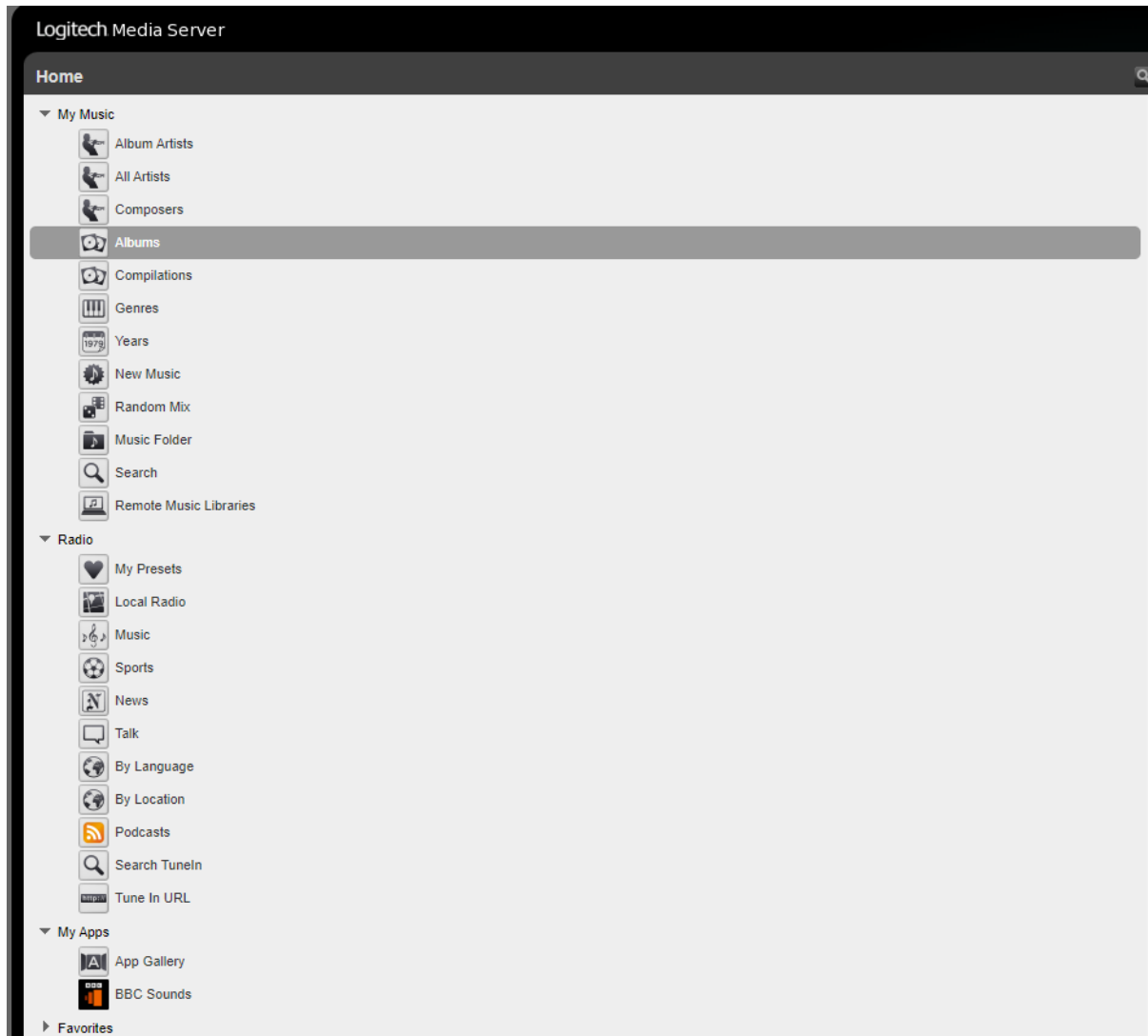
The system will scan your music files.

Basic Overview of the Web Interface.

First remember this can only read the information stored in the tags on your MP3's. If your tags are wrong the data show will be wrong.

Left hand pane – Server Side

The left hand side is your library, Here you can browse contents, or search.



For example, Clicking All Artist presents me with a sub menu of Artists with an alphabetical jump list at the top. This shows some of the MP3 tagging problem, I have two entries called **A Flock Of Seagulls** and **A Flock of Seagulls**. The difference is the o is capitalised on one and not in the other and so the server treats them as separate groups. I the same way I have **a-ha**, **A-HA** and **A-Ha**. Again, different capitalisation affects your results.



From There clicking an Artis bring up their albums, and I can use the icons on the right to favourite (Heart) , play (Play icon) , add to current playlist (Plus) or expand the data for more details (M for More) .. Again, what is in the more details may depend on what is stored in your Mp3 Tags.



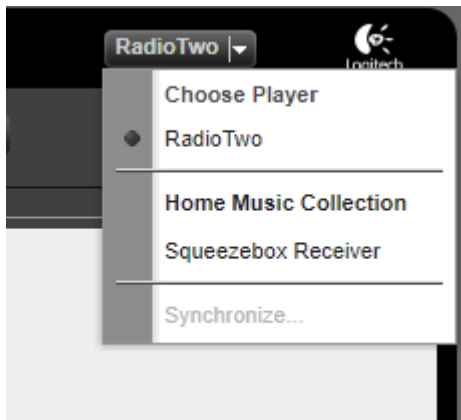
Choosing to play or add to the play list will start the song playing and we can see this in the right side of the player.

Options options such as Radio, My Apps and Extras work in a similar way.

Right hand pane – Player Side

What you can see here may be affected by the hardware you have. I have Logitech Squeezeboxes so have full remote control. SqueezePlay devices should also have full remote control. Options such as volume and power on/off may not be available, or work on all devices.

The top interface is relatively simple. On the top Right is the player selection, you can control multiple players from one web interface, and this selects which player you are controlling.

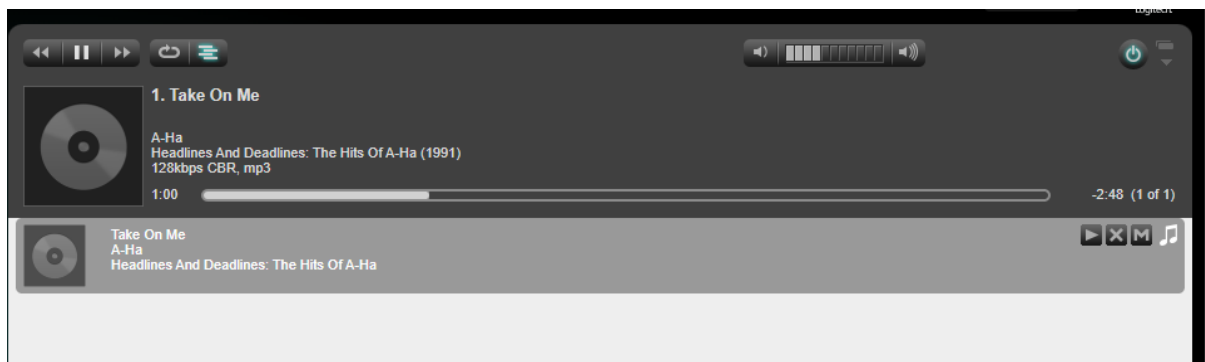


Here you can see I'm controlling a device called **RadioTwo**, I have **RadioOne** too, its not the most interesting naming convention. I can also select **SqueezeBox Receiver** which is another player on my network

Note Home Music Collection is my other library, the **Squeezebox Receiver** is under that entry as it is currently set to use that the library. You may not see this difference if you only have one library or player.

If all players are on the same library you can use synchronise to play the same music from all devices.

Next are the playback controls on the left, volume in the centre(ish) and power to the right. When a track is played it will appear in the window along with its timing details. If you have Cover Art this will also be displayed



This covers the very basics. For more details and advanced used please refer to the Logitech Squeezebox server Support wiki and forums.

https://wiki.slimdevices.com/index.php/Category_Beginners_Guide_Pages.html

<https://forums.slimdevices.com/>