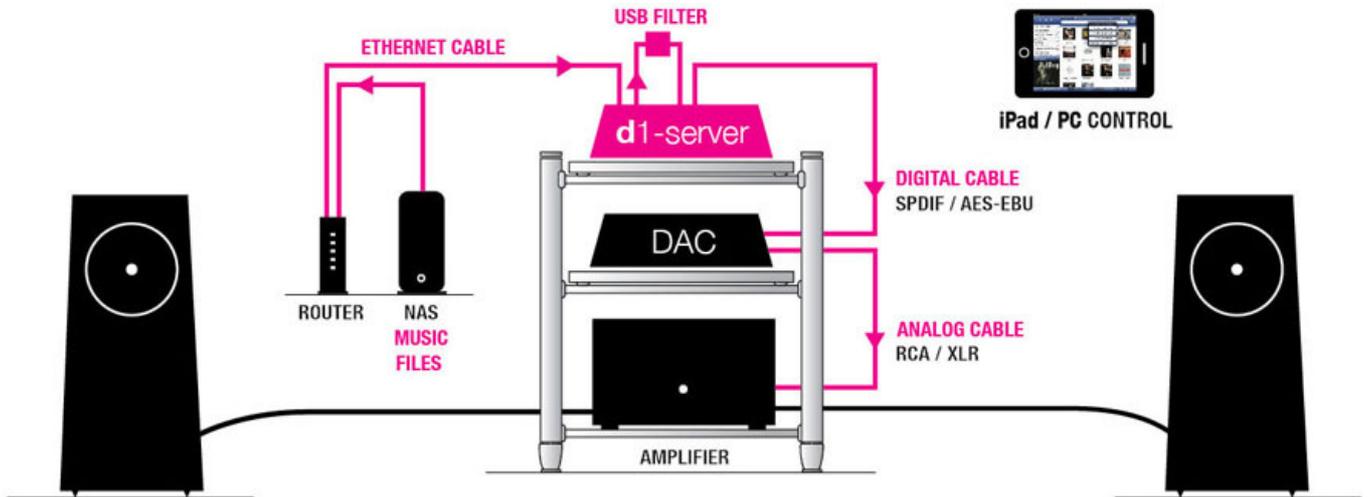




TOTALDAC d1-server User's Guide

2017 December 5th

Typical system



A system based on the d1-server is typically composed of:

1. An Ethernet/Wifi router
2. A NAS (ethernet storage disk) or a USB disk
3. A TotalDAC d1-server with its USB cable
4. A remote to select the music, an Ipad for example
5. Then a Hifi system with a DAC, a power amplifier and speakers

The music files (for MPD)

Many music file formats are supported :

- .dsf (DSD)
- .flac
- .wav
- .aiff (put the same information in “artist” and “album artist”)
- .ALAC Apple Lossless
- .AAC (lossy)
- .ogg (lossy)
- .mp3 (lossy)

Most formats can contain tags. Tags are informations integrated in the music files such as album name, track number, artist... and sometimes a picture of the CD album. They are usually compatible with all music players (in computers, streamers or anything else). Wav is not recommended because they don't contain tags.

DBpoweramp or Exact Audio Copy are possible Windows applications to rip CDs to .flac.

The Ipad Soundirok application can use the Folder.jpg album pictures .

Take care, folder.jpg is different from Folder.jpg , you can choose the exact case sensitive spelling in the Ipad application Soundirok.

The music files are not stored inside the d1-server, they are stored externally.

They can be stored in a NAS (ethernet disk) or in a USB stick or in a USB disk.

Advise:

It is recommended to add a picture of the album cover named “Folder.jpg” in each album directory.

Many CD ripping softwares and audio files vendors like Qobuz do that automatically even if the “Folder.jpg” file can be a hidden file.

Using a NAS for the music storage

A NAS is a storage memory which is connected to the ethernet network (using a RJ45 cable). It is now very commonly used to store music. So it is visible by all computers and music servers connected on the same network. A NAS works exactly like a computer which shares a folder on the local network. The files can be read or new files can be added by any computer connected to this local network.

To be detected by the application MPD (Soundirok) the NAS MUST be named **totaldac-nas**

When using a NAS for UPNP or Roon no specific server name has to be given.

To change this you must enter in the NAS configuration page and fill “device name” or “server name”. Then no IP address has to be entered anywhere, it is fully automatic.

To be detected by the application MPD and LMS a shared folder MUST be created in the NAS with the name **music-nas**

When using a NAS for UPNP or Roon no specific directory name has to be given.

The shared folder must be compatible with Windows file sharing (also called SMB or samba or CIFS). This is the most common folder sharing type, usually activated by default in a NAS.

There must be no password to access the NAS, just a guest account with read and write possibility and NO PASSWORD. With a Synology NAS leave the default password for the guest account, it corresponds to “no password” in reality.

To add music on the NAS you can connect a computer to the music network (using an ethernet cable between the computer and the router). The computer will see the shared directory and then you can copy more music files in it.

For example from a Windows computer you can access the NAS typing **\\totaldac-nas\music-nas** in the file explorer.

Note: Windows can display \\TOTALDAC-NAS because Windows is not case sensitive.

Whenever you are not sure if the NAS is really working you can check using a computer on the network. If the computer can see it the d1-server on the same network can see it.

The NAS from Synology and Qnap have been tested with success with the d1-server, there are recommended NAS.

Note: If you want to use several NAS to increase the total memory capacity the second NAS must be named **totaldac-nas2** and the third NAS must be named **totaldac-nas3**.

Using a USB stick for the music storage

It is also possible to use a USB stick (formatted FAT32 or exFAT or NTFS or linux) for the music storage. In this case the files are seen locally by the d1-server only. To add music on a USB stick you must unplug it from the d1-server and plug it into a computer.

You can also use a hard disk drive but please use a hard disk with its own power adapter.

When using a USB dongle or USB disk for the first time it is necessary to plug it when the d1-server is ON and when the d1-server has booted.

Note: You can use several storage types at the same time, a NAS and a USB dongle for example.

The Totaldac d1-server

The Totaldac d1-server is composed of a Totaldac reclocker and an embedded small computer.

When using a NAS as a music storage and AES-EBU link to the DAC the d1-server connections looks like this:



A USB cable/filter is used to connect the reclocker USB input to the embedded computer bottom USB connector.

The microSD card is also visible, it can be changed to upgrade the embedded computer software.

First power ON

This will be your first system power ON.

Network installation

First plug and switch ON the NAS (configured with the right name and shared directory name).

Wait a few minutes, a NAS is a real mini computer which takes time to boot, it can take 5 minutes.

Connect a computer on this network and copy some music files in the NAS.

Totaldac d1-server installation

Select the USB input on the d1-server using the remote control. Connect the d1-server with a loop USB cable/filter and an ethernet cable to the router and switch ON the d1-server power supply.

If you use a USB dongle or disc plug it a few minutes after the d1-server is switched ON so it is detected for the first time.

Ipad

The Ipad is the most common remote used to control the d1-server and choose the music. The Totaldac infra red remote control is still useful to select the source and adjust the volume.

A powerful Ipad is recommended. 64GB of flash is enough.

Soundirok application (to control MPD player)

Buy and install the application called "Soundirok" on the Apple Store.

Connect the Ipad to the router used for the hifi system.

Switch ON the d1-server power supply (equiped with its loop USB cable), let it boot, it takes a few minutes.

If you use a USB dongle or disc plug it a few minutes after the d1-server is switched ON so it is detected for the first time.

Launch Soundirok application on the Ipad. This application will be used to play files from a NAS or a USB disk. Then fill the Name and IP Address like below:

Soundirok

To get started add your first device. More settings like cover filenames can be adjusted in Soundiroks settings later.

Generic MPD	<input checked="" type="checkbox"/>
AudioPhile Linux	
Bryston BDP-1/2	
Moode	
Volumio 2	

Name	Totaldac server
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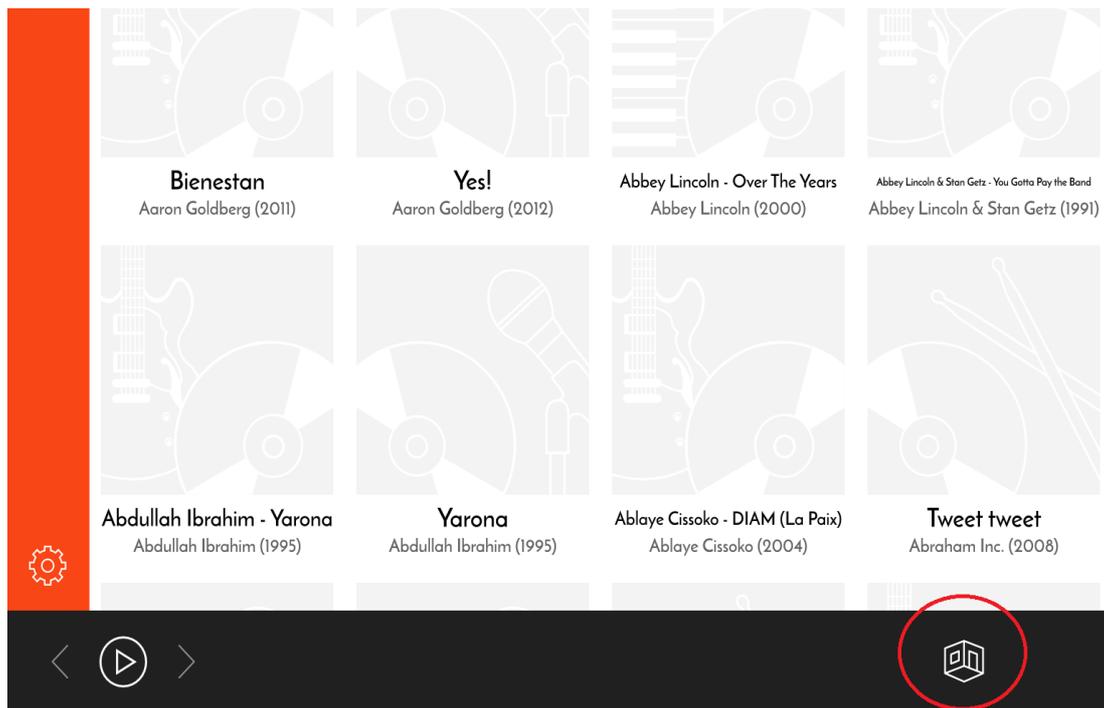
IP Address	Cubox.local.
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Get started

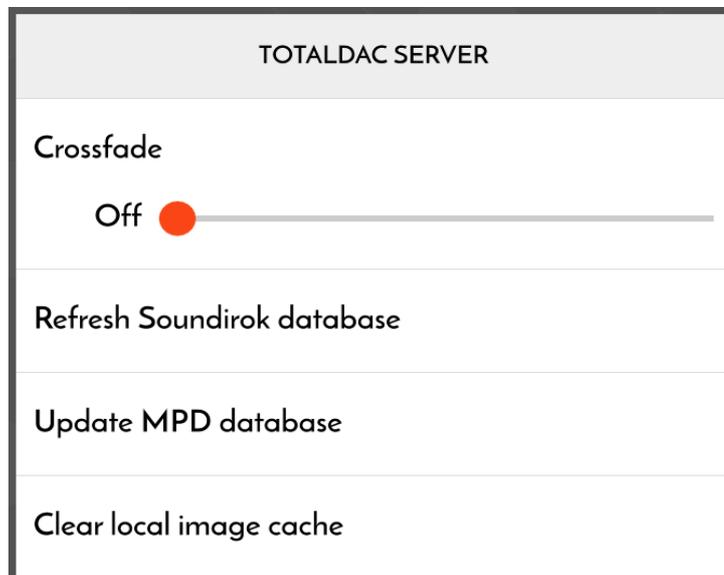
When the loading is finished clic the “setting” button, then choose “Devices” and fill “Collection URL” and “Cover file Name” like below:

SETTINGS	<	TOTALDAC SERVER	×
 INTERFACE	Name	Totaldac server	
 LIBRARY	IP Address	Cubox.local.	
 DEVICES	Port	6600	
 INTELLIGENT SETS	Password		
 COLLECTIONS	Enable Volume Control	<input type="checkbox"/>	
 FANART.TV	If you've setup MPD in combination with a http streaming service Soundirok can directly play this stream.		
 ICLOUD			
 ABOUT	Playback Mode	<input type="checkbox"/>	
MPD is not able to deliver cover images. If your music collections is shared over http Soundirok can load covers and artist thumbnails from there.			
Collection URL		http://cubox.local:80/	
Cover Filename		Folder.jpg	
Artist Thumb Filename		thumb.jpg	
Booklet Filename		booklet.pdf	
If your collection is not directly shared over http then you can use the script available from http://www.kvibes.de/soundirok/ to access cover images.			
Cover Script URL		http://10.0.1.10/coverart.php	

When the loading is finished press on the button shown in a red circle:



Then push "Update MPD database"



Let the software read you music library, it can take 10 minutes or more, then you can play your music!

RoonReady

RoonReady is the ability to receive the audio stream from the software Roon running in another computer in the local network.

So Roon is installed in a computer, it can be controlled by Roon Remote application, for example on an Ipad and the audio stream is received by the Totaldac server.

Roon can also be used to listen to **Tidal**.

When using Roon on the computer, just enable the auto-detected RoonReady device called 'd1-server' in Roon interface. Leave the setting corresponding to the RoonReady device by default (resync delay '0ms', max sample rate 'disabled', max bits per sample 'disabled').

UPNP/DLNA

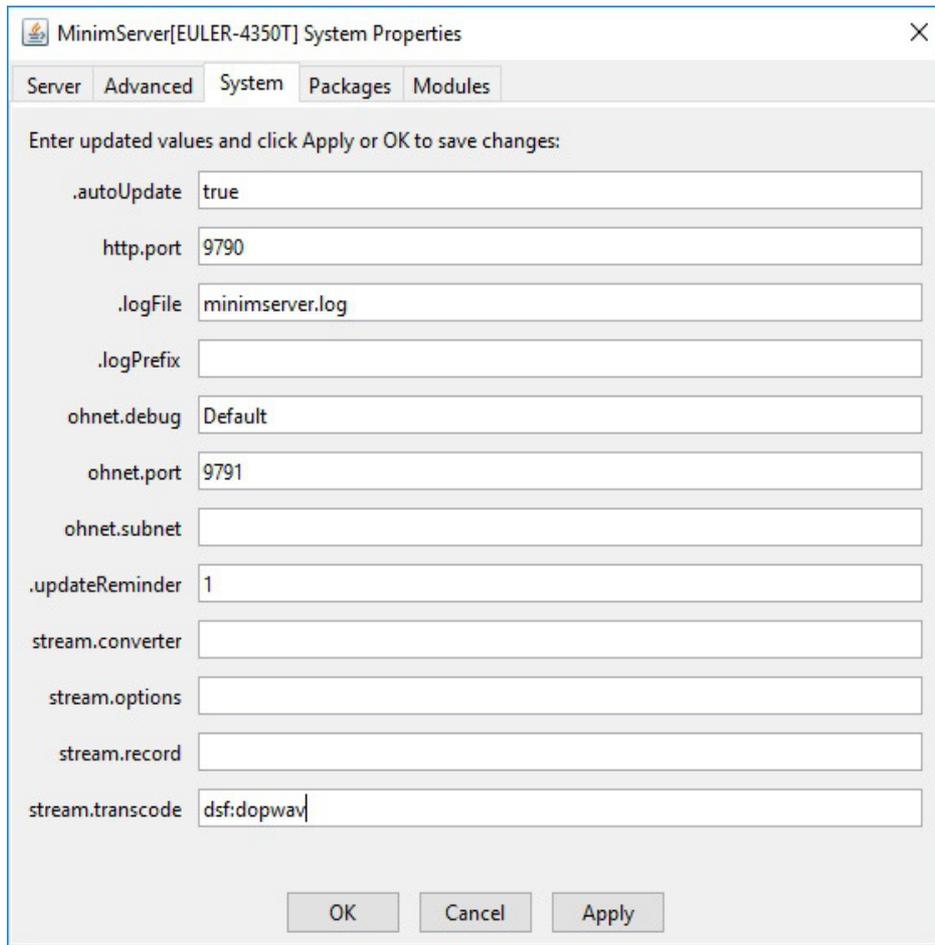
UPNP/DLNA is a standard which allows to send audio to a network device. So the d1-server can be a UPNP audio receiver. A software running in a computer or in a NAS can send the music files.

For example Jriver can send the audio files via UPNP and Jremote can be use on the Ipad as a remote control.

Applications like Mconnect Player HD on Ipad can control the music. Mconnect can also be use to stream **Qobuz** or **Tidal!**

Minimser can be used as a music file server. When using Minimserver on a NAS or on a computer, don't forget to install also Minimwatch on a computer and then install the package MinimStreamer.

In **"system"** tab go to line **stream.transcode** and type **dsf:dopwav**



The image shows a screenshot of the 'MinimServer[EULER-4350T] System Properties' dialog box. The 'System' tab is selected. The dialog contains several input fields for configuration. The 'stream.transcode' field is highlighted and contains the text 'dsf:dopwav'. Other fields include '.autoUpdate' (true), 'http.port' (9790), '.logFile' (minimserver.log), '.logPrefix' (empty), 'ohnet.debug' (Default), 'ohnet.port' (9791), 'ohnet.subnet' (empty), '.updateReminder' (1), 'stream.converter' (empty), 'stream.options' (empty), and 'stream.record' (empty). At the bottom, there are 'OK', 'Cancel', and 'Apply' buttons.

Property	Value
.autoUpdate	true
http.port	9790
.logFile	minimserver.log
.logPrefix	
ohnet.debug	Default
ohnet.port	9791
ohnet.subnet	
.updateReminder	1
stream.converter	
stream.options	
stream.record	
stream.transcode	dsf:dopwav

This is necessary to allow reading DSD files.

Software upgrade

If later a new software is available (software for the embedded computer in the d1-server) you will have to write a 16GB (or more) microSD card.

Download the new software image (the link to each new version of software is automatically sent by e-mail).

Rename the extension to ".zip" and then unzip it.

Then download this Windows program (For MAC unzip using kekaosx application and write the microSD card using <https://etcher.io/> or the latest version of ApplePi-Baker application)

<http://www.totaldac.com/fichiers/windiskimage.zip>

Unzip it.

Insert a new 16GB (or even better 32GB) microSDcard in the computer under Windows. A high speed card is preferred. Check what is the drive letter for the SD card reader in your computer. It is very important to detect the right letter, else you can erase and external hard disk drive.

Go to the directory "windiskimage\win32diskimager-v0.7-binary" and launch "Win32DiskImager.exe".

It takes some time.

Once the program window is open select the SD card drive letter and select the unzipped image file. Then press « Write ».

Switch OFF the d1-server the power supply button (not by remote control button).

You can now insert the new microSD card in the d1-server. Then switch ON the d1-server power supply.

If you use a USB dongle or disc plug it a few minutes after the d1-server is switched ON so it is detected for the first time after a microSD update.

Scan the library.

Note that you can use <https://etcher.io/> for Windows instead of "Win32DiskImager.exe".