

DAP 255 Streaming High Definition Digital Audio-Player

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Technical Support:
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Introduction

DAP255 plays all your network music in HD quality staying design wise, powerful and affordable. Not only listening experience is made beautiful with DAP255, but the domestic visual experience as well.

DAP255 wants people to distribute their 'audio-money' for real quality and sound experience not investing it into the office computer functionality!! DAP255 takes care of the flawless stream, the perfect timing needed to get so deep into your digital recordings, you'll completely rediscover everything you've ever heard in digital.

DAP255 allows to share your media library throughout all devices in your home. UPnP, DLNA, Airplay, FTP support, 24/96 and lossless formats support, 40W/ch. amp, KNXnet/IP onboard are just few of features characterizing SP.

Support

Any fault device should be returned to Wilhelm Huber + Söhne GmbH + Co. KG.
For any further technical questions concerning the product please contact our support, available **Mo-Fr 09:00 – 17:00 GMT + 01:00**.

Please write to **technik@whd.de** or call **+49 (0) 74 20 / 8 89-0**.

Firmware updates will be available periodically.

Safety & security

Important information

In addition to this guidance please comply with your own country-specific safety & security regulations.

Improper handling may void warranty.

How to use this guide:

Read these instructions carefully before use and use this product only in accordance with the instructions listed here.

Signs & symbols used



This sign warns of the danger of injury and property damage.



This sign warns of injury arising from electricity.



This sign warns of injury and/or explosion.



This symbol refers to additional information.

Signal words and their meaning

Danger: Potential severe physical damage and acute danger.

Warning: Potential electrical shock physical damage and severe property damage.

Caution: Potential fire hazard, physical damage or property damage as a result thereof.

Attention: Advisory notes only.

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DAP255 Specifications

Application

Music integration in BMS, Multi-Room,
controlling of music database files with smart
phones or touch displays.

Standards

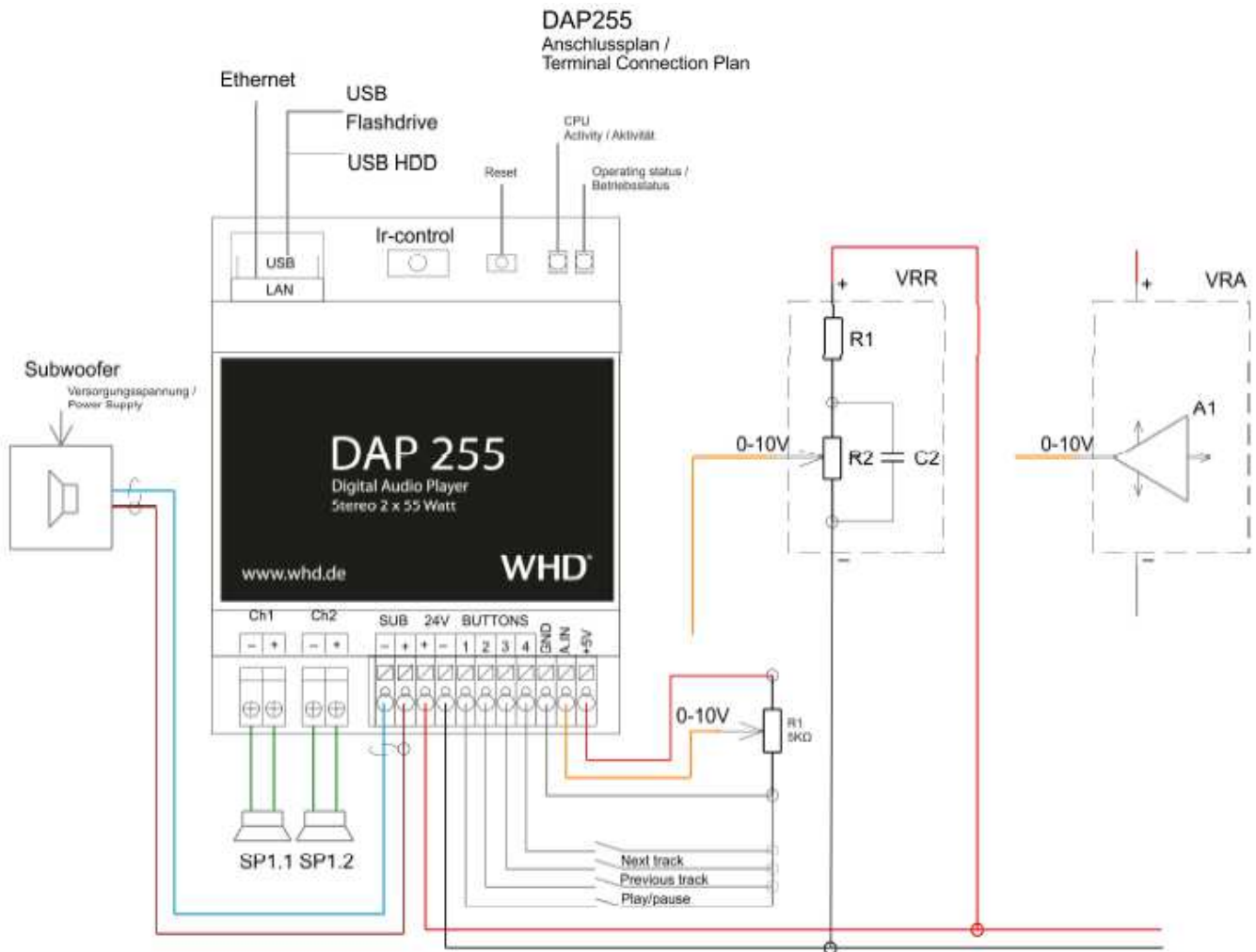
EMC: EN61000-6-1, EN61000-6-3



Specifications DAP 255

Power Supply:	7-36V DC	
Power consumption:	1.2W / Idle Mode	
Connectivity:	10BaseT/100BaseTX	1
	USB 2.0	2
	0-10V input	1, for external volume control, clamp (configurable: off, 0-5V, 1-10V, 0-10V)
Media storage Connections	Stereo speaker OUT	1
	32GB microSD	On board
	KNX BUS:	KNXnet/IP over Ethernet
	SVG:	clamp, 1.5mm ² / max. 8A
Amplifier	IO:	clamp, 1.5mm ²
	Stereo speaker OUT	clamp
	Music Power	2 x 55W
	THD+N	0.07%
Control	SNR	102 dB
	LED	1 - CPU Activity
		1 - Status
Audio	Audio Formates:	MP3, WAV, AAC, WMA, FLAC, lossless FLAC
		96/24, 24/192
	Protocols	DLNA, UPnP, AirPlay, FTP, HTTP, KNXnet/IP
	Sampling Frequencies	32, 44, 48, 88, 96, 192 kHz
Housing:	Resolutions	16, 20, 24 bit
	Material:	plastic
	Color:	grey
	Dimensions:	70(w)x90(h)x51(l) mm
Operating Teperature:: Storage Temperatur: Weight: Warranty:		4 TE
	-5C ... +45C	
	-25C ... +55C	
	300g	
	2 yrs	

2. Connections



Upper Side

ETH – LAN Interface / Connection to Ethernet network

USB – 2 x USB Interfaces / Connection to ext. Flash (music playback) or ext. WiFi

Ir-Control - 3,5mm Stereo jack for external IR control sensor

Reset - Reset-button for network setup.

Note:

Pressing **Reset-button** > 10 sec., the DAP255 acknowledges a temporarily static IP-Address 192.168.0.10 with netmask: 255.255.255.0.

Pressing **Reset-button** again > 10 sec., the DAP255 defaults to factory settings.

Factory Settings:

IP setup DHCP, Host Name - dap255, AirPlay on, DLNA on, all file directories and user settings deleted.

Lower side	Ch1		Ch2		SUB		24V		BUTTONS				GND	A.IN	+5V
	+	-	+	-	1	2	+	-	1	2	3	4			

Ch1 – stereo loudspeaker output (left)

Ch2 – stereo loudspeaker output (right)

SUB –Subwoofer Out (clamps: 1 ... (-), 2 ... (+))

+24V – Power Supply

BUTTONS – configurable binary OUTPUT for contacting external relay/contactator:

1 - Play/Pause ,

2 - Previous track,

3 - Next track

GND – ground clamp for **BUTTONS**

A.IN – configurable binary INPUT to connect e.g. potentiometer for volume control (off, 0-5V, 1-10V, 0-10V)

+5V – Reference voltage for the volume control via potentiometer 5KOhm

3. Quick Startup

The device may be used for installations in dry locations.

1. Connect your speakers (**4-8 Ohms**) to the Streaming Player's loudspeakers outputs
2. Connect Ethernet cable to LAN port (make sure the cable is interconnected with your local network)
3. Plug USB drive with music files in MP3, WAV, AAC, WMA, FLAC.
Attention! Please make sure USB is formatted with FAT/FAT32 file-system, NTFS is currently not supported.
4. Connect power supply to the DAP255 Streaming Player (pwr: red +24V, black – GND).
5. To check if the wiring is done well, you can run any music file on your iPhone/iPOD and Share it to play on remote Airplay device (dap255).
6. The DAP255 Streaming Player is setup as DHCP-client. It uses Zero-config utility is called "Bonjour" by Apple which enables automatic discovery of computers, devices, and services on IP networks. iPod, iPhone have this utility pre-installed.
For iPad use utility called Discovery (the server will be discovered in the service ROAP). On Windows 7 computer you can see the Player as Network share with name **dap255**, right click on it, Properties and you will see its IP address.

Or you can simply check your DHCP server's lease list to find assigned IP to the DAP255 Streaming Player.

More see here:

- for Windows

<http://marknelson.us/2011/10/25/dns-service-discovery-on-windows/>

- for Linux

<http://avahi.org/>

- for Android

<https://play.google.com/store/apps/details?id=com.grokkt.android.bonjour&hl=en>

- for iOS/Mac OS

<https://itunes.apple.com/en/app/discovery-bonjour-browser/id305441017?mt=8>

7. Enter the Streaming Player's home page by typing IP address in your web browser.

8. DLNA/UPnP/Airplay services are enabled by default in the Streaming Player's *Quick-Setup*.

9. Add additional music sources if any in the Streaming Player:

Quick setup ⇒ *Services* ⇒ *FTP mountpoints*

10. Depending on count of music files the device will update its local database in "Audio Player" menu and you can start playing songs there.

11. Connect by remote user interface (also called digital media controllers) from iPOD/iPhone/iPAD (MPoD/MPaD or any UPnP controller apps available as freeware at App Store like Kinsky), Android-based phones (Droid MPD), PC (Ario, Kinsky).

Choose the server (dap255 or IP address) and start making your playlists, controlling the music etc. Update player's database with "Update Database" command from your remote controller.

It might take some time to do initial database update.

12. Mapping music control functions to KNX:

System config ⇒ *Network* ⇒ *KNX Audio control*

or

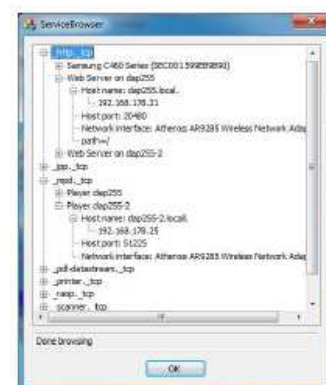
Quick setup ⇒ *Services* ⇒ *KNX/IP*

Default login and password to access *System config* is **admin / admin**

13. Please note that you have to use an **external KNX IP Router** to access the KNX TP, as Streaming Player supports only KNXnet/IP (TP is not used due to sound quality distortions).

4. DAP255 WEB-based configuration

To find the IP address of the player, **zeroconf-utility** is included as standard.



Using the following applications, the IP address can find out:

• **Windows PC – ServiceBrowser**

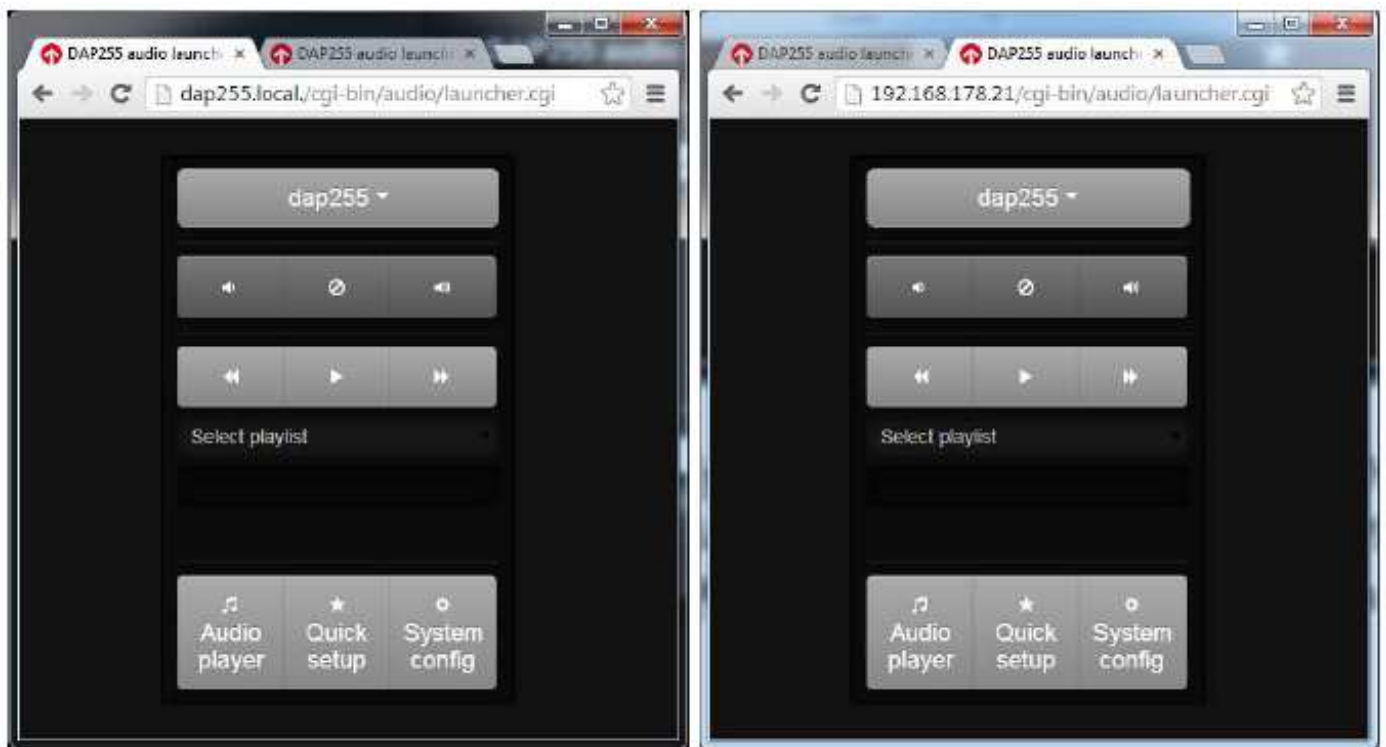
<http://marknelson.us/2011/10/25/dns-service-discovery-on-windows/>

• Linux PC – *Avahi*
<http://avahi.org/>

• Android – *ZeroConf Browser*
<https://play.google.com/store/apps/details?id=com.grokkt.android.bonjour&hl=en>

• iOS – *Discovery*
<https://itunes.apple.com/en/app/discovery-bonjour-browser/id305441017?mt=8>

Using IP assigned to Streaming Player, connect using web browser.



Menu Buttons

For faster transition from one DAP255 to another, which is located in the same network, you can use the top menu button with the DAP255 hostname.

Clicking this menu buttons you can choose the other visible DAP255 in network. At the same hostname an additional index number at the end of the name appear to the host name of the DAP255.



In the case that only one DAP255 is located in the network, then this button will appear only with the hostname of the DAP255.

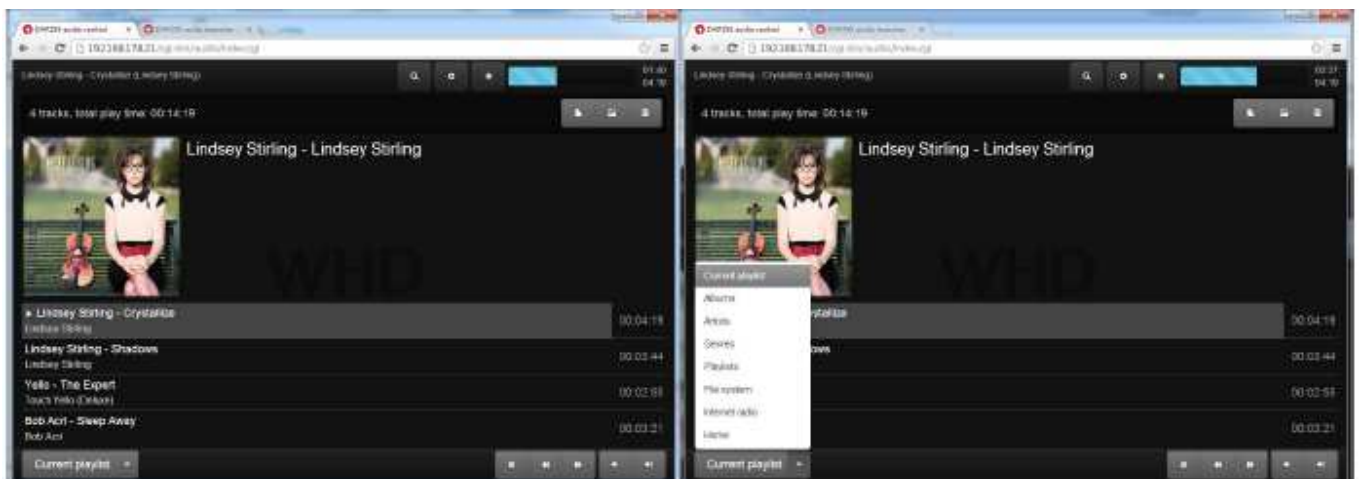
- **Audio player** – built-in music player/controller
- **Quick setup** – audio related configuration
- **System config** – Network and KNX specific configuration

To access *Network config*, you need to enter login name and password.

Login: admin
Password: admin



4.1. Audio Player – integrated Audio-Controller, Player



The default web page of the Audio Player is *Current playlist*.

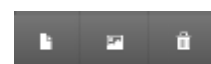
In *Audio Player* Menu you can control your player, create playlists, favorites.

Current Playlist is the most important configuration menu of the DAP255. All the soundtracks/titles can only be played from this menu step.

The **function keys** (play / pause, previous track, next track, volume), as well as options Random and Repeat function are only in the *Current playlist*!

Information on these controls, the *Current playlist*, see the section 4.1.7.

Version (Technical and optical modifications reserved)

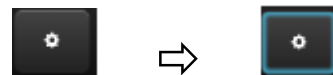


4.1.1. Update Database

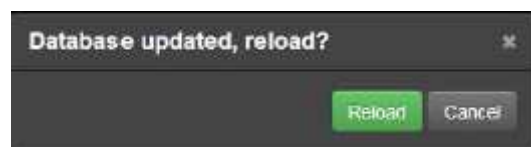
First thing to do after you enter the interface of audio player is to update local database which will create local library file with pointers to the music sources you have defined (DLNA servers, FTP servers, USB flash drives). Just click on the *Settings* button.

This update may take a few minutes (depending on the amount of data to be scanned).

Whilst scanning the *Settings* button changes its border colour.



If changes in the local library file were found, the following window appears.



If you click *Cancel*, we recommend an update in the Browser Menu (Almost in all the browser can be done via function key F5).

4.1.2. Sorting

After a successful update of the music sources, all soundtracks will appear in different folders of the main menu.

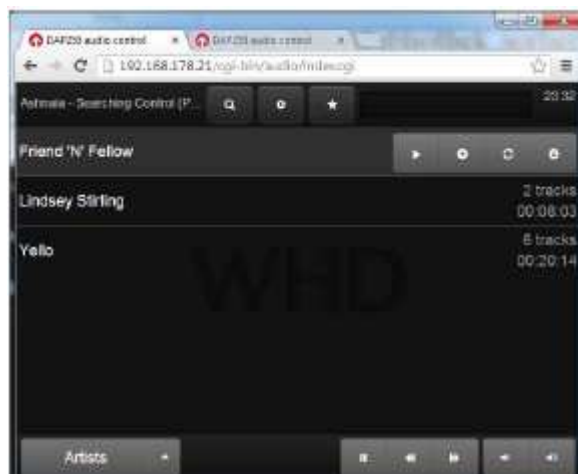
Albums – sort music library by albums

Artists – sort music library by artists

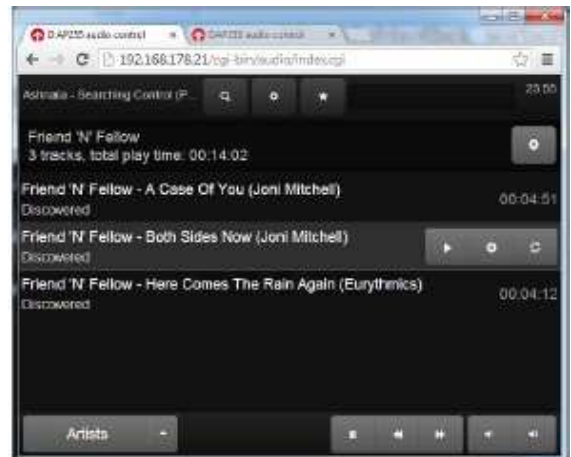
Genres – sort music library by genres




By clicking on desired Albums / Artist / Genre following controls appear:





Double-clicking or clicking on this symbol all soundtracks of Albums / Artist / Genre are displayed.



Button  adds all Albums / Artist / Genre to the actual list. All soundtracks will be added to the *Current Playlist* and the music starts playing (Play Start).

If it is a directory, then all the soundtracks from this directory and its subdirectories are added to the Current Playlist with a simultaneous Play Start, starting from the first soundtrack of this directory.

Button  adds the selected source to the existing list without Play Start. If it is a directory, then all the soundtracks from this directory and subdirectories are added to the Current Playlist.

Button  deletes the Current Playlist and all soundtracks added all Albums / Artist / Genre to the actual list. All soundtracks will be added to the *Current Playlist* and the music starts playing (Play Start). If it is a directory, then all the soundtracks from this directory and its subdirectories are added to the Current Playlist with a simultaneous Play Start, starting from the first soundtrack of this directory.

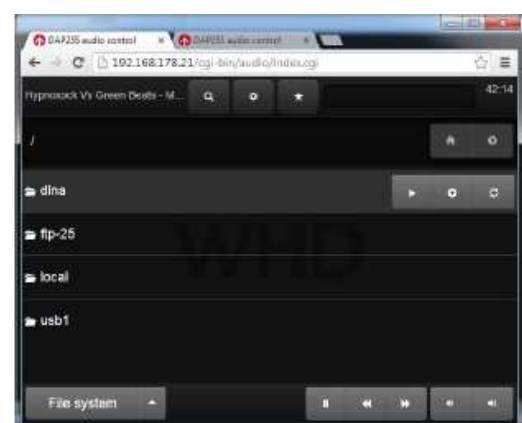
4.1.3. File System

File system folder contains music sources added and available on the network – DLNA, FTP servers, USB.


By clicking on the desired file system the controls for the Current Playlist will be displayed.

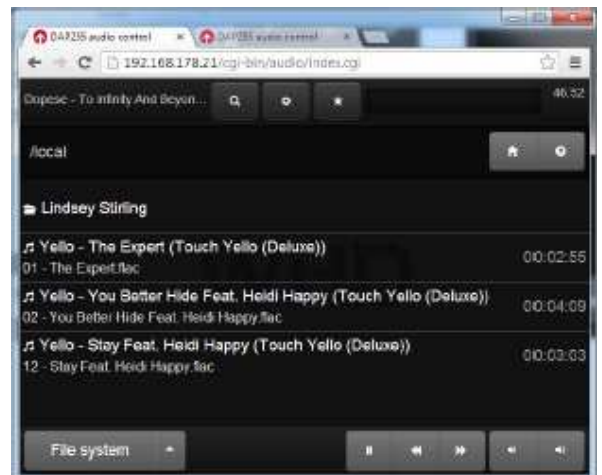
Information on these controls see the section 4.1.2.

Double-click on selected folders they are opened and displayed the entire contents.



Double-click on the selected soundtrack it is added to the current playlist and simultaneously starts playing.

Double-click is equal to the function of the button , described in 4.1.1.



4.1.4. Search

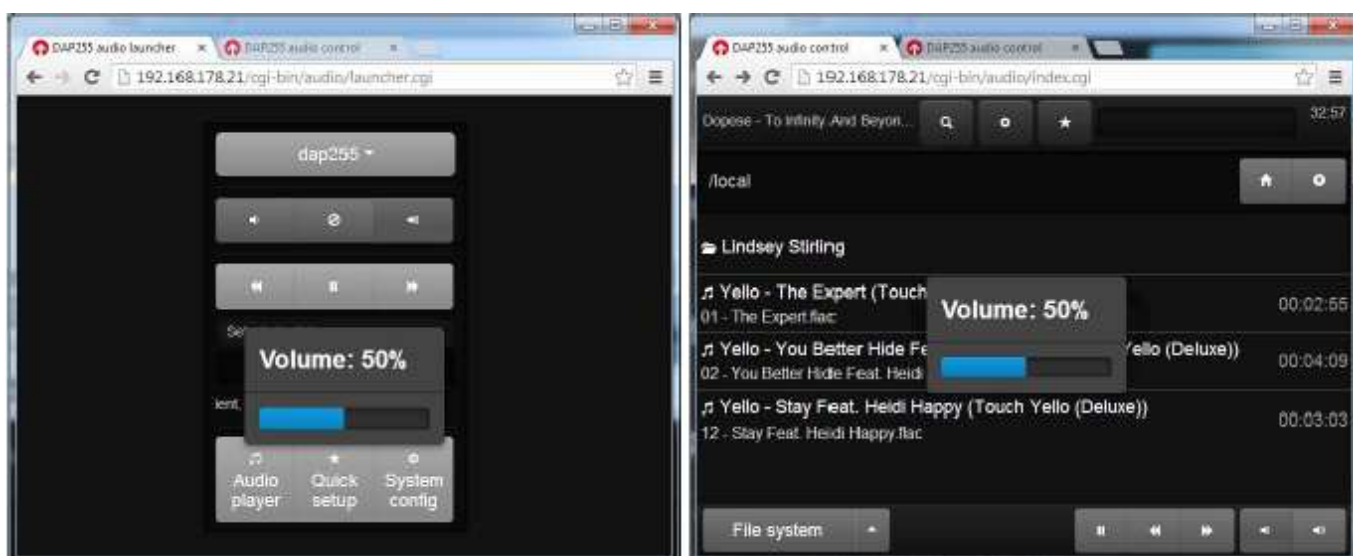
Click on the *Search* button  and type the search phrase to find appropriate folders and songs.






This search function only works within the displayed list with folder name and the soundtrack. So you can find the folder name, but not the underlying soundtracks or subdirectories.

4.1.5. Volume Control

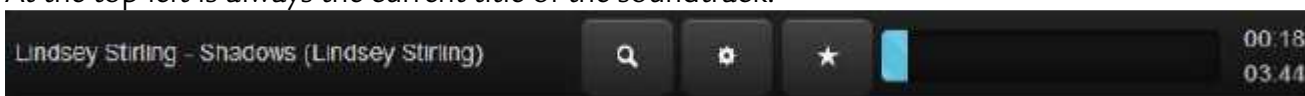
With the *Volume Up*, *Volume Down* Buttons  you can control the volume setting of the player.



4.1.6. Top control bar

On the top control bar you will find the currently playing song name, *search* , *settings* , control and display *favourites*  and dynamic forwarding.

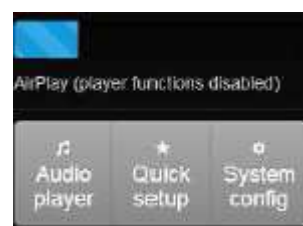
At the top left is always the current title of the soundtrack.



If the DAP255 is controlled by AirPlay, you'll find this information here.



The same applies to the Home Menu.



During the AirPlay connection the DAP255 is completely controlled by the connected AirPlay device or software.


In order to gain control back, you have the AirPlay server (AirPlay device or software) disconnect from the server side on the DAP255.

Or *Home* ⇒ *Quick Setup* ⇒ *Tools* and stop AirPlay service.



After stopping AirPlay the AirPlay Server is disconnected and after a few seconds the AirPlay Service in DAP255 starts again, to establish a new AirPlay connection.

Search  is described in 4.1.4.


In settings  are the actual device Settings, Update Database, Random and Repeat function.

Under the device *Settings* you can delete the local library, and restore all stations for internet radio.

With *Update Database* you can manually update the local library.

By clicking *Random* or *Repeat* you can manually activate or deactivate these functions for the Current Playlist.



With the button  the affiliation of the current soundtrack to the Favourites playlist is displayed. By clicking this button, the actual soundtrack can be added to the Favourites playlist.


The soundtrack, added to the Favourites playlist, shows up as .


Clicking  the soundtrack is deleted from the Favourites playlist the display changes back to .

For more information take a look at 4.1.8.

4.1.7. Current playlist – play, save, delete

By clicking a desired soundtrack, two control buttons  are displayed for the Current Playlist:

Button  starts playing the desired soundtrack from the Current Playlist.

Button  deletes the desired soundtrack from the Current Playlist.

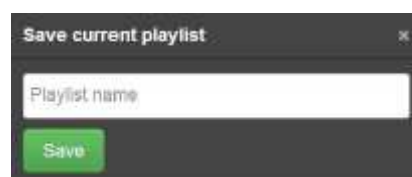
You may also start playing the desired soundtrack by double-clicking the soundtrack itself.

Under the current playlist you see all soundtracks that were added by double clicking or with

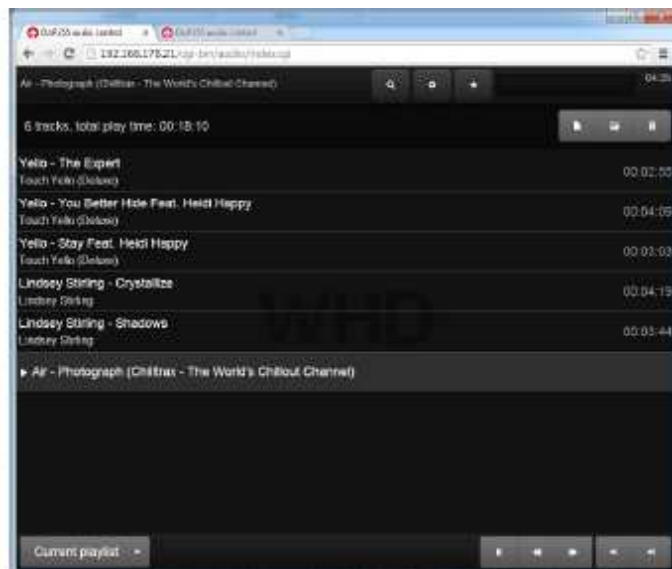
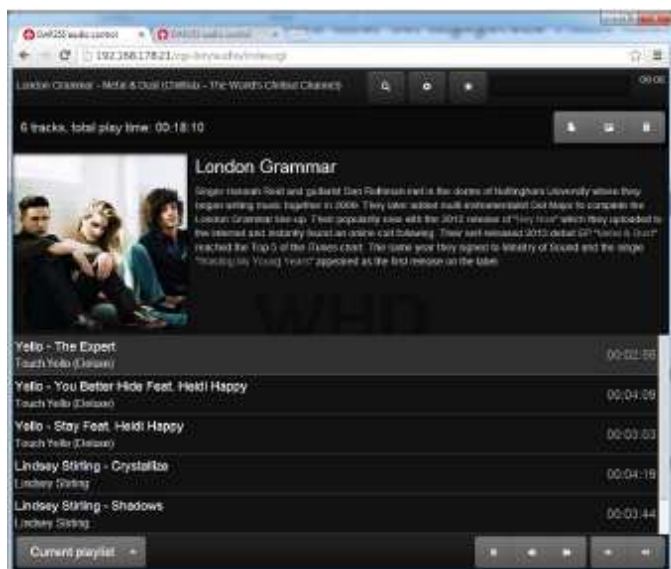


on the soundtrack in album / artist / genre / playlist / file system / internet radio.

The current playlist can be saved by clicking (New Button). After saving the entire contents of the playlist the current playlist will appear with the specified name in the menu.



By clicking the displayed window can be turned on or turned off with the image and additional information about the current soundtrack.




Note:

This additional information appears only when Internet connection is established!



The DAP255 has to be connected to the Internet! This works with the internet radio and all other sound source, include the necessary information in their data formats. All original soundtracks have purchased this additional information and will then be displayed in this window. In some homemade audio files that are created by compressing the original files are lost this additional information and this is why this additional information is sometimes not displayed.

By clicking the entire contents will be deleted from the current playlist.

4.1.8. Favourites

With the button  the affiliation of the current soundtrack to the Favourites playlist is displayed. By clicking this button, the actual soundtrack can be added to the Favourites playlist.

The soundtrack, added to the Favourites playlist, shows up as  .

Clicking  the soundtrack is deleted from the Favourites playlist the display changes back to  .

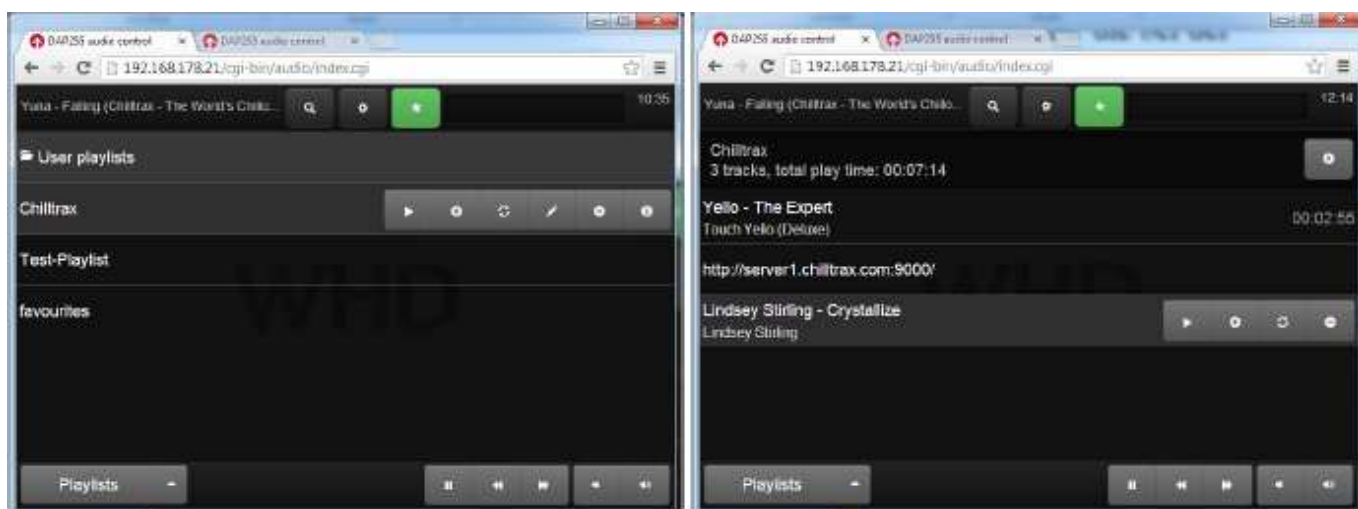
The soundtrack, added to the Favourites playlist, shows up as  .




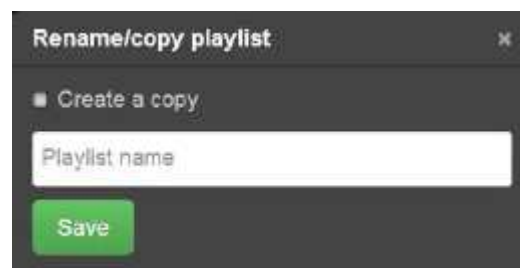
4.1.9. Playlists

In *Playlists* you will find both your selected favourites songs as well as defined playlists.

The operation of all controls in the playlists are identical to the control elements of other categories.




By clicking  button you can copy or rename existing playlists.



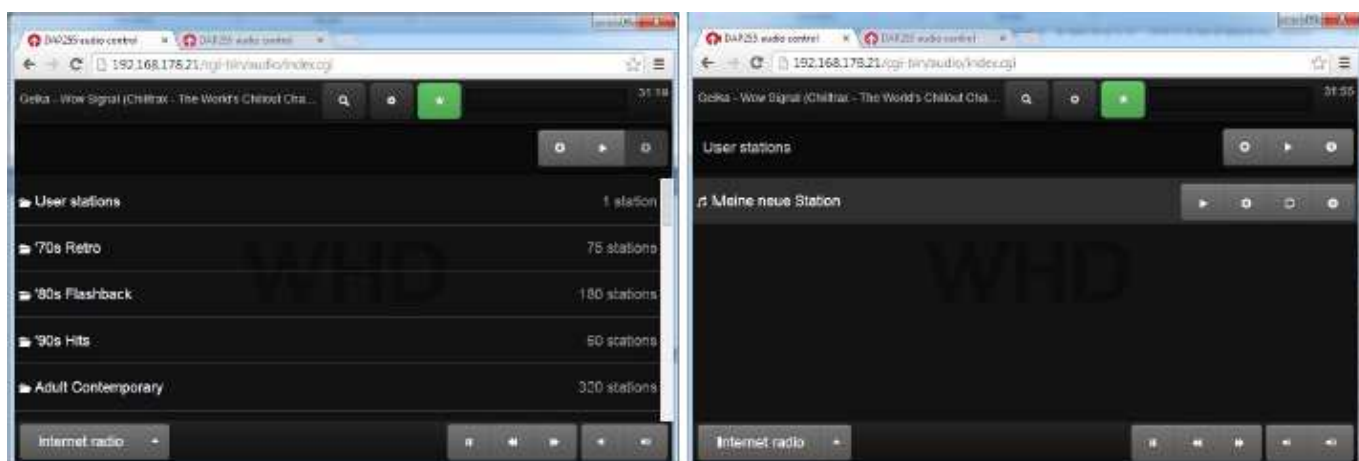
4.1.10. Internet Radio

There are more than 4000 radio stations built-in in the Streaming Player, grouped by genres. As with regular songs you can add them to playlists.



By clicking  button you can add new Internet radio stations to your list.

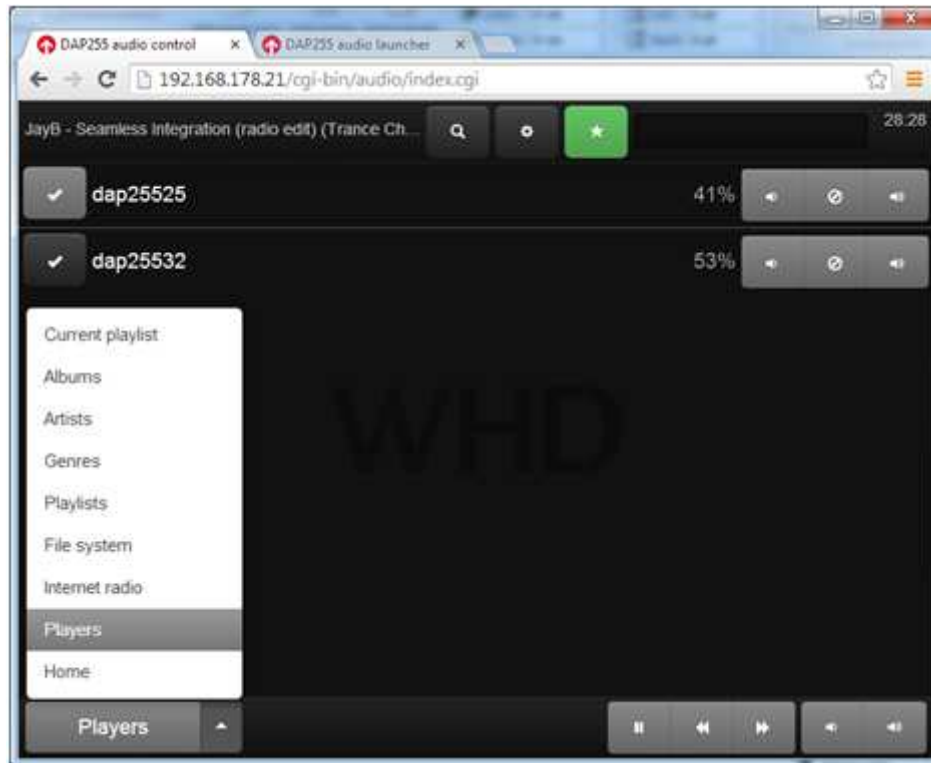
Additional Internet radio stations appear in the directory. *User stations*.





4.1.11 More than one player in network

If there are more than one DAP255 in a network, the control functions *Audio Player* menu are expanded with a **Master/Slave Control**.

All DAP255 will be displayed with their hostname.



Buttons for activating ☒ or deactivating ☒ Slave mode.
The Current Playlist in Slave mode will be deleted.

To modify the volume of the Slave click the buttons  of the Master or directly change Slave settings. Slave mode also can be deactivated in the Slave settings, e.g. using separate audio sources, changing Master/Slave assignments or by clicking  (track control buttons).

The slave can play the same sound sources such as the master, if they are known to the slave. This applies DNLA sources, Internet radio and FTP sources. In the FTP sources please do FTP configurations corresponding to point 4.3.3.

In order not to exceed the processor utilization by the master player (which is used for the other DAP255 player, as an FTP source), we recommend to operate no more than 10 DAP255 slaves. This number depends on the sound quality and the stored sound sources. It refers to the average bit rate of 128 kbps. In the case of very high load on the Masters own FTP server in the distribution of sound sources, a loss in sound quality may occur. For this reason, we recommend that you use an external FTP server for this purpose.

Note:

Since the master-slave configuration of the DAP255 based on a file system, it is not possible to synchronize the sound of different DAP255!

The sound of different DAP255 (with the same audio source) will always be a time delay!

For that reason, the master-slave function is intended only for different sound zones that are spatially separated each other.

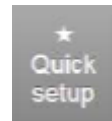
Exception is the audio stream via AirPlay.

The necessary settings are described in the chapter 5.

The time delays in AirPlay are dependent on the network load and the processing power of AirPlay server.

4.2. Quick Setup

Audio configuration consists of four folders:



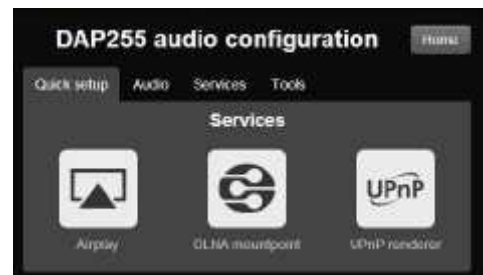
- **Quick setup** – Configuration of Airplay, DLNA, UPnP-Renderer
- **Audio** – Source settings and max. volume
- **Services**
- **Tools**

4.2.1. Quick Setup

Configuration of Airplay, DLNA, UPnP-Renderer

Factory Settings:

- Airplay ON
- DLNA ON.
- UPnP-Renderer OFF



4.2.2. Audio Settings

- **Analog volume control** – analog input setting.
Possible: Off, 0-5V, 0-10V, 1-10V.

Factory Setting: OFF

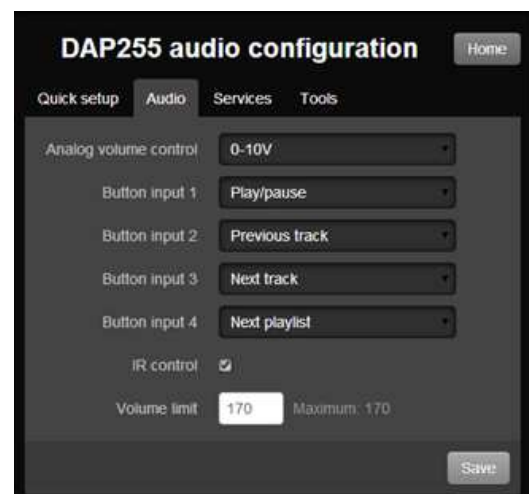
- **IR control** – activating Apple Remote Control

Factory Setting: OFF

Button input 1...4 – to assign a function for the digital inputs.

- **Volume limit [maximum 170]** – not to overload the speakers.
(e.g. a value of 100: In this case only 59% of the maximum performance of the player are given to the output.)

Factory Setting: 170



4.2.3. Services

Player name

Factory Setting: dap255

Airplay – enable/disable Airplay protocol

Factory Setting: off

Airplay buffer size

Factory Setting: 220

DLNA mountpoint – enable DLNA mountpoint so the Streaming Player will make local library with song list from DLNA servers. This feature is convenient to use if you plan to use built-in music player or MPD based app for music control.

Factory Setting: on

UPnP Renderer – Aktivieren Sie die UPnP-Renderer-Funktion, das ermöglicht die Songs direkt aus der UPnP-Renderer Anwendungen zu spielen. UPnP Renderer kann nur als Stand-Alone-Lösung verwendet werden. Es kann nicht zusammen mit KNX Steuerung oder MPD-Control-Anwendungen verwendet werden. UPnP Renderer ist möglicherweise nicht kompatibel mit allen Steuergeräten und Anwendungen.

Factory Setting: off

KNX/IP control – enable UPnP renderer feature which will allow to play the songs directly from UPnP renderer applications. UPnP renderer can only be used as a stand-alone solution. It can not be used together with KNX control or MPD control applications. UPnP renderer might not be compatible with some control devices and applications.

Factory Setting: off

Auto-update – enable Auto-update for automatic data of local libraries with a time interval of 10 minutes.

Factory Setting: off

MPD Password – MPD protocol access password.

Factory Setting: no password

Advanced settings – shortcuts to quick access of KNX/IP mapping and FTP server list.

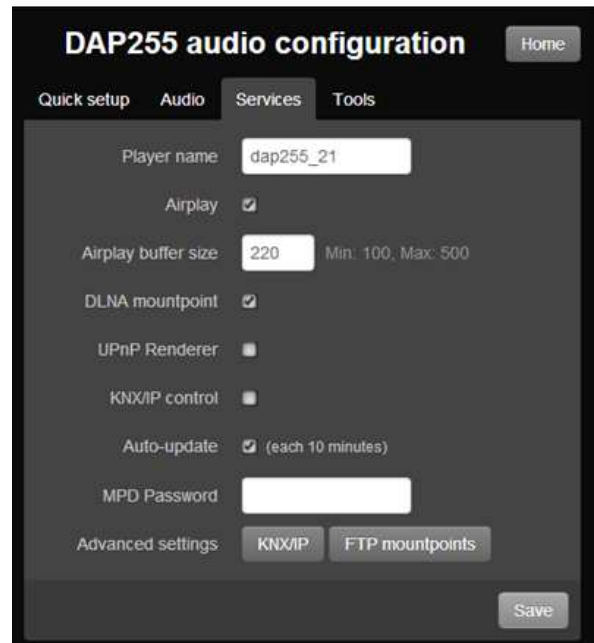
Note:

It is advised to restart client applications when changing any of the configuration values.

4.2.4. Tools

Reboot player – reboot players.

Stop AirPlay – stop Airplay service.



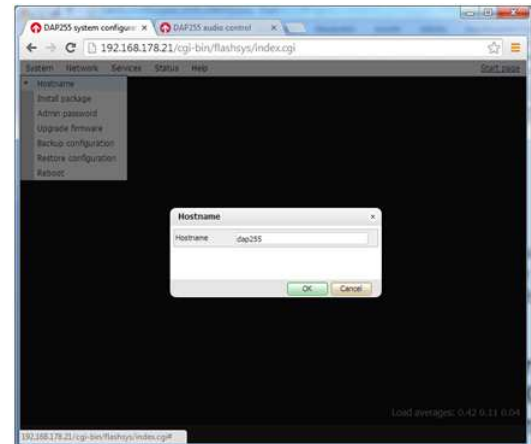
After the AirPlay connection is stopped the AirPlay server is disconnected.

After a few seconds the AirPlay service in the re-booted DAP255 starts again and a new AirPlay connection can be established.

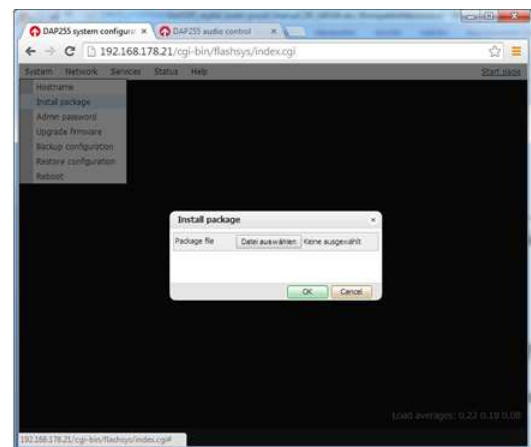
4.3. Network and KNX related configuration

4.3.1. System Configuration

System ⇒ **Hostname** – Name of the Player, all other network devices will see the device by this Name.

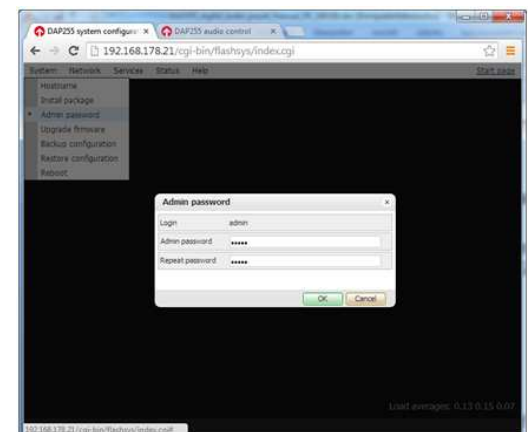


System ⇒ **Install package** – When required new packages for new features can be installed.

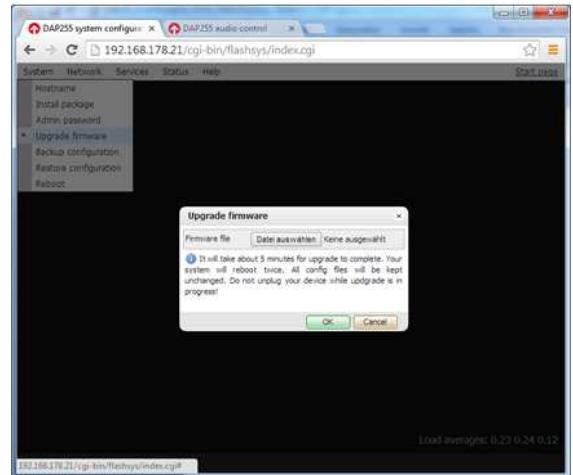


System ⇒ **Admin password** – password for login in the player.

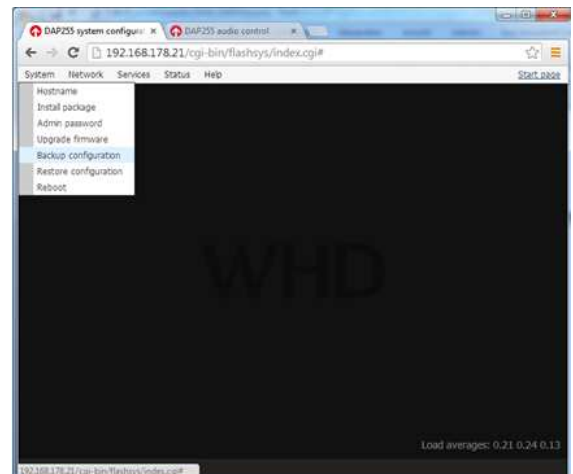
Factory Password: **admin**



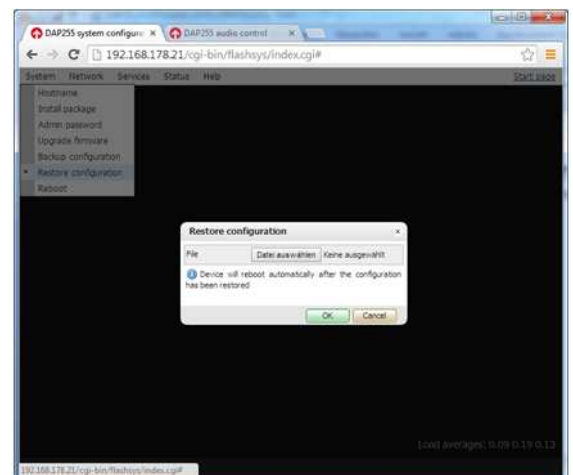
System ⇒ **Upgrade Firmware** – for firmware upgrades.



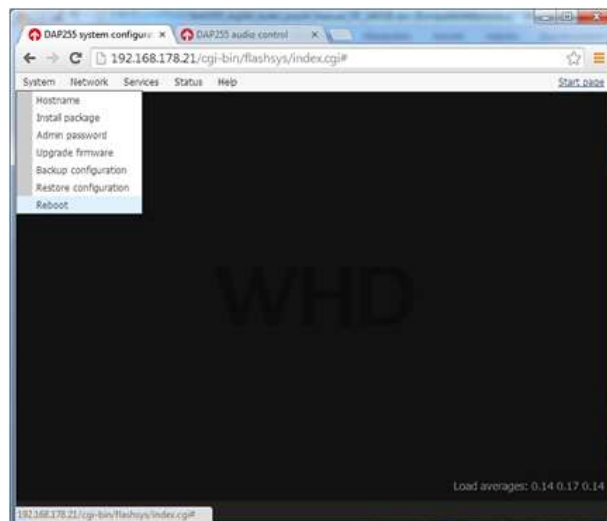
System ⇒ **Backup configuration** – storing configuration settings of the DAP255.



System ⇒ **Restore configuration** – restore configuration settings of the DAP255.

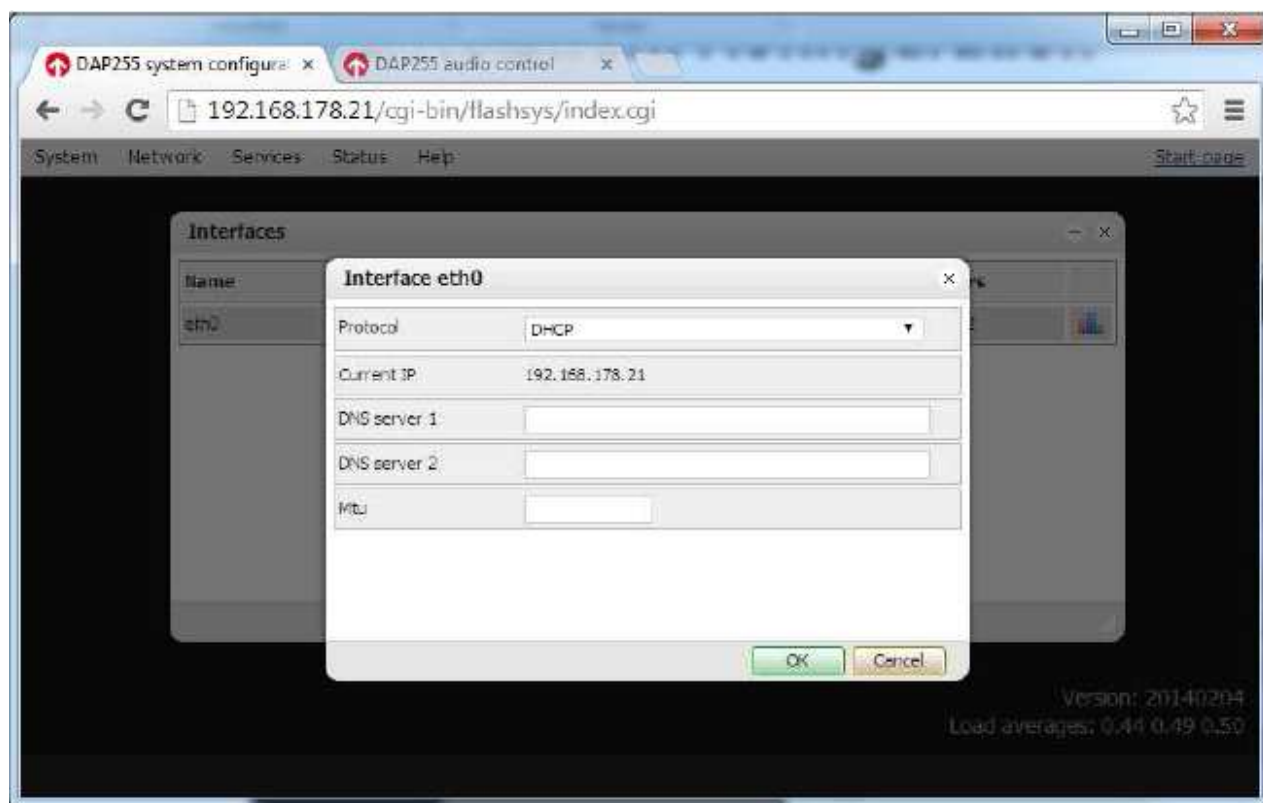


System ⇒ **Reboot** – restart player.

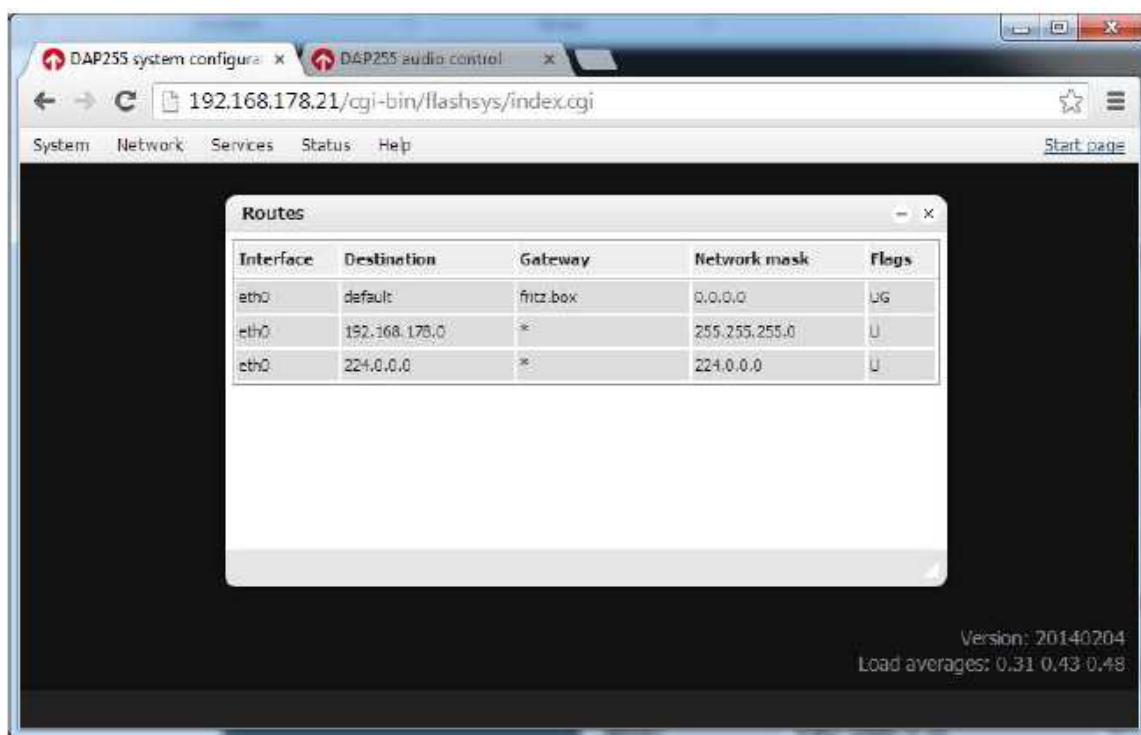


4.3.2. Network Configuration

Network ⇒ **Interface** – interface and IP management. Static IP, DHCP or PPPoE can be set up for interface.



Network ⇒ **Routes** – dynamic/static route management. In case advanced routing is necessary, static routes can be added.

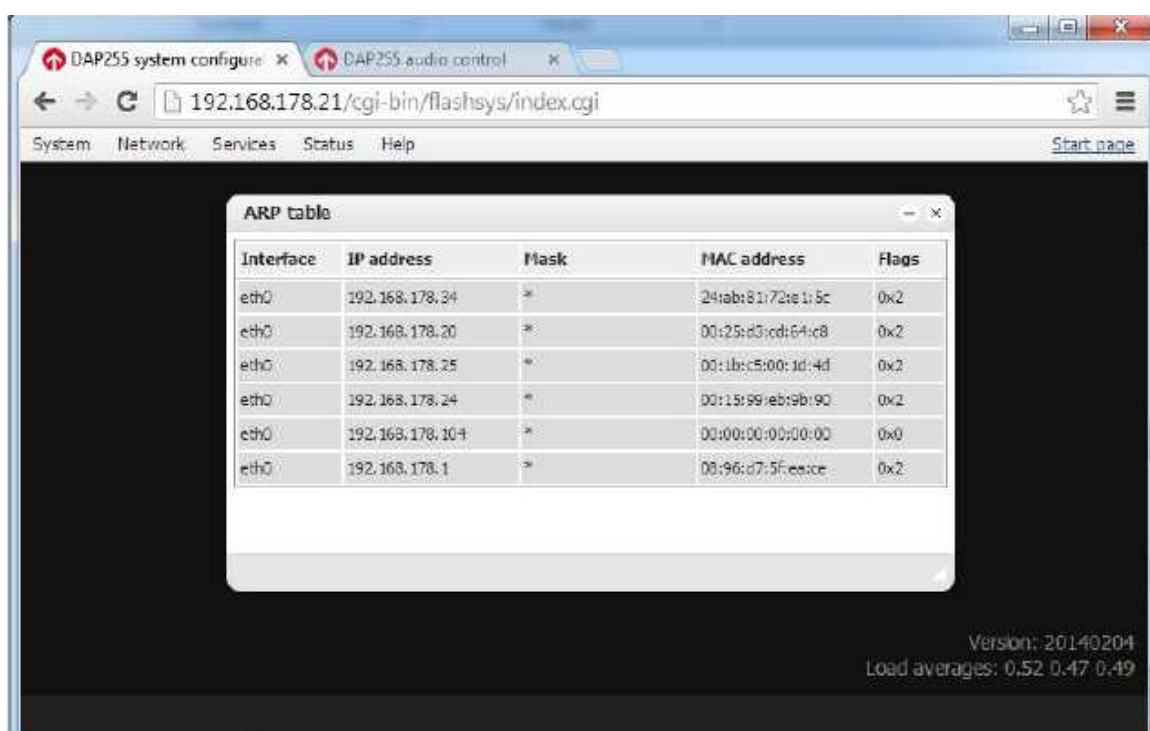


The screenshot shows a web browser window with the URL 192.168.178.21/cgi-bin/flashsys/index.cgi. The interface has a menu bar with 'System', 'Network', 'Services', 'Status', and 'Help'. The 'Routes' table is displayed with the following data:

Interface	Destination	Gateway	Network mask	Flags
eth0	default	fritz.box	0.0.0.0	UG
eth0	192.168.178.0	*	255.255.255.0	U
eth0	224.0.0.0	*	224.0.0.0	U

Version: 20140204
Load averages: 0.31 0.43 0.48

Network ⇒ **ARP table** – Address Resolution Protocol table with hosts being associated with the streaming player.



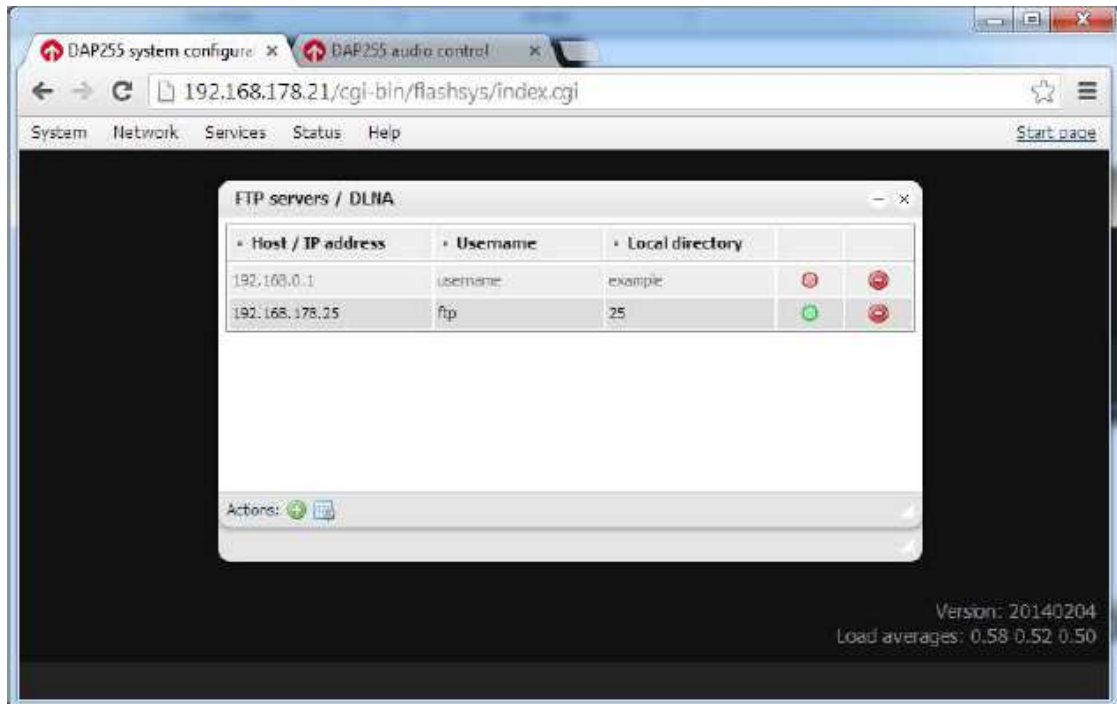
The screenshot shows the same web browser window as above, but with the 'ARP table' displayed. The table contains the following data:

Interface	IP address	Mask	MAC address	Flags
eth0	192.168.178.34	*	24:ab:81:72:e1:5c	0x2
eth0	192.168.178.20	*	00:15:d3:cd:64:c8	0x2
eth0	192.168.178.25	*	00:1b:c5:00:1d:4d	0x2
eth0	192.168.178.24	*	00:13:99:eb:9b:90	0x2
eth0	192.168.178.104	*	00:00:00:00:00:00	0x0
eth0	192.168.178.1	*	00:96:d7:5f:ee:ce	0x2

Version: 20140204
Load averages: 0.52 0.47 0.49

4.3.3. FTP Server, DLNA Configuration

Network ⇒ **FTP servers / DLNA** – DLNA/UPnP/FTP server settings



Settings:

- **Server** – FTP Server IP Adresse
- **Username**
- **Password**
- **Local directory**

It is possible to expand the internal memory of the DAP255 that serves FTP. This is important for the master / slave function and creates the opportunity to distribute locally stored sound sources straight to other DAP255 player in DAP255.

Note:

It is important to set local FTP to IP 127.0.0.1 instead of the external IP address through which the DAP255 is addressed!

All the other DAP255 must be set to external IP address!

For the local directory such FTP connections, with access to DAP255 internal memory, all DAP255 player must have identical name. This is very important for master / slave function.

Example:

DAP255 mit der IP 192.168.178.21



FTP server

Host / IP address: 127.0.0.1

Username: ftp

Password: 1q2w3e4r

Local directory: 25521

Leave username and password blank for anonymous access

OK Cancel

MASTER Configuration

DAP255 mit der IP 192.168.178.25



FTP server

Host / IP address: 192.168.178.21

Username: ftp


Password: 1q2w3e4r

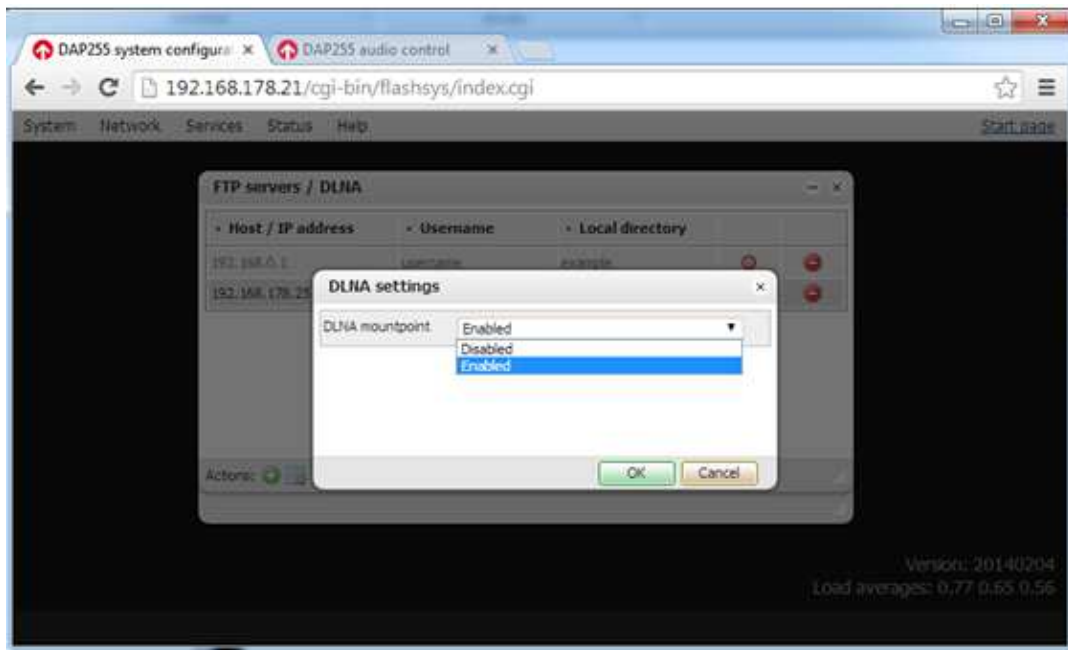
Local directory: 25521

Leave username and password blank for anonymous access

OK Cancel

SLAVE Configuration

By clicking on Settingsbutton , here is a possibility to switch DLNA-server auto discover.

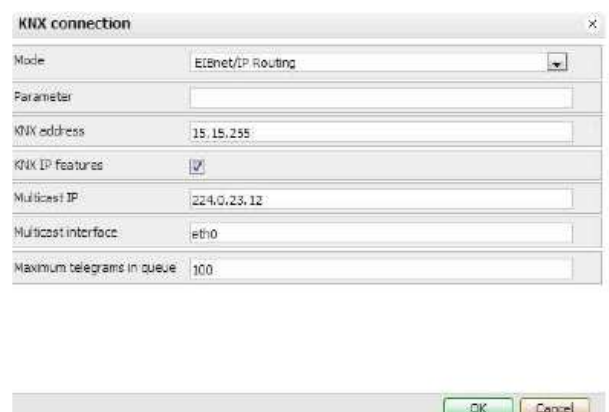


4.3.4. KNX related configuration

Mode [EIBnet/IP Routing; EIBnet IP Tunneling; EIBnet IP Tunneling(NAT mode)] – KNX connection / preset: EIBnet/IP routing mode

Parameter –KNX interface / operating system (_blank: standard configuration).

KNX address – KNX hardware address of the player.



KNX connection

Mode: EIBnet/IP Routing

Parameter:

KNX address: 15.15.255

KNX IP features: ☒

Multicast IP: 224.0.0.12

Multicast interface: eth0

Maximum telegrams in queue: 100

OK Cancel

KNX IP features – enable/disable

Multicast interface – when sending KNX telegrams to KNX other networks via TCP / IP

Multicast IP – Multicast IP Address
(244.0.0.0...255)

Maximum telegrams in queue

4.3.5. Mapping to KNX group addresses

Network ⇔ **KNX Audio Control I** – mapping audio functionality to KNX

Note:

You have to use external KNX IP Router to access the KNX TP, as Streaming Player supports only KNXnet/IP (TP is not used due to sound quality distortions).

General mapping functions

Simply type the KNX group addresses which will store the current value of player functionality like *Play/Pause*, *Next track*, *Previous track*, *Track name*, *Random on/off*, *Repeat on/off*, *Volume*, *Next playlist*, *Previous playlist*, *Playlist name*.

KNX address – KNX physical address

Daten Type:

Play/pause – 1-bit [In/Out]

Next track – 1-bit [In]

Previous track – 1-bit [In]

Track name – 14-byte string [Out]

Random on/off – 1-bit [In/Out]

Repeat on/off – 1-bit [In/Out]

Volume – 1-byte scale 0..100% [In/Out]

Next playlist – 1-bit [In]

Previous playlist – 1-bit [In]

Playlist name – 14-byte string [Out]

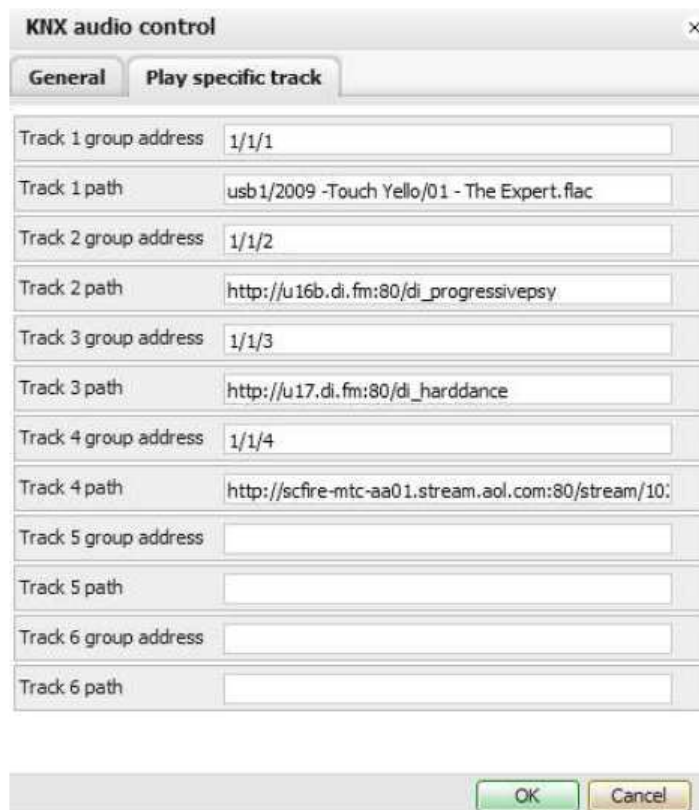
The screenshot shows a window titled "KNX audio control" with a close button (X) in the top right corner. It has three tabs: "General", "Play specific track 1", and "Play specific track 2". The "General" tab is selected. It contains a list of fields for mapping audio functions to KNX group addresses:

Field	Value
KNX address	15.15.255
Play/pause	1/1/7
Next track	1/1/8
Previous track	1/1/9
Track name	
Random on/off	
Repeat on/off	
Volume	1/1/10
Next playlist	
Previous playlist	
Playlist name	

At the bottom right, there are "OK" and "Cancel" buttons.

Map specific track or radio stream to KNX group address

You are able to map specific tracks from music sources or specific internet radio to KNX group address in Play specific track tab.



The image shows a dialog box titled "KNX audio control" with a close button (X) in the top right corner. It has two tabs: "General" and "Play specific track". The "General" tab is selected. Below the tabs, there are six pairs of input fields, each labeled "Track X group address" and "Track X path" for X from 1 to 6. The values are as follows:

Track	Group address	Path
1	1/1/1	usb1/2009 -Touch Yello/01 - The Expert.flac
2	1/1/2	http://u16b.di.fm:80/di_progressivepsy
3	1/1/3	http://u17.di.fm:80/di_harddance
4	1/1/4	http://scfire-mtc-aa01.stream.aol.com:80/stream/10;
5		
6		

At the bottom right of the dialog box are "OK" and "Cancel" buttons.

- use **direct stream link** as direct web link / IP Adressen
- set **internal memory** as *local/folder1* or *local/folder1/song.mp3*
- set **external USB memory** as *usb1/folder1* or *usb1/folder1/song.mp3*

4.3.6. Local FTP Server

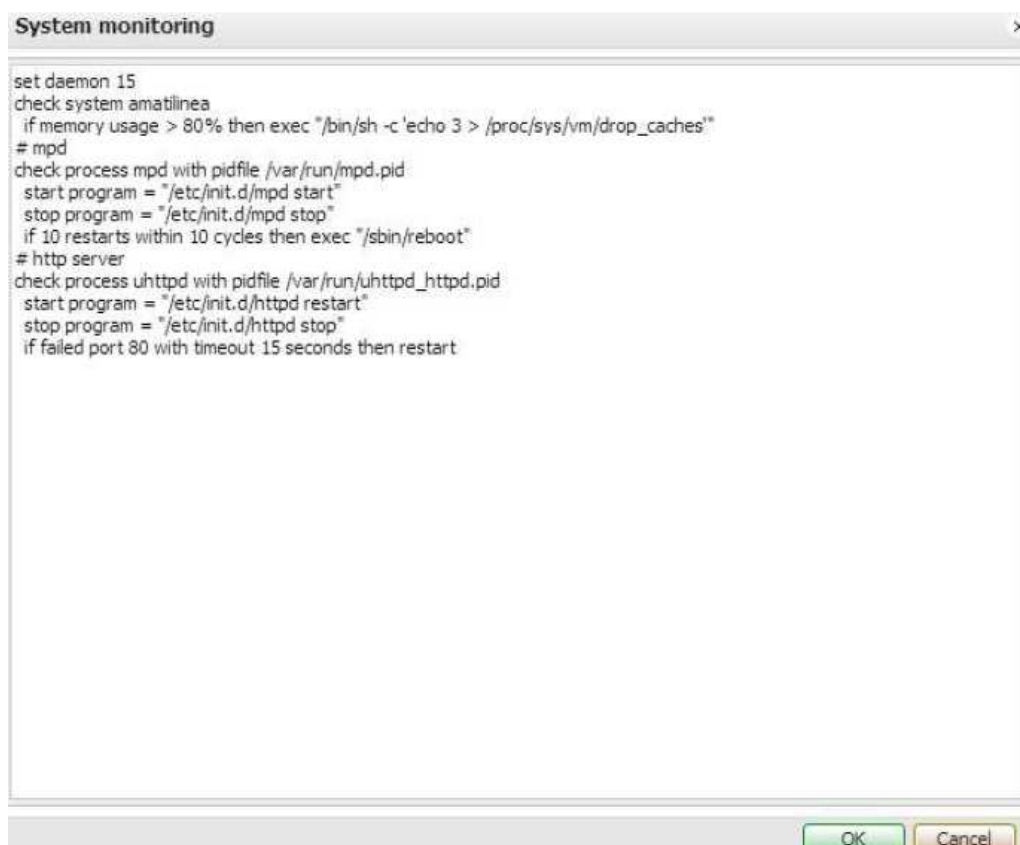
Services ⇒ **Local FTP server** – Enable or disable the local FTP server that allows you to upload media to the internal memory card using FTP client program.



The image shows a dialog box titled "Local FTP server" with a close button (X) in the top right corner. It contains three input fields: "Server status" (a dropdown menu showing "Enabled"), "Username" (text field with "ftp"), and "Password" (text field with "ftp1"). Below these fields is a small information icon (i) and the text "Leave password to blank to keep it unchanged". At the bottom right are "OK" and "Cancel" buttons.

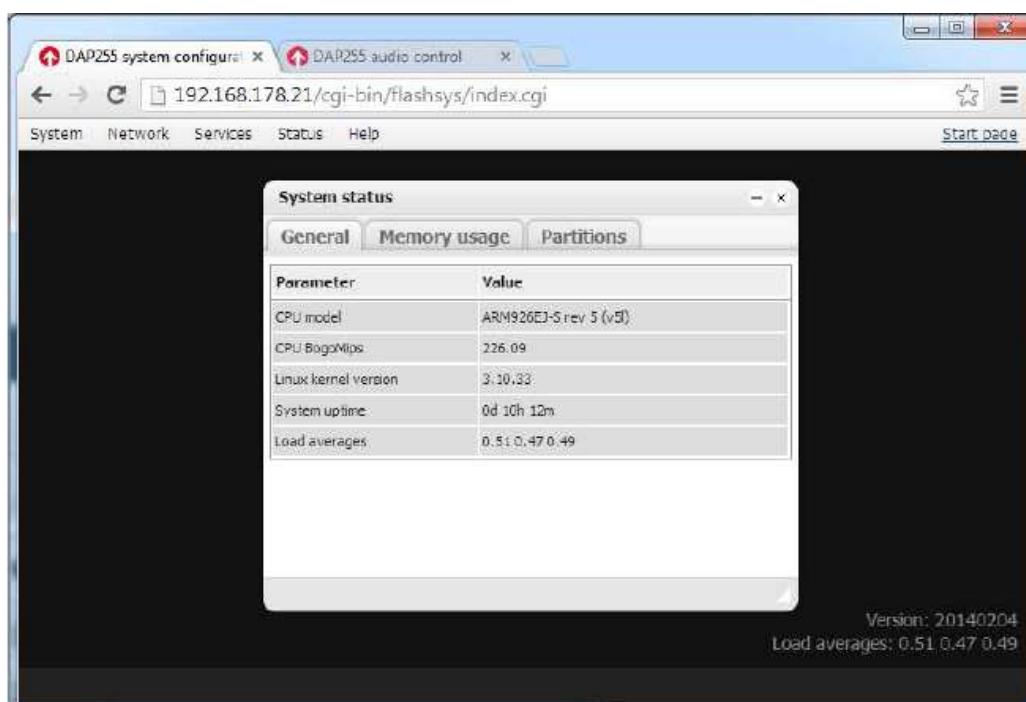
4.3.7. System Monitoring

Service ⇒ **System monitoring** – the system monitoring service allows to monitor both hardware and software processes.

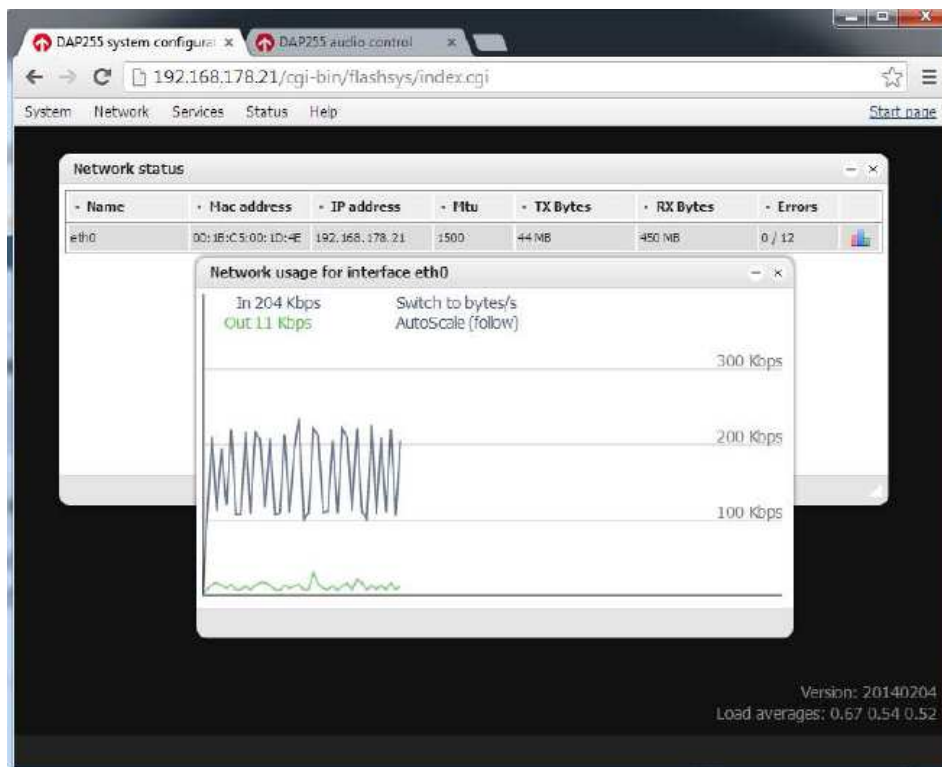


4.3.8. System Status

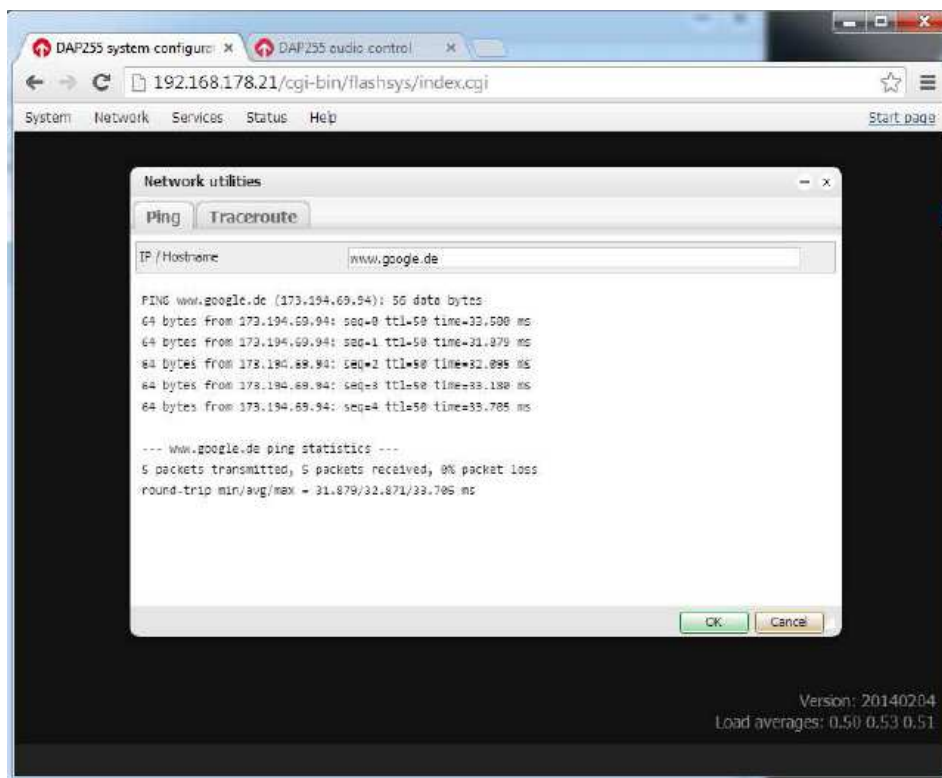
Status ⇒ **System status** – General system parameters, memory usage, partitions.



Status ⇒ **Network status** – Network status, bandwidth graph, TX/RX bytes

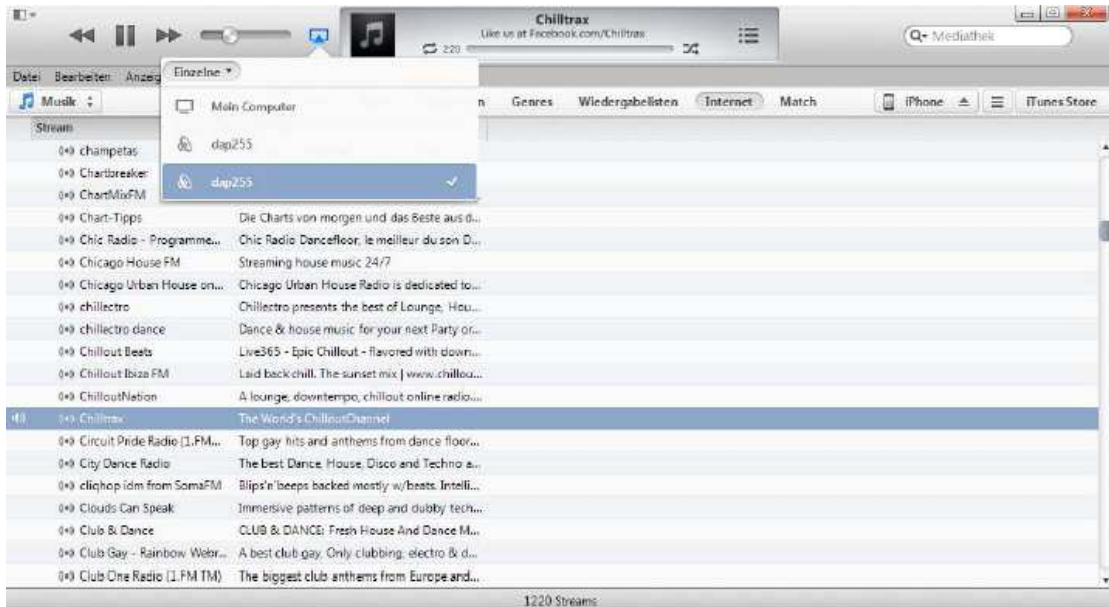


Status ⇒ **Network utilities** – Ping, Traceroute network utilities



5. Stream music from Apple devices over AirPlay protocol

On your Apple device or PC via iTunes while playing music click on Airplay icon and choose the name of the Streaming Player where you want to play the song/radio. The songs or internet radio is streamed directly from your iPhone/iPad/iPod or PC.



To start a stream for several DAP255 simultaneously via AirPlay, you have to change the AirPlay server from Single to Multiple.



6. MPaD application usage notes (iPad)

You can use third party apps in parallel of built-in player of the Streaming Player - MPD or UPnP based. MPaD is MPD protocol based app.

6.1. Settings

- Streaming Player has local cache library with pointers to all music files available on music sources you've added (DLNA/UPnP/FTP/USB/Internet radio). You can push the update the library by pressing the **Update Database** button.

- Update local cache is local device copy of the music library file from Streaming Player. Used to speed up the communication, not overloading the network with regular requests.



6.2. Connections

Choose a music source to control, and then choose players where to play the selected song.

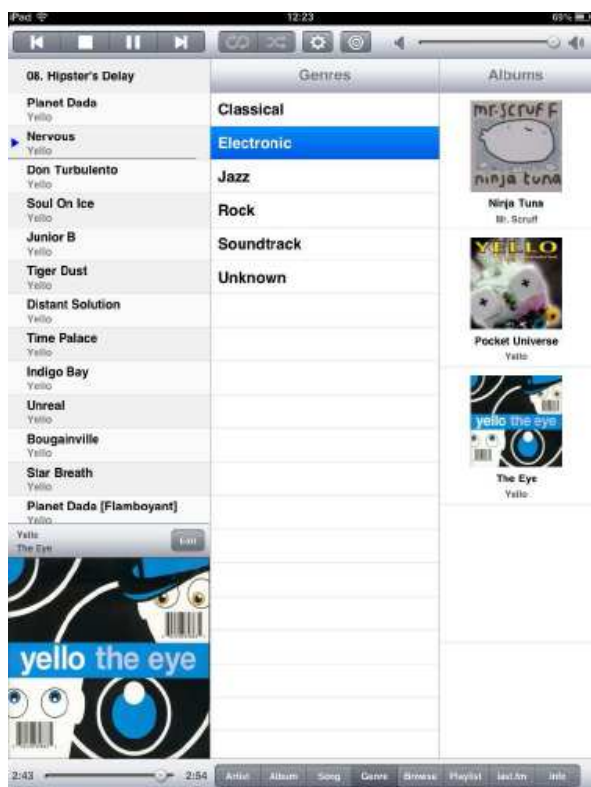
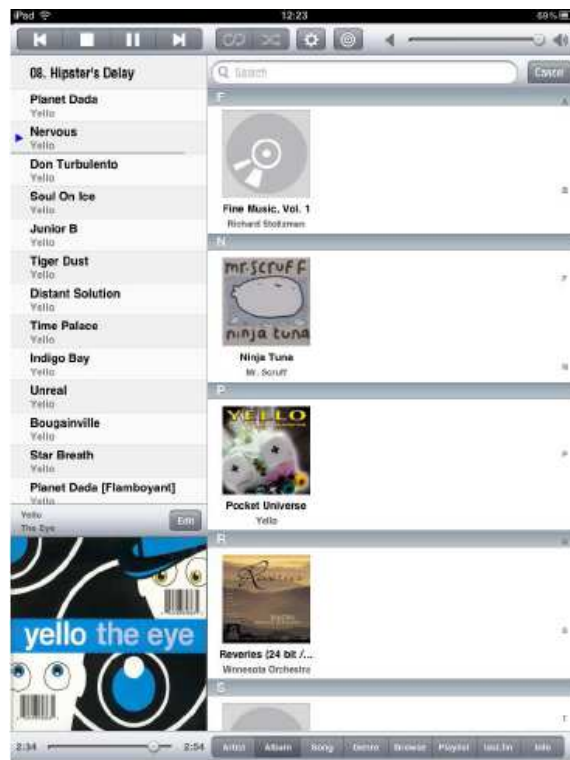
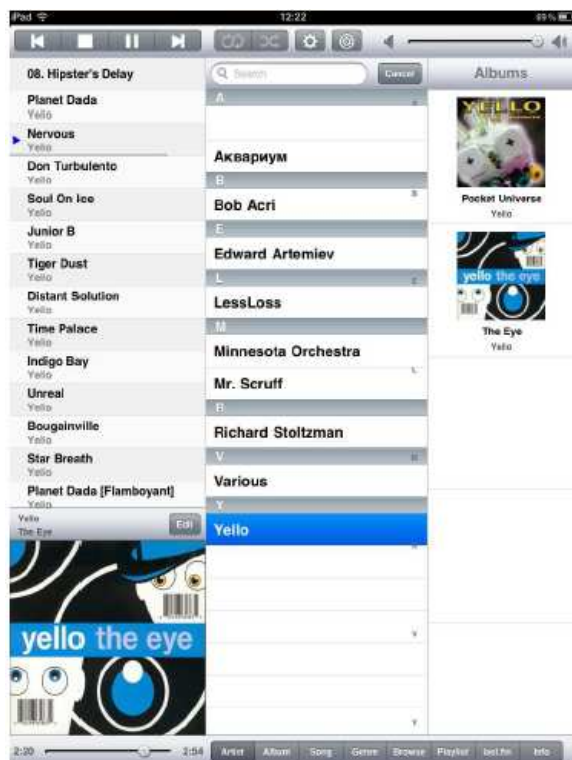


6.3. Playlists

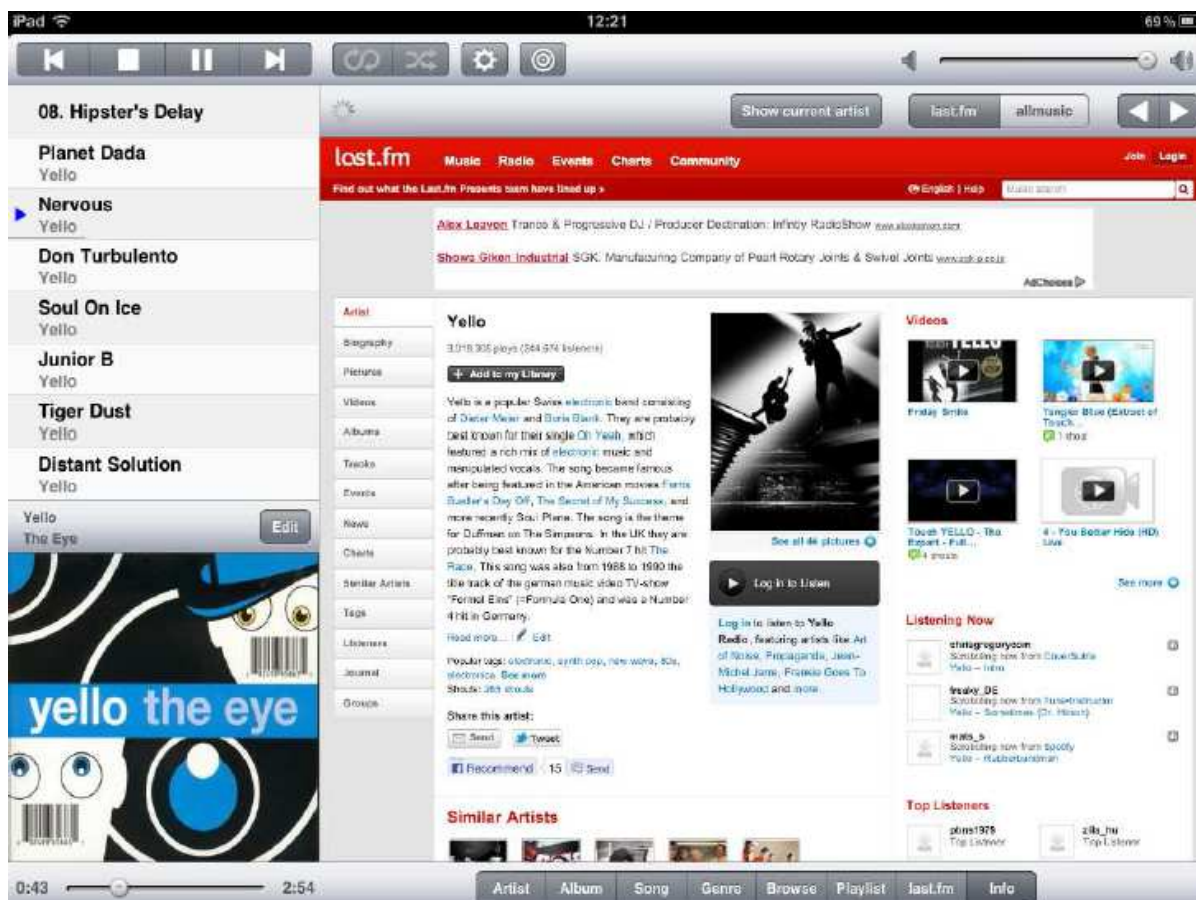
If more than one controller device is used, Playlists are distributed over all devices.



6.4. Sort by Artist / Album / Genre

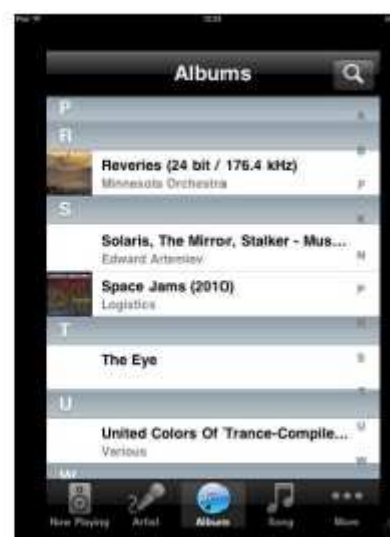
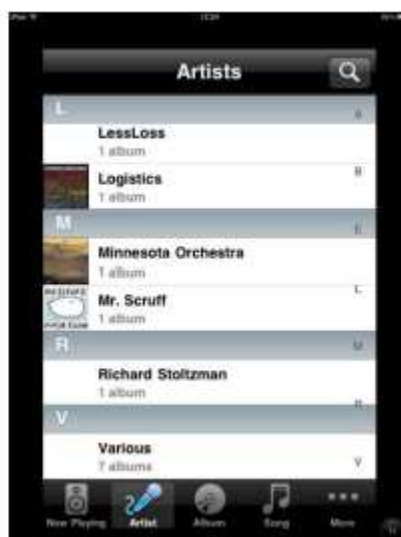
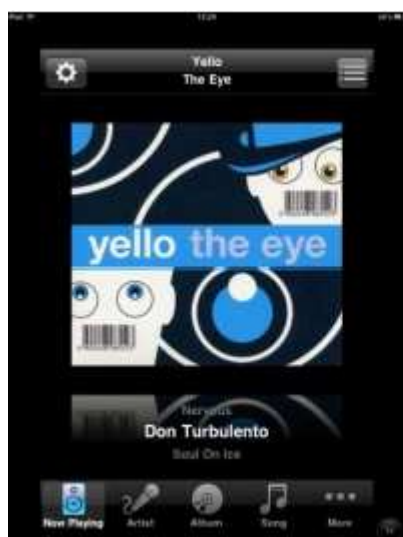


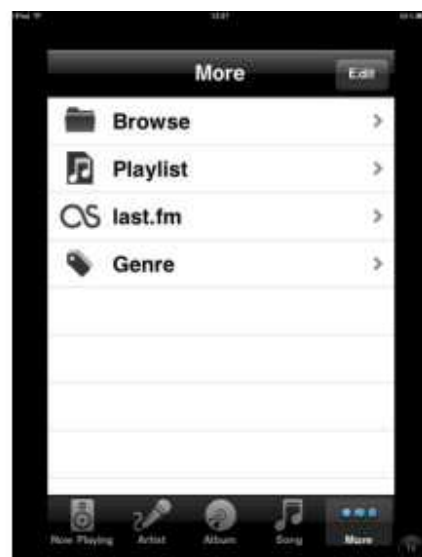
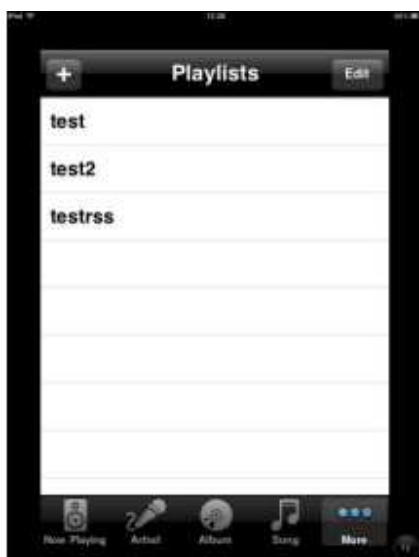
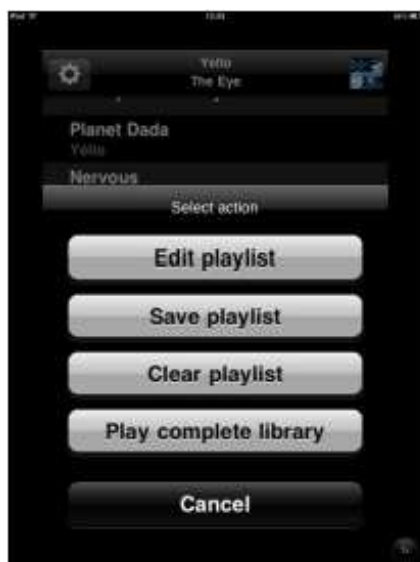
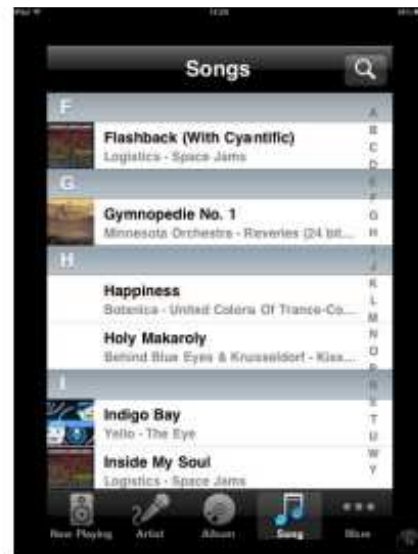
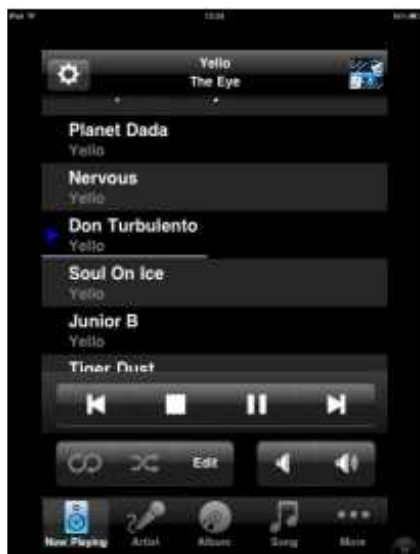
6.5. Internet Radio



7. MPoD application usage notes (iPod, iPhone)

In similar way as with MPaD, configuration and management is done on MPoD with iPod or iPhone.







8. Disposal



WHD are members of the INTERSEROH association.

We participate in the dual system as well as other industry-specific solutions. Therefore, plastic, metal and electronic parts can all be recycled.

9. Declaration of Conformity



This product supports all CE-marking criteria. The declaration of conformity certificate can be obtained from WHD.

10. Name and address of the manufacturer

WHD - Wilhelm Huber+Söhne GmbH+Co.KG
Bismarckstr. 19
78652 Deißlingen
Tel. Zentrale 0 74 20 / 8 89-0
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