

NetControlFX Quickmanual

Contents

NetControlFX Quickmanual	1
1 Installation	4
1.1 First Installation	4
1.2 Firewall.....	4
2 Connection	4
2.1 Network.....	5
3 Main Window	7
3.1 Main Menu	7
3.1.1 Operation Mode Setup / Tune	7
3.1.2 Add Devices (only in SETUP mode).....	7
3.1.3 Add Group (only in SETUP mode).....	7
3.1.4 Scan (only in SETUP mode).....	7
3.1.5 Scan + Rebuild (only in SETUP mode).....	8
3.1.6 Store System / Load System (only in SETUP mode)	8
3.1.7 Clear System (only in SETUP mode).....	8
3.1.8 Clear Canvas (only in SETUP mode)	8
3.1.9 System List	8
3.1.10 Network.....	8
3.1.11 Admin/Login.....	8
3.1.12 Storing operation on device.....	8
3.2 Toolbar	8
3.2.1 View	8
3.2.2 View	8
3.2.3 Zoom.....	8
3.2.4 Remove.....	9
3.2.5 Arrange	9
3.2.6 Recall Selected Preset	9
3.2.7 Upload Library.....	9
3.3 Canvas	9
3.3.1 Description	10
3.3.2 View-Modes	10
4 Device View	11
4.1 Device menu	11
4.2 Input Setting	11

4.3	FIR-filter on input	12
4.4	Output Setting	14
5	Output Section.....	14
5.1	Filter	14
5.2	Limiter.....	15
5.2.1	Dynamic Limiter.....	17
6	Speakers	17
6.1	Speaker Menu	18
6.2	Config Output	18
6.3	Global PC-Speaker Library	19
6.4	Creating speakers	20
6.5	Share speakers.....	21
7	DSP Speaker Library	22
7.1	Creating DSP Library	22
7.2	Load / Store	23
7.3	Exporting to Device.....	23
8	Preset Library	24
8.1	Creating Preset Library.....	24
8.2	Load / Store	25
8.3	Export / Import.....	25
9	Group Menu	25
9.1	Create Group	25
9.2	Sel	26
9.3	Edit	26
10	Updates	29
10.1	Update of the Preset-Library	29
10.2	Update of the Speaker-Library	29
10.3	Library Update of Multiple Devices in the Canvas	30
10.4	Firmware update	30
11	Migration of Amplifiers from Netcontrol3.....	31
12	Amplifier system parameters	32



DFM devices are operated via the Windows software NetControlFX.

Several devices can be operated simultaneously via this software.

Only one NetControl software can run on the computer at a time. A device can only ever be connected to one PC software.

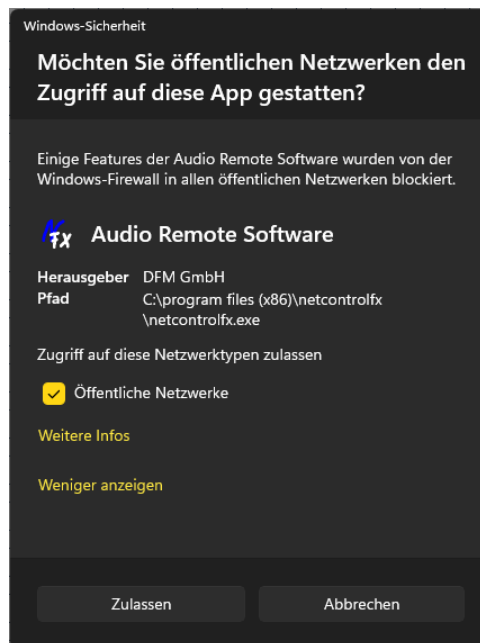
1 Installation

1.1 First Installation

First start the exe file for the installation. The software will then be installed on your computer.

1.2 Firewall

If you do the first scan on **NetControlFX** Windows will open a dialog box and asks if you want to give access to the network.



When you start a scan in NetControlFX for the first time, a dialog from Windows will open and ask if you allow access to the network.

Please allow this and also activate Public network.

If you do not activate this, you will not have access to the DSPs later.

2 Connection

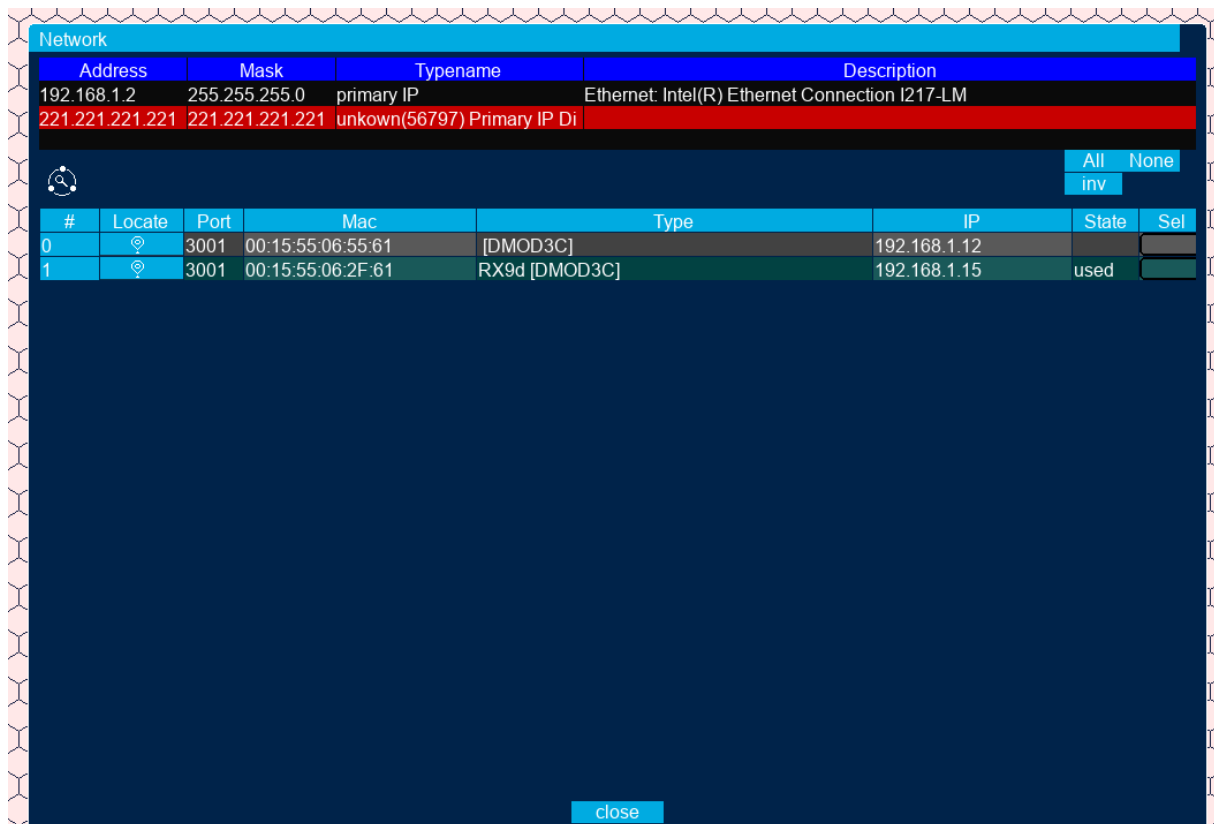
To connect amplifiers use one of two commands:

Scan (only in SETUP mode). System is scanning all devices and adds it to the view. All Group parameters will be removed.

Scan + Rebuild (only in SETUP mode). System is scanning all devices and adds it to the view. Groups are rebuilt from the devices.

2.1 Network

The Network menu is used to view the network and find solution with connection problems.



In the top of the window select the network adapter for amplifiers searching.

In the lower part displays all detected amplifiers.



Rescan network

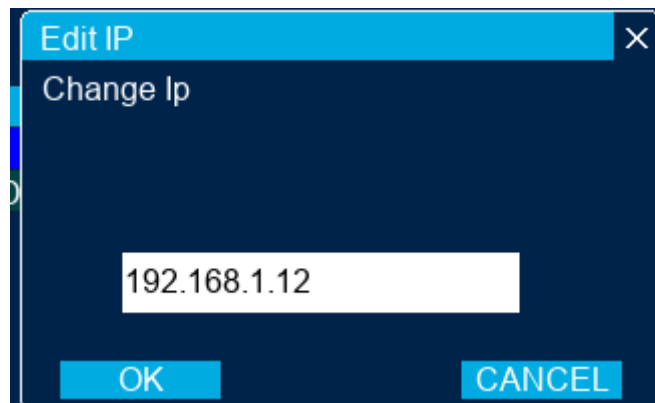


Selected amplifier signalling

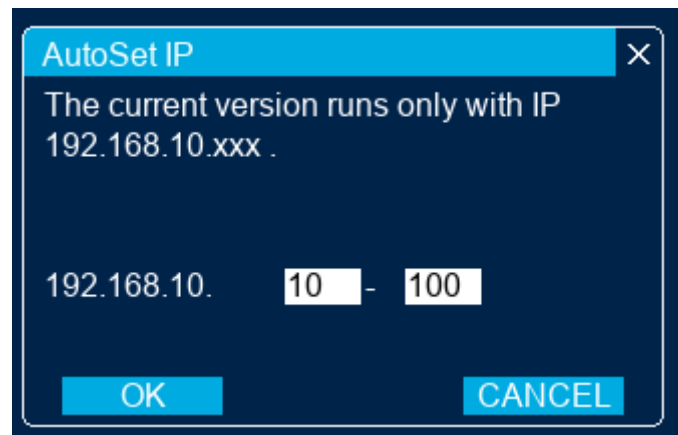
After selecting the amplifier, the IP icon appears.



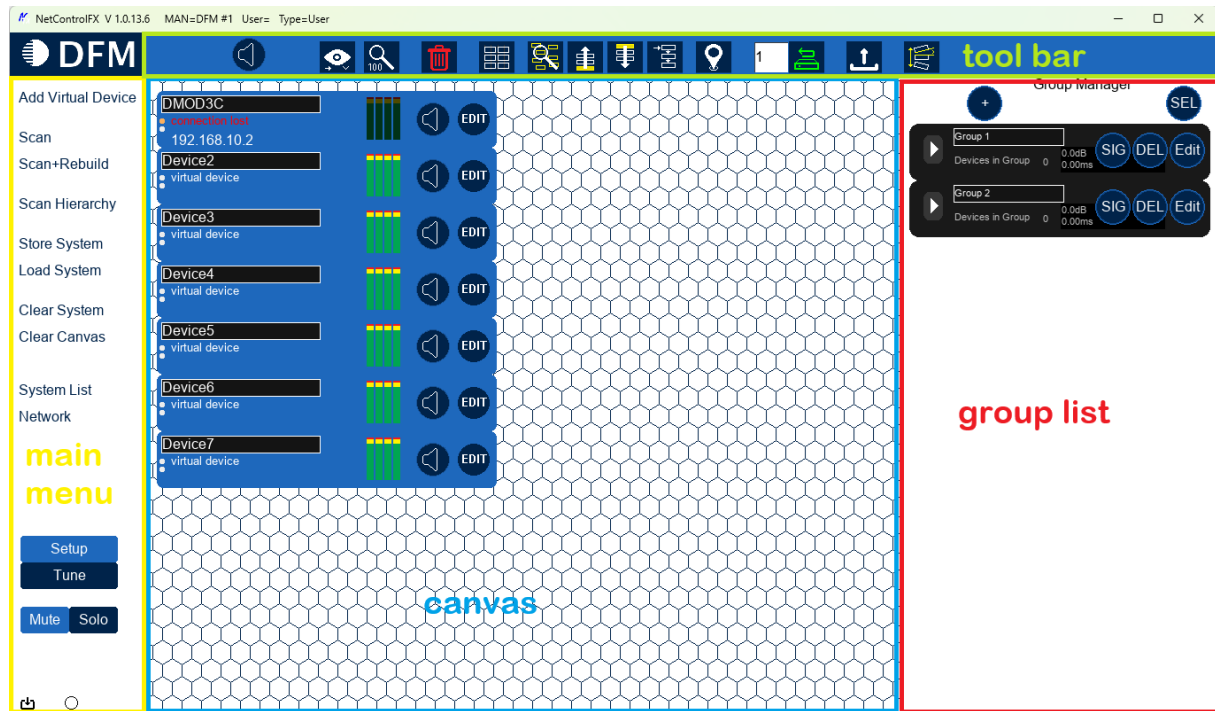
Calls up the menu for amplifier IP assigning.



As several amplifiers are selected at the same time, the green icon appear. It allows to assign IP in the selected address range automatically.



3 Main Window



The main menu is divided into 4 sections.

At the top is the toolbar. On the left is the skin menu and on the right is the group list.

In between is the canvas, where all devices are displayed as small pictograms.

3.1 Main Menu

3.1.1 Operation Mode Setup / Tune

In SETUP-Mode user can scanning the devices. Device can be moved on the screen and groups can be added. This mode should only be used on start to configure the system.

Later when working with devices the TUNE-Mode should be selected. Then you can't add devices and groups and can't move anything on screen, only device parameters can be edit.

3.1.2 Add Devices (only in SETUP mode)

You can add virtual devices.

3.1.3 Add Group (only in SETUP mode)

You can add groups.

3.1.4 Scan (only in SETUP mode)

System is scanning all devices and adds it to the view. All Group parameters will be removed.

3.1.5 Scan + Rebuild (only in SETUP mode)

System is scanning all devices and adds it to the view. Groups are rebuilt from the devices.

3.1.6 Store System / Load System (only in SETUP mode)

You can store and load a virtual system, currently it makes not much sense.T.B.D.

3.1.7 Clear System (only in SETUP mode)

You can remove all devices from the view and clear group parameters.

3.1.8 Clear Canvas (only in SETUP mode)

You can remove all devices from the view and keep group parameters.

3.1.9 System List

Overview about all devices in a list.

3.1.10 Network

Here you can configure the IP of the devices.

3.1.11 Admin/Login

Login for User or Manufacturer. Currently only for manufacturers. Depending on the mode, this function may be invisible. Manufacturers only: If its hidden you can activate it by pressing «Ctrl» + «Shift» + «a».

Go to the Admin - Product tab and enter the password – «1234». After that, return to the NetControlFx menu.

Speaker Library can be created only in this mode.

3.1.12 Storing operation on device

 If the circle lights up green, a storage process is being prepared or is already in progress on one of the devices. Please wait until the circle is white again before switching off the devices or exiting the PC software.

3.2 Toolbar

3.2.1 View



Mute/unmute all device

3.2.2 View



Change the viewed parameter of the device.

3.2.3 Zoom



Changes the zoom in 3 steps.

3.2.4 Remove



Removes the selected devices



3.2.5 Arrange

Devices are aligned in the view.



3.2.6 Recall Selected Preset

Recalls the preset on all selected devices.

A right click on the icon opens a dialog box where the preset names of the devices are displayed. If presets have different names, this is indicated by a different color.

load presets on selected devices			
Selected Devices = 3			
#	Name	count	Load
1	empty1	3	Load
2	empty2	3	Load
3	empty3	3	Load
4	empty4	3	Load
5	empty5	3	Load
6	empty6	3	Load
7	empty7	3	Load



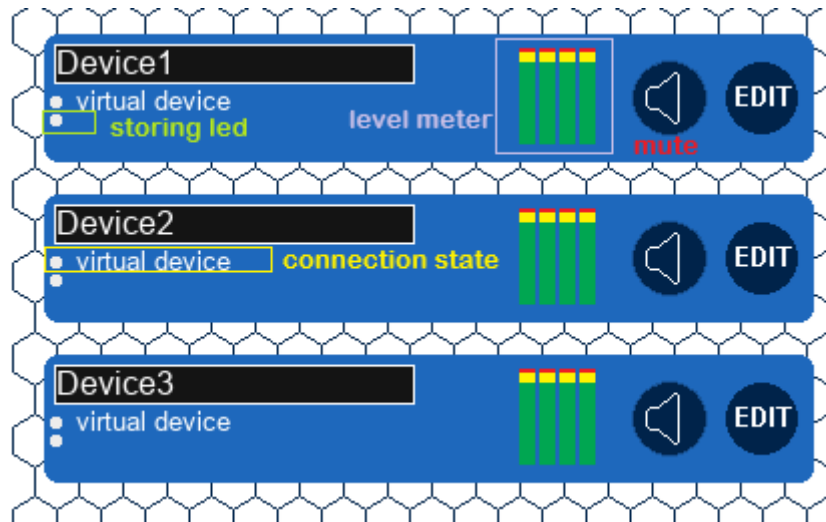
3.2.7 Upload Library

Uploads Preset Library on all selected devices.

3.3 Canvas

On the screen, all devices are displayed as pictograms.

The resolution of the screen can be set in 3 levels, Depending on the level, the display of the pictogram changes.



3.3.1 Description

The device can be muted and unmuted via the speaker symbol.

The device view can be accessed via Edit.

The level-meter is showing the input level of the device.

Connection state:

This led is showing the status of the connection. A white led means connection is fine. A red led means connection is lost or disconnected. For reconnect you can click in the left menu on "scan" or "scan+rebuild".

Storing led:

The storage LED lights up when a storage process is being prepared on the device or is already in progress. Please wait until the LED is off again before switching off the device or exiting the PC software

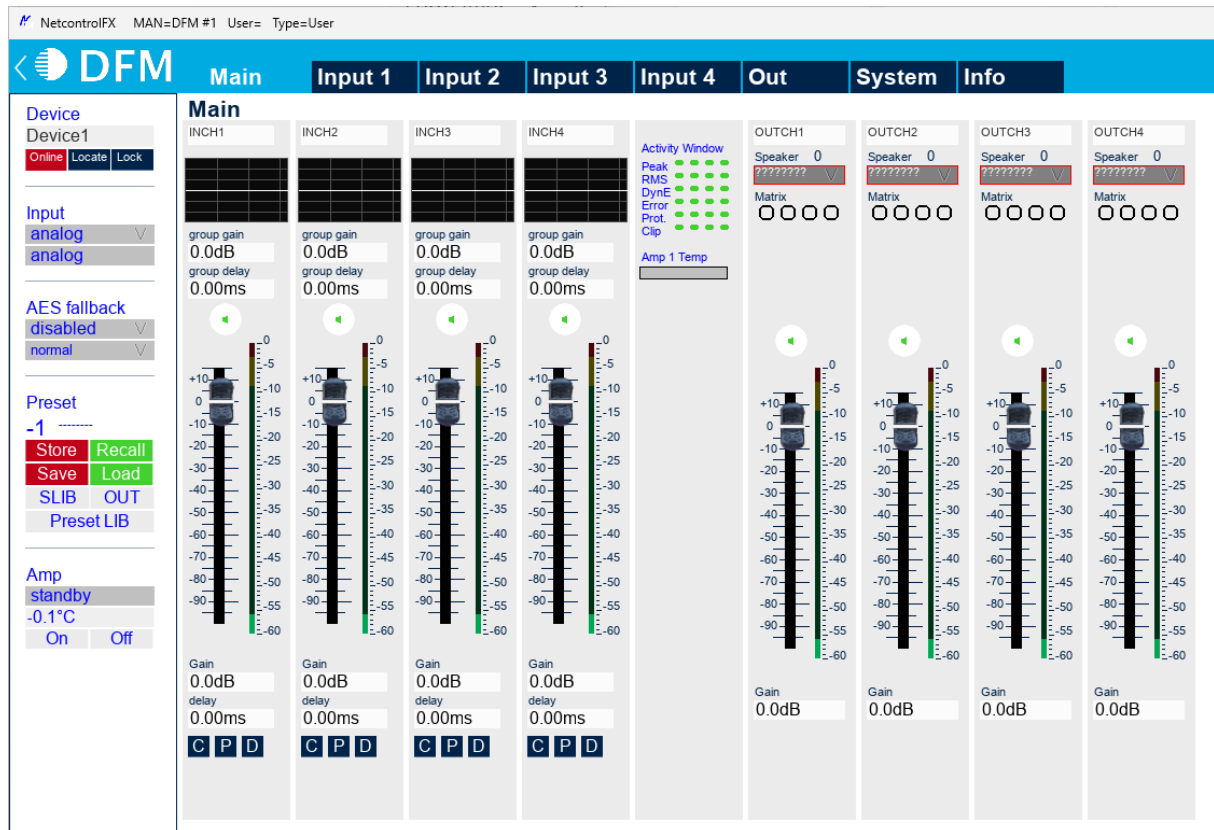
3.3.2 View-Modes

Brief info about the displayable device parameters:

- Type => Productname
- Name => Username of the device
- Serial => Serial Number (\$ xxxxxx)
- IP Address => Connection
- MAC Address => Mac-Adress (xx.xx.xx.xx.xx)
- Daisychain => DAISY-Chain Parameter (OO: Pos / Maxdev)
- Preset => Presetnumber / Name (P: name)
- Temperature
- Source => input source
- Status => power state
- Line-Array => line-length and curving

4 Device View

In the device view all parameters of a single device are displayed.



4.1 Device menu



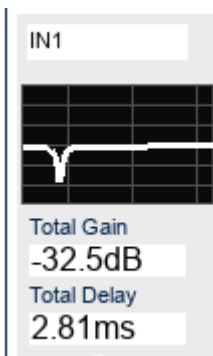
Online – Pressing the button reconnects the amplifier.

States: red– offline, black – online.

Locate – short flashing of all amplifier indicators.

Lock – Locking local amplifier control.

4.2 Input Setting

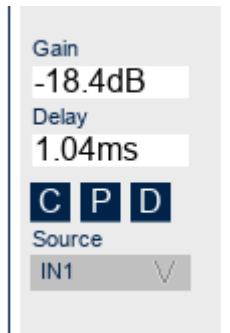


Input channel naming (editable)

Current input EQ setting

Total Gain – sum of group and channel gain

Total delay - sum of group and channel delay



Gain
-18.4dB

Delay
1.04ms

C P D

Source
IN1

Gain & Delay - input channel parameters

C P D - Copy, paste and delete – copy settings from one channel to another or delete settings



Source
IN1

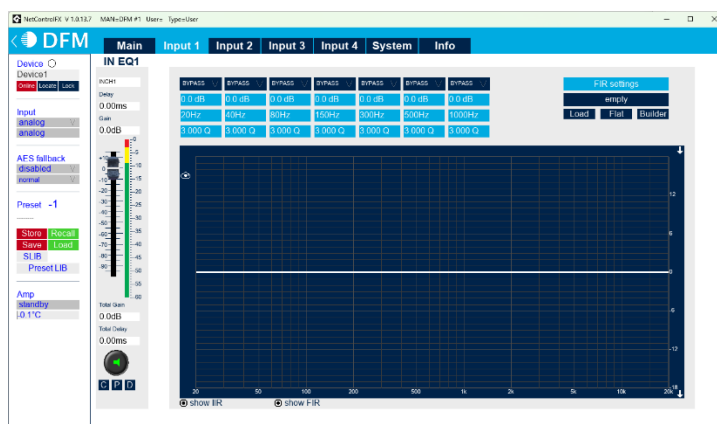
Physical input selection

4.3 FIR-filter on input

You can use FIR filters with a length of 512 taps on each channel. These filters can be placed either in the input section or the output section. The location of the filters is selected in the System menu, under the Fir-Mode option. After changing the mode, you need to reconnect the amplifier.

Systemparameter			Set as Product-Default
#	Name	Control	
LedReg32_12		Limit_Ch4	
LedReg32_13_16		Out_-21dBfs	
LedReg32_17_20		Out_-6dBfs	
LedReg32_21_24		In_-21dBfs	
LedReg32_25_28		Out_-9dBfs	
LedReg32_29_32		In_-21dBfs	
Invert led mask		-16	
FIR-Mode		1-Input	
Activate Input Delay			
AES Input Delay Mode		Short	
Constant Analog Delay		0.00ms	
Constant AES Delay		0.00ms	
Constant Dante Delay		0.00ms	
Gain Offset AES1		0.0 dB	

You can access the FIR filter settings menu in the input sections.



Normally this filter is flat. You have the opportunity to load a FIR-filter from a file.

NetcontrolFX can import 3 different file types:

binary-file with 32-bit floats – xxx.F32

binary-file with 64-bit floats - xxx.F64

text-file - xxx.FIT

Flat:

With this button you can flat the coefficients.

Builder:

With the help of the FIR-BUILDER, you can create very simple FIR filters yourself.

There are 5 interpolation points for which the frequency and gain can be set.

For very low and high frequencies, there are two slide switches that can either attenuate or let the signal through.

There is a kind of rubber band between the individual support points.

Calc” is used to calculate the FIR coefficients on the basis of the rubber band. The frequency response is displayed as a white line.

The FIR filter can be saved to the hard disk with “Store FIR”.

Press “Set” to apply the FIR filter to the input channel.

The calculated FIR filter is linear-phase. If a minimum phase filter (shorter throughput time) is to be created instead, “Minimum phase” can be activated.



4.4 Output Setting

OUT1

Speaker 0

Speaker Name

Matrix

☒
☐
☐
☐

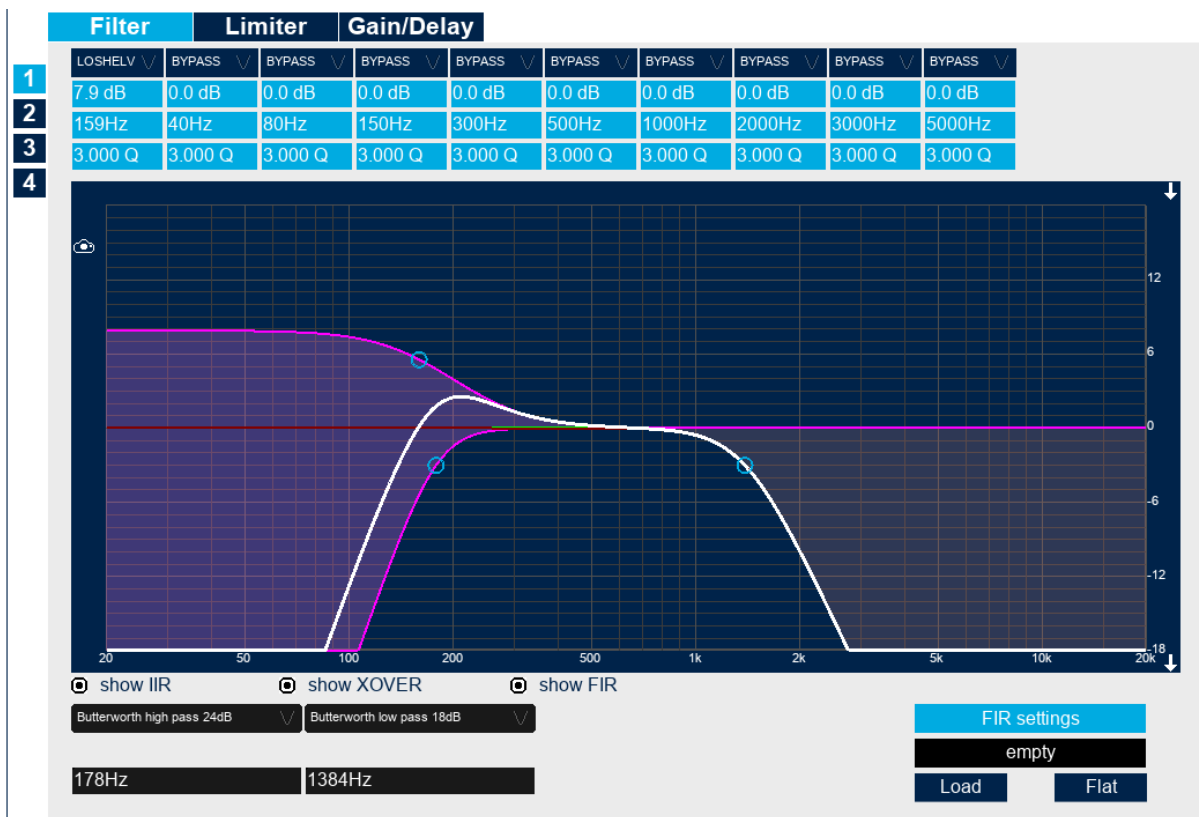
Output channel naming (editable)

Speaker name – assigned speaker

Matrix

Units for delay can be changed by press «Shift» + «u» or «Ctrl» + «u»

5 Output Section



5.1 Filter

Allows to set crossover, EQ (maximum 10EQ) and FIR filter loading (maximum 512 taps)

Each channel has one block of FIR filters with 512 points length. Filters must be pre-generated as numerical coefficients and can be loaded with the Load command.

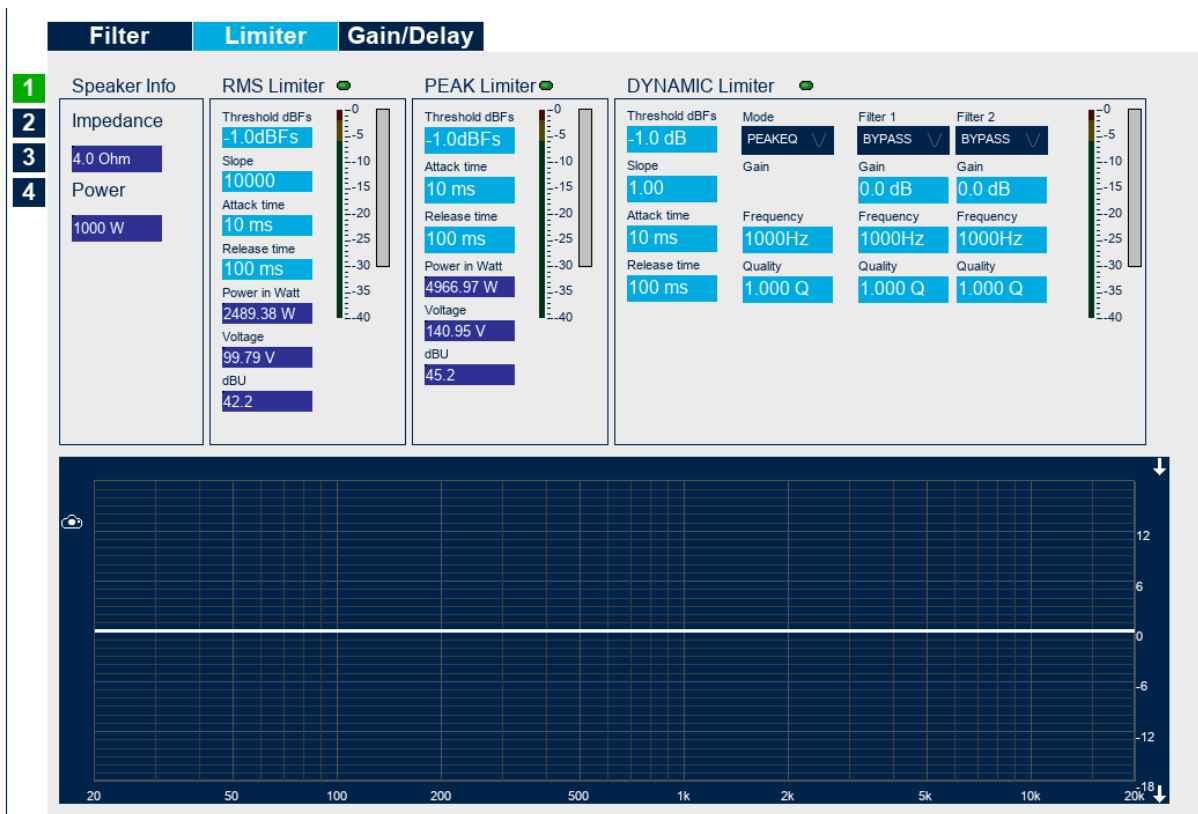
The software requires sharp compliance with the file extension:

binary-file with 32-bit floats – xxx.F32

binary-file with 64-bit floats - xxx.F64

text-file - xxx.FIT

5.2 Limiter



Used to set RMS and Peak limiters. To calculate Power in watt, the Impedance value specified in the Speaker Info parameters is used. If the speaker is not assigned, 4 Ohm is assumed by default.

RMS limiter has a Voltage parameter calibrated in RMS values. PEAK limiter has a Voltage parameter calibrated in peak values. Power in Watt is indicated in a similar way. To convert PEAK voltages to RMS voltage, divide the PEAK values by 1.41. To convert PEAK power to RMS power, divide the PEAK values by 2.

Recommended limiter time constants:

Voice Coil and Power Handling	Att.	Rel.
1" Tweeter 20 - 50 W	6	12
1.5" Tweeter 50 -75 W 20	10	20
2" Horn driver 50 -100 W	20	40
3" Horn driver 75 -125 W 100	40	80
2" Midrange 75 - 300 W	60	120
3" Midbass 100 - 500 W	80	160
4" Woofer 00 -1000 W	100	200
4" Woofer 500 - 1500 W	100	200
6" Woofer 1000 - 2000 W	100	200

RMS limiter parameters		
Voice Coil and power handling	Att.	Rel.
1" Tweeter 20 - 50 W	50	250
1.5" Tweeter 50 - 75 W	100	500
2" Horn driver 50 - 100 W	200	600
3" Horn driver 75 - 125 W	400	1000
2" Midrange 75 - 300 W	600	1500
3" Midbass 100 - 500 W	1000	2500
4" Woofer 500 - 1000 W	1200	2500
4" Woofer 500 - 1500 W	1500	4000
6" Woofer 1000 - 2000 W	2000	5000

The RMS limiter is usually set to the loudspeaker nominal power (Nominal Power Handling).

Peak limiter is usually set to the loudspeaker peak power (Continuous Power Handling).

Tip: to set the PEAK power twice as high as the RMS power, you can set the PEAK limiter threshold 3 dB higher than the RMS limiter threshold. If the power ratio is 4 : 1 (which may be relevant for some drivers), then the threshold will be 6 dB higher.

As an example, consider the limiter setting for the 12NDL76/4 speaker (B&C speakers):

Nominal Power Handling					400
Continuous Power Handling					800
Voice Coil Diameter					3.0 in
Nominal Impedance					4 Ω
RMS LIMITER					
Threshold dbFs	Power in Watt	Voltage	dBu	Attack	Release
-10,2	403,73/4Ohms	40,19	34,3	1000mS	2500mS
PEAK LIMITER					
Threshold dbFs	Power in Watt	Voltage	dBu	Attack	Release
-7,3	1607W/4Ohm	80,18	40,3	80	160

5.2.1 Dynamic Limiter

Threshold dBFs	-1.0 dB
Slope	1.10
Attack time	30 ms
Release time	110 ms

Detector parameters setting

Mode	PEAKEQ
Gain	
Frequency	1000Hz
Quality	1.000 Q

Limiter action setting

Filter 1	Filter 2
BYPASS	BYPASS
Gain	Gain
0.0 dB	0.0 dB
Frequency	Frequency
1000Hz	1000Hz
Quality	Quality
1.000 Q	1.000 Q

Side chain filter

6 Speakers

Speaker refers to the output parameters of a single output channel. These are located in the device view under the «Out» tab.

In detail these are:

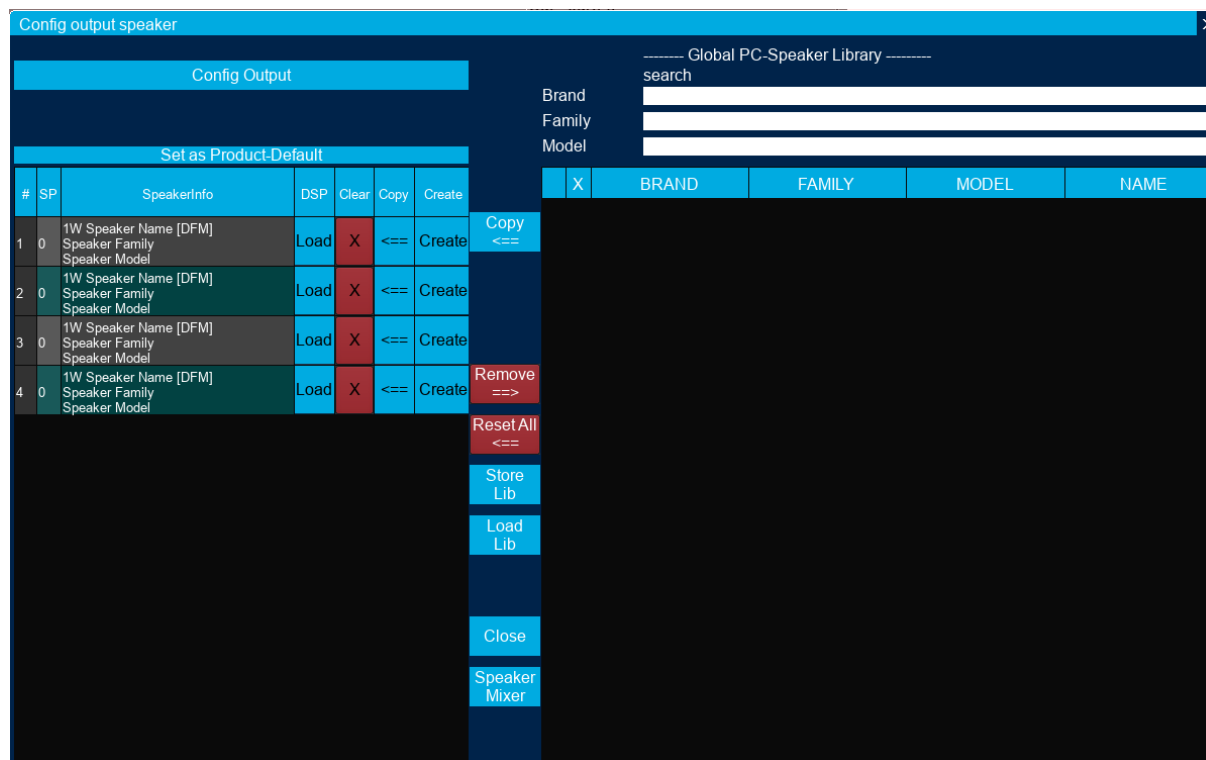
IIR output filter, FIR output filter, X-Over, Limiter as well as Gain, Phase and Delay.

These parameters together form a "crossover" for a loudspeaker.

SPEAKER



6.1 Speaker Menu



The output channels of the device are displayed in a table on the left-hand side.

The values 1W – 4W (located in the Speaker Info field) show the number of ways in the speaker.

The available speakers from the PC library are displayed on the right-hand side.

With «Load», a speaker **from the library on the device** can be assigned to an output. The loaded speaker number is displayed under SP or 0(if not loaded).

Multi-way speakers can only be loaded into properly configured output channels.

Press «X» to reset the speaker on the respective channel.

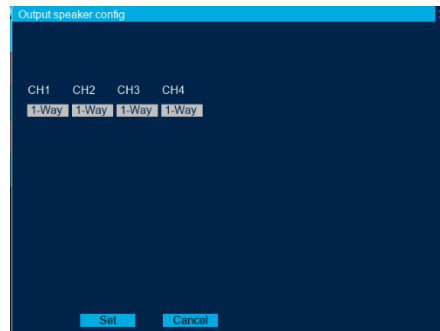
With «<=>» a speaker can be copied from the PC library to the output channel.

With «Reset All», the output section will be reset to default values.

A new speaker can be created with «Create», more on this in the next section.

6.2 Config Output

The number of crossover ways can be set here. By default, a one-way loudspeaker is configured at the output, but multiple-way loudspeakers can also be connected here.



If output 1 and 2 are configured to a 2-way loudspeaker, only 2-way loudspeakers can now be loaded.

6.3 Global PC-Speaker Library

Global library is located in folder:

C:\Users\xxxx\AppData\Local\Netcontrolfx\NetControlFX\Data\MyLib.json and can be copied and paste to another PC.

All speakers on the PC are displayed in the speaker table. All usable speakers are displayed in the PC speaker library. These can be assigned to an output directly from the library.

«X»: Here the number of ways is shown here.

«Brand»: Company who developed the speaker.

«Family»:

«Model»:

«Name»:

Global PC-Speaker Library

Brand

Family

Model

search

	X	BRAND	FAMILY	MODEL	NAME
Copy <==	2	ADF	Speaker Family	Speaker Model	2Ways_2
	1	ADF	Speaker Family	Speaker Model	Test1W
	2	ADF	My2Ways	Speaker Model	Speaker Name
	2	ADF	Speaker Family	Speaker Model	Test2W_1
	1	ADF	Speaker Family	Speaker Model	Bypass

Remove
==>

Reset All
<==

Store Lib

Load Lib

Close

With «Copy» a speaker can be loaded on the selected channel.

With «Remove» a selected speaker can be removed from library

With «Load Lib» the PC-Library can be loaded from default location.

With «Store Lib» the PC-Library can be stored.

After adding/removing the speaker, store the library.

6.4 Creating speakers

This section explains how you can create your own speaker.

To create a speaker enter the Manufacturer mode.

Several steps are necessary for this. To create a loudspeaker, you must first select an output channel from which you want to create a loudspeaker and reset the output channel with «X».

Set as Product-Default						
#	SP	SpeakerInfo	DSP	Clear	Copy	Create
1	0	1W Speaker Name [ADF] Speaker Family Speaker Model	Load	X	<==	Create
2	0	1W Speaker Name [ADF] Speaker Family Speaker Model	Load	X	<==	Create
3	0	1W Speaker Name [ADF] Speaker Family Speaker Model	Load	X	<==	Create
4	0	1W Speaker Name [ADF] Speaker Family Speaker Model	Load	X	<==	Create

Now switch to the output section of the device and configure the crossover and the limiters.

Then create dialog with «Create».

A dialog will now open where you can assign a name to the speaker and create it.

Create Speaker

Brand

ADF

Speaker Type

notset

Name

Speaker Name

Editable

☒

Model

Speaker Model

Share

☐

Family

Speaker Family

UID

DAFE727F.5245E542.3D60C111.04B959C3

Manuf.-UID

DAFE3DBC.50E85911.22868E91.0306DBC4

ADF

Way 1

Way 2

rated Power

1000W

1000W

Impedance

4.0Ohm

4.0Ohm

CREATE

CANCEL

Brand: The field is filled in automatically.

Name: Name of the new speaker

Model: You can use this designation freely

Family: You can use this designation freely

Rated Power: Information about the maximum output power

Impedance: Information about the impedance

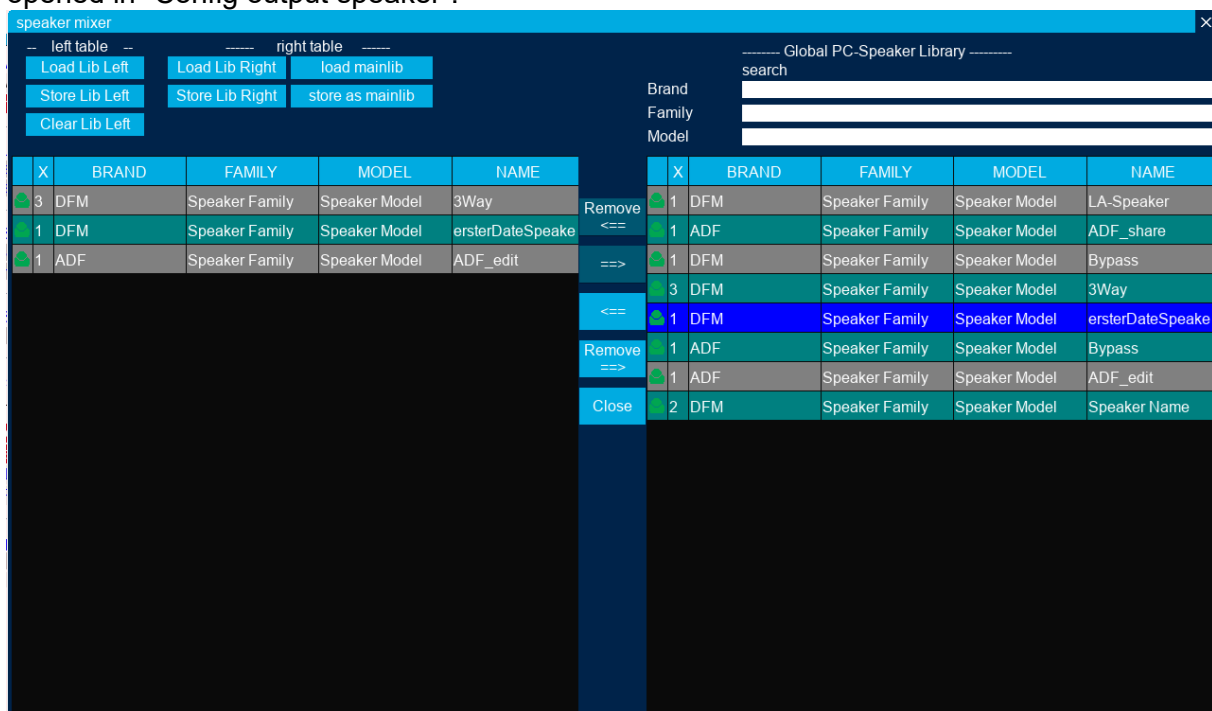
Speaker Type: Here you can select the type of speaker.

When you are finished, you can create a new speaker with «Create». This is automatically copied to the speaker library.

Please note that you should definitely save the speaker library, otherwise the new speaker will be lost

6.5 Share speakers

There is a way to share speakers with others by exporting or importing one or more speakers. There is a special dialog called “speaker mixer” for this purpose. This can be opened in “Config output speaker”.



The internal speaker database (“mainlib”) is displayed on the right-hand side when starting. This can be reloaded at any time using “load mainlib”.

With “store as mainlib” the right table can be saved as a new “mainlib”.

The right-hand table can also be easily exported using “Store Lib Right”. The exported file can be shared with other users. To import, simply use “Load Lib Right” or “Load Lib Left”.

The normal operation of this dialog is as follows:

(1) Exporting speakers

The right-hand side is used to edit the speaker database. When the dialog is opened, the database is automatically displayed on the right-hand side.

To export, select individual speakers in the right-hand table and copy them to the left-hand table using “←”. If this is not empty, it can be deleted beforehand with “Clear Lib Left”.

Once all the desired speakers have been transferred, the table can now be exported using “Store Lib Left”.

(2) Importing speakers

To import new speakers, the speaker file can first be imported using “Load Lib Left”. The desired speakers can then be selected in the left-hand table and transferred to the right-hand table via “→”. Entries on the right can be removed again using “Remove →”.

“Store as mainlib” must be clicked so that the right-hand table is permanently written to the database. The right-hand table can also be easily exported via “Store Lib Right”.

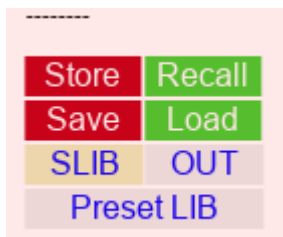
(3) Transferring speakers between two files

The dialog can be used not only to import and export speakers from the “mainlib” but also to exchange speakers between two files. To do this, copy the first file to the right-hand table using “Load Lib Right”. Then either load the second file into the left-hand table with “Load Lib Left” or create an empty table on the left-hand side with “Clear Lib Left”.

Speakers can then be copied back and forth using “→” and “←”.

The tables must then be saved using “Store Lib Left” or “Store Lib Right”.

7 DSP Speaker Library



In addition to the Global PC-Speaker Library you can create your own libraries and save them in the amplifier.

The speakers can be changed directly on the device without the need for a PC.

The SLIB button opens a dialog for creating a library.

7.1 Creating DSP Library

A library needs a name and a version number. The easiest way is to simply count them up.

The left table contains the entries for the speakers and the right table shows the speakers on the PC.

To enter a speaker in the table, first select the position to which the speaker is to be copied on the left and the speaker that you want to take over on the right.

Then simply click on «Copy».

If there are no speakers in the table on the right, you must first create some, or load a speaker table.

Speaker-Lib

Name

Version

Comment

Brand

Family

Model

<-- search in global Library -->

Store SpeakerLib

Load SpeakerLib

Clear SpeakerLib

Export to Device

close

#	BRAND	FAMILY	MODEL	NAME
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				

Copy

Ow	BRAND	FAMILY	MODEL	NAME
	DFM	Speaker Family	Speaker Model	LowPass
	DFM	-	-	Bypass
	DFM	-	-	Test
	DFM	Speaker Family	Speaker Model	HighPass
	DFM	Speaker Family	Speaker Model	HighPass2
	A	Speaker Family	Speaker Model	Test2
	B	Speaker Family	Speaker Model	SpeakerB
	A	Speaker Family	Speaker Model	TestA

7.2 Load / Store

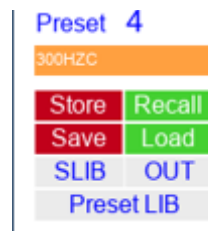
Via «Store SpeakerLib» and « Load SpeakerLib» you can store the table on the PC and also load it again.

7.3 Exporting to Device

Via «Export to device» a SpeakerLib can be transferred to the DSP.

However, this should not be done shortly before or during a concert !!!!

8 Preset Library



Current amplifier settings can be stored as presets. A preset saves all amplifier settings, excluding group settings.

Store – save current settings as a preset in the amplifier memory

Recall – restore the current settings from the amplifier preset

Save - store the current settings as a preset on the PC

Load - restore the current settings from a preset on the PC

8.1 Creating Preset Library

In NetControlFX you can combine several individual presets into one library.

The preset can be charged directly on the device without the need for a PC.

To work with the library, you must open the SLIB menu



In the left table the presets are displayed. Via cursor you can scroll through the table.

In the window at the bottom right, the saved single presets are displayed. To load a preset into the table you have to select the preset in the right window and then paste it via the copy button «<=>».

With «X» a preset can be removed again.

The Load button in the table loads the preset directly into the device.

8.2 Load / Store

Via «Store PresetLib» and «Load PresetLib» you can store the table on the PC and also load it again. When loading a table, no data is transferred to the PC.

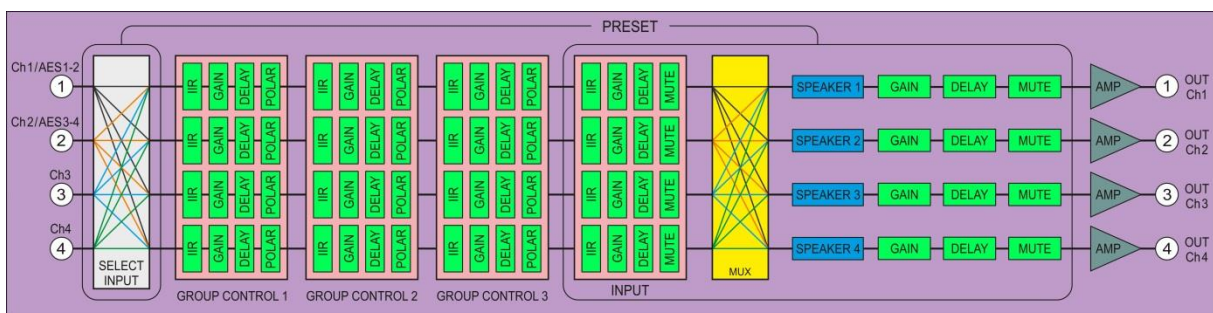
8.3 Export / Import

With «Export to device» you can upload the library to the device.

With «Import from device» you can do the opposite and download the library from the device.

9 Group Menu

Amplifier Path Structure



Select input – select physical input connected to the input section

Group control – three Group control blocks connected in series. Respectively each channel can be included in three different groups maximum. Group control blocks are located before the main MUX.

Input – input section

Mux – matrix

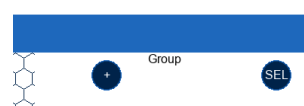
Speaker – output section. Its settings can be stored into the Speaker library. Its structure is following:

SPEAKER

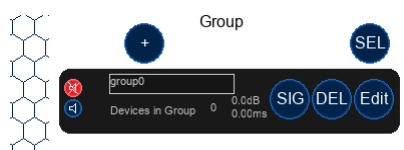


9.1 Create Group

With the «+» button a new group can be created.



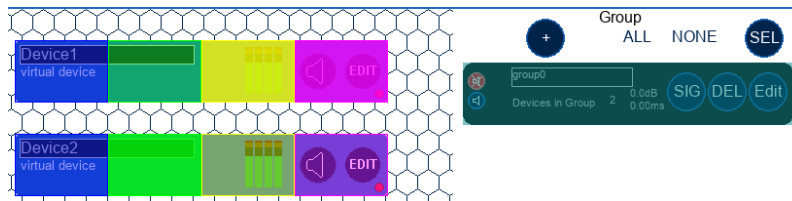
A group icon appears.



9.2 Sel

The group can now be assigned individual channels of one or more devices.

The «SEL» button is used to activate and deactivate group assignment.

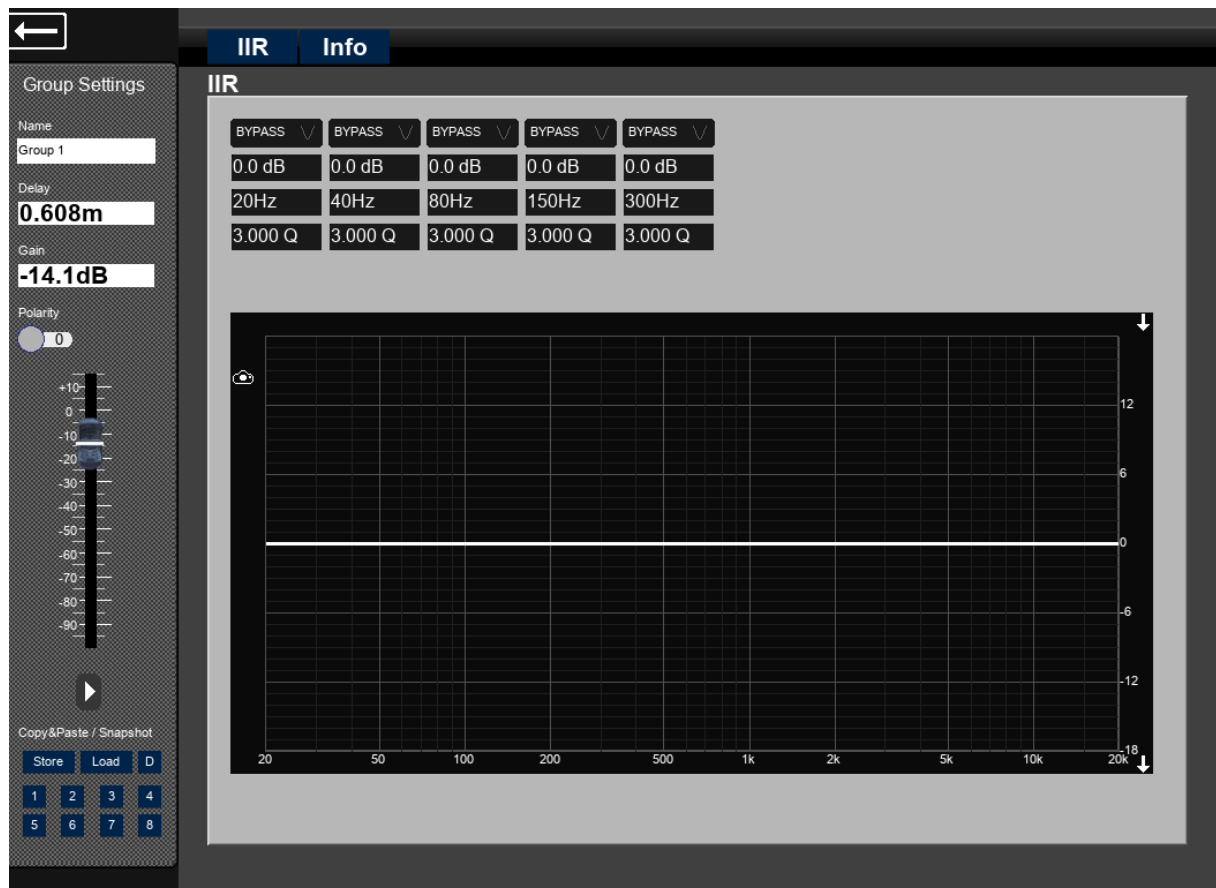


If the group assignment has been activated, you can now first select the group (will now be colored bluish).

The devices now show the color of their membership in the group. By clicking on a device color, this channel is added to or removed from the group.

9.3 Edit

IR EQ, Delay and Gain can be set in each group.



Examples of Using Groups

Two speaker sets are connected to two amplifiers – Left & Right. The set includes a subwoofers and a 3-way systems. Since the matrix is located after the group sections – we will do the routing on the input switch section. The signal is fed to all input sections from input 1. Now we can combine both subs in group 1, both tops - in group number 2 and all speaker together – in group number 3.



If the system uses many amplifiers, you can make routing on the matrix (MUX), after group control. In this case, only the entire amplifier can be included in the group. The example shows the use of 4 amplifiers group.



10 Updates

In this chapter the update of Libraries and firmware is discussed.

10.1 Update of the Preset-Library

To update the preset-library of a device, connect the device first and then click on «Preset LIB». A Special dialog will be opened. Here you can load a stored Library and then upload the library to the device.

For uploading click on «Export to Device»



#	presetname	filename	X	Load
1			X	Load
2			X	Load
3			X	Load
4			X	Load
5			X	Load
6			X	Load
7			X	Load
8			X	Load
9			X	Load
10			X	Load
11			X	Load
12			X	Load
13			X	Load
14			X	Load
15			X	Load
16			X	Load

10.2 Update of the Speaker-Library

To export a Speaker-Library to the device go to the device view and than click on SLIB. A dialog for speakers will be opened.

With «Export to device» you can upload the speaker-Lib to the device.



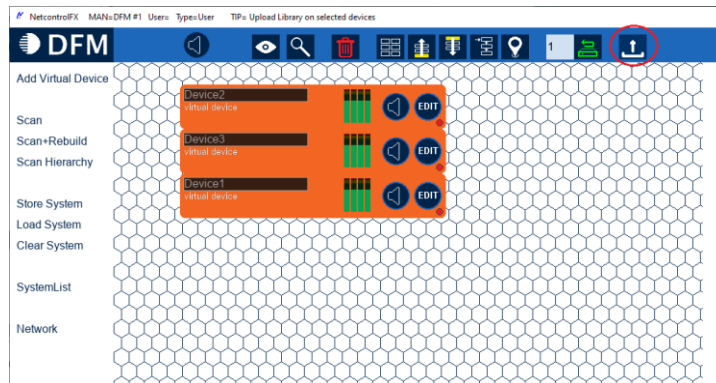
#	BRAND	FAMILY	MODEL	NAME
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				

Ow	BRAND	FAMILY	MODEL	NAME
DFM	Speaker Family	Speaker Model	LowPass	
DFM	-	-	Bypass	
DFM	-	-	Test	
DFM	Speaker Family	Speaker Model	HighPass	
DFM	Speaker Family	Speaker Model	HighPass2	
A	Speaker Family	Speaker Model	Test2	
B	Speaker Family	Speaker Model	SpeakerB	
A	Speaker Family	Speaker Model	TestA	

10.3 Library Update of Multiple Devices in the Canvas

It is very tedious to upload a library for each device individually. Therefore, there is the possibility to upload a library for several devices in the canvas.

To update the library of one or more devices, select them in the canvas and click on the update icon.



A file-open dialog will pop up where you can select the library for the upload. Please use the same product-type for all of the selected devices otherwise the upload will not start.

You can upload a preset-Library (or a speaker-Library => in future) with this functionality.

10.4 Firmware update

If you open the «system list» you see an overview about all used devices. If there is a new firmware available an update button will be shown. To update the firmware click on this button. The firmware-update can take longer so please don't do this short before you need the devices for a concert.

While the update is in progress you can't close the dialog.

System List													
#	STATUS	CON	NAME	MODEL	DSP	TEMP	SERIAL	IP	MAC	FIRMWARE	PRESETLIB	SPEAKERLIB	TASK
1	running	true	Subs	RX9d	□□□	44.0°C	0388E12F	192.168.1.15	00:15:55:06:2F:61	V 5.107	PARKPR	AMPLIB	no update needed

11 Migration of Amplifiers from Netcontrol3

Amplifiers working under Netcontrol 3 can be reflashed to work under NetControlFX.

Amplifiers working under NetControl 2 must be pre-reflashed under NetControl3.

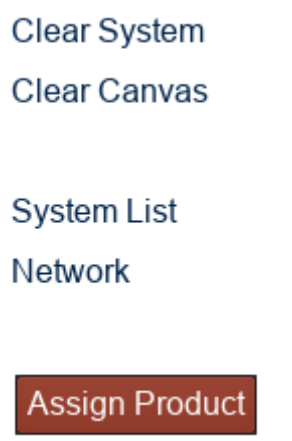
Note: the speaker libraries and presets are incompatible with previous libraries and require manual creation.

Migration is possible only in the manufacturer mode.

Manufacturers mode: If its hidden you can activate it by pressing «Ctrl» + «Shift» + «a».

Go to the Admin - Product tab and enter the password – «1234». After that, return to the NetControlFx menu.

After executing Scan+Rebuild command, an icon Assign Product will appear. This command can also be recalled by pressing Ctrl.



In the menu that appears, you need to call the RX9d amplifier and press OK.

After re-scanning, the amplifier will appear on the desktop.

Now you need to go to the System List, update the firmware and reboot the amplifier.

System List													
Update Firmware													
#	STATUS	CON	NAME	MODEL	DSP	TEMP	SERIAL	IP	MAC	FIRMWARE	PRESETLIB	SPEAKERLIB	TASK
1	running	true	RX9d	RX9d	DMOD3C	48.0°C	0388E155	192.168.1.12	00:15:55:06:55:61	V 5.37	Default01	Default01	update needed
2	running	true	RX9d	RX9d	□ □ □	46.0°C	0388E12F	192.168.1.15	00:15:55:06:2F:61	V 5.107	PARKPR	AMPLIB	no update needed

The reflashed amplifier has a default address of 192.168.10.10. If necessary, the address must be changed through the Network menu and the amplifiers must be reconnected.

After executing Scan+Rebuild command, the menu Assign Product will appear again. You need to call the RX9d amplifier and press OK.

Check the update status again in the System List menu. Sometimes it may be necessary to re-update the amplifier firmware.

12 Amplifier system parameters

The amplifier's system parameters do not require changes and are saved in the MyProducts.json file. If the amplifier's system parameters were lost for some reason, they can be restored from this table. To edit the system parameters, you need to enter the manufacturer's mode.

Systemparameter		Set as Product-Default
#	Name	Control
	Max User Presets	10
	AMP	
	FSI (referenced analog input in dBU)	9.6 dBU
	FSO CH1 (referenced analog output level in dBU)	9.6 dBU
	FSO CH2 (referenced analog output level in dBU)	9.6 dBU
	FSO CH3 (referenced analog output level in dBU)	9.6 dBU
	FSO CH4 (referenced analog output level in dBU)	9.6 dBU
	SystemGain Out1 (analog in to analog out amplification)	35.0 dB
	SystemGain Out2 (analog in to analog out amplification)	35.0 dB
	SystemGain Out3 (analog in to analog out amplification)	35.0 dB
	SystemGain Out4 (analog in to analog out amplification)	35.0 dB
	Bridge CH1+2	OFF ✓
	Bridge CH3+4	OFF ✓
	Ampinterface CH1+2	CUSTOM ✓
	Ampinterface CH3+4	CUSTOM ✓
	Amptype CH1	CUSTOM_HWCLIP ✓
	Amptype CH2	CUSTOM_HWCLIP ✓
	Amptype CH3	CUSTOM_HWCLIP ✓

Systemparameter		Set as Product-Default
#	Name	Control
	Ampgain CH1	35.0 dB
	Ampgain CH2	35.0 dB
	Ampgain CH3	35.0 dB
	Ampgain CH4	35.0 dB
	swap encoder direction	
	TempPolynom	Polynom ✓
	Power Off Temperature	100.0°C
	Temp Polynom: $F5 \cdot x^5 + F4 \cdot x^4 + \dots + F1 \cdot x + F0$	
	F0	0.00000000
	F1	20.00000000
	F2	0.00000000
	F3	0.00000000
	F4	0.00000000
	F5	0.00000000
	divers	
	Locate sec	3
	Visibility	
	Load Speaker	

Systemparameter		Set as Product-Default
#	Name	Control
	Edit Speaker	
	LED-Registers	
	LedReg32_5	AnalogInput
	LedReg32_6	AesInput
	LedReg32_7	Off
	LedReg32_8	Off
	LedReg32_9	Limit_Ch1
	LedReg32_10	Limit_Ch2
	LedReg32_11	Limit_Ch3
	LedReg32_12	Limit_Ch4
	LedReg32_13..16	Out_-21dBfs
	LedReg32_17..20	Out_-6dBfs
	LedReg32_21..24	In_-21dBfs
	LedReg32_25..28	In_-9dBfs
	LedReg32_29..32	In_-21dBfs
	Invert led mask	-16
	FIR-Mode	2-Output
	Activate Input Delay	