

MiniDexed Control Center

User Manual

2023. Jan. 16

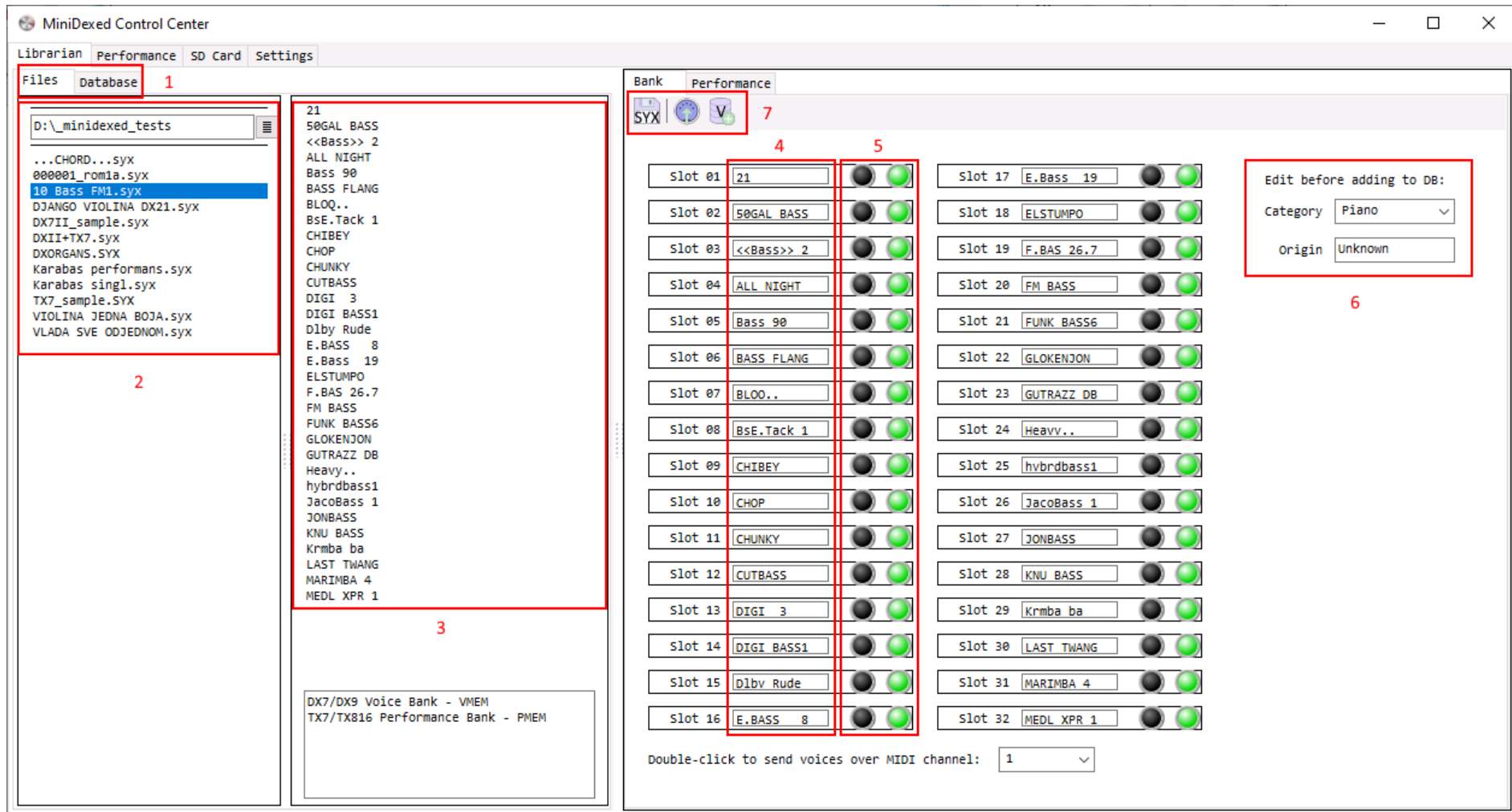
Current MiniDexedCC version: 0.9.3.30

About

MiniDexed Control Center (MiniDexedCC) is a librarian/editor for MiniDexed synth module based on Raspberry Pi and Dexed.

The user interface of MiniDexedCC is based mostly on using a computer mouse to work. It means that the most of the operations are done by clicking or drag&drop.

Main screen



Main screen is the file librarian. You can work with files from a folder on your filesystem, or work with data stored in database (1).

On the Files tab, select a directory with your files (button with 3 horizontal lines). In the files list (2) you can see your SysEx files from the selected directory.

If you select a SysEx file, it will be analyzed and in the Voices list (3) you can see the DX7 voices from the SysEx file. At the bottom of the Voices list you can see a log from analyzing the file. Analyzing function can also recognize other SysEx formats from DX-Series (DX11 etc.) but the MiniDexedCC will use just the DX7, DX7II and TX7 files.

Now, you can drag&drop a whole file (from 2) or single voice (from 3) to the bank slots (4). The drop area is the field that shows the voice name.

If you dropped a DX7II voice into a slot, the first LED (5) will turn green. Second LED indicates a TX7 voice.

To summarize:

- No LED is green – your voice contains just DX7 voice data (VCED). It may also contain DX7II supplement (ACED) or TX7 function (PCED) data, but if these are at initial values – the LEDs will not turn green.
- Left LED is green – your voice contains DX7 voice data (VCED) and DX7II supplement (ACED)
- Right LED is green – your voice contains DX7 voice data (VCED) and TX7 function data (PCED)

Now, if you intend to collect the voices to the MiniDexedCC databank, first set the additional parameters shown in group 6:

- Select a category for your voices (e.g. Piano, Strings, Synth). Categories need to be defined/added on settings tab
- Type a text for voice's origin (e.g. Mark's collection, Original ROM 1a etc.)

These 2 parameters will be used in the future to do a search in database (filter the results). This isn't yet implemented.

At the top of the panel is a toolbar with following buttons:



- Save the slots to a SysEx file (incl. ACED or PCED parameters)
- Send bank over MIDI to a DX-Series device
- Save the voices to the database (incl. ACED or PCED parameters)

Parameter viewers

If you click on the LEDs in the Bank slots – a corresponding parameter viewer will pop-up (DX7II or TX7 parameters).

You can also see the DX7 voice parameters if you click on the slot in the empty space before the text “SlotXY”.

DX7 DX7II TX7

slot 17 E.Bass 19

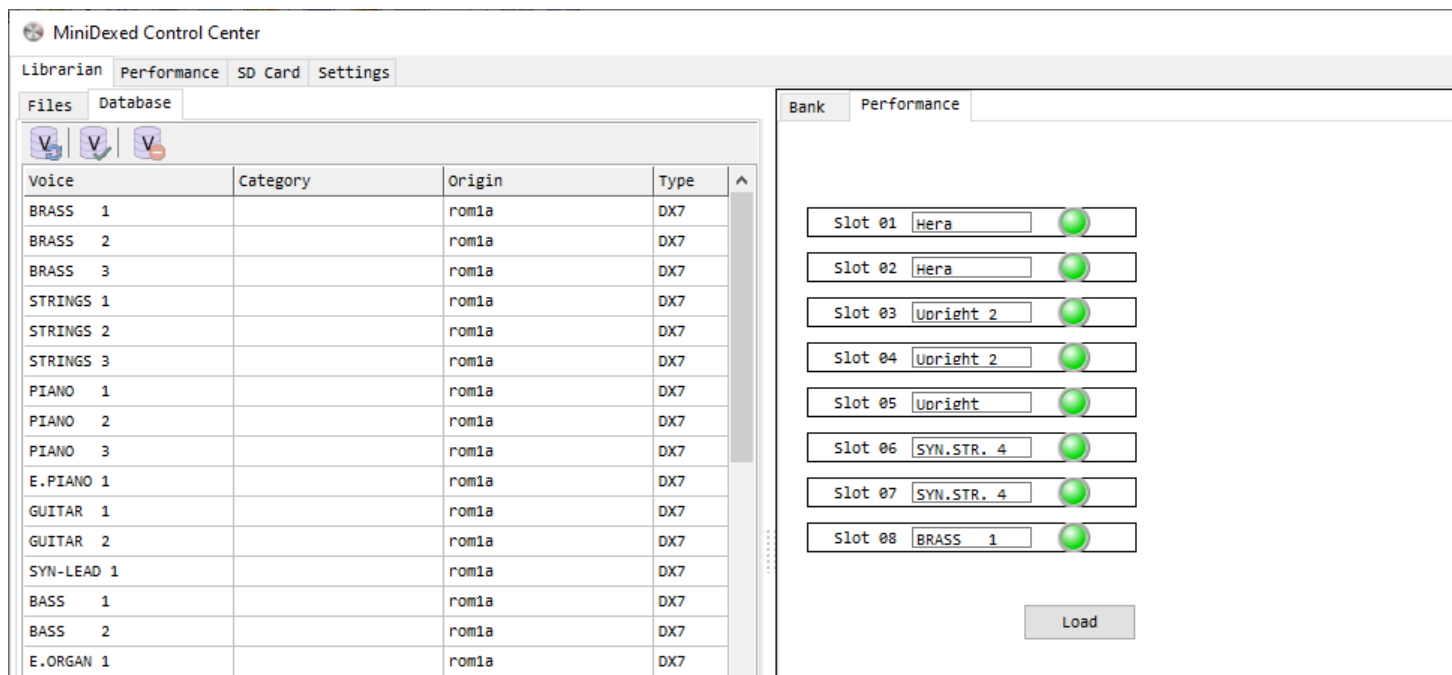
	Parameter	DX7 Param.	INIT Values
0	OP6_EG_rate_1	98	99
1	OP6_EG_rate_2	2	99
2	OP6_EG_rate_3	76	99
3	OP6_EG_rate_4	38	99
4	OP6_EG_level_1	98	99
5	OP6_EG_level_2	0	99
6	OP6_EG_level_3	0	99
7	OP6_EG_level_4	0	0
8	OP6_KBD_LEV_SCL_BRK_PT	41 D3	39 C3
9	OP6_KBD_LEV_SCL_LFT_DEPTH	0 A-1	0 A-1
10	OP6_KBD_LEV_SCL_RHT_DEPTH	24 A1	0 A-1

Some of the parameters are shown as value + translations (like the note name etc.). The blue-marked parameters are the parameters that are different compared to the initial values.

Clicking on the Parameters column header will change the parameters names between long and short version.

Performance slots

To select a voice from a SysEx file or database, to edit the MiniDexed-specific parameters, and to save it to performance.ini files – you need to drag&drop the voices to the Performance slots:



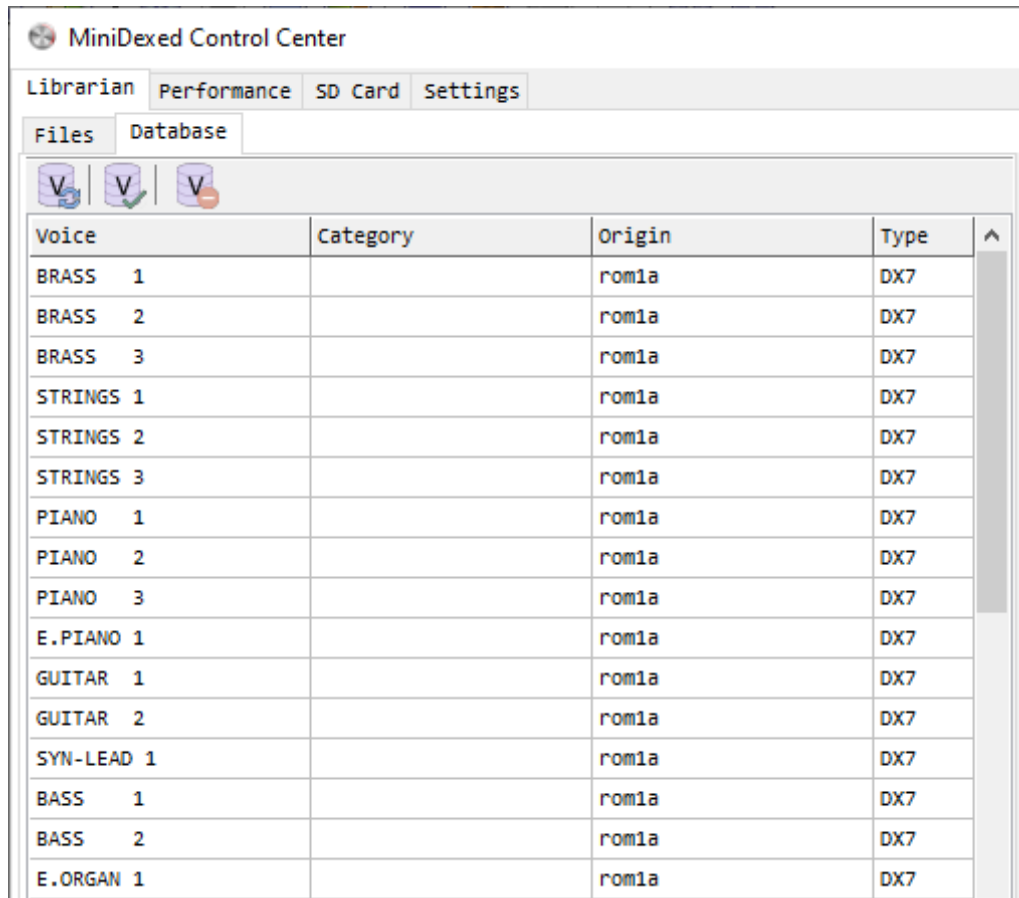
The green LED indicates that supplement parameters are present, either converted from DX7II ACED, TX7 PCED or from the voices that are already stored to the database as MDX PCEDx (MDX=MiniDexed, PCEDx=internal format for supplement data).

Clicking on the LED will bring the Viewer for MDX parameters. You will see here a lot of parameters that still aren't used in MiniDexed.

MiniDexed's ReverbSend parameter is at the moment stored as FX1Send in PCEDx. It may change in the future if more effects gets implemented.

To use the voices in Performance editor (top-most tab selector), you need to send the voices to the editor by clicking on the button Load.

Database



MiniDexed Control Center

Librarian Performance SD Card Settings

Files Database

Voice	Category	Origin	Type	
BRASS 1		rom1a	DX7	
BRASS 2		rom1a	DX7	
BRASS 3		rom1a	DX7	
STRINGS 1		rom1a	DX7	
STRINGS 2		rom1a	DX7	
STRINGS 3		rom1a	DX7	
PIANO 1		rom1a	DX7	
PIANO 2		rom1a	DX7	
PIANO 3		rom1a	DX7	
E.PIANO 1		rom1a	DX7	
GUITAR 1		rom1a	DX7	
GUITAR 2		rom1a	DX7	
SYN-LEAD 1		rom1a	DX7	
BASS 1		rom1a	DX7	
BASS 2		rom1a	DX7	
E.ORGAN 1		rom1a	DX7	

The database screen is not refreshed automatically. You need to click on the first button on the toolbar (database with blue refresh symbol).

You can drag&drop the voices from here to the Bank or Performance slots.

You can edit the Category and Origin fields here and commit the changes to the database by clicking the 2nd button on the toolbar (database with green check symbol).

The last button is for deleting the selected voice from the database.

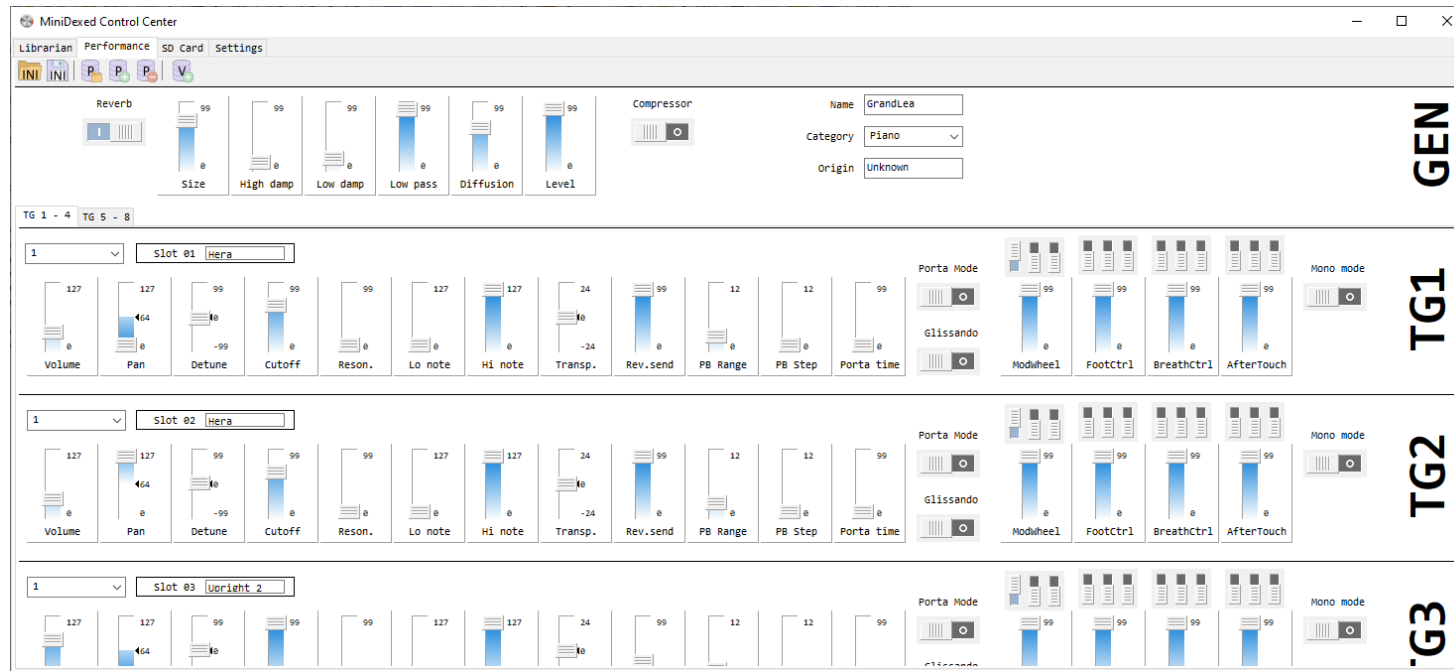
In the column “Type” you can see if the stored voice contains just the DX7 parameters, or it also contains DX7II, TX7 or MDX additional parameters.

Clicking on column headers will sort the list.

The database is stored in SQLite3 format in user’s home directory, subdirectory MiniDexedCC, under the name SysExDB.sqlite.

This is the file you like to keep if you want to back-up your database.

Performance editor



In the performance editor you can edit the supplemental parameters (PCEDx) that you have either loaded through the Librarian tab to the Performance slots, or loaded in this window by using the buttons from the toolbar.



Buttons on the toolbar are:

- Open performance INI file (MiniDexed file format)
- Save performance INI file (MiniDexed file format)
- Load performance from database (VCED + MDX)
- Save performance to database (VCED + MDX)
- Delete a performance from database (dialog opens to select the performance to delete)
- Extract voices from performance and save to database (VCED + MDX)

SD Card

This tab has two sub-tabs: **INI Files** and **Syx Files**.

On **INI Files** tab you can edit the minindexed.ini configuration (hardware configuration of your MiniDexed).

MiniDexed Control Center

Librarian Performance SD Card Settings

SD Card E:\

INI Files Syx Files

Sound device:

☒ PWM Address:
☐ I2S Address:
☐ HDMI Other:
☐ Other
Sample rate: 48000
Chunk size: Auto
Swap channels: ☐

MIDI device:

Baud rate : 31250
Enable MIDI Thru: ☐
From:
To:
Accept program change: ☐

Debug options:

MIDI dump: ☐
Profile: ☐

Display:

☐ None Address:
☐ I2C HD44780 Address:
☐ I2C SSD1306 Address:
☒ Discrete Address:
Cols: 16
Rows: 2
SSD1306 resolution: 128x32
Pin RW: 0
Pin RS: 4
Pin EN: 17
Pin D4: 22
Pin D5: 23
Pin D6: 24
Pin D7: 25

Performance options:

Select to load:

Comments (max. 3 lines):

Rotary encoder:

☐ None
☒ Discrete
Pin Clock: 10
Pin Data: 9

Buttons:

Timeouts (ms)
Prev: 0 DbClick: 400
Next: 0 LngPress: 400
Back: 11 longpress
Select: 11 click
Home: 11 doubleclick
Shortcut: 11

Overview P1 GPIO header:

	3V		5V
	GPIO2		5V
	GPIO1		GND
LCD RS	GPIO4	GPIO14	TXD
	GND	GPIO15	RXD
LCD EN	GPIO17	GPIO18	
	GPIO27	GND	
LCD D4	GPIO22	GPIO23	LCD D5
	3V	GPIO24	LCD D6
ENC CLK/A	GPIO10	GND	
ENC DATA/B	GPIO9	GPIO25	LCD D7
Button	GPIO11	GPIO8	SPI0_CE0_N
	GND	GPIO7	SPI0_CE1_N
	TD_SD	TD_SC	
	GPIO5	GND	
	GPIO6	GPIO12	
	GPIO13	GND	
	GPIO19	GPIO16	
	GPIO26	GPIO20	
	GND	GPIO21	

There is a bit of error-checking logic in there, so that one GPIO pin can't be selected for more than one hardware connection etc.

For the explanation of options, see MiniDexed documentation.

On **Syx Files** tab you can manipulate (rename, re-order) your **syx** and performance **ini** files on the card without carrying about the prefix numbers needed by MiniDexed. Re-ordering operations are drag&drop-based.

The screenshot shows the MiniDexed Control Center application window. The 'SD Card' tab is selected, and the 'Syx Files' sub-tab is active. The interface is divided into two main sections: 'INI Files' on the left and 'Syx Files' on the right. Each section contains a table with columns for 'Curr. Nr.', 'New Nr.', and 'Bank name' (for INI) or 'Performance name' (for Syx). A 'Rename' button is located next to each table. The 'Syx Files' table is scrollable and contains a long list of files.

Curr. Nr.	New Nr.	Bank name
000001	000000	BanarOW71A.syx
000002	000001	BanarOW71B.syx

Curr. Nr.	New Nr.	Performance name
000001	000000	GrandPiano.ini
000002	000001	Cinematic.ini
000003	000002	GrandLea.ini
000004	000003	Phil's CP-70.ini
000005	000004	DreamPiano.ini
000006	000005	BrightPiano.ini
000007	000006	NewAge AP.ini
000008	000007	Ampupright.ini
000009	000008	HonkyTonk.ini
000016	000009	VintageE-Piano.ini
000017	000010	ModernE-Piano.ini
000018	000011	CP-70Cho.ini
000019	000012	NewAge EP.ini
000032	000013	SadStrings.ini
000033	000014	Pad-1.ini
000034	000015	Floating.ini
000035	000016	Orchester.ini
000036	000017	HeraStrings.ini
000037	000018	Orchester 2.ini
000038	000019	SQR-BassPad.ini
000039	000020	SynStrings.ini
000040	000021	Barock.ini
000041	000022	BananaStrings.ini
000041	000023	BananStringsB.ini
000048	000024	Choir.ini
000049	000025	Mermaids_A.ini
000050	000026	Mermaids_B.ini
000051	000027	Sacred_A.ini
000052	000028	Sacred_B.ini
000053	000029	Mama.ini
000054	000030	Choir 2.ini
000055	000031	Choir 1TG Dry.ini

Settings

On the Settings tab you can select the MIDI ports (MIDI In does nothing at the moment), select the font size (needed because of different real font sizes on the different platforms. One size does not fit all...) and manipulate your Categories database table. Here are also the buttons to **delete** all your data from the database. This operation **cannot** be reverted. Your data will be lost, be warned!

Categories table can be load and saved by using the two buttons under the table/grid.

Adding a new category – click on the last entry in the list and press cursor down button on the PC keyboard – an empty entry will be added. At saving the entries to the database – the empty rows will be ignored.

All the settings (except the settings with Save functions), last opened files etc. are automatically stored at closing the program. You should be able, at the next usage of the program, to continue your work there where you left it. If it doesn't – please report a bug.

Links and references

MiniDexed: <https://github.com/probonopd/MiniDexed>

MiniDexed Control Center (this program): <https://github.com/BobanSpasic/MiniDexedLibrarian>