B67 ZEN EditorLib Manual - MC Version

Editor librarian for Roland MC-707 and MC-101 Grooveboxes

(Updated versions of the manual along with videos, sound banks and user guides are available at at the following <u>Link</u>)

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Operating requirements

- Install the latest available firmware (V.1.82) on the Groovebox
- Install the USB MIDI drivers for the Computer-Groovebox dialog on your computer
- Turn on and connect the synth to the computer with USB before starting the software (the connection with the 5 pin Din MIDI connectors is not fast enough for using the editor)

Links

- MC-707 https://www.roland.com/global/support/by_product/mc-707/updates_drivers/
- MC-101 https://www.roland.com/global/support/by_product/mc-101/updates_drivers/

Installation

PC version

The software is portable: just copy the file **ZENCore_Editor_MC707.exe** (**ZENCore_Editor_MC101.exe**) in a folder of your choice and execute it by double clicking. **The software opens after 10-20 seconds depending on the speed of your PC**.

On the first run, and every time you change the USB port to which the groovebox is connected, you must select the connections between the computer and the groovebox using the MIDI menu: You must activate the **Controller** and **Output** device as shown in the image. The software remembers the last configuration used.





- If in various sessions of using the program the synth is connected to different USB ports, it is important to verify that the name of the driver is the correct one. Depending on the USB port to which the groovebox is connected, a progressive number may appear in front of the name (1- MC-707, 2- MC-707, 3- MC-707, etc).
- The set MIDI Channel (Channel: CH:0, CH:1, etc) is irrelevant as the groovebox and software communicate with MIDI Sysex messages.
- If the groovebox is not connected or the wrong devices are set, the icon appears \mathfrak{S} : in this case you need to exit the software, restore the USB connection between the computer and the groovebox, and re-run the software by correctly selecting the active device.

IMPORTANT:

DO NOT Select any device in Device-Input (you must leave the checkmark on - - None) to

avoid duplicate MIDI messages that would make the software unusable



<u>Furthermore, you must NOT select</u> in MIDI Device Input Thru the option Input device->Output device, leaving it unchecked as by default.

In summary: the MIDI screen should therefore appear like this:

Input: no device Controller: MC-707 (MC-101) Output: MC-707 (MC-101) MIDI Thru: Input device->Output device deselected



The MC-707 and MC-101 Midi drivers allow you to use the groovebox simultaneously in multiple software: it is therefore possible to run the editor-librarian in parallel with a DAW or any other software that uses the MIDI of these synths.



The following are correct screenshots for MC-101

MAC version

The software is portable and **you only need to pay attention when starting it for the first time**. Let's see the steps to take to run the software.

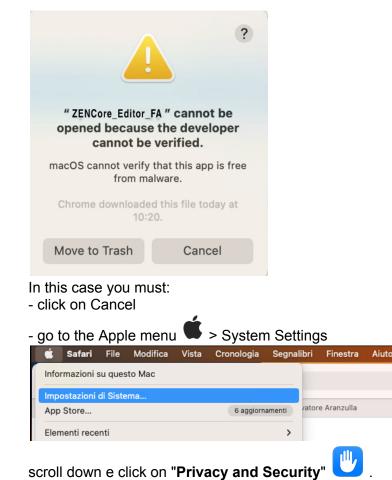
1) as a first operation just copy the file **ZENCore_Editor_MC707.exe** (**ZENCore_Editor_MC101.exe**) in any folder on the MAC (for example the desktop) and run it (double click).



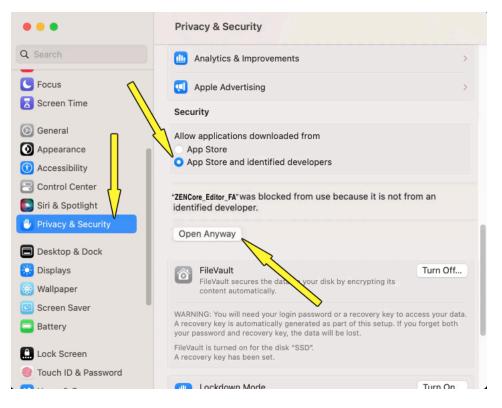
On newer operating systems, the error message "ZENCore_Editor_XX could not be opened - developer not verified" may appear.

Let's see how to bypass the problem in the case of a more recent operating system (Ventura - MacOS 13.x/14.x) and an older one (High Sierra - MacOS 10.13).

With Ventura - MacOS 13.x / 14.x the error message is



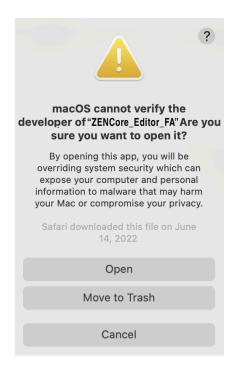
On the right in the section **Safety** click on your "allow applications downloaded from APP Store and identified developers" and click on **Open anyway**



A window will then appear where you can authorize the operation with Password or Touch ID



and as a last operation click on Open





After clicking OK, you need to go to the **Apple menu System Preference: "Security & Privacy"** and **"General"** tab



and in the "General" tab click on the "Changes disabled" padlock

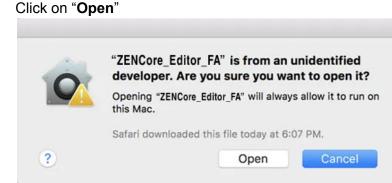
○ < > Ⅲ	Security	& Privacy		Q Search
	General FileVault	Firewall P	rivacy	
A login passwor	d has been set for this use	r Change F	assword	
	password immediately	-		-
	message when the screen			ssage
🗹 Use you	r Apple Watch to unlock ap	ps and your M	ac	
Allow apps dow	nloaded from:			
Allow apps dow				
O App Sto		'S		
O App Sto	re	'S		
O App Sto	re	'S		
O App Sto	re	'S		
O App Sto	re	5		
O App Sto	re	S		
O App Sto	re and identified develope	3		Advanced

open the padlock with your username and password and click on unlock

System Preferences is trying to unlock Security & Privacy preferences. Type your password to allow this.
Username:
Password: •••••
Cancel

Click on "Open Anyway"

Gen	eral FileVault Firewall Priv	acy
A login password has be	en set for this user Change Pas	sword
🗹 Require password	d 5 minutes 📀 after sleep or :	screen saver begins
Show a message	when the screen is locked Set L	ock Message
Disable automatic	c login	
Allow your Apple	Watch to unlock your Mac	
Allow apps downloaded	from:	ļ
App Store and id	entified developers	V
"ZENCore_Editor_FA" was identified developer.	blocked from opening because it is	not from an Open Anyw



2) The software on Apple Chip (M1/M2/M3/M4 family) uses **Rosetta**, which if not present will be automatically installed on Mac. In this case you need to click on **Install**



3) When you run the software (double click on the app icon in the example on the desktop) you need to wait 15-20 seconds depending on the speed of your computer.

ZENCOR_Editor_F A ZENCOR_Editor_A X	License agreement You must agree to the below license
	This software can be used on any number of owned computers: copying or This software is provided by Italian copyright laws and rules laid out within international treatiles. This software is provided to the user "as-it" without warrany of any kind, express or implied. The author does not guarantee that the software is lowGerror-free or that any bugs in the software will be corrected in future. The user bears the entire risk of using the software and shall in no way claim the author's responsibility for damages incurred by its use.
	Yes No

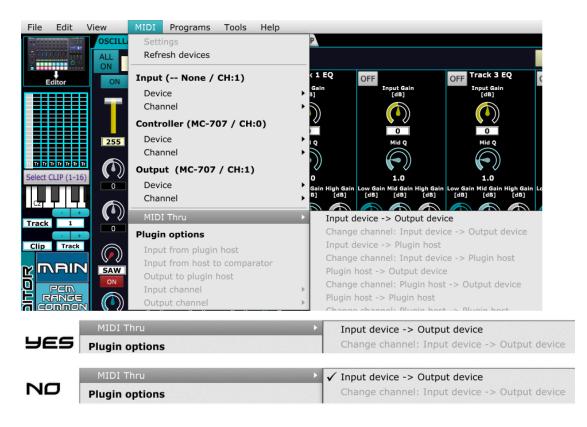
<u>While starting the first run after accepting the "license agreement"</u>, the program initializes libraries, stores images and prepares graphics.

It is important <u>NOT TO USE THE SOFTWARE</u> for the first 10-15 seconds until the main screen is completely "built": in particular during this operation it is important not to resize the window and/or put it in full screen.

4) **you need to set the MIDI ports** with the same settings described in the manual section: **PC version installation** (the first chapter of the manual). The MIDI ports will then be remembered in subsequent startups.

In the case of the version for MC-707, for example, the parameters will be those in the figure.

Input: no device Controller: MC-707 Production: MC-707 MIDI through: Input device->Output device deselected



IMPORTANT: DO NOT Select synth in Device-Input (you must leave the checkmark on

- - None) to avoid duplicate MIDI messages that would make the software unusable



<u>Furthermore, you must NOT select</u> in MIDI Device Input Thru the option Input device->Output device, leaving it unchecked as by default.



Functionality

The software features can be divided into 3 blocks:

- **ZEN-Core tone editing**: the editor displays and controls all the ZEN-Core parameters required by the standard.

Furthermore, thanks to the implementation of MIDI SysEx messages, it is possible to modify, use and store even the "hidden" and not directly accessible ZEN-Core synthesis parameters.

Synths compatible with Zen-Core synthesis, the virtual Zenology and ZC-1 use them for sound generation, but, as with MC-101 and MC-707, do not allow editing and visualization.

These hidden parameters are: VCF Gain Correction - Partial LFO Phase Lock - Pitch Down Depth - Pitch Drift - Pitch Drift Cycle Number - Condition and VA Init Phase.

The software is not able to edit tracks with Drums and Looper type sounds.

ZEN-Core Tone Librarian: the software manages and uses a database of **16384 ZEN-CoreTones** (all resident in memory) which is structured in **N.8 libraries (Lib1-Lib2,...Lib8)** each composed of **2048 Tones**. Each of the 8 libraries is divided into **16 banks (A-B-C....P)** of **128 toni** each.

The possible operations within the Tones database are as follows:

- Load and Save to file the various data structures: entire database (16384 Tones), single library (2048 Tones), single bank (128 Tones) and single Tone.
- Store the Tones transferred from the synth and modified with the editor.
- insert and delete Tones
- move individual banks (128 Tones) with a "Bank Clipboard" using copy and paste functionality
- copying groups of Tones, from/to the library, with a clipboard of variable size (1-48 Tones), always visible

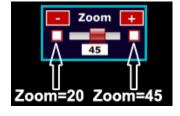
The dialogue between Librarian and Groovebox is in real time and it is possible to transfer each tone to MC-101 and MC-707 in a fraction of a second thanks to the Groovebox- Computer communication speed and the ability of the software/graphical interface to quickly manage MIDI SysEx messages.

- Project editor

The possible operations within this section are the following:

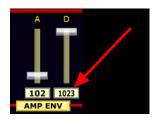
- edit of main parameter offsets of the 4/8 tracks (MC–101/707): Volume, Pan, Cutoff, Res, Attack, Decay, Release, Vibrato, Portamento, SYS Ctrl and Delay/Reverb send.
 For tracks with Sound source = Clip where each clip has its own sound, it is possible to edit these parameters differently for each of the 16 clips.
- edit the **all parameters relating to the Chorus/Delay and Reverb effects** with the possibility of recalling 40 reverb presets.
- Edit of **5-band Master EQ, 4/8 (MC–101/707) track EQs** and of **Master Compressor** of the project with the possibility of recalling 18 presets

Graphical interface



The interface of the software uses vector graphics which are resizable through the control **Zoom**.

Available controls: slider, +, -, preset Zoom=20 (square left) and Zoom=45 (square right)

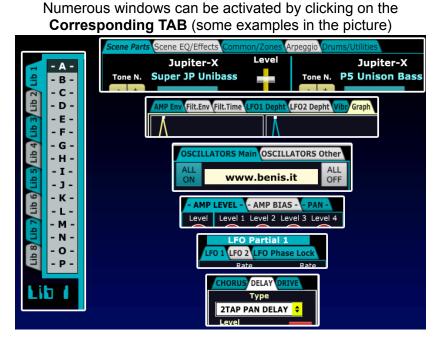


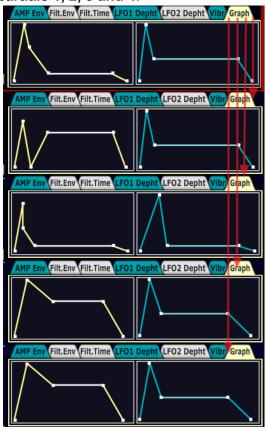
All numeric controls also allow **the value to be entered with keyboard** (type the value + ENTER): the <u>reset to the default value is obtained by double clicking</u>.



With the scroll wheel of the mouse (scroller), if available, it is possible **to increase and decrease the parameter by unit**. For some controls, where present, it is possible to obtain the same result by clicking on + and -

The group of TABs related to the MACRO AMP ENV, Filter ENV,....Graph) **automatically activates the 4 corresponding TABs relating to partials 1, 2, 3 and 4**.





- A -	001 B67 AnPad Big1	065 B67
9 P	002 B67 JunoDetuned	066 B67
🔒 - B -	003 B67 Moog UAN :-)	067 B67 007 B67 AlienStrings
- C -	004 B67 AirPadJX	068 B67
음 - D -	005 B67 My106 Poly28	U69 B67 Bank Number
	006 B67 AVIRUS JP12	070 B67
- E -	007 B67 AlienStrings	071 B67 - A - 7/2048
🔒 – F –	008 B67 PolySynth5	072 B67
	009 B67 nalogPad	073 B67
🔁 - G -	010 B67 ART Of Pad	074 B67 Part N.
· H - H -	011 B67 AirPadJX 2	075 B67 · · · / / d Tone to Synth
	012 B67 /A TRI Pad	076 B67
- I -	013 B67-Poly Rnd PAN	077 B67 LastPa
- c - 🖹	014 B67 4Bars VKRot	
	015 B67 HybridCHOIR	079 B67 S
🕤 - К -	016 B67 Real Strings	080 B67 JF [] ←
- L - L -	017 B67 String_SSAW	081 B67 B
	018 B67 PWM Soft Whi	082 B67 S(;) [") []
- M -	019 B67 AnlgStrings1	083 B67 M
🗐 - N -	020 B67 EnterDetuned	
	021 B67 D50 Heaven 1	085 B67 R
	022 B67 JD Pulse Pad 023 B67 Pad PostKev1	086 B67 C ?
음 - P -	023 B67 Pad Postkey1 024 B67 ZenAlienPd	087 B67 St / 企
	024 B67 ZenAllenPu 025 B67 Vocal Dream	
	025 B67 Vocal Dream 026 B67 BrightPad	
	027 B67 PadAttack23	
	028 B67 Big Anl Pad	092 B67 C ⁿ
	029 B67 Angel Dream	
	030 B67 Vox Angels	094 B67 Hyb FM Arp2

OSCILLATORS Main OSCILLATORS Other ALL ON Analog Atmos ALL OFF Fantom Scene pianostrings Jupiter X/XM Scene JP-X Big Swell AX Edge Program Benny ini In the lists of sounds in the librarian section, to speed up their use, it is possible to obtain the same behavior, by operating in different ways.

- Selection: single click "Tone Number" rotary control - Up-Down arrow keys.
- Sending the tone to the synth: double click - click on "Send Tone to Synth" - Return button

Tone and scene name editing (16 characters).

• **single click**: the 16 characters including any spaces at the end of the name are highlighted in blue

OSCII	LATORS Main OSCILLATORS	Other
ALL ON	Analog Atmos	ALL OFF

• text input + Enter: change the name and send it to the synth

To enter characters and have up to 16 available (maximum length of the name), it is important to **delete any empty spaces at the end of the name** which are part of the name itself.

ZEN-Core editing and MACRO

Real-time editing of ZEN-Core tones can be done for any track set to Tone mode.

It is necessary to consider the two possible cases where each of the **4/8 tracks** (MC-101/707) can be set in **Sound source=TRACK or Sound Source=Clip**

Maximum number of ZEN-Core tones that can be used in a project				
MC-707	MC-101			
	In each Project, MC-101 is able to store and play up to a maximum of 17x4=68 ZEN-Core Tones: each of			
 the 8 tracks can store 16 ZEN-Core tones, one per clip, if it is set Sound Source=Clip 1 ZEN-Core tone if it is set Sound source=TRACK 	 the 4 tracks can store 16 ZEN-Core tones, one per clip, if it is set Audio Source=Clip 1 ZEN-Core tone if it is set Sound source=TRACK 			

I remember that the **type of Sound Source** of each single track can be changed in MC-101 and MC-707 as shown in the following images:



icon

To quickly view the Sound Source type (Clip or Track) for all 4/8 tracks (MC-101/MC-707) in the editor, you can do it with the following steps:

- enter in Project Section (click on the icon)
- select Track Tab
 - click on the Read Project Track EQ/Master EFX

Below every track EQs, Sound Source type is displayed



•



TRACK CLIP							
			Read Project Tra	ck EQ/Master EFX			
Track 1 EQ	OFF	ON Track 3 EQ	OFF Track 4 EQ	OFF Track 5 EQ	OFF Track 6 EQ	OFF Track 7 EQ	OFF Track 8 EQ
Input Gain [dB]							
		$\overline{\bigcirc}$					
0	0	9	0	0	0	0	0
Mid Q							
		(\mathbf{r})				(\mathbf{r})	\bigcirc
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Low Gain Mid Gain High Gair [dB] [dB] [dB]	Low Gain Mid Gain High Gain [dB] [dB] [dB]	Low Gain Mid Gain High Gain [dB] [dB] [dB]	Low Gain Mid Gain High Gain [dB] [dB] [dB]	Low Gain Mid Gain High Gain [dB] [dB] [dB]	Low Gain Mid Gain High Gain [dB] [dB] [dB]	Low Gain Mid Gain High Gain [dB] [dB] [dB]	Low Gain Mid Gain High Gain [dB] [dB] [dB]
0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
[Hz] [Hz] [Hz]	Low Freq Mid Freq High Freq [Hz] [Hz] [Hz]	[Hz] [Hz] [Hz]	[Hz] [Hz] [Hz]	[Hz] [Hz] [Hz]	[Hz] [Hz] [Hz]	[Hz] [Hz] [Hz]	[Hz] [Hz] [Hz]
$\bigcirc \bigcirc $	$\bigcirc \bigcirc $	$\bigcirc \bigcirc $	$\bigcirc \bigcirc $	$\bigcirc \bigcirc $	$\bigcirc \bigcirc $	$\bigcirc \bigcirc $	$\bigcirc \bigcirc $
200 1000 2000	200 1000 2000	200 1000 2000	200 1000 2000	200 1000 2000	200 1000 2000	200 1000 2000	200 1000 2000
Sound Color Source TRACK L.RED	Sound Source TRACK L.ORANGE	Sound Source CLIP	Sound Source CLIP L.GREEN	Sound Source CLIP P.GREEN	Sound Source TRACK L.SKYBLUE	Sound Source TRACK	Sound Source CLIP L.PURPLE

ZEN-Core Tone Transfer (Groovebox-	→Editor) and real time editing: 2 cases
Track with Sound Source=TRACK	Track with Sound Source=CLIP
It is the type of track that MC-101/707 sets by default when a new Tone track is created: all clips on that track have the same ZEN-Core Tone , the same offsets of synthesis parameters (Volume, Pan, Cutoff, Res, Attack, Decay, Release, Vibrato, Portamento, SYS Ctrl) and the same Sends to the Delay and Reverb effects.	It is the type of track of MC-101/707 where EACH of the 16 CLIPS of that track has its own ZEN-Core Tone, different offsets of synthesis parameters (Volume, Pan, Cut, Res, Attack, Decay, Release, Vibrato, Portamento, SYS Ctrl) and various Sends to the Delay and Reverb effects.
To edit the single ZEN-Core tone used in each clip of that track you need to:	To edit each of the 16 ZEN-Core tones used in each clip of the track you need to:
1) Select the track either by clicking on the word Tr/Track inside the cell below or by selecting track number (in the example N.2) and Clip=Track.	1) Select the clip (1-16) and the desired track either by clicking on the corresponding rectangle or by using the Track and Clip controls. In the example, clip N.6 of
MC-707 MC-101	MC-707 MC-101

2) Click on the Groovebox \rightarrow Editor icon	2) Click on the Groovebox \rightarrow Editor icon		
Editor Editor	Editor Editor		

After clicking on the icon, all parameters of the corresponding ZEN-Core tone, if existing, will be transferred from **Groovebox** \rightarrow **Editor** and all controls and graphics will be updated in real time.

Subsequently, any modification of the editor parameters will be automatically transferred in real-time to the groovebox.

It is always possible to continue editing the ZEN-Core tone inside the groove box: to resynchronize parameters and graphics, and continue editing on the editor, just click on the icon



It is essential that in the Groovebox the track has been created in Type=TONE mode and, in the case of Sound Source=Clip, that the selected clip has already been created: otherwise the transfer has no effect.

If the default MIDI channels are set in the groovebox (Track 1=Midi Ch.1, Track 2=Midi Ch. 2,..) it is possible to play the selected track/clip with the editor keyboard and, in parallel with the A-L keys (approximately 1 octave)





Once a clip has been selected it is also possible to activate it by clicking "Select CLIP (1-16)": you get the same functionality present on the groovebox.



At the end of sound editing, the ZEN-Core tone can be stored within a location of the ZEN-Core library, using the LIBRARIAN section (click on LIBRARIAN). Please refer to the relevant section of the manual for more information.



You can also save the currently edited **ZEN-Core tone** to a file by using the **File Tab at the bottom left** and clicking **SaveTone to File**: the tone will be stored in MIDI SysEx format (*.syx). To load the single tone from the file (*.syx), click on the green icon **Load tone from file**: the **ZEN-Core tone** is loaded from the file, transferred to the groovebox on the selected track/clip and the parameters and graphics of the tone are updated in the editor.

Before loading a new tone it is important to check the Track/Clip currently selected from the matrix or editor controls, since the corresponding groovebox ZEN-Core tone will be replaced by the one loaded from the file.

Presets

On the main screen, 24 presets are available, divided into 3 tabs.

The transfer of the **ZEN-Core preset** \rightarrow **the currently selected Groovebox Track/Clip** is done by **double-clicking on name** or by pressing the Return key on the keyboard. It is always possible, as with the library, to scroll through the presets using the Up-Down arrow keys.



INI PR1 PR2 B67 DX7 FM EP1 B67 FM Bass 22 B67 DX27 Inharm B67 Poly Rnd PAN B67 Vocal Dream B67 Real Strings B67 AVRUS JP12 B67 Zen G80



Before loading a new tone it is important to check the Track/Clip currently selected from the matrix or editor controls, since the corresponding groovebox ZEN-Core tone will be replaced by the loaded preset. In the three TABs there are different types of Zen-Core tones.

- INI: simple sounds, to be used as a basis for editing.
- **PR1**: some of the sounds from the optional library (sold separately): among these also 3 FM tones with a double pair of operators (2 x carrier-modulator).
- **PR2**: sounds that using the STEP LFO functions and the related template (see below) perform melodic and rhythmic sequences. In the name there is the BPM for which it was designed, a value that must be inserted in the **time** parameter of the scene.



The various parameters of the ZEN-Core tone are divided into 6 screens, which can be recalled by clicking on the relative icon:

- Main: Filter, Amp, PAN, LFO1, LFO2, Filter ENV e Amp ENV
- PCM Range Common: PCM Waves, Keyboard e Velocity Range, Parametri Common
- Mod Matrix: the modulation matrix
- Pitch ENV
- STEP LFO: the Step LFO section with activation of the "Note Sequence" template
- Effect EQ: selection and editing of the 93 "Tone MFX" effects and EQ section

On the left, the section relating to the oscillators (the two Main and Other TABs) and the **Tone Name** are always active.

In the OSCILLATORS Main TAB, among the various parameters, it is also possible activate and

deactivate all partials at the same time by clicking on the icons above ALL ON It is ALL OFF



Macro

To simplify and speed up the tone editing, for some parameters it is possible to use the <u>MACRO controls</u> which allow **the corresponding parameter of any combination of the 4 partials to be controlled in parallel**. For example, if the Cutoff MACRO parameter is modified, the corresponding Cutoff parameters of the partials 1-2-3-4, for which the MACRO parameter is active, will be modified in parallel.

Real-time graphics make every thing intuitive and visible.

To activate parameter operation **MACRO** it is necessary to select the combination of partials that you wish to control simultaneously.

This can be done indifferently in the two sections highlighted in the following image, **by clicking on ON-OFF of the 4 partials P1, P2, P3 and P4**: the first of the two sections is always visible and the second is present inside the macro section of the AMP and FILTER ENV. Image follows.



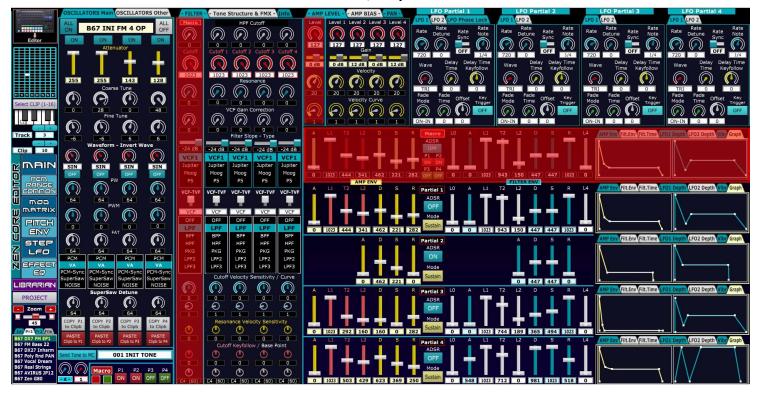
The two sections are synchronized with each other: the one at the bottom left also allows you to activate and deactivate the MACRO functionality on all 4 partials with a single click: to do this, just click on the Red and Green



- **Red**: the macro parameters drive all 4 partials
- Green: the macro parameters do not drive any partial

The **MACRO** parameters with which, as seen, the selected combination of partials are simultaneously driven, are those in Red in the following images: when a sound for editing is loaded from the broovebox, their values are set to coincide with those of Partial N. 1.

Macros in the Filter, Amp and Env section



Macro in Amp Level, Bias and Pan TAB



Macro in 7 TAB: Amp Env, Filter Env, Filter time, LFO1 Depth, LFO 2 Depth, Vibrato e Env Graph

AMP Env Filt.Env Filt.Time LFO1 Depht LFO2 Depht Vibr Graph	AMP Env Filt.Env Filt.Time LFO1 Depht LFO2 Depht Vibr Graph	AMP Env Filt.Env Filt.Time LF01 Depht LF02 Depht Vibr Graph	AMP Erw Filt.Erw Filt.Time LF01 Depht LF02 Depht Vibr Graph	AMP Env Filt.Env Filt.Time LF01 Depht LF02 Depht Vibr Graph	AMP Env Filt.Env Filt.Time LF01 Depht LF02 Depht Vibr Graph	AMP Env Filt.Env Filt.Time LFO1 Depht LFO2 Depht Vibr Graph
Time 1. Time 4. Erry Time Vel Sens Vel Sens Keryfolov FO Tropper	Env Env Fine Env Leo Trigor Depht Velocity Cortigor Velocity Cortigor Velocity Cortigor Velocity Cortigor	Time 1 Time 4 Env Time Vel Sens Vel Sens Keyfollow	Pitch Filter Amp Pan Phase Depth Depth Depth Position	Pitch Filter Arno Pan Phase Depth Depth Depth Position Position	Vibrato Vibrato Vibrato Pitch sans Cutoff sans Level sans	
AMP Env Filt.Env Filt.Time (FO1 Depht LFO2 Depht Wile Graph	AMP Env Filt.Env Filt.Time LFO1 Depht LFO2 Depht Wibr Graph	AMP Env (Filt.Env) Filt.Time LFO1 Depht (LFO2 Depht Vibr Graph	AMP Env. Filt.Env. Filt.Time LF01 Depht (LF02 Depht Vibr Graph	AMP Env Filt.Erv Filt.Time LF01 Depht LF02 Depht Vibr Graph	AMP Env Filt.Env Filt.Time LFO1 Depht LFO2 Depht Vibr Graph	ANP Env Filt.Env Filt.Time LFO1 Depht LFO2 Depht Vibr Graph
AMP ENVI to Macro	Env Env Fine Env Velocity Depth Velocity OFF	Vel Sens Vel Sens Keyfollow	Pitch Filter Amp Pan Phase Depth Depth Depth Depth Position	Pitch Filter Amp Pen Phase Depth Depth Depth Poston	Vibrato Vibrato Pitch sens Cutoff sens Level sens	
AMP Env Filt.Env Filt.Time LFO1 Depht LFO2 Depht Vibr Graph	AMP Env Filt.Env Filt.Time LF01 Depht LF02 Depht Vibr Graph	AMP Env Filt.Env Filt.Time LFO1 Depht LFO2 Depht Vibr Graph	AMP Env Fit.Env Fit.Time LF01 Depht LF02 Depht Vibr Graph	AMP Env Fit.Env Fit.Time LFO1 Depht LFO2 Depht Vibr Graph	ANP Env (Filt.Env (Filt.Time LFO1 Depht (LFO2 Depht) Vibr Graph	ANP Env Filt.Env Filt.Time LFO1 Depht LFO2 Depht Vibr Graph
AMP EW2 to Macro 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Env Env Fine Env Env Inco Inger Dept: Dept: Dept	Time 1 Time 4 Env Time Vel Sens Vel Sens Keyfollow	Pitch Filter Amp Pan Pan Phase Depth Depth Depth Position Position	Pitch Piter Amp Pan Phase Postore Pos	Vibrato Pich sens Cutoff sens Level sens 0 0 0	
AMP Env Filt.Env Filt.Time LF01 Depht LF02 Depht Vibr Graph	AMP Erry Filt.Erry Filt.Time LF01 Depht LF02 Depht Vibr Graph	AMP Env Fit.Env Fit.Time LF01 Depht LF02 Depht Vibr Graph	AMP Env Filt.Env Filt.Time LF01 Depht LF02 Depht Vibr Graph	AMP Env Fit.Env Fit.Time LF01 Depht LF02 Depht Vibr Graph	ANP Env Filt.Env Filt.Time LFO1 Depht LFO2 Depht Vibr Graph	AMP Env Filt.Env Filt.Time LFO1 Depht LFO2 Depht Vibe Graph
AMP EW3 to Macro	Env Env Fine Env Env Fine Env	Vel Sens Vel Sens Keyfollow	Pitch Filler Amp Pan Phase Depth Depth Depth Position Position	Pitch Piter Amp Pan Pan Position Depth Depth Depth Position Position	Vibrato Pichi sens Cutoff sens Level sens Level sens Level sens Level sens Level sens	
AMP Env Filt.Env Filt.Time LFO1 Depht LFO2 Depht Vibr Graph	AMP Env Filt.Env Filt.Time LF01 Depht LF02 Depht Vibr Graph	AMP Env Filt.Env Filt.Time LF01 Depht LF02 Depht Vibr Graph	AMP Env Fit.Env Fit.Time LFO1 Depht LFO2 Depht Vibr Graph	AMP Env Fit.Env Fit.Time LF01 Depht LF02 Depht Vibr Graph	ANP Env Filt.Env Filt.Time LF01 Depht LF02 Depht Vibr Graph	ANP Env Filt.Env Filt.Time LFO1 Depht LFO2 Depht Vibr Graph
AMP ENV4 to Macro 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	FILTER ENVA to Macrol	Time 1 Time 4 Env Time Vel Sens Vel Sens Keyfollow	Pitch Filter Amp Pan Pan Position Depth Depth Depth Position Compo	Pitch Piter Amp Depth Depth Depth Position Position Depth Depth Depth Position Depth Depth Depth Position	Vibrato Vibrato Vibrato Vibrato Vibrato Euro Eurofi Sens Level Sens Euros European E	

Macros in the Pitch Env section



AMP Env Filt.Env	AMP Env Filt.Env		Thro enve
AMP ENV1	FILTER ENV1	Pitch ENV1	To d
to Macro	to Macro	to Macro	
AMP Env Filt.Env	AMP Env Filt.Env		
AMP ENV2	FILTER ENV2	Pitch ENV2	
to Macro	to Macro	to Macro	
AMP Env Filt.Env	AMP Env Filt.Env		
AMP ENV3	FILTER ENV3	Pitch ENV3	In th
to Macro	to Macro	to Macro	
AMP Env Filt.Env	AMP Env Filt.Env		enve and
AMP ENV4	FILTER ENV4	Pitch ENV4	if yo
to Macro	to Macro	to Macro	resp

Through the MACROS it is also possible to copy the AMP, Filter or Pitch envelope to a combination of partials of your choice.

To do this you need:

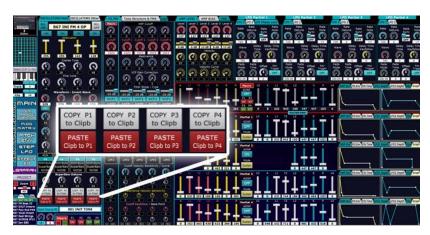
- Select (ON) the destination partial(s). which will be driven by
 - macros P^1 P^2 P^3 P^4 (P2 and P4 in the example)
- Click on the icon **xxx ENVx to Macro of the source envelope** that you want to copy

In the example (macro ON on P2 and P4) if you click on to Macro copy the envelope **AMP of partial 1** on the respective AMP envelopes of partials 2 and 4;

f you click on to Macro copy the envelope of the **Partial FILTER 3** on the respective FILTER envelopes of partials 2 and 4

Copy and Paste operations for partials and effects

FILTER ENV3

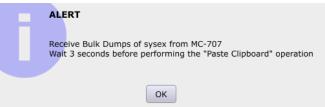


At the bottom left there is the section for **copying and pasting ZEN-Core tone partials** using a clipboard.

The clipboard remains active even after loading a new sound, so as to allow for example the COPY of any partial from a previously edited Tone, and the PASTE in the current one.

The copy and paste operations do not affect the "Common" parameters of the tone (Name, Category, Mono/Poly, Unison, Tone Structure 1-2 / 3-4, Ring, X-Mod 1/2, ..) as they are not related to the single partial.

After copying the partial parameters into the clipboard, before carrying out the paste operation you need to wait about 3 seconds as the software makes a series of SysEx requests to the groovebox due to some anomalies



present in the SysEx implementation of MC-101 and MC-707



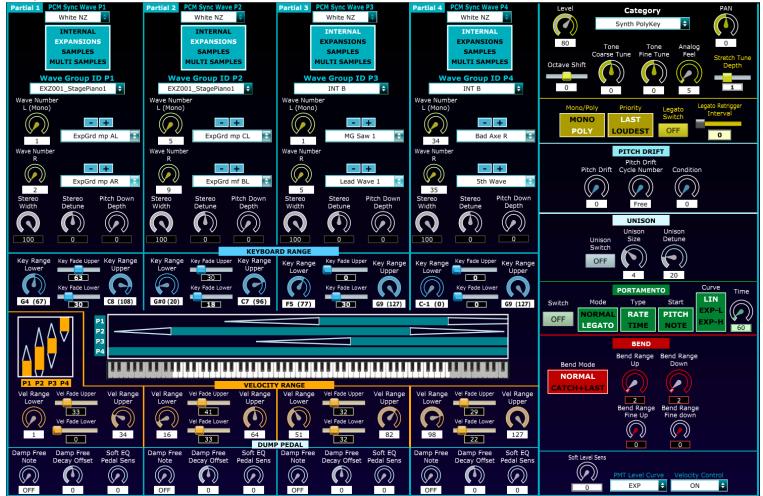


On top right in the Effect-EQ section is available **copy and paste ZEN-Core tone MFX effect.**

The clipboard remains active even after loading a new sound, so as to allow the COPY of the effect parameters from a previously edited Tone, and the PASTE to the current one.

PCM section - Range - Common

In this section of the editor you can edit the samples for the PCM and PCM Sync Partials, the Keyboard and Velocity Range and the various common parameters.



For PCM sample selection, the MC-101 and MC-707 can recall both **user samples** and **Internal preset** multisamples of **INT A, INT B, INT C Wavegroup**. After selecting the WaveGroup, you set the Wave Number L (Mono) and possibly the Right sample number which, as with all controls, can also be entered numerically.

The software also allows the selection of "User Multisamples", INT D multisamples and the 15 expansions EXZ001-EXZ015 <u>only to ensure compatibility</u> with ZEN-Core Tones made with Zenology Pro and/or with other Roland synthesizers compatible with the standard (Fantom, Jupiter-X, AX-Edge,...).

Since the GrooveBoxes do not contain such samples, in that case the partial will remain mute.

It was decided to maintain access and viewing of these samples to allow, if necessary, the loading of the ZEN-Core tones that contain them and their replacement with the available and most similar ones.



Alternatively, by clicking on the name of the sample, it is possible to scroll through those available continuously, even moving from one group to the next (in the image the last ones of the INT A bank and the first ones of INT B).

Triangle 2 Slight Bell Belltree Wind Chime 727 StrChime Metro Bell Metro Click Click 1 Click 2 R8 Click HiQ1 Hi Q 2 ✓ MG Saw 1 MG Saw 2 Digital Saw Ramp Wave Lead Wave 1 Lead Wave 2 Lead Wave 3 DistSaw Wave FeedbackWave SubOSC Wave1

Mod Matrix and Pitch Env sections

Below are the images relating to these sections: in the Pitch Env section the 4 Pitch Env has Macro controls as for the Amplifier and Filter envelopes.





Effect-EQ section

In this section it is possible to select and modify the MFX Effects of Zen-Core tone, the EQ of the 4 partials and the modulation matrix of the effect parameters.

On the right there are some presets, divided into types, which can be recalled by double clicking on the name.

At the top right, as seen, there is the section for **copy and paste the effect**.

The clipboard remains active even after loading a new sound, so as to possibly allow the COPY of the effect parameters from a previously edited Tone, and the PASTE in the current one.



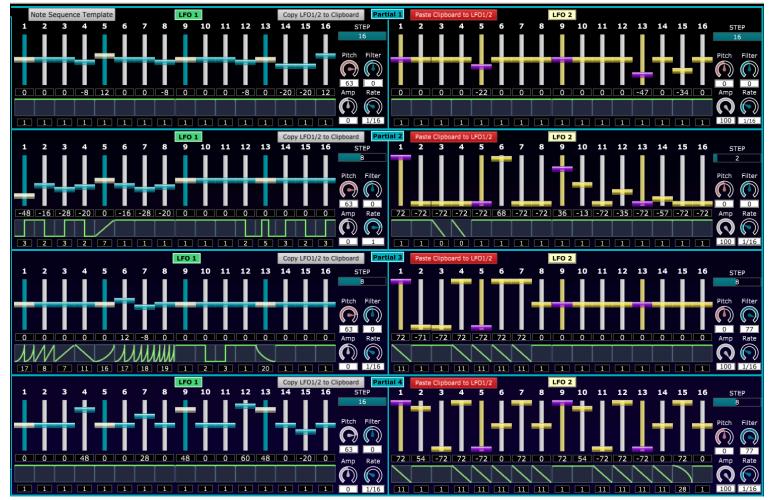
STEP LFO and TEMPLATE section for use as STEP Sequencer

STEP

The editing section allows complete editing of the 8 STEP LFOs (LFO1 and LFO2 for each of the 4 partials) in a single screen.

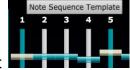
The 16 steps are adjustable with the depht faders (-72 +72) and with a graphic control to select, for that step, the curve (0-36) which is represented graphically: to modify it, click on the icon and move the mouse. Alternatively you can use the mouse scroller or enter the value numerically with the computer keyboard: by inserting the values in succession with the keyboard, it is possible to proceed quickly as it is not necessary to press Return for confirmation.

Double clicking on each of the 16 steps resets the step depth values (default=0) and/or the step curve (default=1)



Thanks to the flexibility of the 8 STEP LFOs, it is possible to create, with a single Zen-Core tone, melodic tone and/or rhythmic sequences synchronized with the scene BPM, using a series of parameters of the ZEN-Core standard: any of these sound-sequences are available in the library that can be purchased optionally.

To simplify the programming of these sounds, there is a template that can be activated by clicking on "Note



sequence Template" at the top left

To be able to operate faster by working in a single window, the parameters controls of the modulation intensity



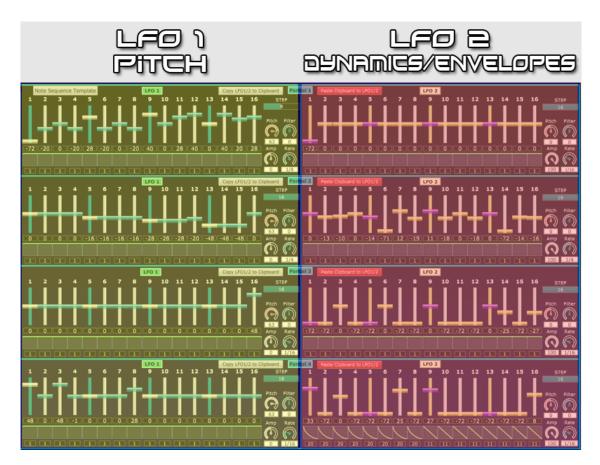
(these controls

(Pitch, Filter and AMP) and the rate of the STEPS, are present for each LFO are duplicates of those present in the Main-LFO1-2 Depth and RATE Note section)

<u>The Template sets the parameters that allow the sound to be trigged for each step</u>: among these, on all 8 LFOs, **Wave=STEP** and **LFO Trigger=ON** are set for the Filter and AMP ENVs.

It is important to note that, **if using sampled sounds (PCM partials)**, **the sample is NOT trigged at each step**, **but only at the beginning of the note**. For this reason, the dynamics of the sound that repeats itself at each step can be obtained using the Amp and Filter ENVs, using the LFO itself (see below) or with both methods in parallel.

The idea behind the template is to use the STEP LFO1 of the 4 partials (column on the left) to program the notes of the 4 sequences (one for partial); through STEP LFO2 of the 4 partials (column on the right), the dynamics and, possibly, the envelopes of each step are programmed.

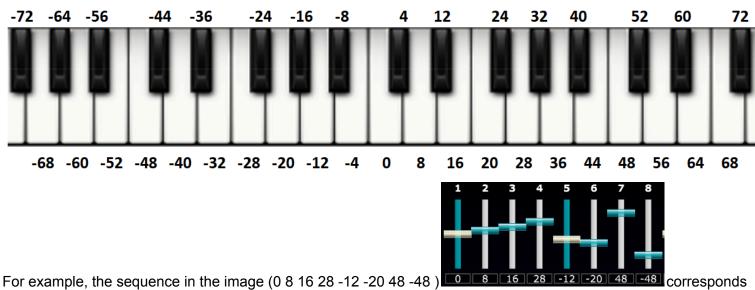


For each of the 8 LFOs, the speed and duration of the loops can be managed by setting the two values:

- Rate (range 1/64T 4): the speed at which the notes repeat is adjusted, in sync with the tempo of the scene (performance in AX-Edge). With multiple ranges (e.g. 1 ¹/₂ ¹/₄ ¹/₈ 1/16 -1/32) it is possible to sequence, for example, a 8 bars long bass lines (Rate= ¹/₂), together with arpeggios of duration equal to one or two beats (Rate=1/32 and 1/16)
- Step (1-16): the number of steps from which the sequence loop is composed

To set the intonation (maximum 16 steps for each partial), use the left column: the template places a **Pitch Depth=63** on LFO1 of the 4 partials.

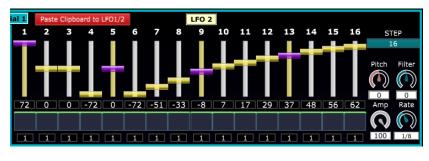
With the value set by the template (Pitch Depth=63) <u>each increase - decrease of a value equal to 4 in step</u> <u>programming corresponds to an increase - decrease of a SEMITONE;</u> the jump of an octave (12 semitones) is therefore equal to set +/- 48 (12*4)



to the note sequence C4 - D4 - E4 - G4 - A3 - G3 - C5 - C3

The combination of notes, rates and steps, all for 4 partials, allows the creation of even very complex sequences: No. of steps that are not multiple of each other (e.g. 6-8-12-16) guarantee interweaving of notes, even particularly complex.

On the right column, as seen, the STEPS of LFO2 are adjusted for the 4 partials: the template activates the modulation depths of the amplification equal to the maximum value (LFO2 AMP Depht=100). In this way it is possible to drive the dynamics of the sequence (accents on the single notes): in particular, to silence the note for that step, it is necessary to set the fader that controls the amplitude to a value = -72.

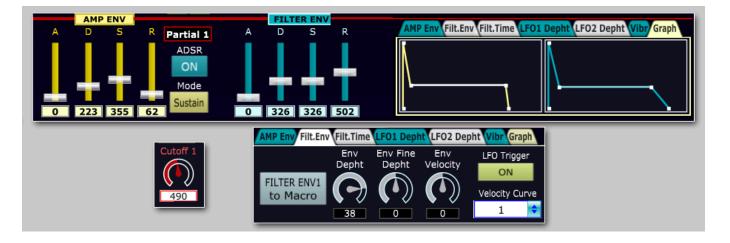


In the example the first note of the loop will be accented; No.4 and No.6 will be silent. From No.7 to No.16 there will be an increase in volume.

For rhythmic sequences with percussive sounds obtained in VA synthesis, the alternation of + - 72 simulates the alternation between Note ON and Note OFF.

To have a variation of filter and amplitude of the sound at each step, (it is not possible for this purpose to use the dynamics of PCM sounds that are triggered only once), there are mainly two methods.

• The first method, the simplest, is to shape sounds with ZEN-CORE synthesis amplitude and filter envelopes (here for example the synthesis parameters of a plucked VA sound - with a VA oscillator with SAW waveform)



Then, by setting the faders in the 16 steps of LFO2 (with AMP Depht=100) you adjust the volumes of the



sequence

• The second method is to use VA sounds with FLAT AMP and FILTER envelopes (sustain=MAX=1023) and shape the filter and/or AMP at each step using the LFO2 curves.



To shape the envelopes, at each step, and relative volumes, the most suitable curves for this purpose

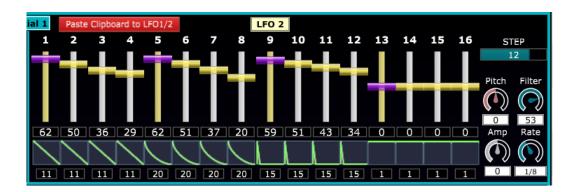


are those with values of 11-20 and 15 [11 20 15] (progressively more percussive curves).

Here is an example (with N. of STEP equal to 12) where the following have been set:

- step 1-4: percussive ENV
- step 5-8: more percussive ENV
- step 9-12: almost impulsive ENV.

The fader values adjust the intensity with which the ENV shapes change the filter cutoff (in the example = 53)



Obviously it is possible to start from the template to obtain more complex modulation sequences and steps, moving away from the distinction set by the template (left column for pitch and right column for dynamics and ENV).

IMPORTANT: due to the structure of the ZEN-Core synthesis, if partials with **sampled sounds (PCM)** are modulated by the STEP LFO, as already seen, the note will NOT be re-triggered at each step, but only the first time. For this reason it is not possible to use PCM samples of drums to simulate rhythmic patterns: it is possible to do so, like in the optional bank and in two presets, synthesizing them with VA oscillators, noise, filters and env.

By using multiple Zen-Core Tones with sequences and rhythms in tracks, numerous synthesis and performance possibilities can be obtained.

Unless there are particular sequences, it is advisable to set the tone in monophonic mode.

It should be noted that the sequence thus obtained, with sustain pedal=ON, remains active even when the note is released. (useful for example for improvising, in analogy to a loop station)

Hidden ZEN-Core synthesis parameters

The ZEN-Core synthesis engine uses some hidden synthesis parameters internally: both the ZEN-Core compatible synths and the virtual Zenology do not leave the user the possibility of seeing or modifying them, even if they are used in the same way as all the others.

These parameters are indicated in the various documentation relating to the MIDI Implementation of Fantom, Fantom-0, AX-Edge, Juno-X and Jupiter-X/XM.

Through MIDI System Exclusive messages, the software is able to read them, modify them and make Groovebox use them like all the others.

Here is the list of those available:





VCF Gain Correction (also available as a Macro for the 4 partials): when VCF Resonance >0, the gain reduction is compensated.

Partial LFO Phase Lock (control present in TAB inside LFO Partial 1): all the parameters of LFO1 and LFO2 of partials 2-3 and 4 (Rate, Waveform, Delay Time, Fade,...) are synchronized with those of LFO1 and LFO2 of Partial 1.

The synthesis engine, with **Partial LFO Phase Lock=ON**, corresponds to that of a 4-partial synth where LFOs 1 and 2 operate identically on all partials.

It is the method used for the emulations in Model Expansions.



PITCH DRIFT

itch Drif

Pitch Down Depth (control in the PCM-RANGE-COMMON section): reduces the oscillator frequency up to fractions of Hz.

The main use is to activate it together with the Structure 1-2 (3-4) Sync, Ring, X-Mod and X-Mod2 modes using the intermodulations between the oscillators

Pitch Drift - Pitch Drift Cycle Number - Condition (control in the PCM-RANGE-COMMON section): emulates the imperfections of analog synths.

- Pitch Drift (0-255): amount of pseudo-random pitch oscillations
 - **Pitch Drift Cycle Number (Free, 1,2...8):** cyclicity with which the voices alternate. Ex. 6= emulation of a 6-voice synth.
 - **Condition Drift:** quantity of pseudo-random pitch oscillations, Cutoff and Volume

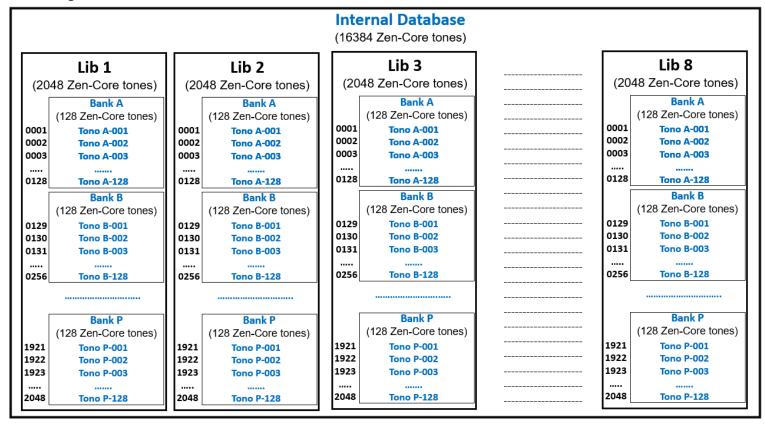
Librarian

The software manages and uses a **database of 16384 ZEN-Core Tones** (all resident in the software memory) which is made in **N.8 libraries (Lib1-Lib2,..Lib8)** each of **2048 Tones**.

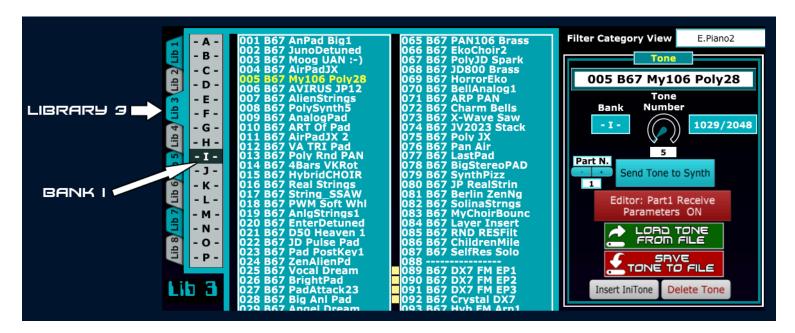
Each of the 8 libraries is divided into 16 banks (A-B-C....P) of 128 tones each.

You can access to library management by clicking on the icon

The entire sound database is volatile: at the end of the session it must be stored in a file, so as not to lose the changes.



The 8 libraries (Lib1, Lib2,..Lib 8) and the 16 Banks of each library (Bank A, B, C....P) are selected by clicking on the **Lib X** TABs (libraries) and on **letters A-P** (banks).



It is possible to load and save to file the entire database (16384 ZEN-core tones), a single library (2048 ZEN-core tones) or a single bank (128 ZEN-core tones). To do this, just click on the relative icons, indicated below.



- Save Lib1-8 to File: save to file the entire database containing the 8 libraries (16384 ZEN-Core Tones) File extension .L67 file size 42.19 MByte
- Load Lib1-8 from File: load from file (*.L67) the entire database containing the 8 libraries (16384 ZEN-Core tones) replacing the one present in memory.
- Save Lib to File (2048 Tones-Banks A-P): save to file the currently selected library (Lib1 or Lib2, ..., or Lib8) containing 2048 ZEN-Core Tones File extension .b67 file size 5.3 MByte
- Load Lib from File (2048 Tones-Banks A-P): load from file (*.b67) the library containing 2048 ZEN-Core tones replacing the one (Lib1, or Lib2, ... or Lib8) currently selected.
- Save Bank to File: save on file the single bank (A, or B, ..., or P) currently selected, containing 256 ZEN-Core Tones File extension .syx file size 337 KByte
- Load Bank/Clipboard from File: load from file a single bank containing 256 ZEN-Core Tones replacing the one (A, or B, ... or P) currently selected.
 It is also possible to load a file containing clipboard data (No. of Tones variable from 1 to 48): in this case the first Tones (from 1 to 48 max) of the currently selected bank (A-P) will be replaced

It is also possible to save a single ZEN-Core tone to a file (or load from a file): it is important to note that in this case, the behavior of the operation is different as the library is NOT involved but the zen-core tone currently present on the groovebox (on the selected Clip/Track) is loaded or saved to a file.

To save (eventually) the sound in the library, proceed as in the other cases by clicking on "Write Actual Tone To Selected Tone/Bank" (see below)

- Save tone to file: the ZEN-CORE tone present on the <u>currently selected clip/track</u> is saved to file. The sound is stored in the MIDI SysEx format. (*.syx) Size 2 KByte.
- Load tone from file: the ZEN-CORE tone (*.syx) is loaded from the file and transferred to the groovebox on the <u>Currently selected clip/track</u> and the ZEN-Core parameters of the tone in the editor are updated.

The Load and Save of a single Tone can be done in the same way from the menu on the right (main screen)



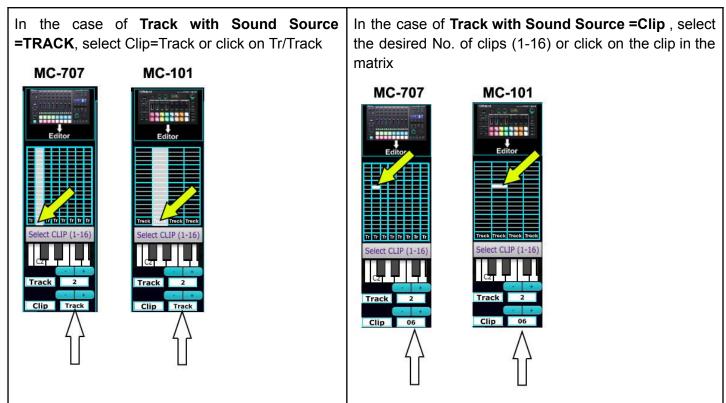
or through the menus in the Librarian section.

Before loading a new tone it is important to check the Track/Clip currently selected from the matrix and editor controls, since the corresponding ZEN-Core tone of the groovebox <u>will be replaced by the one loaded from the file</u>.

Editing a ZEN-Core Tone and storing it in the library

To edit a ZEN-Core sound and store it in the library, proceed by **clicking on the matrix** or **modifying the controls with the following steps**:

• Selection of Track No. (1-4 for MC-101 –1-8 for MC-707) and



 load into editor the ZEN-Core Tone parameter of the selected Track/Clip by clicking on the Groovebox→Editor icon



- possible tone editing
- inside LIBRARIAN select the library location where to store the sound by single click on the tone or the possible alternative methods (see below): in the example Tone N.3 Lib1 Bank C)

		OO4 DCT AVITOLIC 1040
	- A - I	001 B67 AVIRUS JP12
-		002 R67 AlionStrings
9		002 B67 AlienStrings
.e	- B -	003 INIT TONE
		04 INIT TONE
Lib 2	- C -	
		005 INIT TONE
	- D -	
	· · / /	006 INIT TONE
3	- / /-	007 INIT TONE
		008 INIT TONE
181		008 INTLIONE
	<u>// F - I</u>	009
-	- 6 -	010 B67 DreamBell
	- 0 -	
Lib 4		011 B67 J60 Brass
	- H - I	
		012 B67 BOWZenSynth
		013 B67 SynthBow Vib
u ,	- I -	
Lib 5		014 B67 Synth Arp
	- J -	
		015 B67 Pan Marim23
9	- K -	016 B67 Celtic Anal1
		018 B67 StereoBrPad
	- M -	019 B67 10Prophet
		dis der ich ropfiet
121		020 B67 ZMass 12
Lib 7 Lib 6	- N - I	
		021 B67 Analog Dream
00		022 INIT TONE
	- 0 -	
		023 INIT TONE
Lib 8	- P -	
		024 INIT TONE
		026 INIT TONE
		027 INIT TONE
		039 THIT TONE



Click your "Write Actual Tone To Selected Tone/Bank" •

(the operation lasts a fraction of a second, during which, obviously, you must not modify the sound inside the GrooveBox)

Please note that, to select the location where to store the sound, as an alternative to single clicking on the desired



, on the "N.Tone to Overwrite"

tone, it is possible to operate on the "Tone Number" control





, or use the Up-Down arrow keys on the keyboard [

Transferring a ZEN-Core Tone from the library to the Groovebox

You can transfer a ZEN-Core sound from your library to any Track/Clip in your Groovebox.

The first operation is always to select the Track/Clip combination with the methods seen previously, based on the type of track (Sound Source =TRACK or Sound Source =CLIP).

I remind you that in each Project, **MC-707 is able to store and use up to a maximum of 17x8=136 ZEN-Core Tones**: each of the 8 tracks can store

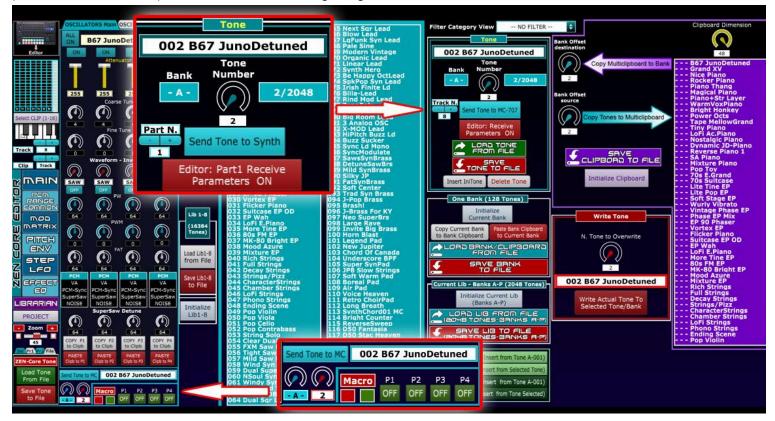
- 16 ZEN-Core tones, one per clip, if it is set Sound Source=Clip
- 1 ZEN-Core tone in case Sound source=TRACK

In each Project, MC-101 is able to store and use up to a maximum of 17x4=68 ZEN-Core Tones: each of the 4 tracks can in fact store

- 16 ZEN-Core tones, one per clip, if it is set Audio Source=Clip
- 1 ZEN-Core tone in case Sound source=TRACK

For transferring a ZEN-Core tone from the library to one of the available locations (**136 per MC-707 e 68 per MC-101**) you can operate both in the main screen that is always visible (bottom left) and in the Librarian section

(click on LIBRARIAN) as shown in the following image.



<u>Method 1:</u> Send ZEN-Core tone to groovebox using the controller in the lower left section: proceed with the following steps

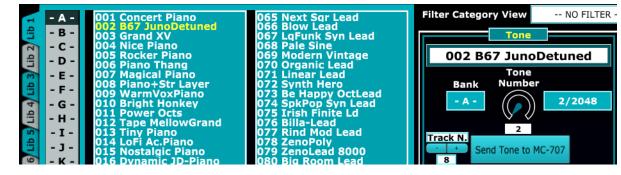
- Select the Track/Clip on the top left where you want to transfer the Zen-Core Tone by clicking on the matrix or selecting with the Track/Clip controls
- Select the Bank (A-P) and Tone No. (1-128) that you wish to transfer to groovebox
- Clip 002 B67 JunoDetuned nd Tone to MC Ρ1 P2 Р3 Ρ4 Macro OFF OFF OFF OFF 002 B67 JunoDetuned Ρ1 P2 P3 Ρ4 Macro OFF OFF OFF OFF

• Click Send Tone to MC

Method 2: send the ZEN-Core tone from the editor to the groovebox using the controller in the

Librarian (click your LIBRARIAN

) : proceed with the following steps



 Select the Track/Clip on the top left where you want to transfer the Zen-Core Tone by clicking on the matrix or selecting with the Track/Clip controls



 Click on TAB to select the library (Lib1-8) and on letter to select the Bank (A-P)

Double click on the tone to transfer



Alternatively, it is possible to select the tone using the "Tone Number" controller, or using the Up-Down arrow keys

Send Tone to MC-101 or use the Enter key on your keyboard.

The ZEN-Core sound will be transferred from the librarian to the groovebox and all the parameters and graphics of the editor will be automatically updated immediately afterwards:

<u>To speed up the transfer</u> of data from the library to the groovebox, you can <u>disable/enable</u> the automatic update of the editor graphics and parameters by clicking on the icon "Editor: Receive Parameters ON/OFF"



time by clicking on the Groovebox \rightarrow Editor icon



In this way (Parameter reception OFF - Green) it is possible to transfer and listen to the sounds of the library more quickly for example by "zapping" the sounds of a bank.

MultiClipboard e Bank Clipboard

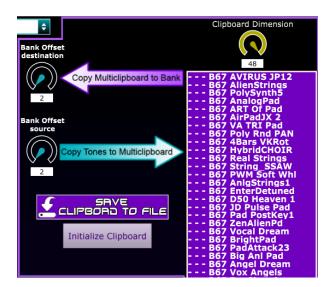
To organize the tones in the library two types of Clipboard can be used: a **Clipboard with variable size** capable of containing up to 48 tones and a **BANK clipboard** having the size of a Bank (128 Tones)

MultiClipboard

The size is adjustable using the "Clipboard Dimension" control: the names of the tones it contains will be visible accordingly.



The adjustments and operations possible with the Multiclipboard are:



- **Clipboard Dimension**: you adjust the size of the clipboard which can contain from 1 to 48 Tones (in case of resizing any copied tones remain in the clipboard to be used if necessary)
- Click are ← Copy Multiclipboard to Bank: the tones of the Clipboard are copied to the library starting from the "Bank Offset destination" tone. This tffset can be set using the relative control or simply by clicking on the tone in the library.

Care should be taken as <u>the entire contents of the</u> <u>clipboard are copied to the library</u> overwriting the sounds of the selected bank and possibly the subsequent ones present in the following bank. For example, if you copy 8 tones starting from tone 125 of BANK A they will be overwritten in tones 125-128 of that bank and tones 1-4 of BANK B

- Click on
 Copy Tones to Multiclipboard: the tones
 of the library are copied to the Clipboard starting from the
 "Bank Offset source" tone. This offset can be set using
 the relative control or simply by clicking on the tone of the
 chosen library.
- Save Clipboard to File: the contents of the Clipboard (1-48 ZEN-core Tones depending on the size set) are saved on file (*.syx). This file can then be loaded into any



the content of the file (1-48 max ZEN-Core tones), as in the case of a BANK (128 Tones), will be copied starting from location 001 of the active bank.

• Initialize clipboard: the clipboard is restored with the default content of 48 INIT TONE

BANK CLIPBOARD

To facilitate the rapid movement of **complete banks** (128 ZEN-Core tones) as an alternative to using the files, it is possible to use the **BANK CLIPBOARD** which, unlike the **MultiClipboard**, does not show the name of the tones and has a fixed size equal to 128 tones (one bank).

One Bank (128 Tones)					
	Initia Current				
Copy Current Bank to Bank Clipboard			ank Clipboard rrent Bank		

Delete Tone

Insert IniTone

Moving operations are performed by copying and pasting from/to the clipboard.

Tone Insert and Delete

For each individual library it is possible to insert and delete tones by clicking on the relative icons.

• **Insert IniTone**: A ZEN-Core INIT tone is inserted starting with the selected tone.

The operation increases the numbering of all the tones in the library by 1 starting from the insertion point (therefore the list of tones is scrolled downwards): therefore with each insertion the last tone of this library, the N.2048, is lost.

• **Delete Tone:** the selected tone is deleted.

The operation decreases by 1 the numbering of all the tones in the library starting from the deletion point (therefore there is a scrolling upwards of the list of tones): an INIT tone is therefore added to each delete operation in the last location, N. 2048, of this library.

Filter category

To better identify the sounds in the library, it is possible to select one of the various categories of sounds provided by the ZEN-Core standard through the "Filter Category View" control: a small yellow square will appear next to the sounds belonging to this category.



Import ZEN-Core tones and conversion of Model Expansions sounds in "equivalent ZEN-Core Tones"

All synths compatible with the ZEN-Core standard, Roland Zenology Pro software and ZenBeat's ZC1 player, are able to export the **ZEN-Core User Tone** and the **User Tones obtained with the various Model Expansions:** the export of these collections produces files that use the .SVZ format.

Through a proprietary conversion algorithm it is possible to load and convert the user tones (*.svz files) into the format used by the software which is based on SysEx so as to load entire collections of sounds exported from the synths into the library.

This is possible thanks to a series of **ZEN-Core**→**MIDI SysEx** Tone conversion routines

For conversion of Model Expansions User Tone→**Tone ZEN-Core equivalent**, the USER TONES of the following Model Expansions are supported:

- JUNO-106
- JX-8P
- JUPITER-8
- SH-101
- Juno-60
- JUNO-X engine
- JUPITER-X/XM engine

.svz files containing **collections of up to 2048 tones** can be converted: even files that contain a single tone or a mix of sounds with synthesis are converted without problems **ZEN-Core e Model Expansions**.

<u>IMPORTANT: *.SDZ sound banks (those that can be purchased with Roland Cloud Manager) are</u> <u>NOT supported as they are encrypted and protected by license.</u>

Import ZEN-Core User Tone:

- Import SVZ Z-Core (Insert from Tone A-001): the *.svz file containing the ZEN-Core sound bank is loaded and inserted into the current Bank starting from location A001 (the first slot of the bank)
- Import SVZ Z-Core (Insert from Selected Tone): the *.svz file containing the ZEN-Core sound bank is loaded and inserted into the current Bank starting from the selected location (Tone Number control or click on the list)

Import User Tones of supported Model Expansions:

- Import SVZ Model (Insert from Tone A-001): the *.svz file containing the bank of sounds with Model Expansions synthesis is loaded, converted and inserted in the current Bank starting from location A001 (the first slot of the bank)
- Import SVZ Model (Insert from Selected Tone): the *.svz file containing the bank of sounds with Model Expansions synthesis is loaded, converted and inserted in the current Bank starting from the selected location (Tone Number control or click on the list)

Using "Import SVZ Model" with banks that contain a mix between the two types of tones, will simultaneously convert ZEN-Core user tones and user tones with Model Expansion sounds .

Import SVZ Z-Core (Insert from Tone A-001)
Import SVZ Z-Core (Insert from Selected Tone)
Import SVZ Model (Insert from Tone A-001)
Import SVZ Model (Insert from Tone Selected)

Initialization of the Database and its components

It is possible to initialize the entire database (16384 ZEN-core tones), the single library (2048 ZEN-core tones) and the single bank (128 ZEN-core tones) by clicking on the relative icons. Its contents are restored with INIT TONE



Project Editing Section

The software, designed mainly as a ZEN-Core editor and librarian, also has a section dedicated to Project editing: to access click on the Project icon

Two different Tabs are available (Track and Clip)

TRACK CLIP			
			Read Projec
OFF Track 1 EQ	OFF	OFF Track 3 EQ	OFF Track 4 EQ
Input Gain [dB]	Input Gain [dB]	Input Gain [dB]	Input Gain [dB]

while on the right the two sections relating to the Master Delay and Reverb effects remain always visible and active.

Project: TRACK TAB

Inside the **track tab** you access the **4/8 track equalizers** available (MC-101/MC-707) and the 3 master effects applied to the entire project: **Master Compressor, Master MFX** and **Master EQ**

To update the screen parameters and those relating to Delay and Reverb, click on the icon at the top:

Read Project Track EQ/Master EFX

For the 4/8 tracks available (MC-101/MC-707) there is the possibility of **set/read the parameters relating to the type of sound source**

- **Sound source=TRACK** (one ZEN-Core tone for all clips in the track)
- Sound source=CLIP (one ZEN-Core tone for each of the track's 16 clips)

	und Color	Sound Color	Sound Color	Sound Color	Sound Color	Sound Color	Sound Color	Sound Color
	urce	Source	Source	Source	Source	Source	Source	Source
TR			CLIP L.YELLOW	CLIP L.GREEN	CLIP P.GREEN	TRACK	TRACK	CLIP L.PURPLE

In this way it becomes simple to check the status of this important parameter for all tracks so as to correctly select the Select CLI Clip/Track combination for managing and editing the Tones

5	
	Select CLIP (1-16)
	Track 1
	Clip Track

Using the relevant controls it is possible to set the **color of the track volume faders**: due to the way the groovebox is structured, color modification is activated when any operation is carried out (clip selection, playback of a note,...) or as soon as the project is played.



The Master Compressor section has 18 Templates, to be used as a preset or starting point for further editing.



Track: MC-707



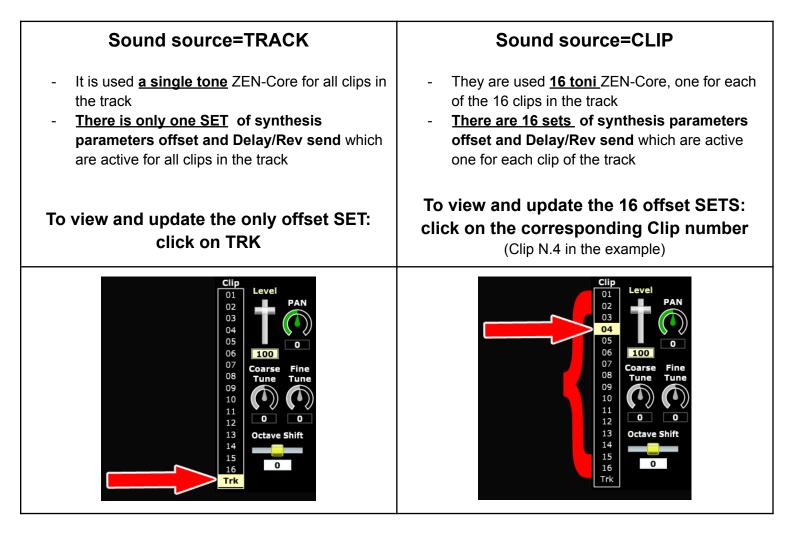
Track: MC-101



Project: CLIP Tab

Inside the **CLIP Tab** you can access to the Level and PAN parameters, the sends to the master Delay and reverb effects and the various offsets of the synthesis parameters: Cutoff, Resonance, ADR, Vibrato, Portamento, Ctrl Sys.

Also for this section it is important to distinguish, for each of the 4/8 Tracks (MC-101/MC-707), the two cases:



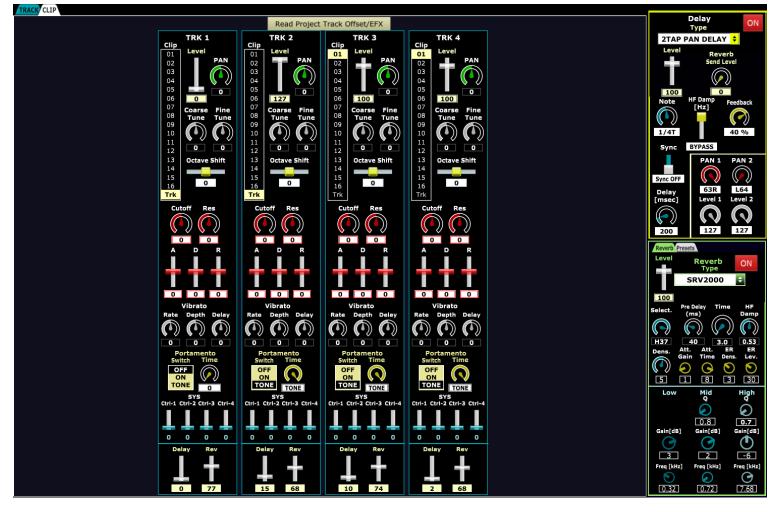
To update all the parameters of the screen and those relating to Delay and Reverb, click on the icon at the top:

Read Project Track Offset/EFX

CLIP: MC-707

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		<u></u>						
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CLIP: MC-101



By clicking inside the reverb on the Presets TAB it is possible to access a list of 40 presets which include various types of reverbs (Hall, Room, Plate) and effects (B67 Drum Gate, B67 Karplus RES, B67 Vangelis,...)

Reverb Pres	ets	
SRV200	• B67 VANGELIS 韋	
Select. P	elay Time HF ms) Damp (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	
Dens. Att Gai	t. Att. ER ER in Time Dens. Lev.	
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Gain[dB]	Image: Color of the second s	
3	 ✓ ✓ ✓ ✓ ✓ ✓ 	
Freq [kHz]	Freq [kHz] Freq [kHz]	

Damp	SRV2000 - LARGE ROOM II
\bigcirc	SRV2000 - REFLECTIONS
	SRV2000 - DIGITAL CHAMBER
0.53 ER	SRV2000 - REVERB 30 sec
Lev.	SRV2000 - MEDIUM ROOM II
\odot	SRV2000 - DELAY SMALL HALL
30	SRV2000 - DIGITAL TAJ MAHAL
High	SRV2000 - B67 KARPLUS RES
Q	SRV2000NL - NON LINEAR
\mathbf{O}	SRV2000NL - NL INVERSE
0.7	SRV2000NL - B67 DRUM GATE
ain[dB]	SRV2000NL - DRUM GATE I
\mathbf{O}	SRV2000NL - BACKWARDS REV
-6	SRV2000NL - B67 BACKWARDS
eq [kHz]	INTEGRA 7 - B67 Hall 1
9	INTEGRA 7 - B67 Room 1
7.68	INTEGRA 7 - B67 Plate 1

SRV2000 - B67 ROOM I

SRV2000 - B67 VANGELIS

SRV2000 - MEDIUM HALL I SRV2000 - SMALL HALL SRV2000 - LARGE ROOM I SRV2000 - MEDIUM ROOM I SRV2000 - SMALL ROOM I SRV2000 - CLEAR PLATE SRV2000 - TUNNEL SRV2000 - CONCRETE PIPE SRV2000 - LARGE CHAPEL SRV2000 - BASIN

SRV2000 - OUTDOOR THEATER SRV2000 - SMALL ROOM II SRV2000 - MEDIUM HALL II SRV2000 - SLAP BACK SRV2000 - MED.BRIGHT ROOM SRV2000 - CONCERT HALL SRV2000 - LIVE ROOM SRV2000 - SMALL BRIGHT HALL

SRV2000 - VOCAL I

SRV2000 - VOCAL II SRV2000 - LARGE HALL

Project Delay and Reverb effects editor

On the right in the Project section, editing of all the parameters relating to the Delay and Reverb effects of the Project is available.

To update the active parameters in the project just click on Read Project Track EQ/Master EFX if you are in the TAB

Track; click on

Read Project Track Offset/EFX if you are i

if you are in the CLIP TAB.

Software reset

The software, as seen, is portable: it can therefore be copied and run (double click) from any folder.

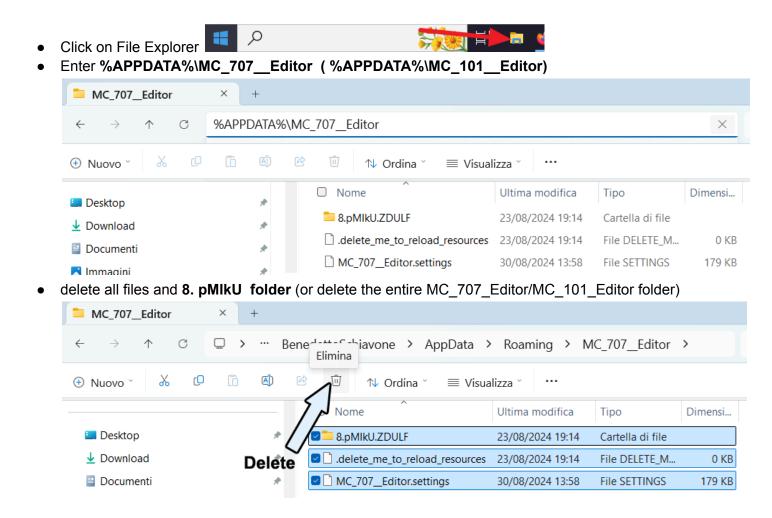
The program always remembers the settings of the previous session and for this feature stores some data in a hidden folder.

If you want to reset the software by deleting the temporary data from the last session, proceed by following the following steps.

PC version

The file to be deleted are present in C:\Users\YOUR_USERNAME\AppData\Roaming\MC_707__Editor (C:\Users\YOUR_USERNAME\AppData\Roaming\MC_101__Editor) folder

Proceed with the following Steps



MAC version

The files to be deleted are in the folder disk:\users\YOUR_USERNAME folder\Library\Preferences\MC_707__Editor (disk:\users\YOUR_USERNAME folder\Library\Preferences\MC_101__Editor) Proceed with the following steps. • Turn on hidden files: Open the Finder Finder and press the keys Command + Shift + . (the period key)

shift		V B N M < > ? , . / shift
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- reach the disk:\users\YOUR_USERNAME\Libreria\Preferences folder
- Delete the MC_707__Editor (MC_101__Editor) folder (right click move to trash)

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🙏 Applicazioni	com.apple.Accessibility.Assets.plist	oggi, 16:55	6 KB	property list
🚍 Scrivania	Com.apple.Accessibility.plist	oggi, 16:49	2 KB	property list
🗅 Documenti	com.apple.accounts.suggestions.plist	19 apr 2023, 19	27 128 byte	property list
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	🛅 pbs.plist		787 byte	property list
	sharedfilelistd.plist	Configurazione Azioni Cartella	5 131 byte	property list
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