## INSTALLATION / LAUNCHING

We have prepared software generator for easy creation of SysEx messages for setting and programming of MMB 4x4 Merge Box. Any required message can be created with the help of this generator without difficult calculation of hexadecimal numbers. Generator is based on Java scripts so it is possible to use it with any operation system, but a browser (MS-Explorer, Netscape, etc.) must be installed on the computer.

Program can be launched either directly from supplemental CD-ROM or from hard disk of a PC. If you choose to launch the program from hard-disc, it is necessary to copy "index.html", "MMB4x4_system.html", "MMB4x4_preset.html", "MMB4x4_lcd.html", "MMB4x4_service.html", "MMB4x4_help.html" files and subfolder "media" from "support\syxgen\" folder of CD-ROM to selected folder on your computer's hard disk.

Users of MS-Windows operating system can use self-extracting archive "MMB4x4_syxgen.exe". In this case, it is necessary to insert path to target folder of hard disk (by direct input of text or by selecting path by pressing the "…" button) and then to press "OK" button. All needed files are then copied automatically.

Launching SysEx Messages generator can be then done by simply opening "index.html" file in a browser.
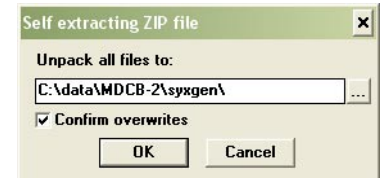
SETTING AND PROGRAMMING OF PARAMETRS

After „index.html" file launching, window with menu of generators is opening. Requested generator starts after clicking on its name in „Launch" column.

"Exit" button in lower left corner of the table closes browser window.

Bulk Dump Preset Memory Bank :

Preset parameters are set here. These parameters control MMB 4x4's functions directly.

"Device ID" is always necessary. ID number must be the same as number given by system parameter "Device ID" or universal ID can be used. Universal ID will be accepted anytime by MMB 4x4 independently on "Device ID" parameter setting.

Selection of preset number (i.e. number of preset memory bank) is always necessary.

Type of requested SysEx message is always necessary - "Request" (Bulk Dump Data Request) for request to list of actual values of parameters from requested preset memory bank or "Load" (Bulk Dump Data Load) for storage of newly chosen values of parameters into requested preset memory bank of MMB 4x4.

Names of parameters are displayed in left column of next part of generator's table. Values of parameters can be chosen in check-boxes and select-boxes. Choice of parameter's values is significant only if "Load" type message is generated – requested values of all parameters must be set before this message is generated. Setting of values of parameters isn't necessary if "Request" type message is generated – this message doesn't include them.

- MIDI data filters ("MIDI Data") are set with help of check-boxes independently for individual inputs / outputs. Corresponding MIDI data goes through MMB 4x4 if check-box is marked on. If check-box is marked off, corresponding MIDI data are filtered.
- Merging of data ("Merge to") is set with help of check-boxes independently for each of outputs. MIDI data from corresponding input are merged to given output if check-box is marked on. If check-box is marked off, all data from corresponding input are ignored.
- Name of preset ("Name") is inserted with help of select-boxes as ASCII codes of characters shown on device's display (see table below).

MIDI System Exclusive Messages are generated in hexadecimal form as a text. Text form of hexadecimal numbers can be chosen by "Hex Byte Form" select-box, delimiter between bytes can be chosen by "Delimiter" select-box.

Then it is necessary to transfer generated message from text field of the generator to SysEx Msg editor of any musical software (Cubase, Cakewalk, Sonar, Midi OX etc.) and then to transmit it to any MIDI input of the device. (**Attention** – the message will not be accepted by the device if the device works in edit mode or if memory protection is active!) Text of generated message can be transferred for example by clipboard: Select the text by mouse (cursor), copy it to clipboard by pressing Ctrl+C keys and paste it into editor of musical software by pressing Ctrl+V keys.

"Generate" button launches generating of chosen type of SysEx message.

"Reset" button clears the text field and sets all check-boxes and select-boxes to default values.

"Back" link in lower left corner of the table closes generator window and returns main menu window.

"Help" link in lower left corner of the table opens new window with brief help.

MMB 4x4 MIDI Merge Box (Model 8-255, v. 1.0)
Preset Memory bank

Select Device ID : **Universal**

Select Preset Number **1**

Select Message Type **Load**

MIDI Data :	In-1	In-2	In-3	In-4	Out-1	Out-2	Out-3	Out-4
Whole Channel 1	☑	☑	☑	☑	☑	☑	☑	☑
Whole Channel 2	☑	☑	☑	☑	☑	☑	☑	☑
Whole Channel 3	☑	☑	☑	☑	☑	☑	☑	☑
Whole Channel 4	☑	☑	☑	☑	☑	☑	☑	☑
Whole Channel 5	☑	☑	☑	☑	☑	☑	☑	☑
Whole Channel 6	☑	☑	☑	☑	☑	☑	☑	☑
Whole Channel 7	☑	☑	☑	☑	☑	☑	☑	☑
Whole Channel 8	☑	☑	☑	☑	☑	☑	☑	☑
Whole Channel 9	☑	☑	☑	☑	☑	☑	☑	☑
Whole Channel 10	☑	☑	☑	☑	☑	☑	☑	☑
Whole Channel 11	☑	☑	☑	☑	☑	☑	☑	☑
Whole Channel 12	☑	☑	☑	☑	☑	☑	☑	☑
Whole Channel 13	☑	☑	☑	☑	☑	☑	☑	☑
Whole Channel 14	☑	☑	☑	☑	☑	☑	☑	☑
Whole Channel 15	☑	☑	☑	☑	☑	☑	☑	☑
Whole Channel 16	☑	☑	☑	☑	☑	☑	☑	☑
Chnl - Note On/Off	☑	☑	☑	☑	☑	☑	☑	☑
Chnl - Key + Chnl Aftertouch	☑	☑	☑	☑	☑	☑	☑	☑
Chnl - Pitch Bend	☑	☑	☑	☑	☑	☑	☑	☑
Chnl - Pgm Chng + Bank Slct	☑	☑	☑	☑	☑	☑	☑	☑
Chnl - RPN + NRPN	☑	☑	☑	☑	☑	☑	☑	☑
Chnl - Other CC	☑	☑	☑	☑	☑	☑	☑	☑
System - Clock	☑	☑	☑	☑	☑	☑	☑	☑
System - Transport	☑	☑	☑	☑	☑	☑	☑	☑
System - MTC Qtr Frame	☑	☑	☑	☑	☑	☑	☑	☑
System - Song Pos Ptr + Song Slct	☑	☑	☑	☑	☑	☑	☑	☑
System - Others	☑	☑	☑	☑	☑	☑	☑	☑
SysEx - Real Time	☑	☑	☑	☑	☑	☑	☑	☑
SysEx - Non Real Time	☑	☑	☑	☑	☑	☑	☑	☑
SysEx - Others	☑	☑	☑	☑	☑	☑	☑	☑

Merge to :	Out-1	Out-2	Out-3	Out-4
From In 1	☑	☑	☑	☑
From In 2	☑	☑	☑	☑
From In 3	☑	☑	☑	☑
From In 4	☑	☑	☑	☑

Name :	Chr-1	Chr-2	Chr-3	Chr-4	Chr-5	Chr-6	Chr-7	Chr-8
	66	108	97	110	107	32	32	32

SysEx Message :

Select Hex Byte Form: **"FF"**

Select Delimiter: **space**

```
F0 00 20 21 7F 37 40 00 0F 0F 0F 0F 3F 1F 07 0F 0F 0F
0F 3F 1F 07 0F 0F 0F 0F 3F 1F 07 0F 0F 0F 0F 3F 1F 07
0F 0F 0F 0F 3F 1F 07 0F 0F 0F 0F 3F 1F 07 0F 0F 0F 0F
3F 1F 07 0F 0F 0F 0F 3F 1F 07 0F 0F 0F 0F 42 6C 61 6E
6B 20 20 20 00 00 00 00 00 00 00 00 00 00 7D F7
```

Generate   **Reset**

Remarks:
Press "Generate" button for SysEx Msg creating.
Press BACK for return to main menu.
Press HELP (or see manual) for more information.

Back Help

Bulk Dump System Memory Bank :

System parameters are set here. These parameters control common hardware functions of MMB 4x4.

"Device ID" is always necessary. ID number must be the same as number given by system parameter "Device ID" or universal ID can be used. Universal ID will be accepted anytime by MMB 4x4 independently on "Device ID" parameter setting.

Type of requested SysEx message is always necessary - "Request" (Bulk Dump Data Request) for request to list of actual values of parameters from system memory bank or "Load" (Bulk Dump Data Load) for storage of newly chosen values of parameters into system memory bank of MMB 4x4.

Names of parameters are displayed in left column of next part of generator's table. Values of parameters can be chosen in select-boxes. Choice of parameter's values is significant only if "Load" type message is generated – requested values of all parameters must be set before this message is generated. Setting of values of parameters isn't necessary if "Request" type message is generated – this message doesn't include them.

MIDI System Exclusive Messages are generated in hexadecimal form as a text. Text form of hexadecimal numbers can be chosen by "Hex Byte Form" select-box, delimiter between bytes can be chosen by "Delimiter" select-box.

Then it is necessary to transfer the generated message from text field of the generator to SysEx Msg editor of any musical software (Cubase, Cakewalk, Sonar, Midi OX etc.) and then to transmit it to any MIDI input of the device. (**Attention** – the message will not be accepted by the device if the device works in edit mode or if memory protection is active!) Text of generated message can be transferred for example by clipboard: Select the text by mouse (cursor), copy it to clipboard by pressing Ctrl+C keys and paste it into editor of musical software by pressing Ctrl+V keys.

"Generate" button launches generating of chosen type of SysEx message.

"Reset" button clears the text field and sets all check-boxes and select-boxes to default values.

"Back" link in lower left corner of the table closes generator window and returns main menu window.

"Help" link in lower left corner of the table opens new window with brief help.

⟨H⟩ MMB 4x4 MIDI Merge Box (Model 8-255, v. 1.0)
System Memory bank

Select Device ID :	Universal
Select Msg Type	Load

System Parameter Name :	Select Value :
Memory Protection	On
Auto-reset	On
Panic Sequence	Short
Clock Indicator - In 1	Off
Clock Indicator - In 2	Off
Clock Indicator - In 3	Off
Clock Indicator - In 4	Off
Clock Indicator - Out 1	Off
Clock Indicator - Out 2	Off
Clock Indicator - Out 3	Off
Clock Indicator - Out 4	Off
SysEx Data Pause - In 1	10
SysEx Data Pause - In 2	10
SysEx Data Pause - In 3	10
SysEx Data Pause - In 4	10
LCD Contrast	100
New Device ID	31

SysEx Message :

Select Hex Byte Form:	"FF"
Select Delimiter:	space

```
F0 00 20 21 7F 37 40 20 03 00 00 0A 0A 0A 0A 64 1F 00
00 00 00 00 00 00 3B F7
```

Generate   Reset

Remarks:
Press "Generate" button for SysEx Msg creating.
Press BACK for return to main menu.
Press HELP (or see manual) for more information.

Back Help   Copyright © 2010 CHD Elektroservis

Bulk Dump Display :

SysEx messages for displaying of own characters on device's display are generated here.

"Device ID" is always necessary. ID number must be the same as number given by system parameter "Device ID" or universal ID can be used. Universal ID will be accepted anytime by MMB 4x4 independently on "Device ID" parameter setting.

ASCII codes of characters shown on display are set with help of select-boxes in middle column of generator table (for upper row of the display) and in right column (for lower row of the display). Codes of all 16 characters must be always selected.

MIDI System Exclusive Messages are generated in hexadecimal form as a text. Text form of hexadecimal numbers can be chosen by "Hex Byte Form" select-box, delimiter between bytes can be chosen by "Delimiter" select-box.

Then it is necessary to transfer the generated message from text field of the generator to SysEx Msg editor of any musical software (Cubase, Cakewalk, Sonar, Midi OX etc.) and then to transmit it to any MIDI input of the device. (**Attention** – the message will not be accepted by the device if the device works in edit mode or if memory protection is active!) Text of generated message can be transferred for example by clipboard: Select the text by mouse (cursor), copy it to clipboard by pressing Ctrl+C keys and paste it into editor of musical software by pressing Ctrl+V keys.

"Generate" button launches generating of chosen type of SysEx message.

"Reset" button clears the text field and sets all check-boxes and select-boxes to default values.

"Back" link in lower left corner of the table closes generator window and returns main menu window.

"Help" link in lower left corner of the table opens new window with brief help.

Characters for display (ASCII code)											
Data	Chr	Data	Chr	Data	Chr	Data	Chr	Data	Chr	Data	Chr
32	space	48	0	64	@	80	P	96	'	112	p
33	!	49	1	65	A	81	Q	97	a	113	q
34	"	50	2	66	B	82	R	98	b	114	r
35	#	51	3	67	C	8	S	99	c	115	s
36	$	52	4	68	D	84	T	100	d	116	t
37	%	53	5	69	E	85	U	101	e	117	u
38	&	54	6	70	F	86	V	102	f	118	v
39	'	55	7	71	G	87	W	103	g	119	w
40	(	56	8	72	H	88	X	104	h	120	x
41	)	57	9	73	I	89	Y	105	i	121	y
42	*	58	:	74	J	90	Z	106	j	122	z
43	+	59	;	75	K	91	[	107	k	123	{
44	,	60	=	76	L	92	\	108	l	124		
45	-	61	<	77	M	93	]	109	m	125	}
46	.	62	>	78	N	94	^	110	n		
47	/	63	?	79	O	95	_	111	o		

4

Service :

Commands for work with memory banks and system functions are generated here.

"Device ID" is always necessary. ID number must be the same as number given by system parameter "Device ID" or universal ID can be used. Universal ID will be accepted anytime by MMB 4x4 independently on "Device ID" parameter setting.

Names of functions are shown in left column of next part of generator's table. Some of functions need next specification. It can be chosen with help of select-boxes in middle column of the table.

Required SysEx message is generated after eventual setting of value and pressing of corresponding "Generate" button in right column of generator's table.

Change Preset — Command to change of actual preset.
Store Preset — Command to storage of actual parameters values from edit buffer to preset memory bank.
Go To Monitor — Launching or canceling of Monitor utility.
Go To Meter — Launching (for selected inpur / output) or canceling of Meter utility.
Panic — Launching of "Panic" function.
HW Reset — Execution of hardware reset of the device (MMB 4x4 is put to default status as after it is switched on).
Factory Reset — Executes complete initialization of the device - MMB 4x4 is set to "factory reset" status.
Attention - all data stored by user in memory are erased during "Factory Reset" command execution!

MIDI System Exclusive Messages are generated in hexadecimal form as a text. Text form of hexadecimal numbers can be chosen by "Hex Byte Form" select-box, delimiter between bytes can be chosen by "Delimiter" select-box.

Then it is necessary to transfer the generated message from text field of the generator to SysEx Msg editor of any musical software (Cubase, Cakewalk, Sonar, Midi OX etc.) and then to transmit it to any MIDI input of the device (see notes below). Text of generated message can be transferred for example by clipboard: Select the text by mouse (cursor), copy it to clipboard by pressing Ctrl+C keys and paste it into editor of musical software by pressing Ctrl+V keys.

"Generate" button launches generating of chosen type of SysEx message.
"Reset" button clears the text field and sets all check-boxes and select-boxes to default values.
"Back" link in lower left corner of the table closes generator window and returns main menu window.
"Help" link in lower left corner of the table opens new window with brief help.

Notes – there are limitations for some of commands:
- "Change Preset" command is accepted only in normal working mode of the device, in other modes the command is ignored.
- "Store Preset" isn't accepted if MMB 4x4 works in edit mode or if memory protection is active.
- "Go To Monitor" command is accepted only in normal working mode of the device, in other modes the command is ignored.
- "Go To Meter" command is accepted only in normal working mode of the device, in other modes the command is ignored. If a change of indicated input / output is necessary in "Meter" mode, "Meter" mode must be deactivated first and then activated for newly requested input / output.

EXAMPLE OF USING WITH "MIDI-OX" SOFTWARE

If you haven't installed a software sequencer in your PC, MIDI-OX program is useful tool for transfer of generated System Exclusive Messages to MMB 4x4. You can download MIDI-OX freeware from **http://www.midiox.com/**

1) Interconnect MIDI output of PC with any MIDI input of MMB 4x4 and turn on MMB 4x4.
2) Open SysEx window in MIDI OX (choose "SysEx…" in "View" menu):
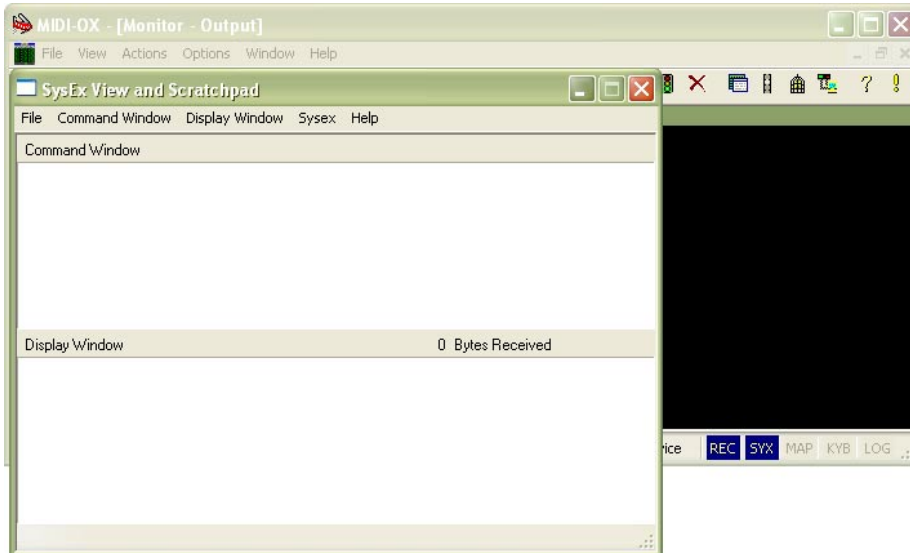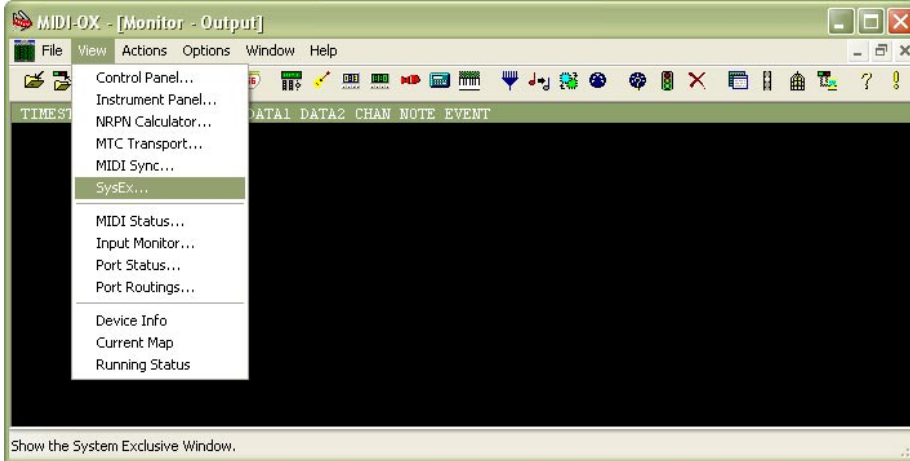
3) Generate required SysEx Msg and copy it into clipboard as described above.
4) Click on text field "Command Window" in "SysEx View and Scratchpad" window and insert generated SysEx Msg into the field by Ctrl+V keys pressing.
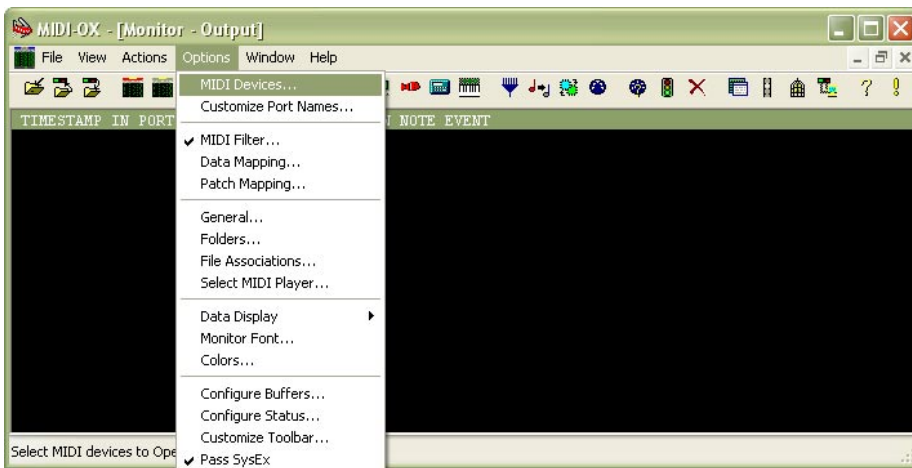

6
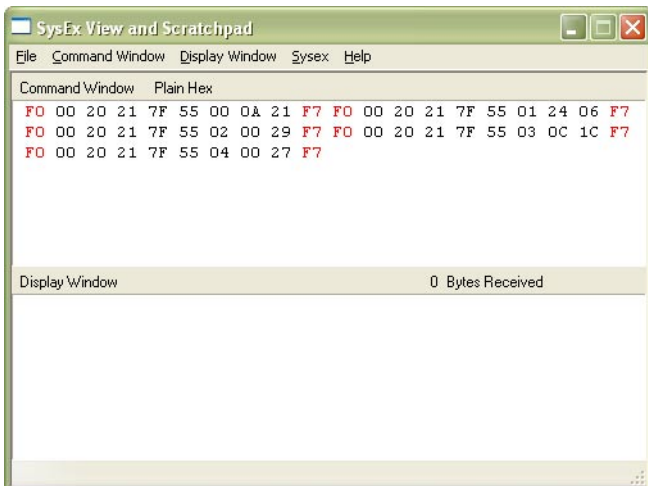
5) Transmit the message into MMB 4x4 by clicking on "Send Sysex" command in "Command Window" menu.
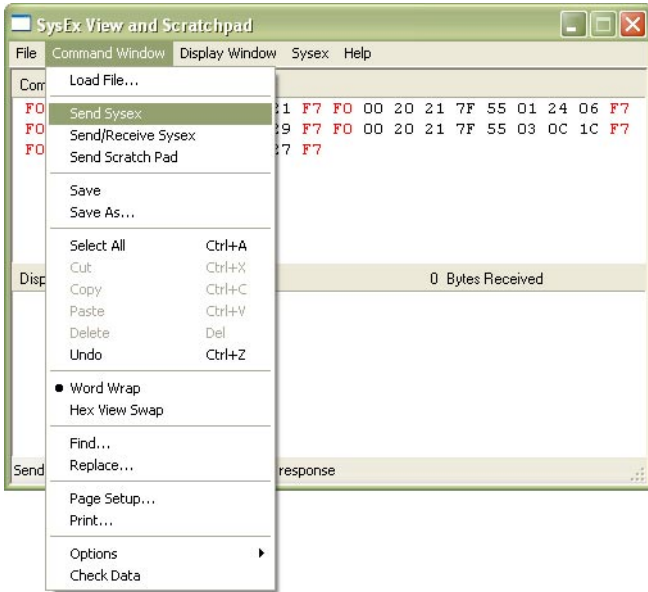
If MIDI-OX is used first time, it is necessary to activate MIDI port to which MMB 4x4 is connected. It must be done for proper data transfer from PC to the merge box.

1) Open window for port selection in MIDI OX - select "MIDI Devices" in "Options" menu:

2) For MIDI port activation, click on name of the port in "MIDI Outputs" list.
3) Then confirm selected port – click on "OK" button