Guide to MotasEdit software

plugin and standlone

for Windows®, macOS® and Linux

document version 1.02

for software v1.0.11

June 12, 2021

Contents

1 Introduction to MotasEdit software

This is a guide to the free MotasEdit software (v1.0.11) for use with the Motas-6 hardware synthesizer.

The software can be downloaded from https://www.motas-synth.uk/downloads.html

There are two variants of the MotasEdit software: the stand-alone variant and the plugin variant for use within third-party DAW software. Almost all of the features and operations are the same for either the stand-alone or plugin variants, however, the stand-alone variant has more complex MIDI wiring options to allow interaction with other MIDI devices (for the plugin variant these connections are normally provided by the host DAW software).

There are versions of the stand-alone software for Windows (64 bit), macOS and Linux. There are VST (Virtual Studio Technology) plugin versions for Windows®, macOS® and Linux as well as AU (Audio Units) for macOS®.

To use the software you connect your Motas-6 synthesizer via USB cable to your PC/Mac and run the software. Once connected, the software allows the following features:

- Control of the Motas-6 sound shaping controls from your PC/Mac.

- Real-time Motas-6 display replication on your PC/Mac.

- Live recording and playback of sound parameter changes within a DAW environment (plugin version only).

- Edit parameter-mapping feature.

- Edit patch advanced modulation feature.

- Save (archive) patches, patterns and sequences to your PC/Mac.

- Load patches, patterns and sequences from your PC/Mac.

- Firmware update the Motas-6 synthesizer.

- Perform bulk data backup (or restore) of entire Motas-6 memory or setup data to PC/Mac.

- Read Motas-6 system info.

Note that the MotasEdit software normally connects directly to the external Motas-6 via USB MIDI. In the case of the plugin this means the DAW treats the plugin as if it is a software sound generator for which it can send MIDI data to. Normally, do not allow the DAW to connect via MIDI to Motas-6 directly (otherwise MotasEdit may not be able to connect). The plugin can also send data to the DAW which can then send data to the Motas-6 as an option if you don't want the plugin to connect directly to the Motas-6 hardware.

No audio data is generated from the MotasEdit software and so external audio connections would need to be made from Motas-6 to your PC/Mac to record/process the audio.

2 Connections and software GUI settings

Before starting make sure your Motas-6 is setup appropriately (please refer to the Motas-6 User Guide for how to adjust these settings):

- set the Motas-6 MIDI channel to match the settings in MotasEdit.

- set the Motas-6 NRPN CONTROL + SYSEX settings to 'NRPN+SYSEX' for both USB IN and USB OUT. Set the MIDI IN and MIDI OUT options to 'OFF'.

- set SYSEX OUT DELAY to 10 (at least initially).

- to allow firmware updates set 'ALLOW UPDATES' to 'YES'

- to allow automatic page changing during software parameter adjustment set 'EXT. PAGE CHANGES' to 'YES'

Connect your Motas-6 to your PC/Mac via USB cable. Run the MotasEdit software and check that the in and out USB MIDI connections to your Motas-6 are correct. The screenshot below (taken from the plugin variant) shows a correct connection ('Settings' tab of the software).
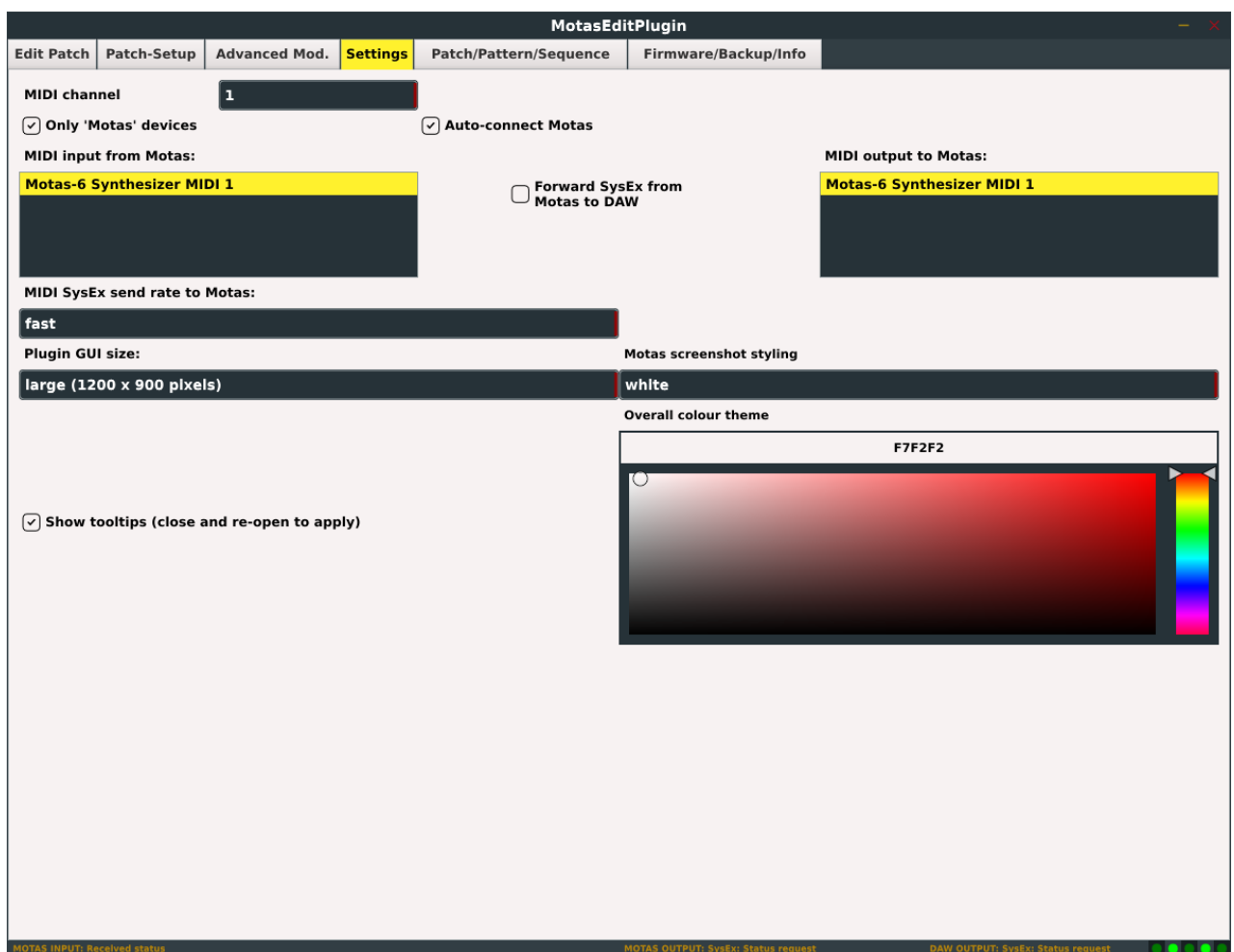
Normally leave the check boxes 'Only 'Motas' devices' and 'Auto-connect Motas' ticked so that the

connections are made for you. Otherwise, manually select the appropriate options to connect the in- and out-going USB MIDI connections to the external Motas-6 device.

'MIDI SysEx send rate to Motas' allows the rate of data sent to Motas-6 to be adjusted. Normally set this as high as possible. However, depending on the speed of your PC/Mac the highest settings may be too fast for Motas-6 (resulting in transfer errors displayed on Motas-6), in this case reduce the rate.

On the lower right-hand side of this 'Settings' tab you can set the colour of the real-time Motas screen image (on the 'Edit' tab) and the overall colour and tint of the software background using the colour slider and 2-D selector.

In the plugin variant of the software you can set the GUI size (which updates when you close and re-open the plugin) whilst on the stand-alone variant simply adjust the window size by dragging and dropping the window boundary.

The screenshot below is taken from the stand-alone version of the MotasEdit software.
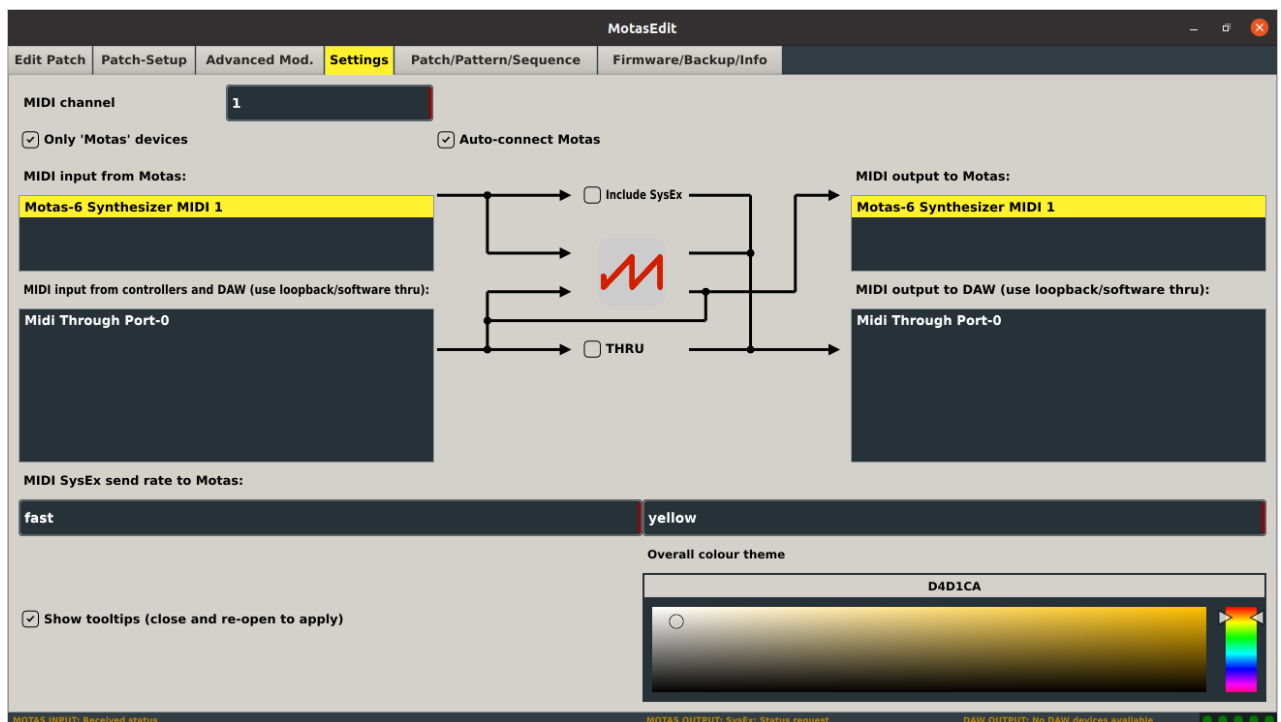
As you can see above, on the stand-alone variant of the software the connection options are more complex. Optionally you can pass-though MIDI data (including SysEx) from another MIDI controller or DAW (using third-party loop back software) to pass through to Motas-6 or from Motas-6 to the DAW using the remaining selections and check-boxes connected to the wiring diagram.

3 Patch editing and live screenshot

On the 'Edit' tab of the software is shown a virtualisation of the Motas-6 front panel. As you adjust patch settings on your Motas-6 they are sent via MIDI NRPN codes and the display updates. Likewise changing the settings on the software sends NRPN codes to Motas-6 and it updates. Note that the NRPN codes are sent on MIDI channel 1.

To receive live screenshots from Motas-6 select the 'Screen capture' button. This causes the software to request screen data via SysEx commands and then Motas-6 sends the screen data. Due to the large amounts of data in this process the operation of Motas-6 may then be rather sluggish, especially if the setting SYSEX EX OUT DELAY on Motas-6 is increased. However, this does not affect the sound from Motas-6 only the user interface.

The 'monitor display only' allows the Motas-6 hardware to always show the audio monitor level on its internal display, whilst the software stills shows the live Motas-6 screenshots.

To the left of the Motas-6 logo on the software you can select the active patch from a drop-down list, the changes are synced between the software and the external Motas-6.

The mini keyboard in the lower right of the software allows notes to be played and the 4 adjustable bars to the left of this keyboard generate MIDI controller data for contollers 1 (mod wheel), 2, 3 and 4 sent to the external Motas-6.

Some keyboard options are available. If you press the 'home' key the active page jumps to master pitch and pressing the 'end' key jumps to the output page. Keys 'page up' and 'page down' allow selecting intermediate pages. The 'up' and 'right' keys increase the slider values whilst the 'down' and 'left' keys decrease the slider values. Holding 'shift' or 'control' increases the amount.

4 Parameter mapping

On the 'Patch-Setup' tab of the software you can edit the parameter mapping settings. These settings are found on page 5 in the setup menus on MOTAS-6. After the settings have been adjusted press the 'Send' button to send the data via MIDI SysEx.
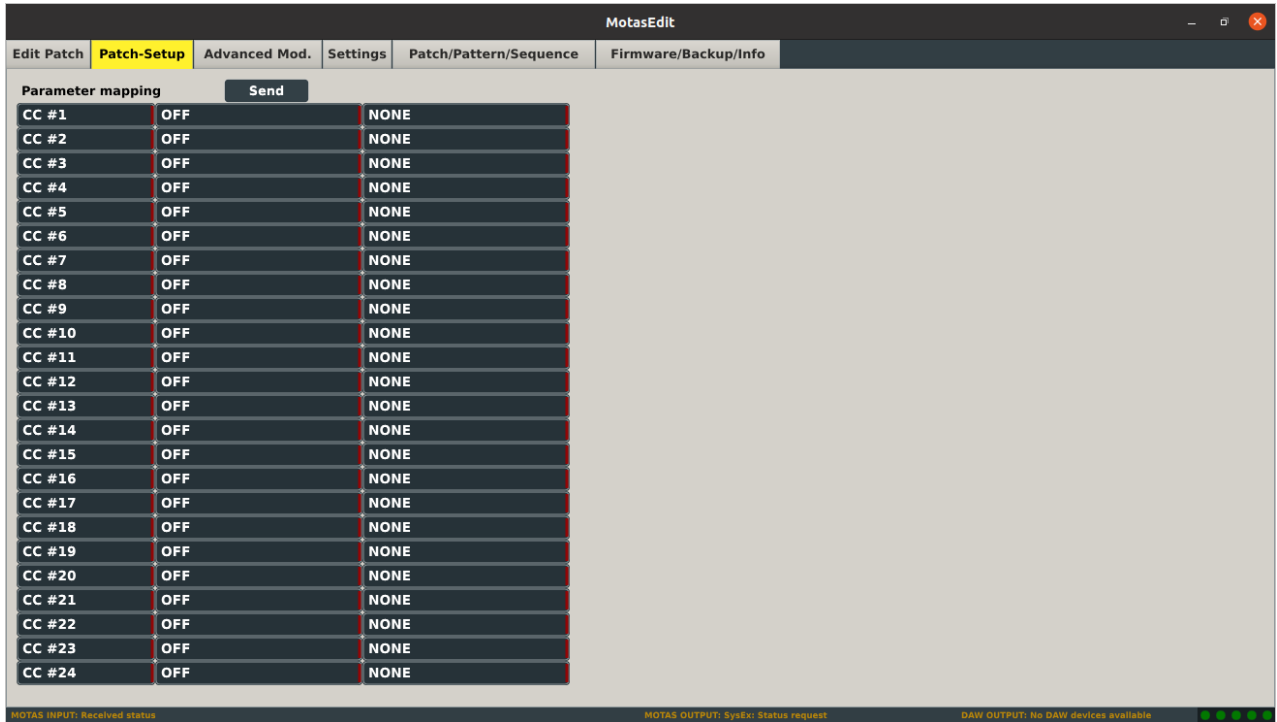
5 Advanced modulation

On the 'Advanced modulation' tab of the software you can edit the advanced modulation settings. This is done via NRPN MIDI messages for a responsive editing experience. Also, editing the settings on MOTAS-6 (page 4 in the setup menus) will update the values shown in the software.

Each of the 16 advanced modulation slots is shown on the screen. For each slot you can easily edit the 2 sources, the function that is applied to the sources, the slot modulation amount and the destination.

Slot	Source 1		Source 2		Function	Gain		Destination	
# 1	MISC	CONST 128	SLOT	#1	F-DIVIDE	0	bipolar	OFF	NONE
# 2	SLOT	#1	SLOT	#1	OFF	0	bipolar	OFF	NONE
# 3	SLOT	#1	SLOT	#1	OFF	0	bipolar	OFF	NONE
# 4	SLOT	#1	SLOT	#1	OFF	0	bipolar	OFF	NONE
# 5	SLOT	#1	SLOT	#1	OFF	0	bipolar	OFF	NONE
# 6	SLOT	#1	SLOT	#1	OFF	0	bipolar	OFF	NONE
# 7	SLOT	#1	SLOT	#1	OFF	0	bipolar	OFF	NONE
# 8	SLOT	#1	SLOT	#1	OFF	0	bipolar	OFF	NONE
# 9	SLOT	#1	SLOT	#1	OFF	0	bipolar	OFF	NONE
# 10	SLOT	#1	SLOT	#1	OFF	0	bipolar	OFF	NONE
# 11	SLOT	#1	SLOT	#1	OFF	0	bipolar	OFF	NONE
# 12	SLOT	#1	SLOT	#1	OFF	0	bipolar	OFF	NONE
# 13	SLOT	#1	SLOT	#1	OFF	0	bipolar	OFF	NONE
# 14	SLOT	#1	SLOT	#1	OFF	0	bipolar	OFF	NONE
# 15	SLOT	#1	SLOT	#1	OFF	0	bipolar	OFF	NONE
# 16	SLOT	#1	SLOT	#1	OFF	0	bipolar	OFF	NONE

MOTAS INPUT: Received status   MOTAS OUTPUT: SysEx: Status request   DAW OUTPUT: No DAW devices available

6 Patches, patterns and sequences

On the 'Patches/Patterns/Sequence' tab of the software you first choose whether you want to process patches, patterns or sequences. Next, you can choose to process either a single of bank. Then is the option to save or load from your PC/Mac. You can also request data or send data to your Motas-6. When sending data the destination memory location can be chosen using the drop down box.

For patches, a dual side-by-side list allows re-ordering via mouse drag-drop so you can arrange a bank of patches in the order you wish. The LHS list is the set that will be sent to Motas-6 (when 'Send' button is pressed). The RHS list is there to allow re-ordering to make a bank of patches potentially from various sources, in the order you want them. The 'Clear slots' button clears all slots on the LHS. The 'Copy all' buttons allow replication of patches to the left or right lists.

In single mode each patch/pattern or sequence can be renamed by editing the selected patch name.

Patch organisation example

The patch selection and ordering features are perhaps best shown with an example: let's create a set of patches that is a mix of patches from the factory bank 1 and the patches stored already on the Motas-6 in bank 0 and then store the resulting set of patches into the Motas-6 bank 4:
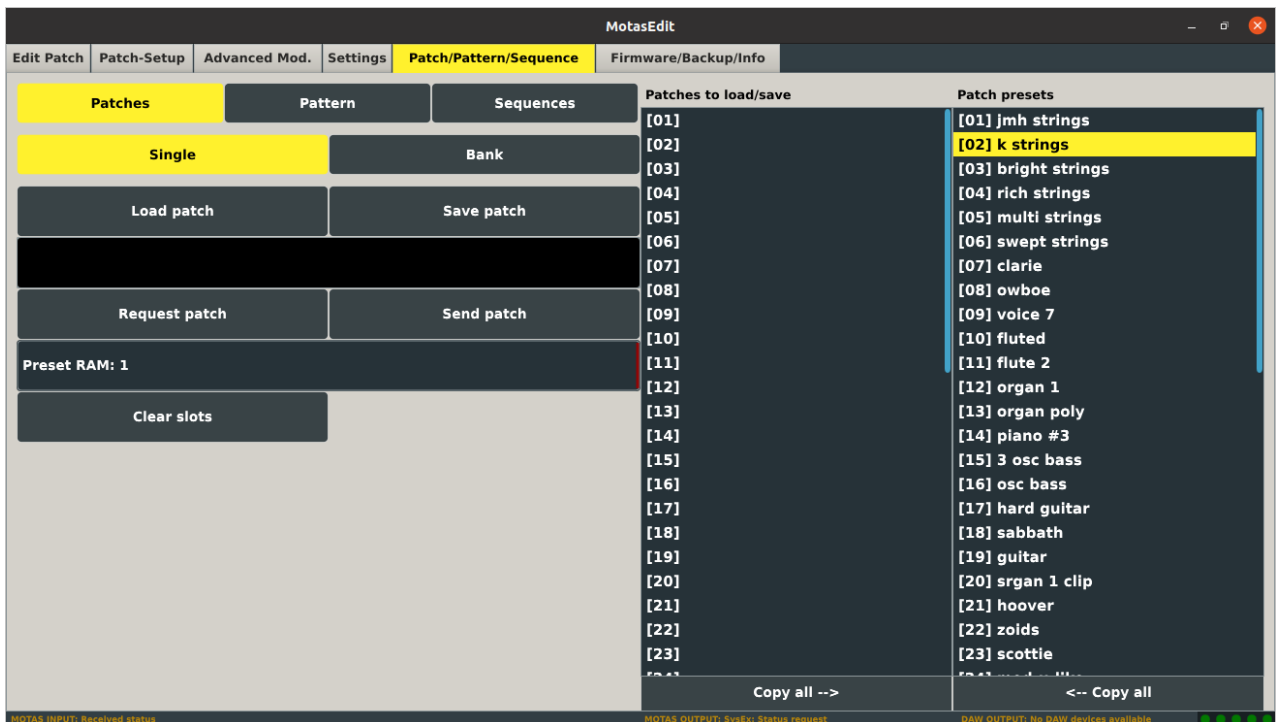
Select 'Patches' then 'Bank'. Then select 'Factory bank 1'. This causes the LHS list to be filled with all the preset patches from factory bank 1 (the factory banks are pre-stored within the software itself). Next, press the 'Copy all –>' button to copy all of these patches to the RHS list. Next, select FLASH bank :0 from the drop-down and then 'Request patches'. Now, all the patches from the external Motas-6 from bank 0 will be read and loaded into the LHS list. Next, drag individual patch names from the LHS list to the RHS and drop to replace the patches on the RHS. When the final set of patches is as desired on the RHS list

press the '<– Copy all' button to copy to the LHS list and finally select the destination bank e.g. FLASH bank: 4 and press the 'Send Patches' button to store these patches onto Motas-6 to the internal bank 4.

7 Firmware, bulk backups and info

To update the firmware on your Motas-6 press the 'Update firmware' button. The software will prompt you to locate the firmware file from your PC/Mac file system. Ensure 'ALLOW UPDATES' is set to 'YES' on your Motas-6.

You can get Motas-6 firmware files from https://www.motas-synth.uk/downloads.html. Please check from time to time if new firmware is available for your Motas-6. The current version of firmware can be read out from your Motas-6 (see below) or viewed on the Motas-6 itself.

To backup/restore all the patches, patterns and sequences into one large file use the 'Request bulk data' and 'Send bulk data' buttons. This process can take a long time due to the large amount of data.

To backup/restore setup data (including calibration data) use the 'Request setup data' and 'Send setup data' buttons.

Information on the PC software is shown in the box at the bottom of the screen. To get system info on your Motas-6 press the 'Get Motas Info' button. The data is added in the box and includes the unique system identifier code and firmware version of the external Motas-6 device.