# POWER USER

## MOTIF-RACK XS

**Motif-Rack XS EDITOR VST: A Getting Started Guide**

**MOTIF-RACK XS Editor VST** is a convenient tool which lets you edit and save the various parameters of your MOTIF-RACK XS tone generator. These include Voice and Mixing parameters (edited in the Voice or Mixing mode of the MOTIF XS) such as Volume, Pan, EG, and Cutoff and other settings. Thanks to its easy-to-understand graphical interface, you can edit various parameters of the MOTIF-RACK XS right from your computer—using the mouse to adjust the virtual knobs, sliders, and buttons and entering values from the computer keyboard. Alternatively, you can use the actual knobs and buttons of the Motif-Rack XS front panel – as instantly the software will reflect the changes of the hardware and vice versa. Finally, all the changes you have made can be saved to your computer or transmitted to the MOTIF-RACK XS instrument. The MOTIF-RACK XS Editor VST, based on the "VST3 technology" by Steinberg, works as a VST3 plug-in with Cubase series 4.5 or later. The MOTIF-RACK XS Editor VST also works as the same way as other VST instrument software, allowing you to save the edited settings of the MOTIF-RACK XS, or use them for another project. In addition, you can handle the MOTIF-RACK XS Voices in the MediaBay window in Cubase when using the MOTIF-RACK XS Editor VST with Cubase 4.5 or later, allowing you to search for, listen, and play the MOTIF-RACK XS Voices within MediaBay in Cubase. The MOTIF-RACK XS Editor VST provides a comprehensive and seamless music production environment—making the use of hardware and software both easier and much more efficient.

The Editor will save data, when you save separately, in a file type .X1E (Motif-Rack XS Voice Editor format). This file can contain the Global (Common MIXING) settings, current edited Voices (16 Mixing Voices, all 384 normal User Voices, and the 32 Drum User Voices). You can select to include your USER Voices and even your Favorites in each Editor file.

Current settings includes the latest settings of the Common and Element parameters for the Voice last assigned to each of Parts 1 – 16, as well as Mixing parameter settings such as Voice assignment, pan, volume and effect for each Part. Among the Voice Banks, only the Mixing Voice Bank data belonging to the Current setup. The MOTIF XS Editor VST lets you edit parameters (including Element parameters) of the Voice assigned to each Part and save the latest edit status as a file without storing it as a User Voice or a Mixing Voice. This means that you can easily recall the latest status of the previous edit simply by opening the file.

**Cubase Project Example:** "Oakland Stroke" demo originally programmed by Nate Tchetter…
Track 1: Brass – "Lots O' Brass"
Track 2: Alto Sax – "Alto"
Track 3: Trumpet – "Trumpet 2"
Track 4: Trombone – "Trombone"
Track 5: Bari Sax – "Bari Sax"
Track 6: Guitar – "Vintage Strum"
Track 7: Organ – "On Road AS1"
Track 8: Bass – "Vintage JB AF1&2"
Track 10: Drums – "Power Standard Kit 1"

Load the example Project **"OaklandStrokeMRXSvst.CPR"**
In the Track View screen you will see a MIDI TRACKS Folder – which contains the 9 MIDI tracks. Click on the Folder icon to open the Folder. Folders are convenient way to organize your track data within Cubase. And when dealing with MIDI Tracks and Audio lanes this can be a very useful thing. Below the MIDI TRACKS folder you will see the VST INSTRUMENT Folder – currently the "Motif XS VST" is the only item there. We have just the one VST lane Track (#10) and the basic automation lane. As you playback the file you will see the stereo meters of the audio lane respond to the returning audio. We use the term *returning audio* because remember, we are sending MIDI data (from the MIDI tracks) **to** the Motif XS, its tone generator creates the sound, and **returns** audio to Cubase. That is what you see (and hear) in the VST INSTRUMENT lane's meter: the *returning audio*.

**Troubleshooting the setup:**
If you have properly setup your Motif XS VST Editor in the past and you are connected via firewire, opening this file will send the Voices and Mix settings to your Motif XS.

It was saved so that it will restore the GLOBAL and CURRENT MIX settings to the connected Motif XS. The file was prepared on a Motif XS**7**, meaning if you own a Motif XS**6** or Motif XS**8** you will need to adjust the port SETUP to reflect your particular unit.


If when you open the file you see a message warning of a PORT ERROR on the VST Editor…

in the Motif XS EDITOR VST window go to FILE > SETUP and ensure that the Ports are setup for your particular mLAN DEVICE.

Shown at left the **mLAN Device** is the "Motif XS7".

If you see "Not Assigned" or you see an "!" before the Motif XS(x) in the mLAN DEVICE area, you have a problem with your system. Here's what to do:

1) Go to the Motif XS and ensure that it is setup for MIDI IN/OUT = mLAN
    a. Press [UTILITY] > [F5] CONTROL > [SF2] MIDI
2) Make sure your Motif XS is set to use the proper IEEE1394 Driver.
    a. If you are using the Yamaha Steinberg Firewire Driver, go to [UTILITY] > [F1] GENERAL > [SF4] AUTO LOAD > make sure the IEEE1394 Driver = FW. If not, select FW, then press [STORE] and reboot the Motif XS
    b. If you are using the AI Driver or the mLAN Driver, go to [UTILITY] > [F1] GENERAL > [SF4] AUTO LOAD > make sure the IEEE1394 Driver = mLAN. If not, select mLAN, then press [STORE and reboot the Motif XS
3) If you needed to make these changes, reboot Cubase so that it can properly find your driver.

**Manual settings:**
Make sure the "mLAN Monitor Setup" parameter is set so that you are working "WITH PC". If you start playback of the file and notice a "doubling" effect, this is because you neglected to set this properly.


By setting the mLAN MONITOR parameter to "With PC" you hear the audio generated by the Motif XS only after it travels through Cubase (through the audio busing of the VST Editor). The reason for this is so you can hear any processing that we add in Cubase.

Most important about these settings is understanding WHY they are

made. One of the advantages of using the Motif XS **VST** Editor is that it will allow you more options when it comes to processing your signal. If in this instance we had the **mLAN MONITOR** parameter set to **ST-ALONE** (stand alone), you would hear the audio generated by the Motif XS as soon as the MIDI data arrived *plus* you would additionally hear it *post* the VST Editor – thus the "doubling" effect. The "With PC" setting **defeats** the audio going directly to the Motif XS outputs and we are monitoring through Cubase.

Click "St-Alone" – Found in the lower left hand corner of the editor's main screen (circled above). Make sure you can identify this distinct sound… it is called "doubling" for obvious reasons. Switch back and forth between "St-Alone" and "With PC" until you can identify this sound… this way when you have to troubleshoot your setup you know how to eliminate this doubling effect. It will also be very important for you to know about this mLAN MONITOR parameter and what it is doing, because later, when you want to use your Motif XS without the computer you will wonder why you are getting no sound. REMEMBER: the "With PC" setting **defeats** the audio going directly to the Motif XS outputs… it must travel through the PC (computer: Cubase) first. Therefore when using the XS without a computer, you want to set the mLAN MONITOR back to Stand Alone. Make sense?

One other manual setting you may need to adjust in the EDITOR:

- Go to FILE > VSTi SETUP
- Click "AUTO" – this will assign the 8 stereo RETURNS
- Click OK

**A Huge Point on the Theory of Operation**

To really understand the benefits of the Motif XS Editor VST we have to clear up a few points. And it seems since we mentioned it in the paragraph above, we might as well get it out of the way now: The significance of routing and audio busing. Those of you who have worked with recording consoles will know that there are fundamentally two ways to route signal through a mixing console when it comes to signal processing (effects) for individual channels. The effects can be inserted INLINE with the channel, or you can setup a SEND/RETURN situation where you have one or more AUXILIARY SENDS to route signal away from the channel, to a particular processor and then you return the composite signal later to the stereo bus just before the final output.

By now you should be familiar with the extensive and powerful effects available in the Motif XS. While in SONG MIXING or PATTERN MIXING mode eight of the PARTS can have Voices that recall their two INSERTION EFFECTS from VOICE mode. Additionally, all the PARTS have access to the SYSTEM EFFECTS via a separate auxiliary send/return type situation. This is very similar to what routing is like on any professional console.

When you route a PART to an individual OUTPUT (assignable mLAN output) it is removed from the SYSTEM. The reason you route something to an individual assignable output in the first place is so that you can process it differently. That would be the reason. If you are not going to process this signal separately, you gain nothing really from routing it to a separate audio output. This tutorial will attempt to get your head around some of the possibilities available with the 8 STEREO OUTPUTS provided by the Editor VST.

Let us state this clearly up front: you only really need two outputs. Why do you only really need two? Because your final mix will in all likelihood be stereo. Wave files that are burned to CD, MP3 files that are burned to CD are mostly stereo. It is, by far, the most common format for your final mix.

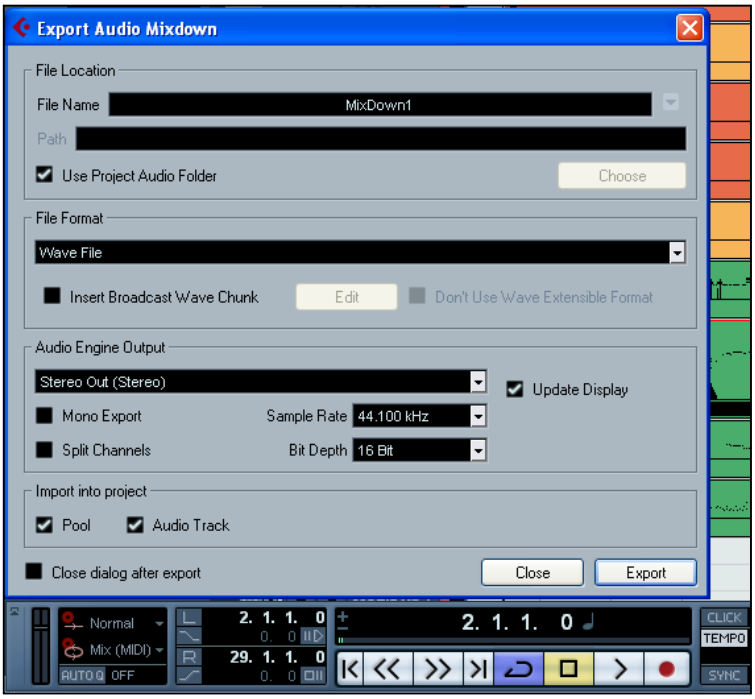
**Mix down Example 1** – we will simply learn how to take the song and export it to a stereo wav file.
Open the Project provided with this tutorial. Notice on the TRANSPORT that the left marker is set to measure 2.1.1.0 (Measure 2) and the right marker is set to measure 29.1.1.0 (Measure 29). With the markers set, you can export this file to create a stereo wav file.


Go to FILE > EXPORT > AUDIO MIXDOWN
According to your Steinberg Cubase AI documentation:

The **Export Audio Mixdown** function in Cubase AI allows you to mix down audio from the program to a file on your hard disk, in a number of formats. You always mix down an output bus. For example, if you have set up a stereo mix with tracks routed to a stereo output bus, mixing down that output bus would give you a mixdown file containing the whole mix.

- The Export Audio Mixdown function mixes down the area between the left and right locator.
- When you mix down, you get what you hear – mutes, mixer settings and insert effects are taken into account.
    - Note though that you will only include the sound of the bus you select for mixdown.
- MIDI tracks are not included in the mixdown! To make a complete mixdown containing both MIDI and audio, you first need to record all your MIDI music to audio tracks (by connecting the outputs of your MIDI instruments to your audio inputs and recording, as with any other sound source).

Or as we will do, route the MIDI data to the Motif XS, **return** its audio via mLAN and the VST EDITOR.




Fill in the FILE NAME and you can either create a PATH to the location of your choice or you can select the "Use Project Audio Folder" option. This will place the wave file in the Project's Audio Folder so you can easily find it.

At left we called the FILE: "MixDown1" and we checked the "Use Project Audio Folder" option.

Set the FILE FORMAT to "Wave File".
Set the AUDIO ENGINE OUTPUT = Stereo Out; Sample Rate 44.100kHz/16-Bit (if you are making an audio CD to be played by regular consumer Compact Disc players you must use 44.1kHz/16-bit format. This is the definition of an audio CD.

Set IMPORT INTO PROJECT options so that the created Wave is in the audio POOL and the data is placed on an AUDIO TRACK. This makes it easy to verify your work.

- Click "EXPORT"

The Export function, because the Motif XS is an external device, will be done in real time. The export will take just about 51 seconds…

When complete, a new stereo Audio Track will be added to the Track View window.
Click on the "S" (Solo) button and playback your mixdown.