



The VST Editor for your Korg® Electribe SX

## User Manual v1.1

# Introduction

Thank you for choosing our product, we wish you lot of fun using it.

## What is ESX ?

The ESX, also known as « Electribe SX » is a hardware audio workstation designed by Korg. It is a sampler with Stretch/Slice, Keyboard and drum parts, and it can record patterns and songs. Go to « Korg » web site for more information.

## What is DirectESX for?

DirectESX is a VSTi/AU MIDI plug-in that allows you to control in real-time every sound shaping parameters of the Korg ESX in your DAW.

As a benefit of the host integration, DirectESX provides an incredible feature set including total recall and parameters automation, combined with the power, stability and punchy sound of the ESX.

You must own the Korg ESX to use DirectESX.

## DirectESX Features

- Full parameters control and automation from a VST host software  
(2 Keyboard parts, 2 Stretch parts, 1 slice part, 1 Audio in part, and 9 drum parts)
- A clean and helpful interface specially designed for the ESX
- Total recall : The whole state of the ESX is saved in the DAW project and can be loaded back.
- System-Exclusive dumps : Get all the patterns of your ESX in the DirectESX interface, then modify and reverse-engineer existing patches easily.

# Installation & Requirements

## Installation

To install DirectESX on your system, simply copy the DirectESX plugin file in your plugins directory:

- Windows: Copy « DirectESX.dll », the default path is « C:\Program Files\VSTPlugins »
- Mac VST : Copy « DirectESX.vst » to /Library/Audio/Plug-Ins/VST
- Mac Audio Unit : Copy « DirectESX.component » to /Library/Audio/Plug-Ins/Components

## Requirements

PC minimum requirements:

- Pentium III 800 Mhz
- 512 MB RAM
- Windows XP/Vista/7
- MIDI interface
- VST 2.4 compliant host

MAC:

- OS X 10.5 or 10.6
- Intel Core Duo
- 1 GB RAM
- MIDI interface
- VST 2.4 compliant host

# MIDI Mode

DirectESX features 2 midi modes: Host and DirectMidi

## Host mode:

In host mode the MIDI messages are going through the host software (ie Cubase, Live...).

Advantage: The MIDI device is shared between the host and DirectESX.

Disavantages: It requires to setup host tracks correctly ; All the MIDI messages may not be transmitted (host filtering), making it incompatible with DirectESX on some cases. Sysex are not supported.

## DirectMidi mode:

In DirectMidi mode the MIDI messages are directly exchanged between DirectESX and the MIDI device (ie sound card).

Advantage: No setup is needed in the host software, all MIDI messages are exchanged including sysex, giving expanded possibilities (Pattern name, full dumps...), and this is independant of the host.

Disavantages: The MIDI device is dedicated to DirectESX, but notes and midi messages that are not used by the ESX are forwarded to the host. Some MIDI interfaces may not be compatible as they don't manage sysex correctly, however DirectESX will try to repair corrupted Sysex messages to enhance compatibility.

# Setup tab

Knob mode determines the way you use the mouse to control the knobs.

Midi interface test

Dumps of the current pattern or Banks (DirectMIDI only)



This indicates if an ESX hardware has been detected (DirectMIDI only)

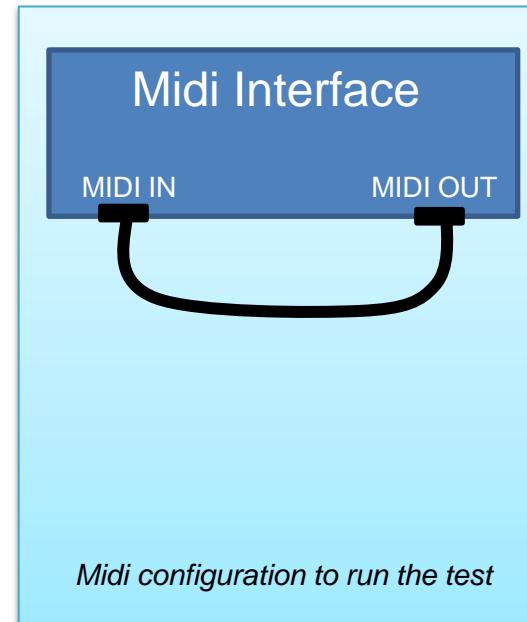
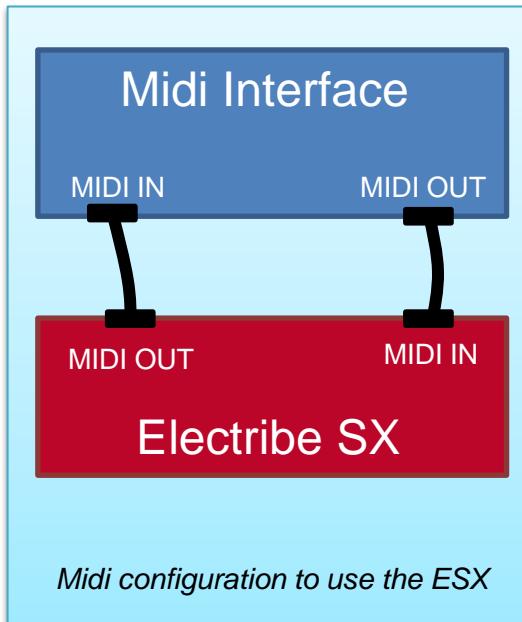
Indicates whether the device could be opened

In DirectMIDI mode you have to select the MIDI device where your ESX is connected.

# Midi interface test



- The midi interface test can determine if your midi interface is compatible with DirectESX.
- To run this test you will need to connect the MIDI IN of your interface directly to the MIDI OUT
- The test takes a few seconds. Once completed it will display a report of the test result.



# Host compatibility

## DirectMIDI mode:

In DirectMIDI mode, the transmission of MIDI messages is not dependant of the Host. The only compatibility issue may come from the MIDI device used.

## Host mode:

DirectESX mostly rely on MIDI message. You may encounter some compatibility issues with some hosts that does not manage MIDI messages properly.

Here is our non-exhaustive compatibility chart, you may get the last updated version at [www.directsynth.com](http://www.directsynth.com) (support section).

Host\Feature	Integration	Controller	Dumps
Cubase SX v3~6	✓	✓	✓
FL Studio v8 v9	✓	Needs manual mapping	✗
Sonar v8	✓	✓	✗
Live v8	✓	✓	✗
Acid pro v7	✓	✓	✗

- Integration : DirectESX is fully functional to control, automate and recall all the parameters of the ESX.
- Controller : The Korg ESX can be used as a midi controller and DirectESX interface is automatically updated when a parameter value changes. Also ESX internal motion sequences can be seen on DirectESX interface.
- Dumps : It is possible to dump pattern banks (or just current pattern) from the ESX by receiving MIDI Sys-Ex message in DirectESX.

# ESX Configuration

As DirectESX relies on MIDI communication, your ESX must be properly connected and configured:

- Use a MIDI cable to connect the MIDI OUT connector of your sound card to the ESX's MIDI IN connector.
- Use a MIDI cable to connect the MIDI IN connector of your sound card to the ESX's MIDI OUT connector.

Make sure the MIDI configuration of your ESX is set to the factory settings: (Refer to the MIDI mode section of your ESX manual)

Parts	Channels	Keyboard Parameter	CC	Keyboard Parameter	CC	FX1 Parameter	CC
Keyboard1	1	Glide	CC#5	Roll	CC#85	FX Type	CC#12
Keyboard2	2	Filter type	CC#83	Fx send	CC#91	FX Edit1	CC#92
Stretch	10	Filter cutoff	CC#74	Fx select	CC#81	FX Edit2	CC#93
Slice	10	Filter resonance	CC#71	Mod type	CC#87	FX Motion Seq sw	CC#20
Audio In	10	Filter Eg int	CC#79	Mod depth	CC#90	<b>FX2 Parameter</b>	
Drums	10	Level	CC#7	Mod speed	CC#89	FX Type	CC#13
		Pan	CC#10	Mod dest	CC#88	FX Edit1	CC#94
		Eg Time	CC#75	Mod bpm sync	CC#82	FX Edit2	CC#95
		Amp Eg	CC#86	Motion seq sw	CC#80	FX Motion Seq sw	CC#21
		Start Point	CC#18			<b>FX3 Parameter</b>	
		Reverse	CC#19			FX Type	CC#24
MIDI Filter	Value			Global Parameter	CC	FX Edit1	CC#25
PCEN	0000			FX Chain	CC#23	FX Edit2	CC#26
						FX Motion Seq sw	CC#22

# DirectESX Interface



# How to use in hosts: general rules

## DirectMIDI mode:

- This mode is enabled as default in DirectESX
- Make sure the MIDI device where you have connected your ESX is not used by the host software. You will have to disable it from a setting menu.
- To send notes from the host to the ESX, create a midi track and select input/output to DirectESX plugin. Then use 1 and 2 channels for Keyboard parts, and 10 for the others (Stretch, Slice, Audio in, Drums).
- For automation, it works the same way than in host mode, you may refer to host mode configuration pages.

## Host mode:

- As the default mode is DirectMIDI you will have to select « Host » In DirectESX.
- Make sure the MIDI device where you have connected your ESX is enabled the host software.
- To send notes from the host to the ESX, create a midi track and select output to the MIDI interface where your ESX is connected. Then use 1 and 2 channels for Keyboard parts, and 10 for the others (Stretch, Slice, Audio in, Drums).
- This mode is not available for the Audio Unit version.

# How to use with Cubase

## DIRECT MIDI MODE

1. Add « DirectESX » VST by using the « Devices->VST Instruments » menu (or F11 key).



2. In DirectESX select the MIDI interface where your ESX is connected.

If the devices could be opened and that the ESX hardware had been detected then you should be able to control the ESX from DirectESX and vice versa.



3. To send notes to the ESX, create a MIDI track, then send Input and output to « DirectESX ». Then use 1 and 2 channels for keyboard parts, and 10 for others.



4. For automation expand the « VST Instruments » and « DirectESX » tracks and select one or more parameters to automate.



# How to use with Cubase (1/2)

## HOST MODE

1. Add « DirectESX » VST by using the « Devices->VST Instruments » menu (or F11 key). In DirectESX click on « Host » to change midi mode



2. Add a MIDI Track and set « IN » to « DirectESX », and « OUT » to your midi interface where the ESX is connected (« Multiface Midi » in our case). Also set « Channel » to « ANY ».



This midi track will send midi from DirectESX to the ESX. We have renamed this midi track to « ESX Send ».

3. You should now be able to control the ESX from DirectESX. Confirm the « Sync now? » question from DirectESX interface. This will transmit the current pattern to the ESX.



On your ESX select the first drum part. Now change the filter type of the drum part from DirectESX. You should see that it is also changing on the ESX. If not, check your midi interface and cables. Also the midi track has to be selected with the record button enabled (red).



# How to use with Cubase (2/2)

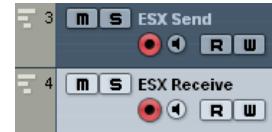
## HOST MODE

- Now we are going to enable the control of DirectESX from the ESX.

Add another MIDI track. Set « In » to the MIDI interface where the ESX is connected (« Multiface Midi » in our case). Set « Out » to « DirectESX ». Set « Channel » to « ANY ». Rename this track to « ESX Receive »



- Now enable the record buttons for both midi tracks.

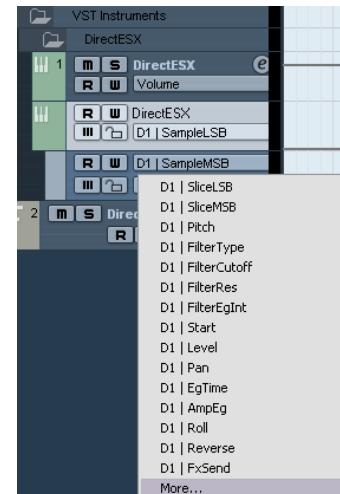


**IMPORTANT :** Always make sure these 2 buttons are enabled, else the midi sync with the ESX will not work.

Turn a knob on the ESX, it moves in the DirectESX interface! (make sure you are working on the same part between the ESX and DirectESX, else you won't see the visual feedback).

Now you should normally be able to control the ESX from DirectESX and vice-versa.

- For automation expand the « VST Instruments » and « DirectESX » tracks and select one or more parameters to automate.



# How to use with Live (1/2)

## DIRECT MIDI MODE

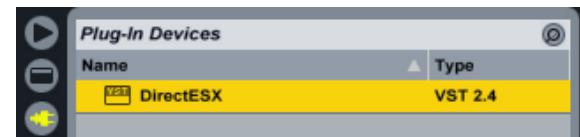
1. In « Options->Preferences->MIDI » make sure your midi interface is set to « OFF » for tracks Input/Output.  
In our case, the midi interface where the ESX is connected is « Multiface Midi »



2. Create a midi track and rename it to « DirectESX »,  
then set « Midi from » to « No input »
3. In the left browser select the Plug-in tab and drag&drop DirectESX  
to the MIDI track.



4. In DirectESX select the MIDI interface where your ESX is connected.  
If the devices could be opened and that the ESX hardware had been detected then you should be able to  
control the ESX from DirectESX and vice versa.



# How to use with Live (2/2)

## DIRECT MIDI MODE

5. To send notes to the ESX, create another MIDI track, rename it to « Keyboard1 »  
Set « MIDI from » and « MIDI To » to DirectESX.  
Select Track-In to « 1-DirectESX » (Note: select 1~2 for keyboard parts, 10 for all others)
6. Set Monitor to « Auto » when you want to send notes from Live sequencer  
Set Monitor to « In » when you want to send notes from a MIDI keyboard
7. For parameters automation, first move the desired parameter in DirectESX interface, then it will appear in the parameters list.



# How to use with Live (1/2)

## HOST MODE

1. In « Options->Preferences->MIDI » make sure your midi interface is set to « ON » for tracks Input/Output. In our case, the midi interface where the ESX is connected is « Multiface Midi »



2. Create 2 midi tracks. Rename the first one to « DirectESX » and the other one to « ESX Send ».



3. In the left browser select the Plug-in tab and drag&drop DirectESX to the first MIDI track. In DirectESX click on « Host » to change midi mode



4. In the DirectESX track, set « Midi from » to « No input ». In The ESX Send track, set « Midi from » to « DirectESX », Monitor « IN » and « MIDI to » to your midi interface (multiface in our case).

You should now be able to control the ESX from DirectESX. Note that on Live the channel is set in the midi track, not in DirectESX. To control Stretch, Slice, audio in and drum parts, select channel 10.



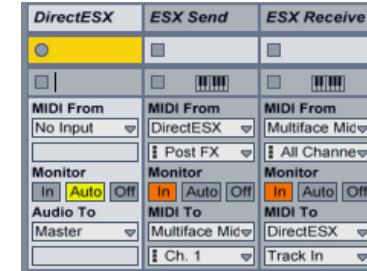
You can try to change the Keyboard 1 part filter type from DirectESX, it should change on the ESX. (Select channel 1 in Live and select the keyboard 1 part in the ESX).

# How to use with Live (2/2)

## HOST MODE

5. If you want to control DirectESX from the ESX, add a third MIDI track, rename it « ESX Receive »  
Set « MIDI from » to your midi interface (Multiface midi in our case),  
Set Monitor to « IN » and « MIDI To » to DirectESX.

Turn the Cutoff knob of the Keyboard 1 part from the ESX, it should move in the DirectESX interface.



Note: In the ESX Receive track, change the « Track In » parameter to select the channel you want to use.

6. For parameters automation, first move the desired parameter in DirectESX interface, then it will appear in the parameters list.



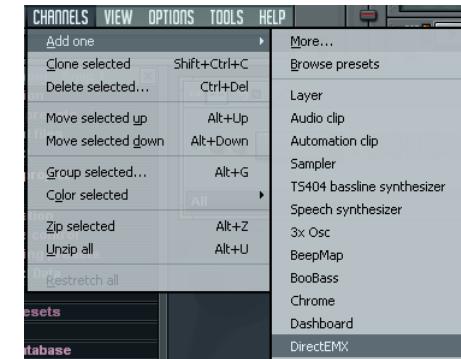
### Known bugs due to Live wrong MIDI NRPN management:

- When sending Mutes from the ESX, sometimes a part mute will not have the right value on DirectESX.
- If a « Drum sample » send by the ESX is not received by DirectESX, try sending the « Drum 6A sample » then the « Drum1 sample ». Then it should work.

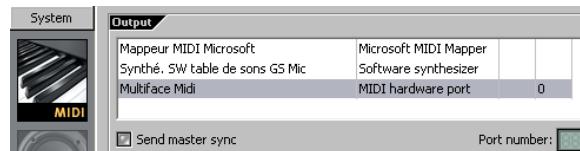
# How to use with FL Studio (1/2)

## HOST MODE

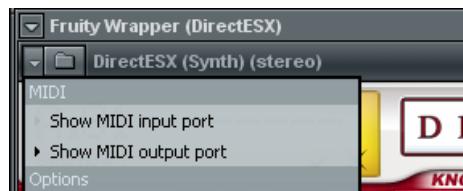
1. Add « DirectESX » VST by using the « Channels->Add one » menu.  
If « DirectESX » is not in the list, use the « More... » item to add new VST instruments. (refer to your FL Studio manual).  
In DirectESX click on « Host » to change midi mode



2. In Options->MIDI settings, associate a port number to the midi interface where the ESX is connected.  
« Multiface Midi » in our case, and we have selected port « 0 ».



3. In DirectESX left menu, select « Show MIDI output port », then on the right select port « 0 »



Now DirectESX should be able to control the ESX. Change the filter type of the first keyboard part in DirectESX, it should also change on the ESX (make sure the first keyboard part is also selected on the ESX).



# How to use with FL Studio (2/2)

## HOST MODE

4. You can also use the ESX to control DirectESX but this has to be configured manually. This is due to FL Studio midi parameters management.

For example:

- Move the Keyboard 1 part Cutoff knob on DirectESX
- On DirectESX left menu, select « Last tweaked parameter » then « Link to controller ».
- Now turn the cutoff know on your ESX
- You should see it moving on the DirectESX interface.

5. For parameter automation use DirectESX left menu, then select « Browse parameters ». All the parameters will show up on the left list.

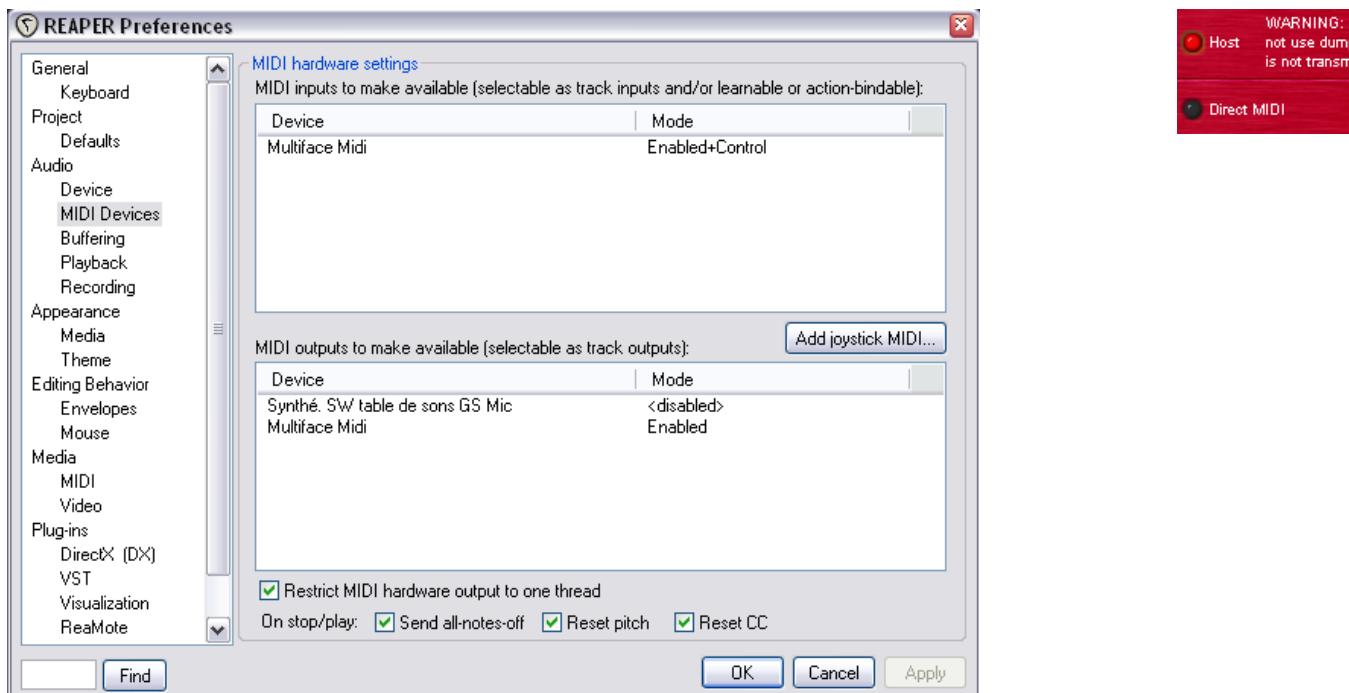


6. If you want to send notes to each part, we suggest not to use the « Midi out » plugin provided with fl studio because it will send level and pan midi messages. Instead you can find on the web free vst « midi out» plugins for that.

# How to use with Reaper (1/2)

HOST MODE

1. In Options->Preferences, then in MIDI Devices, check that the device connected to the ESX ("multiface" in my case) is "Enabled+Control" (for midi in) and "Enabled" (for midi out).
2. Track->Insert virtual Instrument on new track. Then select DirectESX. In DirectESX click on « Host » to change midi mode



# How to use with Reaper (2/2)

## HOST MODE

3. In the new track click on the small "io" button, then select your midi device in "Hardware output"
4. Select Keyboard1 part on both the ESX and DirectESX, if you turn a knob on the ESX you should see it moving in DirectESX. Then in DirectESX change the filter type, you should see the led changing on the ESX



# How to use with Sonar

## HOST MODE

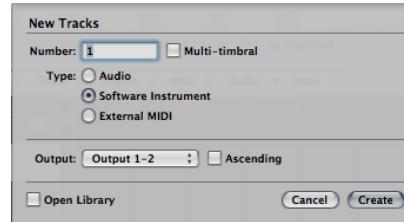
1. Create a new blank project
2. In Options->Global->VST Plug-ins, make sure that a folder points to a location where you have copied DirectESX.dll
3. Insert->Soft Synths->DirectESX ; make sure that "Simple instrument track" and "Enable MIDI output" are checked.  
In DirectESX click on « Host » to change midi mode
4. On the created track, set the INPUT to the midi interface that is connected to the ESX, select omni channel. From this point you should be able to control DirectESX from the ESX. For example, move the cutoff knob of Keyboard1, you should see it moving on DirectESX.
5. Insert->MIDI track ; Set INPUT to "DirectESX 1 - Omni" ; Set OUTPUT to the midi interface where is connected the ESX. You should now be able to control the ESX from DirectESX. For example, change the filter type of Keyboard1 in DirectESX, you should see the led changing on the ESX.
6. Make sure you have enabled the « Input echo » button on both tracks



# How to use with Logic

## Audio Unit / DIRECT MIDI

1. Add « DirectESX » Audio unit by adding a software instrument track. Then Click on I/O and select « AU MIDI-controlled effects -> DirectSynth -> DirectESX »



2. In DirectESX select the MIDI interface where your ESX is connected.  
If the devices could be opened and that the ESX hardware had been detected then you should be able to control the ESX from DirectESX and vice versa.



3. To send notes to each part of the ESX, create another instrument track (In this example we'll send to Keyboard 2), then go to Logic menu « Windows->Environment »
4. Click on the upper arrow of the new track (here « Keyboard 2 ») and link to the DirectESX track. Then set the midi channel, here we set 2 for keyboard 2. (1 and 2 for keyboard, 10 for others)



# MIDI Dumps (1/2)

## HOST MODE

MIDI Dump is a feature that makes it possible to get the whole ESX content in DirectESX. The 256 patterns can be dumped by banks of 64 (A, B, C, D).

Once dumped, the content of the patterns are available in DirectESX. This enables the user to analyze or modify them easily. Also the patterns can be saved and retransmitted to the ESX.

This feature is not available on every host software. You can refer to the host compatibility chart for more information.

1. Open your host software and configure a track so that MIDI is sent to DirectESX
2. On the ESX, press the MIDI Key (the key will light)
3. Hold down the shift key and press step key 12 (MIDI utility)
4. The value display will indicate « Filter ». Turn the dial to change this to « Dump », and press key 12
5. Turn the dial to select the data you want to transmit (PtBnkA, PtBnkB, PtBnkC or PtBnkD)
6. Press key 12 once again to transmit the data.
7. Wait about 2 minutes, then you should see the « Accept pattern bank » question on DirectESX



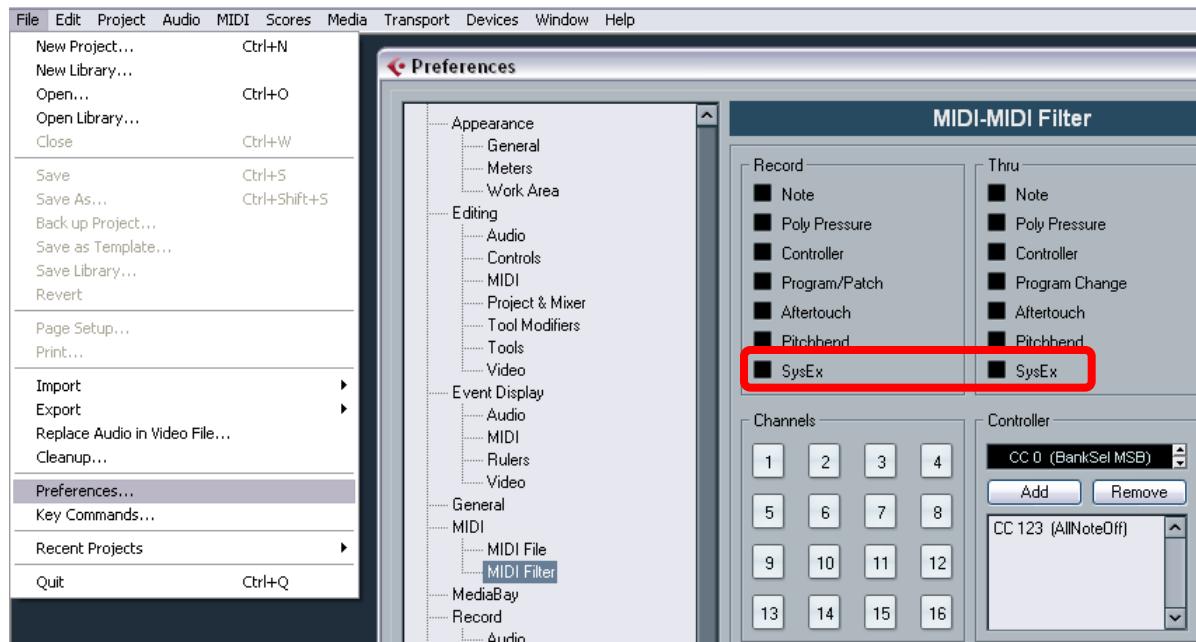
8. Once accepted you will have access to the patterns from the patch list of the plugin.

# MIDI Dumps (2/2)

HOST MODE

To use the Dumps in **Cubase** check the following:

- Go in Preferences -> MIDI -> MIDI Filter
- Make sure that « SysEx » is unchecked.



# Contact

- For any news or updates : [www.directsynth.com](http://www.directsynth.com)
- For any questions or support : [support@directsynth.com](mailto:support@directsynth.com)