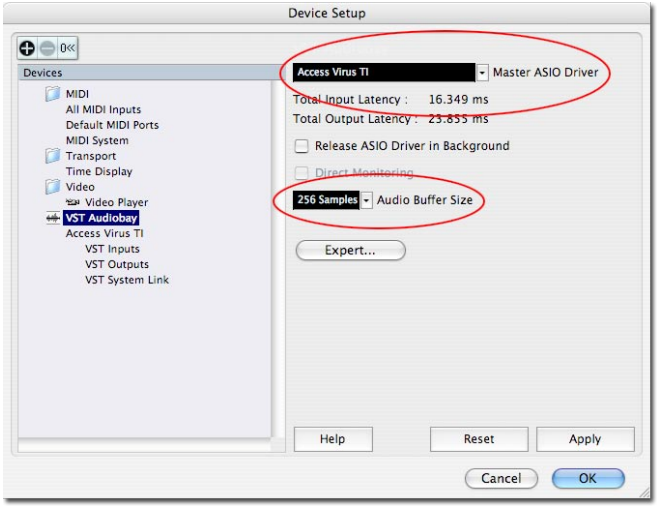
Tutorial

How to setup the Virus TI with Steinberg Cubase 3 SX/SL

Here are a couple of tips and tricks on how best to use the Virus TI in Steinberg Cubase SX/SL 3.

1 - Configuring the audio device

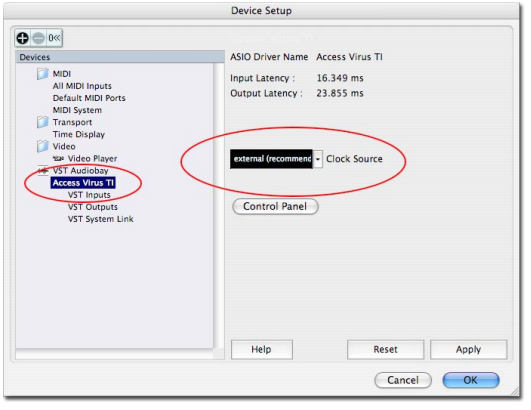
1. Open Devices > Device Setup…
2. Select VST Audiobay. The following dialog page is shown:



3. (Optional) Set the Master ASIO Driver to Access Virus TI to use the Virus TI as the main audio interface in Cubase. Only change this setting if you don't already use another audio interface. The Virus TI can communicate with the Virus TI Control plug-in in parallel to another audio interface, therefore it is not mandatory to use the TI as your main audio interface.

4. The Audio Buffer Size determines the latency of the audio system and the Virus TI plug-in. Set it to a value of 512 Samples or smaller. 256 Samples is a good compromise between latency and processing power.

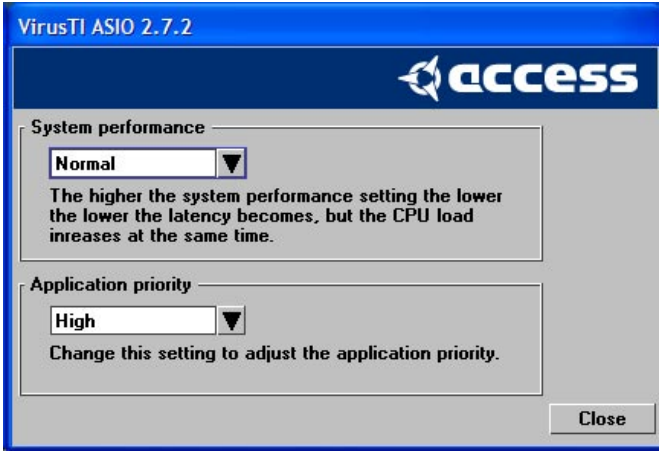
When selecting the Virus TI as the Master ASIO Driver, an entry named "Access Virus TI" appears beneath the VST Audiobay entry in the Devices list.



5. Set the Clock Source to “External (recommended)”. This ensures that Cubase and the Virus TI are synchronized properly.

6. Close the dialog.

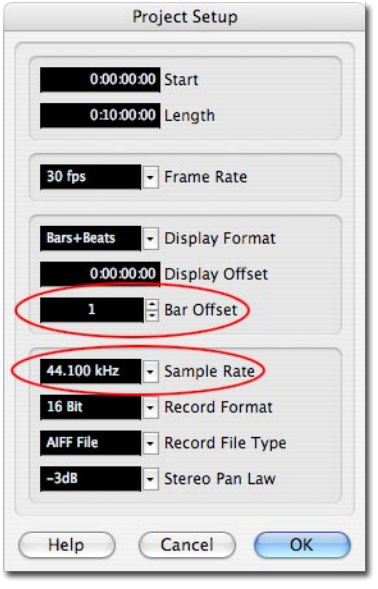
7. 7. (PC ONLY) Open the ASIO control panel. “System performance adjusts” the drivers buffer size. Higher settings will result in lower latency and additional load on the CPU. We recommend setting system performance to “Normal” or higher.



The System Performance setting might be overridden by the sequencer application.

“Application priority” adjusts the level of attention the operating system pays to audio driver related processes. We recommend setting the Application priority to “Normal” or higher.

8. Open Project > Project Setup… The following page is shown:



9. Select the Sample Rate you wish to use for this project. The possible choices vary with the audio interface you use.

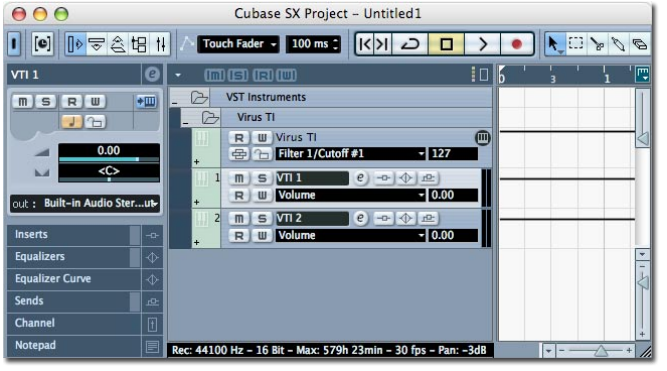
10. Optionally, you can set the Bar Offset to 1 or 2 so that the song starts at bar 0 or bar -1. This can be particularly useful if you like to use the first bars of your song to send administrative stuff to your studio equipment like program changes, sysex data etc.

2 - Activating the Virus Control VST Instrument

1. Open Devices > VST Instruments. The VST Instrument Rack appears.

2. Click on an empty slot and select **Virus TI** from the list of VST Instruments installed on your system.

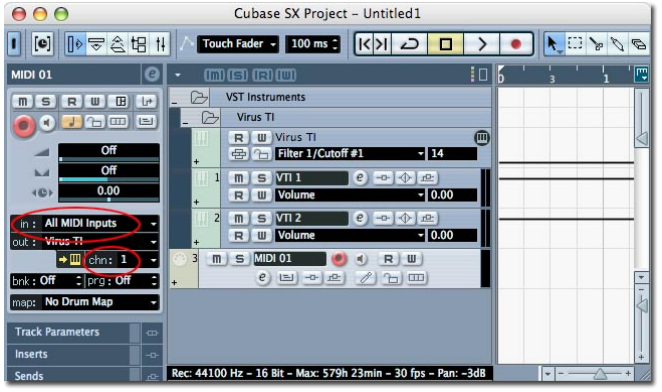
3. The Virus TI Control editor opens and a number of tracks appear in the Project window:



4. The uppermost track named **Virus TI** shows one of the automatable parameters of the Virus TI, in this case **Filter 1 Cutoff** on **Part 1**. When you automate parameters of the Virus TI, you can select these parameters from the popup menu and create additional automation tracks beneath this track. The second and the third tracks show the two audio output busses of the Virus TI, referred to as USB1 and USB2 in the Virus TI Control plug-in. These tracks are identical to the audio busses that appear in the Mixer page of Cubase.

5. Create a MIDI track.

6. Assign its **out** to **Virus TI** and **chn** to one of the available MIDI Channels.



7. Create further MIDI tracks and assign them to different MIDI Channels to record different parts.

Note: Please do not use the other MIDI ports provided by the Virus TI MIDI driver named **Virus TI MIDI** and **Virus TI Synth**. They are only used when you don't work with the Virus Control plug-in. They don't offer any latency compensation or sample-exact timing.

3 - Recording and playback

When working with Audio Interfaces and Plug-ins, latency is introduced. In general, the good news is that modern sequencers compensate for this latency once a track is played back. The bad news is that often you have to record your performance while feeling the latency, which most people consider to be rather uncomfortable.

One advantage of the Virus TI's analog outputs is that once a part makes use of them, you will enjoy a lightning-fast response, similar to the zero-latency feature on some of the better sound cards.

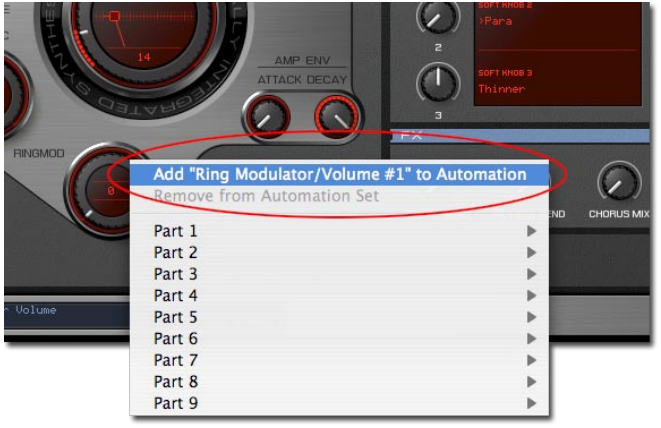
While recording, we recommend that you switch the **Main Outs** (Virus Control > Common Page) of the part you are about to record to **Out 1+2** instead of USB. This way, the audio data doesn't need to travel from the Virus TI into the Virus Control and from there to your audio interface; instead, it is sent straight to

the Virus' analog outputs. Once you have finished recording this particular track, switch the **Main Outs** back to **USB** to allow this part to be fully latency-compensated.

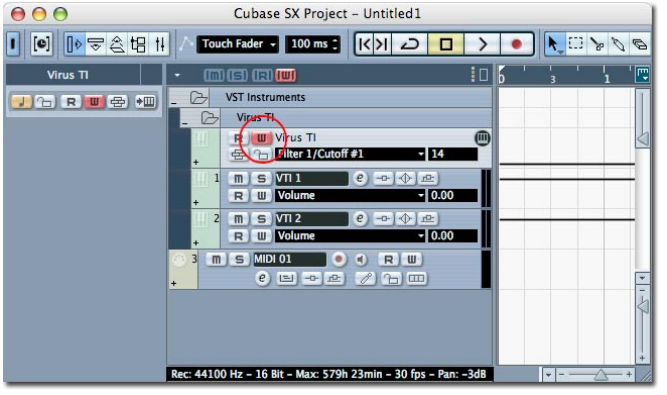
4 - Automation

The Virus TI Control allows the majority of the TI's sound parameters to be automated.

1. To assign a parameter to the set of automatable parameters, right click on that parameter and select **Add "X" to Automation** where **X** is the full parameter name.



2. Click the W button of the Virus TI track in the Project window to activate automation writing:



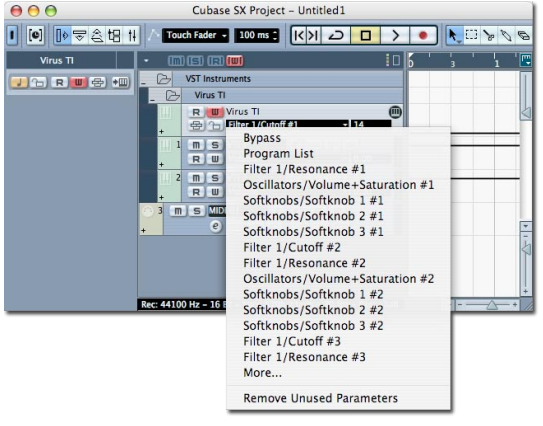
Alternatively, you can activate the **W** button at the top of the Virus TI Control window:

3. Start playback (don't activate record, just playback).

4. Click on the control in the Virus TI Control and turn it to your likeness - or - Turn the respective knob on the Virus TI hardware.

5. When you are done with the automation, deactivate the **W** button and activate the **R** button to allow the automation to be played back properly.

6. To view the automation you just recorded, select the respective parameter in the Virus TI track in the Project window (you might need to select **More...** from the popup and find the parameter in the dialog list).



5 - Mixing

As mentioned earlier, the Virus TI Control plug-in offers two audio busses initially named **VTI1** and **VTI2** in the Mixer window of Cubase:

To assign a part of the Virus TI to **VTI1** or **VTI2**, select one of the entries starting with **USB1** or **USB2** respectively as the Main Out in the Virus TI Control. Apply VST effects or equalization to these outputs as you like.

If you wish to automate the settings of a whole audio bus, hit the respective **W** button and change the channel parameters in the **Mixer** or **VST Instrument Channel Settings** window.

6 - Creating an Audio Mixdown

Recording the audio signals of the Virus TI into an audio file on your hard disk must always happen in realtime. Due to the speed of the USB interface and the fact that the Virus TI is an audio system on its own, the audio stream transferred to the host computer must never be any faster or slower than the sample rate you selected earlier.

To achieve that, Cubase offers a so-called **Real-Time Export** that you find in the **Export Audio Mixdown dialog**.

1. Select the section of the sequence you wish to export by dragging the triangles in the song position ruler.

2. Open File > Export > **Audio Mixdown…**

3. Activate **Real-Time Export**.

4. Make sure that the Sample Rate matches your Project's sample rate.

5. Set all other parameters to your preferred values and hit Save when you want to start the export.

The audio mixdown will take exactly the same amount of time as the selected sequence takes to play back.

Note: The Freeze function in Cubase doesn't work because it can't be set to execute in realtime. Bouncing faster than realtime will result in crackles and other unwanted artefacts.

Note: There is a bug in Cubase 3.1 which can result in the first notes played being off when boucing an track. It seems that a large pre-roll, as lined out in the following hint, lowers the chance of the problem to take place.

Hint: Leave a pre-roll of at least two bar to allow the system to sync all components. In other words, if your song starts playing at bar 3, bounce from bar 1. Also don't forget to include enough time to allow for any reverb or release tails to decay fully at the end of the selection you are about to mixdown!

‘Always On Top’

For better performance, we recommend that you disable this feature in Cubase SL/SX3.

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