CUBASE
VST

Troubleshooting

Operation Manual by Ernst Nathorst-Böös, Ludvig Carlson, Anders Nordmark, Roger Wiklander
Quality Control: Cristina Bachmann, Heike Horntrich, Sabine Pfeifer, Claudia Schomburg

Troubleshooting in Cubase VST

This document contains information related to various problems that can occur while working with Cubase, and answers to some commonly asked questions.

Please refer to the "Getting Started" manual for general information on how to adjust your settings. For more detailed information, please read the chapter: "Optimizing Audio Performance" in the online documentation (Getting Into the Details). We recommend that you read that chapter first.

Furthermore, while reading this document you will notice that some recommended solutions are similar for different types of problems. This is due to the fact that the performance of your system is the result of many different interrelated factors and that problems with your hardware setup can cause a wide variety of symptoms.

For updaters from Cubase 3.x to Cubase VST 5.0

Q: Why have the EQ settings I programmed in my previous version of Cubase changed?

Q: What happened to the "old" VST plug-in effects?

Q: Why are some audio channels re-used by several tracks?

MIDI

Q: What do I do when I encounter MIDI timing instability?

Q: Why are MIDI and audio tracks not properly synchronized in a system with a Windows Multimedia compatible audio card?

Audio

General audio problems

Q: What does the automatic Sync Test do?

Q: What should I do If the automatic Sync Test fails?

Q: What do I do when I experience audio dropouts?

Q: Why does recording stop unpredictably?

Q: Why am I experiencing audio crackling/clicks?

Q: Why are some audio recordings stuttering or not played back in their entirety?

Q: Why do I get the message "Can't open file" while trying to process the file in the Wave Editor?

Q: Why do I get the message "Can't access file" or "Can't save file" while trying to edit an audio file in an external wave-editor?

Q: Why are MIDI and audio tracks not properly synchronized in a system with a Windows Multimedia compatible audio card?

Audio card issues

Q: What audio cards can I use?

Q: How do the different audio cards perform?

Q: What are the recommended configurations for my audio card?

Q: Why do I get the message "unable to obtain the input" from my audio card?

Q: Why do I get the message "unable to obtain the output" from my audio card?

Q: I have an older Soundblaster card - how do I get the best out of it?

Additional hardware information

Q: Which computer types are compatible with Cubase VST and how do they perform?

Q: Which is the best type of hard disk controller card?

Q: What type of hard disk should I use?

Frequently asked questions

Q: How do I interpret the VST Performance window?

Q: Why has the transport bar disappeared?

Q: What is DirectShow, DirectSound and DirectX?

Q: When using a VST Instrument, why is there a delay between playing a note on my MIDI device and the audio output?

Q: Why are notes sometimes "skipped" when using VST Intruments?

For updaters from Cubase 3.x to Cubase VST 5.0

If you have updated from a previous version of Cubase VST to Cubase VST 5.0 you might run across some of the following questions:

Q: Why have the EQ settings I programmed in my previous version of Cubase changed?

The EQ section has been redesigned in Cubase 5.0. Amongst other changes, the ability to select between "Hi Quality" and "Standard" EQ modes is no longer available. The previous "Hi Quality" mode is now the standard mode. Hence, if you open a Song that was made using the "old" standard EQ mode the settings will not correlate. However, if your 3.x Song uses the "Hi Quality" EQ mode exclusively, it will sound the same in Cubase VST 5.0.

Q: What happened to the "old" VST plug-in effects?

Cubase VST 5.0 comes with a completely new set of VST plug-ins. However, all the pre-5.0 standard plug-ins are also included, to facilitate playback of Songs made with earlier Cubase versions. These plug-ins are installed within the VSTplugins folder, in a subfolder called "Earlier VST Plugins". In the program, they will appear on the "Earlier VST Plugins" submenu on the effect pop-up menus.

Q: Why are some audio channels re-used by several tracks?

If you have changed the number of audio channels in the Audio Systems Settings window, and you open a song that originally used more audio channels than your current setting allows, the same channels will be re-used by several tracks. 'This may inhibit some audio playback since Cubase VST 5.0 cannot play more than one audio file per channel simultaneously. Please increase the number of audio channels in order to cure this problem.

MIDI

Q: What do I do when I encounter MIDI timing instability?

If MIDI events that once were "tight" suddenly are slightly delayed in a random fashion, you are experiencing MIDI timing instability.

Related information on this subject is also found in the section: "Why are MIDI and audio tracks not properly synchronized in a system with a Windows Multimedia compatible audio card?" on .

If you encounter MIDI timing instability, please check the following settings:

Playback Adjustments

Sometimes you can improve MIDI timing simply by making sure your MIDI Tracks are set up and organized optimally. Try the following:

1. **Move timing critical Tracks (drums, etc) to the top of the Track list.**
This is useful because Cubase VST processes all Tracks from the top down.

2. **Make sure there isn't any MIDI data overload due to too much controller or SysEx data being sent at the same time.**
If this is the case, try reducing or deleting continuous data by using the corresponding functions on the Functions menu.

3. **Sometimes Program Change messages may delay the response in the MIDI instruments.**
If this is the case, remove all unnecessary Program Changes from the Part Inspector, leaving only one at the very first Part. You may also need to decrease the "Play Parameter Delay" value in the MIDI Setup dialog.

System Preroll (Synchronization...)

The System Preroll setting in the Synchronization window determines the amount of pre-calculation of MIDI information. System preroll works like a MIDI buffer ("storage area") ensuring that all MIDI messages are prepared in advance just before the actual playback. The higher the value, the more MIDI information will be pre-calculated. This increases the accuracy of MIDI timing.

In order to raise the System Preroll setting, proceed as follows:

1. **Open the Synchronization window from the Options menu.**

2. **Increase the value in the System Preroll setting.**
The default value is 500 ms which works on most systems.

❑ **Please note that for VST Instruments to play back accurately, you should set System Preroll to at least the same value as the audio card "Latency" value specified in the Audio System Setup dialog.**

3. **Close the Synchronization window and start playback. Check whether the MIDI timing is tighter.**
Repeat the above steps until you are satisfied with the result.

❐ **Please note that the higher the System Preroll value the bigger the delay of all realtime MIDI processing.**

Priority Setting (Audio System Setup...)

Using the Priority setting in the Audio System Setup window, you can determine the priority of MIDI versus audio. With the "Low" option selected, Cubase VST will give MIDI a higher priority than audio, and with the "Highest" option selected, it will process audio with a higher priority than MIDI. The other options allow various settings between these extremes.

Giving MIDI a higher priority will decrease the tendency of MIDI timing instability. Proceed as follows:

1. **Open the Audio System Setup window from the Options menu.**

2. **Change the value in the Priority setting.**

3. **Close the Audio System Setup window and check whether MIDI timing is tighter.**
   Repeat the above steps until you are satisfied with the result.

❐ **Caution: Selecting a higher priority for MIDI will increase the accuracy of MIDI timing but will decrease audio performance and may cause dropouts if your system has limited processing power.**

Hard Disk Controller Settings

If you are using an E-IDE hard disk for audio and experience unstable MIDI timing when playing both audio and MIDI, the problem might be related to the hard disk controller settings. In brief, with certain types of hard disk controllers (non-Bus Mastering) and certain settings (non-DMA mode), the CPU is used to transfer audio data from the disk into memory. This process may "block" the computer temporarily, and cause short delays in the MIDI playback. To check whether this is the problem, proceed as follows:

1. **Make sure Audio is enabled (Disable Audio on the Audio Setup submenu should** *not* **be activated).**

2. **Mute all Audio Tracks.**

3. **Play back the MIDI Tracks with which you have had timing problems.**

If the timing is stable now, this indicates that the hard disk controller is the culprit. Check the following settings:

1. **Open the "System" Control Panel (Start menu -> Settings -> Control panels -> System).**

2. **Click on the Properties tab.**

3. **In the list that appears, locate the Disk Drive settings and select the hard disk you use for audio.**

4. **Click on the Properties button and select the Settings tab in the dialog that appears.**

5. **Make sure the "DMA" checkbox is activated.**

Now check MIDI timing again (with the Audio Tracks unmuted). If the timing still is unstable, there are two more things to check:

- **Open the "System" Control Panel again and click the Performance tab.**
  You should find the text "The System is configured for optimal performance" at the bottom of the dialog. If not, you may not have proper Windows 95/98 drivers for a CD-ROM, E-IDE disk or SCSI Controller. Make sure you have current drivers installed.

- **Open the "System" Control Panel, click on the Properties tab and select the master controller in the "Hard Disk Controllers" section.**
  In the dialog that appears, you can see whether the disk controller is a "Bus Master" device or not. If not, you should consider installing a new PCI Hard disk controller that is "Bus Mastering" capable, or installing a SCSI card (read more about this on page 24). Please contact the computer and hardware manufacturer or dealer for details on the hardware.

Color Depth

The color depth (number of colors) can influence MIDI timing. By reducing the number of colors to 256, less processing time is required for performing graphic updates. This allows your computer to allocate more processing time for MIDI (and audio) which decreases the risk of MIDI timing instability.

Q: Why are MIDI and audio tracks not properly synchronized in a system with a Windows Multimedia compatible audio card?

❑ **If MIDI/audio sync generally seems to work fine, but occasionally becomes unstable, try activating the "Enable Audio only during Play" checkbox in the Audio System Setup dialog, as described on page 12.**

If MIDI and audio tracks drift in relation to each other, they are not properly synchronized. This may also cause irregularities in MIDI performance, similar to MIDI timing instability, as MIDI playback may periodically get faster and slower. If this happens, you need to check the Sync Reference setting in the ASIO Multimedia Setup:

In the Advanced Options dialog (opened from the ASIO Multimedia Setup window) you find the "Check Buffers and Sync" option. It will help you to find the optimal synchronization settings for your audio card. Its purpose is to check that the synchronization settings are correct for your audio card. The displayed results of the window will direct you to further changes to the setting of your system.

1. **Open the Audio System dialog and click the ASIO Control Panel button.**
   The basic ASIO Multimedia Setup dialog opens.

2. **Click on "Advanced Options..." .**
   The Advanced Options dialog opens. For detailed info about this dialog, see the chapter "Optimizing Audio Performance" in the main documentation.

3. **Locate the Port that is currently used as Sync Reference in the Port lists, and select it.**
   The last column in the Port lists shows which Port is Sync Reference.

4. **Click on the "Check Buffers and Sync..." button.**
   The "Check Buffers and Sync" dialog opens. Here you can check whether your settings will work properly, by running a test.

5. **Set a test period with the slider.**
   We recommend that you select the maximum duration (5 minutes) for the test. Then, a successful test indicates that Audio-MIDI sync should be stable for at least 5 minutes.

6. **Click the Start button to run the test.**
   The test begins. The duration of the test is indicated by the progress bar below the Test Period slider.

7. **Wait until the test is completed or, if the "Sync lost" value (in the upper left corner of the dialog) is building up rapidly, click the "Stop" button to stop the test.**
   If the test was successful, an alert will tell you so. If Sync or Buffers were lost, you will be informed of what went wrong, and get some suggestions about what you can do to remedy the problem:

• **If the "Sync lost" value builds up, this indicates that MIDI to Audio synchronization is unstable.**
   Try any of the following methods, and run the test again:
   - Switch between Sync Reference "Sample Position" and "DMA Block".
   - Use the "Detect Buffer Size..." option in the Advanced Options window.
   - If you are using the "Sample Position" Sync Reference, try increasing the Buffer size manually.
   - Check that no background tasks currently run on your computer (see Q: What do I do when I experience audio dropouts?).

   ❐ **If you use the DMA Block type of Sync Reference, you should not adjust the Block sizes manually! Instead use Detect Buffer Size function in the Advanced Option window.**

• **If the "Buffer lost" value (below the "Sync lost" value) builds up, this indicates audio dropouts (see page 13).**

8. **Try out different values until the test is successful.**

9. **Click Apply Buffer Settings and then OK.**
   You are returned to the Advanced Settings dialog, with the new settings applied to the selected Port.

10. **Now manually perform the sync test by clicking the "Run Simulation" button.**
   This tests all input and output ports being driven together.

● **Increasing the number of buffers and the buffer size will also increase the latency (the time between the moment Cubase VST sends out the data and when it actually arrives on the output).**

Thank You for previewing this eBook

You can read the full version of this eBook in different formats:

- ➢ HTML (Free /Available to everyone)

- ➢ PDF / TXT (Available to V.I.P. members. Free Standard members can access up to 5 PDF/TXT eBooks per month each month)

- ➢ Epub & Mobipocket (Exclusive to V.I.P. members)

To download this full book, simply select the format you desire below