Tips on Using Specific Soundcards with Cakewalk Pro Audio 9 or Home Studio 9

General Tips

- If your soundcard is listed below, follow the specific instructions and recommendations provided there.
    - **Creative Labs SoundBlaster SB16, AWE32, AWE64, PCI 64, PCI 128, SB Live**
    - **Event/Echo Layla, Gina, and Darla**
    - **Yamaha DSPFactory**
    - **Yamaha SW1000XG**
    - **DAL Card D+ and Card Deluxe**
    - **MIDIMAN DMAN 2044**
    - **Mark of the Unicorn 2408 / PCI-324**
    - **ESS Cards**

- If your card is capable of 18-, 20-, or 24-bit operation and you wish to take advantage of this capability with Cakewalk software, be sure to check out http://www.cakewalk.com/Support/24BitTips.html for additional useful information.

- If you have *multiple* soundcards installed in your computer, and if you are assigning audio tracks in a single project to multiple output ports spread across more than one soundcard, you **must** set the Playback Timing Master to be the soundcard with the largest DMA buffer size. Failure to do this may lead to irregular timing/synchronization of audio between the soundcards.
    1. To determine which of your soundcards has the largest DMA buffer size, select **Options— Audio…** and click the "Device Profiles" tab. At the top of the page, you'll see a dropdown list containing all of the soundcards available in your system. Select each card, one at a time, and note for each card the value shown in the textbox (lower in the dialog) for "Stereo" at 44100 hz. Note which card has the largest value.
    2. Now click on the "General" tab. At the top of this dialog, you'll see "Playback Timing Master". In this list, select the soundcard you identified in step (1), above.
    3. Click "OK" to close the dialog.

Creative Labs SoundBlaster SB16, AWE32, and AWE64

These cards constitute Creative Labs "older" products, designed for use with the older 16-bit ISA bus.

- **IMPORTANT:** Depending on what soundcard driver version is installed on your computer, you may need to adjust the setting of Cakewalk's "Use Wave Out Position For Timing" option to ensure proper synchronization of MIDI and Audio recording and playback.

    If you haven't updated your soundcard driver software recently—i.e., if your drivers are pretty "old"— then the default setting for this option will probably work OK, and you probably won't need to make any adjustment.

    However, we encourage all customers to obtain and install the latest soundcard driver version available

from the manufacturer. If you have followed this advice and *have the latest Creative driver installed on your computer*, *then you **will** have to manually adjust the setting of this option*, as follows:

> These soundcards should **DISABLE** the "Use Wave Out Position For Timing" option. The Cakewalk "Wave Profiler" may inadvertently enable this option when it profiles your hardware if you have the latest Creative Labs driver installed (this happens automatically when you launch your Cakewalk application for the first time). You need to *disable* this option manually.
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> To check the setting of this option, open the Cakewalk **Options-Audio…** dialog and click on the "Device Profiles" tab. Make sure your SoundBlaster or AWE card is selected in the list at the top. If the "Use Wave Out Position For Timing" box is checked, *un-check it now*. Then click "OK" to close the dialog.

- Full duplexing (i.e., simultaneous audio recording and playback) with these cards is possible but you must have the latest drivers from Creative Labs installed (available from http://www.soundblaster.com). Once they're installed, you can record/playback simultaneously. However, if you choose to enable full-duplexing, the recording will be at 16-bit but playback will be at 8-bit. This will cause playback to become distorted. When you are finished recording and are ready to playback/mix your recorded audio tracks, turn off simultaneous record/playback, and the playback will be at 16-bit. (Select **Options—Audio**, click "Advanced", and check/uncheck the "Simultaneous Record/Playback" checkbox as needed.)

- These cards can often conflict with built-in voice modems. If you see such a voice modem listed in Cakewalk's **Options-Audio…** "Drivers" tab, you'll need to disable the voice modem device (this is done in the Windows Control Panel / Multimedia / Advanced / Audio Devices in Windows 95 and Windows Control Panel / Multimedia / Devices / Audio Devices in Windows 98; double-click on the modem and choose Do Not Use Audio Features on This Device.)

  It is also a good idea to go to Control Panel / Multimedia / Advanced / Media Control Devices, double-click on the Wave Audio Device, and choose Do Not Use Features.

- Certain early models of the Sound Blaster cannot do both MIDI input and wave (audio) output at the ame time. Thus, if you've selected *"Creative Labs"* as a MIDI In device in Cakewalk's **Options-MIDI Devices** dialog, wave audio output won't work.

  Note that MIDI output will work fine along with wave audio output: you can select *"Creative Labs"* from the list of MIDI Out devices. The problem occurs only when you've selected the *"Creative Labs"* MIDI In device.

- AWE32, AWE64: You cannot use the AWE as an audio device if you use the WaveSynth as a MIDI output device at the same time. Audio playback and the WaveSynth won't work at the same time, because the WaveSynth ties up the AWE audio device. In order to use the AWE as an audio device in Cakewalk, go to **Options-MIDI Devices**, and make sure the WaveSynth is not selected as an output device.

  You may also have to manually adjust an .INI setting. Locate and open c:\windows\SYSTEM.INI, scroll until you find the section marked [drivers], and locate the line MIDI=wavsynwg.drv. Place a semi-colon (;) in front of the word MIDI, save the file, and restart the computer.

  This is a limitation of the AWE/WaveSynth driver, not the Cakewalk software.

Creative Labs SB*Live!, PCI 64, PCI 128, PCI 256, PCI 512, Creative Ensoniq AudioPCI

These cards are "newer" products from Creative Labs, designed to work with the newer PCI bus architecture.

- If you have installed the latest Creative soundcard driver, Cakewalk's "Wave Profiler" should have no difficulty recognizing your soundcard, and automatically set the proper configuration options for your Cakewalk software. However, one particular option—the "Use Wave Out Position For Timing"—is very important and you should manually inspect this setting to make sure it has been set up correctly. (This option must be set correctly to ensure proper synchronization of MIDI and Audio recording and playback.)

  These soundcards should **ENABLE** the "Use Wave Out Position For Timing" option. To check the setting of this option, open the Cakewalk **Options-Audio…** dialog and click on the "Device Profiles" tab. Make sure your soundcard is selected in the list at the top. If the "Use Wave Out Position For Timing" box is un-checked (disabled), *click on it to enable this option now*. Then click "OK" to close the dialog.

- Some models exhibit MIDI input problem (i.e., they won't accept any MIDI input at all.) You can generally fix this problem by obtaining and installing the latest Creative Labs driver for your card.

Event/Echo Layla, Gina, Darla

- You MUST be sure to use version 3.08 drivers or later. (available at: http://www.event1.com/download.html)

- We strongly recommend that you ensure that your Event/Echo card is operating with its own IRQ (interrupt). Event's documentation suggests that their cards can successfully "share" an IRQ with another device, but Cakewalk's experience suggests otherwise. To see if your Event card is sharing an IRQ with another device, do the following: On the Windows desktop, right click on My Computer, select Properties from the popup menu, click on the Device Manager tab of the dialog that opens, then double click on the "Computer" icon at the top of the list. This will show you a list of all the devices in your system and which IRQs they are using. Scroll the list until you see your soundcard. Check the IRQ setting to the left of the icon. *If there are other devices (such as a video card) that are assigned to the same IRQ, you should try moving your soundcard to a different slot in your computer.* (Note that entries that say something similar to "IRQ Holder for PCI Steering" do not indicate conflicting devices. You can ignore these entires.)

- The Event cards have 20-bit DACs. If you want to record/playback audio at 20- rather than 16-bits, be sure to configure the "Audio Driver Bit Depth" (in **Options—Audio,** "General" tab) to "24", and set the (default) "File Bit Depth" to 24. See http://www.cakewalk.com/Support/24BitTips.html for more details.

- Cakewalk has experienced problems trying to use Event cards and the MOTU 2408 card in the same computer. At the present time, we are uncertain what is causing this problem, and do not have a workaround. Users are discouraged from using these two cards together in the same system

Yamaha DSPFactory

- (**Pro Audio only**) After you have installed your DSPFactory card, and installed the standard Windows drivers for that card (supplied by Yamaha), you should then *also install the DSPFactory AudioX*

driver. If this AudioX driver is not supplied with your DSPFactory card, you can find it on your Cakewalk CD-ROM, in the directory "AudioX Drivers". Double-click on the driver icon, and the AudioX driver will be installed on your computer. The AudioX driver is needed to allow Cakewalk Pro Audio 9 to take full advantage of the DSPFactory's capabilities.

- If you ever remove your DSPFactory card from your computer, you **MUST** be sure to uninstall the Yamaha standard Windows drivers. If you leave the Yamaha Windows drivers in place even after the hardware has been removed from your system, you may experience severe malfunctions when you install your next soundcard and try to use it with Cakewalk Pro Audio 9.

- If you wish to use this card for 24-bit recording/playback, be sure to enable the "Unpack >16 bit audio" and "Left Justify unpacked data" checkboxes in the **Options—Audio,** "Advanced" dialog.

- Cakewalk has tested the Yamaha DSPFactory under NT 4.0/SP5 using "Beta" drivers provided by Yamaha; some issues with these drivers have been found and reported to Yamaha. If you encounter problems using Pro Audio 9 with the DSPFactory card under NT 4/SP5, please try to obtain and install the "production" NT drivers from Yamaha when they are released. If you still encounter problems using Cakewalk at that point, please contact Cakewalk Technical Support.

Yamaha SW1000XG

- If you wish to use this card for 24-bit recording/playback, be sure to enable the "Unpack >16 bit audio" and "Left Justify unpacked data" checkboxes in the **Options—Audio,** "Advanced" dialog.

DAL Card D+

- When full-duplexing (i.e., simultaneous record and playback) is enabled, the card does not allow users to monitor their input channels at the card's outputs. In order to monitor the card's input signals, you must either disable full-duplexing, OR use an external mixing board to provide a "monitor mix" to feed to your amplifier/speakers. That is, run your audio sources into the channels of a mixing board; then assign appropriate outputs from the mixing board to the Card D+'s audio inputs. Use the mixing board's "Monitor Outs" or an Aux bus to feed your external amplifier/monitors so you can monitor the input signals during recording.

DAL Card Deluxe

- This card monitors its inputs at the outputs through software. That is to say, you won't be able to hear any of your input signals at the card's outputs unless you are running an audio application which will "route" the signal from inputs to outputs. (Some other cards will present their input signals at their outputs for monitoring purposes even if no audio application is running at the time.) This monitoring doesn't work unless the meters for whatever audio application you're running are visible at the time. So, in Cakewalk, this means that the Console View must be active, audio tracks must be "sourced" to the Card Deluxe inputs, "assigned" to the Card Deluxe outputs, and armed (in order to have Record Meters for those tracks enabled). (Note, however, the Console View doesn't have it be visible for the monitoring to work.)

MIDIMAN DMAN 2044

- For optimum performance in Cakewalk using your MIDIMAN DMAN 2044 soundcard, go to the Windows Control Panel and double-click the 2044 icon. Verify that the "Synchronize Playback with Pause Logic" checkbox is checked, and click OK. This will ensure that any audio playing back

through the 2044's multiple outputs will remain synchronized.

- Some Cakewalk users have reported a symptom in which, when starting playback in Cakewalk, no audio will be heard, or it will unexpectedly be panned either hard-right or hard-left. Stopping playback, and starting it again will work properly. This symptom occurs even when using the latest soundcard drivers. Cakewalk has not been able to reproduce this problem, but we report it here for completeness.

Mark of the Unicorn 2408 / PCI-324

- This card does NOT support 11khz or 22khz sampling rates. Only 44.1khz and 48khz sampling rates are supported. Do not select the unsupported sampling rates in the **Options—Audio…** dialog.

- If you're using a Matrox Millenium II video card, this will conflict with the MOTU PCI-324 card in your PC. To correct this conflict, you will need to adjust a couple of the settings for the Matrox card. You will do this from the Display Properties Control panel. A shortcut to this Control panel is to Right-Click on the Windows Desktop, and select Properties from the menu that appears. Once in the Display Properties Control panel, select the settings tab. Above the Color Palette selection you should see a button labeled "Power Desk". Click this button, and it should bring you to the Performance Tab of the Power Desk. If not, select the Performance Tab. Turn off the "Use Bus Mastering" and "Use PCI Bus retries" option. In order for these changes to take effect, you will need to hit the Apply button, and click OK to close the Power Desk application, and then click OK on the Display Properties Control panel. When you click OK on the Display Properties Control Panel, you will be prompted to Restart the PC. Do so.

- Cakewalk has experienced problems attempting to use a MOTU 2408 and an Event/Echo Layla card in the same computer. At the present time, we are uncertain what is causing this problem, and do not have a workaround. Users are discouraged from using these two cards together in the same system.

ESS Cards

- Some ESS cards do not allow the use of both MIDI and audio at the same time. Deselect all items in MIDI Devices to enable audio recording and playback. New, model-specific drivers are available at www.esstech.com