Digidesign WaveDriver

Introduction

The Digidesign WaveDriver is a two-channel, multimedia sound driver that allows third-party audio applications to record and play back through channels 1-2 of your Pro Tools 24 MIX or Pro Tools 24 system on Windows 2000, or Digi 002, Digi 001 or AudioMedia III system on Windows XP. The Digidesign WaveDriver is not required to use Pro Tools or Pro Tools



▲ The Digidesign WaveDriver is not supported on Pro Tools|HD systems.



Check the Digidesign Web site (www.digidesign.com) for the latest third-party drivers for Pro Tools LE hardware, as well as current known issues.

Full-duplex recording and playback of 24- and 16-bit audio are supported at sample rates of 48 kHz and 44.1 kHz. Other word lengths and sample rates are available through the Microsoft Sound Mapper.

Also included is the DigiGain volume control application. DigiGain allows control over the WaveDriver's master output volume, and input and record monitoring levels. DigiGain has no effect on recording or playback in Pro Tools or any other application that communicates with Digidesign hardware using Digidesign Direct I/O.



A WaveDriver is not multi-client. Only one application at a time can use the WaveDriver. Be sure to disable the Windows system sounds. It is also recommend that you install a separate sound card for third-party soft-synthesizer and samplers, games, or multi-client audio work.

Installing the WaveDriver

Before installing the driver please verify the following:

Pro Tools hardware and software must be properly installed and functional prior to installing the Digidesign WaveDriver

The WaveDriver requires several files installed with Pro Tools or Pro Tools LE. Install Pro Tools or Pro Tools LE prior to installing the WaveDriver. After launching and verifying that your Pro Tools or Pro Tools LE system is functioning correctly, restart Windows. Your digidesign hardware must be correctly installed, connected, and powered on to successfully install the Digidesign WaveDriver.

Disable System sounds before installing the WaveDriver

Digidesign recommends disabling all system sounds. You may encounter problems when system sounds are associated with Empty Recycle Bin, Select, Open Program, Close Program, and other Windows events. In addition, disabling the Windows Start and Exit Windows sounds helps prevent possible damage to your speakers (and your hearing). The Digidesign WaveDriver defaults to 0dB when installed. Remember to turn down your monitoring levels before rebooting after the WaveDriver is installed.



★ With the WaveDriver set for 0dB, your Pro Tools hardware will output the system sounds at >110dB!

To disable system sounds:

- **1** For Windows XP, choose Start > Control Panel > Sounds.
 - or –

For Windows 2000, choose Start > Settings > Control Panel > Sounds & Multimedia.

- 2 To disable all system sounds, under the Scheme pull-down menu, select No Sounds.
 - or –

To disable specific system sounds, scroll down the list of Events and select the one you want to disable (such as Start Windows). In the Name drop-down list, select None.

- **3** Click Apply, then OK.
- 4 Restart Windows.
- You should also disable Internet Explorer's sounds for the same reasons.

Remove any previously installed versions of the Digidesign WaveDriver

If you have previously installed an earlier version of the WaveDriver, you must completely remove it before installing another version of the WaveDriver. For more information, see "Removing the WaveDriver" on page 4.

Installation Instructions

Windows XP (Pro Tools LE Systems Only)

To install the Digidesign WaveDriver on Windows XP:

- 1 Install Pro Tools or Pro Tools LE and restart your computer.
- 2 Launch any Pro Tools or Pro Tools LE session to verify that Pro Tools or Pro Tools LE is working correctly.
- 3 Quit Pro Tools or Pro Tools LE.
- 4 Choose Start > Control Panel.
- 5 Double-click Add Hardware.
- 6 Click Next.
- 7 Select "Yes, I have already connected the hardware" and click Next.
- 8 Scroll down and select "Add a new hardware device" and click Next.
- 9 Select "Install the hardware that I manually select from a list" and click Next.
- 10 Scroll down and select "Sound, video and game controllers" and click Next.
- 11 Click on Have Disk.
- **12** Click Browse, then navigate to the location of the WaveDriver (either as a download or on the Pro Tools CD). Double-click on oemsetup.inf (oemsetup) file. Click OK.
- 13 In the Install From Disk window, click OK.
- 14 When the Add Hardware Wizard window appears, click Next. Click Next again for installing software.
- **15** From the Hardware Installation dialog, click "Continue anyway." The Digidesign WaveDriver Setting dialog will automatically open.
- **16** Click the Advanced button to open the I/O Setup dialog. (See "How to Change WaveDriver Settings" on page 4 for more information about these dialogs.)
- **17** Click the A: No Interface tab.
- **18** Select your Pro Tools hardware for the Peripheral Type.

- **19** Make any other desired settings in the I/O Setup dialog.
- 20 Click OK to close the I/O Setup dialog.
- 21 Click OK to close the WaveDriver Settings dialog.
- 22 Restart Windows when prompted.

Windows 2000 (Pro Tools 24 MIX and Pro Tools 24 Systems Only)

To install the Digidesign WaveDriver on Windows 2000:

- 1 Install Pro Tools and restart your computer.
- 2 Launch any Pro Tools session to verify that Pro Tools is working correctly.
- 3 Quit Pro Tools.
- **4** From the Start menu, choose Settings > Control Panel.
- 5 Double-click Add Hardware.
- 6 Click Next.
- **7** Select Add/Troubleshoot a device, then click Next. (Be patient, as it may take awhile for the Wizard to complete search for the device.)
- 8 Select Add a new device, then click Next.
- 9 From the Find New Hardware dialog, select "No, I want to select the hardware from a list," and click Next.
- 10 In the Hardware Types list, select "Sound, video and game controllers" and click Next.
- 11 Click on Have Disk.
- **12** Browse to the location of the driver (My Computer/Pro Tools 5.3.1/Additional Files/Beta Software/WaveDriver/), select the oemsetup.inf file, and click OK.
- 13 Click Next.
- 14 If the "Digital Signature" warning dialog appears, click Yes.
- 15 Click Next. The Digidesign WaveDriver Settings dialog will automatically open.
- **16** Click the Advanced button to open the I/O Setup dialog. (See "How to Change WaveDriver Settings" on page 4 for more information about these dialogs.)
- 17 Click the A: No Interface tab.
- **18** Select your Pro Tools hardware for the Peripheral Type.
- 19 Make any other desired settings in the I/O Setup dialog.
- 20 Click OK to close the I/O Setup dialog.
- 21 Click OK to close the WaveDriver Settings dialog.
- 22 Click Finish, to close the Wizard.
- 23 Restart Windows when prompted.

Removing the WaveDriver

To remove the WaveDriver:

1 For Windows XP, choose Start > Control Panel.

– or –

For Windows 2000, choose Start > Settings > Control Panel.

- **2** Click the System icon.
- 3 Click the Hardware tab.
- 4 Click the Device Manager button.
- **5** Expand the "Sound, video, and game controllers" section.
- 6 Double click Digidesign WaveDriver.
- **7** Choose the Driver tab.
- 8 Click Uninstall.

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A If you remove the WaveDriver, it is recommended that you also remove the Dalwdm.sys file and Pro Tools or Pro Tools LE (in that order), and then do a clean install of Pro Tools or Pro Tools LE.

How to Change WaveDriver Settings

To change settings for the WaveDriver:

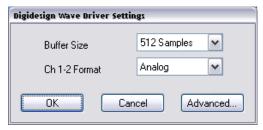
1 For Windows XP, choose Start > Control Panel.

– or –

For Windows 2000, choose Start > Settings > Control Panel.

- **2** Click the System icon.
- 3 Click the Hardware tab.
- 4 Click the Device Manager button.
- **5** Expand the "Sound, video, and game controllers" section.
- 6 Double click Digidesign WaveDriver.
- **7** Choose the Properties tab.
- 8 Expand Audio Devices.
- 9 Double click Digidesign WaveDriver.
- **10** In the Digidesign WaveDriver Properties dialog, click the Settings button. The Digidesign WaveDriver Settings dialog appears.

WaveDriver Settings Dialog



Digidesign WaveDriver Settings dialog

The Digidesign WaveDriver Settings dialog cannot be accessed under the following circumstances:

- When Pro Tools or Pro Tools LE is running and the Operations > Active in Background option is enabled.
- When Pro Tools or Pro Tools LE is running and the Convert and Import dialog is open.
- When playing or recording in another audio application.
- When using a third-party audio application that has an option to keep the WaveDriver "open" even when you are not playing or recording. (You must close the audio application before you can open the WaveDriver Settings dialog.)

Buffer Size Control

When you play a file from a client audio application, the client application divides the file into little chunks (buffers) and sends each of these to the WaveDriver. The WaveDriver copies the client applications buffers to your Pro Tools hardware's own buffers in a double-buffering scheme. The Buffer Size control in this dialog allows you to set the size of each of the two buffers the WaveDriver uses on Pro Tools hardware. You may select from the following buffer sizes:

- 128 samples (default)
- 256 samples
- 512 samples
- 1024 samples

Small buffers have the advantage of low latency in the record monitor path. (Latency is the time delay between a signal entering the audio inputs and leaving the outputs during recording.) Larger buffers have the advantage of making the WaveDriver more immune to audio dropouts during playback and recording. In some third-party audio applications, performing various tasks such as maximizing or minimizing windows will interrupt the WaveDriver and create glitches in the audio. Choosing medium or large buffers can help alleviate this problem.

Pressing the OK button will cause settings to be saved in the registry when you shut down or reboot Windows. Pressing Cancel restores settings to what they were before this dialog was opened. Changing the Buffer Size for the WaveDriver does not effect the H/W Buffer Size settings in the Playback Engine and Hardware Settings dialogs in Pro Tools LE.

Ch 1-2

This control may be set to Analog or Digital. It determines whether the WaveDriver plays and records through the analog or digital I/O or your Pro Tools hardware. The WaveDriver can only play and record through channels 1–2 of your Pro Tools hardware.

I/O Setup Dialog

Click the Advanced button in the Digidesign WaveDriver Settings dialog to open the I/O Setup dialog (Digi 001 shown in the following example):

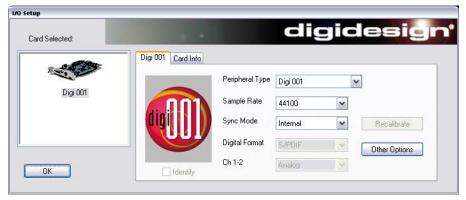


Figure 1. I/O Setup dialog, Digi 001

Pro Tools Hardware Tab

Peripheral Type

The Peripheral Type will always be set to your installed Pro Tools hardware.

Sample Rate

Available sample rates are 48000 Hz and 44100 Hz. You do not need to change the sample rate in this dialog before playing or recording a file with a new sample rate. If you are playing a file, it will automatically play back at the correct sample rate. If you are recording a new file, simply select the desired sample rate using the audio application's Preferences or Record Options dialog.

Sync Mode

Sync Mode may be set to Internal or Digital (Internal is the default setting).

Digital Format

This control may be set to S/PDIF or Optical (S/PDIF is the default setting).

Ch 1-2

This control may be set to Analog or Digital. It determines whether the WaveDriver plays and records through the analog or digital I/O of your Pro Tools hardware. The WaveDriver can only play and record through channels 1–2 of your Pro Tools hardware.

Identify Checkbox

(Pro Tools 24 MIX and Pro Tools 24 Systems Only)

This control enables you to verify which peripheral you are configuring for use with the WaveDriver. Checking this box causes all the meters on the connected peripheral to light up.

Recalibrate Button

(Pro Tools 24 MIX and Pro Tools 24 Systems Only)

The behavior of the Recalibrate button depends on the peripherals you have connected. Refer to the documentation for your specific audio interface.

Other Options Button

The Other Options button opens the Hardware Setup dialog for the your Pro Tools hardware.

Card Info Tab

Bus, Slot Number

These controls display card specific PCI bus information and should not be altered.

Installing DigiGain

DigiGain is an optional volume control applet that allows you to control the master output of your Pro Tools hardware as well as control the monitoring input levels of the WaveDriver independently from your third-party audio applications. By default, the master level is set to 0 dB.

DigiGain is not available as a volume control on the Windows task bar. As a result, the following settings will be disabled in the Sounds and Audio Devices control panel (Windows XP) or Sounds & Multimedia control panel (Windows 2000). "Show volume control on the taskbar," the playback volume control, and the recording volume control will all be disabled.

Before Installing DigiGain

The WaveDriver must be installed before installing DigiGain. If you did not install the WaveDriver or reboot the computer after installing the WaveDriver, do so now.

Installation Instructions

To install DigiGain:

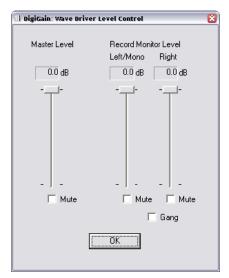
- 1 Insert the Pro Tools or Pro Tools LE Installer CD.
- 2 Locate DigiGain.exe on the CD, and copy it to the Desktop.

Removing DigiGain

To remove DigiGain:

- 1 Delete (move to Recycle Bin) DigiGain.exe from the Desktop.
- 2 Empty the Recycle Bin.

Using DigiGain



DigiGain WaveDriver Level Control

Master Level

This slider adjusts the output volume of channels 1–2 on your Pro Tools hardware.

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During recording, this does not affect the audio data being recorded.

Master Mute

The master mute checkbox, when checked, mutes all output of channels 1-2 of your Pro Tools hardware.

Record Monitor Level

These sliders adjust the output monitoring level of the Left/Mono and Right recording channels.

As with the Master Level slider, these sliders do not affect the audio data being recorded.

Record Monitor Mute

The Mute buttons under the Record Monitor Level sliders individually mute the Left/Mono and Right recording streams.

Gang

The Gang button links the left and right Record Monitor Level sliders and Mute buttons.

OK Button

Clicking on the OK button saves the volume settings, so that they remain the same upon the next reboot or startup of the system. Volume settings are stored in a registry key.

Known Issues

General

Unsupported Sample Rates and Word Lengths

You may wish to play or record files at an unsupported sample rate and/or word length. Examples include files at resolutions of 16-bit/32 kHz, 8-bit/48 kHz, or 8-bit/22.05 kHz. To play or record files at an unsupported sample rate and/or word length, you must use the Microsoft Sound Mapper.

To enable Sound Mapper:

1 For Windows XP, choose Start > Control Panel.

– or –

For Windows 2000, choose Start > Settings > Control Panel.

- 2 Click on the System icon.
- 3 Click on the Hardware tab.
- 4 Click on the Device Manager button.
- **5** Expand the "Sound, video, and game controllers" section.
- **6** Double click on the "Digidesign WaveDriver."
- 7 Choose the Properties tab.
- 8 Expand "Audio Devices."
- 9 Double click on "Digidesign WaveDriver."
- **10** Verify "Do not map through this device" is *not* checked.
- **11** You may have to disable Sound Mapper for any other audio drivers you have installed by checking this option for those devices.
- **12** Next, launch your preferred audio application, choose its audio options menu, and select Sound Mapper as your audio device for playback and recording. You may see Sound Mapper referred to as "Wave Mapper" in some applications. Your system is now configured to record and play at sample rates/word lengths unsupported by the WaveDriver.

However, if you often need to create files at an unsupported sample rate/word length, you will probably achieve the highest audio quality via another procedure. Select the Digidesign WaveDriver as the audio device for recording in your audio application. (Leave the Sound Mapper as your preferred playback device.) Record your audio at a higher sample rate/word length than your final desired rate/length. If your desired rate is 32 kHz, recording at 48 kHz is preferable to 44.1 kHz for the best quality. After your audio is recorded, use your audio application to convert the file to the desired sample rate/word length. For example, in Sound Forge, choose the Process menu and select "Resample." Or, in CoolEdit Pro, choose the Edit menu and select "Adjust sample rate." These sample rate conversion routines usually create audio files of higher quality than those recorded using Sound Mapper. Sound Mapper will still be required for playback—but not recording and playback.

Window Operations

Clicking on the minimize, maximize, or restore buttons, or pressing the right mouse button for an options menu, may result in audible artifacts or stops during playback or recording. The recommended course of action is to avoid minimizing or maximizing during playback and recording. Increasing the buffer size in the WaveDriver Settings dialog may help alleviate these problems.

Reducing the Number of Steps To Change WaveDriver Settings

Try this to speed up your access to the WaveDriver Settings dialog.

- **1** First, create a shortcut to the Sounds and Audio Devices (Windows XP) or Sounds & Multimedia (Windows 2000) control panel. Launching the control panel from this shortcut saves 3 mouse clicks.
 - For Windows XP, choose Start > Control Panel; for Windows 2000, choose Start > Settings > Control Panel.
 - Right-click on Sounds and Audio Devices (Windows XP) or Sounds & Multimedia (Windows 2000), then select "Create Shortcut." A shortcut will automatically be created on your desktop. (You may copy this to your start menu too if you'd like.)
- 2 Next, if you are often changing a WaveDriver setting (such as Sync Mode) while working in an audio application, you can leave the Sounds and Audio Devices (Windows XP) or Sounds & Multimedia (Windows 2000) control panel up rather than open it every time you need to access the WaveDriver Settings dialog. Leaving the Properties dialog open instead of navigating to it every time should save you 3 more mouse clicks to get into it and at least 2 to get out.
 - Double-click on your Sounds and Audio Devices (Windows XP) or Sounds & Multimedia (Windows 2000) control panel shortcut.
 - Click on the Hardware tab.
 - In Devices list, double-click on the "Digidesign WaveDriver."
 - Click on the "Properties" tab, expand "Audio Devices" and double-click on "Digidesign WaveDriver."
 - You should now see the Digidesign WaveDriver Properties dialog, with a Settings button on it. (If you see the Digidesign WaveDriver Settings dialog, you went one dialog too far. Press OK to go back to the Properties dialog.)
 - · Leave the Properties dialog open in the background while working in your audio application.
 - When you need to change a WaveDriver setting, press the Settings button to launch the Settings dialog, change your setting, and then OK out of the Settings dialog to return to the Properties dialog. You must close the Settings dialog or you will not be able to play or record in other applications. (You also can't open the Settings dialog if you're already playing/recording elsewhere.)

Recommended System Settings

System Sounds

Digidesign recommends disabling all system sounds. See "Disable System sounds before installing the WaveDriver" on page 1.

Known Issues with Common Audio Applications

General Issues

Audio Application Freezes when Pro Tools is in the background

Description

• If you try to start an audio application when Pro Tools is running, the application will freeze up when playback is attempted.

Solution / Workaround

- 1 Verify "Active in Background" is unchecked in Pro Tools.
- **2** Start the audio application you want to you use first, and then start Pro Tools. You should then be able to switch freely between applications. Windows 2000 users may have to upgrade to Windows 2000 Service Pack 2 for this to work.

Audio Application cannot acquire hardware when Pro Tools is in the background

Description

• When switching between Pro Tools and another audio application, the system complains it cannot acquire audio hardware.

Solution / Workaround

- 1 Verify "Active in Background" is unchecked in Pro Tools.
- **2** On some systems there may be a considerable time lag between when Pro Tools releases the audio hardware and another application can acquire it. Try waiting a few seconds between minimizing Pro Tools and maximizing the other audio applications. Typically this wait time should only be a few seconds, although it can be up to 30 seconds.

Real Time Audio Application has poor performance

Description

System audio latency performance is slow. This is most prevalent in real-time soft-synths (such as Native Instruments Reaktor).

Solution / Workaround

• This is a design limitation of the WaveDriver. The best alternative with real-time soft-synths is to use a separate sound card that uses DirectSound or WDM drivers.

Audio has pops, lags, scratches, ring-modulation, or is otherwise "glitchy," especially when playing a CD

Description

• Audio playback has random pops, gaps, or noises. Alternately you may hear a "ring-modulation" sounding effect; this is most common when trying to play a CD.

Solution / Workaround

• In the WaveDriver Settings dialog, increase the buffer size.

Ableton Live

Live works fine with Pro Tools|24 MIX, Pro Tools|24, Digi 001, and AudioMedia III systems using the Digidesign WaveDriver (Digi 002 was not tested with Ableton Live). No special settings or changes are required. Use the "Live In" option in the routing section of a playback channel to record audio from inputs 1–2 of your Digidesign hardware.

Cakewalk Sonar

Audio Options/General

- Run the Wave Profiler utility to optimize the driver settings.
- Verify "share audio driver with other applications" is not selected.

If you experience "stuttery" playback, or no playback at all, verify the following:

- Audio Options/Advanced: Verify that "use MME drivers even when WDM drivers are present" is checked.
- Audio Options/Driver Profile: Disable "wavepipe" acceleration, if possible. (This may not be possible with AudioMedia III).

Logic Audio

Digidesign recommends that you do *not* install the Digidesign WaveDriver if you wish to use Logic Audio with Direct I/O drivers with your Digidesign hardware. If you do install the WaveDriver, you will have to disable it in the Windows Device Manager to avoid multiple –6002 or –6031 errors when you launch Logic Audio. You can disable Direct I/O and use the "PC AV" driver with the WaveDriver for 2-channel I/O using your Digidesign hardware—although this configuration may be unstable on some systems.

Microsoft Windows

MCI Error when trying to play a file from within Explorer

Description

After clicking Play, you get the following MCI Error: "All wave devices that can play files in the current format are in use. Wait until a wave device is free, and then try again."

Solution

- 1 From the Start menu, choose Run.
- 2 Type "sysedit" (no quotes) and press OK.
- 3 In System.ini, type "waveaudio=mciwave.drv" (no quotes) under [MCI].
- 4 Save System.ini.
- 5 In Win.ini, type "waveaudio=mciwave.drv" (no quotes) under [MCI extensions].
- 6 Save Win.ini.
- 7 Exit from Sysedit and reboot system.

Nuendo

Nuendo works fine with Pro Tools|24 MIX, Pro Tools|24, Digi 001, and AudioMedia III systems using the Digidesign WaveDriver (Digi 002 was not tested with Nuendo). No special settings or changes are required.

Propellerhead Reason

Reason works fine with Pro Tools|24 MIX, Pro Tools|24, Digi 001, and AudioMedia III systems using the Digidesign WaveDriver (Digi 002 was not tested with Propellerhead Reason). Use the slider in the "Audio" section of the Preferences dialog to set the buffer size/latency. Smaller buffer sizes have less latency, but may be more prone to producing audible clicking or dropouts in the audio. The best latency you can get is about 34 milliseconds with a Pentium 4/Athlon system. Slower systems will require larger buffers with more latency for stable audio playback.

Real Networks RealPlayer G2

RealPlayer's volume and mute controls do not work

Workaround

• Use the DigiGain volume control application.

Sonic Foundry Acid

Recommended Settings

- 1 Choose Options > Preferences.
- 2 Choose the Audio tab.
- **3** Verify the default playback device is channels 1 and 2 of your Digidesign hardware. The default playback device is the first one available in a track's playback device selector list. (The "playback device selector" is the little number to the left of the Mute button on each track.) If the Digidesign hardware is your default playback device, the playback device selector on each track should say "1."
- **4** By default, you should disable (uncheck) "Keep audio devices open for faster playback startup response." Disabling this allows you to launch an audio editor such as Sound Forge from within Acid without encountering "Error -6010: Cannot Acquire Hardware" errors. If you seldom use an external editor, or if you never use one at the same time as Acid, you may enable (check) this option for slightly faster response from the driver.
- **5** Set "Playback Buffering (seconds)" to greater than 0.07.

- 6 Press the Advanced button.
- 7 Select your Digidesign hardware for playback on channels 1 and 2.
- 8 You should not need to interpolate the WaveDriver's playback position.
- **9** Verify "Do not pre-roll buffers before starting playback" is disabled.
- 10 Select your Digidesign hardware for record on channels 1 and 2.
- **11** You should not need to interpolate the WaveDriver's recording position.
- 12 Press OK to close the dialog and save your settings.

Glitches during 24-bit playback/recording

Description

• The WaveDriver is compatible with almost all playback buffer sizes in Acid. However, some users may hear glitches in the audio if they are playing 24-bit audio with very low buffer sizes (such as 0.05 seconds) or have many tracks in their session.

Solutions / Workarounds

- Increasing Acid's buffer size to between 0.07 and 0.2 seconds often makes these glitches go away
- Choose Options > Preferences and choose the General tab. Set "Play files from disk if bigger than (Megabytes)" as large as possible.
- Decrease the number of tracks in your session or record at 16-bit resolution.

Glitches while saving a track during playback/recording

Description

Audible pops can occur when trying to save a track during playback. Additionally, if you are in loop playback and attempt to save the track, playback will stop (but the counter will continue) after the loop has played through one more time.

Solution / Workaround

- Stop playback in Acid before saving a track.
 - or –
- If you must save while playing, increase the buffer size in the WaveDriver Settings dialog to help prevent the audible pops.

Playback stops while generating Midi clock using the Opcode Studio 128X interface

Description

• Selecting "Generate MIDI clock" in the Option popup menu (or pressing Shift+F7) during playback stops playback.

Solution / Workaround

• Stop playback in Acid before stopping or starting MIDI clock.

Glitches while accessing a mounted HFS (Mac-formatted) disk drive

Description

Audible pops may occur during playback when you browse to an HFS volume in Acid's Explorer window and select it.

Solution / Workaround

• Increase the buffer size in the WaveDriver Settings dialog to Medium or Large.

Glitches and/or playback stopping when using Acid and Sound Forge together

Description

During Acid playback, audio clicks and pops can occur when attempting to launch Sound Forge.

Additionally, when you begin playback within Sound Forge (while playing back in Acid), the WaveDriver will display "Error -6010: Cannot Acquire Hardware." Sound Forge, or an error dialog that says the WaveDriver is in use by another audio application. These dialogs are perfectly normal since the WaveDriver is indeed playing back audio in Acid. However, if you subsequently press OK to close the dialog, exit Sound Forge, then in Acid, press Stop and then press Play again, playback will stop after a few seconds, even though the counter is still running.

Workaround

• Stop playback in Acid before editing a file in Sound Forge or another audio application.

Solution

After exiting Sound Forge, then in Acid, pressing Stop and Play again, do the following:

- 1 Press Stop again.
- 2 Save your Acid session and exit Acid.
- 3 Launch Acid again and Open your session.
- 4 Try playing back your session.
- 5 If you don't hear anything or see another "Error -6010" dialog, exit Acid again and restart Windows.

Error: Can't Play and Record at Different Word Lengths Simultaneously

Description

• You will see this error if you record at 24-bit when you are playing back 16-bit audio (or the reverse). The WaveDriver is not capable of simultaneously playing and recording at different word lengths. Recording will still commence, but you will not hear any audio already recorded.

Solution / Workaround

• Verify the Playback Sample Size (accessed by choosing Options > Preferences, then Audio Tab) matches the Record Sample Size (accessible in the Record dialog after pressing the Record button).

Sonic Foundry Sound Forge

Recommended Settings

- **1** Choose Options > Preferences.
- 2 Choose the Wave tab.
- **3** Select your Digidesign hardware for playback and record on channels 1 and 2.
- 4 You should not need to interpolate the WaveDriver's playback or recording positions.
- **5** Playback and recording position biases should be OK if set to 0.
- **6** As a default, you may set "Total buffer size (kilobytes)" at its lowest setting, 64 kB. If you encounter any glitches in recorded audio, and the WaveDriver's buffer size is already set to Large, try increasing Sound Forge's total buffer size.
- 7 "Preload size (kilobytes)" may be set to 0 kB.
- 8 Press OK to close the dialog and save your settings.

Audible Pops after using an effects plug-in

Description

• You may hear a pop the first time a file is played after processing it with an effects plug-in.

Solution / Workaround

• Increase the buffer size in the WaveDriver Settings dialog.

Syntrillium Cool Edit Pro v1.2

Recommended Settings: General

- **1** Choose Options > Device Preferences.
- 2 Verify your Digidesign hardware is enabled for both playback and recording devices on channels 1 and 2.
- **3** Verify "Limit Playback to 16-bit" is *not* enabled.
- **4** Choose Options > Settings, and press the Devices tab.
- 5 Verify the Digidesign hardware is selected as your Waveform Playback and Waveform Record device on channels 1 and 2.
- **6** Verify "Limit Playback to" is *not* enabled for 16-bit or 8-bit or mono.
- **7** Press the Multitrack tab.
- 8 Verify Open Order and Start Order are set to Play, Rec.
- **9** Change settings, as follows: Playback Buffer Size = 2 seconds, Playback Buffers = 10, Recording Buffer Size = 2.7 seconds, Recording Buffers = 4, (optional) Background Mixing Priority = 2.
- **10** Press the System tab.
- **11** Verify "Send 24-bit Using 3-byte Packed Format" is enabled.

Additional Recommended Settings: 16-bit Playback/Recording

- **1** Create a new multitrack session that is 16-bit, *not* 32-bit. Choose File > New, select your sample rate and "16-bit" as your Resolution.
- **2** Choose Options > Settings, and press the Multitrack tab.
- **3** Verify Default Rec is set to 16-bit.
- 4 Before record enabling a track, click on the Record Device button next to it (a small button with a red number on it).
- 5 Verify your Record Device is set to your Digidesign hardware and 16-bit. Press OK to close the Record Device dialog.
- **6** If you wish, you may save your blank session now and use it as a 16-bit template. When you open it, be sure to verify that all tracks have their Record Devices set to 16-bit.

Additional Recommended Settings: 24-bit Playback/Recording

- **1** Create a new multitrack session that is 32-bit, *not* 16-bit. Choose File > New, select your sample rate and "32-bit (float)" as your Resolution.
- **2** Choose Options > Settings, and press the Multitrack tab.
- **3** Verify Default Rec is set to 32-bit.
- 4 Recommended: Set Playback Mixing and Mixdowns to 32-bit.
- 5 Before record enabling a track, click on the Record Device button next to it (a small button with a red number on it).
- 6 Verify your Record Device is set to your Digidesign hardware and 32-bit. Press OK to close the Record Device dialog.
- 7 If you wish, you may save your blank session now and use it as a 24-bit template. When you open it, be sure to verify that all tracks have their Record Devices set to 32-bit.

Error: Can't Play and Record at Different Word Lengths Simultaneously

Description

• If you try to record in Multitrack View with one of several sets of settings in Cool Edit Pro, you may see this error. The WaveDriver is not capable of simultaneously playing and recording at different word lengths. Recording may or may not start as a result.

Solution / Workaround

• Verify that you have configured Cool Edit Pro using the general recommended settings and those settings for the specific word length (16-bit or 24-bit) you are using.

WinAmp

DigiGain must be re-initialized for each song in a WinAmp playlist.

Description

- 1 Set DigiGain to -Inf press ok.
- 2 Song cannot be heard.
- 3 Open DigiGain, it's still at -Inf.
- **4** Wait until the second song on the playlist begins.
- **5** Note the volume can now be heard.
- 6 Open DigiGain and note that it's on 0 db again.

Solution

- 1 Right-click on the title bar in WinAmp. Choose Options > Preferences. Alternately, you can press Ctrl-P.
- 2 In the left hand window of the WinAmp Settings dialog, choose Plug-ins > Output.
- 3 In the right hand window of the WinAmp Settings dialog, select "Nullsoft waveOut plug-in" and click on "Configure."
- **4** Under "Volume Control," verify "Enable" is *not* checked.