

# Pro Tools

## Addendum

**Version 5.3.1 for LE on Windows**

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**digidesign**

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# chapter 1

## Introduction

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### About This Guide

The *Pro Tools LE 5.3.1 Addendum* is a supplement to the Pro Tools 5.3 and Pro Tools LE 5.1.1 guides for Windows. It documents the new and changed features in Pro Tools LE 5.3.1 for Audiomedia III and Digi 001 on Windows.


- ◆ If you are new to Pro Tools, or are configuring a new system, begin by following the hardware and software installation instructions in the *Getting Started Guide*. Then return to this addendum to learn about new features.
- ◆ If you are upgrading from an earlier version of Pro Tools LE, install the upgrade and use this addendum to learn about new and changed features.

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### System Requirements

To use Pro Tools LE 5.3.1 on Windows, you need:

- A Digidesign-qualified, single processor computer:
  - Intel Pentium III
  - Intel Pentium 4
  - AMD Athlon XP
  - AMD Athlon Thunderbird
- Intel (Pentium III or Pentium 4) or “pure” VIA (AMD Athlon) chipset

 *For specific supported chipset models, refer to the latest compatibility information on the Digidesign Web site ([www.digidesign.com](http://www.digidesign.com)).*

- A CD ROM or equivalent drive
- An AGP display card or PCI graphics card
- Windows XP Home Edition
- QuickTime version 5 for Windows XP
- At least 256 MB RAM
- Color monitor required, minimum resolution of 1024 x 768

## Compatibility Information

Pro Tools LE 5.3.1 supports Digi 001 and Audiomeia III systems on Windows XP Home Edition.

**⚠** *Pro Tools LE 5.3.1 does not support Windows 98 or Windows ME.*

If you need to upgrade your operating system from Windows 98 or Windows ME, Digidesign recommends installing the full version of Windows XP on a newly formatted drive or partition rather than upgrading the operating system.

**⚠** *Be sure to deauthorize any key disk authorized plug-ins prior to upgrading your operating system. Once you have installed Windows XP, re-install and re-authorize any key disk authorized plug-ins.*

**💡** *If you want to run Pro Tools LE 5.3.1 on Windows XP while still running Pro Tools LE 5.1.1 on Windows 98 or Windows ME, you can do so using dual boot partitions. For more information on using dual boot partitions, see:*

*[www.microsoft.com/windowsxp/multiboot.htm](http://www.microsoft.com/windowsxp/multiboot.htm)*

Digidesign can only assure compatibility and provide support for devices it has tested and approved. For a list of Digidesign-qualified computers, SCSI accelerator cards, and hard drives, refer to the latest compatibility information on the Digidesign Web site at:

[www.digidesign.com](http://www.digidesign.com)

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## Installing Pro Tools LE

Pro Tools LE 5.3.1 is available as a free update for registered owners of Pro Tools LE 5.1.1. The installer for Pro Tools LE 5.3.1 can be downloaded from:

[www.digidesign.com](http://www.digidesign.com)

To install Pro Tools LE 5.3.1, launch the installer and follow the on-screen instructions. You must log on to Windows XP with an administrator account to be able to install Pro Tools LE. If your Windows XP account does not have administrator privileges (such as a limited or guest account), please contact your Windows administrator for assistance.

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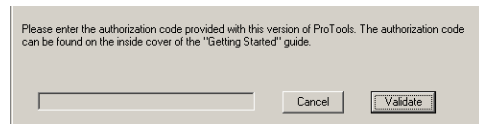
## Launching Pro Tools LE the First Time

### Validate Pro Tools Software

When launching Pro Tools the first time, you are prompted to enter an authorization code to validate your software.

#### To validate Pro Tools software:

- 1 Double-click the Pro Tools application in the Pro Tools folder inside the Digidesign folder.
- 2 Enter the authorization code in the dialog when prompted, making sure to observe any spaces, then click Validate.



#### Authorization code validation for Pro Tools LE

The authorization code is located on the inside cover of your *Getting Started Guide*.

## chapter 2

# Upgrading to Pro Tools LE 5.3.1

If you are upgrading your Pro Tools LE system, you will need to do the following:

- Uninstall your current version of Pro Tools LE
- Remove your Pro Tools LE hardware (Audio-Media III or Digi 001)
- Install Windows XP
- Configure your computer
- Re-install your Pro Tools LE hardware
- Install Pro Tools LE 5.3.1 software

After hardware and software installation are completed, the first time you launch Pro Tools you will be prompted to enter your Pro Tools authorization code and configure hardware.

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## Removing Pro Tools LE

If you are upgrading Pro Tools LE, you will need to remove any current versions of Pro Tools LE.

### To upgrade Pro Tools LE:

- 1 Deauthorize any key disk authorized plug-ins installed on your system.
- 2 Use the Add/Remove Programs control panel to Remove your current installation of Pro Tools LE.
- 3 Use the Add/Remove Programs control panel to Remove PACE System Files.

4 Use the Add/Remove Hardware control panel to Uninstall the currently installed Digidesign hardware drivers.

5 Shut down and turn off your computer.

6 Remove your Pro Tools LE hardware (Audio-Media III or Digi 001).

7 Upgrade your operating system to Windows XP Home edition.



*If you are changing operating systems, Digidesign strongly recommends a clean install of Windows on a newly formatted drive or partition rather than upgrading the operating system.*

8 Install Pro Tools LE software and hardware according to the following installation instructions.

---

## Installing Windows XP

If you do not already have Windows XP installed on your computer, you will need to upgrade your operating system to Windows XP Home edition. Pro Tools LE requires an activated version of Windows XP.



*If you are changing operating systems, Digidesign strongly recommends a clean install of Windows on a newly formatted drive or partition rather than upgrading the operating system.*

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## BIOS and System Modifications

Before installing any hardware or software, first make changes to your computer's BIOS and System settings. These settings are necessary to ensure optimum performance for Pro Tools LE on Windows.

### BIOS Settings

Different BIOS manufacturers often use different names to describe the same system function—or in some cases, do not provide a particular configuration option at all. The names and options that appear in your computer's BIOS may differ slightly from those described in the following procedure.

#### Make the following changes to your computer's BIOS settings:

- 1 Turn on your computer, or if it is already on, restart it.
- 2 During startup, enter the BIOS Setup by pressing the appropriate key (usually indicated in the startup message) on your computer keyboard. The F1, F2, or the Delete keys are commonly used.
- 3 In the appropriate page of the BIOS Setup, enable USB.
- 4 In the appropriate page of the BIOS Setup, disable PCI Parity. If the PCI Parity option isn't available on your computer, skip this step.
- 5 Save changes, exit the BIOS Setup screen, and restart your computer.

## Windows System Settings

In Windows, configure the following Control Panel settings.

#### Enable DMA for any IDE/ATA hard drives:

- 1 Right-click My Computer, located in the start menu, and choose Properties.
- 2 Select the Hardware tab.
- 3 Click the Device Manager button.
- 4 Locate and double-click the device for your IDE/ATA controller.
- 5 In the IDE/ATA Controller Properties dialog, click the Advanced Settings tab.
- 6 Under Transfer mode, select DMA Transfer mode, if available, and click OK.
- 7 Repeat for any additional IDE/ATA drives.
- 8 Click OK to close the Device Manager dialog.
- 9 Close the System control panel.

### Other Software and Hardware Affecting System Performance

Pro Tools LE can also be affected by other software and hardware drivers installed on your computer. For best possible performance, it is recommended that you:

- Avoid running other Windows programs at the same time as Pro Tools LE.
- Turn off any software utilities that run in the background, such as calendars and virus protection.
- Disable Windows System sounds. In the Sound control panel, set the Sound Scheme to No Sounds.
- If your video display card supports it, enable Bus Mastering in the manufacturer's control panel.



- Disable any networking cards.
- Disable any extra startup items.

### Disable Driver Signing Warning

Before you begin to physically install your Pro Tools LE PCI card, temporarily disable the Driver Signing warning option.

#### To disable the warning option:

- 1 Turn on your computer.
- 2 Launch the System control panel.
- 3 Select the Hardware tab.
- 4 Click the Driver Signing button.
- 5 Select “Ignore—Install the software anyway and don’t ask for my approval.”
- 6 Click OK twice.
- 7 Shut down and turn off your computer.
- 8 Proceed with physically installing your Pro Tool LE PCI card.

### Disable Virus-Protection Software

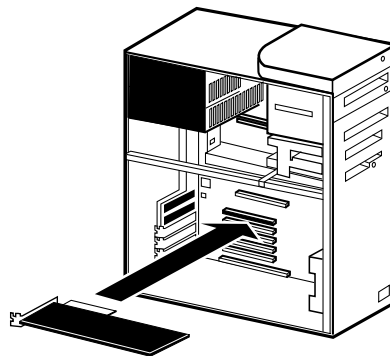
If you are using virus-protection software, turn it off or remove it and restart your computer. Avoid running virus-protection software while using Digi 001 since it adversely affects system performance.

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## Installing Pro Tools LE (AudioMedia III or Digi 001) Hardware

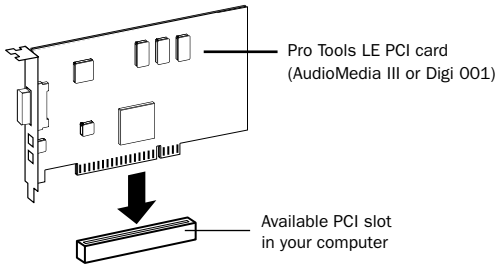
### To install your Pro Tools LE PCI card (AudioMedia III or Digi 001):

- 1 Turn off your computer. Leave it plugged in so that it is grounded, or use an alternate method of grounding according to your computer manufacturer’s instructions.
- 2 Open the computer case. If necessary, refer to the manufacturer’s instructions for details.
- 3 Remove the rear slot cover and screw or clamp of any available PCI expansion slot.
- 4 Before handling the Pro Tools LE PCI card (AudioMedia III or Digi 001), discharge any static electricity by touching the outer casing of the power supply.
- 5 Remove the Pro Tools LE PCI card (AudioMedia III or Digi 001) from its anti-static bag.
- 6 Hold the card gently by the top edges, and line up its PCI connector with the PCI slot inside the computer.



PCI card installation for a Windows PC

**7** When the connector and slot are aligned, press the card into the slot using firm, even pressure. The card should click into place. Secure the card with the previously removed screw or clamp. Make sure the card's audio connectors are accessible through the rear slot of the computer.



#### **PCI card installation**

**8** Replace the computer case.

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## **Installing the Pro Tools LE Software.**

### **To install Pro Tools LE on Windows:**

- 1** Turn on your computer.
- 2** Start up Windows, logging in with Administrator privileges. If you do not have Administrator privileges or do not know how to set them up, see your Windows User's Guide.
- 3** Wait for the Found New Hardware Wizard dialog to appear and leave it open.
- 4** Place the Pro Tools LE Installer CD-ROM for Windows in your CD-ROM drive. Locate (in the Pro Tools LE Installer folder) and double-click the blue icon named "Setup."
- 5** When the installer opens, click Next to proceed.

**6** Choose from the following three install options:

- Typical, recommended for first-time users
- Compact, installs the minimum components necessary to run Pro Tools LE
- Custom, lets you select which components are installed (for advanced users)

**7** Click Next to install the selected option. Files are installed to the Digidesign folder inside the Program Files folder.

**8** Wait for the installer to finish installing all software components, drivers, and PACE System files before proceeding to the next step.

**9** If QuickTime is not already installed, you will be prompted to install the "Recommended" QuickTime installer option now (see "Installing QuickTime" on page 6). Follow the on-screen instructions to complete the QuickTime installation process.

**10** When installation is complete, click Finish to restart your computer.

## **Installing QuickTime**

QuickTime 5 is required for Pro Tools LE. Install the latest version of QuickTime for Windows (available on the Pro Tools LE 5.3.1 CD-ROM or from [www.apple.com](http://www.apple.com)). Be sure to install the "Recommended" install of QuickTime or Pro Tools will not handle QuickTime video correctly.

## The Digidesign WaveDriver

### (Optional)

The Digidesign WaveDriver is a two-channel, multimedia WaveDriver that allows third-party audio applications to record and play back through channels 1–2 of the Digi 001. The Digidesign WaveDriver is *not* required to use Pro Tools LE with the Digi 001.

**▲** Check the Digidesign Web site ([www.digidesign.com](http://www.digidesign.com)) for the latest third-party drivers for Pro Tools LE hardware, as well as current known issues.

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## Launching Pro Tools LE the First Time

### Validate Pro Tools LE Software

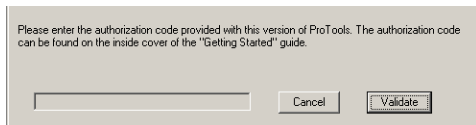
When launching Pro Tools LE the first time, you are prompted to enter an authorization code to validate your software.

#### To validate Pro Tools LE software:

**1** Double-click the Pro Tools LE application in the Pro Tools folder inside the Digidesign folder.

The authorization code is located on the inside cover of this guide.

**2** Enter the authorization code in the dialog when prompted, making sure to observe any spaces.



#### Authorization code validation for Pro Tools LE

**3** Click Validate.

Congratulations! Pro Tools LE is launched. When Pro Tools LE is launched for the first time only the menus will appear. To see Edit and Mix windows, a new session must be created. But before you begin working with Pro Tools, see “Configuring Pro Tools LE” on page 8 to get acquainted with Pro Tools system settings.

### Cannot Create DAE Deck Or Error Number 4

Your computer may not recognize your Digi 001 cards if you did not follow all of the steps above.

#### To correct a “Cannot Create DAE Deck” error:

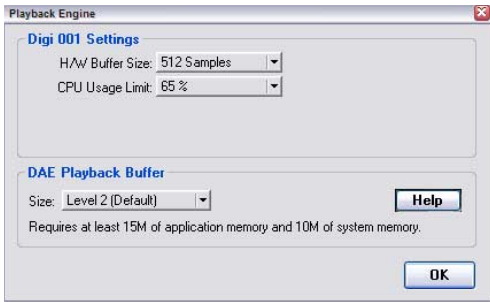
- 1** Turn your computer off.
- 2** Confirm that your Digi 001 card is seated correctly and the connector cable is tightly fastened.
- 3** Start your computer and launch Pro Tools LE. If the error does not re-appear, you do not need to continue with these steps.
- 4** With your computer on, right-click the My Computer icon (located in the Start menu).
- 5** Choose Properties > Hardware > Device Manager.
- 6** Expand the Sound, Video and Game Controllers list.
- 7** In Multimedia Devices, you should see an “!” icon next to the Digi 001 if it is not properly installed.
- 8** Select the “!” icons and press Delete.
- 9** Click OK in the Confirm Device Remove dialog.
- 10** You are ready to install your Digi 001 card. See “Installing Pro Tools LE (AudioMedia III or Digi 001) Hardware” on page 5.

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# Configuring Pro Tools LE

## Configuring the Playback Engine

The Playback Engine sets the voice count (and voiceable tracks) for your system, and it's sessions. Additionally, it lets you customize specific System Usage parameters (such as buffers and CPU Usage).



*Playback Engine dialog for Digi 001*

### To configure the Playback Engine:

- 1 Choose Setups > Playback Engine.
- 2 From the H/W Buffer Size pop-up, select the audio buffer size, in samples, for host processing tasks such as Real-Time AudioSuite (RTAS) plug-in processing. The default setting is 512 samples. Select a higher setting if you need more buffer time for RTAS and Direct Connect applications.
- 3 From the CPU Usage Limit pop-up, select the maximum percentage of CPU resources to allocate to host processing tasks. The default setting is 65%. Select a higher setting if you need more host processing power for RTAS and Direct Connect applications.

**▲** *Increasing the CPU Usage Limit may slow down screen responses.*

- 4 Set DAE Playback Buffer Size (see “DAE Playback Buffer Size” on page 8).

- 5 Click OK when finished.

## DAE Playback Buffer Size

The DAE Playback Buffer Size determines the amount of memory allocated within DAE to manage disk buffers, which affects system performance.

Though DAE automatically selects the optimal playback buffer size for your system, you may want to adjust this parameter to modify your system's performance:

- ◆ Allocating a larger buffer size can sometimes allow for a higher density of edits. This can be useful if you experience system performance problems in sessions with a large number of edits in rapid succession. However, choosing a larger buffer size can cause a time lag to occur before playback or recording begins. It can also cause a time lag to occur when you are editing during playback.
- ◆ Allocating a smaller buffer size can sometimes improve playback and recording initiation speed. This can be useful if you are experiencing a time lag when you initiate playback or recording. However, choosing a smaller buffer size can make it difficult for slower hard drives to play or record tracks reliably.

## Configuring Hardware Setup

The Hardware Setup dialog (Setups > Hardware) provides controls for hardware Sample Rate, Clock Source, Input Gain on Channels 3–8, S/PDIF Compatibility, Mic/Line High-Pass Filter, and Optical Format.



Hardware Setup dialog for Digi 001

**Clock** Select select the clock source (Internal, S/PDIF (RCA), Optical).

**Sample Rate** Displays the session sample rate.

**Optical Format** Select ADAT or S/PDIF depending on whether you are using the Optical inputs and outputs for ADAT or S/PDIF.

**Enable S/PDIF Mirroring** Sets S/PDIF (RCA) outputs to automatically “mirror” the audio that is sent to analog outputs 1 and 2.

**S/PDIF Format** Set the S/PDIF I/O format to Tascam if you are using a Tascam DA-30 DAT recorder. Otherwise, select Other.

**Ch 1–2 Input** Sets the input for Channel 1–2 to Analog or S/PDIF.

**Mic/Line HP Filter** Enable a high-pass filter (set at 60 Hz) on Channels 1 and 2 for filtering out low-end rumble from a noisy recording environment or microphone handling, or AC noise.

**Input Gain** Adjust the gain on analog channels 3–8 by using the Input Gain controls.

## Using a Digital Source

If you are recording from an optical or S/PDIF device, you will need to configure Pro Tools LE to synchronize to the external device.

### To configure Pro Tools LE for a digital source:

**1** Connect an RCA S/PDIF device to the RCA connectors on the back of the Digi 001 I/O or AudioMedia III card.

– OR –

Connect an ADAT or S/PDIF format optical device to the Optical In on the Digi 001 PCI Card,

**2** In Pro Tools LE, choose Setups > Hardware Setup.

**3** From the Clock pop-up menu, select Optical or S/PDIF (RCA), depending on where you connected your digital device (Optical is not an available option for the AudioMedia III).

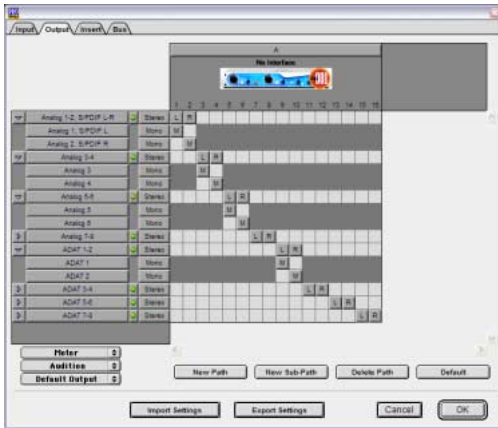
**4** If you are using the S/PDIF (RCA) input, select Tascam or Other depending on whether or not you are using a Tascam DA-30.

– OR –

If you are using the optical input on the Digi 001 PCI Card, select the correct Optical Format (ADAT or S/PDIF).

## Configuring I/O Setup

The I/O Setup dialog provides a graphical representation of the Hardware Setup. This dialog provides controls to route the physical ports of the AudioMedia III or Digi 001 I/O to Pro Tools LE inputs and outputs. The I/O Setup dialog also lets you label and map Pro Tools LE input, output, insert, and bus *signal paths*.




*I/O Setup dialog for Digi 001*

Pro Tools LE ships with default I/O Setup settings that will get you started. You only need to go to I/O Setup if you want to remap or rename the default I/O paths.

### To configure I/O routing in I/O Setup:

- 1 Choose Setups > I/O Setups in Pro Tools.
- 2 Map and name paths as desired.
- 3 If necessary, redefine formats for I/O channels of any peripherals.

 Refer to the *Pro Tools Reference Guide* (choose *Help > Pro Tools Reference Guide* in Pro Tools LE) for more information on setting up I/O paths.

## Optimizing Pro Tools LE

### (For Slower PCs)

Pro Tools LE uses your computer's processor for audio tasks. Although most supported Windows machines will have plenty of horsepower to run Pro Tools LE, you may experience performance problems with slower computers. If you have an older computer, the following steps will help you get better performance from Pro Tools LE.

- 1 Launch Pro Tools LE by choosing Start > Programs > Digidesign > Pro Tools > Pro Tools LE.
- 2 Choose Setups > Playback Engine.
- 3 From the H/W Buffer Size pop-up, select 1024 samples for the audio buffer size. The default setting is 512 samples
- 4 From the CPU Usage Limit pop-up, select 85% for the maximum percentage of CPU resources to allocate to host processing tasks. The default setting is 65%.
- 5 Click OK when finished.

## chapter 3

# What's New in Pro Tools LE 5.3.1

Following is an overview of new features included with Pro Tools LE 5.3.1. For more details on each feature, refer to specific product guides, where indicated.

- ▲ *Pro Tools LE 5.3.1 features discussed in this chapter are supported on Pro Tools LE Digi 001 or Audiomedia III systems on Windows XP Home Edition.*

## Support for 32 Audio Tracks

Pro Tools LE 5.3.1 can record and play up to 32 mono digital audio tracks (depending on your computer's capabilities).

- ▲ *On older, slower computers, screen redraws may be slow. The more tracks in a session, the more CPU time is required for the demands of the host audio engine. Higher priority processes (such as audio playback and processing) take precedence over screen redraws.*

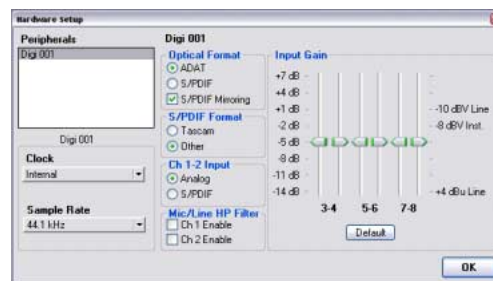
## Software Enhancements

Pro Tools LE 5.3.1 features a variety of software enhancements for configuring Pro Tools hardware and managing sessions.

## Hardware Setup

A new Hardware Setup dialog provides comprehensive controls for configuring connected peripherals (such as the Digi 001 I/O), as well as global settings such as the Clock Source for the peripherals connected to the system. The connected Audiomedia III or Digi 001 hardware is automatically sensed and identified by Pro Tools LE 5.3.1 software.

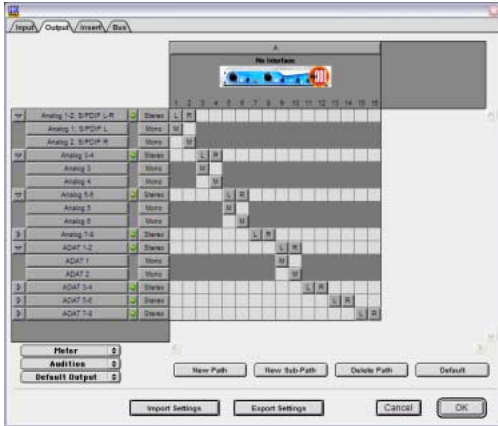
The Hardware Setup dialog provides controls for system Sample Rate and Sync settings, as well as Input Gain controls. For more information, refer to your *Getting Started Guide*.



Hardware Setup dialog

## I/O Setup

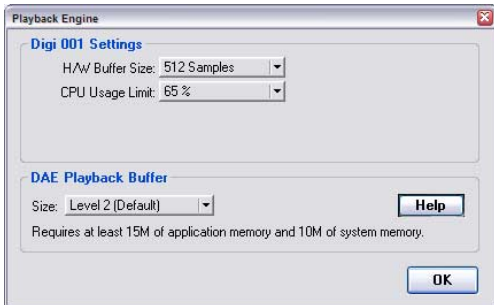
The I/O Setup dialog provides comprehensive controls for configuring the signal paths of your audio interface.



*I/O Setup dialog*

## Playback Engine

The Playback Engine dialog has been streamlined. It can now be opened without requiring that the current session be closed. In addition, the Playback Engine dialog now has controls for setting the DAE Playback Buffer Size, a control previously found under the Setups menu.

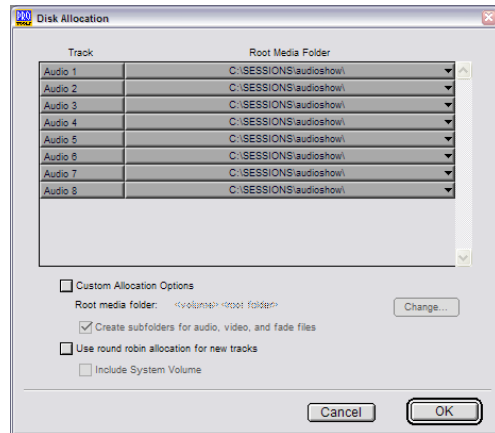


*Playback Engine dialog*

## Disk Allocation Dialog Shortcuts

Two new key shortcuts make it easier to allocate a specific destination hard drive to multiple tracks simultaneously:

- To make a continuous selection, Shift-click a track name (in the Track column) to extend the selection to include already-selected tracks and all tracks in between.
- To make a non-contiguous selection, Control-click a track name in the Track column to extend the selection to include already-selected tracks without including tracks in between.



*Disk Allocation dialog*



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## Plug-In and Processing Features

Pro Tools LE 5.3.1 adds several new plug-in and DSP-processing related enhancements.

### New DigiRack Plug-Ins

Pro Tools LE 5.3.1 for Windows includes new DigiRack Plug-Ins with the following enhancements:

- A new Mod Delay II plug-in with Tempo, Meter, and note-based entry of delay time
- An RTAS version of POW-r Dither
- RTAS versions of Digidesign's D-Verb plug-in
- Three separate TimeAdjuster plug-ins (Short, Medium, and Long) for a wider variety of sample delay times

### Mod Delay II Plug-In

Mod Delay II for Pro Tools LE 5.3.1 adds controls for Tempo, Meter, Duration, and Groove.

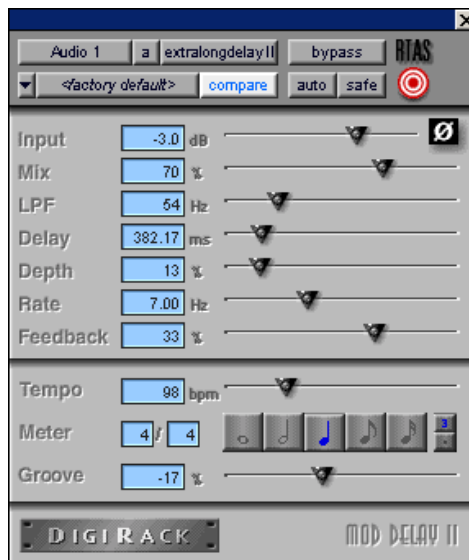
**Tempo** Sets the desired tempo in beats per minute (bpm).

**Meter** Allows you to enter simple or compound time signatures.


**Duration** Allows you to specify a delay according to a note value (whole, half, quarter, eighth, or sixteenth note).

**Groove** Provides fine adjustment of the delay in percentages of a 1:4 subdivision of the beat.

This new version of Mod Delay II is provided in TDM, RTAS, and AudioSuite formats.

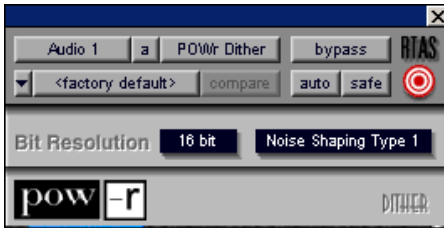


Mod Delay II plug-in


 For more information on the features of the Mod Delay II plug-in and using it in Pro Tools LE, refer to the DigiRack Plug-Ins Guide.

## POW-r Dither

The POW-r Dither plug-in is an advanced type of dither that provides optimized word length reduction. It is designed for final-stage critical mixdown and mastering tasks where the highest possible fidelity is desired when reducing bit depth.

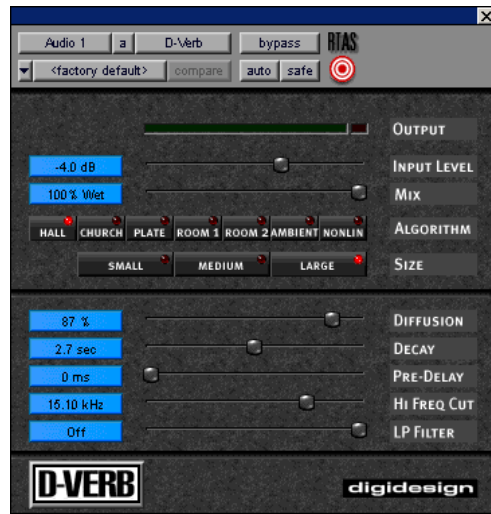


POW-r Dither plug-in

 For more information on the features of the POW-r Dither plug-in and using it in Pro Tools LE, refer to the DigiRack Plug-Ins Guide.

## D-Verb Plug-In

D-Verb is a studio-quality reverb provided in TDM, RTAS, and AudioSuite formats.



D-Verb plug-in

D-Verb has the following parameters and controls:

**Output Meter** Indicates the output level of the processed signal. For the stereo version of D-Verb, it represents the summed stereo output.

**Clip Indicator** Shows whether or not clipping has occurred.

**Input Level** Adjusts the input volume of the reverb to prevent the possibility of clipping and/or increase the level of the processed signal.

**Wet/Dry** Adjusts the balance between the dry signal and the effected signal, giving you control over the depth of the effect.

**Algorithm** Selects one of seven reverb algorithms: Hall, Church, Plate, Room 1, Room 2, Ambience, or Nonlinear.

**Size** Allows you to adjust the overall size of the reverberant space. There are three sizes: Small, Medium, and Large.


**Diffusion** Sets the degree to which initial echo density increases over time.

**Decay** Controls the rate at which the reverb decays after the original direct signal stops.

**Pre-Delay** Determines the amount of time that elapses between the original audio event and the onset of reverberation.

**Hi Frequency Cut** Controls the decay characteristic of the high frequency components of the reverb. It acts in conjunction with the Low-Pass Filter control to create the overall high frequency contour of the reverb.

**Low-Pass Filter** Controls the overall high frequency content of the reverb by allowing you to set the frequency above which a 6 dB per octave filter attenuates the processed signal.

 *For more information on the features of the D-Verb plug-in and using it in Pro Tools, refer to the Digidesign Plug-Ins Guide.*


### **TimeAdjuster Plug-In**

TimeAdjuster for Pro Tools 5.3.1 provides a choice of three plug-ins:

**Short** Provides a maximum delay of 256 samples at all sample rates.

**Medium** Provides a maximum delay of 2048 samples at all sample rates.


**Long** Provides a maximum delay of 8192 samples at all sample rates.

 *For more information on the features of the TimeAdjuster plug-in and using it in Pro Tools, refer to the DigiRack Plug-Ins Guide.*

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## **Support for DigiTranslator**


Pro Tools LE 5.3.1 includes Windows support for DigiTranslator 2.0, providing an integrated workflow between Pro Tools LE and other OMFI applications, across Windows and Macintosh platforms.

 *For more information on the DigiTranslator option, see the DigiTranslator Integrated Option Guide.*

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## **QuickTime Playback**

Pro Tools LE 5.3.1 supports playback of QuickTime files on Windows. QuickTime is digital video technology designed to produce compact video files for multimedia use. Supported QuickTime formats include: MPEG, AVI, MOV, and DV.


 *You must install the version of QuickTime provided on the Pro Tools LE 5.3.1 CD-ROM if you want to use QuickTime playback in Pro Tools on Windows. Be sure to install the "Recommended" install of QuickTime or Pro Tools will not handle QuickTime video correctly.*

### **Using QuickTime Movies in Pro Tools LE**

Pro Tools LE allows you to import QuickTime movies into your Pro Tools LE sessions.


Once imported into Pro Tools LE, a QuickTime movie is displayed in its own Movie track in the Edit window, and in a floating Movie window. With a QuickTime movie in the session, Pro

Tools LE serves as an ideal random-access visual reference for “sweetening” the movie by adding sound effects, music, foley, dialog, or other audio.

 *On Pro Tools systems with two monitors, the QuickTime Movie window is only supported on the first monitor.*

With Pro Tools LE, you can:

- ◆ Import a QuickTime movie into a session.
- ◆ Synchronize audio events to a QuickTime movie, using the Pro Tools editing features to spot and nudge regions to video frames.
- ◆ Scrub audio elements in tandem with a QuickTime Movie window.
- ◆ Bounce to a new QuickTime movie (MOV format only).


 *For more information on using QuickTime Movies in Pro Tools LE, refer to the Pro Tools Reference Guide.*

Rotary data encoders and motorized faders on 24 channel strips facilitate navigation through Pro Tools functions such as:

- Recording
- Mixing
- Editing
- Grouping
- Plug-in parameter adjustment
- Automation

Analog elements of Control 24 include:

- 16 premium-quality Focusrite microphone preamps
- 8-channel stereo submixer section
- Sophisticated control room and studio monitoring configurations

 *For more information on Control|24, refer to the Control|24 Guide.*

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## Support for Control|24

Pro Tools LE 5.3.1 on Windows now supports Control|24. Control|24 is a dedicated control surface for Pro Tools systems. A collaboration between Digidesign and Focusrite, Control|24 gives you precise, tactile control over Pro Tools recording, mixing, and editing features.

Control|24 also includes 16 premium microphone preamps, a control room monitoring section, and a line submixer. These audio routing features make Control|24 an ideal “front-end” for Pro Tools recording, as well as a complete control surface for monitoring and mixing.

## chapter 4

# Corrections to the 5.3 Guides

This chapter lists corrections to the Pro Tools 5.3 guides, and also documents some items not covered in those guides.

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### Pro Tools 5.3 Reference Guide

PN 932709360-00 REV A 1/02

#### Routing a Pro Tools Output Pair to Multiple Audio Interface Output Ports

On pages 42 and 64 of the *5.3 Reference Guide*, the fifth step for selecting multiple output ports for a Pro Tools output channel pair incorrectly states: “Control+Shift an additional output destination.”

**Correction:**

The fifth step for selecting multiple output ports for a Pro Tools output channel pair should say: “Control-click (Macintosh) or Start-click (Windows) an additional output destination.”

In addition, you must hold down the modifier key (Control on macintosh, or Start on Windows) before clicking on the Output menu.

#### Latch Record Enable Buttons

On page 52 of the *5.3 Reference Guide*, the Latch Record Enable Buttons section does not specify the track type when it states that: “When deselected, prevents multiple tracks from being record enabled: Record-enabling a track takes any other track out of record-enabled mode.”

**Correction:**

The Latch Record Enable buttons are for audio tracks only.

#### Latch Record Mode

On page 119 of the *5.3 Reference Guide*, the Latch Record Mode section fails to specify the track type when it states that “you can record enable additional tracks.”

**Correction:**

Latch Record mode is for audio tracks only.

## Allocating Audio Drives

On page 124 of the *5.3 Reference Guide*, the second step for allocating audio drives in your system incorrectly says to assign a hard drive for each track by “clicking in the Record Location column.”

### Correction:

The second step for allocating audio drives in your system should say: “In the Disk Allocation dialog, to assign a hard drive for each track, click in the Root Media Folder column and select a hard drive (or folder) for the track.”

## Recording to MIDI Tracks

On pages 154–155 of the *5.3 Reference Guide*, the second step for recording one or more MIDI tracks incorrectly states: “Record enable any MIDI tracks to which you want to record by clicking their Record Enable buttons.”

### Correction:

The second step for recording one or more MIDI tracks should say: “Record enable the MIDI track to which you want to record by clicking on its Record Enable button. To record enable multiple MIDI tracks, Shift-click the Record Enable buttons on each track.”

## Striping from Silence Regions

On page 257 of the *5.3 Reference Guide*, Minimum Strip Duration incorrectly states that the range of the Minimum Strip Duration parameter is 0–10,000 ms.

### Correction:

The range of the Minimum Strip Duration parameter is 0–4,000 ms.

## MIDI Track Offset

On page 313 of the *5.3 Reference Guide*, the second paragraph of the second step for configuring a MIDI track offset incorrectly states that the value displayed in the Msec Offset column is updated “when a new value is entered in the SMPTE Offset column.”

### Correction:

The second step for configuring a MIDI track offset should say that the value displayed in the Msec Offset column is updated “when a new value is entered in the Sample Offset column.”

## External Clock Sources

Page 475 of the *5.3 Reference Guide* incorrectly states that the base rate for external clock source “equals 44.1 kHz for 88.2 and 174.4 kHz.”

### Correction:

The base rate for external clock source “equals 44.1 kHz for 88.2 and 176.4 kHz.”

## Spotting Movie to Sync Point

On page 505 of the *5.3 Reference Guide*, the fourth step for spotting the movie to a sync point incorrectly says to “Set the Grid Value to Feet.Frames.”

Also on page 505, steps 8 and 9 refer to the “Move Region To dialog.”

### Correction:

The fourth step for spotting the movie to a sync point should say “Set the Grid Value to Time Code.”

Steps 8 and 9 should refer to the “Spot dialog,” not the Move Region To dialog.

## **Enhancing Performance by Clearing the Undo Queue**

### **Clearing the Undo Queue**

Page 180 of the *Reference Guide* describes Multiple Undo. While this section correctly lists actions which clear the Undo queue, the following tip for improved system performance was omitted:

#### **Correction**

Clearing the Undo queue can speed up system response by reducing the load on your CPU memory caused by maintaining multiple levels of Undo.

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## **Control|24 Guide**

**PN 932709088-00 REV A 3/01**

### **Headphone Jack and Controls**

On page 37 of the *Control|24 Guide*, the section titled Headphone Jack and Controls incorrectly states that, “the jack is located on the lower-left of the Control Room Monitor section.”

#### **Correction:**

The section titled Headphone Jack and Controls should say that, “the jack is located on the lower-right of the Control Room Monitor section.”

## **Contrast Mode Pages**

On page 143 of the *Control|24 Guide*, the sections titled Prefs Pages and Contrast Mode Page are incorrect.

#### **Correction:**

The sections for Prefs Pages and Contrast Mode Page should be ignored because these pages are not available on the Control|24.





# Digidesign WaveDriver

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## 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 the Digi 001 or AudioMedia III on Windows. The Digidesign WaveDriver is not required to use Pro Tools LE with the Digi 001 or AudioMedia III.

**▲** Check the Digidesign Web site ([www.digidesign.com](http://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.

**▲** *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 LE. Install Pro Tools LE prior to installing the WaveDriver. After launching and verifying that Pro Tools LE and Digi 001 or AudioMedia III are functioning correctly, restart Windows. The Digi 001 or AudioMedia III 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, and 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 WaveDrivers default to 0dB when installed. Remember to turn down your monitoring levels before rebooting after the WaveDrivers are installed.

 *With the WaveDrivers set for 0dB, the Digi 001 or AudioMedia III will output the system sounds at >110dB!*

### **To disable system sounds:**

**1** From the Start menu, choose Settings > Control Panel > Sounds.


**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 XP.

 *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 23.

## **Installation Instructions**

### **To install the Digidesign WaveDriver:**

**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 “Yes, I have already connected the hardware” and click Next.

**8** Select Add a New Device and click Next.

**9** Select “Install the hardware that I manually select from a list” and click Next.

**10** Select “Sound, video and game controllers” and click Next.

**11** Click on Have Disk....

**12** Browse to the location of the driver, 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 below for more information about these dialogs.)

17 Click the A: No Interface tab.

18 Select Digi 001 or AudioMedia III 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.

---

## Removing the WaveDriver

### To remove the WaveDriver:

1 From the Start menu, choose 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 Select the Driver tab.

8 Click Uninstall.

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

---

## How to Change WaveDriver Settings

### To change settings for the WaveDriver:

1 From the Start menu, choose 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 Select the Properties tab.

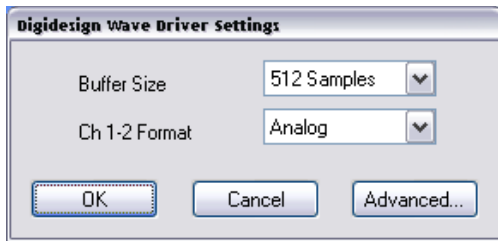
8 Expand Audio Devices.

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 LE is running and the Operations > Active in Background option is enabled.
- ◆ When 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 the Digi 001 or AudioMedia III’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 the Digi 001 or AudioMedia III card.

You may choose 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 Digi 001 or AudioMedia III's analog or digital I/O. The WaveDriver can only play and record through channels 1–2 of the Digi 001 or AudioMedia III.

## 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):

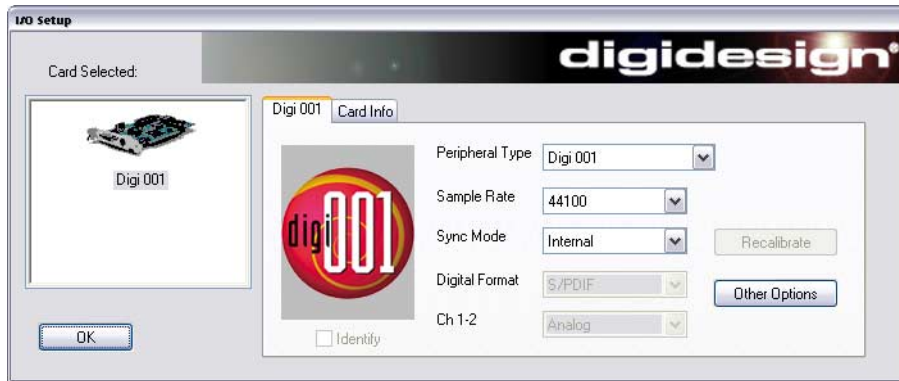


Figure 1. I/O Setup dialog, Digi 001

### Digi 001 Tab

#### Peripheral Type

The Peripheral Type will always be set to Digi 001.

#### 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 choose 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 Digi 001's analog or digital I/O. The WaveDriver can only play and record through channels 1–2 of the Digi 001.

#### Identify Checkbox

The Identify checkbox is not available for Digi 001.

#### Recalibrate Button

The Recalibrate button is not available for the Digi 001.

## Other Options Button

The Other Options button opens the Hardware Setup dialog for the Digi 001 (see “Configuring Hardware Setup” on page 9).

## Card Info Tab

### Bus, Slot Number

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

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## Installing DigiGain

DigiGain is an optional volume control applet that allows you to control the master output of the Digi 001 or AudioMedia III 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 Multimedia control panel (Audio tab). “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 LE Installer CD.

- 2 Locate DigiGain.exe on the CD, and copy it to the Desktop.

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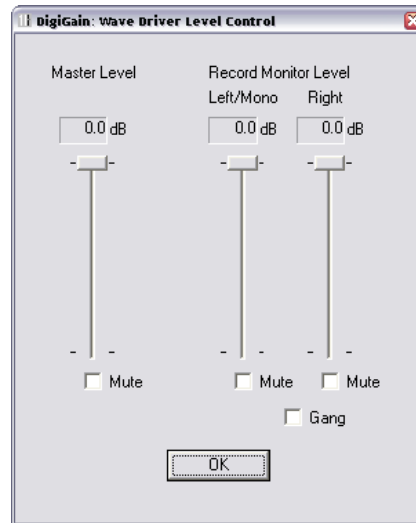
## Removing DigiGain

### 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 the Digi 001 or AudioMedia III.



*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 the Digi 001 or AudioMedia III.

## 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.