

Upgrading to Pro Tools 6.4.1

Version 6.4.1 for Pro Tools|24 MIX Systems on Macintosh

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chapter 1

Introduction

This guide documents how to upgrade to Pro Tools 6.4.1 for Pro Tools|24 MIX systems on Macintosh computers.

System Requirements

Pro Tools TDM 6.4.1 can be used with a Pro Tools|24 MIX system on a Digidesign-qualified computer running a Digidesign-qualified version of Mac OS X. For complete system requirements visit the Digidesign Web site (www.Digidesign.com/compato).

Compatibility Information

Digidesign can only assure compatibility and provide support for hardware and software it has tested and approved.

For a list of Digidesign-qualified computers, operating systems, hard drives, and third-party devices, refer to the latest compatibility information on the Digidesign Web site (www.digidesign.com/compato).

chapter 2

Installing Pro Tools 6.4.1 on Macintosh

This chapter explains how to install and configure Pro Tools 6.4.1 for Pro Tools|24 MIX systems on a Digidesign-qualified Macintosh computer.

▲ *Pro Tools|24 MIX systems are not compatible with Power Mac G5 computers.*

For complete system requirements and compatibility information, visit the Digidesign Web site (www.digidesign.com/compato).

Apple System Settings for Mac OS X

To ensure optimum performance and compatibility, configure the following settings for Mac OS X before you install Pro Tools software.

▲ *Do not use the Mac OS X automatic Software Update feature, as it may upgrade your system to a version of Mac OS that has not yet been qualified for Pro Tools. For details on qualified versions of Mac OS, refer to the latest compatibility information on the Digidesign Web site (www.digidesign.com).*

To configure Mac OS X for Pro Tools:

- 1 Turn on your computer.
- 2 Make sure you are logged into an administrator account where you want to install Pro Tools. For details on Administrator privileges in Mac OS X, refer to your Apple OS X documentation.
- 3 Choose System Preferences from the Apple Menu and click Energy Saver.
- 4 Click the Sleep tab and turn off the Energy Saver feature by setting the sleep feature to Never.
- 5 Return to the System Preferences and click Software Update.
- 6 Deselect “Automatically check for updates when you have a network connection.”
- 7 Close the Software Update dialog box.

Installing Pro Tools TDM Software

To install Pro Tools TDM on Mac OS X:

1 Make sure you are logged in as an Administrator for the account where you want to install Pro Tools. For details on Administrator privileges in Mac OS X, refer to your Apple OS X documentation.

2 Insert the Pro Tools 6.4.1 Installer CD-ROM in your CD-ROM drive. Double-click “Install Pro Tools.”

– or –


If you downloaded the Pro Tools 6.4.1 Update from our Web site, follow the instructions provided with it to expand and launch the installer.

3 Enter your Administrator password and click OK to authenticate the installation.

4 Make sure the Install Location is on your Start-up hard drive.


5 Click Install.

6 Select your work environment. This loads an initial set of Pro Tools Preferences that include some of the more popular settings for post production, audio, or audio with MIDI.

 *Preference settings can be customized at any time in Pro Tools. See the Pro Tools Reference Guide for more information about Preferences.*

7 Select whether to install the Surround Mixer plug-in. This plug-in is required for mixing, mastering, and monitoring in surround:

- For Surround systems, select “Yes – Monitoring Pro Tools Film Format” if your monitoring is configured for Film Format.
- Select “Yes – Monitoring in ProControl (DTS Format)” if you are using a ProControl dedicated controller.
- Select “No – Stereo mixing only” if your monitoring is configured for Stereo.

 *The Surround Mixer can be installed at any time. For more information, see the Pro Tools Reference Guide.*

8 Click Continue.

9 When installation is complete, click Restart.

Be sure to restart your computer before continuing.


If you plan to use any MIDI devices with Pro Tools, configure your MIDI setup with the Apple Audio MIDI Setup (AMS) utility. See Appendix C, “Configuring AMS (Mac OS X Only)” for details.


Optional Software

Digidesign Single-Client CoreAudio Driver 6.4.1

Digidesign Single-Client CoreAudio Driver 6.4.1 is a single-client, multichannel sound driver that allows CoreAudio-compatible programs to record and play back through Digidesign hardware.

CoreAudio Driver 6.4.1 is automatically installed when you install Pro Tools 6.4.


 *For detailed information on using the Digidesign CoreAudio Driver, see Appendix A, “Digidesign Single-Client CoreAudio Driver (Macintosh Only).”*

 *If you want to use multiple CoreAudio applications at one time, install the Digidesign Multi-Client CoreAudio Driver 6.5. See Appendix B, “Digidesign Multi-Client CoreAudio Driver (Macintosh Only).”*

Digidesign Multi-Client CoreAudio Driver Installer

Digidesign Multi-Client CoreAudio Driver 6.5 is a multi-client, multichannel sound driver that allows CoreAudio-compatible programs to record and play back through Digidesign hardware.

Digidesign Multi-Client CoreAudio Driver 6.5 can be installed on Digidesign-qualified Mac OS X systems with Pro Tools 6.4.1 (for example, if the CoreAudio Driver was uninstalled), or it can be installed as a stand-alone driver on systems that do not have any version of Pro Tools installed.

 *For detailed information on installing and using the Digidesign Multi-Client CoreAudio Driver, see Appendix B, “Digidesign Multi-Client CoreAudio Driver (Macintosh Only).”*

Installing the Demo Session


The Pro Tools Installer CD-ROM includes a demo session that you can use to verify that your system is working.

To install the demo session:

- 1 Insert the Pro Tools Installer CD in your CD-ROM drive. Locate and double-click the demo session installer icon.
- 2 Set the install location to your audio drive, and click Install.
- 3 When installation is complete, click Quit.

Checking Your Pro Tools System

Before you launch Pro Tools, start your system and run the DigiTest diagnostic application to ensure that all TDM cards in the system are recognized, installed in the proper order, and have valid TDM cable connections.

 *Refer to the Getting Started Guide with MLX for details on starting up your system and running DigiTest.*

Launching Pro Tools

When launching Pro Tools 6.4.1 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, located in the Pro Tools folder, inside the Digi-design folder.
- 2 Enter the authorization code in the dialog when prompted, making sure to observe any spaces, then click Validate.
 - If you are upgrading from Pro Tools 6.x, you can use your 6.x authorization code.
 - If you are upgrading from Pro Tools 5.x, an authorization code is included with the purchase confirmation that is emailed to you.

Configuring Pro Tools

Pro Tools lets you adjust the performance of your system by changing *system settings* that affect its capacity for processing, playback, and recording.

In most cases, the default settings for your system provide optimum performance, but you may want to adjust them to accommodate large or processing-intensive Pro Tools sessions.

Refer to the *Getting Started Guide* that came with your system for instructions on configuring the Number of Voices, Hardware Buffer Size, CPU Usage Limit, the DAE Playback Buffer Size, System Memory Allocation, and other Pro Tools settings.

Removing Pro Tools on Mac OS X

If you need to remove Pro Tools from your computer, you can use the Installer CD-ROM or the downloaded Installer file.

To remove Pro Tools from your computer:

- 1 Make sure you are logged in as an Administrator for the account where Pro Tools is installed. For details on Administrator privileges in Mac OS X, refer to your Apple OS X documentation.

- 2 Insert the Pro Tools 6.4.1 Installer CD-ROM in your CD-ROM drive. Double-click "Install Pro Tools."

– or –

Click on the downloaded installer file.

- 3 Enter your Administrator password and click OK to authenticate the installation.

- 4 In the Installer window, choose Uninstall from the pop-up menu, and click Uninstall.

- 5 Follow the onscreen instructions to remove Pro Tools.

- 6 When finished, click Quit to close the Installer window.

appendix a

Digidesign Single-Client CoreAudio Driver (Macintosh Only)

Introduction

The Digidesign Single-Client CoreAudio Driver is a single-client multichannel, multimedia sound driver that allows third-party audio programs that support the CoreAudio standard to record and play back through Digidesign hardware.



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

Full-duplex playback of 24- and 16-bit audio are supported at sample rates up to 96 kHz, depending on the Digidesign hardware and CoreAudio Driver program used.

The Digidesign CoreAudio Driver will provide up to 18 channels of input and output, depending on your Pro Tools hardware:

- Up to 16 channels of input and output with Pro Tools|24 MIX
- Up to 8 channels of input and output with Pro Tools|HD
- Up to 18 channels of input and output with Digi 002 and Digi 002 Rack
- Up to 2 channels of input and output with Mbox

Compatible Software

For a list of CoreAudio Driver-compatible software, see the compatibility documents available on the Digidesign Web site (www.digidesign.com/compato).

Installing the Single-Client CoreAudio Driver

The Core Auto Driver is installed by default when you install Pro Tools.

Removing the Single-Client CoreAudio Driver

To uninstall the Digidesign Single-Client CoreAudio Driver:

- 1 Power on your system.
- 2 On the Pro Tools Installer CD, locate and double-click the Install CoreAudio file.

– or –

From the Digidesign Web site, download and double-click the Install CoreAudio file.

- 3 In the Install CoreAudio window, select Uninstall from the Custom Install pop-up menu.

4 When the uninstall is complete, quit the CoreAudio Installer.

Configuring the Digidesign Single-Client CoreAudio Driver

You can configure the Digidesign CoreAudio Driver using Digidesign CoreAudio Setup, or from within most third-party CoreAudio-compatible client applications (such as BIAS Peak or Logic Audio). Consult the manufacturer's documentation for more information.

Some applications, such as Apple's iTunes or QuickTime Player, also require that you configure either the Apple Sound Preferences or Apple Audio MIDI Setup to use the Digidesign CoreAudio Driver.

Digidesign Single-Client CoreAudio Setup

Use Digidesign CoreAudio Setup to specify which third-party CoreAudio applications can use the CoreAudio Driver, change the CoreAudio Buffer Size setting, and access the Hardware Setup dialog for your Digidesign hardware. Digidesign CoreAudio Setup also identifies your Digidesign hardware and the supported number of Input and Output Channels.

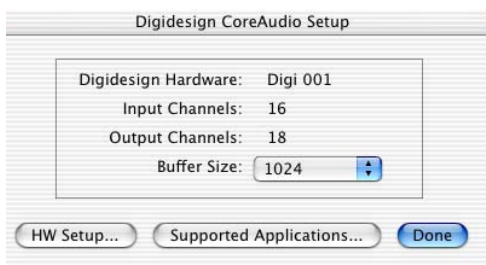


Figure 1. Digidesign CoreAudio Setup

Digidesign CoreAudio Setup cannot be accessed under the following circumstances:

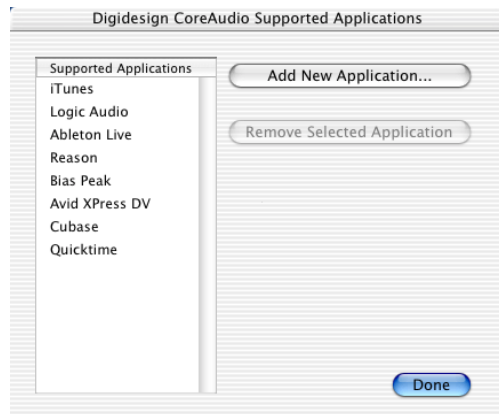
- When Pro Tools is running.
- When another CoreAudio-client application is using the Digidesign CoreAudio Driver.

Supported Applications

The Digidesign CoreAudio Driver provides the Supported Applications feature for CoreAudio-compatible applications. This lets you specify which CoreAudio-compatible applications can be used with the Digidesign CoreAudio Driver.

To add support for a CoreAudio-compatible application:

- 1 Launch Digidesign CoreAudio Setup (located in /Applications/Digidesign).
- 2 Click Supported Applications. The Digidesign CoreAudio Supported Applications window opens.



Digidesign CoreAudio Supported Applications window

- 3 In the Digidesign CoreAudio Supported Applications window, click Add New Application. The Open dialog appears.

4 In the Open dialog, navigate to and select the CoreAudio-compatible application you want to add.

5 Click Open. The selected application is added to the Supported Applications list and can be used with the Digidesign CoreAudio Driver.

6 When you are finished adding to the Supported Applications List, click Done.

7 In Digidesign CoreAudio Setup, click Done to apply your changes.

To remove support for a CoreAudio-compatible application:

1 Launch Digidesign CoreAudio Setup (located in /Applications/Digidesign).

2 Click Supported Applications. The Digidesign CoreAudio Supported Applications window opens.

3 In the Supported Applications list, select the application you want to remove.

4 Click Remove Selected Application. The selected application is removed from the Supported Applications list and cannot be used with the Digidesign CoreAudio Driver.

5 When you are finished removing applications from the Supported Applications List, click Done.

6 In Digidesign CoreAudio Setup, click Done to apply your changes.

Buffer Size

When you play a file from a client audio application, the client application divides the file into small packets (buffers) and sends each of these to the Digidesign CoreAudio Driver. The Digidesign CoreAudio Driver copies the client application's input and output buffers to your Digidesign hardware's buffers in a double-buffering scheme. The Buffer Size control in this dialog lets you set the size of each of the two buffers the Digidesign CoreAudio Driver uses on Digidesign hardware. You may select from the following buffer sizes (depending on your Digidesign hardware):

- 128 samples
- 256 samples
- 512 samples
- 1024 samples
- 2048 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 Digidesign CoreAudio Driver more immune to audio dropouts during playback and recording.

In some CoreAudio-client applications, performing various tasks will interrupt the CoreAudio Driver and may result in clicks and pops in audio playback or recording. Choosing medium or large buffers (such as 256, 512, or 1024) can help alleviate this problem.

Changing the Buffer Size for the Digidesign CoreAudio Driver does not affect the H/W Buffer Size settings in the Pro Tools Playback Engine dialog.

To configure Digidesign CoreAudio Hardware Buffer Size:

- 1 Launch Digidesign CoreAudio Setup (located in /Applications/Digidesign).
- 2 From the Buffer Size pop-up menu, select the desired CoreAudio buffer size (in samples). Generally, smaller buffer sizes are preferable. However, if you experience any problems with performance (such as clicks and pops during recording or playback), try increasing the CoreAudio Buffer Size setting.



Most audio applications that support CoreAudio will let you adjust the CoreAudio Buffer Size setting from within the application.

- 3 In Digidesign CoreAudio Setup, click Done to apply your changes.

HW Setup Button

The HW Setup button opens the Hardware Setup dialog for your Digidesign hardware. For more information, refer to the *Getting Started Guide* for your Pro Tools system or the *Pro Tools Reference Guide*.

To configure Digidesign CoreAudio HW Setup:

- 1 Launch Digidesign CoreAudio Setup (located in /Applications/Digidesign).
- 2 Click the HW Setup button to open the Hardware Setup dialog.



Hardware Setup for 888|24 I/O

- 3 Configure the Hardware Setup dialog for your Digidesign hardware. If you have more than one audio interface connected to your Pro Tools TDM system, be sure to select and configure only the primary audio interface connected to the Pro Tools|24 MIX Core card.



For more information on the Hardware Setup dialog, refer to your Getting Started Guide or the Pro Tools Reference Guide.

- 4 When you are finished, click OK to close the Hardware Setup dialog.
- 5 In Digidesign CoreAudio Setup, click Done to apply your changes.

Configuring the Apple Sound Preferences or Apple Audio MIDI Setup

To use your Digidesign hardware with common CoreAudio-compatible playback applications (such as Apple iTunes or QuickTime Player), you will need to configure either Sound Preferences or Audio MIDI Setup in addition to Digidesign CoreAudio Setup. However, for most CoreAudio-compatible client applications (such as BIAS Peak or Cubase SX) this is unnecessary because you can configure the CoreAudio Buffer Size setting, and input and output channels from within the application.

Apple Sound Preferences

To configure the Apple Sound Preferences:

- 1 Launch System Preferences (Apple menu > System Preferences).
- 2 Click Sound.
- 3 Click the Output tab and select Digidesign HW as the device for sound output.



Sound Preferences, Output tab

- 4 Click the Input tab and select Digidesign HW as the device for sound input.



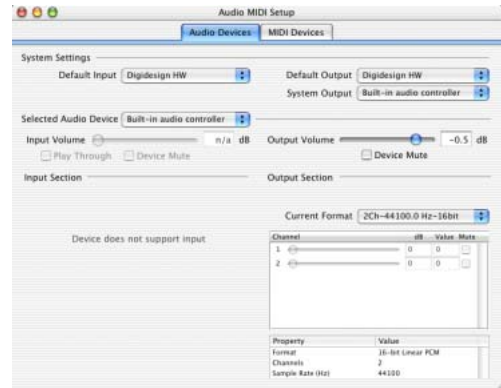
Sound Preferences, Input tab

- 5 Quit System Preferences.

Apple Audio MIDI Setup

To configure the Apple Audio MIDI Setup:


- 1 Launch Audio MIDI Setup (located in Home/Applications/Utilities).
- 2 Select the Audio Devices tab.



Apple Audio MIDI Setup application, Audio tab

3 From the System Settings Default Input pop-up menu, select Digidesign HW.

4 From the System Settings Default Output pop-up menu, select Digidesign HW.

 *Leave System Output and Selected Audio Device set to Built-in audio controller. The Digidesign CoreAudio Driver cannot be used for system sounds.*

appendix b

Digidesign Multi-Client CoreAudio Driver (Macintosh Only)

Introduction

The Digidesign Multi-Client CoreAudio Driver is a multi-client, multichannel sound driver that allows CoreAudio compatible applications to record and play back through Digidesign hardware.



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

Full-duplex recording and playback of 24-bit audio is supported at sample rates up to 96 kHz, depending on your Digidesign hardware and CoreAudio client application.

The Digidesign CoreAudio Driver will provide up to 18 channels of input and output, depending on your Pro Tools system:

- Up to 8 channels of I/O with Pro Tools|HD systems
- Up to 16 channels of I/O with Pro Tools|24 MIX systems
- Up to 18 channels of I/O with Digi 002 and Digi 002 Rack systems (or 18 in and 16 out with S/PDIF Mirroring enabled)

- Up to 2 channels of I/O with Mbox systems

⚠ *For Pro Tools TDM systems with more than one card and multiple I/Os, only the primary I/O connected to the first (core) card can be used with CoreAudio.*

Limitations of the Digidesign Multi-Client CoreAudio Driver

The Digidesign Multi-Client CoreAudio Driver has the following limitations:

- ◆ Pro Tools is not a CoreAudio application and therefore requires exclusive access to Digidesign hardware. You cannot use CoreAudio applications and Pro Tools at the same time. To use Pro Tools, make sure you quit any CoreAudio applications before starting Pro Tools. To use a CoreAudio application, make sure you quit Pro Tools before starting any CoreAudio application.
- ◆ The multi-client Digidesign CoreAudio Driver cannot be used to preview sound files from the Finder. When a sound file is located in the Mac OS X navigation window, a QuickTime transport bar is displayed next to it. The QuickTime transport bar lets you audition the sound file. The sound will always play back through the Macintosh's built-in audio controller (through the Macintosh's speaker or headphone jack).

However, if you double-click a sound file, the QuickTime application will launch, and can use the multi-client Digidesign CoreAudio Driver for playback.

- ◆ The multi-client Digidesign CoreAudio Driver cannot be used for playback of System Sounds.

Compatibility

The Digidesign CoreAudio Driver can be used on Digidesign-qualified Macintosh computers with Pro Tools 6.4.1 installed, or it can be used as a stand-alone driver on systems that do not have Pro Tools installed.

Compatible Software

For a list of CoreAudio Driver-compatible software, see the compatibility documents available on the Digidesign Web site (www.digidesign.com/compato).

Digidesign can only assure compatibility and provide support for hardware and software it has tested and approved.

For a list of Digidesign hardware systems, Digidesign-qualified computers, operating systems, and devices, and Digidesign-qualified third-party CoreAudio-compatible applications, refer to the latest compatibility information available on the Digidesign Web site (www.digidesign.com/compato).

Installing the Digidesign Multi-Client CoreAudio Driver

The Digidesign CoreAudio Installer will automatically overwrite any previous CoreAudio installation or, in the case where no previous version of the CoreAudio Driver is installed, will install the components necessary for proper operation of the CoreAudio Driver.

To install the Digidesign CoreAudio Driver:

- 1 Verify your Pro Tools hardware is connected.
- 2 Power on your system.
- 3 If you intend to use Pro Tools on your system, verify that a compatible version of Pro Tools is correctly installed and operational.
- 4 Double-click the Install CoreAudio file. On the Pro Tools Installer CD, the Install CoreAudio file is located in the Additional Files/Multi-Client CoreAudio folder.
- 5 Follow the on-screen instructions to install the Digidesign CoreAudio Driver.
- 6 When the installation is complete, quit the installer and restart your computer.

The file, *Digidesign CoreAudio.plugin* is installed in the following directory: `/Library/Audio/Plug-Ins/HAL`. The Digidesign CoreAudio Manager application is also installed on your hard drive in `/Applications/Digidesign`.

To uninstall the Multit-Client Digidesign CoreAudio Driver:

- 1 Double-click the Install CoreAudio file. On the Pro Tools Installer CD, the Install CoreAudio file is located in the Additional Files/Multi-Client CoreAudio folder.
- 2 In the Install CoreAudio window, select Uninstall from the Custom Install pop-up menu.

3 When the uninstall is complete, quit the CoreAudio Installer.

Configuring the Digidesign Multi-Client CoreAudio Driver

You can configure the Digidesign Multi-Client CoreAudio Driver using Digidesign CoreAudio Manager, or from within most third-party CoreAudio-compatible client applications (such as BIAS Peak or Logic Audio). Consult the manufacturer's documentation for more information.

Some applications (such as Apple's iTunes or QuickTime Player), also require that you configure either the Apple Sound Preferences or Apple Audio MIDI Setup to use the Digidesign CoreAudio Driver.

Digidesign CoreAudio Manager

Use Digidesign CoreAudio Manager to change the CoreAudio Buffer Size setting, access the Hardware Setup dialog for your Digidesign hardware and control volume and mute for the CoreAudio driver. Digidesign CoreAudio Manager also identifies your Digidesign hardware, the supported number of Input and Output Channels and the number of attached clients (applications).

Digidesign CoreAudio Manager cannot be accessed under the following circumstances:

- When Pro Tools is running
- When another application is using Direct IO (such as the Ableton Live Digi Edition)

The Digidesign CoreAudio Manager application launches automatically when the first client application accesses the CoreAudio driver. You can prevent an application from accessing the CoreAudio driver by holding down the Shift key just before the application would access the Core-

Audio driver, typically during launch of the application. Certain applications (such as Apple Mail and iChat), do not access the CoreAudio application until they first play a sound, so you will need to hold down the Shift key just prior to sound playback in order to “opt-out” of using Digidesign hardware for playback.



Figure 2. Digidesign CoreAudio Manager

Buffer Size

You may select from the following buffer sizes (depending on your Digidesign hardware):

- 64 samples
- 128 samples
- 256 samples
- 512 samples
- 1024 samples
- 2048 samples

Small buffers have the advantage of low latency in the record monitor path, but also are more taxing on your computer's CPU and could contribute to dropouts in your audio during record or playback. (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 Digidesign CoreAudio Driver more immune to audio dropouts during playback and recording, but can cause a noticeable delay when monitoring your inputs in the recording process. In some CoreAudio-client applications, performing various tasks will interrupt the CoreAudio

Driver and may result in clicks and pops in audio playback or recording. Choosing medium or large buffers (such as 512 or 1024) can help alleviate this problem.

Changing the Buffer Size for the Digidesign CoreAudio Driver does not affect the H/W Buffer Size settings in the Pro Tools Playback Engine dialog.

To configure Digidesign CoreAudio Hardware Buffer Size:

- 1 Launch Digidesign CoreAudio Manager (located in /Applications/Digidesign).
- 2 From the Buffer Size pop-up menu, select the desired CoreAudio buffer size (in samples). Generally, smaller buffer sizes are preferable. However, if you experience any problems with performance (such as clicks and pops during recording or playback), try increasing the CoreAudio Buffer Size setting. You can also change the buffer size from within the client application if it is the only client attached to the CoreAudio driver. Once two or more clients are active, you will not be able to change the sample rate or the buffer size.

HW Setup Button

The HW Setup button opens the Hardware Setup dialog for your Digidesign hardware. For more information, refer to the *Getting Started Guide* for your Pro Tools system or the *Pro Tools Reference Guide*.

To configure Digidesign CoreAudio HW Setup:

- 1 Launch Digidesign CoreAudio Manager (located in /Applications/Digidesign).

- 2 Click the HW Setup button to open the Hardware Setup dialog. The HW Setup button will only be available when no clients are using the CoreAudio driver.

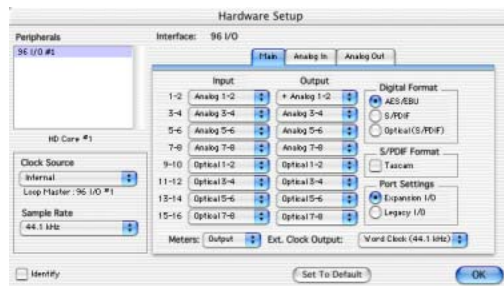



Figure 3. Hardware Setup dialog, 96 I/O

- 3 Configure the Hardware Setup dialog for your Digidesign hardware. If you have more than one audio interface connected to your Pro Tools TDM system, be sure to select and configure only the primary audio interface connected to the core card.

 For more information on the Hardware Setup dialog, refer to your *Getting Started Guide* or the *Pro Tools Reference Guide*.

- 4 When you are finished, click OK to close the Hardware Setup dialog.

Prefs Button

The Prefs button opens the Digidesign CoreAudio Manager Preferences dialog for the Manager application. There are several options available for control and configuration of the Manager application. When finished setting these options, click OK to close the Digidesign CoreAudio Manager Preferences windows.

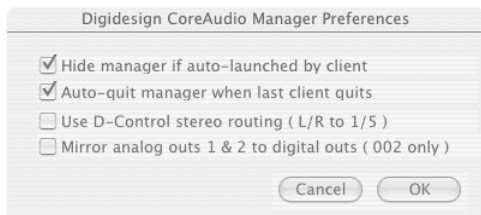


Figure 4. Digidesign CoreAudio Manager

Hide Manager if Auto-Launched by Client Enable this option to hide the Manager panel after the first client application accesses the CoreAudio driver. To open the Manager panel, click on the Digidesign CoreAudio Manager application icon in the Dock.

Auto-Quit Manager when Last Client Quits Enable this option to make the Manager application quit when there are no longer any clients using the CoreAudio driver.

Use D-Control Stereo Routing (L/R to 1/5) Enable this option to configure the CoreAudio driver to output through the D-Controls standard stereo routing outputs 1 and 5.

Mirror Analog Outs 1 & 2 to Digital Outs (002 Only) When using Digi 002 or Digi 002 Rack, enable this option to mirror the main outputs through the digital outputs that are selected in the HW Setup panel.

Connect Button

The Connect button is available when the Digidesign CoreAudio Manager is launched and cannot connect with the Digidesign hardware (such as when Pro Tools is launched and the hardware is disconnected or disabled). Before trying to connect, make sure to quit Pro Tools and make sure that your hardware is connected and turned on. You can then click on the Connect button to acquire the hardware.

⚠ *If any application is launched prior to pressing the Connect button and you want that application to use the CoreAudio driver for playback, you will need to quit and re-launch the application for it to connect properly to the Digidesign CoreAudio Manager.*

Quit Button

Use the Quit button to quit the Digidesign CoreAudio Manager. Be sure to quit any client applications before using the Quit button in the Manager. If any applications are currently attached to the Manager application when quitting, you may get an error message indicating that the Digidesign hardware is no longer available. You may have to change the application's preferences to use different hardware for playback or possibly quit and relaunch the application for proper playback to be resumed.

Configuring the Apple Sound Preferences or Apple Audio MIDI Setup

To use your Digidesign hardware with common CoreAudio-compatible playback applications (such as Apple iTunes or QuickTime Player), you will need to configure either Sound Preferences or Audio MIDI Setup, in addition to Digidesign CoreAudio Manager. However, for most CoreAudio-compatible client applications (such as BIAS Peak or Cubase SX) this is unnecessary because you can configure the CoreAudio Buffer Size setting and input and output channels from within the application.

Apple Sound Preferences

To configure the Apple Sound Preferences:

- 1 Launch System Preferences (Apple menu > System Preferences).
- 2 Click Sound.
- 3 Click the Output tab and select Digidesign HW as the device for sound output.



Sound Preferences, Output tab

- 4 Click the Input tab and select Digidesign HW as the device for sound input.



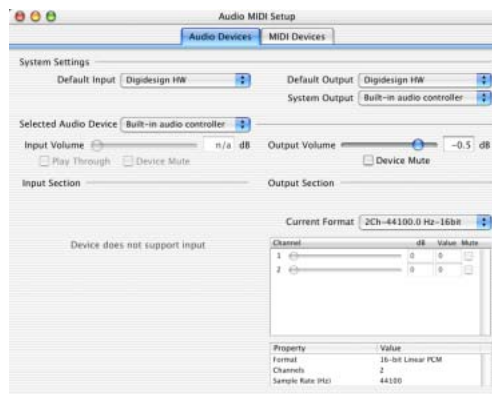
Sound Preferences, Input tab

- 5 Quit System Preferences.

Apple Audio MIDI Setup


To configure the Apple Audio MIDI Setup:

- 1 Launch Audio MIDI Setup (located in Home/Applications/Utilities).
- 2 Select the Audio Devices tab.



Apple Audio MIDI Setup application, Audio tab

- 3 From the System Settings Default Input pop-up menu, select Digidesign HW.
- 4 From the System Settings Default Output pop-up menu, select Digidesign HW.

 *For Pro Tools TDM systems with more than one card and multiple I/Os, only the primary I/O connected to the first (core) card can be used with CoreAudio.*

appendix c

Configuring AMS (Mac OS X Only)

Pro Tools recognizes the ports on your MIDI interface as generic ports. With Mac OS X, you use Apple's Audio MIDI Setup (AMS) utility to identify external MIDI devices connected to your MIDI interface and configure your MIDI studio for use with Pro Tools.

To configure your MIDI studio in AMS:

1 Launch Audio MIDI Setup (located in Applications/Utilities).

– or –

In Pro Tools, choose Setups > Edit MIDI Studio Setup.

2 Click the MIDI Devices tab. AMS scans your system for connected MIDI interfaces. If your MIDI interface is properly connected, it appears in the window with each of its ports numbered.

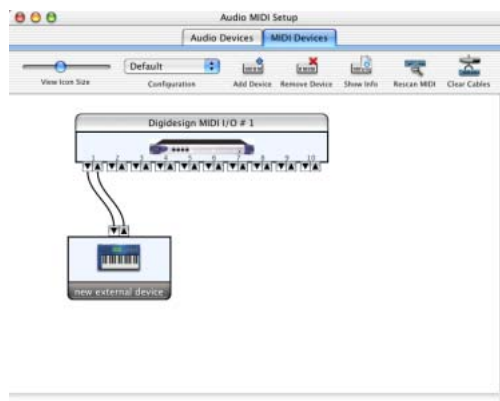


Audio MIDI Setup (MIDI Devices tab)

3 For any MIDI devices connected to the MIDI interface, click Add Device. A new external device icon with the default MIDI keyboard image will appear.


4 Drag the new device icon to a convenient location within the window.

5 Connect the MIDI device to the MIDI interface by clicking the arrow for the appropriate output port of the device and dragging a connection or “cable” to the input arrow of the corresponding port of the MIDI interface.



Making MIDI input and output connections

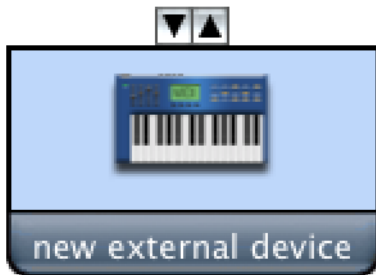
6 Click the arrow for the appropriate input port of the device and drag a cable to the output arrow of the corresponding port of the MIDI interface.

 To remove a connection, select the cable and press Delete. To delete all connections, click Clear Cables.

7 Repeat steps 3–6 for each MIDI device in your MIDI setup.

To configure an external MIDI device:

1 Select the external device icon and click Show Info (or double-click the new device icon).




External Device Icon

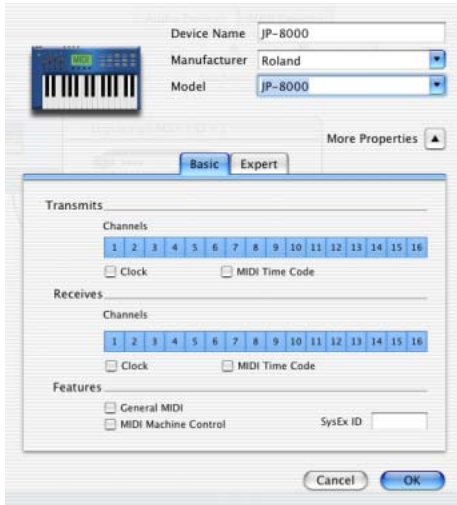
2 Select a manufacturer and model for the new device from the corresponding pop-up menus. (If the Manufacturer and Model pop-up menus do not provide a name for your particular device, you can type a name.)



Naming a new MIDI device

 AMS refers to one or more files with the suffix ".middev" in the directory Root/Library/Audio/MIDI Devices for Manufacturer and Model names. Pro Tools installs two such files that contain information for many commercially available MIDI devices, "Legacy Devices.middev" and "Digidesign Devices.middev." If the Manufacturer or Model names for any of your external MIDI devices are not available in the AMS Manufacturer and Model pop-up menus, you can add them by editing any of the current .middev files in any text editor (such as TextEdit).

3 Click the More Properties arrow to expand the dialog, then enable the appropriate MIDI channels (1–16) for the Transmits and Receives options. (These determine which channels the device will use to send and receive MIDI.)




Enabling MIDI channels

4 Click the device image. The window expands to show images for various MIDI devices (such as keyboards, modules, interfaces, and mixers). Select an icon for your device.



Selecting a device icon

 To use your own custom icons, you can place TIFF image files in /Library/Audio/MIDI Devices/Generic/Images, and they will appear as choices in the AMS device window.

5 Click OK.

The device names you enter appear as MIDI input and output choices in Pro Tools.