

# Digidesign CoreAudio Driver 6.1.1 Usage Guide (Mac OS X Only)


The Digidesign CoreAudio Driver 6.1.1 is a single-client, multichannel sound driver that allows CoreAudio-compatible applications to record and play back through the following Digidesign audio interfaces.


- Pro Tools|HD
- Pro Tools|24 MIX
- Digi 002 and Digi 002 Rack
- Digi 001
- Mbox
- Audiomedia III

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 I/O 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 18 channels of I/O with Digi 001 systems (or 18 in and 16 out with S/PDIF Mirroring enabled)
- Up to 2 channels of I/O with Mbox and Audiomedia III 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.*

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

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## Compatibility

The Digidesign CoreAudio Driver can be used on Digidesign-qualified Macintosh computers running Mac OS X v10.2.6 or later with Pro Tools 6.x installed, or it can be used as a stand-alone driver on systems that do not have Pro Tools installed.


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

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## Installing the Digidesign CoreAudio Driver

Digidesign CoreAudio 6.1.1 is automatically installed when you install Pro Tools 6.1.1. The following installation steps are for computer systems where CoreAudio 6.1.1 was uninstalled or Pro Tools 6.1.1 was not installed,

The Digidesign CoreAudio Driver can be installed on Digidesign-qualified Macintosh systems running Mac OS X 10.2.6 or higher with Pro Tools 6.x installed, or it can be installed as a stand-alone driver on systems that do not have Pro Tools installed.

 For complete instructions on installing Pro Tools, see the Getting Started Guide for your Pro Tools system.

### 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 Pro Tools 6.x is correctly installed and operational.
- 4 On the Pro Tools Installer CD, locate and double-click the Install CoreAudio file.

– or –

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

- 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 Setup application is also installed on your hard drive in `/Applications/Digidesign`.

### To uninstall the Digidesign 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.

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## Configuring the Digidesign 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 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.

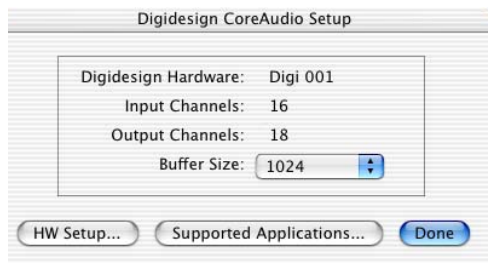


Figure 1. Digidesign CoreAudio Setup

Digidesign CoreAudio Setup cannot be accessed under the following circumstances:

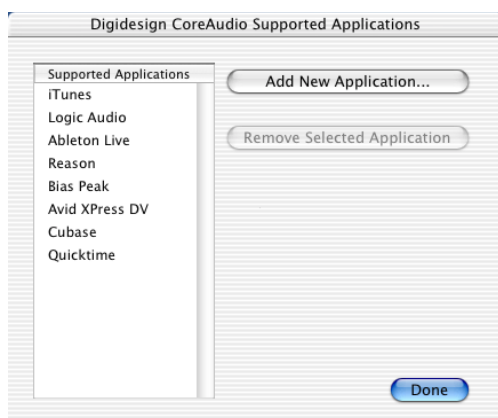
- When Pro Tools is running.
- When another CoreAudio-client application is using the Digidesign CoreAudio Driver.

### Supported Applications

The Digidesign CoreAudio Driver 6.1.1 provides the Supported Applications feature for CoreAudio-compatible applications. This lets you to 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 selected 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 to 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.

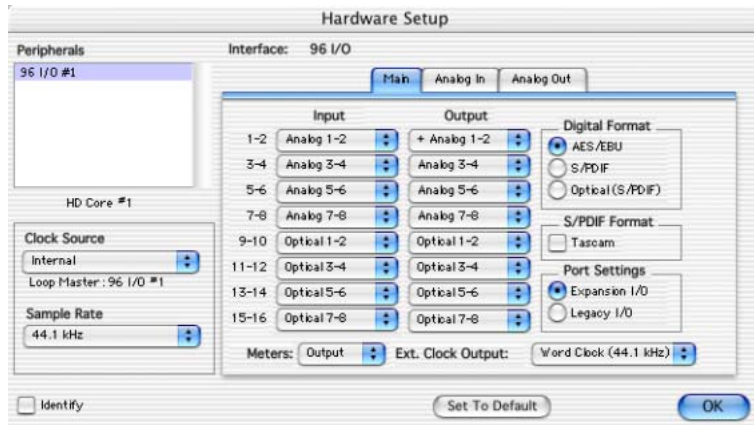



Figure 2. Hardware Setup dialog, 96 I/O

- 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 Pro Tools|HD or 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).

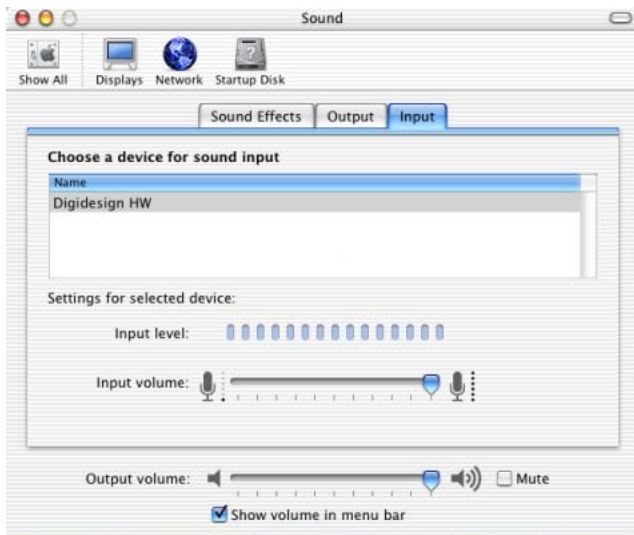
2 Click Sound.

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.



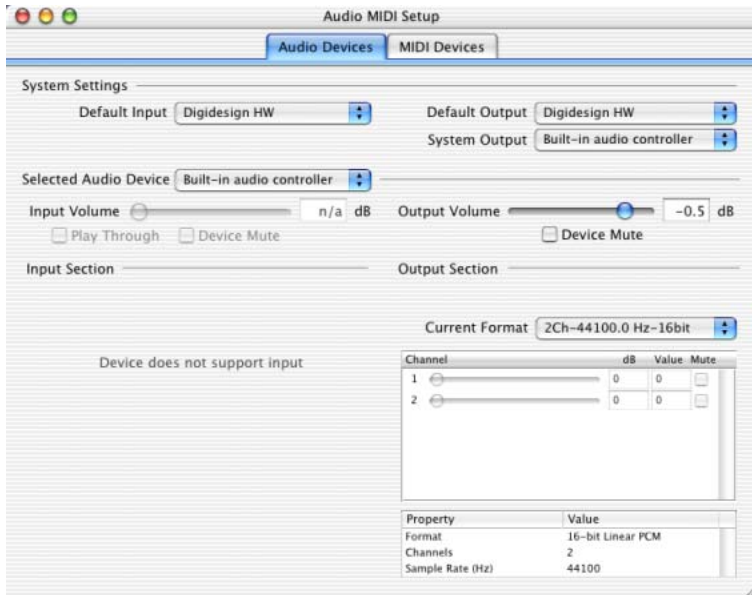
*Sound Preferences, Input tab*

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.