



Digidesign WaveDriver

Introduction

The Digidesign Mbox WaveDriver is a two-channel, multimedia sound driver that allows third-party audio applications to record and play back through channels 1–2 of your Digidesign audio hardware. The Digidesign WaveDriver is not required to use Pro Tools. This version of the Digidesign WaveDriver is intended for use with the Mbox only.

 Check the Digidesign Web site (www.digidesign.com) for the latest drivers for Pro Tools 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.

 *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 use a separate sound card for games or other general work. For third-party soft-synthesizer and samplers, use the Digidesign ASIO Driver (refer to the ASIO Driver Read Me).*

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


Digidesign WaveDriver and ASIO Driver cannot co-exist on the same system

WaveDriver should not be installed on systems which have the Digidesign ASIO Driver. To install WaveDriver on these systems, first remove the ASIO Driver, then install the WaveDriver (according to “Installation Instructions” on page 2).

If installing the ASIO Driver on a system which has the Digidesign WaveDriver, the ASIO Driver installer will remove WaveDriver functionality.

Disable system sounds before installing the WaveDriver

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

 *With the WaveDriver set for 0 dB, your Pro Tools hardware will output the system sounds at >100 dB!*

To disable system sounds:

- 1 Choose Start > Control Panel.
- 2 In Classic view, choose Sounds and Audio Devices, then click the Sounds tab.

– or –

In Category view, choose Sounds, Speech, and Audio Devices, then click on Change the sound scheme.

3 To disable all system sounds, under the Sound scheme pull-down menu, select No Sounds.

– or –

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

4 Click Apply, then OK.

5 Restart Windows.

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 3.

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 Digidesign Web site (www.digidesign.com), download the Mbox WaveDriver.zip file.

5 On your local drive, unzip the Mbox WaveDriver.zip file. This will place the “Mbox WaveDriver” folder on your desktop. This folder contains two files: Digi32.dll and Oemsetup.inf

6 Choose Start > Control Panel.

7 In Classic view, double-click Add Hardware.

– or –

In Category view, choose Printers and Other Hardware, then click on Add Hardware.

8 Click Next.

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

10 Scroll down and select “Add a new hardware device” and click Next.

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

12 Scroll down and select “Sound, video and game controllers” and click Next.

13 Click on Have Disk.

14 Click Browse, then navigate to the location of the WaveDriver folder (created when Mbox WaveDriver.zip was unzipped). Double-click on oemsetup.inf (the oemsetup file). Click OK.

15 In the Install From Disk window, click OK.

16 If the Software Installation dialog appears, click “Continue anyway.”

17 When the Add Hardware Wizard window appears, click Next. Click Next again for installing software.

18 From the Hardware Installation dialog, click “Continue anyway.” After a moment, the Digidesign WaveDriver Setting dialog will automatically open.

19 Click OK to close the WaveDriver Settings dialog.

20 Click Finish.

21 Restart Windows when prompted.

Removing the WaveDriver

To remove the WaveDriver:

- 1 Choose Start > Control Panel.
- 2 In Classic view, click the System icon.
– or –

In Category view, choose Printers and Other Hardware, then click on System.

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

How to Change WaveDriver Settings

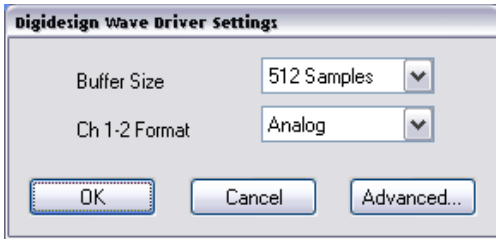
To change settings for the WaveDriver:

- 1 Choose Start > Control Panel.
- 2 In Classic view, click the System icon.
– or –

In Category view, choose Printers and Other Hardware, then click on System.

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

WaveDriver Settings Dialog



Digidesign WaveDriver Settings dialog

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

- ◆ When Pro Tools is running and the Operations > Active in Background option is enabled.
- ◆ When Pro Tools 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 packets of samples (buffers) and sends each of these packets to the WaveDriver. The WaveDriver copies the client applications buffers to your Pro Tools hardware’s own buffers in a double-buffering scheme. The Buffer Size control in this dialog allows you to set the size of each of the two buffers the WaveDriver uses on Pro Tools hardware. You may select from the following buffer sizes:

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

Small buffers have the advantage of low latency in the record monitor path. (Latency is the time delay between a signal entering the audio inputs and leaving the outputs during recording.) Larger buffers have the advantage of making the WaveDriver more immune to audio dropouts during playback and recording. In some third-party audio applications, performing various tasks such as maximizing or minimizing windows will interrupt the WaveDriver and result in clicks and pops 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 affect the H/W Buffer Size settings in the Playback Engine and Hardware Settings dialogs in Pro Tools.

Ch 1-2

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

I/O Setup Dialog

Click the Advanced button in the Digidesign WaveDriver Settings dialog to open the I/O Setup dialog.

Pro Tools Hardware Tab

Peripheral Type

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

Sample Rate

Available sample rates are 48,000 Hz and 44,100 Hz. You do not need to change the sample rate in this dialog before playing or recording a file with a new sample rate. If you are playing a file, it will automatically play back at the correct sample rate. If you are recording a new file, simply select the desired sample rate using the audio application's Preferences or Record Options dialog.

Clock Source

Clock Source may be set to Internal or S/PDIF (Internal is the default setting).

Known Issues

This section documents known issues you may encounter in using the WaveDriver, along with workarounds if they exist.

WaveDriver Ch 1-2 Setting Always Defaults to Analog

When using WaveDriver with a qualified third-party application, if you change the Ch 1-2 setting to S/PDIF, the next time you restart the computer the Ch 1-2 setting automatically resets to Analog.