

# Upgrading to Pro Tools 6.9

**Version 6.9 for HD or LE Systems on Windows or Macintosh**

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**digidesign**

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## chapter 1

# Introduction

This guide documents how to upgrade to Pro Tools 6.9 for Pro Tools LE and Pro Tools|HD systems on a Digidesign-qualified Windows or Macintosh computer.

 *Before installing this version of Pro Tools, please refer to the Read Me information included on the Pro Tools Installer CD-ROM.*

 *If you are configuring a new Pro Tools system, follow the complete hardware and software installation steps in the Getting Started Guide.*

---

## System Requirements

Pro Tools 6.9 can be used on a Pro Tools LE or Pro Tools|HD system on a Digidesign-qualified Windows or Macintosh computer system.

For complete system requirements, visit the compatibility page of the Digidesign Web site ([www.Digidesign.com/compato](http://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](http://www.digidesign.com/compato)).





## chapter 2

# Installing Pro Tools 6.9 on Windows

This chapter explains how to install and configure Pro Tools 6.9 for Pro Tools LE and Pro Tools|HD systems on a Digidesign-qualified Windows computer.

For complete system requirements and compatibility information, visit the Digidesign Web site ([www.Digidesign.com/compto](http://www.Digidesign.com/compto)).

**▲** *Before installing this version of Pro Tools, please refer to the Read Me information included on the Pro Tools Installer CD-ROM.*

---

## Windows System Settings

Configure your Window system settings, as follows:

**Required Settings** These instructions must be followed before installing Pro Tools.

**Recommended Configuration** These instructions should be followed to optimize your system's capabilities, or to let older computers run Pro Tools.

**▲** *If problems occur after configuring all required and suggested settings, see Appendix A, "Windows System Optimizations (Windows Only)" for information on troubleshooting and configuring advanced settings.*

## Required Settings

To ensure optimum performance with Pro Tools, configure the following Control Panel settings for your version of Windows XP.

### Disable Hyper-Threading

For Pentium IV computers with Hyper-Threading, disable Hyper-Threading in the BIOS.

Refer to your computer's documentation for steps on how to enter your computer's BIOS and disable Hyper-Threading.

### Enable DMA

Enabling your computer's DMA (Direct Memory Access) frees up CPU bandwidth so your computer can do other Pro Tools tasks.

In most cases the DMA option will already be set correctly, as Windows XP detects and activates DMA mode by default.

### Enable DMA for any IDE hard drives:

- 1 Choose Start > Control Panel.
- 2 Launch System.
- 3 Click the Hardware tab.
- 4 Under Device Manager, choose Device Manager.

5 In the Device Manager window, double-click IDE ATA/ATAPI controllers, then double-click the Primary IDE Channel for your IDE hard drive.

6 Click the Advanced Settings tab.

7 For each device, set the Transfer Mode to “DMA if available,” and click OK.

In most cases, this will already be set correctly as Windows XP will detect and activate DMA mode by default.

8 Repeat steps 5–7 for any additional IDE Channels.

9 Close the Computer Management window.

### **Disable Virus Protection Software**

Avoid running virus protection software while using Pro Tools, since it adversely affects system performance (as do all background processes). If you are using virus protection software, you must turn it off or remove it and restart your computer.

### **Disable System Standby and Power Management**

When using Pro Tools, the Windows System Standby power scheme must be set to Always On. This helps prevent long record or playback passes from stopping due to system resources powering down.

#### **To configure Windows Power Management:**

- 1 Choose Start > Control Panel.
- 2 Launch Power Options.
- 3 Click the Power Schemes tab.
- 4 From the Power Schemes pop-up menu, select Always On.

5 Click OK.

This sets System Standby, System Hibernate, and “Turn off hard disks” to Never.

### **Disable ClearType Font Smoothing**

When using Pro Tools, the Effects “Clear Type” setting must be disabled.

#### **To disable ClearType font smoothing:**

- 1 Choose Start > Control Panel.
- 2 Launch Display.
- 3 Click the Appearance tab.
- 4 Click Effects.
- 5 Deselect “Use the following methods to smooth edges of screen fonts.”
- 6 Click OK to save your settings and close the Effects dialog.
- 7 Click OK.

### **Disable Data Executive Prevention (DEP)**

#### **(Windows Service Pack 2 Only)**

When using Pro Tools, Data Execute Prevention should be disabled to prevent system crashes.

#### **To disable Data Executive Prevention: (DEP)**

- 1 Choose Start > Control Panel.
- 2 Launch System
- 3 Click the Advanced tab
- 4 From the Startup and Recovery section, click Settings.
- 5 Click on the down arrow in the Default Operating System pop-up menu, and note if the “/NoExecute=” line reads as follows:  
`/NoExecute=Alwaysoff`

6 Do one of the following:

- If the “/NoExecute=” reads “/NoExecute=Alwaysoff,” data prevention is disabled, and you do not need to change any settings. Click OK to close the Startup and Recovery dialog, click OK to close the Systems Property dialog, and continue with “Completing Windows System Settings” on page 5

– or –

- If the “/No Execute=” does not read “/NoExecute=Alwaysoff” (for example, it reads “NoExecuteOptIn”), continue with the following steps.

7 Click Edit to edit the startup options file manually

8 Change the “/NoExecute=” line to read as follows:

```
/NoExecute=Alwaysoff
```


9 Save the boot.ini file if it was changed.

10 Choose File > Exit.

11 From the Startup and Recovery dialog, click OK.

12 From the System Properties dialog, click OK.


## Completing Windows System Settings

 *When finished updating required Windows system settings, power down your computer.*

## Recommended Configuration

Pro Tools can be affected by other software and hardware drivers installed on your computer. For best possible performance, it is recommended (but not required) that you:

- Avoid running other Windows programs at the same time as Pro Tools.
- Turn off any software utilities that run in the background, such as Windows Messenger, calendars, and disk maintenance programs.
- Turn off any nonessential USB devices while using Pro Tools.
- If your video display card supports it, enable Bus Mastering in the manufacturer’s Control Panel.
- Disable any networking cards (other than any 1394 “FireWire” card that you might use to connect an external drive to your system). If you have a wireless network card, and no wireless network is present, the card should still be disabled.

 *For information on disabling network cards, see “Disabling Network Cards” on page 17.*

---

## Installing Pro Tools LE

**(Digi 002, Digi 002 Rack, and Mbox Only)**

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

1 Make sure you have configured all the required Windows system settings, and rebooted your computer. See “Windows System Settings” on page 3 for more information.


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 Insert the Pro Tools Installer CD-ROM for Windows in your CD-ROM drive. Locate and open the Pro Tools Installer folder, and double-click the Setup icon.

4 When the installer opens, click Next to proceed.

5 Select available install options as needed:

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

 *If you get a warning dialog about the driver not passing Windows Logo testing, click Continue Anyway.*

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

8 Click Quit when prompted to install QuickTime. If required, you can install QuickTime later (see "Installing QuickTime" on page 6).

9 Restart your computer.

If you plan to use any MIDI devices with Pro Tools, configure your MIDI setup with MIDI Studio Setup. See Appendix E, "Configuring Midi Studio Setup (Windows Only)" for details.

## Installing QuickTime

### (Optional)

QuickTime 6.5 or later is required for Pro Tools LE if you plan to include movie files in your sessions. QuickTime is available as a free download from the Apple Web site ([www.apple.com](http://www.apple.com)).

---

## Installing Pro Tools TDM Software

### (Pro Tools|HD-Series Systems Only)

#### To install Pro Tools TDM on Windows XP:

1 Start Windows, logging in with Administrator privileges. For details on Administrator privileges, refer to your Windows documentation.

2 Make sure you have configured all the required Windows system settings for your system, and rebooted your computer. See "Windows System Settings" on page 3 for more information.

3 Wait for the Found New Hardware Wizard dialog to appear and leave it open.

4 Insert the Pro Tools Installer CD-ROM for Windows in your CD-ROM drive. Locate and open the Pro Tools Installer folder, and double-click the Setup icon.

5 Click Next to begin installation.

6 Select the install location. For maximum reliability, install Pro Tools on your startup drive. Click Next.

7 Select available install options as needed.

8 Click Next to install the selected options.

9 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.*

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

- Select “Yes – Monitor in Pro Tools Film Format” if your monitoring is configured for Film Format surround.
- Select “Yes – Monitor 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 in Pro Tools. See the Pro Tools Reference Guide for installation information.*

**▲** *AFL/PFL Solo modes require the Surround mixer plug-in. See the Pro Tools Reference Guide for more information.*

**11** After making a selection, click Next.

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

**12** Click Quit when prompted to install QuickTime. If required, you can install QuickTime later (see “Installing QuickTime” on page 7).

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

## **MIDI Studio Setup**

### **(Optional)**

If you plan to use any MIDI devices with Pro Tools, configure your MIDI setup with MIDI Studio Setup. See Appendix E, “Configuring Midi Studio Setup (Windows Only)” for details.

## **Installing QuickTime**

### **(Optional)**

QuickTime 6.5 or later is required for Pro Tools if you plan to include movie files in your sessions. QuickTime is available as a free download from the Apple Web site ([www.apple.com](http://www.apple.com)).

---

## **Optional Software on the Pro Tools Installer CD-ROM**

Your Pro Tools Installer CD-ROM includes several software options.

### **Digidesign ASIO Driver**

The Digidesign ASIO (Audio Sound Input Output) Driver is a single-client multichannel sound driver that allows third-party audio programs that support the ASIO standard to record and play back through Digidesign hardware.

Digidesign ASIO Driver is automatically installed when you install Pro Tools.




*For detailed information on configuring the Digidesign ASIO Driver, see Appendix B, “Digidesign ASIO Driver (Windows Only).”*

### **Digidesign WaveDriver**

The Digidesign WaveDriver is a single-client, multichannel sound driver that allows third-party audio programs that support the WaveDriver MME (Multimedia Extensions) standard to play back through Digidesign hardware.

Digidesign WaveDriver is automatically installed when you install Pro Tools.

 For detailed information on configuring the Digidesign WaveDriver, see Appendix C, “Digidesign WaveDriver (Windows Only).”

## Pro Tools Demo Session

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

### To install the demo sessions:

- 1 Insert the Pro Tools Installer CD in your CD-ROM drive.
- 2 From your CD-ROM drive, choose Additional Files\Pro Tools Demo Session Installer.
- 3 Double-click Setup.exe.
- 4 Set the install location to your audio drive and click Install.
- 5 When installation is complete, click OK.


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## Checking Your Pro Tools System

### (Pro Tools|HD-Series Systems Only)

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 FlexCable connections.

 After running DigiTest, be sure to restart your computer.

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

---

## Launching Pro Tools

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

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

---

## Configuring Pro Tools

You can adjust the performance of your system by changing certain Pro Tools *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.

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

**Pro Tools TDM** 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 Windows XP

If you need to remove Pro Tools from your computer, use the Add or Remove Programs command.

### To remove Pro Tools from your computer:

- 1 Choose Start > Control Panel.
- 2 Launch Add or Remove Programs.
- 3 From the Currently Installed Programs list, select Digidesign Pro Tools LE, or Digidesign Pro Tools TDM, as appropriate.
- 4 Click the Change/Remove button.
- 5 Follow the on-screen instructions to remove Pro Tools.





## chapter 3

# Installing Pro Tools 6.9 on Macintosh

This chapter explains how to install and configure Pro Tools 6.9 for Pro Tools LE and Pro Tools|HD systems on a Digidesign-qualified Macintosh computer.

For complete system requirements and compatibility information, visit the Digidesign Web site ([www.digidesign.com/compto](http://www.digidesign.com/compto)).

**▲** *Before installing this version of Pro Tools, please refer to the Read Me information included on the Pro Tools Installer CD-ROM.*

---

## 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](http://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.

---

## Installing Pro Tools LE Software

(Digi 002, Digi 002 Rack, and Mbox Only)

### To install Pro Tools LE 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 LE 6.9 Installer CD-ROM in your CD-ROM drive. Double-click “Install Pro Tools LE.”
  - or –
  - If you downloaded the Pro Tools 6.9 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 Follow the on-screen instructions to continue and accept installation.
- 5 In the Installer window, make sure the Install Location is on your Start-up hard drive.
- 6 In the Installer window, choose Custom Install from the pop-up menu.
- 7 Click Install.
- 8 Follow the remaining on-screen instructions to install Pro Tools.
- 9 When installation is complete, click Restart.

## Audio MIDI Setup (AMS)

(Optional)

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 F, “Configuring AMS (Mac OS X Only)” for details.

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## Installing Pro Tools TDM Software

(Pro Tools|HD-Series Only)

### 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 6.9 Installer CD-ROM in your CD-ROM drive. Double-click “Install Pro Tools.”
  - or –
- If you downloaded the Pro Tools 6.9 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 Follow the on-screen instructions to continue and accept installation.
- 5 In the Installer window, make sure the Install Location is on your Start-up hard drive.
- 6 In the Installer window, choose Custom Install from the pop-up menu.
- 7 Click Install.


8 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.*

9 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.*

 *AFL/PFL Solo modes require the Surround mixer plug-in. See the Pro Tools Reference Guide for more information.*

10 Click Continue.

11 When installation is complete, click Restart.

## Audio MIDI Setup (AMS)

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 F, “Configuring AMS (Mac OS X Only)” for details.

---


## Optional Software on the Pro Tools Installer CD-ROM

Your Pro Tools Installer CD-ROM includes several software options.

### Digidesign CoreAudio Driver


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

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

 *For detailed information on configuring the Digidesign CoreAudio Driver, see Appendix D, “Digidesign CoreAudio Driver (Macintosh Only).”*

### Stand-Alone CoreAudio Driver Installer

This version of Digidesign CoreAudio Driver can be installed on Digidesign-qualified Pro Tools systems running on Macintosh (for example, if the CoreAudio Driver was uninstalled), or it can be installed as a stand-alone driver on Macintosh systems that do not have Pro Tools installed.

 *For detailed information on installing and configuring CoreAudio Driver on systems with or without Pro Tools, see the electronic pdf of the CoreAudio Usage Guide.*

## Pro Tools 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

### (Pro Tools|HD-Series Systems Only)

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 FlexCable connections.

 *After running DigiTest, be sure to restart your computer.*

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

---

## Launching Pro Tools

When launching Pro Tools 6.9 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.

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

---

## 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.

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

**Pro Tools TDM** 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 6.9 Installer CD-ROM in your CD-ROM drive. Double-click “Install Pro Tools LE” or “Install Pro Tools TDM,” as appropriate.
- 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 on-screen instructions to remove Pro Tools.
- 6** When finished, click Quit to close the Installer window.



## appendix a

# Windows System Optimizations (Windows Only)

When installing Pro Tools on Windows XP, there are many system variables that affect performance. If you have followed all the Windows configuration instructions in Chapter 2, “Installing Pro Tools 6.9 on Windows” and are still experiencing problems, try the following troubleshooting suggestions.

 *Norton Ghost is highly recommended, as it lets you save your system in a working state and easily revert to that state should you accidentally disable anything that your computer needs.*

*For more information on Ghost, visit the Symantec Web site ([www.symantec.com](http://www.symantec.com))*

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## Troubleshooting

### Blue Screen at Startup

If, after installing Pro Tools and QuickTime, your computer crashes with a blue screen, do the following:

- Use Add/Remove Programs to uninstall Pro Tools.
- Use Add/Remove Programs to uninstall QuickTime.

- Repeat the installation instructions in Chapter 2, “Installing Pro Tools 6.9 on Windows.”

---

## Advanced Settings

The following system optimizations may help Pro Tools perform better on some systems. It is recommended that you only try these optimizations if necessary, as they may disable or adversely affect the functionality of other programs on your system.

### Disabling Network Cards

If applicable, disable any networking cards (other than a 1394 “FireWire” card that you might use to connect an external drive to your system).

#### To disable a network card:

- 1 Right-click My Computer and choose Manage.
- 2 Under System Tools, select Device Manager.
- 3 In the Device Manager window, double-click Network adapters, then double-click the Network Adapter card you want to disable.

4 Under the General tab, choose “Do not use this device (disable)” from the Device Usage pop-up menu, and click OK.

5 Close the Computer Management window.

### Processor Scheduling

#### To Adjust Processor Scheduling Performance:

1 Choose Start > Control Panel.

2 Launch System.

3 Click the Advanced tab.

4 Under the Performance section, click the Settings button.

5 Select the Advanced tab.

6 Under the Processor scheduling section, select the “Adjust for best performance of background services” option.

7 Under the Memory Usage section, select the System cache option.

8 Click OK twice. You will need to restart your computer for the changes to take effect.

### Startup Items

The fewer items in use by your computer, the more resources are available for Pro Tools. Some startup applications may be consuming unnecessary CPU resources, and should be turned off.

If you disable any of the following startup items, do so carefully:

- Portable media serial number (required for applications that utilize a copy protection key)
- Plug and play
- Event log
- Cryptographic services
- DHCP Client, TCP/IP Net BIOS, and other networking-related items (unless the computer has no network or internet connection, in which case these items can be disabled)



*Norton Ghost is highly recommended, as it lets you save your system in a working state and easily revert to that state should you accidentally disable anything that your computer needs.*

*For more information on Ghost, visit the Symantec Web site ([www.symantec.com](http://www.symantec.com))*

#### To Disable System Startup Items:

1 From the Start menu, choose Run.

2 Type “msconfig” and click OK. the System Configuration Utility opens.

3 Under the General tab, choose Selective Startup.

4 Deselect Load Startup Items and click OK.

5 Click Restart to restart the computer.

6 After restarting your computer, a System Configuration message dialog is displayed. Check to see if Pro Tools performance has increased before you deselect the “don't show this message again” option. If performance has not changed, run “msconfig” and return your computer Selective Startup back to Normal Startup. Alternatively, try disabling start up items and non-essential processes individually.



# Digidesign ASIO Driver (Windows Only)

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## Introduction

The Digidesign ASIO Driver is a single-client multichannel sound driver that allows third-party audio programs that support the ASIO standard to record and play back through the following Digidesign audio interfaces:


- Pro Tools|HD audio interfaces
- Digi 002
- Digi 002 Rack
- Mbox

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

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

- Up to 8 channels of input and output with Pro Tools|HD systems
- 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

**A** *The ASIO Driver is not multi-client. Only one application at a time can use the ASIO Driver. Be sure to disable the Windows system sounds. It is also recommended that you use a separate sound card for games or other general work.*

 *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.*

---

## Compatible Software

This version of Digidesign ASIO Driver can be used on Digidesign-qualified Pro Tools systems running on Windows XP.

For a list of ASIO Driver-compatible software, see the compatibility page of the Digidesign Web site ([www.digidesign.com/compato](http://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 ASIO-compatible programs, refer to the compatibility page of the Digidesign Web site ([www.digidesign.com/compato](http://www.digidesign.com/compato)).

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## Installing the ASIO Driver

Digidesign ASIO Driver is automatically installed when you install Pro Tools.

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## Removing the ASIO Driver

If you need to remove the ASIO Driver from your computer, complete the following steps.

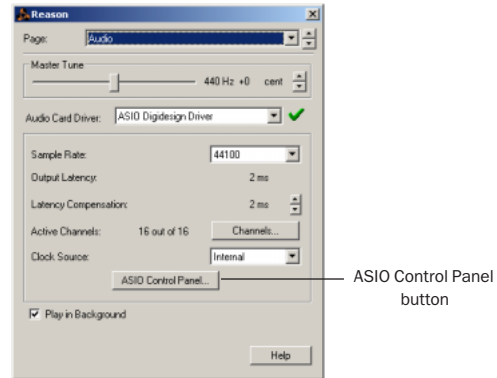
### To remove the ASIO Driver:

- 1 Click Start.
- 2 Click Control Panel.
- 3 Double-click Add or Remove Programs.
- 4 From the Currently installed programs list, select Digidesign Pro Tools.
- 5 Click the Change/Remove button.
- 6 Choose the Modify button.
- 7 Click Next.
- 8 Uncheck the ASIO Driver box.
- 9 Click Next.
- 10 When removal is complete, close the Add or Remove Programs window.

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## Configuring ASIO Driver Settings

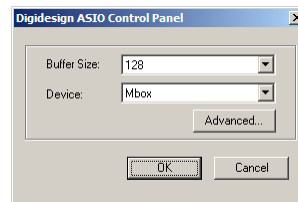
Configuring ASIO Driver settings is done in your third party ASIO program. See your program's documentation. For example, with Propellerhead Reason, click on the ASIO Control Panel.



*Setup Example, using Propellerhead Reason*

## ASIO Driver Control Panel

From the ASIO Driver Control Panel, you can configure the ASIO Driver for your Pro Tools system.



*Digidesign ASIO Control Panel*

The Digidesign ASIO Driver Control Panel cannot be accessed under the following circumstances:

- When Pro Tools is running.
- When playing or recording in an audio program that does not support the ASIO Driver.
- When using a third-party audio program that has an option to keep the ASIO Driver “open” even when you are not playing or recording. (You must close the audio program before you can open the ASIO Driver Control Panel.)

### **Buffer Size Control**

When you play a file from a client audio program, the client program divides the file into little chunks (buffers) and sends each of these to the ASIO Driver. The ASIO Driver copies the client program’s buffers to your Digidesign hardware’s own 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 ASIO 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 ASIO Driver more immune to audio dropouts during playback and recording.

In some ASIO-compatible audio programs, performing various tasks will interrupt the ASIO 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 ASIO Driver does not affect the H/W Buffer Size settings in the Pro Tools Playback Engine dialog.

### **Device**

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

### **Advanced Button**

The Advanced button opens the Hardware Setup dialog for the Digidesign hardware that you are using.



# Digidesign WaveDriver (Windows Only)

---


## Introduction

The Digidesign WaveDriver is a single-client, multichannel sound driver that allows third-party audio programs that support the WaveDriver MME (Multimedia Extensions) standard to play back through the following Digidesign audio interfaces:

- Pro Tools|HD audio interfaces
- Digi 002
- Digi 002 Rack
- Mbox

Playback of 24- and 16-bit audio are supported at sample rates of up to 48 kHz, as supported by the hardware and WaveDriver program used.

The Digidesign WaveDriver will provide 2 channels of output.

 *The 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 recommended 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 Usage Guide).*

 *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.*

---

## Compatibility

This version of Digidesign WaveDriver can be used on Digidesign-qualified Pro Tools systems running on Windows XP.

## Compatible Software

For a list of WaveDriver-compatible software, see the compatibility page of the Digidesign Web site ([www.digidesign.com/compto](http://www.digidesign.com/compto)).

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 WaveDriver-compatible programs, see the compatibility page of the Digidesign Web site ([www.digidesign.com/compto](http://www.digidesign.com/compto)).

---

## Installing the WaveDriver

Digidesign WaveDriver is automatically installed when you install Pro Tools.

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## Removing the WaveDriver

If you need to remove the WaveDriver from your computer, complete the following steps.

- 1 Click Start.
- 2 Click Control Panel.
- 3 Double-click Add or Remove Programs.
- 4 From the Currently installed programs list, select Digidesign Pro Tools.
- 5 Click the Change/Remove button.
- 6 Choose the Modify button.
- 7 Click Next.
- 8 Uncheck the WaveDriver box.
- 9 Click Next.
- 10 When removal is complete, close the Add or Remove Programs window.


---

## Configuring WaveDriver for QuickTime Player (Required for Using iTunes)

In order to let Digidesign hardware play back through iTunes for Windows, you must configure WaveDriver in the waveOut option of the QuickTime Player SoundOut settings to waveOut.

**To configure WaveDriver as the iTunes default device:**

- 1 Close all WaveDriver third-party applications (including iTunes).
- 2 Choose Start > Programs > QuickTime > QuickTime Player.
- 3 In QuickTime Player, choose Edit > Preferences > QuickTime Preferences.
- 4 From the pop-up menu, choose Sound Out.
- 5 From the Choose a device for playback pop-up menu, select the waveOut option (and the name of your Digidesign device, if any).
- 6 Close QuickTime Player.
- 7 Re-launch iTunes.

 You may also need to add iTunes to the WaveDriver Opt-In list. See “Adding Third Party Applications to the WaveDriver Opt-In List” on page 26.


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## **Configuring WaveDriver for Windows Media Player and Other Third-Party WaveDriver Programs**

WaveDriver is configured in the Sounds and Audio Devices Control Panel (for programs that use the Windows Sound Playback Default Device, such as Windows Media Player), or as a preference for third-party WaveDriver programs.


**To configure WaveDriver as the Windows Sound Playback Default Device (for example, for Windows Media Player):**

- 1 Open the Sounds and Audio Devices Control Panel.
- 2 Click the Audio tab.
- 3 Select the Digidesign audio interface in the Sound Playback default device lists.
- 4 Close the Control Panel. When you run Windows Media Player, it automatically output to your Digidesign hardware.

 You may also need to add your third party WaveDriver program to the WaveDriver Opt-In list. See “Adding Third Party Applications to the WaveDriver Opt-In List” on page 26.

**To configure WaveDriver for a third party WaveDriver application:**

■ In the third-party program, select the Digidesign audio interface as the preference for your playback hardware. Refer to your program's documentation.


 *You may also need to add your third party WaveDriver program to the WaveDriver Opt-In list. See "Adding Third Party Applications to the WaveDriver Opt-In List" on page 26.*

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## **Adding Third Party Applications to the WaveDriver Opt-In List**

The Digidesign WaveDriver uses an Opt-In list to control third party application access to the Digidesign hardware. Some third party audio applications may not work with the WaveDriver unless they are included in this Opt-In list.

For the latest instructions for adding and removing applications to the WaveDriver Opt-In list, refer to the Digidesign Web site (<http://answerbase.digidesign.com/detail.cfm?DID=27424>).

 *Modifying the Digidesign WaveDriver Opt-In list requires editing the Windows System Registry. Because editing the Windows Registry is dangerous, and can result in problems if not done correctly, make sure to carefully follow the instructions for adding and removing applications.*



# Digidesign CoreAudio Driver (Macintosh Only)

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## Introduction


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

- Pro Tools|HD audio interfaces
- Digi 002
- Digi 002 Rack
- Mbox

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 hardware:

- Up to 8 channels of input and output with Pro Tools|HD systems
- 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

 *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.*

---

## What are the Limitations of the Digidesign CoreAudio Driver?

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

---

## Compatibility

This version of Digidesign CoreAudio Driver can be used on Digidesign-qualified Pro Tools systems running on Macintosh, or it can be used as a stand-alone driver on Digidesign-qualified Macintosh systems that do not have Pro Tools installed.

## Compatible Software

For a list of CoreAudio Driver-compatible software, refer to the Digidesign Web site ([www.digidesign.com/compato](http://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 compatibility page of the Digidesign Web site ([www.digidesign.com/compato](http://www.digidesign.com/compato)).


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## Installing the Digidesign CoreAudio Driver

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

### Stand-Alone CoreAudio Driver Installer

This version of Digidesign CoreAudio Driver can be installed on Digidesign-qualified Pro Tools systems running on Macintosh (for example, if the CoreAudio Driver was uninstalled), or it can be installed as a stand-alone driver on Macintosh systems that do not have Pro Tools installed.

 For detailed information on installing and configuring CoreAudio Driver on systems with or without Pro Tools, see the electronic pdf of the CoreAudio Usage Guide.

---

## Removing the CoreAudio Driver

### To uninstall the Digidesign CoreAudio Driver:

- 1 Power on your system.
- 2 From the Digidesign Web site, download, locate, 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 CoreAudio Driver

You can configure the Digidesign 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 CoreAudio 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.

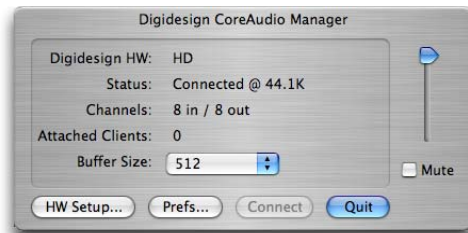


Figure 1. Digidesign CoreAudio Manager

## 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.

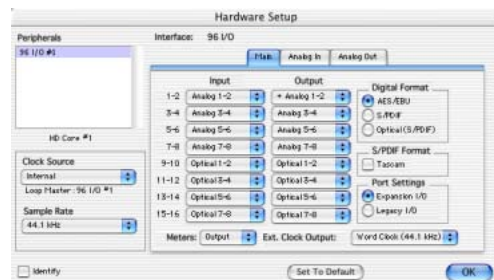



Figure 2. Hardware Setup dialog, 96 I/O

**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 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.

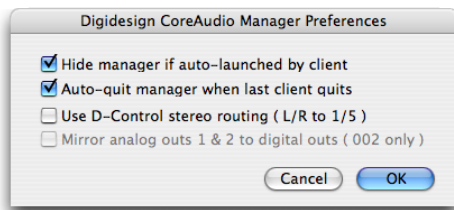


Figure 3. Digidesign CoreAudio Manager

**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.



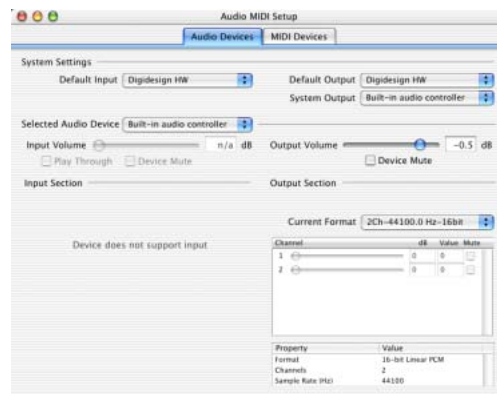
Sound Preferences, Input tab

- 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.

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





## appendix e


# Configuring Midi Studio Setup (Windows Only)

## MIDI Studio Setup

MIDI Studio Setup (MSS) lets you configure the MIDI controllers and sound modules that are connected to your system, and control the routing of MIDI data between your MIDI equipment and Pro Tools.

MSS automatically finds MIDI interfaces, and lets you specify a custom name for each of the MIDI ports within the MIDI Studio Setup document.

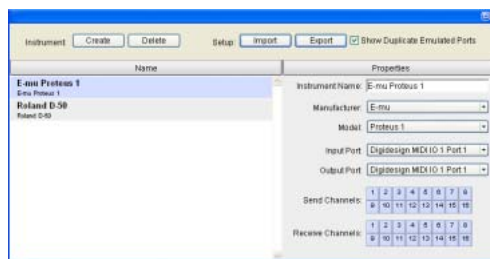
MSS also supports XML-based patch file names for storing and importing patch names for your external MIDI devices.

 *Internal MIDI ports, such as the Microsoft MIDI Mapper and built-in wavetable synthesizers are filtered from the list of available MIDI output ports. They are, however, accessible directly from a MIDI track's output popup.*

Entire MIDI Studio Setup configurations created within MSS can be imported and exported.

## MIDI Studio Setup Window

The MIDI Studio Setup window is organized into three sections. Interface controls are at the top of the window. All the currently defined instruments are displayed in the Instrument Name list on the left side of the window. A detailed view of MIDI parameters is shown in the Properties section on the right.



MIDI Studio Setup window

## Interface Controls

**Create** This button adds a new instrument to the Instrument Name list.

**Delete** This button deletes the instrument or instruments selected in the Instrument Name list.

**Import** This button lets you import an existing MIDI Studio Setup file.

**Export** This button lets you export the current MIDI Studio Setup file.

**Show Duplicate Emulated Ports** If you are using a MIDI interface that supports timestamping (such as MIDI I/O), when the Show Duplicate Emulated Outputs option is selected, the MIDI Studio Setup window shows both the Direct-Music time-stamped output ports, and non-stamped duplicate emulated output ports.

**⚠** *Some MIDI Interfaces will not properly load or unload their drivers unless you quit and re-launch Pro Tools. Check the documentation that came with your MIDI interface for more information.*

## Instrument List

The Instrument list contains all the currently defined instruments. Selecting an instrument in the list displays that instrument's properties in the Properties section of the window.

## Properties Section

The Properties section lets you edit information for new instruments, or instrument currently selected in the Instrument list.

**MIDI Studio Setup Properties section**

When a previously defined instrument is selected in the Instrument list, the Properties section changes to reflect the properties of the selected instrument.

## To define an instrument with MIDI Studio Setup:

- 1 Choose Setups > MIDI Studio Setup.
- 2 Click Create.
- 3 In the Instrument Name field, type the name of your instrument, and press enter.

**💡** *If you do not enter an instrument name, the Instrument Name field will automatically inherit information from the Manufacturer and Model pop-up menu.*

4 Set 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, choose None.

5 From the Input pop-up menu, choose the input port on your MIDI interface that is connected to the MIDI Out of your instrument.

6 From the Output pop-up menu, choose the output port on your MIDI interface that is connected to the MIDI In of your instrument.

7 Enable the appropriate MIDI channels (1–16) for the Send Channels and Receive Channels options (These determine which channels send and receive MIDI.)

## Instrument Name

The Instrument Name field shows the user-definable instrument name for the currently selected instrument.


## Manufacturer

The Manufacturer pop-up menu provides a list of MIDI equipment manufacturers. This list is derived from the XML-based MIDI device files provided with your Pro Tools installation.

**📖** *For more information, see “Patch Name Support” on page 37.*


## Model

The Model pop-up menu provides a list of MIDI devices, filtered by the manufacturer name. This list is derived from the XML-based MIDI device files provided with your Pro Tools installation.

 For more information, see “Patch Name Support” on page 37.


## Input Port

The Input Port pop-up menu displays a list of available MIDI interface input ports. The MIDI interface port that is set and displayed here is the port through which MIDI data is sent from the external MIDI device specified in the Instrument Name field into your MIDI interface.

 If you set the input port to None, the defined instrument will not appear as a choice in a MIDI Input Selector.

## Output Port

The Output Port pop-up menu displays a list of available MIDI interface output ports. The port set and displayed here is the port through which MIDI data is sent from your MIDI interface to the MIDI device specified in the Instrument Name field.

 If you set the output port to None, the defined instrument will not appear as a choice in a MIDI Device/Channel Selector.

## Send Channels

The Send Channels grid sets the send channels for the MIDI device specified in the Instrument Name field.

## Receive Channels

The Receive Channels grid sets the receive channels for the MIDI device specified in the Instrument Name field.

## Patch Name Support

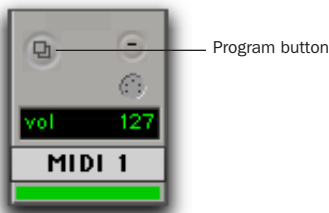
Pro Tools supports XML (Extensible Markup Language) for storing and importing patch names for your external MIDI devices. Pro Tools installs MIDI patch name files (.midnam) for the factory default patch names of many common MIDI devices. These files reside in directories, sorted by manufacturer, in Program Files\Common Files\Digidesign\MIDI Patch Names\Digidesign.

### To import MIDI patch names into Pro Tools:

- 1 Verify the MIDI Device name in the MIDI Studio Setup window (Setups > MIDI Studio Setup).
- 2 Verify the MIDI track’s output is correctly assigned to the MIDI device.
- 3 Click the MIDI track’s Program button.

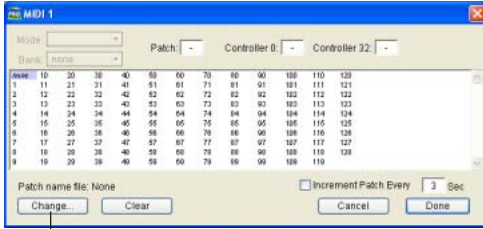


Program button, Edit window



Program button, Mix window

4 In the Patch Select dialog, click the Change button.



Change button

### Patch Select dialog

5 In the Open dialog, navigate to Program Files\Common Files\Digidesign\MIDI Patch Names\Digidesign\

6 Click Open.

The Patch Select dialog is populated with patch names and the Patch Name Bank pop-up menu appears in the upper left hand corner of the window.



### Patch Select dialog with patch names

Once patch names have been imported into Pro Tools, they are available for that MIDI device in all sessions.

### To clear patch names:

■ In the Patch Select dialog, click the Clear button, and click Done.

💡 MIDI patch name files (.midnam) can be edited in any text editor, or you can use third party patch librarian and editor software to create your own custom patch names.

## appendix f

# 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.

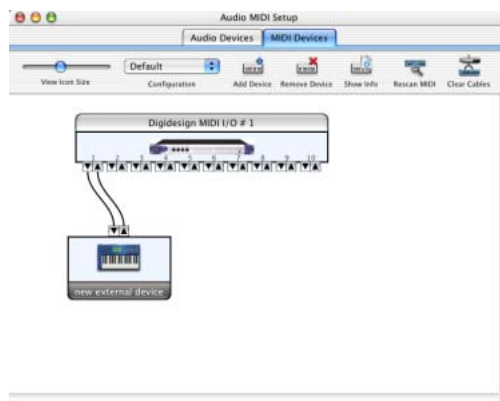


Audio MIDI Setup (MIDI Devices tab)

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

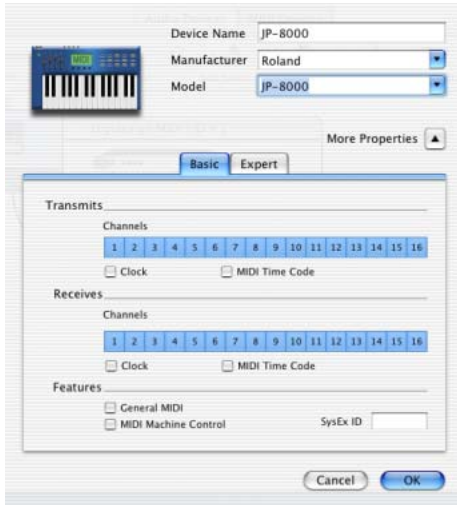
2 Select a manufacturer and model for the new device from the corresponding pop-up menus. (If the **Manufacturer** and **Model** pop-up menus do not provide a name for your particular device, you can type a name.)



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.