

Upgrading to Pro Tools 6.0

Version 6.0 for TDM and LE Systems on Macintosh

Digidesign

2001 Junipero Serra Boulevard
Daly City, CA 94014-3886 USA
tel: 650-731-6300
fax: 650-731-6399

Technical Support (USA)

tel: 650-731-6100
fax: 650-731-6384

Product Information (USA)

tel: 650-731-6102
tel: 800-333-2137

International Offices

Visit the Digidesign Web site
for contact information

Web Site

www.digidesign.com



digidesign

Copyright

This guide is copyrighted ©2002 by Digidesign, a division of Avid Technology, Inc. (hereafter "Digidesign"), with all rights reserved. Under copyright laws, this guide may not be duplicated in whole or in part without the written consent of Digidesign.

DIGIDESIGN, AVID and PRO TOOLS are trademarks or registered trademarks of Digidesign and/or Avid Technology, Inc. All other trademarks are the property of their respective owners.

All features and specifications subject to change without notice.

PN 932011127-00 REV A 12/02

contents

Chapter 1. Installing Pro Tools LE 6.0	1
Apple System Settings for Mac OS X	1
Installing Pro Tools LE	2
Installing the Demo Session	3
Launching Pro Tools LE	3
Configuring Pro Tools LE System Settings	3
Chapter 2. Installing Pro Tools TDM 6.0	5
Apple System Settings for Mac OS X	5
Installing Pro Tools	6
Installing the Demo Session	7
Launching Pro Tools	7
Configuring Pro Tools TDM System Settings	7
Chapter 3. Configuring AMS	11

chapter 1

Installing Pro Tools LE 6.0

This chapter explains how to install and configure Pro Tools LE 6.0 software on supported Apple Macintosh computers.

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

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 LE 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 LE. 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 LE

To install Pro Tools LE 6.0 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 6.0 Installer CD-ROM in your CD-ROM drive. Double-click “Install Pro Tools LE.”
- 3** Enter your Administrator password and click OK to authenticate the installation.
- 4** In the installer window, select the version of Pro Tools LE for your system.
- 5** Make sure the Install Location is on your Startup hard drive.
- 6** Click Install.
- 7** When installation is complete, click Restart.
– or –

Click Continue to install any additional software or documentation, and restart your computer when you are finished.

If you plan to use any MIDI devices with Pro Tools, configure your MIDI setup with the Apple Audio MIDI Setup (AMS) utility. See Chapter 3, “Configuring AMS” for details.

Removing Pro Tools LE on Mac OS X

If you need to remove Pro Tools LE 6.0 from your computer, you can use the Installer CD-ROM.

To remove Pro Tools LE 6.0 from your computer:

- 1** Make sure you are logged in as an Administrator for the account where Pro Tools LE is installed. For details on Administrator privileges in Mac OS X, refer to your Apple OS X documentation.
- 2** Insert the Pro Tools LE 6.0 Installer CD-ROM in your CD-ROM drive. Double-click “Install Pro Tools LE.”
- 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** Click Quit to close the Installer window.

Installing the Demo Session

(Optional)

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

Launching Pro Tools LE

When launching Pro Tools LE 6.0 the first time, you are prompted to enter an authorization code to validate your software.

To validate Pro Tools LE software:

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

The authorization code is located on the inside cover of the *What's New in Pro Tools 6.0* guide that came with your upgrade.

Configuring Pro Tools LE System Settings


Pro Tools LE 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.

Hardware Buffer Size

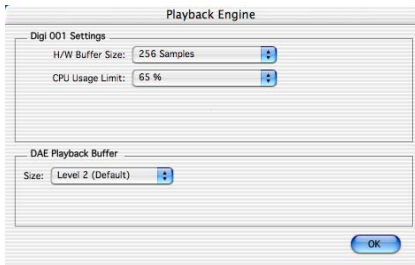
The Hardware Buffer Size (H/W Buffer Size) controls the size of the hardware cache used to handle host processing tasks such as Real-Time AudioSuite (RTAS) plug-ins.

- ◆ Lower Hardware Buffer Size settings reduce monitoring latency, and are useful when you are recording live input.
- ◆ Higher Hardware Buffer Size settings allow for more audio processing and effects, and are useful when you are mixing and using more RTAS plug-ins.

 *In addition to causing slower screen response and monitoring latency, higher Hardware Buffer Size settings can affect the accuracy of plug-in automation, mute data, and timing for MIDI tracks.*

To change the Hardware Buffer Size:

- 1 Choose Setups > Playback Engine.
- 2 From the H/W Buffer Size pop-up menu, select the audio buffer size, in samples.



Playback Engine dialog for Digi 001

- 3 Click OK.

CPU Usage Limit

The CPU Usage Limit controls the percentage of CPU resources allocated to Pro Tools host processing tasks.

- ◆ With Pro Tools 5.x, the maximum CPU Usage Limit is 85 percent.
- ◆ With Pro Tools 6.0, the maximum CPU Usage Limit is 85 percent for single-processor computers, and 99 percent for multi-processor computers. (The 99 percent setting dedicates one entire processor to Pro Tools.)

To change the CPU Usage Limit:

- 1 Choose Setups > Playback Engine.
- 2 From the CPU Usage Limit pop-up menu, select the percentage of CPU processing you want to allocate to Pro Tools.

- 3 Click OK.

◆ Lower CPU Usage Limit settings limit the effect of Pro Tools processing on other CPU-intensive tasks, such as screen redraws, and are useful when you are experiencing slow system response, or when running other applications at the same time as Pro Tools.

◆ Higher CPU Usage Limit settings allocate more processing power to Pro Tools, and are useful for playing back large sessions or using more real-time plug-ins.

⚠ *Increasing the CPU Usage Limit may slow down screen responses on slower computers.*

DAE Playback Buffer Size

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

◆ Lower DAE Playback Buffer Size settings can improve playback and recording initiation speed. However, a lower setting can make it difficult for slower hard drives to play or record tracks reliably.

◆ Higher DAE Playback Buffer Size settings can allow for a higher density of edits in a session. However, a higher setting can cause a time lag to occur before playback or recording begins. It can also cause a time lag to occur when you are editing during playback.

To change the DAE Playback Buffer Size:

- 1 Choose Setups > Playback Engine.
- 2 From the DAE Playback Buffer pop-up menu, select a buffer size.
- 3 Click OK.

chapter 2

Installing Pro Tools TDM 6.0

This chapter explains how to install and configure Pro Tools TDM 6.0 software on supported Apple Macintosh computers.

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

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.

A *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

To install Pro Tools 6.0 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 6.0 Installer CD-ROM in your CD-ROM drive. Double-click “Install Pro Tools.”
- 3 Enter your Administrator password and click OK to authenticate the installation.
- 4 In the Installer window, select the version of Pro Tools for your system.
- 5 Make sure the Install Location is on your Startup hard drive.
- 6 Click Install.
- 7 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.

- 8 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.

9 Click Continue.

10 When installation is complete, click Restart.

– or –

Click Continue to install any additional software or documentation, and restart your computer when you are finished.

If you plan to use any MIDI devices with Pro Tools, configure your MIDI setup with the Apple Audio MIDI Setup (AMS) utility. See Chapter 3, “Configuring AMS” for details.

Removing Pro Tools on Mac OS X

If you need to remove Pro Tools 6.0 from your computer, you can use the Installer CD-ROM.

To remove Pro Tools 6.0 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 6.0 Installer CD-ROM in your CD-ROM drive. Double-click “Install Pro Tools LE.”
- 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 Click Quit to close the Installer window.

Installing the Demo Session

(Optional)

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 Select the demo session you want to install.
- 3 Set the install location to your audio drive, and click Install.
- 4 When installation is complete, click Quit.

Launching Pro Tools

When launching Pro Tools 6.0 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 when prompted, making sure to observe any spaces, then click Validate.

The authorization code is located on the inside cover of the *What's New in Pro Tools 6.0* guide that came with your upgrade.

Configuring Pro Tools TDM System Settings

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.

Voice Count

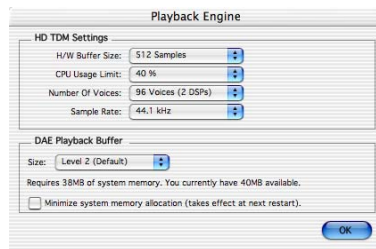
The Number of Voices setting lets you control the number of voices available on your system. For example, the default number of voices on an HD 1 system is 48 voices, using one DSP (at sample rates of 44.1 kHz or 48 kHz).

▲ *Changing the number of voices affects DSP usage, the total number of voiceable tracks, and overall system performance.*

Depending on the current sample rate and the number of HD Core and HD Process cards in your system, you will have different choices for voice count. For voice limits on different HD systems, refer to the *Pro Tools Reference Guide*.

To change the Voice Count:

- 1 Choose Setups > Playback Engine.



Playback Engine dialog for Pro Tools | HD system

2 Select the number of voices and DSPs to allocate for voicing by choosing a value from the Number of Voices pop-up menu.

- Select higher voice numbers when your Digidesign cards are the only PCI cards in your computer, or when you are using an expansion chassis to run higher track counts (such as 64 tracks at 96 kHz) and you want more voices per DSP (such as 16 voices per DSP at 96 kHz).
- Select medium voice numbers when your Digidesign cards are in an expansion chassis, or when you are using other PCI cards along with Digidesign cards.
- Select minimum voice numbers if you are using high-bandwidth PCI cards (such as video capture cards) along with your Digidesign cards.

3 Click OK.

Hardware Buffer Size

The Hardware Buffer Size (H/W Buffer Size) controls the size of the hardware cache used to handle host processing tasks such as Real-Time AudioSuite (RTAS) plug-ins.

- ◆ Lower Hardware Buffer Size settings reduce monitoring latency, and are useful when you are recording live input.
- ◆ Higher Hardware Buffer Size settings allow for more audio processing and effects, and are useful when you are mixing and using more RTAS plug-ins.

⚠ *In addition to causing slower screen response and monitoring latency, higher Hardware Buffer Size settings can affect the accuracy of plug-in automation, mute data, and timing for MIDI tracks.*

To change the Hardware Buffer Size:

- 1 Choose Setups > Playback Engine.
- 2 From the H/W Buffer Size pop-up menu, select the audio buffer size, in samples.
- 3 Click OK.

CPU Usage Limit

The CPU Usage Limit controls the percentage of CPU resources allocated to Pro Tools host processing tasks.

- ◆ With Pro Tools 5.x, the maximum CPU Usage Limit is 85 percent.
- ◆ With Pro Tools 6.0, the maximum CPU Usage Limit is 85 percent for single-processor computers, and 99 percent for multi-processor computers. (The 99 percent setting dedicates one entire processor to Pro Tools.)

To change the CPU Usage Limit:

- 1 Choose Setups > Playback Engine.
 - 2 From the CPU Usage Limit pop-up menu, select the percentage of CPU processing you want to allocate to Pro Tools.
 - 3 Click OK.
- ◆ Lower CPU Usage Limit settings limit the effect of Pro Tools processing on other CPU-intensive tasks, such as screen redraws, and are useful when you are experiencing slow system response, or when running other applications at the same time as Pro Tools.
 - ◆ Higher CPU Usage Limit settings allocate more processing power to Pro Tools, and are useful for playing back large sessions or using more real-time plug-ins.

⚠ *Increasing the CPU Usage Limit may slow down screen responses on slower computers.*

DAE Playback Buffer Size

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

- ◆ Lower DAE Playback Buffer Size settings can improve playback and recording initiation speed. However, a lower setting can make it difficult for slower hard drives to play or record tracks reliably.
- ◆ Higher DAE Playback Buffer Size settings can allow for a higher density of edits in a session. However, a higher setting can cause a time lag to occur before playback or recording begins. It can also cause a time lag to occur when you are editing during playback.

To change the DAE Playback Buffer Size:

- 1 Choose Setups > Playback Engine.
- 2 From the DAE Playback Buffer pop-up menu, select a buffer size. Memory requirements for each setting are shown at the bottom of the Playback Engine dialog box.
- 3 Click OK.
- 4 If Pro Tools needs more system memory for the DAE Playback Buffer, it will prompt you to restart your computer.

System Memory Allocation

When you start your computer, Pro Tools automatically reserves a portion of system memory for the DAE Playback Buffer. This reserved memory is unavailable to other applications, even if Pro Tools is not running.

You can set Pro Tools to reserve only the minimum amount of required memory, so that more system memory is available to other applications.

To minimize system memory allocation:

- 1 Choose Setups > Playback Engine.
- 2 Select the “Minimize System Memory Allocation” option.
- 3 Click OK.
- 4 Restart your computer.

chapter 3

Configuring AMS

Pro Tools 6.0 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.

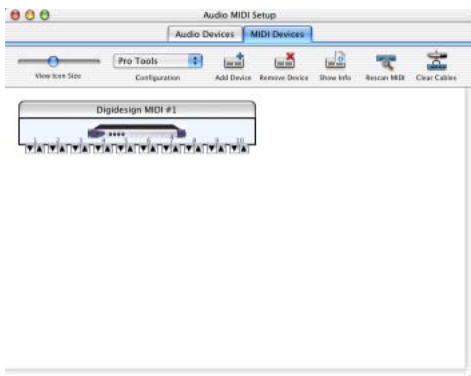
To configure your MIDI studio in AMS:

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.

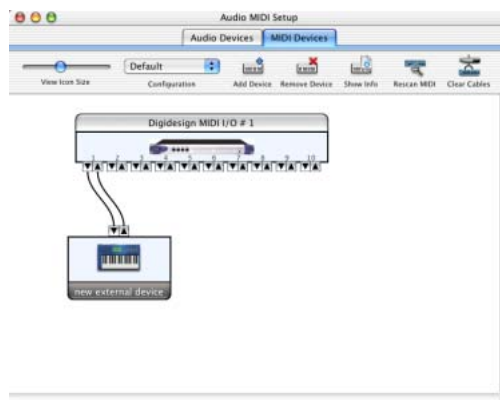


Audio MIDI Setup (MIDI Devices tab)

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

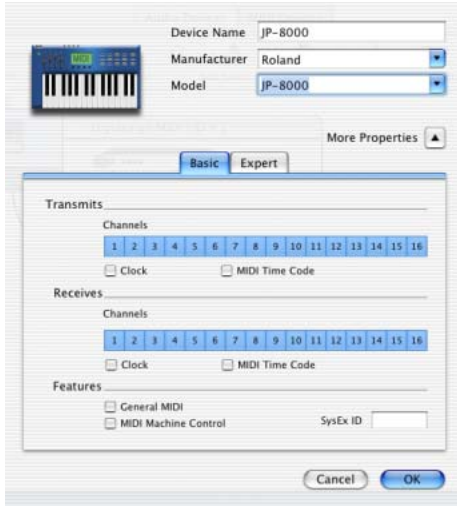
2 Select a manufacturer and model for the new device from the corresponding pop-up menus. (If the **Manufacturer** and **Model** pop-up menus do not provide a name for your particular device, you can type a name.)



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 is 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.