Pro Tools|24, MIX, and MIXplus for Windows NT v.4.2.6

May, 1999

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Introduction

Welcome to the world of Pro Tools. We have been at work for some time to deliver the world's most powerful digital audio workstation to the Windows NT platform. Contained within this Read Me is late-breaking news, suggestions for configuration and usage, as well as a list of known issues regarding Pro Tools on NT. Please read through the documents thoroughly, since the information listed here may not be documented in any of your Pro Tools manuals. Thank you again for choosing Digidesign.

*** Version 4.2.6 is now compatible with Service Pack 4. ***

*** CD-ROM includes full duplex Beta2 version of NT Wavedrivers for d24/Mix. ***

*** Fixed USD locking problem. ***

System Requirements

Pro Tools MIX and MIXplus

Digidesign has qualified the following NT system for 64-track performance:

- IBM M-Pro IntelliStation model 6889

No other systems are currently tested or certified by Digidesign for trouble-free 64-track playback/record, but some systems may perform equally as well as long as they have the following minimum requirements:

CPU Requirements*

- Pentium II processor (233,266, 300, 333, 400, and 450Mhz)
- 440LX or 440BX chipsets only
- 192MB RAM for up to 64 voices
- AGP card strongly recommended
- CD-ROM (IDE or SCSI)
- BIOS should recognize at least 2 PCI bridges for MIX systems and 3 or more for MIXplus or chassis configurations.
- At least 2 available adjacent, full-length, 3.3V* compliant PCI slots for MIXplus, 1 for MIX systems *(MIX cards require 3.3V supplied to the PCI slot* with a maximum draw of 2A*. When the MIX card is inserted and system power is turned on, a yellow LED on the top of the MIX card will confirm 3.3V power but not 2A. The top/side of your computer must be removed in order to see this LED. If the yellow LED is not illuminated, your computer is not supplying the proper level of 3.3V power to the PCI slot). Please refer to your computer documentation to ensure that your computer meets these power requirements.*

Operating System Requirements

- Windows NT Workstation v.4.0 w/ Service Pack 3 or 4 (double-byte character sets are not supported (i.e. Japanese, Chinese, Russian, Korean, etc).

Hard Drive Requirements

Adaptec Ultra-Wide SCSI Host Adapters only (AHA-2940UW/3940UW or embedded SCSI using Adaptec's AIC-78xx chipsets with SCSI BIOS 1.3x or later) and at least (1) Digidesign approved hard drive. See *SCSI Hard Drive Requirements and Procedures* for more details.

* For the latest Pro Tools compatibility information, including lists of qualified computers, hardware and computer requirements, contact your Digidesign dealer, call your local Digidesign office, or visit Digidesign's website at www.digidesign.com.

Installation Notes

Install-O-Rator
Run this utility before installing Pro Tools software. The Install-O-Rator helps you pre-configure and optimize your computer for use with Pro Tools 24 and MIX systems. The Install-O-Rator works by scanning your computer for installed software and hardware components then determines what settings are optimal for use with Pro Tools. The Install-O-Rator will automatically lead you through these steps. Once the Install-O-Rator has finished, your will be prompted to insert your Pro Tools NT CD-ROM.

Administrator Privileges

In order to install Pro Tools, you must log onto Windows NT as a user with Administrator privileges. If you do not have Administrator privileges or do not know how to set them up, please consult your Windows NT User's Guide or your Network Administrator. Additional Pro Tools users must be set up with Administrator Privileges in order for the program to function correctly.

Custom Installation

The first time Pro Tools is launched after a component has been installed from the custom install list, Pro Tools will require the user to select the audio interface(s) that is connected to the d24|MIX card(s).

Plug-In for d24 system

If you are using a d24 based Pro Tools|24 system please install the Procrastinator Plug-In from the custom install. Procrastinator is a long delay that works with d24 or DSP Farm cards only. When using a MIX only system please use the Long Delay Plug-In.

<u>Documentation</u>

Some Read Me files are in .pdf format. You will need Adobe's Acrobat Reader to read these files. If you do not have Acrobat Reader installed, an Adobe Acrobat Reader installation program is placed into the Document Readers folder (inside the Pro Tools folder) during the Pro Tools software installation process. Double-click the Adobe installer and follow the onscreen instructions.

<u>De-installing Pro Tools 4.2.6</u>

There are two De-installers to fully remove Pro Tools, one removes the Pro Tools application and its related files, the other removes all the shared system files for Pro Tools. The shared system files are used by Pro Tools, SampleCell and some third-party applications.

To remove Pro Tools software only:

1. From the Start menu, choose Settings > Control Panels and double-click Add/Remove Programs.
2. Select "Pro Tools 4.2.6" from the list of installed applications and click the Add/Remove button.
3. When the removal process is complete, click OK and close the "Add/Remove Programs Properties" window.

Removing Digidesign System Files:

Only remove the Digidesign System files if you are cleaning your system of ALL Digidesign and third party applications. Once these files are removed, your system will not be able to communicate with any Digidesign hardware.

1. From the Start menu, choose Settings > Control Panels and double-click Add/Remove Programs.
2. Select "Digidesign System Files" from the list of installed applications and click the Add/Remove button.
3. When the removal process is complete, click OK and close the "Add/Remove Programs Properties" window.

SCSI Hard Drive Requirements and Procedures

Pro Tools requires a Digidesign qualified Ultra-Wide SCSI adapter and at least 1 Digidesign qualified Ultra-Wide SCSI drive. Please review the following sections to determine if your storage equipment meets the basic requirements. Note: Narrow SCSI, EIDE, ATA-2, and Ultra-DMA drives are not supported nor tested with Pro Tools.

<u>Qualified SCSI Adapters* (at the time of this writing)</u>:

Adaptec AHA-294xUW adapters
Adaptec AHA-394xUW adapters
Adaptec AIC-78xx SCSI chipsets embedded on the motherboard

The Adaptec AHA-2940UW has three SCSI ports; internal wide, internal narrow, and external wide. According to the Adaptec setup guide, you can only use two ports at any time. This means if you have the internal narrow port connected to a SCSI CD-ROM and the internal wide port connected to an Ultra-Wide SCSI drive mounted inside your computer, you will not be able to use the external Ultra-Wide connection for external Ultra-Wide drives. Likewise, if you intend to connect an Ultra-Wide drive inside your computer

to the 2940UW and an external Ultra-Wide drive to the external connector, you cannot use the internal narrow connector for CD-ROMs or other narrow SCSI devices. The Adaptec AHA-3940UW controller does not have this limitation.

* For the latest Pro Tools compatibility information, including lists of qualified computers, hardware and computer requirements, contact your Digidesign dealer, call your local Digidesign office, or visit Digidesign's website at www.digidesign.com.

Qualified SCSI Drives

Please refer to Digidesign's Hard Drive Requirements and Compatibility Information for the latest list of compatible Ultra-Wide drives.

Your SCSI hard drives should be configured to receive "term power" from the SCSI bus. Be sure to consult the drive's documentation for proper jumper settings or your hard drive reseller for proper configuration.

Partitioning and Formatting Drives

In order to guarantee maximum performance with your hard drives, please follow the guidelines below:
- Digidesign recommends that all audio drives use the FAT16 file system or the Macintosh HFS format (only available when MacOpener is installed. A demo version of MacOpener is included on your Pro Tools Installation CD-ROM). NTFS file system format will also work but has not been optimized for recording with Pro Tools. The FAT32 file system format is not supported. At least one drive in your system must be formatted with a FAT partition in order for Pro Tools' optimized disk engine to work correctly.
- Pro Tools identifies disk drives (which may contain one or more partitions) via the drive's "signature word." Drives which have been formatted under a different operating system (i.e. Win'98, MacOS) may not have a signature word. In these cases, as signature word must be created for the drive before it will be usable by Pro Tools. This can be accomplished by running the NT *Disk Administrator* program (windisk.exe), which automatically creates a disk signature for any drives connected to your Windows NT system. Disk Administrator must be launched at least once before attempting to record any audio or create a session.
- Digidesign requires that the FAT16 partitions be 4095 MB or less. When initializing/partitioning drives, please be sure to limit the size of the partition.

Creating Disk Signatures on Hard Drives with Disk Administrator

If your hard drive has been formatted from some other operating system other than Windows NT 4.0 (i.e. Windows 95/98, MacOS, Unix, etc), the Session 8 formatter, or is a brand new drive, you will need to launch *Disk Administrator*.

To launch Disk Administrator:

- Click on the Start Menu and select Programs>Administrative Tools (Common)>Disk Administrator.
- Wait for the computer to catalog all the drives connected to your system. During this time the mouse will remain frozen until the following window appears.

Disk Administrator

Disk Administrator has determined that the configuration of one of more disks has been altered since Disk Administrator was last run.

System configuration will be automatically updated to reflect these changes when you next opt to save changes when exiting Disk Administrator.

OK

- Click OK.

The following window will appear:

Confirm

Changes have been made to your disk configuration.

Do you want to save the changes?

Yes   No   Cancel
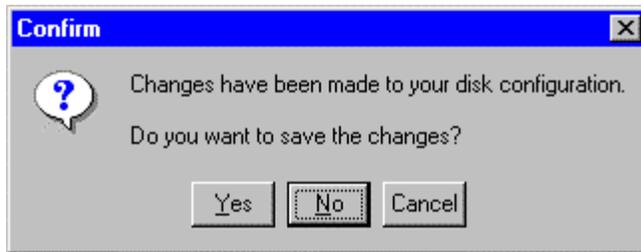
Click "Yes."
The following dialog will appear:

Disk Administrator

Disks were updated successfully.

It is recommended that you update the emergency repair configuration information and create a new Emergency Repair Disk. You can do this with the system utility RDISK.EXE.

OK
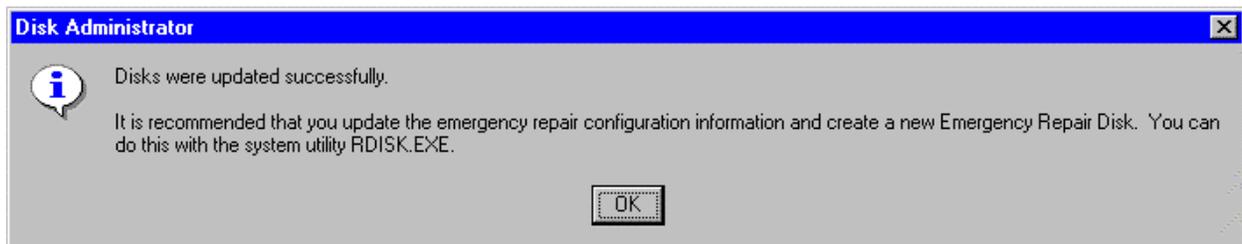
- Click OK and the Disk Administrator window will appear. If your drives are already formatted with FAT16 (listed simply as FAT), go ahead and close Disk Administrator. If your drives are not formatted with FAT16 (i.e. NTFS, FAT32 or HFS) please consult your NT Workstation documentation regarding formatting drives with the FAT file system. If you intend to use HFS drives in order to move information back and forth between your NT system and a Mac, leave the HFS partitions.

- Click OK and you're done.

Optimizing SCSI drive performance

In order to gain the most performance from your audio SCSI drives, Digidesign recommends that Write and Read Cache settings be enabled.

Adaptec's EZ SCSI application (4.0 or greater) will allow you to enable the Write and Read cache on your audio drive(s). EZ SCSI is often included with your Adaptec SCSI accelerator or computer equipped with onboard SCSI ports using the Adaptec SCSI chipset.

- After installing EZ SCSI, launch SCSI Explorer
- Select the DISK CACHE tab
- Under the SCSI DEVICE LIST, select your audio drive

- Under the Write Cache tab, click on the Enable Write Cache button (It may already be enabled)
- Under the Read Cache tab, click on the Enable Read Cache button (It may already be enabled)
- After enabling the Write and Read caches, exit the program

NOTE: Under the INTERROGATOR tab, it is possible to view certain information about your SCSI drive:
- Model number and firmware revision
- Primary and Grown Defect information (useful in determining the condition of the drive)
- Mode Page parameters -- Although there is no editing allowed, this can provide useful information about the current parameters on a drive.

The parameters that affect SCSI performance relevant to Pro Tools are:
Caching Page, Disconnect/Reconnect Page, Read/Write Error Recovery Page.

Bug fixes in Pro Tools 4.2.5

Graphic performance in the Mix window has been greatly improved.

"Autospot" now properly handles the situation when NO timecode is present.

Scroll bars in the Audio Bin now appear when necessary.

Pro Tools no longer has the occasional behavior of being stuck in a 3 second loop while the cursor continues to scroll in playback.

Bug fixes in Pro Tools 4.2.6

Compatible with Service Pack 4.

Fixed USD locking problem.

CD-ROM includes full duplex Beta2 version of NT Wavedrivers for d24/Mix.

Known Issues and Problems

Installation

The BIOS of some Pentium II models have problems updating the PCI configuration when Digidesign PCI cards have been added. This may result in the system not being able to boot or the operating system may not be able to assign interrupts correctly. If this condition occurs:
1) check to make sure the MIX cards are receiving 3.3V and 2A.
2) check that your BIOS is setup to handle multiple PCI bridges.
3) contact your computer manufacturer for an update to the BIOS.

A possible workaround for some computers would be to remove all PCI cards from the system (video card must remain in the system), enter the Setup program of the computer during boot (BIOS setup), set the BIOS to Default Settings, then reboot the system. Now power down the system, re-install all the PCI cards, and then power up your system.

Note: After setting the BIOS to its Default setting, it will be necessary to reset some settings that are required for Pro Tools operation as documented in the Install-O-Rator utility and the Pro Tools Installation Guide.

BIOS

The Phoenix BIOS may display a configuration error during the computers initial boot sequence. The computer may give you the option to Skip or enter the BIOS setup program. This problem may occur when one or more MIX card(s) are present in the system. Digidesign Test has not experienced any adverse effects when choosing to Skip.

Peripherals

When using multiple Audio Interfaces, use DigiTest to identify the order of multiple audio interfaces connected to your Digidesign d24, MIX, or DSP Farm cards. The physical order of audio interfaces is determined by which card the interface is connected to. The order in which these cards are identified by your computer may vary.

When connecting multiple types of audio interfaces to multiple MIX or DSP Farm audio cards, we recommend that the peripherals be connected in the following order:

1) all 888/24 I/Os
2) all 882/20 I/Os
3) all 888 I/Os
4) all 882 I/Os

Refer to your Pro Tools Installation Guide for more information on configuring audio interfaces.

Operation

"Auto Region Fade In/Out Length" is not implemented.

Under some operations Pro Tools may behave incorrectly if your audio disk(s) becomes full. Digidesign recommends that you set aside enough free disk space in order to complete your session work.

Playback performance can be degraded if zoomed in too far. If DAE –9073 errors occur during playback, try zooming out.

TDM Plug-In and Mute automation may have delays in response time up to 50ms when using the Bounce to Disk feature in Pro Tools. This problem only occurs when bouncing, not during normal playback/record. To workaround this problem, follow the directions below:

-   Set all audio tracks and Aux tracks currently assigned to your main outputs to a free stereo bus (i.e. outputs 1-2 should be assigned to bus 21-22 [assuming nothing is using bus 21-22])
-   Create 2 new audio tracks
-   Set the input for the new audio tracks to the L-R assignment of the bus you just used for all other output tracks (in this case, bus 21 is Left and bus 22 is Right).
-   Assign the output of your new tracks to your original master output (i.e. Outputs 1-2)
-   Put both of your new tracks into Rec
-   Press Rec and Play on the transport to create a dual mono, or L-R master of your session.
-   If you need to create a stereo interleaved file, use the bounce to disk feature with your new L-R stereo pair you just created.

Pre- and post-roll numeric entry is incorrect in Bars:Beats mode when time signatures other than 4/4 are used.

File Types

AIFF files with the 4 character extension *.aiff are not recognized in the Convert and Import window when the file type to look for is set for AIFF. Pro Tools defaults to the 3 character *.aif file extension when AIFF is selected. Use the All Files selection or *.* to see all files.

Machine Control

When switching between Pro Tools as transport master and machine control as master, using the keyboard shortcut updates the counter to the machine's location, but not back to the edit cursor location. When using the transport control window to switch, the counter switches properly back and forth, but the edit view goes to the machine's location and remains at that time location.

Graphics

PCI Load meter only displays a brief peak instead of a bar.

MIDI

MIDI data does not reach the MIDI interface if the interface is turned on after you launch Pro Tools.

Exported MIDI files from Pro Tools may introduce a time offset at the beginning of the session when they are imported into another MIDI application.

SCSI

Connecting a SCSI drive that has been formatted as a FAT16 drive in Windows 95 does not show up in the disk allocation window. (See Creating Disk Signatures on Hard Drives with Disk Administrator in the above documentation.)

Connecting a SCSI drive that has been formatted Using the Session 8 Formatter does not show up in the disk allocation window. (See Creating Disk Signatures on Hard Drives with Disk Administrator in the above documentation.)

Control Surfaces

The Mackie HUI has minor problems fully initializing when used in conjunction with the Opcode 64x MIDI interface at session start-up. Here are the known symptoms and very simple workarounds:

> 1) Faders in the banks will not initialize and scribble strips will be blank - toggling banks will initialize the faders and scribbles.

> 2) The EDIT/ASSN display in HUI's upper left corner remains blank (it should default to showing LPAN at session start up). You can initialize the display by choosing any other parameters (RPAN or SENDS).

> 3) The main counter may appear blank at session start up. Toggling the Time Scale Selector (to the left of the Time Line in the Edit window) will correctly initialize the counter.

Due to a HUI design limitation, when you enable the ALL group, reset faders to 0dB, then walk down the strip of faders moving rapidly from one to the next fader, the grouping will eventually develop a noticeable offset. This is the result of the fader release time. If you see this problem you might adjust your release time between faders allowing a slight pause.

Plug-Ins

Pro Tools 24 based sessions that used the original EQ and Dynamics Plug-Ins included with Pro Tools 4.2.1 (rather than new EQ II or Dynamics II or Compressor Plug-Ins included with 4.2.6) may not open

correctly (old plug-ins may be lost) when switching to a Pro Tools 24 MIX or MIXplus system. If this situation occurs, please convert your older EQ and Dynamics to the newer DigiRack EQII amd DynamicsII.

The new version of D-Verb (v.1.5) does not properly load the Hi Frequency Cut automation of the older Windows version of D-Verb (v.1.4). Please be aware that if you open an older session that used the original Windows version of D-Verb, you may have lost the Hi Frequency Cut automation.

Upgrading from v.1.5 of the 4-Band EQ Plug-In to v.1.7 will cause any saved settings associated with that session to be lost.

Pitch Shift AudioSuite plug-in may introduce clicks when used on extreme settings (like –24 semitones). You should get better results by processing several times using smaller increments.

Crossplatform Issues

Pro Tools Mac 3.x and earlier Sessions can not be opened with Pro Tools for Windows NT. A Pro Tools Mac 3.2 session can be opened from a Mac using Pro Tools 4.0 or greater. Please open the session on a Mac with version 4.0 or later, save the session in the new format, then transfer the session to NT.

NT sessions can only be saved in 4.x versions.

HFS formatted drives (Mac drives) are only supported when they have been formatted on a Macintosh using a supported format utility such as FWB's Hard Disk Toolkit.

Digidesign does not support Mac Opener "Extension Mapping" for Sound Designer files. If you have already added this feature, then you should disable it: go into MacOpener Driver Preferences, Extension Mapping and Edit your Sound Designer mapping - select "Don't use in either direction (temporarily off)", then reboot your computer. Sessions that contain SD2 files with "Extension Mapping" turned on will not found upon launch of the session without using the Find-File dialog and manually selecting each file.

Canceling an AudioSuite Process will leave 0 byte audio files on your HFS (Mac) drive. You may safely delete these 0 byte audio files in Explorer if you choose.

Warning: All session files on HFS (Mac) drives are 0 bytes in length because all the information is stored in the associated resource fork. Take extreme care when deleting any session file, you will most likely NOT be able to undelete any files that have been deleted from a HFS drive.

International Considerations

Pro Tools 4.2.6 has been redesigned to work with non-English versions of Windows NT. However, double-byte character sets have still not been tested. This includes, but not limited to, Japanese, Chinese, Korean, Russian, Greek, Arabic, Hebrew and Thai versions of Windows NT.

Reporting Bugs

While we have labored long and hard to remove any problems in the software, sometimes problems arise that are unexpected. If Pro Tools unexpectedly encounters "A Program Error has occurred." while running, it will generate an "Exception Log" file. The file will appear in the following location:

Program Files\Digidesign\Pro Tools\Pro Tools Utilities\ExceptionLogFiles

Exception Logs are a useful tool that will help Digidesign determine the cause of your problem and aid in removing bugs from the program in future releases. If you experience a Program Error in Pro Tools that does not cause you to lose data or time, please send an e-mail detailing how the problem occurred with the log file generated as a result of the error to the following address:

pt_bugs@digidesign.com

If you encounter a "Program Error" which does cause loss of time or data, please contact your local Digidesign Technical Support office (listed in your registration packet). Exception logs are not standard text files so you will not be able to read them but they may assist Digidesign Technical Support in determining your problem.