



## Release Notes for Pro Tools® v4.0.1

April 14, 1997

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## Welcome to Pro Tools v4.0

Welcome to Pro Tools 4.0, redefining the state of the art in software for digital audio workstations. Pro Tools 4.0 is Digidesign's most significant software release to date, with over 30 major new features and countless improvements and additions. Pro Tools 4.0 achieves new standards of performance in operational speed, creative power, usability, and efficiency.

For a list of the major new features in this release, please refer to the first chapter of your new Pro Tools Software Guide: "What's New in Pro Tools 4.0."

## Problems fixed in Pro Tools v4.0.1

### PRO TOOLS PROJECT AND PRO TOOLS WITH POWERMIX ONLY

The Dither Plug-In is used by all systems to provide dithering with certain AudioSuite Plug-In processes. When launching Pro Tools v4.0 on non-TDM systems, (Pro Tools Project, Pro Tools with Audiomedia and Pro Tools PowerMix), a dialog requesting insertion of the TDM v1.4 authorization disk appears. This is because the Dither Plug-In was incorrectly copy protected using the TDM key. This has been fixed with Pro Tools v.4.0.1.

### QUICKTIME MOVIE PLAYBACK ISSUES WITH ALL SYSTEMS:

- QuickTime Movie Offset When Cursor Placed Before Movie Start — In Pro Tools 4.0, if the playback cursor was positioned before the start of the QuickTime movie and playback was initiated, a 13 frame offset could occur between the QuickTime movie and the audio. This has been fixed in Pro Tools 4.0.1.
- QuickTime Movie offset when generating or chasing time code — In Pro Tools 4.0, if movie playback was online while generating time code via a SMPTE Slave Driver or while locking to incoming time code, the movie would be offset approximately 20 frames. This has been fixed in Pro Tools 4.0.1.
- QuickTime Movie Playback Early When Using a Second Monitor With the Miro DC-20 — When a QuickTime Movie is displayed on a second monitor using the Miro DC-20, the video may play back early by 3 frames. This Movie offset occurs during playback only, at all other times the Movie and audio are in frame accurate sync. For frame accurate Movie playback on a second monitor, there is a new "Set Movie Sync Offset..." dialog in the Movie Menu. When using the Miro DC20 for Movie Playback, we have found that a Movie Sync Offset setting of -10 is sufficient to fix this. It may be necessary to adjust this for some systems.

ERRONEOUS FADE DIALOG — In Pro Tools 4.0, when double clicking on a fade (to bring up the fades dialog) Pro Tools was displaying a dialog stating that "Fades can't be moved independently of their parent region(s)." This dialog was being posted erroneously. The problem has been fixed in Pro Tools 4.0.1.

IMPORTING AUDIO WITH DAE SEQUENCER APPLICATIONS — Various intermittent problems may be experienced when using the Import Audio dialog of a DAE Sequencer using DAE v3.1. DAE v3.1.1 fixes these problems and has been included with Pro Tools v4.0.1.

PRO TOOLS DEMO SESSION INSTALLED FROM CD ROM — If using the Pro Tools Demo Session from the Pro Tools v4.0 CD ROM Installer, users may find that some of the track output selectors are incorrectly set. This has been fixed with Pro Tools v.4.0.1.

### PRO TOOLS® III SYSTEMS

FOCUSRITE D2™ TDM PLUG-IN DEMONSTRATION VERSION — On some Pro Tools III systems running v4.0, the Focusrite d2 Demo version will not pass audio the first time you attempt to use it. Quitting and relaunching the Pro Tools v4.0 application restores correct operation. This has been fixed with Pro Tools v.4.0.1.

NUBUS-BASED PRO TOOLS III USERS UPGRADING TO PRO TOOLS V4.0 — For NuBus-based Pro Tools III user upgrading to Pro Tools v4.0, whose system contains a Bridge I/O™ card, the Pro Tools v4.0 installer does not overwrite the existing Bridge I/O Plug-In. While this does not appear to cause operational problems, after installing Pro Tools v4.0, the Plug-In called "Bridge I/O" should be removed from the TDM Plug-Ins Folder, leaving the one called "Bridge I/O™" in place. (Please note that the two Plug-Ins are differentiated only by the "™" at the end of the new Plug-In name.) This has been fixed with Pro Tools v.4.0.1 Installer.

TDM SESSION TEMPLATES ON CD ROM INSTALLER — Users may find that some of the TDM Session Templates provided on the Pro Tools v4.0 CD ROM Installer are corrupted. This has been fixed with Pro Tools v.4.0.1 Installer.

TDM SESSION TEMPLATE INSTALLER — The TDM Session Template Installer on the Pro Tools v4.0 Installer generates an installer log file inside the Session Templates Folder upon installation. This file is not required and can be thrown away. This has been fixed with Pro Tools v.4.0.1 Installer.

## Problems fixed in Pro Tools v4.0

- Low memory error handling has been greatly improved.
- Various fixes for voice/drive mismatch situations on expanded systems.
- Pro Tools would sometimes record to a drive that was not selected in the disk allocation dialog. This has been corrected.
- Cutting and Pasting automation breakpoint data from one location to another sometimes produced unexpected results in v3.2x. This has been fixed.
- Option-clicking on a track while pan automation playlist for that track was selected sometimes caused Pro Tools to unexpectedly quit. This has been fixed.
- Pasting automation data into a track that is displaying the waveform view no longer deletes audio data. Now, the automation data is pasted into the automation playlist for the correct data type, (ie. volume, pan, etc.)
- Selecting the ends of multiple grouped tracks when editing (especially with overlapped regions), often produced unexpected results when grabbing, moving or trimming. This has been fixed, and Pro Tools will now properly display only the portion of the region that was overlapping an edit.
- When MIDI Time Code (MTC) transmission is enabled in Pro Tools, accuracy has been greatly improved in terms of location and jitter.
- When dragging groups of regions in such a way that the move deletes other regions, the “undo” command did not always restore the deleted regions. Undo functionality in Pro Tools has been completely rewritten and now functions correctly.
- Insert popup menus would work improperly if clicked upon towards the bottom of the screen. They scroll correctly in Pro Tools 4.0.
- Various problems when using the FF/REW transport buttons on Pro Tools Project systems, usually resulting in DAE -9155 errors, have been fixed.
- Aborting a destructive record pass with pre-roll enabled left the entire disk allocated for recording. This has been fixed.

- Stereo channel meters that were drawn due to a mono to stereo plug in begin added to a track did not always return to mono once the plug in had been removed. Now they do.
- Option-Clicking on a track to arm recording used to result in erratic behavior when more than 16 tracks were in a session. This action now correctly record-enables the first 16 voices and does not affect the others.
- When editing in Grid mode, regions could be nudged to the beginning of the session even if the beginning was not a valid grid point. Now, Pro Tools will not allow the nudging regions to invalid grid points.
- In Pro Tools 3.2x, there was a problem with files that were Finder-copied not being “registered ”as duplicate files. (The workaround was to drag and drop all the copied audio files on the Pro Tools icon in the Finder to get them recognized by the session.) This has been fixed.
- Scrubbing is not a supported feature when using the PowerMix™ Playback Engine, and is now correctly disabled.
- Strip Silence — The Pro Tools “Strip Silence” feature now correctly supports silence thresholds of lower than -48 dB, and adds many new features.
- MTC output now works correctly at 25 FPS frame rate.
- Previously, regions defined as left/right pairs by naming “.L/.R,” “-L/-R,” etc. did not sort together in the Audio Regions Lists. This has been fixed.
- “Junk Folders” that were created on drives other than the primary session drive are now cleaned up when the session closes if they were not needed
- Pro Tools will now automatically find all *audio* files associated with a restored or moved session (provided that the name of the audio files folder has not been changed, and they reside within the normal folder hierarchy for a session). This will greatly speed working with restored sessions, since you will not be presented with the friendly “Where Is?” dialog.

Note: This improvement applies to audio files only. For safety, you must still navigate to and find fade files manually .

- Formerly, Time Stamps for audio files could only be change once (from a recorded time stamp to a user-defined time stamp). There was only a single time stamp available for the audio file. In Pro Tools v4.0 the two time stamps (the recorded time stamp and the user-defined time stamp), are complete separate, allowing you to return to the original at any time.
- Calibration Tool used to crash if it was launched without the DigiSystem INIT being loaded. Now it warns the user that the DigiSystem INIT is needed.
- Labels for PCI-based DSP Farms – Previously labels for PCI-based DSP Farms could only be named with a single source name that was common to input and output. This has now been fixed.
- QuickTime Movie playback now resolves to Pro Tools’ audio sample clock on PPC CPUs. Thus, the Movie “continuously re-syncs,” resulting in smooth, high frame rate playback. In addition, QuickTime

Movie playback capability (formerly an optional add-on via Digidesign's PostView package), is now included in Pro Tools v4.0 software

### **Hardware and Peripherals**

- Tascam DA-30 DAT machines – Previously an incompatibility existed between the Tascam DA-30 and Audiomedia III card when performing S/PDIF digital transfers. This has now been fixed when using Pro Tools with Audiomedia III by selecting Tascam DA-30 as an option in the Options dialog of the Hardware Setup dialog.

### **System**

- When importing a file whose name begins with a period (e.g. ".tuning"), Pro Tools will now correctly warn that the Mac OS can have trouble with such files and that the file should be renamed.

## Operational Changes in v4.0

Pro Tools 4.0 includes numerous improvements and some new rules of operation; details are provided in the new Software User's Guide and Installation Guide which come with your Pro Tools upgrade. You'll want to read the new user guides to learn about these.

Some of the operational changes that you should be aware of include:

- OMS is Required for MIDI and Synchronization Services with Pro Tools Systems
- Memory Caching of TDM Plug-Ins on PPC-based systems
- Changes to the Playback Buffer dialog and Playback Engine dialog operation
- Track Record Enable Operation
- New features of the Digidesign Mt. Digi Control Panel
- Configuring the Digidesign SMPTE Slave Driver with your Pro Tools system

For your convenience, we have included details on these and other operational changes below:

### **OMS is Required for MIDI and Synchronization Services with Pro Tools Systems**

Opcode's OMS software, version 2.3.1 or higher, is required when using MIDI controllers, sequencers or synchronization peripherals with Pro Tools 4.0. (This software is supplied on your Pro Tools 4.0 Installer).

**IMPORTANT:** Pro Tools 4.0 requires that Opcode's OMS "Use Apple SerialDMA driver when available" preference in OMS Setup must be unchecked. Enabling this option will cause problems with MIDI and synchronization services when using Pro Tools 4.0. This includes when using Digidesign's ADAT Interface.

OMS QuickTime Musical Instruments is not supported. Please make sure that this feature is turned off before launching Pro Tools.

### **Memory Caching of TDM Plug-Ins on PPC-based systems**

Pro Tools v4.0 and the new version of DAE have a new feature called *Plug-In Caching*. This feature will work *only* with Plug-Ins that are "PPC Native." (Many newer Plug-Ins from Digidesign and third-parties are now being released, and many older versions are being upgraded to PPC-native versions.)

Plug-In caching offers the two basic improvements:

- Loading Speed. Native Plug-Ins will load very quickly as Pro Tools/DAE is launched.
- Memory efficiency. Formerly, each Plug-In was loaded into DAE's memory space as DAE launched.

This would mean that the amount of memory that you assign to DAE (using "Get Info" in the Finder) would have to increase as you added many Plug-Ins to your system, *even if you were not using all of those Plug-Ins on every session*. Plug-In caching gets rid of this problem when using PPC-native Plug-Ins. A PPC-native Plug-In will not actually take up a portion of DAE's memory space if it is not currently being used by you... and will only load into memory if you choose to use it.

Remember, only PPC-native Plug-Ins support caching. As more Plug-Ins "go native" you will receive the benefits of speed and increased memory efficiency.

Note: Contact your Plug-In developer for information about whether or not their Plug-Ins are currently native or will be upgraded.

### **DAE Playback Buffer Allocation**

The DAE Playback Buffer dialog automatically defaults to a setting of “0” and does not appear on launch unless the PowerMix extension has been installed in the DAE Extensions folder. Since Disk I/O cards contain their own buffer memory, there is no need to set a larger size than “0” for normal operation, unless you wish to use PowerMix or Pro Tools Project configurations as well as Pro Tools III/TDM.

### **Track Record Enable Operation**

In Pro Tools 3.2x, track record enabling required holding down the shift key to enable second and subsequent tracks.

This functionality has been changed in Pro Tools 4.0 to be non-latching, mimicking the operation of conventional recorders. Now record enabling a second track does not disable the first record enabled track. To record enable multiple tracks, simply click the record enable button for each of those tracks, Option-Shift-click to record enable *selected* tracks, or option-click a record enable button to record enable *a//* tracks.

### **Mounting Hard Drives and Enabling Fast SCSI Transfers using Mt. Digi**

- Scan Time — The Scan Time setting in the Mt. Digi Control Panel can increase the speed with which the DigiSystem INIT loads at startup by allowing the time spent scanning for hard drives to be controlled. The default scan time is 1000 ms.

To Adjust your Drive Mount Scan Time with Mt. Digi:

- Open the Mt. Digi Control Panel (supplied on your Pro Tools v4.0 CD-ROM Installer).
- You can experiment to find the optimum scan time for your drive(s) by using the up/down arrows that appear next to the scan time field. Each time you change the values, click the Mount button to have Mt. Digi scan the Disk I/O SCSI bus, and attempt to mount your drive(s). (This will take a while, so be patient.) If you have set a time that is too short, your drives may not respond quickly enough and will fail to appear on the Desktop.
- If your drive(s) fail to mount, increase the scan time until they *do* appear. You have now optimized the scan time for your drive(s).

Note: The DigiSystem INIT does more than just drive mounting. It also initializes (sets up) your audio interfaces and Digidesign audio cards (such as DSP Farms) while your Macintosh starts up. Optimizing your drive scan time will yield some load time improvements, but will not be a major change.

- Enabling Fast SCSI — Many newer hard disks now support “SCSI Fast Mode” for more faster SCSI transfers. Pro Tools 4.0 now supports Fast SCSI transfers. The default mode is for Fast SCSI transfers to be disabled. To activate Fast SCSI transfers, check the *Enable Fast SCSI*/box in Mt. Digi. It will be necessary to restart the system in order for Fast SCSI transfers to take effect. Some older SCSI drives may not support Fast SCSI transfers. If a drive appears not to function properly when Fast SCSI transfers are enabled, simply uncheck the Enable Fast SCSI box in Mt. Digi and restart. For optimum data integrity when using Fast transfers, Digidesign recommends the use of active termination.

### **Configuring the Digidesign SMPTE Slave Driver with your Pro Tools system.**

If you are using Digidesign’s SMPTE Slave Driver to synchronize Pro Tools to SMPTE Time Code, you must define your SMPTE Slave Driver as an OMS device in the *OMS Setup* dialog. Please refer to your new Installation Guide for detailed instructions on how to perform this operation.

## Late Breaking Info not in your Pro Tools User's Guide

All late breaking information that is not in your new Software User's Guide or System Installation Guide is detailed in the Manual Addendum included with your system.

## Known Problems and Limitations

The following is a list of known problems/limitations and the available workarounds for them:

### RECORDING

- Corrupted Record Tracks — When Pro Tools allocates space for record-enabled tracks and begins the recording process, it allocates the total remaining free area of the allocated hard disk (unless you've selected a finite amount of record time on-screen). If Pro Tools crashes during recording, the resultant sound files created by the record enabled tracks may be corrupted, and may also occupy all the remaining disk space. If your hard disk has virtually no space available after a crash, you should suspect these new audio files as being corrupted. To find the files, switch to the Finder, and look in the Audio Files folder for your session, sorting by size. Find any files which match the names of the audio tracks you were recording, which will be extremely large. Delete the files to free up the remaining disk space.

### AUDIOSUITE

#### Preview Performance

- While AudioSuite processing is disk-based, and therefore non-real time, previewing is performed in real time. As a result, the performance of the AudioSuite preview function will vary according to the speed of the host CPU. 68k processor-based machines and slower Power Macs (less than 120 MHz processor speed) may experience glitchy audio while previewing, however the processed audio will not be affected.

- Switching to the Finder and back to Pro Tools while previewing in AudioSuite can result in a DAE error -9014. Switching out of Pro Tools while previewing an AudioSuite Plug-In is not recommended.

- While previewing an AudioSuite Plug-In on Pro Tools Project Systems, clicking on other portions of the Pro Tools application may cause problems, specifically when clicking on the pan slider or solo button.

- Switching Playback Engines after previewing an AudioSuite™ Plug-In can cause various problems. Quitting and relaunching the Pro Tools application will restore normal operation.

#### Processing as Stereo

- After processing a stereo pair of regions with an AudioSuite Plug-In, the "Process as Stereo" choice is still available, even if your selection is a single mono track.

#### Pitch Shift Plug-In

- In the AudioSuite Pitch Shift Plug-In, changing the preference button from "playlist" to "region list" resets the Plug-In's parameters to their default settings.

### AUTOMATION

#### Write Automation To Parameter Behaviour

- When using the Edit Menu's "Write Automation to Parameter" on a selection containing automation playlists with no previously recorded automation data, the selected value is written to the entire playlist and not just the selected area.

This is because an automation playlist that has had no automation data recorded to it contains a single breakpoint present which corresponds to the parameter's current position. The position of the breakpoint is updated whenever the parameter value is changed.

If this is not what you want, the solution is to "anchor" the automation data by placing the play/edit

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cursor at the end of the session (or at any other desired end-point), and then choosing "Write Automation To Current Parameter" (or All Parameters). This will add a second breakpoint at the end of the session, allowing the "Write Automation To Parameter" command to write only to your selected area.

### Bypass Button

- The "Master" Bypass button for TDM Plug-In can not currently be automated. We plan to address this in a future release. In the meantime, you can automate certain individual parameters (such as EQ band cut/boost gain, wet/dry mix) to produce a "non-processed" signal path.

### Converting Pro Tools 3.2x sessions to Pro Tools 4.0

- When opening Pro Tools 3.2x sessions in Pro Tools 4.0, volume automation values may not exactly match the values in the Pro Tools 3.2x version of the session. This is because a minor bug fix in Pro Tools v3.2x caused volume values to sometimes be "incorrect," and Pro Tools v4.0 actually works *correctly!* (Hey, better late than never!)

### **MIDI**

- Always use the Modem port on PPC machines in preference to the Printer port (especially for use with MTC, the Digidesign ADAT Interface etc.). MIDI timing on the Printer port is not nearly as accurate on PPC machines, and use of the Printer port for MIDI can even cause system instability. (See note about CS-10(2) earlier.

- Be certain that the OMS Preference "Use Serial DMA" remains *unchecked*. Pro Tools will not work properly with MIDI services with this option enabled.

- Recording snapshot-style automation data from MIDI controllers such as the Peavey PC-1600 to Pro Tools MIDI tracks is not reliable.

- OMS "Forget Port" dialog – Occasionally, OMS may produce a dialog box that describes a problem with serial ports and MIDI. The dialog requests that the user either "Forget port" or "Reset port". This problem can occur if the OMS setup describes a MIDI interface being connected to a serial port, and OMS cannot find it because it is disconnected or turned-off. This dialog will not interrupt Pro Tools recording; choose "Forget Port" to continue working with Pro Tools, or correct the problem with serial ports/MIDI interfaces and choose "Reset Port."

### **MIDI CONTROLLERS**

#### CFM-68k Enabler Required when using 68k-based Computers

- Using a MIDI Control Surface with a 68k-based Macintosh requires Apple's CFM-68k extension. Apple have identified a bug in version 3.4.3 of this enabler which does not allow it to work when using Apple System 7.6. Apple plans to release an update fixing this problem very soon. Users should contact Apple for the latest information or visit the Apple website.

Until Apple releases the update to this extension, 68k-based machine users wishing to use a MIDI control surface should NOT upgrade to Mac OS 7.6.

#### Editing of Stereo Plug-In Parameters from an External Controller.

- At this time, holding the Shift key down when editing a parameter in a stereo plug-in does not simultaneously move the corresponding left/right parameter, as it does when performing the same operation directly in the on-screen plug-in window.

### DINR TDM Plug-In

- When controlling the BNR TDM Plug In from an external controller, the response, release and smoothing controls operate in a backwards fashion, that is turning the controller knob to the right moves the slider to the left. This will be addressed in a future release of the MIDI Controller personality files.

## **FADES**

### Custom Fades on 68k-based Machines

- If you are using a 68k-based Macintosh, you should be aware that using the adjustable fade shapes in the Fades dialog has slow performance. This feature has been optimized to take advantage of the PowerPC processor's faster speed, and consequently adjustable fade shape operation is very slow on 68k-based systems.

## **EDITING**

### Session Offsets

- When the chosen session offset of a session is later in time in the Session Start Field of the Session Setup window, the "maintain timecode/relative position" dialogue does not appear, and Pro Tools assumes "maintain relative timecode" has been selected, moving the contents of the playlist later in time.

### Using Escape key to Exit Big Counter

- Using the "escape" key to get out of timecode numerical entry in the Big Counter changes the selected edit tool by one to the right in the same operation.

## **QUICKTIME MOVIE PLAYBACK**

- QuickTime Movie Not Centered on Second Monitor When Expanded Movie Saved — When re-opening a Pro Tools session that was saved with the movie expanded and displayed on a second monitor, the movie may appear slightly below center. During Pro Tools playback in this scenario, the tapping hand may be displayed and movie playback may be very slow. To remedy this, stop playback and expand the movie again, which will automatically re-center the movie and restore correct operation.
- QuickTime Movie Not Displayed on Playback — Occasionally, after importing a QuickTime Movie, the Picon track and QuickTime Movie window will display black frames and not the program material. Deleting the Pro Tools v4.0 Preferences file within the Preferences Folder in your System folder remedies this problem.
- Movie Playback Stops Prematurely With Miro DC-20 — When using the Miro DC-20, QuickTime Movie playback may occasionally stop prematurely before the end of the movie file. To avoid this, please continue movie capture at the end of the actual video material by about 10% of the total QuickTime Movie length.

## **MISCELLANEOUS**

### Changing Monitor Resolution Setting

- Changing monitor resolution with Pro Tools running can cause some of Pro Tools floating windows to behave as if they are at the previous monitor resolution. To maintain proper window draws/performance in Pro Tools, changes to the monitor resolution should not be made while Pro Tools is running.

### Working on Consecutive Large Sessions

- Due to changes to increase performance, Pro Tools 4.0 is more prone to memory fragmentation than previous releases when working on consecutive large sessions for long periods of time. It is advisable to quit and relaunch the Pro Tools application between sessions when working with large sessions. If

you get a “Pro Tools Memory is Low” dialog during Pro Tools operation, but the “About This Macintosh” dialog in the Finder shows that plenty of memory is available for Pro Tools, quit and relaunch the Pro Tools application.

#### Lack of Mixer Channels on Large Sessions

- If you should run out of mixing channels during the course of working with a large session, you may lose the ability to change outputs. If this should occur, quit the Pro Tools application and re-open the session. In the course of rebuilding the session, this functionality will be restored.

#### Slow Error Dialog when DSPs Maxed Out

- When inserting an additional plug-in when the DSPs are already maxed out, it can take up to 30 seconds for the error message to be displayed.

#### Optimizing/Erasing Drives with Pro Tools III and Pro Tools Project

- Hard Drives connected to the Disk I/O or Pro Tools Project card cannot be erased or reformatted. In order to erase/reformat a drive, it must be connected to the Macintosh SCSI bus.

#### 8 x Real-Time Shuttle Mode and 68k-Based Machines

- 8x speed shuttle mode (option - control -9 when in Scrub mode) may produce low level digital noise when being used on some 68k-processor-based systems.

- Sessions created on any non-TDM-equipped system that contain any EQ settings will open without any EQ on a Pro Tools III system. (The EQ's used in Pro Tools III/TDM systems are of a different type than the EQ's in non-TDM systems.)

- Due to a bug in the Apple Finder, dragging and dropping audio files onto the Pro Tools application in the Finder to load them into a Pro Tools Session sometimes stops working. If this occurs, rebuilding the desktop restores this feature. (You can access the feature by holding down the Command and Option keys while re-booting.)

- When switching Playback Engines from Disk I/O to Audiomedia III systems, the disk allocation for audio tracks may change to a drive on the Macintosh SCSI bus, and a Session folder is created on that drive.

- Clicking on Finder During Launch – On some faster Macintoshes, it is possible to enter the Finder while both Pro Tools and DAE are launching. This action may result in Pro Tools reporting “Could not complete your request because of a program error.” If this occurs, do NOT continue to operate the program after exiting the error dialog. Quit and relaunch the Pro Tools application if the error message appears.

- Feedback with Aux Inputs – When Pro Tools Audio Interfaces are powered-on, they currently operate in a hardware “pass-through bypass” mode until the DigiSystem INIT in the system folder configures the hardware and disables this mode. During the time it takes for this to occur, oscillation feedback can result if hardware inputs and outputs are set up as send/return loops to external effects devices. This can be especially problematic in larger Pro Tools III systems involving analog equipment connected to TDM Inserts. To avoid potential feedback with setups involving send/return loops with external equipment, please be sure to mute monitoring before power-up, power-down, and restart of Pro Tools equipment.

#### Pro Tools III Systems with Multiple Disk I/O Cards

- Currently, the destination drive for copied files is not definable. When regions are drag copied from A

to B voices, the copies are always sent to the first partition on the first drive on that SCSI chain.

- When attempting to open a session in which a voice/drive mismatch occurs, Pro Tools posts a warning dialog. After the dialog is OK'd, the progress bar does not update, but the session will continue to open.

#### Pro Tools Project Systems with the Power Macintosh 7200/120

- There have been reports of an intermittent problem with bouncing when running this configuration. Specifically, bouncing a session can take an extraordinarily long time. (A fifteen minute bounce, for example, can take up to three hours.) The workaround for this is to select the material you want to include in the bounce before choosing the "Bounce to Disk..." command from the File menu. Bouncing is still a non real time process, but it doesn't take much longer than real time to be completed. (The same fifteen minute bounce, for example, will take about 20 minutes.)

#### Pro Tools with Audiomeia III Systems and DAE™ Memory Allocation

- On Pro Tools with Audiomeia III systems, DAE's memory defaults to a preferred size of 7667k. For better performance, please increase DAE's memory allocation to 9000k as follows: Open the DAE Folder inside your System Folder, select DAE, and choose Get Info from the Finder's File menu. Enter 9000k in the Minimum and Preferred Size fields and close the Get Info dialog.

#### Pro Tools with Power Mix Systems

- Hard drives connected to a Disk I/O or Pro Tools Project card are not supported for use with PowerMix. Attempting to record/play from a drive connected to a Disk I/O or Pro Tools Project card will result in DAE errors.
- When bouncing tracks, the "Estimated Time Remaining" counter does not always count down sequentially from the beginning of the bounce. Once it gets past half way it starts to stabilize. This does not affect functionality.
- There have been reports of an intermittent problem, where a small pop can be heard at the beginning of a track(s) if two consecutive record passes are made over the same area on the same track.

### **PRO TOOLS UTILITIES**

#### DigiTest 2.3

- DigiTest 2.3 incorrectly recognizes a Power Computing PowerWave 150 as an Apple Power Macintosh 9500. The software can still test your Digidesign hardware, but it will falsely indicate 5 PCI slots instead of the 3 slots that are actually in the CPU.

#### Calibration Tool

- Calibration Tool can cause errors when running concurrently with Pro Tools. Please quit Pro Tools before using this utility.
- Meter Resolution between Pro Tools and Calibration Tool – The metering methods used by Pro Tools and Calibration Tool are different. Pro Tools uses peak detection while Calibration Tool uses true RMS level detection. Therefore, when using Calibration Tool to set system levels for Pro Tools Hardware, remember that the differences in meter types will result in very slight signal level discrepancies.

### **SOUND DESIGNER II**

- On a NuBus-based Pro Tools system, if you destructively edit the length of a Region or Audio file in Sound Designer II and return to Pro Tools, the time stamp of the file will be reset to 00:00:00:00.

- On a NuBus-based Pro Tools system, occasionally large sound files recorded to Sound Designer II can be fragmented, and consequently can not be imported into Pro Tools. To avoid this, always pre-allocate your hard drive when recording files in Sound Designer II for import into Pro Tools Sessions.

## **COMPATIBILITY**

### General Compatability Info

- Pro Tools 4.0 will not import sessions created in Pro Tools v1.x. If you wish to use Pro Tools 1.x sessions in Pro Tools 4.0, you will need to first open the session in Pro Tools 3.2x, then save the session as a Pro Tools 3.2x session, which may then be opened in Pro Tools 4.0.
- File Sharing is not supported. Please turn File Sharing off when using Pro Tools.
- When launching Sound Designer II from an SDII on the desktop when ProTools is the active application, SDII will sometimes fail to launch. This is because Pro Tools has not completely release the hardware. Clicking first in the Finder, then double clicking on the SDII icon will result in SDII launching successfully.

### Sound Drivers

- Previewing within the "Import Audio From Other Movie" dialog when trying to import and convert from CD sometimes results in intermittent clicking. We plan to address this issue in a future release of the Sound I/O Drivers.
- The Digidesign Sound Drivers 1.4.2 require DSI 3.1. Using the Sound Drivers with DSI 2.97 can result in a crash.
- Pro Tools with PowerMix does not currently support Digidesign's Sound Drivers.

### Digidesign Plug In Compatability

- All TDM Plug-Ins have been updated to add the following functionality when used with Pro Tools 4.0:
  - Automation of Plug-In parameters
  - Mapped parameter control from an external MIDI controller
  - access to the new Plug-In Settings librarian
  - memory caching for improved DAE memory management (Power Mac-based systems only)

The new Plug-Ins versions of DINR, DPP-1, D-Verb and Focusrite will be available concurrently with Pro Tools 4.0 software. Pro Tools system owners upgrading to Pro Tools 4.0 will automatically be sent updates for their registered Plug Ins.

Pro Tools 4.0 is compatible with DINR 2.1, DPP-1 1.1, D-Verb 1.11, and Focusrite d2 1.0, but the above new functionality will not be available when using these versions of the Plug-Ins. Additionally, there is no method for saving or restoring existing Plug-In effects settings when using Pro Tools 4.0 with these older Plug-In versions. This is because the Plug-In Settings Save/Restore functions are now accessed via the updated Plug-Ins themselves, and the Effect Menu has been removed from the Pro Tools main menu bar.

### Digidesign Development Partner Plug In Compatability

In general, Development Partner Plug Ins that work with Pro Tools 3.2 (for NuBus users) or 3.22 (for PCI users) will work with Pro Tools 4.0, although as above, the new Pro Tools 4.0 functionality will not be available when using these versions of the Plug-Ins.

Additionally the following compatibility issues should be noted:

#### Waves

- Using Waveshell 2.2 may cause some large sessions to playback with clicks in the audio. Waves plans on shipping WaveShell 2.3 in Q1, 1997, which will include a fix for this problem.

#### Intelligent Devices

- AD-1 and IQ are not compatible with Pro Tools 4.0. Some users have been able to use these Plug Ins successfully, but we have found them to be problematic and, therefore, not supported.

#### Interbase Administrator

- Plug Ins that use the Interbase Administrator (NuVerb, MasterTools) will sometimes display a graphics error (blank screen) during the Pro Tools launch process. This does not affect functionality.

#### Sequencers

- Playback in Pro Tools may become distorted when a digital audio sequencer is opened with Pro Tools and DAE already running. Please make sure that, when using a digital audio sequencer and Pro Tools concurrently, the sequencer is set to its MIDI-only mode.

### **HARDWARE AND PERIPHERALS**

- Sample Rates Above 48 kHz – Though it is not possible to select sample rates other than 44.1 kHz or 48 kHz when creating Sessions, it is possible to varispeed audio playback via the SMPTE Slave Driver, or Video Slave Driver with Word Clock. However, if a 48 kHz Session is played back with as little as a 2% increase, intermittent clicks or skipping playback may be heard in the audio. Therefore, Digidesign recommends that you do not increase the system clock speed above that amount when using 48 kHz Sessions. Note: the 48 kHz Pull Up sample rate option (available only with the SMPTE Slave Driver) will play audio correctly.

## Pro Tools 4.0 System Requirements

### Computer Requirements

- **CPU** — Qualified Power Macintosh Computert

Note: When using PowerMix, track performance varies with Power Macintosh CPU speed:

- 8-track playback requires 60 MHz CPU minimum
- 12-track playback requires 80 MHz CPU minimum\*
- 16-track playback requires 100 MHz CPU minimum\*

*\*Power Macintosh 7200/90 & 7500/100 limited to 8 playback tracks*

- **RAM** — 32 MB of RAM minimum.
  - Additional RAM required for simultaneous use with MIDI sequencers.
  - Virtual memory is not supported.
  - Additional RAM required for allocation to Tools application when working with large Sessions.
- **System Software** — Apple System 7.5.3 or 7.5.5.†  
(Information for Apple System 7.6 not available at the time of release.)
- **Opcode's OMS version 2.3.1** or higher is required. (this is supplied) ††
- **Apple QuickTime 2.5** or higher is required. (this is supplied)
- **Monitor** — 8-bit color required, 14" minimum, 17" highly recommended.

### Hard Disk Requirements

- Qualified external hard disk drive.†

†For the latest list of qualified computers, hard drives and computer requirements, contact your Digidesign dealer or your local Digidesign office. (In the US, call (800)-333-2137). Digidesign can only assure system performance with the use of qualified equipment.

†† Pro Tools 4.0 requires that the OMS Preference "Use SerialDMA when available" is unchecked. Enabling this option will cause problems with MIDI and synchronization services when using Pro Tools 4.0.

OMS QuickTime Musical Instruments is not supported. Please make sure that this feature is turned off before launching Pro Tools.

## Problematic Extensions, Control Panels and Parameters

There are several Extensions, Control Panels and Macintosh parameters that may adversely affect the performance of Pro Tools. These include:

- The Macintosh Menu Clock display can sometimes become corrupt when editing TDM Plug-In parameters. Using the Macintosh Menu Clock is not recommended.
- AppleTalk – Use the Chooser to disable AppleTalk. Leaving AppleTalk active can compromise the audio recording quality of Pro Tools.
- E-Mail – Microsoft Mail, QuickMail and others should be disabled before running Pro Tools.
- Calculate Folder Sizes – If the Views Control Panel is set to “Calculate folder sizes”, it may cause enough CPU/disk overhead to cause Pro Tools to report DAE -9073 errors (disk too slow). Disable this setting to prevent the errors from occurring (doing so will also speed up the opening of folders in the Finder).
- CD-ROM & Removable Media Extensions/Control Panels – Many CD-ROM & Removable Media extensions/control panels have been linked to audio quality problems, and in severe cases, system crashes. The easiest way to prevent problems is to remove the extension/control panel and restart the computer. On some systems, simply having a CD-ROM/Cartridge inserted in the drive (and mounted) will correct the problems, though removal of the extension/control panel is the most reliable option.
- Debuggers – The Pro Tools copy protection disables most debuggers, including MacsBug. Pro Tools will crash however, if the Jasic debugger is running when you authorize or launch Pro Tools. Removal of the Jasic debugger is the only workaround to the problem at this time.
- Directory Assistance – This Norton utility has been proven to be problematic with Pro Tools and should be disabled.
- Greg's buttons - This popular system extension is not supported in Pro Tools.
- QuicKeys – In general, Digidesign has not found any problems with QuicKeys and Pro Tools, but please be aware of the keyboard shortcuts defined in your QuicKeys and make sure that they will not conflict or duplicate those used by Pro Tools. Please verify that you are using the latest versions of both QuicKeys and CE Toolbox.
- RAM Doubler – This system extension (or any other other virtual memory scheme) is not compatible with any Digidesign product.
- Screen Savers – After Dark, Møire, Pyro and others should be completely disabled or removed before running Pro Tools.
- SCSI Manager 4.3 - Digidesign has encountered very occasional problems with SCSI Manager version 4.3, which is part of System 7.5. Symptoms include clicks, pops, and drop-outs that appear to be written to disk.

*Note:* The following workaround applies only to NuBus-based Pro Tools systems:  
In non-Power Macintosh systems, simply remove the SCSI Manager Extension. In Power Macintosh systems, SCSI Manager is built-into ROM. In this case, one workaround is to initialize Pro Tools drives with a non-SCSI Manager-based disk utility program (such as SilverLining v5.4), or to initialize

them using a non-Power Mac system without the SCSI Manager Extension loaded. Note that you should only initialize or optimize drives when they are connected to the Mac SCSI bus. For more information, please contact your drive or disk utility manufacturer.

- SCSI Probe – Though this control panel is generally safe to use, you must disable (or change) the Command-Space Bar mount command as this key command is used by Pro Tools for recording.
- Super Boomerang – Early versions of Super Boomerang would crash Pro Tools when opening Sessions or audio from Boomerang's custom open dialog. Please verify that you are using the latest version of Super Boomerang. Disable it if you are unsure.
- Virtual Memory – Pro Tools will not launch if Virtual Memory is active. To disable it, open the Memory Control Panel, disable Virtual Memory and reboot the Mac.
- Windowshade - If a window is pulled up (by windowshade) and a Session is saved on a 7.5 system and later opened on a 7.1 system, the menu bar of the window will be the only thing visible, with no way to "open" that window. The workaround for this is to save that Session on a 7.1 system and then close and reopen the Session. This will bring the window back. Also, if you double-click on the title bar to make the screen "roll up," then double click to make it come back, the screen cursor becomes an arrow, regardless of which tool is selected.
- Use of Disk Utilities with the Pro Tools III Disk I/O - Digidesign has verified that there are compatibility problems with optimize function within the disk utility SilverLining. Using this software to optimize a drive that is connected to a Pro Tools Disk I/O will cause all of the files to be corrupted. It is therefore recommended that you do not use this optimization utility on a hard disk that is connected to a Disk I/O. Before optimizing or defragmenting a hard disk, remove it from the Disk I/O SCSI bus and connect it to the Macintosh SCSI bus.

## The ADAT Interface - Release Notes for ADATLink 1.0.5

- ADAT Firmware Versions — ADAT firmware version 4.03 is required for use of the Alesis ADAT with the Digidesign ADAT Interface and ADATLink 1.0.5.

ADAT XT firmware version 1.06 is required for use of the Alesis ADAT XT with Digidesign ADAT Interface and ADATLink 1.0.5.

- Delay Compensation when Mixing ADAT Interface Transferred ADAT tracks with ADAT Tracks on Auxiliary Inputs — If mixing tracks that have been transferred to Pro Tools via the ADAT Interface with “live” tracks coming from the ADAT digitally into Auxiliary Inputs in the Pro Tools mixer, the tracks will no longer be phase-synchronous. This is because of a 3 sample TDM delay to the Pro Tools Auxiliary Inputs.

Normally, when transferring audio between the ADAT and Pro Tools and back, delay compensation is performed on the way back to the ADAT automatically so that phase accuracy is maintained, but when mixing disk tracks and “live” input tracks, this is no longer the case. The easy workaround is just to instantiate the TimeAdjuster Plug-In on all of the digital live input Auxiliary Input tracks. Placing the TimeAdjuster across the Auxiliary Input track inserts will delay the live input tracks by 3 samples, bringing them in-phase with the disk tracks. TimeAdjuster provides 24 instances per DSP Farm chip, and is very cheap in terms of DSP.

- Using Pro Tools without the Digidesign ADAT features — If you have an ADAT Interface connected and you wish to use Pro Tools without the ADAT, we recommend that you either disconnect the ADAT Interface completely from your Pro Tools system or leave it connected and make sure it’s enabled in the peripherals dialog box each time you begin a Session. If the hardware is connected but not enabled in the Peripherals dialog box, Pro Tools will not function correctly.
- MOTU ADAT XT and the ADAT interface — FreeMIDI is not supported for use with the ADAT interface.
- ADAT Interface and OMS 2.3.1 or greater — If you are using OMS 2.3.1 or greater, you should uncheck the “Use Serial DMA when available” checkbox in the Preferences menu within the OMS Setup application. If this item is not unchecked, the ADAT will not respond properly when locked to external time code using Digidesign synchronization peripherals.
- ADAT XT Support — If the ADAT XT has been record-enabled through the ADAT window in Pro Tools, and a record enable/disable button is then pressed on the ADAT XT itself (for whatever reason), ProTools tracks will not get routed to the correct ADAT tracks. Clicking any one of the ADAT record enable buttons in the ADAT window within Pro Tools will reset the routing to the correct tracks.
- Mixing ADATs and ADAT XTs — Alesis recommends that when combining ADATs and ADAT XTs that the ADAT XT be used as the master ADAT.
- Recording with the Alesis ADAT — The Alesis ADAT begins all recordings with a short (approximately 10ms) crossfade. As a result, to ensure that the transients at the beginning of your Pro Tools Session’s audio are preserved when you transfer to tape, leave a short period of silence between the ADAT record start point and your Session’s audio start point.
- Sync Peripherals and the ADAT Interface — Pro Tools v4.0 supports the use of Digidesign sync peripherals, the SMPTE Slave Drive (SSD) and Video Slave Driver (VSD), for slaving your Pro Tools/ADAT Interface/ADAT system to external time code. The latest ADAT Interface User’s Guide describes, in detail, sync peripheral support and numerous other performance improvements. If you

wish to receive an updated User's Guide, contact Digidesign Customer Support at (415)-842-6699. To see if you have the latest User Guide, check the part number, located on the second page. The most recent version as of this writing is 932003326 Rev. A.

- Power-off problems — Do not power-off the ADAT Interface, your Pro Tools Audio Interface, or any ADAT(s) when Pro Tools is running. If the ADAT is powered off, you may be prompted to reconnect ADATs in the Pro Tools Peripheral Setup dialog. If the Pro Tools Audio Interface is powered off, you may need to toggle the clock master in the Pro Tools ADAT Window.
- ADAT Optical Interface problems with 5 or more ADATs — It has been our experience that when operating with more than 4 ADATs in a chain, digital I/O quality deteriorates at either end of the optical path, i.e. audio recorded from the first ADAT in the chain; while audio recorded onto the 5th (or higher) ADAT in the chain can be distorted. If you experience this problem, there is a workaround - simply swap tapes from machine to machine. For best results when recording to an ADAT, use one of the first 4 ADATs in a larger-than-5 ADAT chain. If you are recording from an ADAT to Pro Tools, use the last ADAT in a larger-than-5 ADAT chain for best results.
- Using the ADAT Interface with other audio applications — Clocking problems between the Digidesign ADAT Interface and your Audio Interfaces can occur if you use other applications that make use of Digidesign audio hardware. A utility application called Reset ADAT Interface, located in the ADAT Utilities folder, has been supplied to correct these potential problems. Please consult the document entitled *Reset ADAT Release Notes*, located in the same folder, for information on how and when to use this utility.
- Switching out of Pro Tools when using the ADAT Interface — For best results, avoid switching out of Pro Tools when working with the ADAT Interface. If you must do so, make sure “Active in Background” is selected and (when using OMS 2.0 or higher) “Run MIDI in background” is checked in the Serial Ports dialog box.
- Switching Out of Pro Tools when Online — For best results, avoid switching out of Pro Tools when working with the ADAT Interface if “Online” is selected or when the Online button on the Transport is flashing.
- In the “Peripherals...” dialog box, there is now a Device pop-up menu for users with a Video Slave Driver. This pop-up menu must be set to Video Slave Driver when using a Video Slave Driver and an ADAT Interface with Pro Tools.
- Fostex RD-8 compatibility — A single Fostex RD-8 is compatible with an ADAT Interface. The RD-8 firmware version MUST be 2.02 or higher for both the “Sync” and “Main” chips. Check with Fostex for firmware updates, if necessary.
- If you have no other MIDI ports to choose from except the ADAT port, newly created MIDI tracks default to no port at all. If you then save the Session and reopen it, the tracks with no port assignment default back to the ADAT port. If MIDI data are present on these tracks, a system crash may result. To avoid problems, mute your MIDI tracks in this case.
- ADAT Interface and 882 I/O — When using these two devices together, putting Pro Tools into external digital sync mode when there is no digital clock source connected can cause audio from the 882 I/O to be muted. Be sure that you have an external clock source connected to avoid this problem.
- Syncing Pro Tools, an ADAT, and an external Machine via PostView machine control (ATR/VTR) is not

supported at this time.

- Locking ProTools and the ADAT to external timecode can take up 20 seconds. This is a current limitation of the ADAT hardware.
- Digidesign recommends that the ADAT offset be at least thirty seconds when syncing to external time code. This ensures that sufficient tape time is available to achieve lockup to external time code prior to the Session start. Increasing the ADAT pre-roll will not help this situation, since there is only a short stretch of usable tape before the zero point. If you are not using external time code, a smaller offset is sufficient, but it should still be greater than zero, as we have found that the ADAT may not be able to record exactly at the zero point.
- When launching Pro Tools with an ADAT Interface connected, the cursor will sometimes freeze for a few seconds. This is normal operation and should not be a cause for concern.

## Frequently asked ADAT Questions & Answers

**Q: The ADAT will chase to the pre-roll time correctly. However, when the ADAT reaches the insertion point, it plays for 1-3 seconds and then stops.**

A: The sync in or out cable is not seated properly on the ADAT Interface. Try disconnecting the sync cable and reversing the direction of the cable. The Sync In port of the ADAT Interface is the most susceptible link in the chain to this type of behavior. If reversing the cable does not work, try another 9-pin sync cable if one is available. If another ADAT is accessible, connect the Sync Out of your ADAT to the Sync In of the other ADAT to verify that they sync together. Also, make sure that pre-roll is NOT set to 0:00 seconds in the ADAT window.

**Q: I have a Pro Tools III Core System with an additional Audio Interface connected to my PCI DSP Farm, and I'm using the ADAT Interface in-line with my DSP Farm and its Audio Interface. No signal is passing through...**

A: This is not a supported configuration. The Digidesign ADAT Interface should *only* be connected between the first Disk I/O in your system and its Audio Interface. Reconnect your system so that the DSP Farm and its Audio Interface are directly connected, and connect the ADAT Interface to its proper place — with the first Disk I/O.

**Q: After installing the ADAT Interface, I am no longer able to transfer audio into Pro Tools via the digital ports.**

A: In the ADAT Window, you must choose what Input 1-2 will represent; either ADAT inputs or Audio Interface inputs. Pro Tools will ignore the digital-in ports if the ADAT Window is set for "Inputs 1-2 = ADAT 1-2." This will be the case even if the hardware setup dialog box is set to "Digital."

**Q: With the ADAT Interface connected, I get weird digital noise when transferring from DAT to Pro Tools.**

A: If the ADAT Interface is connected when transferring information via the digital ports on the Audio Interface, you must choose "Audio Interface" in the Clock Source pop-up in the ADAT Window and choose "Digital" in the Sync Mode pop-up in the Hardware Setup window. This allows Pro Tools to turn off its internal sample rate crystal and slave to the incoming sample rate clock of the DAT. If "audio interface" is not chosen in the ADAT Window, Pro Tools is forced to slave to two separate slave clocks. This can lead to unpredictable results and clock noise in the analog outputs of the Audio Interface. Fortunately, Pro Tools version 3.2 (and greater) added a level of error checking which automatically sets the Clock Source in the ADAT Window to "Audio Interface" if you select digital sync mode in the Hardware Setup window. (Note: If you have a Digidesign Video Slave Driver connected and it is checked in the Peripherals Setup window, "VSD" will be the only Clock Source choice. Just remember to choose "Digital" in the Sync Mode pop-up in the Hardware Setup window.)

**Q: I have the ADAT Interface configured correctly in OMS Setup and Patches but when I click the ADAT Interface in the peripherals menu I get an error that says "No response from ADAT. Please check cables and connections and try again."**

A: If all cables (especially the 9 pin sync cables and the MIDI cables) appear properly seated, try resetting the MIDI Interface. MIDI Time Piece II interfaces are prone to this type of behavior. You will find the reset command on the MTP II's front panel LCD Menu. Verify the ADAT port is not being used for other devices or port functions such as time code, MIDI output, Pro Tools' MIDI Metronome, etc.

**Q: The ADAT is chasing to Pro Tools Transport but I do not get any metering in the software or the front panel display on the ADAT.**

A: Pinched or stretched optical cables are the leading cause of this failure. Fiber optic cables are extremely delicate and prone to failure, especially when stressed with the weight of other cables or stretched beyond their capacity and tolerance.

**Q: With the ADAT Interface in line, Outputs 5-8 of my Audio Interface do not work.**

A: If you have a Pro Tools III (Disk I/O-based) system: See if the 4/8 switch on the back of the ADAT Interface is pushed OUT. If so, outputs 5-8 will cease to function properly. When pushed in, the ADAT Interface will configure the peripheral 1 port for an 8 channel device. When pushed out, the interface is configured for 4 channel use. All other functions of the interface will operate normally. Do not connect other Disk I/O or Bridge I/O cards to the Computer 2 port of the ADAT Interface. The Computer 2 port is never utilized in Pro Tools III (Disk I/O-based) system.

Or:

A: If you have a Pro Tools I-series (SA4-based) system: See if the 4/8 switch on the back of the ADAT Interface is pushed IN. If you have 8 channels or more in your system, you must have the TDM option. If you have more than 8 channels, you must use cards/interfaces A and B of your Pro Tools system.

**Q: I am trying to transfer some audio out of a Session to the ADAT using the ADAT Interface. However, after 10 seconds all the channels immediately jump to the clipping range on the ADAT no matter what the level of the audio is.**

A: This was a software bug with version 3.0, and was fixed in version 3.1. However, if you encounter this problem, use the Track Transfer utility to transfer the files into a new Pro Tools 3.22 session file. Then try your transfer once more. This problem is a result of opening a 2.51 session in Pro Tools 3.0 and transferring the information to an ADAT. Re-saving the Session will not solve the problem — you must Track Transfer the session.

## QuickTime™ Movie Playback

68k-based Pro Tools systems do not support the resolved QuickTime Movie playback capabilities of Pro Tools v4.0. However, QuickTime Movie playback performance on 68k-based machines is improved in comparison to Pro Tools v3.2 and PostView 3.1. Unlike PPC-based Pro Tools system, QuickTime Movie playback on 68k-based systems will not be resolved to the audio clock.

### **Playing movies without video capture/playback hardware:**

- Cinepak is probably the best compression format for playing back movies on the Macintosh platform where no video capture/playback hardware is being used.
- Don't use key frames when capturing/creating Cinepak movies. Key frames are essentially uncompressed frames and will cause playback to stutter.
- Small movies with low data rates work best for Non-accelerated movie playback.
- Quicktime Movie performance on AudioMedia II systems can be jerky. Movies may appear to "hiccup" every 2-3 seconds.
- See below for notes on the A/V PowerMacs

### **Playing movies WITH video capture/playback hardware.**

As a general rule, movies to be used in Pro Tools are best captured at quarter size (320x240 for NTSC movies, 384x288 for PAL format movies)

#### **Radius VVS Studio (PCI)**

Pro Tools Movie Zoom now supports PAL movie sizes. If a movie is captured at 384x288, Movie Zoom will double the size (to 768x576) to the appropriate monitor attached to the Radius card.

#### **Radius VVS Studio (NuBus)**

Pro Tools Movie Zoom now supports PAL movie sizes. If a movie is captured at 384x288, Movie Zoom will double the size (to 768x576) to the appropriate monitor attached to the Radius card.

#### **Miro DC-20**

The Miro DC-20 does its own pixel doubling on output, so all captures should be at quarter size (384x288 for PAL, 320x240 for NTSC). The movie will automatically be zoomed to full screen size when moved to the attached monitor via the Miro control strip.

If the movie is on the monitor attached to the Miro card, the movie "picon" track and the movie window left on the Mac monitor in Pro Tools will display a grey screen with the words "Miro DC-20". This is a function of the Miro card and is normal. If you need to use the picon track then select "Play movie on monitor" in the Miro control strip.

#### **Targa 2000 (PCI)**

This card will work but is not recommended.

The Targa 2000 for PCI has no facility for hardware zoom (pixel doubling) as it's NuBus predecessor did, and is incompatible with Pro Tools' movie zoom. Furthermore, full screen captures with the Targa2000 PCI will generally not provide reliable movie playback in Pro Tools.

#### **Targa 2000 (NuBus)**

Users must use the Targa Hardware Zoom and not Pro Tool's Movie Zoom feature.

**Power Macintosh 7600 & Power Macintosh 8500 issues**

Movies captured with built in video capture hardware on these machines are not adequate for movie playback or accurate spotting within Pro Tools. However they can often playback movies captured with compression hardware and saved as Cinepak. Some movies can even provide 30fps playback. The VRAM in these computers can be expanded to 4mb, and this improves movie playback when output to the attached video monitor.

**Avid Cinema & 6400**

This configuration had not been tested prior to the release of Pro Tools 4.0. Please contact Digidesign for current compatability information.

## Digidesign Audio Engine 3.1.1/3.1 (DAE) & DigiSystem INIT 3.1.1/3.1 (DSI) Release Notes

### General Information

- DAE & DSI (DigiSystem INIT) are the audio operating system for all Digidesign audio cards. This core software provides applications with the ability to record, playback, and edit audio from your hard drive, along with other functionality such as, digital signal processing, sample rate conversion, mix automation, digital transfers, and TDM plug-ins (if your hardware is TDM capable).
- Digidesign provides the DAE and DSI core software to third party developers, enabling you to use Digidesign hardware with a variety of audio products. You need DAE to run any DAE-aware application such as Pro Tools™, Session™, Session 8™, or digital audio sequencers like Cubase Audio™, Digital Performer™, Logic Audio™, and Studio Vision™ if you want to utilize the Digidesign audio cards in your system.
- DAE 3.1.1 and the DigiSystem INIT 3.1.1 are a matched pair. Please do not mix and match different versions of DAE and the DSI. This will lead to unpredictable results when recording and playing back audio.
- DAE 3.1.1 is shipped "FAT," meaning that it can be run on both 68k and Power PC based Macintosh CPUs.
- Use only the matched pair that comes with your installer disks. Usually the best results are obtained by using the latest versions of DAE & the DSI as long as you are using the latest version of a DAE application. If you are using an older version of an application and have never upgraded you may obtain better results by using the DAE & DSI pair that originally shipped with that software.

### DAE Memory Requirements & TDM Systems

- TDM Plug-Ins are one of the great advantages in using Pro Tools software and other TDM-capable DAE software applications with Pro Tools III systems. TDM Plug-Ins reside in DAE's memory in two ways. Each Plug In uses memory in DAE when you launch your software, then when each Plug In is used (instantiated), it uses up an additional amount of DAE's allocated memory in order to draw it's graphics window and for its internal DSP calculations.
- DAE version 3.1.1 will no longer adjust its memory requirements automatically, (other than the playback buffer sizes you set for DAE PowerMix, which still adjust memory allocation automatically). You can change DAE's memory allocation at any time via the Finder without worrying about the self-configuration routines adding additional amounts of memory without your knowledge. If you routinely run with extra memory allocated to DAE, please be sure to add that amount of memory to DAE after installation of the new version.
- You should allocate extra memory to DAE when you purchase additional Plug-Ins. A good rule of thumb is to see how large each additional Plug-In you own is, then add that amount of memory to DAE. For example, if you have 5 new Plug-Ins that are 300K each, you should add an additional 1500 kbytes of memory to DAE. If you were previously running with 8000 kbytes of memory allocated to DAE, you would now allocate 9500 kbytes of memory to DAE.
- If you allocate multiple instantiations of Plug-Ins you may need to increase DAE's memory amount because each instantiation of a Plug-In uses a little more memory in DAE. (*"Instantiation" is the technical term for use of a Plug-In in a Session.*) Use the Allocator utility that came with your Pro Tools system to determine how much free memory is available in DAE when you are running a typical

Session or sequence. If DAE has less than 10% of free memory available, allocate more memory for it.

### **DAE Playback Buffer Size**

- Whenever you first launch DAE or change the audio hardware in your system the Playback Buffer dialog will appear. The dialog presents the buffer size options available to you depending on your hardware configuration.
- The Buffer Sizes setting allocates more memory to DAE so certain hardware cards and the DAE PowerMix™ extension can use DAE's memory as a disk buffer. Please remember that the Buffer Sizes setting is not used with Pro Tools III™ or Project™ PCI hardware. The audio buffer actually resides on the card itself in those systems.
- Only Audiomedia II/III and the DAE PowerMix™ engine actually use DAE's memory as a buffer. If you are a user of these cards and are experiencing unwanted audio artifacts such as skipping, clicks, or are receiving numerous DAE -9073 errors (disk too slow), you may want to adjust the buffer sizes setting to a higher value.
- The Playback Buffer size will affect the behavior of muting and un-muting voices when the "Mute Frees Voice" option is enabled in Pro Tools. The larger the buffer, the longer it will take for the mute or un-mute to take effect, and may not take full effect until the audio buffer is cleared.

### **Disk Fragmentation, Optimization, and Utilities**

- As you use a disk drive over time, creating, editing and deleting audio files on the drive can cause them to become fragmented. This can affect the playback and recording of audio files. We strongly suggest that you use a disk optimization program on a regular basis to eliminate and reduce the fragmentation of your audio files. DAE has an upper limit of 500 fragments that an audio file can contain. If a file has more fragments than this, it will post a -9018 error.
- If you record or sample rate convert split-stereo files in Sound Designer II without pre-allocating the hard drive before recording, you can exceed 500 fragments on files that are longer than 12 minutes. We recommend that if you do record split-stereo audio files in Sound Designer II that you pre-allocate the drive before recording or sample rate converting. This will eliminate fragmenting of the audio file.
- Use of Disk Utilities with the Pro Tools III Disk I/O — Though utilities such as Norton, Symantec and Disk First Aid can be used on drives that are connected to the Disk I/O or System Accelerator, repair and/or formatting should be done from the Mac SCSI bus only.

## Customer Support Information

### INTRODUCTION

Digidesign's Customer Support centers receive many calls every day. In order to ensure that all our customers receive the absolute best support, we urge you to read and take advantage of the exciting new information sources we describe in this document. Our popular new Digidesign Answerline and Fax-On-Demand service is proving to be a valuable resource for many of our customers, as is our greatly expanded presence on-line. Finally, we urge you to become familiar with the contents of the new User's Guide (or Addendum) you received with this package.

Again, thank you for buying Pro Tools.

### HOW TO REACH DIGIDESIGN CUSTOMER SUPPORT

#### United States

Tel: 1-650-842-6699      Fax: 1-650-856-4275  
(Monday-Thursday, 7:00am-5:00pm, Friday, 7:00am-3:00pm PST)

#### ProAcess™ Line Premium Support Service

888-344-4376 (United States and Canada only) less than 30 seconds wait time, billed to your credit card.

900-555-4376 (United States and Canada only) less than 30 seconds wait time, billed to your phone bill.

(Monday-Thursday, 7:00am-5:00pm, Friday, 7:00am-3:00pm PST)

#### Australia/South Pacific

Tel: 612-9-937-1800      Fax: 612-9-937-1888  
(Monday-Friday, 9:00am-5:30pm Local Time)

#### Benelux

Tel: 31-20-400-44-53      Fax: 31-20-662-11-67  
(Monday-Friday, 9:00am-5:30pm CET)

#### France

Tel: 33-141-49-40-10      Fax: 33-147-57-56-28  
(Monday-Friday, 9:00am-6:00pm CET)

#### Germany

Tel: 49-811-5520-588      Fax: 49-811-5520-599  
(Monday-Friday, 9:00am-6:00pm CET)

#### Italy

Tel: 39-2-57 511 799      Fax: 39-2-57 500 295  
(Monday-Friday, 9:00am-6:00pm CET)

#### Japan

Tel: 81-3-3505-4762      Fax: 81-3-3505-7938  
(Monday-Friday, 10:00am-6:00pm Local Time)

#### Mexico/South America

Tel: 415-842-6699      Fax: 415-856-4275  
(Monday-Thursday, 7:00am-5:00pm, Friday, 7:00am-3:00pm PST)

## **United Kingdom**

Tel: 44-1753-653322 Fax: 44-1753-654999  
(Monday-Friday, 9:00am–6:00pm GMT)

## **Other European Countries:**

Tel: 44-1753-653322 Fax: 44-1753-654999  
(Monday-Friday, 9:00am–6:00pm GMT)

## **DIGIDESIGN ANSWERLINE AND FAX-ON-DEMAND SERVICE**

This is a free service that provides troubleshooting assistance and sends product information & compatibility documents directly to your fax. Simply call (888) USE-DIGI or (888) 873-3444, press 3 for the Fax-On-Demand service, and specify which document you need. Documents are ordered by four-digit catalog ID number. You can request an index the first time you call. For an index of Technical Support documents, the catalog ID number is 1000. For product information sheets from Digidesign Marketing, the catalog ID number is 2000. This service is available 24 hours a day, 7 days a week.

## **DIGIDESIGN ON-LINE**

Digidesign has both product information and technical support on-line via CompuServe and America Online. These are also excellent places to pose questions to, and exchange information with, other Digidesign customers. In addition there are many user forums which Digidesign appreciates and encourages, but does not sponsor. User forums can be both fun and informative, however, Digidesign cannot monitor the accuracy of information available through these resources. For the most current, accurate information about Digidesign products, browse the Digidesign sponsored forums:

- CompuServe (This is a Digidesign sponsored and maintained forum.)

Digidesign is located in the "MIDI D Vendor" forum. You can get to the forum by executing GO "DIGIDESIGN." Tech support staff are available to answer questions. All current INITs and public domain software (DAE, DigiSystem INIT, Sound Drivers, DATA, DigiTest, etc.) as well as lists of compatible hard disk drives are in the library. Also watch the libraries for demo programs from Digidesign and from our Development Partners.

- America Online (This is a Digidesign sponsored and maintained forum.)

Services on AOL are similar to those offered on CompuServe. To reach this forum, use the Keyword "Digidesign."

- Internet

We now have our own web page and ftp site:

<http://www.digidesign.com>

<ftp://ftp.digidesign.com>

Check <<http://www.digidesign.com/html/contact.html>> for more contact info.

- Tech Support E-Mail Address

We also have an email address for Tech Support:

[techsupt@digidesign.com](mailto:techsupt@digidesign.com)

- Customer Service E-Mail Address

(For registration, software upgrades, etc.):

[csadmin@digidesign.com](mailto:csadmin@digidesign.com)

- Independent E-Mail Groups

There are also several independent E-mail groups sharing information about digital audio workstations. The following are instructions to subscribe to these groups:

DAW-MAC (This is a user sponsored and maintained forum.)

To subscribe:

- address an e-mail message to: majordomo@best.com
- leave the SUBJECT field blank
- type this message in the BODY:  
subscribe DAW-MAC <your E-Mail address>

For a digest version of this mailing list, follow the preceding steps, but type this message in the BODY: subscribe DAW-MAC-digest. The digest groups all the day's messages into one single mailing.

- Related World Wide Web sites:

The DAW-Mac Home Page has interesting information, and can be reached by typing this URL (Universal Resource Locator) in your Web browser:

<http://www.bakalite.com/Daw-Mac.html>

## **ANSWERS TO FREQUENTLY ASKED QUESTIONS**

Our Customer Support representatives receive many calls daily. Following are useful tips, important information and answers to the most commonly asked questions from our users.

## **HARDWARE INSTALLTION TIPS**

- Pro Tools PCI Card Installation/Card Order

In Pro Tools III systems it is important to install the cards in the correct order. (Please consult your Pro Tools Installation Guide for more information.) This is crucial when dealing with expanded systems, but also applies to installing any combination of cards. You must install the cards in alphanumeric priority (low to high) according to card type: 1) Primary Disk I/O, 2) any additional Disk I/Os, 3) DSP Farm(s).

- Pro Tools Slave Clock connections

In multiple I/O systems, it is important to follow the correct Audio Interface Slave Clock connections. These connections should follow the card order: Slave Clock out from Audio Interface on the 1st Disk I/O to Slave Clock in of the Audio Interface on the 2nd Disk I/O (or 1st DSP Farm), etc. Use the cables provided for the Slave Clock connections. If you are using replacement cables, use 75 ohm coaxial cables with BNC connectors, and keep the length as short as possible.

- Hard Disk Drive Compatibility

Because you've made a substantial investment in a Digidesign system, we recommend that you maximize your return by using only Digidesign tested and approved drives with our digital recording systems. We cannot guarantee compatibility with any drive that is not on our approved list. Resolving a problem, should one arise, can be very difficult when there is little or no information about the drive documented here at Digidesign. You can obtain Digidesign's latest hard drive compatibility list 24 hours a day from the Fax on Demand service, our Presales information line, the Digidesign online forums or the CompuServe and America Online forums or our Web Page (see above).

- SCSI Termination

The Pro Tools Disk I/O SCSI bus must be properly terminated. Only the last device on the chain should

be terminated using whatever termination type the drive manufacturer recommends. The drive should use either an external terminator plug or have its internal terminators enabled. (Termination and “term power” are two different things. Please consult your drive documentation for more information.) Do not enable both internal termination AND install an external terminator plug on the same drive! This can cause SCSI errors.

## **MISCELLANEOUS TIPS**

### • Errors -34, -36, -194, or -199

Errors -34, -36, -194, or -199 occurring during software installation, most likely indicate a hard drive problem. Reinitializing the drive solves this problem in most cases.

### • DAE Error -9092

DAE Error -9092 when launching Pro Tools can be caused by incorrect Slave Clock connections in multi-interface systems. Be sure to connect Interface A Slave Clock Out to Interface B Slave Clock In, etc.

### • System Error -39

System Error -39 when launching an application usually means that the application is corrupted. It could also be caused by a corrupted Desktop file. Rebuild the Desktop (hold down the Command and option keys while rebooting the Mac), or reinstall the application from the original floppy disk.

### • DAE Error -9204

DAE Error -9204 when launching Pro Tools could indicate a corrupted DigiSetup file (this is the hardware preference file stored in the System Folder). Discard the DigiSetup file and restart Mac.

### • INIT conflicts

INIT conflicts can cause many problems (program error, crash, freeze, bus error, etc.) during installation, or while running programs. If you experience these errors, remove all extensions and restart your Mac. Add them back one at a time (restarting after each change) to see where the conflict reappears. (You can boot the Mac with extensions off by holding the Shift key while booting.) Another approach would be to install a fresh system on an external drive on the Mac bus and boot from that drive. Try installing and running the software on the external drive.

### • DigiSetup file

Whenever you change hardware or software, you should throw away the DigiSetup file (it's in the System Folder). This hardware preference file will be recreated when you change settings in a program's Hardware setup window.

### • Sample Rate Sync.

The 882 and 888 I/O Interfaces give you 3 sync options. This determines where the Interface will get its clock, and therefore, what speed the audio will play at. When set to Internal sync, the Audio Interface runs off its internal crystal. Set to Digital sync, the Interface is running off an external clock (from a DAT Machine, for example). In Slave mode, the Interface is running off the crystal reference from an external Slave Clock-producing peripheral such as a VSD or SSD. If you are experiencing pitch problems, verify that you are in the correct sync mode (for example, don't play audio with sync set to digital if the DAT Machine is off!), and that all Sample Rates (in the software, and all hardware) match.

### • Synchronization with External Time Code.

If your VTR/ATR and your digital audio start together from any location but drift apart from there, you have a clock resolution problem. Most commonly, the audio is running at a solid 44,100 samples per second, but the tape transport wows and flutters. In this case, you either need to stabilize the tape's

transport (if you can synchronize/resolve the deck), or you need to make the digital audio track the fluctuations of the tape (with a SMPTE Slave Driver, for example). If the VTR/ATR and digital audio play all the way through in sync when starting from the top, but are immediately out of sync when starting elsewhere, then you most likely have a frame rate mismatch. For example, the VTR is 29.97 fps, and Pro Tools is set to 30 fps. 60 seconds @ 30fps = 1,800 frames, and 60 seconds at 29.97fps = 1,798.2 frames. If you start the tape at 1 minute, the tape and the digital audio will be 1.8 frames out of sync. The further in you start, the more out of sync they will be.