PRO TOOLS FAMILY
AT A GLANCE

T here are good reasons why more professionals use Pro Tools than all other digital audio workstations combined. Pro Tools provides the most powerful features for recording, MIDI sequencing, editing, mixing and mastering. In its ten years of availability, Pro Tools has become an industry standard with unsurpassed price/performance.

The award-winning Pro Tools software runs on professional-level Digidesign hardware systems, while Pro Tools LE is designed for home studio music production. The consistency of the Pro Tools interface provides both continuity and compatibility across the entire product line. Pro Tools also integrates seamlessly with the rest of your studio for even more power and functionality.

Digidesign manufactures digital audio workstations for Mac OS and Windows platforms to meet every need and budget. Our Pro Tools│24 family of workstations (including Pro Tools│24 MIX and Pro Tools│24 MIXplus) runs on Mac OS and Windows NT; while Pro Tools LE systems (Digi ToolBox XP and Digi 001) run on Mac OS and Windows 98.*

THERE'S A SYSTEM THAT'S RIGHT FOR YOU

PRO TOOLS POWERMIX (V4.X) lets you run Pro Tools with no additional hardware. Among other things, it allows you to edit your work on a laptop with the same user interface used in our hardware-based systems. *Please note: new Pro Tools LE v5.0 MIDI and audio features and Real-time AudioSuite (RTAS) Plug-Ins not included.*

DIGI TOOLBOX XP ™ is powered by Pro Tools LE v5.0 software and includes the Audiomedia III card for improved analog and digital I/O. Our most affordable integrated hardware and software digital audio workstation, Digi ToolBox XP offers full MIDI sequencing, recording, editing, mixing and Real-Time AudioSuite (RTAS) Plug-Ins. It's available for Mac OS and Windows 98.*

DIGI 001 ™ is a complete audio/MIDI, hardware/software solution in one box (for Mac OS and Windows 98*). It comes with Pro Tools LE software and all the I/O options you need — eight analog inputs, eight analog outputs, eight channels of ADAT optical I/O, and two S/PDIF I/O channels — all at 24-bit resolution. It also comes with a one-in, one-out MIDI interface built in, a footswitch for QuickPunch control, an additional pair of analog monitor outputs and a headphone output with separate volume control. Two of the eight analog inputs on Digi 001 include high-quality mic pre-amplifiers with gain control and phantom power. This reduces the need to incorporate a separate mixer. With integrated MIDI sequencing and Pro Tools' famous audio production capabilities, Digi 001 is the ideal all-in-one solution for home studio production.

PRO TOOLS│24 (two-card system) is a true 24-bit, integrated digital recording, editing, processing, and mixing system. Since its introduction, Pro Tools│24 has revolutionized the way audio professionals work. Tasks that used to be done in hours take minutes. And extensive creative experimentation, previously limited to professionals working on big-budget projects, is now a reality for anyone using Pro Tools│24 for music or audio post production. With cross-platform support for Mac OS and Windows NT, more users than ever before can benefit from Pro Tools│24's advanced audio production capabilities.

PRO TOOLS®│24 MIX (single-card system) gives you all of the audio production capabilities of Pro Tools│24, combined with more on-demand mixing and processing power than ever before and up to 64 tracks of audio. In addition, it offers all of the capabilities you'd get from a world-class mixing console and recorder at a small fraction of the price. With dozens of great-sounding DigiRack Plug-Ins included for free, Pro Tools│24 MIX sets records in price/performance value.

PRO TOOLS®│24 MIXPLUS (two-card system) offers more than double the DSP power of Pro Tools│24 MIX. The mixing and processing capabilities of the MIXplus system go way beyond anything you would expect from a digital audio workstation. With Pro Tools│24 MIXplus, you can literally complete an entire album or film soundtrack — start to finish — without the need for extra DSP cards or expansion chassis.

* Windows 98 support expected Spring 2000

Pro Tools│24 and Pro Tools│24 MIX Systems	Digi ToolBox XP and Digi 001
M Macintosh OS **W** Windows NT	**M** Macintosh OS **W** Windows 98

Pro Tools Software
The Heart of the System

Pro Tools software provides an incredibly powerful tool set for complete audio production — from MIDI sequencing, to recording and editing, to mixing. Pro Tools for TDM gives you access to the professional power-on-demand of our Pro Tools│24 family of systems, while the host-based version, Pro Tools LE, provides a solid work environment for our home studio products. Sessions created with Pro Tools are interchangeable, regardless of hardware environment, and Pro Tools core recording, editing, and mixing environment remains the same regardless of platform.

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Plug-In Overview

Plug-Ins are software modules that extend the functionality of Digidesign systems by adding features such as EQ, compression, and other effects to Pro Tools systems. Rather than patching in a limiter at an insert point, or routing an effects send/receive bus to accommodate an outboard reverb, Plug-Ins allow you to do all this and much more through software.

Pro Tools|24, Pro Tools|24 MIX and Pro Tools|24 MIXplus systems use TDM Plug-Ins, the most powerful, high-quality architecture available. Home studio systems such as Digi 001 and Digi ToolBox XP use Real-Time AudioSuite (RTAS) Plug-Ins.

The TDM architecture consists of dedicated DSP chips on PCI cards. Multiple cards can be added to a system to increase your overall processing power. TDM Plug-Ins function in real-time, so that you can "insert" multiple reverbs, compressors, and other effects directly into your mixer and hear the results. RTAS Plug-Ins also function in real-time, but depend on the speed and available processing cycles of a host computer to do the processing work. TDM and RTAS Plug-Ins have complete automation capabilities with total recall of all settings.

All Digidesign and Digi systems also include AudioSuite™ functionality for file-based processing. With AudioSuite Plug-Ins you can preview and apply an effect to the selected file and hear the results within the mix after it is written to disk.

Don't throw away your patch cords, however. Digidesign's flexible routing structure allows you to "plug in" existing outboard gear from your studio. Still, the software-based Plug-In advantage is obvious, as you can use a single Plug-In multiple times simultaneously.

Digidesign and Digidesign Development Partners manufacture numerous Plug-Ins. Some of Digidesign's TDM, RTAS and AudioSuite Plug-Ins, called DigiRack Plug-Ins, are included free with every Digidesign and Digi system. DigiRack Plug-Ins include:

TDM, RTAS AND AUDIOSUITE
• EQ II – Single or 4-band EQ
• Dynamics II, including compression, limiting, expansion and gating
• Mod Delay, including short, slap, medium, and long delays with modulation capabilities for chorus or flange effects

AUDIOSUITE
• Dither
• Time Compression/Expansion
• Pitch Shift
• Normalize
• Reverse

DIGIRACK
Plug-Ins

To further expand your system's capabilities, you may also be interested in some of Digidesign's other great-sounding Plug-Ins (purchased separately) including:

• Bruno/Reso™ — Cross-synthesis processor (TDM only)
• D-Verb™ — A high quality, 24-bit reverb
• DINR™ — Intelligent Noise Reduction (TDM/AudioSuite)
• DPP-1™ — A versatile pitch processor (TDM only)
• D-Fi™ — Creative sound design tools
• MAXIM™ — World-Class Peak limiter/sound level maximizer
• SoundReplacer™ — Drum hit and sound replacement (AudioSuite)

Digidesign also has the most extensive, professional-quality third-party Plug-In development in the industry. For more information on an extensive list of available TDM, RTAS and AudioSuite Plug-Ins from Digidesign and Digidesign Third Party Development Partners, ask for our Digidesign Development Partner Catalog.

I/O Options for Pro Tools|24, Pro Tools|24 MIX and Pro Tools|24 MIXplus systems*

Digidesign offers several choices of system input/output . All interfaces for our TDM systems offer high quality performance and include slave clock BNC connectors for synchronization peripherals.

The 888|24 I/O offers eight channels of 24-bit A/D and 24-bit D/A conversion. Inputs and outputs are active-balanced XLRs, with internal channel-switchable operating levels between +4 dBu and -10 dBV. One S/PDIF digital and four AES/EBU I/O connectors allow up to eight channels of digital audio to be transferred simultaneously.

The 882|20 I/O offers exceptional performance at an entry-level price. A/D and D/A conversion is 20-bit. Inputs and outputs are active-balanced 1/4" stereo phone jacks, with operating levels globally switchable between +4 dBu and -10 dBV. The 882|20 I/O also supports unbalanced operation. Digital I/O is supported by a single S/PDIF port.

The 1622 I/O is ideal for incorporating vast racks of line-level devices such as MIDI and effects gear into Pro Tools for mixing and recording. With 16 analog input channels and stereo S/PDIF I/O at a low price, the 1622 I/O provides a high-quality, cost-effective option for connecting your outboard gear into Pro Tools. It provides balanced or unbalanced 20-bit A/D with operating levels globally switchable between +4 dBu and -10 dBV.

The ADAT Bridge I/O provides affordable integration of ADAT(s) and Pro Tools editing and mixing capabilities. It offers 16 discrete channels of ADAT optical inputs/outputs, separate AES/EBU and S/PDIF ports for mastering to DAT, and a high quality 20-bit D/A converter pair for monitoring.

* Specifications are available upon request.

Integrating Avid Video Into Pro Tools

AVoption and AVoption|XL are hardware/software enhancements designed to integrate Avid video into Pro Tools|24 and Pro Tools|24 MIX systems. These advanced options support instant capture, import and playback of Avid-compatible video media directly within Pro Tools. DigiTranslator (Digidesign's rock-solid OMFI translation utility) and FilmFrame (for true 24fps support) work with Pro Tools and the AVoptions to provide a complete, versatile post-production system.

Digidesign offers a flexible upgrade path, allowing you to protect your initial investment.

Call us and ask for our Digidesign product Catalog and Pro Tools video today.

1.800.333.2137 (in U.S. Only)
or **650.842.6602**

For the latest lists of computers, hardware and computer requirements, contact your Digidesign dealer, call your local Digidesign office or visit our website for general Digidesign and TDM system info: www.digidesign.com

For Digi Home Studio products and Pro Tools LE info: www.digi001.com

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	or 1.650.842.6602
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France	33.1.41.49.40.10
Germany	49.811.5520.555
Benelux	31.0.73.687.2031
Italy	39.02.577897.1
Asia (Japan)	81.3.3505.7963
Pacific (Australia)	613.5428.7780
Latin America (Miami)	1.305.971.4075

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PRO TOOLS FAMILY FEATURE GUIDE

System Components

System Components	Pro Tools PowerMix 4.x (Software only)	DigiToolBox XP (with Pro Tools LE and Audiomedia III)	Digi 001 (with Pro Tools LE)	Pro Tools|24 (Pro Tools|24 Core System (d24 Card, DSP Farm & software, Digidesign Audio Interface(s))[6]	Pro Tools|24 MIX (Pro Tools|24 MIX Core System (MIX Core & software), Digidesign Audio Interface(s))[6]	Pro Tools|24 MIXplus (Pro Tools|24 MIXplus Core System (MIX Core, MIX Farm & software), Digidesign Audio Interfaces(s))[6]

System Capabilities

Feature	Pro Tools PowerMix 4.x	DigiToolBox XP	Digi 001	Pro Tools|24	Pro Tools|24 MIX	Pro Tools|24 MIXplus
Compatible Computer Platform	Mac OS	Mac OS/Windows 98	Mac OS/Windows 98	Mac OS/Windows NT	Mac OS/Windows NT	Mac OS/Windows NT
Digital I/O	n/a	2/2 S/PDIF	2-10 (2/2 S/PDIF, 8 ADAT)	8–72 (depending on interface(s) and number of cards)	8–72 (depending on interface(s) and number of cards)	8–72 (depending on interface(s) and number of cards)
Analog I/O	Mac built-in audio connectors only	4 (RCA jacks)	8	8–72 (XLR or 1/4″ TRS) (depending on interface(s) and number of cards)	8–72 (XLR or 1/4″ TRS) (depending on interface(s) and number of cards)	8–72 (XLR or 1/4″ TRS) (depending on interface(s) and number of cards)
I/O Resolution	16-bit	18-bit	24-bit	24-bit	24-bit	24-bit
MIDI I/O	no	no (requires MIDI interface)	yes	no (requires MIDI interface)	no (requires MIDI interface)	no (requires MIDI interface)
Simultaneous Rec Trks	2	4	24	32	64[5]	64[5]
Supports 16- or 24-Bit Sessions	16-bit only	yes	yes	yes	yes	yes
Simultaneous Playback Tracks	16[1]	24	24	32	64[5]	64[5]
Virtual Trks (set to voice off above virtual voice limit)	128	none	none	128	128	128
Virtual Voices	32-64	none	none	43-128	43-128	43-128
Import/Export						
Multiple File Formats/Sample Rates/Bit Depths	yes	yes	yes	yes	yes	yes

Mixing and DSP Processing Environment

Feature	Pro Tools PowerMix 4.x	DigiToolBox XP	Digi 001	Pro Tools|24	Pro Tools|24 MIX	Pro Tools|24 MIXplus
TDM-based DSP Hardware Included	no	no	no	d24, DSP Farm card	MIX Core card	MIX Core & MIX Farm card
DSP Expansion Option(s)	no	no	no	DSP Farm, MIX Farm	DSP Farm, MIX Farm	DSP Farm, MIX Farm
AudioSuite	yes	yes	yes	yes	yes	yes
RTAS	no	yes	yes	no	no	no
DirectConnect Support	no	yes (early 2000)	yes (early 2000)	no	yes	yes
Mixer Configuration	16x2[1,2]	24x4	24x18	Variable (can exceed 100x72)	Variable (can exceed 100x72)	Variable (can exceed 100x72)
Effects Sends	no	Up to 5 mono or stereo sends per track[3] (switchable pre/post fader)	Up to 5 mono or stereo sends per track[3] (switchable pre/post fader)	Up to 5 mono or stereo sends per track[3] (switchable pre/post fader)	Up to 5 mono or stereo sends per track[3] (switchable pre/post fader)	Up to 5 mono or stereo sends per track[3] (switchable pre/post fader)
Effects Returns	no	4	18	up to 72	up to 72	up to 72
Internal Mix Busses	no	16	16	32	32	32
Real-time Digital EQ	2 bands per track	CPU-dependent	CPU-dependent	Up to 20 bands/track	Up to 20 bands/track	Up to 20 bands/track
Dynamic Automation of Volume, Pan & Mutes w/Trim, Send Level, Send Mute & Plug-In Parameters	Volume, Pan & Mutes	all except Trim	all except Trim	all	all	all
Master Faders	no	yes	yes	yes	yes	yes
Narrow Mix View	yes	yes	yes	yes	yes	yes
Mix Groups	yes	yes	yes	yes	yes	yes
Bounce Capabilities	File-based bounce with EQ	Real-time bounce with RTAS effects (plus analog or digital sends/returns)	Real-time bounce with RTAS effects (plus analog or digital sends/returns)	Real-time bounce with TDM effects (plus analog or digital sends/returns)	Real-time bounce with TDM effects (plus analog or digital sends/returns)	Real-time bounce with TDM effects (plus analog or digital sends/returns)
MP3 Export Option[9]	no	yes	yes	yes	yes	yes
RealAudio G2 Support[9]	no	yes	yes	yes	yes	yes
ProControl Support	no	no	no	yes	yes	yes

Editing Capabilities

	Col 1	Col 2	Col 3	Col 4	Col 5
Spot Editing	yes	yes (except TC or feet/frames)	yes (except TC or feet/frames)	yes	yes
QuickPunch	no	up to 16 tracks	up to 16 tracks	up to 32 tracks	up to 32 tracks
Memory Locations & Movable Markers	Mem loc only	yes	yes	yes	yes
Scrub/Shuttle	yes	yes	yes	yes	yes
Edit during Playback	yes	yes	yes	yes	yes
Pencil Tool	yes	yes	yes	yes	yes
Undo/Redo all Functions	yes	yes	yes	yes	yes
Variable Individual Track Height	yes	yes	yes	yes	yes
Automatic Fades	no	no	yes	yes	yes
Edit Groups	yes	yes	yes	yes	yes
Graphic Editing of All Automatable Parameters	yes	yes	yes	yes	yes
Continuous Scrolling Options	no	no	yes	yes	yes
Non-adjacent Region Selection	no	no	yes	yes	yes
Command Key Focus	no	no	yes	yes	yes
TC/E or Scrub While Trimming	no	no	yes	yes	yes
Region Replace	no	no	yes	yes	yes
Time Compression Expansion in Place	no	no	yes	yes	yes
Repeat Paste	no	no	yes	yes	yes
Numeric Keyboard Shuttling	no	no	yes	yes	yes
Sample-level MIDI + Audio Editing	no	yes	yes	yes	yes

MIDI Capabilities

	Col 1	Col 2	Col 3	Col 4	Col 5
Integrated MIDI Sequencing/Editing	no	yes	yes	yes	yes
Number of MIDI Tracks	64	128	128	128	128
MIDI file Rec/Play/Import/Export	yes	yes	yes	yes	yes

Video Capabilities

	Col 1	Col 2	Col 3	Col 4	Col 5
Digitized Video Support	QuickTime	QuickTime [9]	QuickTime [9]	Avid,[7] QuickTime [9]	Avid,[7] QuickTime [9]
Clock Synch Options	None	S/PDIF	ADAT, S/PDIF	Pilot Tone,[10] AES/EBU, S/PDIF, ADAT,	Pilot Tone,[10] AES/EBU, S/PDIF, ADAT,
Positional Synch Options	MTC [11]	MTC [11]	MTC [11]	LTC,[10] VITC,[10] MTC,[10] BiPhase,[10]	LTC,[10] VITC,[10] MTC,[10] BiPhase,[10]

Third-Party Compatibility

	Col 1	Col 2	Col 3	Col 4	Col 5
Digital Audio Sequencers [4]	no	yes (via Direct I/O)	yes	yes	yes
AES/EBU Devices	no	no	yes	yes	yes

System Options

	Col 1	Col 2	Col 3	Col 4	Col 5
Software	AudioSuite Plug-Ins, MasterList CD, Sound Designer II	AudioSuite & RTAS Plug-Ins, MasterList CD, PostConform, DigiTranslator, FilmFrame	AudioSuite & RTAS Plug-Ins, MasterList CD, MachineControl, PostConform, DigiTranslator, FilmFrame	AudioSuite & TDM Plug-Ins, MasterList CD, MachineControl, PostConform, DigiTranslator, FilmFrame	AudioSuite & TDM Plug-Ins, MasterList CD, MachineControl,	AudioSuite & TDM Plug-Ins,
Hardware	Audiomedia III, SampleCell II Plus	SampleCell II Plus	SampleCell II Plus	SampleCell IIPlus-TDM, SMPTE Slave Driver, Video Slave Driver, Universal Slave Driver, ADAT Bridge I/O, AVoption & AVoption|XL,[8] MIX Farm card	SampleCell IIPlus-TDM, SMPTE Slave Driver, Video Slave Driver, Universal Slave Driver, ADAT Bridge I/O, AVoption & AVoption|XL,[8] MIX Farm card, MIX I/0 card

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1 Maximum capabilities assume a Power Macintosh with a 120 MHz CPU or faster. Lower CPU speeds will yield lower number of playback tracks and virtual tracks

2 Does not include virtual tracks

3 To any of 32 busses or I/O's (PT LE only supports 16 busses)

4 Digital audio sequencer support includes Studio Vision Pro, Logic Audio, Cubase Audio,

5 For performance requirements please refer to the respective product data sheet and/or the Pro Tools Compatibility Documents.

6 Core System and Audio Interface are purchased separately

7 AVoption or AVoption|XL is required for Avid video integration

8 AVoption is available for Mac OS only. AVoption|XL is expected for Mac OS in Spring 2000 with Windows NT support to follow.

9 Mac OS only

10 Requires the addition of the Digidesign Universal Slave Driver

11 Requires MIDI interface