

# PRO TOOLS FAMILY

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# PRO TOOLS FAMILY

AT A GLANCE

## 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.

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

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 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.

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 system. DigiRack Plug-Ins include:

### TDM, RTAS AND AUDIOSUITE

- EQ II – Single or 4-band EQ
- Dynamics II – Compressor, Limiter, Expander, Gate and De-Esser
- Mod Delay, including Short, Slap, Medium, and Long delays with modulation capabilities
- DirectConnect – Stream audio from your software synthesizer or sampler directly into Pro Tools

### AUDIOSUITE

- Dither
- Time Compression/Expansion
- Pitch Shift
- Normalize
- Reverse



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 multi-purpose, high quality reverb

- DINR™ — Intelligent Noise Reduction (TDM/AudioSuite)
- DPP-1™ — A versatile pitch processor (TDM only)
- D-Fi™ — Creative sound design tools
- D-Fx™ — Reverb, Chorus, Flanger, Multi-Tap Delay & Ping-Pong Delay
- MAXIM™ — World-Class Peak limiter/sound level maximizer
- Reverb One™ — Exceptional quality reverb processing (TDM only)
- SoundReplacer™ — Drum hit and sound replacement (AudioSuite)
- SurroundScope™ — Multichannel level and phase metering Plug-In (TDM/RTAS)

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

## I/O Options for Pro Tools|24 MIX, MIXplus and MIX<sup>3</sup> 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 24-Bit ADAT Bridge I/O provides affordable integration of ADAT optical devices 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.

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 system requirements, contact your Digidesign dealer or visit our website at [www.digidesign.com](http://www.digidesign.com)

## 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 gives you access to the professional dedicated power of our Pro Tools|24 MIX systems, while the host-based version, Pro Tools LE, provides a solid work environment for our home studio products. And, the Pro Tools core recording, editing, and mixing environment remains the same regardless of platform.

\*4/01 Digidesign, 882|20 I/O, 888|24 I/O, 24-Bit Adat Bridge, AudioSuite, Audiomedia III, AVoption, AVoption|XL, D-Fi, DPP-1, Digi 001, DigiRack, DigiTranslator, DINR, D-Verb, DirectConnect, Disk I/O, DSP Farm, Expansion Chassis, FilmFrame, Machine Control, MasterList CD, MIX Farm, MIX I/O, PostConform, Pro Tools, Pro Tools LE, Pro Tools|24 MIX, Reverb One, SampleCell II, Sound Designer II, SoundReplacer, and ToolBox XP are trademarks or registered trademarks of Avid Technology, Inc., or its subsidiaries or divisions. Windows is a registered trademark of Microsoft Corp. Macintosh OS is a trademark of Apple Computer, Inc. All other trademarks contained herein are the property of their respective owners. All features and specifications subject to change without notice.

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## 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 AVoption to provide a complete, versatile post-production system.

With AVoption|XL and Pro Tools 5.1U software (or higher), Pro Tools also supports real-time recording and playback on Avid Unity MediaNet™ — allowing you to seamlessly share information with other Avid and Digidesign workstations.

There are good reasons why more professionals use Pro Tools than all other digital audio workstations combined. Simply put, Pro Tools provides the most powerful features for recording, MIDI sequencing, editing, mixing and mastering. This, of course, is why 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 to meet every need and budget. Our professional Pro Tools systems (including Pro Tools|24 MIX, MIXplus and MIX<sup>3</sup> systems) run on Mac OS and Windows NT; while our Pro Tools LE systems (Digi ToolBox XP and Digi 001) are available on Mac OS and Windows 98/Me.

## THERE'S A SYSTEM THAT'S RIGHT FOR YOU

Digi ToolBox XP™ is powered by Pro Tools LE software and includes the Audiomedia III card for improved analog and digital I/O. Available for Mac OS and Windows 98, Digi ToolBox XP offers full MIDI sequencing, recording, editing, mixing and Real-Time AudioSuite (RTAS) Plug-Ins.

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, reducing the need to incorporate a separate mixer. With integrated MIDI sequencing and the powerful audio production capabilities of Pro Tools LE, Digi 001 is the ideal all-in-one solution for home studio production.

Pro Tools®|24 MIX (single-card system) gives you 16 channels of I/O capacity, more dedicated 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 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 32 channels of I/O capacity, and 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.

Pro Tools®|24 MIX<sup>3</sup> (three-card system) offers 48 channels of I/O capacity and incredible DSP horsepower, providing the most robust power and performance available in a core system — for your most demanding projects. Featuring a MIX Core card and two MIX Farm cards at an unbelievably low price, Pro Tools|24 MIX<sup>3</sup> is Digidesign's cost-effective solution for the surround mixing professional.

Pro Tools|24 MIX, MIXplus  
and MIX<sup>3</sup> Systems



Digi ToolBox XP  
and Digi 001



# PRO TOOLS FAMILY FEATURE GUIDE

## System Components

**Digi ToolBox XP**  
(with Pro Tools LE  
and Audiomedias III)

**Digi 001**  
(with Pro Tools LE)

**Pro Tools | 24 MIX Family**  
Pro Tools | 24 MIX (MIX Core)  
Pro Tools | 24 MIXplus (MIX Core & MIX Farm)  
Pro Tools | 24 MIX<sup>3</sup> (MIX Core & 2 MIX Farms)

## System Capabilities

Compatible Computer Platform	Mac OS & Windows 98/Me	Mac OS & Windows 98/Me	Mac OS/Windows NT
Audio Interfaces <sup>4</sup> Supported	no	no	888   24 I/O, 882   20 I/O, 1622 I/O, 24-Bit ADAT I/O
Digital I/O	2/2 S/PDIF	2-10 (2/2 S/PDIF, 8 ADAT)	8-72
Analog I/O	4 (RCA jacks)	8	8-72
I/O Resolution	18-bit	24-bit	24-bit
MIDI I/O	no (requires MIDI interface)	yes	no (requires MIDI interface)
Simultaneous Rec Trks	4	24	64 <sup>3</sup>
Supports 16- or 24-Bit Sessions	yes	yes	yes
Simultaneous Playback Tracks	24	24	64 <sup>3</sup>
Virtual Trks (set to voice off above virtual voice limit)	none	none	128
Virtual Voices	none	none	43-128
Import/Export			
Multiple File Formats/Sample Rates/Bit Depths	yes	yes	yes
Integrated Track Import	yes	yes	yes

## Mixing and DSP Processing Environment

DSP Expansion Option(s)	no	no	MIX Farm
AudioSuite	yes	yes	yes
RTAS	yes	yes	yes
DirectConnect Support	yes	yes	yes
Mixer Configuration	24x4	24x18	Variable (can exceed 100x72)
Stereo Tracks	yes	yes	yes
Effects Sends (pre/post fader)	Up to 5 mono or stereo sends per track <sup>1</sup>	Up to 5 mono or stereo sends per track <sup>1</sup>	Up to 5 mono or stereo sends per track <sup>1</sup>
Effects Returns	4	18	up to 72
Internal Mix Busses	16	16	64
Dynamic Automation	Volume, Pan and Mute Send Level, Pan and Mute; Plug-In Parameters	Volume, Pan and Mute Send Level, Pan and Mute; Plug-In Parameters	Volume, Pan and Mutes with Trim Send Level, Pan and Mute; Plug-In Parameters
Mix Groups	yes	yes	yes
Bounce Capabilities	Real-time bounce with RTAS effects	Real-time bounce with RTAS effects	Real-time bounce with TDM & RTAS effects
MP3 Support	yes	yes	yes
RealAudio G2 Support	yes	yes	yes
Integrated Surround Mixing	no	no	yes
Motor Mix Support	yes	yes	yes
Control   24 Support	no	no	yes
ProControl Support	no	no	yes

## Editing Capabilities

Auto-Save Capability	yes	yes	yes
Spot Editing	yes (except TC or feet/frames)	yes (except TC or feet/frames)	yes
On-the-Fly Punch In/Out	up to 16 tracks	up to 16 tracks	up to 32 tracks
Memory Locations & Movable Markers	yes	yes	yes
Scrub/Shuttle	yes	yes	yes
Edit during Playback	yes	yes	yes
Pencil Tool	yes	yes	yes
Multiple Undo/Redo all Functions	yes	yes	yes
Automatic Fades	no	no	yes
Edit Groups	yes	yes	yes
Graphic Editing of All Automatable Parameters	yes	yes	yes
Continuous Scrolling Options	no	no	yes
Non-adjacent Region Selection	no	no	yes
Command Key Focus	no	no	yes
TC/E or Scrub While Trimming	no	no	yes
Region Replace	no	no	yes
Time Compression Expansion in Place	no	no	yes
Numeric Keyboard Shuttling	no	no	yes
Sample-level MIDI + Audio Editing	yes	yes	yes
Automatic Tempo Detection and Conforming	no	no	yes

## MIDI Capabilities

Integrated MIDI Sequencing/Editing	yes	yes	yes
Number of MIDI Tracks	128	128	128
MIDI file Rec/Play/Import/Export	yes	yes	yes

## Video Capabilities

Digitized Video Support	QuickTime <sup>7</sup>	QuickTime <sup>7</sup>	Avid, <sup>5</sup> QuickTime <sup>7</sup>
Avid Unity MediaNet Support	no	no	Real-time record and playback <sup>10</sup>
Clock Sync Options	S/PDIF	ADAT, S/PDIF	Pilot Tone, <sup>8</sup> AES/EBU, S/PDIF, ADAT,
Positional Sync Options	MTC <sup>9</sup>	MTC	LTC, <sup>8</sup> VITC, <sup>8</sup> MTC, <sup>8</sup> BiPhase, <sup>8</sup>

## Third-Party Compatibility

MIDI/Audio Sequencers <sup>2</sup>	yes (via Direct I/O)	yes (via Direct I/O)	yes
AES/EBU Devices	no	no	yes

## System Options

Software	AudioSuite & RTAS Plug-Ins, MasterList CD	AudioSuite & RTAS Plug-Ins, MasterList CD	AudioSuite RTAS and TDM Plug-Ins, MasterList CD, MachineControl, PostConform, DigiTranslator, FilmFrame
Hardware	SampleCell II Plus	SampleCell II Plus	SampleCell II Plus-TDM, Universal Slave Driver, 24-Bit ADAT Bridge I/O, AVoption & AVoption   XL, <sup>6</sup> MIX Farm card, MIX I/O card

<sup>1</sup> To any of 32 busses or I/O's (PT LE only supports 16 busses)

<sup>2</sup> MIDI/audio sequencer support includes Logic Audio, Cubase VST (Direct I/O only), and Digital Performer

<sup>3</sup> For performance requirements please refer to the respective product data sheet and/or the Pro Tools Compatibility Documents

<sup>4</sup> Audio Interface purchased separately

<sup>5</sup> AVoption or AVoption | XL is required for Avid video integration

<sup>6</sup> AVoption and AVoption | XL are available for Mac OS only

<sup>7</sup> Mac OS only

<sup>8</sup> Requires the addition of the Digidesign Universal Slave Driver

<sup>9</sup> Requires MIDI interface

<sup>10</sup> Requires AVoption | XL and Pro Tools 5.1U software or higher