



Pro Tools® Glossary

Version 10.0

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003, 96 I/O, 96i I/O, 192 Digital I/O, 192 I/O, 888|24 I/O, 882|20 I/O, 1622 I/O, 24-Bit ADAT Bridge I/O, AudioSuite, Avid, Avid DNA, Avid Mojo, Avid Unity, Avid Unity ISIS, Avid Xpress, AVoption, Axiom, Beat Detective, Bomb Factory, Bruno, C|24, Command|8, Control|24, D-Command, D-Control, D-Fi, D-fx, D-Show, D-Verb, DAE, Digi 002, DigiBase, DigiDelivery, Digidesign, Digidesign Audio Engine, Digidesign Intelligent Noise Reduction, Digidesign TDM Bus, DigiDrive, DigiRack, DigiTest, DigiTranslator, DINR, DV Toolkit, EditPack, Eleven, EUCON, HD Core, HD Process, Hybrid, Impact, Interplay, LoFi, M-Audio, MachineControl, Maxim, Mbox, MediaComposer, MIDI I/O, MIX, MultiShell, Nitris, OMF, OMF Interchange, PRE, ProControl, Pro Tools M-Powered, Pro Tools, Pro Tools|HD, Pro Tools LE, QuickPunch, Recti-Fi, Reel Tape, Reso, Reverb One, ReVibe, RTAS, Sibelius, Smack!, SoundReplacer, Sound Designer II, Strike, Structure, SYNC HD, SYNC I/O, Synchronic, TL Aggro, TL AutoPan, TL Drum Rehab, TL Everyphase, TL Fauxlder, TL In Tune, TL MasterMeter, TL Metro, TL Space, TL Utilities, Transfuser, Trillium Lane Labs, Vari-Fi, Velvet, X-Form, and XMON are trademarks or registered trademarks of Avid Technology, Inc. Xpand! is Registered in the U.S. Patent and Trademark Office. All other trademarks are the property of their respective owners.

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Pro Tools Glossary

Numbers

003 family FireWire-based Pro Tools® audio/MIDI workstations, including 003®, 003 Rack, and 003 Rack+. 003 includes an integrated a control surface. For more information, see the *003 Family User Guide.pdf*.

1622 I/O A legacy Pro Tools|24 MIX™ 16 x 2 audio interface with support for sample rates up to 48 kHz.

192 I/O-series audio interfaces 192 I/O™ and 192 Digital I/O™ audio interfaces for Pro Tools|HD systems with support for sample rates up to 192 kHz. For more information, see the *192 I/O Guide.pdf* or *192 Digital I/O Guide.pdf*.

24-bit ADAT Bridge I/O A legacy Pro Tools|24 MIX digital audio interface with support for sample rates up to 48 kHz.

882|20 A legacy Pro Tools|24 MIX 8 x 8 audio interface with support for sample rates up to 48 kHz.

888|24 A legacy Pro Tools|24 MIX 8 x 8 audio interface.

9-pin (Sony 9-pin; DB-9) Industry standard for serial machine control of professional video and audio transports, made by Sony and other manufacturers. Refers to the DB-9-style physical external control connector found on 9-pin-compatible devices.

96 I/O-series audio interfaces 96 I/O™ and 96i I/O™ audio interfaces for Pro Tools|HD systems with support for sample rates up to 96 kHz. For more information, see the *96 I/O Guide.pdf* or *96i I/O Guide.pdf*.

A

AAX See *Avid Audio Extension*.

Absolute Grid mode An editing mode that constrains movement and alignment of clips to precise increments on a user-defined grid. See also *Relative Grid mode*.

A/D (analog-to-digital) Analog-to-digital converters operate at various bit-rate resolutions and sampling rates, converting analog audio signals to digital audio signals.

ADAT lightpipe Standard industry term for optical connection of digital audio. Created by Alesis, the lightpipe can simultaneously stream eight channels of digital audio.

address (timecode address) Specific SMPTE/EBU timecode reference or reading, in hours:minutes:seconds:frames.

AES/EBU (Audio Engineering Society/European Broadcasters' Union) Industry professional standard for transferring digital audio between professional-quality audio devices. Most AES/EBU connections utilize an XLR-style 3-pin connector to carry two channels of digital audio.

AIF or AIFF (Audio Interchange File Format) An audio file format invented by Apple Computer.

AFL (After Fader Listen) This is a channel's level after it is attenuated or boosted by the fader setting. Audio tracks, Auxiliary inputs and Instrument tracks are AFL in Pro Tools. Also see *post-fader*.

Aliasing In digital sampling and recording, aliasing is digital distortion that occurs when the frequency being sampled is higher than one-half the sample rate (called the *Nyquist Frequency*). When a frequency exceeds the Nyquist Frequency, it is "folded over" (at the value of the difference between the Nyquist Frequency and the frequency in question) and becomes an audible component of the signal. Most digital recorders have filters to prevent aliasing from occurring. With time compression and expansion or pitch shifting, aliasing can occur when an audio clip has been "stretched" too much in time or pitch.

AMS (Audio MIDI Setup) Apple Computer's audio and MIDI operating system, which is part of Mac OS X. For Mac users, AMS replaced Opcode Systems' OMS (Open Music System) for Mac OS 9 (and lower versions of Mac OS).

ASIO (Windows Only) Steinberg's Audio Stream Input/Output (ASIO) provides audio stream connectivity between software applications and audio hardware on Windows. Pro Tools software can use audio interfaces with supported ASIO drivers for playback and recording.

ASIO Driver (Windows Only) The ASIO Driver is a multichannel sound driver that allows audio programs that support the ASIO Driver standard to record and play back through audio interfaces.

ATR (Audio Tape Recorder) A tape recorder of any format, including a Digital Audio Tape (DAT) deck.

audio interface Among most Pro Tools systems, the audio interface is a separate box that is attached with a special cable to the audio card, or to a USB or FireWire port. An audio interface typically has analog and digital audio inputs and outputs, and may be equipped with level meters, level controls, and other features.

audio clip A clip of an audio file that is defined nondestructively with pointers. See also *clip*.

AudioSuite plug-ins Avid's proprietary file-based, non-real-time plug-in format. AudioSuite™ plug-ins are used to process and modify audio files on disk, rather than nondestructively in real time. Depending on how you configure a non-real-time AudioSuite plug-in, it will either create an entirely new audio file, or alter the original source audio file.

audition (verb) To listen to, or to "monitor," one or more tracks or audio files. In Pro Tools, you can audition files before you load them into the program. There are also various ways to audition takes from the Clip List, the Takes List pop-up menu, and from DigiBase™ browsers.

auto-created clip Automatically created clips are a by-product of editing and punch recording over existing clips.

Automation modes Function for recording and playing changes in volume levels, panning, and virtually every adjustable parameter (including plug-in parameters) in Pro Tools. There are several different automation modes in which to write automation data in Pro Tools.

aux See *Auxiliary Inputs*.

Auxiliary Inputs (Auxiliary Input Tracks) In Pro Tools, these input channels are used for send and bus returns (input only). Sends are used for output routing.

auxiliary send See *send*.

Avid Audio Extension The Avid® Audio Extension (AAX) plug-in format provides real-time plug-in processing using host-based (“Native”) processing. It also supports AudioSuite non-real-time, file-based rendered processing. AAX plug-in files use the “.aax” file suffix.

Avid Effects plug-ins Suite of free plug-ins included with Pro Tools. For more information, see the *Audio Plug-ins Guide.pdf*.

Avid Virtual Instrument plug-ins Suite of free virtual instrument plug-ins included with Pro Tools. For more information, see the *Audio Plug-ins Guide.pdf*.

Avid Video Peripherals Avid® interfaces that integrate Avid video technology with Pro Tools systems (such as Avid Mojo®). For more information, see the *Avid Video Peripherals Guide.pdf*.

AVoption|V10 Video interface and software that integrates Avid® video technology with Pro Tools|HD systems.

.AVI (Audio Video Interleave) AVI is a multimedia container format introduced by Microsoft as part of its Video for Windows technology. AVI files can contain both audio and video data in a file container that allows synchronous audio-with-video playback.

B

bit depth One of two main specifications that define digital audio quality (the other is sample rate). Bit depth determines the maximum dynamic range possible in an audio file. Also called bit-resolution or bit-rate.

black burst See *house video reference*.

BNC (Bayonet Neill Concelman) Coaxial cable connectors used for video and synchronizer signals.

Bounce to Disk Mixing a segment of audio (or an entire session) internally to disk, without leaving the digital domain. Bit rate, dithering options, and other parameters are provided by Pro Tools for bouncing to disk.

breakpoint Step or level on a track’s automation playlist.

Broadcast WAV File (BWF) A variation of Microsoft’s .WAV audio file format that contains additional data on the title, origination, date, and creation time of the audio content not included in the standard .WAV file format. An important feature of BWFs is their support of *time stamping*. Time stamping allows files to be moved from one session to another and easily aligned to their original point in time.

browser The location where information contained in the databases is displayed and manipulated. With DigiBase, files can be moved on the volumes and spotted into Pro Tools sessions by drag and drop.

bus (noun) An internal routing path.

bus (verb) To route one or more signals to one or more destinations (either internal or external).

C

C|24 A dedicated 24-fader control surface for Pro Tools systems. Includes 16 premium microphone preamps, a control room monitoring section, and a line submixer. Ideal front-end for Pro Tools recording, mixing, and editing. For more information, see the *C|24 Guide.pdf*.

clip Within Pro Tools, a “pointer” to a particular “region” of a file. Clips can be dragged from the Clip List or a DigiBase browser to a track. Clips can be “whole-file clips” or regions within a whole file.

clipping, clipping indicator the LED at the top of each channel meter indicates a level may have run out of headroom, and is approaching clipping.

clock reference Common “speed” reference, which various devices can use to establish synchronization during playback and recording.

Command|8 A dedicated 8-fader control surface for Pro Tools systems. Includes a control room monitoring section. Ideal mixing controller for smaller Pro Tools rooms and facilities. For more information, see the *Command 8 Guide.pdf*.

Complete Production Toolkit Software option that provides some Pro Tools HD features for music creation and post production for Pro Tools. For more information, see the *Complete Production Toolkit Guide.pdf*.

Conductor rulers A ruler that can show session data. There are three types of Conductor rulers, called Tempo, Meter, and Markers rulers.

continuous controller data MIDI instructions that affect MIDI note parameters, including volume, panning, velocity, pitch bend, and modulation. Also, the main type of instructions sent by MIDI control surfaces.

Control|24 A dedicated control surface for Pro Tools systems. Includes 16 premium microphone preamps, a control room monitoring section, and a line submixer. Ideal front-end for Pro Tools recording, mixing, and editing.

Core Audio (Mac Only) Apple’s Core Audio provides audio stream connectivity between software applications and audio hardware on Mac OS X. Pro Tools software can use audio interfaces with supported Core Audio drivers for playback and recording.

CoreAudio Driver (Mac Only) The CoreAudio Driver is a multichannel sound driver that allows CoreAudio compatible applications to record and play back through Core Audio-compliant audio interfaces.

crossfade Function for fading out from one clip as you fade in to another clip. Crossfade duration is user-selectable from within the Edit window. As with fades, portions of audio for which the crossfade function has been applied are stored in the session’s Fade Files folder.

D

D/A (digital-to-analog) Digital-to-analog converters operate at various bit-rate resolutions and sampling rates, converting digital audio signals to analog audio signals.

DAE (Digidesign Audio Engine) Avid's real-time operating system that provides the core functionality of hard disk recording, digital signal processing, mix automation, and MIDI required by Pro Tools and other Avid products.

database Databasing is a convenient way of storing, organizing, searching, and displaying information. A database file is a collection of records that hold data. In Pro Tools, the term "database" refers to a DigiBase database file. Pro Tools creates and stores database files on the system drive as needed.

DB-9 See *9-pin*.

DB-25 25-pin connector format, used for analog and digital I/O on HD I/O, HD OMNI, and 192-series audio interfaces, as well as ICON consoles, C|24 consoles, and other products. Each DB-25 connector can pass 8 channels of analog or AES/EBU digital audio.

D-Command A dedicated high-end work surface for Pro Tools. Includes 8-24 channel strips and a control room monitoring section. Ideal controller for recording, mixing and editing. For more information, see the *D-Command Guide.pdf*.

D-Control A dedicated high-end work surface for Pro Tools. Includes 16–80 channel strips and a control room monitoring section. Ideal controller for recording, mixing and editing. The highest model in the ICON series of consoles. For more information, see the *D-Control Guide.pdf*.

Digi 002 and Digi 002 Rack FireWire-based Pro Tools systems. The Digi 002[®] includes an integrated control surface.

Digidesign Audio Engine See *DAE*.

DigiTest Diagnostic application included with Pro Tools HD. DigiTest™ can be used to ensure that all Pro Tools|HD cards or an HD Native card in the system are recognized, installed in the proper order, and, for Pro Tools|HD systems, have valid TDM FlexCable connections. For more information, see the *DigiTest Guide.pdf*.

dither "Noise" added to an audio signal when down-sampling bit rates. Designed to create a smoother transition at lower amplitudes.

drop frame Refers to a variance of SMPTE/EBU timecode for NTSC color video (29.97 fps) that omits two frames (frames "0" and "1") every minute except for every tenth minute.

DSP (Digital Signal Processing) In audio terms, DSP refers to manipulation of digital audio—everything from reverberation to changes in level.

E

edit cursor Flashing line that appears when you click in a track in the Edit window.

Edit Decision List (EDL) List of edits, or events, typically with each event's respective source in and out times, source reel number, and record in and out times.

Edit insertion point Location within a track where you click (without dragging); also location at which a clip's start, end, or synchronization point will be placed.

Edit selection In the Edit window, this is what is highlighted in the playlist (such as a clip).

Elastic Audio A Pro Tools feature that lets you quickly and easily transpose, tempo conform, and beat match audio to the session's Tempo ruler.

Eleven Rack A guitar effects processor and audio interface that can be used stand-alone or with Pro Tools. For more information, see the *Eleven Rack User Guide.pdf*.

EUCON A high-speed Ethernet protocol that enables direct communication between Avid hardware control surfaces (such as MC Control and MC Mix) and software applications (such as Pro Tools and Media Composer®).

Event List See *MIDI Event List*.

expanded systems Pro Tools|HD systems that have been expanded by adding Pro Tools|HD cards, either directly in the computer or using an expansion chassis. Expanded systems provide increased track count, add to the amount of possible plug-in and mixer processing, and support connecting additional audio interfaces. For more information, see the *Expanded Systems Guide.pdf*.

expansion chassis Expands the capabilities of Pro Tools|HD systems by adding more external PCI slots.

ExpressPro-Tools ATTO's hard disk utility for the preparation of hard drives for Pro Tools. For Mac OS X, a new version of this utility, ExpressStripe, must be used.

F

fade A selection in which the volume rises or falls, typically from or to $-\infty$. See also *crossfade*.

Fibre Channel Fibre Channel can be used to create a network using special hardware interfaces to provide high speed connections between storage devices and computers. Fibre Channel connections are used for large audio and video production environments because it is possible for multiple users to access the same physical storage media at speeds high enough to work without having to copy individual files to a local hard drive. Avid MediaNetwork shared storage systems use Fibre Channel. Local computers connect to the shared storage network using a Fibre Channel Host Bus adapter and optical cable.

field recorder workflows Pro Tools post-production workflows for importing and using multichannel audio files and metadata recorded by field recorders. For more information, see the *Pro Tools Reference Guide.pdf*.

FireWire A high-speed peripheral standard capable of transferring data. FireWire is commonly used for digital audio and video devices, as well as external hard drives and other high-speed peripherals.

frames per second (fps) Number of frames that elapse per second, as defined by the four SMPTE/EBU Timecode fps standards. These include:

- 24 fps (for film applications)
- 25 fps (the PAL/SECAM video standard)
- 29.97 fps (the NTSC color video standard) (see also *drop frame*)
- 30 fps (the NTSC black and white video standard)

G

general preference A preference that affects all sessions for the same user. This differs from a global preference, which is the same for all users. See also *user preference*.

Grid mode Used to align clips in tracks to the grid or between Grid boundaries. See also *Absolute Grid mode* and *Relative Grid mode*.

Groove Template A template derived from an audio selection using Beat Detective™. Groove templates contain information on the timing nuances and dynamics of the selected audio performance. Groove templates can then be used to *conform* or impose these performance characteristics on other audio material using Beat Detective, or on other MIDI material using the Grid/Groove Quantize command.

groups Linked tracks in which an action in one of the tracks is mirrored in all tracks in the group. Groups can be created separately or linked between the Mix and Edit windows.

H

HD Accel PCI or PCIe card with additional DSP for Pro Tools|HD systems. For more information, see the *Pro Tools|HD User Guide.pdf*.

HD Accel Core PCIe core card, which connects to audio interfaces and contains the DSP, for a Pro Tools|HD system. For more information, see the *Pro Tools|HD User Guide.pdf*.

HD Core PCI core card, which connects to audio interfaces and contains the DSP, for a Pro Tools|HD system.

HD I/O A multichannel digital audio interface designed for use with Pro Tools|HD and HD Native systems. It features top quality 24-bit analog-to-digital (A/D) and digital-to-analog (D/A) converters, and supports sample rates of up to 192 kHz. For more information, see the *HD I/O Guide.pdf*.

HD MADI A 64-channel, digital audio interface designed for use with Pro Tools|HD and HD Native systems. It supports the Multichannel Audio Digital Interface (MADI) format and sample rates of up to 192 kHz. For more information, see the *HD MADI Guide.pdf*.

HD Native These systems include Pro Tools HD software and HD Native hardware. For more information, see the *HD Native Install Guide.pdf*.

HD OMNI A professional digital audio interface designed for use with Pro Tools|HD and HD Native systems. It provides a compact preamp, monitoring, and I/O solution for music production and post production studios with support for sample rates of up to 192 kHz. For more information, see the *HD OMNI Guide.pdf*.

HD Process PCI card with additional DSP for Pro Tools|HD systems.

headroom Amount of remaining gain available for a given signal before the onset of distortion in analog systems or clipping in digital systems.

HEAT (Harmonically Enhanced Algorithm Technology) Pro Tools option adds analog-modeled soft-saturated distortion to Pro Tools|HD systems for mixing and mastering. For more information, see the *HEAT Option Guide.pdf*.

Help Help is installed automatically during Pro Tools installation and can be accessed from within Pro Tools.

HFS+ Disk Support Option Supports recording and playback of sessions directly from Mac-formatted (HFS+) drives on a Windows system. The HFS+ Disk Support option is automatically installed with Pro Tools software by default.

house video reference (black burst) A type of clock reference signal commonly used to synchronize audio or video devices during playback or recording.

ICON Series of high-end dedicated control consoles for Pro Tools. See *D-Control* and *D-Command*.

iLok (iLok USB Smart Key) Portable, cross-platform USB device for authorizing plug-ins and software options for Pro Tools systems. For more information, visit www.iLok.com.

inactive Items that have been turned off in Pro Tools to free up or conserve DSP. For example, when a track, send, or plug-in is inactive, its name appears in italics and the item is silent.

indexing With DigiBase, used to obtain and maintain the data displayed in browsers. Indexing creates and updates a database with the latest metadata information.

Interplay Avid Interplay® is an asset management system that lets Avid video editors and Pro Tools editors at a single facility manage and work with the same media. For more information, see the *Pro Tools Avid Interplay.pdf*.

item In DigiBase, each row of data is referred to as an item in the Items List. Items include Volumes, Catalogs, Session files, songs, samples and loops, as well as other types of files.

ISIS Avid ISIS® 7000 and 5000 are Ethernet-based shared storage systems that let users of Pro Tools and Avid video editing applications share the same media. For more information, see the *Pro Tools ISIS Guide.pdf*.

L

Lanes Multiple tracks of automation and/or MIDI controller data that can be accessed simultaneously.

latency Typically refers to the time it takes for an input signal to be passed to the output and generally controlled by the hardware buffer size.

Legacy I/Os Pro Tools|24 MIX™ audio interfaces (such as 888|24 I/O™ and 882|20 I/O™) that can be connected to Pro Tools|HD audio interfaces (such as 192 I/O and 96 I/O) for additional input and output channels with Pro Tools|HD systems. Legacy interfaces can only be used with 44.1 kHz and 48 kHz sessions and are not supported with Pro Tools|HD Native systems.

Legacy Plug-ins Audio plug-ins that are no longer supported with current Pro Tools systems.

lightpipe See *ADAT Lightpipe*.

Loop Sync A dedicated clock signal for synchronizing multiple Pro Tools|HD audio interfaces together. Loop Sync uses a Word Clock signal based on sampling rates of either 44.1 kHz or

48 kHz. As sample rates increase in the system, Loop Sync continues to operate at a base rate of 44.1 kHz or 48 kHz, depending upon the higher rate. Loop Sync should be used only to chain multiple Pro Tools|HD peripherals together.

M

MachineControl Pro Tools option, which provides many specialized features for post production synchronization tasks including remote track arming, VTR emulation, serial timecode, and other capabilities. For more information, see the *MachineControl Guide.pdf*.

machine control Pro Tools functions to control or be controlled by an external transport, typically a VTR or ATR.

Marker Memory Location referenced on a timeline, typically used to store locations to important points in a session. See also *Memory Location*.

master (device) “Lead” machine or Pro Tools system in a synchronized machine arrangement. Slaves follow masters. There can only be one master at any given time.

Master Fader track Governs the overall signal level of one or more audio, auxiliary input, or instrument tracks.

Mbox 2 Family Portable USB and FireWire-based Pro Tools systems with varying amounts of audio and MIDI I/O. The family includes Mbox[®] 2 Pro, Mbox 2, Mbox 2 Mini, and Mbox 2 Micro.

Mbox Family (Third Generation) Portable USB and FireWire-based Pro Tools systems with varying amounts of audio and MIDI I/O. The family includes Mbox Pro, Mbox, and Mbox Mini.

Media Composer Avid’s premier video editing application. Media Composer can also be used as a video playback, capture, and conversion station that can be synchronised with one or more Pro Tools|HD systems using the Video Satellite option. For more information, see the *Video Satellite Guide.pdf*.

media file A file that contains actual audio, video, or graphics data. It also contains a variety of metadata (such as file name and format).

MediaNetwork Avid Unity MediaNetwork[®] is a Fibre Channel shared storage system that lets users of Avid video editing applications and Pro Tools share the same media. For more information, see the *Pro Tools Avid MediaNetwork.pdf*.

Memory Location Pro Tools supports up to 999 Memory Locations, which can include markers, Edit selections, record and play ranges, track settings, and other data. They can be viewed and sorted in the Memory Locations window, from which they can also be accessed.

metadata Media files, session files, and other types of files contain their own sets of metadata, which include general types of data such as file name, creation date, and file size. Metadata varies with file type, format, and kind.

MIDI (Musical Instrument Digital Interface) A communication protocol designed to allow supported devices (such as synthesizers and controllers) to intercommunicate for control and playback purposes. Information transmitted over MIDI includes note-ons, note-offs, key velocity, pitch bend, and other performance data. Connections are made using cables equipped with 5-pin DIN connectors.

MIDI Editor window Dedicated editor window for in-depth editing of MIDI notes and controller data.

MIDI Event List Pro Tools window that shows the contents of a MIDI track in a column, for easy editing of individual MIDI events.

MIDI I/O A USB-based 10 x 10 MIDI interface with MIDI timestamping.

MIDI Machine Control (MMC) See *machine control*.

MIDI Timecode See *MTC*.

MP3 (MPEG Layer 3) An adjustable-quality audio compression format developed by the Fraunhofer Institute.

MTC (MIDI Timecode) Non-SMPTE form of timecode that is used by some devices (including Pro Tools) to send and receive timing information.

N

nondestructive editing Leaves audio files intact. As you edit audio within Pro Tools, you are only editing the clips, or “pointers,” to audio files that are stored on the hard drive, unless you explicitly choose destructive modes (during recording, or when using AudioSuite processing).

non-drop frame Timecode that is not in drop-frame format. In North America, the standard format outside of color video production or post production is typically 29.97 fps non-drop frame.

Notation Traditional musical transcription, often used to visualize the composition process and provide written parts for musicians to play.

NTSC Video standards developed by the National Television Standards Committee. NTSC color video runs at 29.97 frames per second; NTSC black and white video runs at 30 fps. Used primarily in North and South America and Japan.

Nyquist Frequency The highest audio frequency that can be accurately sampled, equivalent to one-half of the sampling frequency. The Nyquist sampling theorem showed that the sampling rate must be at least twice the highest frequency present in the sample in order to accurately reconstruct the original signal.

O

offline (media) Not connected to or directly accessible by a computer.

offline (synchronization) Not under the control of (or controlling) another device for synchronized playback or recording.

online (media) Connected to and directly accessible by a computer.

online (synchronization) Controlled by (or controlling) another device for synchronized playback or recording.

P

peak indicator Indicator light designed to warn of the possibility of clipping, which illuminates as a device's input reaches a preset degree of headroom.

performance volume A storage volume that has been designated to record and/or play back media files in a Pro Tools session.

PFL (Pre Fader Listen) Sometimes called a "cue," this is a channel's level before it is attenuated or boosted by the fader setting. Master faders are PFL in Pro Tools. See also *pre-fader*.

playlist A group of clips arranged on an audio or MIDI track.

positional reference Common reference that provides location information that various devices can use to establish synchronization during playback and recording. Most commonly, the information is delivered in the form of SMPTE/EBU Timecode.

post-fader Output from a track (typically a send) that is governed by the channel's fader setting.

post-roll Adjustable time for playback to continue beyond the current playback or recording of a selection.

PRE A remote controllable 8-channel microphone preamp. Features eight discrete, matched transistor hybrid mic-preamp circuits and offers a pristine signal path designed specifically for the Pro Tools environment, but can also be utilized as a stand-alone microphone preamp.

preamp In recording studio terminology, a circuit designed to boost relatively low signal levels, such as a microphone output, up to standard line levels of -10 dBV or +4 dBu. Many Pro Tools LE systems are equipped with microphone preamps. See also *PRE*.

pre-fader Output from a track (typically a send) that is independent of the channel's fader setting.

pre-roll Adjustable time that precedes the playback or recording of a selection.

ProControl A dedicated control surface that communicates with Pro Tools by means of ethernet. Features include touch-sensitive, motorized faders, and a dedicated effects editing section.

Pro Tools software Digital audio workstation software that lets you record, arrange, compose, edit, mix, and master professional quality audio and MIDI for music, video, film, and multimedia.

Pro Tools HD software Digital audio workstation software for use with qualified Pro Tools|HD system hardware.

Pro Tools|HD systems These systems include Pro Tools HD software and Pro Tools|HD system hardware.

Pro Tools systems These systems include Pro Tools software and an Avid audio interface (such as Eleven Rack, 003, Mbox Pro, or M-Audio Fast Track). You can also run Pro Tools software with the built-in audio available on Mac computers (using Core Audio), or running with third-party audio interfaces that support Core Audio (Mac) or ASIO (Windows) drivers.

Pro Tools M-Powered systems These systems include Pro Tools M-Powered software for qualified M-Audio[®] interfaces.

Pull Up/Pull Down Refers to the deliberate “mis-calibration” of the audio or video sample rate clock (the audio pitch) in order to compensate for a speed change elsewhere in the production chain. The usual situation in which these rates are encountered is when film footage (at 24 fps) is transferred to color NTSC-standard video tape (at 29.97 fps).

Q

quantize To adjust MIDI note locations or durations to the nearest unit or template structure so that a particular rhythmic “feel” is achieved.

QuickTime Apple’s system extension for control of time-based events, such as digitized video movies and digitized sound.

R

RealAudio Audio compression scheme designed for streaming over the internet.

record Element of a database. A database is a collection of records. Each record represents a particular file (such as a media file or session file). The record contains all of the metadata describing that file, but none of the media. Therefore a record is much smaller than the actual file, and much easier to parse for information.

Region See *clip*. In versions of Pro Tools lower than 10.0, clips are referred to as “regions.”

Relative Grid mode An editing mode that constrains movement and alignment of clips to precise increments on a user-defined grid while allowing the clip to maintain an offset relative to that grid point. See also *Absolute Grid mode*.

resolving The process of synchronizing multiple devices to a common clock reference.

RTAS (Real-Time Audio Suite) plug-ins Avid’s host-based, real-time effects plug-in format.

S

sample-based Editing mode in which audio and MIDI clips and MIDI notes are snapped to the nearest sample. Switchable in Pro Tools on a per-track basis. See *tick-based*.

sample rate One of two main specifications that describe digital audio quality (the other is bit rate resolution). Sample rate refers to how frequently incoming audio is sampled per second during conversion from an analog to a digital signal.

Satellite Link A software option for Pro Tools HD that lets you link up to 5 Pro Tools systems (or up to 4 Pro Tools systems and an Avid Media Composer, Avid Symphony Nitris DX[®], or Video Satellite LE system) over an Ethernet network so that you can cue, play, and stop the transports, make play selections, and solo tracks across any of the systems from any linked workstation. For more information, see the *Satellite Link Guide*.

SCSI HBA (Small Computer System Interface and Host Bus Adapter) Avid’s conformed terminology for SCSI cards. SCSI is a type of data bus allowing for the high speed transfer of data between a computer and peripheral devices. An HBA is the card that connects the SCSI bus between the computer and peripheral devices such as hard drives.

send An adjustable additional track output, which can be routed to an internal bus for effects processing, monitoring, and submixing.

session file A work file, much like a word processing document or a graphics program file. A Pro Tools session file contains data describing how media files are to be played and displayed. It also contains metadata about the files on which it depends (audio and MIDI files, and related data such as fades, playlists, and selections). Each separate project worked on should be stored as its own session.

session template A Pro Tools session file whose parameters are preset to a user's specific preferred state. Any Pro Tools session may be saved as a template using the Save As command for convenience of setup.

shortcuts Pro Tools keyboard and Right-click shortcuts that give you fast access to a wide variety of tasks. For more information, see the *Pro Tools Shortcuts Guide.pdf*.

slave Device that “follows” the master during synchronization.

Slave Clock (or Super Clock) Avid's proprietary hi-speed Word Clock that runs at 256x (256 times) the sample rate. It is required by Pro Tools|24 MIX™ and Pro Tools|24 systems to synchronize audio interfaces to a single, highly-accurate clock from SYNC HD™, SYNC I/O™, USD™, or HD audio interface. See also Legacy I/Os.

SIP (Solo-in-Place) Solo mode in which a single channel's AFL signal is sent by itself to the main L/R bus. A feature on VENUE consoles. See *AFL (After Fader Listen)* and *VENUE*.

S/PDIF Semi-professional version of the AES/EBU standard. Stands for “Sony/Philips Digital Interface Format.” S/PDIF connections use coaxial (RCA) or Toslink optical in/out connectors. Most S/PDIF connections carry two channels of digital audio at a time.

Spot Audio post production process of aligning audio events to visual events. In Pro Tools, Spot mode lets you spot clips to particular timecode events.

Standard MIDI File Universal format that can be read by virtually any software that reads MIDI. Type 0 is a single line sequence, type 1 is multi-track.

submix Routing multiple audio sources to an Auxiliary Input for monitor mixes, bus-master control over levels, and shared effects processing.

subgroup Refers to a console's output busses (stems, cue stems) in standard audio terminology. Also can refer to mix groups in Pro Tools. See *groups*.

Super Clock (256x) See *Slave Clock*.

SYNC HD A multi-format synchronization peripheral for Pro Tools|HD systems that supports all major industry-standard clock sources and timecode formats, including HD video reference, frame rates and sync formats. SYNC HD™ features near sample-accurate lock to timecode or bi-phase/tach signals and a 192 kHz capable, high-fidelity, low-jitter Word Clock.

SYNC I/O A multi-format synchronization peripheral for Pro Tools|HD systems that supports all major industry-standard clock sources and timecode formats. SYNC I/O™ features near sample-accurate lock to timecode or bi-phase/tach signals and a 192 kHz capable, high-fidelity, low-jitter Word Clock.

synchronization Process of having two or more audio, video, or other devices play and record as one, at the same speed.

Sysex (System Exclusive) MIDI data specific to a particular piece of hardware or instrument.

T

TDM (Time Division Multiplexing) A technology that employs a networked bus of DSP chips that supply the processing power for Pro Tools|HD and VENUE systems.

TDM plug-in Avid's proprietary real-time, non-destructive plug-in format for Pro Tools|HD and VENUE systems.

tick-based Editing mode in which audio and MIDI clips and MIDI notes are snapped to the nearest MIDI tick value. Switchable in Pro Tools on a per-track basis. See *sample-based*.

timecode address See *address*.

timecode generation Process of creating "fresh" timecode.

Time Scale Timebase rulers The Main Time Scale is the Timebase ruler that determines the time format used for Transport functions, and Grid and Nudge values. The Sub Time Scale is the Timebase ruler that provides additional timing reference.

Timebase rulers Up to five discrete strips measuring different units (samples, feet.frames, minutes:seconds, bars:beats, or timecode) displayed across the top of the Edit window.

Timeline insertion point Location on the timeline corresponding to the cursor point, and the point from where playback or recording begins.

Timeline selection A selection in any Timebase ruler that determines the playback or record range.

transfer volume A storage volume that has been designated as a Transfer Volume in DigiBase Workspace will not be used to record or play media in a Pro Tools session. Volumes that are not supported by Pro Tools for audio playback, (such as network share volumes, CDs, or DVDs) will be designated as transfer volumes by default.

U

Universe window Provides a visual overview of all tracks in a session, and can be used to quickly navigate to any location in a session.

USB (Universal Serial Bus) A high-speed peripheral standard. USB 1.0 is capable of transferring data at up to 12 Mb/sec, whereas USB 2.0 is capable of transferring up to 480 Mb/sec. USB is used for many audio and video peripheral devices.

upgrades New versions of software. For information on new Pro Tools features and enhancements, see the *What's New Guide*.

user preference A user-definable state for a specific Pro Tools parameter or system setup. Mac has the ability to create separate preferences files for each user. For Pro Tools database functions, these include Browser views, and parameter and search settings. See also *general preference*.

user-defined clip Explicitly defined clips that are created when recording or importing audio or MIDI; capturing, separating, or consolidating a selection; trimming a whole-file audio clip; or renaming an existing clip.

V

velocity MIDI data parameter that describes how fast or hard a key is struck and controls the volume of MIDI note playback.

Video Satellite Option A software option for Pro Tools HD. A dedicated computer running Avid Media Composer and the Video Satellite Option can be linked to one or more Pro Tools|HD or HD Native systems for synchronized video playback, capture and conversion. See *Media Composer*.

Video Satellite LE Option A software option for Pro Tools HD, which uses a separate computer running Pro Tools software for synchronized QuickTime HD video playback. For more information, see the *Video Satellite LE Guide*.

video reference signal Clock information contained in all video signals, which can be used as a clock reference.

virtual instrument Software-based MIDI instrument, often in plug-in form, that is used to replace or augment hardware-based synthesizers, samplers and drum machines.

voiceable track Previously known as virtual voicing; total voiceable tracks refers to the maximum number of audio tracks that can share the available voices on your system.

voices With a Pro Tools system, refers to the number of channels that can be played back simultaneously.

VTR (Video Tape Recorder) A video tape recorder of any format.

W

.WAV Pronounced “wave,” this is Microsoft’s Audio File Format. Can be read by Pro Tools on both Windows and Mac platforms.

waveform Means of visually representing a sound. When sound clips are imported into the Pro Tools Edit window, they can be viewed in Waveform view. Preview waveforms can also be viewed in DigiBase browsers.

whole-file audio clips These clips are created when recording or importing audio, consolidating existing clips, and when processing with an AudioSuite plug-in.

Word Clock Many professional digital audio products—including open-reel multitrack tape recorders, digital mixing consoles, and digital recorders—have Word Clock (1x sample rate) connectors.

Word Clock allows Word Clock-compatible devices to send or receive external clock information that controls the sample rate, which in turn (where applicable) controls the play and record speed.

Z

zero crossing Point at which a wave’s amplitude crosses the center line of the waveform display. Typically, a good spot to edit a sound file is at zero crossings, to avoid unwanted artifacts.

Zoom Function used to view waveform displays within the Edit window with greater detail or more data.



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