Pro Tools Terms and Definitions
MSJ 342 Technology Skills III

Test #1

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

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

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.

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.

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. 24 bit has more dynamic range than 16. Record in 24 bit, change to 16 bit to create a CD (only rate available for CD).

bus (noun) An internal routing path.

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

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

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

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

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

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.

Phantom power (+48v) is sent from the control room to the microphone. It electrifies the diaphragm of a condensor mic, thus allowing it to pick up sound.

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.

region Within Pro Tools, a "pointer" to a particular track selection or file. Regions can be dragged from the Region List, or a DigiBase browser, to a track.

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

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. Higher rates create more accurate sampling.

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 re- lated data such as fades, playlists, and selections). Each separate project worked on should be stored as its own session.

signal flow The route a sound follows from sound source to final destination - Pro Tools track. Source;mic;cable;mic pre; A/D converter;computer;waveform in PT; speakers or headphones.

Timeline insertion point Location on the time- line 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.

Test #2

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.

crossfade Function for fading out from one region as you fade in to another region. 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.

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.

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.

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.

Marker Memory Location referenced on a time- line, typically used to store locations to important points in a session. See also Memory Location.

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.

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

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.

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

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

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 your Shortcuts Guide.pdf.

Spot Audio post production process of aligning audio events to visual events. In Pro Tools, Spot mode lets spot regions to particular time code events.

sub-mix 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.

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

.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 regions are imported into the Pro Tools Edit window, they can be viewed in Waveform view. Preview waveforms can also be viewed in DigiBase browsers.

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.

Test #3

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.

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

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.

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

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.

Grid mode Used to align regions 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 DetectiveTM. 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.

MIDI (Musical Instrument Digital Interface) A communication protocol designed to allow equipped instruments such as synthesizers 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.

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

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

Relative Grid mode An editing mode that con- strains movement and alignment of regions to precise increments on a user-defined grid while allowing the region to maintain an offset relative to that grid point. See also Absolute Grid mode.

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

SIP (Solo-in-Place) Solo mode in which a single channel’s AFL signal is sent by itself to the main L/R bus. See AFL (After Fader Listen).

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

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 time code) displayed across the top of the Edit window.

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

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