What's New in Pro Tools 5.1

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This document is an overview of some of the new features in Pro Tools 5.1. For more detail on each feature, refer to the *Pro Tools Reference Guide*. Features can be located by name in its index and table of contents.

Mono, stereo, and multi-channel track formats

Surround Mixing and Panning

(Pro Tools 24 MIX and MIXplus Systems Only)

Pro Tools 5.1 features integrated multi-channel mixing, panning and processing, with support for all standard multi-channel mixing formats, including LCR, Quad (2+2), LCRS (3+1), 5.0, 5.1, 6.0, 6.1, 7.0, and 7.1.
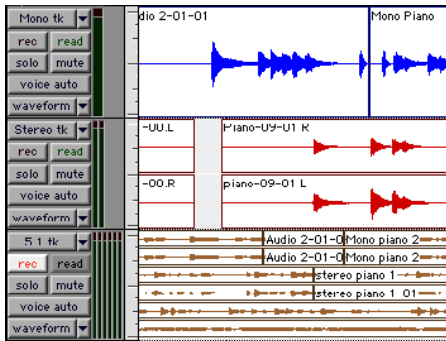
Mono, stereo, and multi-channel track formats

Output Window

Surround Panning

Surround pan controls are integrated into the Pro Tools interface, with each track supporting independent panning on its outputs and sends.

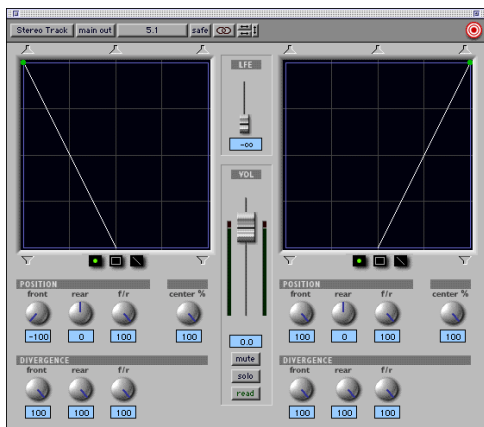The Output window lets you view and control the panning of each track with its own full-size X-Y panner display, and switch intelligently between X-Y and 3-knob panning modes. The surround panner also features fully automatable controls for front, front-rear, front-to-rear, and center percent divergence.


Output window

SurroundScope Metering Plug-In

(Pro Tools 24 MIX and MIXplus Systems Only)

Included for a limited time with Pro Tools 5.1 is SurroundScope, a new surround metering plug-in from Digidesign that provides real-time, highly accurate display of a stereo or multi-channel track's phase, surround position, and decibel levels in a single window.

SurroundScope automatically detects the multi-channel format of a Pro Tools track and displays the channels in a circle around the surround display's center. To see the location of audio within the sound field, observe how the circular sound pattern moves. A perfect circle in the center of the surround display denotes a perfectly centered surround signal, while a signal that balloons toward the outer edges of the display indicates which channels emanate the strongest signal.
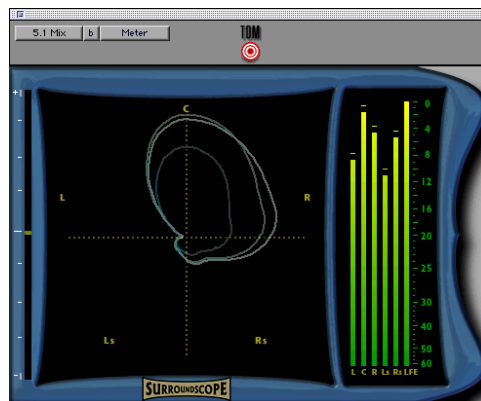
SurroundScope metering plug-in

ProControl Surround Mixing

ProControl supports all new Pro Tools 5.1 multi-channel features, including:

• control of multi-mono and multi-channel plug-ins

• control of up to 3 RTAS plug-ins on audio tracks

• multi-channel surround panning

• multiple output assignments

• multiple plug-in and Output windows

Mixer Enhancements

Stereo and Multi-Channel Tracks

Pro Tools 5.1 allows for individual stereo audio tracks on all systems and multi-channel audio tracks on Pro Tools 24 MIX and MIXplus systems. This greatly simplifies the grouping, display and editing of stereo and multi-channel audio data. Multi-channel audio files and regions are automatically grouped and displayed hierarchically in the Audio Regions List.

Multi-Channel Regions in Audio Regions List

The Audio Regions List now features hierarchical menu-style display of stereo and multi-channel regions. To view the individual regions that make up a multi-channel region, click the arrow next to a master region's name.
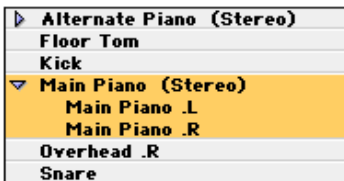
Audio Regions List

Multiple Output Assignments

The new Pro Tools 5.1 mixing architecture allows more than one destination for each output or send on a channel. This lets you mix to multiple formats simultaneously and create, for example, a 7.1 surround mix, a 5.1 surround mix and a stereo mix at the same time.

Multi-Channel Plug-Ins

Plug-ins are now provided in mono, multi-mono, and multi-channel formats, depending on the type of plug-in and whether the destination is a mono or multi-channel track.

Multi-Channel Bouncing

Bounce to Disk now features bouncing of multi-channel format tracks. Sample rate and bit rate conversion can be performed during or after the bounce for enhanced automation playback accuracy.

I/O Setup Dialog

A new I/O Setup dialog allows you to define custom I/O routings for inputs, outputs, inserts, and busses that best fit your workflow. This provides greater signal routing flexibility by giving you the ability to create, recall and import custom I/O setups. All connected audio interfaces appear in the I/O Setup dialog for easy visual reference.
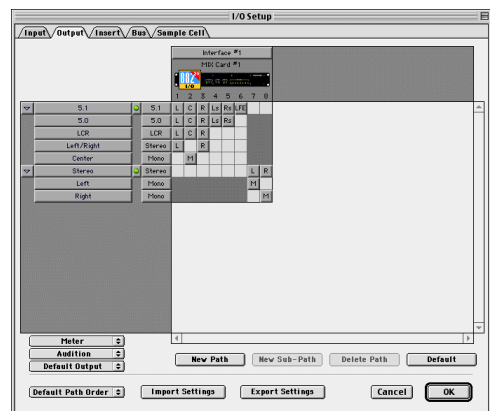
I/O Setup dialog

Auto-Voicing for TDM Systems

Auto-voicing automatically assigns and allocates track voices where and when they are needed. Track voices can still be manually assigned if desired, using a track's Voice selector to ensure particular tracks are guaranteed a voice.

Linked Record and Play Levels

A new Operation Preference for "Link Record And Play Faders" automatically sets record and playback fader levels to the same value for monitoring convenience.

Automatic Write on Stop

A new Automatic Write on Stop option writes automation data when the Transport is stopped following standard console automation behavior.

Plug-In and Processing Features

Pro Tools 5.1 adds many significant plug-in and DSP-processing related enhancements.

RTAS Plug-Ins in TDM Sessions

(Macintosh Only)

TDM-equipped Pro Tools systems can now run both TDM and Real-Time AudioSuite (RTAS) plug-ins, allowing you to use both dedicated TDM hardware and the processing capacity of your computer to get more real-time signal processing

Up to five RTAS plug-ins can be used on each audio track in Pro Tools TDM systems, increasing the number and variety of plug-ins that can be used simultaneously in a session.

RTAS plug-ins are limited to use on auto-voiced audio tracks and cannot be inserted on auxiliary inputs, master faders, or virtual tracks. Mono-to-stereo plug-ins are not supported.

MultiShell II TDM Plug-Ins

New MultiShell II technology allows DSP chip sharing by all DigiRack TDM plug-ins and other MultiShell II-compatible plug-ins from Digidesign and Digidesign's Development Partners. This enables several different types of plug-ins to share a single DSP chip, increasing the number and variety of plug-ins you can use simultaneously in a session.

To check if a third-party plug-in is MultiShell II compatible, contact its developer.

Multiple Plug-In Windows

You can now have multiple plug-in windows open at the same time in a session for immediate on-screen access to any plug-in controls.

Plug-In Safing

You can "record-safe" plug-ins, ensuring that existing plug-in automation is not accidentally overwritten during subsequent automation passes.

Re-Ordering Inserts

You can drag an plug-in insert to a new position on the same track or a different track. Dragging an insert on top of an existing insert will replace it. Moved inserts retain their settings and automation.

Duplicating Inserts

You can duplicate an insert by Option-dragging (Macintosh) or Alt-dragging (Windows) it to a different location on the same track or onto a different track. Duplicated inserts retain their settings and automation.

Trim Plug-In

A new mono-only Trim plug-in increases gain as much as +6 dB on an audio track, auxiliary input, or master fader without using any DSP resources.

Third-Party Time Compression and Expansion Plug-ins

Pro Tools 5.1 supports third-party time compression and expansion plug-ins with its time compression and expansion-based editing features. This provides increased performance with the TCE Trimmer and auto-fit-to-selection options.

Track and Session Features

Pro Tools 5.1 has many new features for creating and managing sessions and tracks.

Auto-Save Session

Pro Tools can automatically save sessions while you work. You can select how often the session is saved and the total number of incremental backups that are kept.

Cross-Platform Support

Pro Tools 5.1 features a cross-platform session file format that lets you open sessions on both Macintosh and Windows platforms without first converting them. AIFF and WAV format audio files can be recorded and played on either platform.

Import Tracks from Sessions

You can now import any track (audio, MIDI, video, auxiliary input, or master fader) from version 5.1 or earlier Pro Tools sessions. Imported track properties include: track names, track comments, plug-in insert assignments, regions, fades, and automation playlists.

Offline Media

You can now open and work with offline media. Pro Tools 5.1 can open and modify a session even if all the audio or video files for that session are not currently available. Any edits that you make to tracks containing offline media are reflected in the session when the files are available again. This greatly enhances the portability of Pro Tools sessions by allowing you to work with the same session on different systems.

This feature is limited to sessions created with Pro Tools version 5.1 or later.

Inactive Tracks, I/O, and Plug-Ins

To conserve DSP resources in a session, tracks, I/O assignments, and plug-ins can now be set to *inactive*. Inactive items retain their various settings, routings, and assignments, but are taken out of operation, freeing the DSP they consume for other uses.

When you move a Pro Tools session to a system that has different plug-ins and I/O configurations, Pro Tools 5.1 will automatically deactivate tracks, plug-ins, sends, or I/O channels as necessary so you can preserve the original session settings.

⚠ *Inactive tracks are only supported on Pro Tools TDM systems.*

Enhanced Import Audio Dialog

A new Import Audio dialog simplifies the task of importing audio files. It consolidates functions previously found in the Import Audio and Convert and Import Audio dialogs and allows you to view an audio file's properties before importing.

Displayed properties include:

- audio file type
- file length
- file size
- number of channels
- bit depth
- sample rate
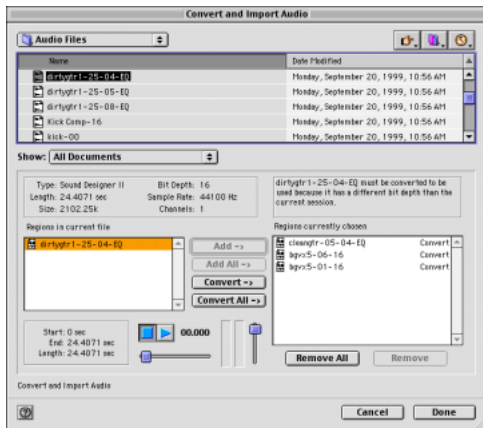
Import Audio dialog

Audio File Formats

Pro Tools now supports the following audio file formats:

- RealAudio G2 export
- MP3 import and export
- Windows Media export (Windows only)
- QuickTime Audio import and export
- Macintosh Sound Resource import and export (Macintosh only)

Split Multi-Channel Tracks

You can split stereo or multi-channel tracks into their individual mono track components with the Split Selected Tracks to Mono command. The tracks can then be individually edited.

Duplicate Selected Tracks

You can duplicate a track and all of its properties (regions, settings, inserts, and automation) with the Duplicate Selected Tracks command.

Editing Features

Many significant new features have been added to improve editing speed and flexibility in Pro Tools 5.1.

Multiple Undo

Pro Tools can now undo up to 16 of your last actions, allowing you to easily return to a previous editing state.

Universe Window

(TDM Systems Only)

The new Universe window gives you a global, visual overview of your entire session at a glance, allowing you to click and go to sections quickly without scrolling or zooming.

Universe window

Beat Detective

(TDM Systems Only)

Beat Detective automatically detects the tempo of a session and conforms an audio track or selection to the tempo by separating it into regions and aligning it to the beats.

Beat Detective performs groove extraction, automatic tempo map creation, quantization of regions to a groove, automatic region trimming, and edit smoothing through crossfading.

Use Beat Detective to make one performance match another or to clean up audio performances while preserving their feel.

Beat Detective window

Strip Silence Enhancements

The Strip Silence command is simpler and more intuitive. When you open this floating window and adjust the Trigger Threshold parameter, Pro Tools now provides a visual preview of the audio regions that will be created when silence is stripped out at the current settings.

Strip Silence window

Tabbing to Transients

With the Tab to Transients option, you can automatically navigate to transients in audio waveforms, placing the cursor just before the detected transient peak. This allows you to easily define selections and play ranges, as well as start and end points for new regions, without having to zoom in on the waveform.

Multiple Track Support for Playlist Switching and Alternate Takes

Audio playlist switching and matching start time Takes List features now work on multiple tracks, including groups and selections. This increases flexibility when comping tracks and auditioning alternate takes.

Separate Enhancements

The Separate command now operates on multi-region and multitrack selections.

Grabber Tool Enhancements

The Time Grabber now moves only whole-region selections. The Separation Grabber now moves either whole-region or discontiguous-region selections—separating the latter when moving them.

Track View Toggle

The Track View Toggle lets you easily switch between Waveform and Volume view for audio tracks, and Notes and regions view for MIDI tracks.

Zoom Toggle

The Zoom Toggle can quickly and easily zero in on a selection, adjusting the zoom level and track height automatically. The selection is zoomed to fill the Edit window, and the tracks containing the selection are set to a Track Height of Large. MIDI tracks automatically set to Notes view.

MIDI Features

Many significant new MIDI features have been added to Pro Tools 5.1.

Recording to Multiple MIDI Tracks

You can now record from multiple MIDI devices or channels to separate MIDI tracks. The track's MIDI Input Selector determines which channels are recorded.

MIDI Event List

The MIDI Event List window shows the contents of a MIDI track in a single, easy to read list. Using this event list, you can quickly and precisely insert, edit, or locate any type of MIDI data using your computer keyboard.
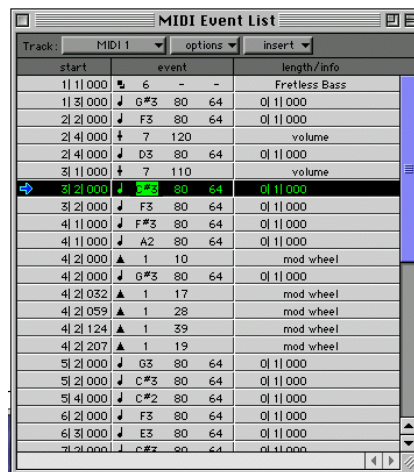
MIDI Event List

MIDI Offset for Each Track

With the MIDI Track Offsets command you can create timing offsets for individual MIDI tracks. This is useful for compensating for MIDI-to-audio latencies in hardware or software-based MIDI synthesizers.
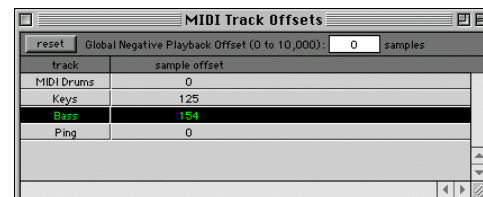
MIDI Track Offsets window

OMS Name Manager

(Macintosh Only)

The OMS Names command lets you open patch name documents for all declared OMS devices and edit patch and note name information.

Default Thru Instrument

You can now route MIDI to the Default Thru Instrument. This saves you the trouble of creating and record enabling a MIDI track to hear a particular MIDI device and channel.

Control Surface Features

Several new features have been added for enhanced support of control surfaces.

Support for Multiple Fader Packs

Pro Tools 5.1 supports up to five Digidesign Fader Pack control surfaces with ProControl for a total of 48 faders.

Support for Edit Pack

Pro Tools 5.1 supports Digidesign's new Edit Pack option for ProControl. Edit Pack features two touch-sensitive motorized joystick panners; a QWERTY keyboard and track back; dedicated edit switches and encoders; and 8-channel, high-resolution, multi-channel metering.

Support for Control 24

Pro Tools 5.1 supports Control 24, a new 48-channel control surface from Digidesign and Focusrite. Control 24 provides precise, tactile control over the functions and automatable controls of TDM-equipped Pro Tools systems. The unit also includes 16 premium microphone preamps.

Supprt for JL Cooper MCS 3000 MIDI Panner

Pro Tools 5.1 supports the JL Cooper's MCS 3000 MIDI panner.

Plug-In Flip Mode

Use the new Plug-In Flip mode on ProControl (and Control 24) to map plug-in parameters, which are normally assigned to rotary encoders, to faders. This is allows touch sensitive control of plug-ins.

Alpha Lock Mode

ProControl's Alpha switch now locks when pressed, making it easier to perform keyboard shortcuts and other Commands Focus-related functions.

AVoption & AVoption XL

Owners of Pro Tools AVoption and AVoption XL can take advantage of the following new features and enhancements:

◆ You can now record multiple video clips to the video track by placing the cursor at a desired location or selecting a range and capturing video.

◆ You can use the Add Movie command to import multiple video files to the video track. A Spot Video dialog allows you to spot the imported video to a precise location.

◆ You can move a video clip to different location using the Grabber tool in Spot mode.

◆ You can duplicate and spot a video clip to a different location by Option-clicking the clip in Spot mode.

◆ You can clear a selected portion of a video clip using the Clear Selection command.

MachineControl

Owners of the Pro Tools MachineControl option can take advantage of the following new features and enhancements:

◆ Track arming and transport functions on Pro Tools TDM systems can be remotely controlled by devices that support Sony P2 9-pin serial commands. This allows properly equipped workstations, mixing consoles, or synchronizers to slave a Pro Tools system to other transports.

⚠ *To respond to 9-pin commands, appropriate connections must be made using a cable equipped with a female D-SUB-9 connector and a male Mini-DIN-8 connector.*

◆ The Pro Tools Transport now slaves to Sony P2 9-pin serial commands when set to Transport = Remote. This allows you to temporarily toggle remote control of Pro Tools on or off when necessary.

◆ Pro Tools 5.1 supports track arming on many more devices than before.