What's New

Pro Tools® HD 8.0

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contents

chapter 1

Introduction

This chapter is an overview of new features in Pro Tools® HD 8.0 for Pro Tools|HD® systems on Digidesign®-qualified versions of Windows or Mac OS X.

System Requirements and Compatibility

Digidesign can only assure compatibility and provide support for hardware and software it has tested and approved.

For complete system requirements and a list of Digidesign-qualified computers, operating systems, hard drives, and third-party devices, refer to the latest information on the Digidesign website:

www.digidesign.com/compatibility

New Features in Pro Tools HD 8.0

Pro Tools HD 8.0 includes the following:

General Pro Tools Features and Enhancements

- Improved, modernized user interface
- Pro Tools Quick Start dialog for quickly and easily creating new sessions from templates, from scratch, or opening existing ones
- New Session Templates
- Auto-update Notification and Checking for Software Updates
- Open Session with Plug-ins Deactivated
- DSP Cache maintained for faster session opening and closing
- Improved window management:
  - Tile windows
  - Cascade windows
  - Window Configurations with Score Editor window and targeted MIDI Editor window
- Improved Color Palette
- New RTAS Hardware Buffer Settings
- Increased Audio File Size Limit
- Increased Waveform Resolution
- MIDI Beat Clock Sample Offset on a port-by-port basis

Changes to Pro Tools Preferences

Display Preferences

- "MIDI Note Color Shows Velocity" option

Operation Preferences

- "Latch Forward/Rewind" option
- "Automatically Create New Playlists When Loop Recording" option
- "Show Quick Start Dialog when Pro Tools Starts" option

Editing Preferences

- Moved the following "Matching Start Time" Takes List options to the Match Criteria dialog:
  - "Includes Take Region Names That Match Track Names"
  - "Includes Take Region Lengths That Match"

MIDI Preferences

- Moved the "Play MIDI Notes When Editing" option to the Edit, MIDI Editor, and Score Editor windows
- "Remove Range Selection After Opening the MIDI/Score Editor" option
- Moved the "Default Note On Velocity" setting to the Edit, MIDI Editor, and Score Editor windows
- "Double-clicking a Region Opens…" options:
  - MIDI Editor
  - Score Editor
  - MIDI Event List
  - Name Dialog
- MIDI/Score Editor Display section:
  - "Additional Empty Bars in the Score Editor" setting

Synchronization Preferences

- Synchronization section:
  - "Delay Before Locking to Longitudinal Time Code" setting
  - "Delay Before Locking to Serial Time Code" setting
- Satellite Link section:
  - Transmit Solos
  - Receive Solos
  - Solo Independent Of Linked State
  - DAE Errors Stop All Linked Systems
  - Transmit Play Selections
  - Receive Play Selections

Editing Features and Enhancements

Edit Window Features

- New Universe View
- New MIDI Editor View
- New Waveform Views
- Customizable Toolbar
- Chord Symbol ruler
- Restore Last Selection
- Edit selection enhancements and key commands
- Region Edit and Time Locking
- MIDI and Instrument tracks now default to Regions view in the Edit window
- Timeline Insertion Follows Playback indicator
- Strip Silence to –96 dB

Elastic Audio Region-Based Pitch Transposition (Semitones and Cents)

- Event Operation Transpose can now be applied to Elastic Audio Regions
- Pitch Elastic Audio Property setting

Track Compositing

- Playlists Track view
- Rating Regions
- Match Criteria

MIDI Editor Windows

- Superimposed MIDI and Instrument tracks
- Auxiliary Input tracks
- Multiple Automation and Controller lanes (such as Velocity, Volume, and Pan)
- Notation or Piano Roll view
- MIDI Region Group editing
- Additional MIDI editing improvements:
  - Separate MIDI notes
  - Consolidate MIDI notes
  - Mute MIDI notes
  - MIDI Scrub and Shuttle
  - Audition velocity changes
  - Play MIDI notes when tabbing

Score Editor Window

- Multiple MIDI and Instrument tracks can be shown in the Score Editor window independently of the Edit window and MIDI Editor window
- Real-time transcription of MIDI
- Real-time editing (linked between Edit, MIDI Editor, and Score Editor windows, and the MIDI Event List)
- Page layout
- Print score or parts as displayed
- Global and local staff attributes
- Each Track displayed on a grand staff or a single staff:
  - Grand Staff with automatic or user-definable split point
  - Treble, Alto, Tenor, and Bass clefs
- Display Transposition for Transposing Instruments
- Display and edit Key Signatures
- Display and edit Meter Changes
- Display and edit Chord Symbols
- Export Sibelius (.sib) files

Pro Tools Mixing Features and Enhancements

- Track Automation and Controller lanes for editing track automation (such as Volume, Pan, and Plug-in automation) and MIDI CC (such as Velocity, Pitchbend, and Modulation) without changing Track views
- 10 inserts per track
- Improved Automatic Delay Compensation for overdubbing

Plug-ins

A.I.R. Creative Collection Plug-ins

- Instrument Plug-ins:
  - Boom
  - DB-33
  - Mini Grand
  - Structure Free
  - Vacuum
  - Xpand!^{2}
- Effects Plug-ins:
  - Chorus
  - Decimator
  - Distortion
  - Dynamic Delay
  - Enhancer
  - Ensemble
  - Filter-Gate-Sequencer
  - Flanger
  - Frequency Shifter
  - FuzzWah
  - KillEQ
  - MultiChorus
  - MultiTap Delay
  - Nonlinear Reverb
  - Phaser
  - Reverb
  - Spring Reverb
  - StereoWidth
  - Talkbox
  - Vintage Filter

Additional Plug-ins Included with Pro Tools (previously only available by purchase)

- Eleven™ Free
- Digidesign Maxim™
- Digidesign D-Fi™
  - Sci-Fi™
  - Lo-Fi ™
  - Recti-Fi™
  - Vari-Fi™
- Bomb Factory Sans Amp

TL Utilities Free and Installed with Pro Tools

- TL Metro™
- TL InTune™
- TL MasterMeter™

DigiRack EQ III

- Stereo version

DigiRack D-Verb

- Chorusing added to RTAS version
- Drag and drop to plug-ins (such as Transfuser™):
  - MIDI regions
  - Region groups
- Find and Relink for plug-ins that can import audio files (such as Transfuser)
- AudioSuite™ Preview improvements

Pro Tools Controller Features and Enhancements

- Accessing 10 inserts
- Plug-in mapping
- New Matrix Assign mode
- Interrogate I/O Settings on a per-track basis
- D-Command® Enhancements:
  - Plug-in channel strip editing
  - Change plug-in settings
- ICON Soft Keys Enhancements:
  - New AutoWrite layout
  - Support for Pro Tools Window Configurations
  - Write Memory Locations
  - Show MIDI Editor (toggle)
  - Audio Files Softkey
  - Modes Softkey
  - Operations Softkeys for D-Command
  - Softkeys with No Session Open
- Identify Empty Sends and Inserts
- No Group Members on VCA Master Encoders
- Removing Multiple Assignments from ICON

Pro Tools Video and Avid Interoperability

- Support for QuickTime HD playback using a Digidesign-qualified Blackmagic DeckLink video card (Mac Only)
- Windows Vista support for Interplay

Media Composer Video Satellite Software Option

- Support for Video Satellite with Pro Tools and Avid® Media Composer® 3.1 with Avid Mojo® DX and Nitris® DX peripherals

Video Satellite LE Software Option (Mac Only)

- Lets you connect a Pro Tools LE® Mbox® 2 Micro system to a Pro Tools HD system for use as a QuickTime HD video satellite

Satellite Link Software Option

- Support for linking Pro Tools transport with multiple Pro Tools|HD systems

chapter 2

General Pro Tools Features and Enhancements

New Pro Tools User Interface

Pro Tools 8.0 sports a new graphic user interface (GUI) that is both easy on the eye and intuitive to use. Most of the Pro Tools functionality you are used to is still in place, but with a few subtle enhancements and easier access to editing options that used to be in the Pro Tools Preferences.

Figure 1. New Pro Tools graphic user interface: Edit, Mix, Plug-in, and Transport windows shown

For more information on editing features associated with the new user interface, see Chapter 4, "Editing Features and Enhancements."

Quick Start Session Dialog

Pro Tools 8.0 provides a new Quick Start dialog on launch that lets you quickly and easily create a new session or open an existing one. You can choose to show or hide the Quick Start dialog on launch in the Pro Tools Operation Preferences.

When you first launch Pro Tools, you are prompted by the Quick Start dialog to do one of the following:

- Create a new session from a template.
- Create a new blank session.
- Open any of the last ten most recent sessions.
- Open any other session on your system.

SHIFT *Press Control+Up Arrow or Down Arrow (Windows) or Command+Up Arrow or Down Arrow (Mac) to select different Session Quick Start options. Also, you can use the up and down arrows to select different items in the Recent Sessions and Session Templates lists.*

Creating a New Session from a Template

To create a new session from a template:

1 Select Create Session from Template.

2 From the Session Template pop-up menu, select the category for the session templates you want.

3 Select the session template you want to use from the list (on the right).

Quick Start dialog

4 If you want to change any of the session parameters, click the Session Parameters reveal button.

Quick Start dialog, Session Parameters revealed

5 Configure any of the following session settings as necessary:

- Audio File Type
- Bit Depth
- Sample Rate

6 Click OK.

7 In the Save dialog, name the session, choose where you want to save the session, and click Save.

Creating a New Blank Session

To create a new, blank session:

1 Select Create Blank Session.

Quick Start dialog, Create Blank Session

2 If you want to change any of the session parameters, click the Session Parameters reveal button.

3 Configure any of the following session parameters as necessary:

- Audio File Type
- Bit Depth
- Sample Rate
- I/O Settings

4 Click OK.

5 In the Save dialog, name the session, choose where you want to save the session, and click Save.

Opening a Recent Session

⚠ *The Open Recent Session option is not available the first time you launch Pro Tools (or if you have cleared the Recent Sessions list by choosing File > Open Recent > Clear).*

To open a recent session:

1 Select Open Recent Session.

Quick Start dialog, Open Recent Session

2 Select any of the last ten recent sessions from the list (on the right).

3 Click OK.

Opening Any Session

To open any session:

1 Select Open Session.

2 In the Choose a Session dialog, navigate to the location of the session file and select it.

3 Click Open.

Showing or Hiding the Quick Start Dialog on Launch

To not have the Quick Start dialog appear when Pro Tools launches:

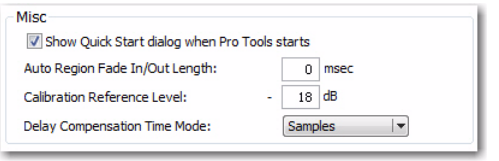
▪ Deselect the Show Quick Start Dialog when Pro Tools Starts option in either the Quick Start dialog or the Pro Tools Operation Preferences (Setup > Preferences).

To have the Quick Start dialog appear when Pro Tools launches:

1 Choose Setup > Preferences.

2 Click the Operation tab.

3 In the Miscellaneous section of the Operation Preferences page, select the Show Quick Start Dialog when Pro Tools Starts option.



Show Quick Start Dialog when Pro Tools Starts option

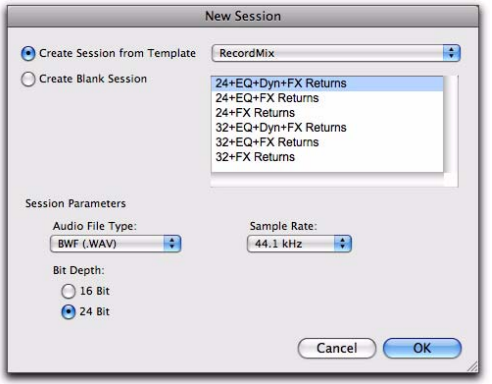
4 Click OK.

New Sessions

Pro Tools 8.0 provides an improved New Session dialog that lets you create a new session from a template or create a new blank session (with no tracks or media).

To create a new session from a template:

1 Choose File > New.



New Session dialog, Create Session from Template

2 In the New Session dialog, select Create Session from Template.

3 From the Session Template pop-up menu, select the category for the session templates you want:

- Guitar
- Music Creation
- Record & Mix

4 Select the session template you want to use from the list (on the right).

5 Configure any of the following session settings as necessary:

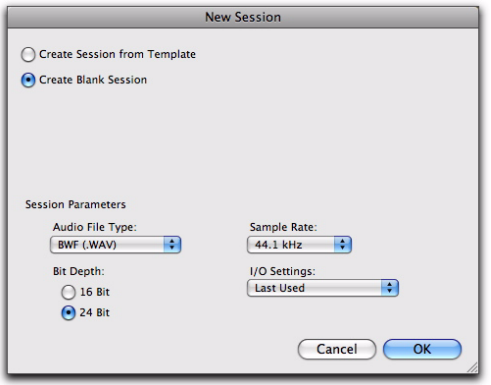
- Audio File Type
- Bit Depth
- Sample Rate

6 Click OK.

7 In the Save dialog, navigate to the location where you want to save the new session and click Save.

To create a new blank session:

1 Choose File > New.



New Session dialog, Create Blank Session

2 In the New Session dialog, select Create Blank Session.

3 Configure any of the following session settings as necessary:

- Audio File Type
- Bit Depth
- Sample Rate
- I/O Settings

4 Click OK.

5 In the Save dialog, navigate to the location where you want to save the new session and click Save.

Session Templates

In addition to the Session Templates provided in the Pro Tools Session Quick Start dialog, Pro Tools lets you create and share your own custom Session Templates. Pro Tools Session Template files use the suffix ".ptt" to differentiate them from regular Pro Tools session files (".ptf").

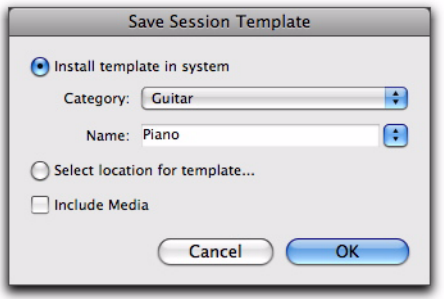
Creating and Saving Custom Templates

To create a custom Pro Tools Session Template:

1 Create a new Pro Tools session and configure it for the session template you want.

For example, if you are a songwriter you might simply want a session consisting of a stereo Instrument track with an instrument plug-in (such as Xpand!^{2} with a piano preset), a mono audio track (for tracking vocals), a stereo Auxiliary Input track (for an effects bus), and a stereo Master Fader track. You can then use this template every time you sit down to work on a new song.

2 Choose File > Save As Template.



Save Session Template dialog

3 Configure the Save Session Template dialog as desired (see "Save Session Template Dialog" on page 12).

4 Select the Include Media option if there is any audio, MIDI, or video media in the session that you want included in the template.

When the Include Media option is enabled, all media in the session is included in the template. If you want to include media in your session template, be sure that your session only contains the media you want.

5 Click OK.

If you selected the Install Template In System option, your session template will be available in the Pro Tools Session Quick Start dialog.

If you selected the Select Location For Template option, you are prompted by the Save As Template dialog to save the file to another location on your system.

Save Session Template Dialog

The Save Template dialog provides the following options:

Install Template In System

Select this option to save the template file in the system folder referenced by the Pro Tools Session Quick Start dialog (the Session Templates in the Pro Tools application folder).

Category

The Category pop-up menu is only available if the Install Template In System option is enabled. The Category pop-up menu lets you select the subdirectory in which to save the template file. It also provides options for adding a category and revealing the Session Templates folder in Windows Explorer or the Mac Finder.

Add Category Select this option from the Category pop-up menu to create a new subdirectory in the Session Templates folder.

Name

The Name setting is only available if the Install Template In System option is enabled. This lets you type a new name for the template file. From the Name pop-up menu (to the right of the Name field), you can select from a list of all of the templates available in the currently selected Category. Selecting one places that name in the Name field, letting you overwrite, or create a incremental version of, an existing template.

Select Location For Template

Select this option to save the template file to any directory location on your system. Note that the saved session template will not appear in the Pro Tools Session Quick Start dialog unless it is in a subdirectory (Category) in the Session Templates folder in the Pro Tools application folder.

Include Media

Select this option to include any audio, MIDI, or video media in the session with the template.

Creating New Sessions from Templates

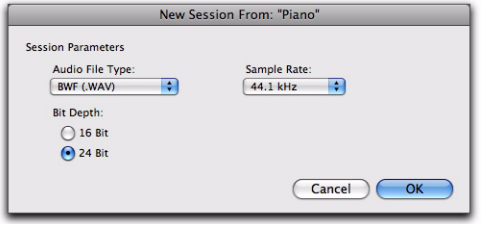
You can create new session from templates by opening a template. In addition to being able to open session templates from Pro Tools Session Quick Start dialog, you can simply open any Pro Tools Session Template file (.ptt) to start a new session based on that template.

For information on creating new sessions from templates using the Quick Start dialog, see "Creating a New Session from a Template" on page 8.

To open a Pro Tools Session Template and save it as a new session:

1 Choose File > Open, navigate to the Session Template file you want and open it.

2 In the New Session From dialog, select the Audio File Type, Sample Rate, and Bit Depth for the new session that will be created from the template.



New Session From dialog

3 Click OK.

4 In the Save New Session As dialog, navigate to the location where you want to save the new session and click Save.

Checking For Software Updates

Pro Tools can check for Pro Tools application and Digidesign plug-in updates, either automatically or manually. An internet connection is required to be able to check for updates. Approximately every two weeks, Pro Tools checks online for any available application and plug-in updates.

If updates are available for Pro Tools or any plug-ins, Pro Tools reports what updates (if any) are available and how important the updates are for your system. You can then visit the Digidesign website to locate, download, and install the appropriate updates for your Pro Tools system.

To manually check for updates:

1 Ensure that your internet connection is functioning properly.

2 Launch Pro Tools.

3 Choose Help > Check For Updates, and a progress dialog appears.

4 Depending on whether or not any updates are available, do one of the following:

- If no updates are available, click OK.

  – or –

- If updates are available, do one of the following:
  - Click Details to launch your web browser and see what updates are available for download.
  - Click Not Now if you do not want to review or download updates until later.

To disable checking for software updates automatically:

▪ In the Software Update dialog, enable the Do Not Check For Updates Automatically option.

To enable checking for software updates automatically:

1 Check for updates manually (Help > Check For Updates).

2 In the Software Update dialog, disable the Do Not Check For Updates Automatically option.

Opening Session with Plug-ins Deactivated

Pro Tools lets you open sessions with all of the session's plug-ins set to inactive. Since sessions with a lot of plug-ins can take a long time to load, this lets you quickly open any session for immediate visual inspection and audio playback (without plug-ins). If it is the session that you want to work with, you can easily reopen the session with plug-ins activated.

To open a Pro Tools session with all plug-ins set to inactive:

1 In Pro Tools, choose File > Open Session.

2 In the Open Session dialog, locate and select the session you want.

3 Shift-click Open.

⚠ *If you save your session after opening it with all plug-ins set to inactive, you will not be able to use Revert to Saved or Open Most Recent to re-activate all of the plug-ins in the session.*

To re-open the same session with all plug-ins set to active, do one of the following:

▪ Choose File > Revert To Saved.

– or –

▪ Choose File > Open Recent and select the most recent session in the submenu.

Press Control+Shift+O (Windows) or Command+Shift+O (Mac) to open the most recent session.

DSP Cache

Pro Tools HD 8.0 now maintains a Plug-in and Mixer cache for allocated DSP when closing and opening sessions. While this does not change the time it takes to open the first session after you launch Pro Tools, it does result in being able to open and close all subsequent Pro Tools sessions much more quickly than before, especially when using the Revert To Saved command or when opening similarly configured sessions.

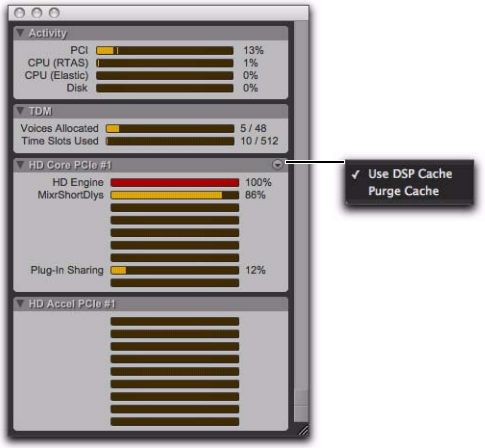
In previous versions of Pro Tools, all DSPs were completely unloaded, or "purged," when closing a session, and they had to be completely reloaded when opening the next session. Now, as long as Pro Tools is running, the DSPs will only be completely purged if you open a session with a different sample rate or one with different Playback Engine settings.

However, when using DSP caching, the System Usage window may not always accurately show the DSP resources your session is currently using. For an accurate display of current DSP usage, you can either disable DSP caching or purge the DSP cache.

To enable (or disable) DSP Caching:

1 Open the System Usage window (Windows > System Usage).

2 Click the DSP Cache pop-up menu and select (or deselect) Use DSP Cache.



System Usage window, DSP Cache pop-up menu

To purge the DSP cache:

1 Open the System Usage window (Windows > System Usage).

2 Click the DSP Cache pop-up menu and select (or deselect) Purge Cache. This refreshes the System Usage display.

Improved Window Management

Arranging Windows

Pro Tools provides commands to tile or cascade all open windows. Floating windows (such as plug-in, output, and send windows) and the Transport window are not affected by these commands.

To arrange windows:

- Select one of the following options from Window > Arrange:

Tile Arranges all open windows in a tiled pattern on the screen.

Tile Horizontal Arranges all open windows in a horizontally-tiled pattern on the screen. This option is not available if there are too many windows open.

Tile Vertical Arranges all open windows in a vertically-tiled pattern, side by side, on the screen. This option is not available if there are too many windows open.

Cascade Arranges all open windows in a cascading pattern on the screen.

Windows Configurations

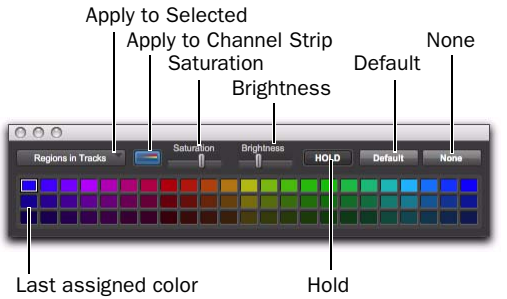
Introduced in Pro Tools 7.3, Window Configurations have provided a powerful means of managing the configuration of windows in your Pro Tools sessions. Window Configurations now also include the Targeted MIDI Editor window and Score Editor in the Window Layout

and Window Display Settings options. The Targeted MIDI Editor window and Score Editor can also be view filtered in the Window Configurations List.

For information about MIDI Editor windows, see Chapter 6, "MIDI Editor Windows." For information about the Score Editor window, see Chapter 7, "Score Editor Window."

Improved Color Palette

The Color Palette lets you make color selections for tracks, regions, groups and markers. It also now lets you apply colors to channel strips in the Mix and Edit windows, and lets you adjust the color saturation and brightness for channel strips.



Color Palette window

New Color Palette Controls

Apply To Channel Strip When Apply To Channel Strip is enabled, you can adjust the Saturation slider to change the color saturation of all channel strips.

Saturation When Apply To Channel Strip is enabled, you can adjust the Saturation slider to the color saturation for channel strips.

Brightness This control lets you adjust the Brightness for the channel strips.

Lower H/W Buffer Size Setting

In the Playback Engine dialog, Pro Tools HD now provides H/W Buffer Size settings down to 64 samples for the lowest possible monitoring latency. However, the 64 sample buffer size setting is only be available when the Number of Voices setting is set to 48 Voices (1 DSP) or 96 voices (2 DSP). The lowest available H/W Buffer Size setting will be 64, 128, or 256 Samples depending on the Number of Voices setting.

Increased File Size Limit

Pro Tools 8.0 supports file sizes up to 3.4 GB (the file size limit used to be 2 GB). This lets you have longer, single file recordings.

When opening a Pro Tools 8.0 session that references files larger than 2 GB in an earlier version of Pro Tools on Mac, regions that refer to those files appear offline. If you know you will be transferring your Pro Tools 8.0 session to an earlier version of Pro Tools, be sure to edit any regions that reference files larger than 2 GB and consolidate them so that the session only references files less than 2 GB. You will then be able to open the session in an earlier version of Pro Tools with all of the region online.

Increased Waveform Resolution

Pro Tools 8.0 provides 16-bit waveform overview calculation (it used to be 8-bit). This provides better vertical resolution of the waveform when zoomed in for editing. This is especially true for recordings with low signal levels.

MIDI Beat Clock Offsets

Pro Tools can transmit MIDI Beat Clock to synchronize external MIDI devices that receive MIDI Beat Clock (such as drum machines) with the Pro Tools session tempo. Some instrument plug-ins also support MIDI Beat Clock for synchronizing to the Pro Tools tempo.

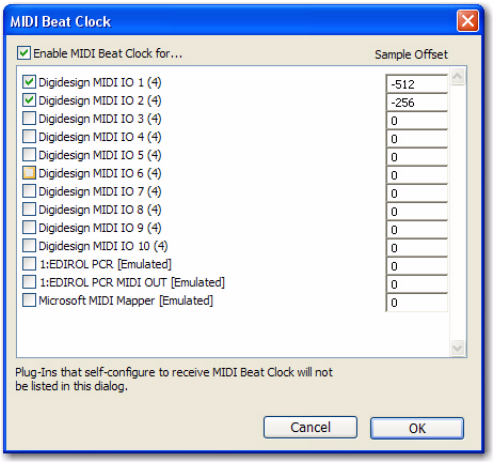
Pro Tools 8.0 now lets you set an offset for MIDI Beat Clock on a port-by-port basis with your MIDI interface and external MIDI devices. This lets you adjust the timing for each device where some devices sound late due to different, fixed latencies. Where appropriate, enter negative offset values in samples for each port to correctly synchronize the audio signals from your external MIDI devices with Pro Tools playback.

Transmitting Beat Clock

To transmit MIDI Beat Clock:

1 Choose Setup > MIDI > MIDI Beat Clock.

2 In the MIDI Beat Clock dialog, select the Enable MIDI Beat Clock option.



MIDI Beat Clock dialog

3 Select the devices you want to receive MIDI Beat Clock. If your MIDI interface does not support transmitting MIDI Beat Clock to separate ports, only the interface appears as a destination.

4 Enter the correct negative offset values (such as "–200" samples) for each port that is enabled for transmitting MIDI Beat Clock (see "Measuring Beat Clock Latency" on page 17).

5 Click OK.

Measuring Beat Clock Latency

To determine the correct MIDI Beat Clock offset for an external MIDI device:

1 Ensure that your computer and external MIDI device are correctly connected and configured for MIDI, and that its audio output is correctly connected to audio inputs on your Pro Tools audio interface.

2 Ensure that your external MIDI device is configured to receive MIDI Beat Clock, and that it is correctly configured to play back a simple rhythmic pattern "on the beat."

3 Create a new Pro Tools session.

4 In the MIDI Beat Clock dialog, ensure that MIDI Beat Clock is enabled and that the device is selected.

5 Set the Main Time Scale to Bars|Beats.

6 Create a new audio track and select the audio input channels for your external MIDI device.

7 Record enable the audio track and start recording. MIDI Beat Clock is sent to the external MIDI device, which starts playing back the pattern.

8 Stop recording after a few bars.

9 Enable both Grid mode and Show Grid.

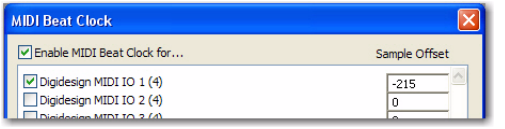
10 With the Selector tool, place the edit cursor on the beat grid prior to a prominent transient in the waveform that is "on the beat."

11 Enable Tab to Transients and Shift+Tab to the transient.

12 Switch the Main Time Scale to Samples. The length of the Edit selection (in samples) is the approximate MIDI Beat Clock latency for that device. See Figure 2 on page 18.

Since MIDI is not sample accurate, you may want to make several measurements at different grid locations and average them to come up with the best value for the MIDI Beat Clock Offset.

13 In the MIDI Beat Clock dialog, enter the Sample Offset value as a negative number.



MIDI Beat Clock Sample Offset

Once you have measured the latency for your MIDI Beat Clock–enabled devices, be sure to keep a record of these values in case you need to re-enter the MIDI Beat Clock Sample Offset in other sessions.

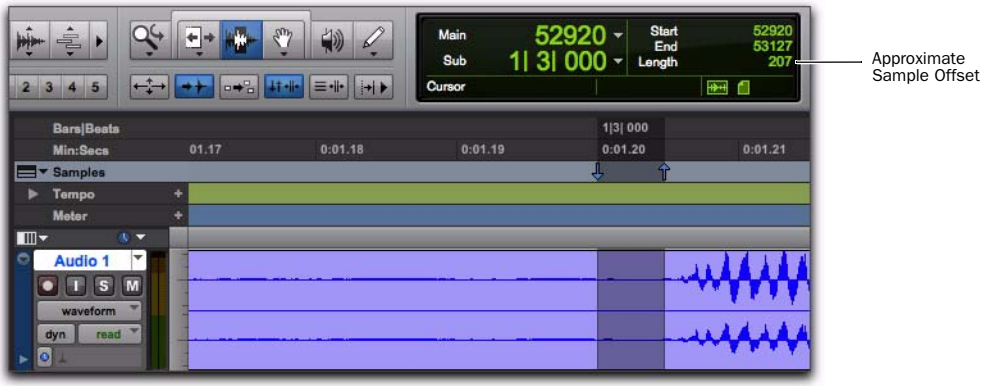
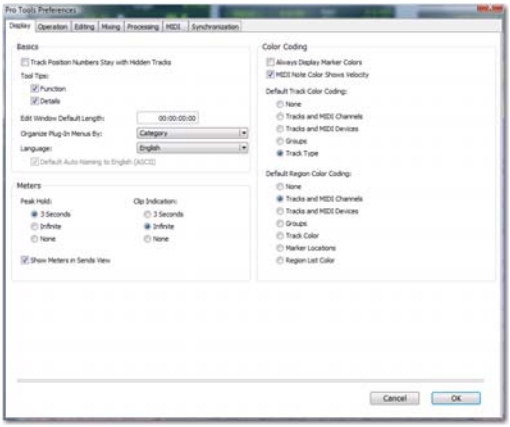


Figure 2. Measuring the offset for MIDI Beat Clock in samples

chapter 3

Changes to Pro Tools Preferences

Display Preferences



Basics Section

The following preferences have been removed.

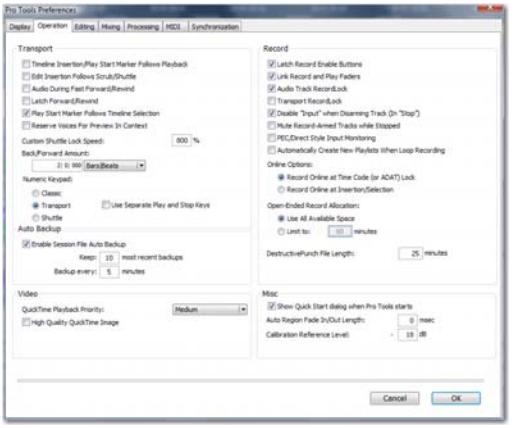
- Recompute Invalid Overviews (Pro Tools always recalculates invalid or missing waveform overviews)
- Draw Grids in Edit Window (this option is now available with the Grid Value selector in the Edit window)
- Draw Waveforms Rectified (this option has been moved to View > Waveforms > Rectified)

Color Coding

The following preference is new:

MIDI Note Color Shows Velocity When enabled, MIDI notes display varying shades of the assigned track color in MIDI notes view in the Edit window and in MIDI Editor windows. Notes with high velocities are darker and notes with lower velocities are lighter.

Operation Preferences



Transport Section

The following preference is new:

Latch Forward/Rewind When selected, fast forward and rewind latch and continue until you start or stop playback. When disabled, the Fast Forward and Rewind only last as long as you hold down the mouse after clicking either button on the Transport (or hold down the corresponding switch on a Control Surface).

Record Section

The following preference is new:

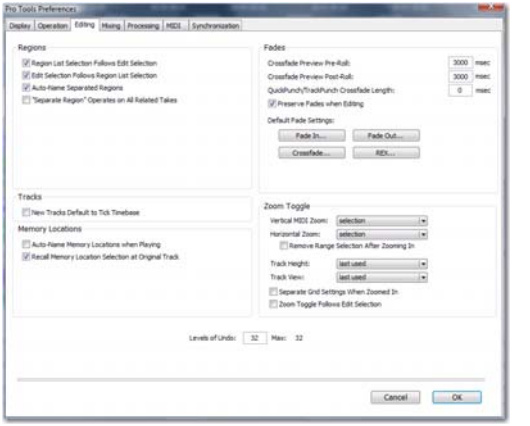
Automatically Create New Playlists when Loop Recording Copies loop recorded alternate takes to new playlists in the track. This is especially useful to prepare for track compositing in Playlist View after loop recording multiple alternate takes.

Misc (Miscellaneous) Section

The following preference is new:

Show Quick Start Dialog when Pro Tools Starts When selected, Pro Tools shows the Session Quick Start dialog on launch.

Editing Preferences



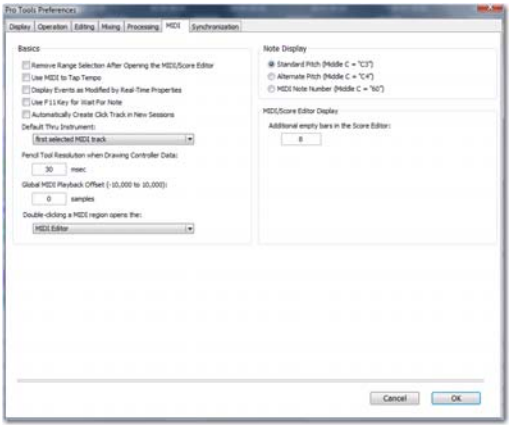
"Matching Start Time" Takes List

The following "Matching Start Time" Takes List have been removed and are now available through the Matching Criteria dialog:

- "Includes Take Region Names That Match Track Names"
- "Includes Take Region Lengths That Match"

For information on Matching Criteria options, see "Matching Criteria" on page 52.

MIDI Preferences



The following MIDI Preferences have been removed and are now available in the Edit, MIDI Editor, and Score Editor windows:

- "Default Note On Velocity"
- "Play MIDI Notes When Editing"

Basics Section

The following preferences are new:

Remove Range Selection After Opening the MIDI/Score Editor When selected, the current Edit selection collapses into an insertion point after opening either a MIDI Editor window or the Score Editor window.

"Double-clicking a Region Opens..."

This option lets you specify what happens when you double-click MIDI regions with the Grabber tool on MIDI and Instrument tracks in the Edit window.

MIDI Editor Opens the MIDI region in a MIDI Editor window.

Score Editor Opens the MIDI region in the Score Editor window.

MIDI Event List Opens the MIDI region in the MIDI Event List.

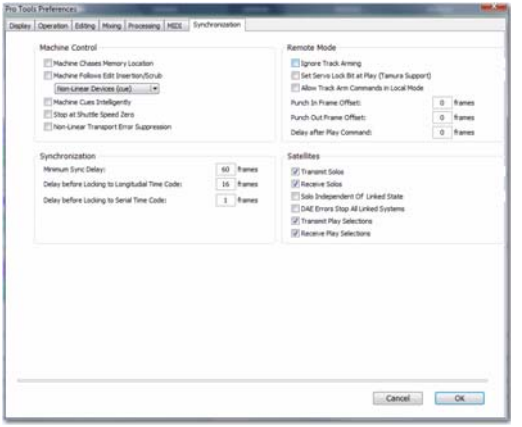
Name Dialog Opens the Name dialog for the MIDI region.

MIDI/Score Editor Display

The following preference is new:

Additional Empty Bars in the Score Editor Lets you specify the default number of empty bars that appear in the Score Editor window after the end of the last MIDI region in the session.

Synchronization Preferences



Synchronization Section

The following preference has been removed:

Stable LTC Source When selected, this option suppresses the normal 1-second wait time before Pro Tools attempts to lock to incoming LTC.

The following preferences are new:

Delay Before Locking to Longitudinal Time Code Sets the amount of time (in frames) for Pro Tools to wait before attempting to lock to incoming LTC. Use this option when locking Pro Tools to a stable time code source (such as a non-linear tape machine or LTC generator) and not a linear tape machine.

Delay Before Locking to Serial Time Code (Pro Tools HD Only) Sets the amount of time (in frames) for Pro Tools to wait before attempting to lock to machines that issue servo lock messages. This setting allows time for the servo mechanisms to achieve stable lock.

Satellite Link Section

The following preferences are new:

Transmit Solos Causes a linked Pro Tools system to transmit the solo status of its tracks to all other linked Pro Tools systems. On other linked systems that are set to receive solo status, tracks follow solo behavior as if the solo were on the local system. However, if the Solo Independent of Linked State option is enabled, Transmit Solos applies to connected systems regardless of whether or not they are linked.

Receive Solos Causes a linked Pro Tools system to receive solo status from all other linked Pro Tools systems that are set to transmit solo status of their tracks. Tracks on the receiving system follow solo behavior as if the solos were on the local system. However, if the Solo Independent of Linked State option is enabled, Receive Solos applies to connected systems regardless of whether or not they are linked.

Solo Independent of Linked State Causes a Pro Tools system to send the solo status of its tracks to other connected satellite systems even when it is unlinked. This allows control of solo status across systems even when transport control is not enabled.

DAE Errors Stop All Linked Systems Causes a DAE error on any linked Pro Tools system to stop the transport on all linked systems. When this option is not selected, linked systems will not stop if a DAE error occurs on one system.

Transmit Play Selections Causes a linked Pro Tools system to send the Edit window selection to all other linked Pro Tools systems. On other linked systems that are set to receive play selections, the selection is mirrored in the Edit window.

Receive Play Selections Causes a linked Pro Tools system to receive Edit window selections from all other linked Pro Tools systems that are set to transmit play selections.

chapter 4

Editing Features and Enhancements

Universe View

In Pro Tools 8.0, the Universe window has been replaced with the Universe view at the top of the Edit window. You can use the Universe view to quickly and easily navigate your Pro Tools session.

The Universe view displays an overview of the entire session (see Figure 1 on page 23). This view represents audio and MIDI material on all tracks that are not hidden (including tracks that are inactive, or that contain offline regions). The order in which material is displayed in the Universe view corresponds to the track order in the Edit window.

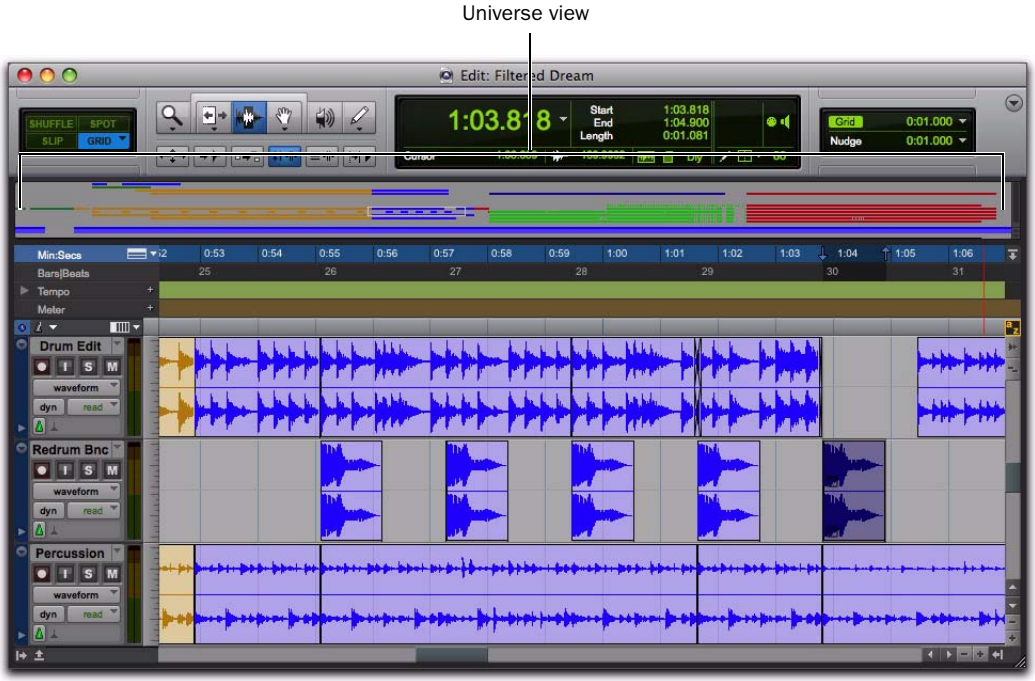


Figure 1. Universe view at the top of the Edit window

In the Universe view, audio, MIDI, and video regions on tracks are represented by horizontal lines that are the same colors as the regions on the tracks. Each audio track is represented at the same height regardless of how many channels it has. Additionally, tracks that show Automation, Controller, or Playlist lanes are represented with increasing height for each lane shown.

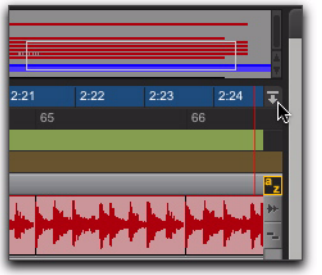
Since Auxiliary Input, Master Fader, and VCA Master tracks do not contain audio or MIDI regions, they are displayed as blank areas in the Universe view.

To show or hide the Universe view in the Edit window, do one of the following:

- Select or deselect View > Other Displays > Universe.
- Double-click the divider above the Main Timebase ruler.
- From the Edit window pop-up menu, select or deselect Universe.

Selecting Universe view from the Edit window pop-up menu

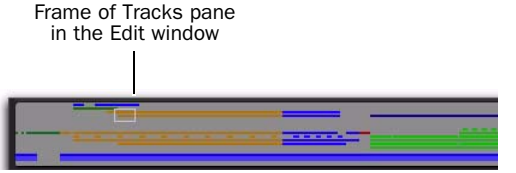
- Click the Show/Hide Universe view button.



Clicking the Show/Hide Universe view button

Framed Area in the Universe View

The framed area in the Universe view represents what is visible in the Tracks pane in the Edit window. If you change what is displayed in the Edit window—by zooming, scrolling horizontally or vertically, hiding or showing tracks, or changing track heights—the framed area in the Universe view relocates and resizes accordingly. During playback, if the Edit window is set to scroll, the framed area in the Universe view also scrolls.



Framed area representing what part of the session is viewed in the Tracks pane of the Edit window

When all tracks are visible in the Edit window and the session is zoomed all the way out, with all regions visible, the entire Universe window is framed.

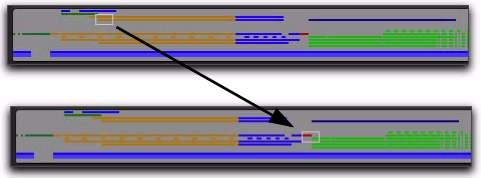
Navigating with the Universe View

By clicking in the Universe view, you can scroll the material displayed in the Edit window horizontally, vertically, or both. This provides a convenient method of focusing the Edit window anywhere in the session.

To navigate the session using the Universe view:

1 Ensure that Universe view is shown (View > Other Displays > Universe).

2 Click anywhere in the Universe view to move the framed area and the Edit window updates accordingly.



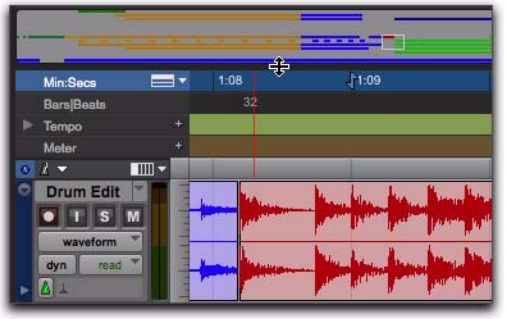
Resizing the Universe View

You can resize the height of the Universe view to fit the total number of tracks in the session, or to show more of the Edit window.

To resize the height of the Universe view:

1 Click the area between the bottom of the Universe window and the top of the Timebase rulers. The cursor changes to show that you can resize the Universe view.

2 Drag up to decrease the height of the Universe view or drag down to increase the height of the Universe view.



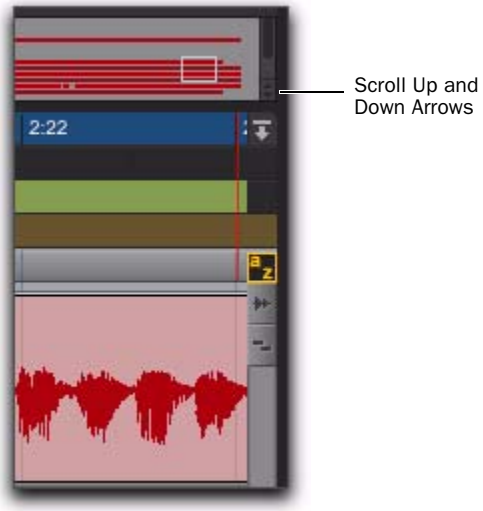
Resizing the Universe view

Scrolling the Universe View

If you have more tracks in the session than are visible in the Universe view, you can scroll up or down to show the other tracks.

To scroll the Universe view up or down:

- Click the Scroll Up or Scroll Down Arrows on the right of the Universe view.



Scrolling the Universe view

Video Universe

The Video Universe window is now directly accessible from the Window menu in Pro Tools. The Video Universe lets you view, navigate, zoom, and select video regions on the main video track. The Video Universe window displays the center video frame of each video region in the main video track. Video frames are ordered sequentially according to their order in the Timeline, and the colored strip under each frame represents the color coding for that region.

To display the Video Universe window:

1 Make sure the Video Online button in the main video track is set to online status (blue).

2 Choose Window > Video Universe.

New Waveform Views

Pro Tools 8.0 provides several Waveform view options. As before, waveforms can be displayed in Peak view normally (as positive and negative shapes around the zero crossing) or rectified. They can now also be calculated as Power whether displayed normally or rectified. Additionally, you can choose to display waveforms outlined or not.

To set the Waveform view:

1 Choose View > Waveforms and select Peak or Power.

2 Choose View > Waveforms and select or deselect Rectified.

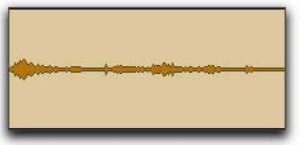
3 Choose View > Waveforms and select or deselect Outlines.

When zoomed in to the sample level, Pro Tools always displays Peak view.

Peak When selected, the waveform display is calculated based on the sample-by-sample peak level. Peak view is traditionally how Pro Tools calculates the waveform overview and can be used for normal or rectified views. Peak view clearly displays any clipping in the waveform.

Normal Peak Waveform view with Outlines

Power When selected, the wave form display is calculated according to the Root Mean Square (RMS). Power view can be used for normal or rectified views. Power view is useful for better seeing the characteristics of the audio in the waveform representation when zoomed out beyond the sample level. For mastering applications in particular, it can be more revealing of the sonic characteristics of the audio than Peak view.

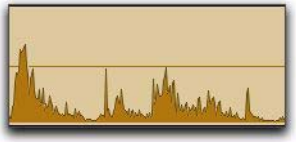


Normal Power Waveform view with Outlines

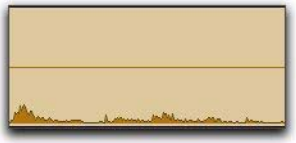
Peak view is always shown during recording. Power waveform view is calculated and shown only after you stop recording.

Power view is not available in Destructive Punch mode or when zoomed to the sample level.

Rectified When selected, audio waveforms are displayed so that their positive and negative waveform excursions (the portions that fall above and below the center line) are summed together and viewed as a single positive-value signal. This view lets you see more waveform detail in normal or reduced track height views. It can be particularly useful when editing volume automation data, since it depicts waveform levels as starting at the bottom of the track. Rectified Waveform view is an option that can be enabled in Peak or Power views.



Rectified Peak Waveform view with Outlines

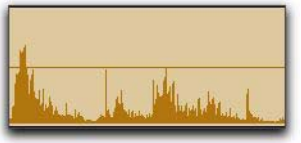


Rectified Power Waveform view with Outlines

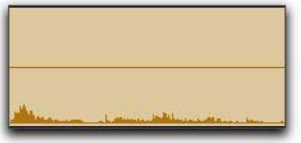
Outlines When selected, audio waveforms are outlined. This helps provide more visual definition of the waveform, especially when viewed from a distance. However, you may want to disable Outlines when you need to do precise, detailed editing in Peak waveform view. Outlines are not displayed when you are zoomed in to the sample level.

Peak Waveform view without Outlines

Power Waveform view without Outlines



Rectified Peak Waveform view without Outlines



Rectified Power Waveform view without Outlines

MIDI Editor View

Pro Tools 8.0 introduces MIDI Editor windows for detailed MIDI editing. MIDI Editor windows can show MIDI data and automation data for Auxiliary Input, Instrument, and MIDI tracks. You can open any number of separate MIDI Editor windows, each of which can provide a unique view of MIDI in your Pro Tools session. Like Plug-in, Output, and Send windows, a single MIDI Editor window can be "targeted."

For detailed information on MIDI Editor windows, see Chapter 6, "MIDI Editor Windows."

MIDI Editor in the Edit Window

You can also choose to show (or hide) a MIDI Editor pane at the bottom of the Edit window (below the Tracks pane).

To show (or hide) the MIDI Editor view in the Edit window, do one of the following:

- Select (or deselect) View > Other Displays > MIDI Editor.
- Click the MIDI Editor Show/Hide icon in the lower left corner of the Tracks pane in the Edit window.
- Double-click the divider below the Tracks pane in the Edit window.
- From the Edit Window menu, select (or deselect) MIDI Editor.

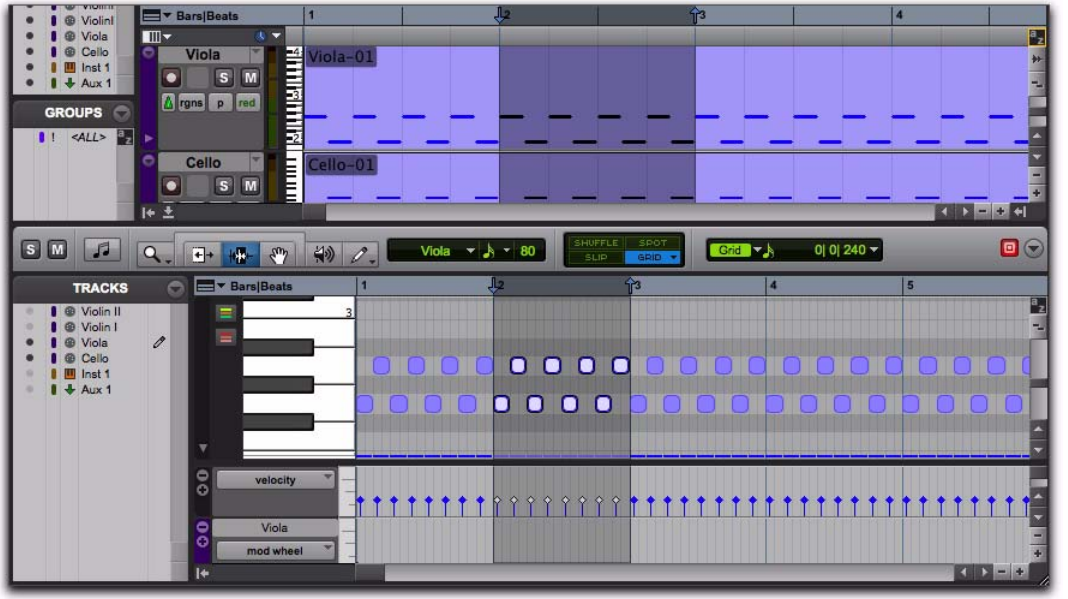


Figure 2. MIDI Editor view at the bottom of the Edit window

Customizable Toolbars

In Pro Tools 8.0 you can customize the toolbar in the Edit, MIDI Editor, or Score Editor windows by re-arranging, showing, and hiding the available controls and displays.

Showing and Hiding Controls in the Edit Window

To show or hide controls in the Edit window toolbar:

1 Do one of the following:

- Click the Edit Window Toolbar menu (in the upper-right corner of the window).
- Right-click in the toolbar.

2 From the menu, select or deselect any of the following depending on which window you are configuring:

Zoom Controls When selected, the Zoom controls are displayed in the Edit window toolbar.

Transport When selected, the Transport controls are displayed in the Edit window toolbar.

MIDI Controls When selected, the MIDI controls are displayed in the window toolbar.

Synchronization When selected, the Synchronization controls are displayed in the Edit window toolbar.

Minimal When selected, the Zoom, Transport, MIDI, and Synchronization controls are not displayed in the Edit window toolbar.

All When selected, the Zoom, Transport, MIDI, and Synchronization controls are all displayed in the Edit window toolbar.

Expanded Transport When selected, the Expanded Transport controls are displayed in the Edit window toolbar if Transport is also selected.

Track List When selected, the Track List is shown on the left of the Edit window.

Region List When selected, the Region List is shown on the right of the Edit window.

Universe When selected, the Universe view is shown near the top of the Edit window.

MIDI Editor When selected, the MIDI Editor view is shown at the bottom of the Edit window.

Rearranging Controls and Displays

To rearrange controls and displays in the Edit, MIDI Editor, or Score Editor window toolbar:

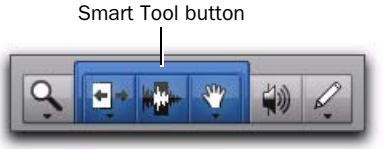
- Control-click (Windows) or Command-click (Mac) the controls or displays you want to move and drag them to the location in the toolbar you want.

For example, if you want the Counters and Edit Selection indicators to the right of the Transport controls in the toolbar, Control-click (Windows) or Command-click (Mac) and drag them to the right of the Transport controls.

Moving the Counters and Edit Selection indicators

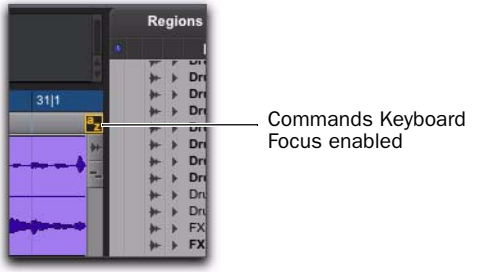
New Look for the Smart Tool

The Smart Tool button has a new look and location in Pro Tools 8.0. It is now both over and bracketing the Trimmer, Selector, and Grabber tools.



Commands Keyboard Focus

The Commands Keyboard Focus button for the Edit window has been relocated to the upper-right corner of the tracks pane in the Edit window. Commands Keyboard Focus is also available in any MIDI Editor window. Only one window can have Commands Keyboard Focus enabled at a time.



Edit window, Commands Keyboard Focus enabled

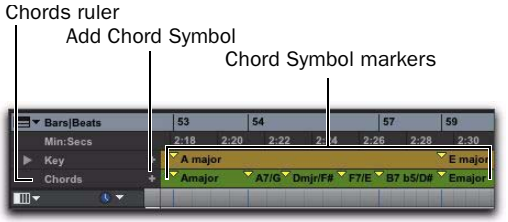
Chords

The Chords ruler lets you add chord symbols to Pro Tools sessions in the Edit window, in MIDI Editor windows, and in the Score Editor. Chord symbols in Pro Tools are simply markers that display chord symbols and diagrams (guitar tablatures). Chord symbols have no effect on MIDI data.

For information on chord symbols in the Score Editor, see "Chord Symbols and Diagrams" on page 99.

Chords Ruler

In the Edit window and MIDI Editor windows, the Chords ruler lets you add, change, move, and delete chord symbols. You can use chord symbols to indicate the chord changes in your Pro Tools session.



Chord Symbols ruler

To view the Chords ruler, do one of the following:

- Select View > Rulers > Chords.

  – or –

- From the Ruler View selector in the Edit window or in a MIDI Editor window, select Chords.

To add a chord symbol:

1 Place the cursor in the Timeline where you want to add a chord symbol.

2 Do one of the following:

- Click the Plus (+) button in the Chords ruler.

– or –

- While pressing the Start key (Windows) or Control (Mac), move the cursor into the Chords ruler (where the cursor changes to the Grabber with a "+") and click at the location where you want to place the chord symbol.

3 In the Chord Change dialog, select the name for the root of the chord, the chord quality, the bass note of the chord, and the desired chord diagram (chord diagrams are only displayed in the Score Editor).

4 Click OK.

To change a chord symbol:

1 Double-click the Chord Symbol marker in the Chord Symbol ruler.

2 In the Chord Change dialog, make the desired changes.

3 Click OK.

To move a chord symbol:

- Click and drag the Chord Symbol marker to a new time location.

To delete a chord symbol, do one of the following:

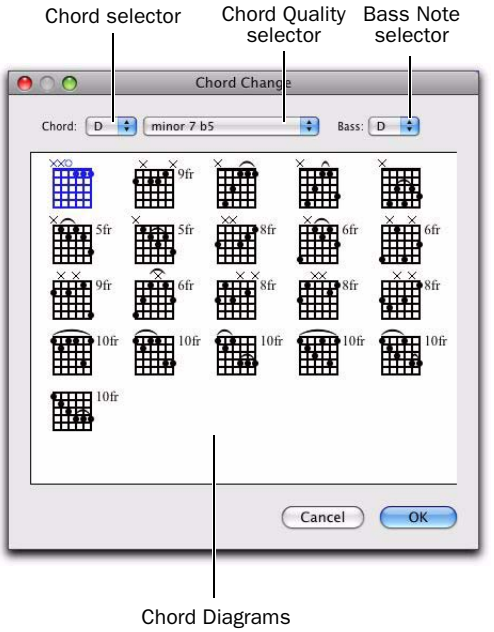
- Alt-click (Windows) or Option-click (Mac) the Chord Symbol marker in the Chords ruler.

  – or –

- Make a selection in the Chords ruler that includes the chord symbols you want to delete and choose Edit > Clear or press Delete.

Chord Change Dialog

The Chord Change dialog lets you specify a commercial chord symbol and chord diagram (guitar tab) to place in the Chords ruler or on the score in the Score Editor. The Chord Change dialog opens whenever you add or edit a Chord marker.



Chord Change dialog

Chord Select the name for the root of the Chord (such as D).

Chord Quality Select the chord quality from the selector (such as major or minor).

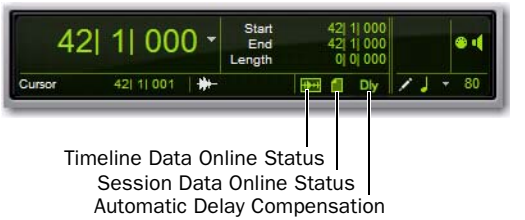
Bass Select the bass note of the chord (such as B-flat for a G minor chord in first inversion).

Chord Diagram Select the chord diagram for guitar tablature. Chord diagrams only appear in the Score Editor.

To show or hide chord symbols and diagrams in the Score Editor, select or deselect the corresponding option in the Score Setup dialog.

Edit Window Indicators

The Timeline Data Online Status, Session Data Online Status, and Automatic Delay Compensation indicators have a new look.



Edit window indicators

Timeline Data Online Status Indicator

The Timeline Data Online Status indicator is green when all files in use in track playlists are available for playback. If files are offline, being processed, or otherwise unavailable for playback, this indicator is red.

Session Data Online Status Indicator

The Session Data Online Status indicator is green when all audio and fade files referenced by the session are available for playback. If files are offline, being processed, or otherwise unavailable for playback, this indicator is red.

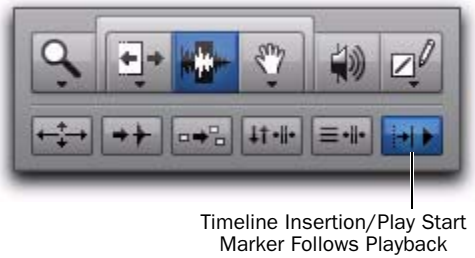
Delay Compensation Status Indicator (Pro Tools HD Only)

The Automatic Delay Compensation indicator is displayed when Delay Compensation is enabled (Options > Delay Compensation). When Delay Compensation is disabled, this indicator is not displayed.

New Edit Window Option

The following Edit window option is new in Pro Tools 8.0.

Timeline Insertion/Play Start Marker Follows Playback Button



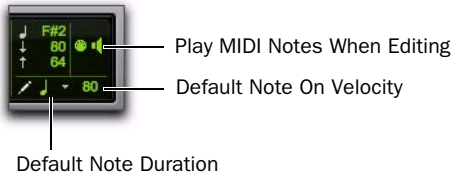
Edit window buttons

Pro Tools 8.0 provides a new Timeline Insertion/Play Start Marker Follows Playback button in the Edit window. This lets you enable or disable the Timeline Insertion/Play Start Marker Follows Playback option and also provides a visual indication of whether or not this option is on. Previously, the option was only available in the Operation Preferences.

Press Start+N (Windows) or Control+N (Mac) to toggle the Timeline Insertion/Play Start Marker Follows Playback preference on and off.

Edit Window MIDI Editing Controls

Pro Tools provides a few options for determining MIDI editing behavior. These options are available in the Edit window, MIDI Editor windows, and the Score Editor window. However, these options are only available if there is at least one MIDI or Instrument track in your Pro Tools session.



MIDI Editing Controls in the Edit window

Play MIDI Notes When Editing

When enabled, the Play MIDI Notes When Editing option causes MIDI notes to sound when editing.

Default Note Duration

The Default Note Duration selector lets you define the default note duration for manually inserted notes. The Edit window, MIDI Editor windows, and Score Editor window can each have different Default Note Duration settings.

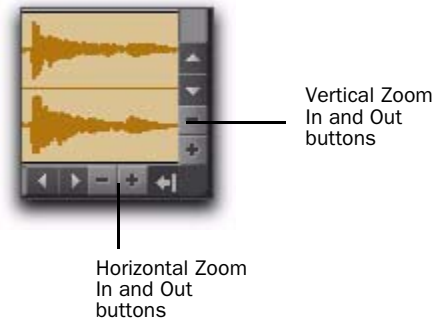
Default Note On Velocity

The Default Note On Velocity setting lets you define the default note on velocity for manually inserted notes. The Edit window, MIDI Editor windows, and Score Editor window can each have different Default Note On Velocity settings.

New Edit Window Zoom Buttons

Vertical and Horizontal Zoom In and Out Buttons

In addition to the Zoom controls in the Toolbar, Pro Tools 8.0 provides horizontal and vertical zoom buttons in the lower-right corner of the Edit window.

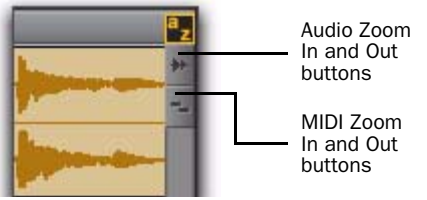


Vertical Zoom Buttons Zoom the track heights proportionally in the Edit window.

Horizontal Zoom Buttons Zoom the Timeline just like the Horizontal Zoom controls in the Edit window toolbar.

Audio and MIDI Zoom In and Out Buttons

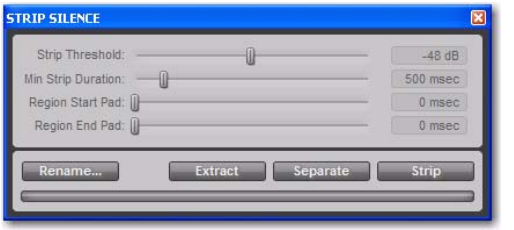
Pro Tools 8.0 also provides Audio and MIDI Zoom In and Out buttons in the upper-right corner of the Edit window. These controls function the same as the Audio and MIDI Zoom controls in the Toolbar, and let you zoom in and out vertically on audio waveforms and MIDI notes respectively. Click the top part of the button to zoom in and the bottom part to zoom out.



⚠ *MIDI Vertical Zoom only affects tracks in not in Regions view.*

Strip Silence Down to –96 dB

In Pro Tools 8.0, Strip Silence now lets you adjust the Strip Threshold down to –96 dB (the lower limit used to be –48 dB). This increased dynamic range is especially useful when working on recordings with low signal levels (such as ambient recordings) and recordings with a wide dynamic range (such as orchestral music).



Strip Silence window

Snap To Grid

Traditionally, the four Pro Tools Edit modes (Shuffle, Slip, Spot, and Grid) have been mutually exclusive. Now, Pro Tools 8.0 also lets you enable Snap To Grid while in Shuffle, Slip, or Spot mode. When in any of these modes with Snap To Grid also enabled, placing the Edit cursor and making Edit selections is constrained by the Grid, but any region editing is also affected by the other selected Edit mode.

For example, in Shuffle mode, with Snap To Grid enabled, you can make a selection in a region based on the Grid, cut the selection, and any regions to the right of the edit shuffle to the left.

Shuffle mode with Snap To Grid enabled

To enable Snap To Grid while in another Edit mode:

- Shift-click the Grid mode button.

Press Shift+F4 to enable Snap To Grid while in another Edit mode.

To enable Shuffle, Slip, or Spot while in Grid mode:

- Shift-click the Shuffle, Slip, or Spot mode button.

Press F1+F4 to enable Snap To Grid and Shuffle mode; press F2+F4 to enable Snap To Grid and Slip mode; and press F3+F4 to enable Snap To Grid and Spot mode.

New Zoom Keyboard Shortcuts

To zoom horizontally to show the entire session without affecting vertical zoom or scrolling, do one of the following:

- Press Alt+Start+A (Windows) or Option+Control+A (Mac).

– or –

- Press Control+Start+[(Windows) or Command+Control+[(Mac).

To zoom in horizontally on a selection without affecting vertical zoom or scrolling, do one of the following:

- Press Alt+Start+F (Windows) or Option+Control+F (Mac).

– or –

- Press Control+Start+] (Windows) or Command+Control+] (Mac).

To zoom all audio vertically to show the default waveform height:

- Press Control+Alt+Start+[(Windows) or Command+Option+Control+[(Mac).

To zoom MIDI vertically to show all notes (lowest to highest) in MIDI and Instrument tracks:

- Press Control+Start+Shift+[(Windows) or Command+Control+Shift+[(Mac).

Edit Selection Enhancements and Key Commands

Restoring the Last Selection

There are times when editing that you can lose your selection. If you lose the current Edit (or Timeline) selection and want to restore it, use the Restore Last Selection command.

To restore the last selection:

- Choose Edit > Restore Last Selection.

Press Control+Alt+Z (Windows) or Command+Option+Z (Mac) to restore the previous selection.

Moving the Insertion to the Beginning or End of the Selection

With the Transport stopped, you can use the Down and Up Arrows on your QWERTY keyboard to place the Edit cursor at the beginning or end of the Edit (or Timeline) selection and collapse the selection.

To move the insertion to the beginning of the selection:

- Press the Down Arrow.

To move the insertion to the end of the selection:

- Press the Up Arrow.

Additional Keyboard Shortcuts for Changing the Edit Selection

Pro Tools provides several keyboard shortcuts for moving and extending or decreasing the range of an Edit (or Timeline) selection.

To move the selection forward by the selection amount:

- Press Control+Alt+Start+' (single quote) (Windows) or Command+Control+Option+' (single quote) (Mac).

To move the selection backward by the selection amount:

- Press Control+Alt+Start+L (Windows) or Command+Control+Option+L (Mac).

To double the length of the Edit selection:

- Press Control+Alt+Start+Shift+' (single quote) (Windows) or Command+Control+Option+Shift+' (single quote) (Mac).

To halve the length of the selection:

- Press Control+Alt+Start+Shift+L (Windows) or Command+Control+Option+Shift+L (Mac).

Canceling Zoom Toggle

When Zoom Toggle is enabled, you can cancel it and remain at the same zoom level.

To cancel Zoom Toggle:

- Press Alt+Shift+E (Windows) or Option+Shift+E (Mac).

New Record Enable, Input Enable, Solo, and Mute Key Commands

Pro Tools provides key commands for record enabling, input enabling, soloing, and muting any tracks that contain the Edit cursor or an Edit selection. When you are navigating the session using key commands, this lets you quickly enable or disable any of these options without having to use the mouse.

To record enable tracks that contain the Edit cursor or Edit selection:

- Press Shift+R to toggle Record enable on or off.

To input enable tracks that contain the Edit cursor or Edit selection:

- Press Shift+I to toggle Input enable on or off.

To solo tracks that contain the Edit cursor or Edit selection:

- Press Shift+S to toggle solo on or off.

To mute tracks that contain the Edit cursor or Edit selection:

- Press Shift+M to toggle mute on or off.

Locking Regions

In many cases you may want to "lock" regions or region groups to a specific time location to keep them from being moved inadvertently. You may also want to protect them from being inadvertently edited. Pro Tools provides two different types of region locking: Time-locking and Edit-locking.

Edit Locking Regions

If you have a region or group of regions that you want to protect from being inadvertently edited, you can Edit-lock them. Regions that are Edit-locked cannot be edited (such as cutting, deleting, separating, or trimming) or moved to a different time location. Copied Edit-locked regions can be pasted to any track or time location, but the copy will also be Edit-locked at the new time location.

The Edit Lock command is the same as the Lock Regions command from previous versions of Pro Tools.

To Edit-lock (or unlock) a region:

1 With the Time Grabber, select the region or regions to Edit Lock (or unlock). The regions can reside on multiple tracks.

2 Choose Region > Edit Lock/Unlock.

Press Control+L (Windows) or Command+L (Mac) to Edit lock or unlock the selected region.

When Edit-locked, a small Edit Lock icon appears in the region and the region cannot be moved, deleted, or edited. If you attempt to perform edits on a locked region, Pro Tools alerts you (see "Allowing Editing of Locked Regions" on page 38).

Edit locked region

In Shuffle mode, Edit-locked regions, and all regions occurring after the locked region, are not displaced when other neighboring regions are moved.

On tick-based Elastic Audio–enabled tracks, Edit-locked regions conform to tempo changes, but no other Elastic Audio processing (such as Quantize or manual warping) can be applied.

Time Locking Regions

For regions that you want to lock to a particular location in a track (a beat, SMPTE frame, or sample location), you can lock it in place so it cannot be moved accidentally. Time-locked regions cannot be moved. However, they can be edited in ways that do not move the region to a different time location (such as separating, trimming, AudioSuite processing, or even moving the region to another track). Time-locked regions can also be deleted. When separating a Time-locked region, any new regions will also be locked to their time locations.

To Time-lock (or unlock) a region:

1 With the Time Grabber, select the region or regions to Time Lock (or unlock). The regions can reside on multiple tracks.

2 Choose Region > Time Lock/Unlock.

Press Shift+T to Time lock or unlock the selected region.

When Time-locked, a small Time Lock icon appears in the region and the region cannot be moved, but it can be edited or even deleted.

Time locked region

In Shuffle mode, Time-locked regions, and all regions occurring after the locked region, are not displaced when other neighboring regions are moved.

On tick-based Elastic Audio–enabled tracks, Time locked regions conform to tempo changes, but no other Elastic Audio processing (such as Quantize or manual warping) can be applied.

Allowing Editing of Locked Regions

If you attempt to edit an Edit-locked region, Pro Tools warns you and prompts you to Cancel or Allow the edit. If you allow an edit that keeps any part of the region intact, the region remains locked.

Regions View for MIDI and Instrument Tracks

In Pro Tools 8.0, MIDI and Instrument tracks now default to Regions view. This more readily facilitates editing and arranging of MIDI regions in the Edit window. For detailed MIDI editing, you can double-click any MIDI region to open it in a MIDI Editor window.

For information on MIDI Editor windows, see Chapter 6, "MIDI Editor Windows."

Elastic Audio Region-Based Pitch Transposition

(Polyphonic, Rhythmic, and X-Form Only)

In addition to Pro Tools Elastic Audio time compression and expansion capabilities, you can also change the pitch of whole audio regions in semitones and cents in the range of +/– 2 octaves.

Pitch transposition can be applied to Elastic Audio regions using either the Elastic Properties window or the Transpose window.

⚠ *Elastic Audio pitch transposition is not supported with the Monophonic algorithm.*

To transpose the pitch of an audio region in the Elastic Properties window:

1 Make sure the region, or regions, you want to Transpose are on Elastic Audio–enabled tracks (using the Polyphonic, Rhythmic, or X-Form algorithm).

2 With the Grabber or Selector tool, select the audio region you want to transpose. Only regions that are completely selected will be affected.

3 Do one of the following to open the Elastic Properties window:

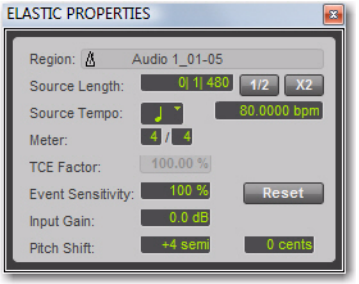
- Choose Region > Elastic Properties.

– or –

- Right-click the selected region and choose Elastic Properties.

SHIFT *Press Alt+5 (Windows) or Option+5 (Mac) on the numeric keypad to open the Elastic Properties window.*

4 Adjust the Pitch Shift settings by the desired amount in semitones and cents.



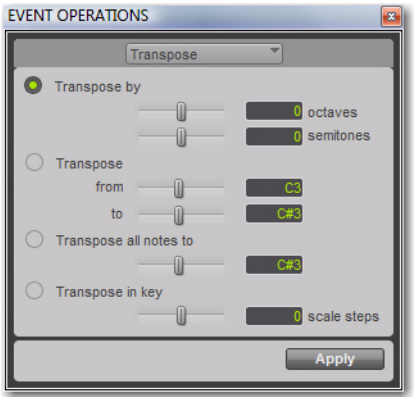
Elastic Properties window

To transpose the pitch of an audio region in the Transpose window:

1 Make sure the region, or regions, you want to Transpose are on Elastic Audio–enabled tracks.

2 With the Grabber or Selector tool, select the audio region you want to transpose. Only regions that are completely selected will be affected.

3 Choose Event > Event Operations > Transpose.



Event Operations, Transpose

4 Do one of the following:

- Adjust the Transpose By settings by the desired amount in semitones and cents.
- Adjust the Transpose From and To settings by the desired amount in Semitones and Cents.

⚠ *The Transpose All Notes To and the Transpose In Key settings can only be applied to MIDI notes. When only audio regions are selected, these options are unavailable.*

5 Click Apply.

Varispeed and Pitch Transposition

When using the Varispeed algorithm, pitch transposition and time compression/expansion are always linked. If you apply pitch transposition to an audio region using the Polyphonic or Rhythmic algorithms, that transposition data is stored in the metadata for the region. Consequently, if you then switch to Varispeed, change the TCE factor, and then switch back to the original Elastic Audio algorithm, the region will revert to the original amount of pitch shifting while maintaining the amount of time compression/expansion applied by the Varispeed algorithm.

Removing Region Pitch Shifting

If you have applied any pitch shifting to a region, you can remove pitch shifting and revert the region to its original pitch. This can be useful if you are not satisfied with the results and want to revert to the pre–pitch shifted region.

To remove region pitch shifting:

1 Select the region for which you want to remove warping.

2 Do one of the following:

- Choose Region > Remove Pitch Shift.

– or –

- With any Edit tool, Right-click the region and select Remove Pitch Shift.

⚠ *Remove Pitch Shift can only be applied to regions and cannot be applied to region groups. To remove pitch shifting from region groups you must first ungroup the region, then apply Remove Pitch Shift to the underlying regions, and then regroup those regions.*

Improved Sound Quality with Elastic Audio

In Pro Tools 8.0, Digidesign has further improved the sound quality of the Polyphonic, Monophonic, and Rhythmic algorithms used for Elastic Audio processing.

⚠ *When opening Pro Tools 7.4.x sessions that use Elastic Audio in Pro Tools 8.0, some Elastic Audio processing may be slightly altered due to the new and improved algorithms. Be sure to listen to the session in Pro Tools 8.0 with the new Elastic Audio processing algorithms and make any necessary adjustments (such as adjusting the Decay Rate when using the Rhythmic Elastic Audio plug-in).*

Improved Quantize Event Operation

Quantize always operates on the original event location (Elastic Audio and MIDI). This lets you apply new Quantize settings without having to first apply Restore Performance or undo the previous Quantize pass.

Improvements for Field Recorder Files

Pro Tools 8.0 provides two improvements for managing the metadata associated with files imported from field recorders.

Shoot Date Metadata

Many field recorders do not populate the Shoot Date field, relying instead on the file's Creation Date to indicate date of production. When Pro Tools imports a field recorder file, it now checks to see if the Shoot Date field is populated. If it is empty, Pro Tools copies the Creation Date of the original source file to the Shoot Date field of the new imported files.

Editing Channel Name Metadata

The Channel Name field in DigiBase displays the channel name, followed the by channel number in parentheses. It is now possible to edit the Channel name for mono BWF files. When editing the channel name, anything you enter in parentheses will be discarded. However, the channel number will always be preserved.

chapter 5

Track Compositing

Pro Tools 8.0 provides *track compositing* tools for audio tracks. Track compositing is the process of assembling various selections from alternate takes, or playlists, to construct the best possible version of a performance from multiple recording passes. Using Playlists view for an audio track, you can select the best parts from the track's alternate playlists and copy them to the main playlist. This lets you quickly and easily create the "perfect take" from multiple alternate playlists.

Example Track Compositing Workflow

In this workflow, you will be introduced to some common track compositing tasks:

- Configure a session for this workflow.
- Loop record multiple takes on an audio track.
- Audition and select the best take.
- Copy the best take to the main playlist.

Configure a session:

1 Open an existing Pro Tools session or create a new one.

2 Choose Setup > Preferences, and click the Operation tab.

3 On the Operation page, in the Record section, select the Automatically Create New Playlists When Loop Recording option.

Enabling the Automatically Create New Playlists When Loop Recording option in the Operation Preferences

4 Click OK.

Loop record several takes:

1 Create a new audio track (stereo or mono), or use an existing track.

2 Make sure the source you want to record is correctly connected and routed to the track input.

3 From the Track View selector, select Playlists.

4 To hear track material up to the start point of the loop, enable pre-roll and set the pre-roll time.

5 Enable Loop Recording by doing one of the following:

- Select Options > Loop Playback.

– or –

- Right-click the Play button in the Transport and select Loop.

6 Make sure that Options > Link Timeline and Edit Selection is selected.

7 With the Selector tool, select the loop range on the track.

8 Record enable the audio track by clicking its Record Enable button.

9 Click Record in the Transport to arm Pro Tools for recording.

10 Click Play to start recording.

11 When finished, click Stop to stop recording.

12 If you do not want to make another loop record pass, record disable the audio track.

After you have stopped loop recording, notice that all of the loop recording takes are revealed in Playlist lanes below the main playlist (including the whole audio file region of all of the loop record passes).

Playlists view showing multiple alternate playlists

If the Automatically Create New Playlists When Loop Recording option was disabled before you started loop recording, Right-click the region in the main playlist and choose Matches > Expand Alternates to New Playlists.

To hide the whole file region containing all takes so that you only see the takes with the same start and end times as the Edit selection, do one of the following:

- Right-click on the Playlist lane and choose Hide.

– or –

- With the same Edit selection that you used for loop recording intact, Right-click the Track Name or any of the Playlist Lane Names and choose Filter Lanes > Show Only Lanes With > Regions Within the Edit Selection.

Filtering Playlist lanes viewed

To audition alternate playlists:

1 Enable Loop Playback by doing one of the following:

- Select Options > Loop Playback.

– or –

- Right-click the Record button in the Transport and select Loop.

2 With the same Timeline selection intact, and and the same pre-roll/post-roll settings enabled, start playback. The main playlist plays back.

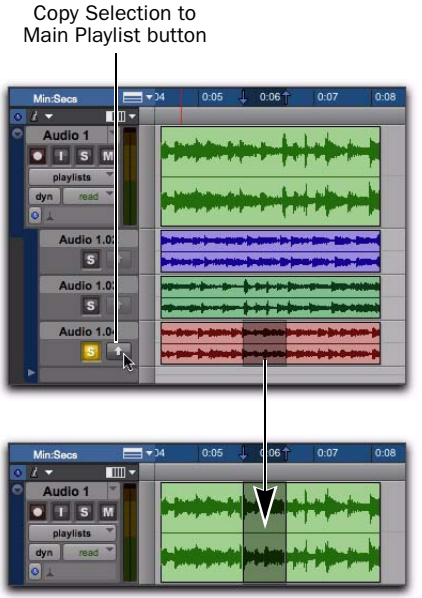
3 Click the Solo button for the alternate playlist lane you want to audition. Repeat this step for each playlist lane as desired. (Soloing a Playlist lane only solos the playlist in the track, it does not mute any other tracks in the session.)

Copy the best take to the main playlist:

1 Once you have identified the best take, make any changes to the Edit selection as desired. This is the selection that will be copied to the main playlist.

2 Do one of the following:

- Choose Edit > Copy Selection To > Main Playlist.
- Right-click the selection and choose Copy Selection to Main Playlist.
- Click the Copy Selection to Main Playlist button for the Playlist lane.



Copying the Edit selection in an alternate playlist to the main playlist

Press Control+Alt+Start+V (Windows) or Command+Option+Control+V (Mac) to copy the selection to the main playlist.

Playlists Track View

Playlists Track view lets you view the main playlist in the track, and also any alternate playlists associated with the track. Alternate playlists are displayed directly below the track in *Playlist lanes*.

You can edit alternate playlists in Playlist view just like the main playlist in Waveform view. In Playlists view, edits that are applied to range selections are applied to all shown alternate playlists. Alternate playlists that are not shown are not affected.

Before starting work with Track Compositing, duplicate the track's Main Playlist to keep it intact as a backup alternate playlist.

Region Groups are not supported in Playlists Track View.

To view the Playlist lanes for a track:

- From the Track View selector, select Playlists.

Selecting Playlists Track view

You can also Control-Alt-click (Windows) or Command-Control-click (Mac) the Playlist selector to switch to Playlists view.

If the track does not contain any alternate playlists in addition to the main playlist, only a single, empty Playlist lane is shown under the main playlist. You can drag and drop audio to this lane from the Region List, DigiBase Browsers, or other audio tracks to create an alternate playlist for the track in addition to the main playlist.

Dropping audio from Region List to create an alternate playlist

If the track contains one or more alternate playlists in addition to the main playlist, they are displayed in lanes under the main playlist. Regardless, the bottom Playlist lane is always empty and can be used for adding regions to create new alternate playlists.

Track with alternate playlists in Playlists Track view

Auditioning Alternate Playlists

Only the main playlist plays back through the track audio output path. To hear an alternate playlist, you need to solo the Playlist lane. The soloed lane then plays through the track audio output path instead of the main playlist.

To audition an alternate playlist:

1 Click the Solo button for the Playlist lane you want to audition. (Soloing a Playlist lane only solos the playlist in the track, it does not mute any other tracks in the session.)

Soloing an alternate playlist

2 Start Pro Tools playback.

Press Shift+S to solo any one Playlist lane containing the Edit cursor. If more than one Playlist lane contains the Edit cursor, the topmost lane is soloed.

Use Start+P and Start+";" (Windows) or Control+P and Control+";" (Mac) to move the Edit cursor up and down through Playlist lanes.

Copying Alternate Playlists to the Main Playlist

Once you have found a selection in an alternate playlist that you want to use in the main playlist, copy and paste the selection to the main playlist. In this way you can construct the best combination of selections from alternate playlists.

In addition to manually copying and then pasting to the main playlist, Pro Tools provides several commands for copying and pasting the selection to the main playlist:

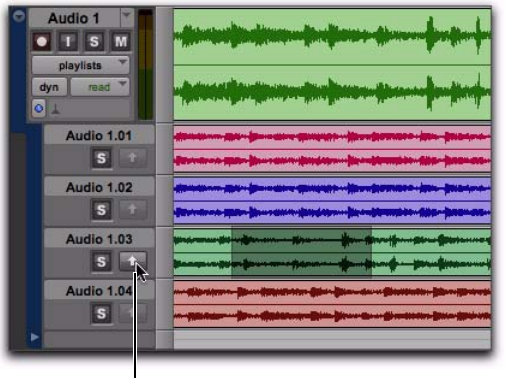
Copy Selection To Main Playlist Copies and pastes the selection to the main playlist. Any material already on the main playlist at the same location is overwritten.

Copy Selection to New Playlist Creates a new, empty main playlist and copies and pastes the selection to the new main playlist

Copy Selection to Duplicate Playlist Duplicates the current main playlist and copies and pastes the selection to the duplicate of the main playlist. The previous main playlist moves to a new Playlist lane.

To copy a selection in an alternate playlist to the main playlist:

1 In Playlists view, make a selection in an alternate playlist.



Making a selection in an alternate playlist

2 Do one of the following:

- Click the Copy Selection To Main Playlist button in the Playlist Lane controls.
- Choose Edit > Copy Selection to Main Playlist.
- Right-click the selection and choose Copy Selection To Main Playlist.

SHIFT *Press Control+Alt+Start+V (Windows) or Command+Option+Control+V (Mac) to copy the selection to the main playlist.*

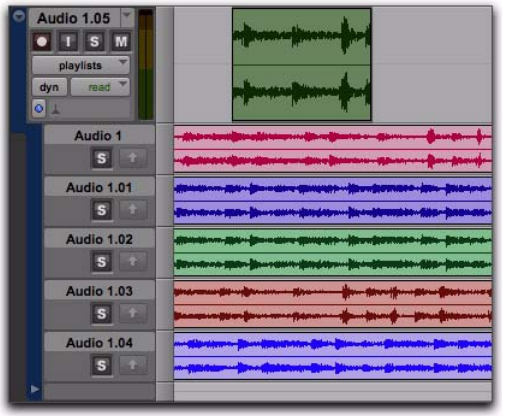
The selection from the alternate playlist is copied to the same time location in the main playlist.

Selection copied to the main playlist

To copy a selection in an alternate playlist to a new main playlist:

1 In Playlists view, make a selection in an alternate playlist.

2 Choose Edit > Copy Selection to New Playlist.

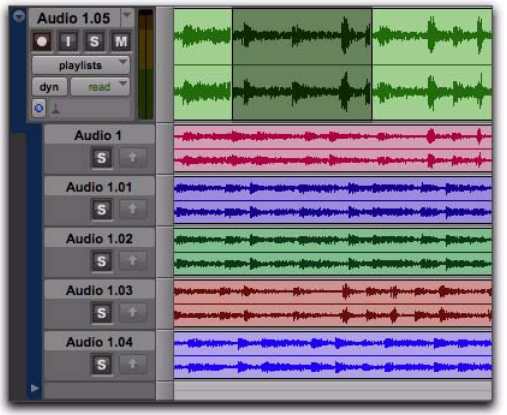


Selection copied to a new main playlist

To copy a selection in an alternate playlist to a duplicate of the main playlist:

1 In Playlists view, make a selection in an alternate playlist.

2 Choose Edit > Copy Selection to Duplicate Playlist.



Selection copied to a duplicate of the main playlist

Dragging Regions to Playlists Lanes

You can drag and drop regions to any available Playlist lane on any track that has the same channel width. For example, you cannot drag and drop a stereo region to a mono track Playlist lane. Similarly, you can drag regions from any Playlist lane to any other track of the same channel width.

Editing in Playlist Lanes

You can edit regions in Playlist lanes in the same way that you do in the main playlist. You can even move regions between different Playlist lanes (including the main playlist), between different tracks, and to different points in time. However, you will not be able to hear your edits on Playlist lanes unless the lane you are editing is soloed (see "Auditioning Alternate Playlists" on page 47).

Reordering Playlist Lanes

You can reorder Playlist lanes the same way you reorder tracks.

To reorder Playlist lanes:

- Click the name of the alternate playlist and drag it to the location you want.

Reordering Playlist lanes

Resizing Playlist Lanes

You can resize Playlist lanes the same way you resize tracks.

To resize the track and all Playlist lanes together, do one of the following:

- Click the line in between lanes and drag up or down. The track and all Playlist lanes resize accordingly.

– or –

- Right-click the vertical scale between the playlist area and the Playlist Lane controls and select the lane size you want. The track and all Playlist lanes resize accordingly.

SHIFT *Press Start+Up/Down Arrow key (Windows) or Control+Up/Down Arrow key (Mac) to resize heights for tracks, playlists, and lanes containing the Edit cursor or Edit selection.*

To resize a single Playlist lane, do one of the following:

- Control-click the line in between lanes and drag up or down. The upper lane resizes accordingly.

Resizing a Playlist lane

– or –

- Control-Right-click the vertical scale between the playlist area and the Playlist Lane controls and select the lane size you want.

Selecting a preset size for a Playlist lane

Renaming Alternate Playlists

You can rename alternate playlists the same way you rename tracks.

To rename an alternate playlist:

1 Double-click the name of the alternate playlist.

2 In the resulting Name dialog, type the name you want.

3 Click OK.

Alternate Playlists in the Track List

When an audio track is set to Playlists view, all of its associated playlists appear listed under the track name in the Track List. The names of associated alternate playlists are indented to distinguish Playlist lanes from tracks. From the Track List you can show and hide alternate playlists. You can also access the Right-click menu for alternate playlists, which lets you apply Show or Hide, Scroll Into View, Rename, Delete, and Filter Lanes commands.

Track List showing Playlist lanes for "Audio 1" and "R Guitar FX" tracks

Filtering Lanes

You can filter Playlist lanes to show or hide them based on different criteria.

To filter Playlist lanes:

1 Right-click the Track Name or the Playlist Name.

2 From the Right-click menu, select one of the following:

- Show All Lanes
- Show Only Lanes With > Regions Within The Edit Selection
- Show Only Lanes With > Regions Outside The Edit Selection
- Show Only Lanes With > "Regions Rated >= 1–5"
- Hide All Lanes
- Hide Only Lanes With > Regions Within The Edit Selection
- Hide Only Lanes With > Regions Outside The Edit Selection
- Hide Only Lanes With > "Regions Rated >= 1–5"

Playlist lanes are shown and hidden accordingly.

Rating Regions

You can rate different regions on a scale of 1 to 5, where 5 is the highest (or best) and 1 is the lowest (or worst). Region rating is useful for identifying which takes (regions) you like the most when compositing playlists. You can display or hide the region rating in regions to facilitate track compositing or regular editing. You can also show or hide Playlist lanes based on the ratings of regions in the playlist (see "Filtering Lanes" on page 51).

To rate a region:

1 Select the region.

2 Do one of the following:

- Choose Region > Rating, and select a ranking of 1 to 5.

– or –

- Right-click the region, choose Rate, and select a ranking of 1 to 5.

You can rate regions during playback and recording by pressing Control+Alt+Start (Windows) or Command+Option+Control (Mac) and then typing the rating number (1–5) on the numeric keypad.

To display ratings in regions:

- Select View > Region > Rating.

To hide ratings in regions:

- Deselect View > Region > Rating.

Matching Alternate Regions

Pro Tools lets you exchange regions in the main playlist on tracks with matching alternate regions from other playlists associated with the same track, from other tracks, or from the Region List. Matching alternate regions are regions that meet certain criteria. For example, regions that have the same *User Time Stamp* match.

There are several ways to create matching alternate regions in Pro Tools:

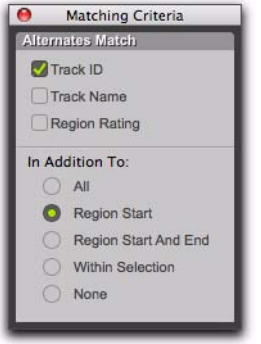
- When punch recording (audio or MIDI), Pro Tools creates matching regions for the original region (if any) and the new punch recorded region.
- When loop recording (audio or MIDI), Pro Tools creates multiple matching regions for each recording pass.
- When duplicating playlists (audio or MIDI), there will be matching alternate regions between playlists.
- When importing multichannel audio from a field recorder, there will be matching alternate regions between channels.

Pro Tools also provides several ways to access and audition multiple matching alternate regions:

- Use the Region Right-click menu to select matching alternate regions according to certain criteria.
- Use the Alternate Takes pop-up menu to select matching alternate regions.
- Use the Expand Alternates to New Tracks command to copy matching alternate regions to new tracks.
- Use the Expand Alternates to New Playlists command to copy matching alternate regions to new alternate playlists on the same track. Then use Playlists view to access the alternate playlists.

Matching Criteria

The Matching Criteria window lets you select the criteria for matching alternate regions. This lets you refine the list of available matching regions in the Alternate Takes pop-up menu and Region Right-click Matches submenu.



Ratings displayed in regions

Matching Criteria affects MIDI as well as audio regions.

To configure the Matching Criteria options for matching alternate regions:

1 Do one of the following:

- Right-click the region with the Selector or the Grabber tool and select Matches > Match Criteria.

– or –

- With the Selector tool, Control-click (Windows) or Command-click (Mac) at the precise beginning of the loop or punch range and select Match Criteria.

2 In the Matching Criteria window, select any combination of the following Alternates Match options:

- Track ID
- Track Name
- Region Rating

3 Select one of the following In Addition To options:

- All
- Region Start
- Region Start and End
- Within Selection
- None

4 Leave the Matching Criteria window open to change the settings as appropriate while compositing tracks. Close the Matching Criteria window when you are done.

Matching Criteria settings are saved with your Pro Tools session.

Alternates Match Options

The following Alternates Match options can be selected in any combination:

Track ID Any regions recorded to the same track are considered matching. Use this option for selecting alternate takes from loop or punch recording.

Track Name Any regions that share the same root name with the track/playlist are considered matching. For example, the Matches for a track named "Gtr.L" would show the regions "Gtr.L_01" and "Gtr.L_02-01," but not "Guitar.L_01."

Region Rating Any regions that have the same Rating are considered matching. Enable this option if you have rated regions (see "Rating Regions" on page 51).

In Addition To Match Options

The following In Addition To Match options are mutually exclusive.

All Any regions that include the time location of the Edit cursor; or any regions that are either partly or fully within the current time range of the Edit selection.

Region Start Any regions that have the same start time as the time location of the Edit cursor or Edit selection.

Region Start and End Any regions that have the same start and end times as the Edit selection.

Selection Range Any complete regions that are entirely within the Edit selection.

None No other criteria in addition to the selected Alternates Match options are used to filter matching alternate regions.

Selecting Alternate Takes on Tracks

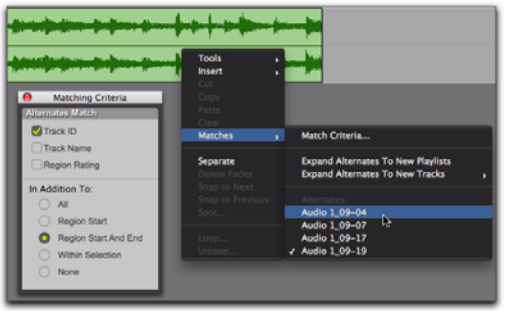
Each region resulting from a punch or loop record pass has an identical start time (the *User Time Stamp*). You can select and audition alternate takes from the Right-click Matches submenu or the Alternate Takes pop-up menu—even during playback.

To select an alternate take:

1 Configure the Matching Criteria window if necessary (see "Matching Criteria" on page 52).

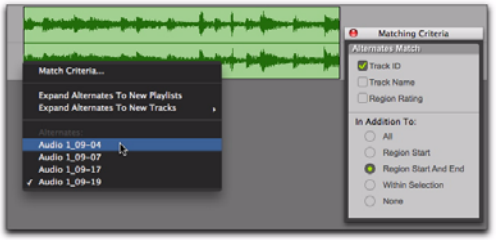
2 Do one of the following:

- Right-click the region with the Selector or the Grabber tool, and select a matching alternate take from the Matches submenu in the pop-up menu.



Right-click Matches submenu

- If the take currently residing in the track is selected, Control-click (Windows) or Command-click (Mac) anywhere on the selected take with the Selector tool, and select a different take from the Alternate Takes pop-up menu.
- With the Selector tool, Control-click (Windows) or Command-click (Mac) at the precise beginning of the loop or punch range and select a different take from the Alternate Takes pop-up menu.



Alternate Takes pop-up menu

The selected matching alternate region (take) replaces the region in the main playlist and snaps precisely to the correct location.

One way to ensure that subsequent recording takes have the same *User Time Stamp* (and as such can be available as matching alternate regions) is to store punch and loop record selections as Memory Locations. Then, if you later need to record additional takes, recall the corresponding Memory Location.

To change the User Time Stamp of other regions so that they can be available as alternate matching regions for a specific location, use the Time Stamp command in the Region List menu.

Matches and Multiple Tracks

If you have loop recorded on multiple tracks, and each track contains multiple takes with identical User Time Stamps, you can change all takes simultaneously.

To switch takes for multiple tracks:

1 Configure the Matching Criteria window (see "Matching Criteria" on page 52), so that the following options are enabled:

- Track Name

– and –

- Selection Range

2 With the Selector tool, select the take range for each track you want to replace.

3 Do one of the following:

- Right-click the Edit selection and select a different matching alternate take from the Matches submenu.

– or –

- Control-click (Windows) or Command-click (Mac) the Edit selection and select a different take from the Alternates pop-up menu.

The selected take replaces the previous take and snaps precisely to the correct location on each track.

Automatically Create New Playlists When Loop Recording

When loop recording, Pro Tools creates a single file containing all recording passes where each recording pass is a region in the file. On the track, only the last recording pass is present as a region in the main playlist. All other regions (recording passes) are hidden, but can be recalled as matching alternate regions (takes).

When enabled, the new Automatically Create New Playlists When Loop Recording option in the Operation Preferences page automatically copies each region (take) to a new playlist in the track. This facilitates using Playlists view for auditioning and selecting alternate takes.

To automatically create new playlists when loop recording:

1 Choose Setup > Preferences and click the Operation tab.

2 In the Recording section, enable the Automatically Create New Playlists When Loop Recording option.

3 Click OK.

Expanding Alternate Takes to New Playlists or Tracks

Pro Tools lets you copy alternate takes and channels to new playlists or tracks. This is especially useful for auditioning, editing, and mixing multiple alternate takes or channels. Alternate takes are created when punch and loop recording. Alternate channels are included with files imported into Pro Tools from field recorders.

Expanding Alternate Takes to New Playlists

Expanding alternate takes to new playlists readily facilitates track compositing. Once you have expanded alternate takes to new playlists on a track, you can audition and edit them in Playlists view to assemble the best takes in the main playlist.

To expand alternate takes to new playlists:

1 Identify the region on the main playlist with matching alternate regions (takes).

2 Do one of the following:

- Right-click the region and choose Matches > Expand Alternates To New Playlists.
- If the region is selected, with the Selector tool, Control-click (Windows) or Command-click (Mac) anywhere on the selected region and choose Matches > Expand Alternates To New Playlists.
- If the region is not selected, with the Selector tool, Control-click (Windows) or Command-click (Mac) at the precise beginning of the loop or punch range and choose Matches > Expand Alternates To New Playlists.

All matching alternate regions are copied to new playlists on the track. To view all playlists for the track, select Playlists view. In any track view, you can also select any available alternate playlist as the main playlist from the Playlist selector.

Expand Alternate Takes to New Tracks

Expanding alternate takes to new tracks readily facilitates auditioning, editing, and mixing alternate takes, each on separate tracks.

To expand alternate takes to new tracks:

1 Identify the region on the main playlist with matching alternate regions (takes).

2 Do one of the following:

- Right-click the region and choose Matches > Expand Alternates To New Tracks.
- If the region is selected, with the Selector tool, Control-click (Windows) or Command-click (Mac) anywhere on the selected region and choose Matches > Expand Alternates To New Tracks.
- If the region is not selected, with the Selector tool, Control-click (Windows) or Command-click (Mac) at the precise beginning of the loop or punch range and choose Matches > Expand Alternates To New Tracks.

3 Then choose one of the following from the Expand Alternates To New Tracks sub-menu:

By Track Name Names all new tracks after the source track name.

By Region Name Names each new tracks after the corresponding original region names that you see in the Matches list.

By Track and Region Name Names all new tracks after the source track name, but with the corresponding original region names in parenthesis.

All matching alternate regions are copied to new tracks.

Expanding Alternate Channels to New Playlists or Tracks

When working with a mono region that is part of a multichannel recording imported from a field recorder, you can expand that region (or a selected portion of it) to new playlists that reflect its matching alternate channels while preserving any edits or fades.

Expanding Channels to New Playlists

To expand alternate channels to new playlists:

1 In the Timeline, do one of the following:

- To expand only a portion of the regions on the track, make a selection that includes or overlaps any number of regions on a track, and Right-click (Windows or Mac) or Control-click (Mac) the selection.

– or –

- To expand all of the regions on the track, Right-click (Windows or Mac) or Control-click (Mac) the track name.

2 Choose the Expand to New Playlists pop-up menu, and select one of the following methods by which to expand alternate channels for the selection to new tracks:

- By Channel Name
- By Channel Number
- By Channel Name and Number
- By Time Code Only

If alternate channels are available, Pro Tools expands them to new playlists (including the channel represented in the original track) according to the selected option.

Expand Channels to New Tracks

To expand alternate channels to new tracks:

1 In the Timeline, do one of the following:

- To expand only a portion of the regions on the track, make a selection that includes or overlaps any number of regions on a track, and Right-click (Windows or Mac) or Control-click (Mac) the selection.

– or –

- To expand all of the regions on the track, Right-click (Windows or Mac) or Control-click (Mac) the track name.

2 Choose the Expand to New Tracks pop-up menu, and select one of the following methods by which to expand alternate channels for the selection to new tracks:

- By Channel Name
- By Channel Number
- By Channel Name and Number
- By Time Code Only

For detailed information on how each of these options expand to new tracks, see the Field Recorder Workflow Guide.

If alternate channels are available, Pro Tools expands them to new tracks (including the channel represented in the original track) according to the chosen parameters.

It is not possible to rename files encoded with XML metadata. The file extension will always be .A1 and .A2 (even for stereo files). Also, it is not possible to rename files with a .L/.R suffix. As a result, Pro Tools does not always recognize these channels as a stereo pair.

Expanding Channels by Time Code Only

The new Expand To New Tracks By Time Code Only command lets you expand an entire track or only selected regions to new playlists on the same track or to new separate tracks, thus revealing all other regions recorded at the same time code location, regardless of channel name or number. This is especially useful when expanding edited guide tracks to original source audio that was recorded while referenced to time code, but where channel names or numbers were not written to the audio files.

Example Workflow: Working with a Guide Track

For live concert videos, the video is captured separately while the audio is recorded in Pro Tools. The video editor will use a guide audio track that is edited along with the video in their video editing software (such as Avid Media Composer). The edited guide track is then returned to Pro Tools, but it needs to be expanded to the conformed original source tracks for mixing and mastering.

1 Multitrack audio is recorded in Pro Tools while chasing time code. A mono or stereo mix is recorded simultaneously as a guide track for the video editor.

2 The picture and audio guide tracks are edited in a video editing application (such as Avid Media Composer).

3 The edited audio guide tracks are exported from the video editor as an AAF (or OMF) sequence, including handles of at least 2 frames.

4 The AAF (or OMF) sequence is imported into Pro Tools as a new session.

5 The original source audio files and unedited guide track are also imported into the session.

6 The original unedited guide track is relinked to the session (see "Relinking the Original Unedited Guide Track" on page 58).

7 The Pro Tools editor Right-clicks the name of the guide track and selects Expand to New Tracks > By Time Code Only. The original source tracks expand to new tracks with edits and fades that match the guide track.

Relinking the Original Unedited Guide Track

After importing the AAF (or OMF) sequence and original source audio files into the session, it is recommended that you relink the edited guide track to the original unedited source audio.

To relink the original unedited guide track:

1 Open the Project Browser for the session and open the Audio Files folder.

2 Right-click the edited guide track audio file in the browser and choose Relink Selected.

3 In the upper pane of the Relink window, navigate to the original unedited guide track audio file that was recorded in Pro Tools.

If the original unedited file is not available, you can relink to any of the source audio files as long as they have the same start and end times as the guide track.

4 In the Select Files To Relink pane, select the edited guide track file.

5 Drag the original unedited guide track audio file into the Candidates pane. If a dialog appears stating that one or more files are shorter than the media file you are trying to relink, click Yes to select it for relinking anyway.

6 Check the box to the left of the file in the Candidates pane so that the Link icon appears.

7 Click Commit Links at the top of the Relink window and then close the Relink window.

8 You can now Right-click the name of the guide and select Expand To New Tracks > By Time Code Only. All expanded tracks should be synchronous with the guide track.

chapter 6

MIDI Editor Windows

Pro Tools 8.0 provides MIDI Editor windows for detailed MIDI editing.

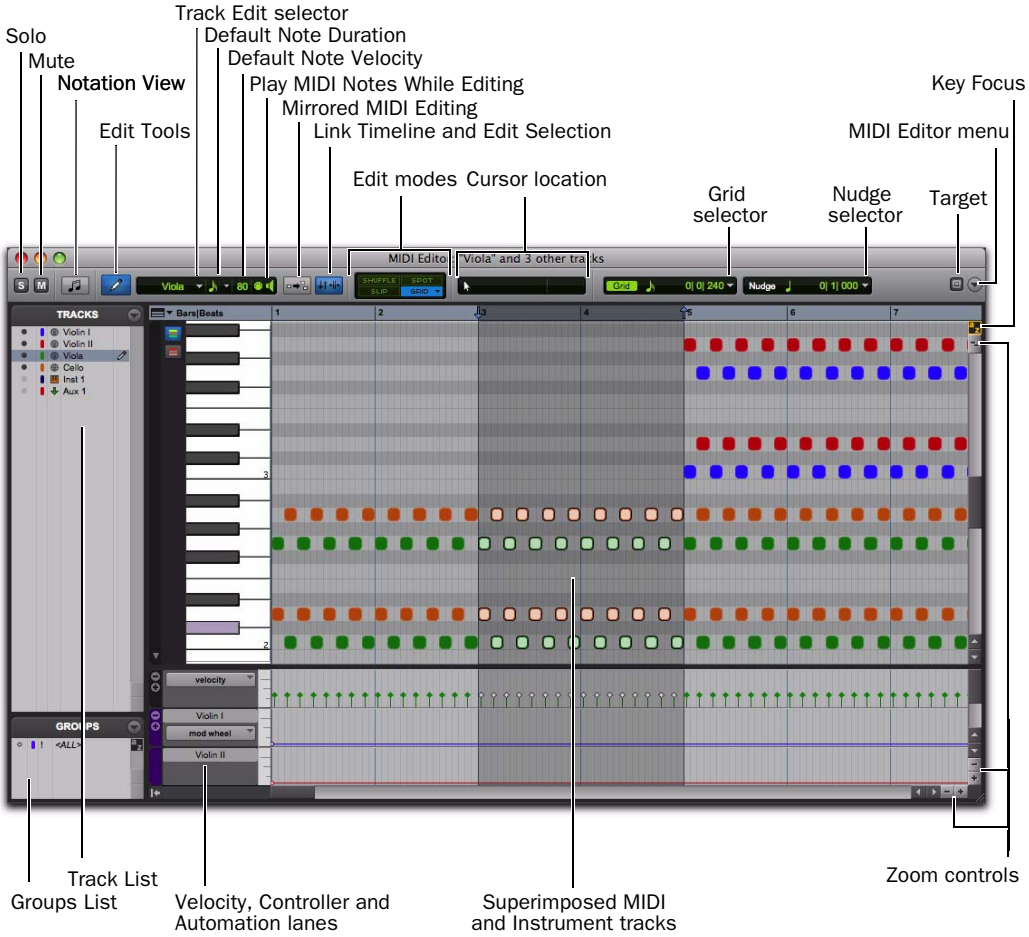


Figure 1. MIDI Editor window

Superimposed MIDI and Instrument Tracks

MIDI Editor windows display and let you edit MIDI data (notes, velocities, and continuous controller data) for one or more MIDI or Instrument tracks. When displaying multiple tracks in a MIDI Editor window, MIDI notes from different tracks are superimposed. MIDI Editor windows can also show Auxiliary Input tracks.

Automation and Controller Lanes

Velocity, other continuous controller data (MIDI and Instrument tracks), and automation data (Instrument and Auxiliary Input tracks only), can be edited along with MIDI notes and appear in *Controller lanes* under the Notes pane. Velocities for MIDI notes on multiple tracks are also superimposed in the Velocity lane. However, for all other automation and controller data, additional lanes are shown for each automation or controller type for each track.

For example, if two Instrument tracks are shown in a MIDI Editor window, the MIDI notes for each track are superimposed in the Notes pane and the velocities for each track are superimposed in the Velocity lane. However, you would see two Mod Wheel Controller lanes, one for each track; and you would see two Volume lanes, one for each track.

Opening a MIDI Editor Window

To open a MIDI Editor window, do one of the following:

- Choose Window > MIDI Editor.
- In the Edit window, Right-click a MIDI region on the track, or the track name in the track controls or in the Track List, and choose Open In MIDI Editor.
- In the Score Editor window, Right-click anywhere on the score, or a track name in the Track List, and choose Open In MIDI Editor.

Press Start+"=" (Windows) or Control+"=" (Mac) to open a MIDI Editor window.

If the MIDI Editor option is selected as the "Double Clicking A MIDI Region Opens" setting in the Pro Tools MIDI Preferences, you can double-click a MIDI region to open it in a MIDI Editor.

To open additional MIDI Editor windows, do one of the following:

- Deselect the Target button in the open MIDI Editor window and open another MIDI Editor window.

– or –

- Right-click in the open MIDI Editor window and select Open in New MIDI Editor.

To bring an open MIDI Editor window to the front:

- Choose Window > MIDI Editors and select the MIDI Editor window you want.

To cycle through all open MIDI Editor windows, press Start+"=" (Windows) or Control+"=" (Mac) repeatedly until the window you want is in the front.

MIDI Editor Window Toolbar

The MIDI Editor window toolbar is similar to the Edit window toolbar. Each MIDI Editor window and the Edit window can be configured independently of one another. For example, you can have Notation view enabled in one MIDI Editor window, but not another; or, you can have a MIDI Editor window set to Grid mode, but the Edit window set to Slip mode. You can also customize the toolbar in MIDI Editor windows.

Solo and Mute Buttons

In a MIDI Editor window, the Solo and Mute buttons affect tracks in all windows. They let you either audition the tracks shown in the current MIDI Editor window without the reset of the mix, or let you hear just the mix without the tracks shown in the MIDI Editor window.

Solo

The Solo button lets you solo all the tracks currently displayed in the MIDI Editor window.

Mute

The Mute button lets you mute all the tracks currently displayed in the MIDI Editor window.

Mixed Mute and Solo States

The Solo and Mute buttons are global controls in that they affect all tracks shown in a MIDI Editor window. If you independently solo or mute tracks in the Edit window that are also shown in the MIDI Editor window, the appearance of the Solo and Mute buttons updates to indicate mixed states. Mixed solo and mute states occur when one or more tracks shown in the MIDI Editor window, but not all, are soloed or muted.

Notation View

The Notation View button lets you view MIDI notes in the MIDI Editor window as music notation. In Notation view, MIDI and Instrument tracks are not superimposed, but are shown as staves just like in the Score Editor window.

Notation view enabled in a MIDI Editor window

You can access the Notation Display Track Settings in a MIDI Editor window when in Notation view. Select the Notation Display Track Settings option from the Track List menu or Right-click in the Notes pane and select the Notation Display Track Settings option from the Right-click menu. For more information, see "Notation Display Track Settings" on page 91.

Edit Modes

The Edit modes in MIDI Editor windows function exactly the same way for MIDI data as in the Edit window. Edit mode settings are unique to each MIDI Editor window and are also set independently of the Edit window.

Edit Tools

The Edit tools in MIDI Editor windows can be viewed as a single tool with a pop-up menu for selecting other tools, or as an expanded, complete row of Edit tool icons just like in the Edit window. The Edit tools in MIDI Editor windows function exactly the same way for MIDI data as in the Edit window. Edit tool settings can be set independently in each MIDI Editor window, and are independent of tool selection in the Edit window and Score Editor.

To view the Expanded Edit tools in a MIDI Editor window, do one of the following:

- Click the MIDI Editor Window Toolbar menu and select Expanded Edit Tools.

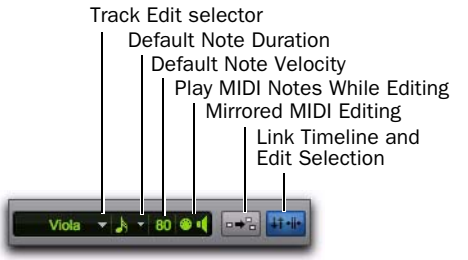
– or –

- Right-click in the toolbar and select Expanded Edit Tools.

Deselect Expanded Edit Tools to revert to the single Edit Tool icon with the Edit Tool pop-up menu.

MIDI Editing Controls

The MIDI Editing controls function exactly the same way in MIDI Editor windows as in the Edit window.



MIDI Editing controls

Play MIDI Notes When Editing, Link Timeline and Edit Selection, and Mirrored MIDI Editing are all global settings that are available in the Edit window, MIDI Editor windows, and in the Score Editor window.

Track Edit Selector

If more than one MIDI or Instrument track is shown in the MIDI Editor window, the Track Edit selector lets you select which track is "pencil-enabled." You can manually insert MIDI notes only in pencil-enabled tracks. You can also pencil-enable tracks in the Track List (see "Manually Inserting MIDI Notes" on page 72).

Default Note Duration

The Default Note Duration selector lets you define the default note duration for manually inserted notes.

Default Note On Velocity

The Default Note On Velocity setting lets you define the default note on velocity for manually inserted notes.

Play MIDI Notes When Editing

When enabled, Play MIDI Notes When Editing causes MIDI notes to sound when you insert them with the Pencil tool, click them with the Grabber tool, Tab to them, or select them with the Note Selector tool.

Link Timeline and Edit Selection

When this button is enabled, the Timeline and Edit selections are linked. When it is disabled, you can make Timeline and Edit selections independently of one another.

Mirrored MIDI Editing

Mirrored MIDI Editing lets you edit MIDI regions and have your edits apply to every copy of the same MIDI region. This can be particularly useful when editing looped MIDI regions.

⚠ *If Mirrored MIDI Editing mode is disabled, and you edit notes of looped regions in Notes view, the edit flattens the loop. Similarly editing region groups separates the region groups.*

Cursor Location Display

The Cursor Location display in MIDI Editor windows functions exactly the same way in MIDI Editor windows as in the Edit window.

Edit Selection Display

The Edit Selection display in MIDI Editor windows functions exactly the same way for MIDI data in MIDI Editor windows as in the Edit window. The Selection display can be shown or hidden in the Toolbar by selecting or deselecting it in the MIDI Editor Window menu.

Grid and Nudge Selectors

When the Expanded Grid/Nudge Display option is enabled in the MIDI Editor Window menu, the Grid and Nudge selectors in MIDI Editor windows function exactly the same way for MIDI data in MIDI Editor windows as in the Edit window.

When the Expanded Grid/Nudge Display option is disabled in the MIDI Editor Window menu, you can toggle between Grid Display and Nudge Display using the Grid/Nudge Display selector.

Grid/Nudge Display selector, selecting Nudge display

Target

Generally, the Target button for MIDI Editor windows functions just like the Target button for Plug-in, Output, and Send windows. Additionally, the Target button in a MIDI Editor window synchronizes its Timeline location view to the Timeline location view in the Edit window. Any changes to the Edit selection in the Edit window are reflected in the Targeted MIDI Editor window. There can only be one targeted MIDI Editor window at a time. The targeted MIDI Editor window can also be stored in a Window Configuration.

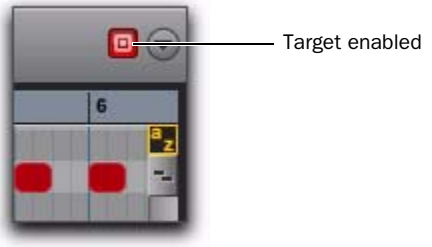
One or more untargeted MIDI Editor windows can remain open and available at the same time, just like untargeted Plug-in windows. Targeting an untargeted MIDI Editor window untargets any other targeted MIDI Editor window.

The front-most window, regardless of whether it is targeted, responds to Edit menu commands. receives Keyboard Command focus and control surface focus.

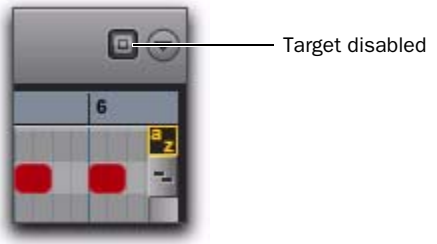
Unless it has Groups Focus (or no focus). It also responds to commands in the Edit menu.

To enable or disable the Target for a MIDI Editor window:

- Click the Target button for the MIDI Editor window so that it is highlighted (targeted) or unhighlighted (untargeted).



Targeted MIDI Editor window



Untargeted MIDI Editor window

MIDI Editor Window Menu

The MIDI Editor Window menu provides access to MIDI Editor Window Display options and Scrolling options.

MIDI Editor Window Display Options

Expanded Edit Tools

When selected, the Expanded Edit Tools option displays all of the Edit Tools in the MIDI Editor window toolbar.

Expanded Edit tools displayed in a MIDI Editor window

When this option is not selected, only the icon for the selected Edit tool is displayed. Any of the other Edit tools can be selected from the Edit Tool pop-up menu.

Edit Tool pop-up menu

Expanded Grid/Nudge Display

When selected, the Expanded Grid/Nudge Display option displays the Nudge selector in addition to the Grid selector in the MIDI Editor window toolbar.

Grid and Nudge selectors

Selection Display

When selected, the Selection Display option shows the Edit Selection Display in the MIDI Editor window toolbar.

Selection display

Track List

When selected, the Track List option displays the Track List in the MIDI Editor window.

Scrolling

The Scrolling submenu lets you select the scrolling options for the MIDI Editor window independently of other MIDI Editor windows and the Edit window. The scrolling options include:

No Scrolling The MIDI Editor window does not scroll during or after playback. The playback cursor moves across the MIDI Editor window, indicating the playback location.

After Playback The playback cursor moves across the MIDI Editor window, indicating the playback location. When playback has stopped, the MIDI Editor window scrolls to the final playback location.

Page The playback cursor moves across the MIDI Editor window, indicating the playback location. When the right edge of the MIDI Editor window is reached, its entire contents are scrolled, and the playback cursor continues moving from the left edge of the window.

Continuous (Pro Tools HD and Pro Tools LE with Complete Production Toolkit or DV Toolkit 2 Only) The MIDI Editor window scrolls continuously past the playback cursor, which remains in the center of the window. With this option, playback is always based on the Timeline selection (unlike the Center Playhead Scrolling option).

Center Playhead (Pro Tools HD Only) The MIDI Editor window scrolls continuously past the *Playhead*, which is represented as a blue line in the center of the window (or a red line when recording).

Follow Edit Window When selected, the MIDI Editor window follows the scrolling option selected for the Edit window (Options > Edit Window Scrolling).

Customizable Toolbar

You can customize the toolbar in MIDI Editor windows by rearranging, and showing and hiding the available controls and displays just like in the Edit window or the Score Editor window.

Toolbar Display Options

To change the toolbar display options in a MIDI Editor window toolbar:

1 Do one of the following:

- Click the MIDI Editor Window Toolbar menu.

– or –

- Right-click in the toolbar.

2 From the pop-up menu, select or deselect any of the following:

- Expanded Edit Tools
- Expanded Grid/Nudge Display
- Selection Display

Rearranging Controls and Displays

You can rearrange the controls and displays in the MIDI Editor window toolbar just like in the Edit window or the Score Editor window.

To rearrange controls and displays in a MIDI Editor window toolbar:

- Control-click (Windows) or Command-click (Mac) the controls or displays you want to move and drag them to the location in the Toolbar you want.

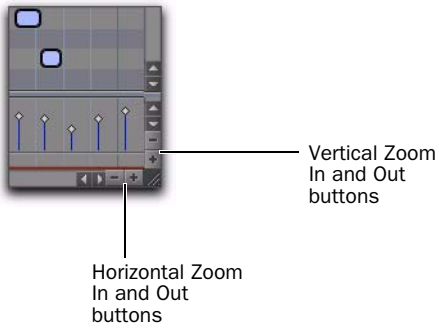
Zoom Controls

Vertical and Horizontal Zoom In and Out Buttons

In addition to the Zoom controls in the Toolbar, Pro Tools provides horizontal and vertical zoom buttons in the lower-right corner of MIDI Editor windows.

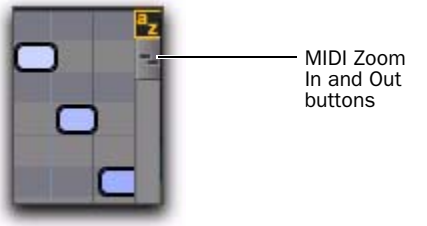
Vertical Zoom Buttons Zoom the lane heights proportionally for Automation and Controller lanes.

Horizontal Zoom Buttons Zoom the Timeline just like the Horizontal Zoom controls in the MIDI Editor window toolbar.



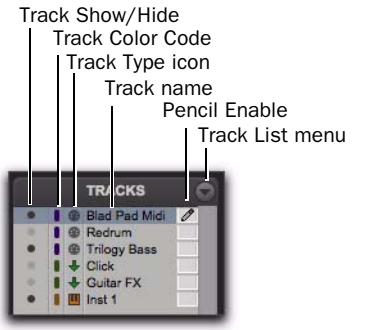
MIDI Zoom In and Out Buttons

Pro Tools provides MIDI Zoom In and Out buttons in the upper-right corner of MIDI Editor windows. These controls function exactly the same as the MIDI Zoom controls in the toolbar, and let you zoom in and out vertically on MIDI notes.



Track List

The Track List in MIDI Editor windows lets you show or hide MIDI, Instrument, and Auxiliary Input tracks in the MIDI Editor window. The Track List settings are unique to each MIDI Editor window. However, the order of tracks in the Track List is global. Sorting or changing the order of tracks affects the Track List in every window.



Track List

Track List Columns

In MIDI Editor windows there are four columns for the Track List:

Show/Hide Indicates which tracks are shown or hidden in the MIDI Editor window.

Track Color Displays the track color for each track by type or by track.

Name Displays the name for each track.

Pencil Lets you enable a track for manually entering MIDI notes with the Pencil tool.

Track List Menu

The Track List menu lets you show and hide MIDI, Instrument, and Auxiliary Input tracks in the MIDI Editor window (see "Showing and Hiding Tracks" on page 67).

The Track List menu also lets you sort tracks in the Track List by Name, Type, Edit Group, Mix Group, or Voice (see "Sorting Tracks in the Track List" on page 68).

Showing and Hiding Tracks

To show MIDI, Instrument, and Auxiliary Input tracks in a MIDI Editor window:

- Click the Show/Hide icon in the Track List for tracks you want to show in the MIDI Editor window.

To show all MIDI, Instrument, and Auxiliary Input tracks in a MIDI Editor window:

- From the Track List menu, select Show All Tracks.

To show only selected MIDI, Instrument, and Auxiliary Input tracks in a MIDI Editor window:

1 In the Track List, select the MIDI, Instrument, and Auxiliary Input tracks you want to show in the MIDI Editor window.

2 From the Track List menu, select Show Only Selected Tracks.

To show all tracks of a single type (MIDI, Instrument, or Auxiliary Input) in a MIDI Editor window:

- From the Track List menu, choose Show Only, and select the track type you want.

To hide MIDI, Instrument, and Auxiliary Input tracks in a MIDI Editor window:

- Click the Show/Hide icon in the Track List for tracks you want to hide in the MIDI Editor window.

To hide all (but one) MIDI, Instrument, and Auxiliary Input tracks in a MIDI Editor window:

- From the Track List menu, select Hide All Tracks.

All but the top MIDI or Instrument track in the Track List are hidden. MIDI Editor windows require that at least one MIDI or Instrument track always be shown in the window.

To hide selected MIDI, Instrument, and Auxiliary Input tracks in a MIDI Editor window:

1 In the Track List, select the MIDI, Instrument, and Auxiliary Input tracks you want to hide.

2 From the Track List menu, select Hide Selected Tracks.

To hide all tracks of a single type (MIDI, Instrument, or Auxiliary Input):

- From the Track List menu, choose Hide Only, and select the track type you want.

Sorting Tracks in the Track List

You can sort tracks in the Track List by the following criteria:

Name Sorts the order of tracks in the Track List by Track Name.

Type Sorts the order of tracks in the Track List by Track Type.

Edit Group Sorts the order of tracks in the Track List by Edit Groups.

Mix Group Sorts the order of tracks in the Track List by Mix Groups.

Voice Sorts the order of tracks in the Track List by Voice allocations.

Track List Right-Click Menu

In addition to common track management commands, the Track List Right-click menu shares commands with both the Track List menu and the Notes Pane Right-click menu.

To access the MIDI Editor Track List Right-click menu:

- Right-click on any Track Name in the Track List.

Track List Right-click Menu Options

The following options are available depending on the track type (Auxiliary Input, Instrument, or MIDI).

Hide Hides the selected track.

Hide and Make Inactive Hides the selected track and makes it inactive.

Make Inactive Makes the selected track inactive.

Export MIDI Exports the selected track as a MIDI file.

New Opens the New Track dialog.

Rename Renames the selected track.

Duplicate Duplicates the selected track.

Split into Mono Splits the selected stereo Instrument or Auxiliary Input track into two mono tracks.

Delete Deletes the selected track.

MIDI Real-Time Properties Opens the MIDI Real-Time Properties window for the selected track.

Open in New MIDI Editor Opens the tracks displayed in the current MIDI Editor window in a new MIDI Editor window. The new MIDI Editor window will be untargeted.

Open in Score Editor Opens the shown tracks in the Score Editor window.

Open in MIDI Event List Opens the selected track in the MIDI Event List.

Notation Display Track Settings Opens the Notation Display Track Settings window.

Group List

The Group List in MIDI Editor windows provides the same functionality as in the Edit window. You can create, edit, and delete Edit Groups using the Group List in any MIDI Editor window. The Group List is linked between the Edit window and all MIDI Editor windows.

For information on grouping tracks in Pro Tools 8.0, refer to the Pro Tools Reference Guide (Help > Pro Tools Reference Guide).

Timebase and Conductor Rulers

Timebase and Conductor rulers in MIDI Editor windows function exactly the same as in the Edit window. However, the Edit window and each MIDI Editor window can have a unique view of the Timeline in terms of which Timebase and Conductor rulers are shown, and in terms of zoom level and time location.

With Scrolling enabled, only the front-most window updates during playback. All other windows maintain their last Timeline view.

Also, the Edit window and each MIDI Editor window can display different combinations of Timebase and Conductor rulers independently of one another.

Superimposed Notes View

The Notes pane in MIDI Editor windows lets you view and edit MIDI notes superimposed from different MIDI and Instrument tracks such that you can easily edit multitrack arrangements in a single constellation of color-coded notes. The Notes pane lets you edit MIDI notes much the same way as in Notes view on MIDI and Instrument tracks in the Edit window, except you can edit MIDI notes on multiple MIDI and Instrument tracks at the same time.

You can also view and edit MIDI notes in Notation view in the Notes pane (see "Notation View" on page 74).

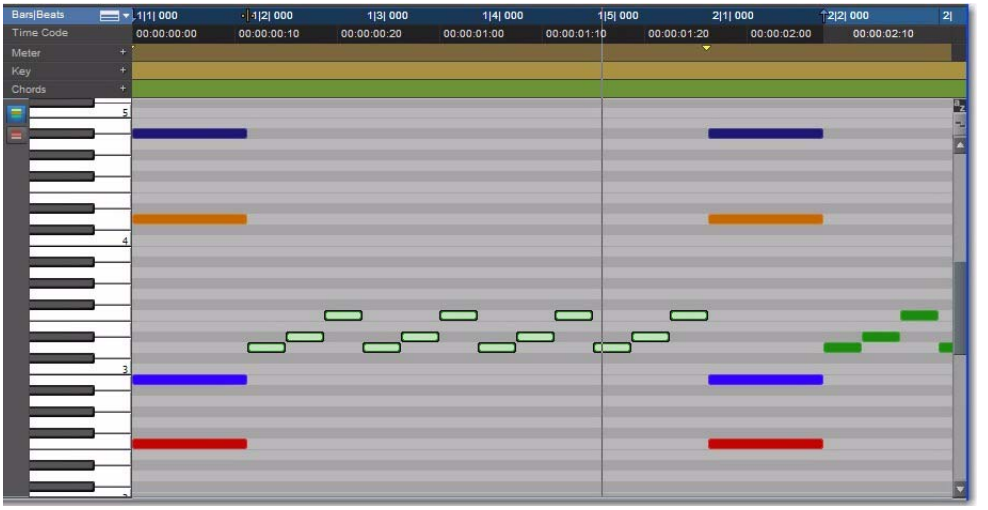


Figure 2. MIDI Editor window, Notes pane with five superimposed Instrument tracks

Color Coding MIDI Notes

You can color code MIDI notes by Track, by Track Type, or by Velocity.

Color Coding by Track

When Color Coding by Track is enabled, MIDI notes from the same track have the same color, but notes on different tracks are represented by different colors. The corresponding color coding for MIDI notes is displayed in the Color column of the Track List for each track. See Figure 3 on page 70.

To Color Code MIDI notes by Track:

- Enable the Color Code MIDI Notes By Track button.

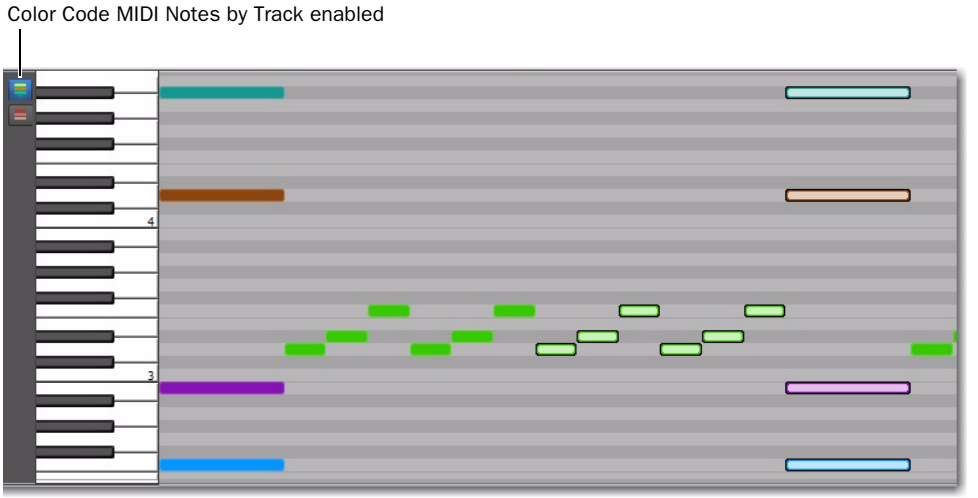


Figure 3. MIDI Editor window, notes color-coded by Track

Color Coding by Velocity

When Color Coding by Velocity is enabled, MIDI notes are all the same red color (hue) on all tracks displayed, and MIDI notes vary in color saturation (from a light red to a dark red) based on the Note On velocity. Notes with low velocities are lighter in color and those with high velocities are darker. See Figure 4 on page 71.

To Color Code MIDI notes by Velocity:

- Enable the Color Code MIDI Notes By Velocity button.

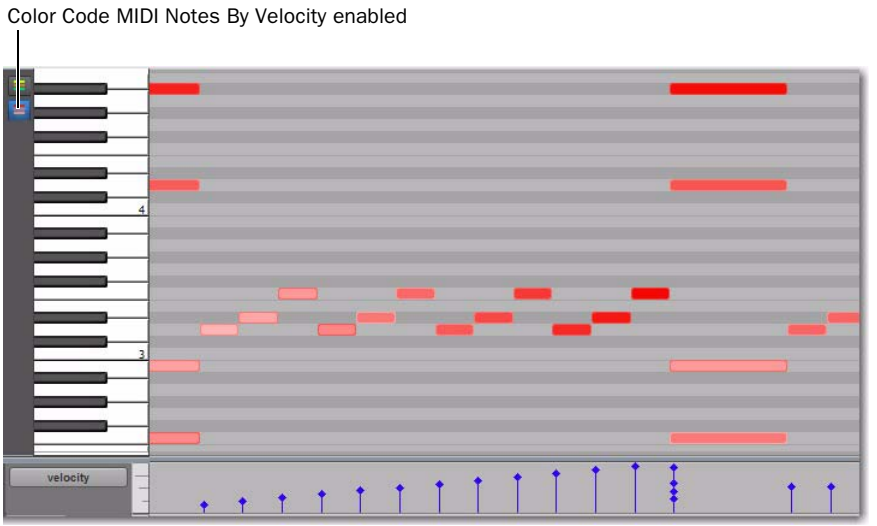


Figure 4. MIDI Editor window, notes color-coded by note on velocity

No Color Coding

When neither Color Coding by Track nor Color Coding by Velocity are enabled, notes are drawn in the MIDI Editor in as the same color they are in the Edit window—using the color coding options as set in the Track Color Coding settings in the Display Preferences.

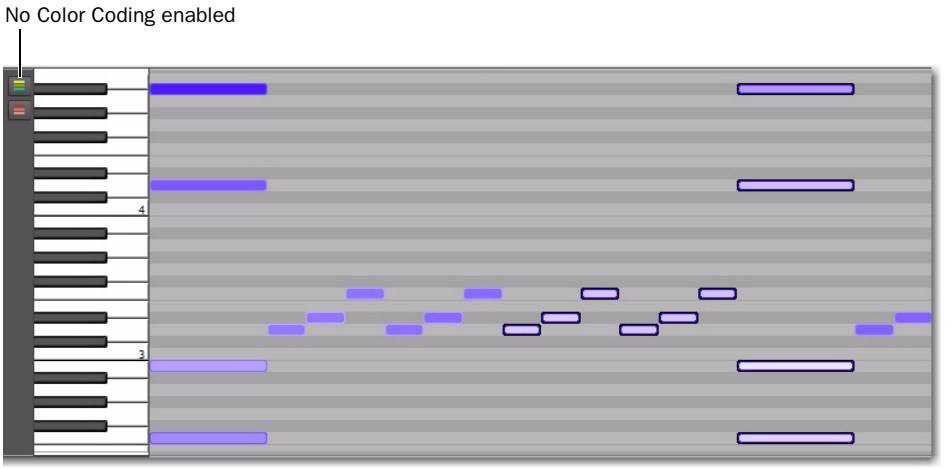


Figure 5. MIDI Editor window, no color coding

Editing MIDI Notes

You can edit any note on any track shown in the Notes pane. You edit MIDI notes in the Notes pane the same way as in Notes view for MIDI and Instrument tracks in the Edit window, except that notes from different tracks are superimposed.

Manually Inserting MIDI Notes

Using the Pencil tool, you can manually insert MIDI notes to any pencil-enabled track shown in the Notes pane. If only one track is viewed in the MIDI Editor window, that track will automatically be pencil-enabled. If multiple superimposed tracks are shown in the Notes pane, MIDI notes will be inserted on the pencil enabled tracks only.

To insert MIDI notes on a specific track in the Notes pane:

1 Do one of the following:

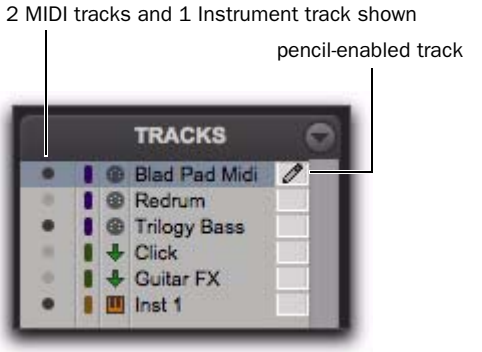
- Select the track you want pencil-enabled from the Track Edit selector in the Toolbar.

Selecting a track for editing

Only tracks that are currently shown in the MIDI Editor window are available in the Track Edit selector pop-up menu.

– or –

- Click the Pencil column in the Track List to pencil-enable the track you want.



"Blad Pad Midi" track pencil-enabled

2 With the Pencil tool, click at the desired time and pitch location to insert a MIDI note on the pencil-enabled track with the default Note On velocity and the selected Default Note Duration.

Inserting a MIDI note on track "Inst 3"

To pencil-enable multiple contiguous tracks, Shift-click in the Pencil column of the range of tracks you want. To pencil-enable multiple discontiguous tracks, Control-click (Windows) or Command-click (Mac) in the Pencil column of any additional tracks. Alt-click (windows) or Option-click (Mac) to pencil-enable all tracks. Manually inserted notes are written to all pencil-enable tracks.

Notes Pane Right-Click Menu

The Notes Pane Right-click menu provides several useful commands for editing, exporting, and viewing MIDI data.

To access the MIDI Editor Right-click menu:

- Right-click anywhere in the Notes pane.

Notes Pane Right-click Menu Options

Tools

The Tools submenu lets you select any Edit tools relevant to the Score Editor.

Zoomer Selects the Zoomer tool.

Trimmer Selects the Trimmer tool.

Selector Selects the Selector tool.

Grabber Selects the Grabber tool.

Scrubber Selects the Scrubber tool.

Pencil Selects the Pencil tool.

Smart Selects the Smart tool.

Zoomer Tools Lets you select Normal Zoom or Single Zoom.

Pencil Tools Lets you select any of the Pencil tools.

Insert

The Insert submenu lets you insert key changes, meter changes, and chord symbols at the location of the Edit cursor.

Key Inserts a key change.

Meter Inserts a meter change.

Chord Inserts a chord symbol.

Cut

The Cut command cuts the current Edit selection.

Copy

The Copy command copies the current Edit selection.

Paste

The Paste command pastes the clipboard to the current Edit selection or at the current Edit cursor location. Any MIDI notes already present at the same location are overwritten.

Merge

The Merge command pastes the clipboard to the current Edit selection or at the current Edit cursor location and merges the pasted data with any MIDI notes already present at the same location.

Clear

The Clear command clears (deletes) the current Edit selection.

Separate

The Separate command lets you separate MIDI notes at the Edit cursor location.

Consolidate

The Consolidate command lets you consolidate selected multiple consecutive MIDI notes of the same pitch.

Mute Notes

The Mute Notes (or Unmute Notes) command lets you mute (or unmute) selected MIDI notes.

MIDI Real-Time Properties

Selecting the MIDI Real-Time Properties option opens the MIDI Real-Time Properties window.

Event Operations

The Event Operations submenu lets you select any of the Event Operations windows (such as Quantize or Change Velocity).

Open In New MIDI Editor

Selecting the Open In New MIDI Editor option opens all shown tracks in a new MIDI Editor window.

Open In Score Editor

The Open In Score Editor option opens the shown tracks in the Score Editor window.

Open in MIDI Event List

The Open In MIDI Event List option opens the selected track in the MIDI Event List.

Display Notation

Selecting the Display Notation option changes the MIDI Editor to Notation view. Deselecting reverts the MIDI Editor to Notes view.

Notation View

The Notes pane in MIDI Editor windows can also display MIDI notes in standard music notation. In Notation view, each MIDI and Instrument track is displayed independently, with one track per staff (Grand Staff, Treble, Bass, Alto, or Tenor). In MIDI Editor windows, notation is displayed as a continuous timeline and not in page view as in the Score Editor window.

For information on editing notation, see "Editing Notes" on page 94.

To enable Notation View, do one of the following:

- Enable the Notation View button in the MIDI Editor window toolbar.

Notation view enabled in a MIDI Editor window

– or –

- Right-click in the Notes pane and select Notation View.

Editing in Notation view in a MIDI Editor window works the same way as in the Score Editor window, but with the advantage of having access to Velocity, Controller, and Automation lanes.

Note that in Notation view, the Trimmer tool functions as the Grabber tool when over a note and as the Note Selector tool when not over a note.

In Notation view, the Edit mode is automatically set to Grid and cannot be changed.

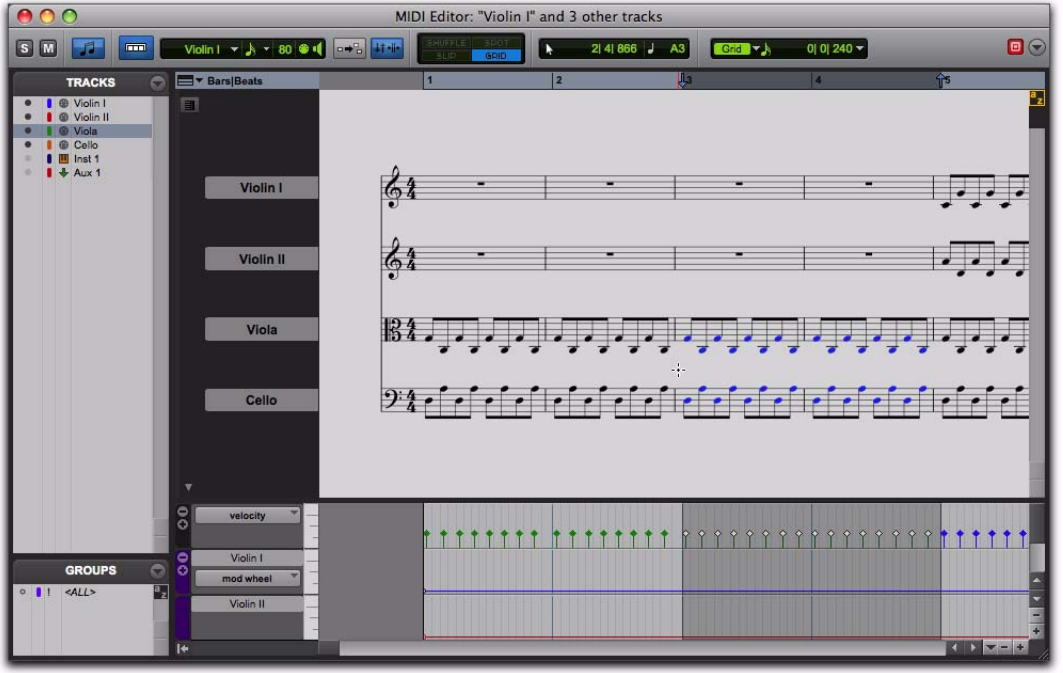


Figure 6. MIDI Editor window, Notes pane in Notation view

Double Bar

The Double Bar button is only available in Notation view. When enabled, the Double Bar option shows the final double bar line in the MIDI Editor window. The double bar line is located at the end of the last MIDI region or event in the session.

Double Bar enabled in a MIDI Editor window

When the Double Bar option is disabled, there will be a number of empty bars at the end of the last event in the session. The number of empty bars is determined by the Additional Empty Bars In The Score Editor setting in the MIDI Preferences page (Setup > Preferences). Disable the Double Bar option to manually enter notes in the Score Editor after the last MIDI region or event in the session.

Notation View Right-Click Menu

When in Notation view, the Notes Pane Right-click menu provides slightly different options than when in Superimposed Notes view.

In both views, the following options are available:

- Tools
- Insert
- Cut
- Copy
- Paste
- Clear
- Separate
- Consolidate
- Mute
- MIDI Real-Time Properties
- Event Operations
- Open In New MIDI Editor
- Open In Score Editor
- Open In MIDI Event List.
- Display Notation

In Notation view, the additional Notation Display Track Settings option is available in the Right-click menu. Select this option to open the Notation Display Track Settings dialog and configure the display settings for tracks in Notation view. For information on the Notation Display Track Settings dialog, see “Notation Display Track Settings” on page 91.

Velocity, Controller, and Automation Lanes

MIDI Editor windows let you edit velocities, MIDI controller data, and automation for all shown MIDI, Instrument, and Auxiliary Input tracks in lanes under the Notes pane. You can move and resize Automation and Controller lanes just like in the Edit window.

When viewing multiple MIDI and Instrument tracks, the velocities for notes on separate tracks are superimposed in a single lane, just like notes in the Notes pane. However, all other Controller lanes are grouped by automation and controller type, and provide individual lanes for each shown track.

To show or hide lanes under the Notes pane:

- Click the Show/Hide Lanes button.

To add lanes:

- Click the Add Lane button.

To remove lanes:

- Click the Remove Lane button.

To change the Automation or Controller type for a lane:

- Click the Automation or Controller Type selector and select the Automation or Controller type you want.

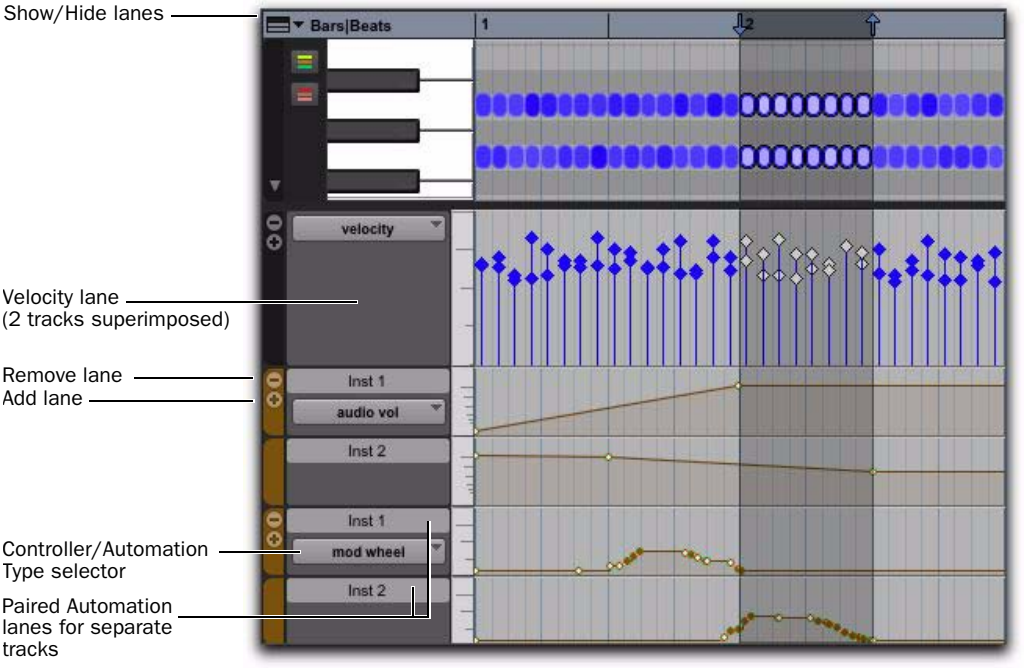


Figure 7. Velocity, Controller, and Automation lanes for two stereo Instrument tracks

Additional MIDI Editing Commands and Enhancements

Pro Tools 8.0 includes several new MIDI editing commands and enhancements. These commands and enhancements operate both in the in MIDI Editor windows and in the Edit window on MIDI and Instrument tracks in Notes and Regions views.

Separating MIDI Notes

The Separate command lets you separate MIDI notes at the Edit cursor location or at the boundaries of the Edit selection. When in Notes view in the Edit window and in MIDI Editor windows, separating MIDI regions creates new MIDI notes but does not create new MIDI regions. However, when in Regions view in the Edit window, separating MIDI regions only creates new MIDI regions. Also, if the Edit selection includes any audio tracks, the Separate command separates only regions on MIDI and Instrument tracks regardless of the Track View setting.

To separate MIDI notes at the Edit cursor location or at the boundaries of the Edit selection:

1 Make an Edit selection or place the Edit cursor at the location where you want to separate one or more MIDI notes.

2 Do one of the following:

- Choose Edit > Separate > At Selection.

– or –

- Right-click in the Notes pane and choose Separate.

Press Control+E (Windows) or Command+E (Mac) to separate MIDI notes at the selection.

To separate MIDI notes on the grid:

1 Set the Grid as desired.

2 Make an Edit selection or a marque selection that includes the MIDI notes you want to separate.

3 Choose Edit > Separate > On Grid.

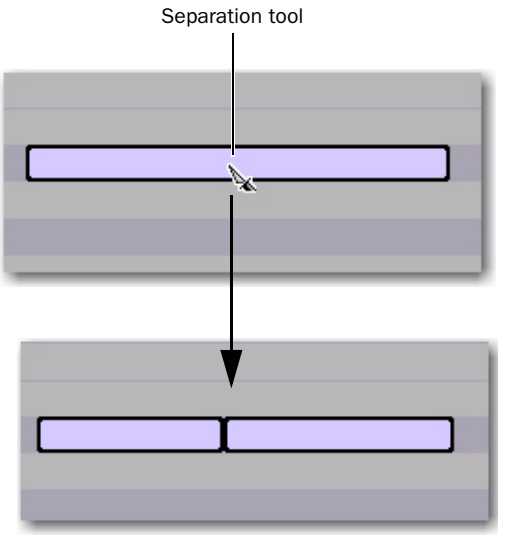
4 In the Pre-Separate Amount dialog, click OK.

Separate and Consolidate Tools for MIDI Notes

In Notes view in the Edit window and in MIDI Editor windows, both the Pencil and Grabber tools can be used to separate MIDI notes and to consolidate MIDI notes. The cursor updates to show a "knife" for the Separate tool and a "bandage" for the Consolidate tool.

To separate a MIDI note with the Separation tool:

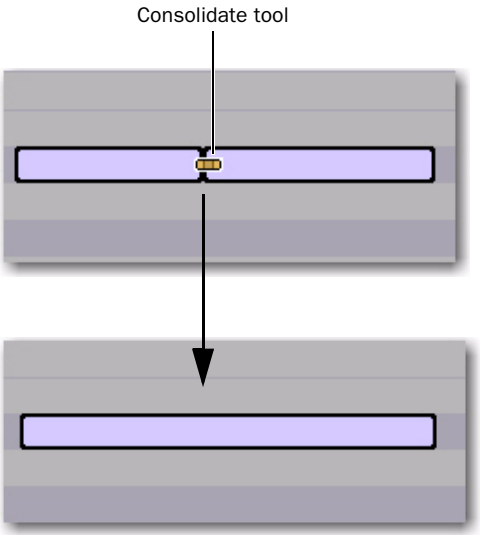
- With the Grabber or Pencil tool, Start-Shift-click (Windows) or Control-Shift-click (Mac) on the MIDI note at the location where you want the separation.



MIDI note separated into two using the Separate Tool

To consolidate MIDI notes with the Consolidate tool:

▪ With the Grabber or Pencil tool, Start-Shift-click (Windows) or Control-Shift-click (Mac) between the separated MIDI notes.



Consolidating MIDI notes into one using the Consolidate Tool

Consolidating MIDI Notes

The Consolidate command lets you combine two or more consecutive MIDI notes of the same pitch into a single MIDI note.

To consolidate MIDI notes:

1 Select the MIDI notes you want to consolidate.

2 Do one of the following:

- Choose Edit > Consolidate.

– or –

- Right-click the selected notes and choose Consolidate.

Press Alt+Shift+3 (Windows) or Option+Shift+3 (Mac) to consolidate adjacent selected MIDI notes of the same pitch.

Muting MIDI Notes

The Mute command lets you mute individual MIDI notes. If entire regions are selected, the Mute command prompts you to either mute regions or MIDI notes.

To mute one or more MIDI notes:

1 Select the MIDI notes you want to mute.

2 Do one of the following:

- Choose Edit > Mute Notes.

– or –

- Right-click the selected MIDI notes and choose Mute Notes.

To unmute one or more MIDI notes:

1 Select the MIDI notes you want to unmute.

2 Do one of the following:

- Choose Edit > Unmute Notes.

– or –

- Right-click the selected MIDI notes and choose Unmute Notes.

Press Control+M (Windows) or Command+M (Mac) to mute and unmute selected MIDI notes.

Scrubbing and Shuttling MIDI

When scrubbing and shuttling through MIDI notes, they play back. A MIDI note will sound as long as the scrub or shuttle location is within the MIDI note on and MIDI note off boundaries. When scrubbing or shuttling backward, the MIDI note off location triggers playback of the MIDI note using the MIDI note on velocity.

Auditioning Velocity Changes

When editing velocities for MIDI notes with the Grabber tool, Pro Tools plays the note at the new velocity. This lets you hear when you have the velocity setting you want for a MIDI note.

Tabbing Plays MIDI Notes

When tabbing to MIDI notes, each MIDI note plays back if Play MIDI Notes While Editing mode is enabled.

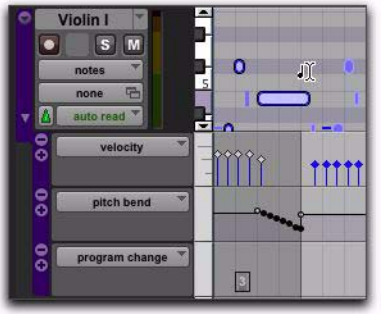
Note Selector Tool

In Notes or Velocity view on MIDI and Instrument tracks in the Edit window, or in a MIDI Editor window, the Selector tool makes a time range selection that includes all MIDI event types in addition to MIDI notes and velocities (such as program changes, and continuous controller data). The Note Selector tool can be used to select *only* MIDI notes and velocities in a time range selection.

To select only MIDI notes and velocities with the Note Selector tool:

1 Select the Selector tool.

2 On MIDI or Instrument tracks in the Edit window in Notes or Velocity view, or in a MIDI Editor window, Alt-click (Windows) or Option-click (Mac) and drag over the time range that includes the notes you want selected.



Selecting only MIDI notes using the Note Selector tool

When using the Smart tool and pressing Alt (Windows) or Option (Mac), the Selector is available in the upper part of the Track and the Note Selector is available in the lower part of the track.

Also, the Smart tool now defaults to the Marquee tool when not over a note.

chapter 7

Score Editor Window

The Score Editor window lets you view, edit, arrange, and print MIDI from your session as music notation. Whether you record, import, draw (with the Pencil tool), or Step Enter MIDI, the Score Editor transcribes MIDI notes in real-time.

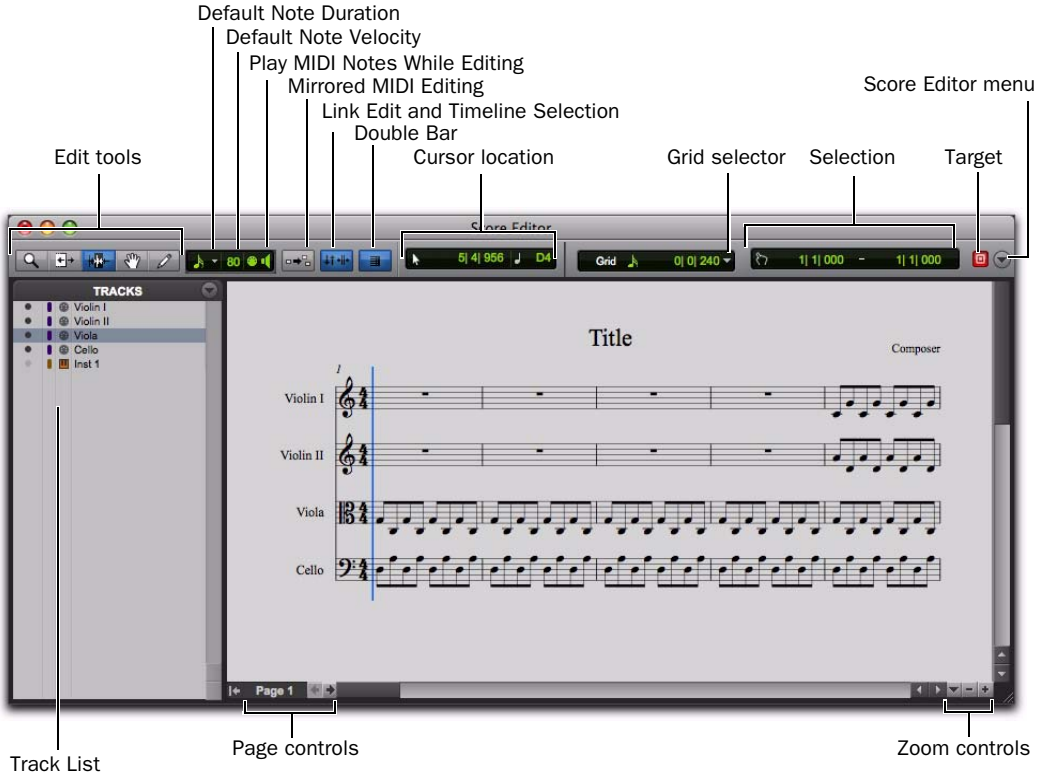


Figure 8. Score Editor window

Opening the Score Editor Window

To open the Score Editor window:

- Choose Window > Score Editor.

Press Alt+Start+"=" (Windows) or Option+Control+"=" (Mac) to show the Score Editor window.

To open the Score Editor window with a single MIDI or Instrument track shown:

1 Ensure that there is no Edit selection.

2 Right-click the Track name of an unselected track in the Edit or Mix window, or in the Track List of the Edit, Mix, or MIDI Editor window.

3 From the Right-click menu, choose Open In Score Editor.

To open the Score Editor window with the current Edit selection shown:

1 In the Edit window or in a MIDI Editor window, make an Edit selection on one or more tracks that includes what you want shown in the Score Editor window.

2 Right-click the Edit selection and choose Open In Score Editor.

If the Score Editor option is selected as the "Double Clicking a MIDI Region Opens" setting in the MIDI Preferences page, you can double-click a MIDI region to open it in the Score Editor.

Edit Tools

The Edit tools in the Score Editor window function much the same as in the Edit window, but with a few differences for editing music notation.

Zoomer

Use the Zoomer tool to zoom in and out around a particular area in the score.

The Zoomer tool provides two modes:

Normal Zoom The Zoomer tool remains selected after zooming.

Single Zoom The previously selected Edit tool is automatically reselected after zooming.

Press the F5 key to select the Zoomer tool and toggle between Normal and Single Zoom modes.

Also see "Zoom Controls" on page 90

Normal Zoom Mode

To zoom around a certain point in the score:

1 Click the Zoomer tool pop-up menu and select Normal Zoom mode.

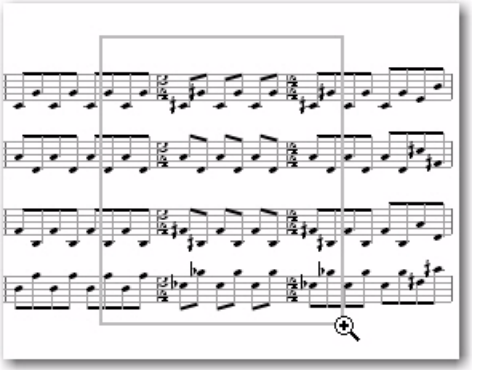
2 Click once with the Zoomer tool at a location within the score. The score is zoomed in by one level and is centered around the zoomed location.

3 To zoom back to the previous level, Alt-click (Windows) or Option-click (Mac) with the Zoomer tool.

To marque zoom to a particular area of the score:

1 Click the Zoomer tool pop-up menu and select Normal Zoom mode.

2 Click and drag in the score, making a marque selection of the area to which you want to zoom.



Marque zooming with the Zoomer tool

The zoomed area fills the entire Edit window.

Single Zoom Mode

Single Zoom mode returns you to the previously selected tool after a zoom has been performed.

For example, when using the Pencil tool you can select the Single Zoomer tool, and once the Zoom operation has been performed, Pro Tools automatically switches back to the Pencil tool.

Single Zoom is identified with an arrow to the right of the Zoomer icon. (Normal Zoom mode does not show the arrow.)

To use Single Zoom mode:

- Click the Zoomer tool pop-up menu and select Single Zoom mode.

Trimmer

The Trimmer tool lets you lengthen or shorten the duration of a note.

SHIFT *Press the F6 key to select the Trimmer tool.*

Note Selector

Use the Note Selector tool to select notes on one or more staves in the Score Editor window. Selected notes highlight blue. Selected notes can be deleted, moved, transposed, and processed (using Event Operations).

SHIFT *Press the F7 key to select the Note Selector tool.*

⚠ *The Note Selector tool makes a range selection that only includes MIDI notes and velocities. It does not include any other MIDI data, such as program changes or continuous controller data.*

Grabber

Use the Grabber tool to select one or more notes. You can also use the Grabber tool to move single notes, or all selected notes, to a different pitch or time location.

SHIFT *Press the F8 key to select the Grabber tool.*

Pencil

Use the Pencil tools to insert, select, move, or delete notes. The various Pencil tools differ in how they draw note durations, repeated notes, and velocities, but function in the same fashion as drawing notes on tracks in Notes view in the Edit window or in a MIDI Editor window.

To select a Pencil tool:

- Click the Pencil tool pop-up menu and select the Pencil tool you want.

Press the F10 key to select the current Pencil tool. Press the F10 key repeatedly to cycle through the different Pencil tools.

The following Pencil tools are available in the Score Editor:

Free Hand

The Free Hand Pencil tool lets you draw single notes of varying duration.

Note velocities are determined by the Default Note Velocity setting (see "Default Note On Velocity" on page 85).

The minimum duration of the note is determined by the selected Default Note Duration (see "Default Note Duration" on page 85).

Line

The Line Pencil tool lets you draw multiple notes of the same pitch and duration.

Note velocities are determined by the Default Note Velocity setting (see "Default Note On Velocity" on page 85).

The duration is determined by the selected Default Note Duration (see "Default Note Duration" on page 85).

The start time for each note is determined by the selected Grid value (see "Grid" on page 86).

Triangle

The Triangle Pencil tool lets you draw a series of MIDI notes on a single pitch whose velocities oscillate between the defined Default Note Velocity and 127 in a triangle pattern. The duration of each note is determined by the current Grid value.

The duration is determined by the selected Default Note Duration (see "Default Note Duration" on page 85).

The start time for each note is determined by the selected Grid value (see "Grid" on page 86).

Square

The Square Pencil tool lets you draw a series of MIDI notes on a single pitch whose velocities alternate between the defined Default Note Velocity and 127 in a square pattern. The duration of each note is determined by the current Grid value.

The duration is determined by the selected Default Note Duration (see "Default Note Duration" on page 85).

The start time for each note is determined by the selected Grid value (see "Grid" on page 86).

Random

The Square Pencil tool lets you draw a series of MIDI notes on a single pitch whose velocities change randomly within the range between the defined Default Note Velocity and 127 in a square pattern. The duration of each note is determined by the current Grid value.

The duration is determined by the selected Default Note Duration (see "Default Note Duration" on page 85).

The start time for each note is determined by the selected Grid value (see "Grid" on page 86).

Default Note Duration

The Default Note Duration selector lets you define the default note duration for manually inserted notes.

To define the Default Note Duration:

- From the Default Note Duration selector, select the desired note value. Select the Follow Grid option if you want the Default Note Duration to use the selected Grid value.

If you want dotted note values, also select the Dotted option.

If you want triplet note values, also select the Triplet option.

Selecting the Default Note Duration

Default Note On Velocity

The Default Note On Velocity setting lets you define the default note on velocity for manually inserted notes.

Play MIDI Notes When Editing

When enabled, the Play MIDI Notes When Editing option causes MIDI notes to sound when you insert them with the Pencil tool or drag them with the Grabber tool.

Play MIDI Notes When Editing enabled in the Score Editor window

Link Timeline and Edit Selection

When this button is enabled, the Timeline and Edit selections are linked. When it is disabled, you can make Timeline and Edit selections independently of one another.

Link Timeline and Edit Selection enabled in the Score Editor window

Mirrored MIDI Editing

Mirrored MIDI Editing lets you edit MIDI regions and have your edits apply to every copy of the same MIDI region. This can be particularly useful when editing looped MIDI regions.

In Mirrored MIDI Editing mode, the Mirrored MIDI Editing button blinks Red once as an edit is made to alert you that your edit is being applied to more than one region.

To enable Mirrored MIDI Editing, do one of the following:

- Select Options > Mirror MIDI Editing.

  – or –

- Select the Mirrored MIDI Editing button in the Edit window, MIDI Editor window, or Score Editor window.

Mirrored MIDI Editing disabled in the Score Editor window

To disable Mirrored MIDI Editing, do one of the following:

- Deselect Options > Mirror MIDI Editing.

  – or –

- Disable the Mirrored MIDI Editing button in the Edit window, MIDI Editor window, or Score Editor window.

> ⚠ *If Mirrored MIDI Editing mode is disabled, and you edit notes of looped regions in Notes view, the edit flattens the loop. Similarly editing region groups separates the region groups.*

Double Bar

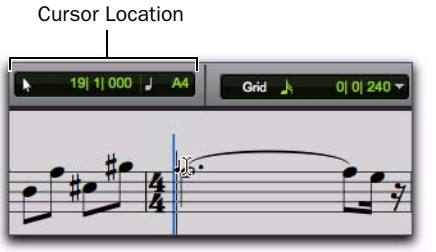
When enabled, the Double Bar option shows the final double bar line in the Score Editor window. The double bar line is located at the end of the last MIDI region or event in the session. Enable the Double Bar option when you are ready to print the score.

When the Double Bar option is disabled, there will be a number of empty bars at the end of the last MIDI region in the session. The number of empty bars is determined by the Additional Empty Bars In The Score Editor setting in the Pro Tools MIDI Preferences (Setup > Preferences). Disable the Double Bar option to manually enter notes in the Score Editor after the last MIDI region.

Double Bar enabled in the Score Editor window

Cursor Location

The Cursor Location display provides information about the current cursor location in Bars|Beats|Ticks and pitch.



Cursor Location indicator in the Score Editor window

Grid

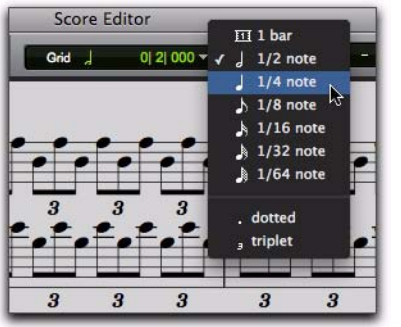
The Grid selector lets you define the Grid value for MIDI notes inserted and displayed in the Score Editor window.

To set the Grid value for the Score Editor window:

- From the Grid Value pop-up menu, select the desired note value.

If you want dotted note values, also select the Dotted option.

If you want triplet note values, also select the Triplet option.

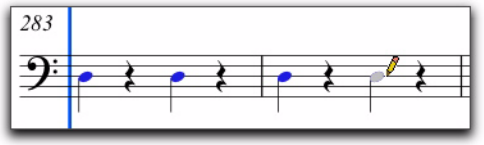


Setting the Grid value

Inserting Notes on the Grid

When inserting MIDI notes with the Pencil tool (using the Line, Triangle, Square, or Random shapes), the Grid value determines the note on location and the Default Note Duration value determines the note duration (see "Default Note Duration" on page 85).

For example, if the Default Note Duration is set to quarter notes and the Grid is set to half notes, drawing with the Line Pencil tool creates alternating quarter notes and quarter note rests.



Inserting notes on the Grid

However, if the selected Grid value is shorter than the Default Note Duration, the Grid value determines both the note on location and note duration for notes inserted with the Pencil tool. For example, if the Default Note Duration is set to quarter notes and the Grid is set to eighth notes, drawing with the Line Pencil tool creates a sequence of eighth notes.

Score Editor Window Target

When the Target is enabled for the Score Editor window, navigating the Edit window automatically navigates the Score Editor window as well. For example, if in the Edit window you navigate to bar 32, beat 3 in a MIDI track, when you view the Score Editor window it too will show the same location.

When the Target is disabled, Score Editor does not update to show the current Edit window selection or Edit cursor location.

Score Editor Window Menu

The Score Editor Window menu provides access to the Expanded Edit Tools, Selection Display, Track List, and Scrolling options.

Expanded Edit Tools

When selected, the Expanded Edit Tools option displays all of the relevant Edit Tools in the Score Editor window toolbar.

When this option is not selected, only the icon for the selected Edit tool is displayed. Any of the other Edit tools can be selected from the Edit Tool pop-up menu.

Selection Display

When selected, the Selection Display option shows the Edit Selection Display in the MIDI Editor window toolbar.

Track List

When selected, the Track List option displays the Track List in the Score Editor window.

Scrolling

The Scrolling submenu lets you select the scrolling options for the Score Editor window independently of the Edit window and any MIDI Editor windows. The scrolling options include:

No Scrolling The Score Editor window does not scroll during or after playback. The playback cursor moves across the Edit window, indicating the playback location.

After Playback The playback cursor moves across the Score Editor window, indicating the playback location. When playback has stopped, the Score Editor window scrolls to the final playback location.

Page The playback cursor moves across the Score Editor window, indicating the playback location. When the right edge of the current page shown in the Score Editor window is reached, it scrolls to the next page and the playback cursor continues moving from the left edge of the window.

Follow Edit Window When selected, the Score Editor window follows the scrolling option selected for the Edit window (Options > Edit Window Scrolling).

⚠ *For Pro Tools|HD systems, the Continuous and Center Playhead scrolling options are not available in the Score Editor window. If the Score Editor window is set to the Follow Edit Window scrolling option and the Edit window is set to either the Continuous or Center Playhead scrolling options, the Score Editor window scrolls by page.*

Customizable Toolbar

You can customize the toolbar in the Score Editor window by re-arranging, and showing or hiding the available controls and displays just like in the Edit window or MIDI Editor windows.

Toolbar Display Options

To change the toolbar display options in the Score Editor window toolbar:

1 Do one of the following:

- Click the Score Editor Window Toolbar menu.

– or –

- Right-click in the toolbar.

2 From the pop-up menu, select or deselect any of the following:

- Expanded Edit Tools
- Selection Display

Rearranging Controls and Displays

To rearrange controls and displays in a MIDI Editor window toolbar:

▪ Control-click (Windows) or Command-click (Mac) the controls or displays you want to move and drag them to the location in the Toolbar you want.

Track List

The Track List lets you show and hide MIDI and Instrument tracks in the Score Editor. It also provides access to the Notation Display Track Settings and Score Setup (see "Notation Display Track Settings" on page 91 and "Score Setup" on page 93).

To show or hide the Track List in the Score Editor window:

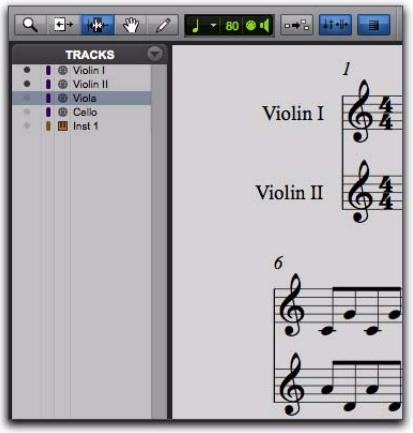
▪ From the Score Editor Window menu, select or deselect Track List.

Showing and Hiding Tracks

Use the Track List to show and hide MIDI and Instrument tracks as staves in the score.

To show MIDI and Instrument tracks in the Score Editor:

- Click the Show/Hide icon in the Track List for tracks you want to show in the score.



Partial Score: Violin I and Violin II shown; all other tracks are hidden

To show all MIDI and Instrument tracks in the Score Editor:

- From the Track List menu, select Show All Tracks.

To show only selected MIDI and Instrument tracks in the Score Editor:

1 In the Track List, select the MIDI and Instrument tracks you want to show in the score.

2 From the Track List menu, select Show Only Selected Tracks.

To hide MIDI and Instrument tracks in the Score Editor:

- Click the Show/Hide icon in the Track List for tracks you want to hide in the score.

To hide all MIDI and Instrument tracks in the Score Editor:

- From the Track List menu, select Hide All Tracks.

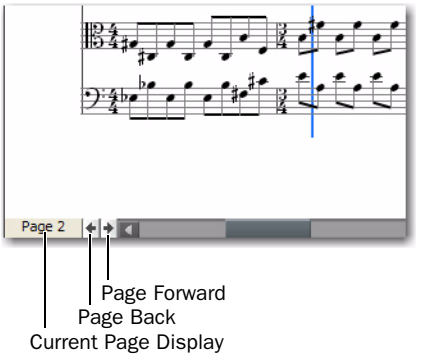
To hide selected MIDI and Instrument tracks in the Score Editor:

1 In the Track List, select the MIDI and Instrument tracks you want to hide in the score.

2 From the Track List menu, select Hide Selected Tracks.

Page Controls

The Score Editor window provides controls for navigating forward and backward by page. The current page number is displayed in the lower-left corner of the window.



Score Editor Page controls

To display the next page of the score:

- Click the Page Forward button.

To display the previous page of the score:

- Click the Page Back button.

To display any specific page of the score:

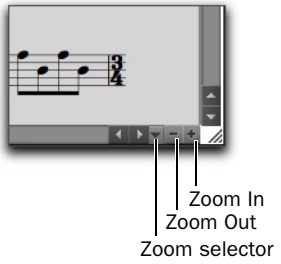
1 Click the Current Page display.

2 Type the page number for the page you want to view.

3 Press Enter (Windows) or Return (Mac).

Zoom Controls

In addition to the Zoomer tool, the Score Editor provides Zoom In and Out buttons in the lower right hand corner of the window. It also provides a Zoom selector that lets you zoom to a preset percentage or page size. When using these Zoom controls, the Score Editor zooms around the current Edit selection.



Score Editor Zoom controls

To zoom in one level:

- Click the Zoom In button.

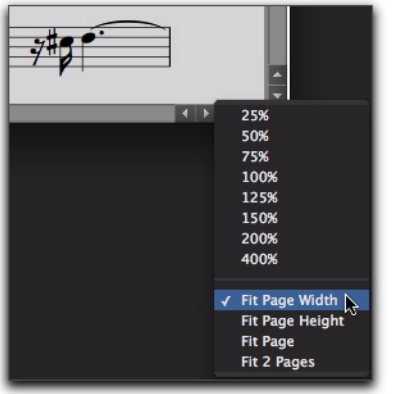
To zoom out one level:

- Click the Zoom Out button.

To zoom to a preset percentage:

1 Click the Zoom selector.

2 From the Zoom pop-up menu, select the desired zoom percentage.



Selecting a zoom percentage from the Zoom pop-up menu

To zoom to a page size:

1 Click the Zoom selector.

2 From the Zoom pop-up menu, select the desired page size.

Zoom to Page Sizes

The Zoom pop-up menu provides the following page sizes:

Fit Page Width Zooms so that the width of one page fits in the Score Editor window.

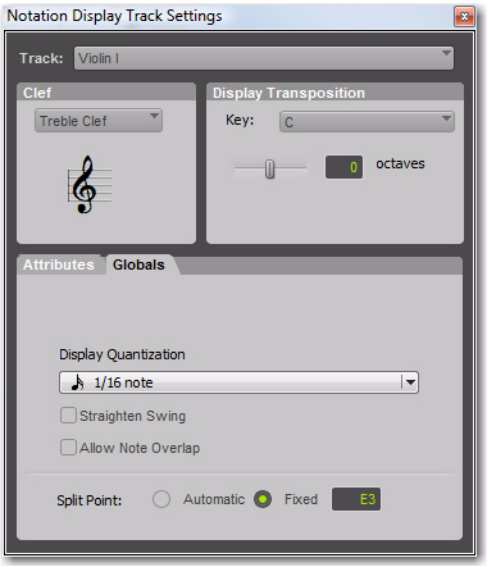
Fit Page Height Zooms so that the height of the page fits in the Score Editor window.

Fit Page Zooms so that an entire page fits in the Score Editor window.

Fit 2 Pages Zooms so that two pages fit horizontally in the Score Editor window.

Notation Display Track Settings

The Notation Display Track settings determine how individual MIDI and Instrument tracks appear in the Score Editor. You can set the Clef, Display Quantization, and whether or not to display the track at "concert pitch" or as a transposing instrument (such as a B-flat tenor sax).



Notation Display Track Settings

To configure the Notation Display Track settings:

1 Do one of the following:

- From the Track menu in the Score Editor, select Notation Display Track Settings.
- Right-click in the Score Editor and select Notation Display Track Settings.
- Double-click a Clef on a Staff.

2 From the Track pop-up menu, select the MIDI or Instrument track whose Notation Display Settings you want to change.

3 Configure the Notation Display Track Settings as desired.

4 Repeat the preceding steps for other MIDI and Instrument tracks as necessary.

Notation Display Track Settings Options

Track

From the Track pop-up menu, select the track you want to configure.

Clef

From the Clef pop-up menu, select the Clef you want for the selected track from the following options:

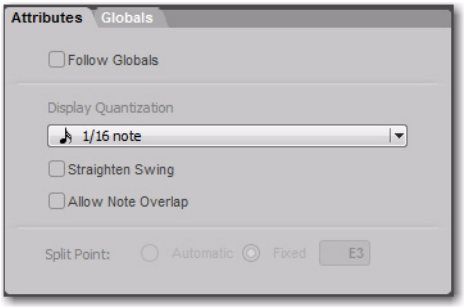
- Grand Staff
- Treble Clef
- Bass Clef
- Alto Clef
- Tenor Clef

Display Transposition

From the Key pop-up menu, select the key of Transposition for the track. For instruments that transpose from another octave, you can also adjust the Octave slider. For example, for a Bass Clarinet track, select the Key of B-flat and set the Octave slider to +1. This way, when you print the Bass Clarinet part, the player will be able to read the part and concert pitch will sound correctly a major ninth below where the part is written.

Attributes

The Attributes tab lets you specify the notation display quantization settings for the selected track. If the Clef is set to Grand Staff, you can also set the Split Point to divide notes between the treble and bass clefs.



Notation Display Track Settings window, Attributes tab

Follow Globals

When the Follow Globals option is selected, the track attributes use the global attributes settings (see "Globals" on page 92). This option is enabled for all tracks by default.

Display Quantization

The Display Quantization setting lets you select the quantization grid for the display of MIDI notes in music notation. MIDI notes in Pro Tools still maintain their original start time and duration, but this setting affects what note values are displayed. The notation display is quantized to the nearest select note value.

Straighten Swing

When enabled, the Straighten Swing option causes "swung" notes to be displayed as straight notation. For example, a run of swung eighth notes will be displayed as straight eighth notes.

Allow Note Overlap

Pro Tools only displays a single rhythmic line on a single staff. When two notes that start at different times overlap, the first note will be truncated when the second note begins. If the Allow Note Overlap option is enabled, Pro Tools displays the full length of overlapping notes using tied notes.

Split Point

When the Clef for the selected track is set to Grand Staff, the selected Split Point setting determines at which pitch the notes are placed in either the upper or lower staff of the Grand Staff.

Automatic When selected, Pro Tools splits notes between the upper and lower staves of the Grand Staff based on logical note groupings.

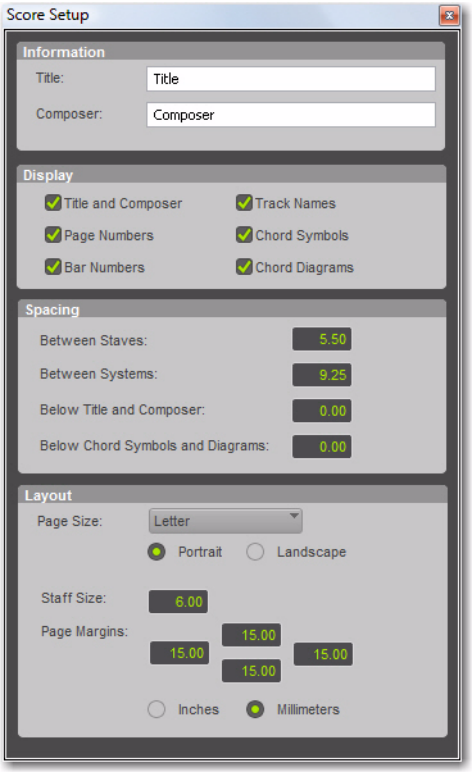
Fixed When selected, you can specify a particular pitch at which to split notes between the upper and lower staves of the Grand Staff.

Globals

The Globals tab provides the same settings as the Attributes tab (see "Attributes" on page 92). You can select which tracks follow the settings in the Globals tab in the Attributes tab for each track.

Score Setup

The Score Setup window lets you set up the page layout and staff spacing. You can enter the Title and Composer for the score. You can also select what elements of the score to display. Changes to the Score Setup update instantly in the Score Editor.



Score Setup window

To open the Score Setup, do one of the following:

- Choose File > Score Setup.
- From the Tracks menu in the Score Editor window, select Score Setup.
- Right-click in the Score Editor window and select Score Setup.

Score Setup Window Options

Information

Title Enter the Title for the score. This appears at the top of the first page.

Composer Enter the Composer for the score. This appears in the upper right-hand corner of the first page.

Display

The Display options determine which score elements you want displayed in the score. Deselect the elements you do not want displayed in the score.

Title and Composer Select to display the Title and Composer on the score.

Page Numbers Select to display Page Numbers at the bottom of each page.

Bar Numbers Select to display Bar Numbers at the beginning of each system above the top staff.

Track Names Select to display Track Names for each staff at the beginning of the score.

Chord Symbols Select to display chord symbols in the score.

Chord Diagrams Select to display Chord Diagrams to display guitar tablature in the score (see "Chord Symbols and Diagrams" on page 99).

Disable the Chord Diagrams option when printing charts and lead sheets where you just want to see chord symbols.

Spacing

Between Staves Enter the spacing you want between staves.

Between Systems Enter the spacing you want between systems.

⚠ *On pages where the music is vertically justified, the distance between staves and systems will be larger than the numbers specified.*

Below Title and Composer Enter the spacing you want between the Title and Composer and the first staff of the score.

Below Chord Symbols and Diagrams Enter the spacing you want between Chord Symbols and Diagrams and the top stave of each system.

Layout

Page Size Select the page size (Letter, Legal, Tabloid, or A4).

Portrait Select to set the page orientation to Portrait.

Landscape Select to set the page orientation to Landscape.

Staff Size Enter the Staff Size.

Page Margins Enter the size for the top, bottom, left, and right page margins.

Inches Select to enter Stave Size and Page Margins in inches.

Millimeters Select to enter Stave Size and Page Margins in millimeters.

Editing Notes

MIDI note editing in the Edit window, MIDI Editor windows, and the Score Editor window all affect the same MIDI data. When editing in one window, your edits are reflected in all other window. The Score Editor provides simple score editing tools for entering, moving, and transposing MIDI notes as music notation:

- The Trimmer tool lets you lengthen or shorten the duration of notes.
- The Note Selector tool lets you make object selections of notes in the score.
- The Grabber tool lets you select and move notes to another time or pitch location on the same track.
- The Pencil tool lets you insert notes and move them to another time or pitch location on the same track.

Selecting Notes

You can use either the Note Selector tool or the Grabber tool to select notes on one or more staves.

To select notes on one or more staves with the Note Selector tool:

1 Click the Note Selector tool.

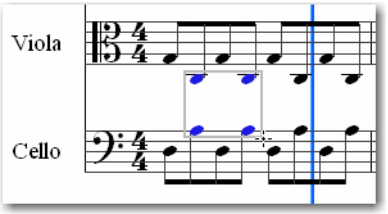
2 Click and drag on the score to highlight the notes you want selected.

Selecting notes with the Note Selector tool

To make a marque selection on one or more staves with the Grabber tool:

1 Click the Grabber tool.

2 Click and drag on the score to highlight the notes you want selected.



Selecting notes with the Grabber tool

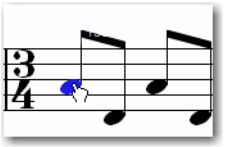
Transposing Notes

You can use the Grabber tool or the Pencil tool to manually transpose a note up or down. You can also use the Transpose Event Operation (Event > Event Operations > Transpose) to transpose selected notes.

To transpose a single note:

1 Click the Grabber tool.

2 Click and drag the note you want to transpose up or down.



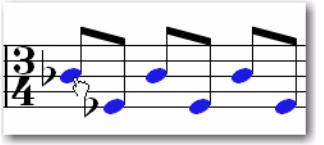
Transposing a note with the Grabber tool

To transpose all selected notes:

1 Click the Grabber tool.

2 Click and drag around the notes you want to Transpose to select them.

3 Click and drag any of the selected notes up or down to transpose them.



Transposing selected notes with the Grabber tool

Moving Notes

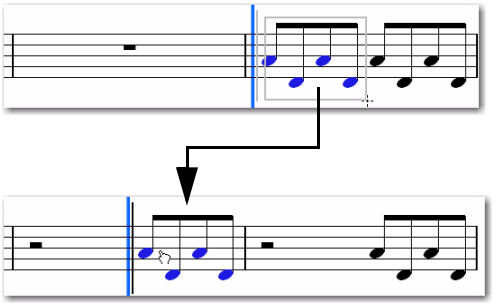
Use the Grabber tool to move selected notes from one time location to another time location on the same staff. When moving notes in the Score Editor, the underlying MIDI notes maintain their position relative to the Grid.

To move notes to another time location:

1 Click the Grabber tool.

2 If you want to move more than one note, click and drag around the notes you want to move to select them.

3 Click and drag any of the selected notes to another time location on the same staff.



Moving selected notes with the Grabber tool

You can also Nudge notes in the Score Editor by the currently selected Grid value.

Inserting Notes

Use the Pencil tool to manually insert notes in the Score Editor. When you insert a note, the Score Editor automatically places it on the Grid and creates rests where appropriate.

You can also enter notes by recording MIDI, importing MIDI from a file, or using Step Input (Event > Event Operations > Step Input).

To manually insert a note:

1 Select the Default Note Duration setting you want (see "Default Note Duration" on page 85).

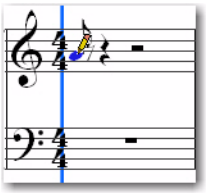
2 Select the Grid setting you want (see "Grid" on page 86).

3 Select the Default Note On Velocity (see "Default Note On Velocity" on page 85).

4 Click the Pencil tool and select Free Hand.

5 With the Free Hand Pencil tool, do any of the following:

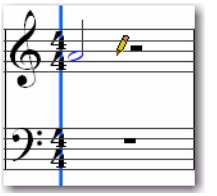
- Single-click at the time location and pitch you want to enter a single note of the selected Default Note Duration.



Entering a single note with the Pencil tool

– or –

- Click at the time location and pitch you want and drag to the right to increase the duration of the note. Let go of the mouse when you have the duration you want.



Entering a single longer note with the Pencil tool

To manually insert multiple notes of the same pitch:

1 Select the Default Note Duration setting you want (see "Default Note Duration" on page 85).

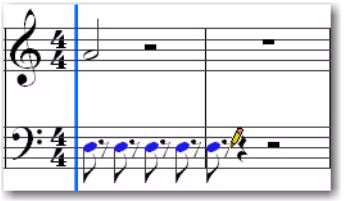
2 Select the Grid setting you want (see "Grid" on page 86).

3 Select the Default Note On Velocity (see "Default Note On Velocity" on page 85).

4 Click the Pencil tool and select any of the following shapes:

- Line
- Triangle
- Square
- Random

5 Click at the time location and pitch you want and drag to the right. Repeated notes of the selected Default Note Duration are entered on the selected Grid. The note on velocities for each note are determined in part by the Default Note On Velocity setting and the selected Pencil tool shape (see "Pencil" on page 83).



Entering multiple note of the same pitch with the Line Pencil tool

Rests

The Score Editor automatically adds rests as necessary. Rests cannot be moved or inserted manually.

Score Editor Right-Click Menu

The Score Editor Right-click menu provides several useful commands for editing, exporting, and formatting the score and MIDI data.

To access the Score Editor Right-click menu:

- Right-click anywhere on the score.

Tools

The Tools submenu lets you select any Edit tools relevant to the Score Editor.

Zoomer Selects the Zoomer tool.

Note Selector Selects the Note Selector tool.

Grabber Selects the Grabber tool.

Pencil Selects the Pencil tool.

Insert

The Insert submenu lets you insert key changes, meter changes, and chord symbols into the score at the location of the Edit cursor.

Key Inserts a key change.

Meter Inserts a meter change.

Chord Inserts a chord symbol.

Cut

The Cut command cuts the current Edit selection.

Copy

The Copy command copies the current Edit selection.

Paste

The Paste command pastes the clipboard to the current Edit selection or at the current Edit cursor location. Any MIDI notes already present at the same location are overwritten.

Merge

The Merge command pastes the clipboard to the current Edit selection or at the current Edit cursor location and merges the pasted data with any MIDI notes already present at the same location.

Clear

The Clear command clears (deletes) the current Edit selection.

Event Operations

The Event Operations submenu lets you select any of the Event Operations windows (such as Quantize or Change Velocity).

Open in MIDI Editor

Choosing the Open in MIDI Editor option opens the tracks shown in the Score Editor in a MIDI Editor window.

Open in MIDI Event List

The Open In MIDI Event List option opens the selected track in the MIDI Event List.

Notation Display Track Settings

Choosing the Notation Display Track Settings option opens the Notation Display Track Settings dialog (see "Notation Display Track Settings" on page 91).

Score Setup

Choosing the Score Setup option opens the Score Setup dialog (see "Score Setup" on page 93).

Send to Sibelius

Choosing the Send to Sibelius command sends the score exactly as it appears in the Score Editor window to Sibelius notation software (see "Send To Sibelius Enhancements" on page 101).

Print Score

Choosing the Print Score command prints the score (see "Printing Scores" on page 101).

Key Changes

You can add, edit, and delete Key Signatures in your score. Key Signatures affect the note spelling of MIDI notes in the score. For example, MIDI note number 58 ("B-flat 3") is B-flat in F major, but it is A-sharp in B major.

You can also add and delete Key Signatures in the Key Signatures ruler in the Edit window or in any MIDI Editor window.

To add a Key Signature:

1 With the Note Selector, Grabber, or Pencil tool, Right-click at the location in the score where you want to change key and select Insert > Key Change.

2 In the Key Change dialog, select the mode (major or minor), the key, its location and range, and how you want it to affect pitched tracks.

3 Click OK.

The selected Key Signature is displayed in the score and the note spellings for notes after the key change are updated accordingly.

To edit a Key Signature:

1 With the Grabber tool, double-click the Key Signature you want to edit.

2 In the Key Change dialog, make the desired changes and click OK.

To delete a Key Signature:

- With the Grabber tool, Alt-click (Windows) or Option-click (Mac) the Key Signature you want to delete.

Meter Changes

You can add, edit, and delete Meters in your score. Meter changes affect the number of bars in the score (and in your session). When changing meter, notes are not moved, but the barlines will be redrawn.

You can also add and delete Meters in the Meter ruler in the Edit window and in MIDI Editor windows.

To add a Meter change:

1 Do one of the following:

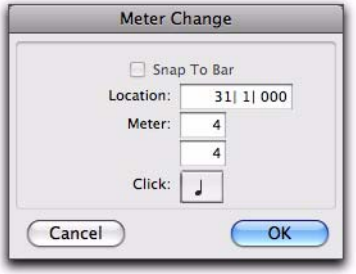
- Choose Event > Time Operations > Change Meter.

– or –

- With the Note Selector, Grabber, or Pencil tool, Right-click at the location in the score where you want to change key and select Insert > Meter Change.

2 In the Meter Change dialog, do the following:

- Enter the Location and Meter for the meter change.



Meter Change dialog

– and –

- If you want the inserted meter event to fall cleanly on the first beat of the nearest measure, select the Snap To Bar option.

3 Select a note value for the number of clicks to sound in each measure. For a dotted-note click value, select the dot (.) option in addition to the note value.

For some meters, it may be desirable to use a dotted value for the click. For instance, if using a meter of 6/8, a dotted quarter note click (yielding two clicks per measure) is generally more suitable than a straight eighth note click (six clicks per measure).

4 Click OK to insert the new meter.

To edit a Meter change:

1 With the Grabber tool, double-click the Meter event you want to edit.

2 In the Meter Change dialog, make the desired changes and click OK.

To delete a Meter change:

- With the Grabber tool, Alt-click (Windows) or Option-click (Mac) the Meter event you want to delete.

Chord Symbols and Diagrams

You can add, edit, and delete chord symbols and chord diagrams (guitar tablature) in your score. Chord symbols have no effect on MIDI data.

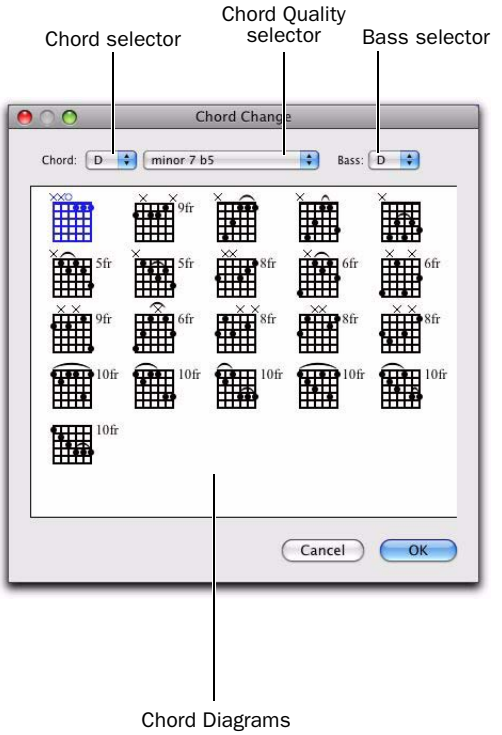
Chord symbols are not included when exporting MIDI data from Pro Tools to a MIDI file, but they are included when exporting to a Sibelius file (.sib) or when using the Send to Sibelius command.

You can also add and delete chord symbols in the Chord Symbol ruler in the Edit window and in MIDI Editor windows. However, Chord Diagrams (guitar tab) are only displayed in the Score Editor window.

To insert a chord symbol:

1 With the Note Selector, Grabber, or Pencil tool, Right-click at the location in the score where you want to add a chord symbol and select Insert > Chord.

2 In the Chord Change dialog, select the name for the root of the Chord from the Chord selector (such as D).



Chord Change dialog

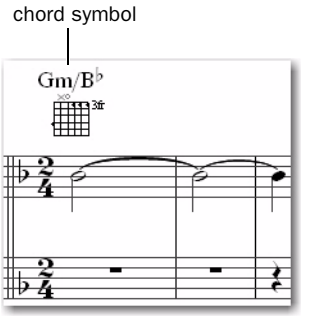
3 Select the quality from the Chord Quality selector (such as major or minor).

4 Select the bass note of the chord from the Bass selector (such as B-flat for an inverted G minor chord).

5 Select the desired Chord Diagram (guitar tablature) from the available options.

6 Click OK.

The selected chord symbol is placed above the top staff in the system.



Chord symbol in the score

To edit a chord symbol:

1 With the Grabber tool, double-click the chord symbol you want to edit.

2 In the Chord Change dialog, make the desired changes and click OK.

To move a chord symbol:

- With the Grabber tool, click and drag the chord symbol to a new location.

To delete a chord symbol:

- With the Grabber tool, Alt-click (Windows) or Option-click (Mac) the chord symbol you want to delete.

To display or hide chord symbols in the score:

- In the Score Settings dialog (File > Score Setup), enable or disable the Chord Symbols option.

To display or hide chord diagrams (guitar tab) in the score:

- In the Score Settings dialog (File > Score Setup), enable or disable the Chord Diagrams option.

Exporting Scores

Pro Tools lets you export the score from your session as a Sibelius (.sib) file. You can then open your score in Sibelius as transcribed by Pro Tools, edit the notation in Sibelius as desired, and print the score and parts from Sibelius.

⚠ *Sibelius 5.x or higher is required to open .sib files exported from Pro Tools.*

To export a score from Pro Tools:

1 Configure the score for your session in Score Editor window.

2 Choose File > Export > Sibelius.

3 Select a destination and click Save.

Send To Sibelius Enhancements

The Send to Sibelius command has been improved to export MIDI and Instrument tracks shown in the Score Editor to Sibelius notation software as a ".sib" file. If Sibelius is installed on your computer, the Send to Sibelius command launches Sibelius. You can then further edit the notation in Sibelius and print a score or parts.

To send the Score from your Pro Tools session to Sibelius, do one of the following:

1 Configure the score for your session in Score Editor window.

2 Do one of the following:

- Choose File > Send to Sibelius.

– or –

- Right-click in the Score Editor and choose Send to Sibelius.

Pro Tools exports all Instrument and MIDI tracks shown in the Score Editor to Sibelius as a .sib file. You can then further edit the notation in Sibelius and print the score or parts from Sibelius.

Printing Scores

Pro Tools lets you print the score from your Pro Tools session. The score will be printed exactly as it appears in the Score Editor window. Configure the Score Setup and show or hide any MIDI and Instrument tracks as desired. Only those tracks that are shown in the score will be printed.

To print the score from your Pro Tools session:

1 Open the Score Editor window and configure your score as desired.

2 Choose File > Print Score.

3 Configure the Print dialog as necessary and click OK (Windows) or Print (Mac)

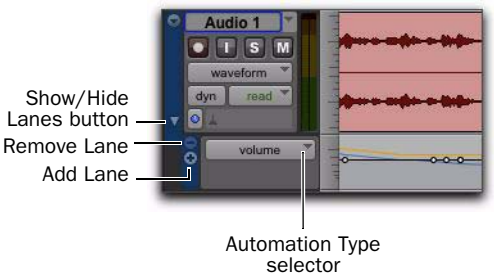
Press Control+P (Windows) or Command+P (Mac) to Print Score.

chapter 8

Pro Tools Mixing and Automation Features and Enhancements

Automation and Controller Lanes

In the Edit window, you can view automation and controller data under a track (regardless of the selected Track View). Each track provides Automation and Controller lanes that let you edit track automation and controller data without changing the Track View. You can edit automation and controller data in lanes exactly the same way that you do in different automation and controller Track Views.



Revealing an Automation lane

Automation and Controller lanes can be shown or hidden. You can also add and remove lanes. These lanes always remain under the track, but you can resize and reorder lanes independently of one another.

To show or hide Automation lanes under the main track view:

- Click the Show/Hide Lanes button.

To add a lane:

- Click the Add Lane button.

To remove lanes:

- Click the Remove Lane button.

To change the Automation or Controller type for a lane:

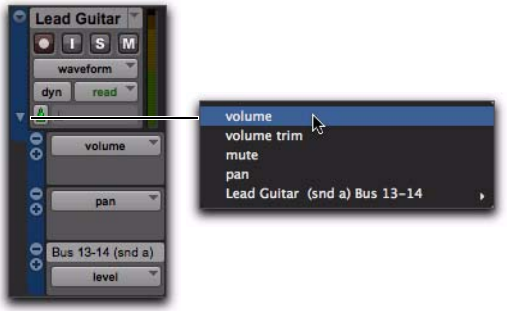
- Click the Automation/Controller Type selector and select the Automation or Controller type you want.

Selecting the Automation type for a lane

To replace all Automation and Controller lanes under the track with a single lane of the specified automation or controller type:

1 Right-click the Show/Hide Lanes button.

2 Select the Automation or Controller type you want.



Right-click menu for selecting a single Automation or Controller lane

To resize the height of all Automation and Controller lanes for a track, do one of the following:

- Right-click on the vertical zoom scale just to the right of the track controls and select the height from the pop-up menu.

– or –

- Click and drag the bottom line of any given Lane Controls column up or down. The cursor changes to indicate that you can resize the lane.

Press Start+Up/Down Arrow key (Windows) or Control+Up/Down Arrow key (Mac) to increase or decrease height of any lane that contains the Edit cursor or an Edit selection.

To resize the height of a single Automation or Controller lane for a track:

- Press Start (Windows) or Control (Mac) while selecting the Lane Height setting.

To reorder lanes:

- To reorder lanes on-screen, drag the lane control section to new positions in the Edit window.

Ten Inserts

Pro Tools 8.0 provides five additional inserts on audio, Auxiliary Input, Master Fader, and Instrument tracks for software plug-ins and hardware inserts. The audio signal flow is in series for all ten inserts on a track.

Configuring Inserts View in the Mix and Edit Windows

Audio tracks, Auxiliary Inputs, Master tracks, and Instrument tracks include two sets of inserts views: Inserts A–E (inserts 1–5) and Inserts F–J (inserts 6–10). The View menu provides separate options for viewing each set of inserts in the Mix and Edit windows.

For information on accessing Inserts F–J from Pro Tools control surfaces, see "Accessing 10 Inserts" on page 113.

To display inserts in the Edit window:

- Select any of the following:
  - View > Edit Window > Inserts A–E.
  - View > Edit Window > Inserts F–J.

Inserts A–E and F–J in the Edit window

To display inserts in the Mix window:

- Select any of the following:
  - View > Mix Window > Inserts A–E.
  - View > Mix Window > Inserts F–J.

Inserts A–E and F–J in the Mix window

Improvements for Recording with Automatic Delay Compensation

Automatic Delay Compensation is now applied to Sends as well as Inserts to compensate for mixer delays inherent in bussing. In most cases, you can now record in Pro Tools with Delay Compensation enabled.

⚠ *With Delay Compensation enabled, it is recommended that you do not use any inserts on any Auxiliary Input or Master Fader tracks you may be using to control the cue mix volume. Also, you should avoid using inserts on any record tracks. (Some low latency inserts may be acceptable depending on the talent's preference.)*

chapter 9

Plug-ins

Creative Collection Plug-ins

(RTAS Only)

The new Pro Tools Creative Collection plug-ins include several RTAS virtual instrument and effects plug-ins from Digidesign's Advanced Instrument Research group.

For more information, see the Pro Tools Creative Collection Plug-ins Guide.

Creative Collections Instruments

Boom

Boom is a drum instrument for Pro Tools, inspired by classic drum machines. Featuring a drum machine-style pattern sequencer, Boom offers ten different electronic-oriented kits, with extensive sound-shaping capability.

DB-33

DB-33 is a tonewheel organ instrument for Pro Tools with rotary speaker cabinet and tube preamp emulation. DB-33 provides full drawbars, variable percussion, and several tonewheel models that provide a wide range of classic organ sounds.

Mini Grand

Mini Grand is a high-quality grand piano instrument for Pro Tools. Seven selectable piano models, with eight velocity layers per key, can be customized with variable room simulation to fit your piano needs.

Structure Free

Structure® Free is a sample player for Pro Tools that provides some of the key features of the full-featured version of Structure. Structure Free lets you quickly and easily integrate a wide range of sampler performances in your Pro Tools sessions.

⚠ *If the full version of Structure or Structure LE is already installed on your system, Structure Free will not be installed.*

Vacuum

Vacuum is a unique analog synth for Pro Tools, employing Vacuum Tube Synthesis for rich leads, basses and special effects. With a dusty, distressed look to match its vintage-slanted sound, Vacuum offers extensive modulation capabilities and a lot of sonic character.

Xpand!^{2}

Xpand!^{2} is a workstation synthesizer plug-in for Pro Tools that offers a wide variety of useful sounds. Xpand!^{2} comes with 1.5 gigabytes of content; everything from keyboards to guitars, basses, drums, orchestral instruments, and rhythmic loops.

⚠ *If Xpand! is already installed on your system, installing Xpand!^{2} will overwrite Xpand! All Xpand! presets are copied to the Xpand!^{2} Plug-in Presets folder and will be available in Xpand!^{2}.*

Creative Collection Effects

EQ

KillEQ Provides a 3-band EQ with kill switches on each band, to fully cut off the lows, mids, or highs for dramatic effects.

Vintage Filter Provides a resonant multimode filter that can be manually adjusted or modulated over time using the built-in LFO and envelope follower.

Reverb

Reverb Provides a natural-sounding room ambiance to emulate the sound of various spaces.

Nonlinear Reverb Emulates classic 80s-era gated reverb effects.

Spring Reverb Simulates classic analog spring reverb as found in guitar amps and vintage studio gear.

Delay

Dynamic Delay Provides a ducked echo effect that stays out of the way when a signal is present, then fades in.

MultiTap Delay Provides multiple cross-linked delays for complex echo effects.

Modulation

Chorus Provides chorusing pitch modulation effects for guitar, keys and vocals.

Ensemble Provides classic, fluid, shimmering effects that are great for chords and pad sounds.

Flanger Provides flanging pitch modulation effects for pronounced, resonant sweeps.

MultiChorus Provides stacked chorus effects with individual rate and depth controls for each layer.

Phaser Provides phasing pitch modulation effects with a subtler, smoother sweep than the Flanger.

Filter-Gate-Sequencer Provides a sequenced filter and gate effect, for precise control of timbre and amplitude over time. The Filter-Gate-Sequencer adds rhythmic animation to extended notes and rhythmic parts.

Harmonic

Decimator Provides bit-depth and sample rate reduction of a signal to add crunchy, ringing artifacts.

Distortion Boosts and clips a signal to add bite, dirt and crunch.

Enhancer Synthesizes additional high-end to enhance dull signals.

Freq Shifter Provides classic pitch shifting effects that are great for guitar and keyboard sounds.

FuzzWah Provides nasty distortion and sweeping wah effects that are perfect for guitar, electric piano, and organ sounds.

Talkbox Emulates a mouth-controlled wah for vintage lead guitar effects.

Sound Field

StereoWidth Widens mono signals in the stereo field, and precisely controls width of stereo signals.

Additional Plug-ins Included with Pro Tools

(TDM, RTAS, and AudioSuite)

The following plug-ins, which used to be paid plug-in options, are now free and installed with Pro Tools:

- Digidesign Maxim
- Digidesign D-Fi
  - Sci-Fi
  - Lo-Fi
  - Recti-Fi
  - Vari-Fi
- Bomb Factory Sans Amp

For information on these plug-ins, and other plug-ins, see the Digidesign Plug-ins Guide and the Bomb Factory Plug-ins Guide.

Eleven Free

(RTAS Only)

The Eleven Free plug-in is installed with Pro Tools. Eleven Free gives you two custom guitar amplifiers and two cabinet models, selected from among the "best of the best" vintage and contemporary gear provided in the full version of Eleven.

For more information, see the Eleven Free Guide.

TL Utilities Included with Pro Tools

(TDM and RTAS)

The TL Utilities™ plug-ins, which used to be paid plug-in options, are now free and installed with Pro Tools.

TL Utilities includes the following plug-ins.

- TL Metro
- TL InTune
- TL MasterMeter

For information on the TL Utilities plug-ins and other TL Labs plug-ins, see the TL Labs Plug-ins Guide.

DigiRack Plug-in Improvements

Stereo Version of DigiRack EQ III

The DigiRack™ EQ III plug-ins are now available as stereo as well as mono and multi-mono. Note that for the stereo version, the Input and Output meters display the sum of the left and right channels.

Improved RTAS DigiRack D-Verb

The RTAS version of DigiRack D-Verb™ now includes a very subtle chorusing effect in the Church and Hall options. This "thickens" the reverb sound, giving it a little more sense of a church or hall space.

The chorusing effect has always been present for the Church and Hall options in the AudioSuite and TDM versions, but was originally not in the RTAS version to help lessen the demands on host processing power.

Improved Drag and Drop to Plug-ins

MIDI Regions

Pro Tools now supports dragging and dropping MIDI regions from tracks, the Region List, or DigiBase Browsers to certain instrument plug-ins. This is useful for some instrument plug-ins, such as Digidesign's Transfuser, that provide MIDI sequencers.

Region Groups

Pro Tools now supports dragging and dropping region groups from tracks, the Region List, or DigiBase Browsers to certain instrument plug-ins. This is useful for instrument plug-ins like Digidesign's Transfuser.

Plug-in Find and Relink

When opening a Pro Tools session with certain instrument plug-ins that can import and play back audio files (such as Digidesign's Transfuser), the Find and Relink command is started automatically if the plug-in is missing any audio files.

AudioSuite Preview Improvements

The AudioSuite window now provides volume control and level meters for previewing AudioSuite processing. AudioSuite previewing has also been improved in both the time it takes to start and stop preview, and in the responsiveness to moving plug-in controls during preview.

AudioSuite window, Invert plug-in shown

Preview Volume

The Preview Volume control lets you adjust the volume for previewing AudioSuite processing.

To adjust the volume for previewing AudioSuite processing:

1 Click the Preview Volume control.

2 In the resulting pop-up fader, drag up to increase the preview volume and drag down to decrease the preview volume.

Adjust the volume for previewing AudioSuite processing

Preview Volume Level Meters

The Preview Volume Level meters display the levels for previewed AudioSuite processing. This can help you watch for clipping in the processed signal.

AudioSuite Preview Audition Paths

(Pro Tools HD Only)

For Pro Tools|HD systems with more than one audio interface, AudioSuite preview can now be assigned to any audio output path on any interface in the system.

To configure an Audition Path:

1 Choose Setup > I/O and click the Output tab.

2 From the Audition Paths pop-up menu, select the audition path that you want.

chapter 10

Pro Tools Controller Features and Enhancements

Pro Tools 8.0 provides several new features and enhancements for Digidesign control surfaces and ICON work surfaces.

Accessing 10 Inserts

Accessing Inserts on D-Control

When you press the Inserts switch on a channel strip, plug-in names are shown in two groups of five (Inserts A–E or Inserts F–J) on the encoder displays.

You can use Flip mode to transfer controls for any insert (A–J) from the channel encoders to the Faders.

To toggle display of Inserts A–E and F–J on a channel strip:

1 Press the Inserts switch in the Channel Strip Mode controls section of the channel strip to show the top level Insert display.

2 Press the Page Up and Page Down switches to toggle the top level Insert display between the two sets of five Inserts (A–E and F–J).

To view the parameters for an individual plug-in:

- Press the Select switch on the corresponding encoder.

To return to the top level display of plug-ins on the channel strip:

- Press the Inserts switch.

Accessing Inserts on D-Command

When you press the Inserts switch, you enter Inserts mode, and the plug-in names for the first two plug-ins on that channel strip are displayed on the encoder displays. The 10 available inserts are displayed in five pairs (A–B, C–D, E–F, G–H, I–J).

To scroll display of Inserts A–J on a channel strip:

- Press the Page Up and Page Down switches.

Accessing Inserts on ProControl

With the DSP Edit/Assign section you can view and assign inserts in two groups of five (Inserts A–E and F–J) for any channel strip.

To view inserts in the DSP Edit/Assign section:

1 Press the INS/SEND switch on a channel to focus it in the DSP Edit/Assign section.

2 Press the INSERT/PARAM switch in the DSP Edit/Assign section.

3 Press the PRE/POST switch at the bottom of the DSP Edit/Assign section to toggle display between Insert A–E and F–J.

To view and toggle display of Inserts A–E and F–J in the DSP Edit/Assign section:

1 Press the INS/SEND switch on a channel to focus it in the DSP Edit/Assign section.

2 Hold Shift and press the INSERT/PARAM switch in the DSP Edit/Assign section.

Accessing Inserts on C|24

When you press the Insert switch in a channel strip, C|24™ enters Insert Select view, which displays the channel's insert controls horizontally across the LCD displays.

To display the Inserts on a track:

1 Press the Insert switch in the track's channel strip. The switch lights to indicate track focus.

The left side of the LCD display shows the track name in the top row and "Inserts" in the bottom row.

2 If necessary, press the Channel Bar Scroll switches to toggle display between Inserts A–E and F–J.

For each assigned Insert on the track, the LCD displays show Insert position and Insert name on the top row, "more" and Insert bypass state on the bottom row.

For each Insert position without an assignment, the LCD displays show "No Insert" on the top row, and "assign" on the bottom row.

Accessing Inserts on Control|24

When you press the Insert switch in a channel strip, Control|24™ enters Insert Select view, which displays the channel's inserts horizontally across the scribble strip displays.

To display the Inserts on a track:

1 Press the Inserts switch in the track's channel strip.

The track name is shown in the Channel Bar display and the first five inserts are shown in the channel scribble strips.

2 If necessary, press the Channel Bar Scroll switches to toggle display between Inserts A–E and F–J.

For each assigned Insert on the track, the channel scribble strips show the Insert name.

For each Insert position without an assignment, the channel scribble strips show "No Insert."

Accessing Inserts on Command|8

Inserts in Console View

When Command|8 is in Console view, the display shows the names of currently-assigned inserts across all channel strips for a given insert position (Inserts A–J in Pro Tools).

To display the inserts on an Insert position across all tracks:

1 Press the Insert switch to the left of the rotary encoders to put Command|8 in Console view.

2 Do one of the following:

- To display an insert position A–E, press the corresponding A–E switch.

– or –

- To view any of the Inserts F–J, hold Shift/Add and press the corresponding switch (A=F, B=G, C=H, D=I, or E=J). The switches flash to indicate display of Inserts F–J.

Inserts in Channel View

When Command|8 is in Channel View, the display shows the names of all the inserts on the selected track.

To view all inserts on a single track (Channel View):

1 Press the Insert switch in the Channel View row.

2 Press a lit Channel Select switch.

3 Do one of the following:

- To display Inserts A–E, press the Page Left switch.

– or –

- To display Inserts F–J, press the Page Right switch.

Plug-in Mapping

Pro Tools lets you customize the arrangement of plug-in parameters on supported control surfaces. You can save these customized *plug-in maps* as presets and export them for use across different sessions and systems.

Plug-in Learn Mode

Plug-ins can be put into Learn mode, from which any automatable plug-in parameter can be mapped to a channel strip encoder, switch, or (in Flip mode) fader on the control surface.

Plug-in Map Presets

A map for a plug-in can be saved and recalled for any plug-in of the same type.

You can save multiple map presets for a single plug-in, and switch between maps at any time during a session.

You can also use multiple map presets on different instances of a plug-in at the same time. This is useful for virtual instrument plug-ins with multiple configurations, or for multi-user workflows on large systems.

You can set a custom plug-in map to be the default map for a plug-in, so that the same map is used for all default instances of that plug-in.

Plug-in Map Files

Plug-in maps can be exported (as *.pim* files) for use in other sessions and on other systems with a similar type of control surface (8-fader surface, 24-fader surface, or ICON surface).

Control Surface Mapping

When you create a custom plug-in map, its parameters are arranged in *pages* that correspond to the controls on the control surface. The size of a page depends on the type of control surface. Each custom plug-in map allows up to 200 pages of mapped parameters.

Plug-in mapping is stored according to the following types of control surfaces:

8-fader surfaces The following has a page size of 8 mappable encoders/switches:

- Command|8

24-fader surfaces The following have a page size of 24 mappable encoders/switches:

- C|24
- Control|24

ICON surfaces The following have a separately mappable encoders and switches with the following page sizes:

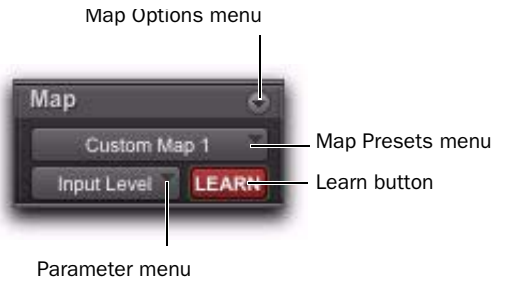
- D-Control®
  - Custom Faders display 6 rows (pages) of 8 encoders and switches at a time
  - Channel strips display 1 column (page) of 6 encoders and switches at a time
- D-Command
  - Custom Faders display 2 rows (pages) of 8 encoders and switches at a time
  - Channel strips display 1 column (page) of 6 encoders and switches, 2 at a time

⚠ *Plug-in Mapping is not supported with ProControl™.*

⚠ *If you import a plug-in map that was created on a different type of control surface, it will appear as an inactive choice in the Map Presets menu.*

Plug-in Map Controls

When a supported control surface is declared in Pro Tools, Plug-in Map controls appear in the plug-in window.



Plug-in Map controls in the plug-in window

Map Options Menu Lets you create, rename, save, delete, import, export, and set default plug-in maps.

Map Presets Menu Lets you choose from available custom Plug-in Maps for the plug-in.

Learn Button Puts the plug-in in Learn mode, where you can map plug-in parameters to a control surface.

Parameter Menu When in Learn mode, lets you select a parameter on the plug-in for mapping. If you click a parameter in the plug-in window while in Learn mode, this menu shows the name of the parameter.

Creating Plug-in Maps

This section covers creating plug-in maps on the following control surfaces:

- C|24
- Control|24
- Command|8

For details on plug-in mapping, see "Plug-in Mapping on D-Control" on page 121 and "Plug-in Mapping on D-Command" on page 124.

Putting a Plug-in into Learn Mode

When you first put a plug-in into Learn mode, a new plug-in map is created (with the default name "Custom Map"), and the plug-in is focused on the control surface, but with a blank page of controls, ready for mapping.

Only one plug-in can be in Learn mode at a time.

To put a plug-in into Learn mode, do one of the following:

- Click the Learn button in the plug-in window.

  – or –

- From the Map Options pop-up menu, choose New Map.

To take a plug-in out of Learn mode, do one of the following:

- Click the active Learn button in the plug-in window.
- Close the plug-in window.
- Click the Learn button in a different plug-in window.

Plug-ins are automatically taken out of Learn mode when moved to a different insert position, made inactive, or converted between TDM and RTAS formats.

Creating and Editing Plug-in Maps

To create a custom map of plug-in parameters:

1 Open the plug-in whose mapping you want to customize.

2 Put the plug-in into Learn mode. The plug-in is focused on the control surface, but with a blank page of controls, ready for mapping.

3 In the plug-in window, click the plug-in parameter you want to map. The parameter name appears in the Parameter menu.

4 On the control surface, do one of the following:

- Turn the encoder or press the channel Select switch where you want to map the parameter.

– or –

- If the control surface is in Flip mode, move the fader or press the channel Select switch where you want to map the parameter.

5 Repeat steps 3-4 for each parameter you want to map.

6 Take the plug-in out of Learn mode.

To change parameter mapping in a plug-in map:

1 Open the plug-in whose custom map you want to change.

2 Choose the map you want to change from the Map Preset pop-up menu.

3 Put the plug-in into Learn mode. The plug-in is focused on the control surface.

4 Do the following for each parameter mapping you want to change:

- In the plug-in window, click the new plug-in parameter you want to map. The parameter name appears in the Parameter menu.

– and –

- On the control surface, page to the encoder or switch where you want to change the mapping, and turn the encoder or press the switch.

5 Take the plug-in out of Learn mode.

To remove parameter mapping from a plug-in map:

1 Open the plug-in whose custom map you want to change.

2 Choose the map you want to change from the Map Preset pop-up menu.

3 Put the plug-in into Learn mode. The plug-in is focused on the control surface.

4 Do the following for each parameter mapping you want to remove:

- Make sure the Parameter menu displays No Control.

– and –

- On the control surface, page to the encoder or switch where you want to remove the mapping, and turn the encoder or press the switch.

5 Take the plug-in out of Learn mode.

Managing Plug-in Maps

You can save plug-in maps as presets for reuse on the same Pro Tools system, or export them for use on other Pro Tools systems with a similar control surface.

Saving Plug-in Maps

Plug-in maps are saved as global preferences on a Pro Tools system, so they are available to all sessions created on the system.

When you create a map for a plug-in, that map becomes available to all other plug-ins of the same type and channel format.

If you want to map the same plug-in in different channel formats (such as mono, stereo and 5.1 surround) you need to create a separate plug-in map for each format.

To save a copy of a custom plug-in map:

1 Open the plug-in whose map you want to copy.

2 Choose the map you want to copy from the Map Presets pop-up menu.

3 From the Map Options pop-up menu, choose Save Map As.

4 Enter a name for the plug-in map.

5 Click OK. The new copy becomes the active plug-in map.

To rename a custom plug-in map:

1 Open the plug-in whose map you want to rename.

2 Choose the map you want to rename from the Map Presets pop-up menu.

3 From the Map Options pop-up menu, choose Rename Map.

4 Enter a new name for the plug-in map.

5 Click OK.

Deleting Plug-in Maps

From the plug-in window, you can delete individual plug-in maps.

You can also delete all custom plug-in maps on the system, reverting all plug-ins to their Factory Default plug-in maps.

⚠ *On D-Control and D-Command systems, when you delete all plug-in maps, you are also deleting all Custom Fader Plug-in mapping. For more information, see the D-Control Guide or D-Command Guide.*

To delete a custom plug-in map:

1 Open the plug-in whose map you want to delete.

2 Choose the map you want to delete from the Map Presets pop-up menu.

3 From the Map Options pop-up menu, choose Delete Current Map.

4 Click Delete.

To delete all plug-in maps from the system:

1 Open any plug-in in the session.

2 From the Map Options pop-up menu, choose Delete All Maps.

3 Click Delete.

Setting a Custom Plug-in Map as the Default Map

You can set a custom plug-in map as the default map for a plug-in, instead of the Factory Default map.

When you set a custom plug-in map as the default, it applies across the entire session. All instances of that plug-in that were set to the Factory Default map, or to another custom default map, change to the new default.

If you change parameter mapping in the custom plug-in map that has been set as the default, the changes will propagate to all instances of the plug-in using that default.

⚠ *When you export a plug-in map, the default map setting for that plug-in is also exported. When that map is imported, the default setting is also updated, and all instances of the plug-in change to the new default.*

How Default Plug-in Map Settings are Stored

Default map settings are stored as global (system-wide) Pro Tools preferences, so they are applied to all sessions that you subsequently open or create on that system.

💡 *If you plan to work with the same plug-in mapping on multiple sessions, back up your settings by exporting all plug-in maps on a regular basis and saving the .pim file with your sessions.*

To set a custom plug-in map as the default map:

1 Open the plug-in whose default plug-in map you want to change.

2 Choose the map you want to use as the new default from the Map Presets pop-up menu.

3 From the Map Options pop-up menu, choose Set As Default.

Hiding Default Plug-in Map Pages

When you create a custom plug-in map, its parameters are arranged in *pages* that correspond to the groups of controls that appear on a control surface.

When you page through the controls for a plug-in on a control surface, the pages for custom plug-in maps appear first, and the pages for the Factory Default map appear after the custom pages.

You can hide the Factory Default pages of a plug-in, so that only the custom pages appear on the control surface. This applies to all instances of the plug-in.

To hide the Factory Default pages of a plug-in map:

1 Open the plug-in whose default plug-in map pages you want to hide.

2 From the Map Options pop-up menu, choose Hide Factory Default Pages.

Exporting and Importing Plug-in Maps

Plug-in maps can be exported as *.pim* files for use on other Pro Tools systems.

When exporting plug-in maps, you can choose to save individual map files for each plug-in, or a single map file containing all the plug-in maps for the system.

⚠ *On D-Control and D-Command systems, when you export all plug-in maps, you are also exporting Custom Fader Plug-in mapping to the same file. For more information, see the D-Control Guide or D-Command Guide.*

To export an individual plug-in map:

1 Open the plug-in whose map you want to export.

2 Choose the map you want to export from the Map Presets pop-up menu.

3 From the Map Options pop-up menu, choose Export Current Plug-in Map.

4 Choose a location for the map file.

5 Click Save.

To export all plug-in maps in the system to a single map file:

1 Open any plug-in in the session.

2 From the Map Options pop-up menu, choose Export All Plug-in Maps.

3 Choose a location for the map file.

4 Click Save.

To import a map file:

1 Open the plug-in where you want to import a plug-in map.

2 From the Map Options pop-up menu, choose Import Plug-in Maps From File.

3 Locate the plug-in map (.pim) file you want to import.

4 Click Open.

Plug-in Mapping on D-Control

With D-Control, you can put a plug-in into Learn mode, select parameters for mapping, and independently map two sets of plug-in parameters to each encoder or its associated B/M/P switch, all directly from the control surface.

You can map parameters to encoders and B/M/P switches in both the Custom Faders and in channel strips.

You cannot map controls to the EQ and Dynamics sections of D-Control.

When you put a plug-in into Learn mode, its track is focused in the Focus Channel strip and it is automatically put into Custom Fader Plug-in mode. In Learn mode, encoder displays for a focused plug-in are blank, showing that it is ready for mapping of parameters to the encoders and B/M/P switches.

LrnTch (Learn Touch) Console Preference

The Learn Touch preference (in the Operation Soft Keys) determines whether controls are active when a plug-in is in Learn mode. When this preference is enabled, encoders and switches will not send commands to Pro Tools while in Learn mode, but will only allow Learn mode operations. This lets you select parameters for mapping from the control surface.

Plug-in Mapping and Channel Strips

D-Control plug-in map parameters are arranged in Channel Strip pages of 6 separately mappable encoders and switches. These pages are displayed one full page at a time on the 6 encoders in D-Control channel strips.

Plug-in Mapping and Custom Fader Bank Size

D-Control plug-in map parameters are arranged in Custom Fader pages of 8 separately mappable encoders and switches.

When plug-in mapping is displayed in Plug-in Custom Fader banks, the arrangement of plug-in map pages follows the setting for Maximum Custom Fader Bank Size for Plug-ins (in the Operation Soft keys).

By default, the Left Custom Fader Bank is used, unless the Left Custom Fader Bank Size (LCF) is set to 0 or the Left Custom Faders are locked. In these cases, the Right Custom Fader Bank is used.

When creating and recalling plug-in maps, it is important to use the same Custom Fader Bank Size setting, so that plug-in maps display consistently. The examples in this section are for a Custom Fader Bank Size of 8 channels.

Putting a Plug-in into Learn Mode

You can put a plug-in into Learn mode directly from D-Control.

To put a plug-in into Learn mode from the control surface:

1 Focus the plug-in in Custom Fader mode.

2 Hold Start (Windows) or Control (Mac) and press the Map switch in the Custom Faders section.

To take a plug-in out of Learn mode from the control surface, do one of the following:

- Hold Start (Windows) or Control (Mac) and press the flashing Map switch in the Custom Faders section.

– or –

- Press the Win switch in the Custom Faders section to close the plug-in window.

Creating and Editing Plug-in Maps

To create a custom map of plug-in parameters:

1 Make sure the LrnTch (Learn Touch) preference (in the Operation Soft Keys) is set to *On*.

2 Open the plug-in whose mapping you want to customize.

3 Put the plug-in into Learn mode. The plug-in is focused with blank encoders and switches, ready for mapping.

4 On the control surface, do one of the following:

- For an EQ or Dynamics plug-in, make sure a plug-in of the same type is displayed in the EQ or Dynamics section of the control surface.

– or –

- For all other plug-in types, display a different instance of the same plug-in type in a second location (for example, on a channel strip in Normal mode, or in another bank of Custom Faders).

5 Touch the encoder or press the switch for the parameter you want to map. The encoder's auto LED or the switch's Mute LED lights.

6 On the encoder where you want to map the parameter, press the encoder Select switch to toggle between the two available views on the control.

7 Map the parameter by doing one of the following:

- Touch the encoder to map a continuous or a switched parameter, or press the B/M/P switch to map a switched parameter.

– or –

- If D-Control is in Flip mode, touch the fader to map a continuous or a switched parameter, or press the channel Select switch to map a switched parameter.

8 Take the plug-in out of Learn mode.

To change parameter mapping in a plug-in map:

1 Make sure the LrnTch (Learn Touch) preference (in the Operation Soft Keys) is set to *On*.

2 Open the plug-in whose mapping you want to change.

3 Choose the map you want to change from the Map Preset pop-up menu.

4 Put the plug-in into Learn mode. The plug-in map is focused on the control surface.

5 On the control surface, do one of the following:

- For an EQ or Dynamics plug-in, make sure a plug-in of the same type is displayed in the EQ or Dynamics section of the control surface.

– or –

- For all other plug-in types, display a different instance of the same plug-in type in a second location (for example, on a channel strip in Normal mode, or in another bank of Custom Faders).

6 Touch the encoder or press the switch for the parameter you want to map. The encoder's auto LED or the switch's Mute LED lights.

7 Locate the encoder where you want to change the mapping, and if necessary, press the encoder Select switch to toggle between the two available views on the control.

8 Touch the encoder or press the B/M/P switch to map the parameter.

9 Take the plug-in out of Learn mode.

To remove parameter mapping from a plug-in map:

1 Make sure the LrnTch (Learn Touch) preference (in the Operation Soft Keys) is set to *On*.

2 Open the plug-in whose mapping you want to change.

3 Choose the map you want to change from the Map Preset pop-up menu.

4 Put the plug-in into Learn mode. The plug-in map is focused on the control surface.

5 Locate the encoder where you want to change the mapping, and if necessary, press the encoder Select switch to toggle between the two available views on the control.

6 Do one of following for each parameter mapping you want to remove:

- If the Parameter menu shows No Control, touch the encoder or press the B/M/P switch to remove the parameter mapping.

– or –

- If the Parameter menu shows the name of a preset, hold Control (Windows) or Command (Mac) and press the B/M/P switch to remove the parameter mapping.

7 Take the plug-in out of Learn mode.

Changing Plug-in Map Presets from D-Control

You can select the next or previous plug-in map for a plug-in directly from D-Control.

To enable the next or previous plug-in map from a channel strip:

1 Focus the plug-in in the channel strip so its controls are visible on the channel strip encoders.

2 Hold Start (Windows) or Control (Mac) and press the Page Up (Next) or Page Down (Previous) switch in that channel strip's Channel Strip Mode controls. The name of the plug-in map preset is shown momentarily in the bottom encoder display.

To enable the next or previous plug-in map from the Custom Faders:

1 Focus the plug-in in the Custom Faders section.

2 Hold Start (Windows) or Control (Mac) and press the Page Up (Next) or Page Down (Previous) switch in a Custom Fader channel. The name of the plug-in map preset is shown momentarily in the Custom Fader channel displays.

To select the next or previous plug-in map on multiple channels, use the Do To All and Do To Selected switches on D-Control.

Plug-in Mapping on D-Command

With D-Command, you can put a plug-in into Learn mode, select parameters for mapping, and independently map two sets of plug-in parameters to each encoder or its associated B/M/P switch, all directly from the control surface.

You can map parameters to encoders and B/M/P switches in both the Custom Faders and in channel strips.

You cannot map controls to the EQ and Dynamics sections of D-Command.

When you put a plug-in into Learn mode, its track is focused in the Focus Channel strip and it is automatically put into Custom Fader Plug-in mode. In Learn mode, encoder displays for a focused plug-in are blank, showing that it is ready for mapping of parameters to the encoders and B/M/P switches.

LrnTch (Learn Touch) Console Preference

The Learn Touch preference (in the Operation Soft Keys) determines whether controls are active when a plug-in is in Learn mode. When this preference is enabled, encoders and switches will not send commands to Pro Tools while in Learn mode, but will only allow Learn mode operations. This lets you select parameters for mapping from the control surface.

Plug-in Mapping and Channel Strips

D-Command plug-in map parameters are arranged in Channel Strip pages of 6 separately mappable encoders and switches. These pages are displayed 2 encoders at a time on D-Command channel strips.

Plug-in Mapping and Custom Fader Bank Size

D-Command plug-in map parameters are arranged in Custom Fader pages of 8 separately mappable encoders and switches.

When plug-in mapping is displayed in Plug-in Custom Fader banks, the arrangement of plug-in map pages follows the setting for Maximum Custom Fader Bank Size for Plug-ins (in the Operation Soft keys).

When creating and recalling plug-in maps, it is important to use the same Custom Fader Bank Size setting, so that plug-in maps display consistently. The examples in this section are for a Custom Fader Bank Size of 8 channels.

Putting a Plug-in into Learn Mode

You can put a plug-in into Learn mode directly from D-Command.

To put a plug-in into Learn mode from the control surface:

1 Focus the plug-in in Custom Fader mode.

2 Hold Start (Windows) or Control (Mac) and press the Map switch in the Custom Faders section.

To take a plug-in out of Learn mode from the control surface, do one of the following:

- Hold Start (Windows) or Control (Mac) and press the flashing Map switch in the Custom Faders section.

– or –

- Press the Win switch in the Custom Faders section to close the plug-in window.

Creating and Editing Plug-in Maps

To create a custom map of plug-in parameters:

1 Make the LrnTch (Learn Touch) preference (in the Operation Soft Keys) is set to *On*.

2 Open the plug-in whose mapping you want to customize.

3 Put the plug-in into Learn mode. The plug-in is focused with blank encoders and switches, ready for mapping.

4 On the control surface, do one of the following:

- For an EQ or Dynamics plug-in, make sure a plug-in of the same type is displayed in the EQ or Dynamics section of the control surface.

– or –

- For all other plug-in types, display a different instance of the same plug-in type in a second location (for example, on a channel strip in Normal mode, or in another bank of Custom Faders).

5 Touch the encoder or press the switch for the parameter you want to map. The encoder's auto LED or the switch's Mute LED lights.

6 On the encoder where you want to map the parameter, press the encoder Select switch to toggle between the two available views on the control.

7 Map the parameter by doing one of the following:

- Touch the encoder to map a continuous or a switched parameter, or press the B/M/P switch to map a switched parameter.

– or –

- If D-Command is in Flip mode, touch the fader to map a continuous or a switched parameter, or press the channel Select switch to map a switched parameter.

8 Take the plug-in out of Learn mode.

To change parameter mapping in a plug-in map:

1 Make the LrnTch (Learn Touch) preference (in the Operation Soft Keys) is set to *On*.

2 Open the plug-in whose mapping you want to change.

3 Choose the map you want to change from the Map Preset pop-up menu.

4 Put the plug-in into Learn mode. The plug-in map is focused on the control surface.

5 On the control surface, do one of the following:

- For an EQ or Dynamics plug-in, make sure a plug-in of the same type is displayed in the EQ or Dynamics section of the control surface.

– or –

- For all other plug-in types, display a different instance of the same plug-in type in a second location (for example, on a channel strip in Normal mode, or in another bank of Custom Faders).

6 Touch the encoder or press the switch for the parameter you want to map. The encoder's auto LED or the switch's Mute LED lights.

7 Locate the encoder where you want to change the mapping, and if necessary, press the encoder Select switch to toggle between the two available views on the control.

8 Touch the encoder or press the B/M/P switch to map the parameter.

9 Take the plug-in out of Learn mode.

To remove parameter mapping from a plug-in map:

1 Make the LrnTch (Learn Touch) preference (in the Operation Soft Keys) is set to *On*.

2 Open the plug-in whose custom map you want to change.

3 Choose the map you want to change from the Map Preset pop-up menu.

4 Put the plug-in into Learn mode. The plug-in map is focused on the control surface.

5 Locate the encoder where you want to change the mapping, and if necessary, press the encoder Select switch to toggle between the two available views on the control.

6 Do one of following for each parameter mapping you want to remove:

- If the Parameter menu shows No Control, touch the encoder or press the B/M/P switch to remove the parameter mapping.

– or –

- If the Parameter menu shows the name of a preset, hold Control (Windows) or Command (Mac) and press the B/M/P switch to remove the parameter mapping.

7 Take the plug-in out of Learn mode.

Changing Plug-in Map Presets from D-Command

You can select the next or previous plug-in map for a plug-in directly from D-Command.

To enable the next or previous plug-in map from a channel strip:

1 Focus the plug-in in the channel strip so its controls are visible on the channel strip encoders.

2 Hold Start (Windows) or Control (Mac) and press the Page Up (Next) or Page Down (Previous) switch in that channel strip's Channel Strip Mode controls. The name of the plug-in map preset is shown momentarily in the bottom encoder display.

To enable the next or previous plug-in map from the Custom Faders:

1 Focus the plug-in in the Custom Faders section.

2 Hold Start (Windows) or Control (Mac) and press the Page Up (Next) or Page Down (Previous) switch in a Custom Fader channel. The name of the plug-in map preset is shown momentarily in the Custom Fader channel displays.

To select the next or previous plug-in map on multiple channels, use the Do To All and Do To Selected switches on D-Command.

ICON Enhancements

(All D-Control and D-Command Systems)

Display of Slave Tracks in VCA Master Tracks

You can turn off the display of slave track controls in the encoders of VCA Master tracks if you don't want to view or adjust slave track controls from the VCA Master channel strip.

To toggle display of slave track controls in VCA Masters:

1 In the Console Prefs Soft Keys section, press the Operation switch repeatedly to display the page that includes the Encoder VCA display preference ("EncVCA").

2 Press the Soft Key that corresponds to "EncVCA" to toggle the setting between "Yes" (display of slave track controls in encoders) and "No" (no display of slave track controls).

3 Hold Control (Windows) or Command (Mac) and press the Operations switch to exit.

Removal of Output and Send Assignments

While in Assign mode (either normal or Assign Matrix), you can quickly remove output and send assignments from D-Control and D-Command.

To remove an output or send assignment:

- Hold Start (Windows) or Control (Mac) and press the Select switch for each output or send assignments you want to remove.

Display of I/O Assignments

On D-Control and D-Command, you can view the I/O assignments for individual channels in a new *I/O view*.

I/O assignments are displayed at the of bottom the channel's encoders, according to track type. Assignments are displayed from top to bottom as follows:

- Audio and Auxiliary Input tracks
  - Input
  - Output
- Instrument tracks
  - MIDI input
  - MIDI output
  - Aux input
  - Aux output
- MIDI tracks
  - MIDI input
  - MIDI output
- Master Fader tracks
  - Output
- VCA Master tracks
  - Group assignment

To view the I/O assignments on a track:

- Press and hold the Sends switch on the track. The Sends switch lights to indicate I/O view.

On D-Command, when an Instrument track's I/O assignments are displayed, press the Page Up and Page Down switches to view additional assignments.

Display of Multiple Output Assignments (Audio or MIDI Tracks)

For audio or MIDI tracks that have multiple output assignments, a Plus (+) sign precedes the output name.

To view the names of multiple output assignments:

1 Press and hold the Sends switch on a track with multiple output assignments. The Sends switch lights to indicate I/O view.

2 Press the B/M/P switch under any output name preceded by a plus (+) sign. The names of output paths "spill" onto the track's encoder displays.

3 To exit output "spill" view, press any of the lit output path B/M/P switches.

To rename an I/O path on an audio track:

1 Press and hold the Sends switch on the track. The Sends switch lights to indicate display of I/O assignments.

2 If you have multiple I/O assignments on the track, press the B/M/P switch under any output name preceded by a plus (+) sign. The names of output paths "spill" onto the track's encoder displays.

3 Hold Start (Windows) or Control (Mac) and press the B/M/P switch under the I/O path you want to rename.

4 Enter a new name for the path.

5 Click OK.

Display of Multiple Assignments (Sends)

For sends that have multiple assignments, a Plus (+) sign precedes the send name.

To view the names of multiple send assignments:

1 Press the Sends switch on a track with multiple send assignments.

2 Hold Control (Windows) or Command (Mac) and press the B/M/P switch under any Send name preceded by a plus (+) sign. The names of send paths "spill" onto the track's encoder displays.

3 To exit send "spill" view, press any of the lit send path B/M/P switches.

To rename a Send path:

1 Press the Sends switch on the track with the Send you want to rename.

2 If you have multiple sends on the track, hold Control (Windows) or Command (Mac) and press the B/M/P switch under any Send name preceded by a plus (+) sign,. The names of send paths "spill" onto the track's encoder displays.

3 Hold Start (Windows) or Control (Mac) and press the B/M/P switch under the send path name.

4 Enter a new name for the path.

5 Click OK.

Interrogation of Bus and I/O Assignments

On D-Control and D-Command, you can quickly identify bus assignments and I/O assignments in a session.

Momentary and Latching Operation

When interrogating bus assignments or I/O assignments, you can display them momentarily or latch them on. (See *Interrogating Bus Assignments* and *Interrogating I/O Assignments*, below.) Latching the display of assignments is useful when banking faders to locate off-bank indications.

To display bus and I/O assignments momentarily:

- Touch the encoder showing the assignment.

To latch display of bus and I/O assignments:

- Double-tap the encoder showing the assignment.

To exit latched display of bus and I/O assignments:

- Press the flashing Escape switch.

Off-Bank Indications

When interrogating bus assignments (in either momentary or latched display), any off-bank assignment are indicated by flashing Bank/Nudge switches. Slow flashing indicates that an assignment is one button press away; Fast flashing indicates that an assignment is multiple presses away. Off-bank indications are shown as follows:

D-Control When interrogating a bus or I/O assignment, the Soft Key display shows "Nudge 1," "Nudge 8" and "Bank." The left and right Soft Keys flash to indicate the presence of off-bank assignments.

D-Command The Bank/Nudge switches flash to indicate the presence of off-bank assignments.

Interrogating Bus Assignments

D-Control and D-Command allow both *forward* interrogation of outputs to bus paths and *reverse* interrogation of inputs from bus paths on Audio tracks or Auxiliary Input tracks.

To interrogate a track output to a bus (forward bus interrogation):

1 Press and hold the Sends switch on a track that has the bus as an output assignment. The channel goes into I/O view, showing the input and output for the track in its channel strip encoders.

2 Touch (or double-tap) the encoder showing the bus assignment on the output. The channel Select switch flashes on tracks with that bus assigned as an input.

To interrogate a send to a bus (forward bus interrogation):

1 Press the Sends switch on a track that has the bus as a Send assignment.

2 Hold Control (Windows) or Command (Mac) and press the B/M/P switch under the send. All sends on the track spill to the track's encoders.

3 Touch (or double-tap) the encoder showing the bus assignment on the send. The channel Select switch flashes on tracks with that bus assigned as an input.

To interrogate a track input from a bus (reverse bus interrogation):

1 Press and hold the Sends switch on a track that has the bus as an input assignment. The channel goes into I/O view, showing the input and output for the track in its channel strip encoders.

2 Touch (or double-tap) the encoder showing the bus assignment on the input. The channel Select switch flashes on tracks with that bus as an output. Both the channel Select switch and the channel Send switch flash on tracks with that bus as a send assignment.

Interrogating I/O Assignments

D-Control and D-Command allow interrogation of matching input or output assignments (including interface, bus, or MIDI paths) on Audio, Auxiliary Input, MIDI, Instrument, or Master Fader tracks.

To interrogate a track input or output:

1 Press and hold the Sends switch on a track that has the input or output assignment. The channel goes into I/O view, showing the input and output for the track in its channel strip encoders.

2 Hold Shift and touch (or double-tap) the encoder showing the input or output assignment. The channel Select switch flashes on all tracks that have the same input or output.

For instructions on interrogating bus and I/O assignments in the Assign Matrix, see the D-Control Guide or D-Command Guide.

Assign Matrix

D-Control and D-Command provide a means of quickly assigning plug-ins, sends, and I/O routing to tracks in a session. Instead of making assignment by drilling down multiple levels on a single encoder, the Assign Matrix feature temporarily uses a 6 x 8 section of encoders (on D-Control) and a 2 x 8 section of encoders (on D-Command) to show multiple layers of navigation at one time.

For complete instructions on using Assign Matrix to assign inserts, sends, and I/O routing, see the D-Control Guide or D-Command Guide.

Enabling Assign Matrix Operation

The AsnMtx (Assign Matrix) console preference (in the Operation Soft Keys) determines whether the control surface follows legacy Assign mode behavior or Assign Matrix operation. When this preference is enabled, Assign Matrix operation is used for assigning Inserts, Sends, or I/O routing on the control surface.

Insert Assign Matrix Mode

The Insert Assign Matrix shows insert positions (A-J), and information about the inserts, such as insert type (TDM, RTAS, HW), plug-in category (such as EQ or DYN), plug-in manufacturer, and plug-in name, in the Assign Matrix encoders.

To enter the Insert Assign Matrix:

1 Press the Inserts switch on the channel where you want to assign an insert.

2 Do one of the following for the insert you want to assign:

- If no insert if present at the insert position, press the encoder Select switch.

– or –

- If an insert is already present, press and hold the encoder Select switch.

Send Assign Matrix Mode

The Send Assign matrix shows send positions (A-J) and information about the sends, such as send type (HW, Bus), and send name, in the Assign Matrix encoders.

To enter the Send Assign Matrix:

1 Press the Sends switch on the channel where you want to assign a send.

2 Do one of the following for the send you want to assign:

- If no send if present at the send position, press the encoder Select switch.

– or –

- If a send is already present, press and hold the encoder Select switch.

I/O Assign Matrix Mode

Depending on the track type, the I/O Assign matrix shows audio or MIDI input and output, VCA group assignment, or Master Fader output in the Assign Matrix encoders.

To enter the I/O Assign Matrix:

1 Press and hold the Sends switch on the channel where you want to assign I/O routing.

2 Press the encoder Select switch for the input, output, or group assignment you want to assign.

Changes to Soft Keys

Pro Tools 8.0 introduces the following changes to the Soft Key pages on D-Control and D-Command.

Soft Keys When No Session is Open

When no Pro Tools session is open, D-Control and D-Command Soft Keys show the following commands:

Window Switch

Page 1

- Task Managr: Window > Task Manager
- Disk Space: Window > Disk Space
- System Usage: Window > System Usage

Page 2

- I/O Setup: Setup > I/O
- HW Setup: Setup > Hardware
- PB Engine: Setup > Playback Engine
- Preferences: Setup > Preferences
- Peripherals: Setup > Peripherals

Audio Files Switch

- Recent Sessions (up to 2 pages)

Soft Keys in Pro Tools

On D-Control and D-Command, the following Soft Keys pages have a new arrangement of commands.

Window Switch

The Window switch displays the following commands:

Page 4

- Window Confgs: Window > Configurations > Window Configuration List
- MIDI Editor: Window > MIDI Editor
- Score Editor: Window > Score Editor

Page 5

- Tile Windws: Window > Arrange > Tile
- Tile Hrzntl: Window > Arrange > Tile Horizontal
- Tile Vertcl: Window > Arrange > Tile Vertical
- Cascde Windws: Window > Arrange > Cascade

Audio Files Switch

The Audio Files switch displays the following commands:

Page 1

- New Sessn: File > New Session
- Open Sessn: File > Open Session
- Close Sessn: File > Close Session
- Revert Sessn: File > Revert to Saved
- Save As: File > Save As
- Save Copy In: File > Save Copy In

Page 2

- Import Audio: File > Import > Audio
- Import MIDI: File > Import > MIDI
- Import SesDat: File > Import > Session Data
- Import RgnGrp: File > Import > Region Groups
- Import Video: File > Import > Video

Page 3

- Export Region: Region List Menu > Export Regions as Files
- Export MIDI: File > Export > MIDI
- Export OMFAAF: File > Export > Selected Tracks as New AAF/OMF
- Export Text: File > Export > Session Info As Text

Pages 4 and 5

- Recent Sessns: Open recent sessions (listed by name)

Edit Modes Switch

The Edit Modes switch displays the following commands:

Page 2

- Tab Trnsnt: Tab to Transients
- Dynamc Trnspt: Options > Dynamic Transport
- Loop Plybck: Options > Loop Playback
- Loop Record: Options > Loop Record

Window Configurations

You can view, create, and edit Window Configurations from the Soft Keys.

To display Window Configurations in the Soft Keys:

1 Hold the Start key (Windows) or Control key (Mac) and press the Mem Loc switch in the Select/MIDI Soft Keys section. The Mem Loc switch flashes to indicate Window Configuration display.

2 If there are more than six Window Configurations, press the Soft Keys that correspond to Page Up and Page Down to view additional configurations.

To recall a Window Configuration from the Soft Keys:

1 Hold the Start key (Windows) or Control key (Mac) and press the Mem Loc switch in the Select/MIDI Soft Keys section.

2 Press the Soft Key that corresponds to the Window Configuration you want to recall.

To create a Window Configuration from the Soft Keys:

1 Hold the Start key (Windows) or Control key (Mac) and press the Mem Loc switch in the Select/MIDI Soft Keys section.

2 Press any Soft Key that corresponds to a blank display.

3 Set the properties of the new Window Configuration in the New Window Configuration dialog.

4 Press the Soft Key that corresponds to Enter to save the Window Configuration.

To edit a Window Configuration from the Soft Keys:

1 Hold the Start key (Windows) or Control key (Mac) and press the Mem Loc switch in the Select/MIDI Soft Keys section.

2 Hold the Start key (Windows) or Control key (Mac) and press the Soft Key that corresponds to the Window Configuration you want to edit.

3 Change the properties of the Window Configuration in the Edit Window Configuration dialog.

4 Press the Soft Key that corresponds to Enter to save the Window Configuration.

To delete a Window Configuration from the Soft Keys:

1 Hold the Start key (Windows) or Control key (Mac) and press the Mem Loc switch in the Select/MIDI Soft Keys section.

2 Hold the Alt key (Windows) or Option key (Mac) and press the Soft Key that corresponds to the Window Configuration you want to delete.

Memory Locations

You can create new Memory Locations from the Soft Keys.

To create a new Memory Location from the Soft Keys:

1 Press the Mem Loc switch in the Select/MIDI Soft Keys section. The Mem Loc switch lights to indicate Memory Location display.

2 Press any Soft Key that corresponds to a blank display.

3 Set the properties of the new Memory Location in the New Memory Location dialog.

4 Press the Soft Key that corresponds to Enter to save the Memory Location.

To edit a Memory Location from the Soft Keys:

1 Press the Mem Loc switch in the Select/MIDI Soft Keys section. The Mem Loc switch lights to indicate Memory Location display.

2 If there are more than six Memory Locations, press the Soft Keys that correspond to Page Up and Page Down to view additional locations.

3 Hold the Start key (Windows) or Control key (Mac) and press the Soft Key that corresponds to the Memory Location you want to edit.

4 Change the properties of the Memory Location in the Edit Memory Location dialog.

5 Press the Soft Key that corresponds to Enter to save the Memory Location.

To delete a Memory Location from the Soft Keys:

1 Press the Mem Loc switch in the Select/MIDI Soft Keys section.

2 Hold the Alt key (Windows) or Option key (Mac) and press the Soft Key that corresponds to the Memory Location you want to delete.

D-Control Enhancements

The following enhancements apply to D-Control systems.

Display of Insert and Send Positions

You can set D-Control to display Send and Insert letters on send and insert positions with no assignment.

To enable display of Insert and Send letters:

1 In the Console Prefs Soft Keys section, press the Operation switch repeatedly to display the page that includes Show Send/Insert Letters ("Lettrs").

2 Press the Soft Key that corresponds to "Lettrs" to toggle the setting between "On" and "Off."

3 Hold Control (Windows) or Command (Mac) and press the Operations switch to exit.

D-Control and D-Command encoder and channel strip displays show Insert and Send information as follows:

- With the Show/Send Insert Letters preference enabled, inserts with no assignments show only uppercase letters (A–J) in the corresponding positions.
- With the Show/Send Insert Letters preference enabled, sends with no assignments show only lowercase letters (a–j) in the corresponding positions.
- Inserts and Sends with assignments show the only the Insert or Send name and no letters.

Focusing Plug-ins in Custom Fader Mode

You can set D-Control to focus plug-ins directly in Custom Faders instead of channel strips.

To enable focusing of plug-ins in Custom Faders on D-Control:

1 In the Console Prefs Soft Keys section, press the Operation switch repeatedly to display the page that includes Channel Editing for Plug-ins ("ChanPI").

2 Press the Soft Key that corresponds to "ChanPI" to toggle the setting between "On" (to focus plug-ins on Custom Faders) and "Off" (to focus plug-ins in channel strips).

3 Hold Control (Windows) or Command (Mac) and press the Operations switch to exit.

To focus a plug-in directly in Custom Faders:

1 Press the Inserts switch for the channel to display plug-in names on the channel's encoders. Press the Page Up and Page Down switches on the channel to display additional plug-ins.

2 Press the encoder Select switch for the plug-in you want to focus.

The controls of the focused plug-in appear in Custom Fader Plug-in mode.

To focus a plug-in using the opposite mode from the current ChanPI setting:

- Hold Control+Alt (Windows) or Command+Option (Mac) when pressing the encoder Select switch for a plug-in.

Changes to Soft Keys

On D-Control, various Soft Key pages have new or rearranged commands.

Operation Switch

Page 6

AsnMtx (Assign Matrix Enable) Determines whether Assign Matrix or normal Assign mode operation is used for assigning inputs, outputs, inserts and sends.

MtxJst (Matrix Select Area Justification) Determines whether Assign Matrix rows are arranged from Top to Bottom or Bottom to Top on the encoders.

PIClmn (Plug-in Menu Column Width) Determines the number of plug-in names displayed per row in the Assign Matrix

IOClmn (I/O Menu Column Width) Determines the number of I/O labels displayed per row in the Assign Matrix

MtxRws (Assign Matrix Rows) Determines the number of rows used to display elements in the Assign Matrix

MtxLck (Assign Matrix Lock) Determines whether the Assign Matrix is locked by default or needs to be put into lock mode manually.

Page 7

ChanPI (Channel Strip Editing for Plug-ins) Toggles the preference setting that enables display of plug-in parameters directly on D-Control channel encoders.

EncVCA (VCA Encoder Display) Determines whether VCA slave track controls are displayed in the encoders of VCA Master channels

LrnTch (Learn Touch) Determines whether D-Control encoders and switches are active when a plug-in is in Learn mode.

Lettrs (Show Send/Insert Letters) Determines whether D-Control displays Send and Insert letters on send and insert positions with no assignments

D-Command Enhancements

The following enhancements apply to D-Command systems.

Support for 40-Fader Configuration

Up to two Fader Modules can be added to a D-Command Main Unit for a total of 40 faders. The Main Unit and Fader Modules can be arranged in any order from left to right.

Maximum Custom Fader Bank Size

The Maximum Custom Fader Bank Size preference determines the number of channels to be used when displaying channels in the Custom Fader modes.

You can choose settings for the 32-fader and 40-fader sizes (indicated by the prefix "Min") that use the minimum number of channels necessary, so that the Custom Fader section dynamically resizes to match the number of channels in the group.

For a 40-fader D-Command system, Maximum Custom Fader Bank Size options include 4, 8, 16, 24, 32, Min32, 40 and Min40.

To set the maximum Custom Fader bank size:

1 In the Soft Keys section, press the Operation switch repeatedly to display the page that includes the following Custom Fader Bank Size preferences:

CFPlug (CF Bank Size for Plug-ins) Determines the number of channels allocated for Custom Fader Plug-in mode.

CF Grp (CF Bank Size for Custom and Mix/Edit Groups) Determines the number of channels allocated for Custom Groups mode.

CFTyp (CF Bank Size for Track Type) Determines the number of channels allocated for Custom Fader Tracks mode.

2 Do one of the following:

- To increment the number of channel strips, press the Soft Key that corresponds to the preference setting you want to change.

– or –

- To decrement the number of channel strips, hold Shift and press the Soft Key that corresponds to the preference setting you want to change.

3 Hold Control (Windows) or Command (Mac) and press the Operation switch to exit.

New "Auto Write To" Switch Layout

On D-Command, the "Auto Write To" switches now invoke the manual "Write to Start/End/All/Punch/Next" commands and the automatic "Write to Start/End/All/Punch/Next on Stop" automation commands in Pro Tools.

The new switch mapping includes all of the Manual Write and Write on Stop commands available in the Pro Tools Automation window.

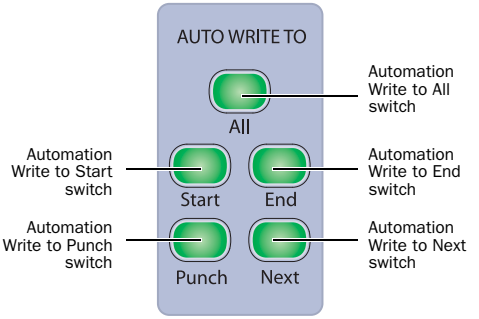
The "Write to Start/End/All/Punch/Next" commands can also be invoked from the Soft Keys section of D-Control.

The "Write/Trim/Glide to Current" and "Write/Trim/Glide to All Enabled" commands remain available from the D-Command Soft Keys.

D-Command Switch Labels

D-Command ES If you have a D-Command ES, you will need to remove the temporary Lexan overlay on the "Auto Write To" section of the Main Unit to reveal the new "Auto Write To" switch labels.

D-Command If you have a D-Command, you will need a new Lexan overlay to update the "Auto Write" section on the Main Unit. For information on obtaining this Lexan overlay, contact Digidesign Customer Service. To find the number of your local Digidesign Customer Service office, visit the Digidesign website at www.digidesign.com.



"Auto Write To" switches

All Switch

The All switch writes the current automation value of all write-enabled parameters to an entire selection or track when performing an automation pass.

To manually write automation to all of a track or selection:

- Press the All switch during playback.

To write automation to all of a track or selection on stop:

- Hold the Start key (Windows) or the Control key (Mac) and press the All switch.

To set Write to All on Stop to remain enabled after each automation pass:

- Hold the Alt+Start keys (Windows) or the Option+Control keys (Mac) and press the All switch.

To disable automatic Write to All on Stop:

- Press the All switch.

Start Switch

The Start switch writes the current automation value of all write-enabled parameters to the start of a selection or track when performing an automation pass.

To manually write automation to the start of a track or selection:

- Press the Start switch during playback.

To write automation to the start of a track or selection on stop:

- Hold the Start key (Windows) or the Control key (Mac) and press the Start switch.

To set Write to Start on Stop to remain enabled after each automation pass:

- Hold the Alt+Start keys (Windows) or the Option+Control keys (Mac) and press the Start switch.

To disable Write to Start on Stop:

- Press the Start switch.

End Switch

The End switch writes the current automation value of all write-enabled parameters to the end of a selection or track when performing an automation pass.

To manually write automation to the end of a track or selection:

- Press the End switch during playback.

To write automation to the end of a track or selection on stop:

- Hold the Start key (Windows) or the Control key (Mac) and press the End switch.

To set Write to End on Stop to remain enabled after each automation pass:

- Hold the Alt+Start keys (Windows) or the Option+Control keys (Mac) and press the End switch.

To disable automatic Write to End on Stop:

- Press the End switch.

Punch Switch

The Punch switch writes the current automation value of all write-enabled parameters back to the punch point (the location in the track where the current automation pass started).

To manually write automation back to the punch point:

- Press the Punch switch during playback.

To write automation back to the punch point on stop:

- Hold the Start key (Windows) or the Control key (Mac) and press the Punch switch.

To set Write to Punch on Stop to remain enabled after each automation pass:

- Hold the Alt+Start keys (Windows) or the Option+Control keys (Mac) and press the Punch switch.

To disable automatic Write to Punch on Stop:

- Press the Punch switch.

Next Switch

The Next switch writes the current automation value of all write-enabled parameters forward to the next automation breakpoint.

Unlike the other Write To commands, the Write to Next on Stop command always remains enabled after each automation pass, until you disable it.

To manually write automation forward to the next breakpoint:

- Press the Next switch during playback.

To set Write to Next on Stop to remain enabled after each automation pass:

- Hold the Start key (Windows) or the Control key (Mac) and press the Next switch.

To disable automatic Write to Next on Stop:

- Press the Next switch.

Display of Insert and Send Positions

D-Command encoder and channel strip displays show Insert and Send information as follows:

- Inserts with no assignments show only uppercase letters (A–J) in the corresponding positions.
- Sends with no assignments show only lowercase letters (a–j) in the corresponding positions.
- Inserts and Sends with assignments show the only the Insert or Send name and no letters.

Focusing Plug-ins in Channel Strips

You can set D-Command to focus plug-ins directly in channel strips instead of Custom Faders, so that plug-in parameters can be edited and automated from the channel strip.

To enable focusing of plug-ins in D-Command channel strips:

1 In the Console Prefs Soft Keys section, press the Operation switch repeatedly to display the page that includes Channel Editing for Plug-ins ("ChanPI").

2 Press the Soft Key that corresponds to "ChanPI" to toggle the setting between "On" (to focus plug-ins on channel strips) and "Off" (to focus plug-ins in Custom Faders).

3 Hold Control (Windows) or Command (Mac) and press the Operations switch to exit.

To focus a plug-in on a channel strip:

1 Press the Inserts switch for the channel to display plug-in names on the channel's encoders. Press the Page Up and Page Down switches on the channel to display additional plug-ins.

2 Press the encoder Select switch for the plug-in you want to focus.

The controls of the focused plug-in appear on the channel's encoders. You can page through the plug-in's controls by pressing the Page Up and Page Down switches on the channel.

To focus a plug-in using the opposite mode from the current ChanPI setting:

▪ Hold Control+Alt (Windows) or Command+Option (Mac) when pressing the encoder Select switch for a plug-in.

Changing Plug-in Presets from Channel Strips

You can activate the next or previous settings in the Plug-in Librarian menu directly from any channel strip or from the Custom Fader section.

To enable the next or previous plug-in setting from D-Command:

1 Do one of the following:

- Focus the plug-in in a channel strip so its controls are visible on the channel strip encoders.

– or –

- Focus the plug-in in the Custom Faders section.

2 Hold Control (Windows) or Command (Mac) and press the Page Up (Next) or Page Down (Previous) switch in the channel's Channel Strip Mode controls.

Changes to Soft Keys

On D-Command, various Soft Key pages have new or rearranged commands.

Actions Switch

To more closely reflect the arrangement of the "Auto Write To" switches on the D-Command surface, the following Actions switch pages have a new arrangement of commands:

Page 2

Wrt To All (Write to All) Writes current automation values to an entire selection or track while performing an automation pass.

Snap Back Causes all Latch or Write enabled tracks to exit their current automation pass and return instantly to the previously written automation levels. During playback, this command stops writing of automation without applying any AutoMatch ramping.

Wrt To Start (Write To Start) Writes current automation values from the insertion point backward to the beginning of a selection or track while performing an automation pass.

Wrt To End (Write to End) Writes current automation values from the insertion point forward to the end of a selection or track while performing an automation pass.

Wrt To Punch (Write To Punch Point) Writes current automation values back to the point where writing of automation began

Wrt To Next (Write to Next Breakpoint) Writes current automation values from the insertion point forward to the next automation breakpoint while performing an automation pass.

Automation Modes Switch

To more closely reflect the arrangement of the "Auto Write To" switches on the D-Command surface, the following Modes switch pages have a new arrangement of commands:

Page 1

AWrtTo All (Auto Write to All on Stop) Writes current automation values to an entire selection or track when the transport is stopped after an automation pass.

By default, Automatic Write to All on Stop mode is enabled for a single automation pass only. To configure the mode to remain enabled after an automation pass, hold Start+Alt (Windows) or Control+Option (Mac) while pressing the AWrtTo All switch.

AWrtTo Start (Auto Write to Start on Stop) Automatically writes current automation values from the insertion point backward to the beginning of a selection or track when the transport is stopped after an automation pass.

By default, Automatic Write to Start on Stop mode is enabled for a single automation pass only. To configure the mode to remain enabled after an automation pass, hold Start+Alt (Windows) or Control+Option (Mac) while pressing the AWrtTo Strt switch.

AWrtTo Punch (Auto Write to Punch Point on Stop) Writes current automation values back to where the current automation pass began.

By default, Automatic Write to Punch Point on Stop mode is enabled for a single automation pass only. To configure the mode to remain enabled after an automation pass, hold Alt (Windows) or Option (Mac) while pressing the AWrtTo Punch switch.

Auto Join Auto Join is used in Latch mode to automatically resume writing of automation after the transport is stopped and started again during an automation pass.

AWrtTo End (Auto Write to End on Stop) Writes current automation values from the insertion point forward to the end of a selection or track when the transport is stopped after an automation pass.

By default, Automatic Write to End on Stop mode is enabled for a single automation pass only. To configure the mode to remain enabled after an automation pass, hold Start+Alt (Windows) or Control+Option (Mac) while pressing the AWrtTo End switch.

AWrtTo Next (Auto Write to Next Breakpoint on Stop) Writes current automation values from the insertion point forward to the next automation breakpoint when the transport is stopped after an automation pass.

Automatic Write to Next Breakpoint on Stop remains enabled after each automation pass, until you disable it by pressing the lit AWrtTo Next switch.

Operation Switch

Page 4

Import PIMaps (Import Plug-in Maps) Opens "Choose a mapping file" dialog in Pro Tools.

Export PIMaps (Export Plug-in Maps) Opens "Save Plug-in Mapping As" dialog in Pro Tools.

Faders (Faders On/Off) Turns off D-Command faders to prevent fader movement when monitoring a mix.

FilBnk (Always Fill Channel Strips When Banking)

Toggles the preference setting that maximizes the number of channels displayed in Normal mode when banking. When selected, banking follows end stop behavior.

FillCF (Always Fill Custom Faders When Banking)

Toggles the preference setting that maximizes the number of channels displayed in Custom Faders when banking. When selected, banking follows end stop behavior.

ChanPI (Channel Strip Editing for Plug-ins) Toggles the preference setting that enables display of plug-in parameters directly on D-Command channel encoders.

Operation Switch

Page 5

AsnMtx (Assign Matrix Enable) Determines whether Assign Matrix or normal Assign mode operation is used for assigning inputs, outputs, inserts and sends.

MtxJst (Matrix Select Area Justification) Determines whether Assign Matrix rows are arranged from Top to Bottom or Bottom to Top on the encoders.

PIClmn (Plug-in Menu Column Width) Determines the number of plug-in names displayed per row in the Assign Matrix

IOClmn (I/O Menu Column Width) Determines the number of I/O labels displayed per row in the Assign Matrix

MtxLck (Assign Matrix Lock) Determines whether the Assign Matrix is locked by default or needs to be put into lock mode manually.

EncVCA (VCA Encoder Display) Determines whether VCA slave track controls are displayed in the encoders of VCA Master channels

chapter 11

Pro Tools Satellite Link Software Option

The Digidesign Satellite Link option lets you link up to 5 Pro Tools systems (or up to 4 Pro Tools systems and an Avid Media Composer or Video Satellite LE system) over an Ethernet network. You can cue, play, and stop the transports, make play selections, and solo tracks across any of the systems from any linked workstation.

Video Satellite LE provides limited Satellite Link features. For more information on using Satellite Link with Video Satellite LE, see the Video Satellite LE Guide.

From each linked Pro Tools system, Satellite Link lets you link and unlink networked systems and see the link status of other connected systems.

By setting Satellite Link preferences, you can configure those Pro Tools systems for single- or multi-operator workflows

Satellite Link can be used simultaneously with MachineControl™. Satellite Link allows one linked Pro Tools system to go online and drive a 9-pin capable device.

On systems with a D-Control console, Satellite Link can work in conjunction with D-Control Multi-mode, allowing you to operate the transport of any of the networked Pro Tools systems from the D-Control Transport section.

System Requirements

Satellite Link requires a Digidesign-qualified Pro Tools|HD system running Pro Tools 8.0 or higher.

Each satellite Pro Tools system must have an iLok authorization for the Satellite Link option and have an Ethernet connection to a Local Area Network (LAN). The administrator Pro Tools system does not require an iLok authorization.

In addition, each Pro Tools system in a Satellite Link network must be resolved to a common video reference, or "house sync," using a Digidesign SYNC HD™ or SYNC I/O™.

To use Media Composer with Satellite Link, Media Composer 3.1 with the Video Satellite option is required.

System Connections

Satellite Link requires all linked systems to be connected to an Ethernet Local Area Network and to be synced to a common video reference using a Digidesign SYNC HD or SYNC I/O.

It is required that all systems be on the same subnet, and recommended that all systems be on the same Ethernet switch, in order to minimize response time over the network.

Configuring Satellite Link

Configuring Network Settings

Satellite Link systems communicate over an Ethernet LAN. You can configure the network settings on each Pro Tools system to build one or more Satellite Link networks on the same LAN.

Ethernet Interface

On computers with multiple Ethernet interfaces, you can select the interface you want to use for Satellite Link communications.

To select the Ethernet interface for Satellite Link:

1 Choose Setup > Peripherals and click Satellites.

2 Under Advanced Network Settings, choose the Ethernet interface from the Interface pop-up menu.

3 Click OK.

TCP/UDP Port

Systems in a Satellite Link network need to use the same TCP/UDP port to communicate. Available satellite systems will only appear on other satellite systems using the same port.

By default, Satellite Link uses TCP/UDP port 28282.

If the default port is already in use, or if you want to set up separate Satellite Link networks, you can select a different TCP/UDP port for Satellite Link communication.

To select the TCP/UDP port for Satellite Link communication:

1 Choose Setup > Peripherals and click Satellites.

2 Under Advanced Network Settings, enter the TCP/UDP port number you want the system to use.

3 Click OK.

Configuring a Satellite Link Network

To set up Pro Tools systems or Video Satellite LE for Satellite Link operation, one Pro Tools system on the network must be designated as an *administrator* system.

Other systems on the network are set up as *satellite* systems, then they are declared from the administrator system.

Configuring Satellite Systems

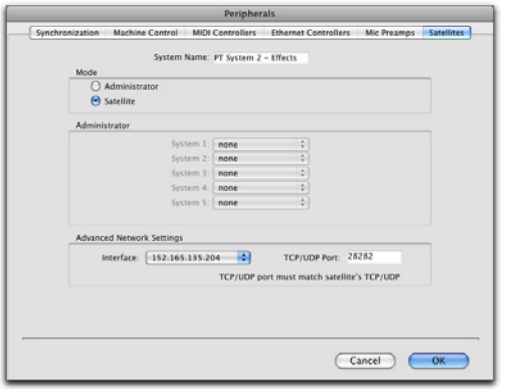
Do the following for each Pro Tools system you want to configure as a Satellite Link satellite:

1 Choose Setup > Peripherals and click Satellites.

2 In the System Name text box, enter a name for the system.

3 Under Mode, choose Satellite.

4 Click OK.



Configuring a satellite in the Satellites page of the Peripherals dialog

To configure a Media Composer system as a Video Satellite:

1 In Media Composer, choose Edit > Preferences.

2 In the Project window, click the Settings Tab and double-click Video Satellite.

3 In the Video Satellite Settings window, select Video Satellite Mode.

4 Click OK.

Configuring an Administrator System

If a Pro Tools system does not have the Satellite Link option installed, it can only operate as an administrator. You can, however, change a satellite system to an administrator system.

To configure a Pro Tools system as a Satellite Link administrator:

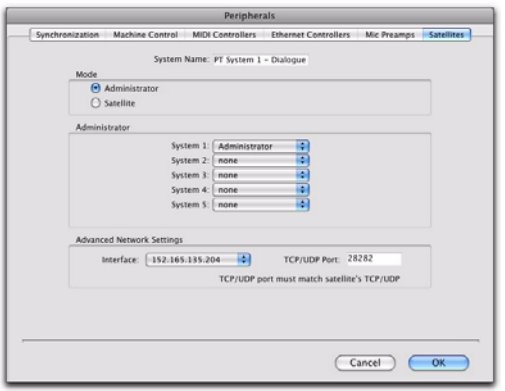
1 Choose Setup > Peripherals and click Satellites.

2 In the System Name text box, enter a name for the system.

3 Under Mode, choose Administrator.

4 Under Administrator, choose the current system from the System 1 pop-up menu.

5 Click OK.



Configuring a satellite in the Satellites page of the Peripherals dialog

Declaring Satellites

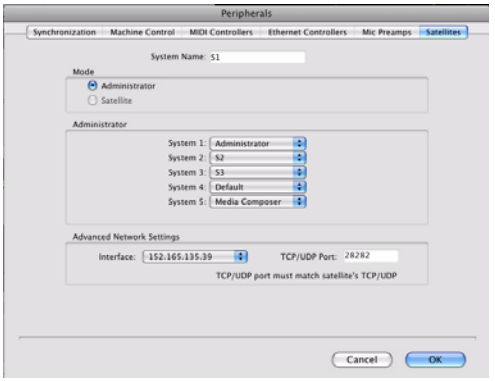
When systems have been configured as satellites, they become available on the administrator system. The satellite systems are then declared to build the Satellite Link network.

To declare satellite systems:

1 On the administrator system, choose Setup > Peripherals and click Satellites.

2 Under Administrator, declare the systems you want to use as satellites from the System 2–5 pop-up menus.

3 Click OK.



Declared satellites in the in the Satellites page of the Peripherals dialog

Systems 1–5 appear, in order, from left to right, in the Synchronization section of the Transport window.

Declared satellites in the in the Synchronization section of the Transport window

Linking Satellite Systems

When a Pro Tools system has been declared as a satellite, it can then be placed in a linked state. When a system is linked, the following features/commands can be controlled across all linked systems:

- Linking and unlinking of the system
- Transport controls (Stop, Play, FF, Rew)
- Play selections
- Scrub/Shuttle location
- Channel solo (including Solo clear)
- Clearing system errors (such as DAE errors)

Satellite Link Controls

When a Pro Tools system has been declared as a satellite, the following Satellite Link controls appear in the Transport window:

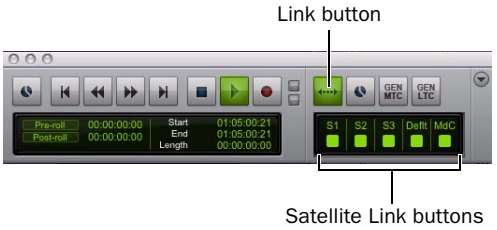
Link Button Controls the link status of the local system.

Satellite Link Buttons Control the link status of the other satellite systems. On every system, one of these buttons corresponds to that system's main Link button.

Link buttons highlight to indicate linked status.

To display Satellite Link controls in the Transport window:

- Choose View > Transport > Synchronization and View > Transport > Expanded.



Satellite Link controls in the Transport window

To link or unlink the local Pro Tools system:

- Click the Link button in the Transport window.

To link or unlink other satellite systems:

- Click the corresponding Satellite Link button in the Transport window.

To link or unlink all declared satellite systems:

- Alt-click (Windows) or Option-click (Mac) the Link button or a Satellite Link button in the Transport window.

Linking Systems During Playback

You can link a system while it or any other linked system is playing back ("join in play"), and the transports will play in sync. In cases where both systems are playing back, the newly linked system will cue to the location of the system on which the link was initiated.

Linking Play Selections

You can set linked Pro Tools systems to transmit and receive play selections from other satellite systems. This lets you configure your setup to selectively mirror Edit window selections between systems, or to have all systems mirror Edit window selections on all other systems.

◆ If you are working in a multi-user dub stage environment where dialog, FX, and music reside on different systems, it can be useful to set those systems to only transmit play selections, and set the recorder/video Pro Tools system to only receive play selections.

◆ If you are working in a single-user mix environment and are moving between systems, it can be useful to set all systems to transmit and receive play selections, so that you can work with the same selection on any system.

To set satellite Pro Tools systems to mirror play selections on other satellite systems

1 On the systems where you will be making play selections, do the following:

- Choose Setup > Preferences and click Synchronization.

– and –

- In the Satellites section of the Synchronization page, select the Transmit Play Selections option.

2 On the systems that you want to mirror the play selections, do the following:

- Choose Setup > Preferences and click Synchronization.
- In the Satellites section of the Synchronization page, select the Receive Play Selections option.

3 Make sure the systems are linked.

Solo Linking

You can set linked Pro Tools systems to transmit the solo status of their tracks and receive solo status information from other satellite systems.

◆ If you are working in a multi-user dub stage environment where dialog, FX, and music reside on different systems, it can be useful to set those systems to send and receive solos, and set the recorder/video Pro Tools system so that it does not transmit or receive solos.

◆ If you are working in a single-user mix environment and are moving between systems, it might be useful to set all systems to transmit and receive solos, so that solos propagate across all systems.

◆ When Solo Linking is enabled, tracks on all systems retain their Solo Safe status.

◆ When Solo Linking is enabled, a Solo Clear operation (Option+Solo) clears all solos on systems set to receive solos.

To set satellite Pro Tools systems to transmit or receive solo status:

1 On the systems that you want to solo tracks, do the following:

- Choose Setup > Preferences and click Synchronization.

– and –

- In the Satellites section of the Synchronization page, select the Transmit Solos option.

2 On the systems where you want tracks to follow solo behavior for solos on other systems, do the following:

- Choose Setup > Preferences and click Synchronization.

– and –

- In the Satellites section of the Synchronization page, select the Receive Solos option.

3 Make sure the systems are linked.

Using Solo Link without Linking Transport Controls

if you are synchronizing multiple Pro Tools systems to an external synchronizer, you can still take advantage of the Solo Link feature.

You can set a satellite Pro Tools system to always send its solo status, whether linked or unlinked, so you can solo tracks across systems without linking transport controls.

To set a satellite Pro Tools system to always solo even when it is not linked:

1 Choose Setup > Preferences and click Synchronization.

2 In the Satellites section of the Synchronization page, select the Solo Independent of Linked State option.

Solo Link Behavior in the Solo Modes

Solo in Place With Solo Link, when using Solo In Place, the mode of solo operation is determined by the system transmitting the solo.

◆ If a linked system is in Solo Latch mode, soloing a track on that system adds to the number of tracks in solo, regardless of the solo mode of other systems set to receive solos.

◆ If a linked system is in Solo X-OR mode, soloing a track on that system cancels all other system's solos regardless of the solo mode of other systems set to receive solos.

AFL and PFL Modes With Solo Link, AFL and PFL solos on a linked system have no effect on other systems.

An AFL-soloed track on a linked system can be muted by a Solo In Place on another system. To avoid this, use PFL instead of AFL.

Satellite Link Operation

Clearing Errors on Linked Systems

By default, linked systems will continue to operate if one of the systems experiences an error and its transport stops. Any error message on a linked system appears in the tool tip for the corresponding Satellite Link button in the Transport window.

You can set each system to stop playback when it experiences an error.

To clear an error dialog on a linked system:

▪ In the Transport window on another linked system, Shift-click the Satellite Link button for the affected system.

To set a linked system to stop the transport on all systems when an error occurs:

▪ Make sure the DAE Errors Stop All Linked Systems option is selected in the Synchronization Preferences.

To set all systems to stop the transport when an error occurs, make sure this option is selected on all linked systems.

Playback and Dialogs

Linked systems will stop playback (or prevent playback from starting) if a modal dialog (such as the I/O Setup, Hardware Setup, or Playback Engine dialog) is opened on any linked system.

⚠ *To avoid interrupting playback on another system when opening a modal dialog, unlink the system before opening the dialog.*

Using Satellite Link with MachineControl

Satellite Link lets you use MachineControl on one linked Pro Tools system at a time.

◆ When one linked Pro Tools system is already online and you go online with another linked Pro Tools system, Satellite Link will automatically take the first system off-line.

◆ Any linked Pro Tools systems set to "Transport=Pro Tools" will follow Satellite Link transport commands.

◆ Any linked Pro Tools systems set to "Transport=Machine" cannot transmit Satellite link transport commands, but will follow transport commands only if they are offline.

Control Surface Support for Satellite Link

Linking Satellite Systems

(D-Control, D-Command, and C|24)

To link or unlink the local Pro Tools system:

▪ Hold Control (Windows) or Command (Mac) and press the Online switch in the Transport section.

Satellite Link Soft Keys

(D-Control and D-Command)

To link or unlink other satellite systems:

1 Hold Control (Windows) or Command (Mac) and press the Modes switch in the Automation Soft Keys section.

2 Press the Soft Key that corresponds to the name of the system that you want to link or unlink.

The Soft Key lights solid to indicate that the corresponding system is linked, and flashed to indicate that the corresponding system is displaying an error.

To link or unlink all declared satellite systems:

▪ Hold Alt+Control (Windows) or Option+Command (Mac) and press the Online switch in the Transport section.

To set the local system to transmit solo:

To toggle the solo transmit status of the local Pro Tools system:

1 Hold Control (Windows) or Command (Mac) and press the Modes switch in the Automation Soft Keys section.

2 Press the Soft Key that corresponds to "Transmit Solo."

The Soft Key lights solid to indicate that transmit solo is enabled.

chapter 12

Pro Tools Video and Avid Interoperability Improvements

Support for QuickTime HD

Pro Tools 8.0 offers professional quality support of most SD and HD Quicktime video formats, including 720p, 1080p, and 1080i at all standard frame rates.

Most common QuickTime codecs are now supported, including HD codecs such as h.264, DVCPro 100, and HDV.

Monitoring QuickTime HD or SD Video Through a PCIe Video Card

(Mac Only)

With a Digidesign-qualified PCIe video card, Pro Tools can play and display QuickTime SD or QuickTime-based HD video files with frame edge-locked HD image output to a variety of professional HD monitors.

To Play QuickTime video through PCIe:

1 Import a QuickTime video file into a Pro Tools session.

2 Select Options > Video Out PCIe.

When this option is enabled, Pro Tools will play the video out the PCIe video card to the connected HD monitor.

If the Video window is open while video plays out the PCIe video card, it displays text indicating that video is playing out PCIe.

To toggle output of QuickTime video between the Video window and PCIe, do one of the following:

- Select (or deselect) Options > Video Out PCIe.

  – or –

- Right-click, or Control-click, the Video window, and select (or deselect) Video Out PCIe

Video Reference

Video output can be locked to external video reference, including Black Burst and Tri-Level Sync.

⚠ *Pro Tools should be locked to a suitable clock reference, such as a Digidesign SYNC peripheral. If no external audio clock is referenced, audio will not be frame-edge aligned and may drift.*

Supported QuickTime Codecs

Most common QuickTime codecs are supported, including HD codecs such as h.264, DVCPro 100, and HDV.

Supported Video Formats

Supported Video Formats using PCIe

Video Format*	Video Reference Rate	PT Frame Rate	Video Output Format*
23.976p NTSC	NTSC	23.976	NTSC
720p/ 23.976	720p/ 59.94 or NTSC	23.976	720p/ 59.94
1080p/ 23.976	1080psf/ 23.98	23.976	1080psf/ 23.98
24p NTSC	NTSC	24	NTSC
24p PAL	PAL	24	PAL
1080p/ 24	1080psf/ 24	24	1080psf/ 24
25p PAL	PAL	25	PAL
25i PAL	PAL	25	PAL
1080p/ 25	1080i/50 or PAL	25	1080i/50
30i NTSC	NTSC	29.97	NTSC
720p/ 29.97 HDV	720p/ 59.94 or NTSC	29.97	720p/ 59.94
720p/50	720p/50 or PAL	25	720p/50
1080i/50	1080i/50 or PAL	25	1080i/50
720p/ 59.94	720p/ 59.94 or NTSC	29.97	720p/ 59.94
1080i/ 59.94	1080i/ 59.94 or NTSC	29.97	1080i/ 59.94

** The video output format may be displayed on the external monitor.*

AAF Pan Improvements with DigiTranslator 2.0

With DigiTranslator 2.0, Pro Tools 8.0 includes improvements for importing Avid generated AAF sequences with clip-based pan and support for automation (keyframe) pan.

Pro Tools Support for Avid Interplay on Windows Vista

Pro Tools HD systems running Windows Vista are now able to work with the Avid Interplay Media Management system.

Media Composer Video Satellite Software Option

Building on the success of the previous Media Station|PT-based Video Satellite Option, the new Media Composer Video Satellite Option includes the following enhanced features:

HD Video Support

- Adds Avid HD video workflows to Pro Tools
- Provides professional-quality Avid HD video I/O using Mojo DX or Nitris DX

Increased Functionality

- Full-featured Media Composer software provides extensive video workstation functionality
- Provides support for Windows Vista

Video Satellite LE Software Option

The Video Satellite LE Software option enables a dedicated Pro Tools LE system for video playback, synchronized to a main Pro Tools|HD system over ethernet. The main Pro Tools|HD system functions as the master transport. The satellite Pro Tools LE system with the Video Satellite LE option provides high-quality QuickTime HD and SD playback, or Avid SD video playback with Mojo SDI, to an external video monitor. This lets you place all of the video processing on a single dedicated Pro Tools LE system, freeing up the main Pro Tools|HD system for audio mixing and processing tasks.

The Video Satellite LE option is supported with a Digidesign-qualified Mac Pro computer, a Pro Tools LE system with Mbox 2 Micro, and a Digidesign-qualified Blackmagic video card or Avid Mojo SDI. The Pro Tools|HD system can be Mac or Windows.

For more information, see the Video Satellite LE Guide.

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