Live Recording Guide

for VENUE Systems and Pro Tools ®

Legal Notices

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Documentation Feedback

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Contents

Chapter 1: Introduction

Welcome to the *Live Recording Guide for VENUE Systems and Pro Tools*. This guide is for VENUE users that are recording and playing back audio in live performances using Pro Tools®. Refer to this guide to help you:

◆ Make hardware connections between your VENUE and Pro Tools systems.

◆ Configure your VENUE and Pro Tools systems for recording and playback.

◆ Record live audio to your Pro Tools system.

◆ Play back Pro Tools audio through your VENUE system.

◆ Simplify and enhance live recording and playback using VENUE Link.

◆ Troubleshoot common issues.

VENUE Recording Options

All VENUE recording/playback options offer (FWx, VENUE HDx, and MADI) *assignable* inputs and outputs, which you can use to record and play back Pro Tools audio.

Additionally, the VENUE HDx card and the VENUE MADI card offer pre-fader, pre-digital gain direct digital splits of Stage Input channels. These systems support several different operating modes for recording and playing back Pro Tools audio, including Virtual Soundchecks.

All Systems

All VENUE recording/playback options offer assignable inputs and outputs. Assignables are patched in the VENUE system Patchbay, and are freely available in all operating modes.

Using assignables, you can do any or all of the following while simultaneously mixing a live performance:

- Record the Main L/R mix using Direct Outs. See “Recording the Main L/R Mix” on page 28.
- Record submixes (or stems) using VENUE system bus outputs. See “Recording Submixes” on page 30.
- Assign Pro Tools tracks to any VENUE system input channel or FX Return for playback of Pro Tools audio.

FWx

With FWx, assignable inputs and assignable outputs are available for recording and playing back Pro Tools audio.

You can also perform the equivalent of a Virtual Soundcheck using pre-recorded Pro Tools audio tracks by incorporating VENUE Snapshots into your workflow. See “FWx Virtual Soundcheck” on page 35.

VENUE HDx and MADI

VENUE HDx and MADI offer, in addition to assignable inputs and outputs, the following advanced recording and playback features:

Direct Digital Splits When Stage inputs are the main source of audio signals for VENUE, a one-for-one direct digital split of all VENUE Stage input channels are sent to your connected Pro Tools system. See "Enabling a Digital Split" on page 11 and "Recording Digital Splits" on page 32.

Virtual Soundcheck Mode In this mode, pre-recorded Pro Tools tracks are the main source of audio for your VENUE system. Stage input channels are replaced with inputs from Pro Tools. You can then make adjustments to your mix and any changes, including creating and modifying Snapshots, carry over when you switch back to Stage mode. You can also choose whether or not to apply input channel gain changes made while in Virtual Soundcheck mode. See "Enabling Virtual Soundcheck Mode" on page 12 and "Performing a Virtual Soundcheck" on page 34.

Input Mode In this mode, audio from Pro Tools is the main audio source for your VENUE system. Stage inputs on your VENUE system are replaced with inputs from Pro Tools. Unlike Virtual Soundcheck mode, input channel gain, HPF, and other PRE parameters are ignored (sources from Pro Tools are reset to default, i.e, taken "direct" into VENUE). When switching back to Stage mode, previous input channel gain and PRE settings are restored. Any adjustments made in Input mode are dropped. Use Snapshots to store PRE parameters before entering Input mode, then recall those Snapshots after switching back to Stage mode. See "Enabling Input Mode" on page 14.

In VENUE software 2.8.1 and lower, the mode called HDx Input was the only mode available for replacing Stage inputs with Pro Tools audio inputs. It provided all Virtual Soundcheck features. Beginning in VENUE software 2.9, these features are provided in two separate operating modes.

Redundant Outputs You can install two HDx cards, two MADI cards, or an HDx card and a MADI card in an FOH Rack or a Mix Rack and operate them in a redundant output configuration. With redundant outputs you can:

- Record all 48 Stage inputs, plus any assignable outputs, to two independent, 64-channel Pro Tools HD systems.
- Record all 48 Stage inputs, plus any assignable outputs, to a Pro Tools HD system, and transmit the same channels to an external MADI device.
- Send all 48 Stage inputs, plus any assignable outputs, to two external MADI devices, including a Pro Tools HD system incorporating Avid® HD MADI interfaces.

See "Enabling Redundant Outputs" on page 15.

All assignable inputs and outputs remain independently routable and freely available.

System Requirements and Compatibility

To integrate your VENUE system with Pro Tools, you need the following:

◆ An Avid-qualified VENUE system with an installed VENUE record/playback card (HDx card, MADI card, or the FWx card).

– and –

◆ An external hard drive (or drives). Visit www.avid.com for information on external hard drive requirements.

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

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

www.avid.com

About this Guide

This guide provides an overview of live recording and playback tasks using VENUE recording options and Pro Tools

For hardware installation instructions for VENUE record/playback option cards, see the guide that came with your card.

For hardware installation instructions for your Avid Pro Tools HDX card, see the *HDx Card Installation Guide*.

For hardware installation instructions for your HD Native hardware, see the *HD Native Install Guide*.

For hardware installation instructions for your Avid HD audio interfaces, see the guide that came with your interface.

For additional information about using Pro Tools software, see the *Pro Tools Reference Guide* (in Pro Tools, choose Help > Pro Tools Reference Guide).

For additional information about using your VENUE system, see the guide that came with your VENUE console.

Conventions Used in This Guide

All our guides use the following conventions to indicate menu choices and key commands:

Convention	Action
Options > System	In VENUE software, click Options to display the Options page, then click the System tab
File > Save	In Pro Tools, choose Save from the File menu
Control+N	Hold down the Control key and press the N key
Control-click	Hold down the Control key and click the mouse button
Right-click	Click with the right mouse button

The names of Commands, Options, and Settings that appear on-screen are in a different font.

The following symbols are used to highlight important information:

User Tips are helpful hints for getting the most from your system.

Important Notices include information that could affect your Pro Tools session data or the performance of your system.

Shortcuts show you useful keyboard or mouse shortcuts.

Cross References point to related sections in this guide or other Avid Guides.

About www.avid.com

The Avid website (www.avid.com) is your best online source for information to help you get the most out of your system. The following are just a few of the services and features available.

Product Registration Register your purchase online.

Support and Downloads Contact Avid Customer Success; download software updates and the latest online manuals; browse the Compatibility documents for system requirements; search the online Answerbase; or join the worldwide Pro Tools community on the User Conference.

Training and Education Study on your own using courses available online or find out how you can learn in a classroom setting at a certified Pro Tools training center.

Products and Developers Learn about Avid products; download demo software or learn about our Development Partners and their plug-ins, applications, and hardware.

News and Events Get the latest news from Avid or sign up for a demo.

Pro Tools Accelerated Videos Watch the series of free tutorial videos. Accelerated Videos are designed to help you get up and running with Pro Tools and its plug-ins quickly.

Live Sound Webinars Watch free tutorial videos and VENUE-specific webinars to learn from the experts.

Chapter 2: Hardware Connections

This chapter explains the hardware connections required for live recording and playback using FWx, HDx, and MADI with Pro Tools. Redundant output connections and the required connections for integrating a Pro Tools HD audio interface are also explained. To use VENUE Link, you must also connect an Ethernet cable between systems. See Chapter 5, "Using VENUE Link."

FWx Connections

FWx is connected to your Pro Tools computer using a single FireWire cable between VENUE and an available Firewire port on your computer. When connected, Pro Tools detects FWx, and FWx appears in the Pro Tools Hardware Setup and I/O Setup dialogs.

Pro Tools 10.0 and higher and the FWx32 drivers and firmware update are all required for the full 32 channels of simultaneous I/O. See the FWx FireWire Card Guide for more information.

Connecting External Hard Drives to FWx

If your Pro Tools computer has only one FireWire port and you are using an external FireWire hard drive as your record volume, connect a FireWire cable from the FireWire port on your VENUE system to an available FireWire port on the external drive. Then connect another FireWire cable from a second available port on the external drive to the FireWire port on your computer. Your external FireWire drive must have two FireWire ports.

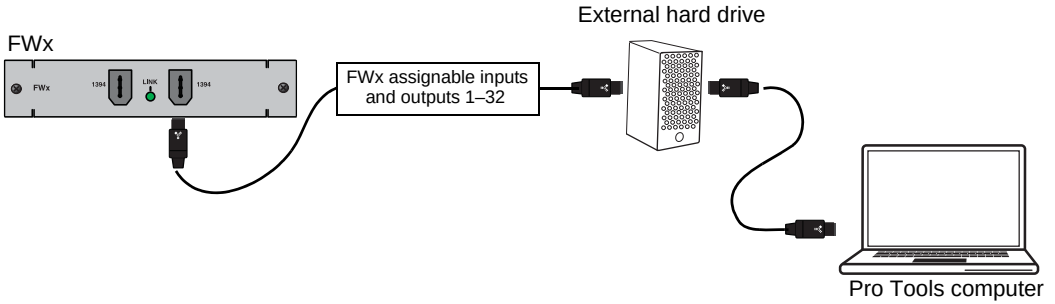


Figure 1. FWx record/playback configuration and available I/O

VENUE HDx Connections

VENUE HDx is connected to Avid Pro Tools HDX, HD Native, or HD PCI or PCIe cards using the same DigiLink or DigiLink Mini cables used to connect other Pro Tool HD equipment. When using multiple connections between VENUE and Pro Tools HD, all DigiLink cables must be the same length.

DigiLink cables are bidirectional. When VENUE's Stage inputs are active, the DigiLink cables carry VENUE Stage Input channels to Pro Tools. When VENUE is in Virtual Soundcheck or Input mode, the DigiLink cables carry Pro Tools channels to VENUE Stage Input channels. In all modes, assignable inputs and outputs are available independently for bi-directional signal routing.

When connected, VENUE HDx appears in the Pro Tools IO Setup and Hardware Setup dialogs.

VENUE HDx to Pro Tools HD Systems

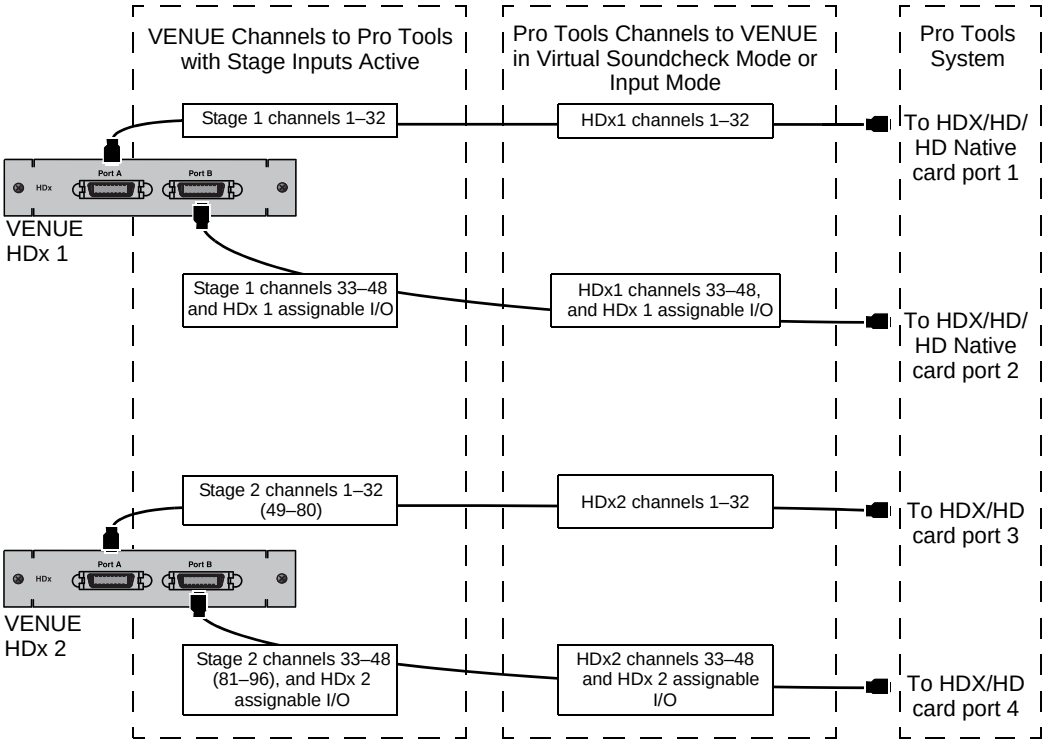


Figure 2. VENUE HDx and Pro Tools HD system connections and available I/O

MADI Connections

MADI cards are connected to an Avid HD MADI interfaces using optical or coaxial cables. Separate input and output connections for sending and receiving audio are required between the MADI card and the HD MADI interface. HD MADI interfaces are connected to Pro Tools using DigiLink cables. See the *HD MADI Guide* for making connections between HD MADI and Pro Tools.

When connected, Pro Tools detects connected HD MADI interfaces (not connected MADI cards). HD MADI interfaces appear in the Pro Tools Hardware Setup and IO Setup dialogs.

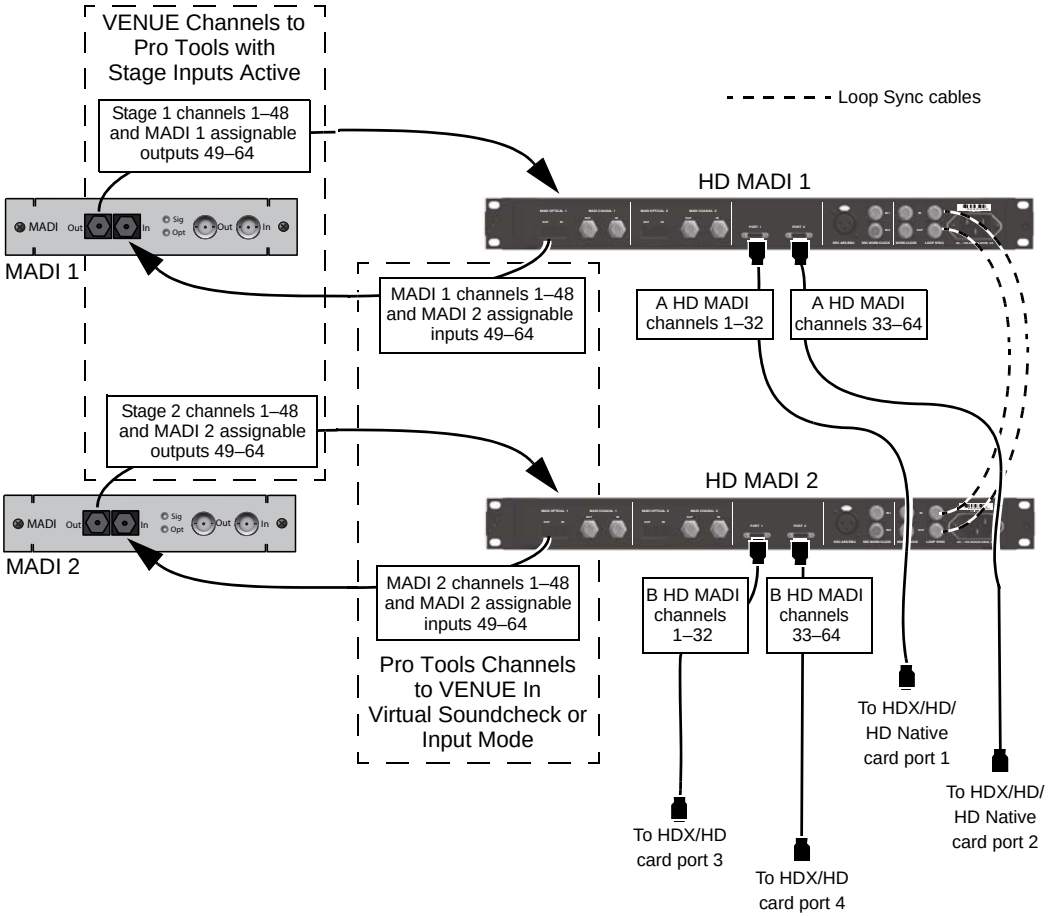


Figure 3. MADI record/playback configuration using optical connections

Redundant Output Connections

(VENUE HDx and MADI only)

This section shows the hardware connections for two example redundant output configurations, and the available I/O for each connection. To enable redundant outputs, see "Enabling Redundant Outputs" on page 15.

HDx1 and HDx2

In this example, a VENUE system with two HDx cards installed is connected to two independent Pro Tools systems. Stage 1 inputs 1–48 are sent to HDx 1 outputs and copied to HDx 2 outputs. Each card's assignable inputs and outputs (16 channels x 2) are freely available.

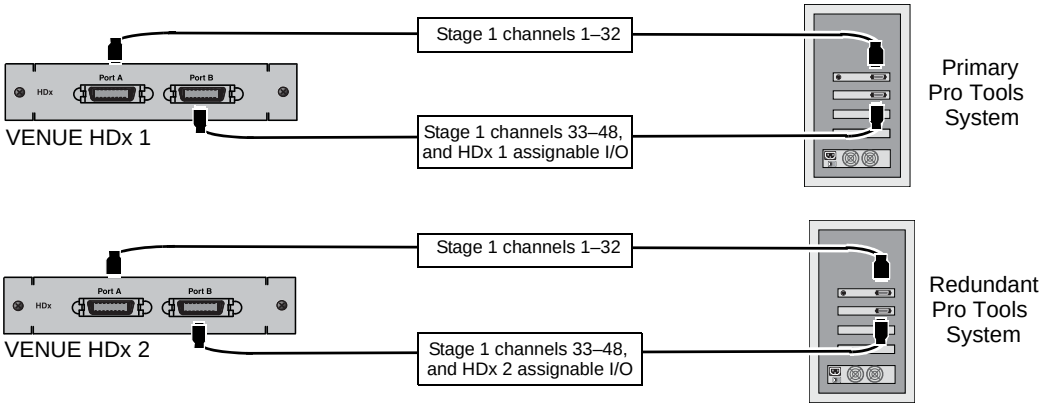


Figure 4. Redundant output connections and available I/O with two HDx cards

HDx 1 and MADI 2

In this example, a VENUE system with one HDx card installed and one MADI card installed is connected to two independent Pro Tools systems. The HDx card (HDx 1) is connected directly to a Pro Tools|HD 2 system. The MADI card (MADI 2) is connected to an HD MADI interface via a MADI optical cable, and then connected to a second Pro Tools system using DigiLink cables.

Stage 1 inputs 1–48 are sent to HDx 1 outputs and copied to MADI 2 optical *and* coaxial outputs. Each card's assignable inputs and outputs are freely available (16 channels x 2). A separate input connection is required to use MADI 2 assignable inputs on the VENUE system.

Additional word clock connections may be required when connecting the MADI card to third-party MADI devices. See the *VENUE MADI Card Guide* or your MADI devices's documentation for more information.

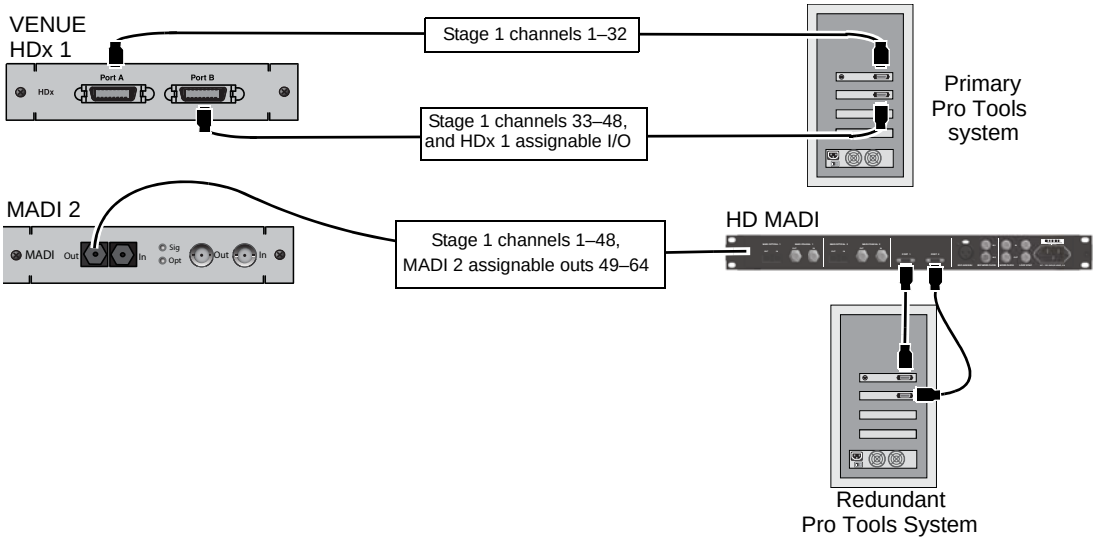


Figure 5. Redundant output connections and available I/O with one VENUE HDx card and one MADI card

HD Interfaces and VENUE HDx Connections

You can integrate an Avid Pro Tools HD interface (HD IO, HD OMNI, 192 I/O™, 192 Digital I/O™, 96 I/O™, or 96i I/O™) into your live recording system. You can use the interface for remote monitoring or remote audio input (such as audience mics located at the FOH position). Connect the HD-series audio interface to the last HD card port in the sequence.

A word clock connection between the VENUE system and the audio interface is also required. See "Synchronizing a Pro Tools HD Interface and VENUE HDx" on page 54.

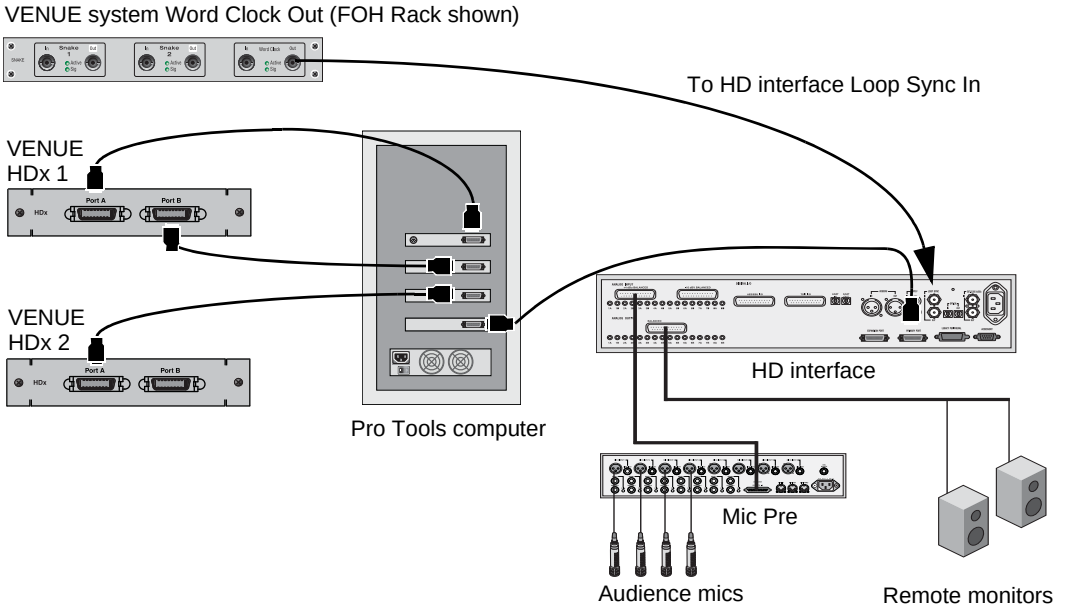


Figure 6. Example HDx configuration integrating an HD audio interface

Chapter 3: Configuring VENUE and Pro Tools

After connecting VENUE and Pro Tools, you need to configure both systems for recording and playback.

Configuring VENUE Systems

Configuring your VENUE system for use with Pro Tools includes the following (depending on your VENUE hardware):

- Enabling VENUE to send a direct digital split of Stage inputs to Pro Tools
- Enabling Virtual Soundcheck mode
- Enabling Input mode
- Enabling redundant outputs

FWx requires no VENUE system configuring. You can proceed to "Configuring Pro Tools System Settings" on page 17.

Enabling a Digital Split
(HDx and MADI Only)

To send a digital split of your VENUE system Stage input channels to Pro Tools, your Stage inputs must simply be active. If necessary, enable them on your VENUE system.

To enable a digital split of your Stage input channels:

1 Do one of the following to put your system into Config Mode:

- Press the Console Config switch on the console.

– or –

- Double-click the Mode box in the bottom-right corner of the screen.

2 Go to the Options page and click the System tab to access the System Configuration page.

3 Click Edit.

4 For Stage 1 inputs, in the Inputs section of the System Configuration page, beneath Inputs 1–4, select Stage 1 (or Stage for Mix Rack).

Selecting Stage 1 inputs

5 For systems with a second Stage Rack, do the following:

- Select Enable Stage 2.
- Select Enable HDX 2 (or MADI 2).

Enabling Stage 2

- In the Inputs section of the System Configuration page, beneath Inputs 49–96, select Stage 2.

Selecting Stage 2

6 Click Apply. The system restarts with all selected Stage inputs active.

Any audio present on VENUE system Stage input channels is sent to all HDx card ports, or to the MADI card coaxial *and* optical outputs.

Enabling Virtual Soundcheck Mode

(HDx and MADI with VENUE Software 2.8.5 and Higher Only)

In Virtual Soundcheck mode, audio from Pro Tools replaces the corresponding Stage inputs one-for-one, and appear in place of those Stage Inputs in the VENUE Patchbay. All changes to your live mix (such as channel assignments, and input and output processing) carry over when you enable Virtual Soundcheck mode. The digital portion of the gain for each channel is preserved and applied to the incoming signal from Pro Tools. This results in the same apparent levels for Pro Tools inputs and Stage inputs.

In VENUE software 2.8.1 and lower, the mode called HDx Input was the only mode available for replacing Stage inputs with Pro Tools audio inputs. It provided all Virtual Soundcheck features. Beginning in VENUE software 2.9, these features are provided in two separate operating modes.

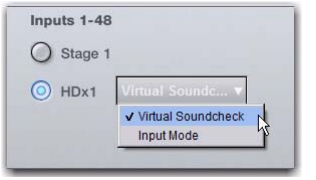
To enable Virtual Soundcheck mode:

1 Put your system into Config mode.

2 Go to the Options page and click the System tab to access the System Configuration page.

3 Click Edit.

4 For the first HDx or MADI card, in the Inputs section of the System Configuration page, beneath Inputs 1–48 select HDx1 (or MADI 1), then select Virtual Soundcheck from the Input format pop-up menu.



Enabling Virtual Soundcheck (HDx shown)

5 For systems with a second HDx or MADI card, do the following:

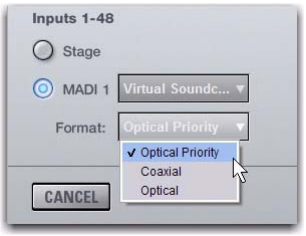
- Select Enable Stage 2.
- Select Enable HDx2 (or MADI 2).
- In the Inputs section of the System Configuration page, beneath Inputs 49–96, select HDx2 (or MADI 2), then select Virtual Soundcheck from the Input format pop-up menu.

6 For each MADI card present, click the Input Format pop-up menu and choose one of the following input options:

Optical Priority (default) The optical input is automatically selected and made active when a valid input signal is detected on the optical input. If signal is being sent simultaneously to both the optical and the coaxial inputs, only the optical input will be active.

Optical Only the optical input is active, whether or not a valid MADI connection exists.

Coaxial Only the coaxial input is active, whether or not a valid MADI connection exists.



Selecting the MADI input format

7 Click Apply. The Stage tabs in the Patchbay are replaced by HDx or MADI tabs depending on your configuration, and all Stage routing is preserved. A history Show file of the previous configuration is also created and stored in Filing > History.

Exiting Virtual Soundcheck Mode

To exit Virtual Soundcheck mode and return to active Stage inputs:

1 Put your system into Config mode.

2 Go to the Options page and click the System tab to access the System Configuration page.

3 In the Inputs section of the System Configuration page, beneath Inputs 1–48 select Stage 1 (or Stage for Mix Rack).

4 For systems with a second Stage Rack, In the Inputs section of the System Configuration page, beneath Inputs 49–96 select Stage 2.

5 When the Apply/Discard dialog appears, click either of the following as desired:

Apply Any gain changes made in Virtual Soundcheck mode are added to the total Stage input gain on each channel.

Discard Any gain changes made in Virtual Soundcheck mode are lost and the Stage input gain is returned to its previous value on each channel.

For example, if you set Stage input gain for a channel to +30 dB, then switch to Virtual Soundcheck mode, a digital gain of +2.2 dB is preserved in Virtual Soundcheck mode to yield the same overall gain on that channel (because 2.2 dB of the 30 dB setting was digital gain as compared to analog gain).

While in Virtual Soundcheck mode, if you increase the digital gain on the channel by 6 dB (to a displayed setting of +8.2 dB), and then switch back to Stage mode, you can do one of the following:

- Apply the gain change, yielding a Stage input gain increase of 6 dB, or a final setting of +36 dB (30+6).

– or –

- Discard the gain change, leaving the original Stage input gain unchanged at +30 dB.

Enabling Input Mode

(HDx and MADI with VENUE Software 2.8.5 and Higher Only)

In Input mode, Pro Tools is the main source of audio signals for your VENUE system. Audio channels from Pro Tools appear one-for-one in place of the Stage inputs in the VENUE Patchbay.

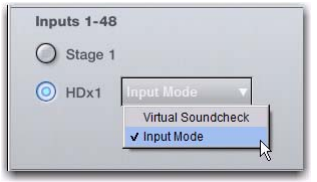
To replace Stage inputs with inputs from Pro Tools:

1 Put your system into Config mode

2 Go to the Options page and click the System tab to access the System Configuration page.

3 Click Edit.

4 In the Inputs section of the System Configuration page, beneath Inputs 1–48, select HDx1 (or MADI 1), then select Input Mode from the pop-up menu.



Enabling Input mode for inputs 1–48 (HDx shown)

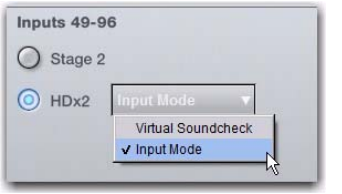
5 For systems with a second HDx or MADI card, do the following:

- Select Enable HDx2 (or Enable MADI 2).

Enable Stage 2 and HDx2

– and –

- In the Inputs section of the System Configuration page, beneath Inputs 49–96, select MADI 2, then select Input Mode from the pop-up menu.



Enabling Input mode for Stage 2 inputs (HDx shown)

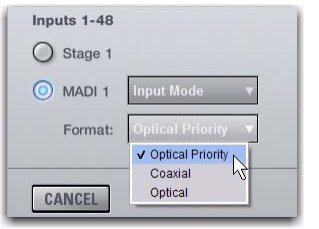
It is possible to use HDx2 or MADI 2 inputs even if a second Stage Rack (Stage 2) is not present in the system. A second Snake card must be installed in your FOH Rack. See the Snake Card guide for more information.

6 For each MADI card present, click the Input Format pop-up menu and choose one of the following input options:

Optical Priority (default) The optical input is automatically selected and made active when a valid input signal is detected on the optical input. If signal is being sent simultaneously to both the optical and the coaxial inputs, only the optical input will be active.

Optical Only the optical input is active, whether or not a valid MADI connection exists.

Coaxial Only the coaxial input is active, whether or not a valid MADI connection exists.



Selecting the MADI input format

7 Click Apply. In the dialog box that appears, click OK.

The system restarts with HDx or MADI inputs active. A history Show file of the previous configuration is also created and stored in Filing > History.

If you want to revert to the previous configuration, in the Show Folder column select the most recent Show file from the Most Recent Changes folder, and click Load.

Adjusting Input Gain in Input Mode

In Input mode, input channel gain is adjusted using the input gain encoders. Digital gain (-20 dB to +18 dB) is available for all HDx or MADI inputs.

When switching from active Stage inputs to Input mode, all gains for HDx or MADI input channels are set to 0 dB.

When switching from Input mode to active Stage inputs, all digital gain settings are replaced by pre-existing Stage input channel gain settings.

Enabling Redundant Outputs

(HDx and MADI with VENUE Software 2.8.5 and Higher Only)

To enable redundant outputs:

1 Put your system into Config mode.

2 Go to the Options page and click the System tab to access the System Configuration page.

3 Click Edit.

4 Do one of the following depending on your configuration:

- If you have two HDx cards installed, click Enable HDx 2, an click Copy Stage 1 (or Stage for Mix Rack) Outputs to HDx 2.
- If you have an HDx card installed in slot 1 (HDx1) and a MADI card installed in slot 2 (MADI 2), and you want to copy HDx , click Enable MADI 2 and click Copy Stage 1 (or Stage for Mix Rack) Outputs to MADI 2.
- If you have a MADI card installed in slot 1 (MADI 1) and a HDx card installed in slot 2 (HDx2), and you want to copy the MADI 1 outputs to HDx 2 outputs, click Enable HDx2 and click Copy Stage 1 (or Stage for Mix Rack) Outputs to HDx 1.
- If you have two MADI cards installed (MADI 1 and MADI 2), and you want to copy MADI 1 outputs to MADI 2, click Enable MADI 2 and click Copy Stage 1 (or Stage for Mix Rack) Outputs to MADI 2.

5 Click Apply.

Stage 1 (or Stage for Mix Rack), inputs are copied to the second card's outputs, and all assignable inputs and outputs are available for each option card.

You can use Satellite Link to control multiple Pro Tools systems from one computer. See the Satellite Link Guide for information.

Configuring Pro Tools

Configuring your Pro Tools system for use with a VENUE system includes the following:

- Confirming communications between systems
- Configuring Pro Tools system settings

Confirming Communications Between Systems

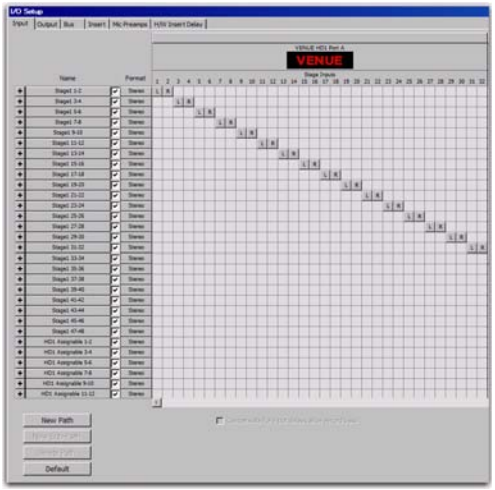
After connecting your equipment, you should confirm that Pro Tools correctly recognizes your VENUE system.

To confirm communications between systems:

1 Make sure your Pro Tools and VENUE systems are connected properly. See Chapter 2, "Hardware Connections."

2 Launch Pro Tools.

3 Before creating a new session, choose Setup > I/O. The I/O Setup dialog lets you define which physical ports on your hardware are routed to available inputs and outputs in Pro Tools.



I/O Setup dialog

4 Confirm that your VENUE system hardware appears in the IO Setup dialog, as follows:

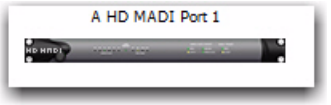
FWx If you are using a VENUE FWx card, it appears as FWx.

If FWx doesn't appear in the I/O Setup, go to Setup > Playback Engine and choose FWx from the Current Engine pop-up menu. If you choose a different playback engine, you will be prompted to restart Pro Tools.

HDx When using VENUE HDx cards, the first HDx card appears as HD1 Port A and HD1 Port B, and the second card (if applicable) appears as HD2 Port A and HD2 Port B.

HDx card in Pro Tools I/O Setup dialog

MADI When using MADI cards connected to HD MADI interfaces, the first HD MADI interface appears as A HD MADI Port 1 and A HD MADI Port 2, and the second interface (if applicable) appears as B HD MADI Port 1 and B HD MADI Port 2.



HD MADI interface in the IO Setup dialog

5 In the I/O Setup dialog, do the following:

- Click the Inputs tab, and click the Default button.
- Click the Outputs tab, and click the Default button.

6 Click OK to confirm and close the IO Setup dialog.

Configuring Pro Tools System Settings

After confirming connections, you can configure your Pro Tools system settings as follows, depending on the version of Pro Tools you are running and your hardware configuration:

- In Pro Tools 10 and higher, the default settings provide optimum performance. Pro Tools 10 uses a completely new disk engine that greatly increases performance for audio recording and playback. As a consequence, the DAE Playback Buffer Size setting provided in the Playback Engine and the Open-Ended Record Allocation settings provided in the Operation Preferences in lower versions of Pro Tools are no longer necessary and has been removed.
- In Pro Tools 9.x and lower, you may need to make changes depending on the scope of your session.
- Systems using Avid HD MADI interfaces require specific Pro Tools system settings.

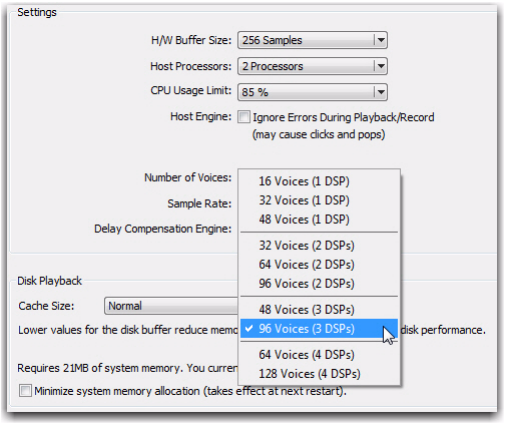
Configuring Pro Tools 9.x and Lower

To configure your Pro Tools system settings when using Pro Tools 9.x and lower:

1 Choose Setup > Playback Engine.

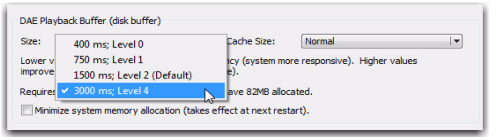
2 For HDx and MADI only, if you want to record more than 48 tracks simultaneously you must increase the number of available voices.

3 From the Number of Voices pop-up menu, select the number of voices in the next tier of voices above the number of tracks you are recording, with the maximum amount of DSP. For example, if you are recording 80 tracks, choose 96 Voices (maximum number of available DSPs).



Selecting the Number of Voices in the Playback Engine dialog

4 From the DAE Playback Buffer pop-up menu select the highest available buffer size. Memory requirements for each setting are shown at the bottom of the Playback Engine dialog. If Pro Tools needs more memory for the DAE Playback Buffer, it will prompt you to restart your computer.

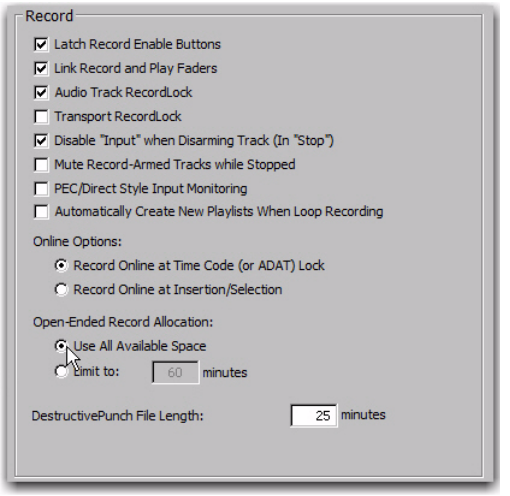


Setting the DAE Playback Buffer size

⚠ *A higher setting may increase the time lag when starting playback or recording.*

5 Click OK to confirm and close the Playback Engine dialog.

6 Choose Setup > Preferences and click the Operation tab. In the Record section under Open Ended Record Allocation select Use All Available Space.



Setting the record allocation on the Operation tab of the Preferences dialog

7 Click OK. Your Pro Tools system is now ready for live recording.

In Pro Tools 10 and higher, adjusting these system settings is no longer necessary, and the options have been removed.

Configuring HD MADI Interfaces

To configure your Pro Tools system settings for HD MADI interfaces:

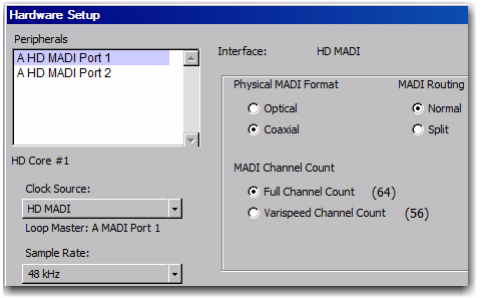
1 Choose Setup > Hardware Setup,

2 For each connected HD MADI interface do the following:

- Select HD MADI Port 1 in the Peripherals list so that it is highlighted.
- From the Clock Source pop-up menu, select HD MADI.
- From the Sample Rate pop-up menu select 48 kHz.

VENUE system audio is always 48 kHz. However, HD MADI supports sample rates greater than 48 kHz using sample rate conversion. See the HD MADI User Guide for more information.

- For the Physical MADI format, select either Optical or Coaxial for the type of audio cable connection used to connect the MADI card to the HD MADI interface.
- For the MADI Channel Count, select Full Channel Count (64).
- For MADI Routing, select Normal.
- Repeat this for all HD MADI ports items that appear in the Peripherals list.



Hardware settings for MADI and HD MADI interface in Hardware Setup dialog

3 Click OK.

Chapter 4: Live Recording and Playback

This chapter provides workflows for the following common VENUE and Pro Tools recording and playback scenarios:

- Creating a Pro Tools session.
- Creating custom session templates.
- Recording the Main L/R mix using Direct Outs.
- Recording submixes (or *stems*) using bus outputs.
- Recording digital splits.
- Performing a Virtual Soundcheck.
- Recording audience mics.

Before proceeding, your VENUE system and the Pro Tools computer must be connected and configured. See "Hardware Connections" on page 5 and "Configuring VENUE and Pro Tools" on page 11 for more information.

Creating a Session

You can create sessions in the following ways:

- Creating a session from VENUE automatically using VENUE Link (requires Pro Tools HD 8.1.x and higher, and VENUE software 2.9 and higher).
- Creating a session using VENUE session templates (requires Pro Tools HD 8.1.x and higher).
- Creating a session manually.

Create a Session from VENUE Using VENUE Link

When you choose to create a Pro Tools session from VENUE, new mono and stereo audio tracks are automatically created for all patched VENUE system mono and stereo Stage input channels. Tracks are also automatically created for any output busses (including direct outs) or FX Returns patched to assignable outputs in the VENUE system Patchbay.

⚠ *VENUE Link must be enabled. See "Using VENUE Link" on page 41.*

To create a Pro Tools session from VENUE using VENUE Link:

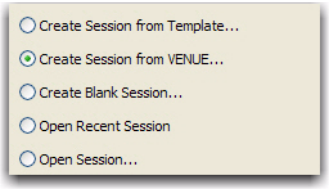
1 On your VENUE system, make sure you have loaded the Show file you want to use as the basis for your Pro Tools session.

2 Launch Pro Tools and do one of the following:

- If the Quick Start dialog appears, choose, Create Session from VENUE.

– or –

- If the Quick Start dialog does not appear, choose File > New Session, and choose Create Session from VENUE.



Creating a session from VENUE in the New Session dialog

3 To set session parameters, do the following (if session parameters are not visible click the Session Parameters reveal button):

- Set the audio file format for the session. For optimum compatibility between Windows and Mac, set the file type to BWF (.WAV).
- Set the bit depth to 24-bit.In most cases, you will not be able to change this value when connected to a VENUE system.
- Set sample rate to 48 kHz. In most cases, you will not be able to change this value when connected to a VENUE system.

4 Click OK. The Save As dialog appears.

5 Select the drive where you want to save the session. The session should be saved on a dedicated audio drive.

The supported track count for a drive depends on the session's parameters and the type of drive. For more information, see "Allocating Audio Drives" on page 60.

6 The name of the currently loaded Show file on your VENUE systems appears as the session file name. Accept or edit the session file name and click Save.

Saving the session in the Save As dialog

If you are recording multiple instances of a performance using the same Show file, you should save each session to a new folder and name the folder and the session accordingly.

The session is created and tracks are automatically created and named based on the currently loaded VENUE Show file. Track I/O routing is also automatically assigned.

For detailed information on how tracks are named and how I/O routing is assigned, see "Using VENUE Link" on page 46.

Creating a Session Using VENUE Session Templates

Pro Tools offers VENUE record and playback session templates that provide pre-defined tracks and track I/O assignments.

In the Virtual Soundcheck templates, track output assignments follow input assignments one-for-one. When performing a Virtual Soundcheck, each Pro Tools track plays back through its corresponding VENUE channel.

In the record templates, track output paths are assigned to Pro Tools internal Bus 1-2.

To create a Pro Tools session using a VENUE Session template:

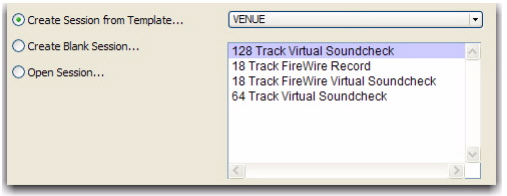
1 Launch Pro Tools and do either of the following:

- If the Quick Start dialog appears, choose, Create Session from Template.

– or –

- If the Quick Start dialog does not appear, choose File > New Session, and choose Create Session from Template.

2 From the Session Template pop-up menu, select the VENUE category, and choose an available template from the list.



Quickstart dialog showing VENUE session templates

You can create and save your own templates and have them available in the Quick Start or New Session dialogs. See "Creating Templates with Pro Tools 8.0 and Higher" on page 26.

3 To set session parameters, do the following (if session parameters are not visible click the Session Parameters reveal button):

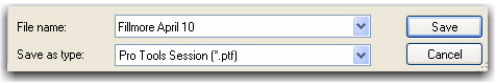
- Set the audio file format for the session. For optimum compatibility between Windows and Mac, set the file type to BWF (.WAV).
- Set the bit depth to 24-bit.In most cases, you will not be able to change this value when connected to a VENUE system.
- Set sample rate to 48 kHz. In most cases, you will not be able to change this value when connected to a VENUE system.

4 Click OK. The Save As dialog appears.

5 Select the drive where you want to save the session. The session should be saved on a dedicated audio drive.

A drive's supported track count depends on the session's parameters and the type of drive. For more information, see "Allocating Audio Drives" on page 60.

6 Name your session and click Save. The new session is created.



Saving the session in the Save As dialog

7 Pro Tools provides two main windows in sessions, the Edit window (Window > Edit) and the Mix window (Window > Mix). Choose Window > Edit to view the Edit window.

You can toggle between the Mix window and the Edit window by pressing Cmd+= (Mac) or Ctrl+= (Windows).

8 After Pro Tools has created and opened the new session, choose Setup > I/O. The IO Setup dialog lets you define which physical ports on your hardware are routed to available inputs and outputs in Pro Tools.

9 In the IO Setup dialog, do the following:

- Click the Input tab, and click the Default button.
- Click the Output tab, and click the Default button.
- Click OK to confirm and close the IO Setup dialog.

10 Proceed to "Naming Tracks" on page 23.

Creating a Session Manually

On all systems, sessions can be created manually.

You can then create your own custom template from the session you have created, which you can use as a basis for subsequent sessions. See "Creating Custom Templates" on page 26.

To create and save a session:

1 Launch Pro Tools and do either of the following:

- If the Quick Start dialog appears, choose, Create Blank Session.

– or –

- If the Quick Start dialog does not appear, choose File > New Session, and choose Create Blank Session.

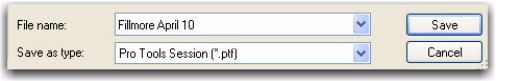
2 To set session parameters, do the following (if session parameters are not visible click the Session Parameters reveal button):

- Set the audio file format for the session. For optimum compatibility between Windows and Mac, set the file type to BWF (.WAV).
- Set the bit depth to 24-bit.In most cases, you will not be able to change this value when connected to a VENUE system.
- Set sample rate to 48 kHz. In most cases, you will not be able to change this value when connected to a VENUE system.

3 Click OK.

4 Select the drive where you want to save the session. The session should be saved on a dedicated audio drive.

5 Name your session and click Save. The new session is created.



Saving the session in the Save As dialog

6 Pro Tools provides two main windows in sessions, the Edit window (Window > Edit) and the Mix window (Window > Mix). Choose Window > Edit to view the Edit window.

SHIFT *You can toggle between the Mix window and the Edit window by pressing Cmd+= (Mac) or Ctrl+= (Windows).*

7 After Pro Tools has created and opened the new session, choose Setup > IO Setup. The IO Setup dialog lets you define which physical ports on your hardware are routed to available inputs and outputs in Pro Tools.

8 In the IO Setup dialog, do the following:

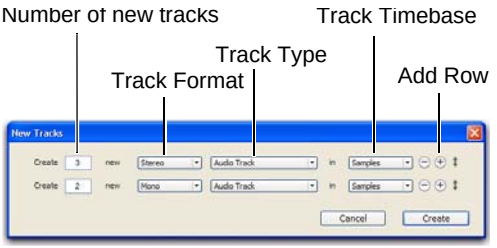
- Click the Input tab, and click the Default button.
- Click the Output tab, and click the Default button.
- Click OK to confirm and close the IO Setup dialog.

9 Proceed to "Creating Tracks" on page 23.

Creating Tracks

To create new tracks:

1 Choose Track > New.



New Tracks dialog

2 Select Mono or Stereo from the Track Format pop-up menu.

3 Select Audio Track from the Track Type pop-up menu.

4 Select Samples from the Track Timebase pop-up menu.

5 Enter the number of new tracks.

6 To add more tracks in a different format, click the Add Row button.

7 Click Create. New tracks are created and appear in the window.

When adding tracks to new sessions, inputs are automatically assigned to tracks in ascending order. Outputs are automatically assigned according to the New Track Default Output Bus specified in the I/O Setup dialog. See the Pro Tools Reference Guide for more information.

8 Proceed to "Naming Tracks" on page 23.

Naming Tracks

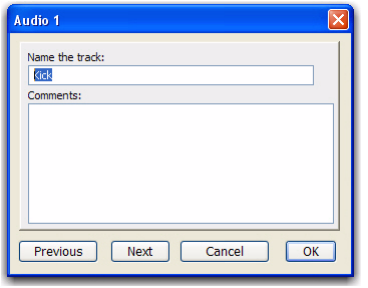
To name tracks:

1 Double-click the Track Name button for the first track.

The Track Name button in the Edit window

If you are using VENUE Link and you want to import VENUE channel names to your existing session's tracks, see "Importing VENUE Channel Names as Track Names" on page 50.

2 In the Track Name/Comments dialog, enter a track name and add comments if desired.



Naming tracks in the Track Name dialog

3 Click Next to name other displayed tracks.

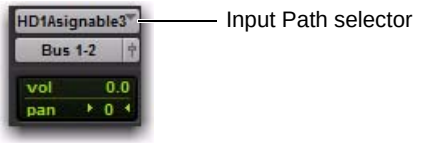
4 Click OK when done naming tracks.

5 Proceed to "Assigning Inputs to Tracks for Recording" on page 24.

Assigning Inputs to Tracks for Recording

To assign an audio input to a track:

1 In the Mix or Edit window, click a track's Input Path selector.



Pro Tools Input Path selector showing current track input and output assignment

2 To record a VENUE bus output channel such as the Main L/R, a Direct Out, an Aux, a Group, or a Matrix select the following from the Interface sub-menu, as available on your system:

Inputs and outputs in use by another track appear in bold in the selector.

- For FWx, choose from any of the available inputs.
- For HDx, choose an HD Assignable input.
- For MADI, choose an HD MADI input channel between 49–64.

HD MADI channels 49–64 correspond to MADI assignable channels 49–64.

Assigning an HDx assignable output to a Pro Tools track input in the Edit window

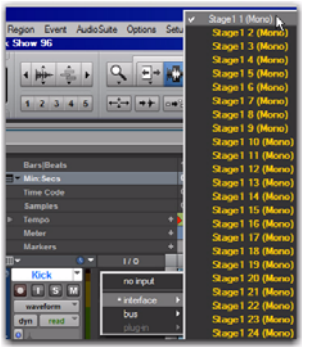
3 To record a digital split of a VENUE Stage input channel, select the following from the Interface sub-menu, as available on your system:

- For HDx, choose a Stage1 or Stage2 input.

– or –

- For MADI, choose an A HD MADI or B HD MADI input channel between 1–48.

You can auto-assign all track inputs or outputs incrementally by Command-Option-clicking (Mac) or Control-Alt-clicking (Windows) while assigning the first track's input or output. Subsequent tracks will be auto-assigned to unique mono or stereo paths in ascending order.



Assigning Stage input split to a Pro Tools track input

Assigning Outputs to Tracks for Monitoring, Playback, and Virtual Soundchecks

To assign an audio output to a track:

1 Click the track's Output Path selector.

Pro Tools Input and Output Path selectors showing current input and output assignments

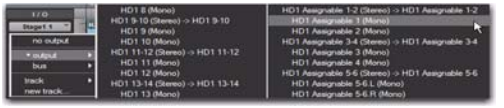
2 If you are not monitoring or playing back your tracks through your VENUE system, select Bus and choose an internal Pro Tools bus.

Tracks can share output assignments.

Assigning a Pro Tools track output to an internal bus

3 To play back or monitor a track through your VENUE system, or to do an FWx Virtual Soundcheck, select Output and choose the following, depending on your hardware configuration:

- For FWx, choose any of the available outputs.
- For HDx, choose an HD Assignable output.
- For MADI, choose an A HD MADI or B HD MADI input channel between 49 and 64.



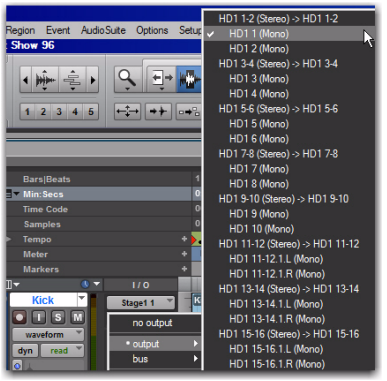
Assigning a Pro Tools track output to a VENUE assignable input (HDx shown)

4 To do an HDx or MADI Virtual Soundcheck with tracks recorded from digital splits of VENUE Stage input channels, select Output and choose one of the following, as available on your system:

- For HDx, choose an HD1 or HD2 output.

– or –

- For MADI, choose an A HD MADI or B HD MADI channel between 1 and 48.



Assigning a Pro Tools track output to a VENUE Stage input channel for Virtual Soundcheck (HDx shown)

5 If you are using a Pro Tools HD interface to monitor the recording, select Output and choose the HD interface outputs (such as A 1–2) that are connected to your monitors.

You can auto-assign all tracks to the same output by Option-clicking (Mac) or Alt-clicking (Windows) while assigning any track output.

Creating Custom Templates

You can create custom session templates that are pre-configured to the track setups, mixer configurations and window arrangements that you use most frequently. Doing this will save you the trouble of having to create your setup from scratch every time you start a new session.

The process for creating and saving custom templates depends on the version of Pro Tools you are using.

Creating Templates with Pro Tools 8.0 and Higher **(Mac and Windows)**

With Pro Tools 8.0 and higher, you can 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.

2 Choose File > Save As Template.

3 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 (such as audio files) in the currently open session is included in the template.*

4 Click OK.

5 Select one of the following options:

- If you select Install Template In System, the session template will be available in the Pro Tools Session Quick Start dialog on that Pro Tools system only.

– or –

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

For more information on the options available for saving session templates, see the Pro Tools Reference Guide.

Creating New Sessions from Templates

You can create new session from templates by opening a template. You can open any Pro Tools Session Template file (.ptt) to start a new session based on that template.

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.

3 Click OK.

4 Select the drive where you want to save the session. The session should be saved on a dedicated audio drive.

5 Name your session and click Save.

Creating Templates with Pro Tools 7.4.x and Lower

With Pro Tools 7.4.x and lower, the process for creating and using custom templates differs for Mac and Windows.

Creating and Using Mac Templates

On Mac, create a session template by saving a session file as a *Stationery Pad* document. Once a session is saved as a Stationery Pad, it acts as a template that can be opened and saved as a new session, or opened as the original stationery pad for editing.

To create a custom session template on Mac:

1 Create a session and arrange its elements as you want them to appear in the template. In addition to track setup, you can also define elements such as signal routing, insert and send configurations, Mix and Edit window views, ruler settings, and Preference settings.

2 Choose File > Save As.

3 Name the session and click Save.

4 Close the session.

5 In the Mac Finder, locate the session file that you just saved.

6 Click once on the file to select it.

7 Choose File > Get Info.

8 If necessary, click the General expand/collapse triangle to display the General information and options.

9 Select the Stationery Pad option.

10 Select the Locked option.

11 Close the information window.

To use a session template on Mac:

1 In Pro Tools, open the session template using the File > Open Session command.

⚠ *Do not double-click a Stationery Pad template on the desktop to create a new session.*

When you open a session saved as a Stationery Pad, Pro Tools gives you the option of editing the template or starting a new session using the template settings.

2 Click one of the following:

Edit Stationery Lets you edit the session, but the session remains a template. After you save your changes, close the session, and re-open the session, you are again prompted to either edit the stationery pad or save a copy of the template as a new session.

New Session Prompts you to save a copy of the template as a new session. You can then work in the new session normally.

Creating and Using Windows Templates

To create a custom session template in Windows:

1 Create a session and arrange its elements as you want them to appear in the template. You can also define elements such as signal routing, insert and send configurations, Track Views, ruler settings, and Preference settings.

2 Choose File > Save As.

3 Name the session and click Save.

4 Close the session.

5 In Windows Explorer, locate the session file that you just saved.

6 Right-click the file and choose Properties.

7 Under Attributes, select Read Only.

8 Click OK.

To use a session template in Windows:

1 Do one of the following:

- Double-click the session template in Windows Explorer.

– or –

- In Pro Tools, open the session template using the File > Open Session command.

2 Choose File > Save As.

3 In the Save Session As dialog, create a new folder where you want to save your session.

4 Name the session and click Save.

5 Start working in the session.

To modify the session template in Windows:

1 In Windows Explorer, open the session's Properties.

2 Deselect the Read Only option and click Apply.

3 Open the session in Pro Tools and make your changes.

4 Save the session and quit Pro Tools.

5 In Windows Explorer, reopen its Properties, and change it back to a Read Only file.

Recording the Main L/R Mix

(For FWx, HDx and MADI)

You can record the Main L/R mix using the VENUE system Direct Outs. Direct Outs give you discrete output level controls for the Pro Tools recording.

On the VENUE System

To record the Main L/R Mix using Direct Outs:

1 Make sure the VENUE system and the Pro Tools system are connected and configured.

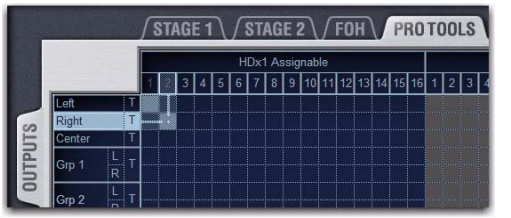
See Chapter 2, "Hardware Connections" and Chapter 3, "Configuring VENUE and Pro Tools" for more information.

2 Go to the Patchbay page and click the Directs tab.

3 Click the Outputs tab to the left of the channel grid.

4 Click the Pro Tools tab at the top right of the channel grid to show the available Pro Tools channels.

5 Click in the channel grid to assign the Main Left and Right Direct Outs (listed on the left) to available assignable Pro Tools channels (listed across the top).



Routing the Main Left and Right Direct Outs to Pro Tools

6 Click the Pickoff column in the Patchbay to specify one of the following pickoff sources for each Direct Output:

- Top of Mains (indicated by a "T")
- Pre-Fader (indicated by a lowercase "p")
- Post-Fader (indicated by an uppercase "P")

To send the Main L/R mix pre-EQ, use the Top of Mains pickoff point. This lets you capture the mix without hearing the effect of any inserted plug-ins or graphic EQs.

7 Activate the Direct Outs by clicking either channel's In button.

For the Main L/R channels, adjusting either channel's Direct Output controls affects both channels.

8 Set the level for the Direct Outs by adjusting either channel's Direct Out level control on-screen (or use the Direct Out channel encoder on the console if available).

On-screen Direct Out level control and In/Out button

Go to Patchbay > Directs to access on-screen channel Direct Out level encoders.

On the Pro Tools System

To record the Main L/R Mix using Direct Outs:

1 Launch Pro Tools and create a session.

See "Creating a Session" on page 19 for more information.

2 Create and name a stereo audio track.

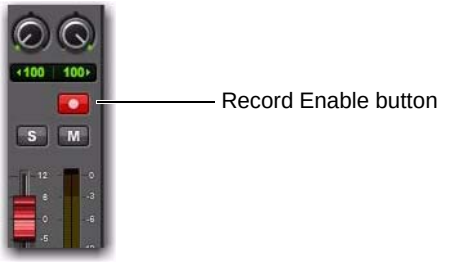
See "Creating Tracks" on page 23 and "Naming Tracks" on page 23 for more information.

3 Assign track inputs so they correspond to the assignable channels you patched the Main L/R Direct Outs to in the VENUE Patchbay. To change the track's input assignment, click the Input Path selector and choose the input.

See "Assigning Inputs to Tracks for Recording" on page 24 for more information.

Pro Tools track input and output assignments

4 Click the track's Record Enable button. The Record Enable button flashes when enabled, and is lit solid when engaged.



A record-enabled track

5 When Pro Tools starts receiving audio, confirm the record level. A conservative recording level is best for live recordings. Try to keep record level peaks in Pro Tools to between -3 and -6 dB. Adjusting the fader in Pro Tools will not affect the record level, only the monitor level.

Confirming the record level

Use RMS metering on your VENUE system to get a better idea of how VENUE input levels translate to Pro Tools recording levels. On your VENUE system, go to Option > Interaction page. Under Meter, choose RMS Ballistics.

6 In the Edit window toolbar, or in the Transport window (Window > Transport) click the Record button to arm the Transport.

Arming the Transport

7 When you are ready to start recording, click Play or press the Spacebar. To stop recording, press the Spacebar or click Stop.

Recording Submixes

(For FWx, HDx and MADI)

You can record submixes (also called *stems*) by sending VENUE system bus outputs directly to Pro Tools. Bus outputs such as Auxes, Groups, Matrixes, and PQs (if available) give you discrete level controls for the Pro Tools recording. Additionally, you can insert VENUE plug-ins such as limiters or compressors on bus outputs.

For example, adding a limiter or compressor to the recording output in VENUE can help to keep your Pro Tools tracks from peaking while recording. Inserting a limiter or compressor to the tracks in Pro Tools will *not* limit or compress the incoming signal from VENUE. Plug-ins on Pro Tools tracks are post hard-disk.

On the VENUE System

To record submixes using bus outputs:

1 Make sure the VENUE system and the Pro Tools system are connected and configured.

See Chapter 2, "Hardware Connections" and Chapter 3, "Configuring VENUE and Pro Tools" for more information.

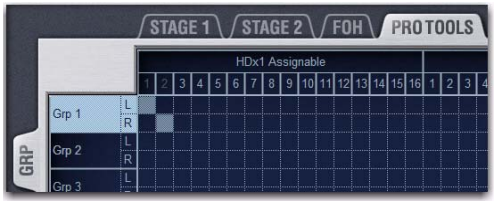
2 Assign Stage inputs and any FX Returns to the output busses you want to record in Pro Tools.

3 Go to the Patchbay page and click the Outputs tab at the top of the page.

4 To the left of the channel grid, click the tab for the type of bus output you want to send to Pro Tools.

5 Click the Pro Tools tab at the top right of the channel grid to show the available outputs to Pro Tools.

6 Click in the channel grid to assign the bus outputs (listed on the left) to available assignable Pro Tools channels (listed across the top).



Routing Group bus outputs to Pro Tools (HDx shown)

7 If you want to insert a plug-in such as a limiter on a bus, do the following:

- Go to the Plug-Ins screen.
- Make sure the plug-in is installed and assigned to a rack slot.
- Click the Plug-In Input selector at the top of the corresponding rack slot, and choose Inserts from the Input sub-menu.
- Choose the type and channel number of the output you want to insert the plug-in on.

Inserting a plug-in on a Group bus output

8 Set the levels for the recording by adjusting the faders for the channels you are sending to Pro Tools.

If you are using bus outputs for your live mix and also want to record them, you can use the Direct Outs of the bus outputs. You can capture any inserted plug-ins and have discrete level control by selecting the Pre-Fader pickoff point for the Direct Out. Select the Top of Channel pickoff point if you do not want to capture any inserted plug-ins.

On the Pro Tools System

To record submixes using bus outputs:

1 Launch Pro Tools and create a session.

See "Creating a Session" on page 19 for more information.

2 Create and name audio tracks.

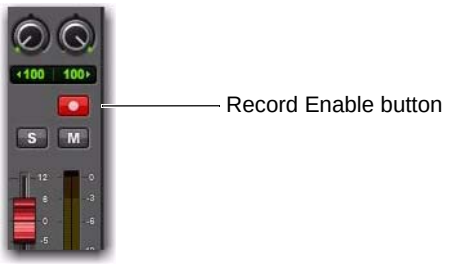
See "Creating Tracks" on page 23 and "Naming Tracks" on page 23 for more information.

3 Assign track inputs so they correspond to the assignable channels you patched the bus outputs to in the VENUE Patchbay. To change a track's input assignment, click the Input Path selector and choose the input.

See "Assigning Inputs to Tracks for Recording" on page 24 for more information.

Pro Tools track input and output assignments

4 Click the track's Record Enable button. The Record Enable button flashes when enabled, and is lit solid when engaged.



A record-enabled track

To record enable all tracks at once, Option-click (Mac) or Alt-click (Windows) a single track's Record Enable button.

5 When Pro Tools starts receiving audio, confirm the record level. A conservative recording level is best with live recordings. Try to keep record level peaks in Pro Tools to between –3 and –6 dB.

A proper record level peak

Use RMS metering on your VENUE system to get a better idea of how VENUE input levels translate to Pro Tools recording levels. On your VENUE system, go to Option > Interaction page. Under Meter, choose RMS Ballistics.

6 In the Edit window toolbar, or in the Transport window (Window > Transport) click the Record button to arm the Transport.

Arming the Transport

7 When you are ready to start recording, click Play or press the Spacebar. To stop, click Stop or press the Spacebar.

Recording Digital Splits

(HDx and MADI only)

You can record a one-for-one direct digital split of all Stage input channels, letting you do a true multi-track live recording. Later, you can mix and edit the tracks in Pro Tools. Tracks recorded using digital splits also serve as the basis for HDx or MADI Virtual Soundchecks.

The pickoff point for each channel split is post-analog input gain, but pre-digital trim and all channel processing, including high pass filter. Thus, the gain for any input channel sent to Pro Tools is dependent on the VENUE system input gain setting of that Stage input channel.

Use RMS metering on your VENUE system to get a better idea of how VENUE input levels translate to Pro Tools recording levels. On your VENUE system, go to Option > Interaction page. Under Meter, choose RMS Ballistics.

On the VENUE System

To record a split of the Stage inputs:

1 Make sure the VENUE system and the Pro Tools system are connected and configured.

See Chapter 2, "Hardware Connections" and Chapter 3, "Configuring VENUE and Pro Tools" for more information.

2 Go to the Options page and click the System tab to access the System Configuration page to confirm that your Stage inputs are active. See "Enabling a Digital Split" on page 11 for more information.

If you want to record more than 81 Stage input channels and you have a Pro Tools|HD 3 system (three Pro Tools HD cards total), in VENUE route the Direct Outs of channels 81-96 to HDx 1 or MADI 1 assignable outputs, then assign to tracks in Pro Tools.

3 Set the level for the recording by adjusting the input gain of each Stage input channel.

On the Pro Tools System

To record a split of the Stage inputs:

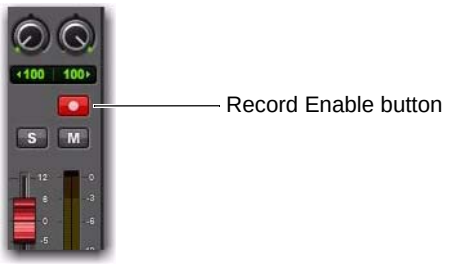
1 Launch Pro Tools and create a new session.

See "Creating a Session" on page 19 for complete information on creating a Pro Tools.

2 If necessary, confirm that track inputs are assigned correctly. To change a track's input assignment, click the track's Input Path selector and choose the input source from the list.

Pro Tools track input and output assignments

3 Click the track's Record Enable button. The Record Enable button flashes when enabled, and is lit solid when engaged.



A record-enabled track

To record enable all tracks at once, Option-click (Mac) or Alt-click (Windows) a single track's Record Enable button.

4 In Pro Tools, confirm the record level. A conservative recording level is best with live recordings. Try to keep record level peaks in Pro Tools to between –3 and –6 dB.

A proper record level peak

If you want to increase recording levels, you must increase the input gain for Stage input channels on the VENUE system. 0 dBFS (the maximum recording level available in Pro Tools) equals 20 dBVU on the VENUE system.

5 Choose Window > Mix, and in the toolbar or the Transport (Window > Transport) click the Record button to arm the Transport.

Arming the Transport

6 When you are ready to start recording, click Play or press the Spacebar. To stop, press the Spacebar or click Stop.

Performing a Virtual Soundcheck

You can perform Virtual Soundchecks on all VENUE systems. However, workflows for HDx- and MADI-equipped systems differ from those for FWx-equipped systems.

HDx and MADI Virtual Soundcheck

When you do a Virtual Soundcheck using HDx and MADI, Pro Tools audio tracks recorded using a digital split replace the corresponding Stage inputs one-for-one, and appear in place of those Stage Inputs in the VENUE software Patchbay.

On the VENUE System

To perform a Virtual Soundcheck:

1 Make sure the VENUE system and the Pro Tools system are connected and configured.

See Chapter 2, "Hardware Connections" and Chapter 3, "Configuring VENUE and Pro Tools" for more information.

2 Load a Show file that has a corresponding Pro Tools session recorded using a direct digital split.

3 Do one of the following to put your system into Config Mode:

- Press the Console Config switch on the console.

– or –

- Double-click the Mode box in the bottom-right corner of the screen.

4 Enable Virtual Soundcheck mode. See "Enabling Virtual Soundcheck Mode" on page 12 for more information. Inputs from Pro Tools replace your live Stage inputs.

When switching from Stage mode to Virtual Soundcheck mode, the digital component of the gain stage (up to +3 dB for the FOH Rack, and up to +6 dB for the Mix Rack) is preserved, so audio signals and Stage inputs have the same apparent level.

5 You can make changes to your mix in Virtual Soundcheck mode, which carry over when you exit Virtual Soundcheck mode and switch back to Stage mode.

If you change the digital gain of any channel from your VENUE console while in Virtual Soundcheck mode, you have the option of keeping or discarding those gain changes when you switch back to Stage mode. This is applied to all applicable channels

On the Pro Tools System

To perform a Virtual Soundcheck:

1 Launch Pro Tools.

2 In the New Session dialog or the Quick Start dialog, choose Open Session or Open Recent Session to open the session that corresponds to the currently loaded Show file on your VENUE system.

3 Make sure that each input track's output assignment matches its input assignment one-for-one. To change the track's output assignment, click the Input Path selector and choose the input.

See "Assigning Outputs to Tracks for Monitoring, Playback, and Virtual Soundchecks" on page 25 for more information.

4 In the Edit window toolbar, or in the Transport window (Window > Transport) click Play, or press the Spacebar to begin playback.

FWx Virtual Soundcheck

With FWx, you can perform the equivalent of a Virtual Soundcheck using Snapshots to store and recall console settings. Create one Snapshot to store the settings with Stage inputs active, and another to store the settings with Pro Tools inputs active.

Because Pro Tools input gains will be different from Stage input gains, you also scope and store PRE settings–which include channel input gain settings–in both Snapshots.

This way, you can adjust input gains for Pro Tools inputs to approximate the input gains for the Stage inputs, and then store those settings in the Pro Tools Snapshot. When you recall the Snapshot with Stage inputs active, your Stage input gain settings are restored.

When you want to do another soundcheck at a later time using the same inputs, input gain settings are restored by recalling the Snapshot with Pro Tools inputs active.

No other parameters are stored, however, so any changes made in either Snapshot carry over when switching between the two Snapshots. This lets you work on channel and system EQ, dynamics, and effects using Pro Tools tracks, and have the changes carry over to your live mix.

See the VENUE D-Show Guide, the VENUE Profile Guide, or the VENUE SC48 Guide for more information on Snapshots.

On the VENUE System

To perform a Virtual Soundcheck with FWx:

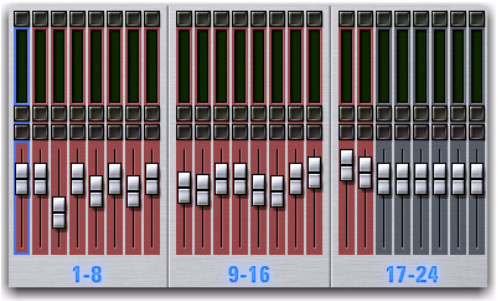
1 Go to the Snapshots page.

2 Recall an existing Snapshot by selecting a Snapshot from the Snapshots list and clicking the Recall button.

Snapshot Command buttons

3 If you do not have any Snapshots, do the following to create a Snapshot:

- Click New. The new Snapshot appears in the Snapshots list.
- Click the channels you want affected when the Snapshot is later recalled so that they are scoped. Scoped channels are displayed in red.



Scoping the input channels

- For each parameter of the scoped channels, click the corresponding Data Type button so that it is scoped. Scoped parameters are displayed in red.

Data Type Scope buttons default state

- Double-click the Snapshot name, enter a name for the new Snapshot, and press Enter on the keyboard.

Naming a Snapshot

4 Do the following to create the Snapshot with live Stage inputs active:

- Create a new Snapshot and name it.

Naming a Snapshot

– and –

- In the Scope section of the Snapshots page, click the IN and PRE Data Type buttons to scope *only* the input patching and the input gain settings for the scoped input channels. Deselect any other scoped Data Type buttons. Only the IN and PRE buttons should be displayed in red.

Scoping the IN and PRE parameters

Use this Snapshot to restore Stage input gains after the Virtual Soundcheck. All other changes made to your mix carry over when switching between Snapshots.

5 Do the following to create the Snapshot with the Pro Tools inputs active:

- Create a new Snapshot and name it.

Naming the Virtual Soundcheck Snapshot

– and –

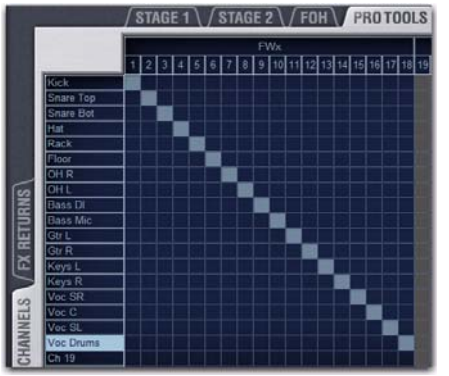
- Recall the new Snapshot by clicking the Recall button.

⚠ *Double-check to make sure you are editing the correct Snapshot. The most recently recalled Snapshot is either green or yellow in the Snapshots list.*

6 Go to the Patchbay page and, under the Inputs tab, click Pro Tools.

Naming the Snapshot

7 Patch the Pro Tools channels you want to use for Virtual Soundcheck to your console's input channels and click Assign.



Patching FWx inputs to console input channels

8 Go back to the Snapshots page and click Store.

9 Make changes to your mix while playing back Pro Tools audio, including channel input gain settings.

Channel input gain from Pro Tools will always be 3–6 db lower than your Stage inputs input gain, depending on recording levels. You may have to adjust the input gains for the Pro Tools inputs to approximate the levels of the live Stage inputs.

10 Go back to the Snapshots list and click Store to store any changes, including the input patch, made while the Pro Tools inputs are active.

11 You can recall the previous Snapshot to go back to your live Stage Inputs. Changes made while working in the Snapshot with Pro Tools inputs active carry over when you switch back to the Snapshot with live Stage inputs active.

On the Pro Tools System

To perform a Virtual Soundcheck with FWx:

1 Launch Pro Tools and open the corresponding Pro Tools session.

2 Make sure that the outputs of the tracks you want to use for Virtual Souncheck are patched to the corresponding VENUE input channels as patched in the VENUE system Patchbay. To change a channel's output assignment, click the Output Path selector and choose the output.

Pro Tools I/O paths

See "Assigning Outputs to Tracks for Monitoring, Playback, and Virtual Soundchecks" on page 25 for more information.

3 In the Edit window toolbar, or in the Transport window (Window > Transport) click Play, or press the Spacebar to begin playback.

Recording Audience Mics

(For FWx, HDx and MADI)

In addition to recording Stage input channels and busses, you may also want to record audience mics. Patch audience mics into available Stage inputs located on your Stage Rack or Mix Rack, or into a Pro Tools HD interface, and record them to Pro Tools using VENUE system Direct Outs.

On the VENUE System

To record audience mics using Direct Outs:

1 Make sure the VENUE system and the Pro Tools system are connected and configured.

See Chapter 2, "Hardware Connections" and Chapter 3, "Configuring VENUE and Pro Tools" for more information.

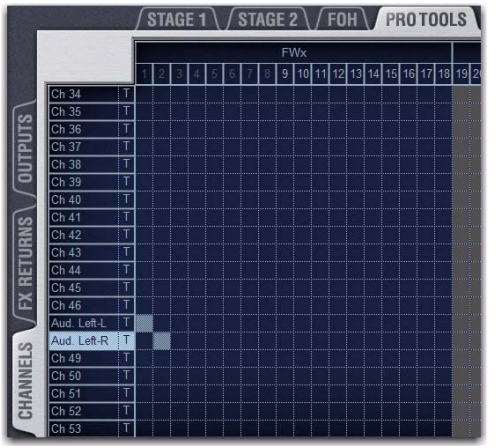
2 Patch any audience mics into any available inputs.

3 Go to the Patchbay page and click the Directs tab.

4 Click the Channels tab to the left of the channel grid.

5 Click the Pro Tools tab at the top right of the channel grid to show the available Pro Tools channels.

6 Click in the channel grid to assign the audience mic Direct Outs (listed on the left) to available Pro Tools channels (listed across the top).



Routing audience mic Direct Outs to Pro Tools

7 Click the Pickoff column in the Patchbay to specify one of the following pickoff sources for each Direct Output:

- Top of Channel (indicated by a "T")
- Pre-Fader (indicated by a lowercase "p")
- Post-Fader (indicated by an uppercase "P")

8 Activate the Direct Outs by clicking the channel's In button.

9 Set the level for the Direct Outs by adjusting either channel's Direct Out level control on-screen (or use the Direct Out channel encoder if available).

On-screen Direct Out level control and In/Out button

Go to Patchbay > Directs to access on-screen channel Direct Out level encoders.

On the Pro Tools System

To record audience mics using Direct Outs:

1 Launch Pro Tools and create a new session.

See "Creating a Session" on page 19 for complete information on creating a Pro Tools.

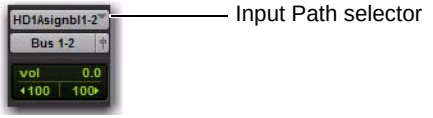
2 Create and name audio tracks for the audience mics.

See "Creating Tracks" on page 23 and "Naming Tracks" on page 23 for more information.

3 If you are using an HD interface to input audience mics, patch them to the inputs on your interface.

4 Do one of the following to assign track input sources:

- If you patched the mics into a Stage input, click the Input Path selector and choose the corresponding VENUE assignable channels as patched in the VENUE system Patchbay.



Confirming Pro Tools Input Paths

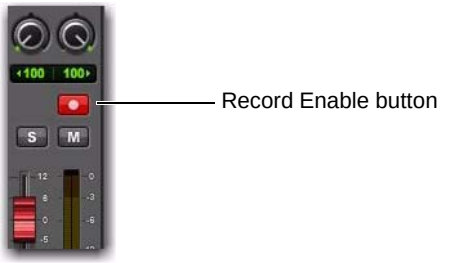
– or –

- If you patched the mics into an HD interface, click the Input Path selector and choose the corresponding interface input.

Confirming Pro Tools Input Paths

5 Assign audience mic track outputs to an internal Pro Tools bus such as Bus 1-2.

6 Click the track's Record Enable button. The Record Enable button flashes when enabled, and is lit solid when engaged.



Record enabling the tracks

7 Confirm the record level. A conservative recording level is best for live recordings. Try to keep record level peaks in Pro Tools to between –3 dB to –6 dB. Adjusting the fader in Pro Tools will not affect the record level, only the monitor level.

Setting the record level

8 In the Edit window toolbar, or in the Transport window (Window > Transport) click the Record button to arm the Transport.

Arming the Transport

9 When you are ready to start recording, click Play or press the Spacebar. To stop recording, press the Spacebar or click Stop.

Chapter 5: Using VENUE Link

VENUE Link provides Pro Tools and VENUE system integration and interoperability. When connected and configured, VENUE Link provides the following features:

- Import VENUE Settings into Pro Tools
- VENUE Snapshot Recall Creates Pro Tools Marker
- VENUE Snapshot Recall Locates to Pro Tools Marker

All that is required to take advantage of VENUE Link is a standard Ethernet connection between a VENUE system running VENUE software 2.9 and the following versions of Pro Tools, depending on the VENUE recording/playback option card(s) installed in your system:

VENUE Option Card	Pro Tools Software Version
FWx Card/SC48	Pro Tools 9.0 and higher
HDx Card	Pro Tools HD 8.1 and higher; Pro Tools HD 8.5 and higher (HD Native)
MADI Card	Pro Tools HD 8.1 and higher; Pro Tools HD 8.5 and higher (HD Native)

VENUE Link can be used with ECx Ethernet Control (for the remote operation of VENUE systems), and Satellite Link (for central control of multiple Pro Tools systems from one Pro Tools system), all to their full functionality.

Making Audio Connections

For recording and playing back Pro Tools audio using your VENUE system, audio connections must be made. See Chapter 2, “Hardware Connections” for information on making audio hardware connections.

Making Data Connections

You can use VENUE Link in one of two configurations:

- Connecting directly or connecting using a router without DHCP server functions (see “Connecting Directly to the VENUE System” on page 42).
- Connecting using a wired or wireless router with DHCP server functions (see “Connecting Using a Router with DHCP” on page 43).

Connecting Directly to the VENUE System

When connecting directly to your VENUE system (or if you are using an Ethernet router without DHCP server functions) you must manually set the IP addresses of the VENUE system and the Pro Tools computer.

To connect a VENUE system to a Pro Tools system:

1 Do either of the following:

- Connect an appropriate Ethernet cable type (with RJ-45 connectors) from the ECx port on your VENUE system to the Ethernet port on your computer.

– or –

- If you are using a router, connect your VENUE system (using the ECx port) and the Pro Tools computer to the router with the appropriate Ethernet cables (with RJ-45 connectors).

The type of Ethernet cable depends on the operating system of the remote computer:

Windows To connect a Windows computer directly to your VENUE system, an Ethernet crossover cable is required. Alternatively, you can use an Ethernet hub and connect standard Ethernet cables between your VENUE system, the hub and the remote computer.

Mac To connect a Mac computer directly to your VENUE system, you can use either a standard Ethernet cable or an Ethernet crossover cable.

2 On your VENUE system, go to the Options page, click the Interaction tab, and click the Control Settings button in to the Ethernet Control section.

Ethernet Control section with the Control Settings and the Network Settings buttons

3 Enter a name for your VENUE system in the System name box, and click Apply.

Entering a system name in the Control Settings dialog

Make a note of the number that appears in the TCP/UDP Port box (the default number is 29292). It must match the TCP/UDP port number found on the VENUE tab of the Setup > Peripherals menu in Pro Tools.

4 Click the Network Settings button, select Use the Following Address and enter the following:

- IP address: 10.0.0.1
- Subnet Mask: 255.255.255.0
- Default Gateway: 10.0.0.1

Entering IP information in the Network Settings Dialog

5 Click Apply.

VENUE Link Network Settings and Control Settings are shared with ECx Ethernet Control for remote operation. If you are manually setting IP addresses, make sure to update the settings on the computer running ECx.

6 Go to "Manually Setting the Computer IP Address" on page 43.

Manually Setting the Computer IP Address

After manually setting the IP address of your VENUE system, you need to do the same for your computer.

To manually set the IP address in Windows:

1 Go to Control Panel > Network Connections.

2 Right-click Local Area Connection and choose Properties.

3 In the Connection Properties window, double-click Internet Protocol (TCP/IP).

4 In the Internet Protocol Properties window, select Use the following IP Address and enter the following:

- IP address: 10.0.0.2
- Subnet Mask: 255.255.255.0
- Default Gateway: (none required)

5 Click OK to close the Internet Protocol properties window.

6 Click OK to close the Network Connection Properties window.

7 Go to "Enabling VENUE Link" on page 45.

To manually set the IP address on a Mac:

1 Launch System Preferences > Network.

2 Choose Ethernet from the network connections services list.

3 Choose Manually from the Configure menu.

4 Enter the following:

- IP address: 10.0.0.2
- Subnet Mask: 255.255.255.0
- Router: (none required)

5 Click Apply.

6 Go to "Enabling VENUE Link" on page 45.

Connecting Using a Router with DHCP

If you are using a wired or wireless router with DHCP server functions, you can configure your VENUE system and the Pro Tools computer to set their IP addresses automatically.

1 Do either of the following depending on your configuration:

- For wired connections, connect your VENUE system (using the ECx port) and the Pro Tools computer to the router with the appropriate Ethernet cables (with RJ-45 connectors).

– or –

- For wireless connections, just connect your VENUE system (using the ECx port) to the router using the appropriate Ethernet cables (with RJ-45 connectors). Your Pro Tools computer will connect via wireless, provided your computer has wireless capabilities.

2 On your VENUE system, go to the Options page, click the Interaction tab, and click the Control Settings button in to the Ethernet Control section.

Ethernet Control section with the Control Settings and the Network Settings buttons

3 Enter a name for your VENUE system in the System Name box, and click Apply.

Entering a system name in the Control Settings dialog

Make a note of the number that appears in the TCP/UDP Port box (the default number is 29292). It must match the TCP/UDP port number found on the VENUE tab of the Setup > Peripherals menu in Pro Tools.

4 Click the Network Settings button, select Obtain Address Automatically and click Apply.

Selecting Obtain Addresses Automatically from the Network Settings dialog

5 Wait until the VENUE System is assigned an IP address. This may take time (up to two minutes).

6 Go to "Automatically Setting the Computer IP Address" on page 44.

Automatically Setting the Computer IP Address

After setting the IP address for your VENUE system using DHCP, you need to do the same for your Pro Tools computer.

To automatically set the IP address in Windows:

1 Go to Control Panel > Network Connections.

2 Right-click Local Area Connection (or Wireless Network Connection for wireless connections) and choose Properties.

3 In the Connection Properties window, double-click Internet Protocol (TCP/IP).

4 In the Internet Protocol Properties window, select Obtain an Address Automatically.

5 Click OK to close the Internet Protocol properties window.

6 Click OK to close the Network Connection Properties window.

7 Go to "Enabling VENUE Link" on page 45.

To automatically set the IP address on a Mac:

1 Launch System Preferences > Network.

2 Do one of the following depending on your type of connection:

- For wired connections, choose Ethernet from the network connections services list.

– or –

- For wireless connections, choose Airport from the network connections services list, choose your network, and enter a password if necessary. Once connected, go to "Enabling VENUE Link" on page 45.

3 Choose Using DHCP from the Configure menu.

4 Click Apply.

5 Wait until the computer is assigned an IP address. This may take time.

6 Go to "Enabling VENUE Link" on page 45.

Enabling VENUE Link

After physically connecting the systems and establishing communications between systems, you can enable VENUE Link.

To enable VENUE Link:

1 On your VENUE system, go to the Options page and click the Interaction tab.

2 If you have not already done so, enter a name for your VENUE system by clicking the Control Settings button and entering a name in the System Name box.

3 Select Enable VENUE LInk.

Enabling VENUE Link

4 Launch Pro Tools. If the Quick Start dialog appears, click Cancel.

5 Choose Setup > Peripherals to open the Peripherals dialog, and click the VENUE tab.

6 In the System Name box, enter a name for your Pro Tools system.

Naming the Pro Tools system

7 Choose your VENUE system from the VENUE System pop-up menu. When a connection is established, "(connected)" is displayed next to the name of the connected VENUE system.

Choosing the VENUE system

If you do not see your VENUE system (or you have not named your VENUE system), click Enter IP Address... from the pop-up menu and manually enter the IP address of the VENUE system you want to connect to.

8 On the VENUE tab of the Peripherals dialog, confirm that your VENUE and Pro Tools systems share the same TCP/UDP port setting. In most cases you will not need to change this number.

If you have trouble enabling VENUE Link, choose a number between 1024 and 65535 (do not, however, use 5900) and enter it into the TCP/UDP Port box on here and on your VENUE system at Options > Interaction > Control Settings.

9 In Pro Tools, choose Setup > IO Setup, click the Inputs tab, and do the following depending on your configuration:

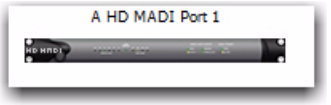
FWx When using FWx, confirm that Pro Tools recognizes the card. It appears above the patching grid.

HDx When using HDx, confirm that Pro Tools recognizes the card. It appears above the patching grid.

HDx card in IO Setup

MADI When using a MADI card connected to an HD MADI interface, the HD MADI interface appears above the patching grid. The peripheral must use the following default names before importing VENUE settings:

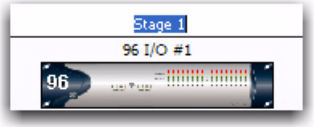
- A HD MADI Port 1
- A HD MADI Port 2
- B HD MADI Port 1
- B HD MADI Port 2



HD MADI card in IO Setup

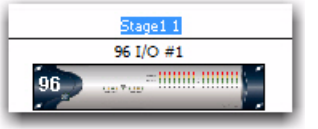
Other Pro Tools HD Interfaces If you are using other Pro Tool HD audio interfaces between your VENUE system and your computer, you must edit the names of the interfaces as follows:

- For systems with a single Stage Rack or a Mix Rack, double-click the box above the peripheral in I/O Setup and enter the following depending on your configuration:
  - For peripheral A, enter Stage 1 for Stage inputs 1-16
  - For peripheral B, enter Stage 17 for Stage inputs 17-32
  - For peripheral C, enter Stage 33 for Stage inputs 33-48



Naming a peripheral in I/O Setup for single Stage Rack or Mix Rack systems

- For systems with two Stage Racks, double-click the box above the peripheral in I/O Setup and enter the following depending on your configuration:
  - For peripheral A, enter Stage1 1 for Stage 1 inputs 1-16
  - For peripheral B, enter Stage1 17 for Stage 1 inputs 17-32
  - For peripheral C, enter Stage1 33 for Stage inputs 33-48
  - For peripheral D, enter Stage2 1 for Stage 2 inputs 1-16
  - For peripheral C, enter Stage2 17 for Stage 2 inputs 17-32
  - For peripheral C, enter Stage2 33 for Stage 2 inputs 33-48



Naming a peripheral in I/O Setup for dual Stage Rack systems

When not connected to a VENUE system, make sure VENUE Link is disabled in Pro Tools. Go to Peripherals > VENUE. From the VENUE System pop-up menu, select none.

Using VENUE Link

See the following sections for information on how to use VENUE Link features:

- "Importing VENUE Settings into Pro Tools" on page 47.
- "Creating Pro Tools Markers from VENUE Snapshots" on page 50.

Importing VENUE Settings into Pro Tools

When VENUE Link is enabled, you can import VENUE settings into Pro Tools in two ways.

◆ You can create a Pro Tools session from VENUE. Tracks are automatically created, named, and given I/O assignments based on the currently loaded VENUE Show file.

◆ You can import VENUE channel names as track names into an existing Pro Tools session. You can use this option in the following ways:

- If you have created a session from VENUE, but prior to recording you have changed the names of channels on your console, use this feature to update track names automatically.
- If you are working from an existing template, which includes the VENUE channels plus a variety of other inputs (such as audience mics or playback sources from another Pro Tools peripheral), use this feature to update the VENUE-related track names without affecting the other non-VENUE tracks.

Create a Session from VENUE

When you choose to create a Pro Tools session from VENUE, new mono and stereo audio tracks are created for all patched VENUE system mono and stereo Stage input channels, as well as for any output busses or Direct Outs patched to assignable outputs in the VENUE system Patchbay.

To create a session from VENUE:

1 On your VENUE system, make sure you have loaded the Show file you want to use as the basis for your Pro Tools session.

2 In Pro Tools, do either of the following:

- If the Quick Start dialog appears, choose, Create Session from VENUE.

– or –

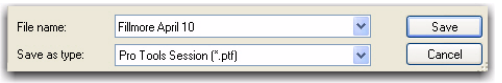
- If the Quick Start dialog does not appear, choose File > New Session, and choose Create Session from VENUE.

3 To set session parameters, do the following (if session parameters are not visible click the Session Parameters reveal button):

- Set the audio file format for the session.
- Select the bit depth.
- Set sample rate to 48 kHz. In most cases, you will not be able to change this value when connected to a VENUE system.

4 Click OK.

5 Your most recently loaded VENUE Show file appears as the session name. Accept the name or edit it, and select the drive where you want to save the session. The session should be saved on a dedicated audio drive.



Naming and saving the session

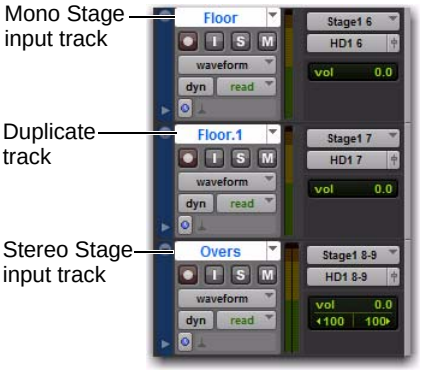
6 Click Save.

If you are recording multiple instances of the same performance (using the same Show file name), you should save each session to a new folder and name the folder and the session accordingly.

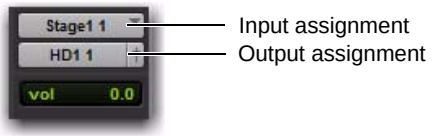
New tracks appear in Pro Tools as follows, depending on the type of VENUE channel imported into Pro Tools:

Stage Input Channels (HDx and MADI only) In the new Pro Tools session, mono and stereo tracks are created for VENUE system mono and stereo Stage input channels. Tracks are named automatically based on their corresponding Stage input channel names. Duplicate track names are appended incrementally (".1," a ".2," and so on). Outputs are automatically assigned, and follow input path assignments one-for-one to facilitate Virtual Soundchecks. Track order (top to bottom in the Edit window and left to right in the Mix window) follows the channel order on your VENUE system.

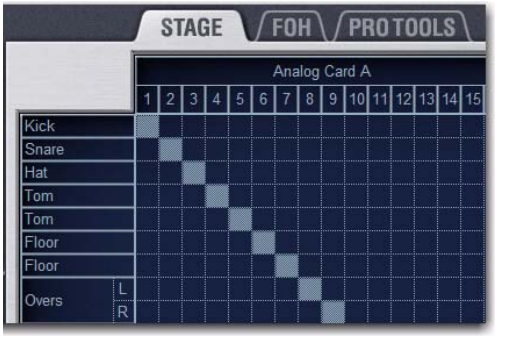
Because FWx uses VENUE assignable channels only, tracks for individual Stage inputs are not created. Tracks for any patched output busses and Direct Outs are created. See "Output Busses and Direct Outs" on page 49.



Imported Stage input channel track names



Imported Stage input channel track input and output assignments



Patched Stage input channels in the VENUE Patchbay

Tracks are created for any Stage input channels patched in the VENUE system Patchbay. To avoid creating tracks for unused inputs, go to Patchbay > Inputs on your VENUE system and, in the patching grid, deselect (unassign) any unused Stage input channels.

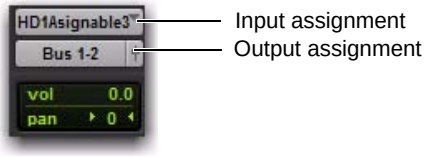
Output Busses and Direct Outs In the Pro Tools session, new mono and stereo tracks are created for any output busses and Direct Outs patched to assignable outputs in the VENUE system Patchbay. Tracks are named automatically based on their corresponding VENUE system channel names. Track names are appended with the corresponding output type as follows:

VENUE Channel Type	Track Name Appended With
Group output bus	(Grp)
Aux output bus	(Aux)
Matrix output bus	(Mtx)
PQ output bus	(PQ)
Mains output busses	(Left-Right) (Center) (Mono)
Monitor output	(Mon)
Direct output	(Dir)
Plug-in output	(PI)

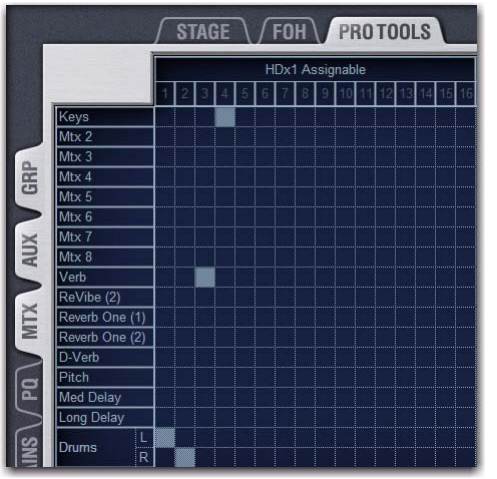
By default, all track output paths are assigned to Bus 1-2 in Pro Tools. This routing can be changed.

If tracks for Stage inputs have been created, tracks for output busses and Direct Outs appear after tracks for Stage inputs (to the right in the Mix window, and below in the Edit window).

Imported assignable channel track names



Imported assignable channel track input and output assignments



VENUE channels assigned to assignable output channels in the VENUE Patchbay (HDx shown)

Importing VENUE Channel Names as Track Names

You can import VENUE channel names into an existing Pro Tools session. Channel names are imported to tracks that have a VENUE input assignment (such as, for example, "Stage1 7").

If you have added a channel to the currently loaded Show file that does not have a corresponding Pro Tools track, create a new track, set a VENUE input assignment, then choose Import > VENUE Channel Names as Track Names to import names.

To import VENUE channel names into an existing Pro Tools session

- In an existing Pro Tools session, from the File menu, choose Import > VENUE Channel Names as Track Names.

Track names are imported the same way as described above (see "Create a Session from VENUE" on page 47). However, I/O routing for all tracks do not change, and no new tracks are created.

When you create new sessions in Pro Tools, you can use pre-formatted VENUE session templates, or you can create your own template, which you can then use as the basis for new sessions. See "Creating Custom Templates" on page 26 for more information.

Creating Pro Tools Markers from VENUE Snapshots

With VENUE Link enabled, you can set individual VENUE Snapshots to create new Markers in the Pro Tools Timeline. While Pro Tools is recording, whenever that Snapshot is recalled, a new Marker is created. New Markers are automatically named for their corresponding VENUE Snapshots.

Once markers are created from VENUE Snapshots, while Pro Tools is playing back subsequent recalls of that Snapshot can locate (cue) the Pro Tools playback cursor to the associated Marker. In performance, this is a great way for the VENUE operator to be able to precisely control Pro Tools playback for sound effects, beds, or backup material. For subsequent mixdown or for Virtual Soundcheck, you have a fully archived session in which you can quickly navigate to specific songs or cues in your session.

On the VENUE system, you can enable or disable individual VENUE Snapshots from creating Pro Tools Markers. In Pro Tools, you can edit VENUE-generated Markers to rename them, move them to a different location in the timeline, disable Snapshot "chase," and reassociate a Marker with a different VENUE Snapshot.

To create a Pro Tools marker from a VENUE Snapshot:

1 On the VENUE System, go to the Snapshots page.

2 In the Snapshots list, click the Marker icon to enable that Snapshot to create a Pro Tools Marker when recalled during recording.

If the Marker icon is not displayed, right-click one of the Snapshots in the list and choose Unhide Marker.

VENUE Snapshots list showing Marker icon enabled

Shift-click multiple Snapshots and toggle the Marker icon to enable or disable multiple consecutive Snapshots in the Snapshots list. Control-click multiple Snapshots to select multiple non-consecutive Snapshots. Right-click in the Snapshots list and choose Select All to select all Snapshots.

3 In Pro Tools, locate the Markers ruler. If you do not see it, choose View > Rulers > Markers.

4 Click the track's Record Enable button. The Record Enable button flashes when enabled, and is lit solid when engaged.

To record enable all tracks at once, Alt-click (Windows) or Option-click (Mac) one track Record Enable button.

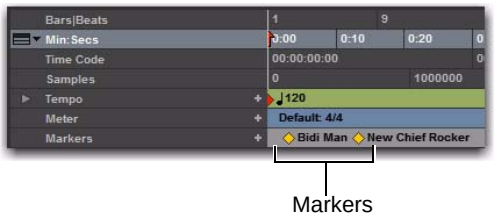
5 In the Edit window toolbar, or in the Transport window (Window > Transport) click the Record button to arm the Transport.

6 In Pro Tools, press the Spacebar to start recording.

7 On your VENUE system, select a Snapshot from the Snapshot list and click Recall to recall that Snapshot.

8 Recall any other Snapshots on your VENUE system as required.

Markers appear in the Pro Tools Marker's ruler for any recalled VENUE Snapshots, and are automatically named to match the corresponding VENUE Snapshot.



Pro Tools ruler showing Snapshot-generated Markers

To locate to a Pro Tools marker when recalling a VENUE Snapshot:

1 Make sure Pro Tools is either playing back or stopped.

2 On the VENUE System, go to the Snapshots page.

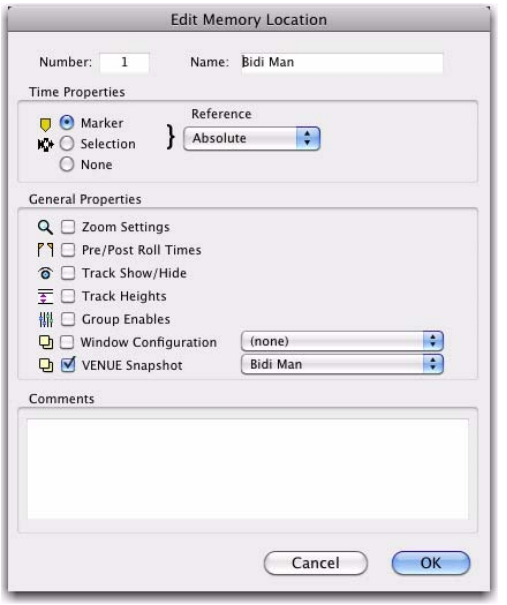
3 In the Snapshots list, select a Snapshot that is associated with a Pro Tools Marker, click its Marker icon so that it is lit green, and click Recall.

If Pro Tools is in play, playback continues when recalling any VENUE Snapshot associated with a Pro Tools Marker.

Editing Markers Created from VENUE Snapshots

Markers created via VENUE Link can be edited like other Pro Tools Memory Locations. In Pro Tools, you can rename Markers, move Markers, disable Snapshot "chase," and re-associate a marker with a different VENUE Snapshot.

For complete information on Memory Locations, see the Pro Tools Reference Guide.



Edit Memory Location dialog showing an enabled VENUE Snapshot marker

To rename a Memory Location for a Marker:

1 In the Edit window, double-click the Marker in the Markers ruler to open the Edit Memory Locations dialog.

2 Enter the new name for the Memory Location, and click OK.

The edited marker remains linked to the VENUE Snapshot.

To move a VENUE Snapshot-generated Marker:

- In the Markers ruler in Pro Tools, drag the Marker left or right.

If you move a VENUE Snapshot in the Snapshot list, it will still remain linked to the associated Marker.

To disable locating to a VENUE Snapshot-generated Marker:

1 In the Edit window, double-click the Marker in the Markers ruler to open the Edit Memory Locations dialog.

2 In the General Properties section, deselect VENUE Snapshot.

3 Click OK.

Recalling the VENUE Snapshot does not locate the Pro Tools playback cursor to the disabled Marker. Re-selecting this option restores the locate functionality.

To associate a Marker with a different VENUE Snapshot:

1 In the Edit window, double-click the Marker in the Markers ruler to open the Edit Memory Locations dialog.

2 In the General Properties section, next to VENUE Snapshot, choose a different VENUE Snapshot from the pop-up menu.

3 Click OK.

The selected VENUE Snapshot locates the Pro Tools playback cursor to the edited Marker.

Appendix A: Synchronization

When connecting your VENUE system to multiple Pro Tools systems or other external digital devices, you may need to make additional connections to ensure proper synchronization. This section provides information on the following scenarios:

- Synchronizing redundant output configurations.
- Synchronizing multiple devices using an external master clock.
- Synchronizing your HD interface and HDx.
- Locking your live Pro Tools recording to external timecode.

Synchronizing Redundant Output Configurations

Using Two Pro Tools Systems

When recording to two independent Pro Tools systems using redundant outputs, additional word clock connections are not required. However, for the FOH Rack, an additional Snake Card is required for proper clocking. See the *Snake Card* guide for more information.

For the Mix Rack, a clock-source jumper cable must be installed in the Mix Rack for proper clocking. See *What's New in VENUE 2.9* for more information.

Using Third-Party MADI Devices

When using a third-party MADI device, additional word clock connections may be required.

To synchronize a VENUE system to an another MADI device, do either of the following:

- To send word clock from your VENUE system to an external MADI device, connect a coaxial cable from the Word Clock Out port on your FOH Rack or Mix Rack to the word clock in port on your external MADI device. The external MADI device may need to be set to receive a 48kHz word clock rate.

– or –

- To send word clock from an external MADI device to your VENUE system, connect a coaxial cable from the word clock out of the external MADI device to the Word Clock In port on your FOH Rack or Mix Rack. The external MADI device must be set to send 48kHz word clock rate to your VENUE system. The VENUE system auto-detects external word clock and display "EXT" in the Mode box on-screen.

Using an External Master Clock

You may want to use an external master clock to provide word clock to your VENUE system, your Pro Tools system, and any other connected devices. In this configuration, VENUE receives word clock, which is transmitted to Pro Tools via the audio connection.

To synchronize all devices using an external master clock:

1 Set the outgoing word clock rate of the external master clock to 48kHz.

2 Connect a coaxial cable from the word clock outputs of the external master clock device to the Word Clock In ports on the VENUE system. The VENUE system auto-detects external word clock and display "EXT" in the Mode box on-screen.

3 Connect a coaxial cable from the word clock out ports of the master clock to the word clock in ports on any connected external devices. Set the word clock rate of the connected external devices to 48kHz.

Synchronizing a Pro Tools HD Interface and VENUE HDx

When using an HD interface along with VENUE HDx, word clock connections are required between the HD interface and your VENUE system.

To synchronize an HD interface to your system:

1 Make word clock connections by doing one of the following:

- For systems with an FOH Rack, connect one end of a BNC cable to the Word Clock Out port on the Snake card. If a second FOH Snake card is present, connect the cable to the Word Clock Out port on the second Snake card.

– or –

- For systems with a Mix Rack, connect one end of a BNC cable to the Word Clock Out port.

2 Connect the other end of the BNC cable to the Loop Sync in port on the HD-series audio interface.

3 In Pro Tools, go the Hardware > Setup.

4 In the Peripherals list, select the HD interface so that it is highlighted, and confirm that the Loop Master is HDx.

Locking Pro Tools to Timecode

You may be asked to lock your live Pro Tools recording to timecode for a video shoot. This section explains the system requirements, and shows how to connect and configure your live recording system to accomplish this.

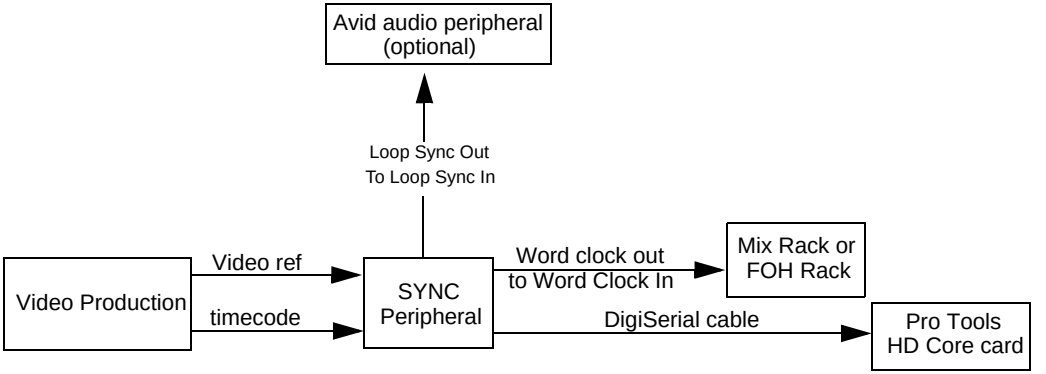


Figure 7. Sync configuration using a SYNC peripheral

System Requirements

You will need the following to complete this configuration:

- HDx or MADI-equipped VENUE system
- Pro Tools|HD system
- An Avid SYNC peripheral (SYNC HD or SYNC IO)
- A 75-ohm BNC terminator (included with the SYNC peripheral)
- DigiSerial cable (8-pin mini-DIN connector to mini-DIN connector cable, included with SYNC peripheral)
- Coaxial cables with BNC connectors
- Video ref signal for clock reference
- Linear Time Code (LTC) or Vertical Integrated Time Code (VITC) for positional reference

Getting Started

Before connecting and configuring for synchronization, you will need the following information from the provider of the video ref and timecode:

- The frame rate of the provided timecode.
- The format of the provided video ref. If an SD video ref is provided, you need to know if the format is PAL or NTSC. If an HD video ref is provided, you need to know the video reference rate (SYNC HD only).

Overview

To lock Pro Tools to incoming timecode, all systems must share a common clock reference. In the following procedures, video ref provides the common clock to Pro Tools and VENUE via the SYNC peripheral.

To connect Pro Tools and VENUE for synchronization:

1 Connect the provided SD or HD (SYNC HD only) video ref signal to a SYNC peripheral Video Ref connector.

If the SYNC peripheral is the last device in the video sync chain, a 75-ohm BNC terminator must be attached to the unused Video Ref connector.

2 To connect the cable carrying timecode to the appropriate In port on the SYNC peripheral, do the following depending on the type of timecode provided:

- If using LTC, connect the cable to the LTC In port.
- If using VITC, connect the cable to the Video In port.

3 Connect a coaxial cable from the Word Clock Out port of the SYNC peripheral to the Word Clock In port on the VENUE system. The VENUE system automatically detects incoming word clock and displays EXT in the Mode box on-screen.

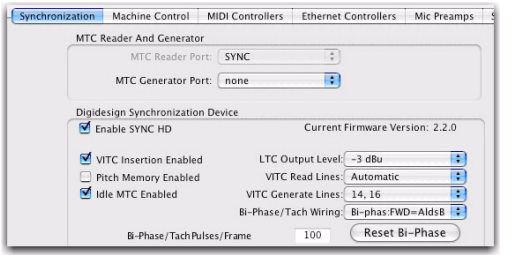
4 If you are also using an Avid audio peripheral such as a 192 I/O, connect a coaxial cable from the Loop SYNC Out port of the SYNC peripheral to Loop Sync In port on the audio interface. Continue to loop to the last audio interface in the chain. Leave the *last* Loop Sync Out connector in the chain unconnected.

If you are using an external third-party MADI device connected to a MADI card, the MADI device must be clocked to the same source as everything thing else. See the MADI Card guide for information on synchronizing external MADI devices to your VENUE system.

5 Connect a DigiSerial cable from the SYNC peripheral serial connector to the DigiSerial port on the Pro Tools HD Core card.

To configure Pro Tools:

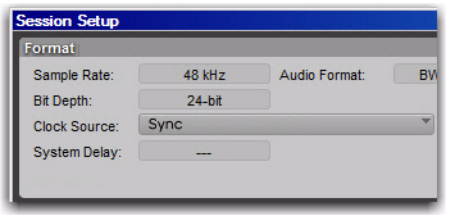
6 In Pro Tools, choose Setup > Peripherals, click the Synchronization tab, and choose Enable Sync HD or Enable SYNC I/O depending on the peripheral used.



Enabling the SYNC peripheral in Pro Tools (SYNC HD shown)

7 Choose Setup > Session, and in the Format section of the Session Setup window, do the following:

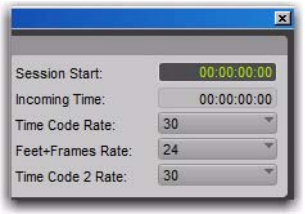
- From the Clock Source pop-up menu, choose SYNC as the clock source.



Choosing Sync as the Clock Source

– and –

- From the Timecode Rate pop-up menu, set the session timecode rate to match the frame rate of the provided timecode.



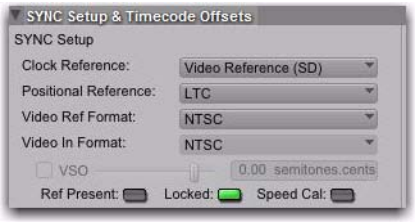
Setting the session Timecode Rate

8 In the Sync Setup & Timecode Offsets section of the Session Setup window, do the following:

- From the Clock Reference pop-up menu, choose Video Reference (SD) for NTSC/PAL signals, or Video Reference (HD) for bi- or tri-level signals (SYNC HD only).

– and –

- From the Positional Reference pop-up menu, choose the format of incoming timecode (LTC or VITC).



Setting the session Timecode Rate

9 From the Video Ref Format pop-up menu, choose one of the following depending on which video ref format you selected from the Clock Reference pop-up menu:

- If you selected Video Reference (SD) as your Clock Reference, choose NTSC or PAL.

– or –

- If you selected Video Reference (HD) as your Clock Reference, choose the video reference rate that is being sent to you.

10 In the Timecode Settings section, enable Jam Sync, and set the Audio and Video Pull Up/Down to None.

Enabling Freewheel Jam Sync

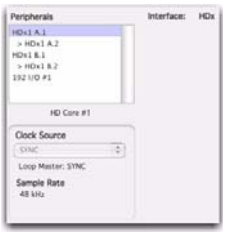
Enabling Freewheel Jam Sync lets Pro Tools continue recording even if timecode is lost.

11 Choose Setup > Hardware,

12 Click to select the first peripheral in the Peripherals list so that it is highlighted, then do the following:

- Set Clock Source to SYNC.
- Set the Loop Master to SYNC.

13 Repeat step 12 for all other peripherals in the Peripherals list.



Hardware Setup dialog showing

To initiate recording:

1 Record enable the tracks to be recorded.

2 Click Record in the Transport window.

3 When ready, click the Online button in the Transport. Recording will commence if incoming timecode is present.

Pro Tools transport

If recording does not commence, the Online button will continue to flash, indicating that Pro Tools is not receiving timecode. If you need to start recording anyway, deselect the Online button, click the Record button again, and click the Play button to initiate recording. The recording will not be locked to timecode.

Appendix B: Troubleshooting

Backing Up Your Work

It is highly recommended that you back up your work on a regular basis, and especially before making changes to your system configuration.

Backing Up Your Session Data

Back up your session and audio data frequently. There are a variety of media that are suited to back up projects of various sizes, from automated tape backup systems to high-capacity optical drives, or to CD burners.

The best way to back up an entire session is to use the Save Copy In command. This command lets you save the session file and all of its associated files to a new location.

You can also use the Auto Save Backup feature (in the Operation Preferences page) to have Pro Tools automatically save backups of the session file while you work.

Backing Up Your System Configuration

After configuring your system and Pro Tools, you should save an image of your system drive using a backup utility such as Bombich Carbon Copy Cloner (Mac) or Norton Ghost (Windows). By doing this, you can quickly restore your system configuration and settings if you encounter any problems.

Common Issues

Pro Tools Won't Launch

Problem

When you double-click the Pro Tools application or a Pro Tools session file, Pro Tools doesn't launch, or displays an error message.

Possible Solutions

◆ Check to be sure your computer has the required amount of RAM to launch Pro Tools. Visit www.avid.com/compatibility.

◆ Try a complete restart. Turn off your VENUE system, audio interfaces, computer peripherals and your computer, and then turn them on again in the proper sequence.

◆ If you tried to launch Pro Tools by double-clicking a Pro Tools session file, do the following:

- Close any error message.
- Double-click the Pro Tools application.
- In Pro Tools, choose File > Open Session to open the session.

◆ Reinstall the Pro Tools application, using the Pro Tools Installer disc.

Audio Interface Is Not Recognized

Problem

When you launch Pro Tools it does not recognize an audio interface or a connected audio interface is not available.

Possible Solutions

◆ Turn off your computer and check to be sure your cables are properly and securely connected to your computer and to your audio interface.

◆ Verify that your Hardware Setup dialog settings are correct.

◆ Try unplugging DigiLink cables, FireWire cables, or any connected MADI cables from the VENUE option card and plugging them back in.

Connected VENUE Option Card Is Not Recognized

Problem

Pro Tools launches, but the connected VENUE option card (or cards) does not appear in Pro Tools I/O Setup. When properly connected and configured, FWx and HDx should appear in IO Setup as the recognized interface. For MADI, the HD MADI interface should appear as the recognized interface. When an HD interface is used with HDx, it appears in I/O Setup.

Possible Solution

◆ Open the I/O Setup dialog (Setup > IO...), click the Inputs tab and click Default. Click the Outputs tab and click Default, then click OK.

◆ Open the Playback Engine (Setup > Playback Engine) and make sure the correct engine is selected from the Current Engine pop-up menu.

Computer Stops Recording

Problem

When recording, your computer seems to be running slower than normal or stops while recording.

Possible Solution

◆ You may be recording to the computer's system drive, or too many tracks may be allocated to one drive. You will have to reallocate the audio drives if you are recording to the system drive. If you are recording too many tracks to a single drive, you will have to reallocate some of the tracks to a different audio drive.

A drive's supported track count depends on the session's parameters and the type of drive (IDE/ATA, SATA, FireWire or SCSI drives). Visit www.avid.com for information on hard drive requirements.

Allocating Audio Drives

To allocate the audio drives in your system:

1 Choose Setup > Disk Allocation.

2 For each track click in the Root Media Folder column so the track is highlighted, and select a volume from the Disk Allocation pop-up menu.

3 Only drives designated as R (record and playback) can be selected. If you do not see your drive in the pop-up menu, do the following:

- Click OK to close the Disk Allocation window.
- Choose Window > Workspace.
- Locate the drive in the Name column.
- Click the corresponding box in the A column and select Record from the pop-up menu.

You can allocate tracks to drives in the following ways:

- To assign a track to a different hard drive, click the track and select a drive name.
- To assign all tracks to the same hard drive, press Option (Mac) or Alt (Windows) while selecting a drive name.
- To make a consecutive selection, Shift-click a track name (in the Track column) to extend the selection to include already-selected tracks and all tracks in between.
- To make a nonconsecutive selection, Command-click (Mac) or Control-click (Windows) a track name in the Track column to extend the selection to include already-selected tracks without including tracks in-between.

A folder with the session name is created on each hard drive, containing subfolders for audio and fade files.

4 To save recorded audio files to an existing folder (without creating another session folder), select Customize Allocation Options, then click Change and choose the folder. To create subfolders in this folder, select the Create Subfolders for Audio, Video, and Fade Files option.

5 When you are finished, click OK.

Saving Disk Allocation Settings

To save Disk Allocation settings for use with future sessions, save the session as a template. See "Creating Custom Templates" on page 26.

Disk Allocation and Cross-Platform Sessions

To ensure cross-platform operation, it is required that Mac Pro Tools sessions and their associated audio files be on Mac-formatted (HFS or HFS+) drives. Windows Pro Tools sessions and their associated audio files must be on Windows-formatted NTFS drives.

On Windows, with the Digidesign HFS+ Disk Support option installed, you can record to and play back from Mac-formatted HFS+ drives. For more information, see the Mac HFS+ Disk Support Option Guide.

Reallocating Tracks

When opening a session where some of the previously assigned hard drives are no longer available (or do not match the current session platform), Pro Tools automatically reassigns tracks to the volume where the session file is stored. In such cases, use Disk Allocation if you need to reallocate tracks to other drives.

Computer Stops Playing Back

Problem

When recording or playing back a session, your computer stops and you encounter -9073 errors ("Disk too slow or fragmented").

Possible Solution

If you are using Pro Tools 9.x or lower, try changing the DAE Playback Buffer settings.

To change the DAE Playback Buffer size in Pro Tools 9.x or lower:

1 Go to Setup > Playback Engine.

2 From the DAE Playback Buffer pop-up menu, select the highest available setting. Memory requirements for each setting are shown at the bottom of the Playback Engine dialog.

3 Click OK.

4 If the problem persists, go back and select the next higher level and click OK.

5 If Pro Tools needs more memory for the DAE Playback Buffer, it will prompt you to restart your computer.

Performance Factors

There are several conditions that may adversely affect the performance of Pro Tools. These include:

Network Connections Close any network connections unless you are using them for network interchange of audio data.

Background Applications Any software utilities that run in the background or generate disk activity, such as virus protection, disk optimization, or file savers, should be turned off or removed.

Screen Savers Screen saver software should be completely disabled on your computer before running Pro Tools.

Power Saver Features Some automatic power saver features, such as those that spin down the system hard drive, can affect Pro Tools performance. These features should be turned off.

Before You Call Avid Support

Register Your System

Register your VENUE system, and each recording option, as well as your Pro Tools system by following the instructions on the Registration Information Card included with your system. By registering, you become eligible to receive the following:

- Technical support information
- Software update and upgrade notices
- Hardware warranty information

Gather Important Information

Avid wants to help you resolve problems as quickly and efficiently as possible. If you collect the following information before you contact Avid Support, it will make the diagnosis of your problem easier.

System Information

VENUE System

- Type of console(s) and rack(s)
- Any option cards that are installed
- VENUE software version

Computer

- Make, model, processor speed
- Amount of system RAM
- Operating system (version of Windows or Mac OS)
- Any Drivers, Disk Utilities, or other system-related applications you may have installed

Pro Tools Hardware

- Type of cards, interfaces, or peripherals

Hard Drives

- Make, Model
- Drive size (GB)
- Drive speed (RPM)
- Drive type (SCSI, FireWire, IDE/ATA)
- Utility used to format the drive
- Number and size of partitions on the drive

Pro Tools Software

- Pro Tools software version
- Plug-In versions
- Other Pro Tools software options or components
- Additional plug-ins from Avid Development Partners

Other Hardware

Refer to the manufacturer's documentation for operational details.

The most common hardware additions include:

- 1394 (FireWire) cards for Windows systems (manufacturer, model)
- Video Capture cards (manufacturer, model)

To verify that your hardware is qualified for use with your Pro Tools system, visit:

www.avid.com/compatibility

Other Software

If you are using other audio or video applications, refer to the manufacturer's documentation for operational details.

Make note of any other software that was running when a problem occurred.

Diagnostic Information

Note any DAE errors or other error codes you encounter. Additionally, note the ability to reproduce the problem under different conditions, for example, with another session, or after changing settings (such as the Hardware Buffer Size).

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Product Information
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