Streambox® Spectra® 🔂



Setup Guide

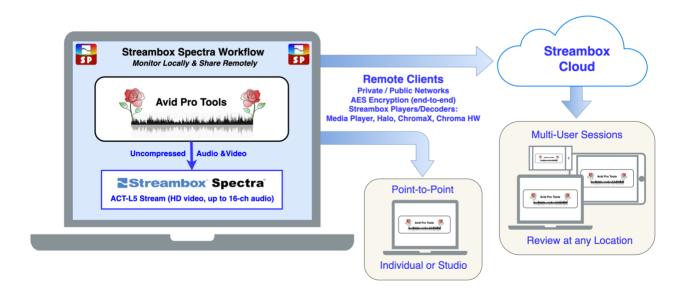
Avid Pro Tools® setup (for macOS)

Note: This document reflects the current feature-set which may change without notice (June 2023). We will attempt to keep all users up to date on any changes.

Document version

- 1.1 June 28, 2023 added Dolby Atmos Renderer and troubleshooting sections
- 1.2 July 29, 2023 Release version with minor updates based on beta reviews

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Introduction

Spectra for Pro Tools (macOS) is a software solution designed to aid audio professionals in their remote work. Spectra simplifies remote audio and video reviews, eliminating the need for complex hardware and software setups. With Spectra, you can operate from your Mac Book Pro, without the need for any external audio hardware or an additional video encoder.

Spectra for Avid Pro Tools works with the Dolby Atmos Renderer, allowing the streaming of up to 16 channels of uncompressed, low latency audio and HD video.

For the recipients of your streams, Streambox provides free Streambox Media Players from the Apple Store, as well as Streambox Iris software, which can be used to connect with Blackmagic Design hardware. Dedicated hardware appliances like Halo, ChromaX, and Chroma are also available for those who require a more comprehensive studio setup.

With Spectra, remote reviews are made easy. You can use Point-to-Point workflows and our Cloud services for multi-user sessions, providing flexibility and ease of use for all users on both sides of the workflow.

CREATE

Name: QSG-Setup

Basic 5.1 Mix

Basic Stereo Mix

Basic Stereo with VO and M&E

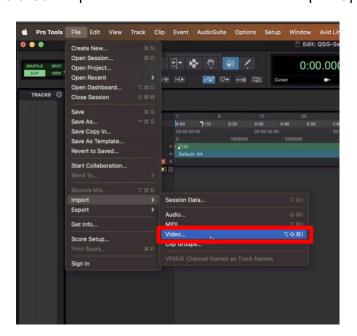
Sign In

Pro Tools Setup

When Streambox Spectra is installed on a macOS device, it will install the appropriate plugin for Avid Pro Tools (if Pro Tools was installed after Spectra, you will need to reinstall Spectra). The Spectra Installer will also create a new Spectra Audio Device that supports up to 16 channels of audio. You might need to reboot your macOS if Spectra Audio is not present in "Audio Midi Setup" macOS Utility.

Note: It is assumed that the user has a moderate familiarity with Pro Tools.

- Start Pro Tools and create a new Session from its Dashboard.¹ In the example here we will setup a 5.1 audio I/O Session.
- Next you will want to import your video content. Open the File/Import/Video... selection (red outline, image below).
 Note: If you don't see the 'Video...' option, you likely don't have the full paid version (which is required for Spectra).
- Remember to check 'Import audio from file' in the 'Video Import Options' dialog.



Page 3 of 11

¹ Note: the use of Session here refers to a Pro Tools Session and not a Streambox Session

Configuring Audio Output

Playback Engine setup

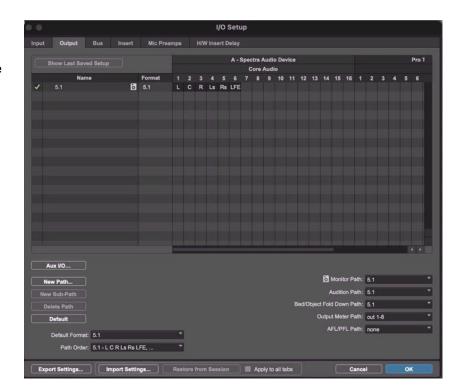
- From the Setup menu, select 'Playback Engine...'
- Here Playback Engine can be set to 'Pro Tools Aggregate I/O' or 'Spectra Audio Device' depending on your workflow.
- 'HW Buffer Size' should be 1024.
- Check 'View Engine'.
- Check 'Limit number of Real Time Threads'



Note: Avid recommends disabling WiFi if you experience playback performance issues, see: https://avid.secure.force.com/pkb/articles/en_US/Knowledge/AAE-6101-Error-Occurs-Pro-Tools-Mac

I/O Setup

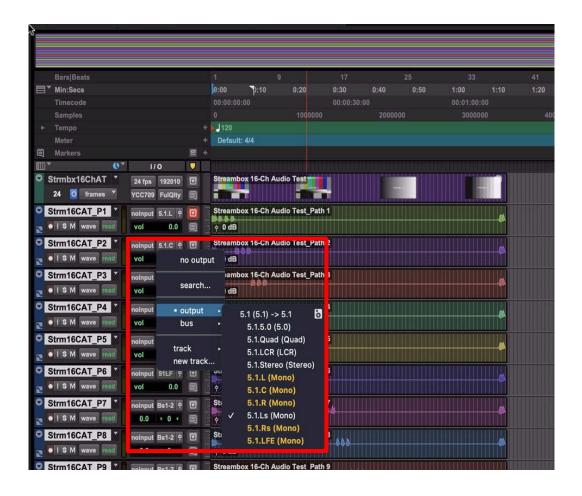
 From the Setup menu, select 'I/O...'. Make sure the audio mapping is correct. Click 'OK'.



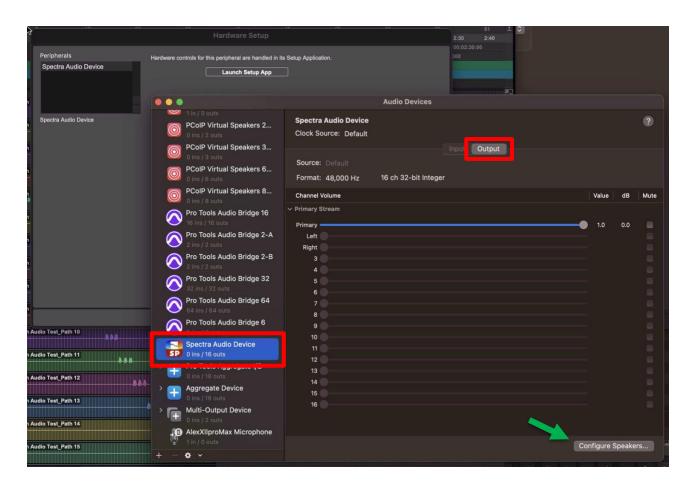
Channels Assignment

Below is the standard Pro Tools layout with the imported video. In this case, a video with 16-channels of audio was imported.

There are many approaches, but a 16-channel master can be reconfigured for 5.1 audio by setting the I/O output assignments for each channel (see red outline, image below).

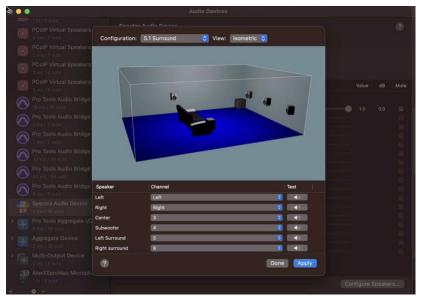


You may need to configure the output to match your audio hardware. Select 'Hardware' from the 'Setup' menu and click 'Launch Setup App'. On the left of the Audio Devices dialog, select 'Spectra Audio Devices' and then select its 'Output' tab (red outlines).



- Now click 'Configure Speakers' (green arrow). See image below.
- Make sure the configuration is set for the desired output (in this case '5.1 Surround' is selected).

If you now start playback, you should see the video on Spectra's Info page. If the video is not displayed, check to see that the source selected on Spectra's source page (red outline, lower image) is Spectra (green arrow). Always click 'Apply' with any changes.

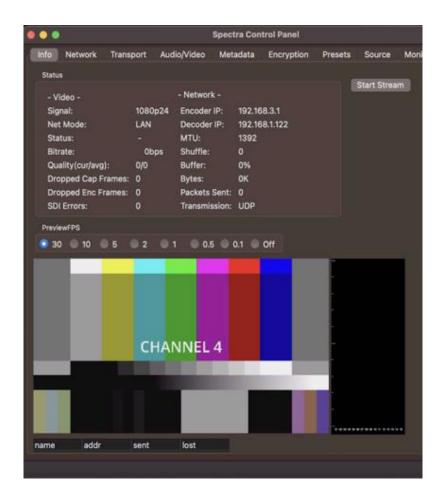




Configuring Spectra

Below are some Spectra settings that are applicable to Pro Tools monitoring. Please refer to the full Setup Guide for more details: Go to https://www.streambox.com/resources and select the 'Spectra' category. Use this link for startup Spectra Guide:

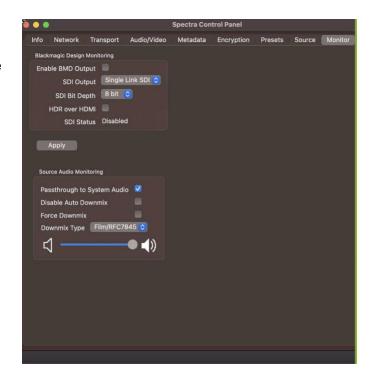
https://streambox-spectra.s3-us-west-2.amazonaws.com/latest/macos/quickstart.pdf



Audio Monitoring (Monitor tab)

Selecting 'Passthrough to System Audio' allows the user to hear audio on the local device, eg. Your Mac Book Pro Speakers. If the local device only supports stereo and the audio format is 7.1 or less, an automatic downmix will be provided. You can override this feature here.

Note: If your workflow requires Spectra Audio Device to be system default device, please disable Passthrough audio monitoring to avoid feedback loop.

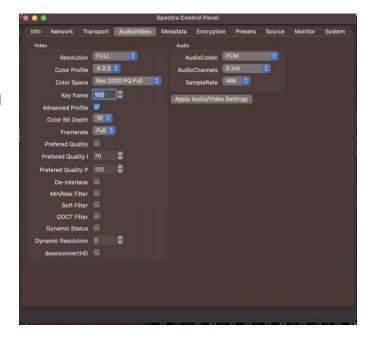


A/V Settings (Audio/Video tab)

The Audio/Video page is where you set the properties for the video stream. For more detail refer to guides found at:

Go to https://www.streambox.com/resources and select the 'Spectra' category. Use this link for startup Spectra Guide:

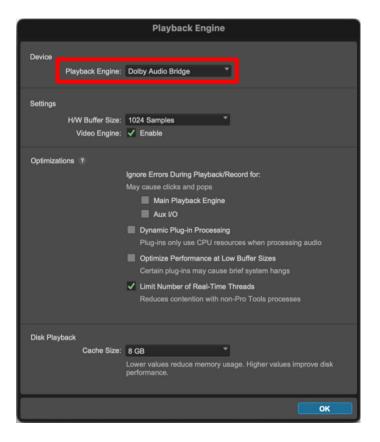
https://streambox-spectra.s3-us-west-2.amazonaws.com/latest/macos/guickstart.pdf



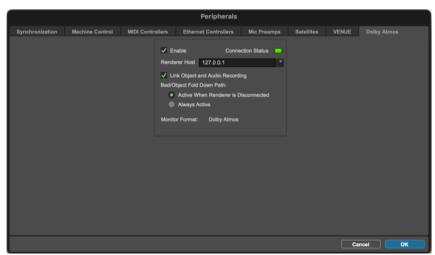
Using Spectra with Pro Tools and Dolby Atmos® Renderer (DAR)

Follow Dolby instructions for Pro Tools/DAR setup. https://professional.dolby.com/product/dolby-atmos-content-creation/dolby-atmos-renderer/

Select Dolby Audio Bridge as Playback Engine (red outline)

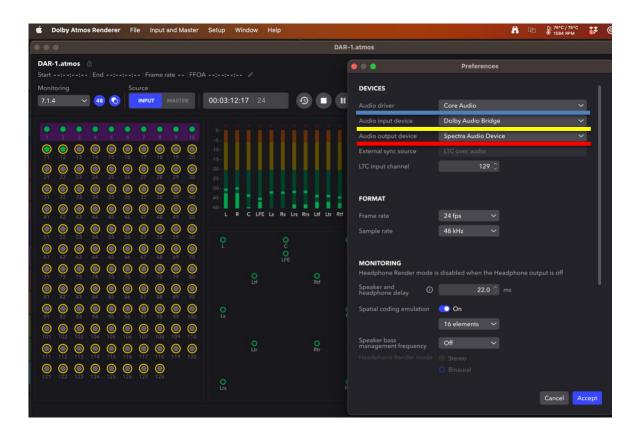


You may need to link DAR in Pro Tools Setup, Peripherals



In DAR Preferences:

- Set 'Audio Driver' to 'Core Audio' (blue underline)
- Set 'Audio Input device' to 'Dolby Audio Bridge' (yellow underline)
- Set the 'Audio output device' to 'Spectra Audio Device' (red underline).



For local monitoring, please match DAR output channels to Spectra Audio Channels for correct down convert. Also, match Spectra speakers configuration in Audio Midi Setup.

Troubleshooting

Apple Silicon is supported with Pro Tools version 2023.3 or later. Earlier version of Pro Tools might be unstable when using with Apple Silicon systems.

No signal issue:

Pro Tools is using Open I/O framework for video output. Sometimes multiple devices can be installed. Since Pro Tools doesn't provide means to select specific I/O plugins it can create conditions where different Open I/O plugins are activated. Some plugins can be identified via Setup > 'Video Hardware Control Panel...'.

Also, you can check engine currently selected with terminal command: grep -rH "Open I/O Select" ~/Library/Logs/Avid

Note: If some other plugin is Activated, instead of Spectra, you might need to disable that specific plugin. To disable a specific Plugin, rename its extension from .acf to .acf.DISABLED. Plugins are stored in: /Library/Application\ Support/Avid/AVX2 Plug-ins

Streambox Playback Clients and other resources

Streambox Media Player (Free, macOS, iPad/iOS OS, Apple TV, Windows) https://apps.apple.com/us/app/streambox-media-player/id1329435619

Streambox Media Player beta (Free, TestFlight with Multichannel Audio H/W support for macOS) https://testflight.apple.com/join/jJQUq2Xf

Manual for Multichannel Audio Playback: https://d1k81fnopayth2.cloudfront.net/qst/Streambox-Media-Player-macOS-Multi-Audio-Channel-Output.pdf

Streambox Iris

https://www.streambox.com/decoders/iris-3

Streambox Halo

https://www.streambox.com/decoders/halo-2

Streambox Cloud Session guide

https://d1k81fnopayth2.cloudfront.net/qst/Streambox-Sessions_Setup-Guide_3.0a.pdf

Streambox Spectra User Guide

https://streambox-spectra.s3-us-west-2.amazonaws.com/latest/macos/quickstart.pdf

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