Antelope Audio

Zen Tour
Synergy Core



USER MANUAL

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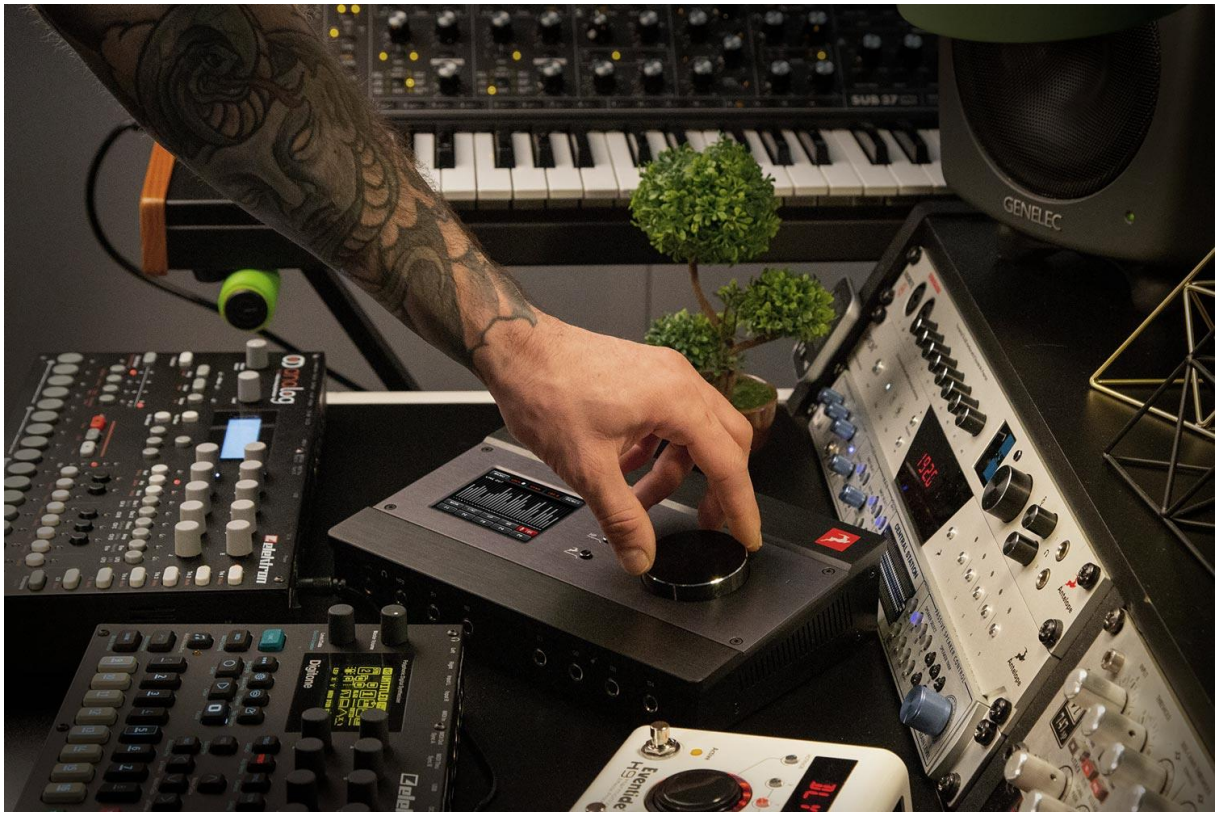
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BEFORE YOU BEGIN

Congratulations on your purchase! We would like to turn your attention to the following:



Zen Tour Synergy Core makes a new case for how much connectivity and computing power desktop audio interfaces can wield. Think of it as a portable rival to a professional studio rackmount interface in terms of everything, from its sound quality and FX processing capabilities down to its build and materials.

With 4x DSP and 2x FPGA processors handling up to 256 FX instances, 8 analog inputs, 14 analog outputs, S/PDIF and ADAT digital connections and stunning 130dB dynamic range AD/DA conversion, the new Zen Tour sets new performance and audio quality standards in its category.

Despite the unit's extensive touchscreen functionality and convenient top panel controls, the software Control Panel is the ultimate “mediator” between the Zen Tour Synergy Core and your preferred DAW. To take complete advantage of the unit’s capabilities, you are meant to handle tasks like gain adjustments, signal routing, effects processing, initial mixing and metering from its intuitive, single-window environment. The resulting audio is

routed into your DAW for recording in formats of your choice, such as multi-track, stem, and two-channel stereo.

Thus, we encourage you to familiarize yourself with the 'Control Panel' chapter - particularly the 'Routing' tab - before you begin working. Several 'Quick Start' examples are provided as well. This way, you can overcome common stumbling blocks for users new to Antelope Audio products.

Should you ever find yourself struggling, do not hesitate to contact our Customer Support team over phone, live chat and our ticket system. You can also visit Antelope Audio on YouTube and explore our video tutorials or join the Antelope Audio Users Facebook group and ask for advice. The Knowledge Base is also a valuable source of information.

We hope you enjoy working with the Zen Tour Synergy Core.

Best wishes,
Team Antelope

SETTING UP

Once the unit has been connected to a power source:

1. Connect the Zen Tour Synergy Core to your Windows or Mac computer with an USB Type-B cable and/or Thunderbolt™ 3 cable.

Notes:

- An USB Type-B cable is included. Thunderbolt™ 3 cables are sold separately.
- The unit will automatically detect the connection type upon the initial startup, but not on subsequent starts. Manually set the connection type from 'Comms. Interface' in the touchscreen 'MENU' every time you switch between Thunderbolt™ 3 and USB connections.

2. Visit www.antelopeaudio.com and log-in or create a customer account (if you don't have one).

3. Head to the Zen Tour Synergy Core website and click 'Downloads' to get the latest Antelope Launcher and Driver for your operating system (Windows 10 / macOS 10.11 or later). Install the software by following the on-screen instructions.

Note: For Thunderbolt™ connection on Windows, download and install the latest Antelope Audio Windows Thunderbolt™ driver.

4. Open Antelope Launcher and head to the 'Devices' tab. Make sure your Zen Tour Synergy Core is updated with the latest firmware and Control Panel versions. Please read the 'Antelope Launcher' chapter if you are not sure how to do this.

Note: If your device isn't recognized by Antelope Launcher or the operating system, read this.

5. Launch the Zen Tour Synergy Core Control Panel from the Antelope Launcher. To do this, head to the 'Devices' tab and click 'Start Control Panel' or the device's picture. For more information, head to the chapter 'Antelope Launcher'.

Note: Bypass any security prompts from your operating system, e.g. Windows Defender Firewall and macOS alerts.

6. Register your device with the 'Antelope Audio Registration Wizard' by following the on-screen instructions.

7. Connect your analog and digital equipment of choice to the Zen Tour Synergy Core.

8. Launch your preferred DAW and:

- Choose the Zen Tour Synergy Core as your main input and output device.
- Make sure your DAW and operating system sample rates match the device sample rate.

Need any help?
Visit the Antelope Audio Customer Support page, choose your device and go from there.

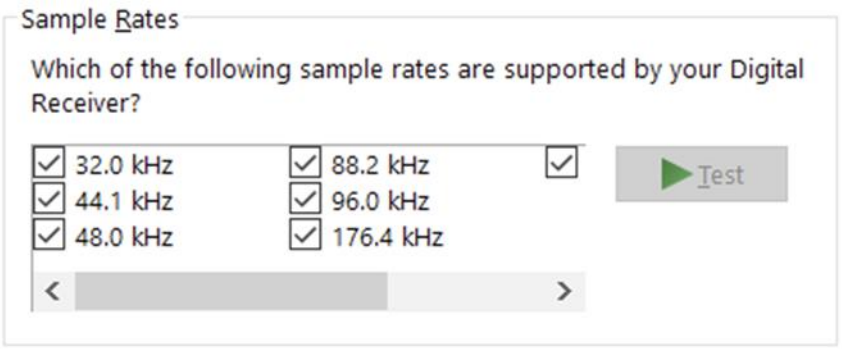
Configuring for Windows 10

Windows 10 needs a few tweaks to get everything up and running:

1. Enter the **'Sounds'** options window from the Control Panel or right-click the speaker icon in the system tray and choose 'Open Sound settings'.

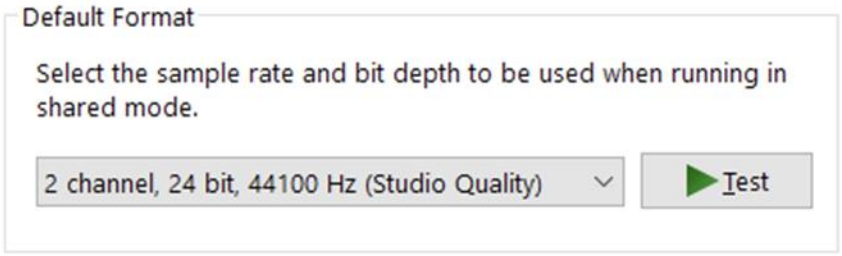
2. Make sure the Zen Tour Synergy Core is chosen under 'Output' and 'Input'.
Next, click 'Device Properties' under 'Output'. Then, click 'Additional Device Properties'.

3. Enter the **'Supported Formats'** tab and place checkmarks next to all the available sample rates.



4. Enter the **'Enhancements'** tab and disable all enhancements.

5. Enter the **'Advanced'** tab and choose any of the available "2 channel, 24-bit" modes from the drop-down menu. Click 'OK' to close the window.



6. Back in Sound settings, click 'Device Properties' under 'Input'. Then, click 'Additional Device Properties'. Enter the 'Enhancements' tab and disable all enhancements. Click 'OK' to close the window.

Tips

- If you are experiencing interruptions or failure when using your DAW and trying to playback audio from your OS at the same time, make sure that the device sample rate matches the one of your DAW session.

- In some cases, disabling the 'Exclusive mode' functionality from the 'Advanced' tabs might help when running multiple playback applications at the same time.

- Disabling the 32kHz sample rate isn't mandatory, but it might help in general.

Further Reading

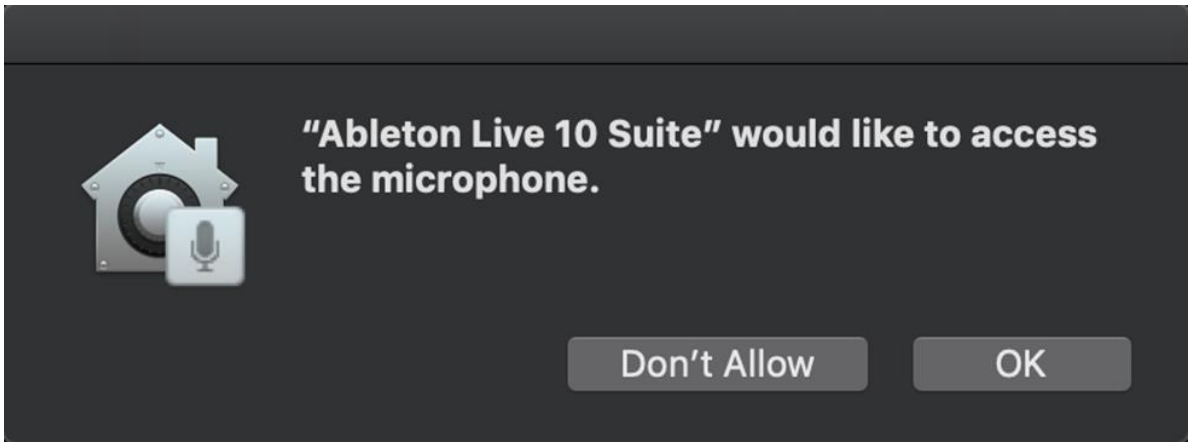
- Antelope Audio Knowledge Base - Windows 10 Optimization

Configuring for macOS 10.14 Mojave (or later)

The new security settings introduced in macOS 10.14 Mojave and later releases may result in no input signal reaching your DAW, despite having everything set up correctly.

These steps apply when you are using the Zen Tour Synergy Core in a DAW for the first time:

1. Launch your DAW and choose Zen Tour Synergy Core as the input device. The following dialog box will appear (if using Ableton Live 10 Suite, for example):

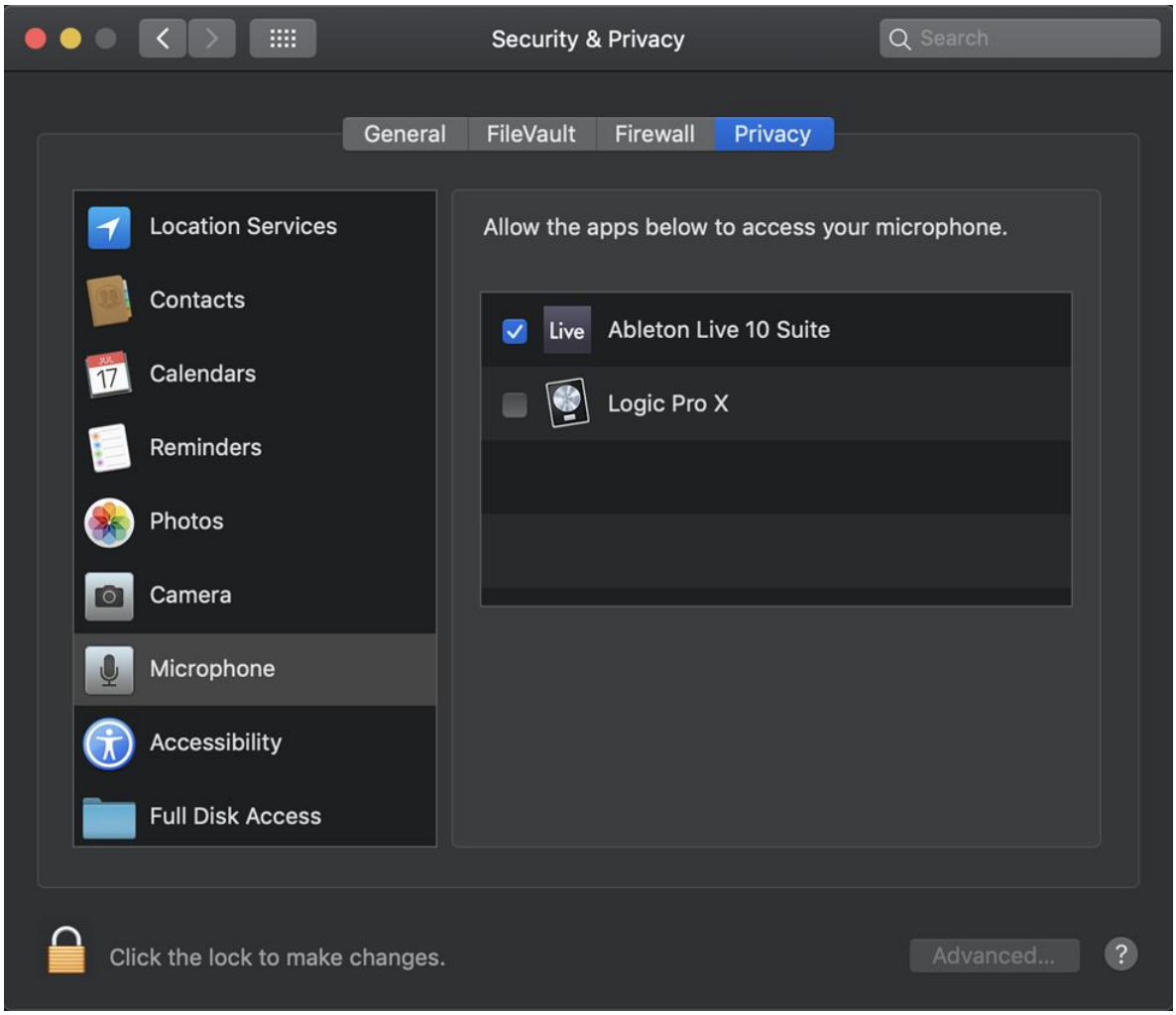


2. Click **'OK'** and your DAW should function normally.

However, if the events above did not occur for some reason, or you are using multiple DAWs, you must do a manual tweak for each **in 'Security & Privacy'** settings:

1. Click the **'Apple'** symbol and choose **'System Preferences'**. Head to the **'Security & Privacy'** settings menu.

2. Click the **'Privacy'** tab. In the column on the left, choose **'Microphone'**. Make sure there's a checkmark next to any DAW you want to use.



Note: You may have to click the padlock symbol in the bottom left corner and enter your password to make changes.

THUNDERBOLT™ 3 FUNCTIONALITY

The Zen Tour Synergy Core's Thunderbolt™ 3 connection enables the following functionality:

Daisy Chaining

Thunderbolt™ 3 can "daisy chain" devices. Daisy chaining means that one device can plug into the end of a chain of devices, one after the other. A basic example would be connecting the Zen Tour Synergy Core to an external hard drive with two Thunderbolt™ 3 ports. One port is occupied by the Zen Tour while the other connects to a computer or another Thunderbolt™ 3 device in the chain.

The following rules are in place:

1. The Thunderbolt™ 3 specification places a limit of up to 6 devices per chain. However, the 6-device limit does not apply to the following Apple computers:

- 2018 MacBook Pro or later
- 2018 Mac mini
- 2017 iMac Pro

These machines have dual Thunderbolt™ 3 busses and support up to 12 devices per chain.

2. Each device must be powered on for subsequent devices to operate.

3. If a USB or DisplayPort device is plugged directly into the USB-C connector downstream from any device, the Thunderbolt™ daisy chain is terminated at that point.

4. As Thunderbolt™ bandwidth is shared between daisy chained devices, the available bandwidth for each device inevitably decreases. Therefore, Antelope Audio cannot guarantee optimal performance in each and every daisy chain configuration possible.

Device Charging

While the Zen Tour Synergy Core cannot be bus-powered, it is able to power any Type-C device from the Thunderbolt™ 3 port. For example, you can power a laptop (e.g. 2016 MacBook Pro or later).

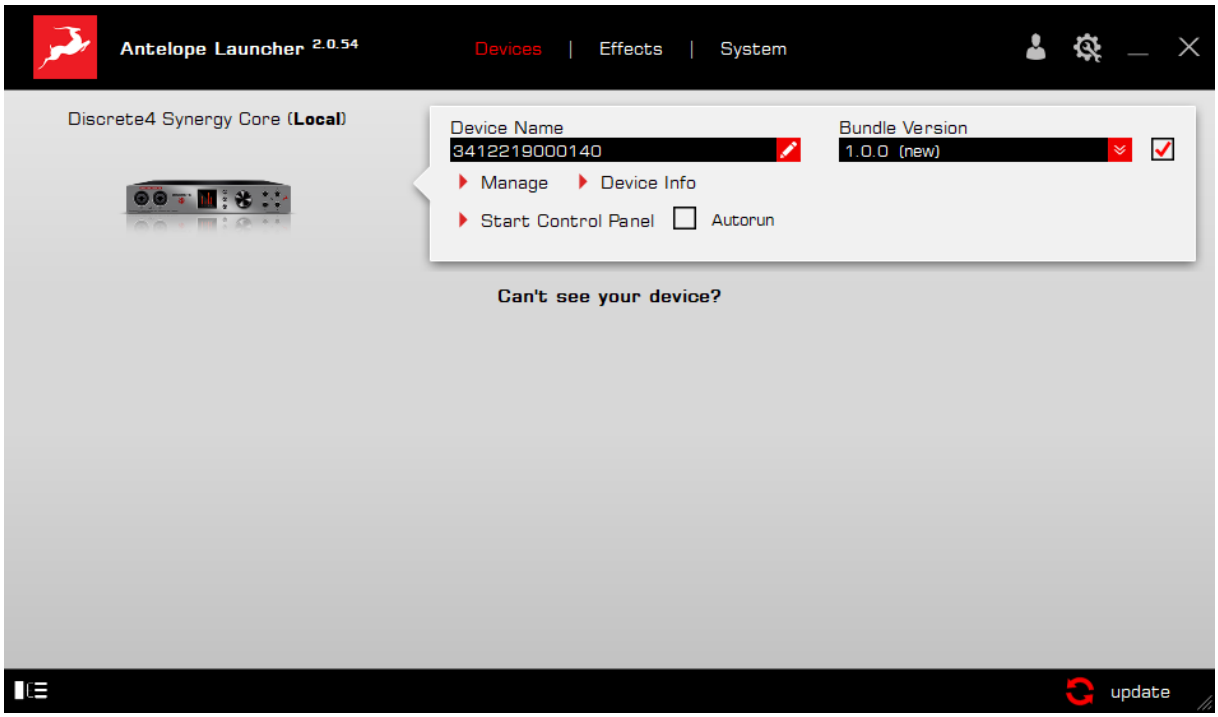
Backwards Compatibility

Thunderbolt™ 3 is backwards-compatible with legacy Thunderbolt™ 2 and Thunderbolt™ 1 connections through the use of a third-party TB 3 to Legacy TB adapter and corresponding cables. Given all the technical variables involved, we cannot provide singular instructions for legacy compatibility in this manual. Please get in touch with Customer Support if you need help setting up.

ANTELOPE LAUNCHER

The Antelope Launcher is a streamlined hub for managing and troubleshooting your Antelope Audio products. The application is organized into the following tabs:

‘Devices’ tab



All Antelope Audio devices currently connected to your computer are listed in this section. In this example, we have connected the Discrete 4 Synergy Core. However, the application functionality is identical for each Antelope device.

The following functionality is available in the 'Devices' tab:

Device Name

Click the black box to enter a name for your device. The device serial number is used by default. Erasing the name and clicking outside the box reverts to the serial number.

Bundle Version

By default, this drop-down menu shows the most recent software bundle available for your device. Clicking it shows the currently installed software bundle version and lets you roll-back to an older build.

To update or change the installed software version, choose your desired Bundle Version, click the check mark next to the drop-down menu, and click the 'Update' button.

Manage

Click to launch the Antelope Registration Wizard. Use it to register or de-register devices and features (such as AFX2DAW, Synergy Core FX, HDX Activation and so on).

Device Info

Click to display the following information (useful for troubleshooting):

- Serial number
- Hardware version
- Firmware version
- Control Panel version
- USB/Thunderbolt ™ driver version
- Software Bundle version

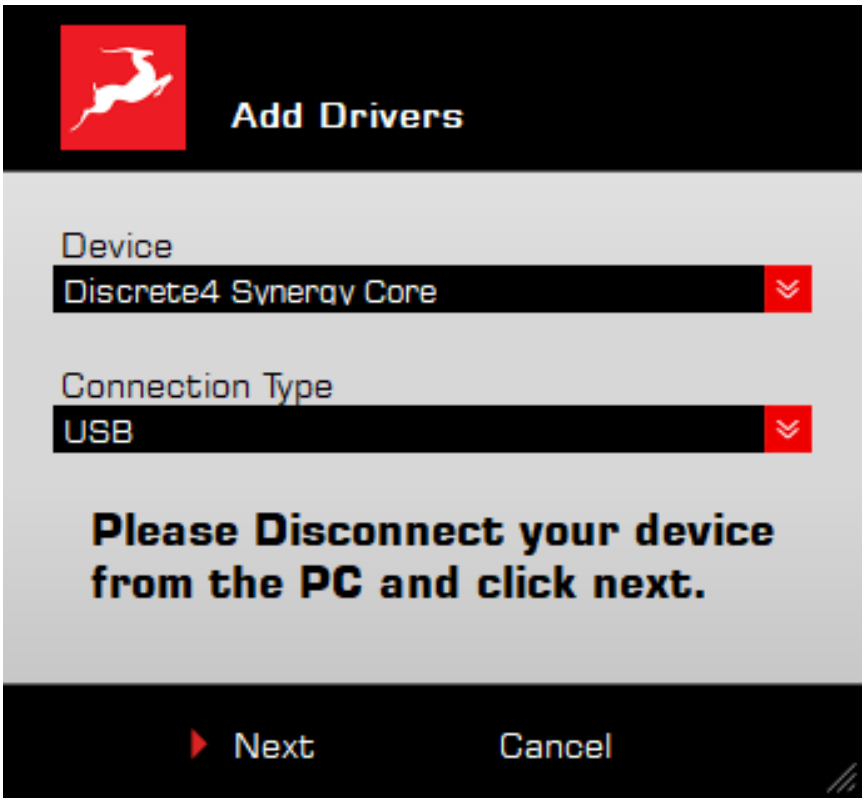
Click the information window to close it.

Start Control Panel

Click to start the device's Control Panel application. You can also click the device's picture. Place a check mark next to 'Autorun' to have the Control Panel for a specific device launch automatically when you start Antelope Launcher.

Can't see your device?

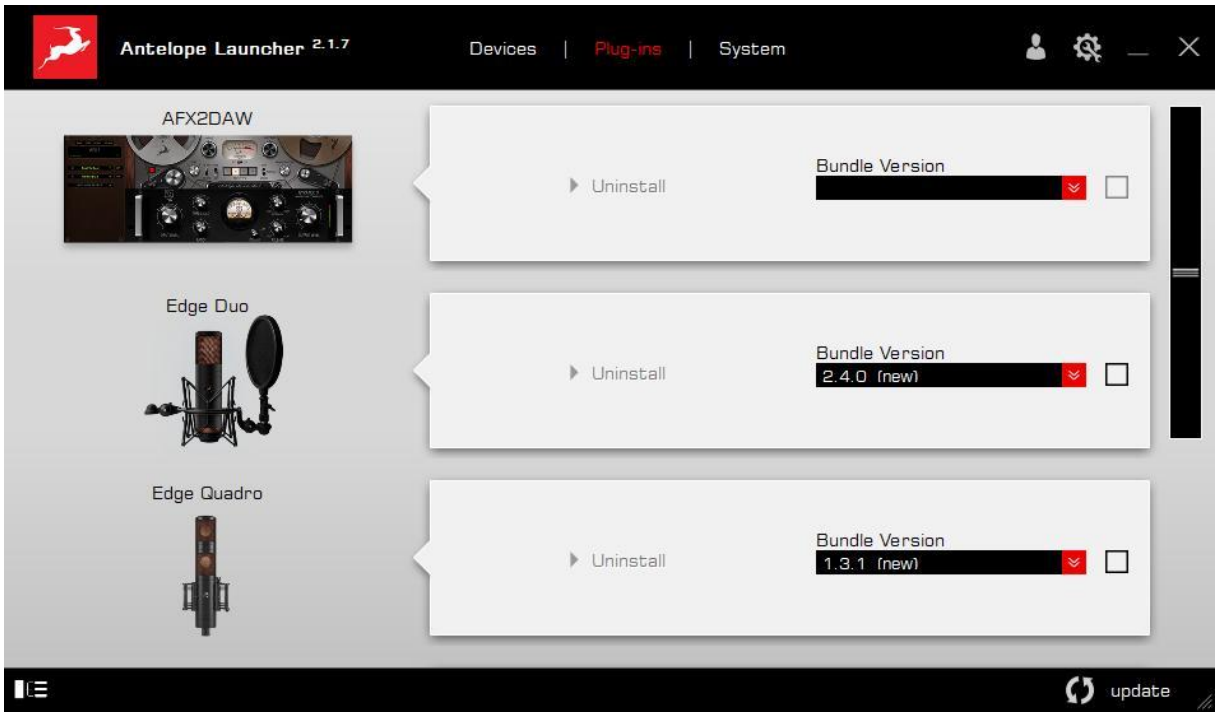
If a device is missing from the list, the most common reason is driver conflict. The Antelope Launcher makes it easy to re-install drivers and troubleshoot. Click "Can't see your device?" to launch the 'Add Drivers' wizard.



Choose your device and connection type from the drop-down menus, disconnect the device from your computer, and click 'Next' to perform a driver re-install.

Note: If the issue persists, please contact Antelope Audio Customer Support.

'Plug-ins' tab

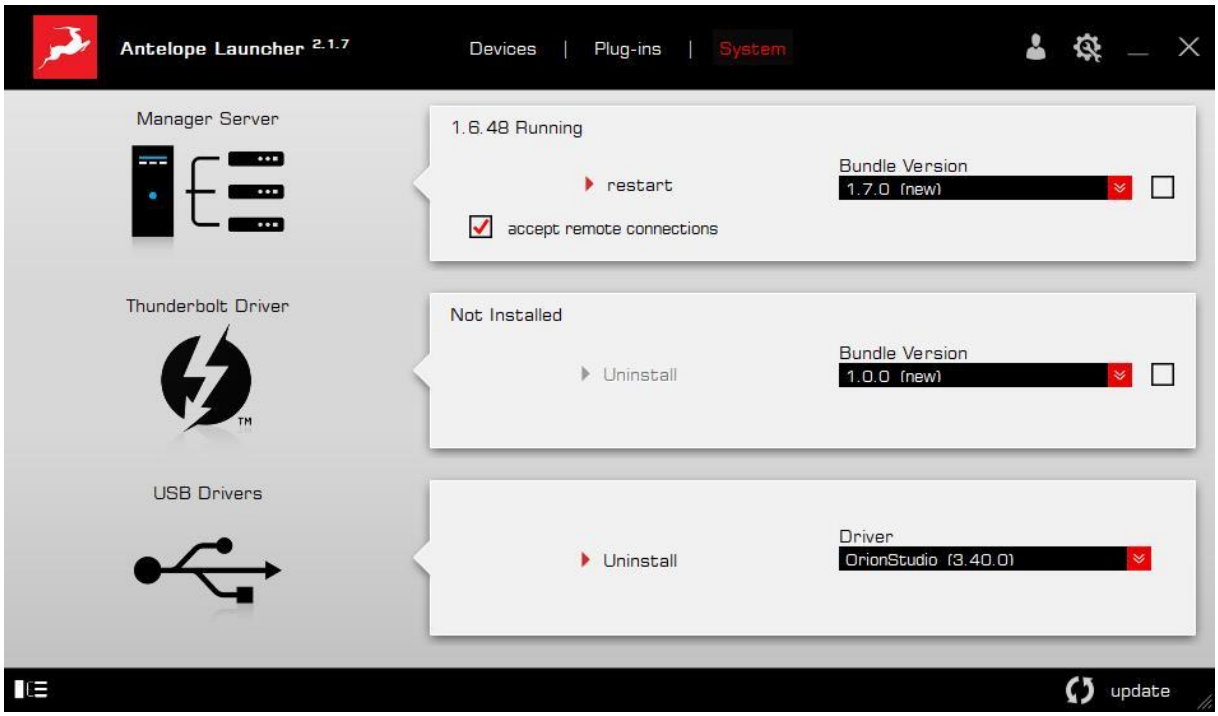


This section lets you install, update, and uninstall Antelope Audio software such as native mic emulations and AFX2DAW.

By default, the Bundle Version drop-down menus show the most recent software bundle available for each product. Clicking the menu shows the currently installed software bundle version and lets you roll-back to an older build.

To update or change the installed software version, choose your desired Bundle Version, click the check mark next to the drop-down menu, then click the 'Update' button.

'System' tab



Here, you can do the following:

- Update or roll-back the Manager Server, USB and Thunderbolt™ Driver versions. Choose your desired Bundle Version from the drop-down menu, click the check mark, then click the 'Update' button.
- Restart the Manager Server and enable/disable remote connections from other computers on your network.
- Install the Antelope Audio Thunderbolt™ driver. Choose a Bundle Version from the drop-down menu, click the check mark, then click the 'Update' button.
- Uninstall the Antelope Audio Thunderbolt™ and/or USB driver(s) present on your system.

Login button

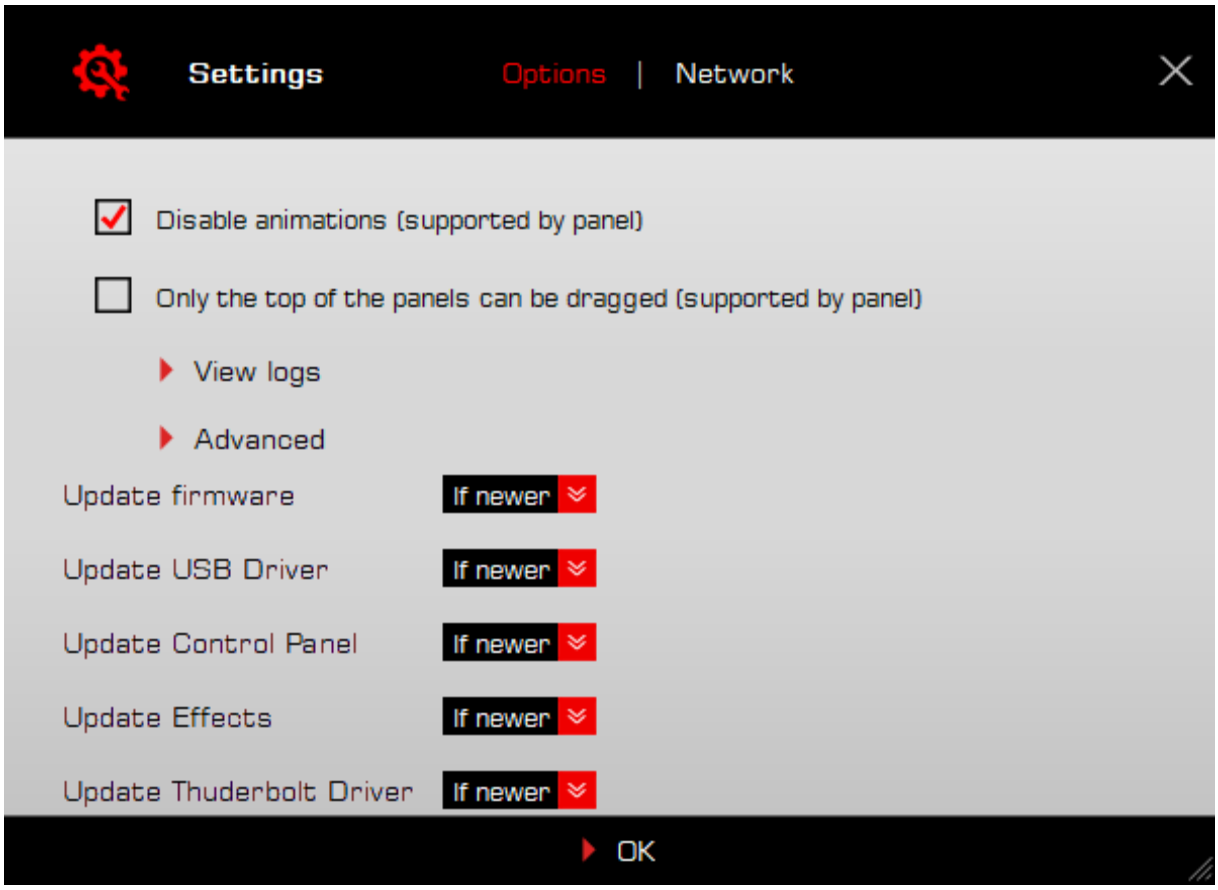


Click and enter your Antelope Audio username and password, then click 'Login'. If you don't have an Antelope Audio account, click 'Register' and follow the on-screen instructions.

Settings button



Click to open the Settings window.



Here, you can do the following:

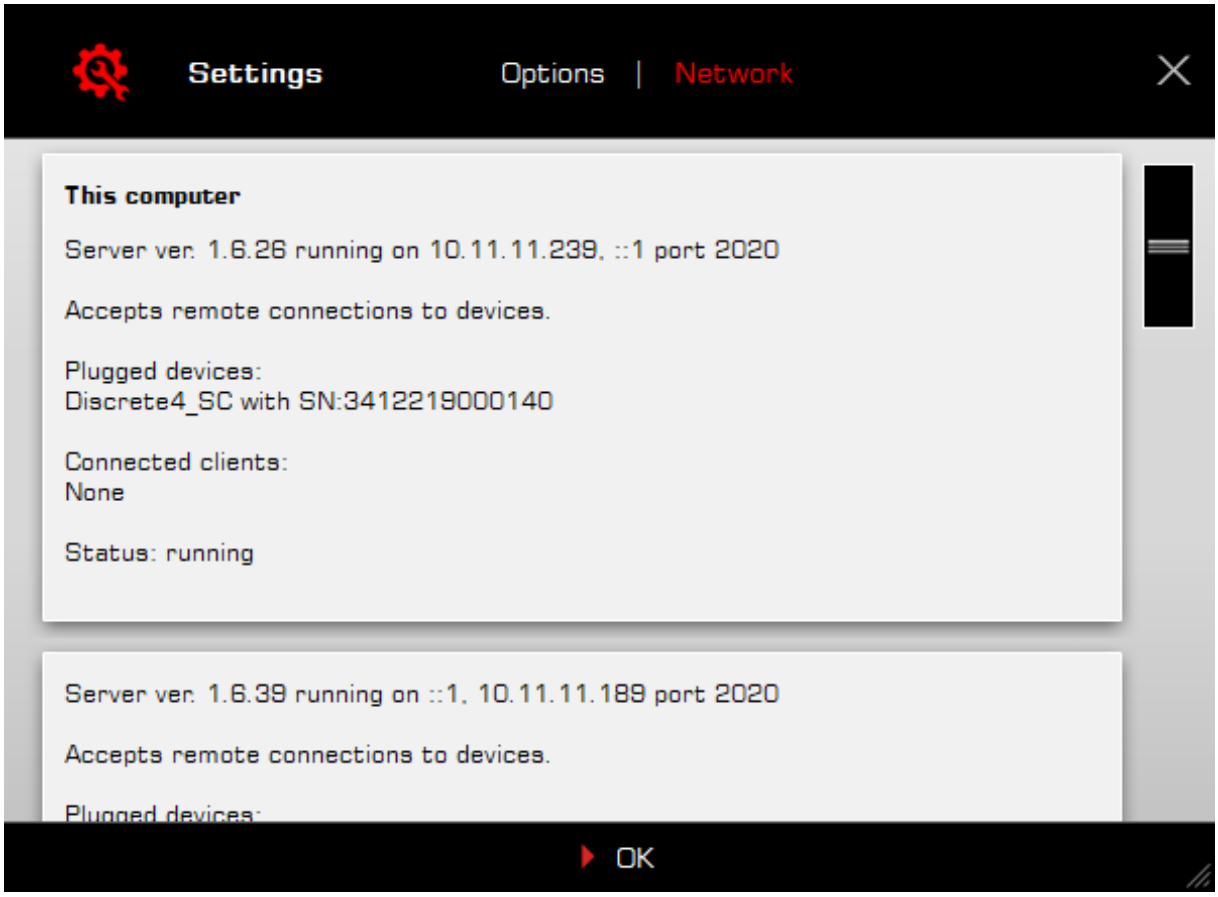
- Click ‘View Logs’ to view, save, and send activity logs to Antelope Audio Customer Support.

- Click 'Advanced' to enable or disable automatic updates for each of the following:

- Device firmware
- USB Driver
- Control Panel
- Effects
- Thunderbolt™ driver

Make your selection(s) in the drop-down menu(s) and click 'OK'.

- Click ‘Network’ to view network status and logs.


Settings
Options | Network
This computer
Server ver: 1.6.26 running on 10.11.11.239, ::1 port 2020
Accepts remote connections to devices.
Plugged devices:
Discrete4_SC with SN:3412219000140
Connected clients:
None
Status: running
Server ver: 1.6.39 running on ::1, 10.11.11.189 port 2020
Accepts remote connections to devices.
Plugged devices:
OK

PANELS EXPLAINED

Top Panel



1. Touchscreen

- Visualizes volume metering and allows quick access to System Menu, Power On/Off, Gain controls and Presets P1 - P5.
- The touchscreen functionality is covered in-depth in the chapter 'Touchscreen Functionality'.

2. Function Keys: 'Gain', 'HP', 'Antelope Button'.

- Press (and keep pressing) 'Gain' to cycle through gain adjustments for the interface's inputs and outputs. Turn the rotary control to adjust gain. Tap anywhere on the touchscreen to exit.

- Press (and keep pressing) 'HP' to cycle through gain adjustments for headphone outputs 1 and 2. Turn the rotary control to adjust gain. Tap anywhere on the touchscreen to exit.
- The Antelope Button is a user-customizable shortcut. Its functionality can be chosen from 'Antelope Button' entry in 'MENU'.

3. Rotary Control

Large stepped encoder for precise adjustment of gain and other values.

- Turn the encoder clockwise or counter-clockwise to adjust gain.
- Press (push down) the encoder to mute and un-mute the currently chosen output.

Front Panel



Left to right:



Headphone outputs 1 and 2

2 stereo headphone outputs on 1/4-inch TRS jacks.



Re-amp outputs 1 and 2

Transformer-based outputs for sending direct signals to guitar amplifiers and other equipment suitable for re-amping 'dry' tracks.

Note: Technically, you can use the REAMP outputs as Sends for external equipment, though this is 'off label' and results may vary. Audio is output at instrument-level, which is significantly quieter than line-level and typically requires a preamp for amplification.



Hi-Z inputs G1 - G4

4 Hi-Z inputs on 1/4-inch TS jacks. For recording electric guitars and other instruments with high output impedance. Use TS instrument cables.

Rear Panel



Left to right, top to bottom:



Mic/Line inputs A4 – A1

4 Mic/Line inputs on combo-XLR connectors. For connecting microphones or line-level equipment.

Important! Use TS/TRS audio cables to connect line-level sources. Use XLR cables to connect microphones.

Connecting XLR cables engages the microphone preamps, which amplify line-level signals and cause audio degradation. This cannot be overridden by choosing 'Line' from the 'PREAMPS' tab in the Control Panel.



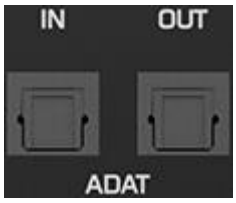
USB Port

USB 2.0 Type-B port for computer connection. Supports 24 I/O audio channels at sample rates up to 24-bit/192kHz.



Thunderbolt™ 3 Port

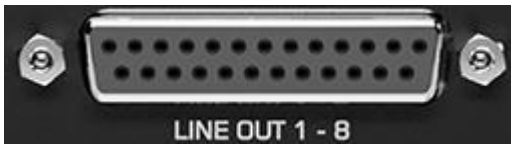
Thunderbolt™ 3 Type-C port for computer connection. Supports 32 I/O audio channels at sample rates up to 24-bit/192kHz.



ADAT I/O

8 digital audio inputs and 8 digital audio outputs on TOSLINK connectors. Standard ADAT audio limits apply:

- 44.1/48 kHz – 8 inputs / 8 outputs
- 88.2/96 kHz – 4 inputs / 4 outputs
- 176.4/192 kHz – 2 inputs / 2 outputs



Line outputs

8 analog line outputs on DB-25 connector (TASCAM Standard Pin Layout). DC-Coupled.



S/PDIF I/O

2 channels of incoming and outgoing S/PDIF digital audio over coaxial cable.



Monitor outputs

Main monitor outputs R - L on 1/4-inch jacks. Note that these mastering-grade outputs boast the highest dynamic range in the system.



DC-IN

For use with the provided Antelope Audio power supply only! Can accommodate both 110V at 60Hz and 220V at 50Hz.

TOUCHSCREEN FUNCTIONALITY

The touchscreen visualizes volume metering and allows instant access to System Menu, Power On/Off, Gain controls and Presets P1 - P5.

The touchscreen works with single finger taps. Other traditional gestures, such as pinch-to-zoom, multi-touch and so on are not used.

By default, the screen shows up to 32 peak meters for each channel from the chosen audio source.

Tap anywhere to change the audio source for the peak meters. It can be any of the following:

'Analog In'	Instrument/mic/line inputs
'Emulated Mic'	Mic emulation outputs
'ADAT In'	ADAT inputs
'S/PDIF In'	S/PDIF input
'AFX Out'	Synergy Core FX outputs

'MIX 1 – 4 L/R'	Software mixer stereo outputs
'LINE Out'	Line outputs
'HP 1 – 2'	Headphone outputs
'MONITOR'	Monitor outputs
'REAMP'	Re-amp outputs
'Computer Rec.'	DAW inputs
'ADAT Out'	ADAT outputs
'S/PDIF Out'	S/PDIF outputs
'AFX In'	Synergy Core FX inputs
'MIX CH 1 – 4'	Software mixer outputs

The following functionality is also available:

'MENU' Button

Tap 'MENU' to access the System Menu with the following options:

Brightness

Adjust the screen's brightness by dragging the slider up and down.

Comm. Interface

Tap to choose between Thunderbolt™ and USB connectivity. Make sure your choice matches your computer connection.

Scr Save Time

Tap to choose how long it takes for the screensaver to appear.

Scr Save Style

Tap to choose the screensaver style. Press any button or tap the screen to exit the screensaver.

Note: We recommend setting up ‘Scr Save Time’ to the shortest time period you are comfortable with, and ‘Scr Save Style’ to ‘Black Scr.’ This effectively makes the display turn itself off after a short period of inactivity, which helps prevent burn-in.

SR Conversion

Tap to enable/disable S/PDIF sample rate conversion. For example, if your S/PDIF source is outputting 44.1kHz audio and the interface is set to 96kHz, the S/PDIF audio will be sample rate-converted to 96kHz.

Presets Saving

Tap to save the current device and session settings into one of the 5 available preset slots. Tap 'P1' - 'P5' (bottom row) to recall presets 1 - 5.

Antelope Button

Lets you assign the Antelope Button on the interface's top panel to one of the following:

- Monitor Mono - sum monitor outputs to mono.
- Mon Dim (latch) – press the button to 'dim' the monitor outputs. Press again to undo.
- Mon Dim (hold) – press-and-hold the button to 'dim' the monitor outputs. Release to undo.

Clock Source

Tap 'INT' (the third button from left to right, top-most section) to choose the clock source. The following choices are available:

- 'Internal' - Internal Clock
- ‘S/PDIF’ input (external)
- ADAT (2x, 4x) input (external)
- 'USB' - In ‘USB’ mode the unit still uses its internal clock.

Additional Functionality

- Tap 'POWER' to power off the interface. Tap again to confirm.
- The 'LOCK' indicator indicates when the interface is locked to an external device or DAW.
- Tap the Sample Rate indicator (immediately after 'Clock Source') to change the device sample rate. Please make sure your choice matches the DAW and operating system sample rates.

'MON' Button

Tap 'MON' to enter Monitor Volume. The following functionality is available:

- Tap the left and right arrows to 'cycle' the analog outputs.
- Tap '24 dBu' to adjust signal trim in preset dBu values.
- Tap, hold and drag the circle to adjust volume in dB. You can also do this from the main rotary control knob.
- Tap the 'Speaker' symbol to mute or un-mute the outputs.
- Tapping 'LINE' or 'HP' takes you to the 'Line Out Volume' and 'HP1/HP2 Volume' pages, respectively. The functionality is identical.

'AMP' Button

Tap 'AMP' to enter gain adjustments for the Hi-Z/mic preamp/line inputs. The following functionality is available:

- Tap the left and right arrows to cycle the inputs.
- Tap 'Mic' to choose the input signal type:
    - Mic (microphone input)
    - Line (line-level input)
- Tap, hold and drag the circle to adjust volume in dB. You can also do this from the main rotary control knob.
- Tap the 'Speaker' symbol to mute or un-mute the input.

'TBK' Button

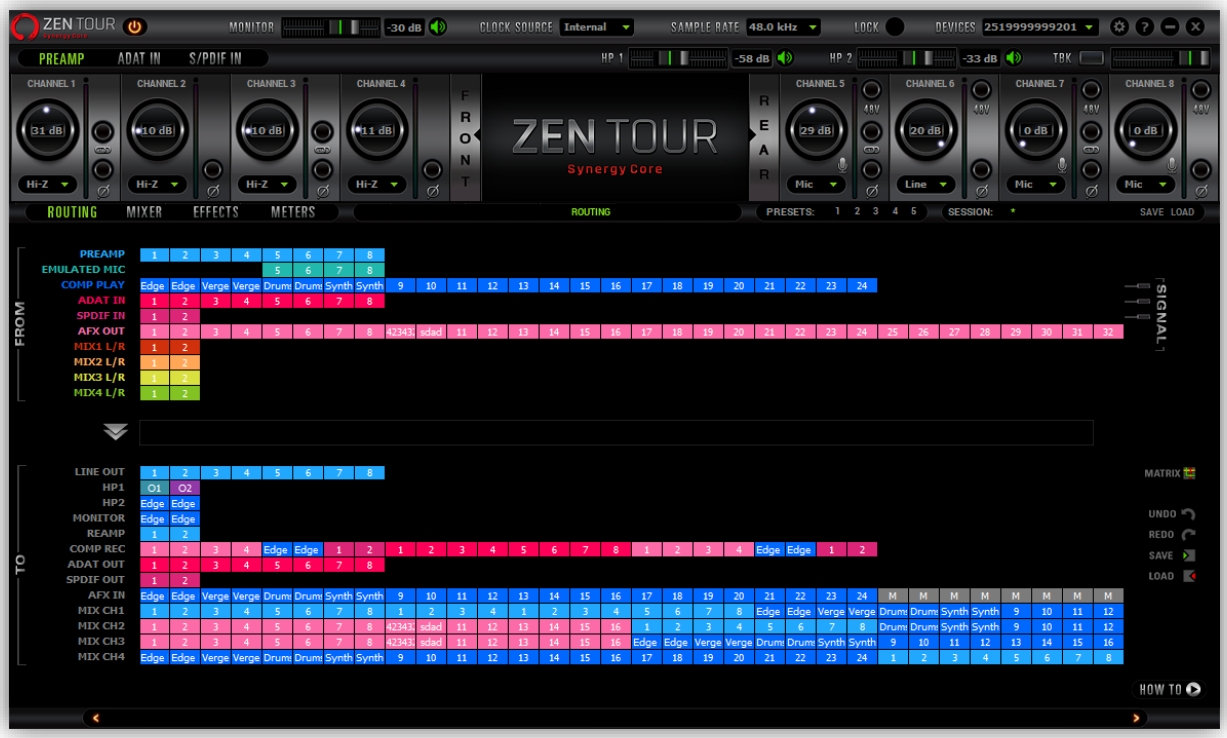
Tap 'TBK' to enter Talk Back. The following functionality is available:

- Tap, hold and drag the circle to adjust volume in dB. You can also do this from the main rotary control knob.
- Tap 'HP1' to route Talkback input to Headphone output 1 (HP1). Tap again to undo.
- Tap 'HP2' to route Talkback input to Headphone output 2 (HP2). Tap again to undo.
- Tap 'MON' to route Talkback input to the main monitor outputs. Tap again to undo.

'P1' - 'P5' Buttons

Tap any of these buttons to recall presets P1 - P5.

CONTROL PANEL



Welcome to the Zen Tour Synergy Core Control Panel application! More than just an alternative to the physical front panel controls, it provides intuitive and comprehensive access to each aspect of the interface's functionality. This includes settings, signal routing, mixing, effects stacking, metering, signal trims, presets and more.

Quick Start

Let's begin with some quick examples of essential tasks being accomplished in the Control Panel.

Note: These examples do not convey the "correct" or "only" way of accomplishing the following tasks. They merely present some fundamental logic and offer solutions to the initial stumbling blocks most often encountered by new users.

Monitor incoming audio via headphones

Say you want to monitor incoming audio from preamp/combo input A4 via headphones hooked to HP Output 1. Open the Control Panel and enter the ‘Routing tab’. Drag the colored number block labeled ‘PREAMP’ 8 onto blocks '1' and '2' from the row labeled ‘HP1’.

Adjust preamp and headphone gain from the Control Panel or the interface's top panel controls.

Apply Synergy Core FX to incoming audio

Say you want to run audio from preamp/combo input A4 through a custom FX chain while monitoring the result through your studio monitors.

Open the Control Panel and enter the ‘Routing’ tab. Drag the colored block numbered 8 from the row labeled ‘PREAMP’ onto the colored block numbered 1 in the row labeled ‘AFX IN’.

Next, drag the colored block numbered 1 from the row labeled ‘AFX OUT’ onto the pair of blocks labeled 'MONITOR'.

Now, click the ‘Effects’ tab. Add your choice FX by clicking the ‘ADD NEW EFFECT’ drop-down menu. Listen to your FX-processed audio and play around with the FX parameters.

Play guitar through the virtual amps and cabinets, listening from studio monitors

Connect your studio monitors to the Monitor outputs on the interface’s back panel. Next, connect your instrument to input 'G1' on the front panel. Adjust input gain from the 'Channel 1' controls while playing guitar.

Note: Be careful not to run the input into the red with too much gain. Ideally, your strongest picking or strumming should cause the meter to run into the yellow.

Now that we've gone through gain calibration, let's sort out signal routing. Enter the 'Routing' tab. Drag the colored block numbered 1 from the row labeled 'PREAMP' onto the colored block numbered 1 in the row labeled 'AFX IN'.

Next, drag the colored block numbered 1 from the row labeled 'AFX OUT' onto the pair of blocks labeled 'MONITOR A'.

Finally, head to have the 'Effects' tab. Click the 'ADD NEW EFFECT' drop-down menu and come up with some amp and cabinet combinations. Adjust the FX parameters, listen to the different amp and cabinet models, and have fun!

Sing with microphone emulations and monitor live with headphones

Connect your headphones to HP1 on the front panel. Connect your Antelope Audio Edge or Verge modeling microphone to any of the preamp/combo inputs labeled A1 – A4 on the rear panel. Note that the Edge Solo and Verge each occupy a single input, whereas the Edge Duo takes two and the Edge Quadro takes four.

Open the Control Panel and enter the 'Routing' tab. Drag the colored blocks labeled 'EMU MIC', with the numbers corresponding to the input(s) that your mic is connected to, onto the colored number blocks labeled 'HP1'.

Use the Control Panel software or top panel controls to adjust microphone preamp gain and headphone output volume. Then, enter the 'PREAMPS' tab again and click the 'Mic' symbol(s) on the first (or only) input occupied by your microphone. It looks like this: 

This opens the 'Mic Emulations' window. Click and turn the dial to select the emulations available for your microphone. Note that choosing Edge Duo or Edge Quadro will automatically 'link' the inputs occupied by these microphones. You should be hearing your voice in your headphones in real-time, with mic emulations applied.



Route audio to your DAW for recording

Any audio source can reach your DAW by dragging its colored number block(s) onto any of the 32 (on Thunderbolt™ connection) or (on USB connection) 24 blocks labeled ‘COMP REC’. The ‘COMP REC’ blocks appear in your DAW as 'Inputs 1 – 32' (Thunderbolt™) or 'Inputs 1 – 24' (USB).

This way, you can record ‘dry’ and FX-processed audio on different tracks simultaneously, output up to four separate mixes in multi-track or 2-channel stereo formats, and monitor everything from the Control Panel application.

Mouse & Keyboard Shortcuts

The following features are accessible via mouse & keyboard shortcuts in the Control Panel:

- Return to unity gain (all knobs and faders): double-click the knob or fader.
- Click any peak meter to reset it.
- Change text labels and manually enter gain values: double-click the text label / gain value.
- Adjust parameters in 1-step increments (all knobs and faders): Ctrl-click (Windows) / Command-click (macOS) and drag.
- Detach, move and resize Control Panel tabs: Right-click (Windows) / Command-click (macOS) and drag the relevant tab.
- Save Preset 1 – 5: Ctrl-click (Windows) / Command-click (macOS) on Presets 1 – 5.

Main View



The Main View is always visible in the Control Panel's top section. It's organized as follows:

Function Strip 1



Left to right:

Power Button

Turn the interface on and off.

Monitor volume fader

Click and drag to adjust monitor output volume. Click the speaker symbol to mute/un-mute.

Clock Source

Choose the clock source. The following choices are available:

- 'Internal' - Internal Clock
- 'S/PDIF' input (external)
- ADAT (2x, 4x) input (external)
- 'USB' - In 'USB' mode the unit still uses its internal clock.

Sample Rate

Choose the device sample rate. Make sure the device sample rate matches the operating system and DAW sample rates.

LOCK Indicator

Lights up when the interface is locked to DAW or an external unit.

Devices

Drop-down menu listing connected Antelope devices by their serial number.

Gear Symbol

Opens the Settings Window with the following options:

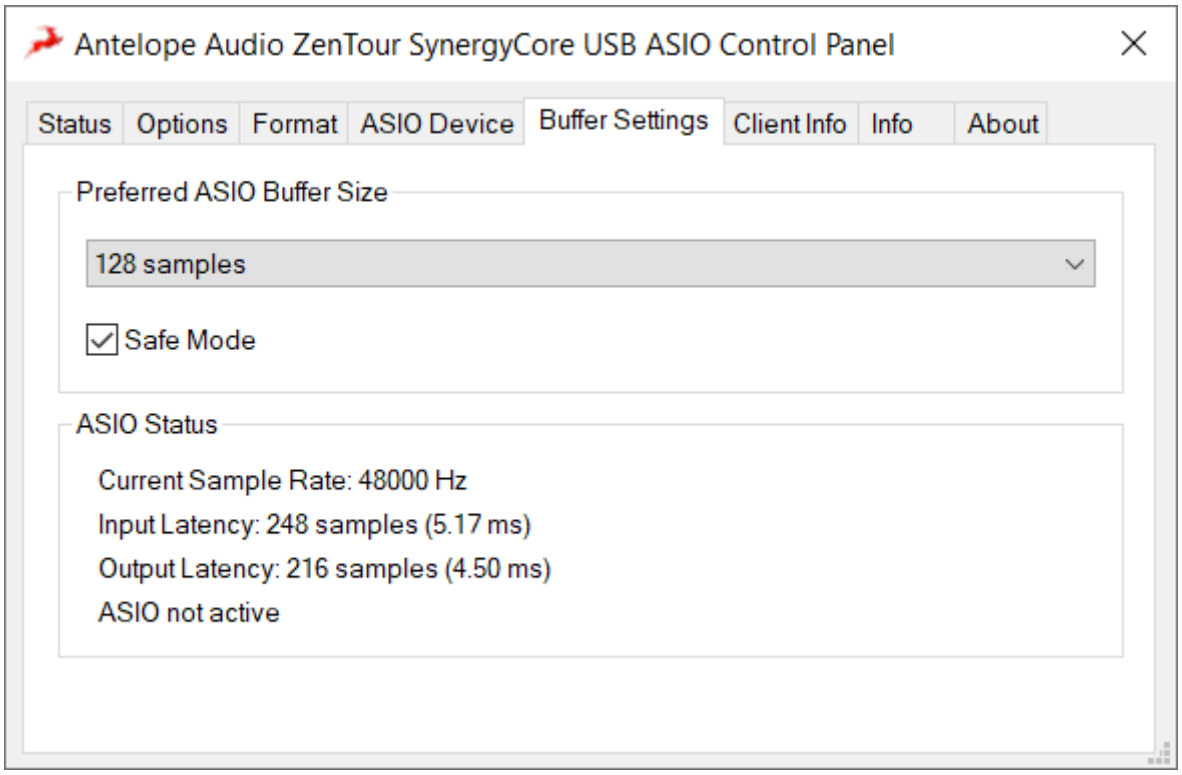
Settings Window

Left to right, top to bottom:

MONITOR OUT TRIM	Drop-down menu to adjust monitor output signal trim in dBu.
LINE OUT TRIM	Drop-down menu to adjust line outputs signal trim in dBu.
S/PDIF SRC	Activates or disables S/PDIF sample rate conversion.
TBK HP1	Click to send Talkback input to Headphone output 1.
TBK HP2	Click to send Talkback input to Headphone output 2.
TBK MONITOR	Click to send Talkback input to Monitor outputs.
MUTE	Click to mute Oscillator 1.
OSCILLATOR 1	Send test signal to outputs. Choose frequency from the drop-down menu.
LEVEL	Adjust test signal level in dBFS from the drop-down menu.
OSCILLATOR 2	Send test signal to outputs. Choose frequency from the drop-down menu.
MUTE	Click to mute Oscillator 2.
REAMP VOLUME	Click and drag the fader to adjust volume for Re-amp outputs 1 and 2 (in dB). Click the button to mute/unmute.
LINE OUT VOLUME	Click and drag the fader to adjust volume for the line outputs (in dB). Click the button to mute/unmute.
BRIGHTNESS	Click and the drag the fader to adjust touchscreen brightness.

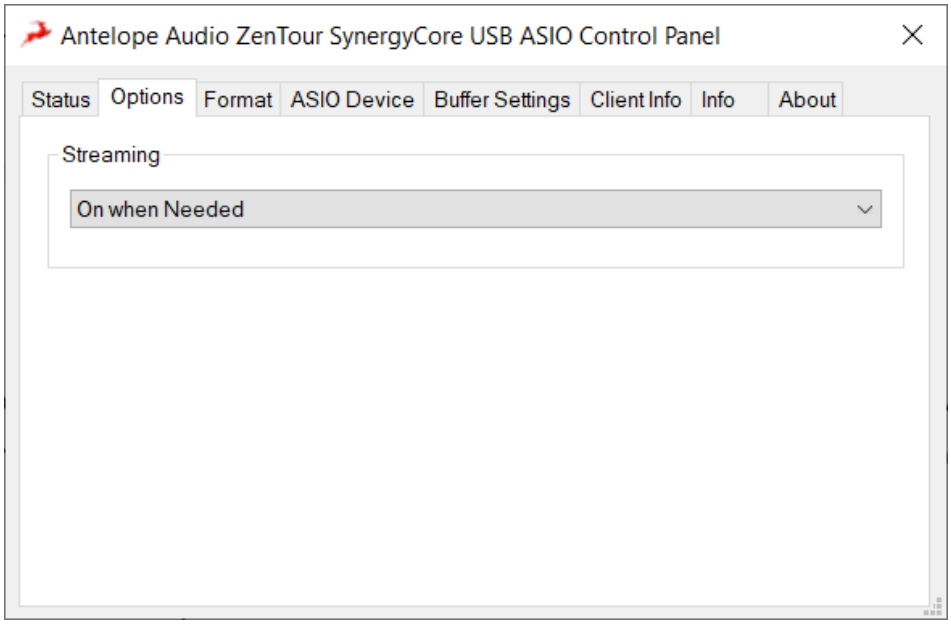
BUFER SIZE (SAMPLES)

Click to open the ASIO Driver Control Panel. Choose the buffer size here:



USB STREAMING MODE

Click to open the ASIO Driver Control Panel. Choose USB streaming mode from the drop-down menu. Experiment with the two modes if you experience audio glitches and instability.



TB LATENCY MODE

When connected over Thunderbolt™, choose latency mode from the drop-down menu. Experiment with the different modes if you experience audio glitches and instability.

Back to Function strip 1...

'?' symbol

Opens the Help Window, which contains system information, link to Antelope Tech Support and an 'ADMINISTRATION' button to launch the Antelope Registration Wizard.



'-' symbol

Click to minimize the Control Panel.

'X' symbol

Click to close the Control Panel.

Function Strip 2



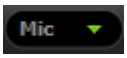
Left to right:

Switch the Main View between 'PREAMP', 'ADAT IN', 'S/PDIF IN'.

PREAMP tab



This tab contains controls for the 8 Hi-Z/preamp/combo inputs (pictured above).

Text Label 	Double-click to change the text.
Gain Knob 	Click and drag the knob or double-click its text label (inner center) to adjust input gain. The available gain ranges are as follows: • Mic: 0dB – 65dB • Line: -6dB – 20dB • Hi-Z: 0dB – 40dB
Mic Emulations 	Click the mic symbol to open the 'Mic Emulations' window. It's available on inputs 5 – 12 in 'Mic' mode. Head to the 'Edge & Verge mic emulations' chapter to learn more.
Input type 	Drop-down menu to choose the type of input: • Mic (microphone) • Line (line level sources) • Hi-Z (high-impedance musical instruments)

Input Signal Meter 	Visualizes the input signal strength. Running into the red 'clips' the input because of excess gain. Reduce gain.
48V button 	Enable/disable 48V phantom power for condenser microphones. Below this button is the 'Phase Flip' button.

ADAT IN tab



This tab contains controls for 8 ADAT digital audio inputs with editable text labels, gain adjustment knobs, Link buttons and signal strength meters. The available input gain range for all channels is -6dB – 12dB. Note that ADAT runs on S/MUX.

S/PDIF IN tab



This tab contains controls for 2 S/PDIF digital audio inputs with editable text labels, gain adjustment knobs, Link buttons and signal meters. The available input gain range for all channels is -6dB – 12dB.

Back to Function Strip 2...

HP1 Volume fader

Click and drag the fader to adjust headphone output 1 volume. Click the speaker symbol to mute/unmute.

HP2 Volume fader

Click and drag the fader to adjust headphone output 2 volume. Click the speaker symbol to mute/unmute.

TBK Button and volume fader

Click the button to activate or deactivate the inbuilt Talkback microphone. Click and drag the fader to adjust volume.

Bottom tab Selector



Click to switch tabs below the Main View.

Presets



The following functionality is available:

- Click a number to load preset 1 - 5.
- Ctrl-click/Command-click a number to store a preset into that slot.

Sessions



Drop-down menu with saved SESSIONS and adjacent SAVE/LOAD buttons.

SESSIONS are complete "snapshots" of entire Control Panel configurations. When Saving a Session, you can choose the exact components you want stored and export Session files for storage and sharing from the ‘Save As’ button. When loading a Session, you can browse your computer for session files and choose which components to load.

'Routing' tab



This tab features the Routing Matrix (pictured above) for analog and digital audio routing.

The Routing Matrix is row-based. Each row has its own unique color and represents a specific audio in or out with its maximum number of channels.

The Routing Matrix is split in two main sections: **From** (Source) and **To** (Destination). Route audio between them by dragging and dropping the colored number blocks. The following functionality is also available:

- Click on a number block to highlight the destinations it's currently routed to.
- Double-click a number block to change its text label.
- Right-click (or Command-click) a colored block and choose 'Mute' to mute this channel or 'Mute All' to mute all channels in the row.
- Use Ctrl/Command + Click and Shift + Click shortcuts to select multiple blocks.
- An alternative grid-based view is available (click 'MATRIX'). Please read the guide.
- Undo/Redo buttons are also available.
- Save/Load buttons let you save and load routing configurations (as opposed to entire Sessions).
- The 'How-To' button points your Internet Browser to a YouTube playlist with tutorial videos.

Routing Matrix – Terminology

FROM (Source) Section:

PREAMP	This row represents each of the 4 mic/line inputs.
EMU MIC	This row represents mic preamp inputs 1 - 4 with mic emulations applied to incoming microphone audio.
COMP PLAY	COMP PLAY is where you receive audio from your DAW to route into the effects processing or other destinations. When your interface is connected over Thunderbolt™, the 'COMP PLAY' row represents DAW 'Outputs 1 – 32'. When your interface is connected over USB, the 'COMP PLAY' row represents DAW 'Outputs 1 – 24'. **Basic workflow:** Create a new track in your DAW and assign the output with matching number - e.g. DAW 'Output 1' = 'COMP PLAY' 1. **Note**: These rows also represent all computer audio, such as media playback, YouTube, etc.
ADAT IN	This row represents up to 8 ADAT optical audio inputs.
SPDIF IN	This row represents 2 channels of incoming stereo S/PDIF audio over coaxial RCA cable.
AFX OUT	The AFX OUT row ('AFX' short for 'Antelope FX') represents up to 32 mono audio channels with Synergy Core FX applied.
MIX 1 - 4 L/R	The MIX 1 L/R to MIX 4 L/R rows represent the 2-channel stereo outputs from the four software mixers in the 'Mixer' tab.

TO (Destination):

LINE OUT	This row represents the 8 line outputs found on the DB25 connector at the rear panel. Note that these outputs are DC-Coupled and suitable for Control Voltage applications like controlling modular synths.
HP1	This row represents Headphone output 1 as two mono (L/R) channels.
HP2	This row represents Headphone output 2 as two mono (L/R) channels.

MONITOR	This row represents Monitor outputs L/R, found on 1/4-inch jacks on the rear panel. These mastering-grade outputs boast the highest dynamic range in the system.
REAMP	This row represents the two mono REAMP outputs, used for sending DI audio tracks for re-amping through guitar amplifiers and other suitable equipment. Read ' Re-amping' if you want to learn more about re-amping.
COMP REC	COMP REC is where you send audio to your DAW for recording. When your interface is connected over Thunderbolt™, the 'COMP REC' row represents DAW 'Inputs 1 – 32'. When your interface is connected over USB, the 'COMP REC' row represents DAW 'Inputs 1 – 24'. **Basic workflow:** Create a new track in your DAW and assign the input with matching number - e.g. DAW 'Input 1' = 'COMP REC' 1.
ADAT OUT	This row lets you route up to 8 mono audio channels to the ADAT output.
SPDIF OUT	This row lets you send 2 audio channels to S/PDIF-compliant equipment over coaxial RCA cable.
AFX IN	The AFX IN row ('AFX' short for 'Antelope FX') lets you route up to 32 mono audio channels into the Synergy Core FX. Note: You must route at least one signal here before any FX are being applied.
MIX CH1 - CH4	The 'Mixer' tab is home to four low-latency mixers with 32 inputs each. This row lets you route audio to their inputs.

If you ever find yourself struggling with the Routing Matrix for some reason, do not hesitate to contact our Customer Support team over phone, live chat and our ticket system. You can also visit Antelope Audio on YouTube and explore our video tutorials, or join the Antelope Audio Users Facebook group and ask for advice.

'Mixer' tab



The Mixer tab is home to four 32-channel software mixers. Each channel is equipped with Pan, Volume, Solo, and Link controls (on odd-numbered channels), as well as metering. The Master channel has Volume and Mute controls.

Limitations

- There is no grouping/bus/sub-mixing functionality, but the four full-fledged mixers give plenty of space to set up sub-mixes (e.g. drum bus, artist headphones) alongside your main mix.
- Due to technical reasons, we cannot offer volume automation inside the mixers at this time. Synergy Core FX automation is possible in your DAW with AFX2DAW.
- MIDI control is not supported.

Mixer 1 has AuraVerb available as a Send effect for monitoring purposes. Turn the Send knob on an audio channel to hear the reverb. The mixers are otherwise identical.

AuraVerb



AuraVerb provides richness and color using a special new approach and an unique algorithm. The reverb features eight different controls, including a 'Color' parameter to



create everything between darkened textures to bright, sizzling presence. In addition, there are 24 presets done by award-winning audio engineer & producer Brian Vibberts.

The following parameters are available in AuraVerb:

Color

The Color control lets you adjust the overall tone of the reverb. On “0” the space created is darker, like a lushly carpeted area. At “100” the reverb is at its brightest, which can add some ‘sizzle’ to a lead vocal, for example.

PreDelay

Common for most reverbs, the predelay allows you to create a bit of space between the source and the onset of reverb. This happens by controlling the amount of delay time that precedes the initial sound from the reverb. This parameter is used to place the reverberated signal later in time with respect to the unprocessed signal.

Natural settings for this are based on the size of the environment and range from 0 to 32 milliseconds. Fine adjustment of this parameter with respect to the tempo of the song or dramatic timing of the piece can help set the feel of the reverb within the mix.

Early Reflection Gain

This is the linear gain value for all early reflections. These reflections are perceptually grouped with the direct sound when set at lower levels, and can nicely thicken a track when increased.

Late Reflection Delay

Among other things, AuraVerb calculates reflected energy from the side walls and ceiling of the virtual space. Late Reflection Delay controls the delay of these bursts of reflections, either creating echoes or supporting the spatial impression of the simulated acoustic space.

Richness

Richness controls the complexity of the reverb envelopment and dampening nuances. At “0” there is less dampening and a brighter decay. This sound is light or airy, but by

increasing the Richness, you can add a sense of spaciousness to the sound and smoothly increase reverb time for lower frequencies.

Reverb Time & Room Size

Reverb Time controls the length of decay, while Room Size increases the virtual space dimensions. The perceived decay time will also be affected by Richness and Color on sources with a lot of high frequency content.

Generally, as the size of the space increases, the Reverb Time will also increase.

Setting Reverb Time to 50% gives a natural sounding tail for all room sizes. Interesting big spaces or subtle ambience reverbs can be created by setting Reverb Time unusually high or low with respect to the Room Size parameter.

Output Level

This is the output level control of the reverb. Since inputs for AuraVerb are assigned to Send knobs on Mixer 1's channels, we recommend balancing the channel volume levels from the Send controls and using Output Level to adjust the amount of reverb in the Master bus.

REVERB FX ON/OFF Switch

Use it to enable and disable AuraVerb.

Preset Manager

The Preset Manager lets you save and load presets. Use the drop-down menu to choose a preset. Use the 'S' button to save a preset. Use the 'L' button to load a preset.



'Effects' tab



The Effects tab lets you apply up to 8 Synergy Core effects per mono audio channel for a total of 32 channel strips and up to 256 FX instances, independent of sample rate.

Note: AuraVerb is only available as a Send effect in Mixer 1.

FX Basics

- Route audio to the 'AFX IN' row inputs in the 'Routing' tab.
- Click the audio input (or linked pair) you want to work on:



- **'Link'** buttons are available for each pair of inputs. Linking two inputs means the exact same FX processing is applied to both. Names of inputs and linked inputs are shown immediately above the Presets drop-down menu on the left.

- The **'DEL ALL'** button clears all FX racks for all audio channels.

- Click the **'ADD NEW EFFECT'** drop-down menu to choose and add effects. Their instances will appear in the FX Rack to the right. The list on the left lets you drag to re-order.

- Use the **'SAVE'** and **'LOAD'** buttons to store FX chains.
- Use the **'BP ALL'** and **'DEL ALL'** buttons to bypass or delete all FX on the current channel.
- Individual **'BP'** (bypass) buttons are available next to each effect on the left side.
- Hold Ctrl (Windows) or Command (Mac) and drag to adjust FX parameters in smaller increments.

Notes:

- Manuals for the equalizers and compressors are available here.
- The Antelope Audio AFX2DAW plug-in makes it possible to use Synergy Core FX inside your DAW. Please visit the AFX2DAW product page for more information.

Guitar Amps & Cabs



Among everything else it does, the Zen Tour Synergy Core rocks! A suite of 11 guitar amps and matching cabinets lets you monitor and record the roar of your electric guitar in real-time. There's a bass rig in there too, so plug-in and get slappin'! If you don't play guitar, but like the sound of cooked-up tubes and speaker cabinets pushing air, route any audio into these bad boys and check what happens!

Guitar amps and cabs are used like almost any other Synergy Core effect. Here are the basics:

1. Connect your electric guitar or bass to one of the four instrument/line inputs on the device's front panel using a standard 1/4-inch TS instrument cable.

2. Open the Control Panel application and head to the 'PREAMPS' tab. Adjust input gain as you play the instrument, careful not to run the meter into the red.

3. Enter the 'Routing' tab and drag the colored number block corresponding to your 'PREAMP' input onto a block from the row labeled 'AFX IN'.

4. Drag the 'AFX OUT' block that corresponds to your 'AFX IN' block (same number) onto the output(s) you want to monitor and record from.

5. Enter the 'Effects' tab. Click the input which corresponds to the 'AFX IN' block. Click the 'ADD NEW EFFECT' button to choose an amp first, then click again and choose a cabinet. Here's a textbook California-style heavy metal rig, for example:





While the guitar amps don't really need an explanation, the cabinet module is worth examining:

- Change the cabinet model anytime from the 'Cabinet' drop-down menu.
- Change your cabinet's mics from the 'Mic A' and 'Mic B' drop-down menus. Click the adjacent 'Phase' button if your choice of microphones results in phasing issues.
- Click and drag the virtual microphones to adjust their vertical and horizontal positioning.
- Click and turn the 'Mic A' and 'Mic B' knobs to dial-in the amount of signal you want from each microphone.
- Click and turn the 'Rear Mic' knob to mix-in signal from an additional mic behind the cabinet.
- Click and turn the '45-degree Mic' knob to mix-in signal from an additional mic positioned at a 45-degree angle from a speaker cone.
- Click the 'ReSPiRe' button to hear some cab sim mojo courtesy of our friends from Overloud. In their own words, the ReSPiRe technology lets you switch between the 'real' response of the cabinet and a processed version optimized to fit into a mix and avoid frequency overlap with the other instruments.
- Click the 'HPF' button to engage a preset high-pass filter (tames excessive low end).
- Click the 'LPF' button to engage a preset low-pass filter (tames harsh or shrill-sounding highs).
- Click the 'BP' button to bypass the cab sim.

6. If you want to take the guitar sound into your DAW for recording and additional processing, enter the 'Routing' tab and drag the corresponding 'AFX OUT' block onto a block labeled 'COMP REC'. Setup the rest of your routing so you are recording from the 'COMP REC' output (e.g. 'COMP REC' 1 = DAW 'Input 1') and monitoring from the DAW instead of the Control Panel to prevent 'duplex' monitoring.

Note: You can disable the Synergy Core cab sim and use custom guitar cabinet IRs in your DAW with your preferred IR Loader.

Re-amping

Re-amping is the practice of running entire guitar performances, recorded in the form of completely ‘uncolored’ signal from the instrument’s pickups, through all kinds of guitar amplification and recording equipment. This way, guitar performances can be tightly edited prior to amplifying, and professionally recorded in conditions that are impractical or out of the player’s reach.

Prior to pro audio manufacturers turning their attention onto the phenomenon, re-amping was usually accomplished using standard line outputs with Direct Injection (DI) boxes attenuating the signal from line-level to instrument-level accepted by guitar amplifiers. However, not all DI boxes are built equal, and subpar design would inevitably result in unflattering coloration and signal degradation. And then there were the adventurers who ran their line outs straight into the amplifier, attenuating the signal from the DAW’s volume faders hoping no one gets hurt...

Luckily, we live in a more civilized age. A typical workflow for re-amping with the Zen Tour Synergy Core would be:

1. Connect the REAMP outputs to your guitar equipment’s inputs using standard 1/4-inch instrument cables.

2. Place your guitar DIs onto tracks in your DAW and assign them to Outputs 1 – 32 (Thunderbolt™) or Outputs 1 – 24 (USB). These outputs send audio to the 'COMP PLAY' channels in the Control Panel’s Routing Matrix.

3. Head to the ‘Routing’ tab and route up to two ‘COMP PLAY’ channels into the ‘REAMP’ outputs.

4. Next, route the inputs you will be recording from into the ‘COMP REC’ channels. Set up DAW tracks to record audio from them - e.g. 'COMP REC' 1 = DAW 'Input 1'.

5. Hit ‘Play’ and you should be hearing your performance through your guitar rig. Shape your tone and start recording when you are ready.



Notes:

- Level faders for the REAMP outputs are available in the Control Panel application's 'Settings Window' (the 'Gear' symbol). Attenuate the signal if you are overdriving the amplifier's front end.
- It's possible to use the REAMP outputs as Sends for external equipment, but we cannot recommend this unless said equipment has preamps to amplify the very quiet instrument-level signal. You are better off using the insert patch points on the Zen Tour Synergy Core's rear panel for Send/Return configurations.

Software re-amping

You can re-amp DI guitar tracks through the Synergy Core amps & cabs as well:

1. Open your DAW. Place your DI on a track and assign it to one of Outputs 1 – 32 (Thunderbolt™) or Outputs 1 – 24 (USB). Remember: DAW Outputs = 'COMP PLAY' inputs.

2. Open the Control Panel. Enter the 'Routing' tab and drag the 'COMP PLAY' block onto an 'AFX IN' block.

3. Enter the 'Effects' tab and click the channel you want to work on.

4. Stack your amps, cabs and FX by clicking the 'ADD NEW EFFECT' button.

5. Hit 'Play' in your DAW's transport controls to hear the sound as you shape your tone.

6. If you want to record the result, route the corresponding 'AFX OUT' block onto an available 'COMP REC' output and record from it in your DAW.

Edge & Verge mic emulations



Edge & Verge mic emulations are available on preamp/combo inputs 5 – 12. They are intended for use with the Antelope Audio Edge & Verge modeling microphones only. We cannot guarantee optimal (or even usable) results with other microphones.

Before attempting to use mic emulations, make sure of the following:

1. The mic emulations for your modeling microphone are installed from the 'Software' tab in the Antelope Launcher. Install them if they are not.

2. The installed mic emulation bundles are assigned to your Zen Tour Synergy Core.

Getting Started

Mic emulations are accessed by clicking the tiny 'Mic' symbol, seen on Channels 5 – 8 in the 'PREAMPS' tab.

Gain Calibration

It's a good idea to connect your mic(s) now and calibrate preamp gain before you proceed. Click and turn the Gain knobs or double-click the text fields and enter values from the keyboard.

Gain adjustment for the Edge Solo and Verge is straightforward, but the Edge Duo and Edge Quadro are multi-membrane microphones. There may be differences in the input signal strength from each membrane, which may have to be compensated for with individual gain adjustments.

Note that engaging mic emulations for Edge Duo and Edge Quadro automatically 'links' their input channels, thus individual gain adjustments per input are not possible while using their mic emulations.

Using Mic Emulations

In the 'Mic Emulations' window, click and rotate the dial to access the emulations available for your modeling microphone:



Following is a guide to using the mic emulations for each Antelope Audio modeling microphone.

Edge Solo





Edge Solo Mic Emulations Window

The following functionality is available:

- Choose mic emulations from the drop-down menu on the right.
- Click and turn the 'Phase Invert' dial to flip the microphone's polarity.

- Click and drag the ‘48’V switch to activate or turn off phantom power.

Recording and Monitoring Edge Solo

Edge Solo is a single-membrane condenser microphone. This means the microphone will occupy one physical mic preamp input, one block in the Routing Matrix ‘PREAMP’ row, and one block in the ‘MIC EMU’ row.

Edge Solo mic emulations work on a single input audio channel. Recording and monitoring both ‘dry’ and ‘mic emulation’ audio means dealing with two mono tracks.

- Route the ‘PREAMP’ input for Edge Solo to your desired outputs to monitor ‘dry’ audio. Route to a ‘COMP REC’ block to record from the corresponding input in your DAW.
- Route the ‘EMU MIC’ output for Edge Solo (same number as the ‘PREAMP’ input) to your desired outputs to monitor ‘mic emulation’ audio. Route to a ‘COMP REC’ block to record from the corresponding input in your DAW.
- Route ‘PREAMP’ and ‘EMU MIC’ blocks to your desired outputs and ‘COMP REC’ channels to monitor and record both ‘dry’ and ‘mic emulation’ audio.

For more information about Edge Solo, visit its product page.

Edge Duo



Note to owners of the legacy ‘Edge’ modeling microphone: 'Edge' and 'Edge Duo' have nearly identical hardware, so feel free to use the ‘Edge Duo’ emulations with your legacy ‘Edge’ mic.



Edge Duo Mic Emulations Window

The following functionality is available:

- Choose mic emulations from the drop-down menu in the middle.
- Click and turn the 'Phase Invert' dial to flip the microphone's polarity.
- Click and drag the '48V' switch to activate or turn off phantom power.
- Click and turn the 'Channel Swap' dial to swap the Edge Duo inputs.
- Click and turn the 'Pattern' knob to adjust the polar pattern. Note that some mic models have fixed or limited polar pattern adjustment.

Recording and Monitoring Edge Duo

Edge Duo is a dual-membrane condenser microphone – it has one capsule with dual membranes and connects with a Y-XLR cable (included), one XLR connector for each membrane. The Left (white) connector is the front membrane, the Right (red) is for the rear membrane.

The microphone occupies two physical mic preamp inputs, two blocks in the Routing Matrix 'PREAMP' row, and two blocks in the 'EMU MIC' row.

Note: You can use Edge Duo as a single-membrane condenser mic by disconnecting one of the XLR connectors. In this case, the mic emulations will be visible, but they won't function correctly, you cannot swap inputs and you cannot adjust polar pattern.

Recording and monitoring Edge Duo as a single-membrane condenser mic



Route the ‘PREAMP’ input for Edge Duo to your desired outputs to monitor ‘dry’ audio. Route to a ‘COMP REC’ block to record from the corresponding input in your DAW.

Recording and monitoring Edge Duo as a dual-membrane condenser mic

In this case, you will record and monitor two concurrent mono inputs, one coming from each membrane. They will sound slightly different in tone and volume, due to the physical distance between the membranes and the performer. You may have to compensate with individual gain adjustments for each membrane.

Route the ‘PREAMP’ inputs occupied by Edge Duo to your desired outputs to monitor ‘dry’ audio. Route them to ‘COMP REC’ blocks to record from the corresponding inputs in your DAW.

Recording and monitoring Edge Duo as a modeling microphone

Make sure that ‘Edge Duo’ mic emulations are enabled. Route the ‘MIC EMU’ inputs corresponding to the ‘PREAMP’ inputs occupied by Edge Duo to your desired outputs for monitoring and the ‘COMP REC’ blocks for DAW recording.

Recording and monitoring ‘dry’ and ‘mic emulation’ audio simultaneously

With the Edge Duo, monitoring and recording ‘dry’ and ‘mic emulation’ audio simultaneously means handling four concurrent mono signals – two ‘dry’ tracks and two ‘mic emulation’ tracks. ‘Dry’ audio comes from the ‘PREAMP’ inputs, and ‘Mic Emulation’ audio comes from the ‘MIC EMU’ outputs. Route them anywhere you want in the Routing Matrix.

For more information about Edge Duo, visit its product page.

Edge Quadro



Connecting Edge Quadro

Edge Quadro is a quad-membrane condenser microphone – it has two heads, each with dual membranes. The Top head rotates 360-degrees, enabling stereo recording techniques such as M/S, X/Y, Blumlein, and even 3D sound. Therefore, the microphone is bundled with a pair of Y-XLR cables. Their Left (White) connectors are for the front membranes, and their Right (red) connectors are for the rear membranes.

However, each cable is designated for either the Top or Bottom head and labeled accordingly – T (Top) or B (Bottom). The inputs on the microphone are labeled too, letting you know where each cable needs to be connected.

There's a bevy of options for connecting Edge Quadro to your Zen Tour Synergy Core:

As a single-membrane (rotatable) condenser mic. Connect just one XLR from the Top (rotatable) or Bottom head using the corresponding cable. The possible configurations are:

1. Top Head – Front Membrane.

2. Top Head – Rear Membrane.

3. Bottom Head – Front Membrane.

4. Bottom Head – Rear Membrane.

As a dual-membrane (rotatable) condenser mic. Connect two XLRs from either (or both) the Top and Bottom heads with the corresponding cables. The possible configurations are:

1. Top Head – Front and Rear Membranes.

2. Bottom Head – Front and Rear Membranes.

3. Top Head – Front Membrane. Bottom Head – Front Membrane.

4. Top Head – Front Membrane. Bottom Head – Rear Membrane.

5. Top Head – Rear Membrane. Bottom Head – Front Membrane.

6. Top Head – Rear Membrane. Bottom Head – Rear Membrane.

As a quad-membrane rotatable condenser microphone. Connect all XLRs from both heads with the corresponding cables. This is the only option for using the Edge Quadro mic emulations.



Edge Quadro Mic Emulations Window

Edge Quadro and Edge Duo mic emulations are identical, except for the ability to apply two different mic emulations in unison - one for each head – complete with two different polar patterns that are also swappable. All in all, the functionality is the same, but with two mic emulation selectors and two polar pattern changers.



Monitoring and recording Edge Quadro

Taking full advantage of the Edge Quadro's 360-degree recording and dual-emulation capabilities means the microphone will occupy four physical mic preamp inputs, four blocks in the Routing Matrix 'PREAMP' row, and four blocks in the 'MIC EMU' row.

Monitoring and recording 'dry' and 'mic emulation' audio simultaneously with the Edge Quadro means handling eight concurrent mono tracks – two 'dry' tracks from its Top head, two 'dry' tracks from its Bottom head, two 'mic emulation 1' tracks and two 'mic emulation 2' tracks.

With so many signals available, the routing and processing possibilities are extensive. Put the manual down and explore your skills and creativity.

For more information about Edge Quadro, visit its product page.

Verge



Verge is a small-diaphragm condenser microphone that's as simple to use as the Edge Solo. Its dimensions and ability to handle high sound pressure levels make it a better fit for positioning in tight spaces and recording very loud sources, such as drum kits.



Verge Mic Emulations Window

The following functionality is available:

- Choose mic emulations from the drop-down menu on the right.
- Click and turn the 'Phase Invert' dial to flip the microphone's polarity.
- Click and drag the '48'V switch to activate or turn off phantom power.

Recording and Monitoring Verge

Verge is a single-membrane, small-diaphragm condenser microphone. This means the microphone will occupy one physical mic preamp input, one block in the Routing Matrix 'PREAMP' row and one block in the 'MIC EMU' row.

Verge mic emulations work on a single input audio channel. Recording and monitoring both 'dry' and 'mic emulation' audio means dealing with two mono tracks simultaneously.

- Route the 'PREAMP' input for Verge to your desired outputs to monitor 'dry' audio. Route to a 'COMP REC' block to record from the corresponding input in your DAW.
- Route the 'EMU MIC' output for Verge (same number as the 'PREAMP' input) to your desired outputs to monitor 'mic emulation' audio. Route to a 'COMP REC' row to record from the corresponding input in your DAW.
- Route 'PREAMP' and 'EMU MIC' blocks to your desired outputs and 'COMP REC' inputs to monitor and record both 'dry' and 'mic emulation' audio.

For more information about Verge, visit its product page.

AFX2DAW



Available as a separate purchase, AFX2DAW is a bridge plug-in for using Synergy Core FX as inserts in your DAW. All Synergy Core FX processing and I/O audio streaming activity is handled by the DSP and FPGA processors in your interface. AFX2DAW provides a more immediate workflow with the added bonus of Synergy Core FX automation in your DAW, which isn't available otherwise.

At the time of writing, AFX2DAW is supported only on Mac computers via Thunderbolt™. A Windows version is under development.

Click here to learn more and purchase AFX2DAW.

Setting up AFX2DAW

After purchasing AFX2DAW, you will receive a Claim Code at the e-mail address you used to register your Antelope Audio user account.

Note: If the e-mail doesn't seem to arrive in your inbox, please check your 'Spam' and 'Junk' folders.

1. Log-in to antelopeaudio.com and head to the 'Claim Features' page to enter your Claim Code.

2. Open Antelope Launcher and click the 'Plug-ins' button. Download and install the latest version of 'AFX2DAW'.

3. Click the 'Devices' button and start the Zen Tour Synergy Core Control Panel.

4. Click the '?' button, then click 'ADMINISTRATION'. Log-in with your Antelope Audio account information and click 'Continue'.

5. Choose 'Register device or assign features' and follow the on-screen instructions to assign AFX2DAW to your Zen Tour Synergy Core.

6. Launch your DAW and load an instance of AFX2DAW on a mono or stereo track. The plug-in behaves almost exactly like the Control Panel 'Effects' tab. However, you no longer have to choose the channel you are working on as AFX2DAW binds to the track it's loaded on.

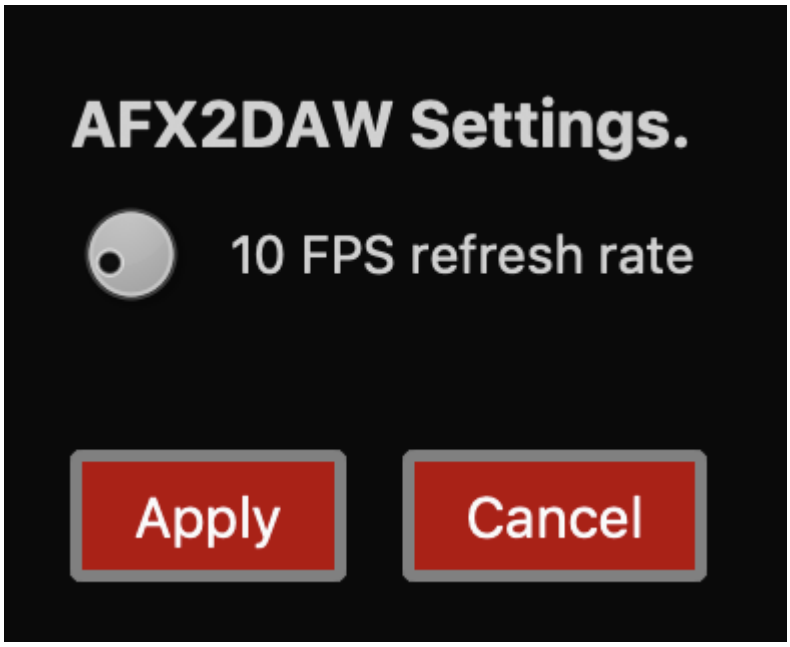
The following functionality is available:

- Click the 'ADD NEW EFFECT' drop-down menu to choose and add effects. Their instances will appear in the FX Rack to the right. The list on the left lets you click and drag to re-order.
- Use the 'SAVE' and 'LOAD' buttons to store FX chains.
- Use the 'BP ALL' and 'DEL ALL' buttons to bypass or clear all FX currently in the rack.
- Use the drop-down menu below these buttons to load presets.
- Individual 'BP' (bypass) buttons are available next to each effect on the left side.
- Command-click and drag on an FX parameter to adjust it in smaller increments.

7. You will notice that a new instance of the Zen Tour Synergy Core Control Panel has been loaded in the background. The 'Routing' tab now features an 'AFX2DAW' button immediately above the 'MATRIX' button.



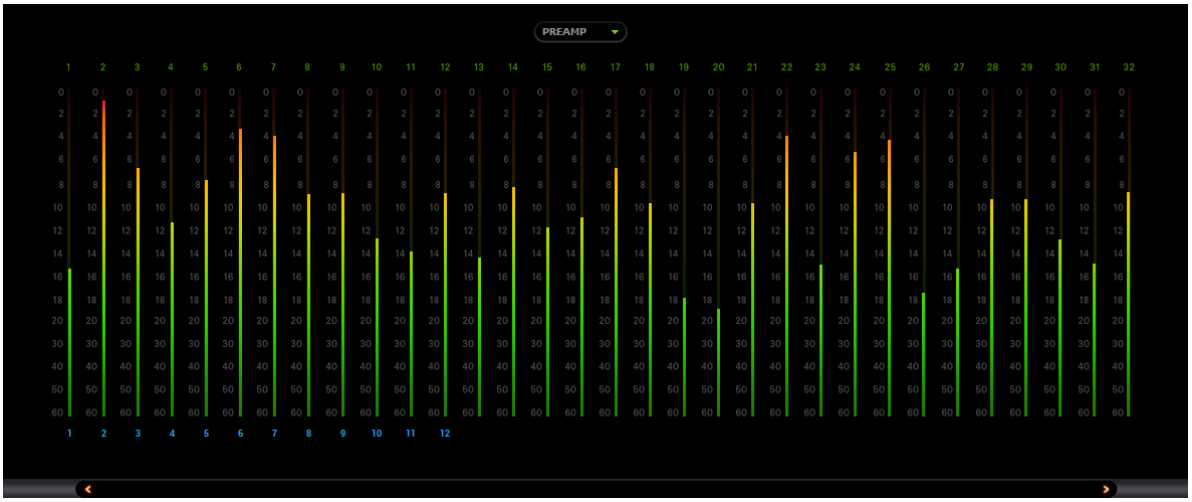
Click this button and the following window will appear:



Click and drag the FPS refresh rate knob to set the frame rate for the peak meter animations of FX loaded in AFX2DAW. Increasing the frame rate results in smoother animation but comes at the cost of CPU power. Click ‘Apply’ to store the setting or ‘Cancel’ to go back.

Note: Closing all open AFX2DAW windows in your DAW session eliminates the use of CPU power to animate peak meter movement, as such is no longer being rendered on or off-screen.

'Meters' tab



The Meters tab provides up to 32 individual volume meters for each row from the 'Routing' tab, selectable from the drop-down menu.

ADVANCED USER TIPS

Use the Zen Tour Synergy Core as a Master clock

We recommend taking advantage of the Zen Tour Synergy Core's highly stable and musical clocking, provided by an oven-controlled crystal oscillator and proprietary 64-bit algorithms (Acoustically Focused Clocking & Jitter Management) to generate timing reference for other digital audio devices in your setup.

This is done in a Master - Slave arrangement where the Master device "clocks" the Slave device with its timing reference signal. To set up the Zen Tour Synergy Core as a Master clock, connect Word Clock Out to the Slave device's Word Clock In using a standard BNC



cable. Orion Studio does not require any specific setup, but the receiving device might require modifying its settings to act as a Slave.

Further reading:

- For a primer on digital clocking and jitter, read this article. More in-depth information can be found here.

- This interview with Antelope Audio founder and CEO, Igor Levin, is also very illuminating.

Send and receive CV (Control Voltage) commands to Eurorack modular synths

Zen Tour Synergy Core features DC-coupled line outputs. This makes it capable of sending CV (Control Voltage) commands to analog synthesizers.

CV is especially prominent inside the realm of 'modular' synths, more specifically those comprised of modules made in the exceedingly popular Eurorack format. The individual modules (e.g. VCO, VCA, VCF, LFO, ADSR) within such a system communicate primarily through Direct Current (DC) patch points as opposed to Alternating Current (AC), with control voltage carried over patch cables. That's because AC-coupling filters out ultra-low frequencies, including the types of sustained voltage used in modular synthesis.

Eurorack owners are fond of integrating their modular systems with Ableton Live. The free CV Tools extension makes it possible to send and receive CV commands as if they were regular audio streams inside the DAW, which is a particularly straightforward workflow.

How to get started

1. Bring the audio output from your Eurorack modular down to line-level using a dedicated output module.

2. Connect your modules to the Zen Tour Synergy Core.

3. Enter the Control Panel 'Routing' tab. Route the I/O channels you occupied into the COMP REC row.

4. Launch Ableton Live and set up your project accordingly.

Safety precautions

1. Make sure to prevent excessive output volume.
2. Never send CV to your speakers.
3. Bring any Trigger and Gate modules' output down to line-level (about 1v max) before connecting them to Zen Tour Synergy Core.

For help with setting up Ableton Live, visit the Ableton Knowledge Base.

CUSTOMER SUPPORT INFORMATION

Antelope Audio Customer Support can be reached by the following means:

Online

Visit support.antelopeaudio.com

Phone

US time: 12AM (midnight) – 8PM (CST), Monday – Friday
US Phone Number: (916) 238-1643

European time: 6AM – 2AM (GMT), Monday – Friday.
UK Phone Number: +44 1925933423

Live Chat

US time: 12AM (midnight) – 2PM (CST), Monday – Friday
European time: 6AM – 8PM (GMT), Monday – Friday.

Note: If you're trying to reach us outside working hours, we advise you to file a ticket in our customer support system or leave a voice message.

Additional Resources

- The Antelope Audio YouTube channel is home to various tutorial videos and endorser content which you may find helpful and inspiring.

- The Antelope Audio Users Facebook group lets you interact with fellow users and some of our employees. Note, however, that it is not meant to be a support group. Please contact our customer support team for such inquiries.

- The Knowledge Base in our Customer Support section is an often-overlooked source of troubleshooting information, answers to commonly asked questions and Antelope know-how.

MY ANTELOPE AUDIO PRODUCT ISN'T WORKING.

WHAT SHOULD I DO?

If you can't find a solution on your own, please get in touch with us so we check if you are having a hardware-related issue. If this is the case, we'll guide you through the repair process. If the product should be returned, a RMA number will be issued so we can begin the procedure.

What's an RMA number?

Issuing a RMA (Return Merchandise Authorization) number is required for any factory service or repair procedure. Please, don't attempt to send us your device without receiving a RMA number first, as the device will be returned and not serviced.

How do I get an RMA number?

The Antelope Audio Customer Support team is in charge of issuing RMA numbers. Visit support.antelopeaudio.com and get in touch.

After your RMA has been issued, you will receive an email with instructions on how to proceed.

RMA shipping information

Alongside the product you are returning please, include a letter containing your full name, shipping address, RMA number issued by our technical support team and a note with a short information about the technical issue.

Please use the original box if possible, because a worn out one will surely not protect your product sufficiently on its way to the Antelope Audio HQ. Additional cushioning materials in multiple layers between the unit and the box walls to prevent from shock, vibration and various tears and scratches.

Please remove any labels or old shipment markings it may have and ensure you add your shipping address inside the box in case the original shipment label becomes illegible during transportation.

The shipping costs are covered by the owner of the product. Antelope Audio will not cover any local customs charges.

We recommend using a courier service of your choice (e.g. DHL, UPS, FedEx). The package should be insured for its real value, marked as fragile and a tracking number should be provided. We do not recommend using standard mail delivery services.

Please, don't forget to add the RMA number, issued by the Antelope Audio technical support, on all shipping paperwork.

Antelope Audio cannot be held responsible for undelivered packages – lost or damaged on the way to the Antelope Audio HQ. For damage claims, please contact your shipping service provider of choice.

Antelope Audio cannot cover any repair costs for product damages due to poor packaging.

LIMITED WARRANTY POLICY

This is a non-transferable voluntary Limited Product Warranty provided to end-customers who have purchased Antelope Audio-branded hardware product (hereinafter referred to as “Product”) from an authorized Antelope Audio re-seller.

For customers covered by consumer protection laws or regulations in their country of purchase or, if different, their country of residence, the benefits conferred by Antelope Audio's Limited Warranty are in addition to, and not instead of, rights and remedies convened by such consumer protection laws and regulations and it does not exclude, limit or suspend buyer’s rights arising from consumer law. Consumers have the right to choose whether to claim service under the Antelope Audio Limited Warranty or under their consumer law rights.

All claims made under the Antelope Audio Limited Warranty will be governed by the terms set out in this warranty document.

Warranty Coverage

Antelope Audio warrants that the Product will be free from defects in material and workmanship for the period of 1 (one) year commencing on the date of purchase of Product by end-customer from authorized Antelope Audio's re-seller.

Except where explicitly prohibited by applicable local law, this warranty is limited to the original purchaser and is non-transferable. This warranty provides you with specific legal rights, and you may have additional rights that vary under local laws.

In general, this warranty means your Antelope Audio hardware product will operate in accordance with published technical specifications, as specified by its data-sheet, and in the operating environment for which it was intended for the length of the warranty period.

This version of the warranty applies to products purchased on or after January1,2018. For prior versions of the Antelope Audio limited warranty, please contact customer service.

Limited Factory Refurbished (B-stock) Warranty

Antelope Audio warrants products sold as "B-stock, Factory Refurbished or Open Box" to be free from defects in materials (unless otherwise stated in product description) and workmanship. Only products purchased from an authorized dealer or directly from Antelope Audio are covered by this Warranty.

The Limited Factory Refurbished (B-stock) Warranty is valid for the period of 6 (six) months, commencing on the date of purchase of Product, if local regulations do not require otherwise.

All warranty terms contained hereunder apply also to the B-stock Warranty, unless otherwise specified.

Remedies

Antelope Audio's entire liability and your exclusive remedy for any Antelope Audio Product that is not operating in accordance with its published technical specifications is at Antelope Audio's discretion:

1) to repair the Product at Antelope Audio's expense using new or equivalent-to new refurbished parts in good working condition; or

2) to replace the Product at Antelope Audio's expense with a product with equivalent functionality formed from new and/or equivalent-to new refurbished parts in good working condition, or

3) to refund the price paid. Should Antelope Audio decide to refund the price paid, it may deduct from the paid Product's price any damages caused to the Product; where, within fourteen (14) days of the expiration of the warranty period,(i) Antelope Audio has received written notice of any nonconformity;(ii) after Antelope Audio's written authorization, customer has returned the nonconforming product to the designated place; and (iii)Antelope Audio has determined that the Product is nonconforming and that such non conformity is not the result of any of the exclusions designated below.

These warranty obligations are conditioned upon the hardware being returned to the original place of purchase, or another place as directed by Antelope Audio, with the original sales receipt attached. You will be required to pay shipping and handling charges for returning the product. You may be required to pay any other applicable tariffs, duties, taxes, or other fees with regard to returning the products.

Any repaired or replacement Product will be warranted for the remainder of the original warranty period.

Obsolete or Discontinued Products

An obsolete or discontinued product will be repaired or replaced with the same product if available. If Antelope Audio is unable to replace your obsolete or discontinued product with the same product, Antelope Audio will replace the obsolete or discontinued product, in its sole discretion, with a product having similar function and capacity.

Exclusions

This warranty does not cover problems or damage resulting from, but not limited to, any of the following: (i)Wear and tear associated with normal use; (ii)Any modification,

abuse, accident, disassembly, misapplication, misuse, negligence, acts of God, accident; (iii)Unauthorized repair or attempted repair by anyone other than Antelope Audio or someone authorized by Antelope Audio to do warranty work; any unauthorized repairs will void this warranty(iv)Any improper operation, maintenance or installation, including any use not in accordance with any supplied product instructions; (v)Connection to any improper voltage supply; (vi)Use of consumables or spare parts not supplied by Antelope Audio, except where such restriction is prohibited by applicable local law; (vii)Any other cause which does not relate to a Product defect in materials or workmanship.

The warranty does not apply to any Products which have been subject to misuse, neglect, accident or modification or which have been soldered or altered such that they are not capable of being tested under normal test conditions.

This warranty does not cover (i) any counterfeit products, i.e. Products that Antelope Audio, at its sole discretion, determines were not manufactured by Antelope Audio or any of its authorized manufacturing partners; (ii) Products purchased from a person or entity which is not an authorized dealer or re-seller of Antelope Audio; (iii)Product sold “as is” or “with all faults”, to the extend permitted by local law.

This warranty is not valid in case any manufacturer label(s), serial numbers, date stamp(s) or warranty sticker(s) has been altered or removed from the Product.

Limitation of Liability

ANTELOPE AUDIO SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS, REVENUE, OR DATA (WHETHER DIRECT OR INDIRECT) OR COMMERCIAL LOSS FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON YOUR PRODUCT EVEN IF Antelope Audio HAS BEEN ADVISED PREVIOUSLY OF THE POSSIBILITY OF SUCH DAMAGES. Some local laws do not allow the exclusion or limitation of special, indirect, incidental or consequential damages, so this limitation or exclusion may not apply in your jurisdiction.
ANTELOPE AUDIO WILL NOT ASSUME OR AUTHORIZE ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH ITS PRODUCTS.

Data Recovery

In the event of data loss using Antelope Audio storage devices, Antelope Audio is not responsible for backing up or recovering any data that you may have lost.

No Other Warranties

No Antelope Audio employee, dealer, re-seller, or other agent is authorized to make any modification, extension, or addition to this warranty.

How to Make a Warranty Claim

Valid warranty claims should be processed through your point of purchase. Please also verify the return policy directly with the retailer where you purchased your product. Any warranty claims that cannot reprocessed through your original point of purchase should be addressed directly to Antelope Audio. Our customer service contact information can be found on the web or in the documentation included with your Product.

Returning Your Product

In the event that you need to return your Antelope Audio products for repair or replacement, Antelope Audio will provide you with a Return Merchandise Authorization Number (RMA#) as well as return instructions. Do not return your product without prior approval from Antelope Audio. Any product returned without a valid unique RMA# will be refused and returned to the sender at the sender's expense. To avoid problems at the time of receipt, clearly write your RMA# on the outside of the package and include a copy of your RMA confirmation-mail within the package.

In certain situations, for in-warranty units, we may (entirely at our opinion) offer you a temporary replacement unit, provided that we have such on stock in your state. To request a temporary replacement unit, a valid credit card must be provided to secure the new replacement unit for shipping prior to Antelope Audio receiving the defective one.

Request a Return Material Authorization Number (RMA#)

Please follow these steps to obtain an RMA number:

(I) For end user customers, submit a claim online at: support.antelopeaudio.com. For business to business (B2B) / Direct customers of Antelope Audio please email us at techsupport@antelopeaudio.com

(ii) A valid proof of purchase is required for RMA processing (i.e. receipt, invoice, etc). Antelope Audio will provide you with the RMA number within 2 working days as of the claim submission date.

RMA Return Addresses

We have multiple RMA receiving locations worldwide. Your RMA confirmation will specify the specific return address you must use when sending your RMA package. Any packages received at an unauthorized location may be refused and returned to the sender at the sender's expense.

Products Lost or Damaged During Transit

The original packaging material should be used to pack the product for return; if the original packaging is not available, you should use such materials that provide the same or greater protection to the product. All packages that arrive with any external damage or appear inadequately packed will be refused and returned to the sender at the sender's expense. We are not responsible for damage incurred during shipping to our RMA receiving locations or for lost or stolen products.

Company information

Antelope Audio is the trade name, under which the company Elektrosfera ltd., registered under the legislation of the Republic of Bulgaria with UIN: 131052590, is doing business and is worldwide known. Elsewhere in this document where the trade name **Antelope Audio** is used shall refer to Elektrosfera ltd., with address of management: Tsarigradsko Shose Blvd., 7th km, Building of BIC IZOT, floor 6, Mladost region, Sofia, Bulgaria.

If any term hereunder is held to be illegal or unenforceable, it shall be severed from this warranty and the legality or enforce ability of the remaining terms shall not be affected.

SAFETY NOTES

To reduce the risk of electrical shocks, fire, and related hazards:

- Do not remove screws, cover, or cabinet. There are no user serviceable parts inside. Refer servicing to qualified service personnel.

- Do not expose this device to rain, moisture or spillover of liquid of any kind.

- Should any form of liquid or a foreign object enter the device, do not use it. Switch off the device and then unplug it from the power source. Do not operate the device again until the foreign object is removed, or the liquid has completely dried and its residues fully cleaned up. If in doubt, please consult the manufacturer.

- Do not handle the power cables with wet hands!

- Make sure the device is switched off when plugging/unplugging it to/from the power source.

- Avoid placing things on the cabinet or using the device in a narrow and poorly ventilated place which could affect its operation or the operation of other closely located components.

- If anything goes wrong, turn off the device first and then unplug the power. Do not attempt to repair the device yourself. Consult authorized service personnel or your dealer instead.

- Do not install near any heat sources such as radiators, stoves, or other apparatus (including amplifiers) that produce heat.

- Do not use harsh chemicals to clean your unit. Clean only with specialized cleaners for electronics equipment.

- Connect all your devices before powering your unit.

- This unit is connected via its power cord to the mains safety earth.

- Never operate the unit without this earth connection.
- DC power supply cable should be routed so that it is not likely to be walked on or squeezed by items placed upon or against it.

- To completely turn off the device, unplug the power cable first from the outlet and then from the rear panel of the unit.

- Both occasional and continued exposure to high sound pressure levels can cause permanent ear damage via headphones and monitors.

- Your unit should always be un-racked when traveling or in a flight case.

The device is designed to operate in a temperate environment, with a correct Operating Temperature of 0-50° C, 32-122° F.

TECHNICAL SPECIFICATIONS

FX PROCESSING

4x DSP + 2x FPGA Synergy Core Architecture

36 FX included, expansions available online

ANALOG I/O

4x Instrument/Line inputs on TRS Jacks

4x Mic/Line inputs on TRS/XLR Combo Jacks

8x Line Outputs * on DB25 (TASCAM Standard 25-pin Layout)

2x Monitor Outputs on TRS Jacks

2x Headphone Outputs on TRS Jacks

2x Transformer-based Reamp Outputs on TRS Jacks

* All line outputs are DC-Coupled and support CV applications such as controlling modular synthesizers.

DIGITAL I/O

ADAT:

44.1/48 kHz – 8 inputs / 8 outputs

88.2/96 kHz – 4 inputs / 4 outputs

176.4/192 kHz – 2 inputs / 2 outputs

SPDIF:

44.1 to 192 kHz – 2 inputs / 2 outputs

USB:

USB 2.0 - Type B Connector

(Up to 24 audio channels)

THUNDERBOLT™:

Thunderbolt™ 3 - Type C Connector

(Up to 32 audio channels)

MIC PREAMPS

EIN: -128 dBu

Dynamic Range: -121 dB

THD: -106 dB

Max input: +20 dBu

Max Gain: 65 dB

CONVERSION

A/D Converter:

124dB DNR

-110 THD+N

D/A Converter:

127dB DNR

-106 THD+N

D/A Monitor Converter:

130dB DNR

-115 THD+N

Sample Rates (kHz):

44.1, 48, 88.2, 96, 176.4, 192

CLOCKING SYSTEM

4th Generation Acoustically Focused Clocking & Jitter Management

64-bit DDS

OTHER

Operating Temperature

0-50°C, 32-122°F

Weight (Approx.)

1.6 kg/ 3.5 lbs

Dimensions (Approx.)

Width: 255 mm / 10.0”

Height: 62 mm / 2.4”

Depth: 168 mm /6.6”

Power Consumption

25 Watts