GEARBOX 1.02

RECORDING SETUP GUIDE

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GETTING STARTED

Before we dive right into the world of recording, here are a few more reminders for you about keeping things up to date and registering your Line 6 gear…

Updating & registering with Line 6 Monkey

Line 6 Monkey is the intelligent updater utility that is automatically installed with your GearBox application. It's a great idea to launch Line 6 Monkey every so often so you can be sure you have all the latest updates for all your Line 6 software and hardware products. Registering your Line 6 hardware is also very important because it ensures that you're dialed in for warranty service and makes it possible for us to contact you if new software versions or other cool enhancements are offered — cutting edge technology and such! So don't put this off any longer. Connect your Line 6 hardware to your computer and follow these steps to launch Line 6 Monkey...

- On Windows®, go to Start - Programs - Line 6 - Tools.
- On Mac®, go to Applications - Line 6.

Login account

You'll need to Login so that Line 6 Monkey can communicate with the online Line 6 Server and provide you with exactly what you need.

- If you have a Line 6 account, then type in your User Name and Password at the top of the Monkey dialog.
- If you have not yet created an account, click the New User button and you'll get walked right through the steps.

Register your hardware

If you have not already done so, you'll be prompted to Register your TonePort. It's a painless process really, so click that Register Now button and fill in the blanks on the Web page. This page will list all your registered Line 6 gear in one place.

About this guide…

This guide is intended to provide basic setup information for TonePort and most popular audio recording applications. The following sections are organized by Operating System (Mac® and Windows®) and then by recording application. Be sure to first read through the TonePort Recording Setup section for Mac® or Windows® (whichever you are using) first and then onto the section for your specific audio application. Use the Table of Contents or the Acrobat® Reader® Bookmarks at the left to jump directly to the desired section. Remember, more GearBox info can be found by going to Help > Open Help within the GearBox application, and there are a few more online documents the same place you found this guide, on the GearBox Online Help page.

TONEPORT RECORDING SETUP – MAC® OS X

This document is designed to provide general information for configuring your TonePort device and GearBox software for use in different audio recording setups. Your TonePort device, since it connects to your Mac® via USB and includes a Core Audio driver, is easily configured to work as your computer's sound card. This means that you can access all your GearBox tones directly from most any audio recording application, all at the highest quality! But you are of course not just limited to using TonePort to record into your Mac® – the outputs provided on the back of your TonePort additionally allow you to feed your GearBox signal to external tape machines, DAT recorders, PA systems, or whatever else will accept an analog line level signal. Additionally, TonePort UX2 includes a digital S/PDIF output to allow you to make these connections digitally!

Using TonePort as your computer's sound card device

Once you have completed the GearBox software and TonePort driver installation, most everything you need for accessing TonePort from your audio recording/editing software is already done. A few helpful items for you to understand are input & output connections, audio drivers, and controlling your levels for recording.

TonePort Connections

When using TonePort UX1 or UX2 as a sound card for your audio application, to follow are the typical connections you'll want to make…

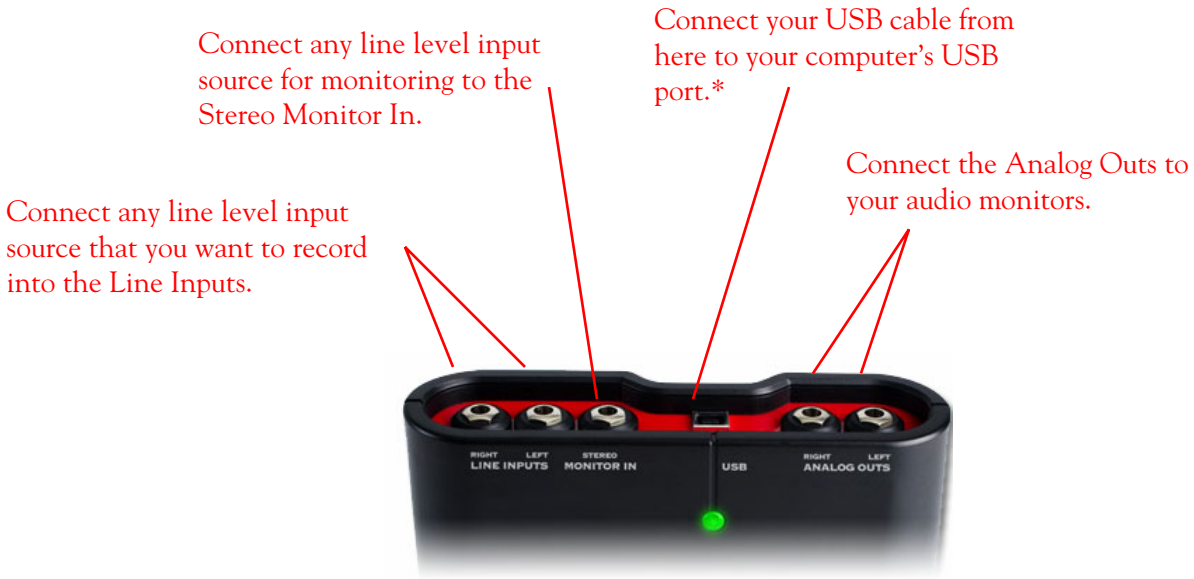
TonePort UX1 front panel connections

Mic - To input a signal from a microphone, connect it here using and XLR cable. This inputs the microphone signal into GearBox where you can choose your tone, and then route the processed signal both to your audio software and out the TonePort outputs.

Guitar/Bass - To input your electric guitar or bass, plug it in here using a standard 1/4-inch TS instrument cable. This inputs the instrument's signal into GearBox where you can then choose your tone and route the processed signal both to your audio software and out the TonePort outputs.

Phones - If you want to listen to the audio from TonePort using stereo headphones, then plug them into this 1/4-inch stereo jack. This headphone jack outputs the same signal fed to the Analog Outs on the rear panel of TonePort; the audio from your audio software on the computer, as well as anything plugged into any TonePort input.

TonePort UX1 rear panel connections



*Note – be sure to always power off or mute your speakers or monitoring setup before connecting and disconnecting the USB cable between TonePort and your computer, as well as before booting up or shutting down your computer if TonePort is already connected. The best practice is to always power on your speakers last, and power them off first when connected to other audio gear to avoid a "pop".

Line Inputs - To record the signal from a line level source, such as a keyboard, your stereo receiver, the line out from a mixing console, etc., connect them to these Left and Right ins using 1/4-inch TS audio cables.

Monitor In - If you want to hear the signal from a line level source along with all the other audio coming from your computer, but do not want this audio recorded, then plug the source in here. Note that this is a stereo jack, so you should use a stereo 1/4-inch TRS audio cable for this connection.

USB - This of course is where you connect the supplied USB cable to TonePort, with the other end going to your computer's USB port. Note that you should always connect to a separate USB controller channel from other USB audio or MIDI interfaces to provide TonePort with the full

USB bandwidth. TonePort also gets its power from this USB connection, so it should not be plugged into a non-powered USB hub, or operated on the same USB controller channel with un-powered devices.

Analog Outs - These Left and Right unbalanced jacks output all the audio from TonePort; the audio from your audio software on the computer, and anything plugged into any TonePort input. These are what you want to connect to your powered speakers or monitoring system for a recording setup. Use 1/4-inch TS cables to connect directly to powered speakers, mixer or power amp setup. Note that you can also use the headphone jack on the front of TonePort if you want to use headphones for monitoring.

TonePort UX2 front panel connections

Microphone Inputs - You can receive input from one or two mics at the same time using these ins. There is also a +48V Phantom Power switch that you should toggle to "on" if your mic requires phantom power (most condenser type mics do, but check the documentation for your mic if you are not sure). Connect each mic using an XLR cable. This inputs each microphone signal independently into GearBox where you can choose your tone, and then route the processed signal both to your audio software and out the TonePort outputs.

Guitar/Bass -To input your electric guitar or bass, plug it into one of these inputs. Either of these routes the instrument's signal into GearBox where you can choose your tone and route the processed signal both to your audio software and out the TonePort outputs.
Norm – this input is for a standard instrument level output. Plug your guitar/bass into here using a standard 1/4-inch TS instrument cable.

Pad - this input is designed for high output level basses and guitars, especially those with active pickups. Plug your high output instrument into here using a standard 1/4-inch TS instrument cable.

Headphone - If you want to listen to the audio from TonePort using stereo headphones, then plug them into this 1/4-inch stereo jack. This Headphone jack outputs the same signal fed to the Analog Outs on the rear panel of TonePort; the audio from your audio software on the computer, as well as anything plugged into any TonePort input.

TonePort UX2 rear panel connections

> ***Note** – be sure to always **power off** or **mute** your speakers or monitoring setup *before* connecting and disconnecting the USB cable between TonePort and your computer, as well as before booting up or shutting down your computer if TonePort is already connected. The best practice is to always power on your speakers last, and power them off first when connected to other audio gear to avoid a "pop".

Line Inputs - if you want to record the signal from a line level source, such as a keyboard, your stereo receiver, the line out from a mixing console, etc., connect them to these Left and Right ins using 1/4-inch TS audio cables.

Footswitches - if you want to use one or two on/off toggle or momentary footswitches to remotely control functions in the GearBox software, you can plug the 1/4-inch footswitch plugs into these 1 and 2 jacks. To configure each Footswitch, go to the GearBox Preferences. You can also use these footswitches to trigger recording and playback commands within the included Ableton Live Lite 4 software! For more info on TonePort Footswitches, check the GearBox Online Help page.

USB - This of course is where you connect the supplied USB cable to TonePort, with the other end going to your computer's USB port. Note that you should always connect to a separate USB controller channel from other USB audio or MIDI interfaces to provide TonePort with the full USB bandwidth. TonePort also gets its power from this USB connection, so it should not be plugged into a non-powered USB hub, or operated on the same USB controller channel with un-powered devices.

S/PDIF Digital Out - To send the output of TonePort to an external device digitally, connect a 75-Ohm coaxial cable into this RCA jack and then into the S/PDIF digital input on the external device. This is the best choice for connecting to digital recording devices, such as a DAT recorder. This S/PDIF output sends the same audio as is sent to TonePort's Analog Outs (with the exception that any audio coming into the TonePort's Monitor In jack is not routed to the S/PDIF output). The digital signal is always sent at 24-bit resolution.

Monitor In - If you want to hear the signal from a line level source mixed with all the other audio coming from your computer, but do not want this audio recorded, then plug the source in here. Note that this is a stereo jack, so you should use a stereo 1/4-inch TRS audio cable for this connection.

Analog Outs - These Left and Right balanced jacks output all the audio from TonePort; the audio from your audio software on the computer, and anything plugged into any TonePort input. So, these are what you want to connect to your monitoring system when using TonePort as your computer's sound card. Use either 1/4-inch TS or TRS cables to connect directly to your powered speakers, mixer or power amp setup. Note that you can also use the headphone jack on the front of TonePort if you want to use headphones for monitoring.

Core Audio Driver

When a sound card device is installed on your computer, a "driver" is a software component that is installed which allows audio applications to communicate with the device, and send audio data back and forth for playback and recording. Your Mac® communicates with TonePort utilizing the high performance Mac® OS X Core Audio driver. This allows audio applications that also support the Core Audio driver to take full advantage of TonePort's high quality audio capabilities and access all four TonePort Record Sends as inputs for recording.

The Core Audio driver also provides for extra low latency operation, which means it allows audio to run through your audio software in very small chunks, minimizing the delay time between input and output. This all provides a much more immediate response with most aspects of working in your audio software.

Accessing TonePort as a sound card device

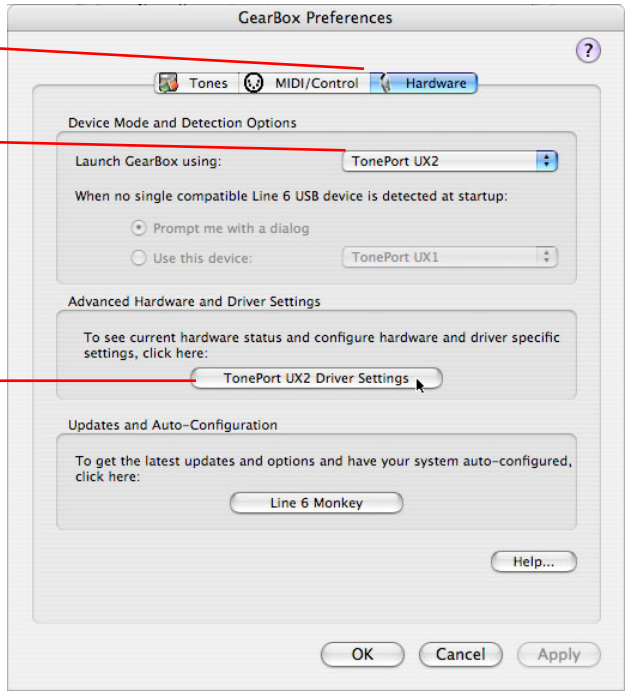
Be sure to connect your TonePort to you computer's USB port and then continue with the following steps. You'll first want to launch the GearBox software and configure TonePort as the Playback and Recording for your Mac® System Settings. Once you make these settings, TonePort will also appear in most audio recording software as a selectable Playback and Recording device as well.

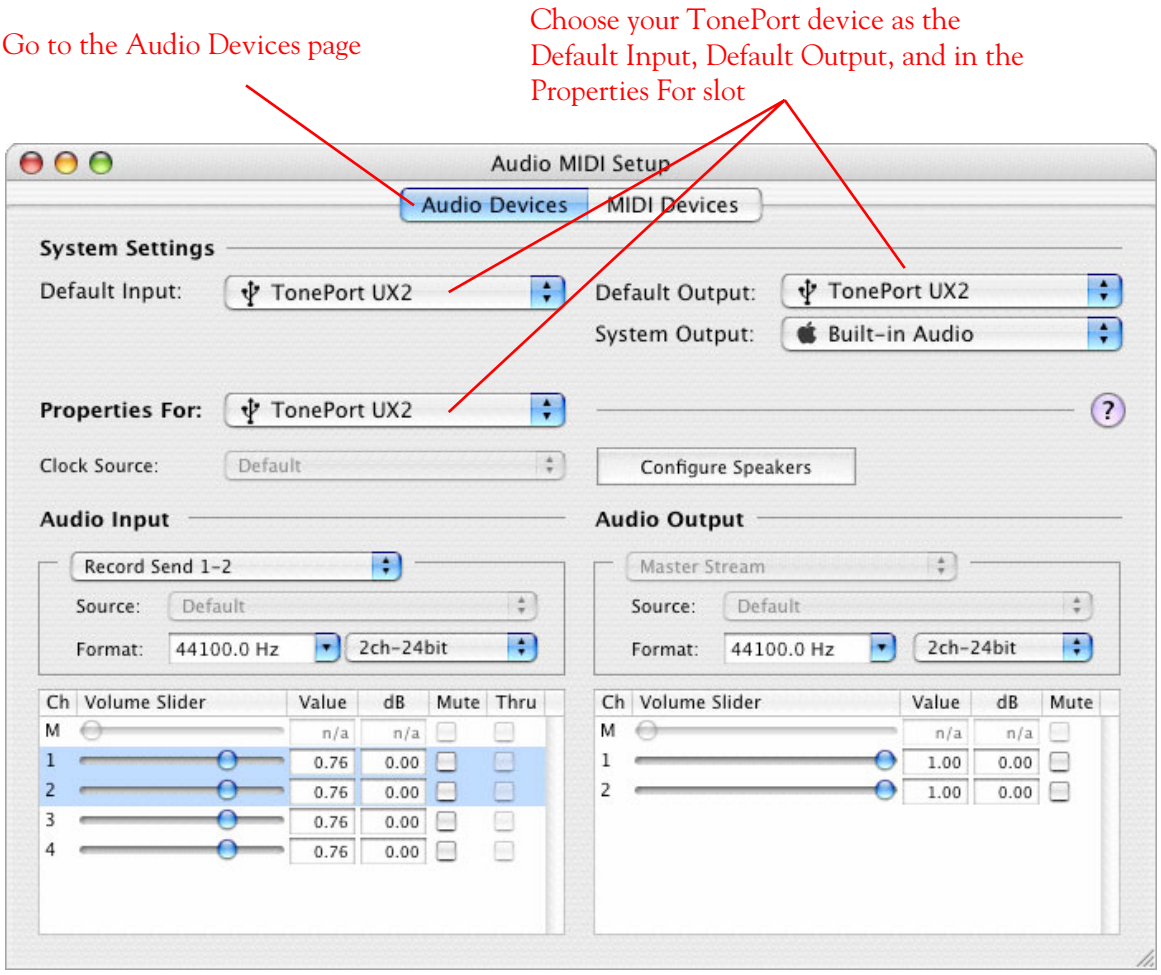
Go to the GearBox menu and select **Preferences**

Go to the **Hardware** screen

Choose your TonePort device…

Then click the **TonePort Driver Settings** button





You may want to leave the System Output set to the Built-in Audio, or another sound card since this is the device your Mac® will use to play system sounds and alerts, which you likely do not want to hear coming through TonePort at high volume with your music project!

Format Settings - The Audio Input and Output sections both include Sample Rate and Bit Depth settings.

Sample Rate - The sample rate that TonePort is operating at is shown in the Audio MIDI Setup dialog above in the Format selector for both Audio Input and Output. It is not usually necessary to adjust the sample rate here since it will follow the settings made in your recording software. TonePort natively supports both 44,100 Hz and 48,000 Hz sample rates. It is also compatible with the 96,000 Hz sample rate, which means that audio software can be set to operate at this rate and TonePort will switch to show it is using the 96000 Hz sample rate. However, TonePort is actually performing a high-quality sample rate conversion automatically for the 96000 Hz sample rate.

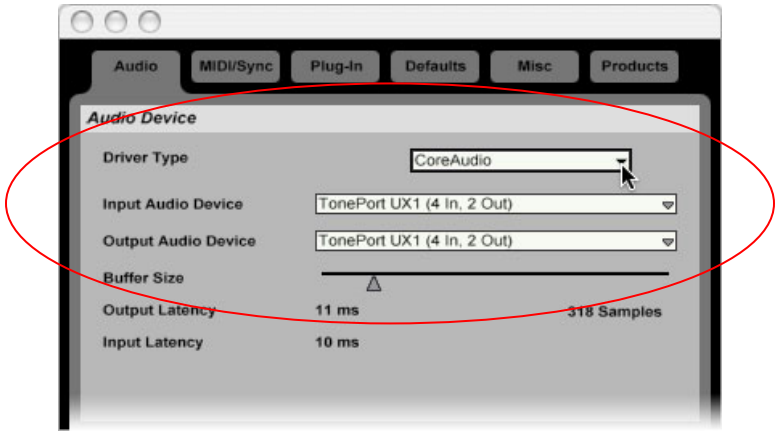
Bit Depth - The bit depth is fixed at the 2ch-24bit for constant 24-bit operation with your audio software. This setting will typically work with a 16, 24 or 32 bit recording bit depth setting in

your recording software, and will produce the highest quality recordings. (All GearBox audio processing is always performed at 32 bit).

Note – it is not a supported practice to "hot swap" TonePort (unplug the USB cable and plug it into a different USB device) while it is in use by GearBox or any other audio software. In fact, this just isn't a good idea to do with any USB audio devices, since it can result in a loud pop, loss of sync and possibly crash or corrupt your audio software project.

Choosing TonePort Inputs and Outputs in your audio software

Often, all that is required is to choose TonePort in the System Settings as shown above in the Audio MIDI Setup dialog, and other audio software then automatically routes all its playback and recording settings to work with TonePort. Exactly how you access TonePort as your sound card from within audio software differs somewhat for each brand. Typically you'll find a "Preferences" or "Audio Setup" dialog that allows choosing your driver type and device for both output (playback) and input (recording). For example, these settings can be accessed in the Preferences dialog in the Ableton Live Lite 4 application…



If your audio software supports Multitrack audio recording, then it likely also allows you to choose specifically which input and output port to use for each audio track.

Choosing TonePort Sends as recording inputs within your audio software

The GearBox software routes your tones to "Sends" and your audio software can access these Sends as inputs for recording. Within the GearBox software, you can determine what actually gets routed to each of these Sends. This all provides you with a great deal of flexibility for Multitrack recording in your audio software!

The Core Audio driver also allows audio software to access both "Send 1-2" and "Send 3-4", and choose between them as inputs for each audio track recording. Further, the audio software will usually also be able to choose each individual mono Send (Send 1, 2, 3 and 4) to record a mono

track. Looking once again at an example in Ableton Live Lite 4, each audio track allows you to choose its input source – each selectable input directly refers to the TonePort Sends…

An audio input selector for a track in Ableton Live.

TonePort's Sends appear as two stereo pair options and 4 mono options.

Choosing TonePort for playback within your audio software

For most audio software projects, you'll likely want all tracks, input monitoring signals and buses to go out to one common stereo output, so you can hear your entire mix on your stereo speakers. Usually just setting TonePort as your output audio device is all you need to do to make this happen, but in some audio software, you may need to check the outputs of your individual tracks as well. Similar to the above instructions, just go to the track's output selector and choose the TonePort device as your output. TonePort will be available as a stereo output for playback of each track.

GearBox settings and recording

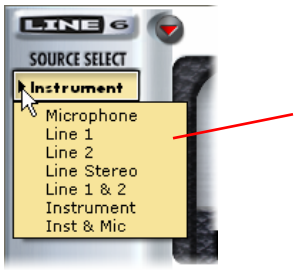
Once you are set up for recording with TonePort, then you probably will want to think about what to record! GearBox is all about tones, and this is where you go to set up your mic, guitar or bass tones that will be recorded into your audio software. To follow are basic guidelines for choosing GearBox settings.

Choosing your GearBox Source

Once you have your mic, instrument or line level item(s) plugged into TonePort, click on the Source Select to choose which of these "sources" you want to create a tone for.

TonePort UX1 Source Menu

Options within this menu provide the ability to create a tone for the Mic, Analog and Guitar/Bass inputs separately, as well as the ability to choose a "Stereo" or "Dual-Tone" source.



TonePort UX1 Source Select menu

Stereo sources include "**Stereo**" in the name, and Dual-Tone sources include the "**&**" symbol in their names

Tone Port UX2 Source Menu

TonePort UX2 additionally offers Source options that include its Mic 2 input.

TonePort UX2 Source Select menu

Stereo sources include "**Stereo**" in their name, and Dual-Tone sources include the "**&**" symbol in their names

Choosing Tones in GearBox

Since there are different types of Input Sources, to follow are a few guidelines for setting up your tones for these types of Sources.

Single Input Source

When a single Input Source is selected, the GearBox displays the last tone preset that was in use for this Source. You can of course choose any preset from the Tone menu, or customize the tone by selecting your desired amp, preamp and effects models.

Stereo Input Source

A Stereo source accepts the inputs from the selected "Stereo" TonePort ins and processes them as one Stereo signal. This means that you still choose and edit one tone setting, just as you do for a single source, but the tone is applied to both channels, providing a stereo output.

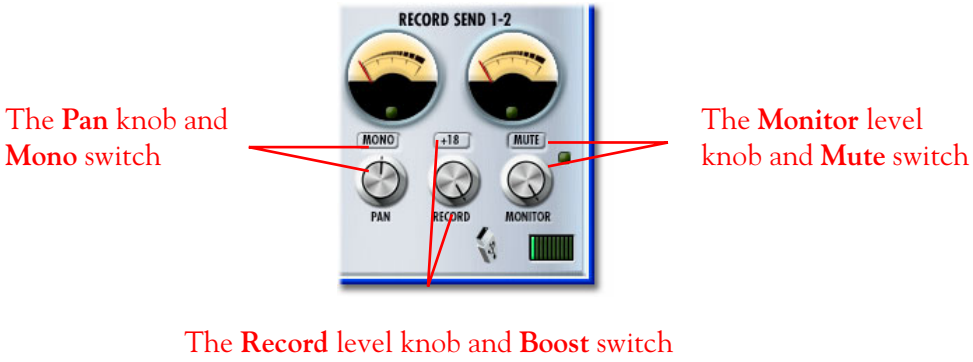
Dual-Tone Input Source

If you select one of the Dual-Tone sources, then you are able to choose a tone independently for each. For example, if you want to record a performance using an instrument and a mic that are plugged into TonePort's Guitar/Bass and Mic inputs, you likely want to use separate Guitar Amp and Mic Preamp tones. To edit the separate tone settings, use two buttons that appear at the left of the Tones menu – both tones remain audible regardless which tone is displayed:

Two "Tone" buttons appear when a Dual-Tone Input Source is in use.

Setting up GearBox Sends

GearBox offers two sets of stereo Record Sends which each offer independent Pan, Record and Monitor levels. You can think of these Sends as "virtual" outputs that are internally routed to both your recording software, and to the TonePort hardware outs. Your GearBox tones are automatically routed to these Sends and you use these Send controls to configure the stereo placement, recording level sent to your audio software, and monitoring level respectively. Setting these controls is the same for either Send 1-2, or Send 3-4.



Pan - The Pan knob adjusts the left/right balance of the Send signal sent to the recording software. If you want the Input Source tone to be summed as a Mono signal, with this Mono signal then being routed out both channels of the Send, you can activate the Mono switch.

Record level - The Record knob adjusts the level of the signal sent to your recording software, and directly affects the amplitude of your recorded audio. Additionally, the Boost switch can be activated if the signal needs an additional 18 dB of gain. The rule for recording levels and digital audio is to always avoid clipping, yet keep the level at least above half to capture a nice strong signal. Use these controls and reference the meters above to adjust this level accordingly. Your audio software likely has meters that will reflect this level as well.

Monitor level - The Monitor knob adjusts the level of the Tone Direct Monitoring signal fed to TonePort's outs. You can activate the Mute switch to mute the Tone Direct monitoring signal completely. These controls do not affect the Record level that is sent to your recording software. This allows you to balance the listening volume of your GearBox tone signal and the playback of tracks coming from your recording software.

Note that the Output knob on your TonePort hardware will adjust the levels of your Tone Direct Monitoring and recording software playback for control of the overall volume of what is heard on your speakers.

Recording Send 3-4

Send 3-4 is displayed by selecting the button in the row above the effects panel display.

Click on **Send 3-4** to display the Record Send 3-4 controls

Send 3-4 is especially useful when you are using a Dual-Tone Input Source in GearBox, since you can then route each tone to a separate Record Send. This then allows your recording software to access these two tones as separate, discrete signals and record them on separate tracks within the same recording take.

Sending audio from TonePort to an external device

Rather than accessing the GearBox Recording Sends' signal from TonePort as a sound card device, you may instead want to route your GearBox signal out to another sound card on the same or separate computer. Further, with all the great tones you can now create for your mics & instruments with GearBox, there is no need to limit them to the inside of a computer! You may also want to send the signal to external hardware such as an analog or tape Multitrack unit, a DAT or video tape recorder, or even to an amplifier or P.A. system for live performance. To follow are instructions for these different types of setups.

Connecting analog outputs from TonePort/GearBox to an external device

You can route your tones from TonePort/GearBox to just about any type of external device simply by connecting the Analog Outs from the back of your TonePort UX1 or UX2 directly into the external device's line level inputs. This allows you to amplify or record your GearBox signal using any external device that accepts analog line level inputs.

Connect TonePort's **Analog Outs** to the analog inputs on any external audio device

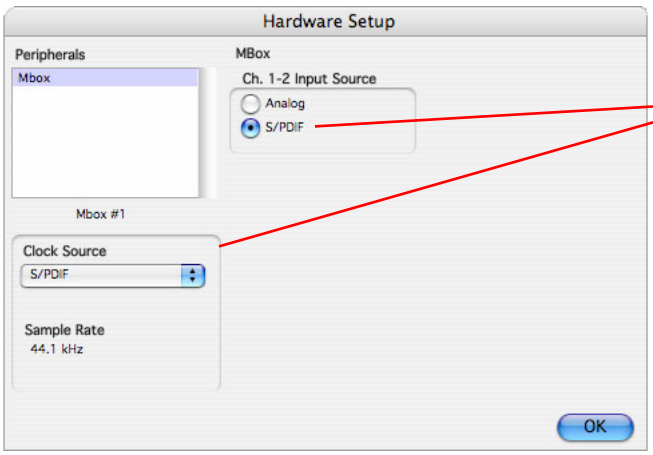
Routing TonePort's analog outputs to another sound card

If you want to use TonePort/GearBox in a computer recording setup where a multi-input sound card already exists, then you might find it useful to connect TonePort's Analog Outs into two of the analog inputs of the existing sound card. This allows you to use the existing sound card with your recording application to also receive additional discrete inputs directly from other sources at the same time, if this is the preferred setup. When TonePort is connected to another sound card this way, then you will want to be sure your recording software is set to use the other sound card as its input device for recording. In this configuration, since TonePort is not acting as a sound card device, the TonePort's Analog Out signal is what is being recorded, and therefore, levels are controlled by the GearBox Monitor level and TonePort Output knob.

Connecting the S/PDIF Digital Output from TonePort UX2/GearBox to an external digital device

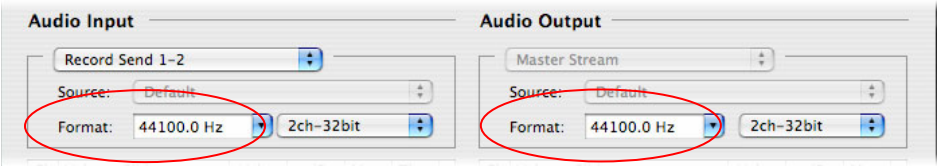
TonePort UX2 also includes an S/PDIF digital output, which allows you to connect to digital devices such as a DAT recorder, MiniDisc, another sound card, or most any device that offers an S/PDIF format digital input. This is the preferred method to connect to external devices since it does not require the added digital-to-analog-to-digital signal conversion process as required with using analog outs.

Digital clock settings - When connecting to a digital device in this manner, one device needs to sync to the "digital clock" of the other, and preferably both should also operate at the same sample rate. To configure this correctly, you'll need to look for a "clock" setting on the digital device you are connecting to and set it to "External" or "S/PDIF" so that it follows the digital clock of your TonePort rather than its own internal clock. If you are connecting to the S/PDIF input of another sound card, this can be either a hardware switch on the unit, or an option found in the software control panel for the device. As an example, when connecting TonePort UX2 digitally to a Digidesign Mbox for recording in Pro Tools LE, you access the Mbox clock settings within the Pro Tools Hardware Setup dialog:



Setting the Digidesign Mbox to "follow" the TonePort S/PDIF clock and receive S/PDIF digital input for recording

Sample rate - Since TonePort UX2 is acting as the "master" clock device in this scenario, you should also manually set the desired sample rate for TonePort, so that the sample rate matches the one set on the external device. This is done in the Format options within the Audio MIDI Setup dialog. You will want to choose 44100 Hz or 48000 Hz.



Setting output levels for the S/PDIF output - The S/PDIF output of TonePort UX2 always receives the same GearBox audio content as is heard at the Analog Out and Headphone out, (with the exception that any audio coming into the TonePort's Monitor In jack is not routed to the S/PDIF output). When devices are connected digitally, typically the receiving device does not include a level control to adjust the level at input. Therefore, you'll want to set the level from the GearBox software, if necessary, to optimize your recording level. The GearBox Monitor knob controls the level going out of S/PDIF output. You'll want to keep this level as high as possible, without clipping, for the best fidelity. Note that the GearBox Mute button also mutes the S/PDIF output.

Other considerations when using S/PDIF output

- Some digital devices may only support one sample rate (some DAT and video machines are fixed at 48 kHz for example), so you will want to be sure to choose a sample rate supported by both units.
- When TonePort UX2 is operating in its 96 kHz "compatible" sample rate mode, it sends data out the S/PDIF at 48 kHz. The S/PDIF output is always sent as 24 bit.
- Remember that if you are connecting TonePort UX2's S/PDIF output to another sound card, you are not limited to the other sound card being on the same computer. You can use TonePort/GearBox as for your tone and then send it digitally to a completely different setup for recording!

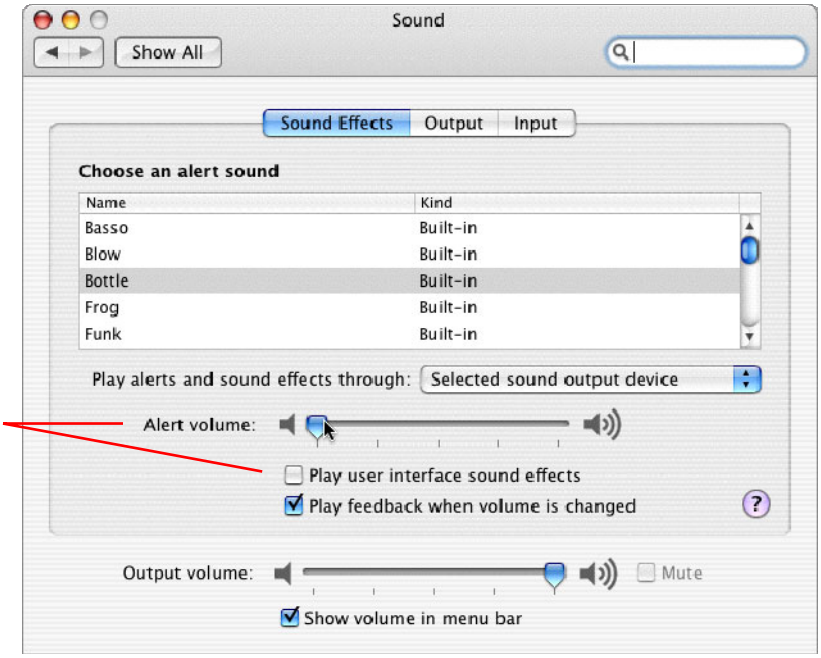
Mac® OS X System Preferences

There are a few System Preferences that you should configure when using your Mac® for audio recording. Launch the Mac® OS X System Preferences dialog to make the following settings.

System Sounds and Alerts

When using TonePort, you likely will not want to hear these sounds, and you certainly don't want to end up recording them by mistake! You can adjust the volume independently for these system sounds and alerts by going to the Sound page.

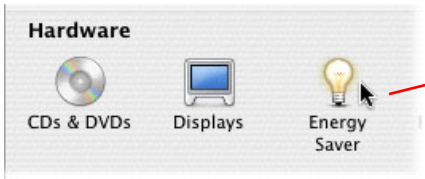
Choose **Sound** in the System Preferences dialog



In the Sound Effects page, adjust the **Alert volume** slider down, and uncheck the **Play user interface sound effects** checkbox

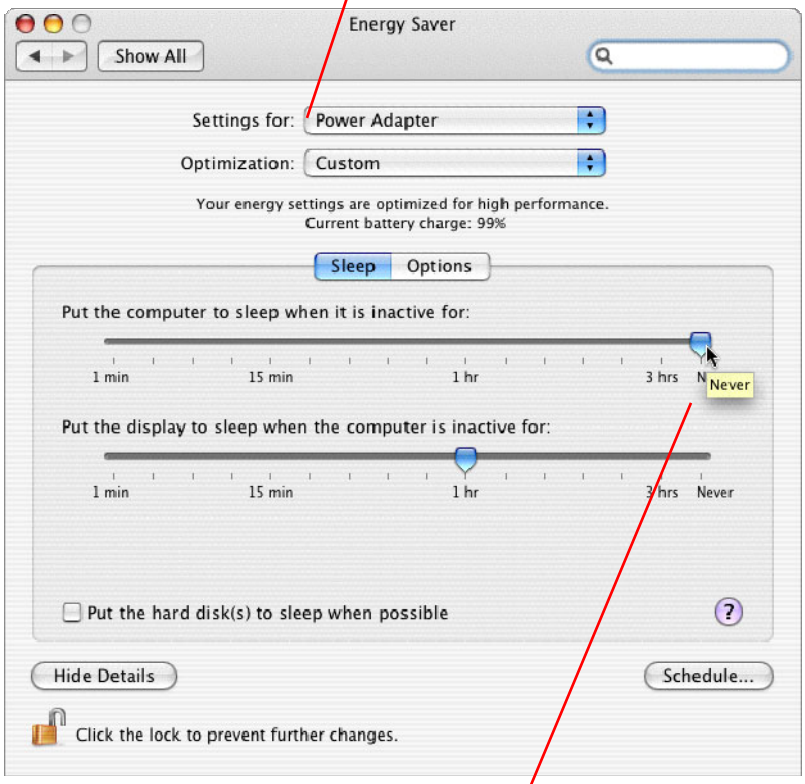
Energy Settings

It is also a good idea to configure your Energy settings so that critical computer components do not go to "sleep" or run at less than full



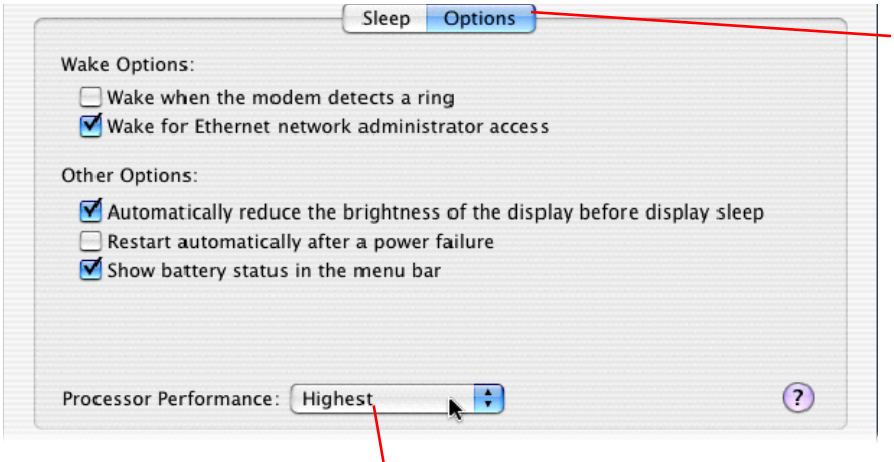
Choose **Energy Saver** in the System Preferences dialog

Choose Power Adapter *



Set the top slider all the way to **Never** so that the computer is not allowed to enter "sleep" mode.

* You can also select **Battery** if you have a laptop and repeat all the steps in this section, but you may want your settings to conserve battery power, or may not use the machine for audio work when running on battery.



Go to the **Options** page

Set the **Processor Performance** to **Highest** to ensure full use of your CPU at all times

CONFIGURATION AS AN AGGREGATE DEVICE - MAC® OS X

Combine TonePort with other Core Audio devices using the Mac® OS X Aggregate Device feature

A feature introduced by Apple in the OS X Tiger (10.4) version is the ability to configure two or more Core Audio sound card devices into one Aggregate Device. As the name suggests, this makes it possible to combine multiple connected audio devices allowing audio applications to utilize all inputs and outputs as one virtual Core Audio device. The Aggregate Device feature also provides the ability to sync the devices, and resample if needed to allow them to work together with your audio applications. This can be quite useful if you have another Core Audio sound card and want to use TonePort along with it to provide additional inputs for recording, or additional outputs for sending multiple playback or monitoring mixes.

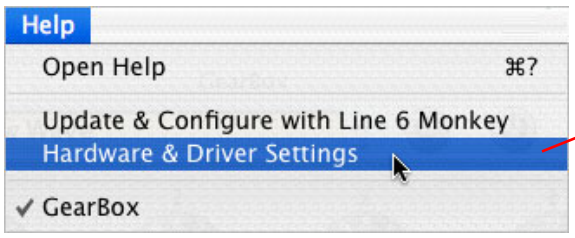
For this document, we'll be showing you how to create a simple Aggregate Device using TonePort and a Built-in Audio device. The steps are similar for combining TonePort with other models of audio devices, as long as they offer a Core Audio driver that supports this OS X feature.

> **Note** – It is not supported to use TonePort with other Line 6 USB hardware to build an Aggregate Device. It is also not advised to 'hot swap" (unplug the USB cable from one USB audio device and plug it into another) TonePort while in use by GearBox or other audio software.

Be sure to connect the USB cable from TonePort into your computer's USB port, and then proceed with the following steps…

Creating an Aggregate Device

All the required settings you need to make to create an "Aggregate" device are made within the Aggregate Device Editor window, which is found in the Audio MIDI Setup dialog. Launch the GearBox software and go to the Help menu to launch the Audio MIDI Setup…



Go to the GearBox **Help** menu and choose **Hardware & Driver Settings**

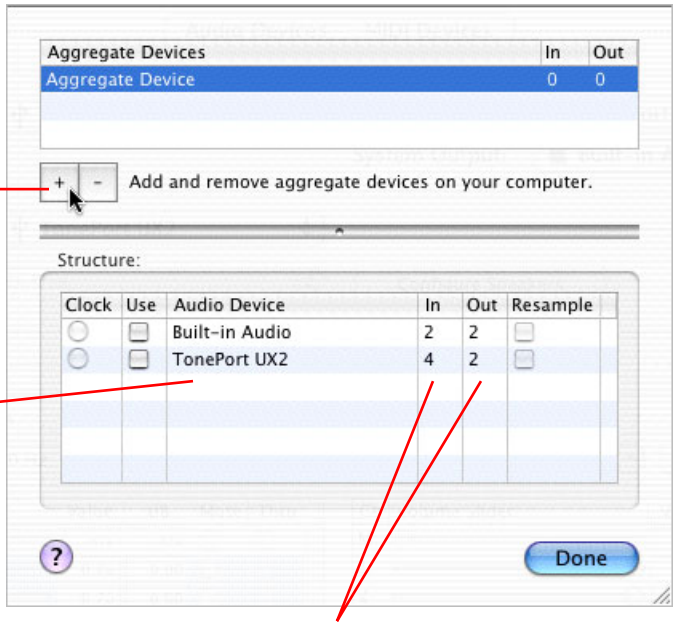
In the **Audio MIDI Setup** dialog, choose the **Audio Devices** page

Go to the Audio menu and choose **Open Aggregate Device Editor**

As soon as you click the Add (+) button, a device will be created for you to configure, listing all of your individual connected Core Audio devices within the Structure pane. You can also edit the name for this Aggregate Device in the top pane if you like.

Click on the "**+**" button to create a new Aggregate Device

All detected Core Audio devices are listed in the Structure pane



Note that the numbers of In and Out ports are listed for each device

In the Aggregate Device Editor, you can click the Add button to create as many Aggregate Devices as you like, and each can be configured to use the individual audio devices you choose.

None of the individual audio devices are activated until you check the Use box to the left. We're going to click the Use buttons for both these audio devices, which will create an Aggregate Device with a total of 6 inputs and 4 outputs.

Click on the **Use** boxes for both Audio Devices to activate them. (Click TonePort's Use box first to make it the first device in the list)

Click on the TonePort **Clock** to set it to act as the Clock device. **Your TonePort MUST always be set as the Clock when creating an Aggregate device.**

Keep the Resample checkboxes unchecked unless necessary*

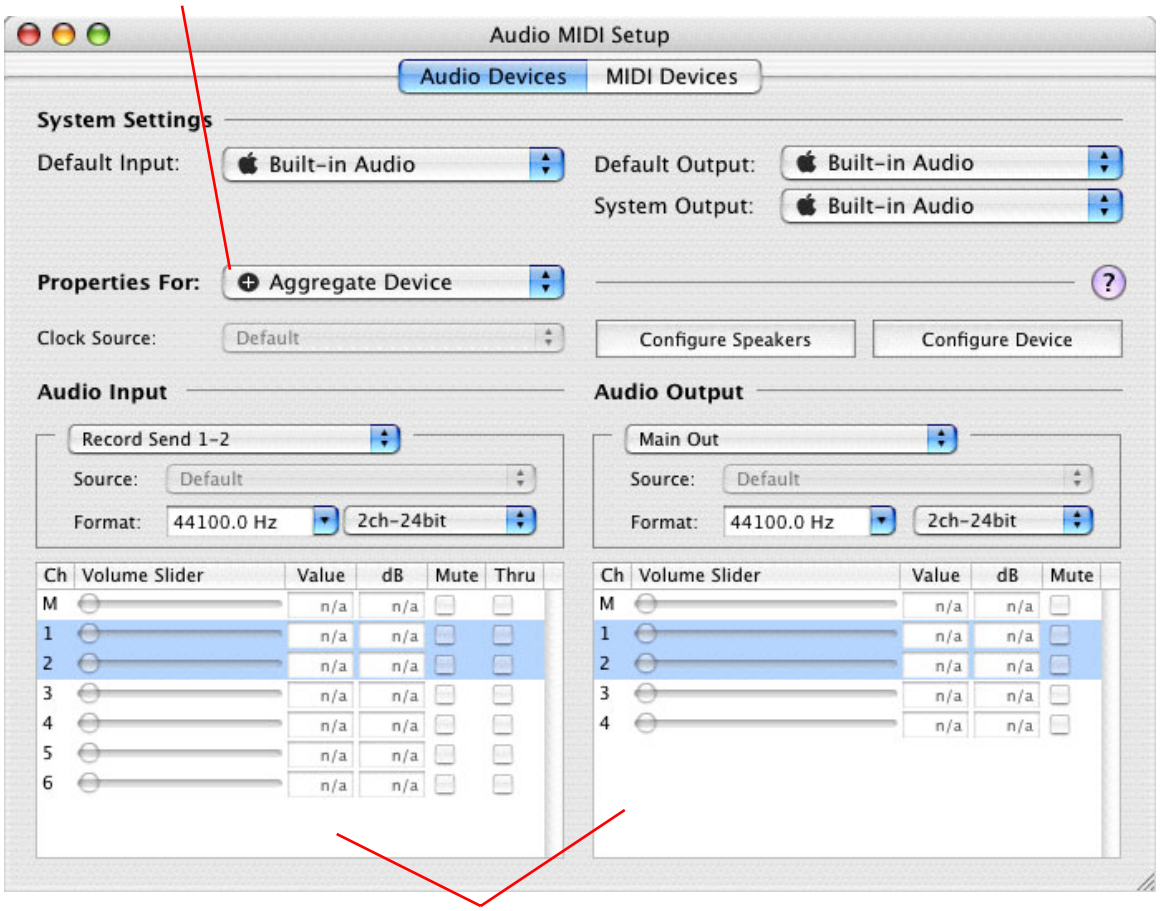
When creating an Aggregate Device, only one audio device can be designated as the "Clock". This means that this device acts as the "master" and all other devices follow its digital clock, thus keeping all your audio in sync. Even though the Aggregate Device dialog allows you to set any individual Audio Device as the Clock, TonePort is designed to only function as a "master" audio device. **Be sure that TonePort is set as the clock as shown in the previous figure to ensure proper sync.**

***The Aggregate Device Resample function** - When combining audio devices, the sample rates must match to allow them to be used together. But if you run into sync problems when using some devices together, or in the case where you need to choose a sample rate not supported by all audio devices, you can check the Resample checkbox for the device. This instructs the Aggregator to automatically perform a sample rate conversion to allow the audio devices to sync.

Note – TonePort natively supports 44100 and 48000 Hz sample rates. It will also support 96000 Hz, but will perform its own sample rate conversion process to do so.

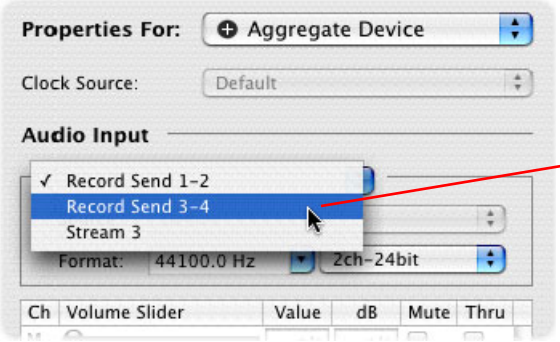
Once above settings are made, click the Done button to return to the Audio MIDI Setup dialog…

You are now able to choose this new "**Aggregate Device**" in the menus of the System Settings. Choose your new Aggregate Device as the **Properties For** device.



Once you have selected the Aggregate Device in the **Properties For** selector, you will then be able to access settings for all combined inputs and outputs! For the device we created, this totals 6 Audio Inputs and 4 Audio Outputs.

The Audio Input and Audio Output sections each have a selector to allow you to choose each Stereo device, and then make settings for each with the set of controls below.



You will now see all devices' inputs in the **Audio Input** selector. Likewise, you will see all outputs in the **Audio Output** selector.

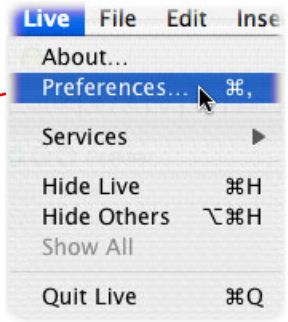
It is helpful to take note of the order of how all these Inputs and Outputs appear in the Audio MIDI Setup dialog. In our example, TonePort's Send inputs are listed first because we made it the first device in the Aggregate Device Editor. The "Stream" input is from the Built-in Audio Device, and appears last. These input and output ports will also appear in this same order within your audio recording software, but likely will not have any other identifying name other than their order number.

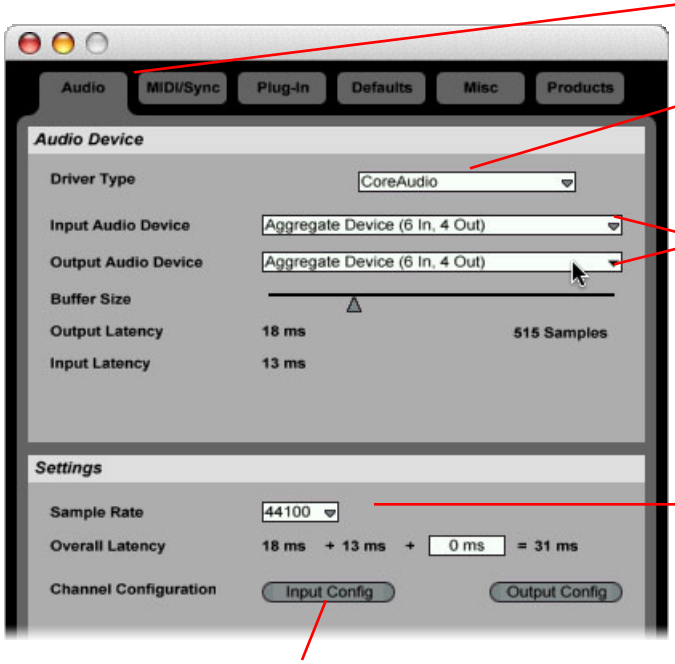
Using an Aggregate Device with audio recording software

Once an Aggregate Device is created, you should then be able to access it in your recording software. To follow we'll show how the Aggregate Device we created in the previous steps appears in the included Ableton Live Lite 4 software…

Launch the Ableton Live Lite 4 software and open the Preferences dialog to configure the audio device.

Go to the **Live** menu and choose **Preferences**





Go to the **Audio** tab

Choose **CoreAudio** as the driver type…

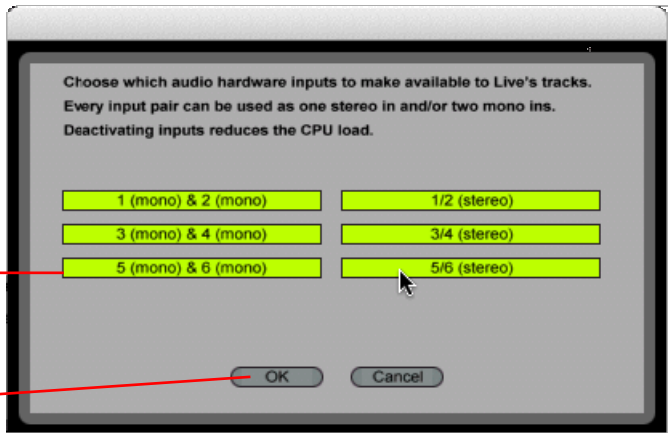
Then choose the **Aggregate Device** that was just created for both the **Input** and **Output Audio Device**. Note that this appears along with the individual audio devices in these menus as an additional selectable device.

Set a **Sample Rate** – preferably this should be one supported by all the audio devices that make up your Aggregate Device.

Just as with most Multitrack recording software, in Live you also need to configure the individual inputs and outputs once a Multi-in/out device is selected. Click on the **Input Config** button to access the Inputs.

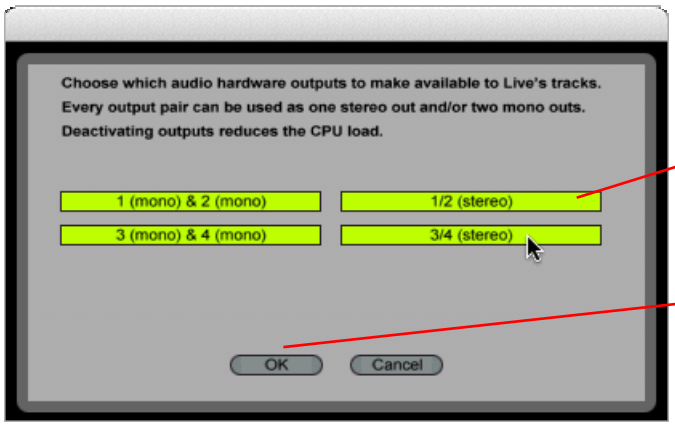
By default, Live will usually have only the first device enabled. Click on all the non-active devices here to allow them to all be available as recording inputs in the Live software

Click **OK** when done



As noted earlier, you'll need to refer to the order of the devices in the Audio MIDI Setup dialog to know which are TonePort Ins, and which are from the other device since Live does not show the individual device names.

Next click the **Output Config** button in the Preferences dialog to similarly activate the multiple outputs…



Click on all non-active output devices to make them available as playback outputs in Live*

Click **OK** when done

*Note - The Ableton Live Lite 4 version has a restriction that allows only one stereo output to be used at a time. To be able to choose two or more different output devices in a Live Set, you must switch into Demo mode, or upgrade to a full version of Ableton Live

You can now continue to use Ableton Live and all inputs and outputs will appear within the audio track menus, just as if all exist on one sound card!

All inputs appear in the Live audio track input menu

For more information regarding the Aggregate Device feature, check your Mac OS X documentation.

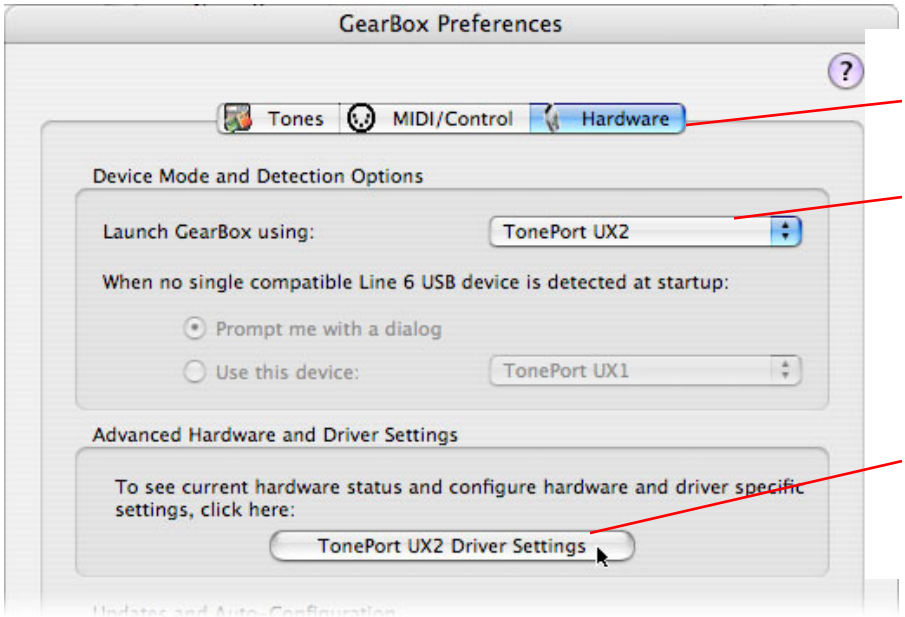
ABLETON LIVE LITE 4, LINE 6 EDITION SETUP – MAC® OS X

Be sure to connect the USB cable from TonePort into your computer's USB port, and then proceed with the following steps…

Configure your Mac® to use TonePort as your audio device

First launch the GearBox application, and then go to the GearBox menu to launch the Preferences dialog.

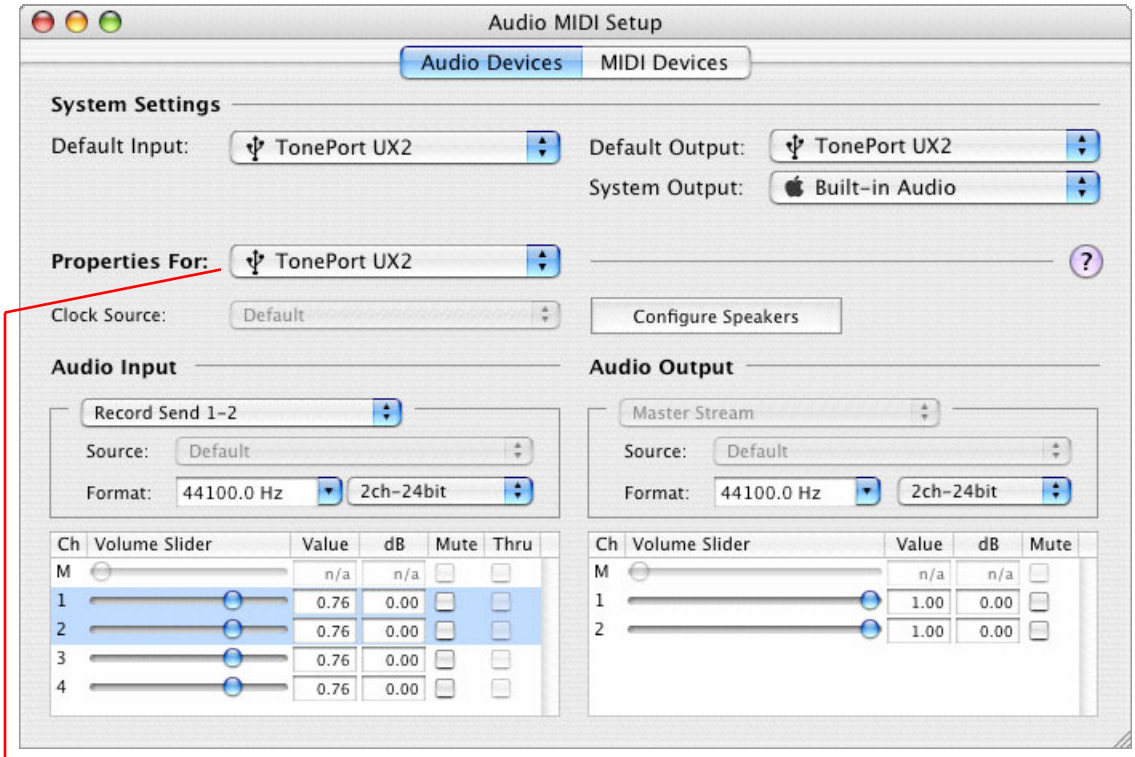
Select the **GearBox** menu and choose **Preferences**



Choose the Hardware page

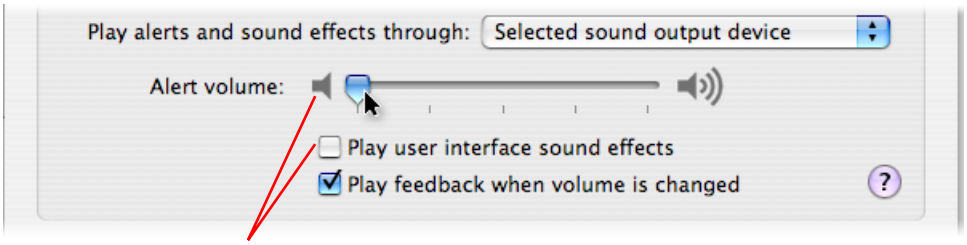
Select your **TonePort UX1** (or UX2) device…

Then click the **TonePort Driver Settings** button



Choose your TonePort device in the Properties For selector, and then match the all the Audio Input and Audio Output settings shown here

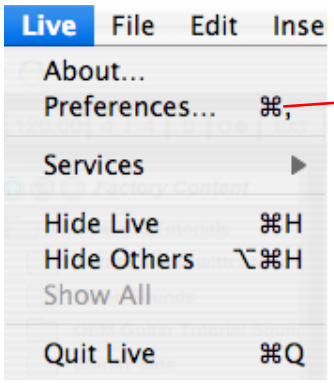
Note that setting the System Output to your Built-in Audio device will result in your Mac system and alert sounds playing through this device. When using TonePort, you likely will not want to hear these sounds at all. You can adjust the volume independently for these sounds by going to the Mac System Preferences > Hardware – Sound option > Sound Effects button…



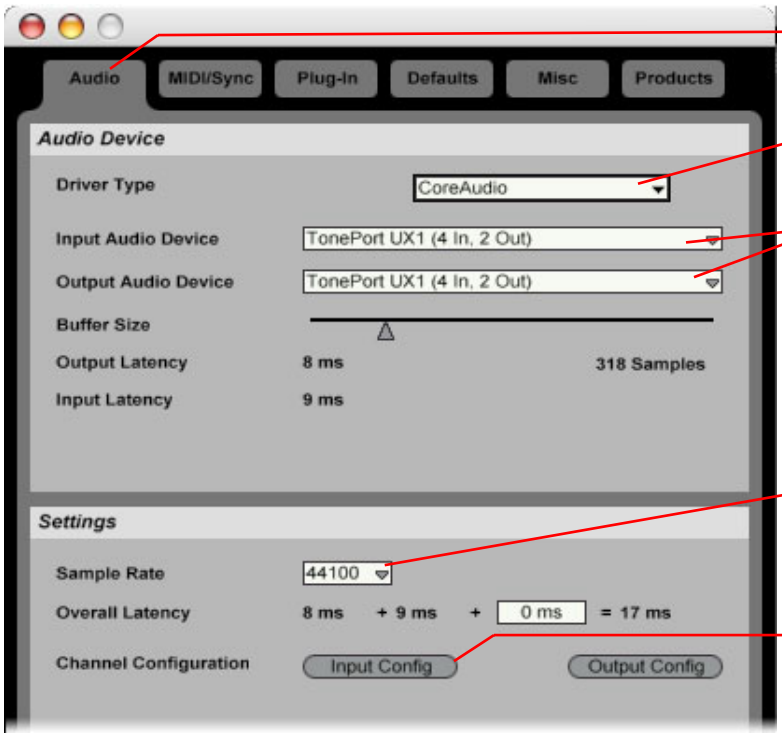
Adjust the **Alert volume** slider down, and uncheck the **Play user interface sound effects** checkbox

Configuring Ableton Live Lite 4 to use the Core Audio TonePort driver

Launch Ableton Live Lite and make the following settings…



Select Ableton Live's **Live** menu and choose **Preferences**



Select the Audio tab

Choose **CoreAudio** as the Driver Type

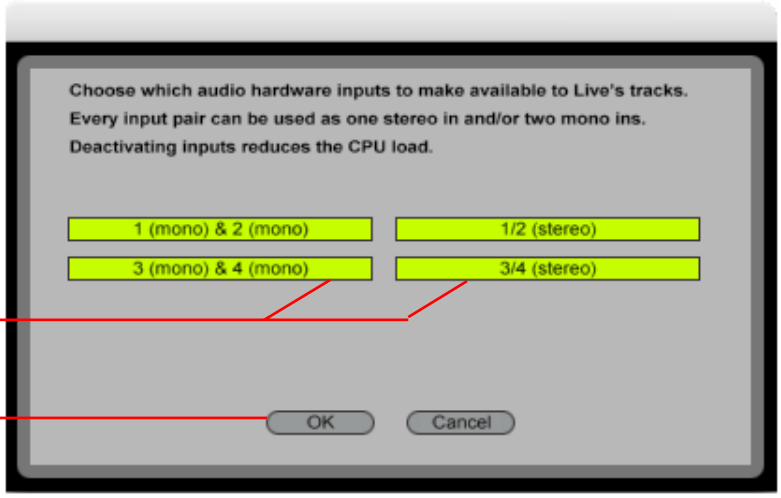
Choose **TonePort UX1** (or **UX2**) as both the **Input** and **Output Audio Device**

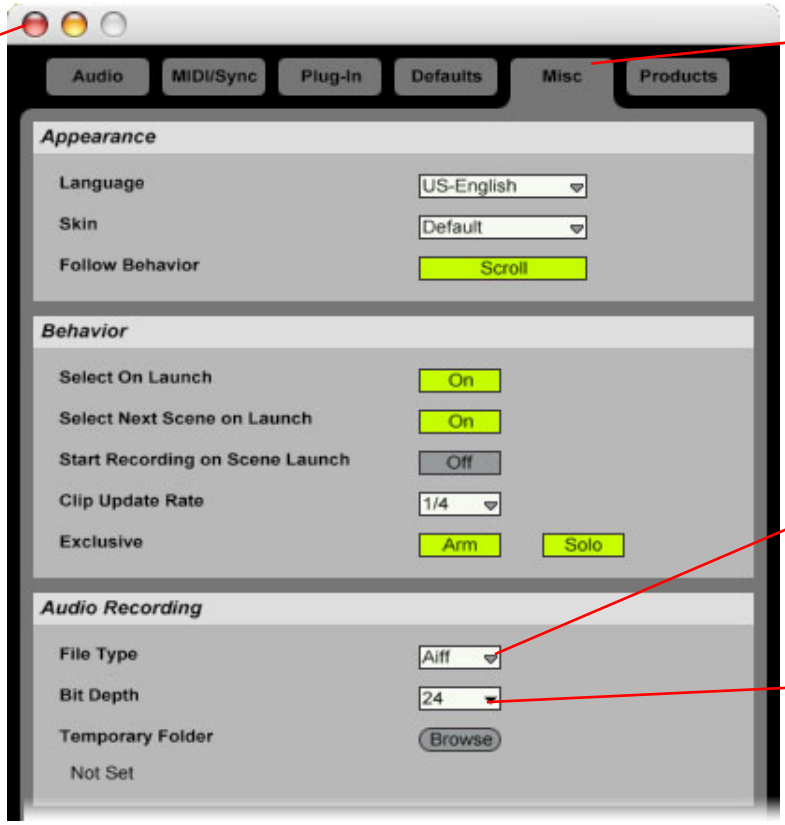
Choose a **Sample Rate – 44100** is a good choice for most projects

When above settings are complete, click the **Input Config** button

Click on the **3 & 4 (mono)** and the **3/4 (stereo)** Input buttons to activate them if you will want to record from TonePort Sends 3 and 4 into Live

Click the **OK** button to exit the dialog





Select the **Misc** tab

You can choose either **AIFF** or **WAV** as your **File Type** – AIFF is best for Mac compatibility, and WAV best for Windows application compatibility

Choose **24** as the **Bit Depth**

Select the close button to exit the **Preferences** dialog once these settings are complete.

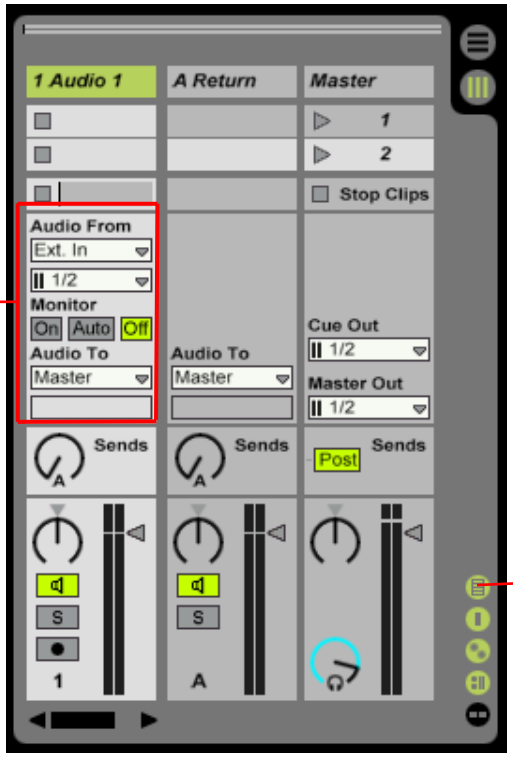
This completes the Audio Driver configuration!

Setting up an audio track to record from TonePort in Ableton Live

Now that your TonePort hardware is set up, you are ready to start working in a new Live Set! Open or create a new Live Set and make the following settings…

Click the **Session View** Selector to switch to the Session View

The In/Out settings group



Click the **Show/Hide In/Out Selector** to display this group of settings in the Mixer

Click the **Monitor Off** button for the Audio Track you wish to record into

Select **Ext. In** as the **Audio From** setting

Select the Input Channel:

-**1/2** will record from TonePort Sends 1 & 2 as a Stereo file

-**3/4** will record from TonePort Sends 3 & 4 as a Stereo file

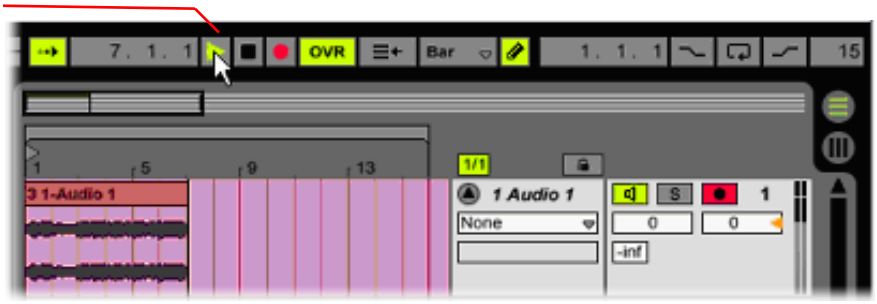
-**1, 2, 3 or 4** will record from the respective TonePort Send as a Mono file

Click on the **Arm** switch to arm the track for recording

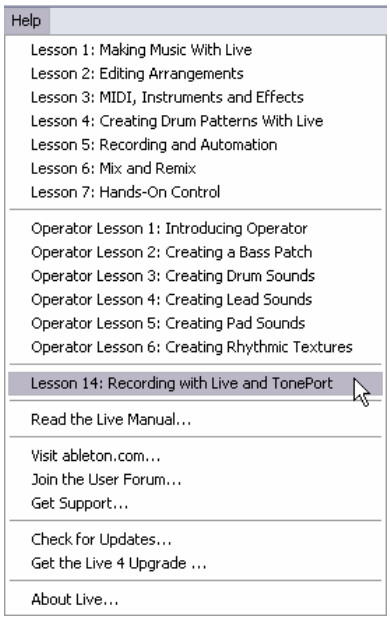
Click the **Arrangement View** selector to switch to the Arrangement View display

Click the **Global Record Button** to prepare the Live Set for recording

Click the **Play Button** to start recording!



For more information, try the Lesson within the Help menu of Ableton Live Lite 4 for Recording with Live and TonePort…



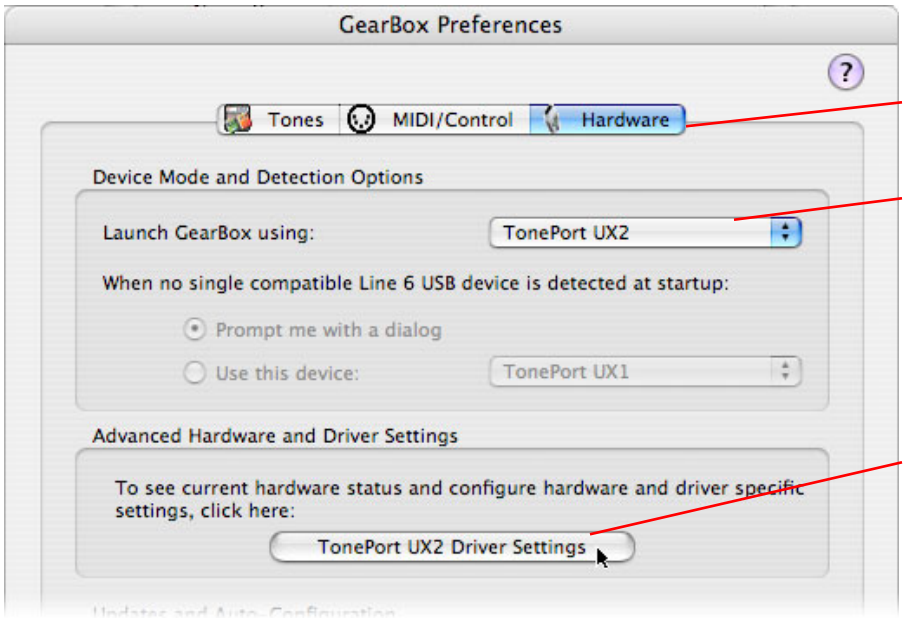
ABLETON LIVE 5 SETUP – MAC® OS X

Be sure to connect the USB cable from TonePort into your computer's USB port, and then proceed with the following steps…

Configure your Mac® to use TonePort as your audio device

First launch the GearBox application, and then go to the GearBox menu to launch the Preferences dialog.

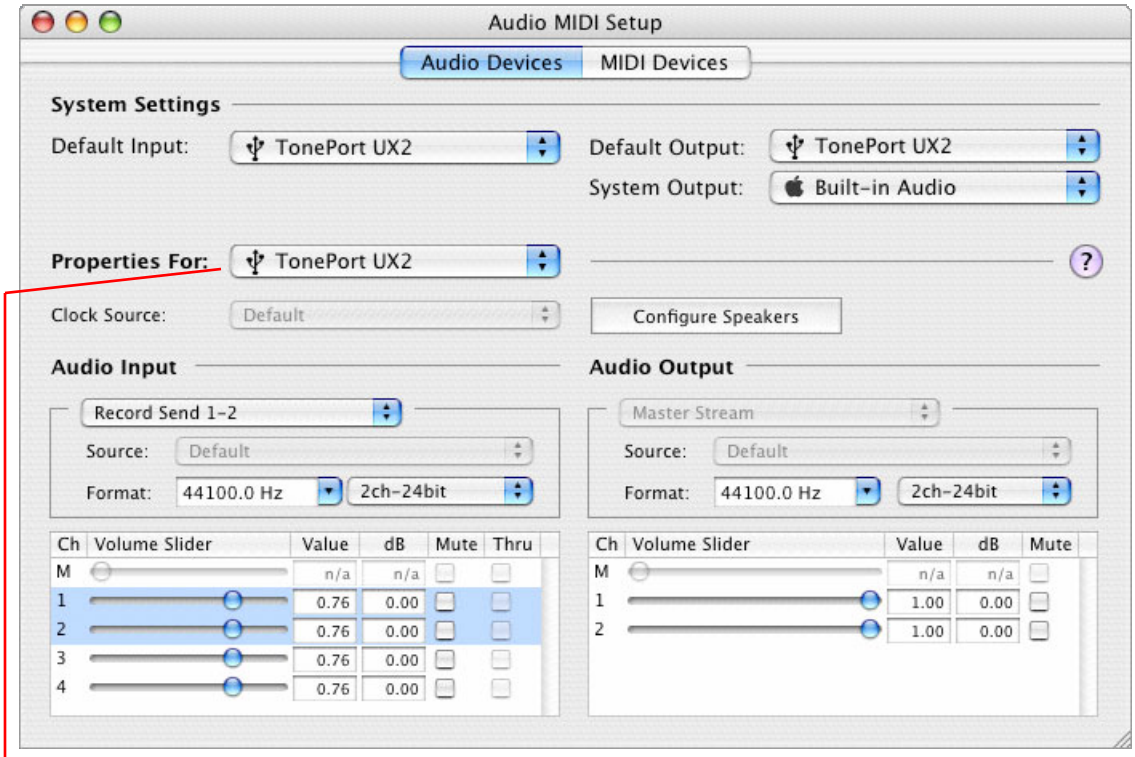
Select the **GearBox** menu and choose **Preferences**



Choose the **Hardware** page

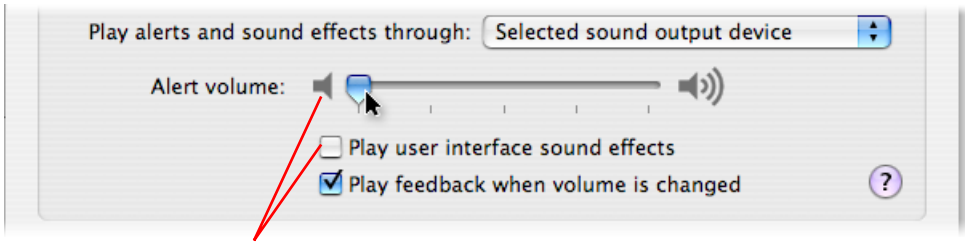
Select your **TonePort UX1** (or UX2) device…

Then click the **TonePort Driver Settings** button



Choose your TonePort device in the **Properties For** selector, and then match the all the Audio Input and Audio Output settings shown here

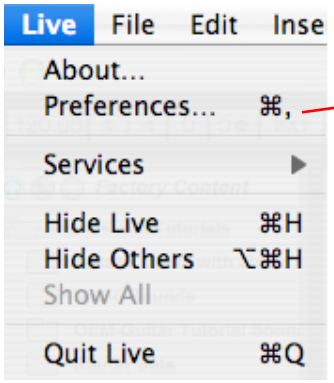
Note that setting the System Output to your Built-in Audio device will result in your Mac system and alert sounds playing through this device. When using TonePort, you likely will not want to hear these sounds at all. You can adjust the volume independently for these sounds by going to the Mac System Preferences > Hardware – Sound option > Sound Effects button…



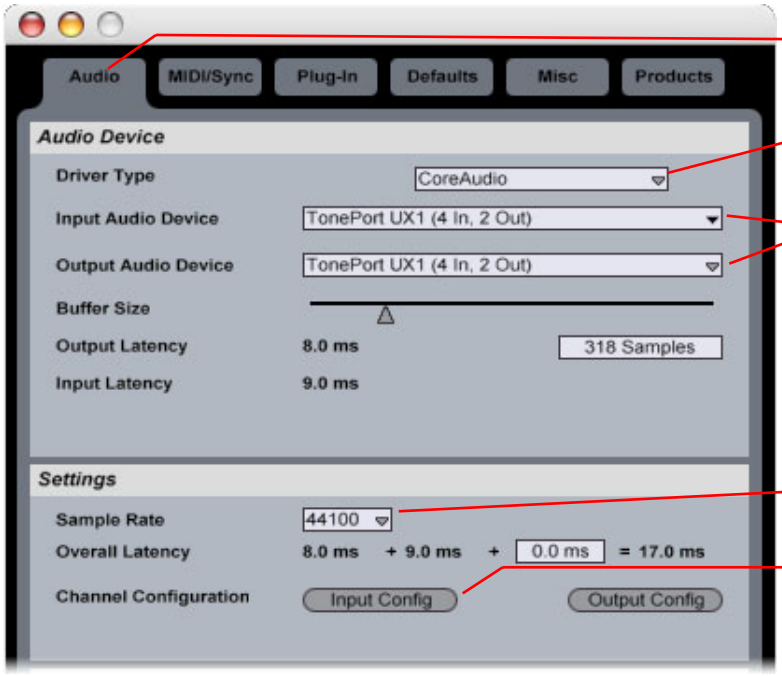
Adjust the **Alert volume** slider down, and uncheck the **Play user interface sound effects** checkbox

Configuring Ableton Live 5 to use the CoreAudio TonePort driver

Launch Ableton Live and make the following settings…



Select Ableton Live's Live menu and choose **Preferences**



Select the Audio tab

Choose **CoreAudio** as the Driver Type

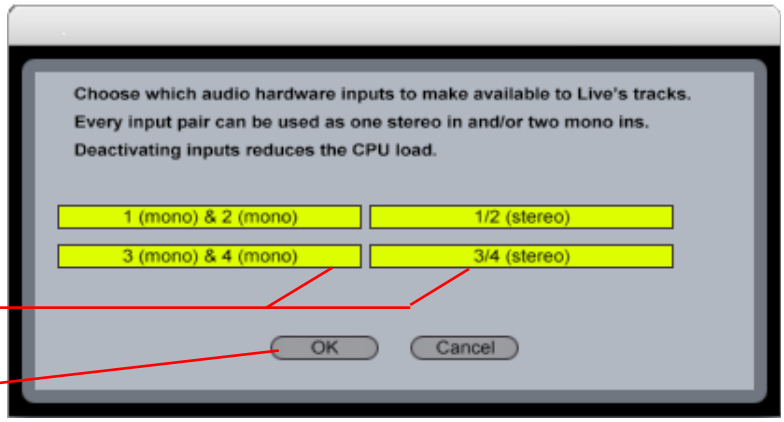
Choose **TonePort UX1** (or **UX2**) as both the **Input** and **Output Audio Device**

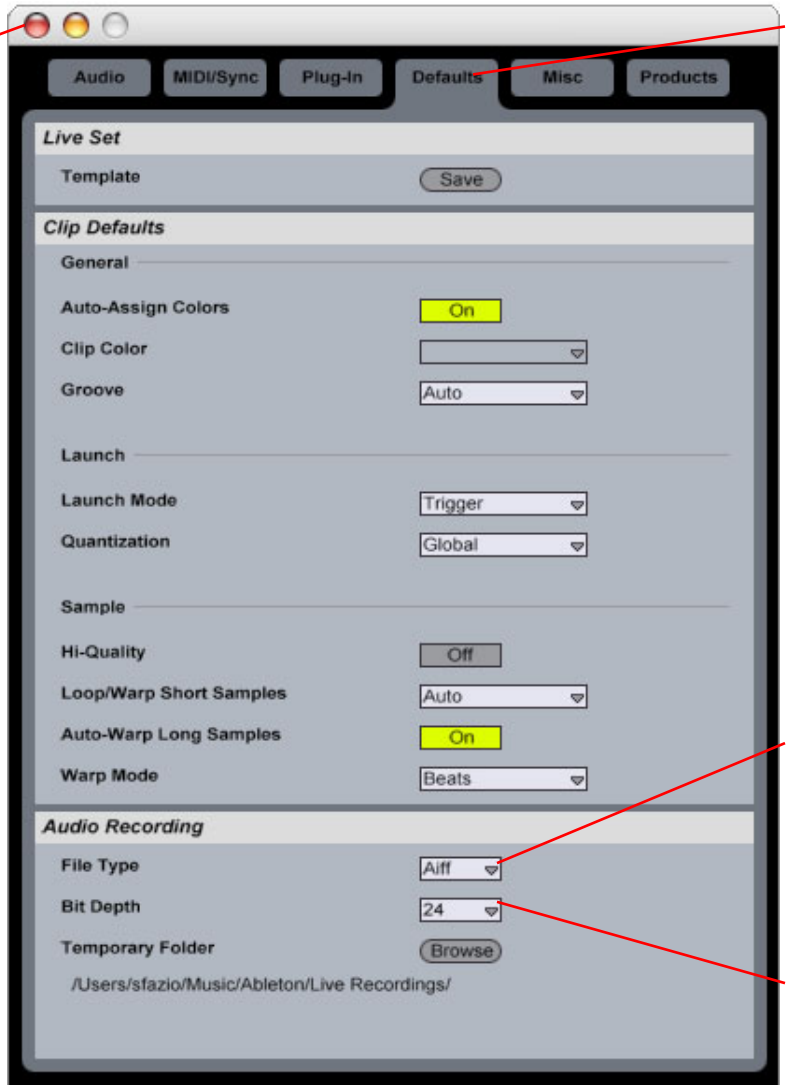
Choose a **Sample Rate**, **44100** is a good choice for most projects

When above settings are complete, click the **Input Config** button

Click on the **3 & 4 (mono)** and the **3/4 (stereo)** Input buttons to activate them if you will want to record from TonePort Sends 3 and 4 into Live

Click the OK button to exit the dialog





Select the **Defaults** tab

You can choose either **AIFF** or **WAV** as your **File Type** – AIFF is best for Mac compatibility, and WAV best for Windows application compatibility

Choose **24** as the **Bit Depth**

Select the close button to exit the **Preferences** dialog when all settings are complete

This completes the Audio Driver configuration!

Setting up an audio track to record from TonePort in Ableton Live

Now that your TonePort hardware is set up, you are ready to start working in a new Live Set! Open or create a new Live Set and make the following settings…

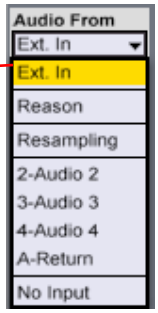
Click the Session View Selector to switch to the Session View

The In/Out settings group

Click the **Show/Hide In/Out Selector** to display this group of settings in the Mixer

Click the **Monitor Off** button for the Audio Track you wish to record into

Select **Ext. In** as the **Audio From** setting

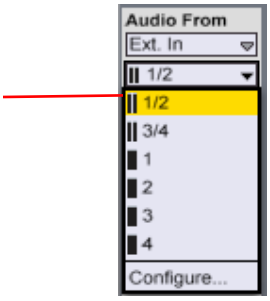


Select the Input Channel:

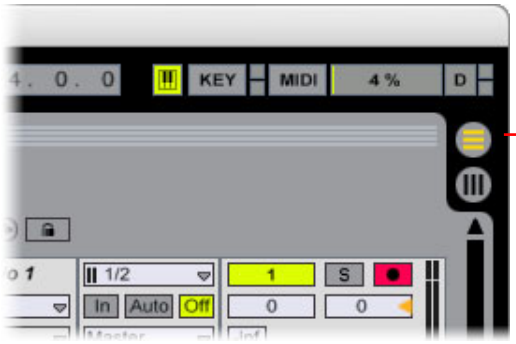
-**1/2** will record from TonePort Sends 1 & 2 as a Stereo file

-**3/4** will record from TonePort Sends 3 & 4 as a Stereo file

-**1, 2, 3 or 4** will record from the respective TonePort Send as a Mono file

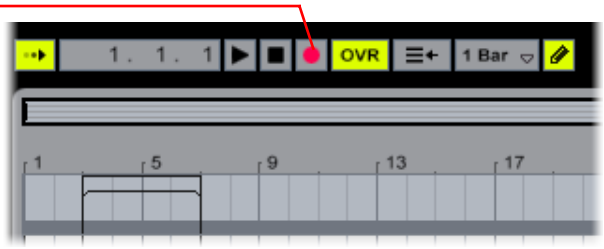


Click on the **Arm** switch to arm the track for recording

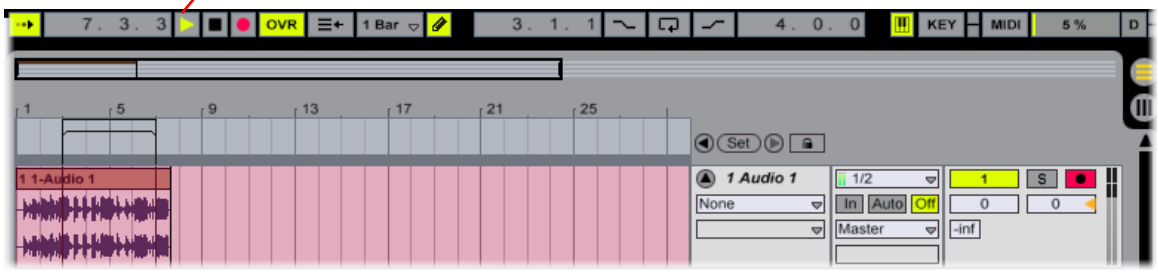


Click the **Arrangement View** selector to switch to the Arrangement View display

Click the **Global Record Button** to prepare the Live Set for recording



Click the **Play Button** to start recording!

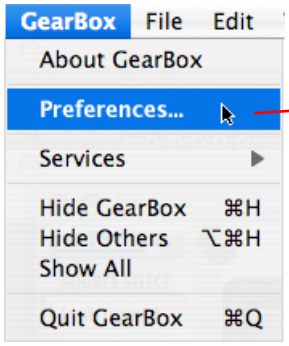


APPLE GARAGEBAND 3 SETUP– MAC® OS X

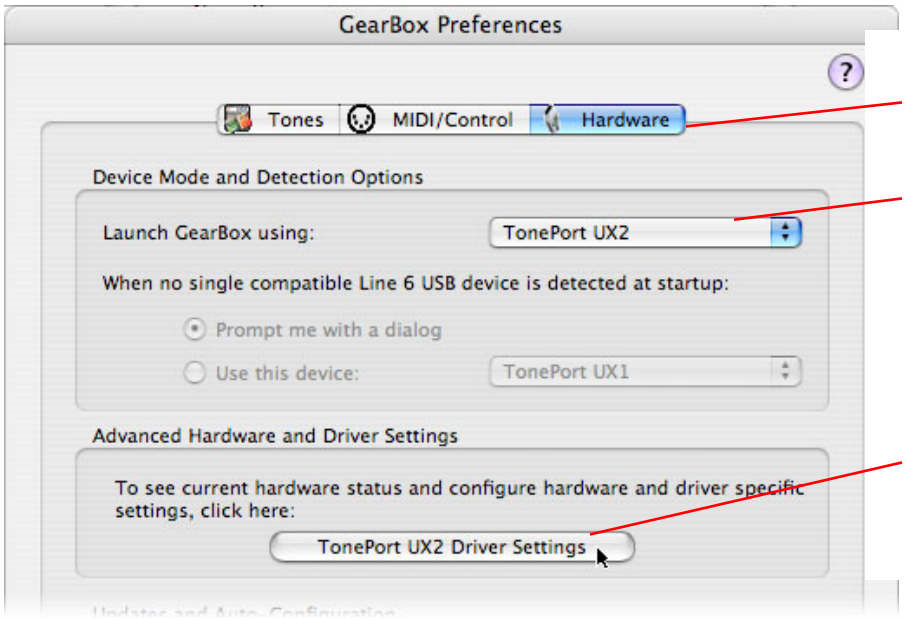
The following steps show you how to configure TonePort UX1 or UX2 with Apple GarageBand. The steps are the same for configuring GarageBand version 2 or 3. Be sure to connect the USB cable from TonePort into your computer's USB port, and then proceed with the following steps…

Configure your Mac® to use TonePort as your audio device

First launch the GearBox application, and then go to the GearBox menu to launch the Preferences dialog.



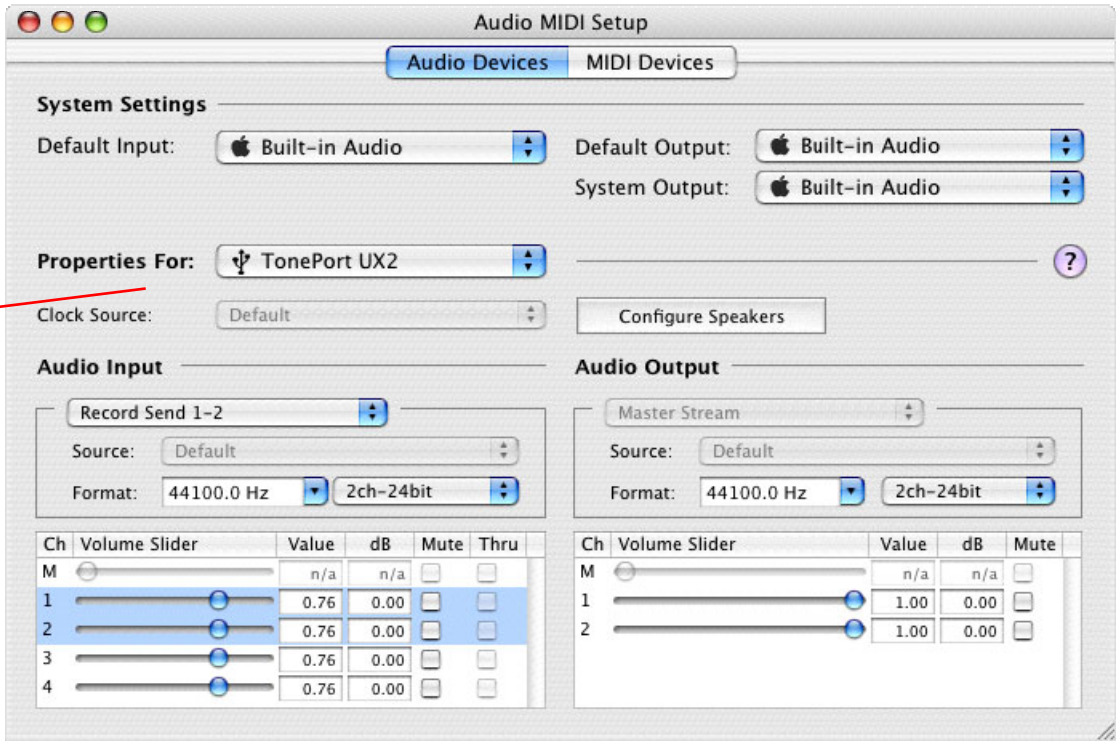
Select the **GearBox** menu and choose **Preferences**



Choose the **Hardware** page

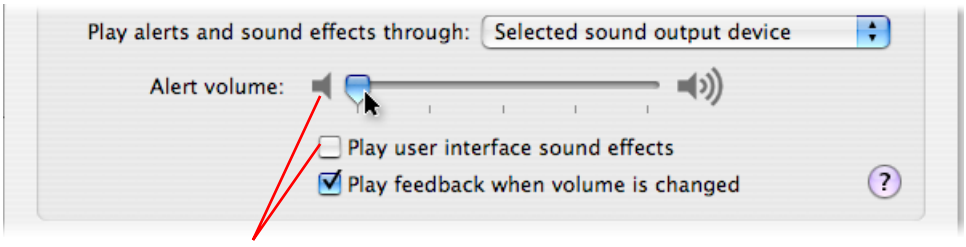
Select your **TonePort UX1** (or UX2) device…

Then click the **TonePort Driver Settings** button



Choose your TonePort device in the **Properties For** selector, and then match the all the Audio Input and Audio Output settings shown here

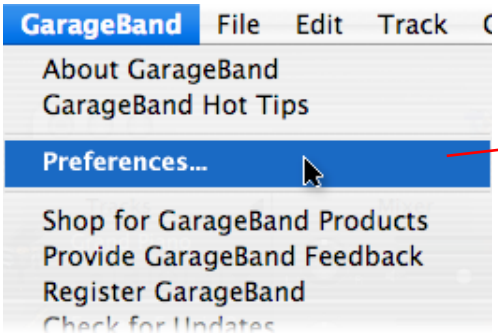
Note that setting the System Settings - System Output to your Built-in Audio device will result in your Mac system and alert sounds playing through this device. When using TonePort and creating your musical masterpieces, you likely will not want to hear these system sounds blaring through your speakers or headphones at all! You can adjust the volume independently for these sounds by going to the Mac System Preferences > Hardware – Sound option > Sound Effects button…



Adjust the **Alert volume** slider down, and uncheck the **Play user interface sound effects** checkbox

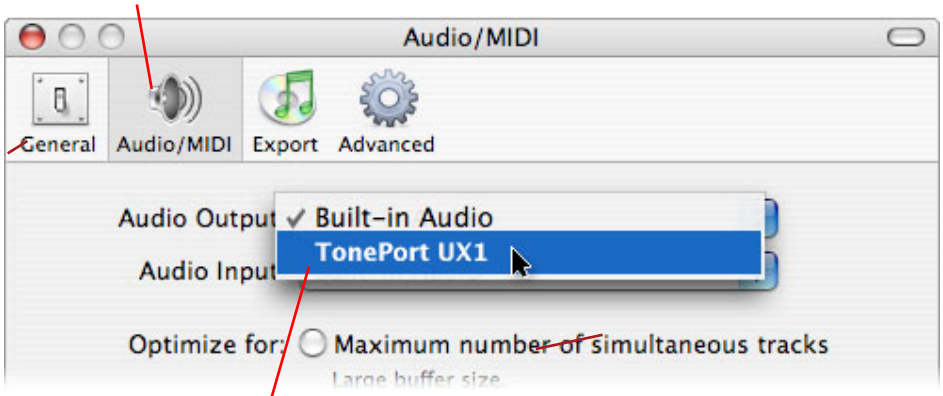
Configuring GarageBand to use the TonePort driver

Launch GarageBand and make the following settings…

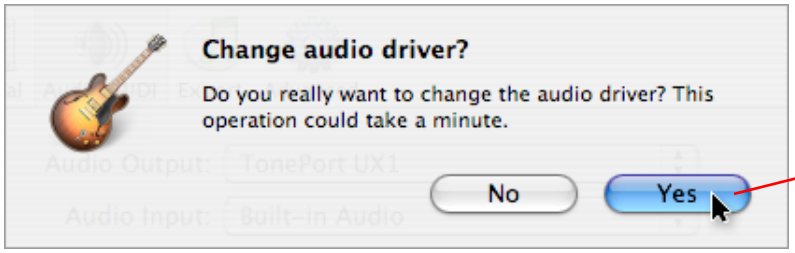


Select the **GarageBand** menu and choose **Preferences**

Select the **Audio/MIDI** button

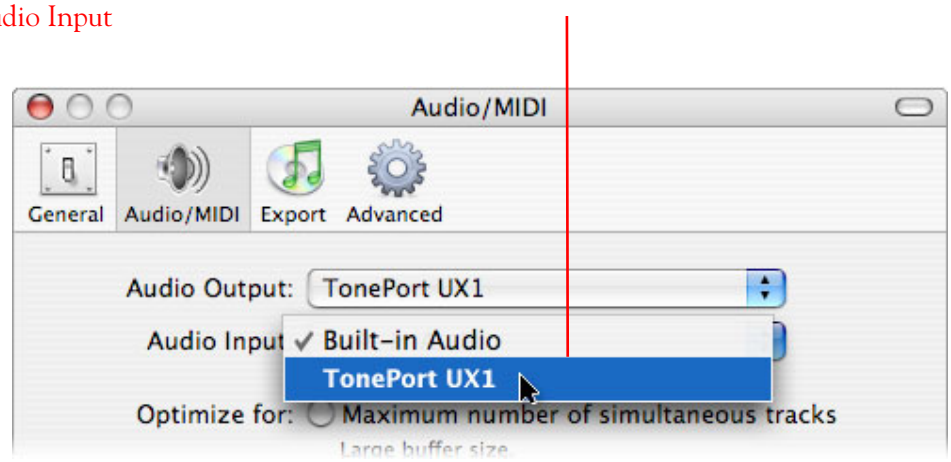


Select **TonePort UX1** (or **UX2**) as the **Audio Output**. This will immediately launch a prompt asking if you want to change the audio driver…

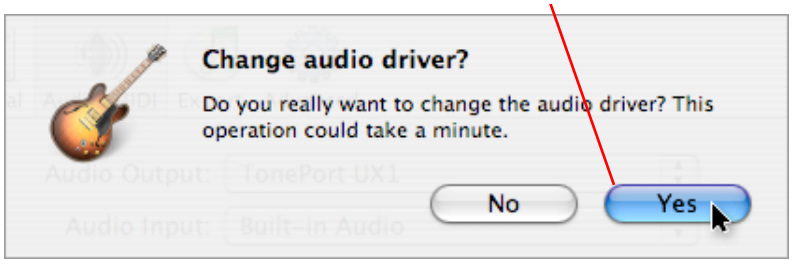


Click the **Yes** button to change the audio driver

Once the driver initialization process completes, choose your TonePort UX1 (or UX2) as the Audio Input



Once again, if prompted, click **Yes** to change the audio driver

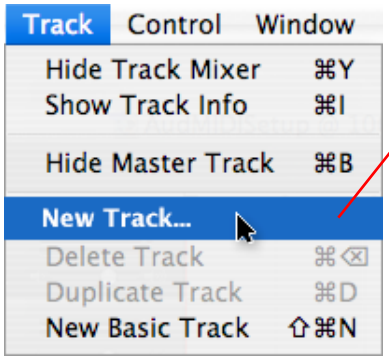


Click the **close** button at the top left of the **Audio/MIDI** dialog once all these settings are complete.

This completes the Audio Driver setup!

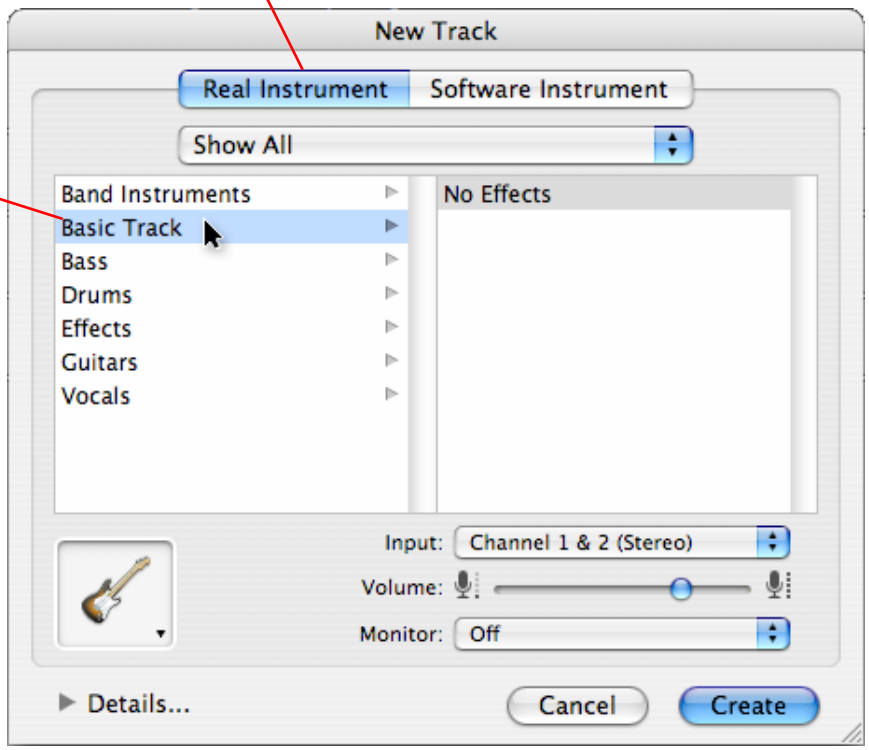
Setting up an audio track to record from TonePort in GarageBand

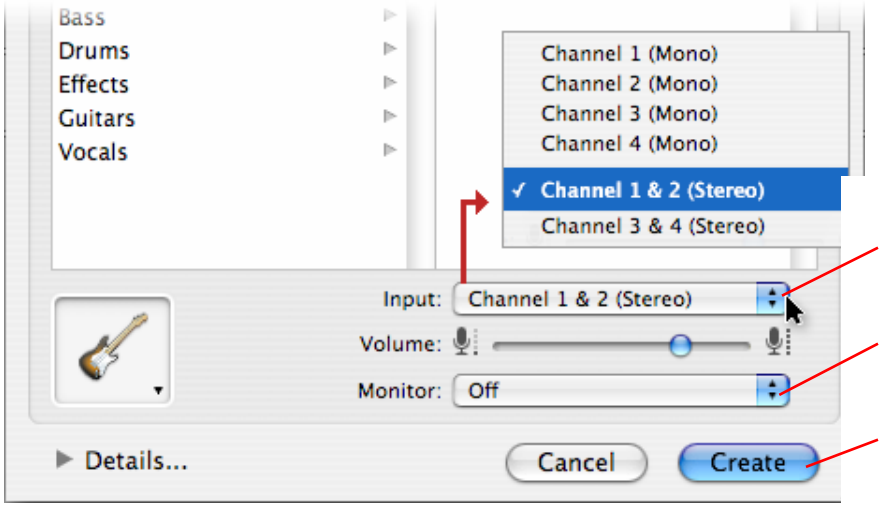
Now that your TonePort hardware is set up, you are ready to start working in a new project! Open or create a new song project and make the following settings…



Select the GarageBand **Track** menu and choose **New Track**

Select the **Real Instrument** button, then choose **Basic Track**





Select the desired **Input** for the track*

Set the Monitor option to **Off**

Click the **Create** button when done

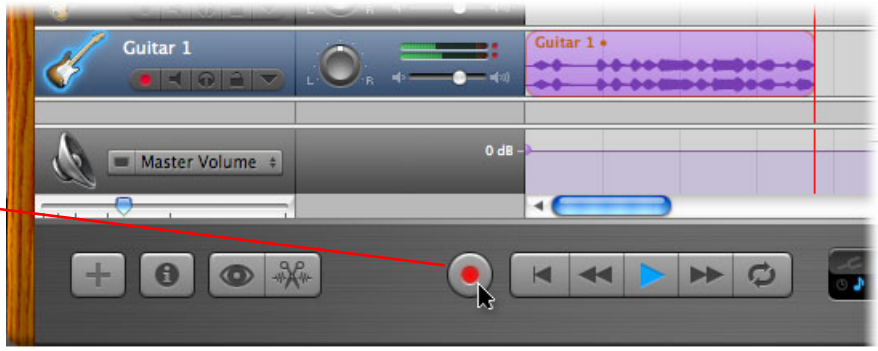
* The **Channel 1 & 2** and **Channel 3 & 4** options will receive input from TonePort Sends 1 & 2 and Send 3 & 4, respectively, and will record a stereo file.

The individual Channel 1, 2, 3 **and 4 options will receive input from TonePort Send 1, 2, 3 or 4, and will record a mono file.**

Select your new audio track and click on the track's Arm button

Note that the track meters measure the TonePort/GearBox input signal once the track is armed

Click on the transport **Record** button and start recording!



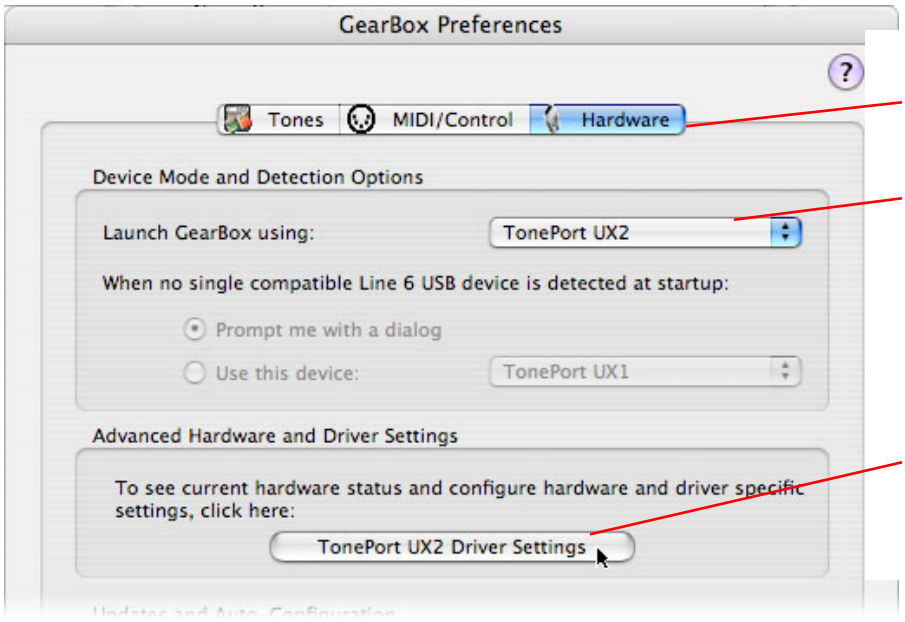
APPLE LOGIC EXPRESS 7 SETUP – MAC® OS X

Be sure to connect the USB cable from TonePort into your computer's USB port, and then proceed with the following steps…

Configure your Mac® to use TonePort as your audio device

First launch the GearBox application, and then go to the GearBox menu to launch the Preferences dialog.

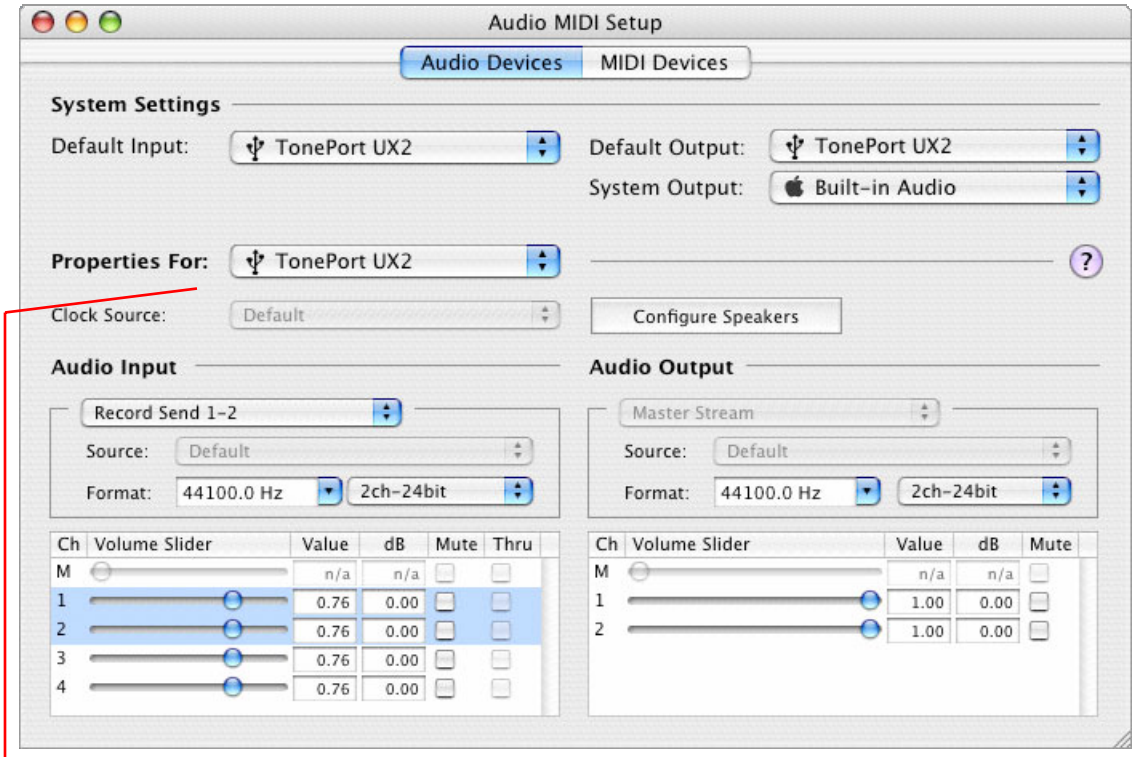
Select the **GearBox** menu and choose **Preferences**



Choose the **Hardware** page

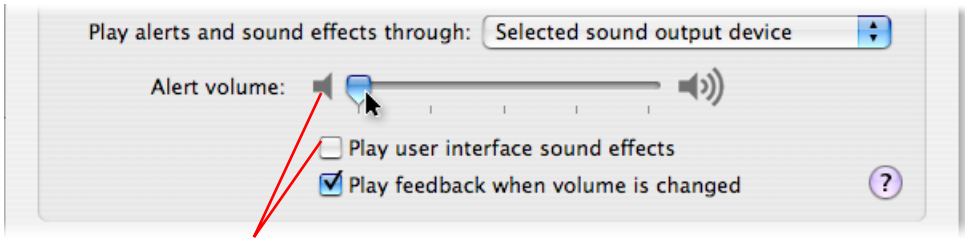
Select your **TonePort UX1** (or UX2) device…

Then click the **TonePort Driver Settings** button



Choose your **TonePort** device in the **Properties For** selector, and then match the all the **Audio Input** and **Audio Output** settings shown here

Note that setting the System Output to your Built-in Audio device will result in your Mac system and alert sounds playing through this device. When using TonePort, you likely will not want to hear these sounds at all. You can adjust the volume independently for these sounds by going to the Mac System Preferences > Hardware – Sound option > Sound Effects button…

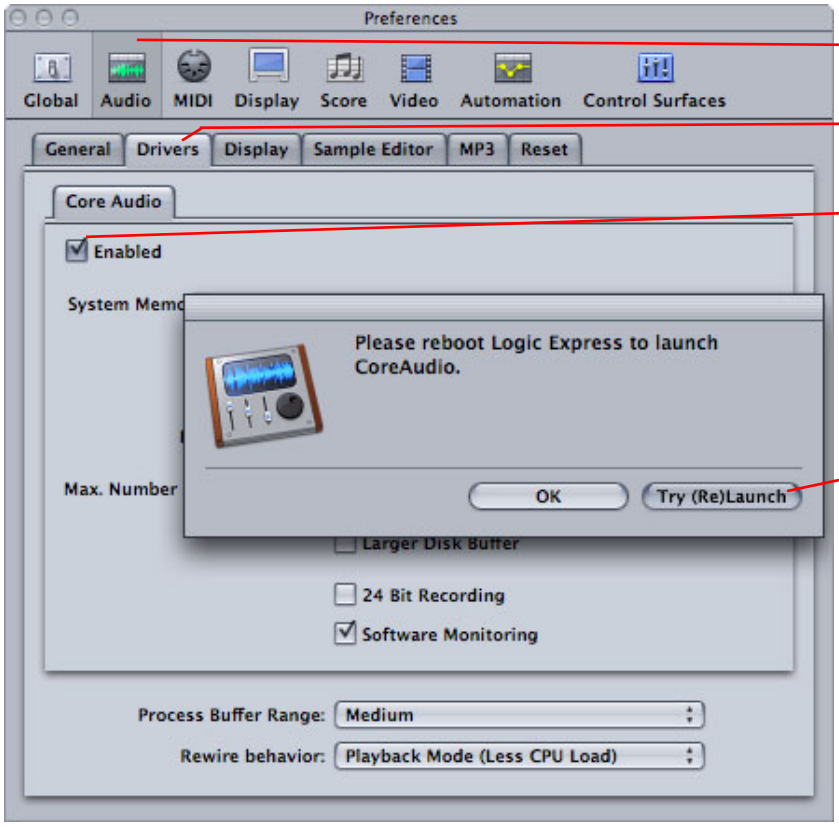


Adjust the **Alert volume** slider down, and uncheck the **Play user interface sound effects** checkbox

Configuring Logic Express to use the Core Audio TonePort driver

Launch Logic Express and make the following settings…

Select the Logic Express **Audio** menu and choose **Audio & Hardware Drivers**



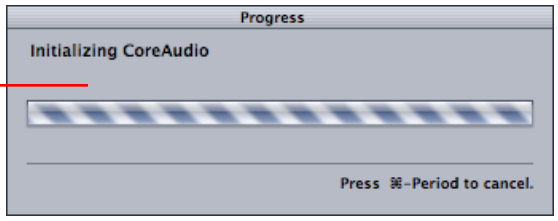
Select the **Audio** page

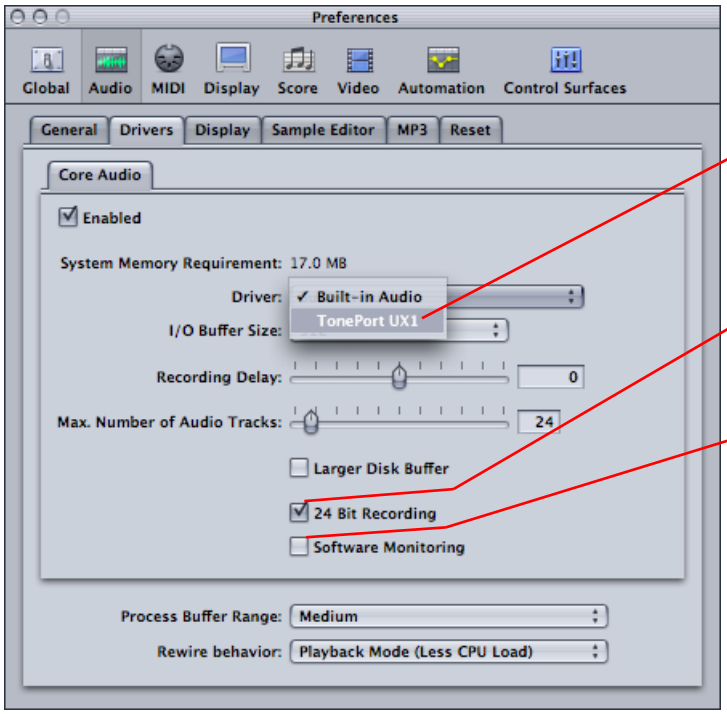
Choose the **Driver** tab

Check the **Enabled** checkbox – this will immediately launch a prompt to reboot Logic Express…

Click the **Try (Re)Launch** button.
This will attempt to reset the driver without actually exiting Logic Express.

The Try (Re)Launch process will display a Progress meter as it initializes the driver – allow this process to complete.





Once the driver initialization process completes, choose your **TonePort UX1** (or UX2) as the **Driver**

Check the **24 Bit Recording** checkbox

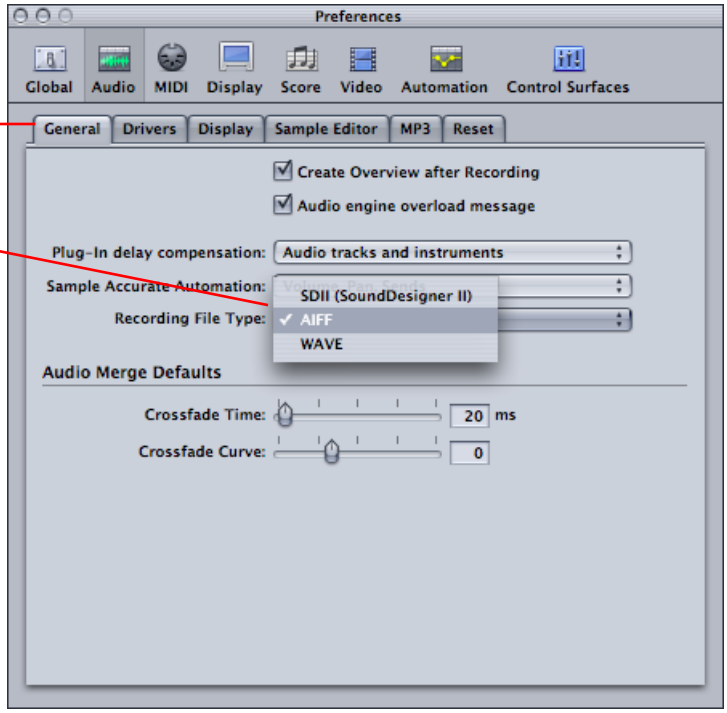
Uncheck the **Software Monitoring** checkbox

All other settings in this Drivers tab display can remain using the default values as shown

Select the **General** tab

You can choose either **AIFF** or **WAVE** as your Recording File Type

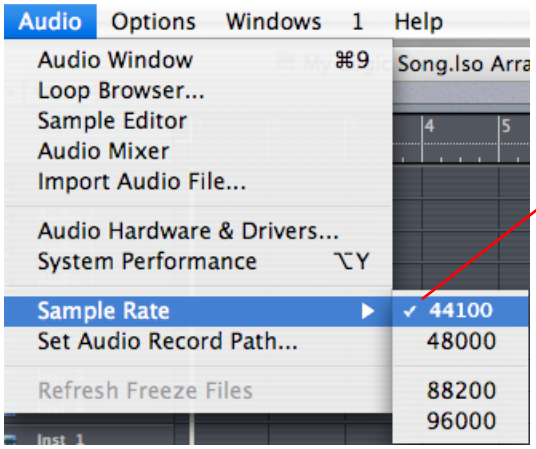
AIFF is best for Mac compatibility; WAVE is best for Windows application compatibility



Select the close button at the top left of the Preferences dialog to exit once these settings are complete.

Setting up a Logic Express Project for recording with TonePort

Now that your TonePort hardware is set up, you are ready to start working in a new Project! Open or create a new Project and make the following settings…

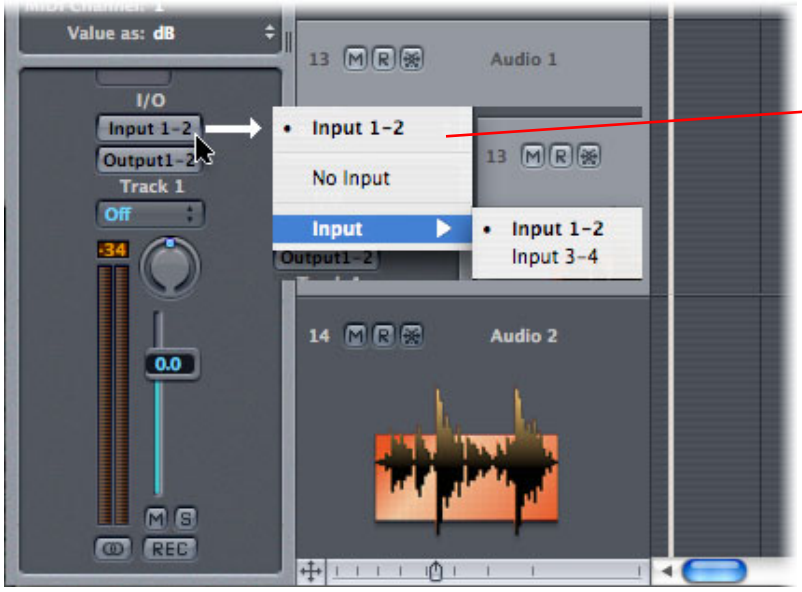


Select the Logic Audio menu and choose a Sample Rate.

44100 is typically a good choice, but you can choose another if your Project has specific requirements.

All audio track settings can be made within the Inspector panel at the bottom left of the Arrange window – this always shows the settings for the selected track…

First, click the **Mono/Stereo** button to set the desired format for the track and your recorded file



Click the Input Selector button and choose the desired GearBox Send as the track input

If you choose a Stereo track, then you will see "paired" options for Input 1-2 and Input 3-4.

For a Mono track you will see individual Inputs 1, 2, 3 and 4. All inputs refer to the GearBox Sends of the same number.

Click the Output Selector button and choose **Output 1-2.** This assigns the track output to your TonePort device.

Click the **REC** button to arm the selected track for recording

Note that when the track is armed, the track meters measure the input level coming in from GearBox.

Once the above settings are made, just click the transport **Record** button and start recording!

Using Footswitches with TonePort UX2 and Logic Express or Pro 7

You can utilize one or two footswitches plugged into TonePort UX2's Footswitches jacks to remotely control transport functions in Logic 7. This can be quite handy for hands-free operation when recording!

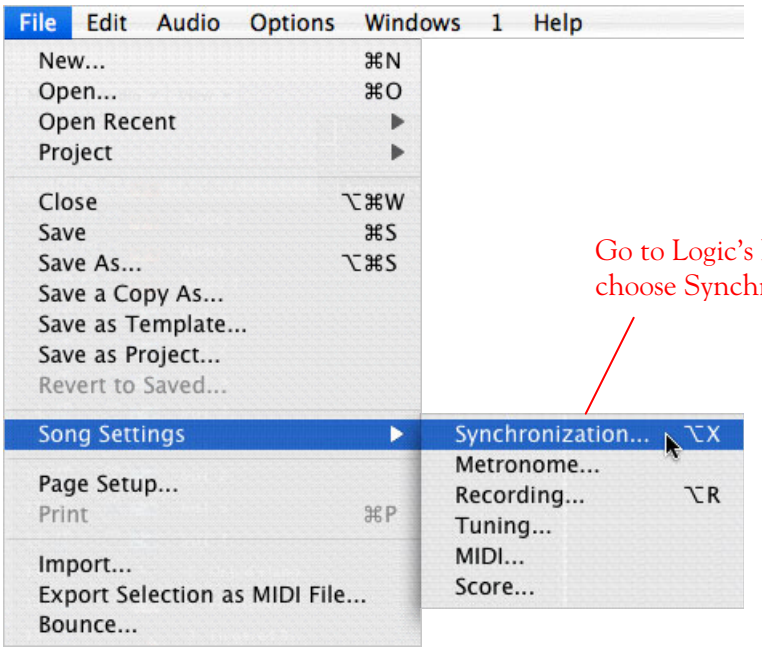
Be sure to connect the USB cable from TonePort UX2 into your computer's USB port, and then proceed with the following steps…

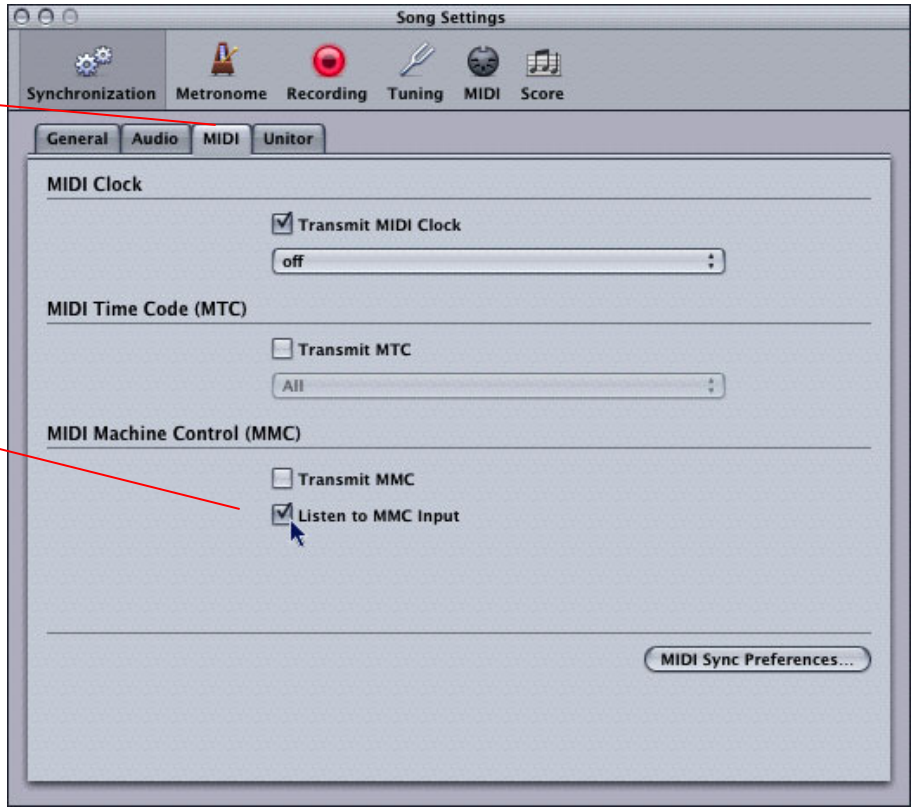
Connect a footswitch (or two)

TonePort UX2 offers two independent 1/4-inch jacks for connecting standard footswitch pedals.

Connect up to two footswitch pedals into these Footswitches 1 & 2 jacks

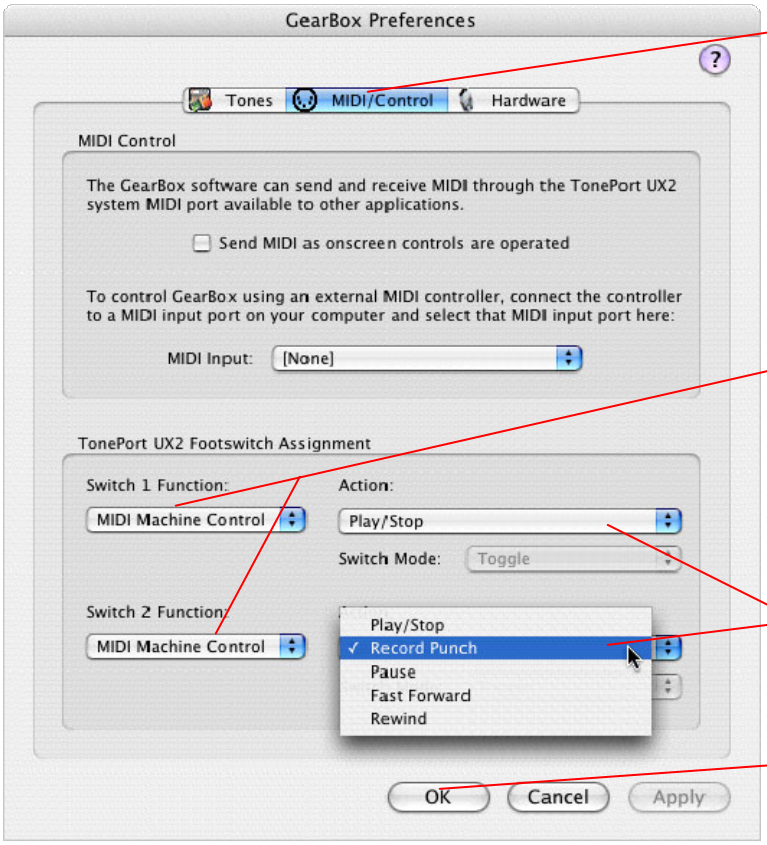
Configure Logic Express/Pro 7 to respond to your Footswitches
Launch Logic and go File > Song Settings > Synchronization.





Note that this is a Song specific setting – you will need to check this box for each Logic song as desired, and the setting will be saved with the Song file.

Configure GearBox and TonePort to transmit Footswitch commands
Launch the GearBox software and go to GearBox > Preferences …



Select the MIDI/Control page

Choose **MIDI Machine Control** as the Switch Function for the Footswitch jacks you are using

Choose the **Action** you want each Footswitch to trigger in Logic

Click **OK** to exit the Preferences dialog

Done!
Using the above configuration with two footswitches connected to TonePort, Footswitch 1 will alternately trigger Logic's transport "Play" and "Stop" buttons. Footswitch 2 will toggle the transport "Record" button on/off, allowing you to trigger recording on all armed tracks. Additionally, Footswitch 2 will perform Punch In and Out "on-the-fly" if you press it while in Play mode.

For more info on TonePort Footswitches, check the GearBox Online Help page.

DIGIDESIGN PRO TOOLS LE 6 SETUP – MAC® OS X

Digidesign has designed Pro Tools software so it can only be used with a Digidesign or M-Audio audio interface; you cannot use TonePort as the primary audio interface for a Pro Tools system. But you can still enjoy the benefits of TonePort and GearBox by connecting TonePort to your Digidesign interface's inputs. TonePort UX2 even lets you do this with a direct, digital connection.

For this document, we'll be showing how to connect to the Digidesign Mbox unit, but these steps are similar for connecting to the Digi 002 or other Digidesign hardware as well. There are two methods described here – Recording from TonePort UX1 or UX2's *analog* outputs, and recording from TonePort UX2's *digital* S/PDIF output.

> Note that it is not necessary to have both your TonePort and Mbox units connected to the same computer. You can alternatively have your TonePort and Digidesign hardware on separate computers as well, since the two devices are indeed operating individually!

Be sure to connect the USB cable from TonePort into your computer's USB port, and then proceed with the following steps…

Recording from TonePort UX1 or UX2's Analog Outputs

Connect the analog outputs from TonePort to the Digidesign Mbox

Using two ¼" to ¼" shielded TS or TRS audio cables, plug each into the Analog Outs of your TonePort UX1 (or UX2) device

Plug the other end of the left audio cable into the Mbox Source 1 input, and the right audio cable into the Mbox Source 2 input.

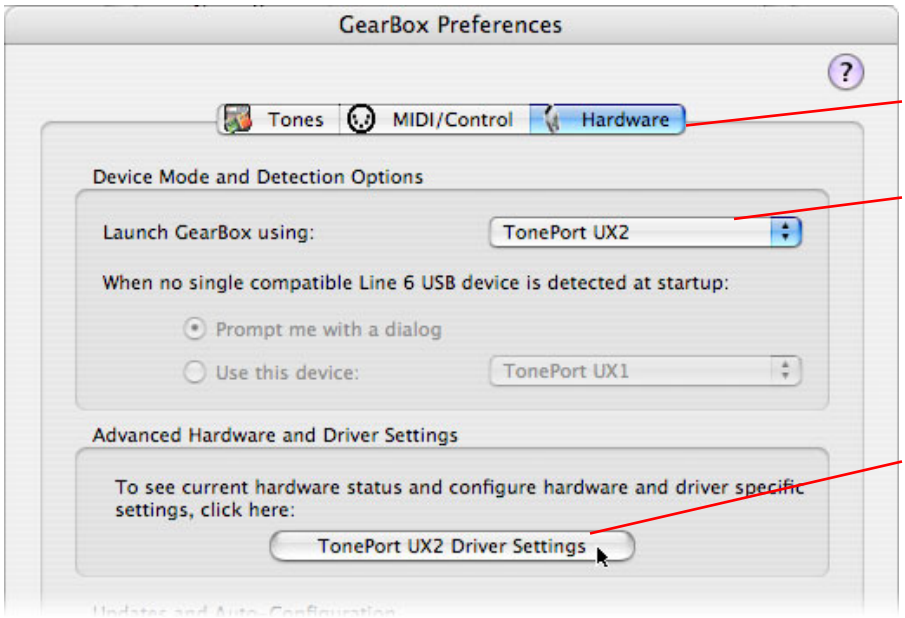
From TonePort Right Analog Out

From TonePort Left Analog Out

You will still use the Mbox Line Outputs (or Headphone Output) to hear playback of all Pro Tools LE audio. The TonePort/GearBox audio will now be mixed with the Pro Tools LE audio as well. Therefore, if you are using headphones, you'll want to plug them into the Mbox headphone jack to hear everything.

Next, before you launch Pro Tools LE, launch the GearBox application, and open the GearBox Preferences dialog.

Select the GearBox menu and choose Preferences



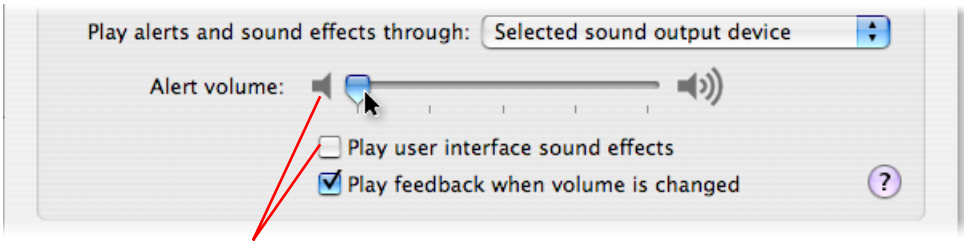
Choose the Hardware page

Select your TonePort UX1 (or UX2) device…

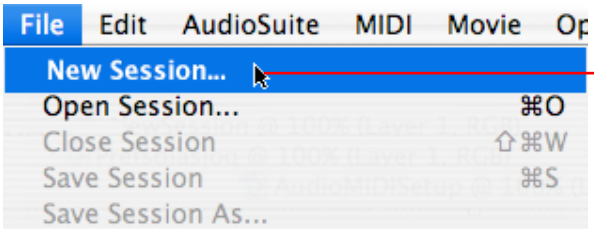
Then click the TonePort Driver Settings button

Choose your TonePort device in the Properties For selector, and then match the all the Audio Input and Audio Output settings shown here

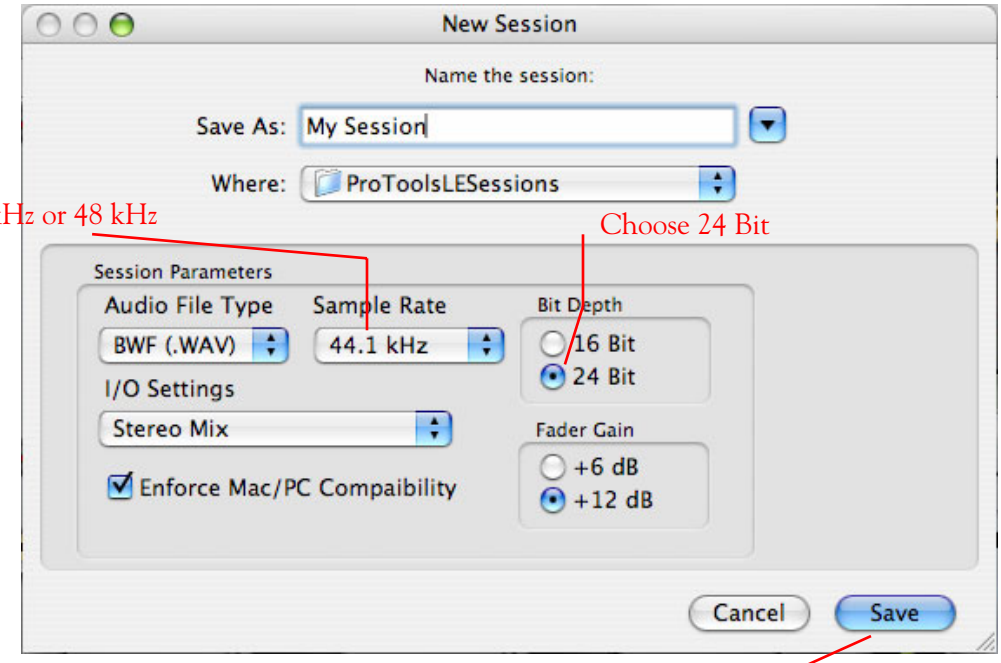
Note that setting the System Output to your Built-in Audio device will result in your Mac system and alert sounds playing through this device. When using TonePort or Pro Tools, you likely will not want to hear these sounds at all. You can adjust the volume independently for these sounds by going to the Mac System Preferences > Hardware – Sound option > Sound Effects button…



Adjust the Alert volume slider down, and uncheck the Play user interface sound effects checkbox



To start a new session in Pro Tools LE, choose New Session from the File menu

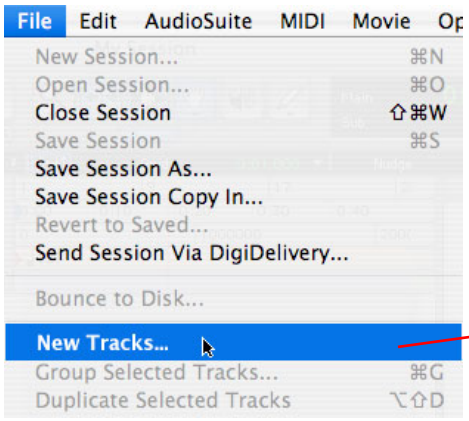


Choose 44. 1 kHz or 48 kHz

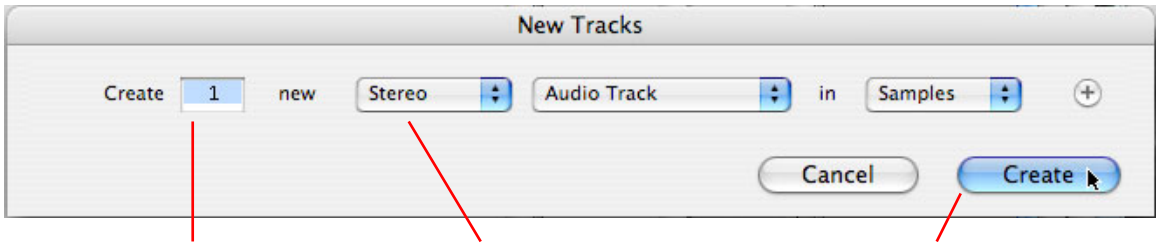
Choose 24 Bit

Type in a name for your session and click Save

Set up a new Pro Tools LE track for recording…



Now that you have a new session, choose New Tracks from the File menu

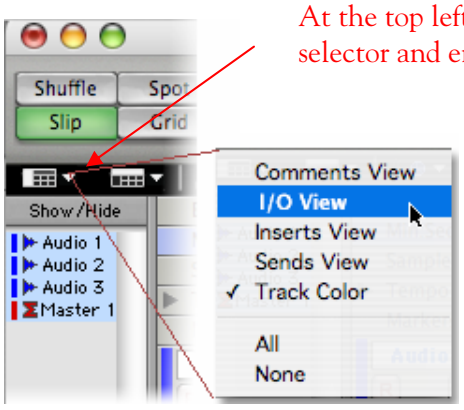


Choose how many Tracks to create

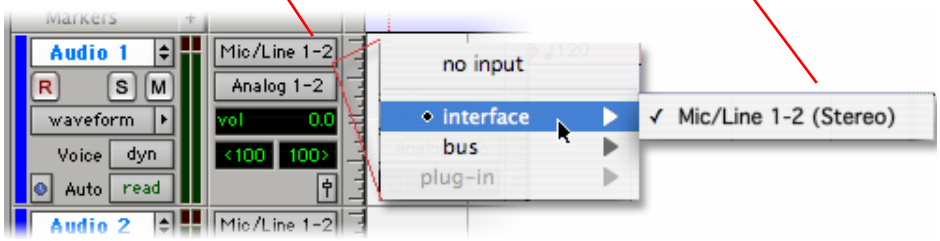
Choose Mono or Stereo for your audio track format

Click the Create button

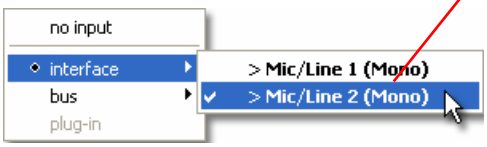
At the top left of the Edit Window, click the View selector and enable the I/O View



If the track you want to record into is Stereo, click on the track's Input button and choose Interface > Mic/Line 1-2 (Stereo)



Or… if the track you want to record into is Mono, click on the track's Input button and choose Mic/Line 1 (Mono) to capture the TonePort LEFT signal, or choose Mic/Line 2 (Mono) to capture the TonePort RIGHT signal



Click the Arm button for the track to arm it for recording

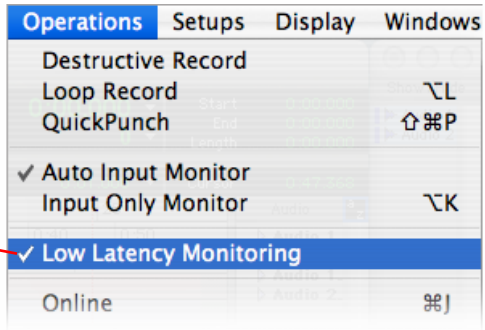
The track meters will now measure the TonePort/GearBox input signal level

Click the Mute button to mute the track while recording*

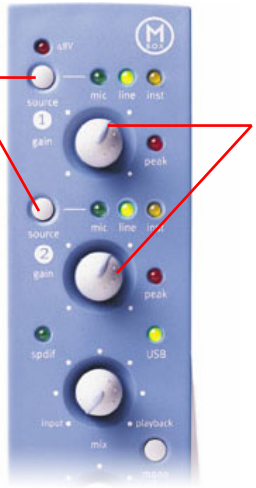
* Muting the track during recording disables the Pro Tools LE software monitoring feature, which allows your TonePort/GearBox analog input signal to be monitored with the lowest latency possible. Adjust the Mbox Mix knob to balance the session audio with the input audio (see your Mbox documentation for details).

Note to Digi 002 users… when using the Digi 002 hardware with Pro Tools LE, an additional Low Latency Monitoring option is available within Pro Tools LE. You can alternatively keep your track un-muted and activate this option to hear your input monitoring signal when recording (see your Digi 002/Pro Tools LE documentation for more on this feature).

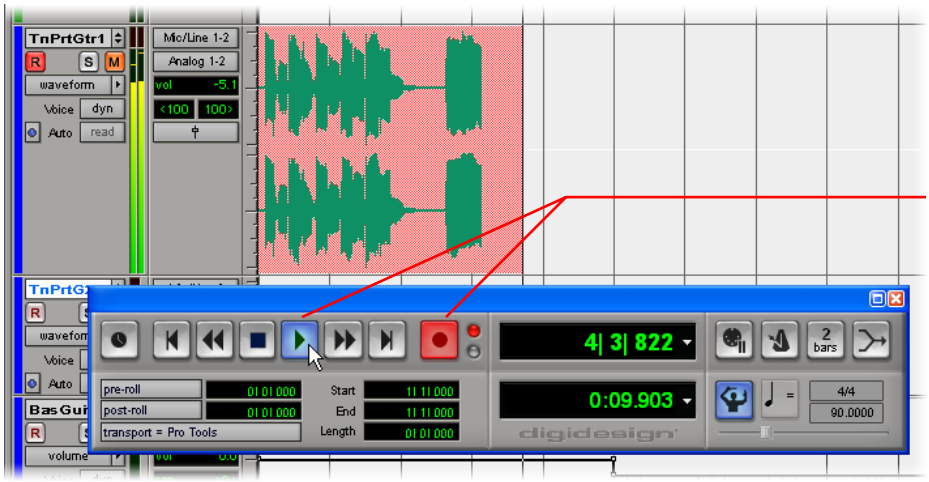
If using the Digi 002, you can activate the Low Latency Monitoring in the Operations menu



Set the Source 1 and Source 2 to "Line" input



The Source 1 & 2 Gain knobs will now adjust the recording input level coming into the Mbox from TonePort/GearBox*



Click the transport Record button to place Pro Tools LE into record mode, then press the Play button to start recording!

Recording from TonePort UX2's S/PDIF Digital Output

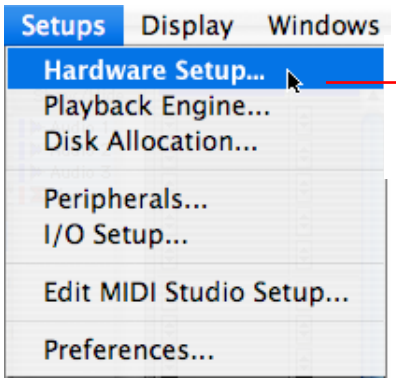
Connect the TonePort UX2 S/PDIF output to the Digidesign Mbox

Using a 75-Ohm, coaxial S/PDIF cable, plug one end into the S/PDIF Digital Out of your TonePort UX2…

Plug the other end of the S/PDIF cable into the Mbox S/PDIF In

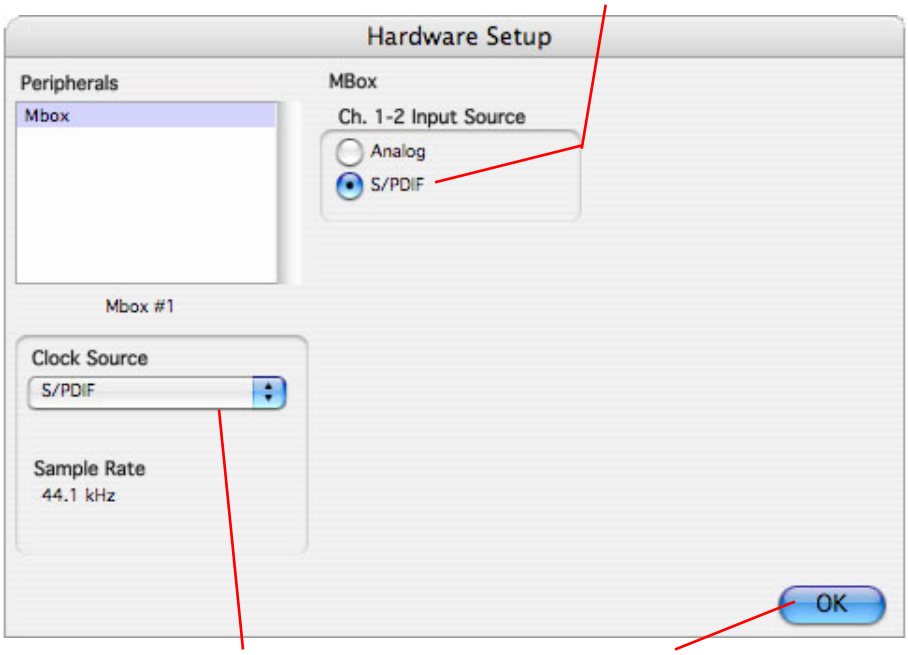
You will still use the Mbox Line Outputs (or Headphone Output) to hear playback of all Pro Tools LE audio. The TonePort/GearBox audio will now be mixed with the Pro Tools LE audio if you use the Pro Tools software monitoring function. See the later section regarding monitoring for more on this.

Next, you must launch the Pro Tools LE to set it to receive a S/PDIF input and digitally clock to your TonePort UX2 before launching the GearBox application.



Go to the Pro Tools LE Setups menu and choose Hardware Setup

Choose S/PDIF as the Ch. 1-2 Input Source



Set the Clock Source to S/PDIF

Click OK when done

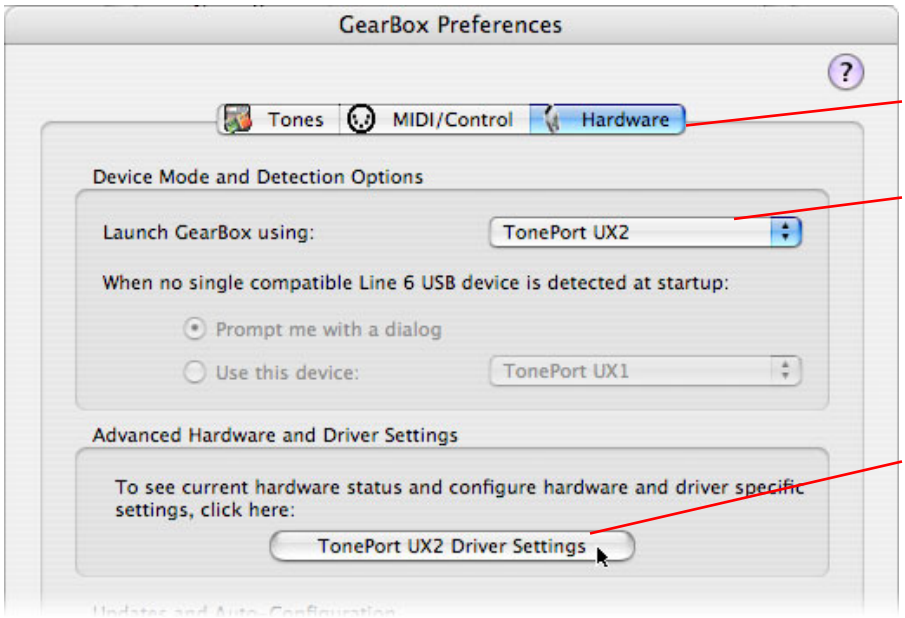
You will now see the S/PDIF indicator illuminated on the front of the Mbox

Note that when receiving S/PDIF input, the Source 1 & Source 2 Gain knobs do not adjust the digital signal level

To adjust the recording level, use the GearBox software's output level controls

Now you can launch the GearBox application and configure the TonePort UX2.

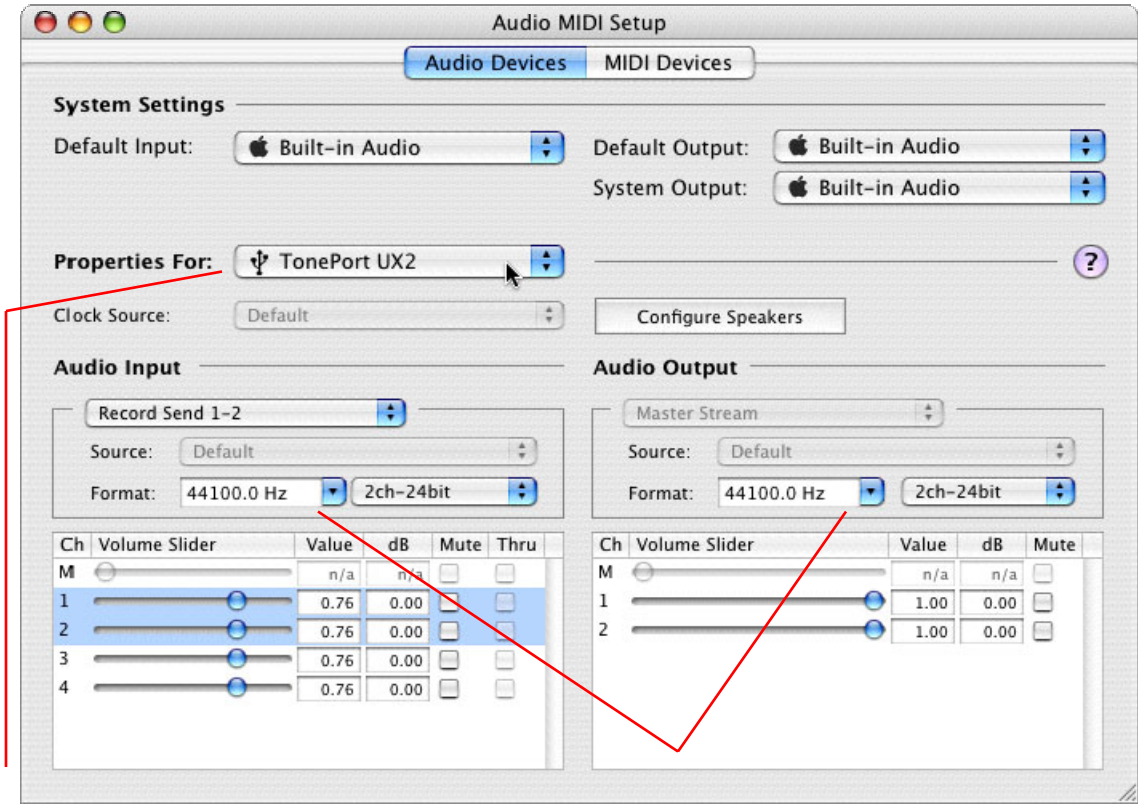
Select the GearBox menu and choose Preferences



Choose the Hardware button

Select your TonePort device…

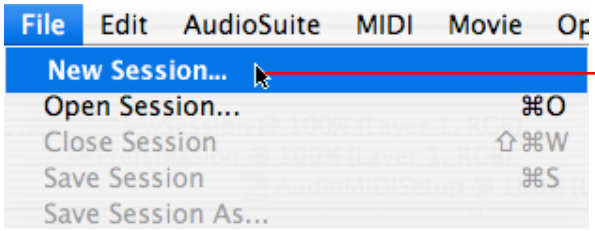
Then, click the TonePort Driver Settings button



Choose your TonePort UX2

Choose 44100 Hz for both the Audio Input and Audio Output Formats

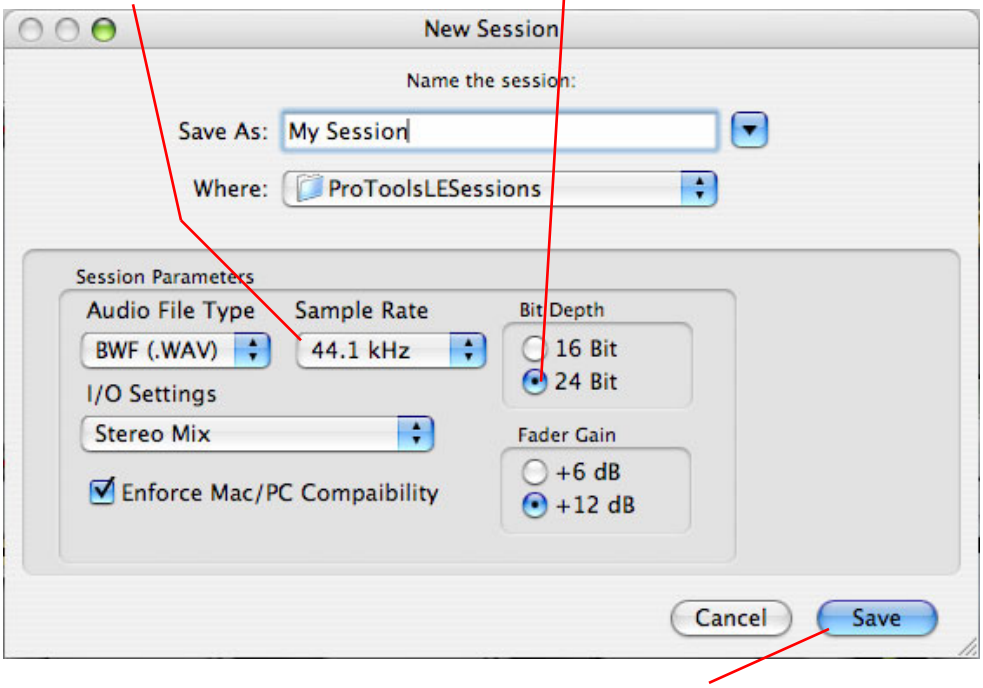
Next, return to Pro Tools LE and create a new Session…



Choose New Session from the Pro Tools LE File menu

Choose 44. 1 kHz or 48 kHz*

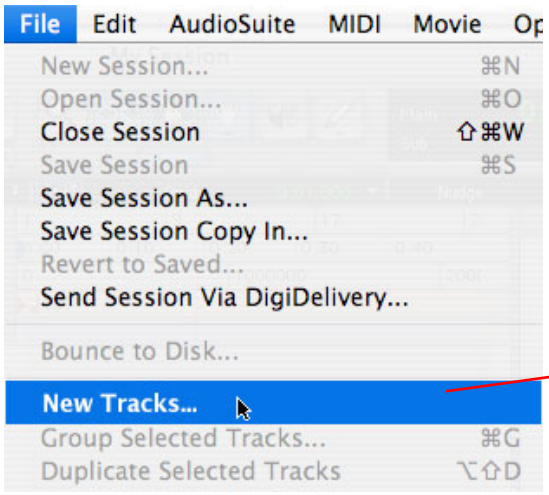
Choose 24 Bit



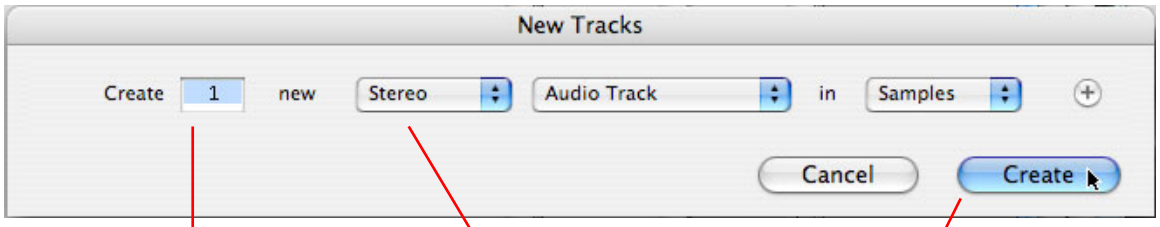
Type in a name for your session and click Save

*If you prefer to use a 48 kHz Sample Rate, then you can choose it here in the Pro Tools dialog, but you will need to also go back to the Audio MIDI Setup dialog and set these values to match (see the previous step). Matching device sample rates is required with a digital connection.

Set up a new Pro Tools LE track for recording…



Now that you have a new session, choose New Tracks from the File menu

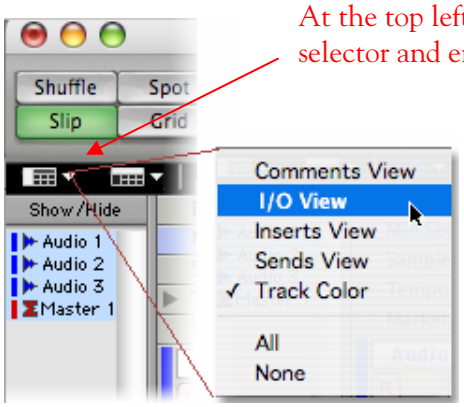


Choose how many Tracks to create

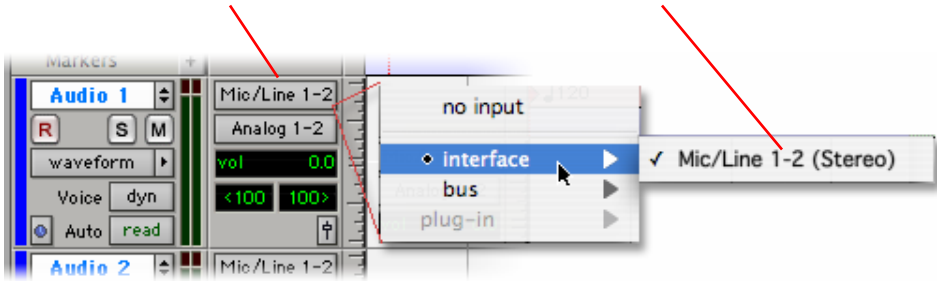
Choose Mono or Stereo for your audio track format

Click the Create button

At the top left of the Edit Window, click the View selector and enable the I/O View



If the track you want to record into is Stereo, click on the track's Input button and choose Interface > Mic/Line 1-2 (Stereo)



Or… if the track you want to record into is Mono, click on the track's Input button and choose Mic/Line 1 (Mono) to capture the TonePort LEFT signal, or choose Mic/Line 2 (Mono) to capture the TonePort RIGHT signal

Click the Arm button for the track to arm it for recording

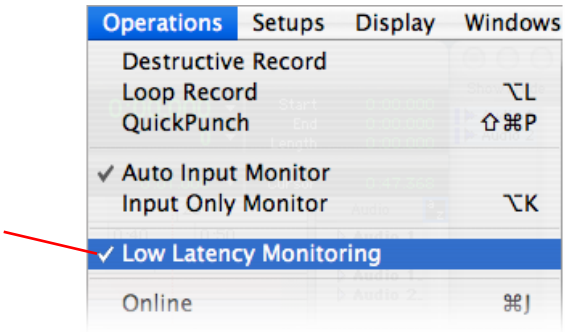
The track meters will now measure the TonePort/GearBox input signal level

Keep the track's Mute button set to un-muted to monitor your TonePort/Gearbox signal*

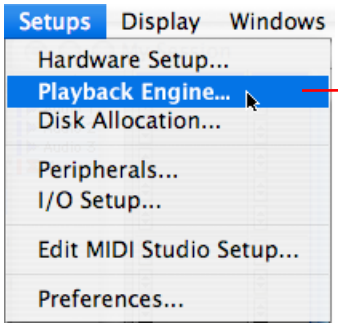
* When receiving a S/PDIF input, the Mbox will only allow the signal to be monitored through the Pro Tools LE software. The track's volume control will adjust the monitor signal coming from your TonePort/Gearbox, allowing you to balance your listening levels independently of your recording level. The Pro Tools LE software monitoring is also subject to latency, which is affected by your Pro Tools LE Hardware Buffer settings (see your Mbox documentation for more information regarding latency and monitoring).

Note to Digi 002 users… when using the Digi 002 hardware with Pro Tools LE, an additional Low Latency Monitoring option is available. It is best to activate this option when recording to hear your input monitoring signal with the lowest latency (see your Digi 002/Pro Tools LE documentation for more about this feature).

If using a Digi 002 unit, you can activate the Low Latency Monitoring in the Pro Tools LE Operations menu

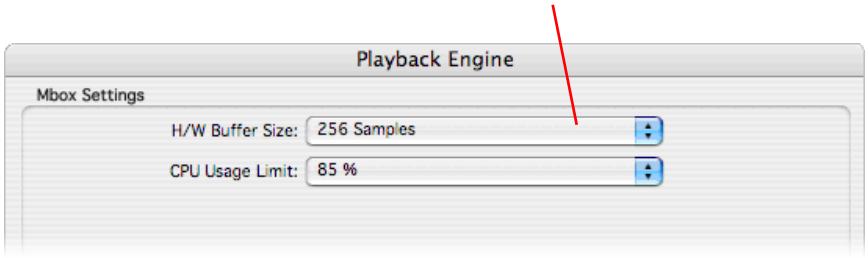


Adjust the Pro Tools LE Hardware Buffers



Return to the Pro tools LE Setups menu and choose Playback Engine

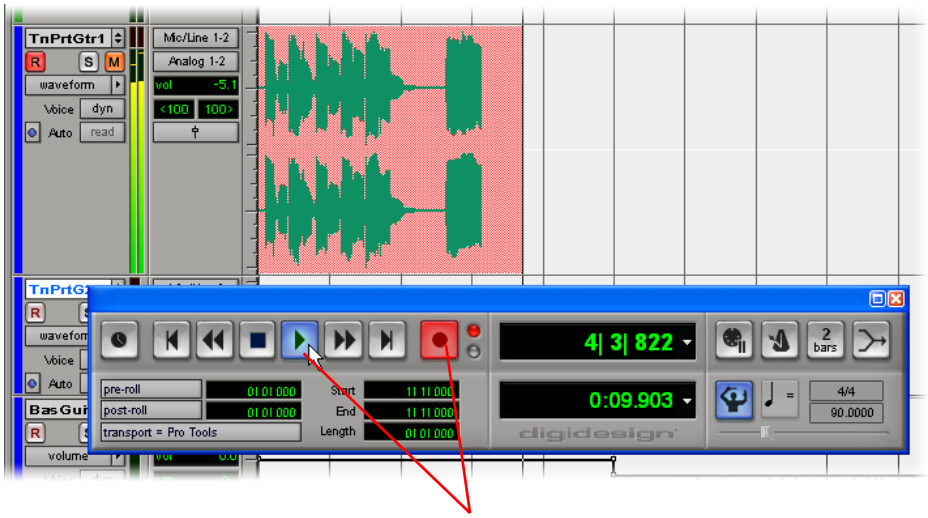
Set the H/W Buffer Size to 256 Samples. The lower the buffer size value that is selected, the lower the monitoring latency. However, lower values also result in less stability for session playback and recording. 256 Samples may be a good starting value to try.



Note – this Buffer Size value does not affect the monitoring latency when using the Digi 002 and the "Low Latency Monitoring" option.

Alternative monitoring option when using the Mbox…
If monitoring your TonePort recording signal through the Pro Tools LE software results in excessive latency, you can alternatively connect TonePort's Analog Outs to an external Mixing Console and manually mix the TonePort signal with the output of your Mbox. This allows you to hear the TonePort signal with no added latency from Pro Tools LE. In this configuration, you should Mute your Pro Tools LE track while recording to silence its software monitoring signal.

Start recording…



Now click the transport Record button to place Pro Tools LE into record mode, then press the Play button to start recording!

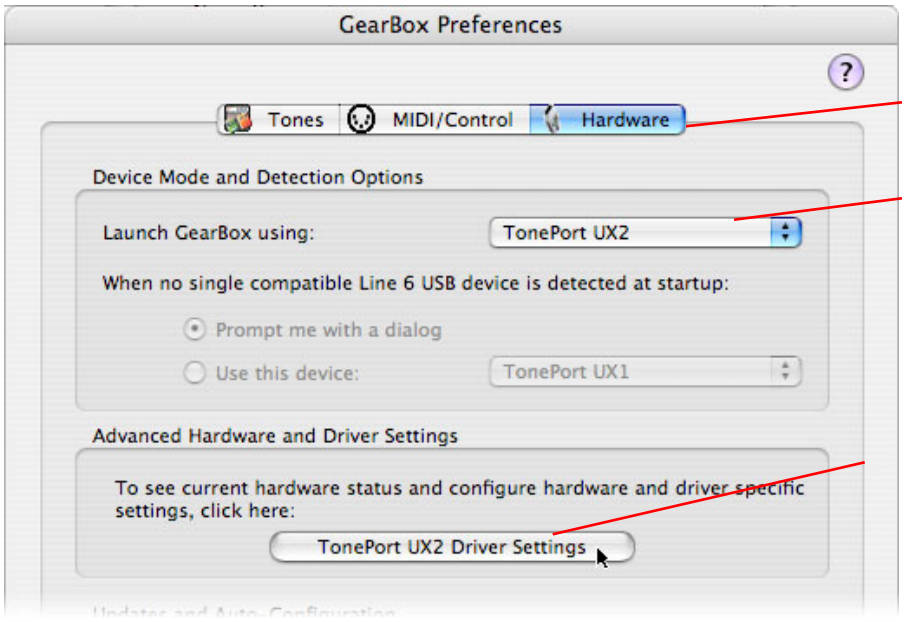
MOTU DIGITAL PERFORMER 4.6 SETUP – MAC® OS X

Be sure to connect the USB cable from TonePort into your computer's USB port, and then proceed with the following steps…

Configure GearBox and your Mac® to use TonePort as your audio device

First launch the GearBox application and open the Preferences dialog.

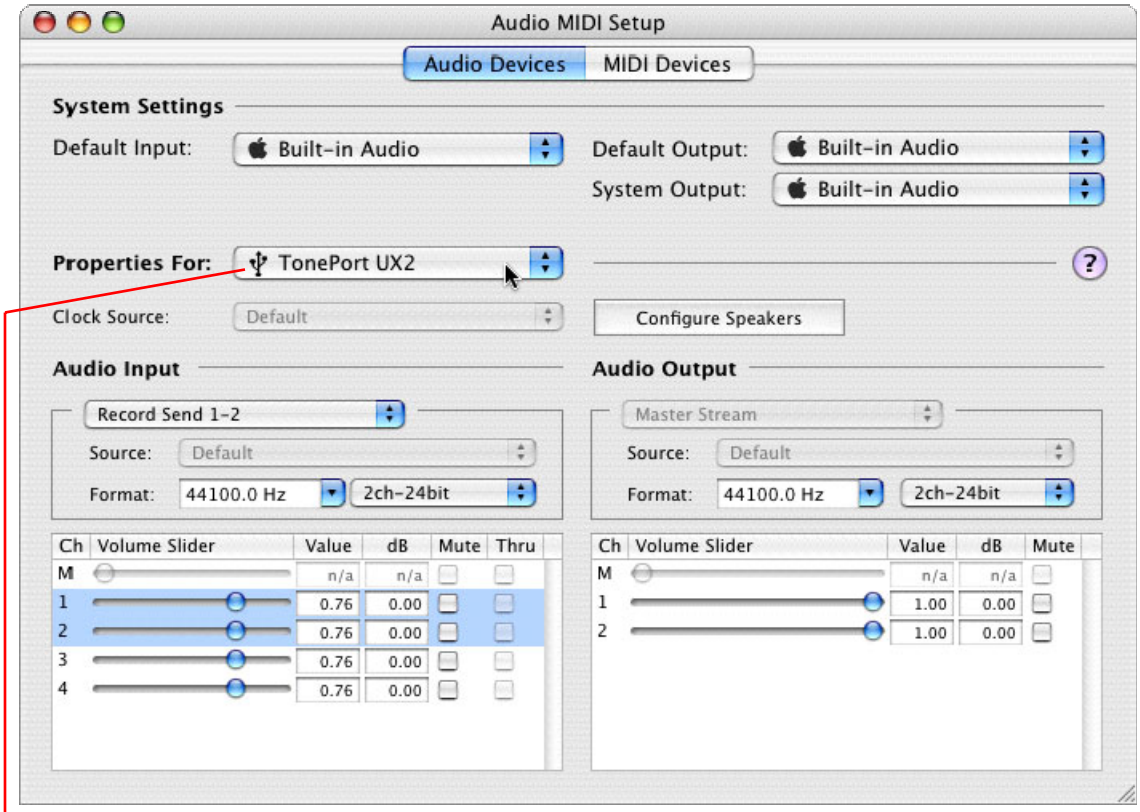
Select the GearBox menu and choose Preferences



Choose the Hardware page

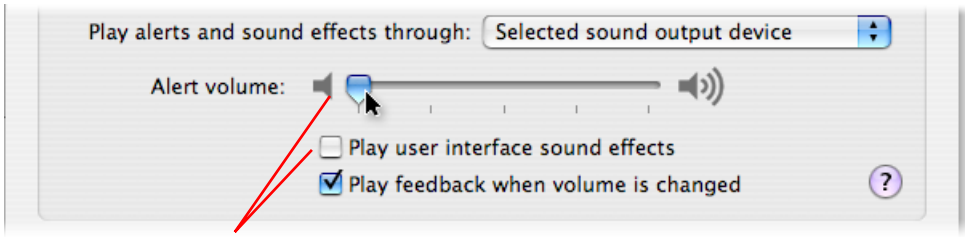
Select your TonePort UX1 (or UX2) device…

Then, click the TonePort Driver Settings button



Choose your TonePort device in the **Properties For** selector, and then match the all the Audio Input and Audio Output settings shown here

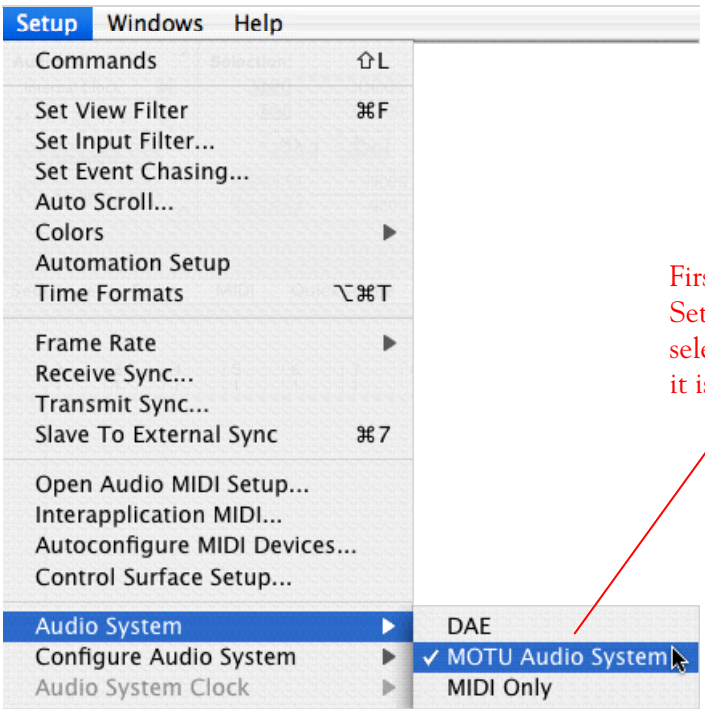
Note that setting the System Settings Inputs & Outputs to your Built-in Audio device will result in your Mac system and alert sounds playing through this device. When using TonePort, you likely will not want to hear these sounds at all. You can adjust the volume independently for these sounds by going to the Mac System Preferences > Hardware – Sound option > Sound Effects button…



Adjust the Alert volume slider down, and uncheck the Play user interface sound effects checkbox

Configuring Digital Performer 4.6 to use the TonePort driver

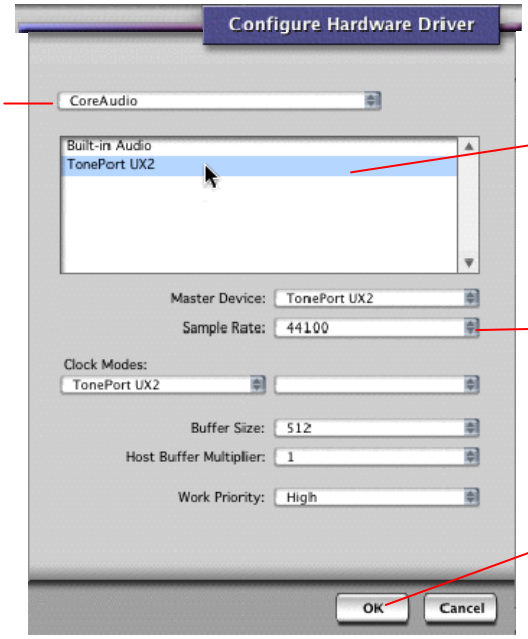
Launch Digital Performer and make the following settings…



First, go to the Digital Performer Setup > Audio System menu and select MOTU Audio System so that it is active

Next, launch the Configure Hardware Driver dialog – you can access this from the Hardware button in the Audio panel (or from the menu under Setup > Configure Audio System)

Select CoreAudio



Choose TonePort UX1 (or UX2), and then match all settings shown here.

Choose 44100 as the Sample Rate - alternatively 48000 or 96000 can also be used if your project requires it

Click OK to exit

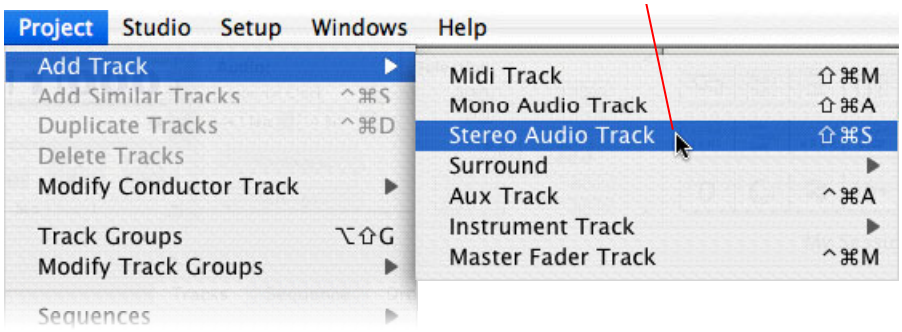
Back in the Audio panel, you will see the sample rate you already selected. Now choose Internal Clock and 24 Bit, if they are not already the current settings

Preparing a Digital Performer Sequence for recording

Now that the TonePort hardware is set up, you are ready to start working in a DP Project!

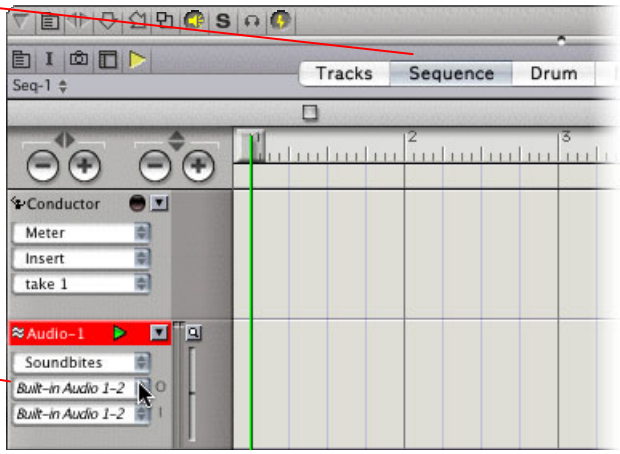
Create a New DP Project (or open an existing one) and create a new audio track to record into for the Sequence. You can choose to add either a Mono or Stereo audio track to your current Sequence. This track type also determines which TonePort Record Sends you will have to choose from as inputs (Mono or Stereo).

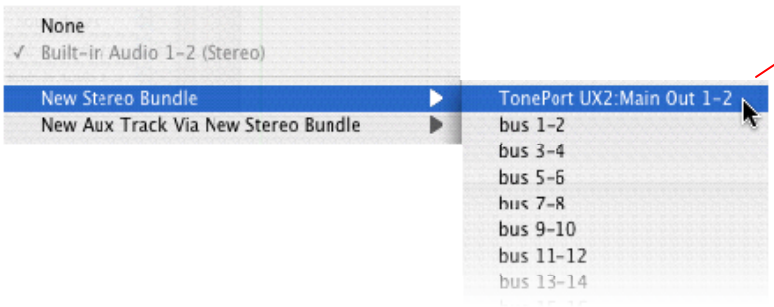
To create a Stereo track, go to the Project menu and choose Add Track > Stereo Audio Track



First click on the Sequence button to display your tracks as we're showing them here…

We now need to set the track's Output and Input to use TonePort. Click on the Output selector





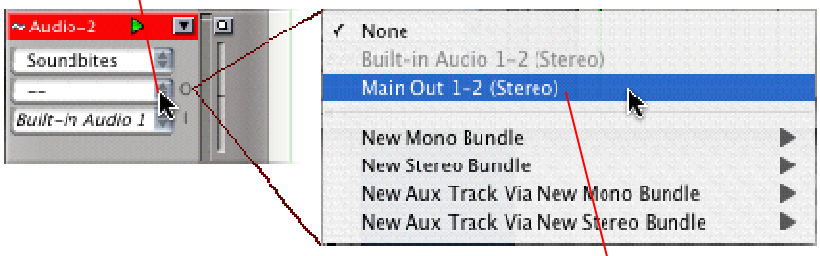
Select New Stereo Bundle and choose your TonePort as the Output for this track

Now click the Input selector for the track

Select New Stereo Bundle and you will see two TonePort stereo inputs to choose from. We'll select Record Send 1-2 for this track.

To configure a new Mono track, choose Mono Audio Track from the Project > Add Track menu. You can then follow the same steps as above for selecting TonePort as the Mono track's Output and Input. Note that for a Mono track you will have slightly different options…

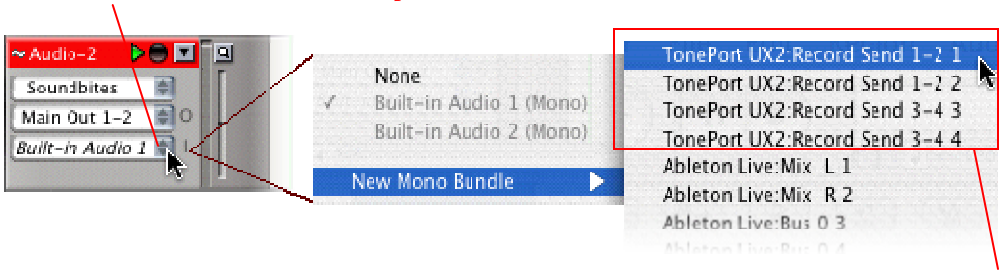
Click on the Mono track's Output selector



Since we've already chosen the TonePort Main Out 1-2 Stereo output, it is selectable in the top portion of the menu. But alternatively, if you want to route the track output to only one TonePort output, you can choose New Mono Bundle and choose either Record Send 1 or 2.

Note that Digital Performer also allows for many other advanced routing options in the track output menu. Consult your Digital Performer documentation for more information.

Click on the Mono track's Input selector



You will see 4 TonePort Mono Inputs to choose from for a Mono track.

Next, you can set your Monitoring options. When recording using GearBox, it is recommended to use the ToneDirect Monitoring feature, where your input monitoring signal is passed directly back out of TonePort's output. This allows you to hear the GearBox tone you have selected for your Mic or Instrument with the lowest possible latency. Therefore, we will disable the Digital Performer Audio Patch Thru option so that the input monitor signal is not additionally fed through the software.

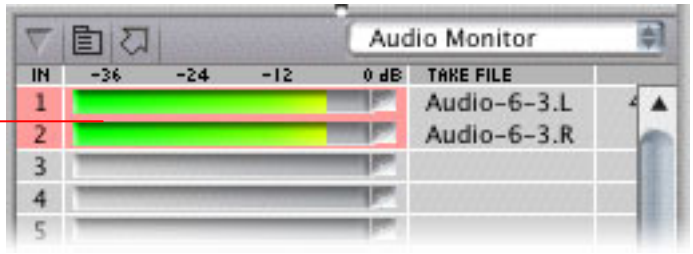
Set the Audio Patch Thru option to "off"

Arm your configured audio track for Record

To get an Input Level Meter for your armed track, launch the Audio Monitor panel.

Select the Studio menu and choose Audio Monitor

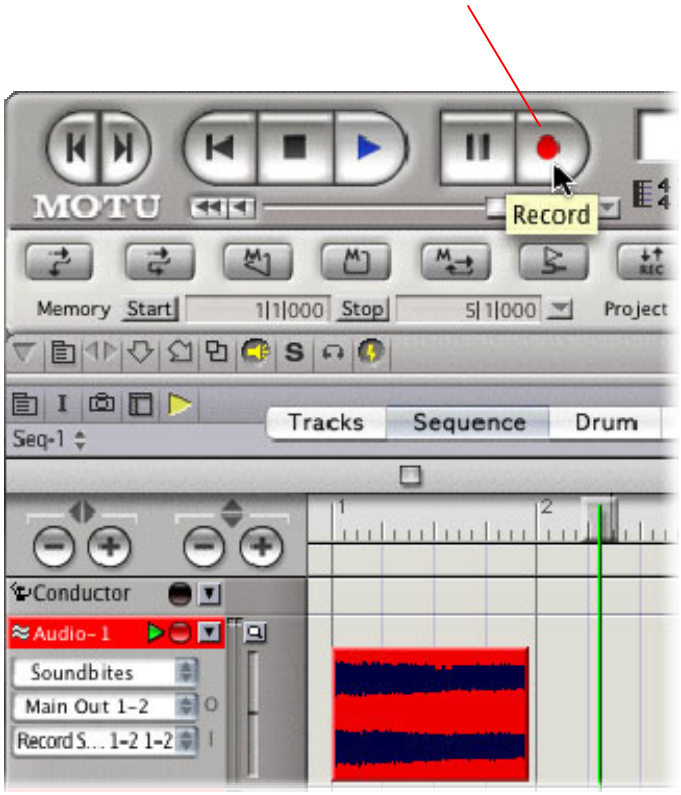
You will now see the Input Level coming from the selected TonePort Record Send for all armed tracks



You can adjust your recording level in GearBox using the assigned Send's Record knob

Note that you can independently adjust your GearBox monitor level using the Monitor knob

Once your record level is set, just click on the Digital Performer transport Record button and start recording!



PROPELLERHEAD REASON 3 SETUP – MAC® OS X

Propellerhead Software's Reason 3 is an amazing virtual studio filled with synthesizers, drums and effects, all combined with a MIDI sequencer for easy pattern-based music creation. Reason does not offer a feature for recording audio; therefore, GearBox and TonePort cannot be used for input directly into Reason. However, you do of course need a sound card device for playback, and TonePort is a perfect high quality interface for this task! When using TonePort, you can also simultaneously plug in your instruments and jam along with the playback of your Reason project, or utilize Reason's ReWire technology to combine a Reason project with that of another ReWire capable audio software, and use TonePort as the audio device in this setup as well.

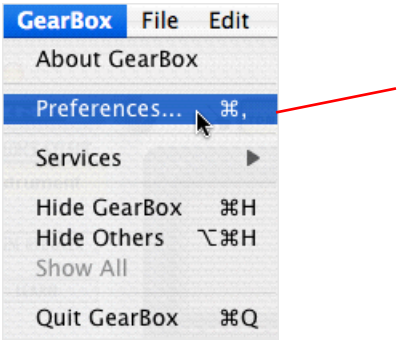
Be sure to connect the USB cable from TonePort into your computer's USB port, and then proceed with the following steps…

Use TonePort as your playback device for Reason 3

If you want to use TonePort as your sound card for Reason playback, then these steps show you how. Additionally, this also allows you to still plug in your instruments into TonePort and access all your GearBox tones if you want to jam along with your Reason project!

Configure TonePort for Reason playback

First launch the GearBox application, and then open the Preferences dialog.

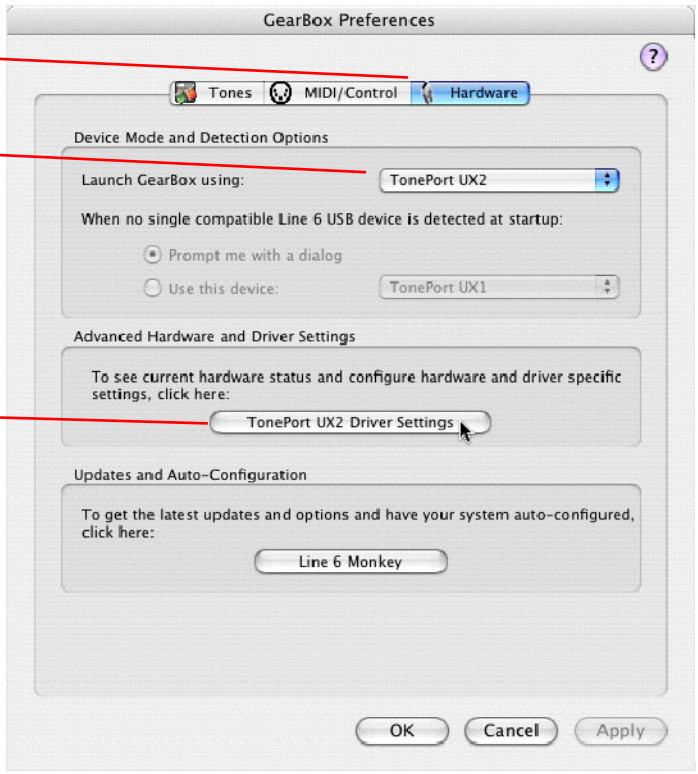


Go to the GearBox menu and choose Preferences

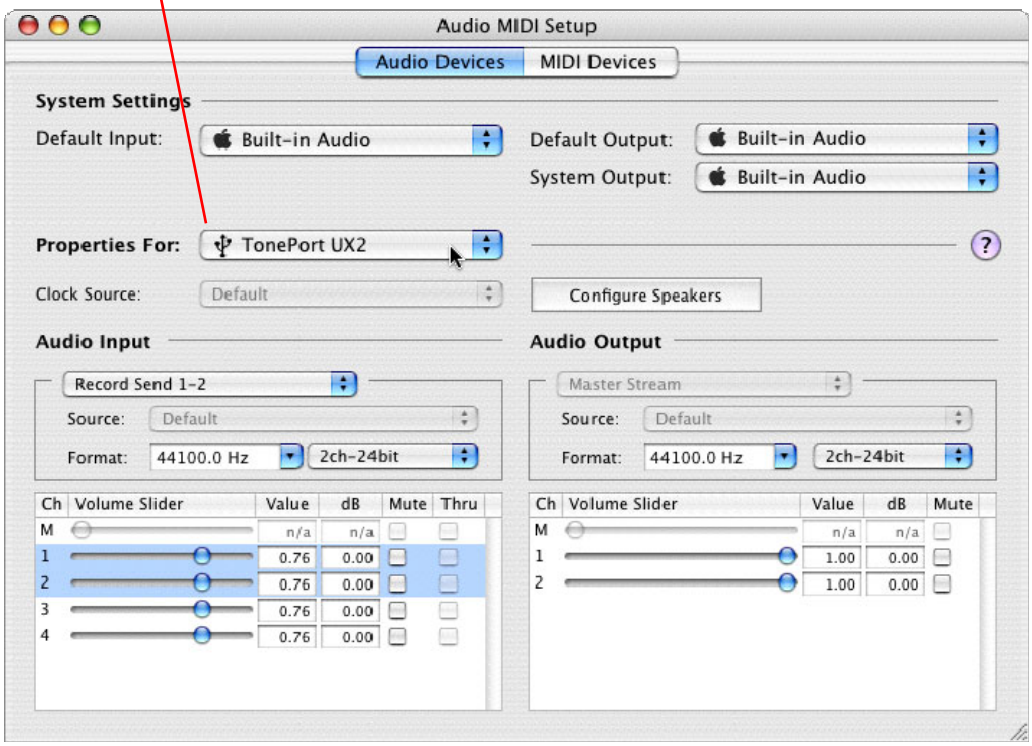
Select the Hardware page

Choose your TonePort UX1 (or UX2) device

Click the TonePort Driver Settings button



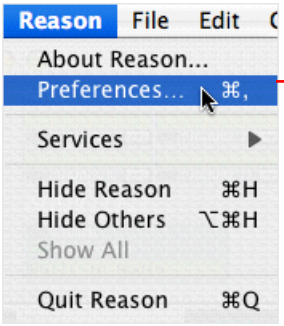
Select the Audio devices page. Choose your TonePort device in the Properties For selector



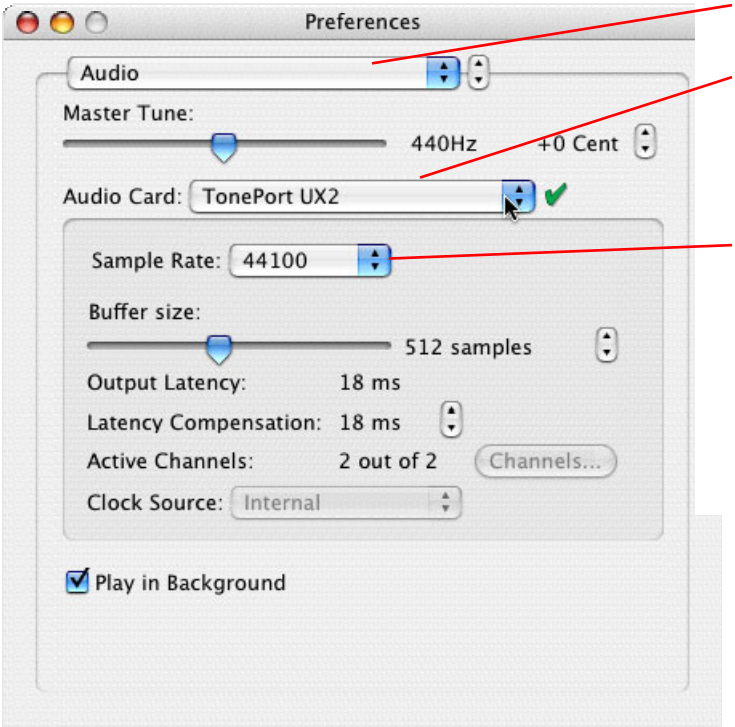
Match all settings as shown in the Audio MIDI Settings dialog above, and then close the dialog. Click OK to also exit the Preferences dialog.

Configuring Reason 3 to use the TonePort driver

Launch Reason and make the following settings…



Select the Reason menu and choose Preferences



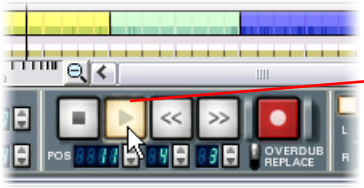
Select the Audio Page

Choose TonePort UX1 (or UX2) as the Audio Card

Choose a Sample Rate – 44100 is a good choice for most projects

Close the Preferences when done

You should now see your TonePort listed as the Audio Out device at the top left of Reason's display



Now just hit the Play button in Reason's transport and to hear the Reason playback through TonePort!

To jam along with Reason…

You can also of course still use GearBox for your Mic and Instrument tones while Reason is playing back if you want to sing or jam along. Just plug in your Mic or Instrument and use GearBox just as you normally do. Note that you can use the Send 1-2 Monitor knob to adjust the level of your Mic or Instrument independently of the level of the Reason playback.

Use the Send 1-2 Monitor knob to adjust your Mic and Instrument volume level

To control the playback level of Reason, use the Mixer controls in the Reason software.

Use the Reason Mixer's Master slider for overall control of Reason's playback level.

With this configuration, both the Reason project playback and your Mic/Instrument GearBox tones are heard through your speakers, and sent to all TonePort's outputs. This also allows you to connect any of TonePort's outputs to any external device, such as a tape recorder, mixer, P.A. system, etc. to record or amplify this stereo output signal!

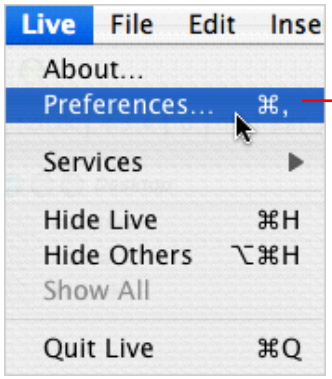
Using TonePort with Reason 3 in a ReWire setup

The Propellerhead "ReWire" technology allows the Reason modules' outputs to be directly routed into any ReWire "Host" application. Using ReWire, the Host application can send MIDI tracks to Reason's synth. modules, and Reason then sends audio playback directly into the ReWire Host, which is mixed with the audio of the Host application. When Reason is configured as a ReWire "Slave" in this manner, it is controlled by the Host application and does not utilize a sound card connection itself. Therefore, if you want to use TonePort as your sound card device in a ReWire setup like this, it is necessary for you to choose TonePort as the audio device for the ReWire Host application.

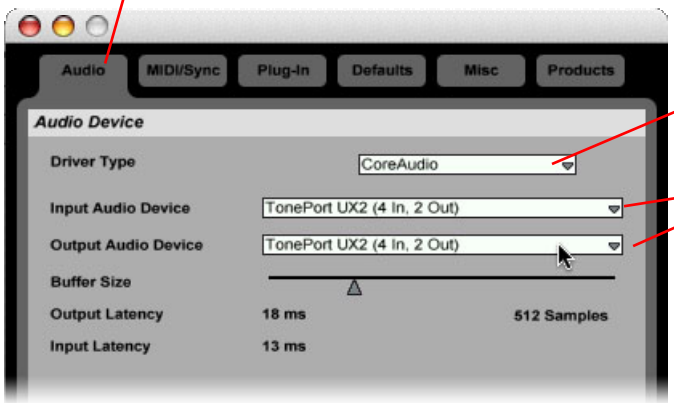
Using Reason with Ableton Live Lite 4 as a ReWire Host

The included Ableton Live Lite 4 software is capable of functioning as a ReWire Host application. The following steps show you how to set TonePort as the audio device for the Ableton Live Lite 4 software, and then configure Live to connect with Reason as a ReWire Slave device. This allows you to do audio recording and playback with Ableton Live, allowing Reason's output to be automatically played in sync and channeled through Live's audio tracks via ReWire.

You first want to be sure to exit Reason if it is currently running. The ReWire Host application must be launched first. Launch Ableton Live Lite 4 and make the following settings to set TonePort as the Live audio device…



Select the Live menu and choose Preferences



Select the Audio tab

Choose CoreAudio as the Driver Type…

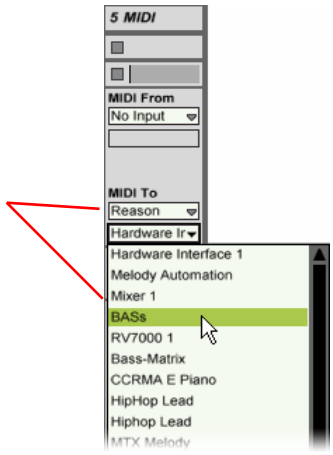
Then choose your TonePort as both the Input and Output Audio Device

Now that Ableton Live Lite 4 is configured to use TonePort, launch Reason 3. Reason will automatically set itself to ReWire Slave Mode. You can check this mode in the Reason Hardware Interface module's Audio Out section.

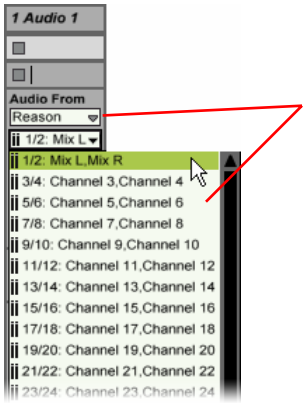
Reason 3 detects when an available ReWire Master is running and sets itself to Slave mode

Now in Ableton Live, you can simply access the Output menu of any MIDI track to set it to send its MIDI to any of the Reason synth modules.

In any of Live's MIDI tracks, choose Reason as the MIDI To output, and then click on the Output Channel selector to choose any Reason module



To receive the audio output from Reason, set the Input of any of Live's audio tracks to receive the audio from any of Reason's outputs.



In any of Live's Audio tracks, choose Reason as the Audio From input, and then click on the Input Channel selector to choose any Reason output channels

(Note that the 1/2 Mix, Mix R channel receives the full Reason project audio mix)

Now just hit the Play button in either Live or Reason, and both projects will play in sync, with all the audio being routed into Ableton Live Lite 4 and played through TonePort!

You can utilize GearBox and TonePort to also plug in a Mic or Instrument, dial in your tone, and record audio tracks right into the Ableton Live Lite 4 Set. It is important to note, however, that running all these programs at one time can require some hefty usage of your computers processor, RAM and disk access, especially as you add more tracks, synth modules and real-time effects. Your actual performance will depend on the specifications of your computer.

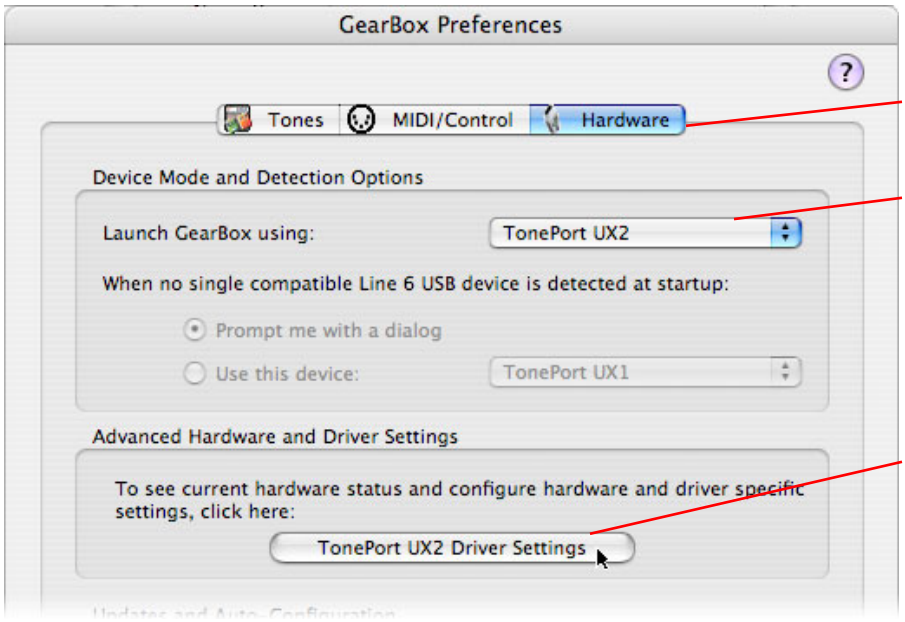
STEINBERG CUBASE SE 1.0.7 SETUP – MAC® OS X

Be sure to connect the USB cable from TonePort into your computer's USB port, and then proceed with the following steps…

Configure GearBox and your Mac® to use TonePort as your audio device

First launch the GearBox application and open the Preferences dialog.

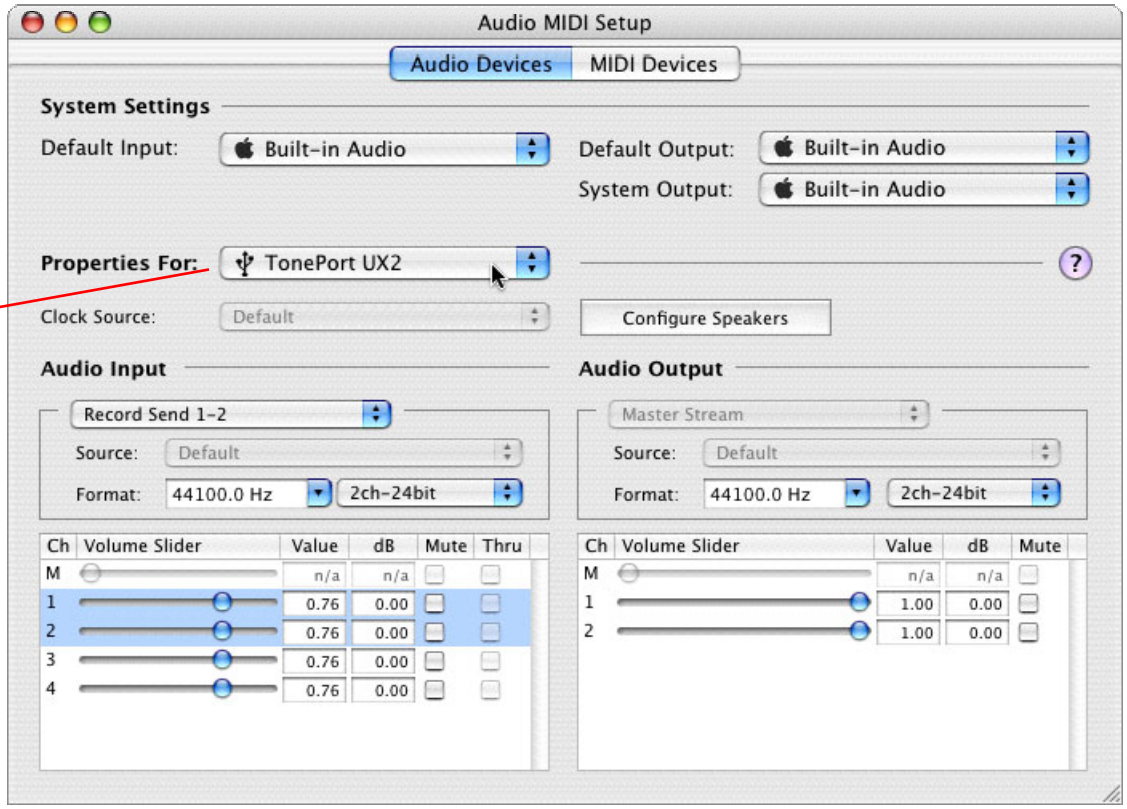
Select the GearBox menu and choose Preferences



Choose the Hardware page

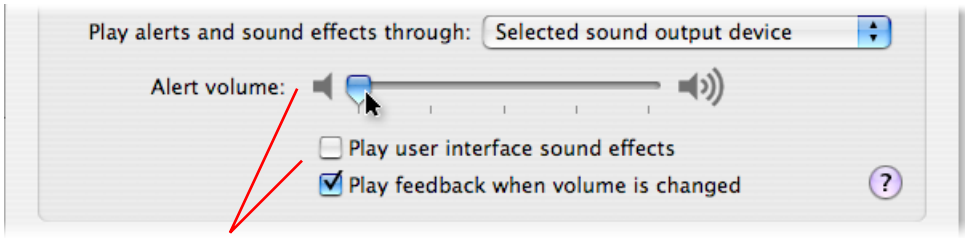
Select your TonePort UX1 (or UX2) device…

Then click the TonePort Driver Settings button



Choose your TonePort device in the Properties For selector, and then match the all the Audio Input and Audio Output settings shown here

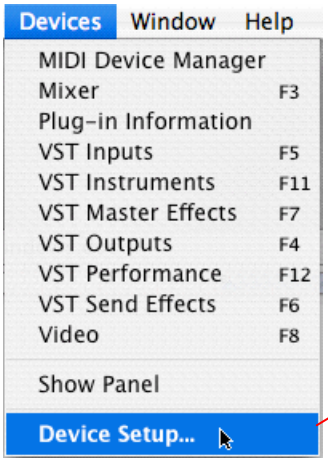
Note that setting the System Output to your Built-in Audio device will result in your Mac system and alert sounds playing through this device. When using TonePort, you likely will not want to hear these sounds at all. You can adjust the volume independently for these sounds by going to the Mac System Preferences > Hardware – Sound option > Sound Effects button…



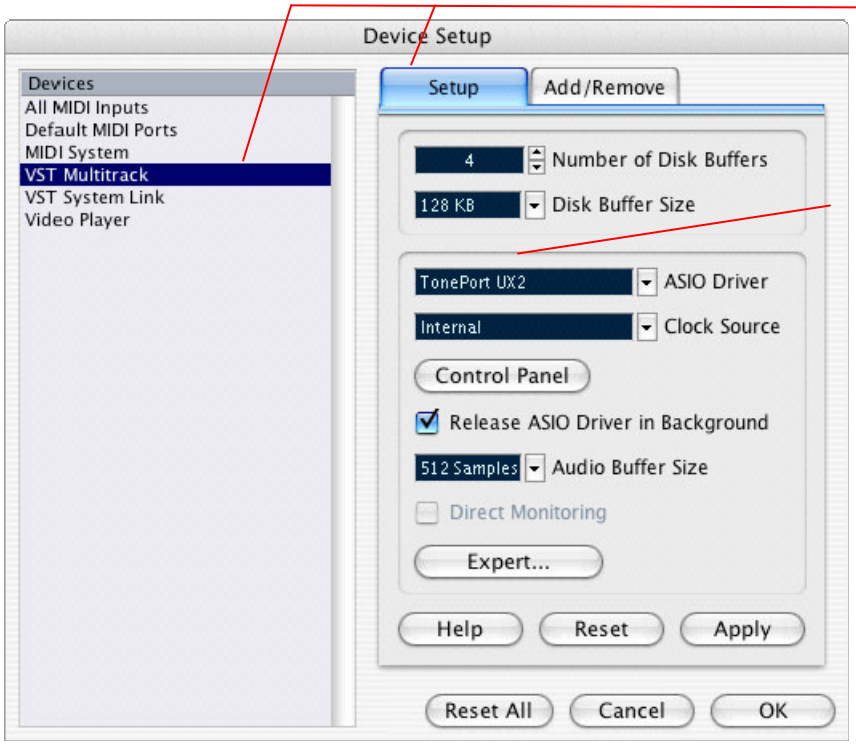
Adjust the Alert volume slider down, and uncheck the Play user interface sound effects checkbox

Configure Cubase SE to use the TonePort driver

Launch Cubase SE and make the following settings…



Go to the Cubase SE Devices menu and select Device Setup

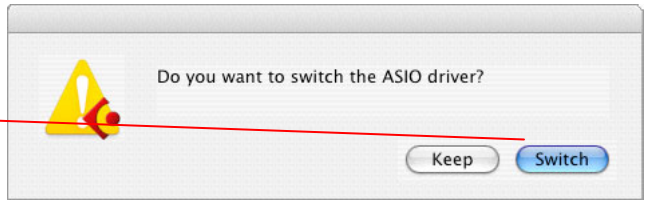


Select the VST Multitrack option, and choose the Setup tab

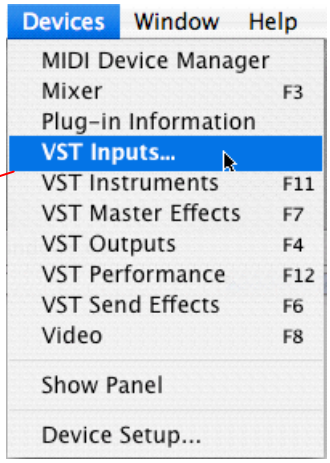
Choose your TonePort UX1 (or UX2) as the ASIO Driver

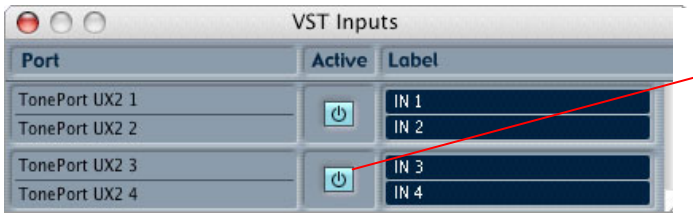
Select Switch when prompted if you want to switch the ASIO driver…

Click OK on the Device Setup dialog to exit



Next, select the Cubase SE Devices menu and choose VST Inputs

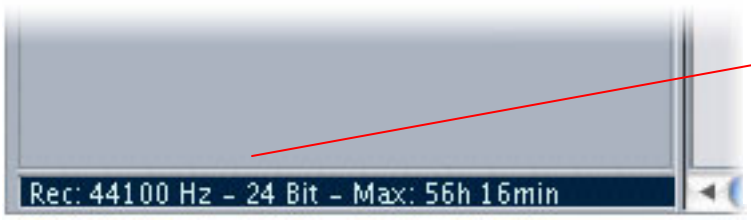




Activate the power button for the TonePort inputs 3 and 4 if you want to record from TonePort Send 3-4. Cubase tracks will only allow recording from the inputs that are "active" here.

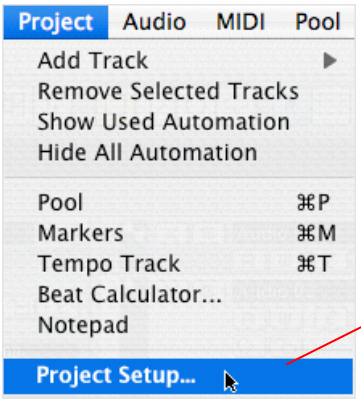
Preparing a Cubase SE Project for recording

Now that the TonePort hardware is set up, you are ready to start working in a Cubase SE Project!

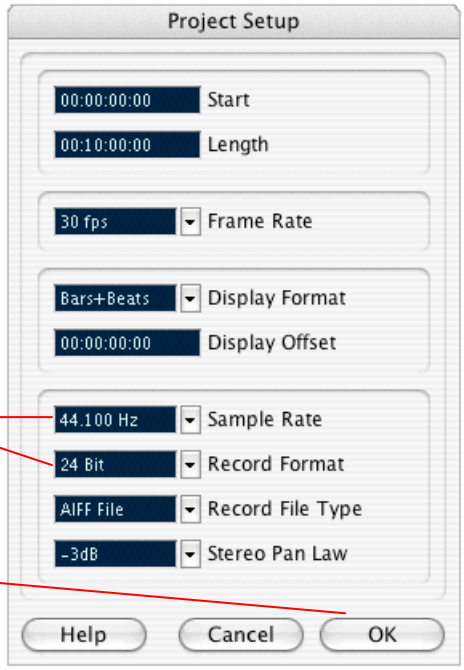


Check your Project's Sample Rate and Bit Resolution – these are displayed at the bottom left of the Cubase Project window:

44,100 Hz Sample Rate and 24 Bit are good recording settings for most Projects, but if you have specific requirements, these can be changed…



To change the Sample Rate or Bit Resolution, select the Project menu and choose Project Setup



Choose different Sample Rate and Record Format in these pop-ups, if desired

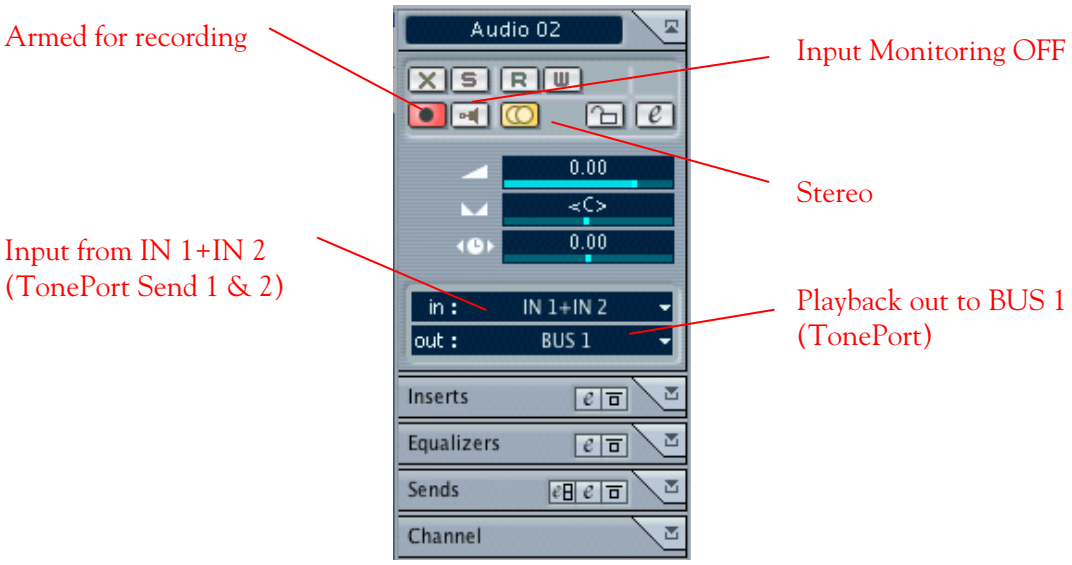
Click the OK button to exit the dialog

Setting up an audio track to record from TonePort

Cubase SE's Audio track settings can be accessed easily in the Inspector pane at the left of the Project window.

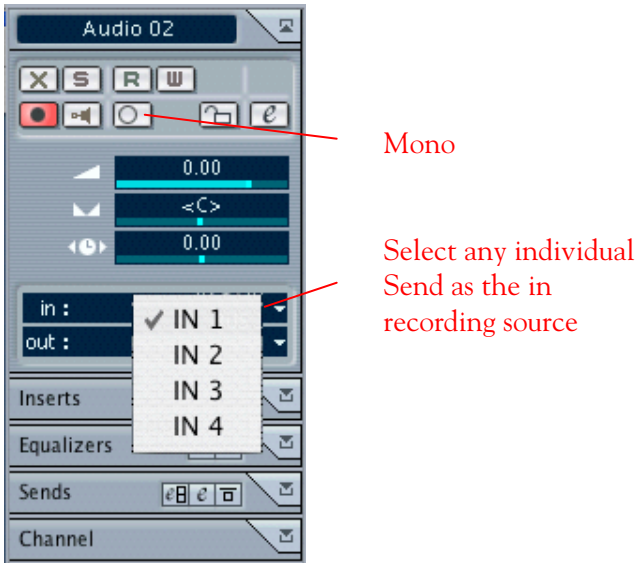
Stereo recording

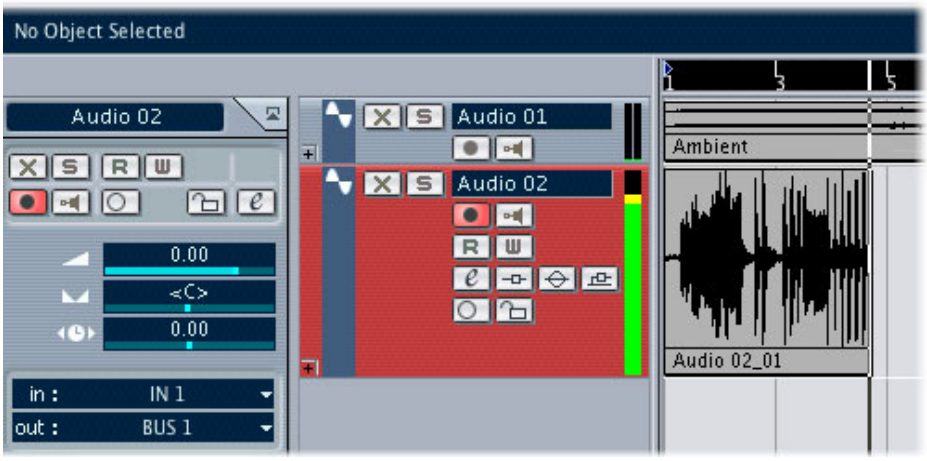
To record into the selected audio track from the TonePort Send 1 and Send 2 as a stereo file, set the Inspector as follows:



Mono recording

To record into the selected audio track from any TonePort Send as a mono file, set the Inspector as follows:





Using TonePort UX2's Footswitches to control Cubase SE

You can connect up to two standard pedal footswitches into TonePort UX2 and configure them to remotely trigger most any function in Cubase SE 1.0.7. To follow is an example of how to set one Footswitch to toggle the Transport Play/Stop, and another to toggle Record on/off for hands-free punch in. Be sure to connect the USB cable from TonePort UX2 into your computer's USB port, and then proceed with the following steps…

Connect footswitch pedals

TonePort UX2 offers two independent 1/4-inch jacks for connecting standard footswitch pedals.

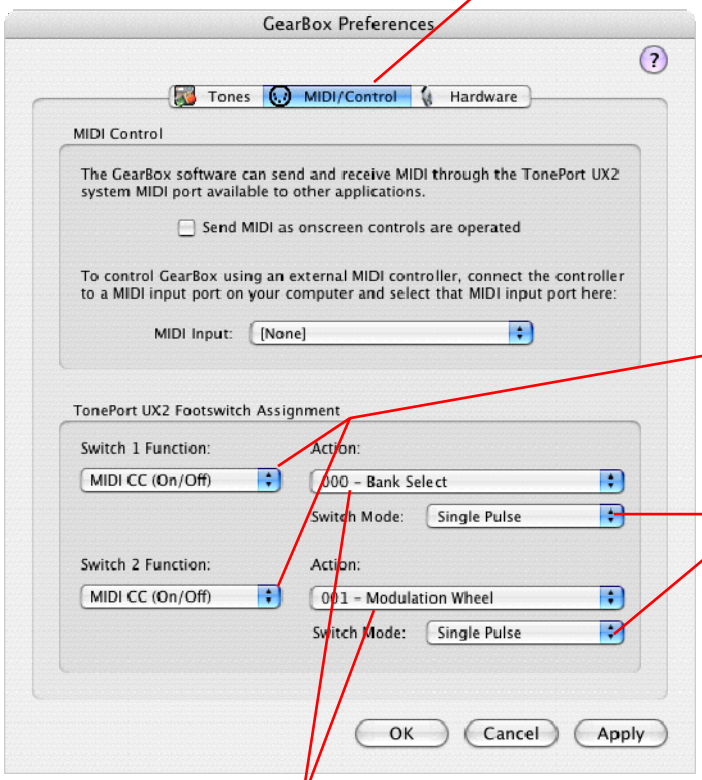
Configure the GearBox Footswitch settings

First launch the GearBox application and open the Preferences dialog.

Select the GearBox menu and choose Preferences

Choose

Select the MIDI/Control page



Select MIDI CC (On/Off) for both Switch 1 and 2

Set both the Switch Modes to Single Pulse

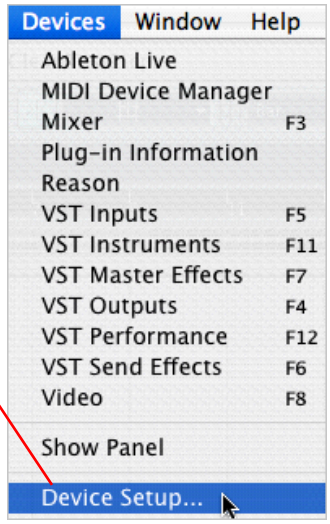
Click OK to exit when done

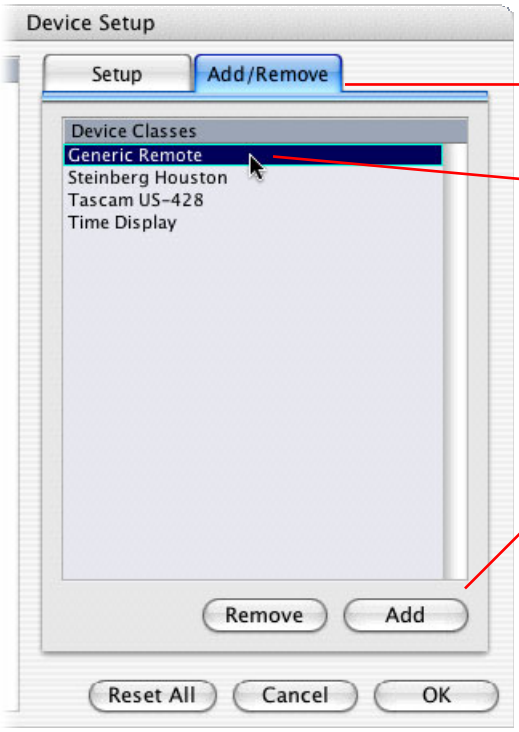
For the Action setting, it really does not matter which CC value we choose, since we will simply be setting Cubase to receive whatever value is set here for each Footswitch. For this example, we will choose 000 for Action 1 and 001 for Action 2.

Configure Cubase SE to receive the Footswitch commands

Switch to Cubase SE and launch its Device Setup dialog

Go to the Cubase Devices menu and choose Device Setup



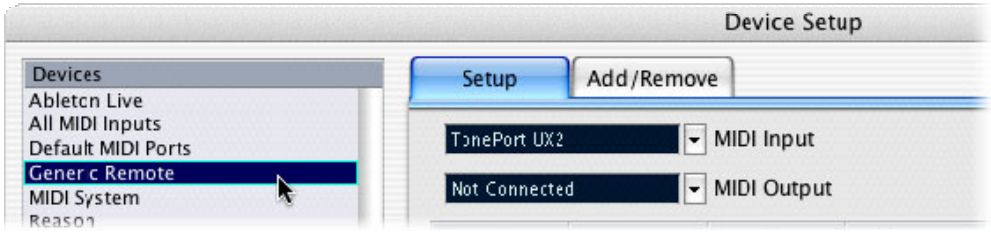


Go to the Add/Remove tab

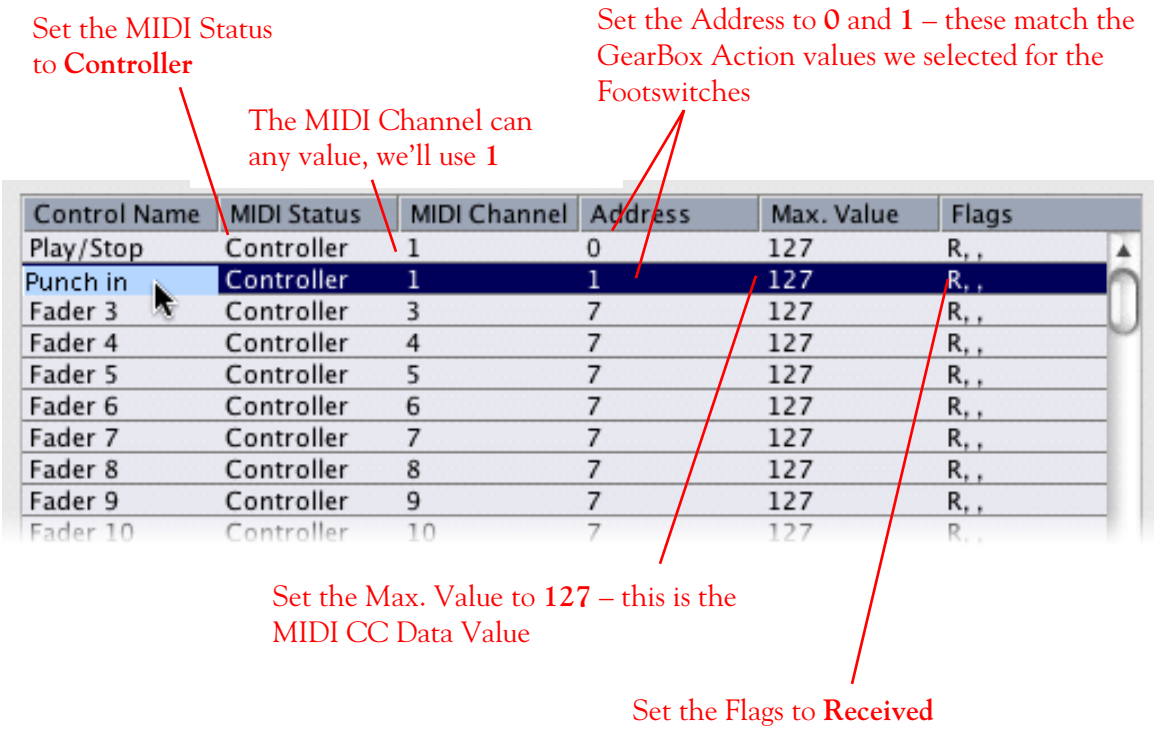
Select **Generic Remote**

Click the Add button

Click on the Setup tab and choose your TonePort UX2 device as the MIDI Input. In the left Devices column you should now see the **Generic Remote** device we just created in the last step. Select it

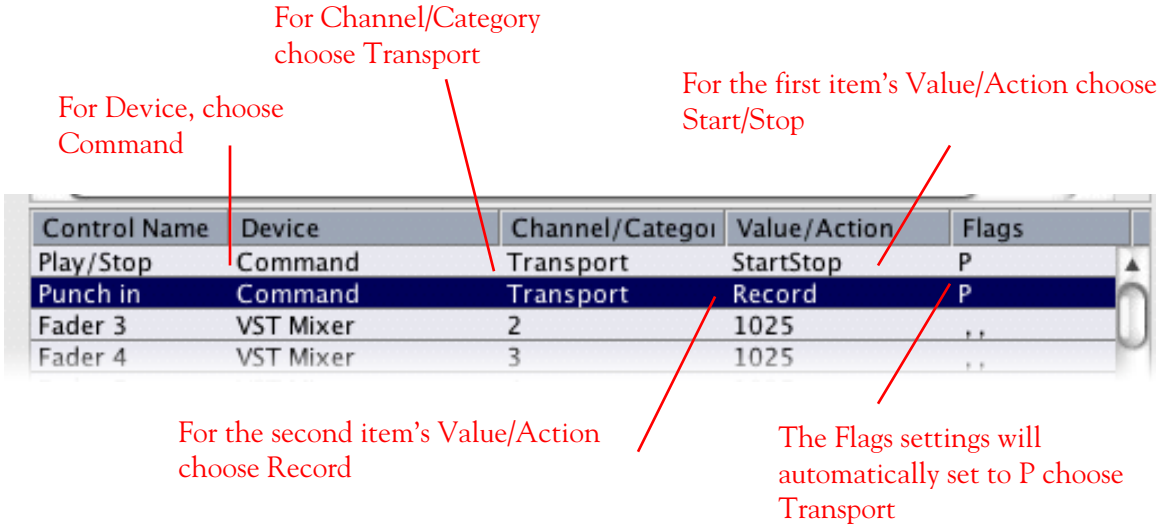


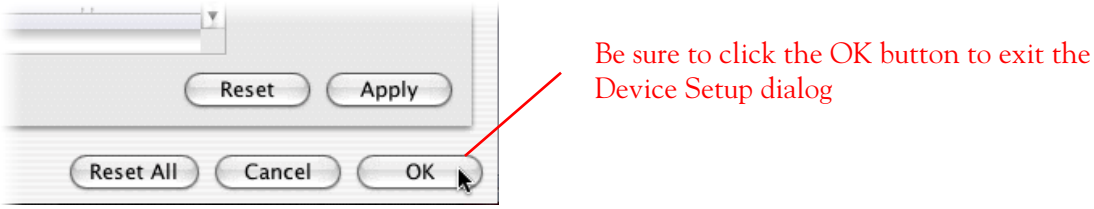
Next, in the upper table of the Setup tab, we're going to configure the first two Control items to receive the MIDI CC commands from the TonePort UX2 footswitches. First you can double-click in the fields of these first two items in the Control Name column, and enter your own names – we'll name them Play/Stop and Punch in. Match the rest of the settings in these top two rows as shown below:



Control Name	MIDI Status	MIDI Channel	Address	Max. Value	Flags
Play/Stop	Controller	1	0	127	R, ,
Punch in	Controller	1	1	127	R, ,
Fader 3	Controller	3	7	127	R, ,
Fader 4	Controller	4	7	127	R, ,
Fader 5	Controller	5	7	127	R, ,
Fader 6	Controller	6	7	127	R, ,
Fader 7	Controller	7	7	127	R, ,
Fader 8	Controller	8	7	127	R, ,
Fader 9	Controller	9	7	127	R, ,
Fader 10	Controller	10	7	127	R, ,

In the lower table of the Setup tab, we're going to configure the first two items to interpret the commands received to trigger the desired actions. As soon as you click on one of the first two rows, you will see its Control Name update to be the same as what you entered in the top table. These correspond to the first two rows in the top table. Set the other fields as shown below:





Now your footswitches are configured! Try loading a project in Cubase SE and pressing your footswitches. Footswitch 1 should now toggle the transport Play and Stop buttons, and Footswitch 2 should toggle the Transport Record button. You can of course use different settings in the lower table of the Cubase SE Device Setup > Setup tab window to assign the footswitches to any other desired Cubase functions.

For more info on TonePort Footswitches, check the GearBox Online Help page.

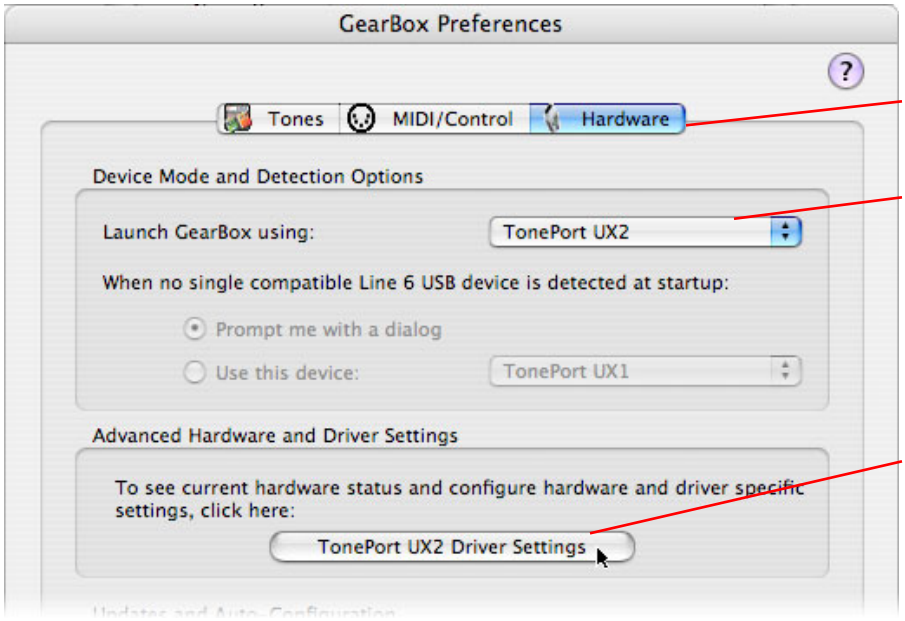
STEINBERG CUBASE SX/SL 3 SETUP – MAC® OS X

Be sure to connect the USB cable from TonePort into your computer's USB port, and then proceed with the following steps…

Configure GearBox and your Mac® to use TonePort as your audio device

First launch the GearBox application and open the GearBox Preferences dialog.

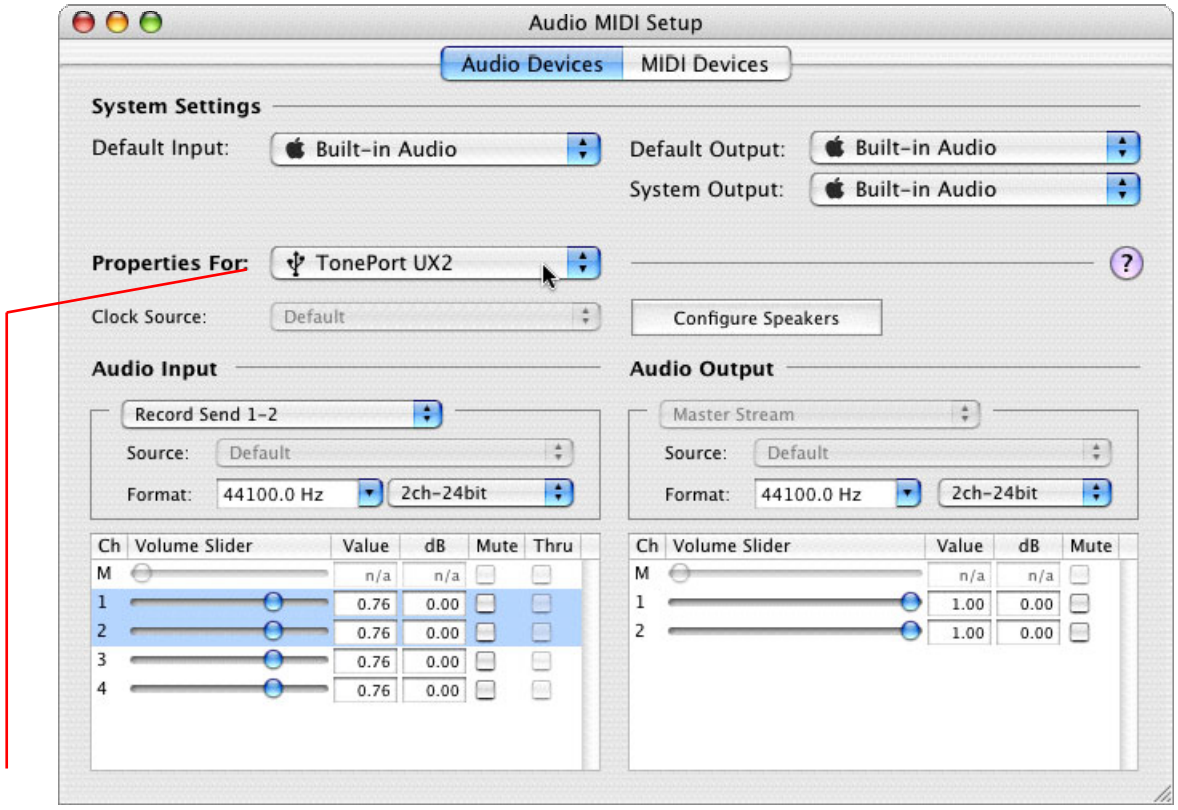
Select the GearBox menu and choose Preferences



Choose the Hardware page

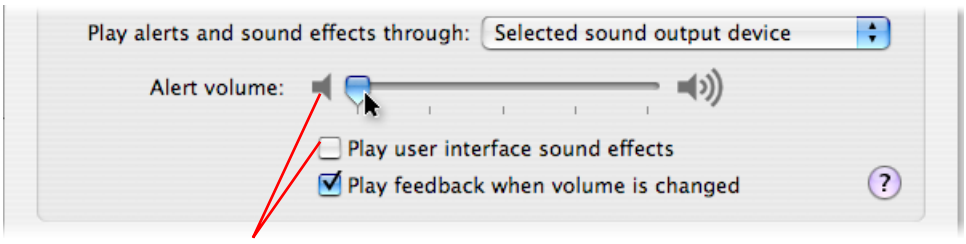
Select your TonePort UX1 (or UX2) device…

Then click the TonePort Driver Settings button



Choose your TonePort device in the Properties For selector, and then match the all the Audio Input and Audio Output settings shown here

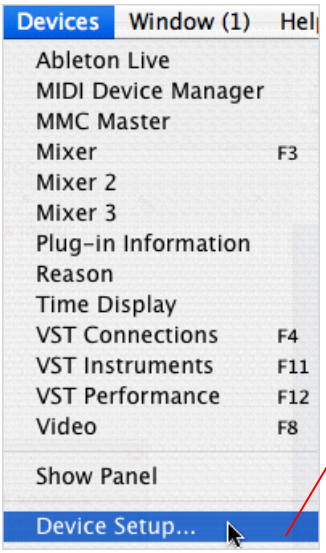
Note that setting the System Output to your Built-in Audio device will result in your Mac system and alert sounds playing through this device. When using TonePort, you likely will not want to hear these sounds at all. You can adjust the volume independently for these sounds by going to the Mac System Preferences > Hardware – Sound option > Sound Effects button…



Adjust the Alert volume slider down, and uncheck the Play user interface sound effects checkbox

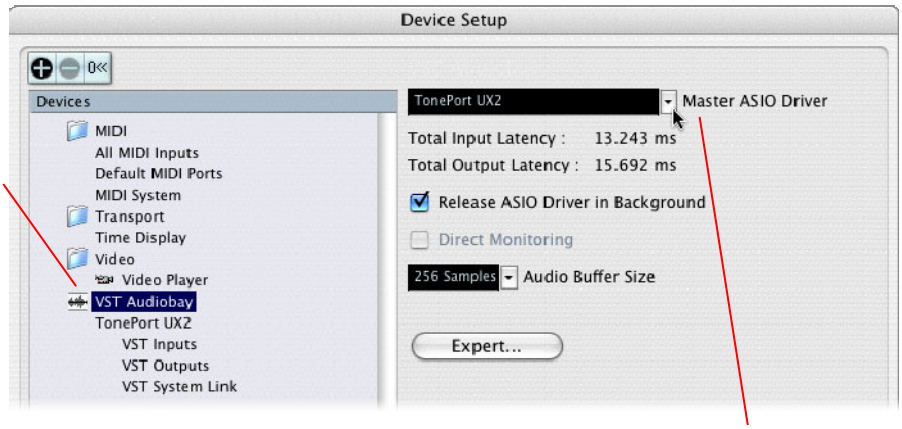
Configuring Cubase SX/SL 3 to use the TonePort driver

Launch Cubase and make the following settings…



Go to the Cubase Devices menu and select Device Setup

Select VST Audiobay within the Devices pane…



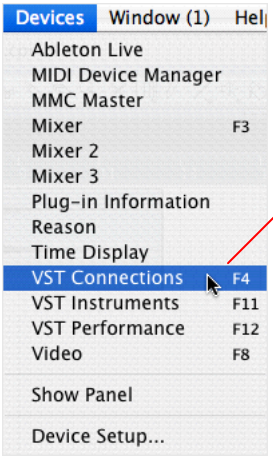
Then select ASIO TonePort UX1 (or UX2) as the Master ASIO Driver

Select Switch if you are prompted to select another driver…

Then click OK to exit the Cubase Device Setup dialog

Configuring Cubase SX/SL 3 to use TonePort Inputs and Outputs

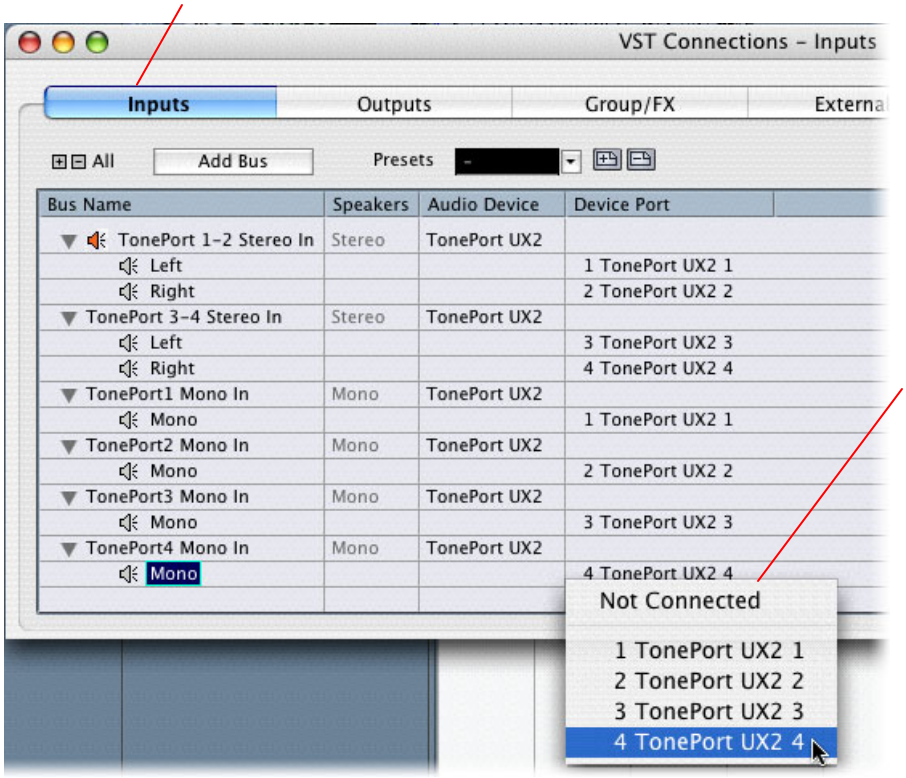
Proceed with the following steps to establish TonePort's Sends as Inputs for Cubase…



Go to the Cubase Devices menu and choose VST Connections

The following screen shows a useful configuration that you can match in your Cubase software. Once you set up Buses here, they will always be available for all your Cubase Projects…

Choose the Inputs page



Here you can create an input "Bus" for each possible Stereo and Mono Send combination coming from TonePort. The Bus Name can also be edited for each

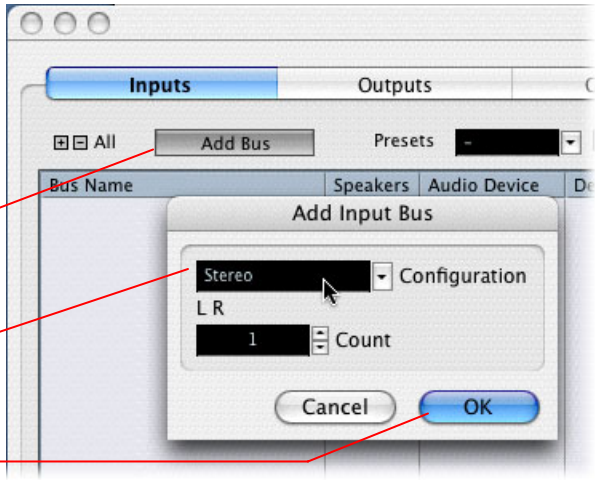
All Buses listed on this page will appear as Inputs within Cubase when choosing the recording input for an audio track

If no Buses yet exist in this list that use your TonePort audio device, then you must create at least one Bus…

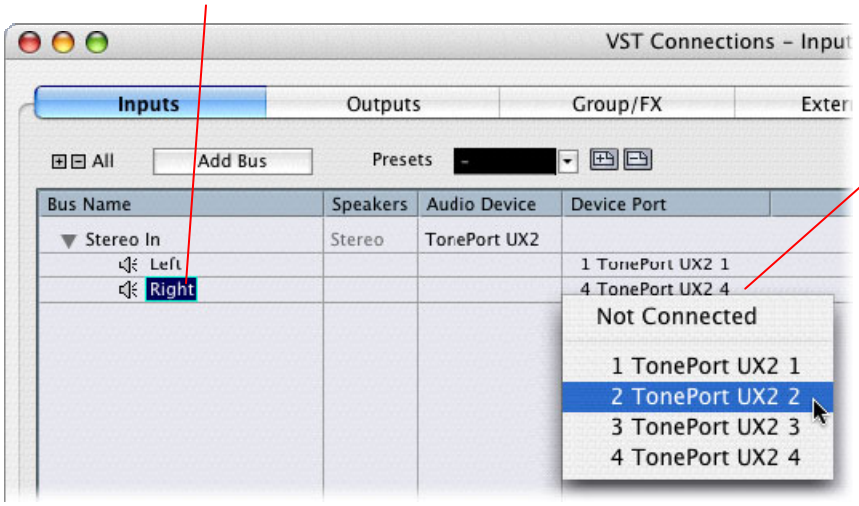
Click on the Add Bus button.

Select Stereo or Mono.

Click OK in the Add Input Bus window.



Click on the Bus Name to edit it if desired



Click on the individual Device Port entries for each Bus channel to set them to the preferred TonePort Send

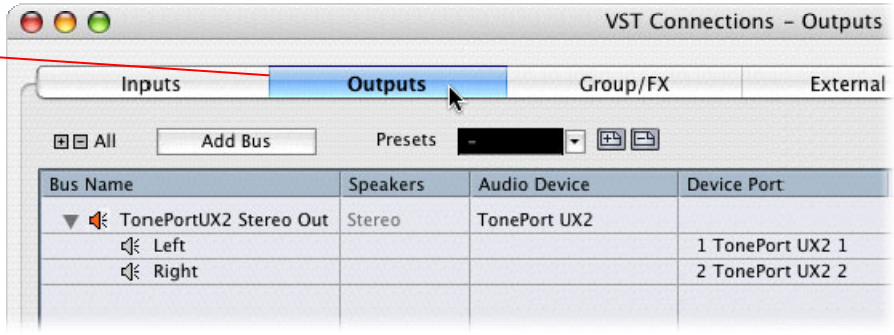
You can repeat these steps to create a Bus for each TonePort Send

For more information on creating and configuring Inputs, please check the Cubase SX/SL 3 documentation

Setting up an Output Bus is much the same process…

Click the Outputs page

If a Stereo Bus does not yet exist for your TonePort Audio Device, then use the Add Bus option to create a Stereo Bus, following the same steps listed above



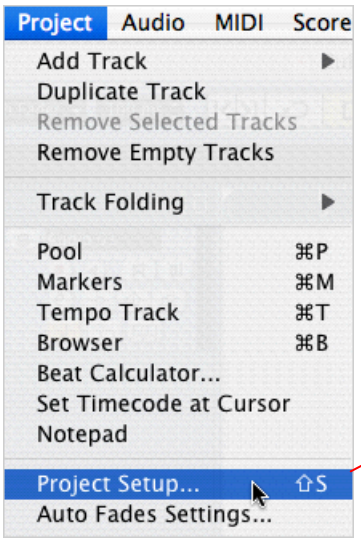
Exit the VST Connections dialog when the Input and Output Buses are configured.

Preparing a Cubase SX/SL 3 Project for recording

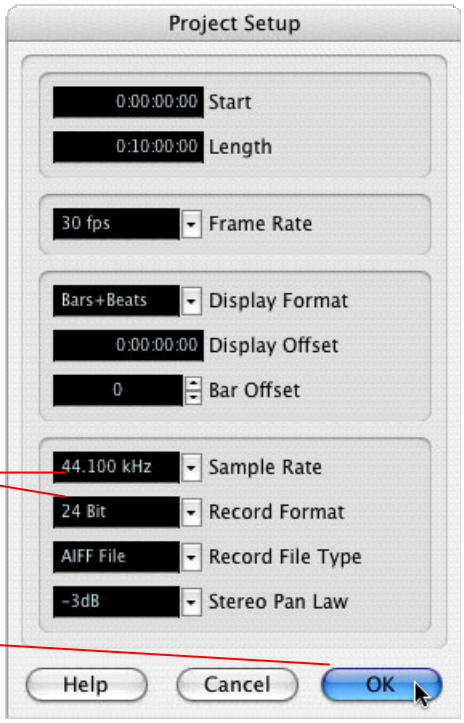
Now that the TonePort hardware is set up, you are ready to start working in a Cubase Project!

Check your Cubase Project's Sample Rate and Bit Resolution – these are displayed at the bottom left of the Cubase Project window

44,100 Hz Sample Rate and 24 Bit are good recording settings for most Projects, but if you have specific requirements, these can be changed…



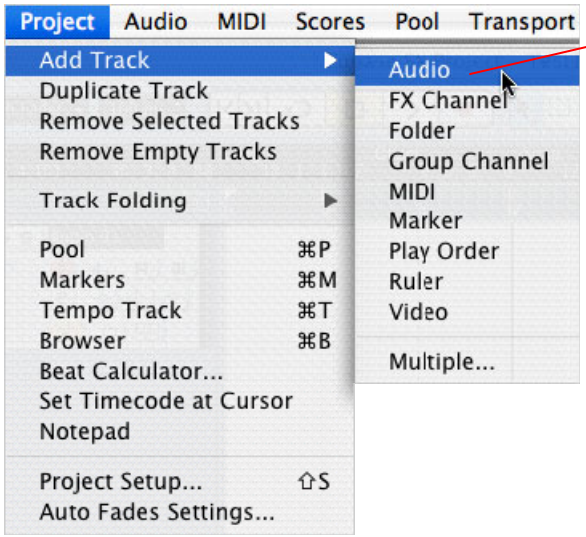
Select the Cubase Project menu and choose Project Setup



Choose different Sample Rate and Bit Resolution in these pop-ups, if desired

Click the OK button to exit the dialog

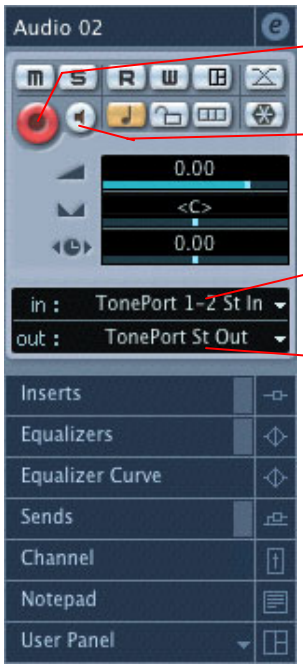
Setting up an audio track to record from TonePort



To create a new audio track, go to the Project menu and choose Add Track > Audio

Choose Mono or Stereo for your desired recording track type

The Cubase Audio track settings can be accessed easily in the Inspector pane at the left of the Project window. Match the settings shown here…



Armed for recording

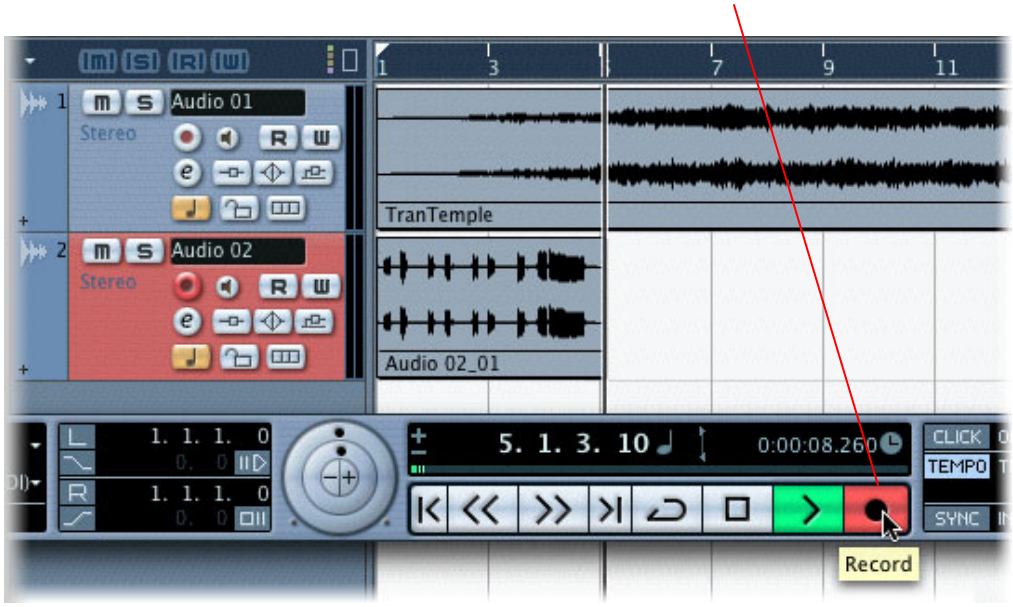
Input Monitoring OFF*

Record from your desired TonePort Input Bus

Playback out to your TonePort Output Bus

*Note that the track meters in Cubase will not measure the input signal unless the Input Monitoring feature is on. You can refer to the Send meters in the GearBox software as your signal level reference.

Now just click the Transport Record button and start recording!



TONEPORT RECORDING SETUP – WINDOWS®

This section is designed to provide general information for configuring TonePort and GearBox for use in different audio recording setups. Your TonePort device, since it connects to your Windows® computer via USB and includes WDM and ASIO audio drivers, is easily configured to work as your computer's sound card. This means that you can access all your GearBox Tones directly from most any audio recording application, all at the highest quality! But you are of course not just limited to using TonePort to record into your computer – the outputs provided on the back of your TonePort additionally allow you to feed your GearBox signal to external tap machines, DAT recorders, PA systems, or whatever else will accept an analog line level signal. Additionally, TonePort UX2 includes a digital S/PDIF output to allow you to make these connections digitally!

Using TonePort as your computer's sound card device

Once you have completed the GearBox software and TonePort driver installation, most everything you need for accessing TonePort from your audio recording/editing software is already done. A few helpful items for you to understand are input & output connections, audio drivers, and controlling your levels for recording.

TonePort Connections

When using TonePort UX1 or UX2 as a sound card for your audio application, to follow are the typical connections you'll want to make…

TonePort UX1 front panel connections

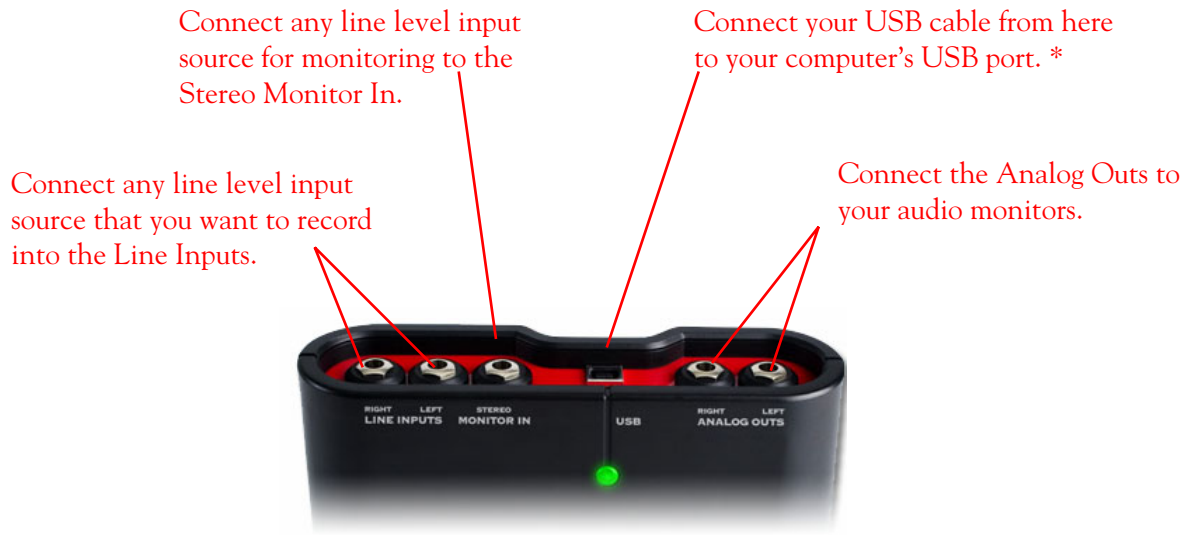
Mic - To input a signal from a microphone, connect it here using and XLR cable. This inputs the microphone signal into GearBox where you can choose your Tone, and then route the processed signal both to your audio software and out the TonePort outputs.

Guitar/Bass - To input your electric guitar or bass, plug it in here using a standard 1/4-inch TS instrument cable. This inputs the instrument's signal into GearBox where you can then choose

your tone and route the processed signal both to your audio software and out the TonePort outputs.

Phones - If you want to listen to the audio from TonePort using stereo headphones, then plug them into this 1/4-inch stereo jack. This headphone jack outputs the same signal fed to the Analog Outs on the rear panel of TonePort; the audio from your audio software on the computer, as well as anything plugged into any TonePort input.

TonePort UX1 rear panel connections



***Note** – be sure to always power off or mute on your speakers or monitoring setup before connecting and disconnecting the USB cable between TonePort and your computer, as well as before booting up or shutting down your computer if TonePort is already connected. The best practice is to always power on your speakers last, and power them off first when connected to other audio gear to avoid a "pop".

Line Inputs - To record the signal from a line level source, such as a keyboard, your stereo receiver, the line out from a mixing console, etc., connect them to these Left and Right ins using 1/4-inch TS audio cables.

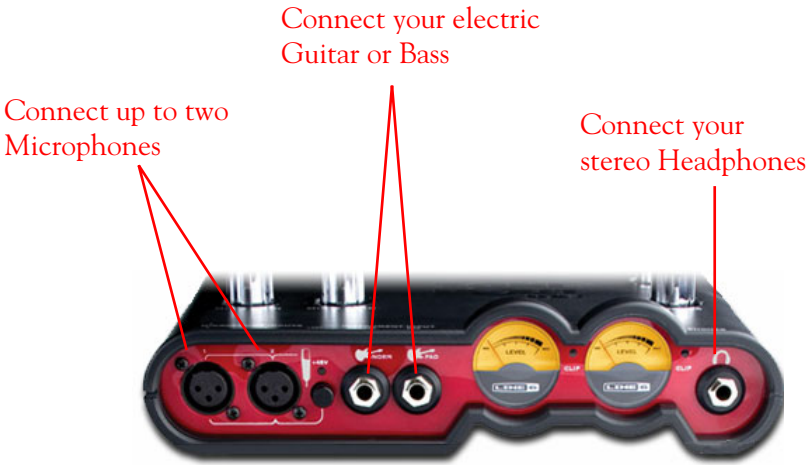
Monitor In - If you want to hear the signal from a line level source along with all the other audio coming from your computer, but do not want this audio recorded, then plug the source in here. Note that this is a stereo jack, so you should use a stereo 1/4-inch TRS audio cable for this connection.

USB - This of course is where you connect the supplied USB cable to TonePort, with the other end going to your computer's USB port. Note that you should always connect to a separate USB controller channel from other USB audio or MIDI interfaces to provide TonePort with the full USB bandwidth. TonePort also gets its power from this USB connection, so it should not be

plugged into a non-powered USB hub, or operated on the same USB controller channel with un-powered devices.

Analog Outs - These Left and Right unbalanced jacks output all the audio from TonePort; the audio from your audio software on the computer, and anything plugged into any TonePort input. So these are what you want to connect to your powered speakers or monitoring system for a recording setup. Use 1/4-inch TS cables to connect directly to powered speakers, mixer or power amp setup. Note that you can also use the headphone jack on the front of TonePort if you want to use headphones for monitoring.

TonePort UX2 front panel connections



Microphone Inputs – You can receive input from one or two mics at the same time using these ins. There is also a +48V Phantom Power switch that you should toggle to "on" if your mic requires phantom power (most condenser type mics do, but check the documentation for your mic if you are not sure). Connect each mic using an XLR cable. This inputs each microphone signal independently into GearBox where you can choose your tone, and then route the processed signal both to your audio software and out the TonePort outputs.

Guitar/Bass – To input your electric guitar or bass, plug it into one of these inputs. Either of these routes the instrument's signal into GearBox where you can choose your tone and route the processed signal both to your audio software and out the TonePort outputs.

Norm – this input is for a standard instrument level output. Plug your guitar/bass into here using a standard 1/4-inch TS instrument cable.

Pad – this input is designed for high output level basses and guitars, especially those with active pickups. Plug your high output instrument into here using a standard 1/4-inch TS instrument cable.

Note - if you plug into BOTH the Norm and Pad inputs with two instruments at the same time, only the signal from the **Norm** input will be used.

Headphone - If you want to listen to the audio from TonePort using stereo headphones, then plug them into this 1/4-inch stereo jack. This Headphone jack outputs the same signal fed to the Analog Outs on the rear panel of TonePort; the audio from your audio software on the computer, as well as anything plugged into any TonePort input.

TonePort UX2 rear panel connections

Note - if you plug into BOTH the Norm and Pad inputs with two instruments at the same time, only the signal from the **Norm** input will be used.

Line Inputs - if you want to record the signal from a line level source, such as a keyboard, your stereo receiver, the line out from a mixing console, etc., connect them to these Left and Right ins using 1/4-inch TS audio cables.

Footswitches - if you want to use one or two on/off toggle or momentary footswitches to remotely control functions in the GearBox software, you can plug the 1/4-inch footswitch plugs into these 1 and 2 jacks. To configure each Footswitch, go to the GearBox Preferences. You can also use these footswitches to trigger recording and playback commands within the included Ableton Live Lite 4 software! For more info on TonePort Footswitches, check the GearBox Online Help page.

Note that when using a Dual-Tone configuration in the GearBox software, the footswitches will always control tone #1.

USB - This of course is where you connect the supplied USB cable to TonePort, with the other end going to your computer's USB port. Note that you should always connect to a separate USB controller channel from other USB audio or MIDI interfaces to provide TonePort with the full USB bandwidth. TonePort also gets its power from this USB connection, so it should not be plugged into a non-powered USB hub, or operated on the same USB controller channel with un-powered devices.

S/PDIF Digital Out -To send the output of TonePort to an external device digitally, connect a 75-Ohm coaxial cable into this RCA jack and then into the S/PDIF digital input on the external device. This is the best choice for connecting to digital recording devices, such as a DAT recorder. This S/PDIF output sends the same audio as is sent to TonePort's Analog Outs (with the exception that any audio coming into the TonePort's Monitor In jack is not routed to the S/PDIF output). However, the S/PDIF signal is *not* affected by the GearBox **Mute Line Outs** button.

Monitor In - If you want to hear the signal from a line level source mixed with all the other audio coming from your computer, but do not want this audio recorded, then plug the source in here. Note that this is a stereo jack, so you should use a stereo 1/4-inch TRS audio cable for this connection.

Analog Outs - These Left and Right balanced jacks output all the audio from TonePort; the audio from your audio software on the computer, and anything plugged into any TonePort input. So, these are what you want to connect to your monitoring system when using TonePort as your computer's sound card. Use either 1/4-inch TS or TRS cables to connect directly to your powered speakers, mixer or power amp setup. Note that you can also use the headphone jack on the front of TonePort if you want to use headphones for monitoring.

Audio Drivers

When a sound card device is installed on your computer, a "driver" is a software component that is installed which allows audio applications to communicate with the device, and send audio data back and forth for playback and recording. There are several different driver types in existence, and your TonePort uses the ones most commonly supported by the popular Windows® audio applications - ASIO and WDM.

ASIO

Short for *Audio Stream Input Output*, ASIO is a technology developed by Steinberg Media Technologies, GmbH. It offers the advantage of low latency operation, which means it allows audio to run through your audio software in very small chunks, minimizing the delay time between input and output. This all provides a much more immediate response with most aspects

of working in your audio software. TonePort's ASIO driver also provides the advantage of exposing two stereo "Sends" (or 4 mono "Sends") as inputs to ASIO software applications – more information on this is covered in the following Choosing TonePort Sends… section. Because of these advantages, it is recommended you use the TonePort ASIO driver if your audio software supports it.

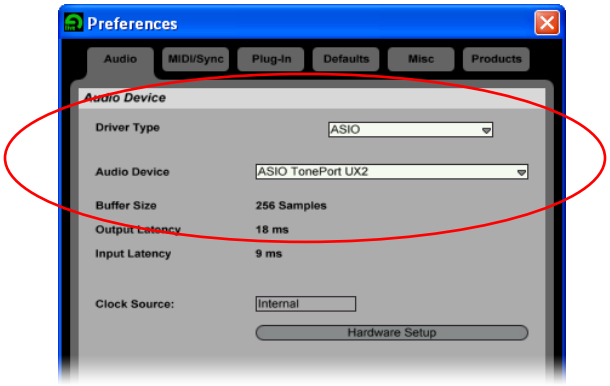
WDM

Short for *Windows® Driver Model*, WDM is a Microsoft technology and widely supported by most all Windows® applications that do anything with audio. This WDM driver will allow audio applications to access TonePort via DirectX®, MME or WDM. The WDM driver is offered primarily as a general-purpose driver for multimedia applications that do not offer an ASIO driver (e.g. - Windows Media Player®, WinAmp®, etc.). When using the WDM driver, playback and recording features are more limited:

- Latency performance is typically not as fast as ASIO
- Only one stereo Record Send (Send 1-2) will be available from GearBox to the recording software.
- Supported sample rates for recording and playback are dictated by the audio software when in WDM mode and, therefore, may change the list of available sample rates when using TonePort. 44.1KHz and 48KHz are most typically supported.

Accessing TonePort as a sound card device

Exactly how you access TonePort as your sound card from within audio software differs somewhat for each audio software. Typically you'll find a "Preferences" or "Audio Setup" dialog that allows choosing your driver type and device for both output (playback) and input (recording). For example, these settings can be accessed in the Preferences dialog in the Ableton Live Lite 4 application…



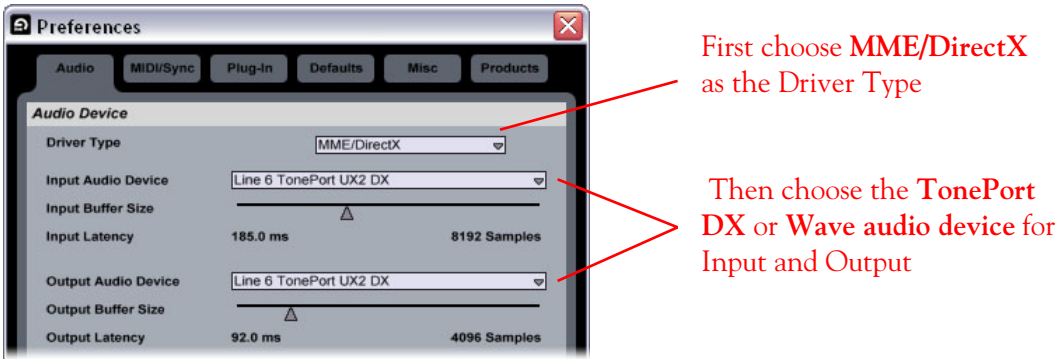
Ableton Live's Preferences > Audio Device settings - ASIO

Using TonePort's WDM Driver

As mentioned in the previous Audio Drivers section, if you want to use TonePort with a multimedia application that does not support ASIO, then you can choose TonePort's WDM

driver from within the application. Exactly how this appears within the multimedia application may differ – typically, you can choose any variation for the TonePort driver that denotes the "TonePort" device name along with "DirectX® (or "DX"), "Wave" (or "MME") or "WDM".

As an example, this appears in the Ableton Live Lite 4 software's Preferences window as follows…



Ableton Live's Preferences > Audio Device settings – WDM/DirectX

Choosing TonePort Inputs and Outputs in your audio software

Often, all that is required is to choose TonePort as your audio device as shown above, and the audio software then automatically routes all its playback and recording settings to work with TonePort. If the audio software supports Multitrack audio recording, then it likely also allows you to choose specifically which input and output port to use for each audio track.

Choosing TonePort Sends as recording inputs within your audio software

The GearBox software allows you to route your tones to "Sends". Your audio software can access these Sends as inputs for recording. Within the GearBox software, you can determine what actually gets routed to each of these sends. This all provides you with a great deal of flexibility for Multitrack recording in your audio software!

As mentioned in the previous section, if you are using the ASIO driver for TonePort, then the audio software will be able to access both "Send 1-2" and "Send 3-4", and choose between them as inputs for each audio track recording. Further, the audio software will usually also be able to choose each individual mono Send (Send 1, 2, 3 and 4) to record a mono track. Looking once again at an example in Ableton Live Lite 4, each audio track allows you to choose its input source – each selectable input directly refers to the TonePort Sends…

An audio input selector for a track in Ableton Live.

TonePort's Sends appear as two stereo pair options and 4 mono options.

Choosing TonePort for playback within your audio software

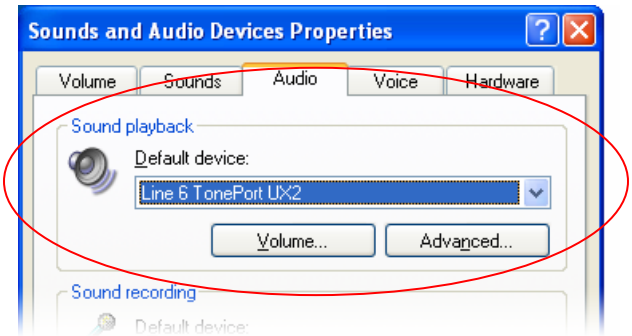
For most audio software projects, you'll likely want all tracks, input monitoring signals and buses to go out to one common stereo output, so you can hear your entire mix on your stereo speakers. Usually just setting TonePort as your output audio device is all you need to do to make this happen, but in some audio software, you may need to check the outputs of your individual tracks as well. Similar to the above instructions, just go to the track's output selector and choose the TonePort device as your output. TonePort will be available as a stereo output for playback of each track.

Choosing TonePort as your Windows® default sound playback device

Windows® itself also makes use of a sound card device to be able to play all those dings, beeps and other system alerts. The Windows® default sound playback device is also what gets used for the Windows® Media Player® application, which can play your CD's, DVD's and multimedia downloads from the Internet. Additionally, many other multimedia programs such as WinAmp®, RealPlayer®, etc., will automatically set themselves to use the Windows® default device as well. TonePort can be set to be this default device if you want to utilize its high quality audio for playing your CD's or DVD's, for example.

Setting the Windows® default sound playback device

Click on your **Start** button and go to **Settings > Control Panel > Sounds and Audio Devices > Audio** tab. In the **Sound playback** section, choose your TonePort as the **Default device**. Click **OK** to exit the dialog.



TonePort set as the Windows Default device for playback

Considerations when setting TonePort as the Windows® default device:

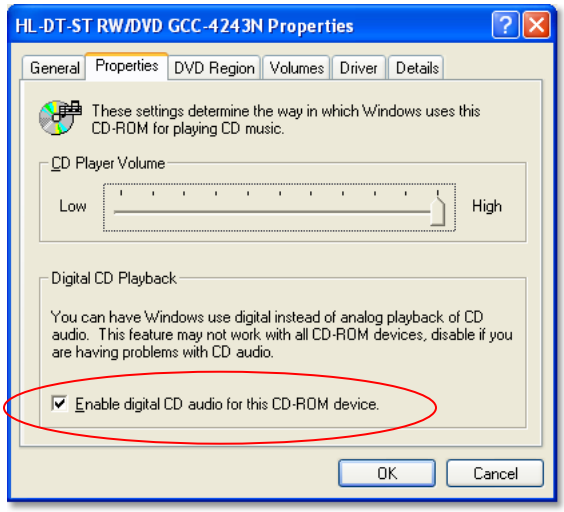
Surround playback - TonePort's playback capability is designed for stereo. If you already have a sound card that provides surround sound via multiple speakers, this would also be a feature that you would lose by making TonePort your preferred audio device.

On-board synth sounds - Some sound cards also have synthesizer chips onboard that will receive MIDI content and play audio directly out of the card. These sounds might also not be available to you if using TonePort as the Windows® default device, since your speakers will be connected to TonePort. If your sound card has one of these synthesizer chips, one solution is to connect the audio output from your other sound card to the **Monitor In** jack on the back of your TonePort.

Windows® System Alert sounds - It can actually be quite annoying to have all those Windows® system alert sounds blaring at high volume through your TonePort when you are trying to focus on more musical endeavors. Fortunately you can independently turn off these system sounds and still keep TonePort as your Windows® default playback device. Click on your **Start** button and go to **Settings > Control Panel > Sounds and Audio Devices > Sounds** tab. For the **Sounds Scheme** setting, choose **No Sounds**. Click **OK** to exit the dialog.
Accelerated 3D audio – Computer games may also set themselves to use the Windows® default device, and some can have multichannel or specific accelerated 3D audio playback requirements. TonePort does not support this and may not perform properly with these types of applications.

Audio CD playback - Some computers have the audio output of their CD drive physically wired to an internal sound card. If your computer is setup this way, TonePort as the preferred audio device may still not be the sound card that plays the CD audio. You can usually enable a "digital CD audio" option for most CD drives which will then allow it to send the CD playback digitally to TonePort.

To access this setting, go to your Windows® Desktop and right click on **My Computer**, choose **Preferences**, go to the **Hardware tab**, and click the **Device Manager button**. Click on the **+** symbol at the left of the CD Drive line to expand it. Now double click on your CD drive and go to the **Properties** tab. Check the box for **Enable digital CD audio for this CD-ROM device.**

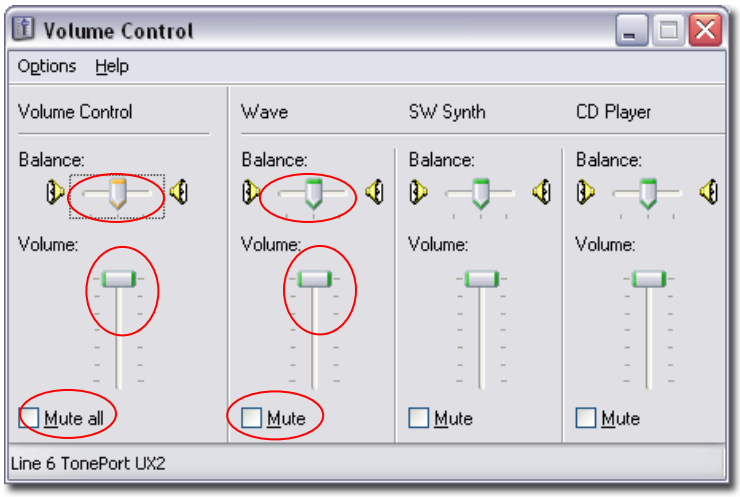


If your CD drive doesn't support digital playback, then this option will not be selectable. If this is the case, another solution is to connect the stereo **Line Out** from your computer's sound card to the **Monitor In** jack on the back of your TonePort.

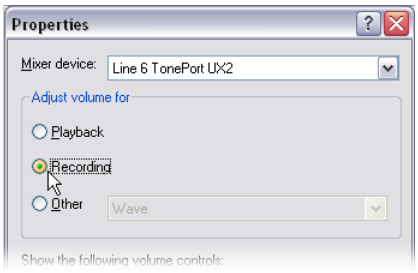
The Windows® Mixer - The Windows® Mixer utility also defaults to controlling the Windows® default device. This is not necessarily a problem, but it is important to be aware of the fact that this means all the controls in the Windows® Mixer's **Wave** and main **Volume** sections (Pan, vertical Level slider and Mute checkbox) will affect TonePort's monitor output. Likewise, the Windows® Mixer also controls the default device's **Recording** Pan/Level/Mute settings as well. You may want to just keep all these Windows® Mixer settings at "unity" settings so that they do not affect TonePort's monitor signal – that is, keep the Pan set to center, the Level sliders to all the way up, and the Mute checkboxes off. Then you can just use the GearBox software to control these Monitor functions.

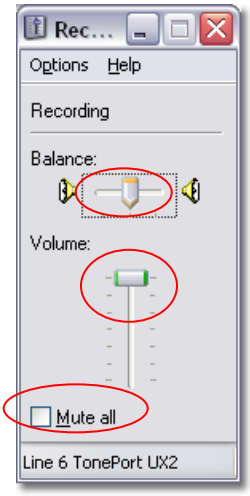
Note - if you have one of the fancier computer keyboards or a laptop that include volume and mute buttons, then these will adjust these same Windows® Mixer controls.

The Windows® Mixer **Volume** and **Wave** controls affect the Windows® default device's playback output



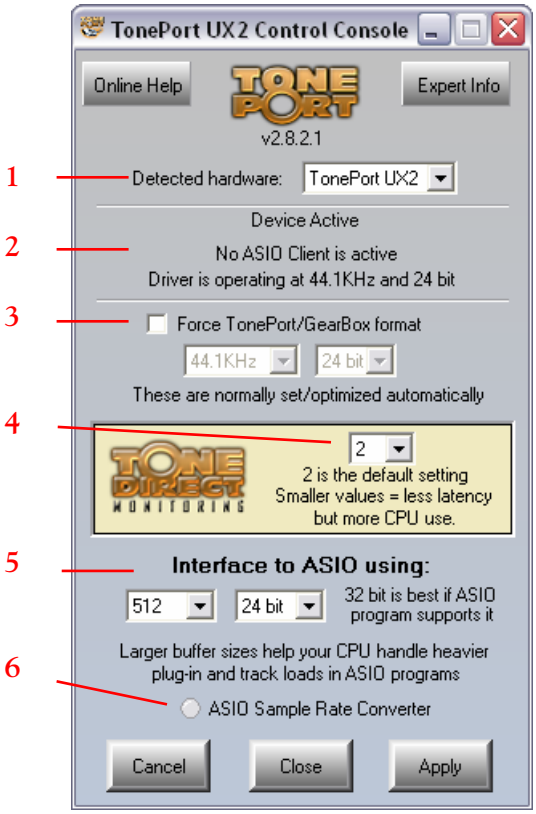
To access the Windows® Mixer Recording controls, go to **the Options menu > Properties** and choose the Recording option…





TonePort Control Console

The TonePort Control Console dialog within the GearBox software includes several options and indicators pertaining to using your TonePort along with other audio applications. To access the dialog, first be sure your TonePort is connected to your computer's USB port and then launch the GearBox application. Go to the Edit menu and select Preferences, and go to the Hardware tab. Click the TonePort UX1/UX2 Driver Settings to launch the TonePort Control Console dialog…



Most of the default settings are typically fine for using TonePort/GearBox with another audio application. To follow is general information about how the settings and indicators in this dialog relate to the operation with other audio programs:

1. Detected hardware selector – Your connected TonePort device should appear here. If not then it may not be properly connected to your USB port.

2. Driver information - The text in this section dynamically updates informing you the status of the TonePort driver. When no other audio application is utilizing TonePort, it reports No ASIO client is active – this is the normal status when using TonePort/GearBox on its own. When an audio application is utilizing the TonePort driver, the text will report the application by name (e.g. – Live 4.1.4.exe client is active). The driver's operating sample and bit rate are also displayed here.

3. Force TonePort/GearBox format - When checked, this allows you to manually set the TonePort driver sample and bit rate. Usually it is best to leave this unchecked and allow the audio application to set the driver to match its own session format.

4. ToneDirect Monitoring buffer - The recommended setup is to allow your mic and instrument input that go into TonePort be monitored directly out of TonePort (ToneDirect Monitoring), as opposed to using a connected audio software's monitoring feature. ToneDirect Monitoring provides the lowest possible monitoring latency since your input only needs to run through TonePort and the GearBox software, rather than also through the entire signal path of the audio

application. The lower you set this buffer, the shorter the latency for ToneDirect Monitoring, but a higher value setting offers better stability and may resolve audio dropouts.

5. Interface to ASIO - these are the ASIO driver buffer setting and Bit resolution. A lower buffer allows you to achieve lower latency in the connected audio software, but uses more CPU. 512 is a good setting for most uses. 16 and 24 bit are supported by most applications, however, 32 bit is the highest quality setting and you should use it if your audio software supports it.

6. ASIO Sample Rate Converter indicator - When an audio application is requesting a different sample rate than TonePort is able to operate at, TonePort will auto convert the sample rate, and this light will be on to inform you this process is active. It is best to avoid this process and match the sample rates wherever possible, either by switching the audio applications sample rate, or by using the Force format checkbox in the Control Console.

Note that TonePort natively supports both 44,100 Hz and 48,000 Hz sample rates. It is also compatible with the 96,000 Hz sample rate, which means that ASIO audio software can be set to operate at this rate and TonePort will use this ASIO Sample Rate Converter to allow playback and recording.

GearBox settings and recording

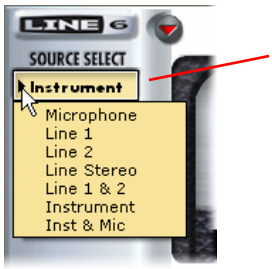
Once you are set up for recording with TonePort, then you probably will want to think about *what* to record! GearBox is all about Tones, and this is where you go to set up your mic, guitar or bass tones that will be recorded into your audio software. To follow are basic guidelines for choosing GearBox settings.

Choosing your GearBox source

Once you have your mic, instrument or line level item(s) plugged into TonePort, click on the **Source Select** to choose which of these "sources" you want to create a Tone for.

TonePort UX1 Source Menu

Options within this menu provide the ability to create a tone for the Mic, Analog and Guitar/Bass inputs separately, or a "Stereo" or "Dual-Tone" source.



TonePort UX1 Source Select menu

Stereo sources include "Stereo" in the name, and Dual-Tone sources include the "&" symbol in their names

Tone Port UX2 Source Menu

TonePort UX2 additionally offers Source options that include its Mic 2 input.

TonePort UX2 Source Select menu

Stereo sources include "Stereo" in their name, and Dual-Tone sources include the "&" symbol in their names

Choosing Tones in GearBox

Since there are different types of Input Sources, to follow are a few guidelines for setting up your tones for these types of Sources.

Single Input Source

When a single Input Source is selected, the GearBox displays the last tone preset that was in use for this Source. You can of course choose any preset from the Tone menu, or customize the tone by selecting your desired amp, preamp and effects models.

Stereo Input Source

A Stereo source accepts the inputs from the selected "Stereo" TonePort ins and processes them as one Stereo signal. This means that you still choose and edit one tone setting, just as you do for a single source, but the tone is applied to both channels, providing a stereo output.

Dual-Tone Input Source

If you select one of the Dual-Tone sources, then you are able to choose a tone independently for each. For example, if you want to record a performance using an instrument and a mic that are plugged into TonePort's Guitar/Bass and Mic inputs, you likely want to use separate Guitar Amp and Mic Preamp tones. To edit the separate tone settings, use two buttons that appear at the left of the Tones menu – both tones remain audible regardless which tone is displayed:

Two "Tone" buttons appear when a Dual-Tone Input Source is in use.

Setting up GearBox Sends

GearBox offers two sets of stereo Record Sends which each offer independent **Pan**, **Record** and **Monitor** levels. You can think of these Sends as "virtual" outputs that are internally routed to both your recording software, and to the TonePort hardware outs. Your GearBox tones are automatically routed to these Sends and you use these Send controls to configure the stereo placement, recording level sent to your audio software, and monitoring level respectively. Setting these levels is the same for either Send 1-2, or Send 3-4.

Pan

The Pan knob adjusts the left/right balance of the Send signal sent to the recording software. If you want the Input Source tone to be summed as a Mono signal, with this Mono signal then being routed out both channels of the Send, you can activate the Mono switch.

Record level

The Record knob adjusts the level of the signal sent to your recording software, and directly affects the amplitude of your recorded audio. Additionally, the Boost switch can be activated if the signal needs an additional 18 dB of gain. The rule for recording levels and digital audio is to always avoid clipping, yet keep the level at least above half to capture a nice strong signal. Use these controls and reference the meters above to adjust this level accordingly. Your audio software likely has meters that will reflect this level as well.

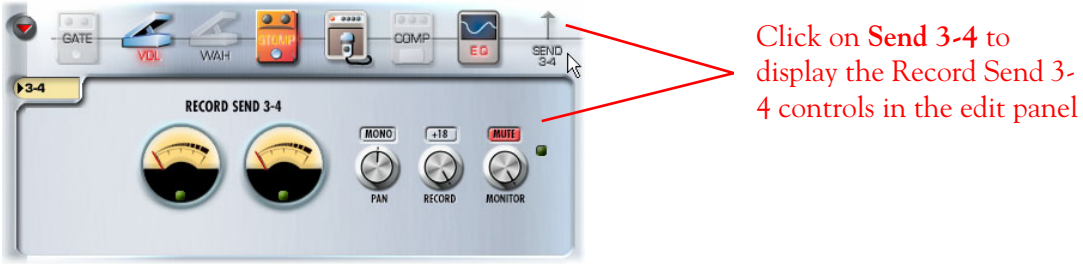
Monitor level

The Monitor knob adjusts the level of the ToneDirect Monitoring signal fed out of TonePort's outs. You can activate the Mute switch to mute the ToneDirect monitoring signal completely. These controls do not affect the Record level that is sent to your recording software. This allows you to balance the listening volume of your GearBox tone signal and the playback of tracks coming from your recording software.

Note that the Output knob on your TonePort hardware will adjust the levels of your Tone Direct Monitoring and recording software playback for control of the overall volume of what is heard on your speakers.

Recording Send 3-4

Send 3-4 is displayed by selecting the button in the row above the effects panel display.



Send 3-4 appears as an additional set of inputs to ASIO compatible audio recording software only. If the recording software is using the WDM TonePort driver, then it these 3-4 audio channels will not appear as inputs in the application.

Send 3-4 is especially useful when you are using a Dual-Tone Input Source in GearBox, since you can then set each tone to a separate Record Send. This then allows your recording software to access these two tones as separate, discrete signals and record them on separate tracks within the same recording take.

Sending audio from TonePort to an external device

Rather than accessing the GearBox Recording Sends' signal from TonePort as a sound card device, you may instead want to route your GearBox signal out to another sound card on the same or separate computer. Further, with all the great tones you can now create for your mics & instruments with GearBox, there is no need to limit them to the inside of a computer! You may also want to send the signal to external hardware such as an analog or tape Multitrack unit, a DAT or video tape recorder, or even to an amplifier or P.A. system for live performance. To follow are instructions for these different types of setups.

Connecting analog outputs from TonePort/GearBox to an external device

You can route your tones from TonePort/GearBox to just about any type of external device simply by connecting the Analog Outs from the back of your TonePort UX1 or UX2 directly into the external device's line level inputs. This allows you to amplify or record your GearBox signal using any external device that accepts analog line level inputs.

Connect TonePort's Analog Outs to any the analog inputs on any external audio device

Routing TonePort's analog outputs to another sound card

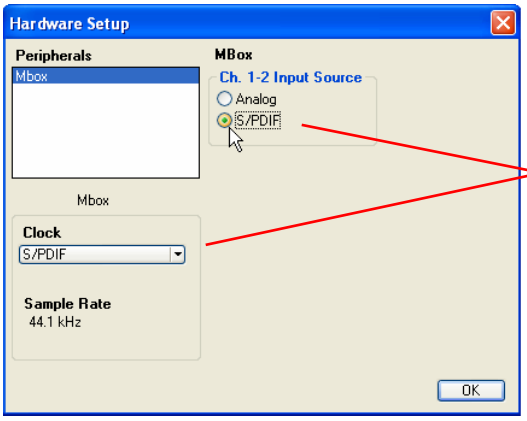
If you want to use TonePort/GearBox in a computer recording setup where a multi-input sound card already exists, then you might find it useful to connect TonePort's Analog Outs into two of the analog inputs of the existing sound card. This allows you to use the existing sound card with your recording application to also receive additional discrete inputs directly from other sources at the same time, if this is the preferred setup. When TonePort is connected to another sound card this way, then you will want to be sure your recording software is set to use the other sound card as its input device for recording. In this configuration, since TonePort is not acting as a sound card device, the TonePort's Analog Out signal is what is being recorded, and therefore, levels are controlled by the GearBox Monitor level and TonePort Output knob.

Connecting the S/PDIF Digital Output from TonePort UX2/GearBox to an external digital device

TonePort UX2 also includes an **S/PDIF** digital output, which allows you to connect to digital devices such as a DAT recorder, MiniDisc, another sound card, or most any device that offers an S/PDIF format digital input. This is the preferred method to connect to external devices since it does not require the added digital-to-analog-to-digital signal conversion process as required with using analog outs.

Digital clock settings

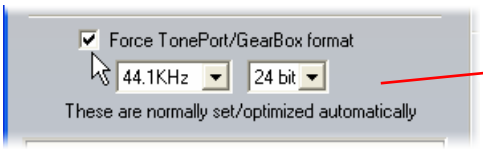
When connecting digital devices in this manner, one device needs to sync to the "digital clock" of the other, and preferably both should also operate at the same sample rate. To configure this correctly, you'll need to look for a "clock" setting on the digital device you are connecting to and set it to "External" or "S/PDIF" so that it follows the digital clock of your TonePort rather than its own internal clock. If you are connecting to the S/PDIF input of another sound card, this can be either a hardware switch on the unit, or an option found in the software control panel for the device. As an example, when connecting TonePort UX2 digitally to a Digidesign Mbox for recording in Pro Tools LE, you access the Mbox clock settings within the Pro Tools Hardware Setup dialog:



Setting the Digidesign Mbox to "follow" the TonePort S/PDIF clock and receive S/PDIF digital input for recording

Sample rate

Since TonePort UX2 is acting as the "master" clock device in this scenario, you should also manually set the desired sample rate for TonePort, so that the external digital device will follow the sample rate you desire. This is done in the TonePort Control Console, using the **Force TonePort/GearBox format** option. You will want to check the box to enable this function, and then choose **44.1 kHz** or **48 kHz**.



The TonePort Control Console's options for manually setting the sample and bit rate

Setting output levels for the S/PDIF output

The S/PDIF output of TonePort UX2 receives the same audio content as is heard at the Analog Out and Headphone out, with the exception that the any audio coming in from TonePort's Monitor In jack is not routed to the S/PDIF output. When devices are connected digitally, typically the receiving device does not include a level control to adjust the level at input. Therefore, you'll want to set the level as from the GearBox software if necessary. The GearBox Monitor knob controls the level going out of S/PDIF output. (Note that the Mute switch above the Monitor knob does not mute the S/PDIF output). You'll want to keep this Monitor level as high as possible, without clipping, for the best fidelity when using the S/PDIF Digital Out.

Other considerations for using S/PDIF output

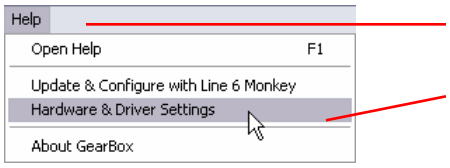
- TonePort UX2 always outputs its S/PDIF signal at 24-bit resolution. The signal is never truncated or dithered to a lower bit depth. Therefore, if the device you are connecting to offers a bit resolution setting, it is best to set it at 24-bit (or higher) to capture the full S/PDIF signal resolution.
- Some digital devices may only support one sample rate (some DAT and video machines are fixed at 48 kHz for example), so you will want to be sure to choose a sample rate supported by both units.
- When TonePort UX2 is operating in its 96 kHz "compatible" sample rate mode, it sends data out the S/PDIF at 48 kHz.
- The Mute Line Outs button that is found at the bottom left of the GearBox window (beneath the Out to Hardware label) will mute all analog outputs when active, but will not mute the S/PDIF signal.
- Remember that if you are connecting TonePort UX2's S/PDIF output to another sound card, you are not limited to the other sound card being on the same computer. You can use TonePort/GearBox as for your tone and then send it digitally to a completely different setup for recording!

ABLETON LIVE LITE 4, LINE 6 EDITION SETUP - WINDOWS®

Be sure to connect the USB cable from TonePort into your computer's USB port, and then proceed with the following steps…

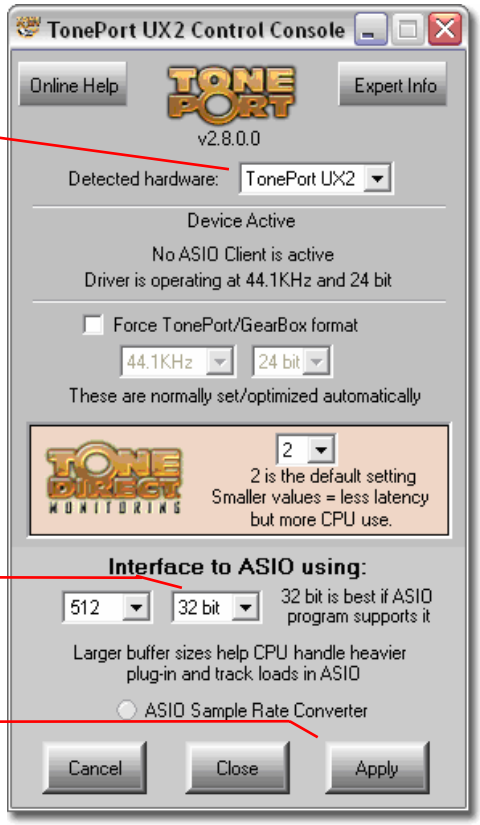
Configure your PC to use TonePort as your audio device

First launch the GearBox application, and then go to the Help menu to launch the TonePort Control Console.



Select the GearBox **Help** menu

Choose Hardware & Driver Settings



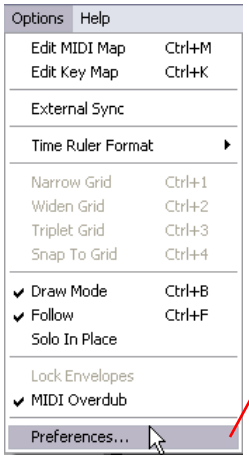
Select your TonePort UX1 (or UX2) device

Select 32 bit

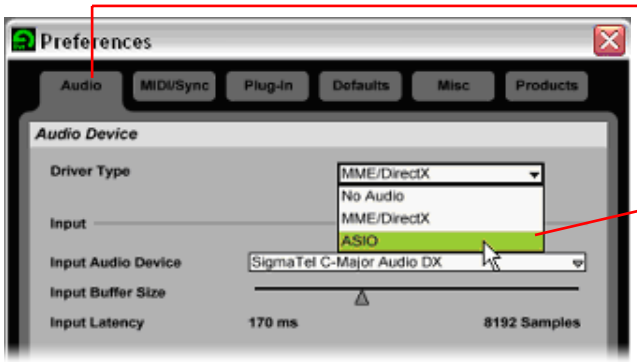
Click Apply when done

Configuring Ableton Live Lite 4 to use the ASIO TonePort driver

Launch Ableton Live Lite 4 and make the following settings…



Select the Live Options menu and choose **Preferences**

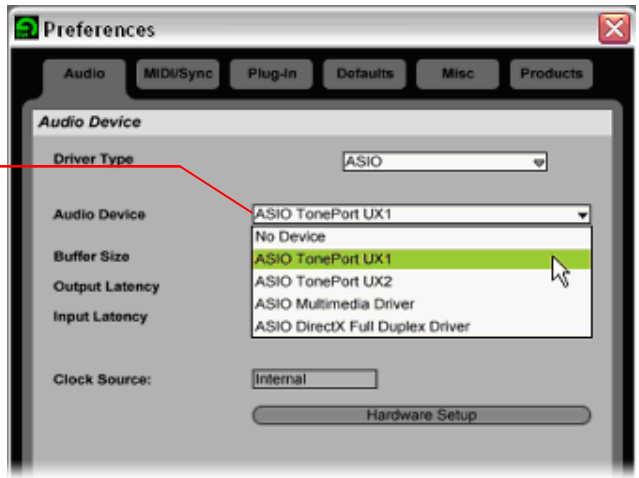


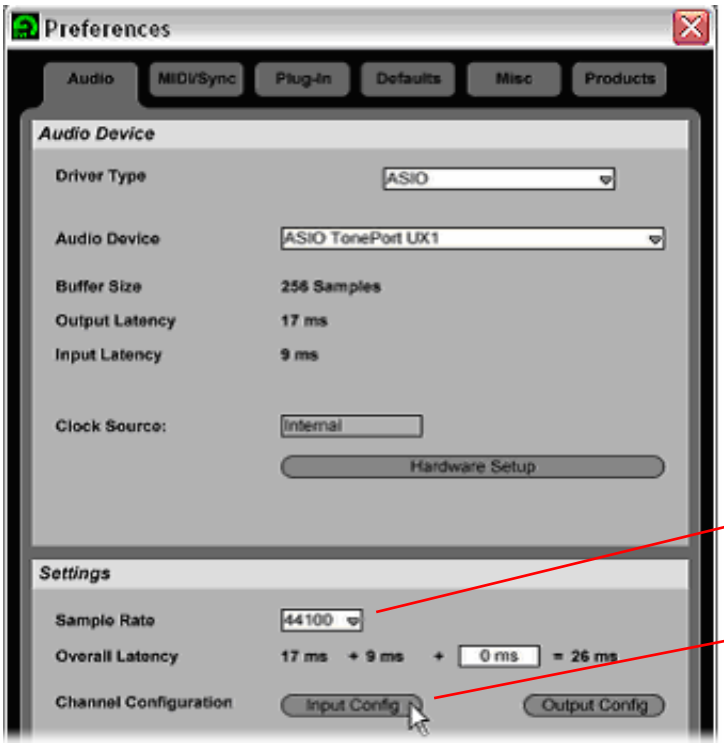
Select the Audio tab

Choose **ASIO** as the Driver Type *

* It is highly recommended to use the **ASIO** Driver Type for TonePort for the best performance. If you want to use the **MME/DirectX** Driver Type, please refer to the Mme/DirectX Driver section.

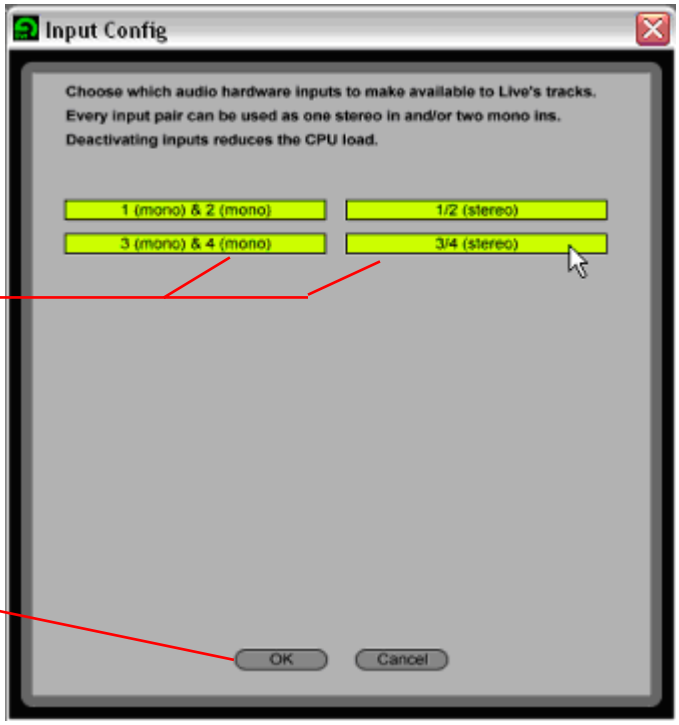
Select **ASIO TonePort UX1** (or **UX2**) as the **Audio Device**





Choose a **Sample Rate** - **44100** is a good setting for most projects

Next, click the **Input Config** button to set up inputs



Click on the **3 & 4 (mono)** and the **3/4 (stereo)** Input buttons to activate them if you will want to record from TonePort Sends 3 and 4 into Live.

Click on the **OK** button to return to the **Preferences** dialog

Select the **Misc** tab

Select **24** as the **Bit Depth**

Click on the **X** button to exit the Preferences dialog

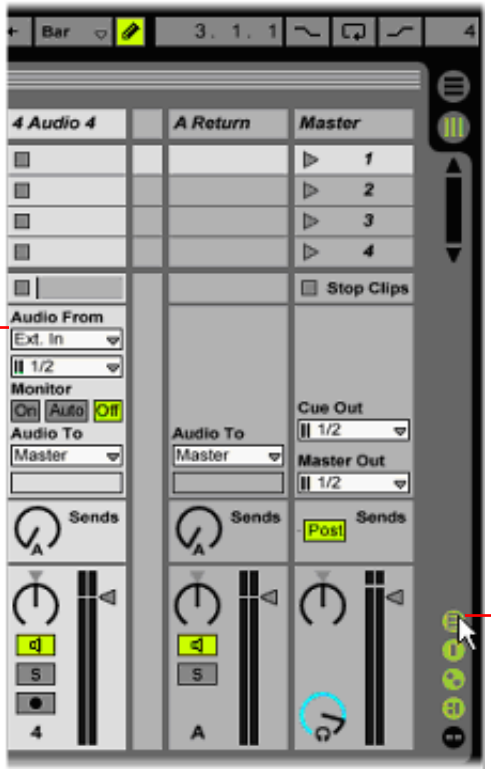
This completes the Audio Driver configuration!

Setting up an audio track to record from TonePort in Ableton Live

Now that your TonePort hardware is set up, you are ready to start working in a new Live Set! Open or create a new Live Set and make the following settings…

Click the Session View Selector to switch to the Session View

The In/Out settings group



Click the **Show/Hide In/Out Selector** to display this group of settings in the Mixer

Click the Monitor Off button for the Audio Track you wish to record into

Select Ext. In as the Audio From setting

Select the Input Channel:
-1/2 will record from TonePort Sends 1 & 2 as a Stereo file.
-3/4 will record from TonePort Sends 3 & 4 as a Stereo file.
-1, 2, 3 or 4 will record from the respective TonePort Send as a Mono file.

Click on the Arm switch to arm the track for recording

Click the Arrangement View selector to switch to the Arrangement View display

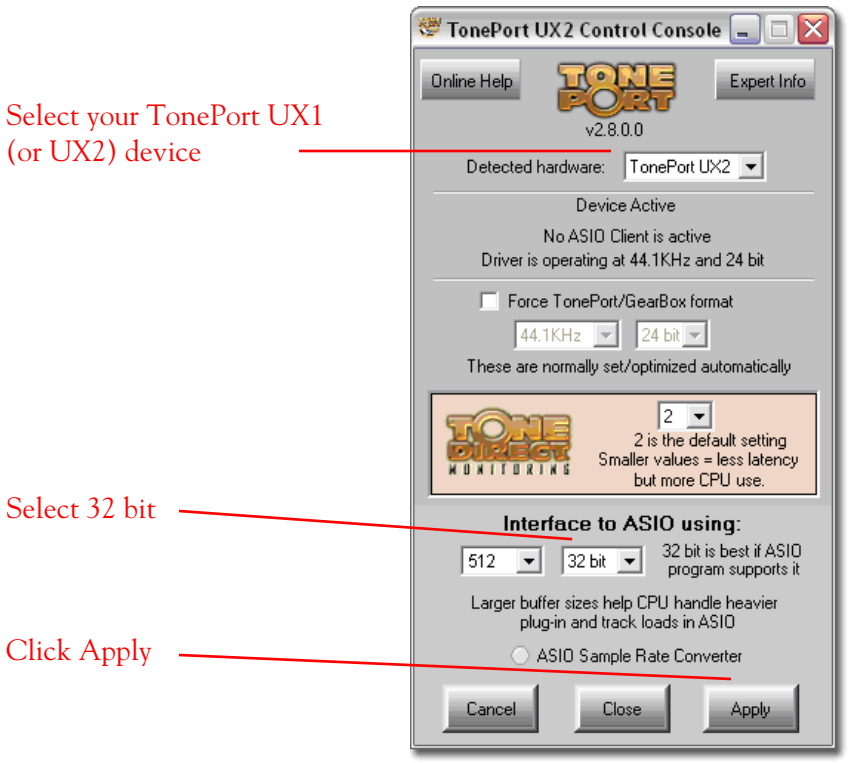
Click the Global Record Button to prepare the Live Set for recording

Click the Play Button to start recording!

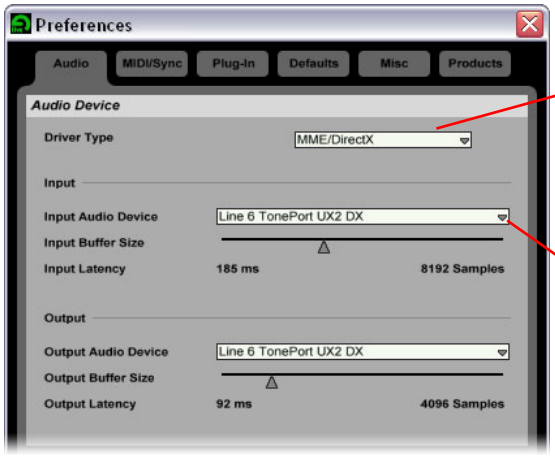
Using the MME/DirectX Driver Type

As mentioned on page 2, it is recommended to select the ASIO driver type with TonePort since it provides lower latency performance and the ability to access an additional set of stereo Record Sends within your audio applications. The MME/DirectX driver type can be selected in Ableton Live as an alternative.

Go to the GearBox Help menu and select Hardware and Driver Settings to launch the Control Console:



Once the above settings are made in the Control Console, go to the Ableton Live Preferences dialog and set it to use the MME/DirectX driver.

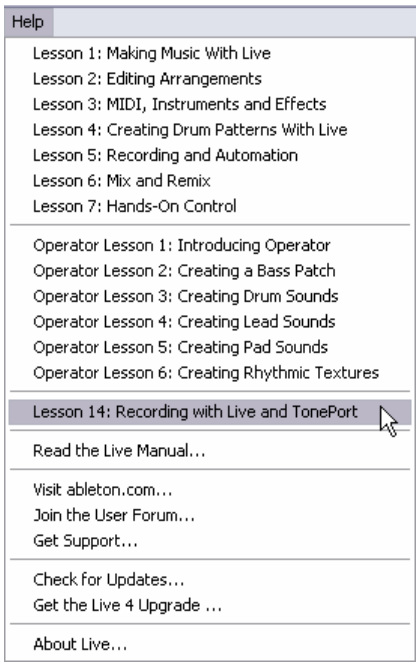


First choose MME/DirectX as the Driver Type

Then choose the TonePort DX or Wave audio device for Input and Output

Using this MME/DirectX driver type, Ableton Live will only be able to access Record Send 1-2 from TonePort, since Record Send 3-4 is only available when using the ASIO TonePort driver.

For more information, try the Lesson within the Help menu of Ableton Live Lite 4 for Recording with Live and TonePort…

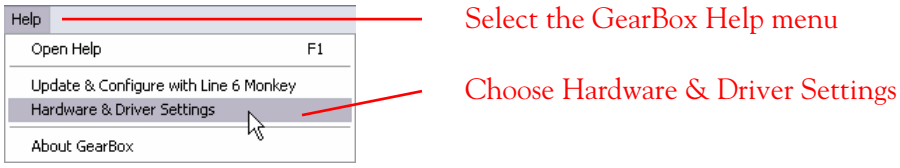

Help
Lesson 1: Making Music With Live
Lesson 2: Editing Arrangements
Lesson 3: MIDI, Instruments and Effects
Lesson 4: Creating Drum Patterns With Live
Lesson 5: Recording and Automation
Lesson 6: Mix and Remix
Lesson 7: Hands-On Control
Operator Lesson 1: Introducing Operator
Operator Lesson 2: Creating a Bass Patch
Operator Lesson 3: Creating Drum Sounds
Operator Lesson 4: Creating Lead Sounds
Operator Lesson 5: Creating Pad Sounds
Operator Lesson 6: Creating Rhythmic Textures
Lesson 14: Recording with Live and TonePort
Read the Live Manual...
Visit ableton.com...
Join the User Forum...
Get Support...
Check for Updates...
Get the Live 4 Upgrade ...
About Live...

ABLETON LIVE 5 SETUP – WINDOWS®

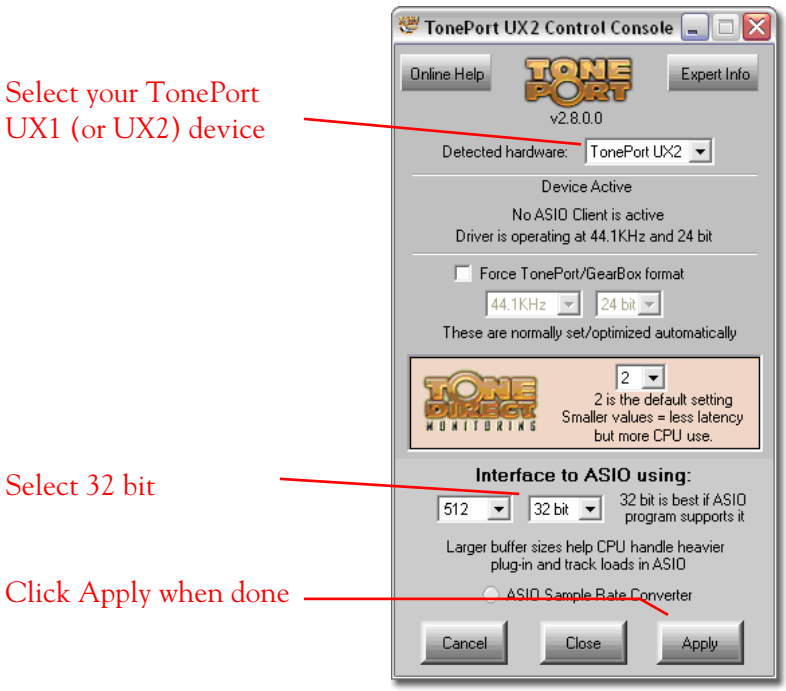
Be sure to connect the USB cable from TonePort into your computer's USB port, and then proceed with the following steps…

Configure your PC to use TonePort as your audio device

First launch the GearBox application, and then go to the Help menu to launch the TonePort Control Console.

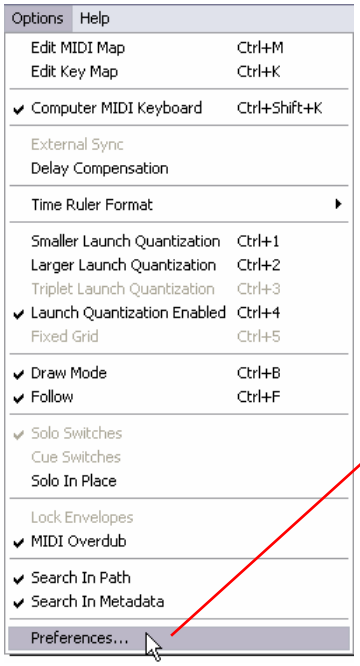


Match all settings in the TonePort Control Console dialog, as shown here…

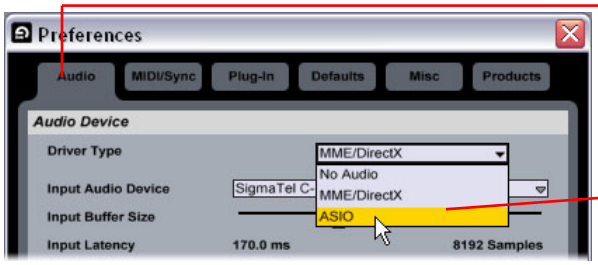


Configuring Ableton Live 5 to use the ASIO TonePort driver

Launch Ableton Live 5 and make the following settings…



Select the Live Options menu and choose Preferences

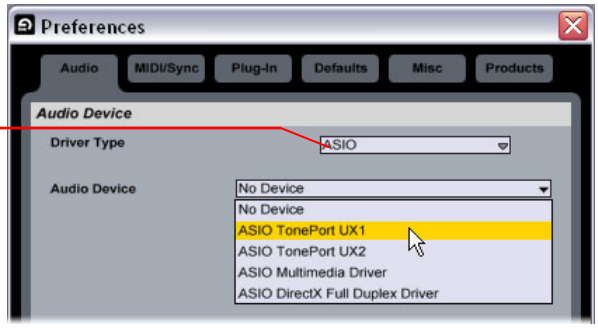


Select the Audio tab

Select ASIO as the Driver Type *

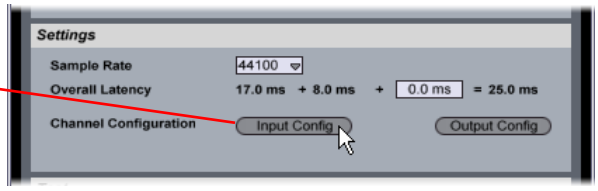
* It is highly recommended to use the ASIO Driver Type for TonePort for the best performance. If you want to use the MME/DirectX Driver Type, please refer to page 7 of this document for additional settings that must be made first.

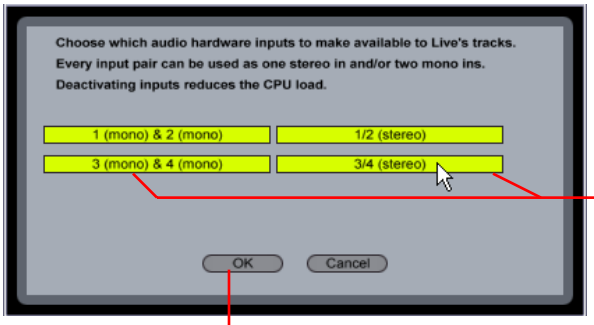
Select ASIO TonePort UX1 (or UX2) as the Audio Device



Select the preferred Sample Rate - 44,100 is a good choice for most projects

Click the Input Config button to set Inputs

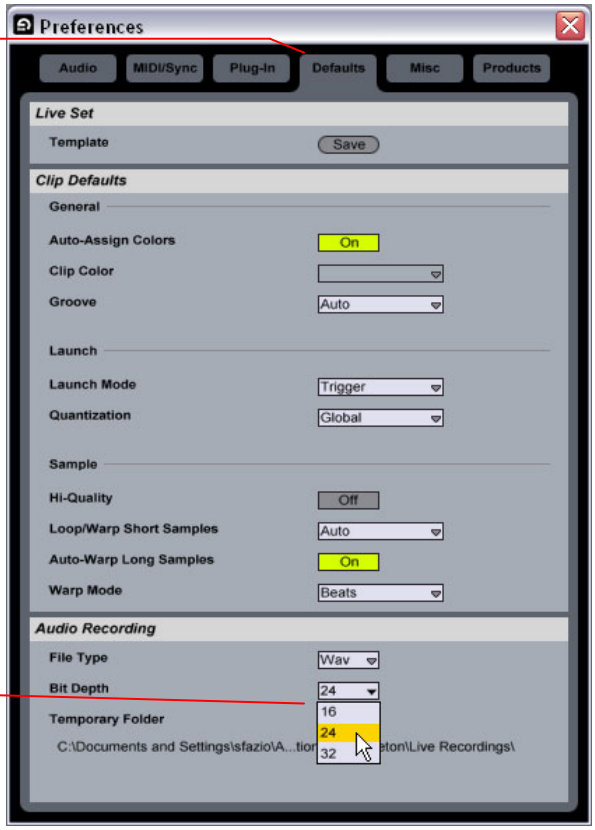




Click on the 3 & 4 (mono) and the 3/4 (stereo) Input buttons to activate them if you will want to record from TonePort Sends 3 and 4 into Live.

Click on the OK button to return to the Preferences dialog

Select the Defaults tab



Select 24 as the Bit Depth

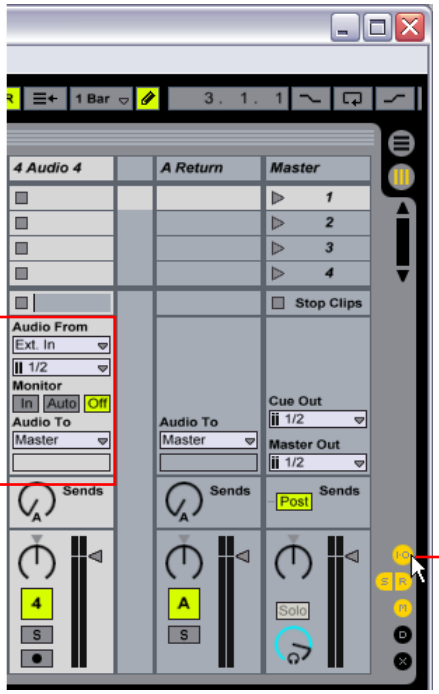
Click the X button to exit the Preferences dialog

This completes the Audio Driver configuration!

Setting up an audio track to record from TonePort in Ableton Live

Now that your TonePort hardware is set up, you are ready to start working in a new Live Set! Open or create a new Live Set and make the following settings…

Click the Session View Selector to switch to the Session View

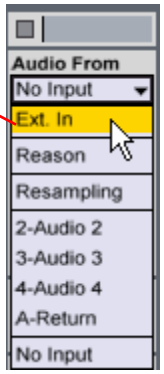


The In/Out settings group displayed

Click the Show/Hide In/Out Selector to display this group of settings in the Mixer

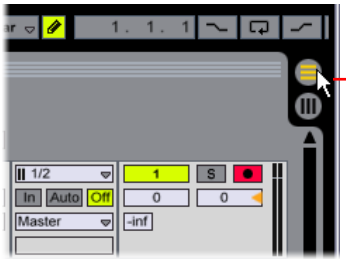
Click the Monitor Off button for the Audio Track you wish to record into

Select Ext. In as the Audio From setting



Select the Input Channel:
-1/2 will record from TonePort Sends 1 & 2 as a Stereo file
-3/4 will record from TonePort Sends 3 & 4 as a Stereo file
-1, 2, 3 or 4 will record from the respective TonePort Send as a Mono file

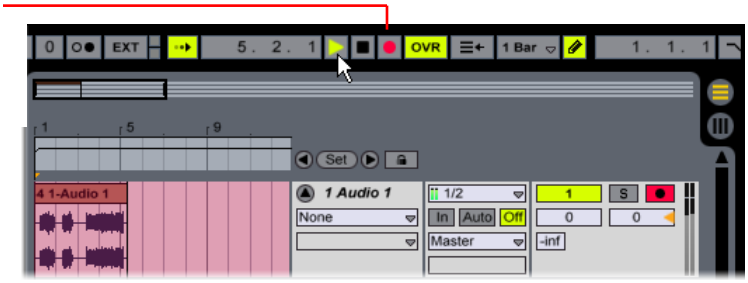
Click on the Arm switch to arm the track for recording



Click the Arrangement View selector to switch to the Arrangement View display

Click the Global Record Button to prepare the Live Set for recording

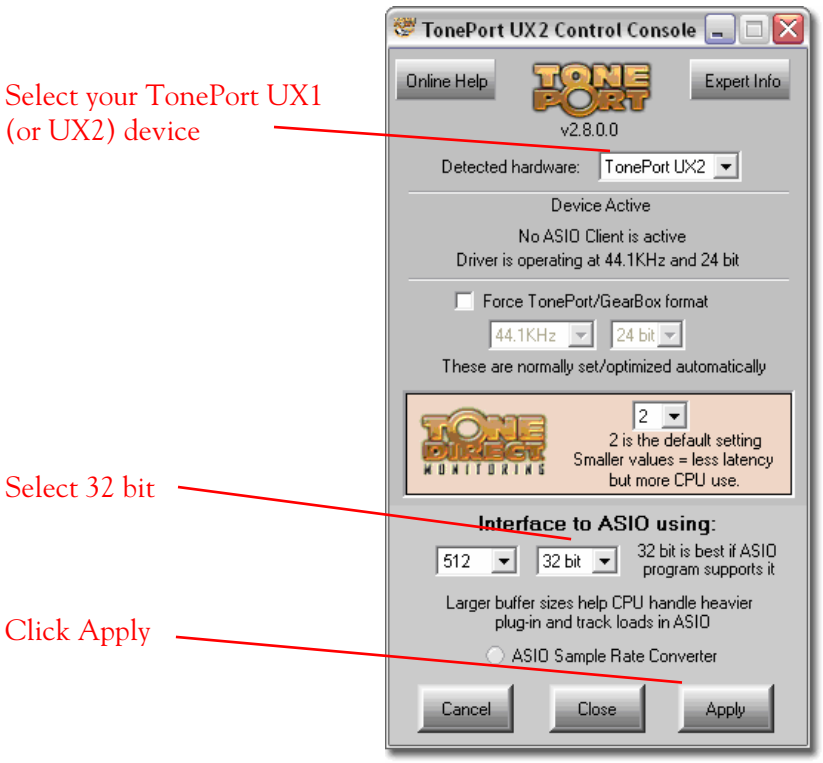
Click the Play Button to start recording!



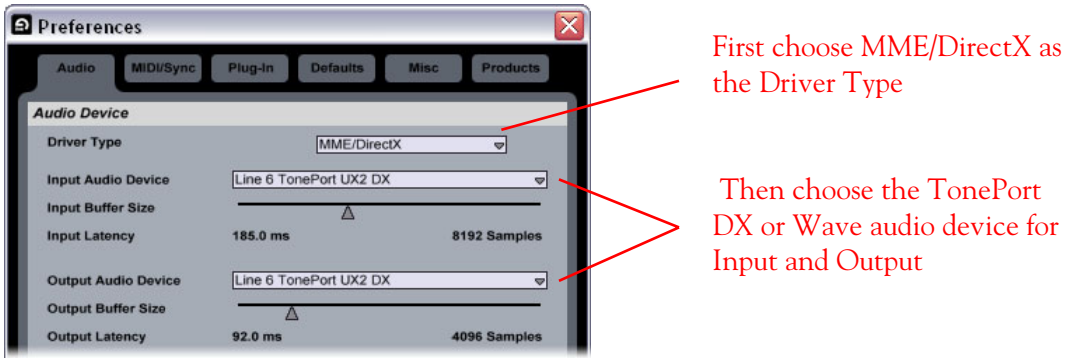
Using the MME/DirectX Driver Type

As mentioned on page 2, it is recommended to select the ASIO driver type with TonePort since it provides lower latency performance and the ability to access an additional set of stereo Record Sends in your audio applications. The MME/DirectX driver type can be selected in Ableton Live as an alternative.

Go to the GearBox Help menu and select Hardware and Driver Settings to launch the Control Console:



Once the above settings are made in the Control Console, you can go to the Ableton Live Preferences dialog and set it to use the MME/DirectX driver.



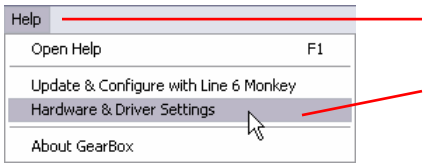
Using this MME/DirectX driver type, Ableton Live will only be able to access Record Send 1-2 from TonePort, since Record Send 3-4 is only available when using the ASIO TonePort driver.

CAKEWALK SONAR HOME STUDIO VER. 4 SETUP – WINDOWS®

Be sure to connect the USB cable from TonePort into your computer's USB port, and then proceed with the following steps…

Configuring TonePort's Control Console

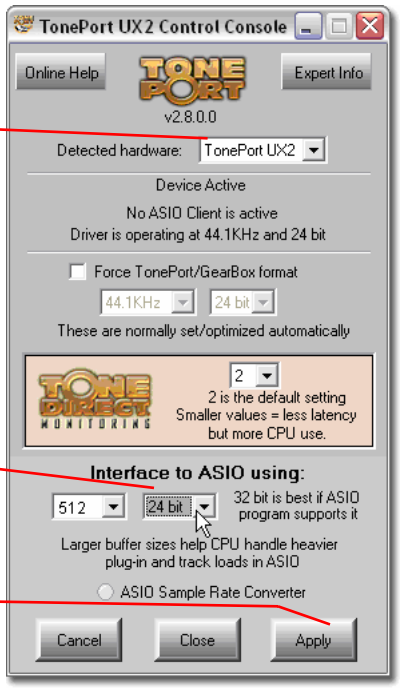
First launch the GearBox application, and go to the Help menu to launch the TonePort Control Console.



Select the GearBox Help menu

Choose Hardware & Driver Settings

Match the settings in the Control Console dialog as shown here…



Select your TonePort UX1 (or UX2) device

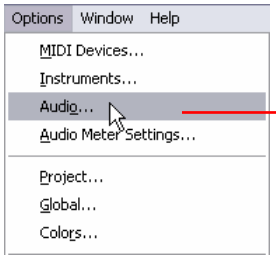
Select 24 bit*

Click Apply when done

* Note – it is best to set this TonePort Bit Rate option before launching Sonar. If you change this with Sonar already running, it may cause playback to stop working until you exit and then re-launch the Sonar application.

Configuring Sonar Home Studio 4 to use the ASIO TonePort driver

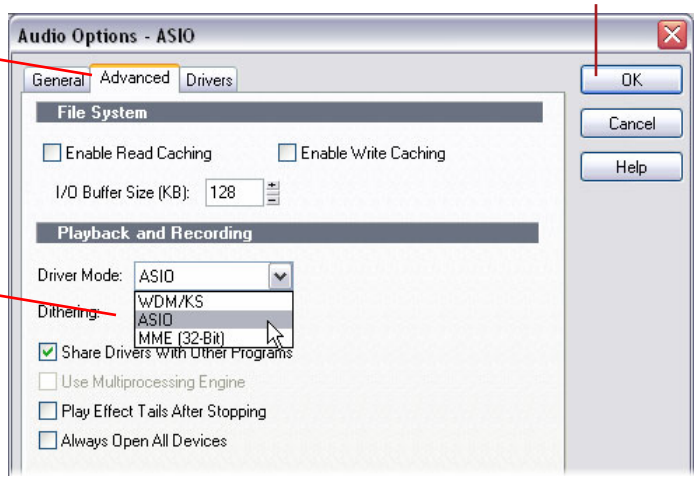
Launch the Sonar Home Studio application and make the following settings…



Select the Sonar Options menu and choose Audio

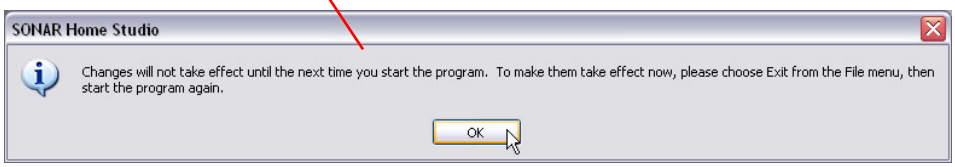
Click the OK button when done

Select the Advanced tab



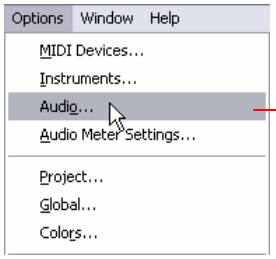
Select ASIO as the Driver Mode

If prompted with the following dialog, click the OK button …



You must now exit the Sonar application, and then launch Sonar Home Studio again for the ASIO setting to take effect!

Once the Sonar Home Studio 4 application is launched again…

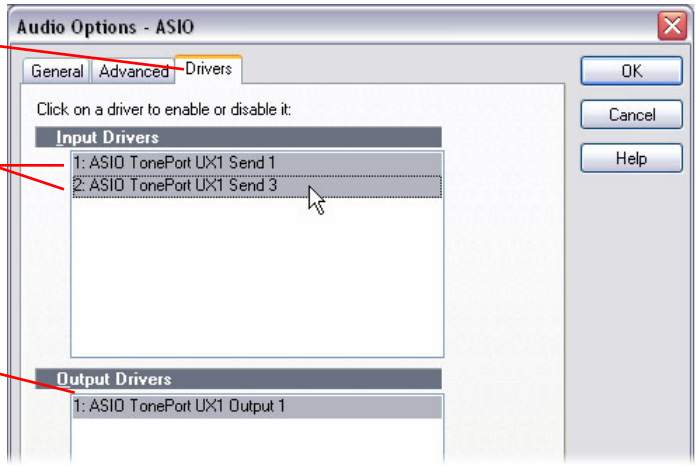


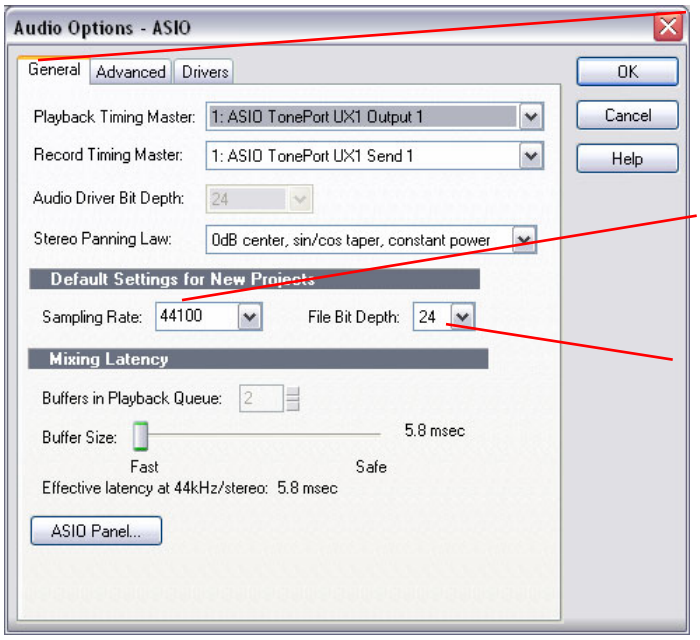
Return to the Sonar Options menu and choose Audio to launch the Audio Options dialog once again

Select the Drivers tab

Make sure all Input Drivers are enabled if you want to record from all TonePort's Sends

Also enable the Output Driver





Select the General tab and match all settings as shown in this example

Choose a different Sample Rate if your Projects require it, otherwise 44100 is a good choice

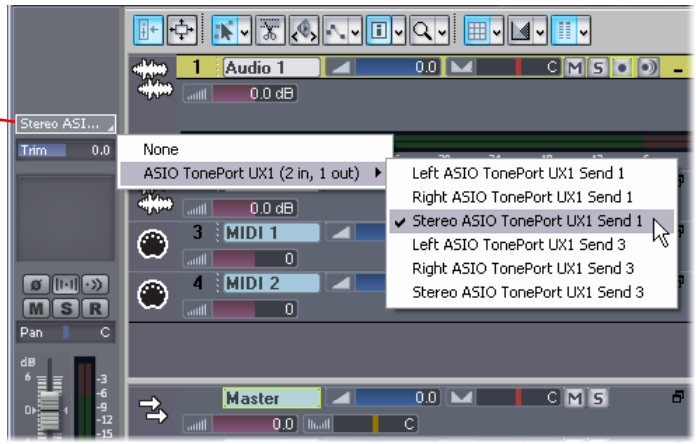
Choose 24 as the File Bit Depth

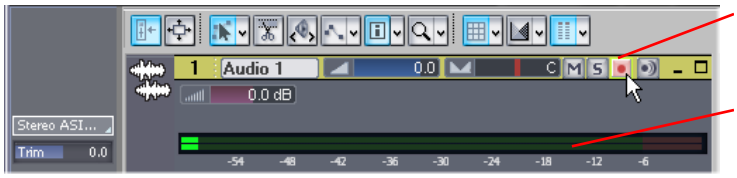
Be sure to click the dialog's OK button when done.

Setting up an audio track to record from TonePort in Sonar Home Studio 4

Now that your TonePort hardware is set up, open or create a new Sonar Project and make the following settings to start recording…

At the left of the track, click on the track Input Selector and choose the preferred TonePort Send



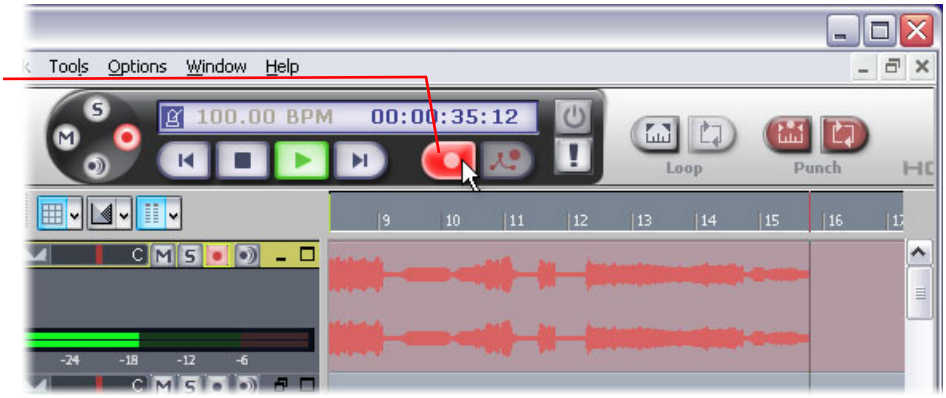


Click on the desired audio track's Arm button to arm the track for recording.
The track Input Meter will reflect the input level

Note that the "Left" and "Right" labeled ASIO TonePort Send 1 options will record from either the TonePort Send 1 or Send 2, respectively. These "Left" and "Right" labeled inputs will each record a mono file.

The "Stereo" labeled options will record from the TonePort Send 1 & 2, or Send 3 & 4, and will each record a stereo file.

Now press the main transport Record button and start recording!

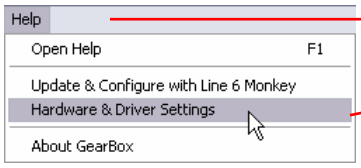


CAKEWALK SONAR 4 PRODUCER/STUDIO SETUP - WINDOWS®

Be sure to connect the USB cable from TonePort into your computer's USB port, and then proceed with the following steps…

Configuring TonePort's Control Console

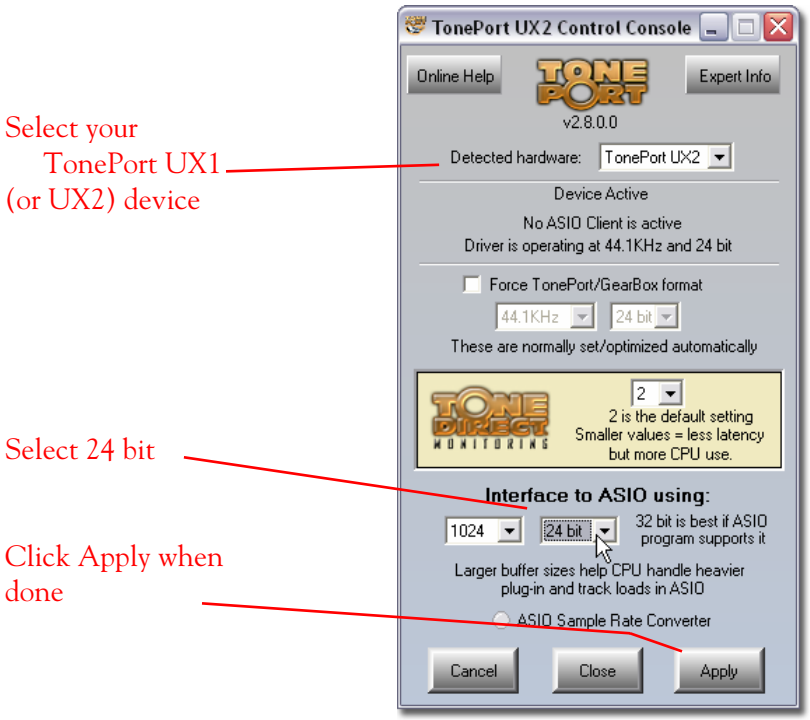
First launch the GearBox application, and go to the Help menu to launch the TonePort Control Console.



Select the GearBox Help menu

Choose Hardware & Driver Settings

Match the settings in the Control Console dialog as shown here…



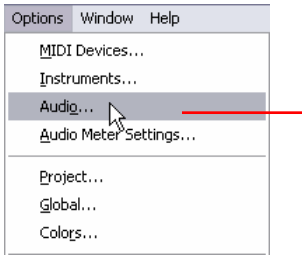
Select your TonePort UX1 (or UX2) device

Select 24 bit

Click Apply when done

Configuring Sonar 4 to use the ASIO TonePort driver

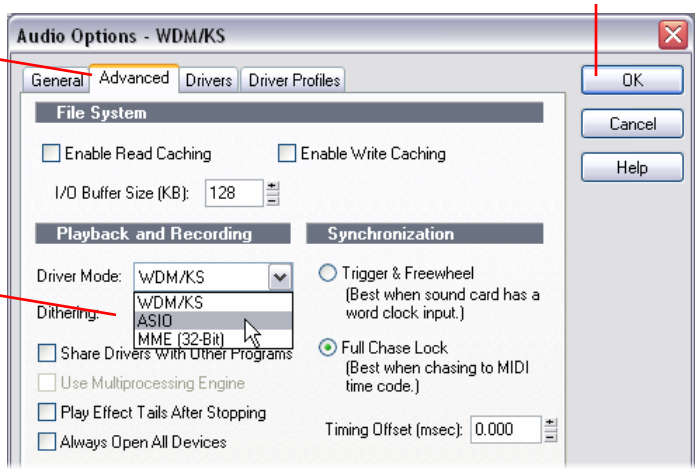
Launch the Sonar 4 application and make the following settings…



Select the Sonar Options menu and choose Audio

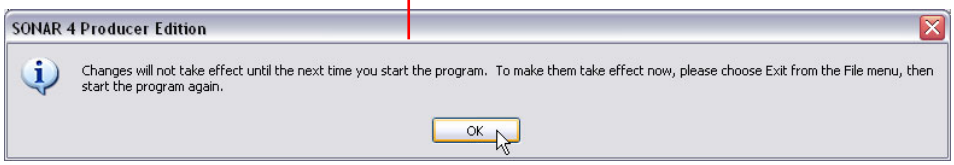
Click the OK button when done

Select the Advanced tab



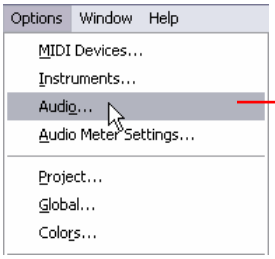
Select ASIO as the Driver Mode

If prompted, click the OK button…



You must now exit the Sonar application, and then launch Sonar 4 Studio/Producer again for the ASIO setting to take effect.

Once the Sonar 4 Studio/Producer application is launched again…

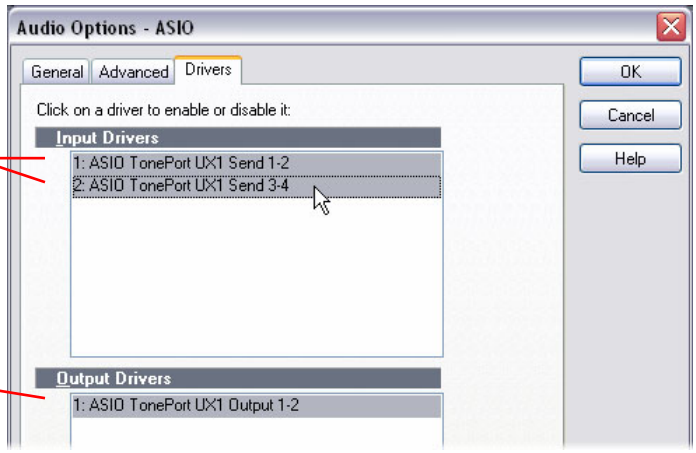


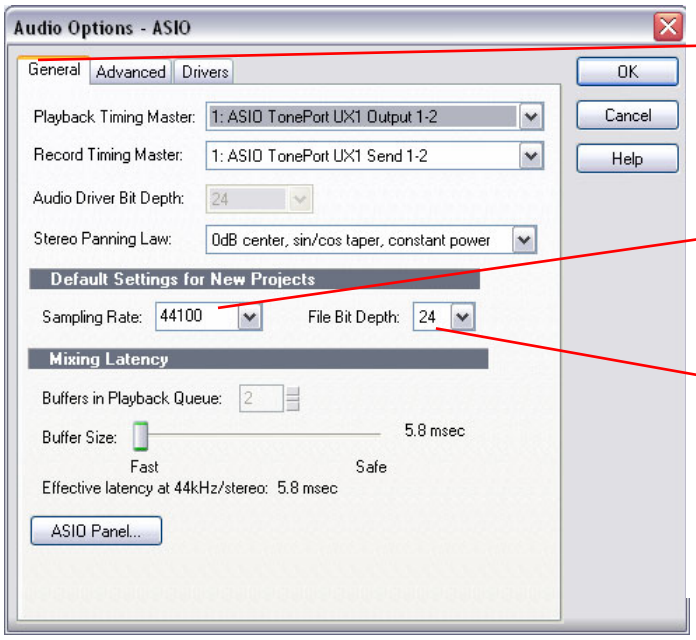
Return to the Sonar Options menu and choose Audio to launch the Audio Options dialog once again

Select the Drivers tab

Make sure all Input Drivers are enabled if you want to record from all TonePort's Sends

Also enable the Output Driver





Select the General tab and match all settings as shown in this example

Choose a different Sample Rate if your Projects require it, otherwise 44100 is a good choice

Choose 24 as the File Bit Depth

Be sure to click the dialog's OK button when done.

This completes the ASIO driver setup!

Setting up an audio track to record from TonePort in Sonar 4

Now that your TonePort hardware is set up, open or create a new Sonar Project and make the following settings to start recording…

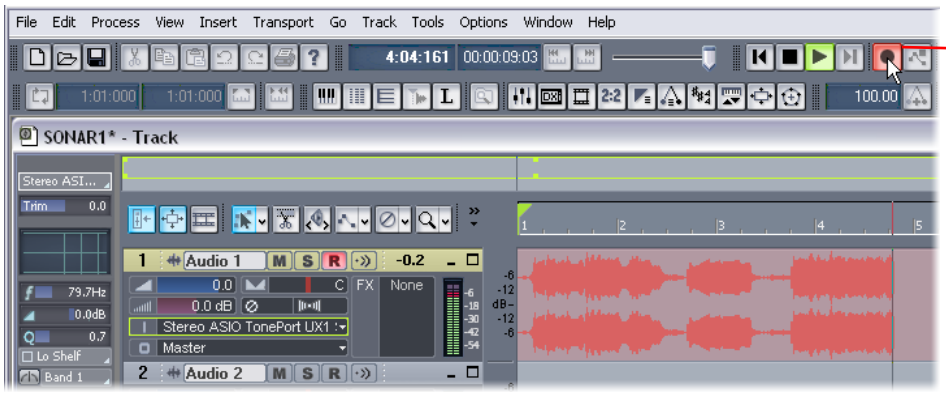
Click on the Input Selector at the left of the audio track and choose the preferred TonePort Send

Note that the "Left" and "Right" labeled ASIO TonePort Send 1-2 options will record from either the TonePort Send 1 or Send 2, respectively. These "Left" and "Right" labeled inputs will record a mono file.

The "Stereo" labeled options will record from TonePort's Send 1 & 2, or Send 3 & 4, and will record a stereo file.

Click on the audio track's Arm button to arm the track for recording.

The track Input Meter will reflect the input level



Now press the main transport Record button and start recording!

DIGIDESIGN PRO TOOLS LE 6 SETUP – WINDOWS®

Using TonePort with Pro Tools LE 6.x

Digidesign has designed Pro Tools software so it can only be used with a Digidesign or M-Audio audio interface; you cannot use TonePort as the primary audio interface for a Pro Tools system. But you can still enjoy the benefits of TonePort and GearBox by connecting TonePort to your Digidesign interface's inputs. TonePort UX2 even lets you do this with a direct, digital connection.

For this document, we'll be showing how to connect to the Digidesign Mbox unit, but these steps are similar for connecting to the Digi 002 or other Digidesign hardware as well. There are two methods described here – Recording from TonePort UX1 or UX2's analog outputs, and recording from TonePort UX2's digital S/PDIF output.

> Note that it is not necessary to have both your TonePort and Mbox units connected to the same PC. You can alternatively have your TonePort and Digidesign hardware on separate computers as well, since the two devices are indeed operating individually!

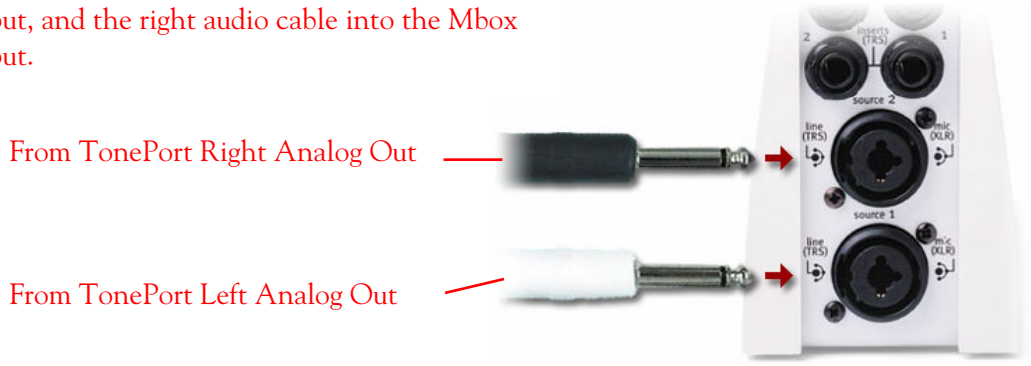
Be sure to connect the USB cable from TonePort into your computer's USB port, and then proceed with the following steps…

Recording from TonePort UX1 or UX2's Analog Outputs

Connect the analog outputs from TonePort to the Digidesign Mbox

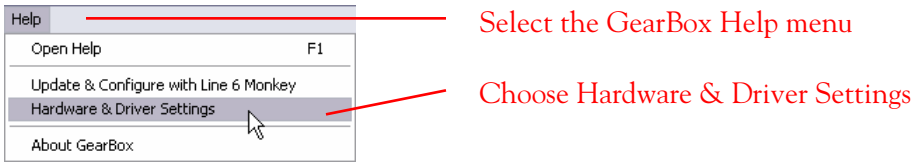
Using two ¼" to ¼" shielded TS or TRS audio cables, plug each into the Analog Outs of your TonePort UX1 (or UX2) device

Plug the other end of the left audio cable into the Mbox Source 1 input, and the right audio cable into the Mbox Source 2 input.



You will still use the Mbox Line Outputs (or Headphone Output) to hear playback of all Pro Tools LE audio. The TonePort/GearBox audio will now be mixed with the Pro Tools LE audio as well. Therefore, if you are using headphones, you'll want to plug them into the Mbox headphone jack to hear everything.

Next, before you launch Pro Tools LE, launch the GearBox application, and go to the Help menu to launch the TonePort Control Console.

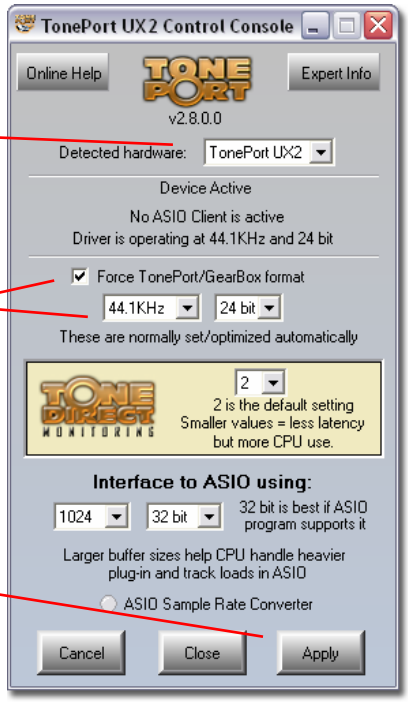


Match all settings in the TonePort Control Console dialog, as shown here…

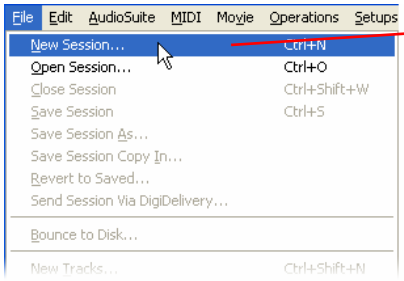
Select your TonePort UX1 (or UX2) device

Check the Force TonePort/GearBox format checkbox, and then choose 44.1KHz and 24 bit

Click Apply when done. (Do not exit the GearBox application).



Now, launch Pro Tools LE and create a new Session…

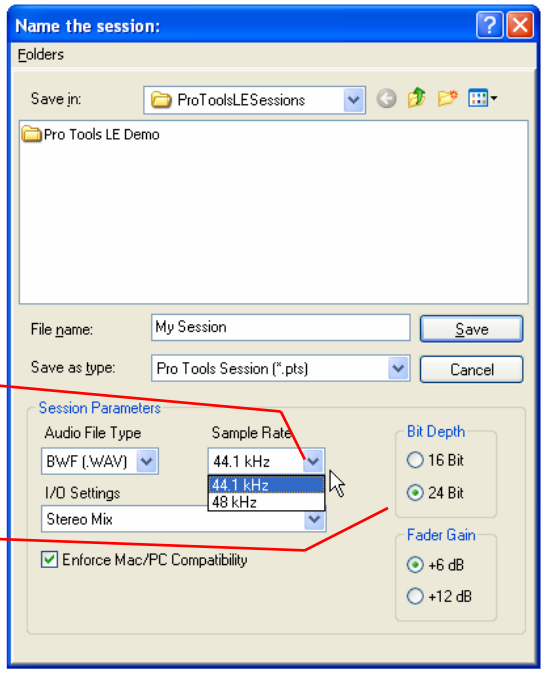


To start a new session in Pro Tools LE, choose New Session from the File menu

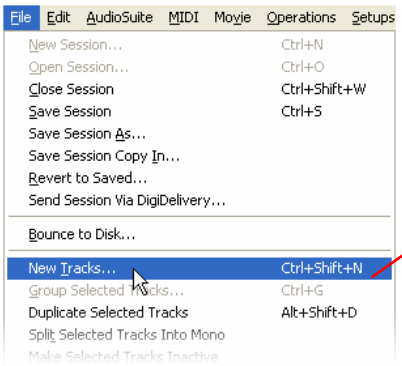
Choose 44.1 kHz or 48 kHz

Choose 24 Bit

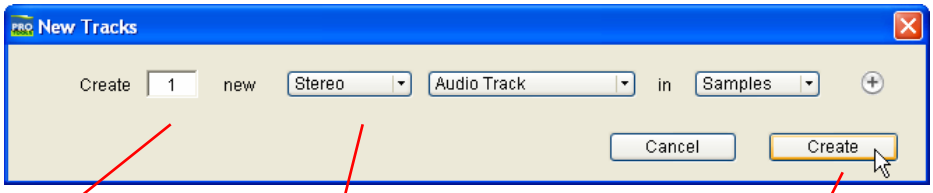
Type in a File name and click the Save button



Set up a new Pro Tools LE track for recording…



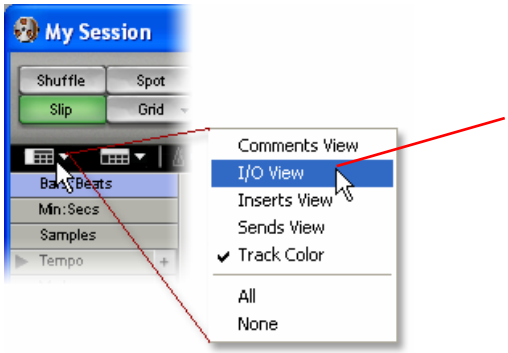
Now that you have a new session, choose New Tracks from the File menu



Choose how many Tracks to create

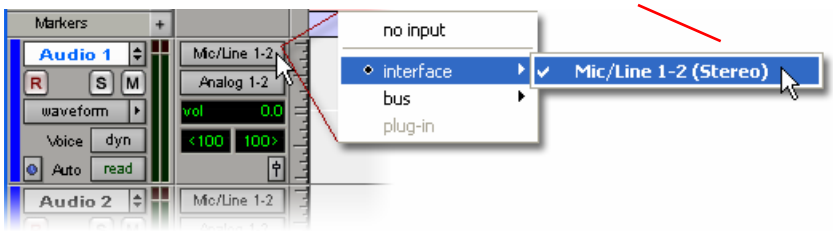
Choose Mono or Stereo for your audio track format

Click the Create button

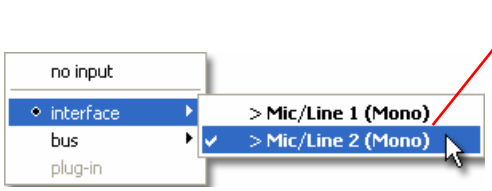


At the top left of the Edit Window, click the View selector and enable the I/O View

If the track you want to record into is Stereo, click on the track's Input button and choose Interface > Mic/Line 1-2 (Stereo)

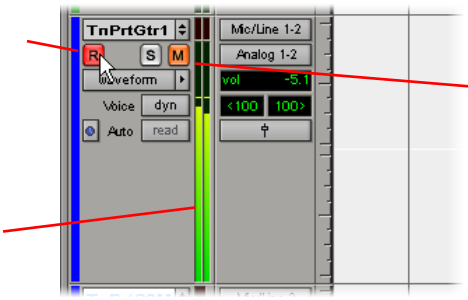


Or… if the track you want to record into is Mono, click on the track's Input button and choose Mic/Line 1 (Mono) to capture the TonePort LEFT signal, or choose Mic/Line 2 (Mono) to capture the TonePort RIGHT signal



Click the Arm button for the track to arm it for recording

The track meters will now measure the TonePort/GearBox input signal level



Click the Mute button to mute the track while recording*

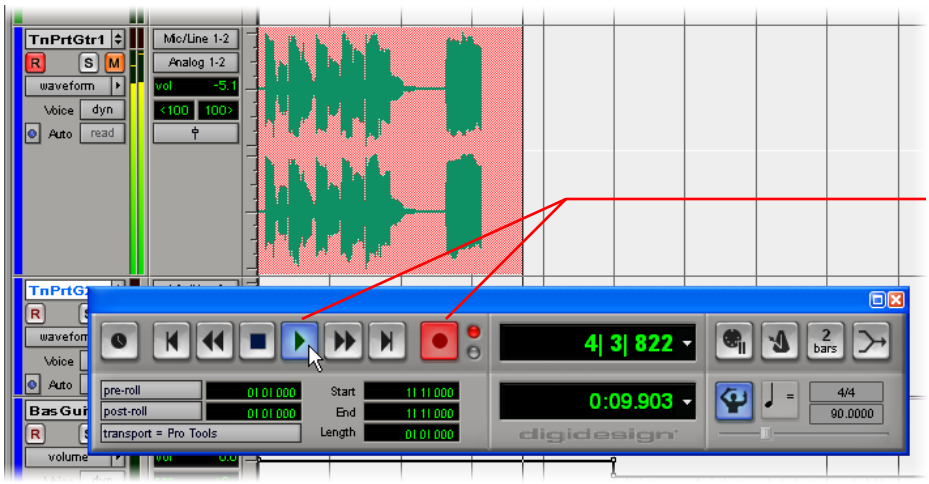
* Muting the track during recording disables the Pro Tools LE software monitoring feature, which allows your TonePort/GearBox analog input signal to be monitored with the lowest latency possible. Adjust the Mbox Mix knob to balance the session audio with the input audio (see your Mbox documentation for details).

Note to Digi 002 users… when using the Digi 002 hardware with Pro Tools LE, an additional Low Latency Monitoring option is available within Pro Tools LE Operations menu. You can alternatively keep your track un-muted and activate this option to hear your input monitoring signal when recording (see your Digi 002/Pro Tools LE documentation for more on this feature).

Set the Source 1 and Source 2 to "Line" input

The Source 1 & 2 Gain knobs will now adjust the recording input level coming into the Mbox from TonePort/GearBox*

Start recording…



Click the transport Record button to place Pro Tools LE into record mode, then press the Play button to start recording!

Recording from TonePort UX2's S/PDIF Digital Output

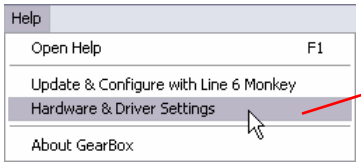
Connect the TonePort UX2 S/PDIF output to the Digidesign Mbox

Using a 75-Ohm, coaxial S/PDIF cable, plug one end into the S/PDIF Digital Out of your TonePort UX2…

Plug the other end of the S/PDIF cable into the Mbox S/PDIF In

You will still use the Mbox Line Outputs (or Headphone Output) to hear playback of all Pro Tools LE audio. The TonePort/GearBox audio will now be mixed with the Pro Tools LE audio if you use the Pro Tools software monitoring function. See the later section regarding monitoring for more on this.

Next, before launching Pro Tools LE, launch the GearBox application, and go to the Help menu to launch the TonePort Control Console.



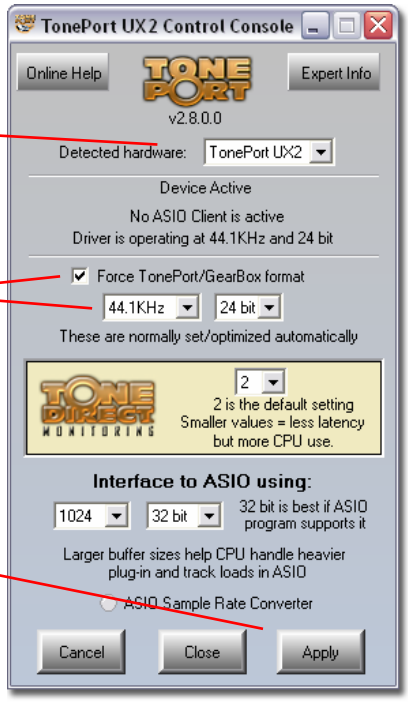
Select the GearBox Help menu and choose Hardware & Driver Settings

Match all settings in the TonePort Control Console dialog, as shown here…

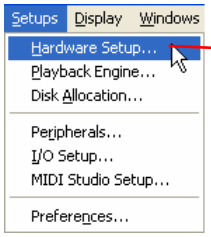
Select your TonePort UX2 device

Check the Force format box and choose 44.1KHz and 24 bit

Click Apply
Do not exit the GearBox application



Now, launch the Pro Tools LE application and set it up to receive the S/PDIF Digital Input

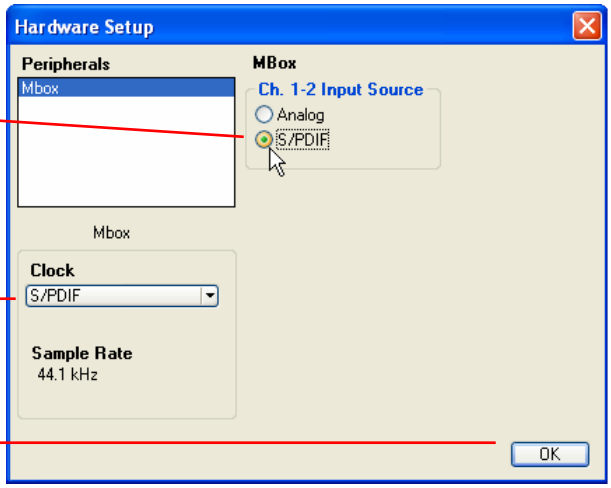


Go to the Pro Tools LE Setups menu and choose Hardware Setup

Choose S/PDIF as the Input Source

The Clock setting will automatically also change to S/PDIF – keep this setting for recording since this syncs the Mbox to TonePort's clock.

Click OK when done

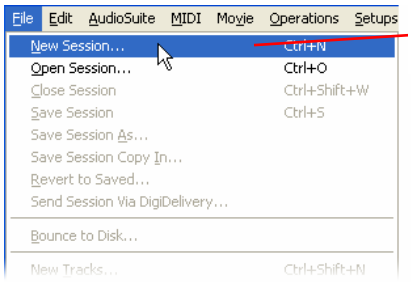


You will now see the spdif light illuminated on the front of the Mbox, indicating it is in S/PDIF digital input mode

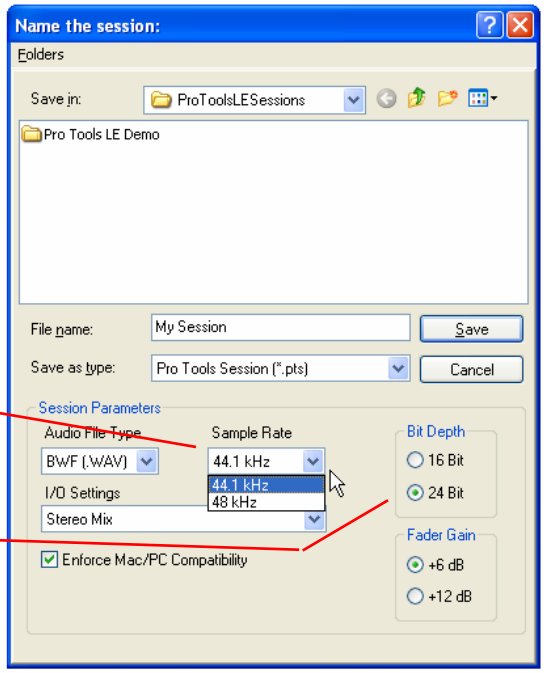
Note that when receiving S/PDIF input, the Source 1 & Source 2 Gain knobs do not adjust the digital signal level

To adjust the recording level, use the GearBox software's output level controls

Create a new Pro Tools LE Session…



Go to the File menu and choose New Session



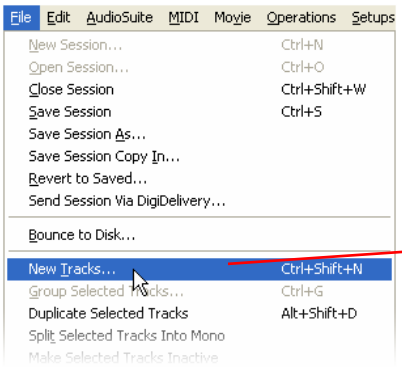
Choose 44.1 kHz*

Choose 24 Bit

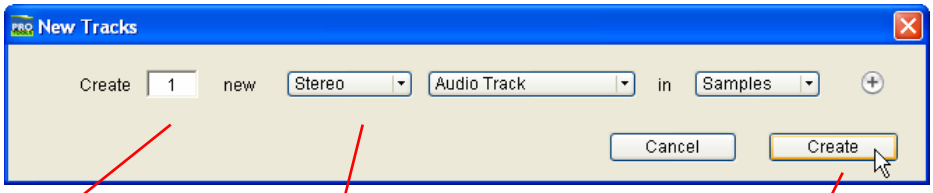
Type in a File name and click Save

*If you prefer to use the 48 kHz Sample Rate, then you can choose these here in the Pro Tools dialog, but you will need to also go back to the TonePort Control Console dialog and set these values to match (see the earlier step on configuring the TonePort Control Console). Matching sample rates are required with a digital connection.

Create a new Pro Tools LE track for recording…



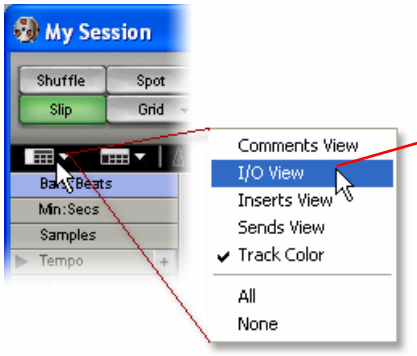
Now that you have a new session, choose New Tracks from the File menu



Choose how many Tracks to create

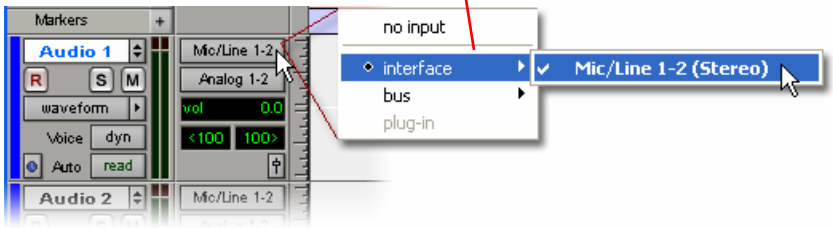
Choose Mono or Stereo for your audio track format

Click the Create button



At the top left of the Edit Window, click the View selector and enable the I/O View

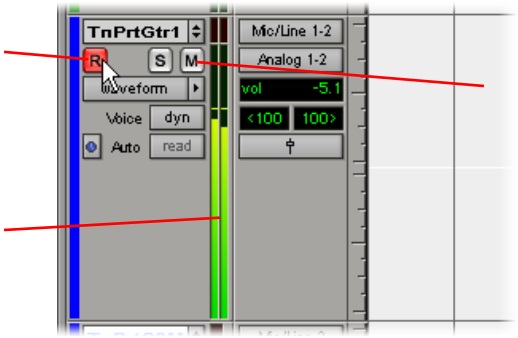
If the track you want to record into is Stereo, click on the track's Input button and choose Interface > Mic/Line 1-2 (Stereo)



Or… if the track you want to record into is Mono, click on the track's Input button and choose Mic/Line 1 (Mono) to capture the TonePort LEFT signal, or choose Mic/Line 2 (Mono) to capture the TonePort RIGHT signal

Click the Arm button for the track to arm it for recording

The track meters will now measure the TonePort/GearBox input signal level

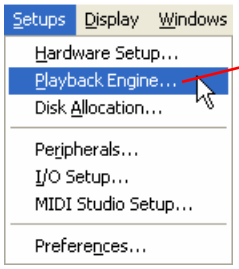


Keep the track's Mute button set to un-muted to monitor your TonePort/GearBox signal*

* When receiving a S/PDIF input, the Mbox will only allow the signal to be monitored through the Pro Tools LE software. The track's volume control will adjust the monitor signal coming from your TonePort/Gearbox, allowing you to balance your listening levels independently of your recording level. The Pro Tools LE software monitoring is also subject to latency, which is affected by your Pro Tools LE Hardware Buffer settings (see your Mbox documentation for more information regarding latency and monitoring).

Note to Digi 002 users… when using the Digi 002 hardware with Pro Tools LE, an additional Low Latency Monitoring option is available in the Pro Tools LE Operations menu. It is best to activate this option to hear your input monitoring signal with the lowest latency when recording (see your Digi 002/Pro Tools LE documentation for more about this feature).

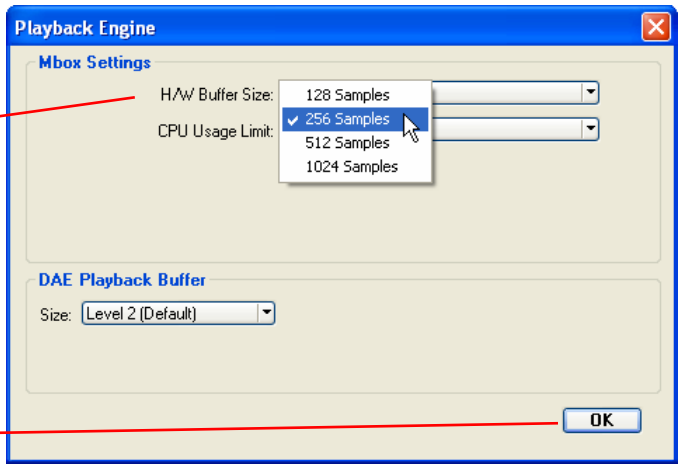
Adjust the Pro Tools LE Hardware Buffers



Go to the Pro Tools LE Setups menu and choose Playback Engine

The lower the H/W Buffer Size value that is selected, the lower the latency. However, lower values also result in less stability for session playback and recording. 256 Samples may be a good starting value to try.

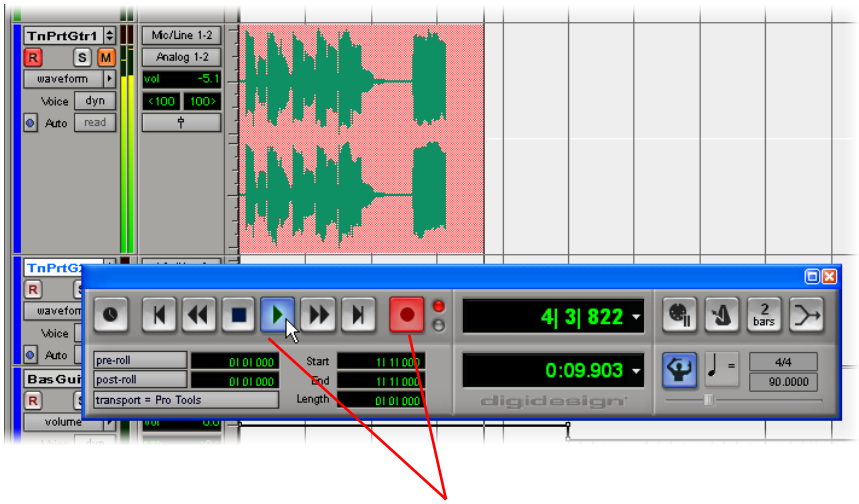
Click OK when done



***Note** – this Buffer Size value does not affect the monitoring latency when using the Digi 002 and the "Low Latency Monitoring" option.*

Alternative Mbox monitoring option…If monitoring your TonePort recording signal through the Pro Tools LE software results in excessive latency, you can alternatively connect TonePort's Analog Outs to an external Mixing Console and manually mix the TonePort signal with the output of your Mbox. This allows you to hear the TonePort signal with no added latency from Pro Tools LE. In this configuration, you should Mute your Pro Tools LE track while recording to silence its software monitoring signal.

Start recording…



Now click the transport Record button to place Pro Tools LE into record mode, then press the Play button to start recording!

PROPELLERHEAD REASON 3 SETUP – WINDOWS®

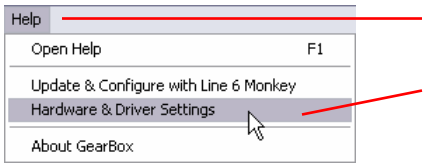
Propellerhead Software's Reason 3 is an amazing virtual studio filled with synthesizers, drums and effects, all combined with a MIDI sequencer for easy pattern-based music creation. Reason does not offer a feature for recording audio; therefore, GearBox and TonePort cannot be used for input directly into Reason. However, you do of course need a sound card device for playback, and TonePort is a perfect high quality interface for this task! When using TonePort, you can also simultaneously plug in your instruments and jam along with the playback of your Reason project, or utilize Reason's ReWire technology to combine a Reason project with that of another ReWire capable audio software, and use TonePort as the audio device in this setup as well.

Be sure to connect the USB cable from TonePort into your computer's USB port, and then proceed with the following steps…

Use TonePort as your playback device for Reason 3

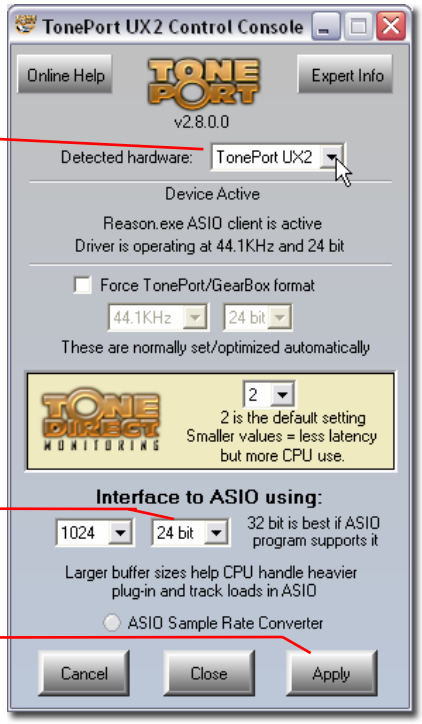
Configure TonePort for Reason playback

First launch the GearBox application to launch the TonePort Control Console.



Select the GearBox Help menu

Choose Hardware & Driver Settings



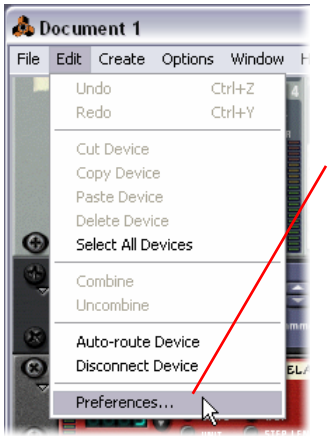
Select your TonePort UX1 (or UX2) device

Select 24 bit*

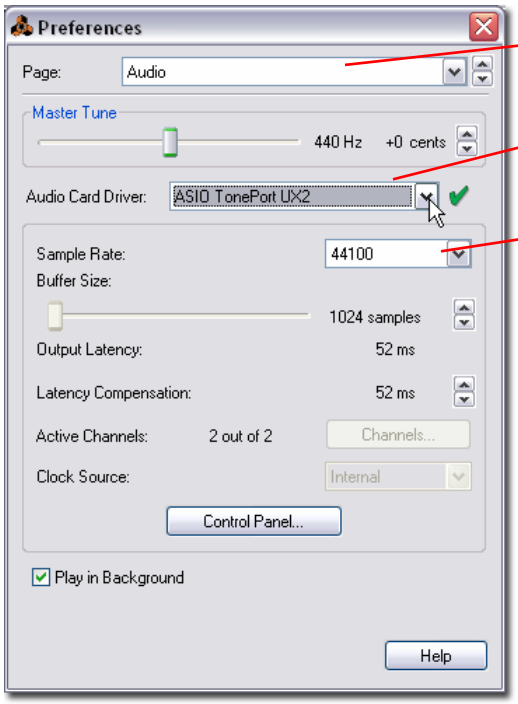
Click Apply when done

*Note – you must choose 24 bit or 16 bit, (24 bit is preferred for the best audio quality). Reason 3 does not support 32 bit and no audio will be heard with this setting.

Configuring Reason 3 to use the ASIO TonePort driver
Launch Ableton Live Lite 4 and make the following settings…



Select the Reason Edit menu and choose Preferences



Select the Audio Page

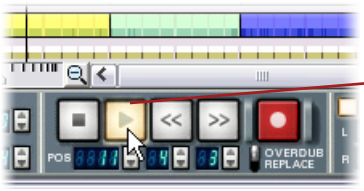
Choose ASIO TonePort UX1 (or UX2) as the Audio Card Driver *

Choose a Sample Rate – 44100 is a good choice for most projects

Click the X button at the top right of the Preferences dialog when done to exit

* Note – You will also see options for **DX Line 6 TonePort** and **MME Line 6 TonePort** within the **Audio Card Driver** menu. These are alternative driver types that can be used, but it is recommended to select the **ASIO TonePort** driver for the best performance.

You should now see your TonePort listed as the Audio Out device at the top left of Reason's display



Now just hit the Play button in Reason's transport and to hear the Reason playback through TonePort!

To jam along with Reason…

You can also of course still use GearBox for your Mic and Instrument tones while Reason is playing back if you want to sing or jam along. Just plug in your Mic or Instrument and use GearBox just as you normally do. Note that you can use the Send 1-2 Monitor knob to adjust the level of your Mic or Instrument independently of the level of the Reason playback.

Use the Send 1-2 Monitor knob to adjust your Mic and Instrument volume level

To control the playback level of Reason, use the Mixer controls in the Reason software

Use the Reason Mixer's Master slider for overall control of Reason's playback level.

With this configuration, both the Reason project playback, and your Mic/Instrument GearBox tones are heard through your speakers, and sent to all TonePort's outputs. This allows you to connect any of TonePort's outputs to any external device, such as a tape recorder, mixer, P.A. system, etc. to record or amplify this stereo output signal!

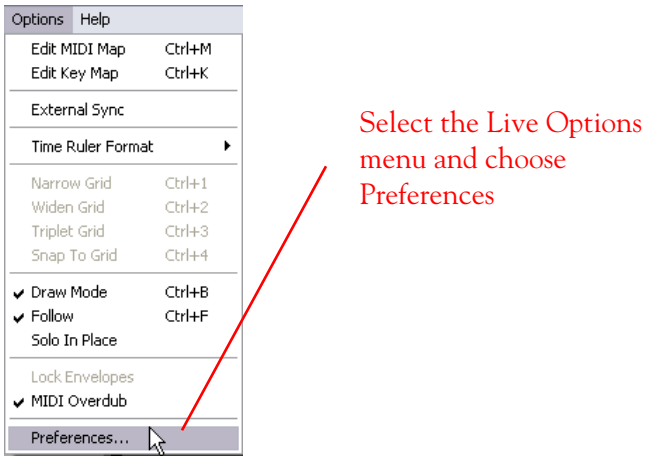
Using TonePort with Reason 3 in a ReWire setup

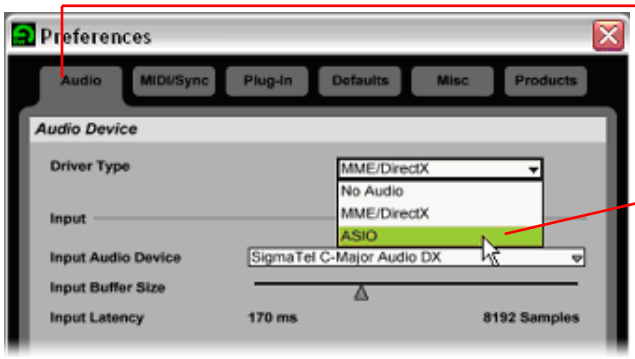
The Propellerhead "ReWire" technology allows the Reason modules' outputs to be directly routed into any ReWire "Host" application. Using ReWire, the Host application can send MIDI tracks to Reason's synth. modules, and Reason then sends audio playback directly into the ReWire Host, which is mixed with the audio of the Host application. When Reason is configured as a ReWire "Slave" in this manner, it is controlled by the Host application and does not utilize a sound card connection itself. Therefore, if you want to use TonePort as your sound card device in a ReWire setup like this, it is necessary for you to choose TonePort as the audio device for the ReWire Host application.

Using Reason 3 with Ableton Live Lite 4 as a ReWire Host

The included Ableton Live Lite 4 software is capable of functioning as a ReWire Host application. The following steps show you how to set TonePort as the audio device for the Ableton Live Lite 4 software, and then configure Live to connect with Reason as a ReWire Slave device. This allows you to do audio recording and playback with Ableton Live, allowing Reason's output to be automatically played in sync and channeled through Live's audio tracks via ReWire.

You first want to be sure to exit Reason if it is currently running. The ReWire Host application must be launched first. Launch Ableton Live Lite 4 and make the following settings to set TonePort as the Live audio device…

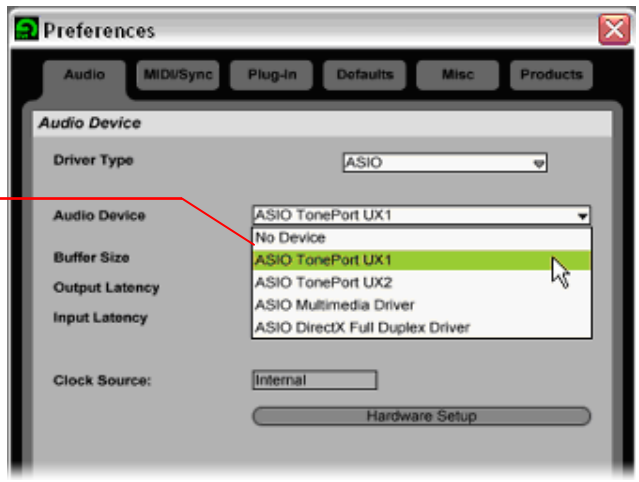




Select the Audio tab

Choose ASIO as the Driver Type

Select ASIO TonePort UX1 (or UX2) as the Audio Device

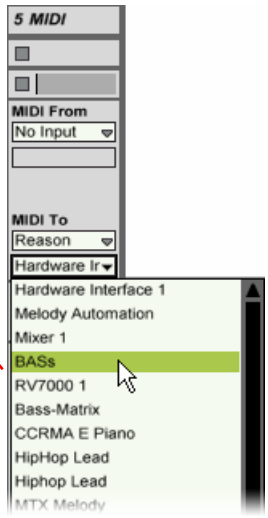


Now that Ableton Live Lite 4 is configured to use TonePort, launch Reason 3. Reason will automatically set itself to ReWire Slave Mode. You can check this mode in the Reason Hardware Interface module's Audio Out section.

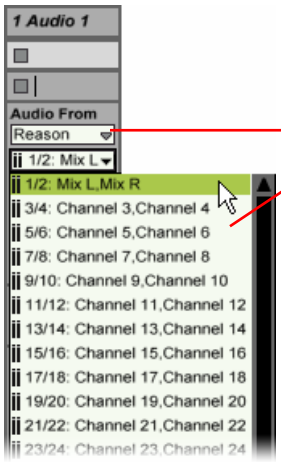
Reason 3 detects when an available ReWire Master is running and sets itself to Slave mode

Now in Ableton Live, you can simply access the Output menu of any MIDI track to set it to send its MIDI to any of the Reason synth modules.

In any of Live's MIDI tracks, choose Reason as the MIDI To output, and then click on the Output Channel selector to choose any Reason module



To receive the audio output from Reason, set the Input of any of Live's audio tracks to receive the audio from any of Reason's outputs.



In any of Live's Audio tracks, choose Reason as the Audio From input, and then click on the Input Channel selector to choose any Reason output channels

(Note that the 1/2 Mix, Mix R channel receives the full Reason project audio mix)

Now just hit the Play button in either Live or Reason, and both projects will play in sync, with all the audio being routed into Ableton Live Lite 4 and played through TonePort!

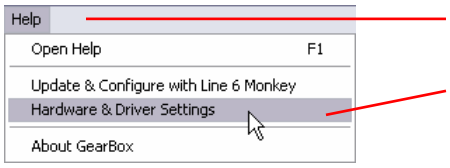
You can utilize GearBox and TonePort to also plug in a Mic or Instrument, dial in your tone, and record audio tracks right into the Ableton Live Lite 4 Set. It is important to note, however, that running all these programs at one time can require some hefty usage of your computers processor, RAM and disk access, especially as you add more tracks, synth modules and real-time effects. Your actual performance will depend on the specifications of your computer.

STEINBERG CUBASE SE 1.0.7 SETUP – WINDOWS®

Be sure to connect the USB cable from TonePort into your computer's USB port, and then proceed with the following steps…

Configuring TonePort's Control Console

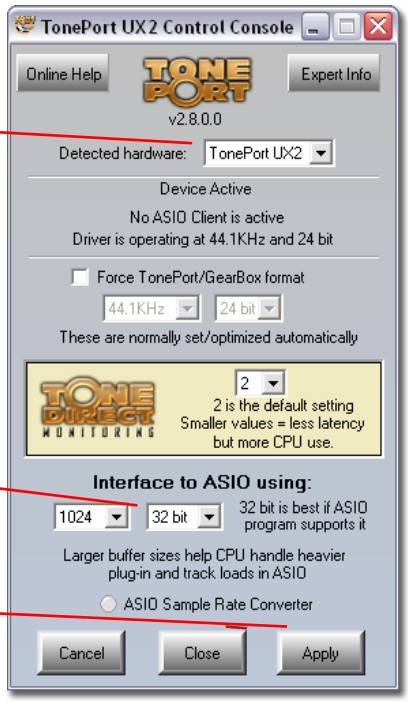
First launch the GearBox application, and then go to the Help menu to launch the TonePort Control Console.



Select the GearBox Help menu

Choose Hardware & Driver Settings

Match all settings in the Control Console dialog as shown here…



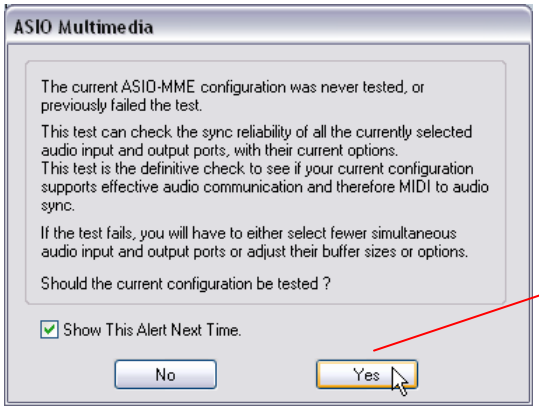
Select your TonePort UX1 (or UX2) device

Select 32 bit

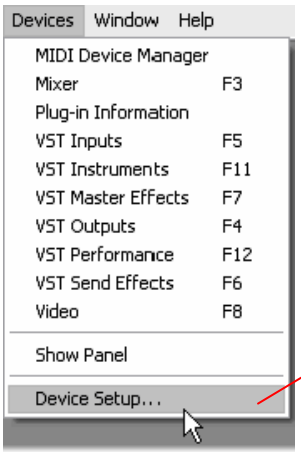
Click Apply when done

Configuring Cubase SE to use the ASIO TonePort driver

Launch Cubase SE and make the following settings…

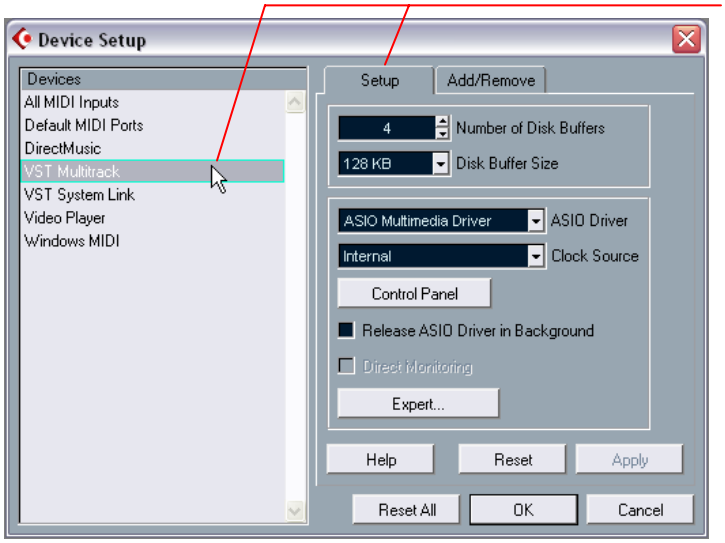


If this ASIO Multimedia dialog is displayed, click Yes to allow it to run its configuration test

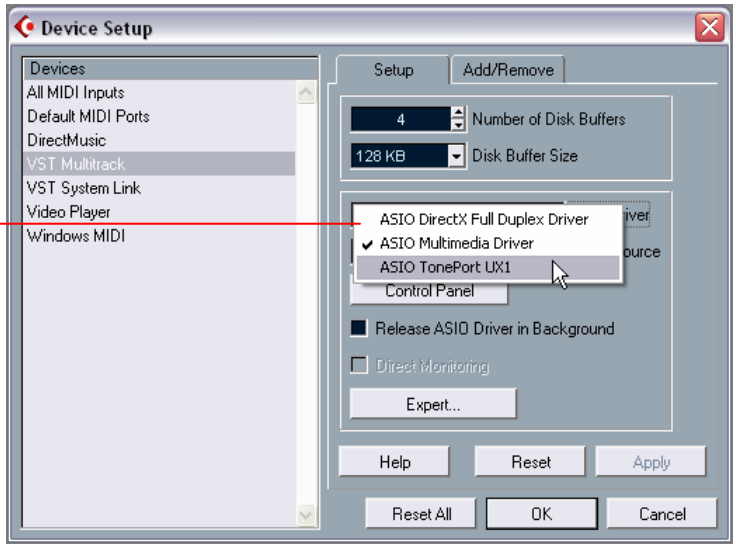


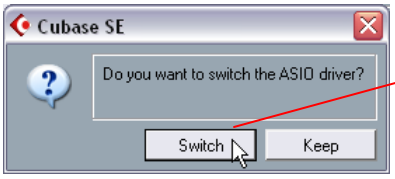
Once the configuration test completes, go to the Cubase SE Devices menu and select Device Setup

Select the VST Multitrack option, and choose the Setup tab in the right of the dialog

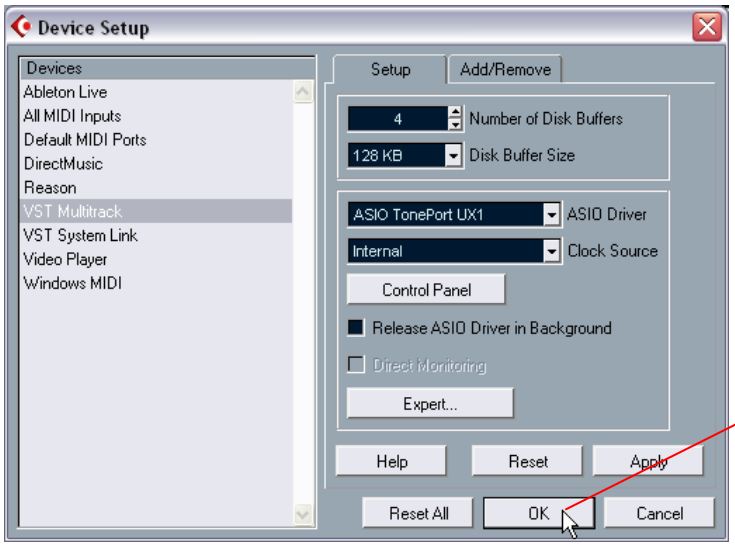


Select ASIO TonePort UX1 (or UX2) as the ASIO Driver



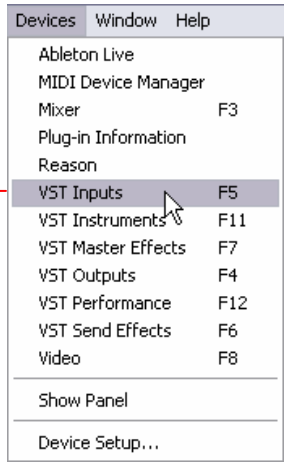


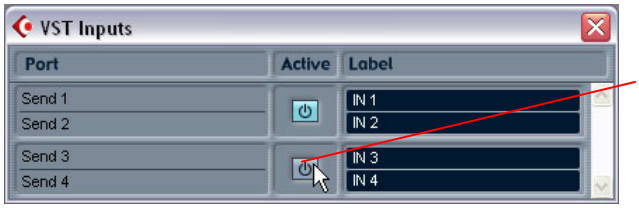
Select Switch when prompted if you want to switch the ASIO driver



Select the OK button to exit the Device Setup dialog

Next, select the Cubase SE Devices menu and choose VST Inputs





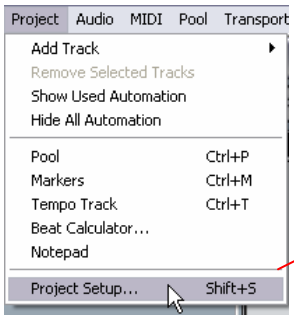
Press the power button for Send 3 and Send 4 to activate them if you want to record from these TonePort Sends

Preparing a Cubase SE Project for recording

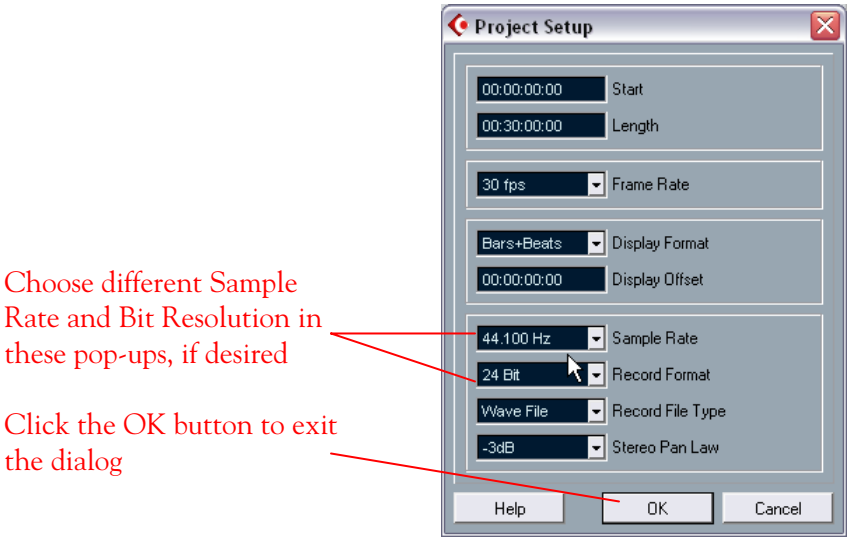
Now that the TonePort hardware is set up, you are ready to start working in a Cubase SE Project!

Check your Project's Sample Rate and Bit Resolution – these are displayed at the bottom left of the Cubase Project window:

44,100 Hz Sample Rate and 24 Bit are good recording settings for most Projects, but if you have specific requirements, these can be changed…



To change the Sample Rate or Bit Resolution, select the Project menu and choose Project Setup

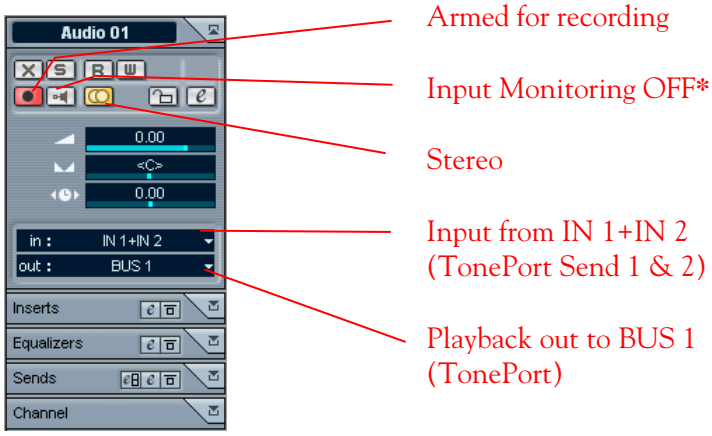


Setting up an audio track to record from TonePort

Cubase SE's Audio track settings can be accessed easily in the Inspector pane at the left of the Project window.

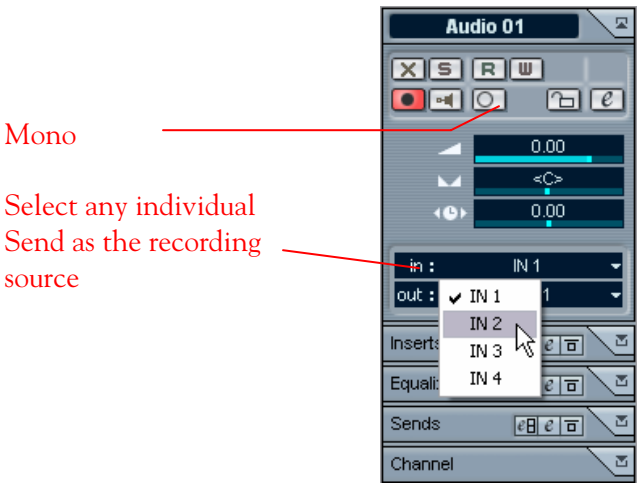
Stereo recording

To record into the selected audio track from the TonePort Send 1 and Send 2 as a stereo file, set the Inspector as follows:



Mono recording

To record into the selected audio track from any TonePort Send as a mono file, set the Inspector as follows:



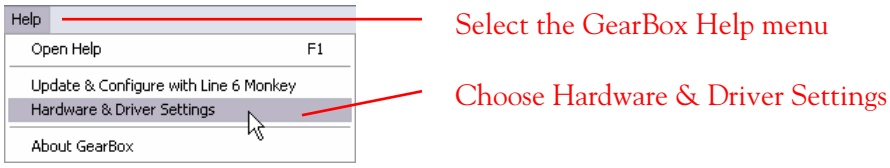
*Note that the track meters in Cubase will not measure the input signal when Input Monitoring is off. You can use the Send meters in the GearBox software as your signal level reference.

STEINBERG CUBASE SX/SL 3 SETUP - WINDOWS®

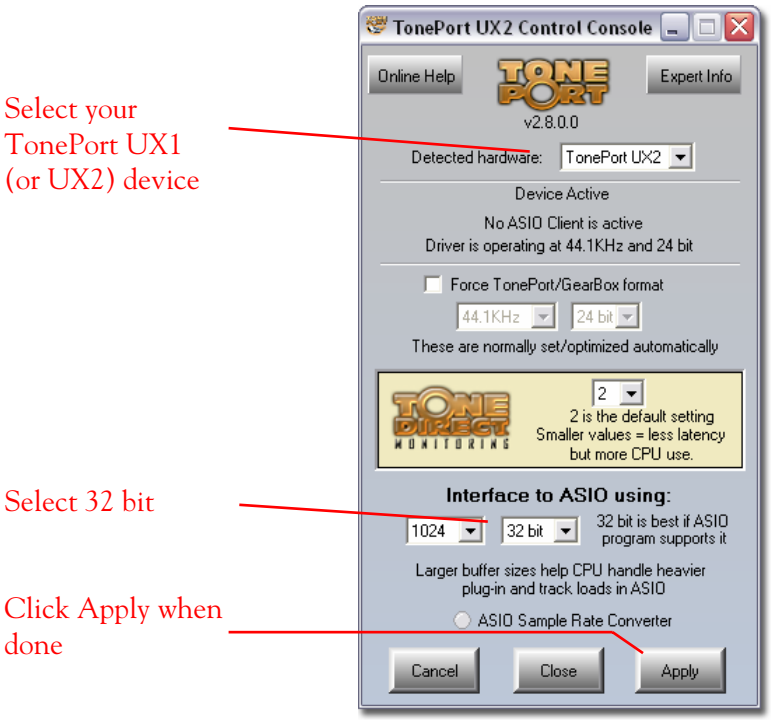
Be sure to connect the USB cable from TonePort into your computer's USB port, and then proceed with the following steps…

Configuring TonePort's Control Console

First launch the GearBox application, and then go to the Help menu to launch the TonePort Control Console.

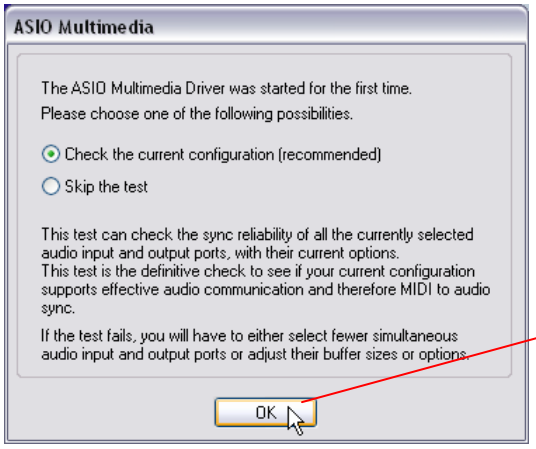


Match all settings in the Control Console dialog as shown here…

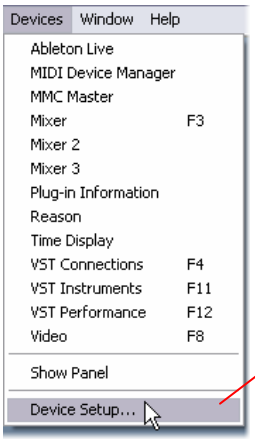


Configuring Cubase SX/SL 3 to use the ASIO TonePort driver

Launch Cubase and make the following settings…

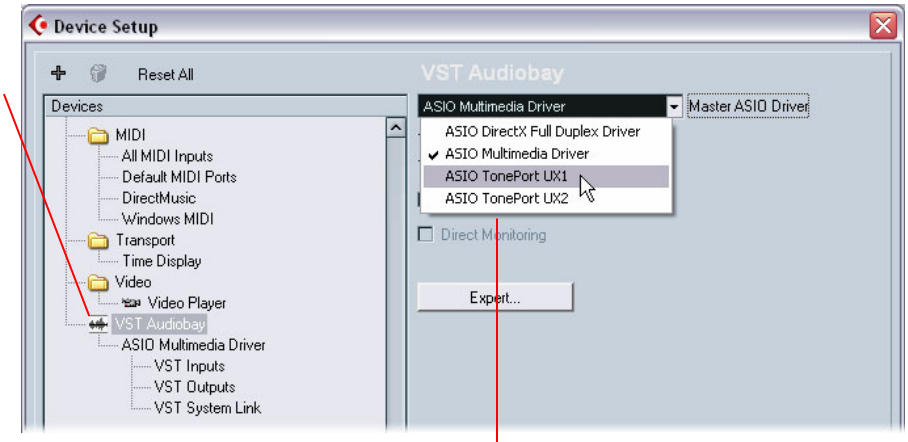


If this ASIO Multimedia dialog is displayed, click OK to allow it to run its configuration test

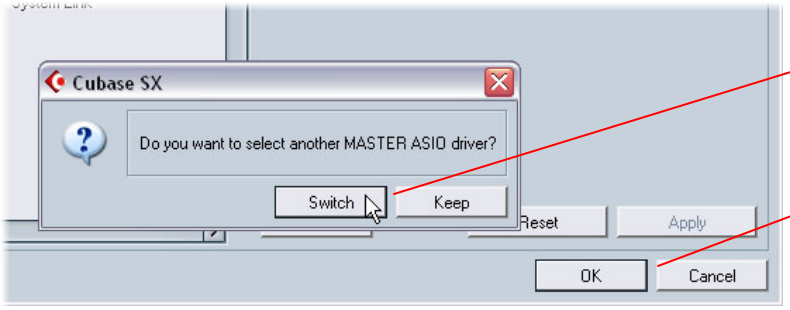


Once the configuration test completes, go to the Cubase Devices menu and select Device Setup

Select VST Audiobay within the Devices pane…



Then select ASIO TonePort UX1 (or UX2) as the Master ASIO Driver

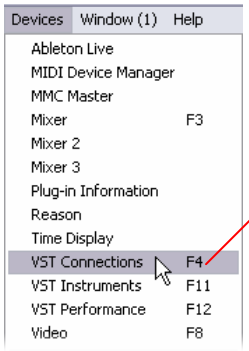


Select Switch if you are prompted to select another driver…

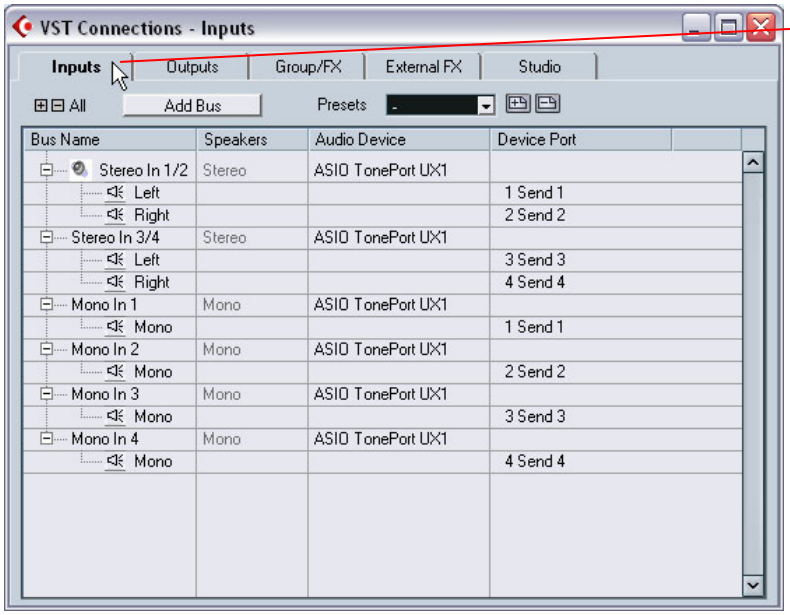
Then click OK to exit the Cubase Device Setup dialog

Configuring Cubase SX/SL 3 to use ASIO TonePort Inputs and Outputs

Proceed with the following steps to establish TonePort's Sends as Inputs for Cubase…



Go to the Cubase Devices menu and choose VST Connections



Choose the Inputs tab

In this window you can create an input "Bus" for each possible Stereo and Mono Send combination coming from TonePort. The Bus Name can also be edited for each

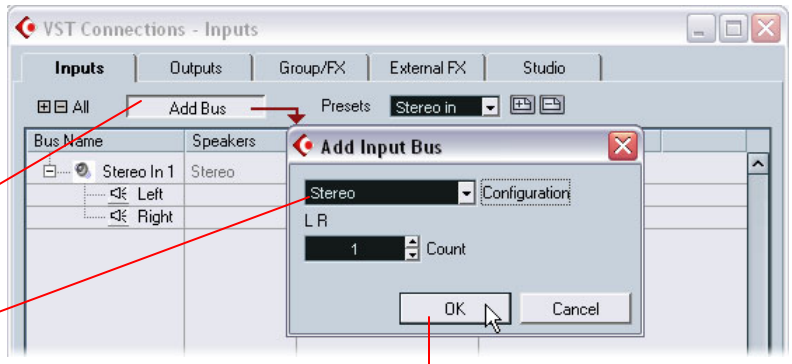
All Buses listed in this tab will appear as Inputs within Cubase when choosing the recording input for an

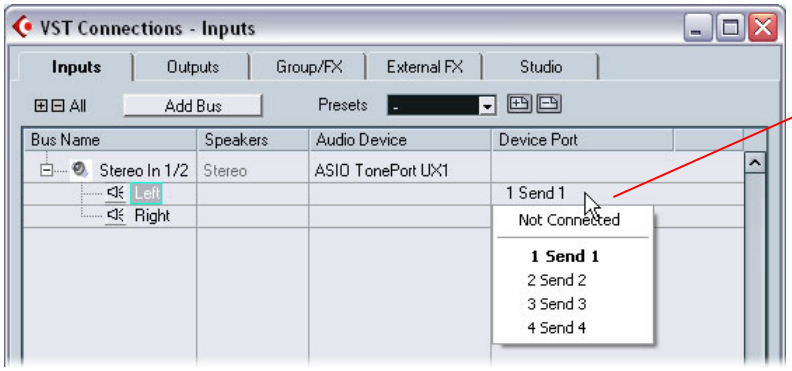
If no Buses yet exist in this list that use your ASIO TonePort audio device, then you must create at least one Bus…

Click on the Add Bus button.

Select Stereo or Mono.

Click OK in the Add Input Bus window.





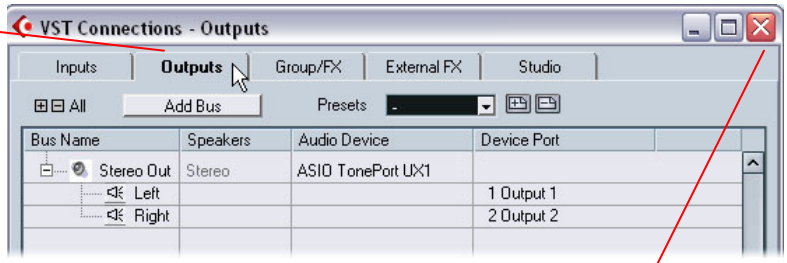
Click on the individual Device Port entries for each Bus to set them to the preferred TonePort Send

You can repeat these steps to create a Bus for each TonePort Send

For more information on creating and configuring Inputs, please check the Cubase SX/SL 3 documentation

Click the Outputs tab

If a Stereo Bus does not yet exist for your ASIO TonePort Audio Device as shown here, then use the Add Bus option to create a Stereo Bus, following the same steps listed above



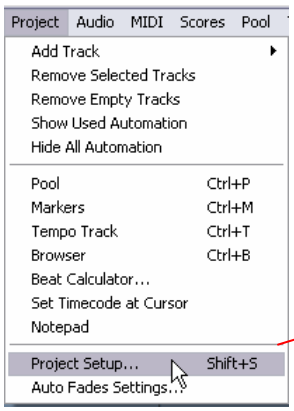
Exit the VST Connections dialog by clicking on the X button when settings are completed

Preparing a Cubase SX/SL 3 Project for recording

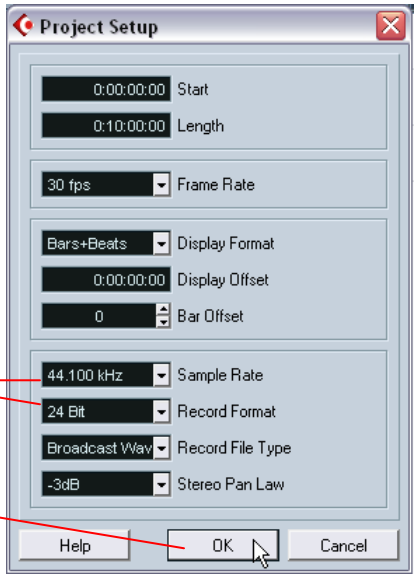
Now that the TonePort hardware is set up, you are ready to start working in a Cubase Project!

Check your Cubase Project's Sample Rate and Bit Resolution – these are displayed at the bottom left of the Cubase Project window:

44,100 Hz Sample Rate and 24 Bit are good recording settings for most Projects, but if you have specific requirements, these can be changed…



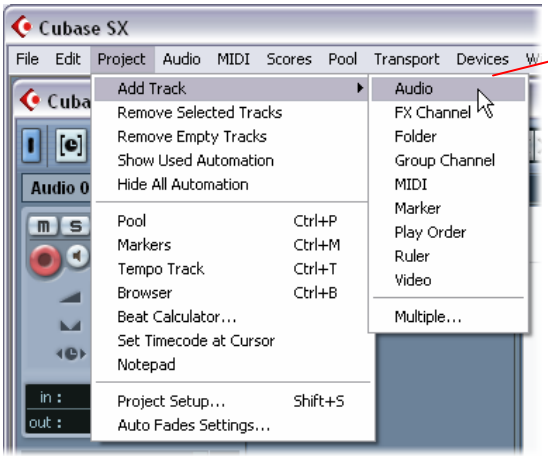
Select the Cubase Project menu and choose Project Setup



Choose different Sample Rate and Bit Resolution in these pop-ups, if desired

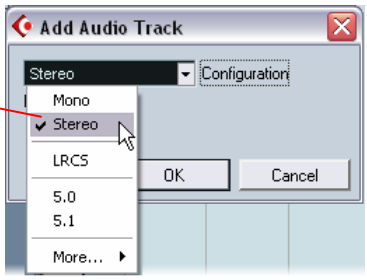
Click the OK button to exit the dialog

Setting up an audio track to record from TonePort



To create a new audio track, go to the Project menu and choose Add Track > Audio

Choose Mono or Stereo for your desired recording track type



The Cubase Audio track settings can be accessed easily in the Inspector pane at the left of the Project window. Match the settings shown here…

Armed for recording

Input Monitoring OFF*

Record from your desired ASIO TonePort Input Bus

Playback out to your configured ASIO TonePort Output Bus

***Note that the track meters in Cubase will not measure the input signal unless the Input Monitoring feature is on. You can refer to the Send meters in the GearBox software as your signal level reference.**

Now just click the Transport Record button and start recording!