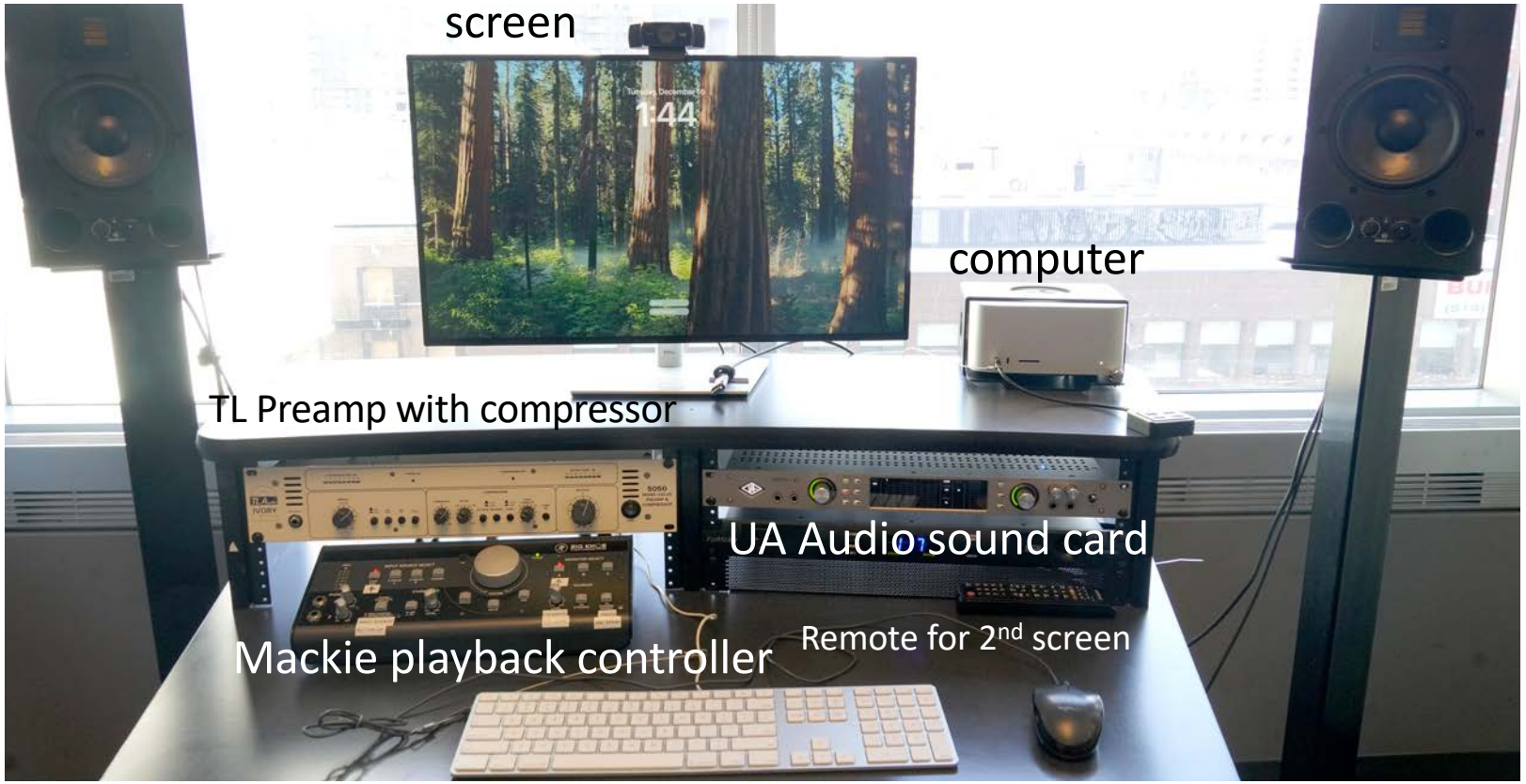
CDA VS 12
EV 5.431
Recording Suite Guide

CDA Recording Studio
2026

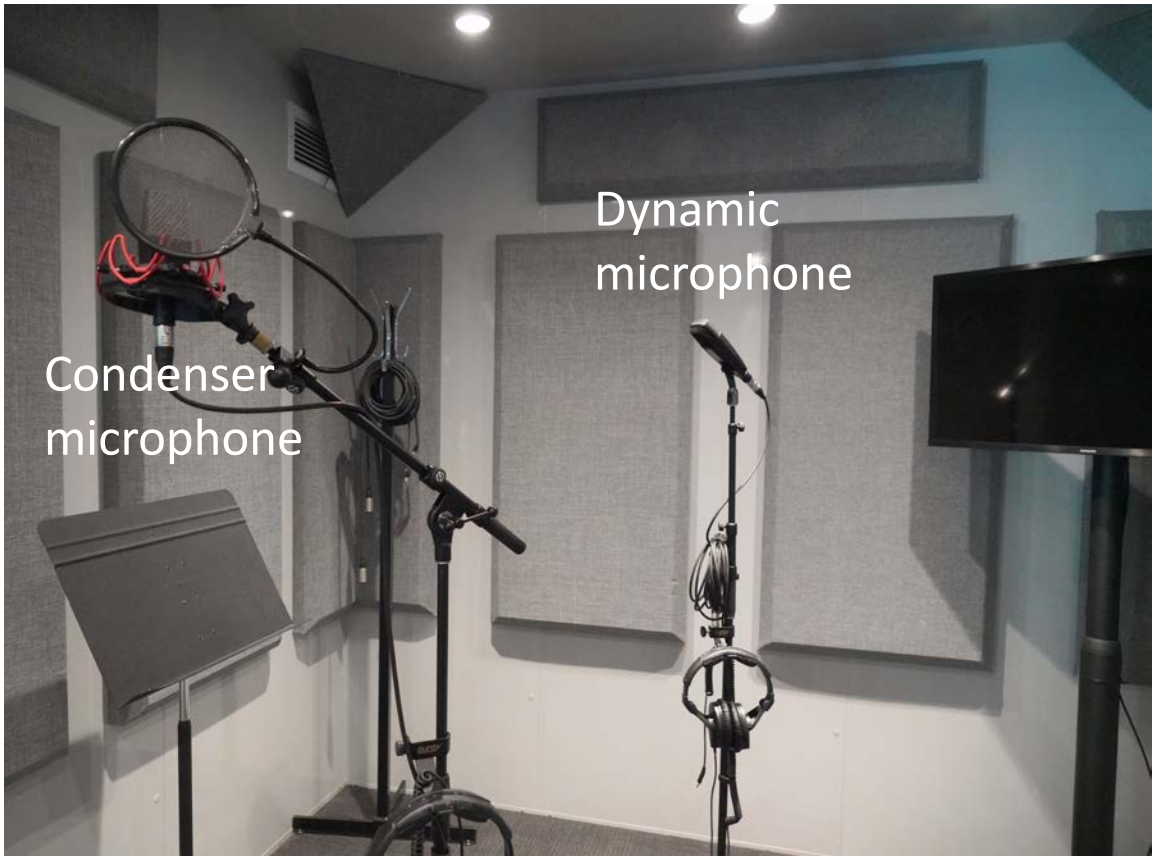
An online version of this guide (in colour) is available at:
www.concordia.ca/finearts/cda/suites/specialized

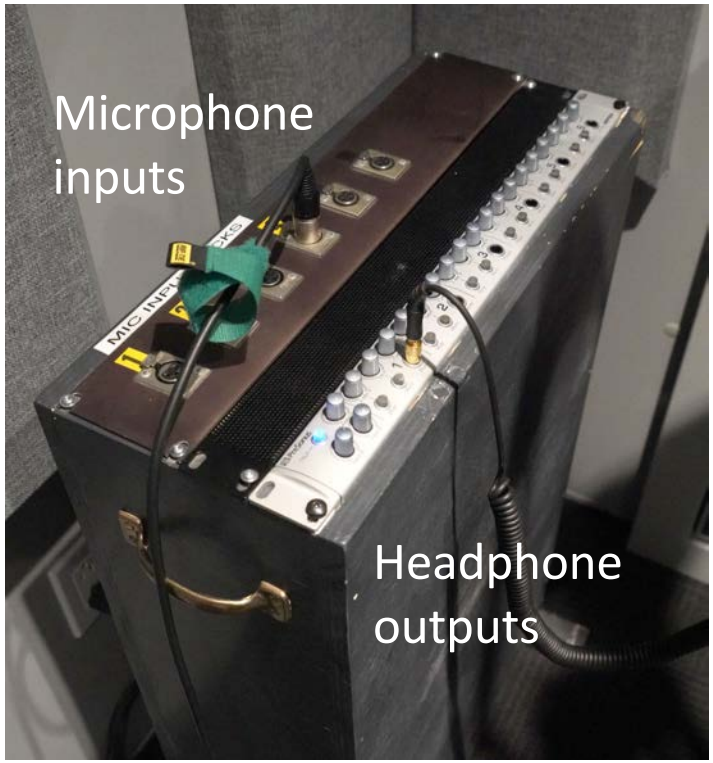
Contents

Studio Hardware



Studio Hardware





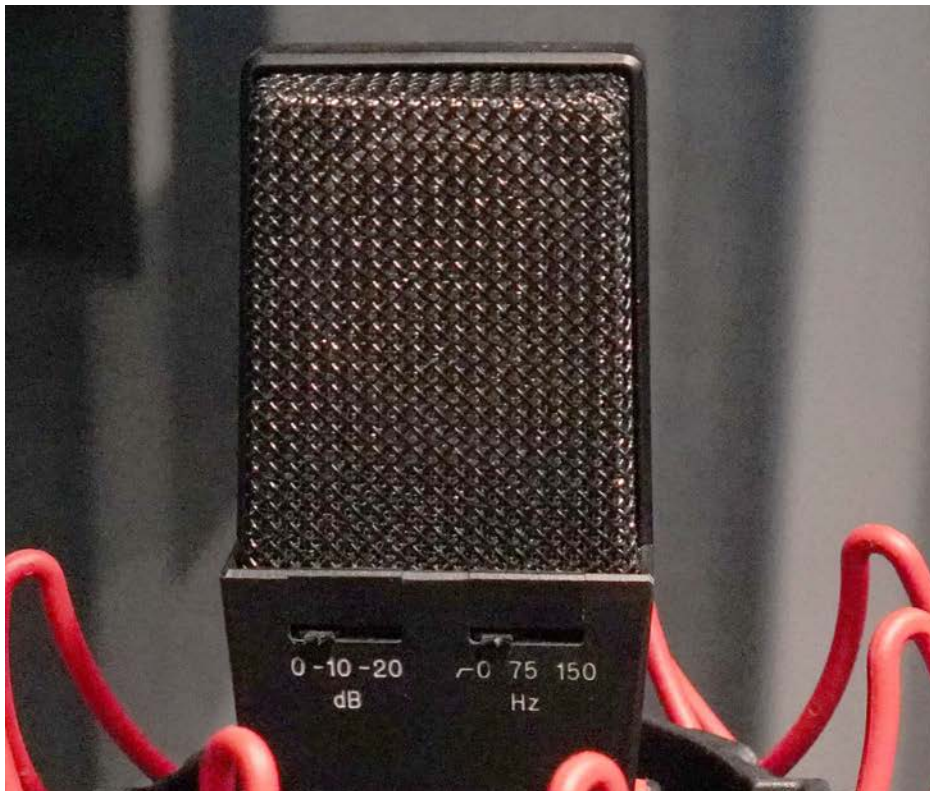
Microphones: AKG ULS 414 Condenser

The AKG 414 is a multi-pattern large diaphragm condenser microphone ideal for voice and string instruments.

Like all condenser microphones, it needs phantom power (48V) from the UAD Apollo or TL Audio preamp.

The front of the microphone has a switch to change the pick-up pattern. From left to right those patterns are: cardioid, hyper cardioid, omnidirectional, figure of eight.

Microphones AKG ULS 414 Condenser



The back of the 414 has two switches.

The first attenuates (diminishes) the signal by 10 or 20 dB. Use this switch if your sound source is too loud.

The second switch is a low frequency roll off starting at 75 Hz or 150 Hz. This is to eliminate any proximity effect (bass frequencies are accentuated if the sound source is close to the microphone).

Microphones AKG ULS 414 Condenser

Because the 414 is very sensitive, use the pop screen when recording voice.
The screen will minimize plosive speech sounds.

You can also minimize these sounds by not directly facing the microphone grille. Speak into the microphone from a slight angle.

Make sure the microphone is securely tightened in the holder. If you must turn the microphone upside down to record, don't leave it that way.

Sennheiser MD 421 dynamic microphone

Use the dynamic microphone for recording loud sounds. It is ideal for drums, wind and brass instruments and guitar amplifiers. It can also be used for voice.

Like all dynamic microphones, **it does not use phantom power**. Do not enable phantom power on the input channel.

This particular MD 421 is worn but the sound is better than the newer MD 421 models. Also, it has a less coloured sound than other dynamic vocal and instrument microphones like the Shure SM58 or SM57.

Other microphones

A **second AKG ULS 414** condenser is available on request. Ask Phil Hawes.

Microphones in the EV Depot:

Condenser:

Neumann KM 184 (3) (with optional stereo bar)

Sennheiser MKH 416 (hyper cardioid)

Dynamic:

Shure SM 57 (2) (with optional stereo bar)

Shure SM 58

Sennheiser MD 421

Sennheiser e835

Other useful equipment for recording

Ask the EV depot for:

DI box (direct box): use this connect any instrument level output to a mic or line input, for example place it between an electric guitar ¼”output or a guitar pedal output and the XLR mic inputs in the booth

Extra microphone stands

Extra headphones

Basic Recording

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Basic recording steps to success

1. Choose a microphone and microphone input.
2. Open the UAD Console Software. Adjust the microphone input.
3. Adjust the playback volume on the UAD Apollo and the Mackie controller.
4. Open the audio software of your choice and enable a record track.
5. Check the headphone playback in the booth.
6. Check the talkback on the Mackie controller.

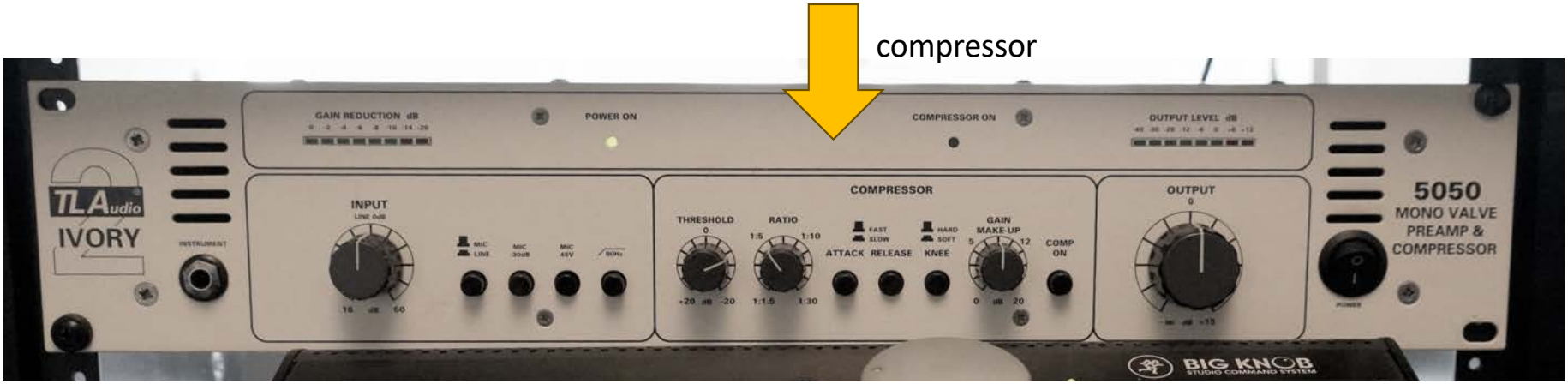
1. Choose a microphone input

In the booth, there are four microphone XLR inputs. Each input corresponds to an input on the UAD Apollo interface in the control room.

Inputs 1 to 3 go directly into the UAD Apollo analogue inputs 1 to 3. Input 4 goes first into the TL Audio preamp and then into input 4 in the UAD Apollo.

Why use mic input 4?

Choose this option if you need to **compress** the input signal, either to control the recording volume automatically or for an effect. Alternatively, there are compressor plug-in effects available in the UAD Console, but the hardware controls on the TL Audio can be easier to manipulate.



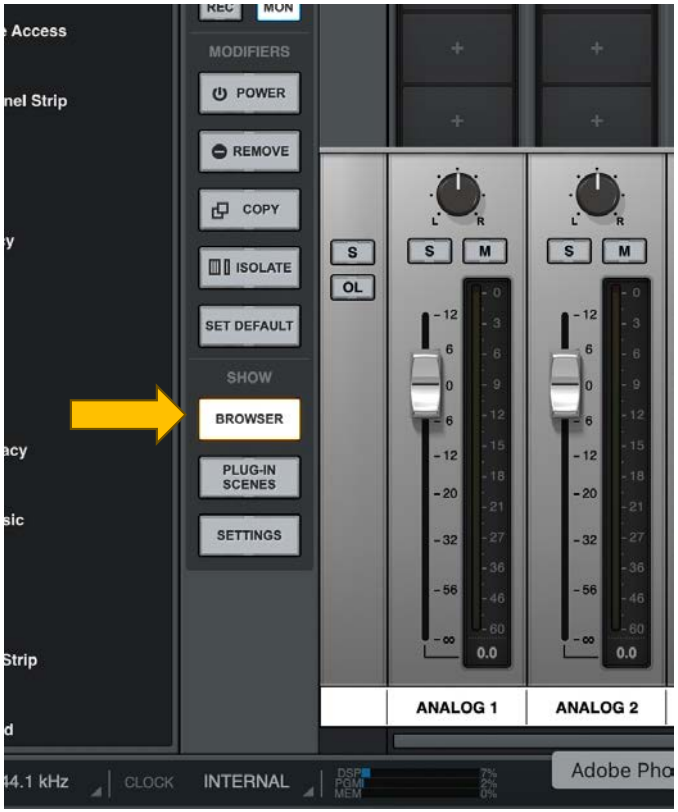
2. Open the UAD Console Software

Open up the **UAD Console** software by doing a search for it or looking in the applications folder under Universal Audio.

UAD Console is the software that controls the UAD Apollo sound card. It controls the microphone inputs and listening levels.

It looks like this when open.

UAD Console Software



To make the UAD Console interface smaller and less busy make the following adjustments:

Click on the **Browser** button on the left-hand side of the window. This makes the effects window on the left disappear.

Before

After

UAD Console

You can also click on the **AUX** button on the right-hand side of the Console window. This will make the two AUX tracks disappear.

Before

After

UAD Console

Then you can resize the whole Console window so that only the first four analog inputs are showing. Resize by dragging on the bottom right corner of the interface.

Cleaning up and resizing the UAD Console interface allows you to see this software in addition to your recording software.

Drag on the bottom right corner.

UAD Apollo Mic Input

On the left-hand side of the Apollo is the **Preamp** knob. **Press** this knob in to cycle between the four Mic inputs. In the UAD Console software, you will see a small green circle light appear next to the Mic input that is selected.

The preamp knob also controls the gain on the selected channel.

UAD Apollo Mic Input

In this image I have the microphone in the booth plugged into Mic Input 1. Look at the selections in the UAD Console on the analog 1 input (mic input 1 in the booth):

1. Input 1 is **MIC**
2. Input 1 is selected and I have turned the preamp volume gain up with the **preamp** knob on the Apollo or I can also use this software gain knob.
3. I am using a condenser microphone so I have enabled phantom power (the **48V** button).
4. I am making sure that my recording signal is three quarters of the way up the input volume meter. The fader does not control the input volume. It controls the **playback** volume.

Listening in the control room

Now that you have a microphone input, you should be able to hear who you are trying to record in the control room speakers.

There are two volume level controls for the speakers.

The first is the **Monitor** knob on the right-hand side of the Apollo. Turn it to 12 o'clock.

Then look at the settings in the UAD Console and the Mackie Big Knob.

UAD Console Listening Controls

In the UAD Console it is important that the fader on the input track is up. This fader controls the **playback** volume. It does not affect the input level.

On the bottom right of the UAD Console is the monitor volume. The colour of the monitor volume is red if it is muted. Unmute above the knob in the UAD Console software.

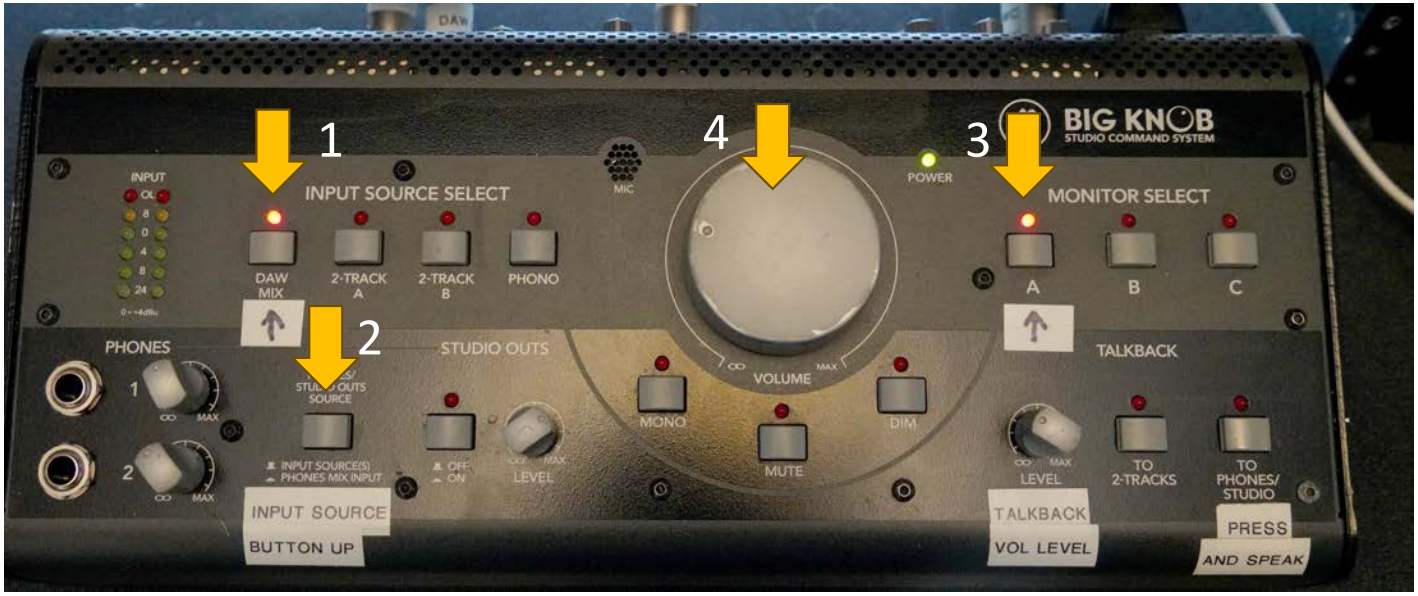
The listening level is determined by the monitor level of the UAD Apollo and the Mackie Big Knob. See next page.

not muted

muted

Listening in the control room

On the Mackie Big Knob choose **1** DAW MIX as the input source select.
Make sure the **2** input source button is UP.
Choose **3** A as the monitor select.
Then adjust **4** the volume control as you wish.



Using Input 4

If you wish to use the TL Audio preamp and compressor then you must enable input 4 in the UAD Console.

This input is **LINE** not MIC.

Then make adjustments on the TL Audio device (next page).

Using the TL Audio Preamp and Compressor

On the TL Audio preamp and compressor, the input **1** is MIC.
You can enable the phantom power **2** (48V) if you are using a condenser microphone.
Adjust the input level **3**.
Turn on the compressor **4** and make your adjustments.
And then adjust the gain after the compressor with the output **5**. You can get some nice saturation effects with this unit. You can also have add gain on the UAD Apollo analog 4 input, if you need it!

About Direct Monitoring

When you are using the UAD Apollo interface you will be monitoring the input source **directly**, not through any audio software (Pro Tools, Abelton, Logic, etc.). Direct monitoring eliminates any latency. Direct monitoring is better for the performer because the timing is accurate.

No matter which audio software you choose, always **mute** the track you are recording on to. If you don't mute that track you will hear the input source twice: once through the Apollo and a second time through your software. The version of the input you hear through your software will have latency (it will be slightly delayed) therefore you will hear an echo as the two out of sync input sources are combined.

Only **unmute** the record track if you (and the performer) need to hear effects that are applied to the record track. Then turn down the playback fader for that input channel in the UAD Console. But you may be able to apply those same effects in the UAD Console and continue to use direct monitoring. See the section on recording with effects.

Open the audio software of your choice

In the next sections, I will present the recording settings for the audio applications in the recording studio:

Adobe Audition

Pro Tools Studio

Logic Pro

Abelton Live

Reaper

Recording with Adobe Audition

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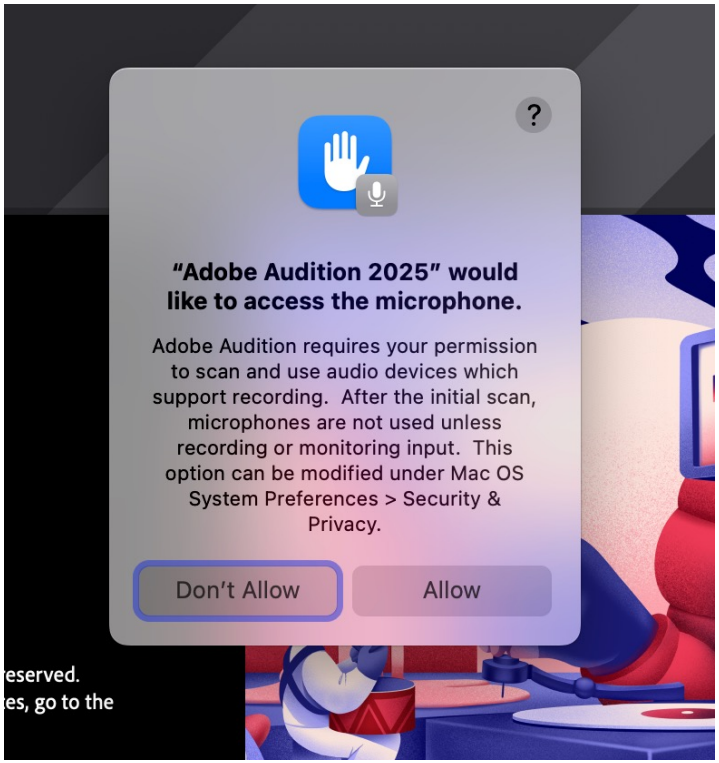
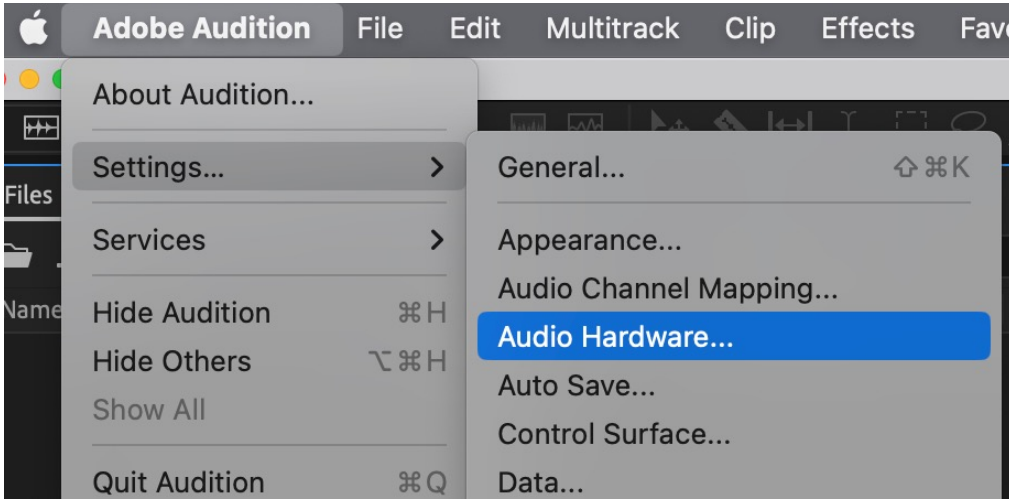
Adobe Audition Open

When you open up Adobe Audition, allow it to access the “microphone”. If you don’t allow it to use the “microphone” then it cannot use any audio device, including the UAD Apollo!

This is true of all audio applications in Mac OS. Always allow the application to access the “microphone”.

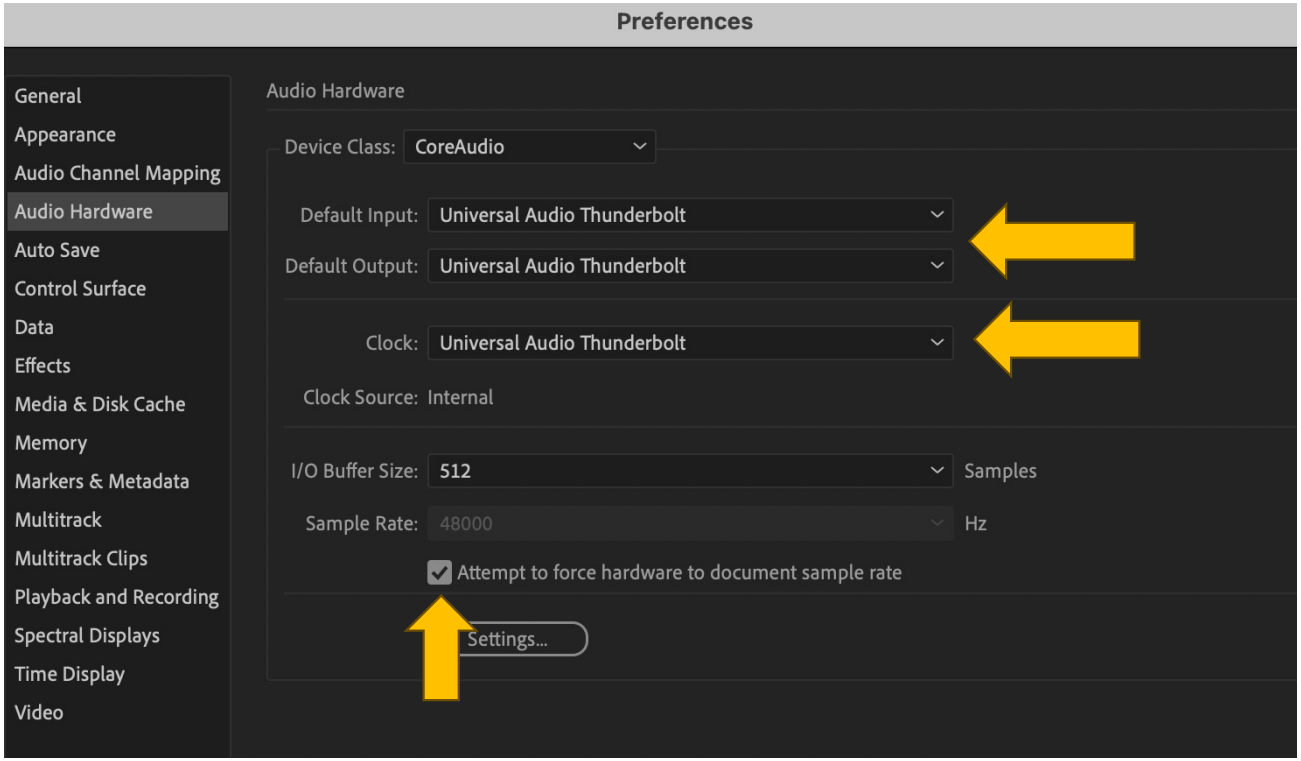


Adobe Audition Settings



Once Audition is open, go to **Settings/ Audio Hardware**.

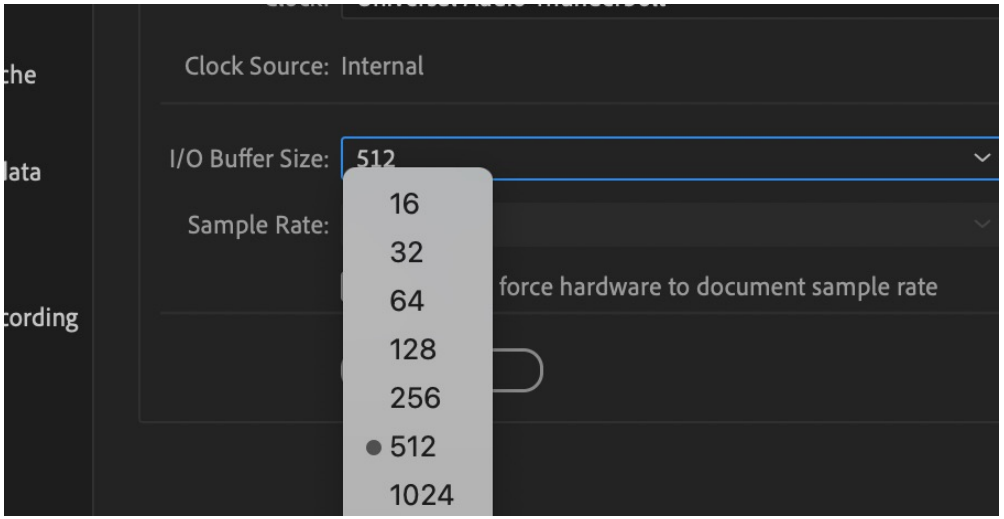
Audition Audio Hardware Settings



The Input and Output device and the Clock is the **Universal Audio Thunderbolt**.

You can **checkmark** "Attempt to force hardware to document sample rate".

Audition Audio Hardware: Buffer Size

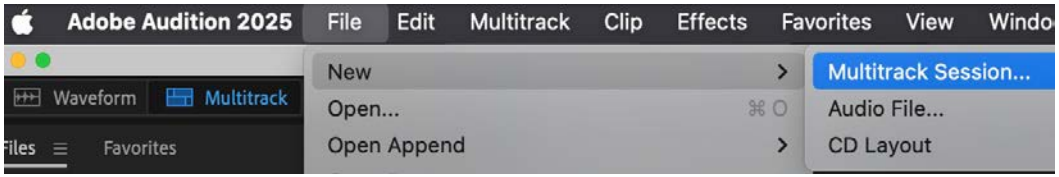


For recording, try changing the **I/O Buffer Size**, to a smaller number, like 64 or 32.

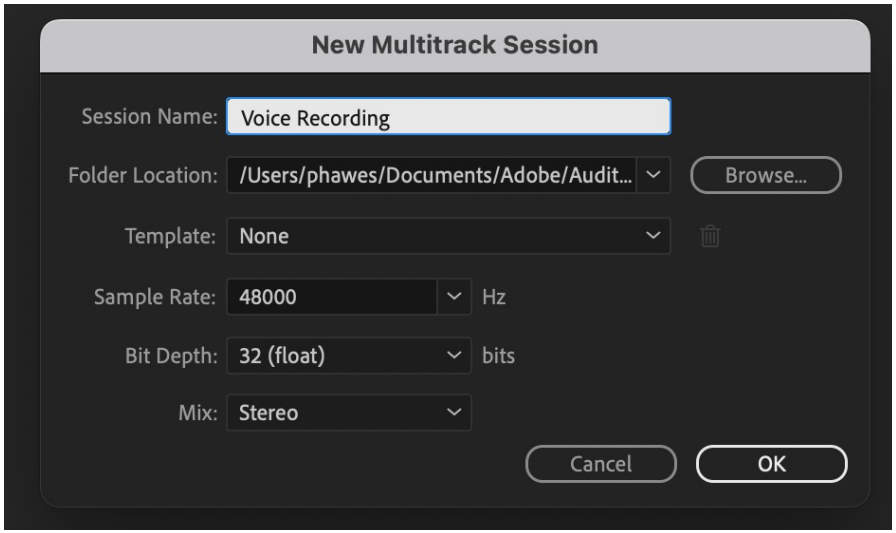
A smaller buffer size means less latency (delay) on playback but if you are playing back many tracks, you may need to increase the buffer size.

With the UAD Apollo, you will always be monitoring your record input **directly**, not through the software, so it is possible to use higher buffer sizes. See page 26, about direct monitoring.

Create a new multitrack session



Go to **File/New/Multitrack Session** to create a new project.

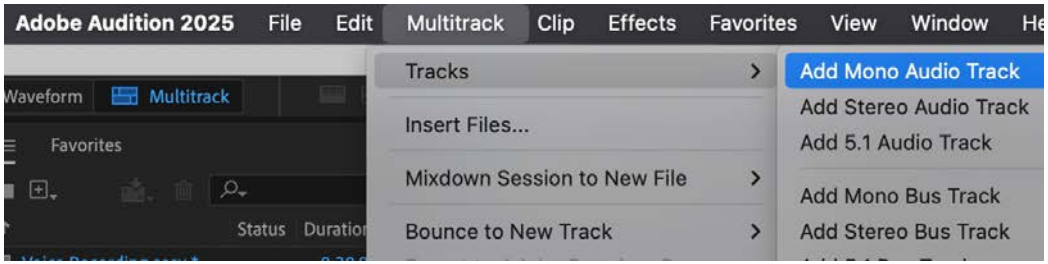


The default location for saving the session is in your documents folder on the studio computer.

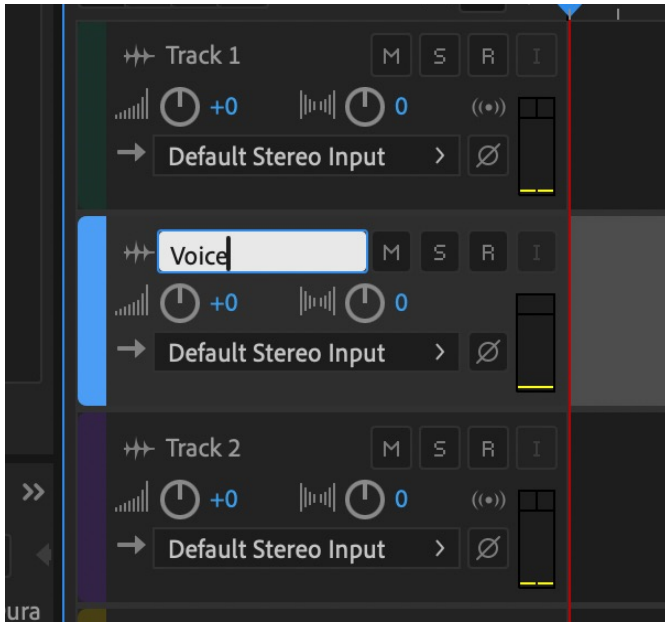
Choose the **sample rate** (48 kHz or 96 kHz are the norm). Choose a **bit depth** of 32. And the **Mix** (output) should be Stereo.

Add a Mono Audio Track

By default, all the tracks in the new session are stereo but you want a **mono** track for recording. All the microphones at the CDA are mono. If you are using a stereo microphone pair, then of course you can use a stereo track.

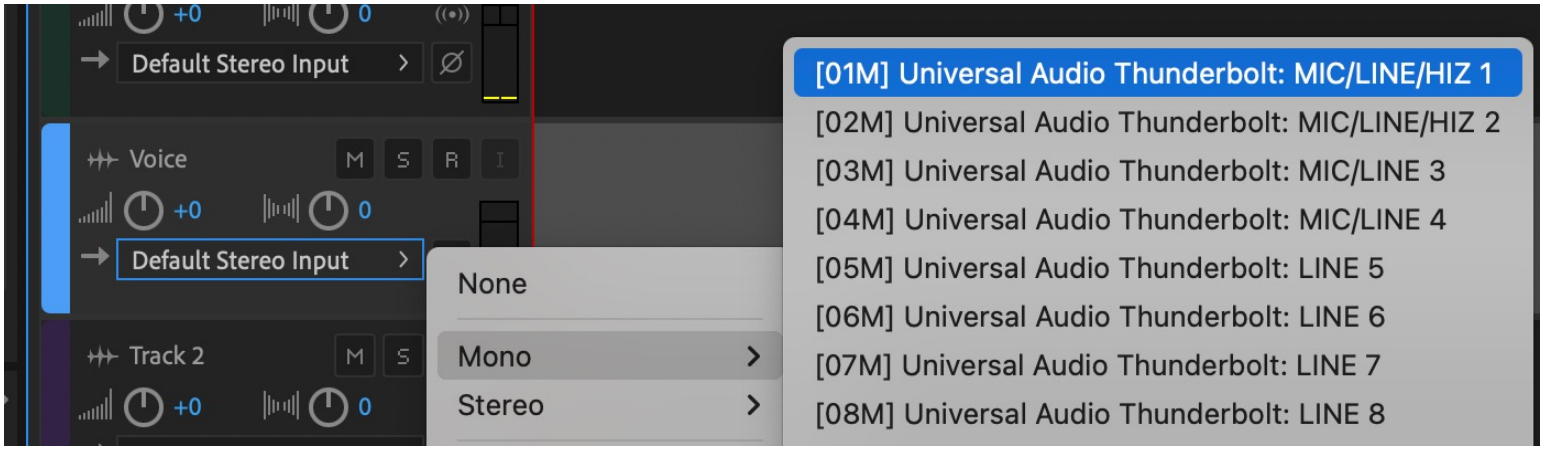


Choose **Multitrack/Tracks/Add Mono Audio Track**. Then **rename the mono track**. Your recordings will have the name of the track.



Set the input for the mono track

The mono input for the mono track should be the input that your microphone is plugged into in the recording booth and the one that is selected in the UAD Console. Here I am using **Mic input 1**.



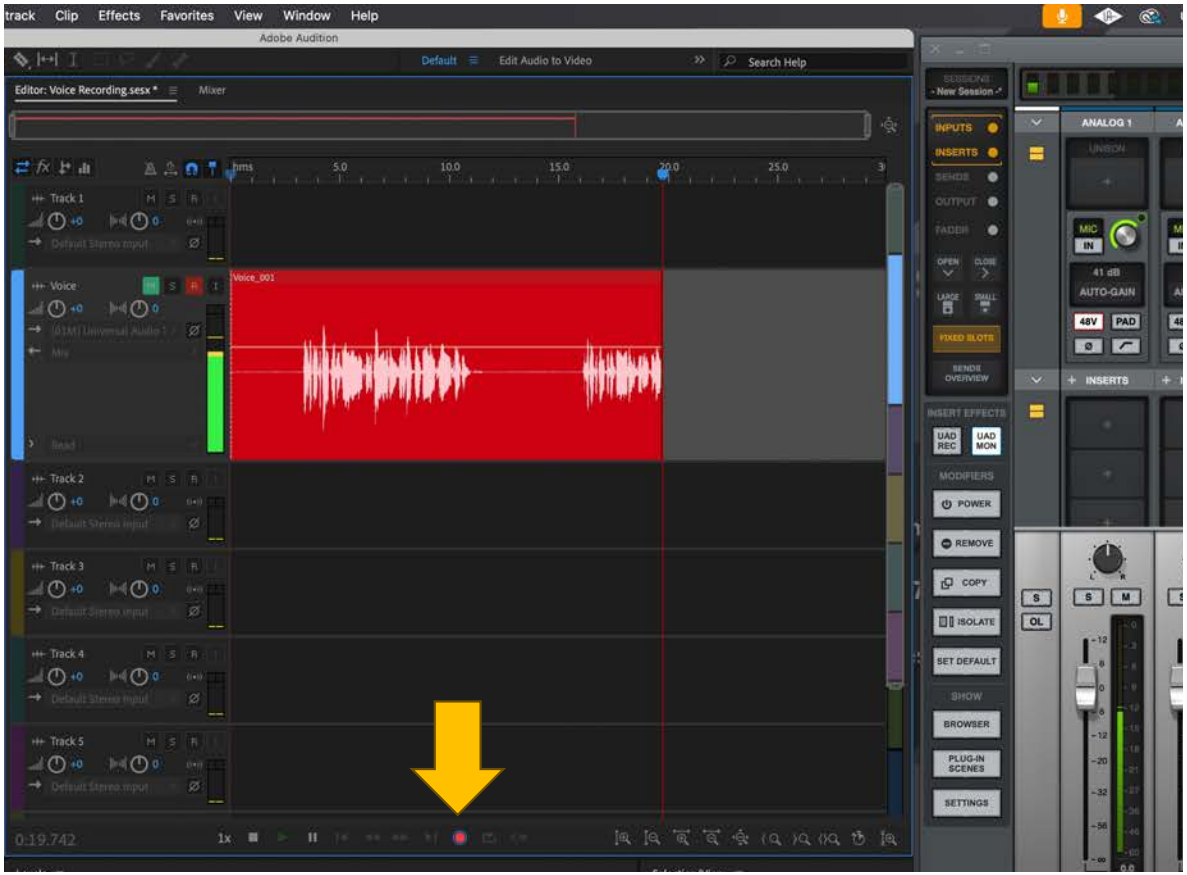
Audition: Record Monitor

Enable the **Record Monitor** button on the track. You should see the input level on the track input meter.

Also enable the **Mute** button. See page 26 about direct monitoring.

In this image you can see the input on analog input 1 in the UAD Console (right) and the corresponding input on the Audition track (left).

Audition Record

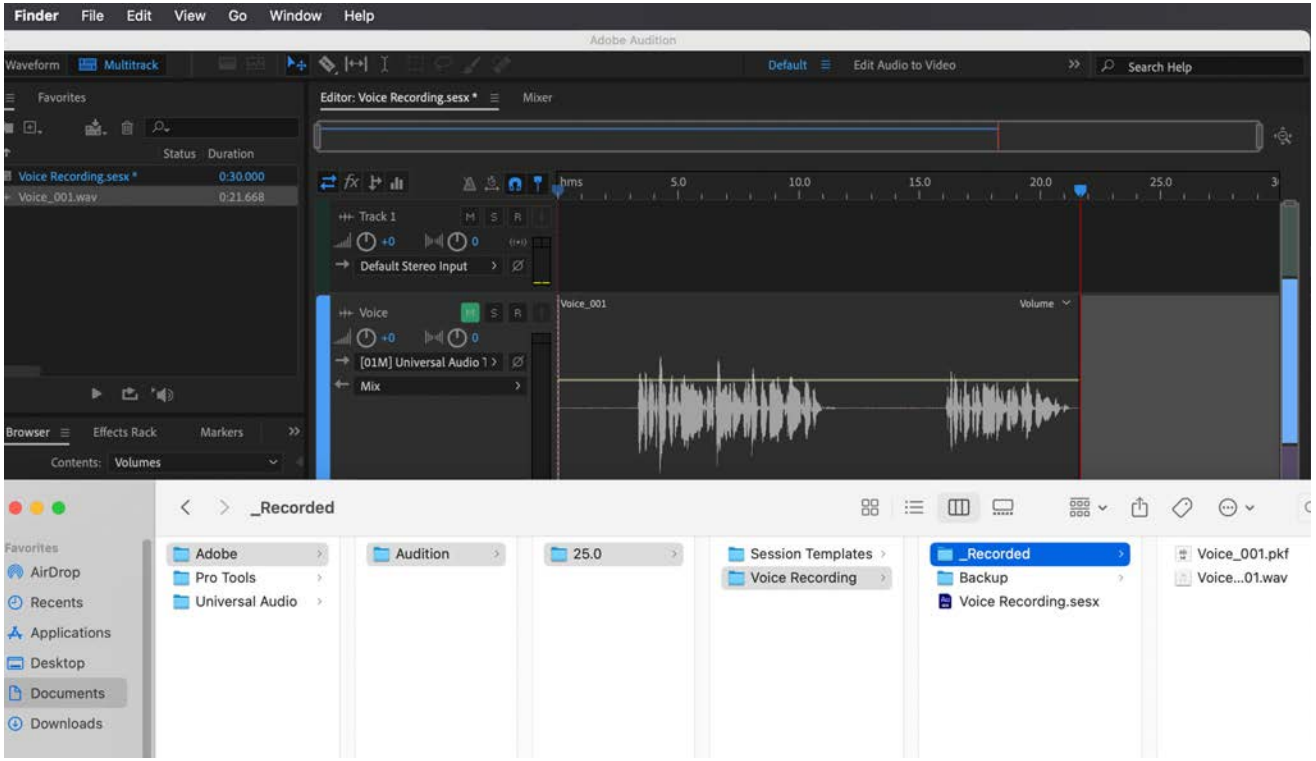


Once you are ready to record, press the red button in the transport controls.

The track goes red as you record.

This is a good recording level. Three quarters up the input meter.

Audtion Record Location



Here is the default location of the recorded file in your documents folder. The session is called “Voice Recording”.

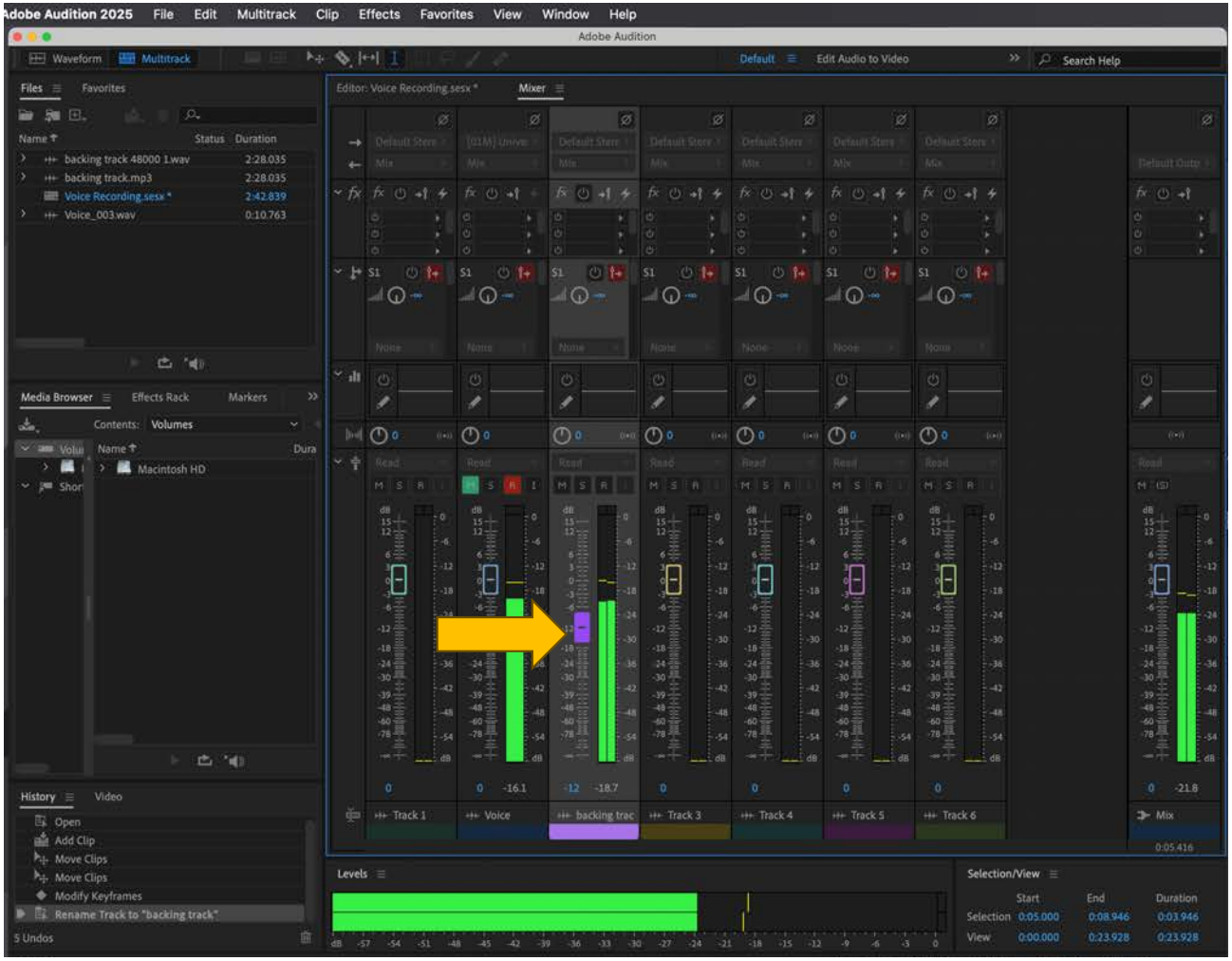
The .wav file is the actual audio file. The .pkf file is simply used to draw waveforms. It is not important.

Adjust track volume

In the mixer window (**top menu/Window/Mixer**) you can adjust the playback volume of individual tracks.

Here I have lowered the playback volume of the backing track by bringing down the fader on the track that contains the music.

You can adjust the playback volume of the track you are recording on to using the fader on the input track in the UAD Console software.



Recording with Pro Tools Studio

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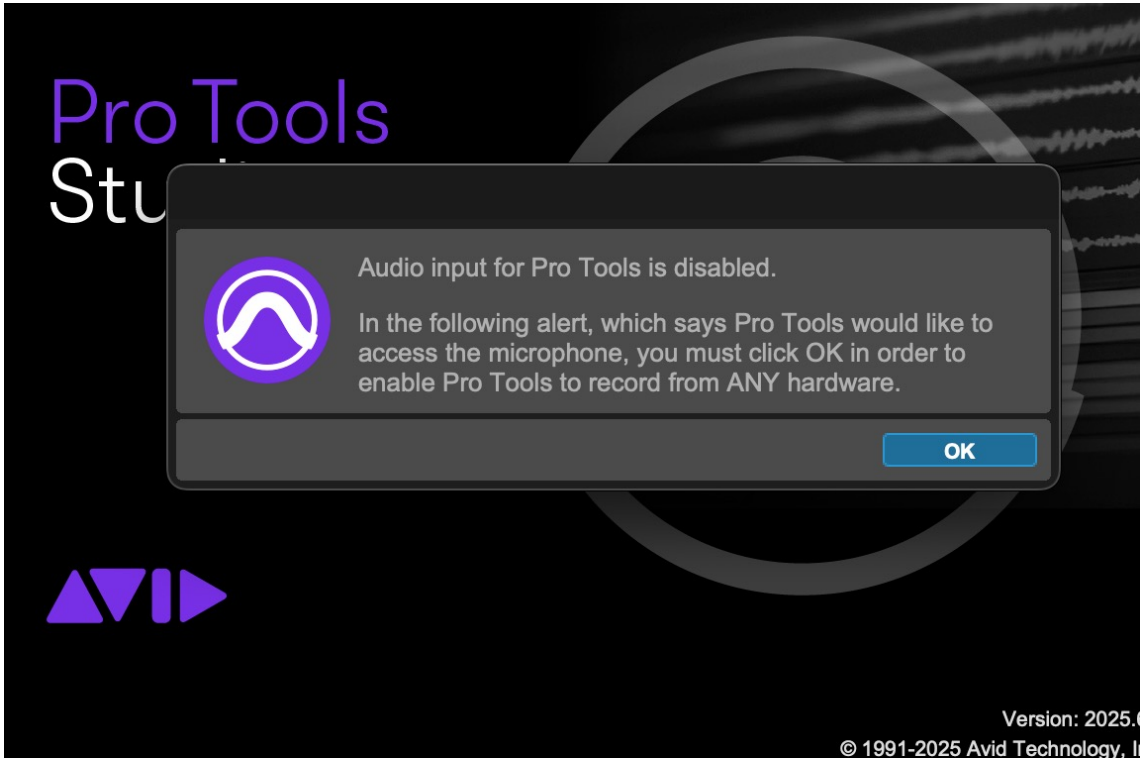
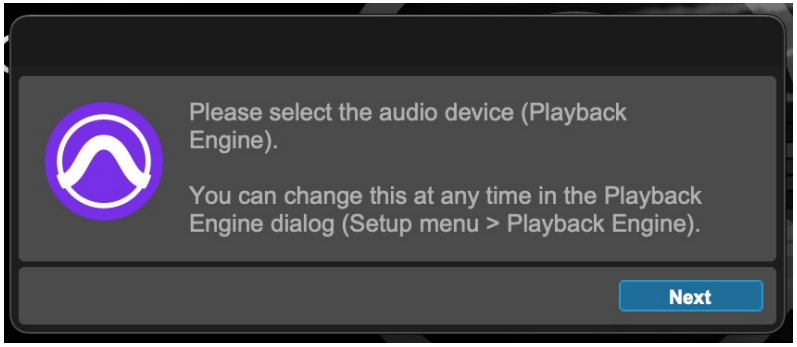
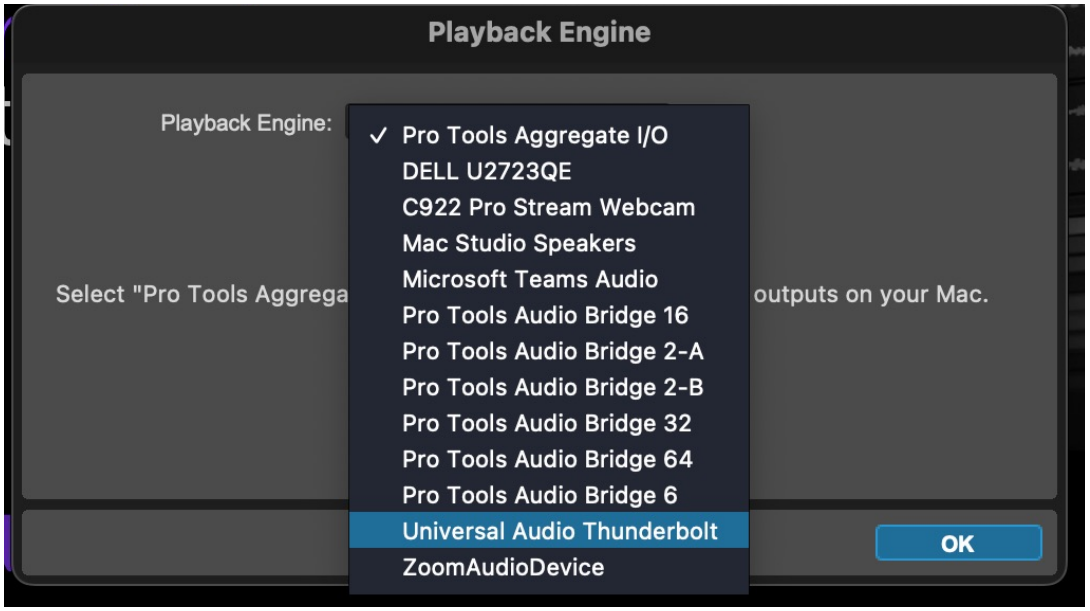
Opening Pro Tools



Click OK to enable Pro Tools to use the audio hardware.

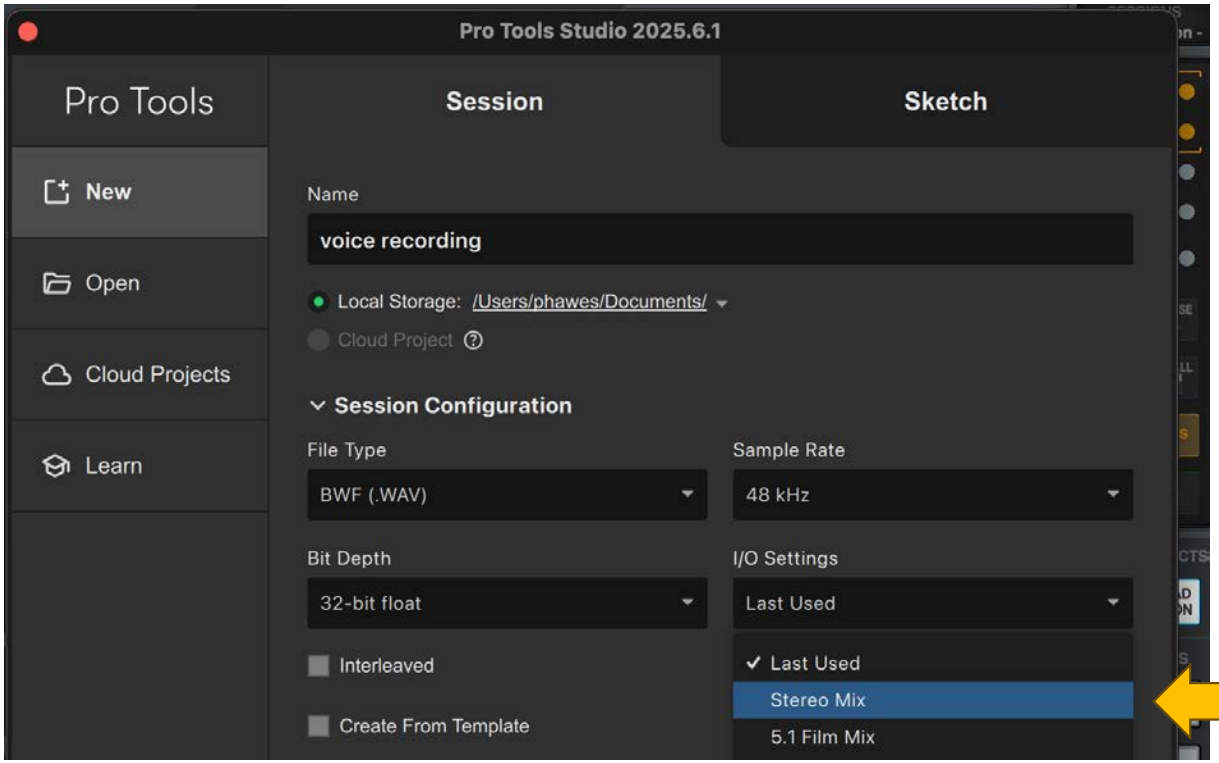




Select the audio device. Choose the **Universal Audio Thunderbolt**.

Do NOT choose Pro Tools Aggregate I/O.

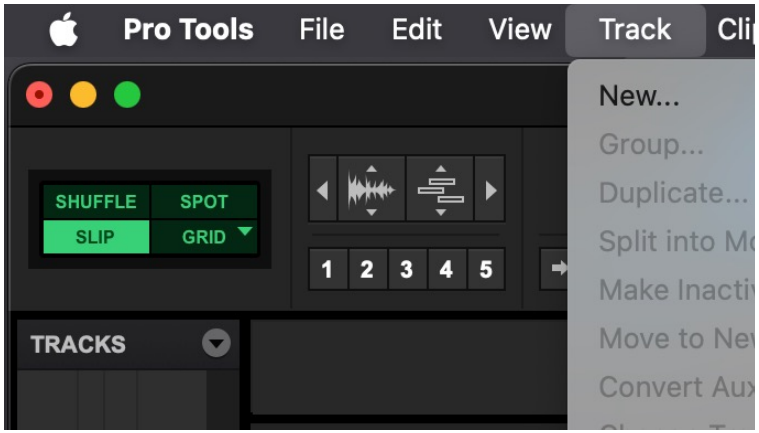
Make a new session



Use the **Stereo Mix** I/O Settings when you make a new session.

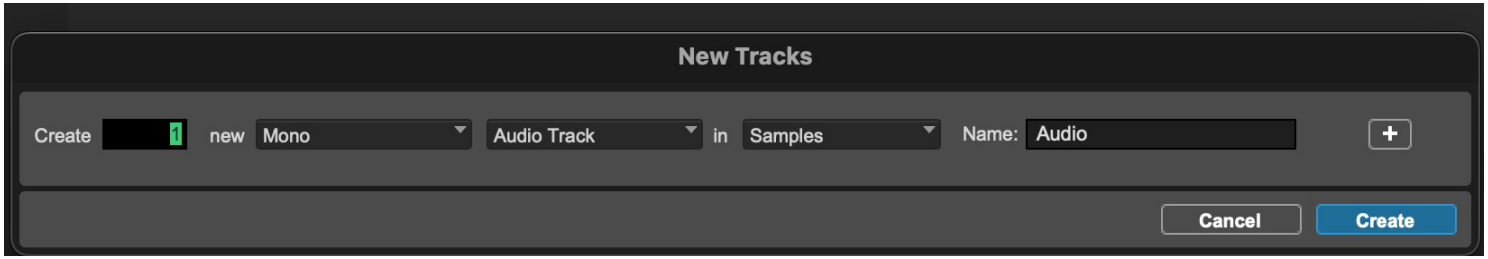
By default, the session will be in your documents folder on the studio computer.

Create a new track

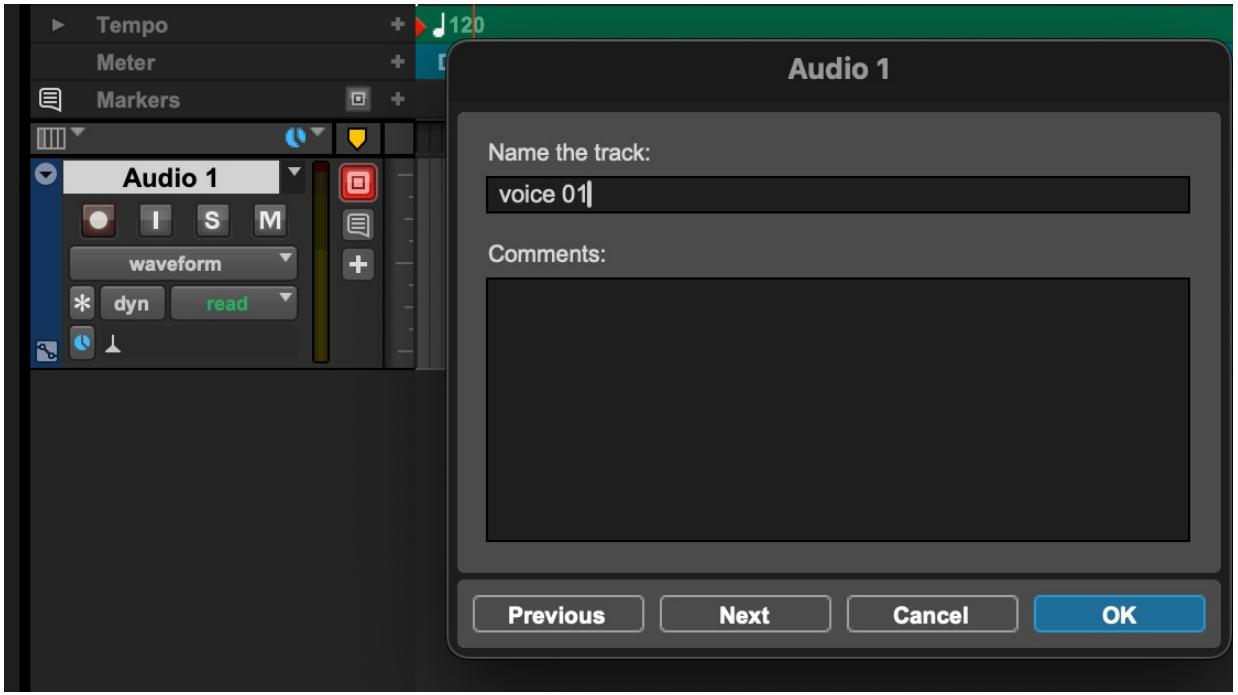


Top menu/Track/New

Make a **mono** audio track.

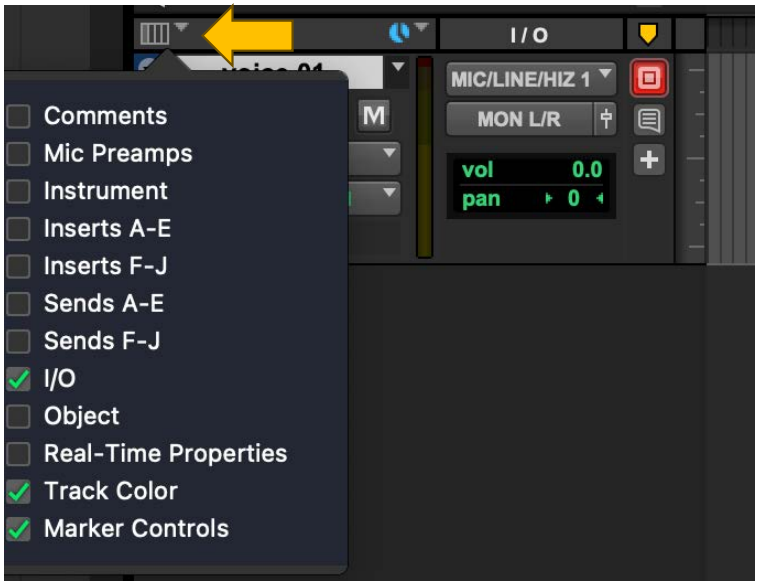


Name the track



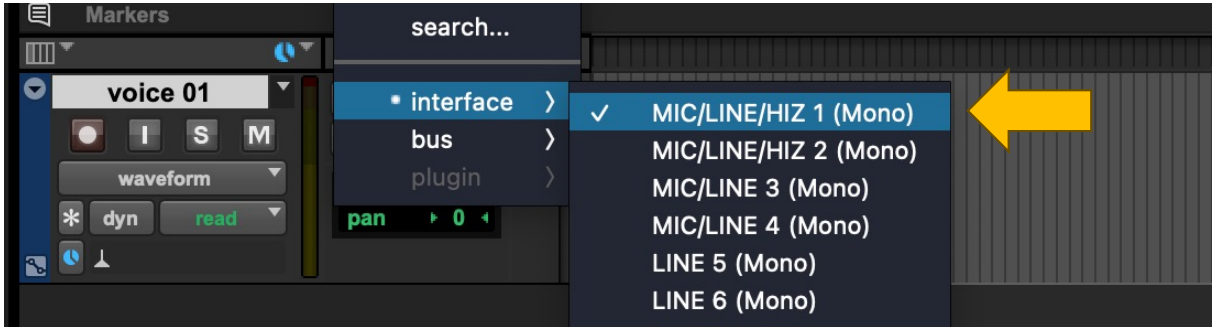
Click on the name of the mono track **Audio 1** to rename it.

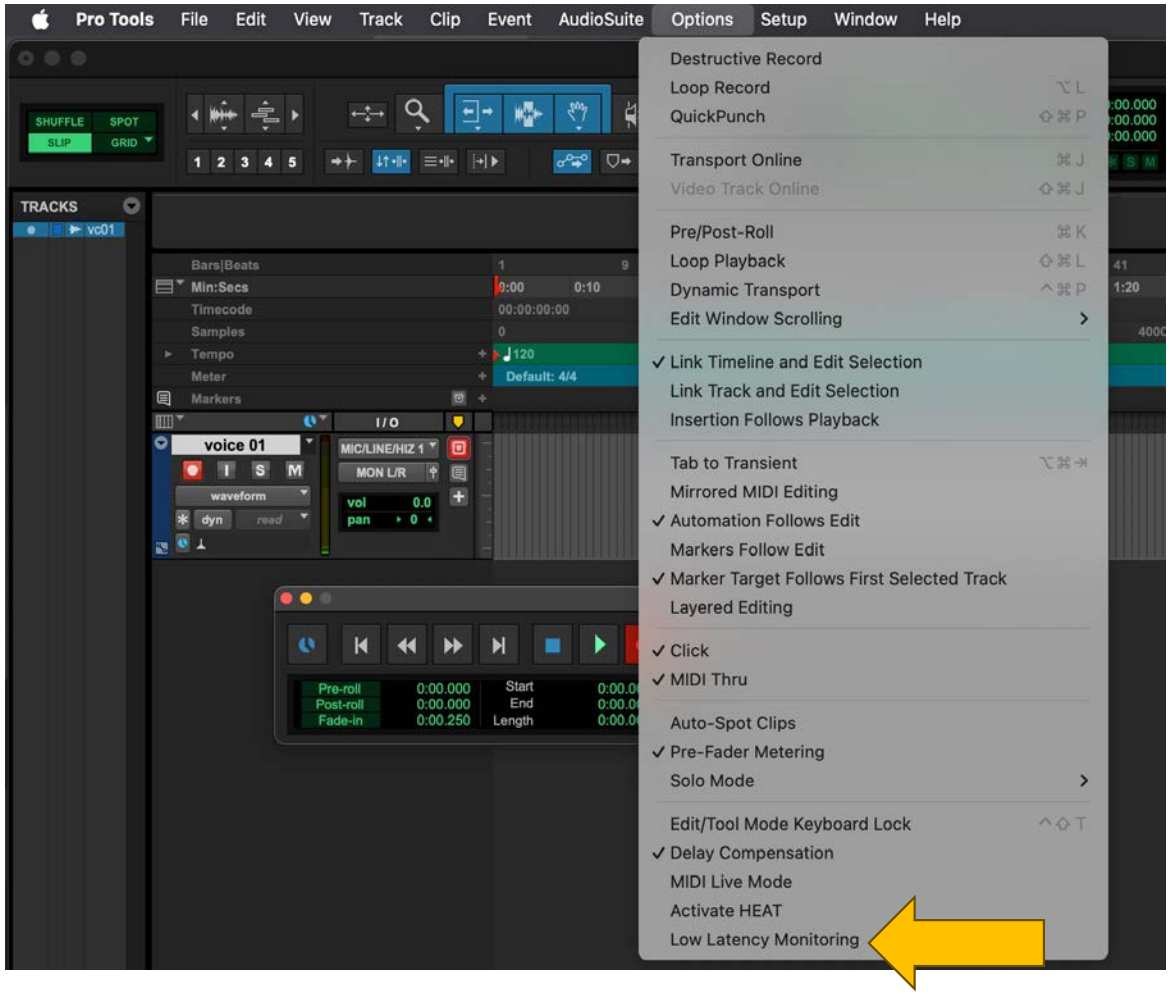
Once you rename it, the audio files recorded on that track will have the track name.



Show the **I/O** (inputs and outputs) for the track by selecting the small box in the top left corner of the track. Checkmark **I/O**.

Choose the appropriate mic input. Here I am using mic input 1 on the UAD Apollo.

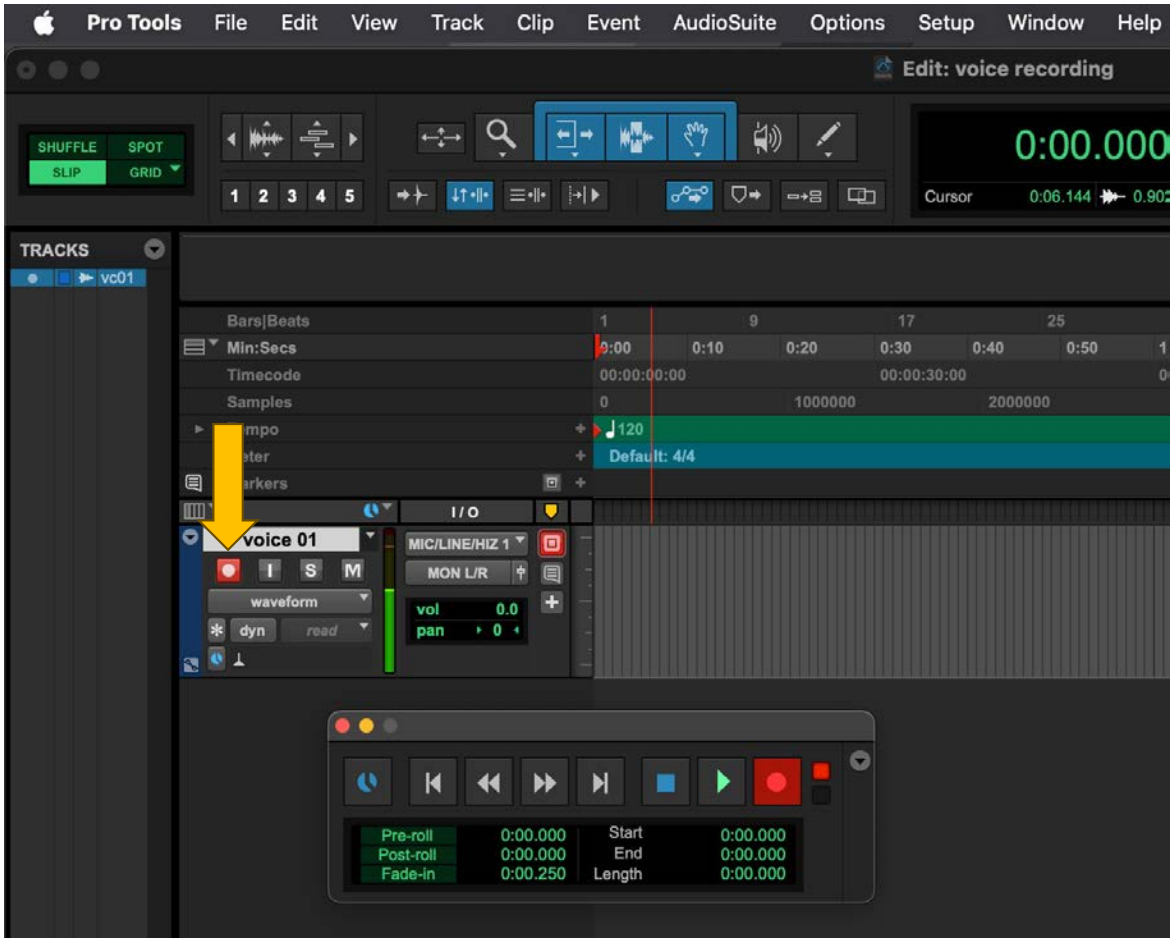




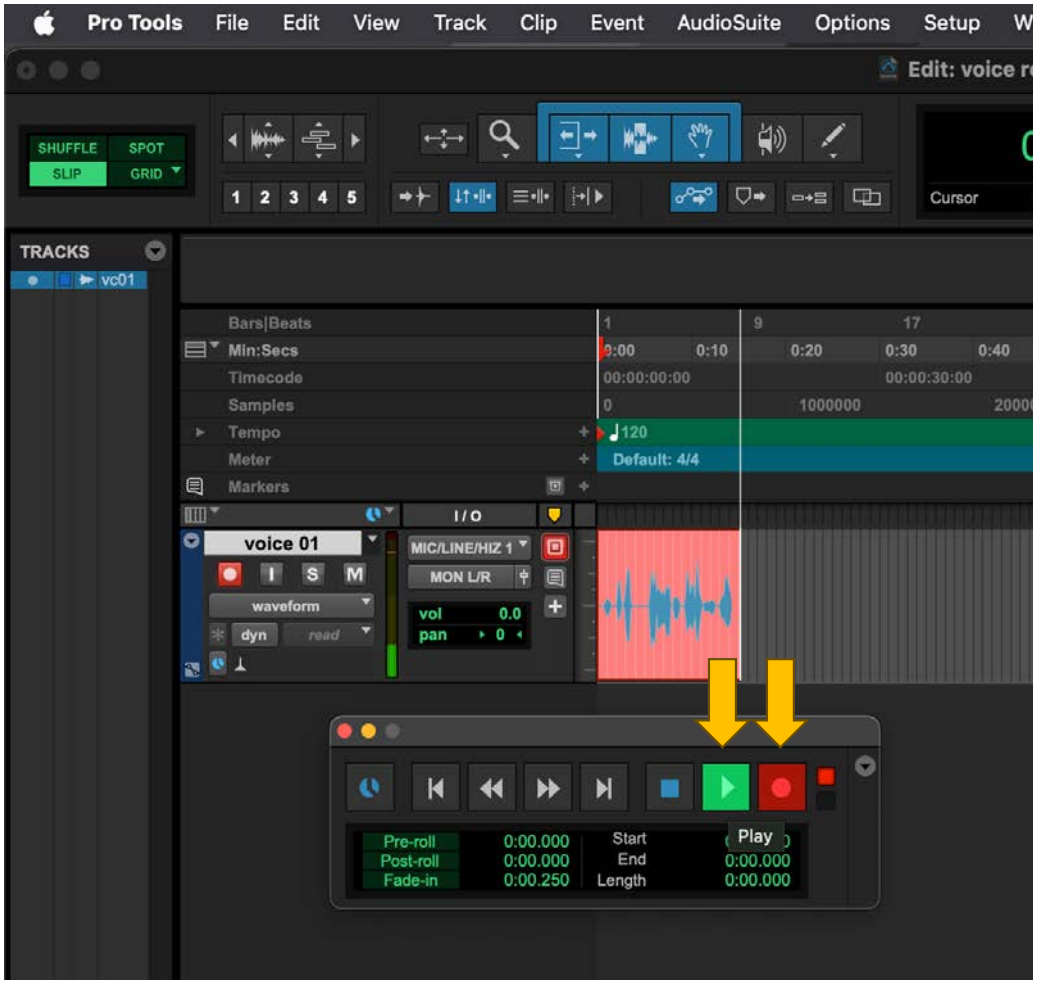
In the top menu/ **Options** select **Low Latency Monitoring**.

This option will mute the recorded track automatically when you are recording and then unmute it automatically when you play it back.

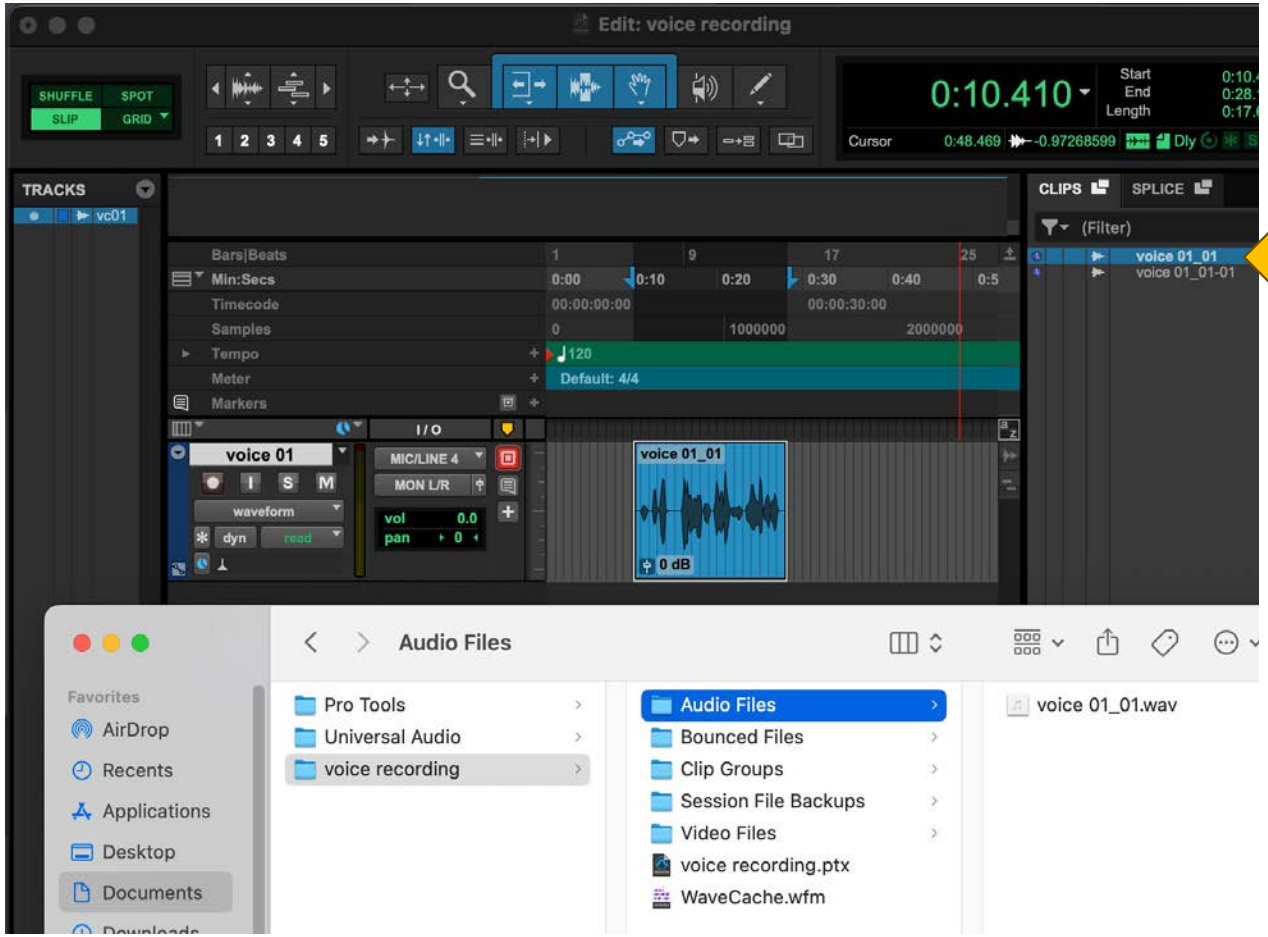
See page 26 about direct monitoring.



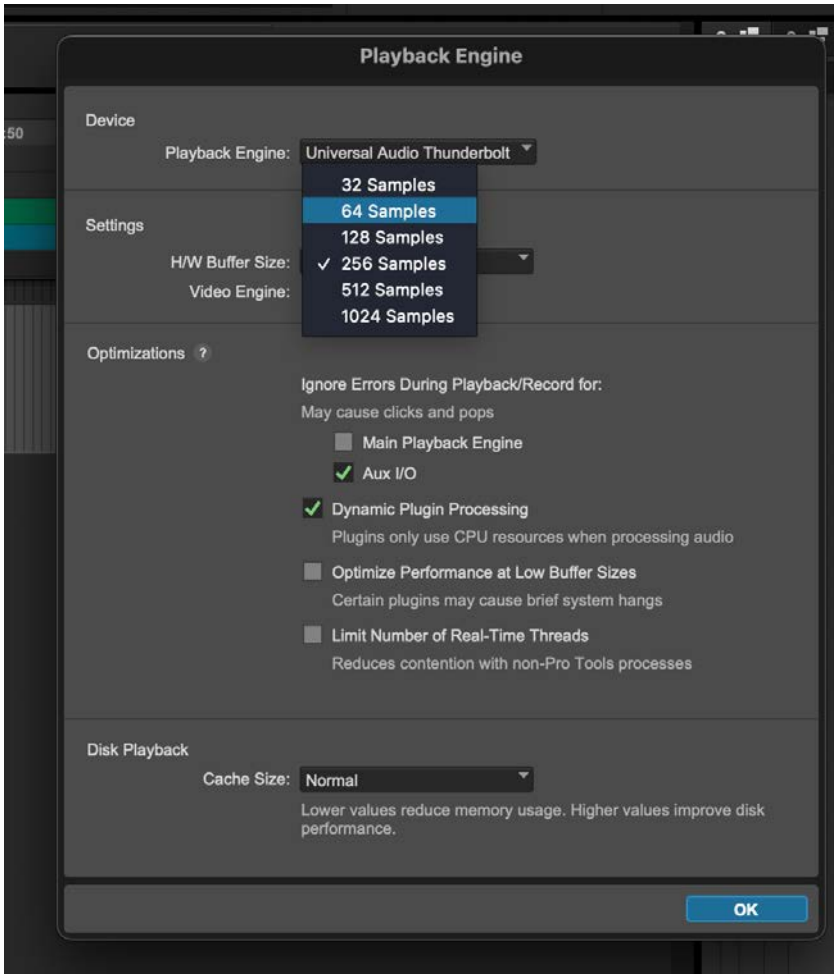
Press the red button on the mono track to see the input signal. You can monitor your signal level into Pro Tools. Three quarters of the way up the input meter is a good level.



Press the red record button and then the play button on the transport to start recording. The track will turn red while recording and you will see the recorded waveform.



The recorded file has the name of the track. Bold type indicates a master file. Light type indicates an edit within the software. Your actual audio files will be in the audio files folder in the session folder.



If you get an error message while recording or playing back to increase or decrease your hardware buffer size, go to **Top Menu/Setup/Playback Engine.**

Under **Settings/ HW Buffer Size** increase or decrease the number of samples.

Usually when recording we want a smaller buffer size and a larger buffer size for playing back but it depends on the number of tracks in your session.

Recording with Logic Pro

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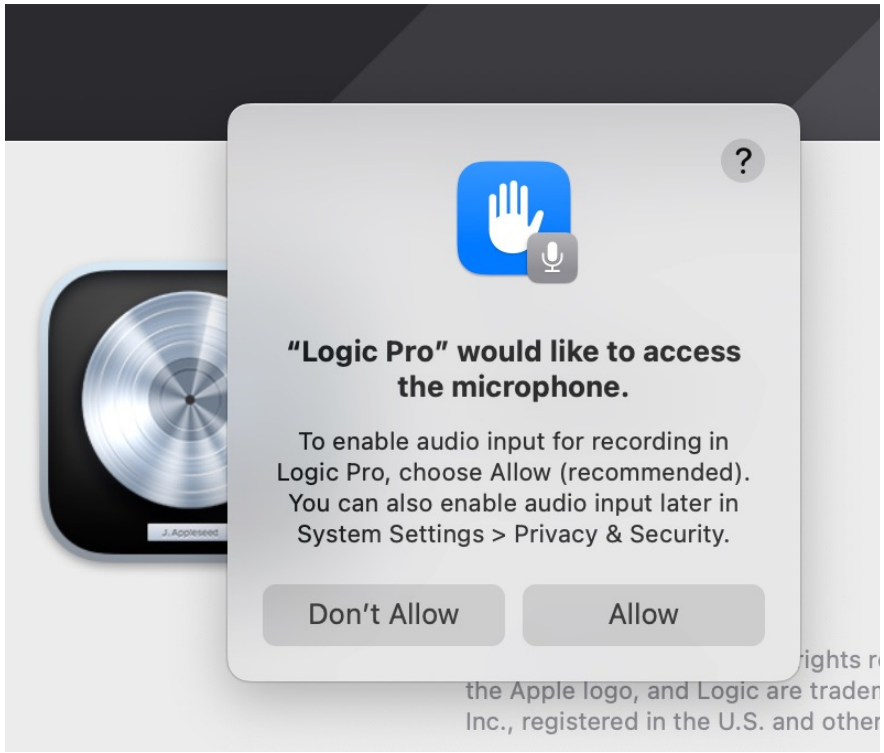
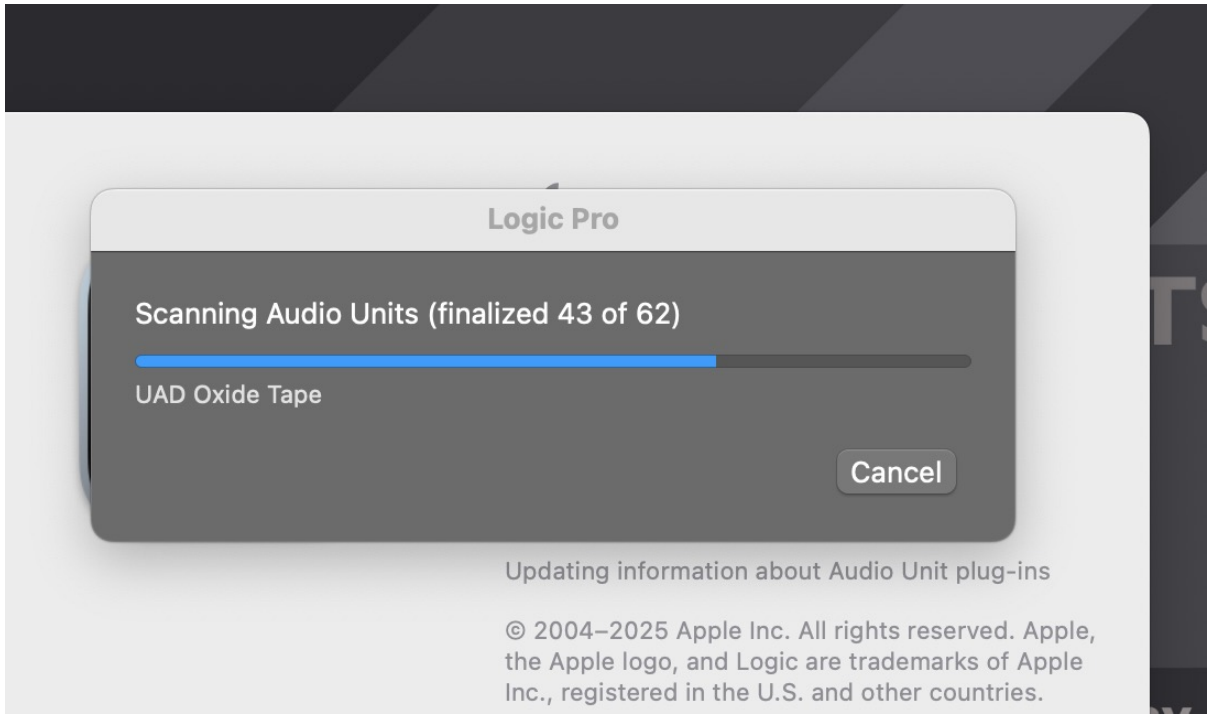


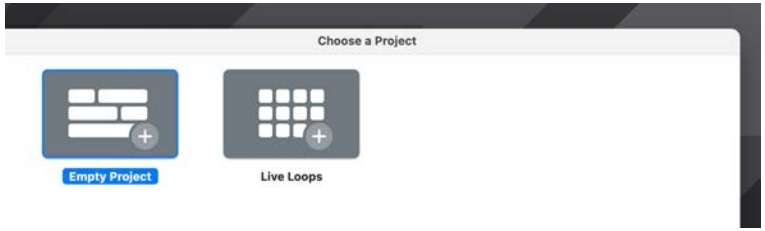
Allow Logic to access the "microphone". If you don't allow it to use the "microphone" then it cannot use any audio device, including the UAD Apollo!

This is true of all audio applications in Mac OS. Always allow the application to access the "microphone".

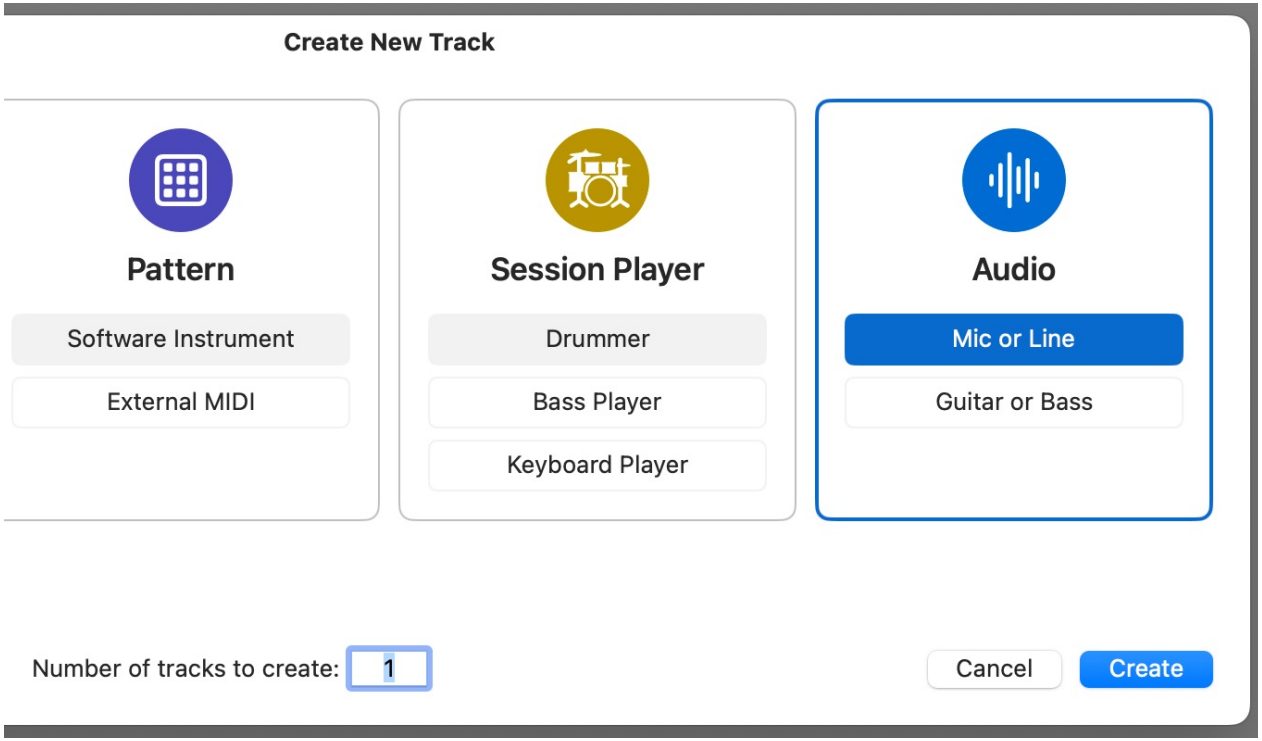


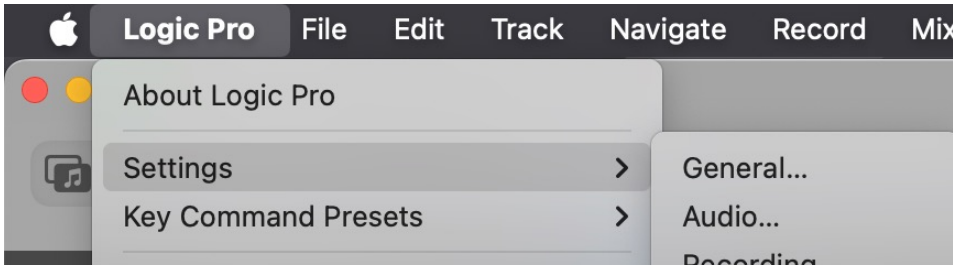
Wait until Logic scans the audio unit plug-ins.

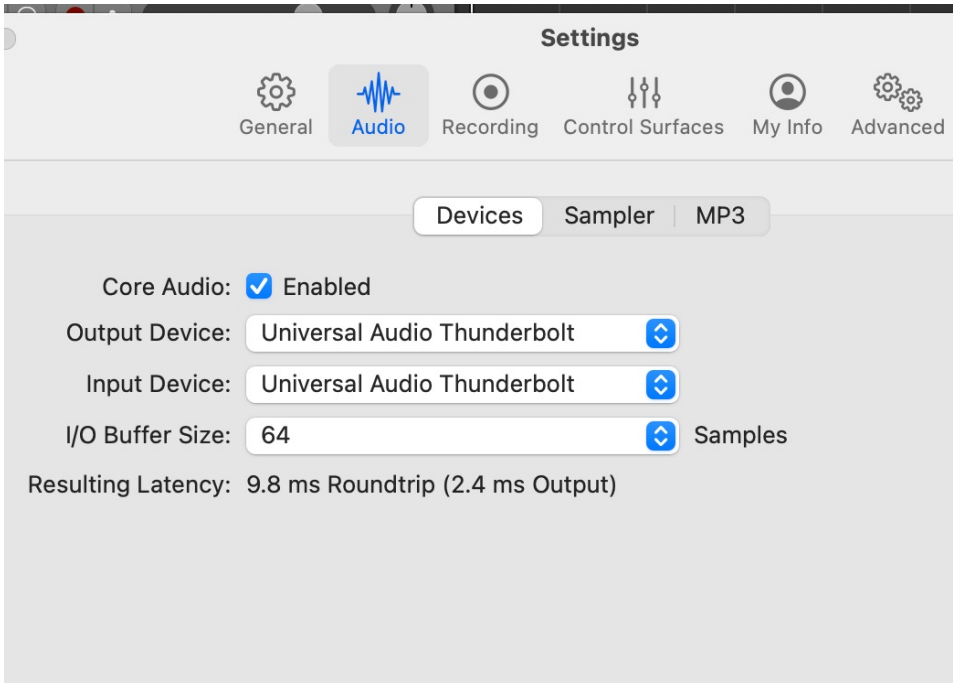
All available samples have been downloaded despite what the software might say.



Create an empty project and choose **Audio Project Mic or Line**. Create the project with at least one track.



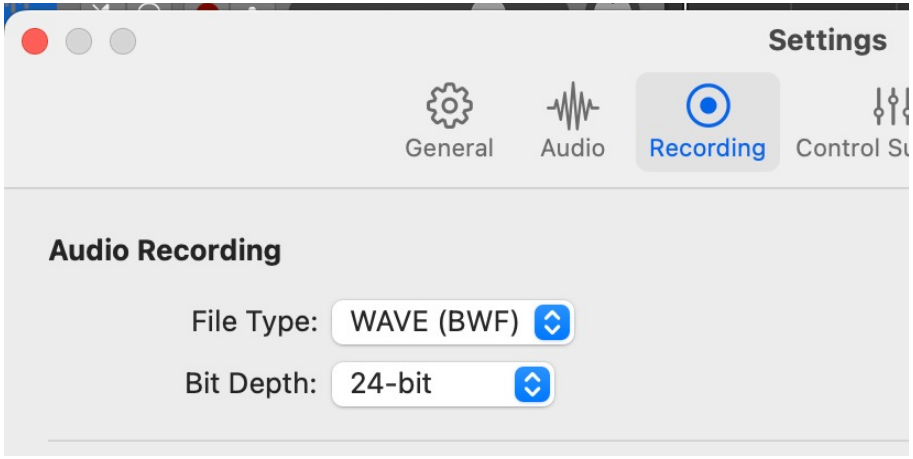




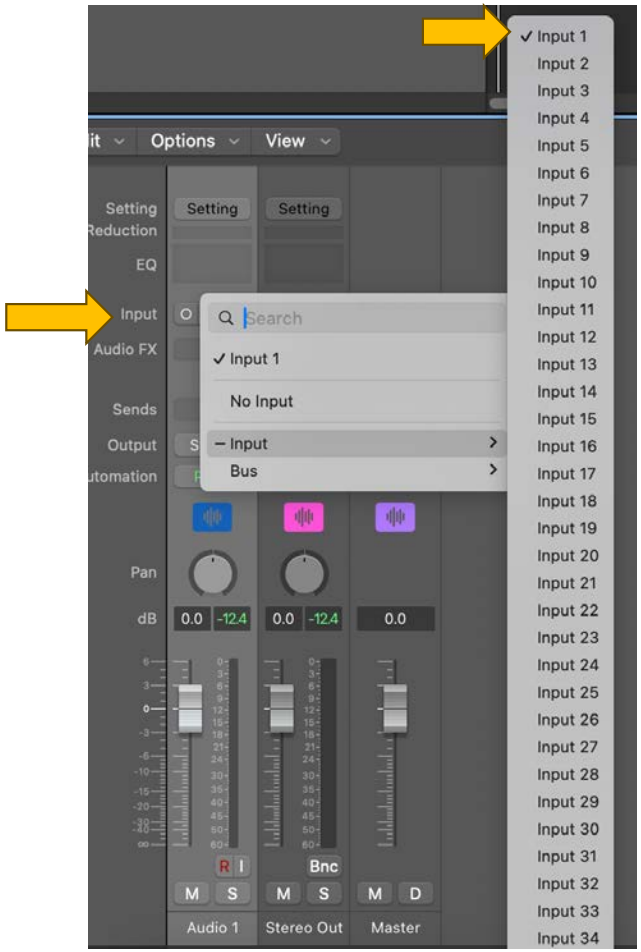
Go to Settings/Audio.

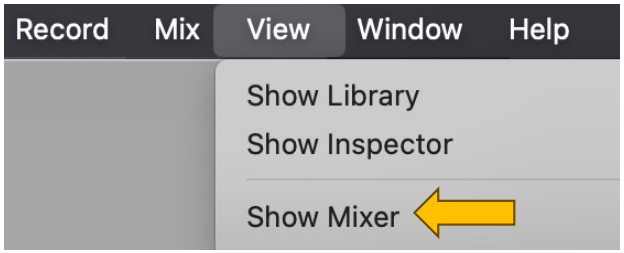
The Output and Input Device is the **Universal Audio Thunderbolt**.

Choose a **low I/O buffer size** for recording, like 64 samples. You can increase the buffer size if you have issues playing back the tracks.



Under Recording Settings choose **WAVE** as the file type and 24 or 32 bit as the bit depth.





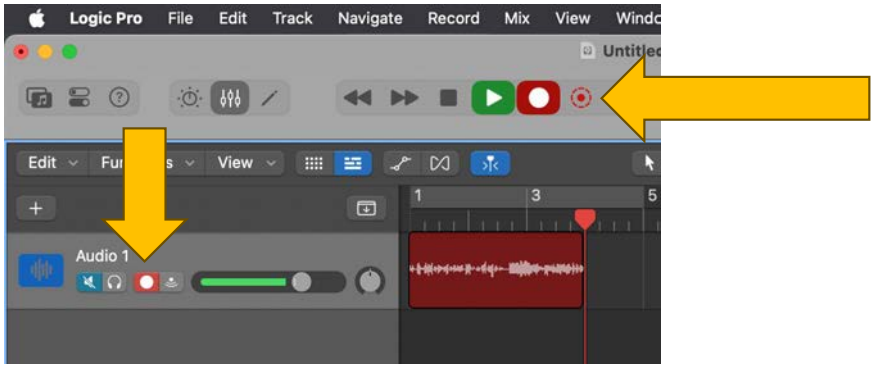
In the top menu go to **View/Show Mixer.** The mixer shows the inputs and outputs for the track.

On Audio Track 1 in the mixer select the appropriate input. Here I am using Mic Input 1 on the UAD Apollo.

Once you have selected an input, you should see the input signal on the meter on the track and the mixer.

Mute the Audio track 1. See page 26 about direct monitoring.

Press the **record button** to record arm the track and then press record on the controls.



Recording with Ableton Live

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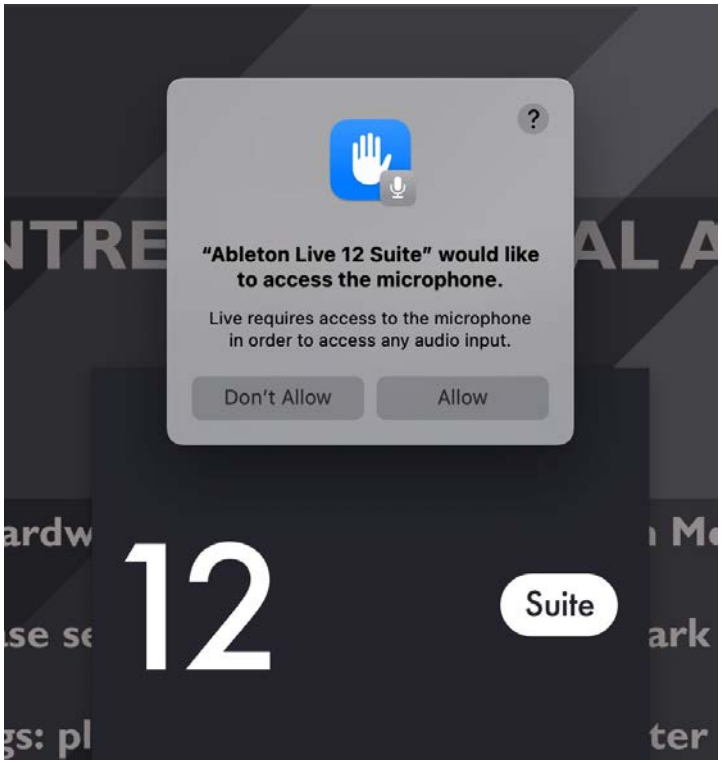
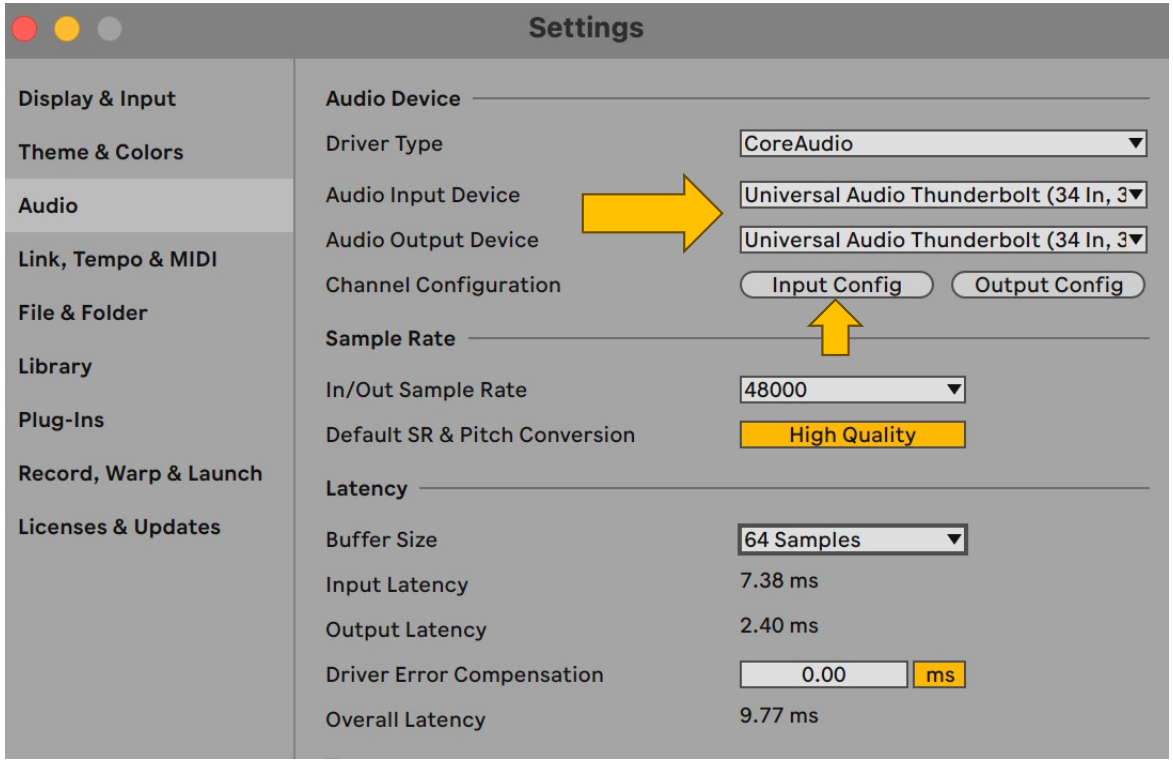
Opening Abelton Live



When you open up Abelton Live, allow it to access the “microphone”. If you don’t allow it to use the “microphone” then it cannot use any audio device, including the UAD Apollo!

This is true of all audio applications in Mac OS. Always allow the application to access the “microphone”.

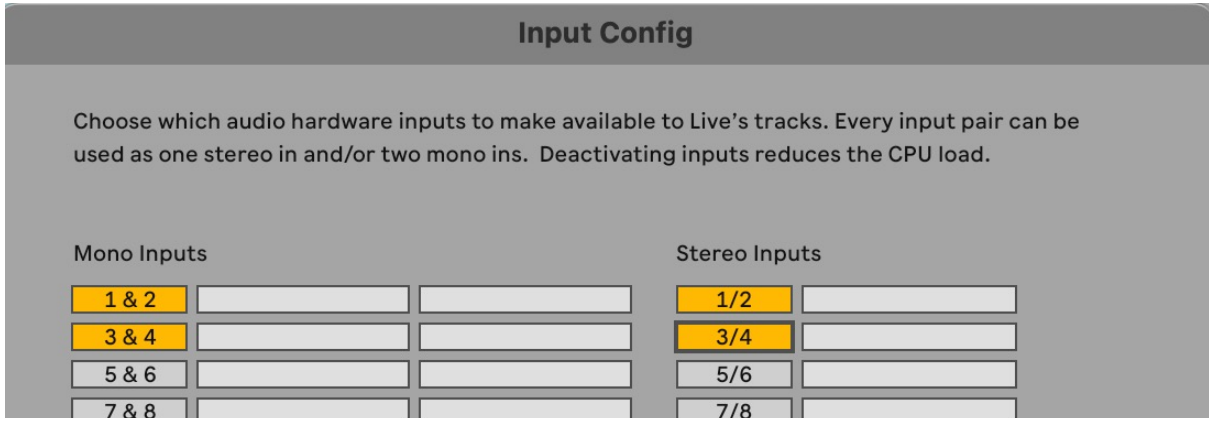


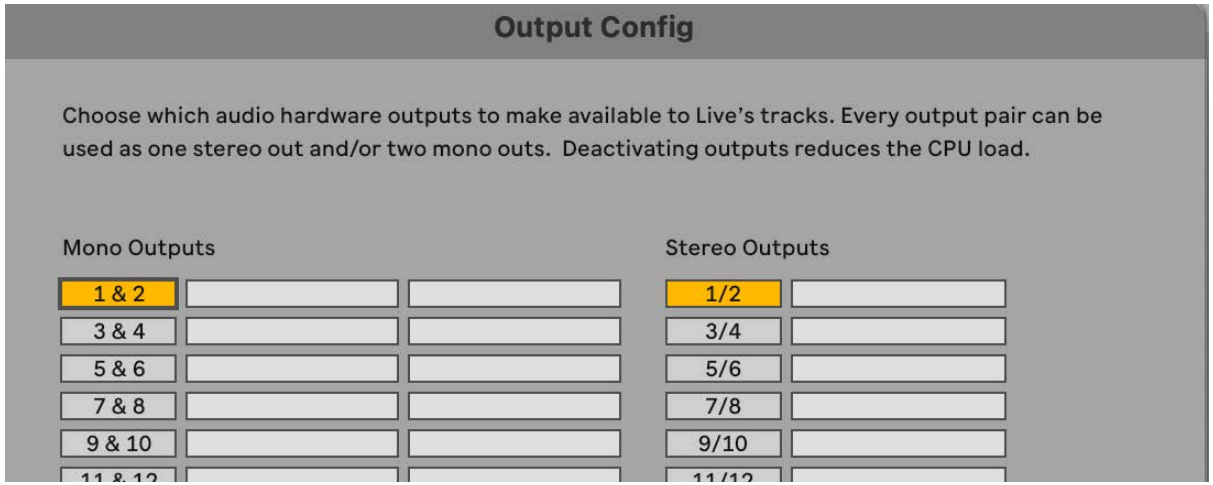
Go to **Settings/Audio.**

The Audio Input and Output Device is the **Universal Audio Thunderbolt.**

Set the sample rate as you wish. For recording use a smaller buffer size of 64. You can use a larger buffer size if you have problems playing back tracks.

Then go to **Input Config**.

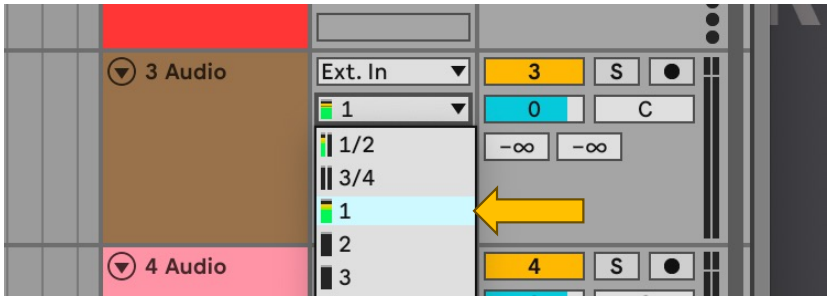




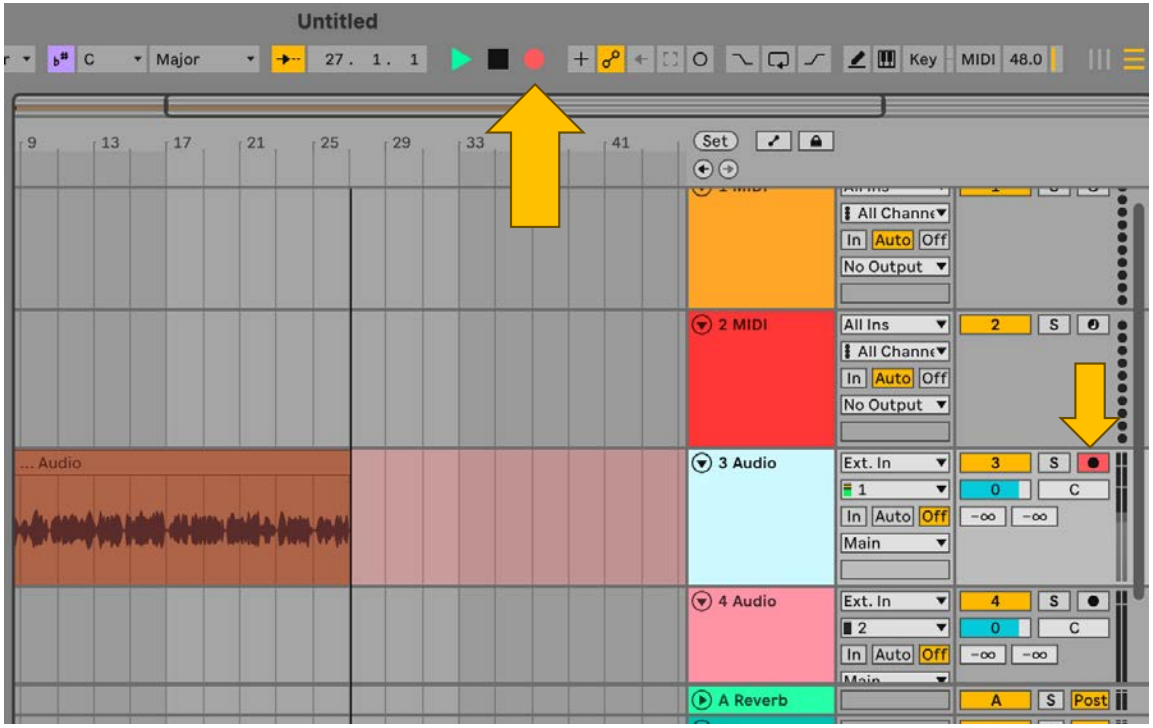
Ableton Live
/Settings/Audio/**Input Config**

By default, inputs 1 and 2 will be active. Activate inputs 3 and 4 if you are using those inputs in the booth.

In the **Output Config**, you just need the default 1 and 2 channels of output.



On an **audio** track in the Live session, select the appropriate input. Here I have selected input 1. You should see a level in the tiny level meter.



Then record target the track and press the record button on the top of the session. The track will turn red as the recording progresses.

Recording with Reaper

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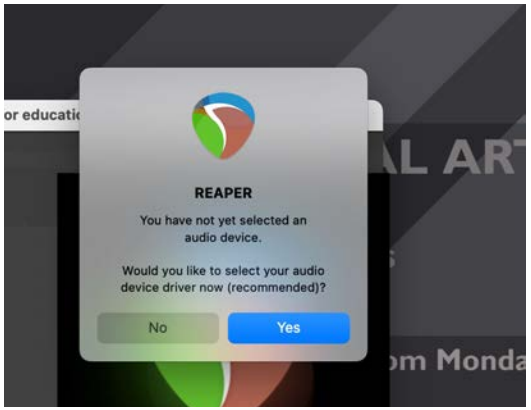
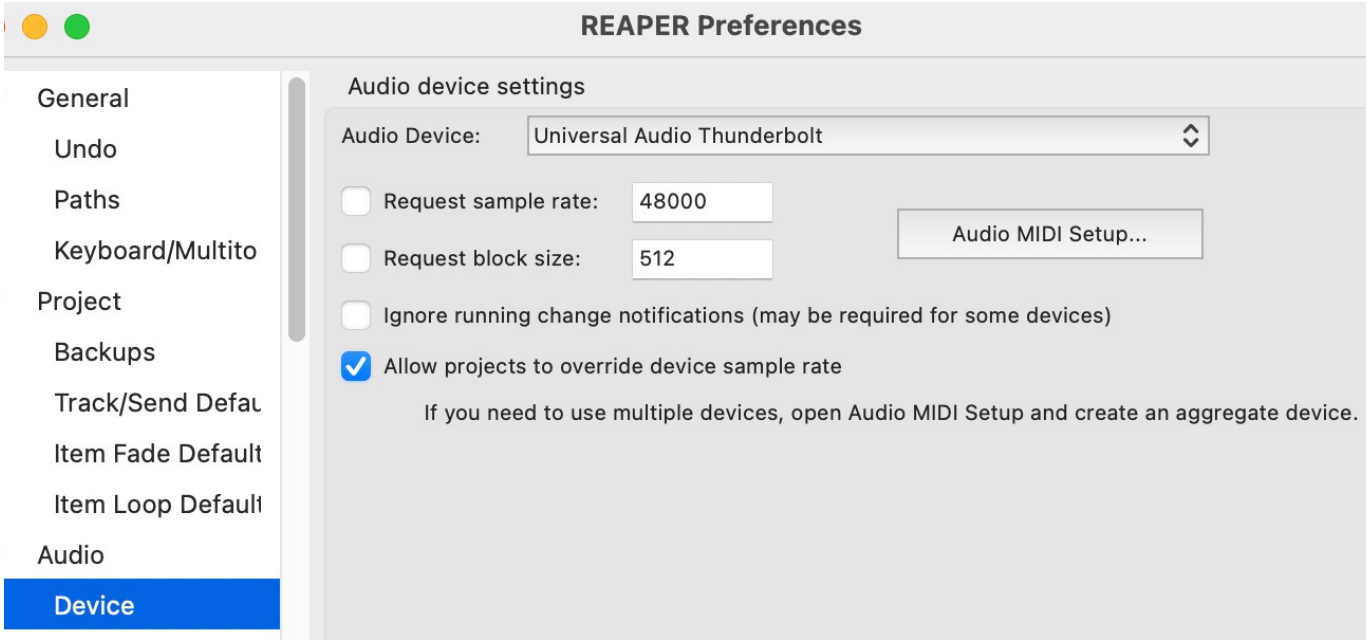
Opening Reaper

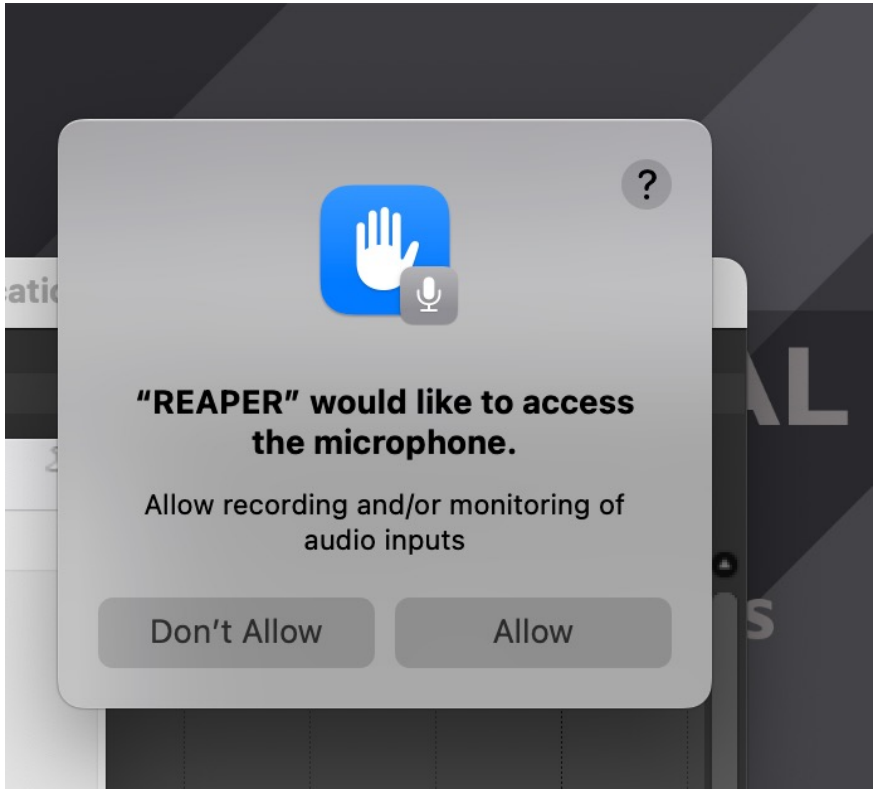
Allow Reaper to complete the scan for VST plug-ins while opening.



Then select the audio device.

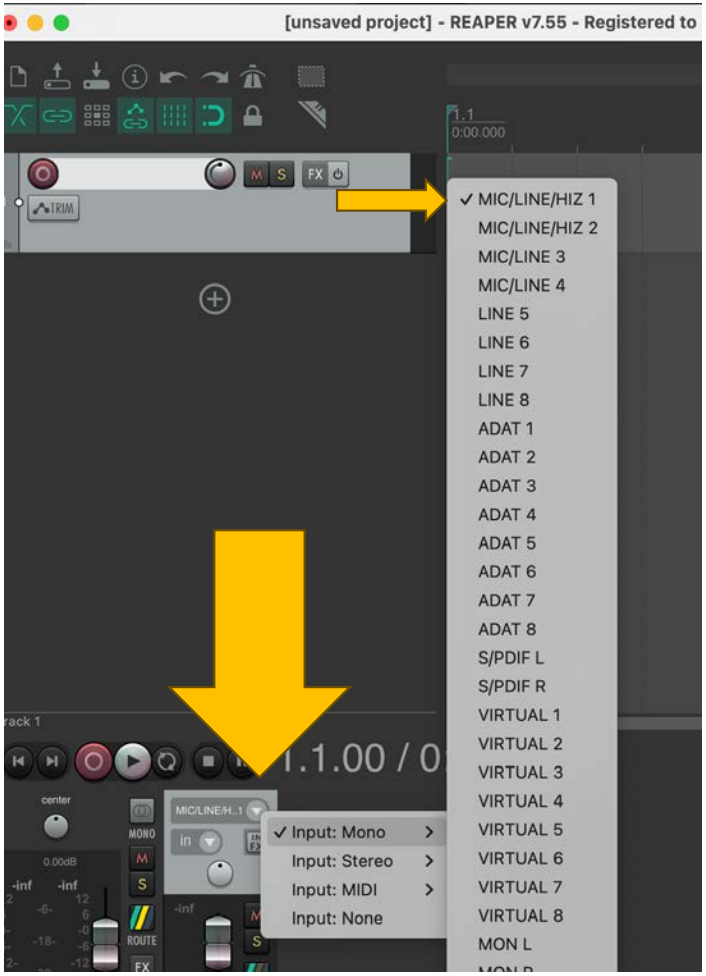


The audio device is the **Universal Audio Thunderbolt**.
Set the sample rate as you wish. Block size is the same as buffer size. You can use 64 for recording and a higher one for playback.

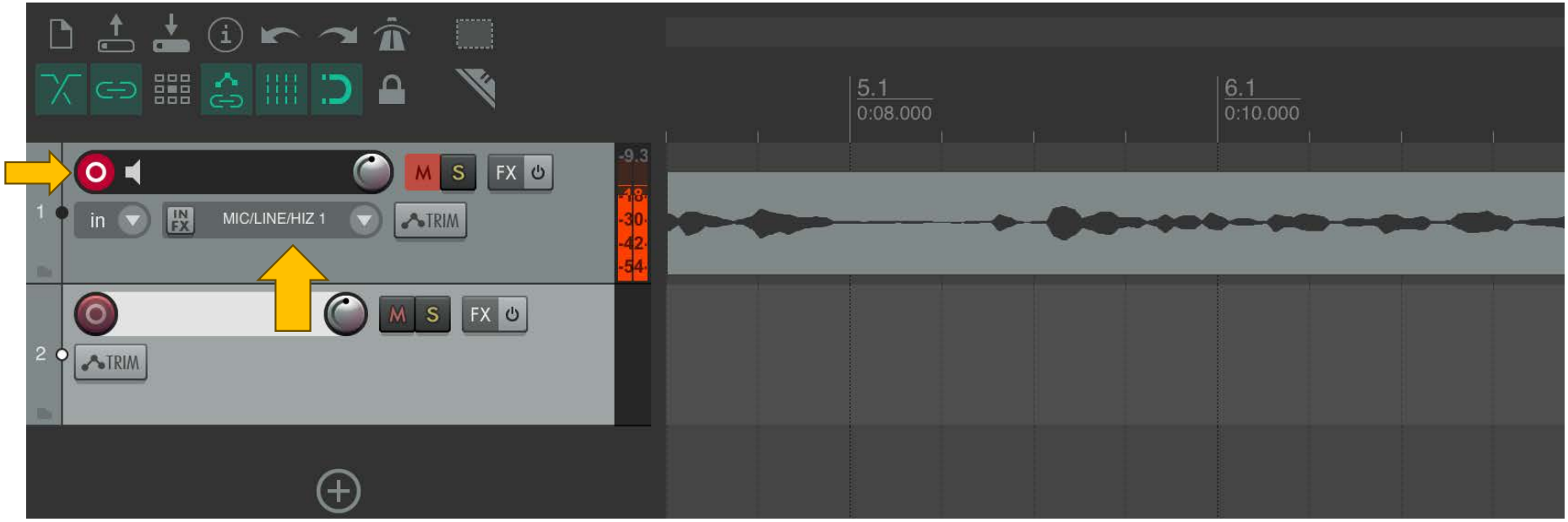


Allow Reaper to access the "microphone". If you don't allow it to use the "microphone" then it cannot use any audio device, including the UAD Apollo!

This is true of all audio applications in Mac OS. Always allow the application to access the "microphone".



In the mixer view in the Reaper project, select the appropriate input. Here I have selected input 1.



Mute the audio track you are recording on to. See page 26 for an explanation of direct monitoring. Press the record button on the track. You should see a level and waveform being created.

Headphone Monitoring

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Avoiding Feedback

Feedback is caused by a microphone picking up its own amplified signal. The sound gets reamplified infinitely until it is a painful howl.

To avoid feedback, always **MUTE** the speakers in the control room **when you open the door of the booth**.

You don't have to open the door of the booth to speak to the performers inside. You have a **talkback** unit that goes to their headphones. Read on.

Talkback

On the right side of the Mackie Big Knob, there are talkback controls. To speak to the performer in the booth who is wearing headphones, press the "**to phones/studio**" button and speak into the unit. The microphone is just to the left of the big volume knob.
You can control the volume of your voice with the talkback level knob. **It should be below 12 o'clock.**

Headphone preamp

In the corner of the booth, below the mic inputs is the HM 400 headphone preamp. There is a main input level control section and four headphone output channels. In all channels you are hearing the stereo output from your recording session.

Turn on the HM400

You may need to turn on the headphone amp: power button on the right.

Main Input and Channel 1 Controls

This headphone amp is loud!

Set the **Main Input Level** at quarter to twelve and look at the input level.

Ignore the level on the **channel level meter.**

Set the **Channel Output level** from quarter to twelve or twelve o'clock.

Plug in headphones here.

In Channel 1, the **Balance Control** will shift the sound from left to right.

Keep the **Master Input Level meter** below the 0, the orange and red level.

Channels 2 to 4 controls

Channel Output level from quarter to twelve or twelve o'clock.

Ignore the level on the **channel level meter**. It will be low.

The **Balance control** will simply cut the volume if you shift it to the left unless you use the advanced method described later in this section.

More Channel Controls

In each channel you can **mute** the left or right signal.

You can change whether you are hearing a stereo signal (ST) or mono (2-CH).

You can do some simple EQ to your liking with the Bass and Treble controls. This is just for playback. It does not affect recording.

Two ways to monitor in the headphones

I will outline two methods for working with the HM400 headphone amp:

Simple Method

By default, if you have followed the correct setup for the UAD Console and Mackie monitor controller described in the basic recording section of this guide, you will be hearing the stereo output from your session and the mic input blended in the headphones.

Advanced Method

By changing the output of the Analog Input tracks in the UAD Console, you can use the balance knob on channels 2 to 4 in the HM400 headphone amp to play with the balance between your mic input and the backing tracks in your software session.

Simple Method

When listening in the headphone amp, you are always hearing the **stereo output** from your software session and the mic input **directly from the Apollo hardware**.

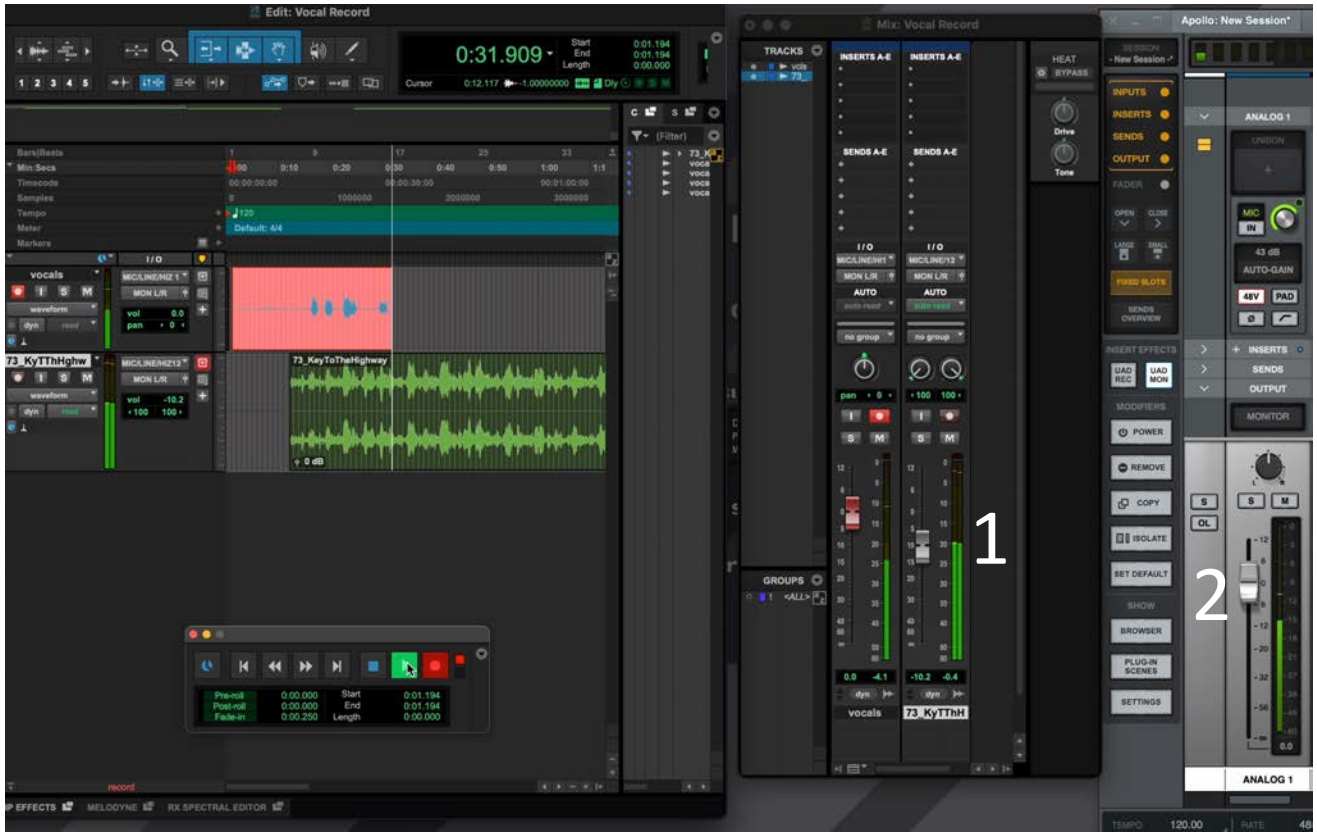
You should always have the record track **muted** in the software (or in the case of Pro Tools have the "**low latency monitoring**" option enabled). This will avoid hearing the mic input twice (once directly from the Apollo hardware and a second time from the input track in your software).

Simple Method
UAD Console

Normally in the UAD Console software, all of the **Analog Input Tracks** are output to **Monitor** (main stereo output). This blends the mic input with the stereo output from your software session.

Simple Method: Adjusting the playback level

To adjust the level of the mic signal vs the backing tracks in the performer's headphones, you have to adjust the volume of the backing tracks with a fader in the mix window (1) and the playback level of the mic input with the fader (2) on the analog input in the UAD Console. This example is from Pro Tools.



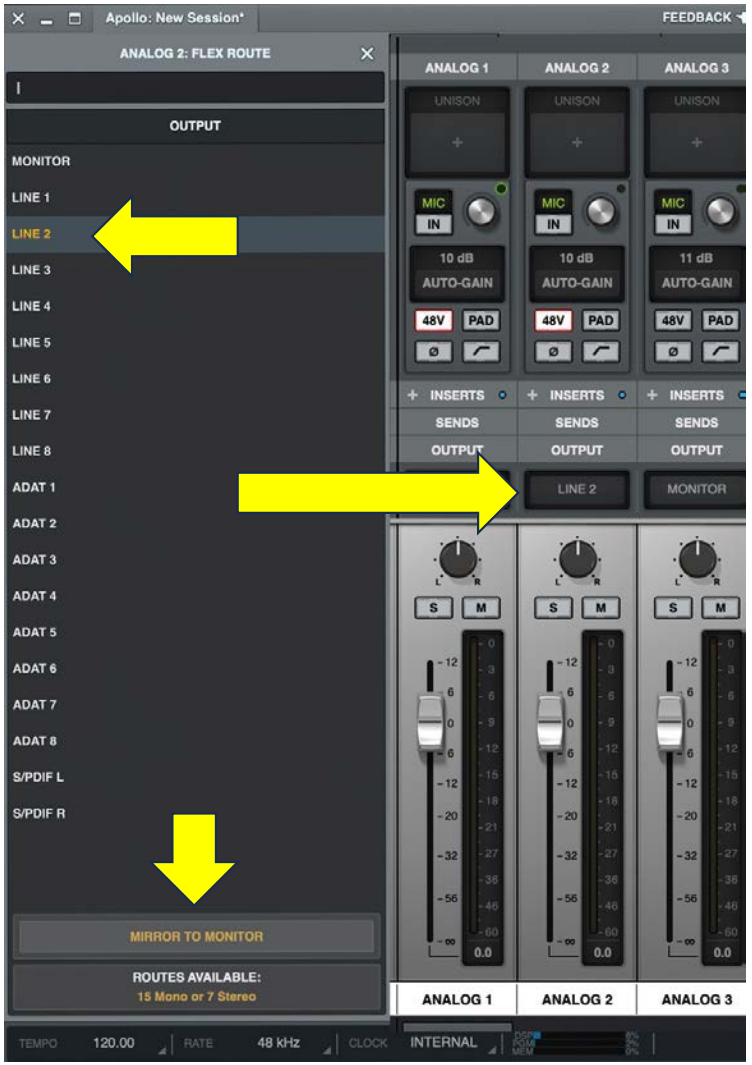
Advanced Method

There are Aux inputs on the front of channels 2 to 4 in the HM 400 headphone amp. These are direct line outputs from the Apollo interface that contain only the mic input. When using this method, you will be using Mic Inputs 2 to 4 in the booth. Use the corresponding output on the headphone amp.

Changing the output for Analog Input 2 to 4

In the UAD Console software, you can change the outputs for analog input channels 2 to 4. Here I have changed the output of Analog 2 (Mic Input 2 in the booth) from **Monitor** to **Line 2**.

You must also keep the **Mirror to Monitor** option selected (yellow).



Channel 2 to 4 controls

Now the **balance control** on Channel 2 of the HM400 headphone amp will get the mic signal from the aux input.
Turn the balance knob **left** to hear more mic input (more of you) and turn it **right** to hear more of the software session backing tracks.
You can still use all the playback level controls you used in the simple method but now **the performer also has control over how they hear themselves** with the balance knob.

This is a Pro Tools session with the advanced method. Note the **Line 2** output in the UAD Console for Analog 2 mic input.

In the booth the microphone will be plugged into Mic Input 2.

Headphone extension cable

Use the provided headphone extension cables. There are two extension cables and two sets of headphones in the booth.

You may bring your own headphones but make sure they are the enclosed over the ear kind.

Headphone Monitoring in the Control Room

Use the headphone outputs on the Apollo to monitor with headphones in the control room.

If you are using a laptop, use the headphone outputs on the Mackie Controller.

Using the Second Display

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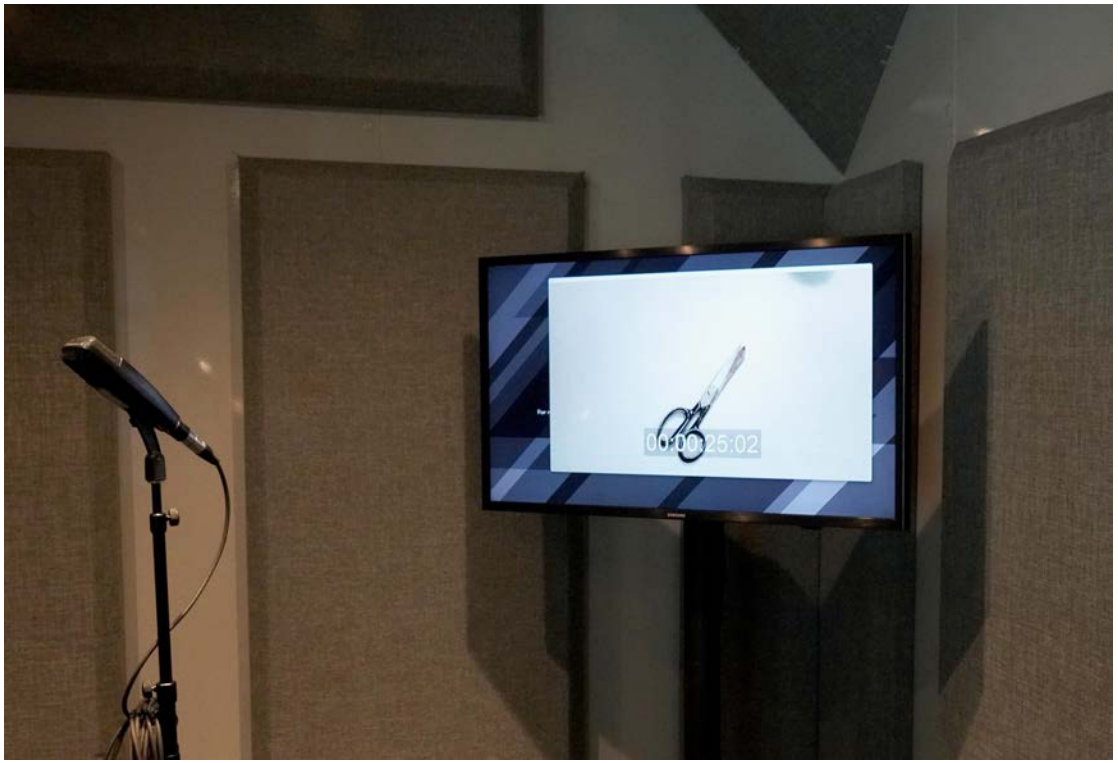
About the second screen



The second screen in the booth is intended for performers who require a video reference for dialogue dubbing, voice over, or foley.

It can also be useful for performers to see volume levels from the UAD Console software.

Steps to Succes

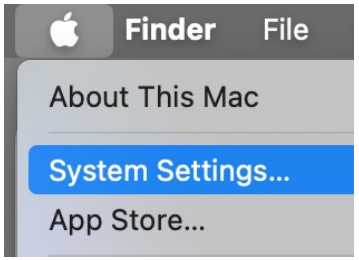
Apple has made it difficult for us. The screen in the booth is an HDMI screen and Apple has decided, in their infinite wisdom, that any HDMI screen plugged into one of their computers is the screen that is going to be the log in screen, the primary screen. Obviously, that is going to cause problems because that is not what we want.

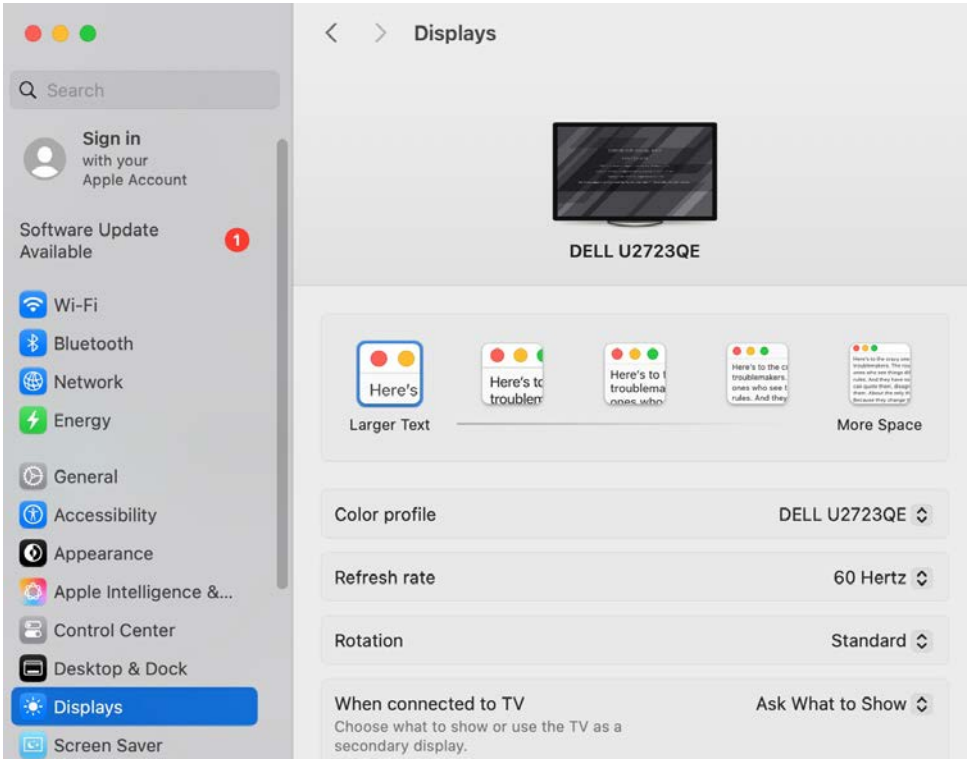
So, here are the convoluted steps to getting an image on the second screen. Read on.

Steps to Success

1. **Do not** plug in the HDMI output into the back of the Mac Studio right away. First, log into your account on the studio computer.
2. Then open up the Mac OS system settings/displays. Opening up these settings will make it easier to adjust them when you do plug in the screen.
3. Plug the HDMI output into the back of the Mac Studio. There is only one HDMI output. Turn on the screen with the remote.
4. Make adjustments to the display arrangement and what you want to appear on the screen: mirrored or extended display.
5. When you're done. Unplug the HDMI output from the back of the Mac Studio computer and stick it back on the velcro resting place.

2. System Settings/Displays



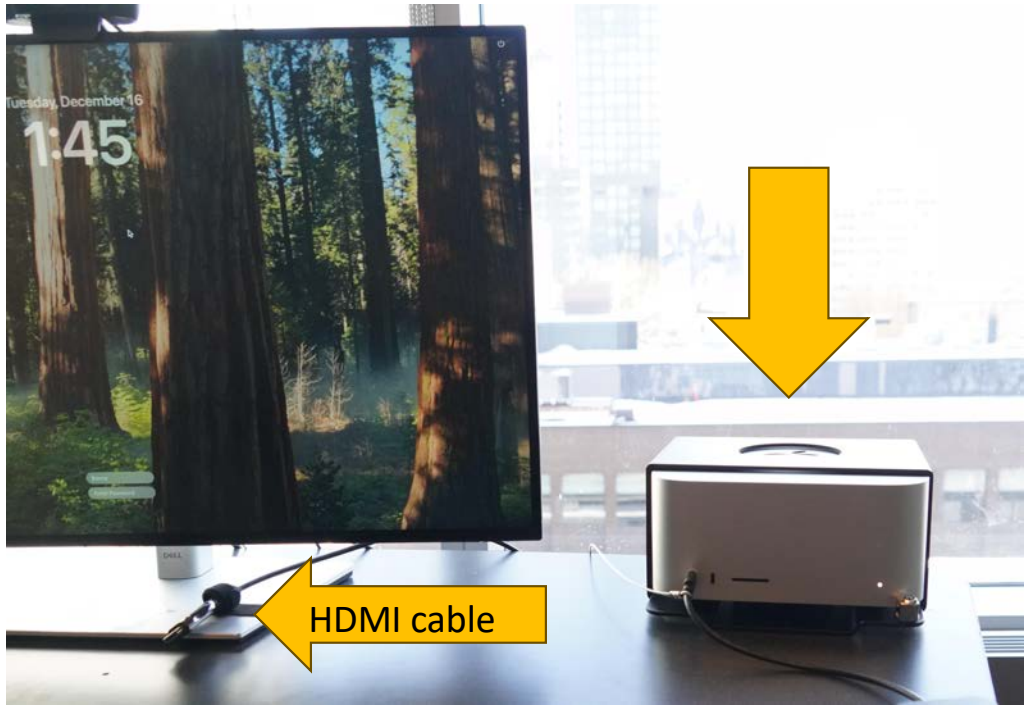


When you open up the System Settings/ Displays **before you plug in the HDMI output in the back of the Mac Studio** computer it will look like this.

The Dell screen is the screen in the control room.

Keep the display settings open.

Plugging in the HDMI output cable



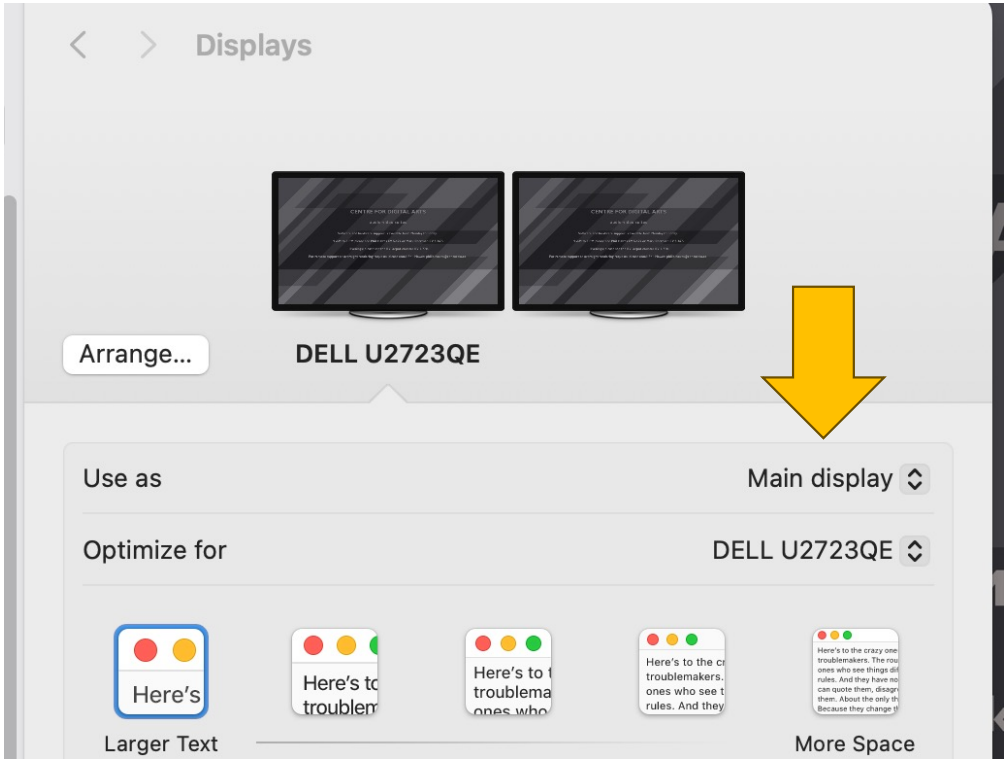
Put the HDMI cable in the back of the Mac Studio computer.

The computer is the shiny metal box on the desk, not the screen.

Plug in the HDMI output cable

The HDMI port is the on the back left of the Mac Studio computer.

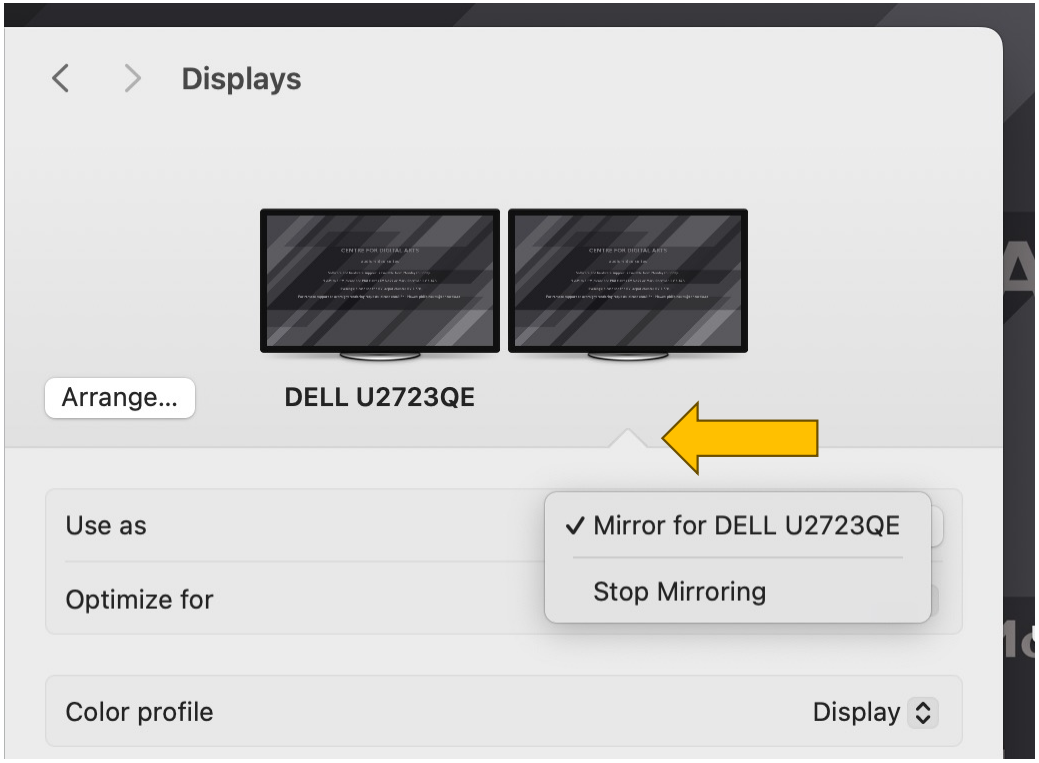
Don’t disturb any of the other cables.



Once you plug in the HDMI cable, the display preferences, will look like this. The control room screen, the Dell, is on the left, and the screen in the booth is on the right.

The **Dell** screen will be the **Main Display**.

If this does not happen and the main screen is the booth screen go to page 89.

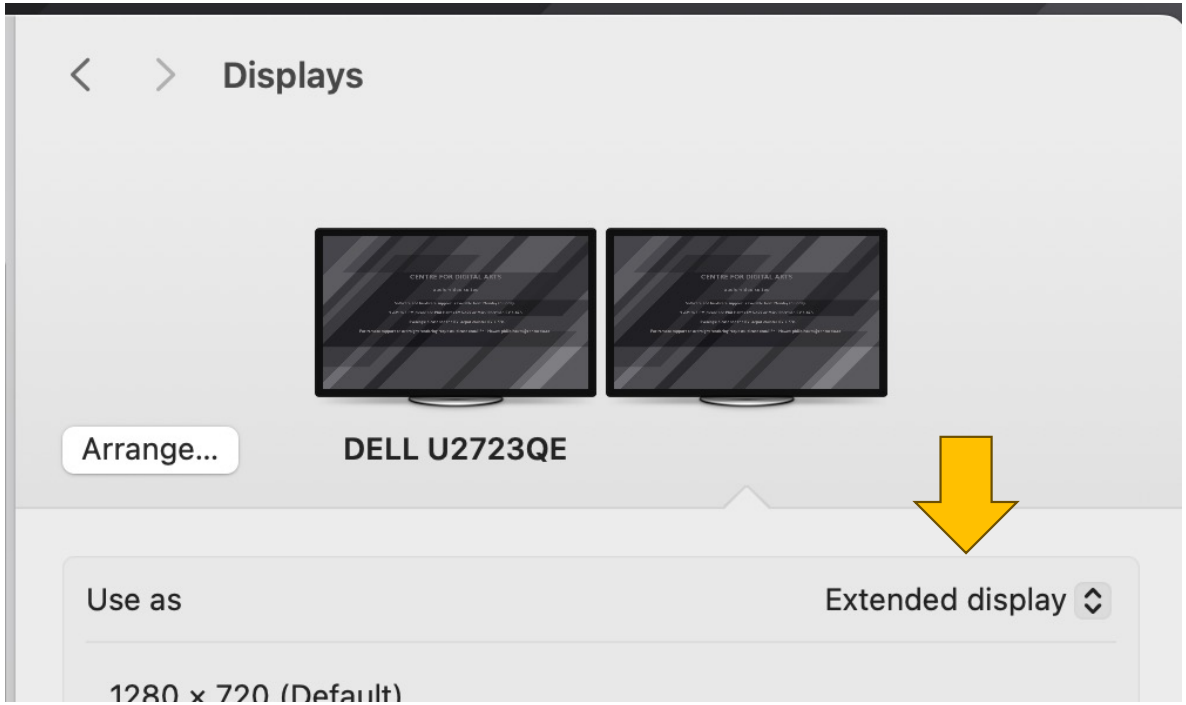


When you select the second display, that won't have a name or may be called the Samsung display, you have two options: mirror or extended.

Mirror means that it will show whatever is on the main display on the booth screen, extended display means that it will act as a secondary screen where you can drag a video.

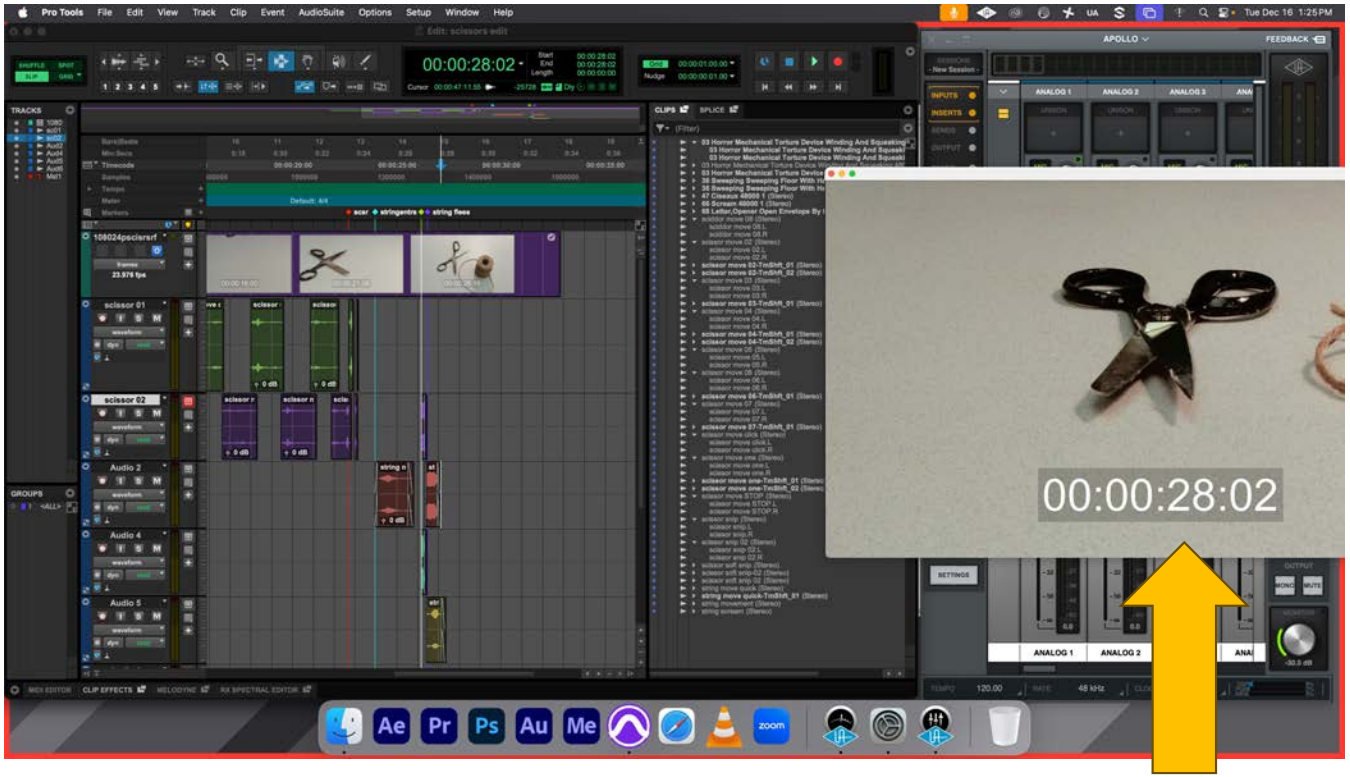
Turn on the screen in the booth with the remote power button. You may have to open the door of the booth.

The screen should pick up on the HDMI 1 input automatically if not press the source button.



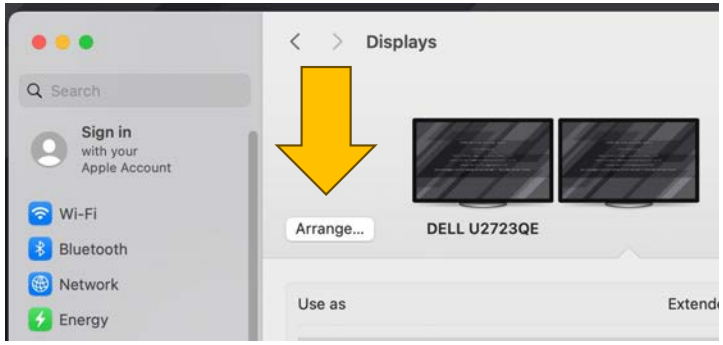
Choose **Extended Display** if you want the screen in the booth to show a video reference.

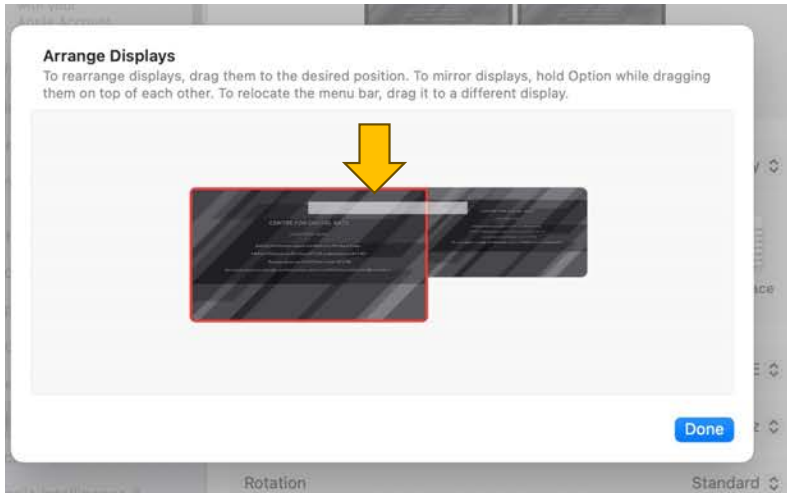
If the second screen is an extended display..



..then you can simply drag a video over to the right screen, the screen in the booth. Make sure the video is not too big. The screen in the booth is HD and the screen in the control room is 4K.

Arranging the two screens manually

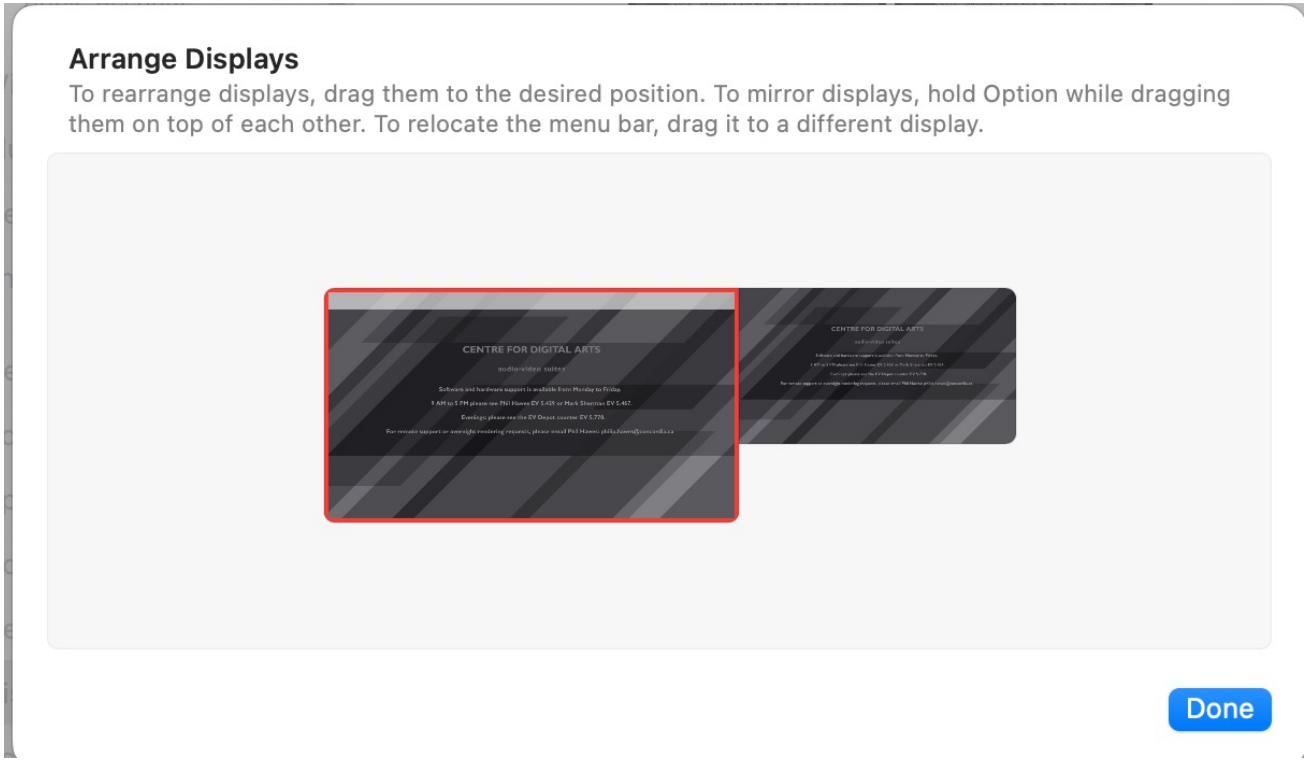




If your main screen appears in the booth, there are two things you can do. The Display system settings should be open on the screen in the booth. With the mouse, click on the arrange button.

Move the screen with the greater resolution (the Dell screen) to the left. Move the gray bar to the top of the left screen. This will make the left screen the primary screen.

Arranging the screens



It should look like this when you are done.

Recording with Effects

CDA Recording Suite

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Recording with Effects

We have already seen how you can record with a compressor effect if you use the TL Audio preamp and compressor hardware unit.

But what about software effects?

There are effects in the UAD Console that you can insert on a microphone analogue input track. These effects can be simply monitored or recorded into the audio file.

Unlike effects that you insert on a track in your audio software, the UAD effects inserted in the UAD Console can be heard by the performer without any latency, thanks to hardware acceleration in the UAD Apollo.

Recording with Effects

In the UAD Console, you have a choice to simply monitor the effect or bake it into the recorded audio file.

Sometimes you may wish to monitor with an effect. For example, a singer might find the sound in the booth too dry and may ask for some reverb.

Sometimes you may want to bake in the effect. For example, you may have plugged an electric guitar into an input and inserted a guitar amp simulator.

The UAD effects are also available as plug-ins in the any of the audio applications in VS12 as well. But it is best to use them as inserts in the UAD Console.

The UAD effects appear on the left side of the UAD Console.

They are hidden when you press the **Browser** button.

There are a number of effects that came with the unit and many more that can be purchased.

Here I have inserted a delay effect on Mic input Analog 1.

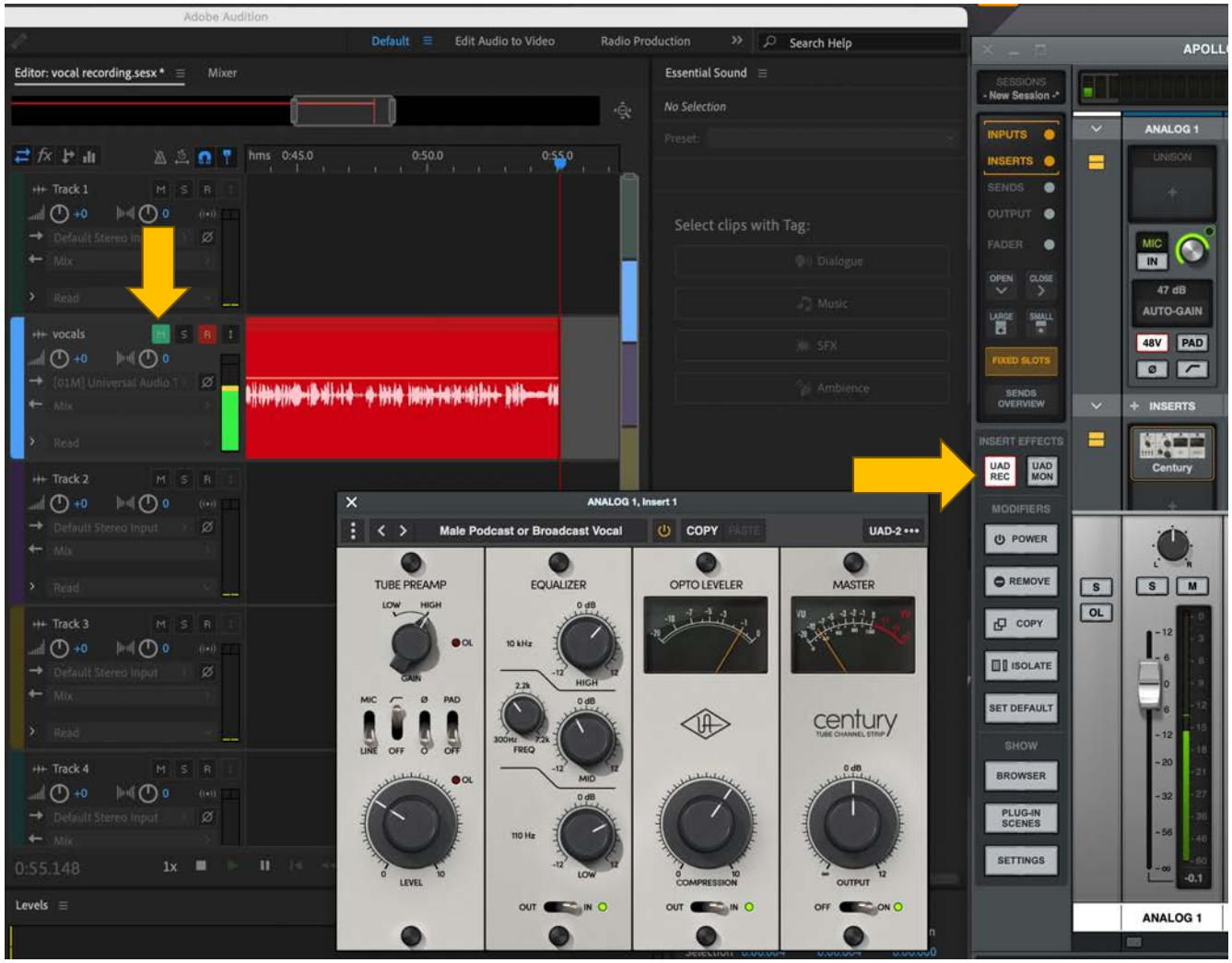
Click on the + icon on one of the insert spots below the mic input controls.

The Insert Effects buttons determine what happens with the effect.

UAD MON means that the effect is monitored but not baked into the final recording. The performer will hear the effect because they are hearing input signal only from the UAD Apollo.

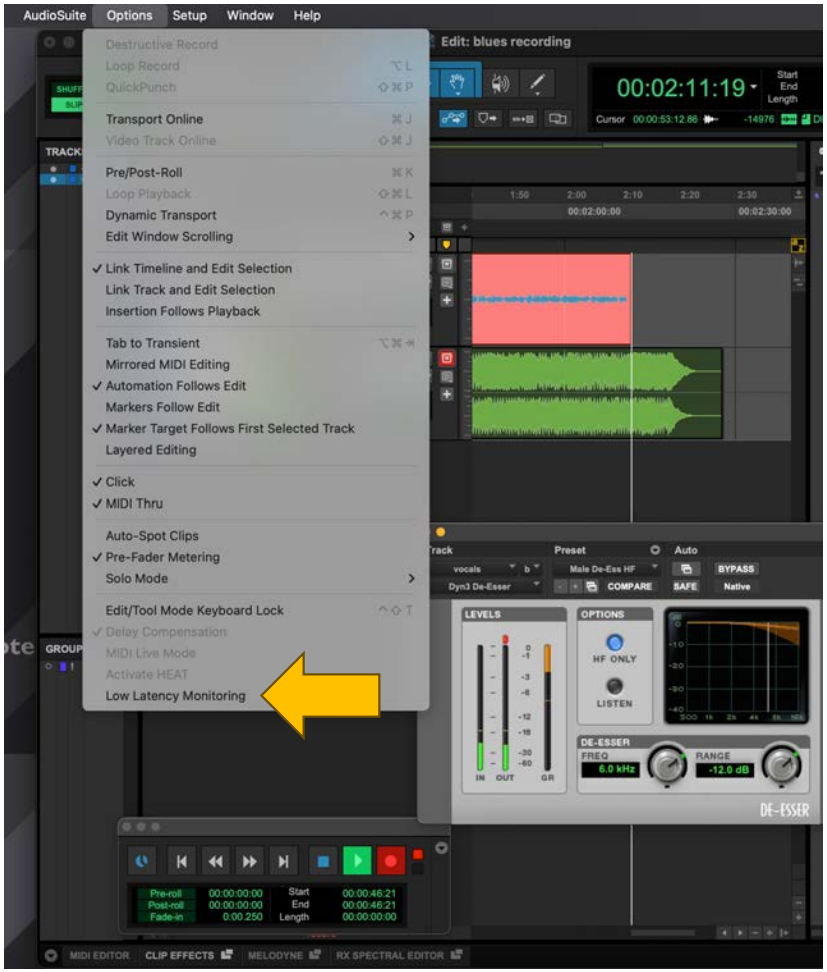
See page 26, direct monitoring.

UAD REC means that the effect will be baked into the final recording in your audio software.



Here, for example, I am recording with the UAD REC option and the effect is baked in. This is a compressor and eq effect.

Note that in Audition, my record channel is muted. To avoid latency or echo I must aways mute the record track in my audio software.



You can simply mute a record track in **Pro Tools** as well, although it has a better option.

Choose **Options/ Low Latency Monitoring**

This option will mute the track automatically when recording and unmute it automatically when playing back.

The only reason not to choose low latency monitoring in Pro Tools would be if you have a Pro Tools effect inserted on the record track. Then you would also have to lower the monitor fader for the mic input track in the UAD Console. See page 26 on direct monitoring.

But it is much better to use the UAD Console effects, if they are appropriate, because they can be heard with no latency.

Many of the UAD Console plug-in effects have presets.

They also have a help menu.

To remove the effect from a track in the UAD Console, simply right click on the effect on the input track and choose **remove**.

Disable will turn the effect off but leave it in place.

Recording to a Laptop

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Recording to a laptop

Follow this section of the guide if you want to record to a session on your own laptop. You will still require the use of the studio computer and the UAD Console software on the studio computer.

You will use the studio interface, the Universal Audio Apollo x8, as a microphone preamp but the sound will be digitally transferred via an ADAT connection to the Scarlett 18i20 interface to which your laptop is connected.

UAD Apollo x8

Focusrite Scarlett 18i20

Set up the UAD Apollo as normal

Set up the UAD Apollo to record following the Basic Recording section on Page 11 of this guide.

Make sure to set the sample rate of the recording in the UAD Console software. You will maintain this sample rate throughout the recording chain. 48 kHz or 96 kHz are the common choices.

Change the output of the Rec. channel

In the UAD Console software, on the channel you are recording on (in this case Analog 1), change the output from **Monitor** to **ADAT 1**.
Make sure the **Mirror to Monitor** option is also selected (yellow). When this option is selected you will still hear the microphone input in the studio speakers and the booth headphones but the input will also be sent to the digital ADAT output.

Recording with multiple inputs

If you are also recording with a second microphone in channel Analog 2, then change the output of that channel to **ADAT 2** and **Mirror to Monitor.** You can do the same for Analog inputs 3 and 4: output them to their corresponding ADAT channels, ADAT 3 and 4, and Mirror to Monitor.

You have eight channels of ADAT output from the Apollo interface regardless of whether you record at 48 kHz or 96 kHz.

Focusrite Control 2 software

1. **On your laptop**, download the Focusrite Control 2 software for desktop from the Focusrite website.

https://focusrite.com/software/focusrite-control-2

The interface is the Scarlett 18i20 4th Gen.

2. Install the software on your laptop.
3. Connect the Scarlett interface to your laptop using the supplied USB C connection (on the Velcro under the studio computer screen).
4. Turn on the interface.

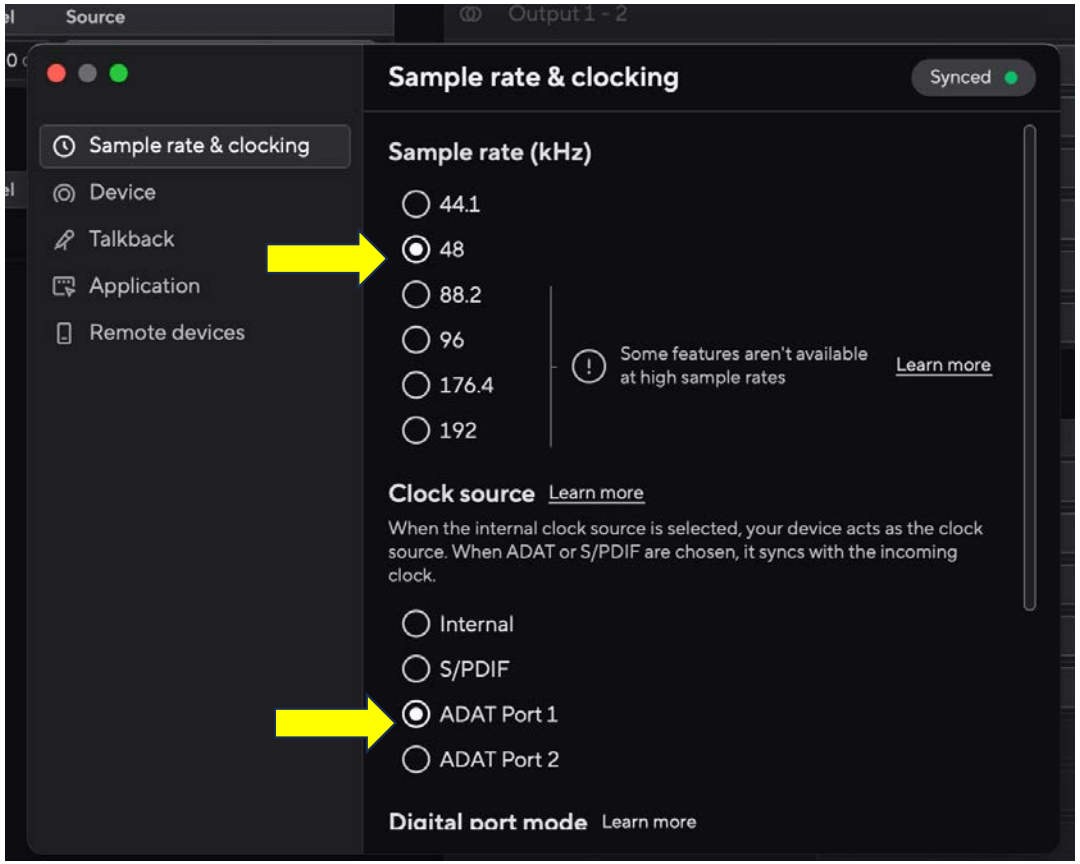
Focusrite Control 2 Settings

On your laptop, under the top Focusrite Control 2 menu, go to the **Settings.**

Set the **Sample rate** and **clock source.**

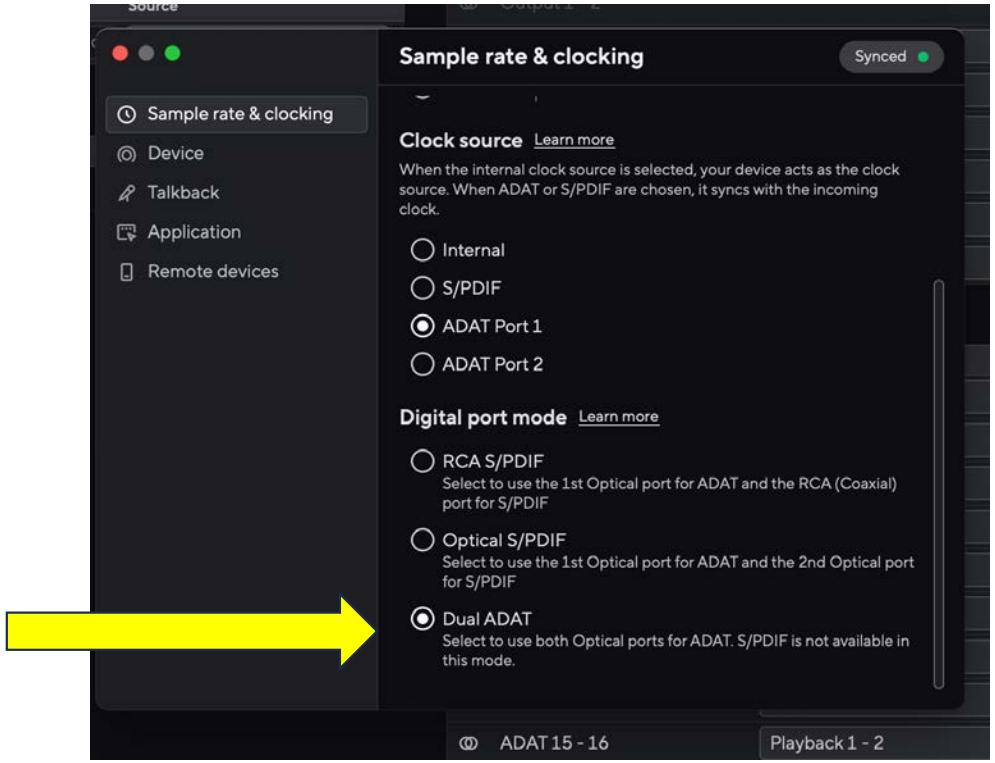
Choose the same **sample rate** you set in the UAD Console software. They must correspond. The most common choices are 48 kHz or 96 kHz.

Choose **ADAT Port 1** as the clock source.



Focusrite Control 2 settings

If you do not see the 96 kHz sample rate option, scroll down the **Sample rate and clocking** page and make sure that the **Dual ADAT** option is selected under **Digital port mode**. This will require a reboot of the device.



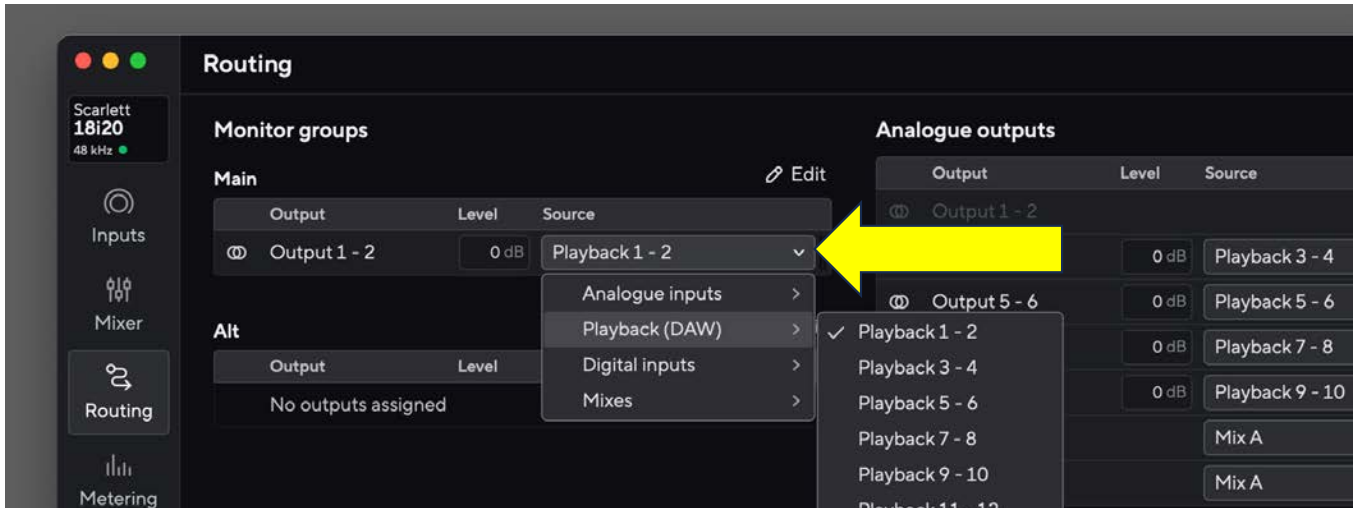
Focusrite Control 2 Input Settings

In the **Settings/Input** page you should now see an input in the from the Apollo x8 to the ADAT channel you selected in the UAD Console software. This is the microphone input.

If the Scarlett is synched to the UAD Apollo you should also see a green light next to the sample rate in the top left corner.

Focusrite Control 2 Routing

In the Settings/Routing page, the **Main Output routing** should be Playback (DAW)/Playback 1-2.



Mackie Monitor Controller Settings

To hear the output from the Scarlett you have to engage the **2-TRACK A** button in the Input Source Select section on the Mackie Controller. When both the **DAW MIX** and **2-TRACK A** buttons are pressed, you are hearing the direct output from the Apollo Mic Input from the **DAW MIX** input and the backing tracks from your laptop session from the **2-TRACK A** input.

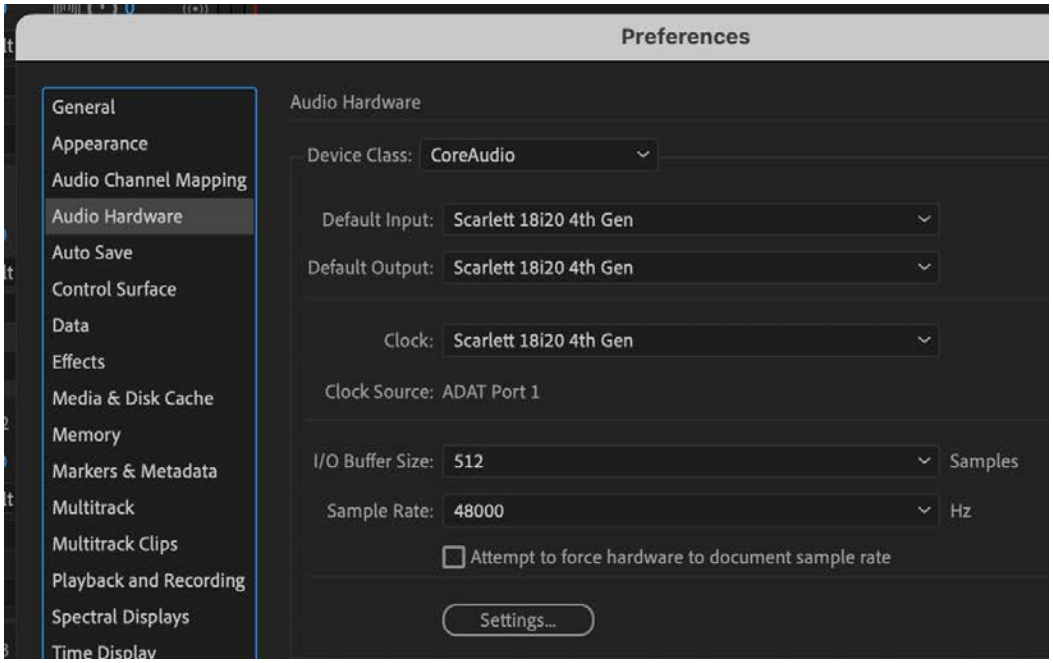
Playback from a laptop

Adjust the playback volume with the two volume controls. Turn the volume knob on the front of the Scarlett to 12 o’clock and then adjust the volume control on the Mackie controller.

Laptop Software Settings

In the audio software of your choice (this example is Audition), choose the Scarlett 18i20 as the audio hardware and the clock source. The clock source should read **ADAT Port 1**.

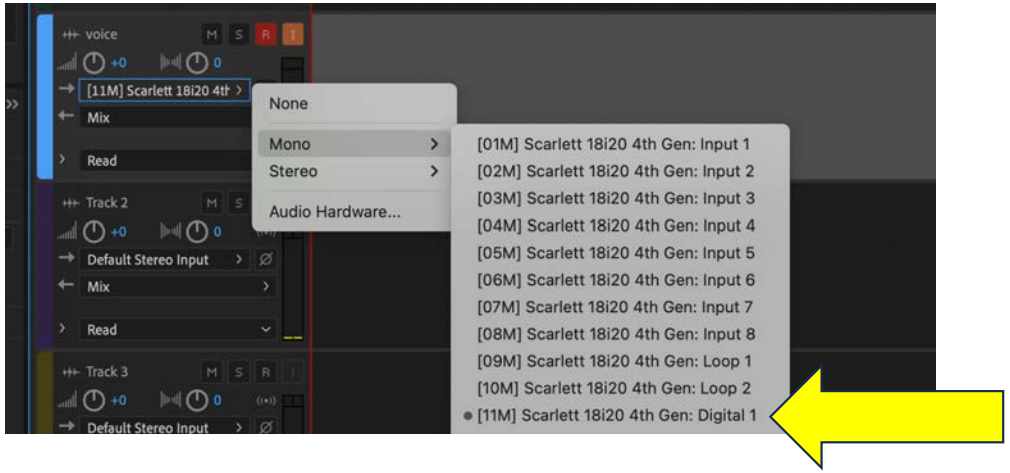
The **sample rate** must match the sample rate in the UAD Console session on the studio computer and the sample rate in the Focusrite Control 2 software on your laptop.

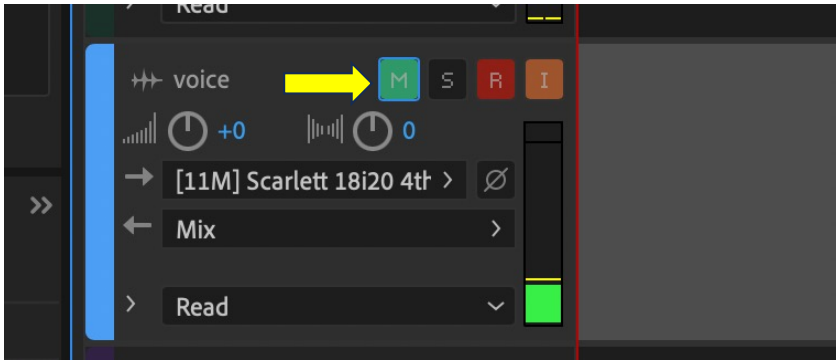


Recording input in software

On the mono track you will be recording to in your software, choose the **Scarlett Digital 1** as your track input.

Mute the record track. You will be listening to the mic input directly from the Apollo. Muting the record track avoids an echo on playback in the studio and in the booth headphones.

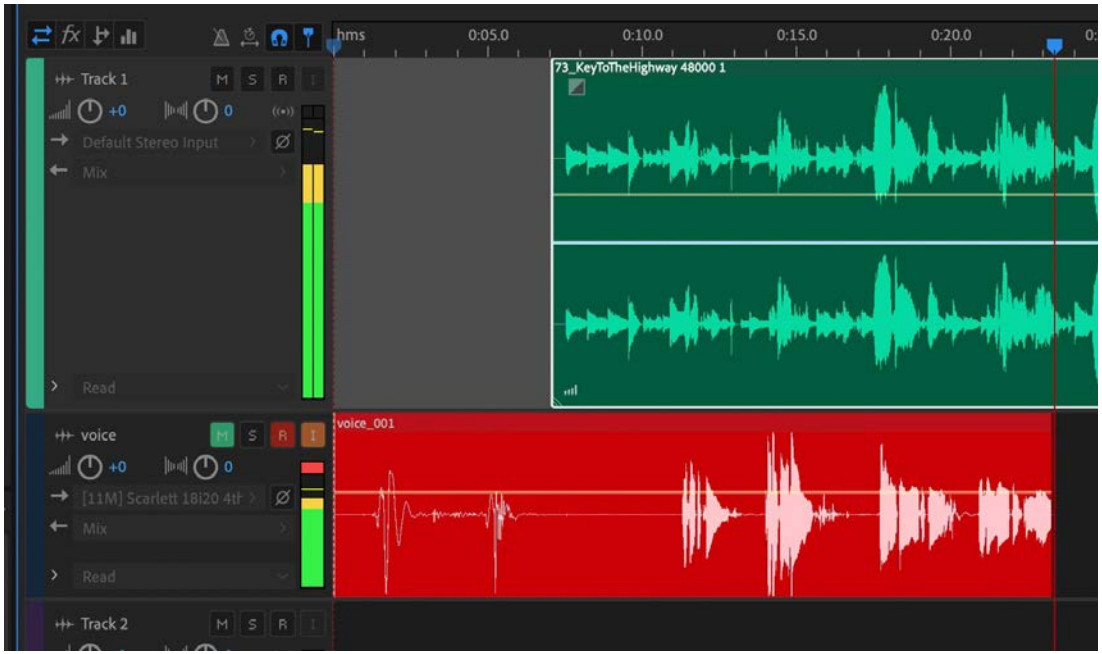




Record and Playback

When you record and listen to the playback as you record, you are hearing the backing track or tracks (in this case track 1) from the Scarlett and the voice that is recording from the Apollo.

This is because of the two inputs that are activated on the Mackie Controller.



Input Sources on Mackie Controller

The two input sources, the Apollo is source **DAW MIX** and the Scarlett is **2-TRACK A**, are both enabled. You are hearing the mic input through the DAW MIX directly and the backing track(s) through 2-TRACK A.

This allows the person in the booth and the person in the studio to hear the microphone input with no latency.

You can simply turn off the **DAW MIX** input when you are not recording and want to hear the final result from your laptop (with the record track unmuted).

Turn off the Scarlett Interface

When you are finished deselect the **2-TRACK A** input on the Mackie Controller.

Then turn off the Scarlett interface.

Replace the USB cable on the Velcro underneath the studio computer monitor.

Thank you for reading this guide. If you have any questions or comments please contact Phil Hawes:

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