Bucks County Folk Song Society

Performing Music On Zoom

Zoom has allowed us to share music from a socially safe distance, but it has the ability to totally trash your performance if you aren't set up correctly. The reason for this is that Zoom was created and optimized for speech and not music. However, many features have been added, especially since the onset of the COVID pandemic, that can allow you to present a very respectable musical performance over the Zoom platform. The audio and video capabilities of laptops and tablets have also been enhanced in recent years, but in many cases you can also make a substantial improvement with a fairly modest investment in external audio and video gear. On this page we will try to go through the steps you should take, in descending order of importance.

Zoom Version

The Zoom platform has undergone multiple revisions since the onset of the pandemic, and the user interface is quite different today versus before the pandemic. So before proceeding with any of the other steps in this discussion, you should make sure you have downloaded the very latest version. On A Mac or Windows PC, turn on Automatic Updates in the General Settings panel

Original Sound

As mentioned, Zoom is deigned to modify your sound to optimize it for a speech presentation (and destroy your music). There are three primary ways that it accomplishes this:
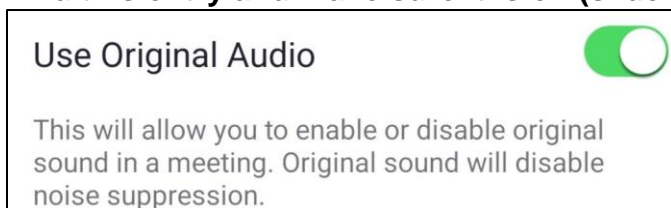
- Automatic volume adjustment is intended to override unwanted volume changes, but it can also cancel intentional dynamics in your presentation. Inexplicably, it is also responsible for causing performances to fade out to the point of being nearly inaudible. This has been observed multiple times during our Zoom circles.

- Frequency equalization suppresses frequencies not usually present in speech, especially lower frequencies. This can make the finest instrument sound tinny and the finest voice sound nasal, even with the best microphone.

- Background noise suppression does what the name suggests. It is supposed to recognize music and not suppress it, but its success in that effort is questionable.

Fortunately, current versions of Zoom provide the option to use *Original Sound*, which overrides the above "features" and allows your online audience to hear what you really sound like. It cannot be emphasized enough that *Original Sound* is a must for musical performances.

The really sneaky thing that some users do not realize about original sound is that turning it on is a two-step process. First you have to "Enable" it. Then, while in the meeting, you have to turn it on. The steps look quite different in mobile devices (phones and tablets) as compared to Win and Mac laptops, and it's much less obvious in mobile devices. Chromebooks are somewhere in between; they look like a laptop, but act pretty much like a tablet for Zooming purposes.
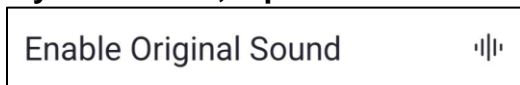
Turning on Original Sound on a MOBILE DEVICE

1. **Start the Zoom app WITHOUT entering a meeting**
2. **Tap on Settings (Gear icon)**
3. **Tap *"Meetings"* to get to the meeting settings**
4. **Find this entry and make sure it is on (slider to the right and green).**

> Use Original Audio   🟢
>
> This will allow you to enable or disable original sound in a meeting. Original sound will disable noise suppression.
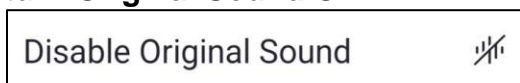
   Note that this setting alone does NOT turn on Original Sound. It just enables you to turn it on during a meeting.

5. **Return to the Zoom Home screen and join the meeting/**
6. **Once in the meeting, return to the settings by tapping *"More"* (3 dots) to see your in-meeting options. Note that the option to Enable or Disable Original Sound will not appear if you have not set *"Use Original Audio"* in the step above.**
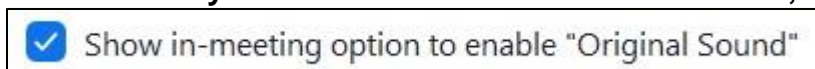7. **If you see this, tap it to turn on Original Sound.**

> Enable Original Sound   ıǁ�ı

8. **If you see this, Original Sound is already on, and you're good to go. If you tap it, you will turn Original Sound OFF.**

> Disable Original Sound   ⫶⫶

Confusing? Yes, but trust us, it used to be worse.

Turning on Original Sound on a WINDOWS or MAC PC

1. **Start the Zoom app WITHOUT entering a meeting**
2. **Click on Settings (Gear icon)**
3. **Click on *"Audio"* to get to the Audio settings**
4. **Find this entry under Music and Professional Audio, and make sure the box is checked.**

> ☑ Show in-meeting option to enable "Original Sound"

   Note that this setting alone does NOT turn on Original Sound. It just enables you to turn it on during a meeting.
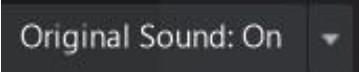
5. **Return to the Zoom Home screen and join the meeting.**

6. Once in the meeting, you should see your Original Sound status in the upper left of the screen. Note that your Original Sound status will not appear if you have not set *"Show in-meeting option..."* in the step above.

7. If you see this, Original Sound is "Off", so click it to turn on Original Sound.

   Original Sound: Off ▾

8. If you see this, Original Sound is already on, and you're good to go. If you click it, you will turn Original Sound OFF.

   Original Sound: On ▾

9. Pay close attention to the two messages directly above. If the colon (:) is not present, you have an obsolete version of Zoom, and the behavior of the buttons will be the opposite of what is described above. Confusing? Yes, but as previously mentioned, it used to be worse. Update your Zoom app.

If you have completed the above steps to use Original Sound, you are well on the way to a performance with respectable audio quality. However, there are a few other things to consider

Echo Suppression

Echoes occur all too frequently on Zoom, and most times, the person causing it does not hear it. This happens when a microphone on a Zoom call can hear the sound from a speaker on the same call. If you are using the built-in speakers and microphone of a single device, Zoom should prevent them from being active simultaneously. But if not, here are some tips to avoid it:

- If you use a Windows or Mac laptop, go to the *"Music and Professional Audio"* section of the Audio Settings and select *"Echo cancellation"*. This is especially important if you have Bluetooth speakers, which introduce a delay into the audio.

- Use Headphones instead of speakers. As a bonus, you'll hear better sound.

- If you have two devices active on the same Zoom call within hearing range of each other, you need to disable the sound on one of them. On a Mobile device, go to the in-meeting settings by tapping *"More"* (3 dots) to see your in-meeting options. Then tap *"Disconnect Audio"*. On a Mac or Windows PC, click the up arrow (^) next to the Mute/UnMute icon and select *"Leave Computer Audio"*.

Music and Professional Audio

If you are using a Mac or Windows PC, there are a couple of other settings beside Echo Suppression available in this section of the Audio Settings.

- *"High fidelity music mode"* is the result of a university study which does for music performances what the default Zoom features do for speech. It will further sharpen your musical audio, but comes at the cost of processor and bandwidth consumption. A wired Ethernet connection is recommended, and you might want to test it out with a friend to see if it's worth it.

- *"Stereo audio"* is of no value unless you have multiple inputs which are mixed and panned to various locations in the stereo image and connected through a stereo capable interface. It also comes at the cost of processor and bandwidth consumption.

Additional Audio/Video Gear

The built-in camera, microphone and speaker in a laptop, tablet or phone are not always of the highest fidelity, and leave considerable room for improvement.

A separate microphone would be a good place to start enhancing your A/V setup. The easiest way to go is a mike with a USB interface that can plug directly into your device. A large diaphragm condenser mike is the preferred choice. This improves your sound in two ways. First, it's a better microphone to start with, and second, it allows you to keep the mike close to you while allowing the camera to be farther way for a better view of you and your instrument. In your Zoom Audio Setup panel, you will need to tell your device which microphone to use.

If you already have a good mike with a conventional XLR plug, you can take the next step with a USB digital interface. These are available with multiple inputs so you can also plug in your instrument and mix the sound. They generally have phantom power available in case your mike needs it. Many also have the ability to plug in a headphone as a monitor. As with the USB mike, you will have to tell your device which mike to use.

Webcams are quite affordable these days and will give you a better picture than many built-in cams. They can clip on the top of your screen or mount on a tripod. Most also come with a built-in stereo microphone, but without a separate mike, as described above, you have to compromise on the distance between yourself and the cam/mike. Having the mike close to you and the cam farther away is desirable because the audience can see more of you, including your instrument, without sacrificing sound quality. And speaking of video, please have a good warm light in front of you, and don't have a light or a daylit window behind you.

You can improve what you hear by using headphones, earbuds, or studio reference speakers.

No matter what A/V gear you use, of even if you use the built-in features of your device, you need to find out how you look and sound. Nearly every device today has a camera function that can record video, so set it up and record yourself to verify your sound levels and video composition. If you have a Mac or Windows PC, you can start your own private Zoom session and turn on the "Record" function to verify your Zoom settings. Zoom records both video and audio. Or you can enlist a friend to join a session and compare notes to see how you both look and sound. Also, if you are a current member and have played in our Zoom circles, you can do yourself a favor by heading over to the session audio recordings on the **Members Website** and see how you sound. I can guarantee there are a few folks who had sound issues they don't even know about.

And finally, if you have any questions, please feel free to write to us at **info@bucksfolk.org.**