

Get Great Audio Camtasia Studio

Version 7.0

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Get Great Sound in your Videos

When creating a screencast, most people know it's important to capture good, quality video. But, did you know it's just as important, if not more so, to get good quality audio? This is because our ears can almost always detect an audio error but, our eyes are not quite so perceptive of errors occurring on the screen.

In fact, most people won't watch a video if the audio is bad – even if the video itself is very good. However, they may continue watching a poor quality video if the audio is good.

This handbook contains tips to make better quality audio recordings and to help you avoid audio problems before they occur. It also contains instructions for editing your audio within Camtasia Studio's Editor.

These topics are covered:

- ▶ **Tips for Getting Great Audio**
- ▶ **Create a Video Script**
- ▶ **Record Audio in Camtasia Recorder**
- ▶ **I Have a Barely Audible Recording**
- ▶ **Monitor your Audio Level as You Record**
- ▶ **Solve Common Sound Problems**
- ▶ **A Look at Different Kinds of Microphones**
- ▶ **Recording Audio in Various**
- ▶ **Add and Edit Audio in Camtasia Editor**
- ▶ **Move Audio Clips on the Timeline**
- ▶ **Add, Remove, or Adjust an Audio Point**
- ▶ **Fade Audio In or Out**
- ▶ **Adjust Volume Up or Down**
- ▶ **Replace Audio with Silence**
- ▶ **Even Out Audio Volume Levels**
- ▶ **Remove Noise from Audio**
- ▶ **Vocal Enhancements**
- ▶ **Voice Narration**
- ▶ **Save Timeline Audio as MP3 or WAV File**

Tips for Getting Great Audio

Use the Best Microphone you Can Afford

Sound is critical to screen recording videos so, don't skimp on your audio equipment.

Consider using a USB Microphone. USB microphones use less computer resources and record better audio than an analog microphone connected to your computer's audio card.

Practice Using a Microphone

Experiment with different volume levels and different microphone placement. Six inches from the microphone is usually good to record full tones, but not too close that other noises interfere.

Use the Camtasia Recorder Default Settings for Audio

This includes recording your system audio to a separate track (this option is not available for users of the XP Operating System).

Stop and Listen to the Sound in your Recording Area

Record your screen with audio but don't speak. Then, listen to the recording. You'll be surprised how much noise is in a room. Is your chair squeaky or creaky? Is your phone ringer on? Is your keyboard loud when you type? Are there pets or kids in the background? Do you have a heating or cooling vent overhead that can be heard? Is your mic picking up the humming from your computer and other devices?

Block the Computer's Humming Sound

Build a small box lined with foam to put your microphone in as you record, use pillows or blankets to muffle the noise, or cover your head with the blanket.

Record in a Quiet Location

Try not to record your audio in a public location. Use an office or conference room away from high traffic areas.

Place a note on the door letting others know that you are recording.

Do a Test Recording to Make Sure Audio is Being Recorded

There is nothing worse than recording a five minute video only to find out your microphone wasn't working. Take time to do a 5-10 second test to ensure your audio settings are working as expected.

Monitor the Audio Level as you Record

The green to yellow range indicates normal. Orange to red warns you are too close to the over-modulated input (clipping). Best audio quality occurs when the **Audio Input** meter is in the green to very light orange range.

Adjust the Audio Volume after Recording in Camtasia Editor

If your volume is too low or too loud, use the volume controls in Camtasia Editor to adjust the audio up or down. Add audio points to enhance certain areas of the waveform.

Use a Script

A script helps you produce the best audio by allowing you to avoid mistakes or saying um, uh, or ah.

Project and Enunciate

Speak as though you are addressing a small audience in a large room.

Background Music Can Add a Nice Touch if Done Correctly

If you have background music playing while you are recording narration with a microphone, the background music appears on a separate track within Camtasia Editor. Edit the background music to fit the narration using fade effects or volume adjustments.

Record the Audio and Video Separately

After you become familiar with using Camtasia Studio, try recording the screen without the audio. Within Camtasia Editor, do all of your video editing. When the video editing is complete, add the audio using the Voice Narration option. This is the preferred process for people who routinely create screen recordings.

Use Features in Camtasia Editor's Audio Tab to Enhance the Audio

Reduce noise, even out volume level, and eliminate white noise, um's, and ah's.

Brush Up on your Public Speaking Skills

1. **Be familiar with your video topic.**
Speak as though you're the expert on your subject.
2. **Speak slowly and clearly, and follow the script.**
Don't ramble on or feel like you have to speak constantly.
3. **Be yourself.**
Let your personality shine through – use a bit of humor if the situation fits.
4. **Talk naturally.**
5. **Practice saying your script out loud.**
6. **Listen to your recorded voice and become comfortable hearing yourself.**
Some screencasters are shy or self conscious use text captions instead of their voice. We encourage you to put your voice out there and while it might be strange at first, you'll get used to hearing yourself after a while.

Create a Video Script

A script assists you in producing great audio by helping you avoid speaking mistakes and rambling narration that occurs when you just “wing it”. It also helps you stay away from saying um, uh, or ah.

But, a good script is more than just narration – it also describes what is happening on the screen during the narration.

The script’s action details:

- ▶ Allow you and others to visualize how the onscreen actions, narration, and timing all work together.
- ▶ Indicate the scene changes.
- ▶ Reveal where “dead-space” exists. Dead space is narrative that has no on-screen activity to accompany it. Areas with dead space may cause your audience to lose interest in your video.

You might also want to consider using a storyboard to sketch the scenes in your video. A good storyboard shows where transitions, callouts, title clips, zooms, and other effects will go. Some people combine the script and storyboard into one document.

Continue with **Script Tips** on the next page.

This column contains textual and visual action details.	This column contains the video narration text.
7. Show how to access the project again. START TIMELINE HERE	But, the video only plays the first time you open Camtasia Studio. To open the sample project in the future, choose File > Recent projects and select Getting Started . If you would like to skip this video and begin using Camtasia Studio 7 right away, click File > New Project or click the Record the screen button. So, let's start with the Timeline – this is where you assemble and edit your videos.
9. Zoom in on tickmarks 	At the top of the timeline you'll see tick marks representing time in terms of minutes and seconds.
10. Self drawing callout arrow to the right. 	When building a video on the timeline, you'll work in a horizontal manner beginning from the left and moving sequentially through time toward the right.
11. Show the zoom slider in operation. 	Use the Zoom option to magnify the view of the timeline and increase the distance between the tick marks. This helps when editing since it lets you make more precise cuts and selections.

Indicate where new scenes occur.

Add graphics or sketches to show where on-screen action occurs.

Or, show the type of callout, title clip, or transition to use.

Use formatting to show words to emphasize.

Use a dash (-) or an ellipsis (...) to indicate a pause.

Keep it simple and organized.

Add one thought or action per table row.

Use concise, natural language.
Allow the narrator to tweak the text to incorporate their own speech patterns and inflections.

Script Tips

Use Natural Language

The language used in screen recording videos is typically more casual and natural than the formal style used in technical writing. When preparing your script, try to avoid wording that sounds too formal or stilted.

Be Concise

Write in short, concise sentences. Each line in a document or table should represent one action or thought.

Show Emphasized Words and Pauses

Use text formatting, such as bold or italics, to show words that will be emphasized. Be consistent throughout the entire script and let the narrator know what each type of formatting means.

Allow for pauses in the script to accommodate natural speech inflections, changes on the screen, and dialog between narrators. Indicate a pause in the script with a dash (-) or an ellipsis (three dots).

Make the Script Easy to Read

Use a large, legible font for both online scripts and printouts. Arial and Verdana from 12pt to 14pt works well.

Proofread the Script

A good, clean script reads better so, spell check your text and do a basic copy edit. Also, double-check for instructional or navigational errors in the script.

Revise & Refine

Send your script out for general review and if needed, for a technical review. Don't be surprised if you have to revise and refine your script several times – this might actually be the most time consuming part of your video project.

Give the script to the narrator a few days before they record to allow them time to become comfortable with the text. Also, plan on tweaking the script a bit so it sounds more natural and conversational in the narrator's own voice.

Practice Page Turning

If the script is being read from paper, make sure the pages are numbered and don't staple them together. Have the narrator practice moving through the script from page-to-page. This helps eliminate fumbling and noise that might be picked up in the audio.

Read the Script Out Loud and Time It

Read out loud to see how the text flows and to identify any areas that have tongue twisters and word combinations that are difficult to pronounce.

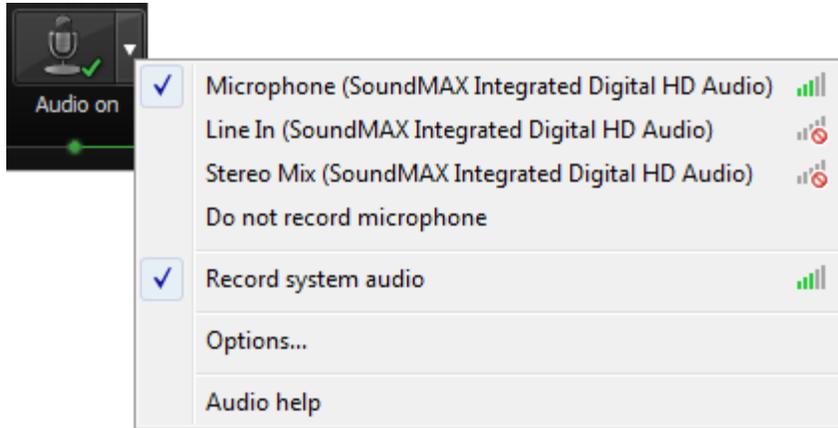
- ▶ Time the reading to get a general idea of how long the video will be. Screencast videos should run between 3-5 minutes in length.
- ▶ If you have dialog between two or more people, have several people reading the different parts.
- ▶ If possible, read the script and perform the onscreen actions together to get a more accurate idea of the video's length.

Record Audio in Camtasia Recorder

It is important to create your recordings with the best possible audio quality since audio codecs used in producing the final video may cause audio quality to degrade.

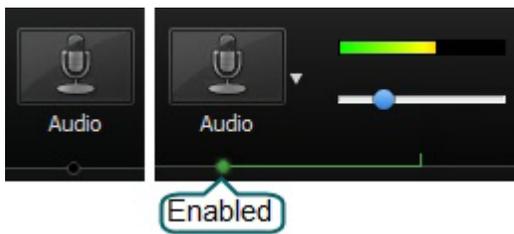
If the audio source is on and set up properly, the source meter appears active in Recorder and for all active sources in the **Audio** dropdown.

 The live audio meters in the dropdown are not available for users of Microsoft XP.

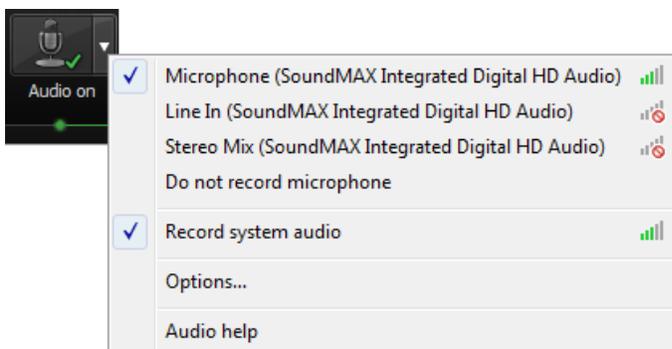


To Record Audio

1. Enable the **Audio** option.



2. Click the **Audio** dropdown to select the audio source. Available sources show an active audio meter.



3. Adjust the **Input level** so the highest volume displays in the green to yellow range. Audio clipping may occur in the mid-orange to red range.



4. Click **OK**.

 You can also record audio at a later time with the **Voice Narration** option in Editor.

No Sound in your Recording?

See the following topics to troubleshoot common audio issues:

- ▶ **Troubleshoot the Volume Level**
- ▶ **I Have a Barely Audible Recording**
- ▶ **Monitor your Audio Level as You Record**
- ▶ **Solve Common Sound Problems**
- ▶ **A Look at Different Kinds of Microphones**
- ▶ **Recording Audio in Various Environments**

Troubleshoot the Volume Level

Speak into your microphone or turn up the speaker audio. You should see the audio meter respond. If it does not, use the table below to troubleshoot a solution.

Level	Issue	Action
 <p>Recorded inputs Audio on</p>	Audio level is in the green range and responds to changes in the audio.	No change needed.
 <p>Recorded inputs Audio on</p>	Audio level does not change when audio is present.	<ul style="list-style-type: none"> ▶ Verify that the selected audio input source is connected and turned on. ▶ Verify that the correct audio input source is selected. To verify, click the Audio dropdown and select Options. ▶ Verify that the volume is not muted.
 <p>Recorded inputs Audio on</p>	Audio level is too low. (i.e. Audio is not in the green to yellow range.)	Drag the slider to the right.
 <p>Recorded inputs Audio on</p>	Audio level is in the yellow to orange range where clipping might occur.	Drag the slider to the left.
 <p>Recorded inputs Audio on</p>	Audio level is in the orange to red range where clipping will occur.	Drag the slider to the left.

I Still Have a Silent Recording

If you have enabled audio recording in Camtasia Recorder and checked the microphone settings, and you are still unable to record any sound at all, do the following:

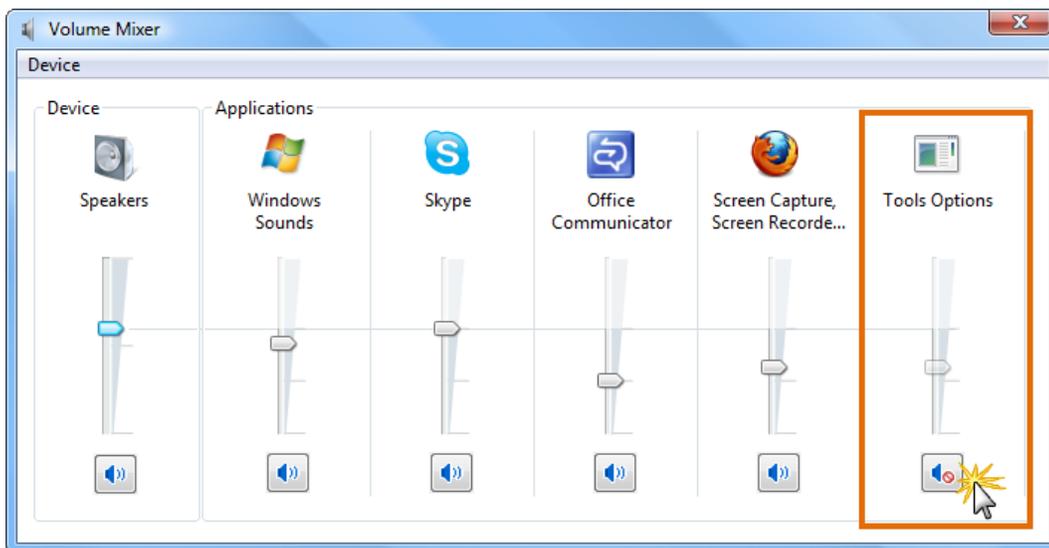
1. Check that your microphone is properly connected to the sound card in your computer. It needs to be plugged into the microphone jack, not the line in jack, etc.
2. Check to see if you can record with Windows Sound Recorder. Select **Start > All Programs > Accessories > Entertainment > Sound Recorder**.
3. Try a different microphone.
4. Test to see if sound recording is working in another audio application.
5. Try updating/reinstalling the sound card drivers.
6. Try a different sound card.

I Have a Barely Audible Recording

If you are getting some sound, but your audio recordings are too low in volume, there may be a number of causes. Some of the most common include the following.

Is your sound card's recording volume set too low or muted?

1. Open Window's **Control Panel**.
2. Choose **Sound**.
3. Select each available option and look to see if a setting is turned off, set too low, or muted.



Are you too far from the microphone?

Try several recordings allowing different distances from the microphone to choose the right one. You should probably be about six inches from the microphone - close enough to record full tones but not so close that other noises interfere.

Are you speaking distinctly and clearly?

To make a good recording, you need to project and enunciate so your voice recording sounds clear and crisp on replay. As an aid in determining a good vocal level and tone, imagine you are addressing a small audience in a large room.

Continue with **Monitor your Audio Level as You Record**.



Monitor your Audio Level as You Record

While you record audio with Camtasia Recorder, you can monitor the Audio Level to be sure you are encoding the optimal dynamic range.

The green to yellow range indicate a normal reading.



Orange to red warns that you are close to an over-modulated input.



The best sound quality will occur when the audio level bar is kept in the green to light orange range and only occasionally enter the red range. That is, try to keep the level bar from filling the entire audio level meter all the time.

The goal is to keep your input levels as high as possible without exceeding the range of values which can be stored digitally when encoded. When the Audio Level meter is frequently in the red range, your input level is too high and the peaks of your waveform become clipped off, resulting in distortion.

The input level also depends on your particular microphone, how close you are to the microphone and how loudly you speak while recording. By keeping your input levels steady and as high as possible, you will be encoding the optimal dynamic range.

It is particularly important to record sounds within the green to light orange range if possible if you plan to later convert 16 bit audio data to 8 bit, or if you plan to compress your audio in a streaming media file. This assures that you will use the greatest dynamic range possible in the converted file.

Solve Common Sound Problems

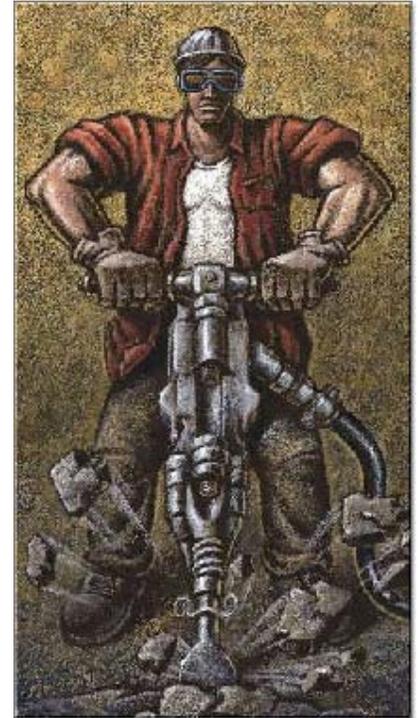
The following gives some information on resolving issues concerning external noise, low quality sound, and recording conflicts.

Too much External Noise can be Heard

Some audio noise is caused by environmental elements. Background sounds you may not have noticed before may suddenly show up in your audio of your recording. You can eliminate most problems by relocating your recording "studio" to a quieter location. Also, do not forget that most computers make some noise that your microphone might be picking up. The disk drives and fan are potential sources of a low-level noise in your recordings.

Hum and whine can also be caused by a "ground loop." Ground loop occurs where there is more than one electrical path to "ground" for electrical/electronic equipment. Tracing and eliminating the exact source of ground loop can be complicated, but light dimmer switches, motorized appliances, and cable TV outlets are prime culprits.

First try disconnecting any unnecessary electrical equipment sharing the same circuit as your computer. Also, disconnect the coaxial cable running to any nearby TVs. If these methods do not help, consult an expert at your local Radio Shack or other electronics retailer. They can offer solutions to help you isolate ground loop interference.



Low Quality Recordings

The default audio setup for the Recorder is PCM (uncompressed audio) 22.050 kHz, 16 bit mono. That should give you good quality audio. If the audio is still low quality, try a different microphone.

Additionally, most consumer-quality recording equipment shipped with computers is relatively low quality (unless you have purchased upgrade accessories). Studio-quality recordings cannot be made on inexpensive equipment. To improve the quality of recordings, you can upgrade the components responsible for audio on your computer: microphone, sound card, and speakers.

Better sound comes with a tradeoff, however, as higher quality audio results in a larger Camtasia Studio video file size. The audio format you specify determines the quality of the video audio track and also affects video file size.

Large File Size when Recording with Audio

By default, Recorder uses uncompressed PCM audio. That is a good selection for your original recording because you can later edit the video within Camtasia Studio and not lose audio quality.

It is recommended that you compress the audio during production in Camtasia Studio **after** you have finished recording in Camtasia Recorder and have made all your edits.

Within Camtasia Studio, there are many different video file formats to choose from that will allow you to effectively compress you video. For example, if you produce your video in SWF it will typically be smaller in size than an AVI. You can try producing in a couple of different formats to find the right size and quality that you desire.

Audio Recording Error Message

If you receive an error message relating to audio recording, it might be that another application is using the sound card to play and/or record audio. Only one application can record audio at a time on your computer.

Some computers with "Full Duplex" sound cards allow one application (for example, Camtasia Recorder) to record from the microphone, while another application plays sound. In this case, you can even hold the microphone up to your computer speakers and record what another application is playing. However, many computers do not have this capability and allow recording only when no other application is playing sound.

The Audio is out of Sync with the Video

Your audio could be out of sync for two reasons.

First, your on-board audio subsystem is not functioning properly. Many Sony VIO notebooks and systems that have ESS audio may have this problem. The current version of Camtasia Studio will compensate for this hardware failure. In most cases this problem crops up when the audio stream is longer than the video. To correct this situation, please download the current version of Camtasia Studio.

Additionally, you can verify this problem by using another application to record audio on the system. Start recording and note the exact time you start recording. Let it record for 20-30 seconds and then stop recording and note the exact time that you stopped. Calculate the time that you recorded for and then right-click on the WAV file and select Properties. If the amount of time that you recorded for does not match the actual time of the recording session, then you might be having this problem on your system.

Second, if the computer is overloaded and has no resources left, Camtasia Studio can drop audio. In this case the audio stream will be shorter than the video.

A Look at Different Kinds of Microphones

Choosing the correct microphone for your recording needs can be a time consuming process. Certain types of microphones produce good recordings in some environments while produce poor recordings in others. It is important to select the correct microphone to meet your recording needs.

General Microphone Tips

The most expensive microphone will not necessarily produce better quality recordings. It is important to select the right microphone to complement your hardware and recording situational needs.

Choose a microphone with lower output impedance. For acceptable results, the output impedance of the microphone must be less than the input impedance of the sound card, which is in the range of 600-1500. Look for a microphone with output impedance of about 1000 ohms.

A Word about Pickup Patterns

The microphone pickup pattern determines from which direction the microphone picks up the sound the best. Microphones can be designed to be sensitive to sounds from given directions, while they reject sounds from others. The directional characteristics, or pickup pattern of a microphone, are defined by noting the direction from which a microphone is optimally sensitive to sound waves.

Microphones can only pick up the sound waves which strike it. This means that proper placement of the microphone is critical to good sound. For example, a pickup pattern can be selected for its ability to reject unwanted sound coming from a particular direction and to help reduce feedback. A microphone pickup pattern should be based on the application. For example, most lavalier microphones are omnidirectional, so that no matter which way the speaker's head turns, it will pick up their voice.

Omnidirectional Microphones

Omnidirectional microphones pick up sound equally from all directions with a slight preference for sounds coming from the direction in which they are pointed. Omnidirectional microphones are typically used for recording with group pick-up. The level and sound quality will be identical whether you speak from the front or the back of the microphone.

Omnidirectional microphones are:

1. Effective for recording a meeting or panel discussion where all speakers are near each other.
2. Not well-suited for noisy environments.

Cardioid (Unidirectional) Microphones

Cardioid microphones have a heart-shaped pickup pattern and are sensitive to sounds predominantly from the front of the microphone diaphragm. They pickup sounds which come from the direction in which they are pointed and reject sound coming from the sides and the rear. The ability to reject unwanted sounds is the primary reason cardioid microphones are the most-used for presentations and recording.

Other Microphone Descriptions

The following describes several different types of microphones along with some tips for their use.

Example	Microphone Type	Strengths / Tips
	<ul style="list-style-type: none"> ▶ Desktop Microphone ▶ Basic computer microphone for recording audio. ▶ This microphone sits on the desk or is attached to the monitor. ▶ Note: May often pick up unwanted ambient noises produced from your PC. 	<ul style="list-style-type: none"> ▶ Inexpensive. ▶ Typically comes with your computer. ▶ Desktop microphones that have a battery at the base amplifies the signal and produces a little better quality than microphones without batteries.
	<ul style="list-style-type: none"> ▶ Headset Microphone ▶ Preferable in recording situations where the person talking needs to listen as well as speak. ▶ This microphone set is worn on the head by the speaker. 	<ul style="list-style-type: none"> ▶ Provides the best audio quality because it maintains a consistent position near the mouth. ▶ Adjust the headset so the microphone is about one inch from the corner of your mouth. ▶ A microphone with a foam cover helps minimize breathing sounds. Position the microphone so that it is level with your nose to keep it out of the breathing air stream.
	<ul style="list-style-type: none"> ▶ Lavalier or Lapel Microphone ▶ Preferable for recording a conference session for just one speaker. ▶ This microphone set is worn on a shirt lapel by the speaker. 	<ul style="list-style-type: none"> ▶ Small, lightweight, and easy to conceal. ▶ Attaches to the speaker's clothing. ▶ Will not produce rustling noises when wearer moves around. ▶ Often wireless.
	<ul style="list-style-type: none"> ▶ Telecom Adapter ▶ Used in telephone audio recordings to send the audio to the computer microphone input jack. ▶ This microphone adaptor hooks into the phone system and is directly linked to the PC input jack. 	<ul style="list-style-type: none"> ▶ Allows you to record both sides of the conversation without the cutout of typical speakerphone conversations

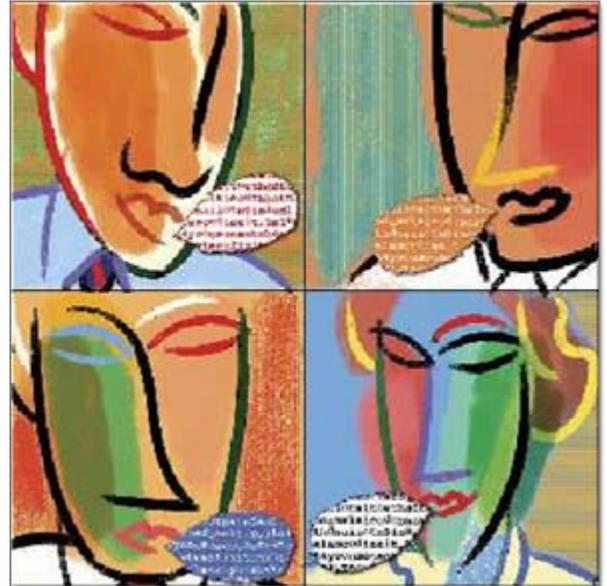
Recording Audio in Various Environments

Camtasia Studio allows you to record in a variety of different environments. However, each environment might require a different microphone in order to capture good audio quality.

The following gives some general overview information on the different kinds of recording settings. However, as with all recordings, you will want to try out your audio equipment and Camtasia Studio settings before making the final recording to ensure the best results.

Telephone Audio Recording

To make a telephone audio recording, you will need to buy an [adapter](#) to send the audio to the computer microphone input jack. The adapter allows you to record both sides of the conversation without the cutout of typical speakerphone conversations.



Teleconference Recording

One common problem that occurs in recording teleconferences is that people speak at different levels. It is difficult to adjust the recording audio level during a teleconference session. One solution is to use a telephone with a handset volume control. Increase the volume for a quiet speaker or decrease the volume for a loud speaker with the level control on the telephone.

Conference Recording

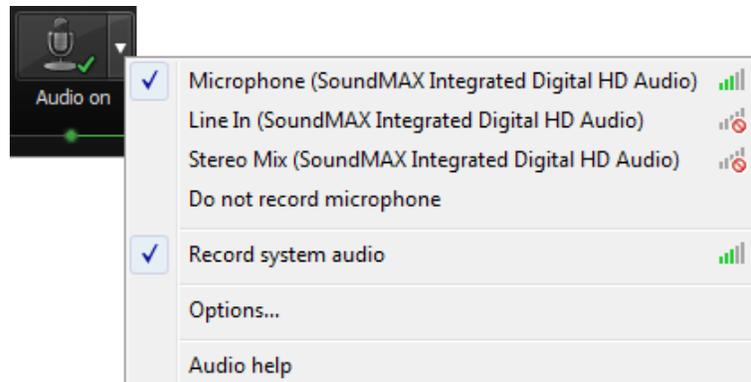
A lapel or lavalier microphone may be preferable for recording a conference session for just one speaker. The lapel microphone clips on the speaker's clothing and has a cord that plugs into the computer microphone input jack. Most are powered by a button battery and have an on/off switch.

Web Conference Recording using Voiceover IP Audio

Web conference recordings typically use traditional teleconferencing services. To record web conference audio or any phone conversation, simply place your microphone close to a speaker phone. Or alternatively, you can purchase an adapter which will connect your phone directly to your computer.

Some web conferences deliver audio via Voiceover IP. In the web conference services that use Voiceover IP audio, the participants talk through microphone headsets connected to their computers and the audio comes across the Internet. No special type of hardware is required to record for this type of web conference.

To record audio in Camtasia Recorder using Voiceover IP audio, make sure **Record system audio** is selected in the Audio dropdown menu.



Add and Edit Audio in Camtasia Editor

Camtasia Studio Editor > Audio tab

The Audio Tab

In this section, learn how to work with audio points, fade audio in or out, remove audio noise, and more. To access the audio options, click the **Audio** tab.

Adjusts the volume of the audio on the Timeline to a standard level.

Additional options remove audible mouse clicks, fix clipping, and optimize audio for a male or female voice.

Tools for making volume adjustments.

Reduce background noise.

Normal Audio on the timeline.
Double-click the audio track to make audio edits.

Audio on timeline when in edit mode.
The Audio tab opens to allow access to the edit options.

For other audio options see:

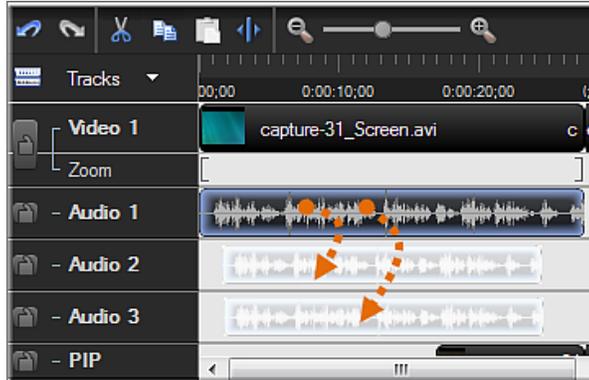
- ▶ **Move Audio Clips on the Timeline**
- ▶ **Fade Audio In or Out**
- ▶ **Adjust Volume Up or Down**
- ▶ **Replace Audio with Silence**
- ▶ **Even Out Audio Volume Levels**
- ▶ **Remove Noise from Audio**
- ▶ **Vocal Enhancements**
- ▶ **Save Timeline Audio as MP3 or WAV File**

Move Audio Clips on the Timeline

💡 Drag an audio clip from the Clip Bin or Library onto the Audio 1, Audio 2, Audio 3, or PIP Audio tracks. Or, right-click on an audio clip and select **Add to Track > Audio 1, Audio 2, Audio 3, or PIP Audio**.

Move an Audio Clip to another Track

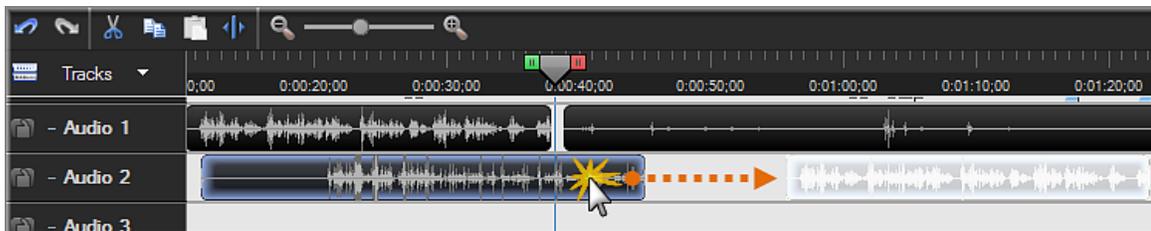
Click and drag the clip and drop on the desired track.



📌 To move an audio clip to or from the Audio 1 track or the PIP Audio track, you must first **Error! Reference source not found..**

Move an Audio Clip to a New Position on the Current Track

Click and drag a clip along the track and drop at the desired position.



Move all Clips on a Track and Maintain Spacing between Clips

Hold down the **<SHIFT>** key and drag the clips along the track. All clips to the right of the selected clip shift.



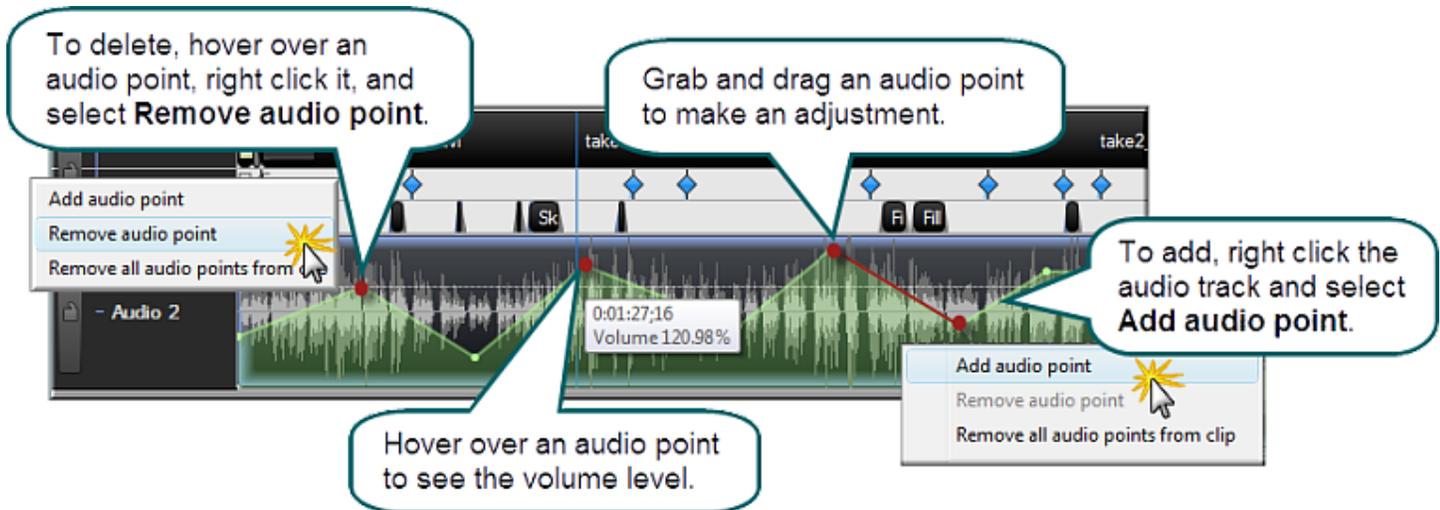
See also:

- ▶ Add, Remove, or Adjust an Audio Point
- ▶ Fade Audio In or Out
- ▶ Adjust Volume Up or Down
- ▶ Replace Audio with Silence
- ▶ Even Out Audio Volume Levels

Add, Remove, or Adjust an Audio Point

 Drag an audio clip from the Clip Bin or Library onto the Audio 1, Audio 2, Audio 3, or PIP Audio tracks. Or, right-click on an audio clip and select **Add to Track > Audio 1, Audio 2, Audio 3, or PIP Audio**.

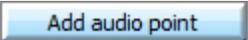
Audio Points allow you to edit an audio waveform by giving you custom points of contact to drag to achieve the desired result.



Add an Audio Point from the Timeline

1. Double-click on an audio track.
2. Right-click the wave form at the desired location. The audio track turns green and the Audio tab opens.
3. Select **Add audio point** from the context menu.

Add an Audio Point from the Audio Tab

1. Double-click on an audio track. The audio track turns green and the Audio tab opens.
2. Move the playhead to the desired location.
3. In the **Audio** tab, click the **Add audio point** button .

Remove an Audio Point

1. Double-click on an audio track. The audio track turns green and the Audio tab opens.
2. Right-click on the audio point to be removed.
3. Select **Remove audio point** from the context menu.

Remove All Audio Points from a Clip

1. Double-click on an audio track. The audio track turns green and the Audio tab opens.
2. Click on the clip to highlight it.
3. Right-click on the clip.
4. Select **Remove all audio points from clip**.

-OR-

1. Double-click on an audio track or clip. The audio track turns green and the Audio tab opens.
2. In the **Audio** tab, click the **Remove audio points** button .

Adjust an Audio Point

- ▶ Drag an audio point to adjust the volume up or down.
- ▶ Audio points can be moved up, down, left, and right.
- ▶ Audio points turn red when the cursor hovers over them.

See also:

- ▶ **Move Audio Clips on the Timeline**
- ▶ **Add, Remove, or Adjust an Audio Point**
- ▶ **Fade Audio In or Out**
- ▶ **Adjust Volume Up or Down**
- ▶ **Replace Audio with Silence**
- ▶ **Even Out Audio Volume Levels**

Fade Audio In or Out

 Camtasia Studio Editor > Audio tab > Fade in or Fade Out buttons

 Drag an audio clip from the Clip Bin or Library onto the Audio 1, Audio 2, Audio 3, or PIP Audio tracks. Or, right-click on an audio clip and select **Add to Track > Audio 1, Audio 2, Audio 3, or PIP Audio**.

 The following option applies to all audio tracks (Audio 1, Audio 2, Audio 3, PIP Audio).

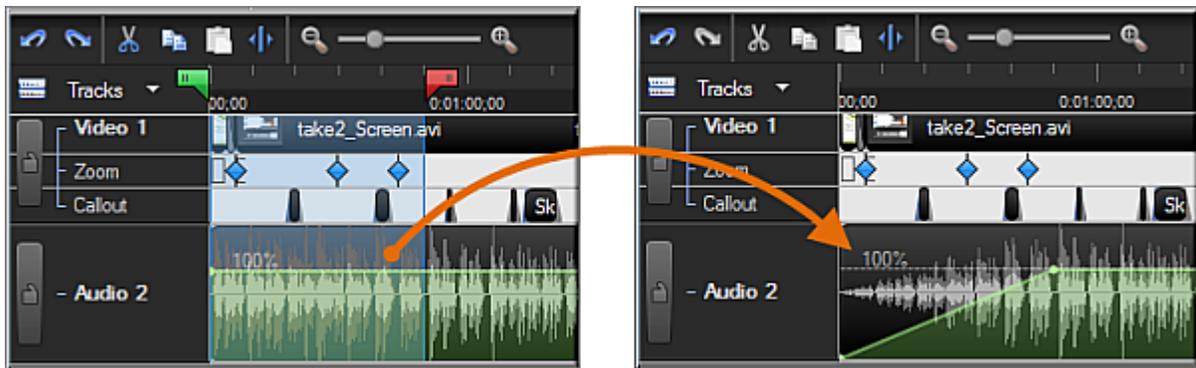
 To apply to a particular track only, [lock the audio tracks](#) that you do not want to edit.

Apply a Fade to a Selection

1. Drag the green **In point** or red **Out point** to make a selection.
2. Click the **Audio** tab.

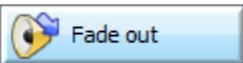
- ▶ To fade **in** the audio, click the **Fade In** button .
- ▶ To fade **out** the audio, click the **Fade Out** button .

The speed of the fade depends on the size of the selection.



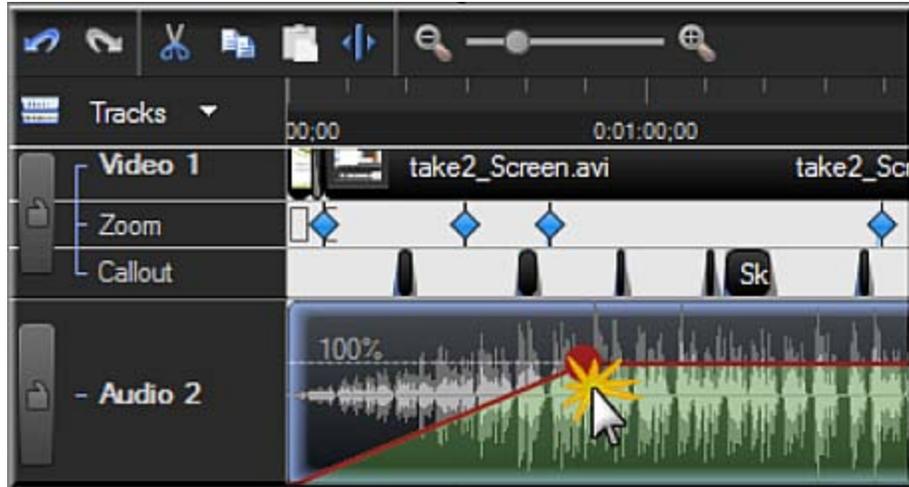
Apply a Fade to the Entire Timeline

1. Click the **Audio** tab.
2. Click on the audio track to highlight it.

- ▶ To fade **in** the audio, click the **Fade In** button .
- ▶ To fade **out** the audio, click the **Fade Out** button .

Manually Adjust the Fade

To adjust the fade, grab the red audio point and drag it up or down. The waveform adjusts accordingly.



See also:

- ▶ **Move Audio Clips on the Timeline**
- ▶ **Add, Remove, or Adjust an Audio Point**
- ▶ **Adjust Volume Up or Down**
- ▶ **Replace Audio with Silence**
- ▶ **Even Out Audio Volume Levels**

Adjust Volume Up or Down

 Camtasia Studio Editor > Audio tab > Volume Up or Volume Down buttons

-  Drag an audio clip from the Clip Bin or Library onto the Audio 1, Audio 2, Audio 3, or PIP Audio tracks. Or, right-click on an audio clip and select **Add to Track > Audio 1, Audio 2, Audio 3, or PIP Audio**.
-  The following option applies to all audio tracks (Audio 1, Audio 2, Audio 3, PIP Audio).
-  To apply to a particular track only, **lock the audio tracks** that you do not want to edit.

Adjust the Volume for the Entire Timeline

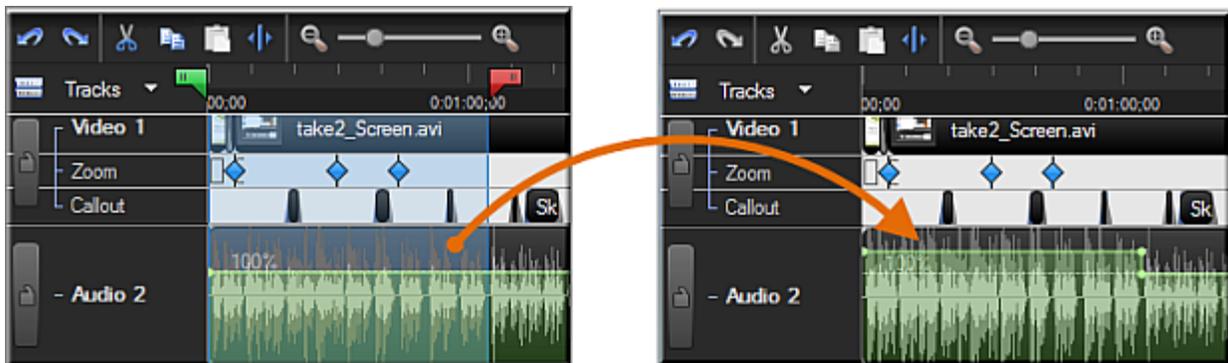
1. Double-click on an audio track. The audio track turns green and the Audio tab opens.
2. Grab the bar in the middle of the wave form and drag it up or down.

-OR-

3. Double-click on an audio track or clip. The audio track turns green and the Audio tab opens.

4. In the **Audio** tab, click the **Volume Up** button  or **Volume Down** button . The volume is adjusted by 25% with each click of the button.

Adjust the Volume for a Timeline Selection



1. Double-click on an audio track. The audio track turns green and the Audio tab opens.
2. Drag the playhead's green **In point** or red **Out point** to make a selection on the timeline.
3. Grab the bar in the middle of the selection's waveform and drag it up or down.

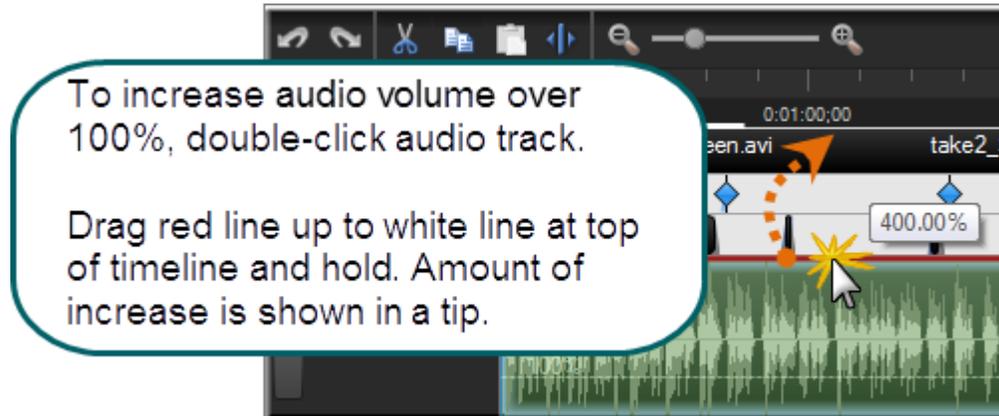
-OR-

4. Double-click on an audio track or clip. The audio track turns green and the Audio tab opens.
5. Drag the playhead's green **In point** or red **Out point** to make a selection on the timeline.

6. In the **Audio** tab, click the **Volume Up** button  or **Volume Down** button . The volume is adjusted by 25% with each click of the button.

Increase Audio Volume Over 100%

1. Double-click on an audio track. The audio track turns green and the Audio tab opens.
2. Grab the bar in the middle of the wave form and drag it up to the top of the timeline and hold it there until the desired volume level is reached.



See also:

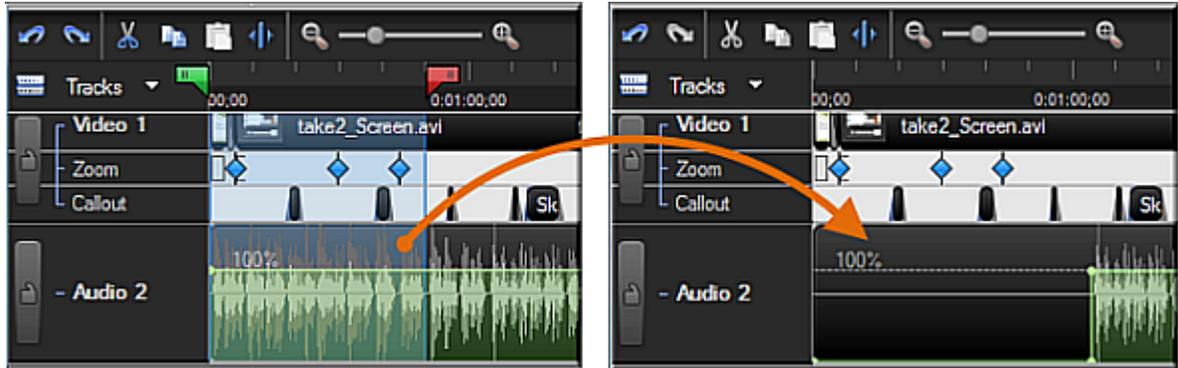
- ▶ **Replace Audio with Silence**
- ▶ **Vocal Enhancements**
- ▶ **Even Out Audio Volume Levels**
- ▶ **Remove Noise from Audio**

Replace Audio with Silence

 Camtasia Studio Editor > Audio tab > Silence button

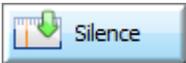
-  Drag an audio clip from the Clip Bin or Library onto the Audio 1, Audio 2, Audio 3, or PIP Audio tracks. Or, right-click on an audio clip and select **Add to Track > Audio 1, Audio 2, Audio 3, or PIP Audio**.
-  The following option applies to all audio tracks (Audio 1, Audio 2, Audio 3, PIP Audio).
-  To apply to a particular track only, **lock the audio tracks** that you do not want to edit.

The **Replace with Silence** option mutes the audio selection on the timeline. Unlike the delete or cut options, this option does not remove any of the existing waveform.



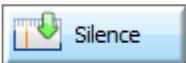
Replace a Selection with Silence

1. Double-click on an audio track. The audio track turns green and the Audio tab opens.
 2. Drag the playhead's green **In point** or red **Out point** to make a selection on the timeline.
 3. Grab the bar in the middle of the selection's waveform and drag it all the way down.
- OR-**
4. Double-click on an audio track or clip. The audio track turns green and the Audio tab opens.
 5. Drag the playhead's green **In point** or red **Out point** to make a selection on the timeline.

6. Click the **Silence** button .

Replace a Clip with Silence

1. Double-click on an audio track or clip. The audio track turns green and the Audio tab opens.
2. Click on the audio track to highlight it.

3. Click the **Silence** button .

See also:

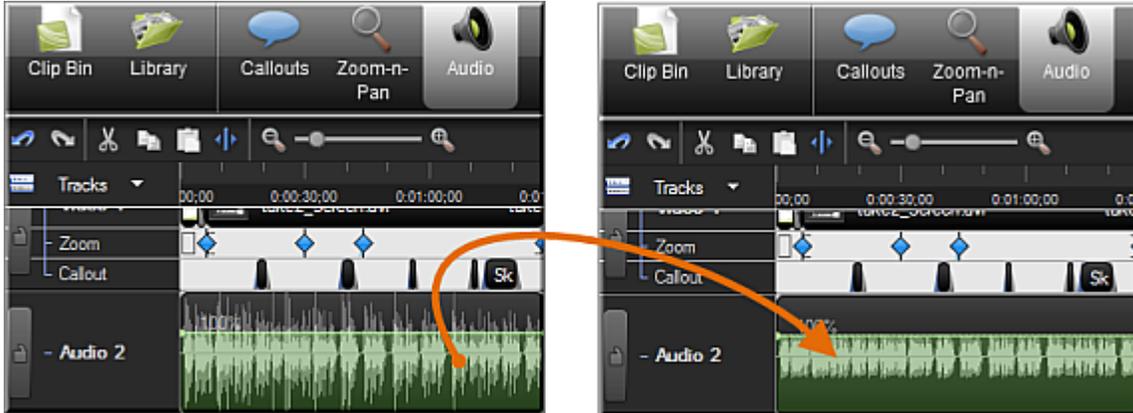
- ▶ **Vocal Enhancements**
- ▶ **Even Out Audio Volume Levels**
- ▶ **Adjust Volume Up or Down**
- ▶ **Remove Noise from Audio**

Even Out Audio Volume Levels

Camtasia Studio Editor > Audio tab > Enable volume leveling

Audio enhancements apply to all audio on the timeline, not to a selection or individual clip.

The **Even out volume levels** option adjusts the volume of the audio on the timeline to a standard level. Use this option when the recording level between audio clips varies greatly.



Audio enhancements apply to all audio on the timeline, not to a selection or individual clip.

1. Click the Audio tab.
2. Select **Enable volume leveling**.
3. Select an option from the **Volume variation** dropdown menu that best describes the level of audio variation on the timeline. The volume leveling occurs immediately.
 - If you select the **Custom Settings** option, select from the following options.

Ratio

Sets the compression slope which determines how the output signal changes in relation to the input signal once the input signal exceeds the threshold.

Threshold

Sets the level which signals are compressed or limited. Increasing the threshold clamps signals at a higher level, reducing the amount of compression or limiting.

Gain

Process of reducing dynamics lowers the signal's overall level. The gain control compensates by adding increasing output gain, or signal level.

See also:

- ▶ **Replace Audio with Silence**
- ▶ **Vocal Enhancements**
- ▶ **Adjust Volume Up or Down**
- ▶ **Remove Noise from Audio**

Remove Noise from Audio

Camtasia Studio Editor > Audio tab > Enable noise removal

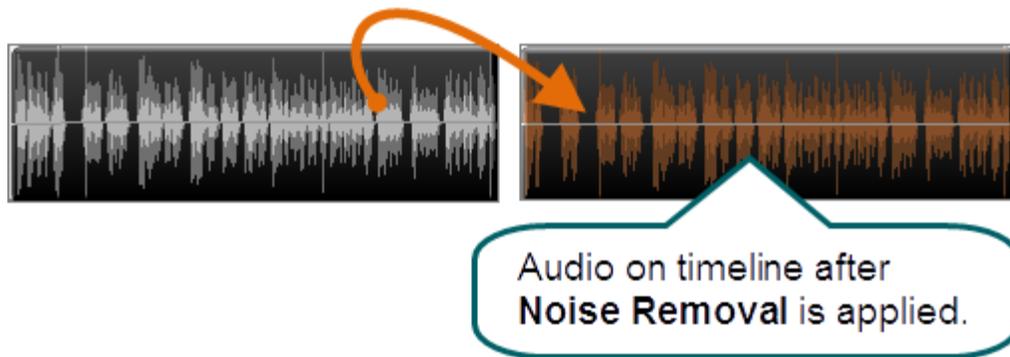
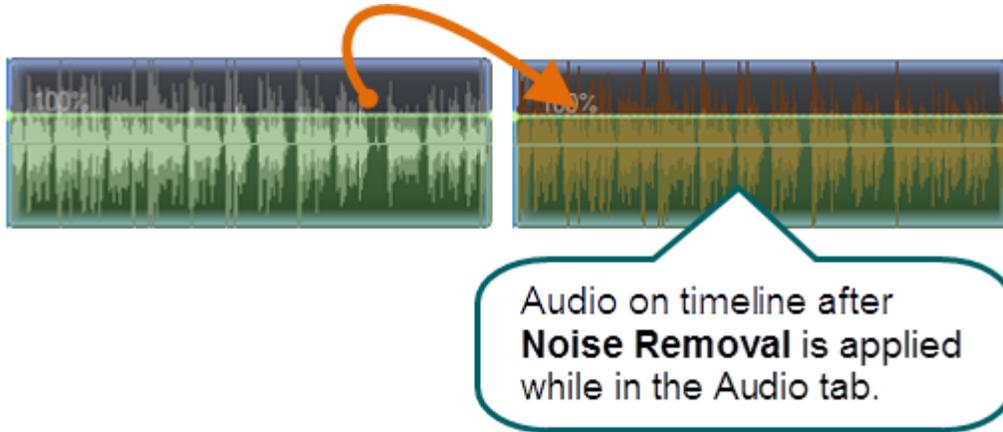
Audio enhancements apply to all audio on the timeline, not to a selection or individual clip.

Background noise, such as the hum of the computer or people talking nearby can affect the quality of the audio in a recording. Use the **Remove background noise** option to reduce background noise for the audio on the timeline.

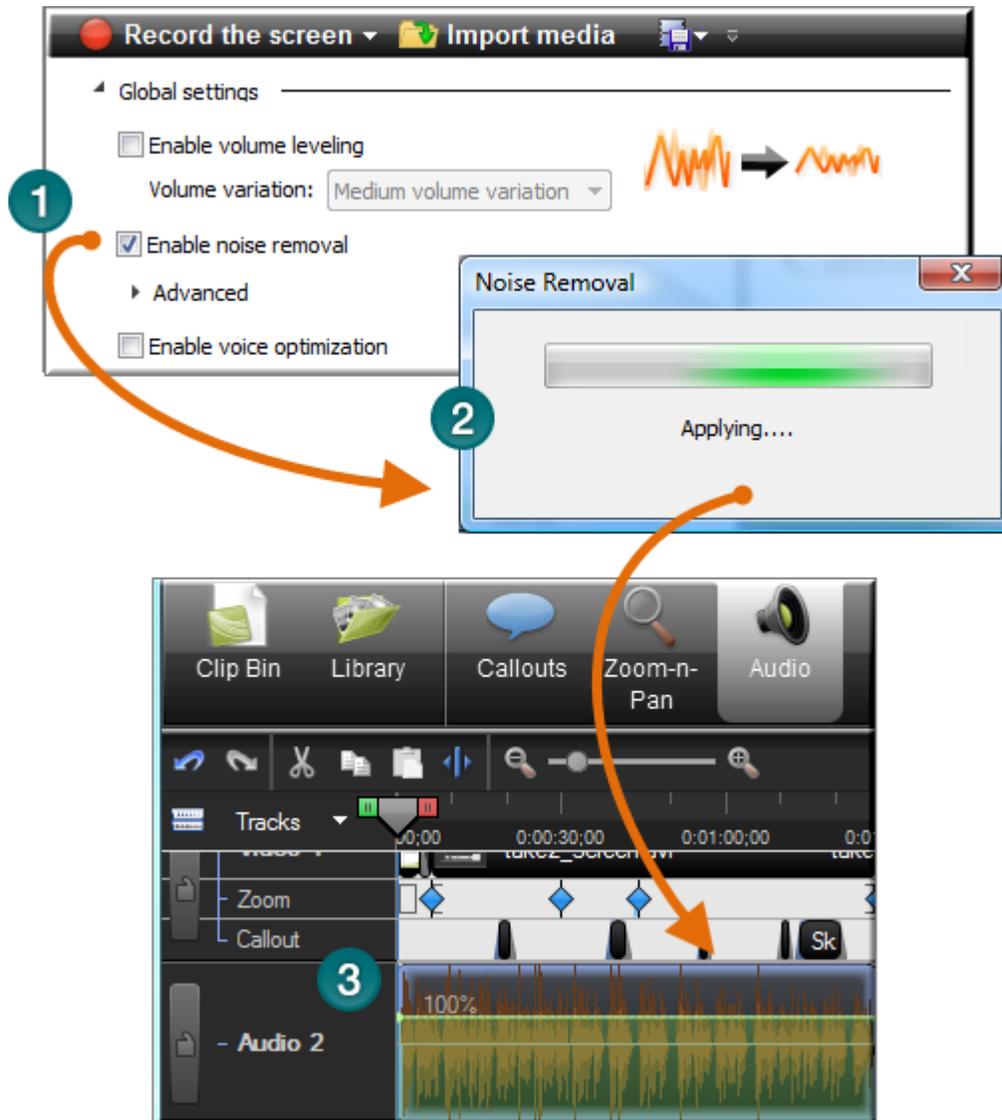
Camtasia Studio detects noise in the audio by using a selection with silence.

As soon as Noise Removal is turned on, the color of the audio waveform changes from green to orange while in the Audio tab and from gray to orange while in the other views.

There are two ways to apply Noise Removal: [Automatic](#) and [Manual](#).

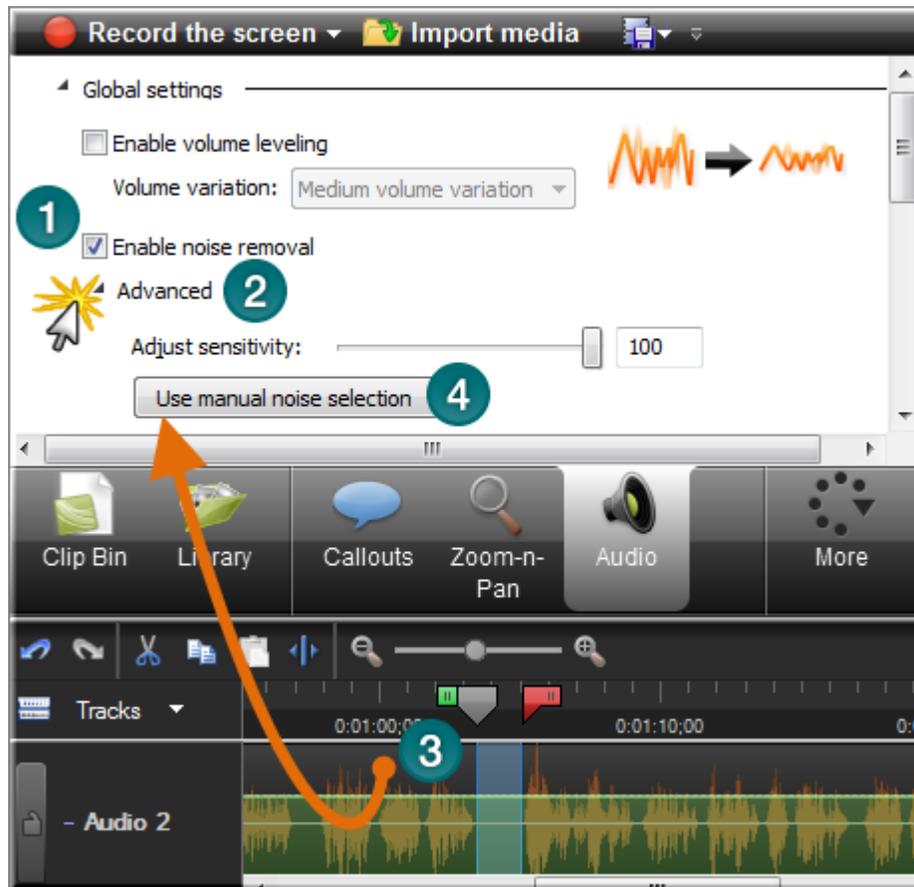


Automatically Remove Noise



1. Within the Audio tab, select **Enable noise removal**.
2. Noise removal is applied to the timeline immediately.
3. The color of the audio waveform changes from green to orange to let you know that Noise Removal mode is active. To hear the new audio, click **Play** in the Preview Window. Enable and disable the **Restore noise** option to compare the audio quality before and after applying this option.

Manually Remove Background Noise



1. Within the Audio tab, select **Enable noise removal**. Noise removal is applied to the timeline immediately. The color of the audio waveform changes from green to orange to let you know that Noise Removal mode is active.
2. Click the **Advanced** button.
3. On the timeline, drag the playhead's green **In point** or red **Out point** to make a selection of silence. Use the zoom slider to get a better view of the timeline, if necessary.
4. Click the **Use manual noise selection** button.

Adjust Sensitivity Slider

Use the **Adjust sensitivity** slider if the noise reduction process caused the audio quality to degrade. Degradation may occur if the noise removal occurred within a selection without true silence.

See also:

- ▶ **Replace Audio with Silence**
- ▶ **Vocal Enhancements**
- ▶ **Even Out Audio Volume Levels**
- ▶ **Adjust Volume Up or Down**

Vocal Enhancements

Camtasia Studio Editor > Audio tab > Enable voice optimization

Vocal enhancements help improve your audio by removing sibilance, plosives, and more.

Optimize Audio for Male or Female Voice

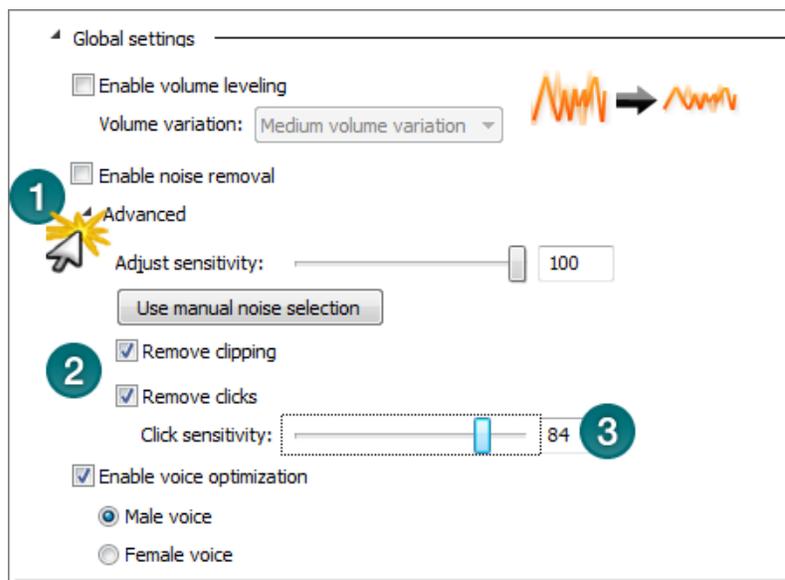
Use vocal enhancements to optimize audio for a male or female voice.

1. Within the Audio tab, select **Enable voice optimization**.
2. Select to optimize for a male or female voice.

Lesson Audio Distortion

Use the audio distortion options to:

- ▶ Help remove sibilance (hissing noise from “s” sounds).
- ▶ Help remove plosives (popping noise from “p” sounds).
- ▶ Help remove audible mouse clicks.
- ▶ Minimize loud bass sounds that when a microphone is held to close when speaking.
- ▶ Help minimize audio clipping.



1. Within the Audio tab, click the **Advanced** button.
2. Choose one of the following:
 - **Remove Clipping**
Cuts off the recorded audio when the audio volume reaches too high of a level. Clipping results in an audible distortion in the audio.
 - **Remove Clicks**
Removes recorded artifacts that sound like clicks.
3. Use the **Click Sensitivity** slider to set the threshold for the filter.

See also:

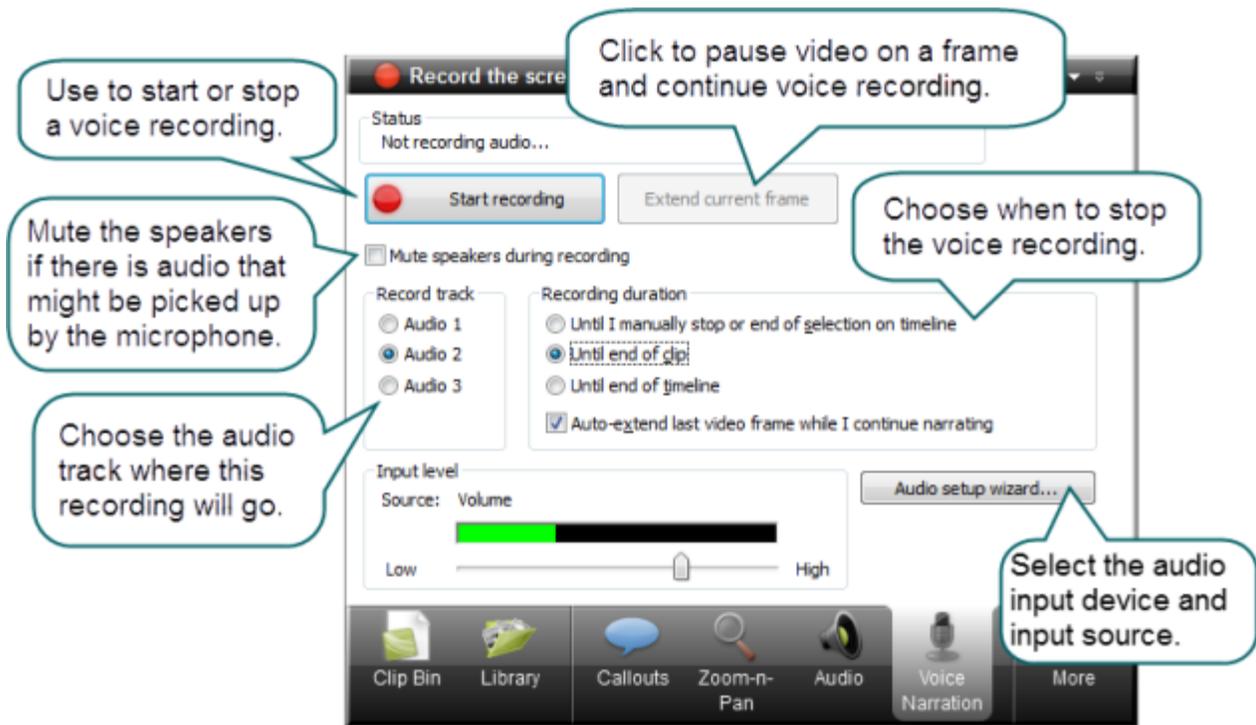
- ▶ **Replace Audio with Silence**
- ▶ **Even Out Audio Volume Levels**
- ▶ **Adjust Volume Up or Down**
- ▶ **Remove Noise from Audio**

Voice Narration

Camtasia Studio Editor > More tab > Voice Narration tab

Use voice narration to insert a voice recording into the video.

- ▶ The video clips on the timeline play in the Preview Window while recording voice narration.
- ▶ Camtasia Studio synchronizes the voice narration with the clips on the timeline.
- ▶ The audio clip created appears on the timeline when the voice narration ends.



Record Voice Narration

You must set up a microphone before you can record voice narration.

1. Arrange the video and complete the necessary edits before recording voice narration.
2. Drag the playhead's green **In point** or red **Out point** to record for a timeline selection.
Or:
 - To record for a clip, click on the clip to highlight it.
 - To record for the entire timeline, do not make any selections.
3. Enable the **Mute speakers during recording** option when clips on the timeline include audio. The microphone may record audio playing from the speakers.
4. Choose the audio track where this recording will go when added to the timeline.
5. Select the **recording duration**.
6. Click the **Audio Setup Wizard** button to set the audio input options.
7. Click **Start Recording**.
8. Narrate the clip(s) using the playback in the Preview Window as your guide.
9. The recording automatically stops when video reaches the end of the selection, end of the clip, or end of the timeline.
10. Name and save the audio clip. The recording is added to the timeline.

Recording Duration Options

Until end of selection on Timeline

Automatically ends the recording when the seek bar reaches the end of the selection on the timeline.



Until end of clip

Automatically ends the recording when the seek bar reaches the end of the current clip.



Until end of Timeline

Automatically ends the recording when the seek bar reaches the end of the timeline.



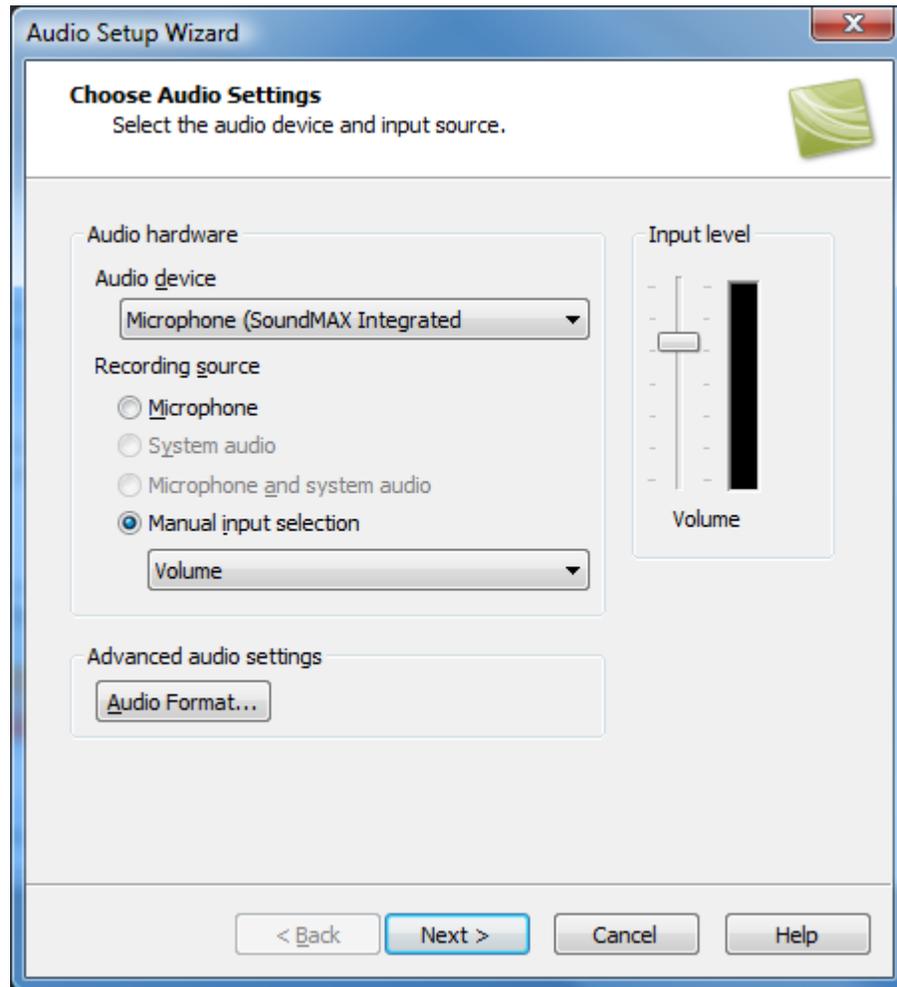
Auto-extend last video frame while I continue narrating

Extends the last frame on the timeline or the last frame of the clip until you click the **Stop Recording** button.

Editor Audio Setup Wizard

The **Audio Setup Wizard** assists you in setting up the audio for your recording.

In the Audio Setup Wizard, select the audio input device and input source. The wizard automatically adjusts the volume level for the selected input source.

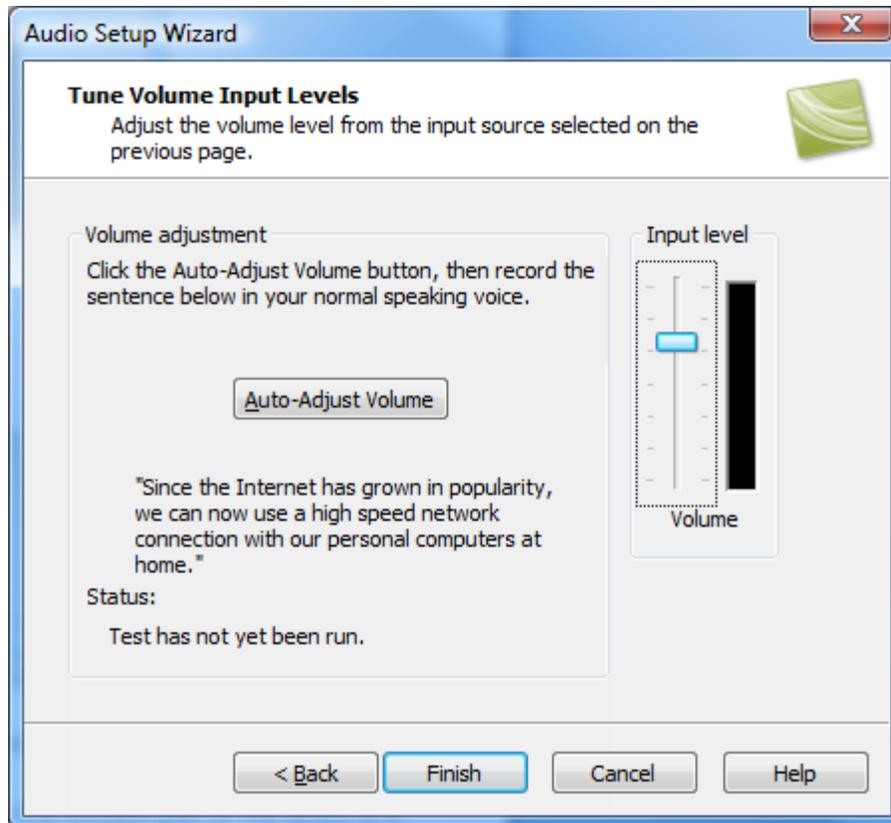


Select the Audio Recording Source

1. In the Recording source area, select the audio input source. Only the input sources supported by the current soundcard appear.
2. If the audio input source is live, you should see activity within the Input level meter. If you do not see any activity, try selecting another source or [troubleshoot the volume level](#).
3. Drag the Input level slider to control the overall volume level. Adjust the slider so the loudest part of the audio is in the upper yellow to mid-orange range. If the meter is in the red range, audio clipping may occur. Drag the slider down.
4. Click **Next**. The Tune Volume Input Levels screen appears.

Tune the Volume Input Levels

This option automatically adjusts the volume level based on a three second record you make.



1. Click the **Auto-Adjust Volume** button.
2. A three second countdown appears. When the status changes to **Go**, read the sentence in the dialog aloud as you would during recording. After the timer runs out, the volume level is automatically adjusted.
3. Click **Finish**.

Save Timeline Audio as MP3 or WAV File

 Camtasia Studio Editor > File > Produce special > Export audio as > Choose MP3 or WAVE

The **Export audio as** option combines all audio on the timeline into one audio file. Use this option to make a backup of the audio or to create a soundtrack to import into another application.

MP3	Smaller file size. Good for voice narration.
WAV	Microsoft file format. High quality audio at a larger file sizes.