



Camtasia Studio® 8.4

Get Great Sound



May 2014

© 2014 TechSmith Corporation.
All rights reserved

This manual, as well as the software described in it, is furnished under license and may be used or copied only in accordance with the terms of such license. The content of this manual is furnished for informational use only, is subject to change without notice and should not be construed as a commitment by TechSmith Corporation. TechSmith Corporation assumes no responsibility or liability for any errors or inaccuracies that may appear in this manual.

Trademarks

All-In-One Capture, Camtasia, Camtasia Studio, Camtasia Relay, Coach's Eye, DubIt, EnSharpen, Enterprise Wide, Expressshow, Jing, Morae, Rich Recording Technology (RRT), Snagit, Screencast.com, ScreenChomp, Show The World, SmartFocus, TechSmith, TechSmith and T Design logo, TechSmith Fuse, TechSmith Relay, TSCC, and UserVue are marks or registered marks of TechSmith Corporation. Other trademarks and registered trademarks are the properties of their respective companies. The absence of a name, mark or logo in the above list does not constitute a waiver of any intellectual property rights that TechSmith Corporation has established in any of its product, feature, service names, marks or logos. ©2014 by TechSmith Corporation. All rights reserved.

Contents

Get Great Sound in Your Videos	1
Tips for Getting Great Audio	2
Create a Video Script and Storyboard	4
Script Tips.....	5
Record Audio in Camtasia Recorder	6
No Sound in Your Recording?	7
I Still Have a Silent Recording	8
I Have a Barely Audible Recording	8
Monitor Your Audio Level as You Record.....	9
Solve Common Sound Problems.....	10
A Look at Different Kinds of Microphones.....	12
Recording Audio in Various Environments	14
Add and Edit Audio in Camtasia Editor	15
Fade Audio In or Out.....	16
Adjust Volume Up or Down.....	18
Replace Audio with Silence	19
Even Out Audio Volume Levels	20
Remove Noise from Audio	21
Lessen Audio Distortion	23
Voice Narration	24
Editor Audio Setup Wizard	25
Save Timeline Audio as MP3 or WAV File.....	27

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 guide gives some tips on how to make better quality audio recordings and to shows you how to 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 and Storyboard](#)
- ▶ [Record Audio in Camtasia Recorder](#)
- ▶ [No Sound in Your Recording?](#)
- ▶ [Monitor Your Audio Level as You Record](#)
- ▶ [Solve Common Sound Problems](#)
- ▶ [A Look at Different Kinds of Microphones](#)
- ▶ [Recording Audio in Various Environments](#)
- ▶ [Fade Audio In or Out](#)
- ▶ [Adjust Volume Up or Down](#)
- ▶ [Replace Audio with Silence](#)
- ▶ [Even Out Audio Volume Levels](#)
- ▶ [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 so 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 Microsoft Windows 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, and uses of “um,” and “ah.”

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 and Storyboard

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.

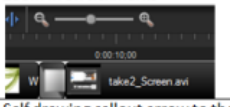

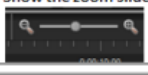
The script’s action details:

- ▶ 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.

This is an example of the type of scripts used at TechSmith.

The image shows a screenshot of a video script document titled "Getting Started / Intro Video - Camtasia Studio - EN". The script is organized into a table with two columns: "Action Details" and "Narration Text".

<p>7. Show how to access the project again.</p>	<p>But, the video only plays the first time you open Camtasia Studio.</p> <p>To open the sample project in the future, choose File > Recent projects and select Getting Started.</p>
<p>START TIMELINE HERE</p>	<p>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.</p>
<p>9. Zoom in on tickmarks</p> 	<p>So, let's start with the Timeline – this is where you assemble and edit your videos.</p> <p>At the top of the timeline you'll see tick marks representing time in terms of minutes and seconds.</p>
<p>10. Self drawing callout arrow to the right.</p> 	<p>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.</p>
<p>11. Show the zoom slider in operation.</p> 	<p>Use the Zoom option to magnify the view of the timeline and increase the distance between the tick marks.</p> <p>This helps when editing since it lets you make more precise cuts and selections.</p>

Callout boxes provide additional instructions:

- Top Left:** This column contains textual and visual action details.
- Top Right:** This column contains the video narration text.
- Right (1st):** Use formatting to show words to emphasize.
- Right (2nd):** Use a dash (-) or an ellipsis (...) to indicate a pause.
- Right (3rd):** Keep it simple and organized. Add one thought or action per table row.
- Bottom Center:** Use concise, natural language. Allow the narrator to tweak the text to incorporate their own speech patterns and inflections.
- Left (1st):** Indicate where new scenes occur.
- Left (2nd):** Add graphics or sketches to show where on-screen action occurs. Or, show the type of callout, title clip, or transition to use.

Continue with **Script Tips**.

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 should 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.

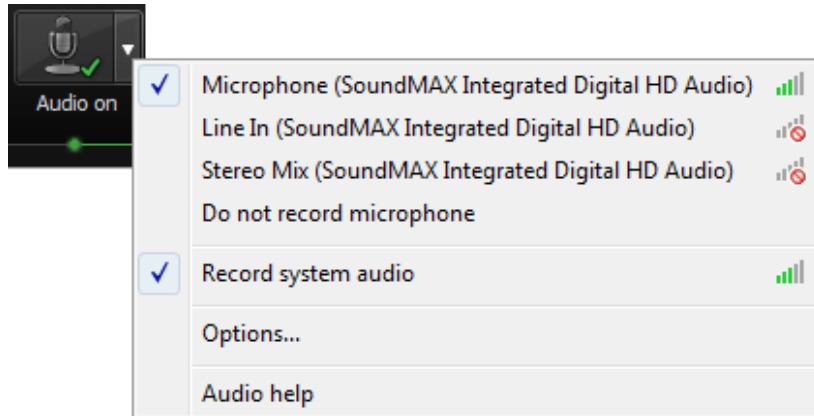
- ▶ Time the reading to get a general idea of how long the video will be. Screencast videos should run between three to five minutes in length.
- ▶ If possible, read the script and perform the onscreen actions together to get a more accurate idea of the video's length.

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 Windows XP.

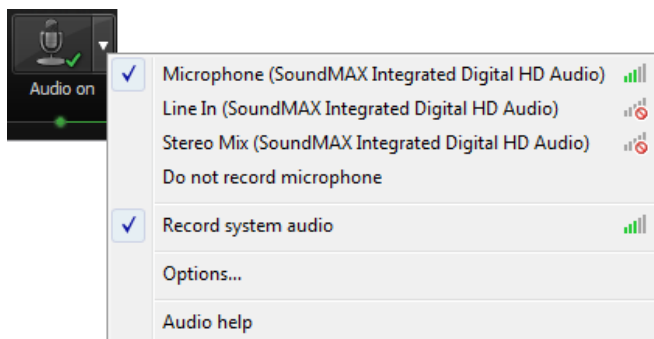


To Record Audio

1. In Camtasia Recorder, 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.


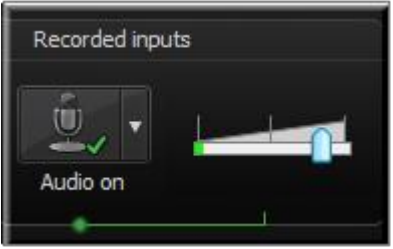
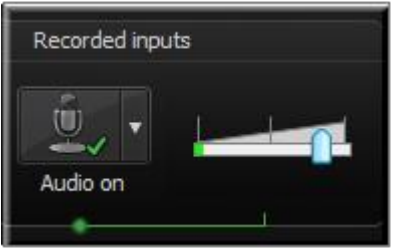


No Sound in Your Recording?

See the following topics to troubleshoot common audio issues:

- ▶ **Troubleshoot the Volume Level** on page 7
- ▶ **I Have a Barely Audible Recording** on page 8
- ▶ **Monitor Your Audio Level as You Record** on page 9
- ▶ **Solve Common Sound Problems** on page 10
- ▶ **A Look at Different Kinds of Microphones** on page 12
- ▶ **Recording Audio in Various Environments** on page 14

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
	Audio level is in the green range and responds to changes in the audio.	No change needed.
	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.
	Audio level is too low. (i.e. Audio is not in the green to yellow range.)	Drag the slider to the right.
	Audio level is in the yellow to orange range where clipping might occur.	Drag the slider to the left.
	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:

- ▶ 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.
- ▶ Check to see if you can record with Windows Sound Recorder. Select **Start > All Programs > Accessories > Sound Recorder**.
- ▶ Try a different microphone.
- ▶ Test to see if sound recording is working in another audio application.
- ▶ Try updating/reinstalling the sound card drivers.
- ▶ 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**.
1. Choose **Sound**.
2. 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?

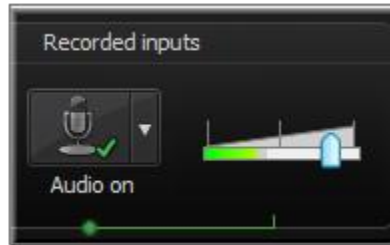
To make a good recording, you need to project and enunciate so your voice recording sounds clear and crisp on replay. As an aid in determining a good vocal level and tone, imagine you are addressing a small audience in a large room.

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 low yellow range indicate a normal reading.



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



The best sound quality occurs 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 encode 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 get the greatest dynamic range possible in the converted file.

Solve Common Sound Problems

The following topic 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." A ground loop occurs where there is more than one electrical path to "ground" for electrical/electronic equipment. Tracing and eliminating the exact source of a 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 clip 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 as a SWF file it will typically be smaller in size than an AVI file. 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 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 compensates 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 is 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 does 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 low 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 picks 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 groups. 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 pick up 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

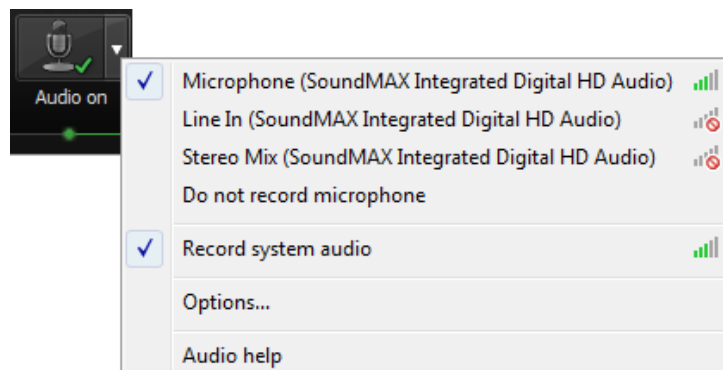
A lapel or lavalier microphone may be preferable for recording a conference session for just one speaker. The lapel microphone clips on the speaker's clothing and has a cord that plugs into the computer microphone input jack. Most are powered by a button battery and have an on/off switch.

Web Conference Recording Using Voice Over 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 connects your phone directly to your computer.

Some web conferences deliver audio via Voice Over IP. In the web conference services that use Voice Over 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 Voice Over IP audio, make sure **Record system audio** is selected in the Audio dropdown menu.

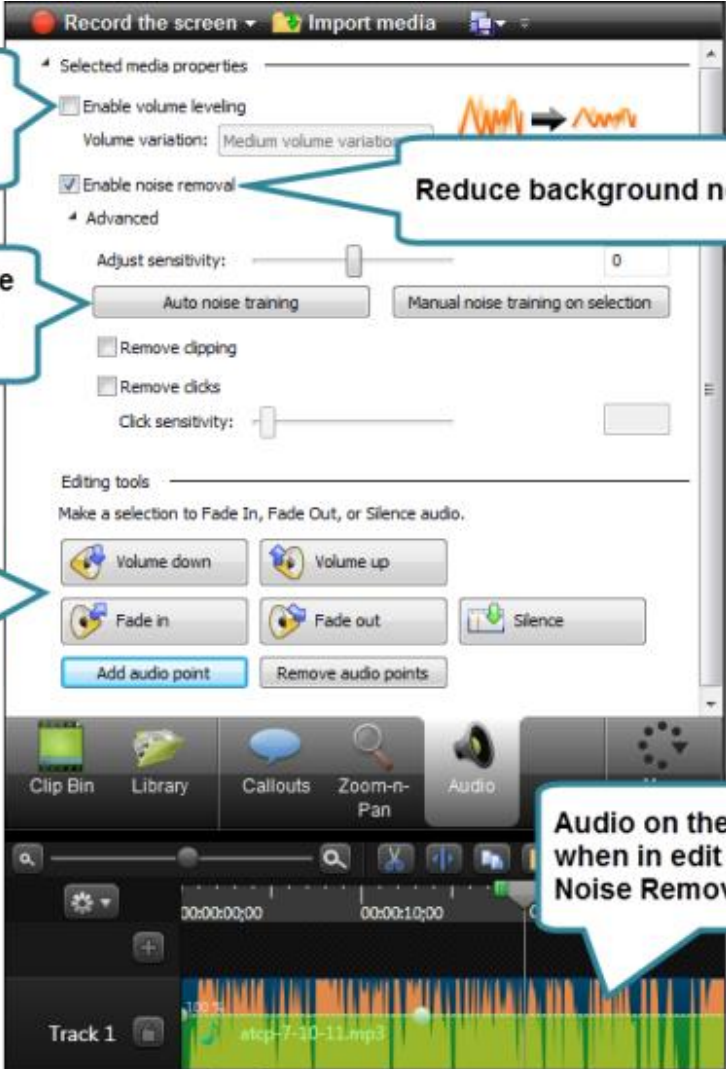


Add and Edit Audio in Camtasia Editor

 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.



The screenshot shows the Audio tab interface in Camtasia Studio. The interface is divided into several sections:

- Selected media properties:**
 - Enable volume leveling
 - Volume variation: Medium volume variation
 - Enable noise removal
- Advanced:**
 - Adjust sensitivity: [Slider]
 - Auto noise training [Button]
 - Manual noise training on selection [Button]
 - Remove clipping
 - Remove clicks
 - Click sensitivity: [Slider]
- Editing tools:**
 - Make a selection to Fade In, Fade Out, or Silence audio.
 - Volume down [Button]
 - Volume up [Button]
 - Fade in [Button]
 - Fade out [Button]
 - Silence [Button]
 - Add audio point [Button]
 - Remove audio points [Button]

Callouts provide additional information:

- "Adjusts the volume of the audio on the timeline to a standard level." points to the "Enable volume leveling" checkbox.
- "Additional options remove audible mouse clicks, fix clipping, and more." points to the "Remove clipping" and "Remove clicks" checkboxes.
- "Tools for making volume adjustments." points to the "Volume down", "Volume up", "Fade in", and "Fade out" buttons.
- "Reduce background noise." points to the "Enable noise removal" checkbox.
- "Audio on the timeline when in edit mode with Noise Removal enabled" points to the audio waveform on the timeline.

For other audio options see:

- ▶ **Fade Audio In or Out** on page 16
- ▶ **Adjust Volume Up or Down** on page 18
- ▶ **Replace Audio with Silence** on page 19
- ▶ **Even Out Audio Volume Levels** on page 20
- ▶ **Lessen Audio Distortion** on page 23

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 timeline.

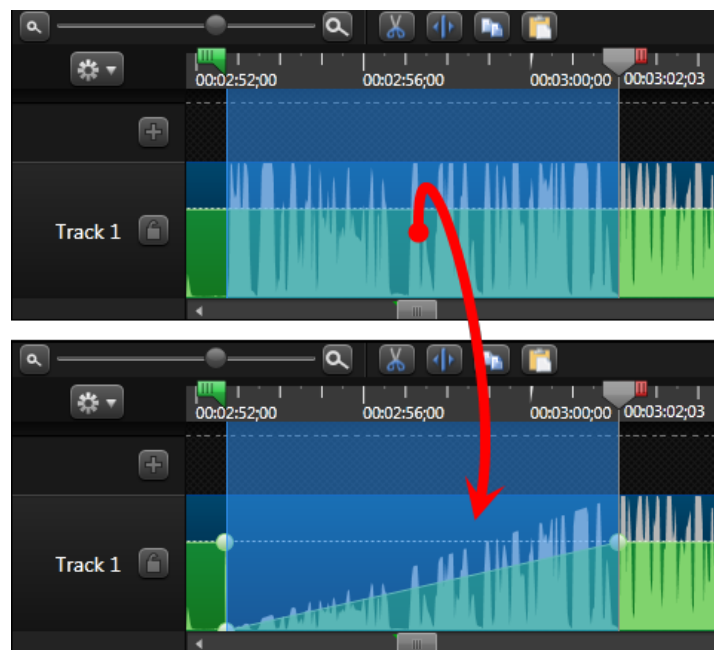
Apply a Fade to a Selection

1. Click on an audio clip to select it.
- Or -
To select more than one audio clip, press and hold the <SHIFT> key and click on each of the desired audio clips.
2. Click on the Audio tab. The audio clip turns green.
3. Drag the green **In point** or red **Out point** on the timeline to make a selection.

▶ 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. To change the fade, raise or lower the audio points.



Apply a Fade to the Entire Timeline

1. Click on an audio clip to select it.
- Or -
To select more than one audio clip, press and hold the <SHIFT> key and click on each of the desired audio clips.
2. Click on the Audio tab. The audio clip turns green.

▶ 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 an audio point and drag it up or down. The waveform adjusts accordingly.



See also:

- ▶ **Fade Audio In or Out** on page 16
- ▶ **Adjust Volume Up or Down** on page 18
- ▶ **Replace Audio with Silence** on page 19
- ▶ **Even Out Audio Volume Levels** on page 20
- ▶ **Lessen Audio Distortion** on page 23

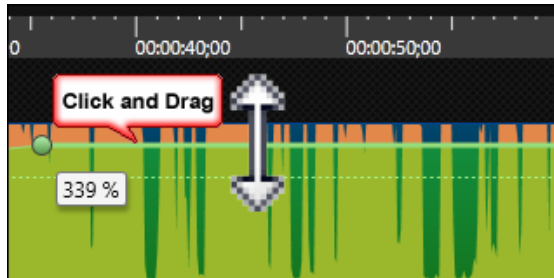
Adjust Volume Up or Down

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

 Drag an audio clip from the Clip Bin or Library onto the timeline.

Adjust the Volume for an Audio Clip

1. Click on an audio clip to select it.
- Or -
To select more than one audio clip, press and hold the <Shift> key and click on each of the desired audio clips.
2. Click on the Audio tab. The audio clip turns green.
3. Grab the bar in the middle of the waveform on the timeline and drag it up or down.




- Or -

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.

See also:

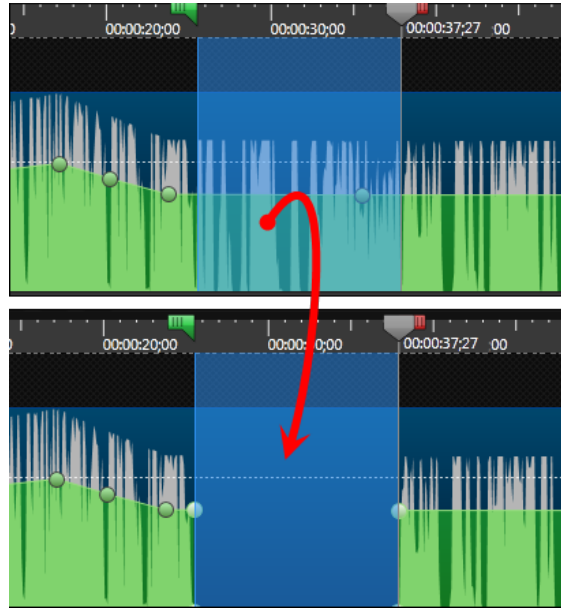
- ▶ **Fade Audio In or Out** on page 16
- ▶ **Replace Audio with Silence** on page 19
- ▶ **Even Out Audio Volume Levels** on page 20
- ▶ **Lessen Audio Distortion** on page 23

Replace Audio with Silence

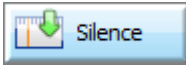
 Camtasia Studio Editor > Audio tab > Silence button

 Drag an audio clip from the Clip Bin or Library onto the timeline.

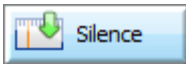
The **Replace with Silence** option mutes the audio selection on the timeline. Unlike the delete or cut options, this option does not remove any of the existing waveform.



Replace a Selection with Silence

1. Click on an audio clip to select it.
- Or -
To select more than one audio clip, press and hold the <SHIFT> key and click on each of the desired audio clips.
2. Click on the Audio tab. The audio clip turns green.
3. Drag the playhead's green **In point** or red **Out point** to make a selection on the timeline.
4. In the Audio tab, click the **Silence** button .

Replace an Entire Clip with Silence

1. Click on an audio clip to select it.
2. Click on the Audio tab. The audio clip turns green.
3. In the Audio tab, click the **Silence** button .

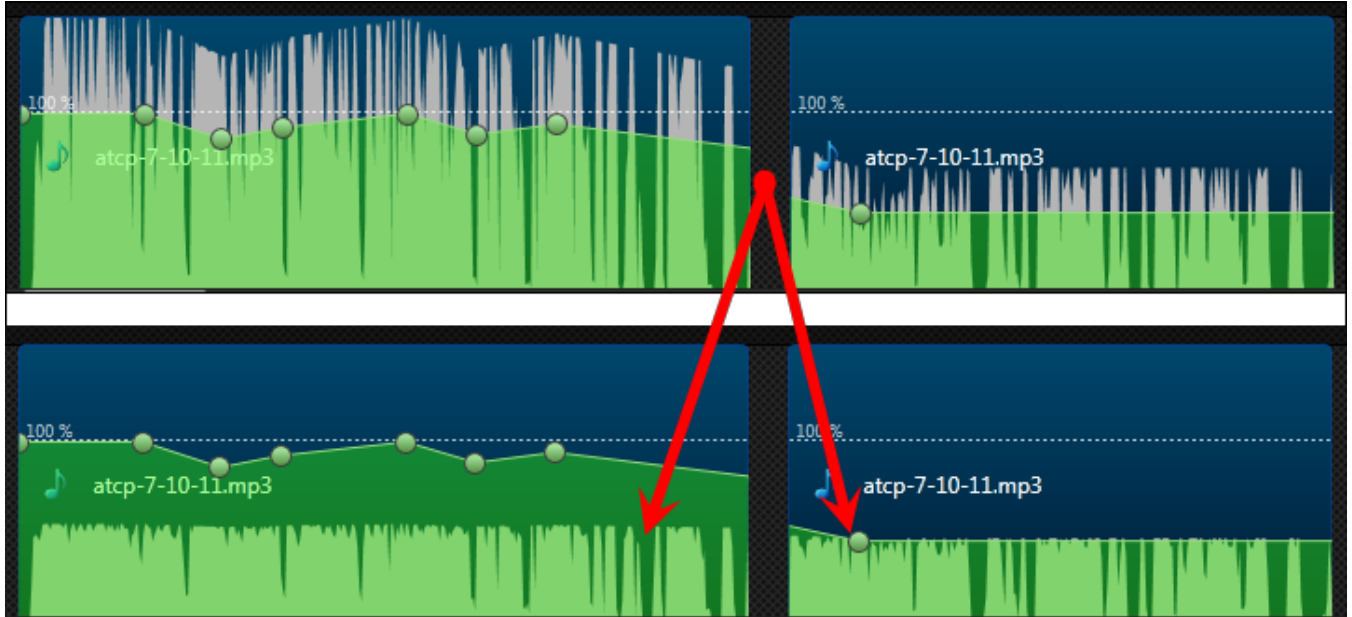
See also:

- ▶ **Fade Audio In or Out** on page 16
- ▶ **Adjust Volume Up or Down** on page 18
- ▶ **Even Out Audio Volume Levels** on page 20
- ▶ **Lessen Audio Distortion** on page 23

Even Out Audio Volume Levels

 Camtasia Studio Editor > Audio tab > Enable volume leveling

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.



Even Volume Levels

1. Click on an audio clip to select it.
- Or -
To select more than one audio clip, press and hold the <SHIFT> key and click on each of the desired audio clips.
2. Click on the Audio tab. The audio clip turns green.
3. Select **Enable volume leveling**.
4. 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.

See also:

- ▶ **Fade Audio In or Out** on page 16
- ▶ **Adjust Volume Up or Down** on page 18
- ▶ **Replace Audio with Silence** on page 19
- ▶ **Remove Noise from Audio** on page 21
- ▶ **Lessen Audio Distortion** on page 23

Remove Noise from Audio

Camtasia Studio Editor > Audio tab > Enable noise removal

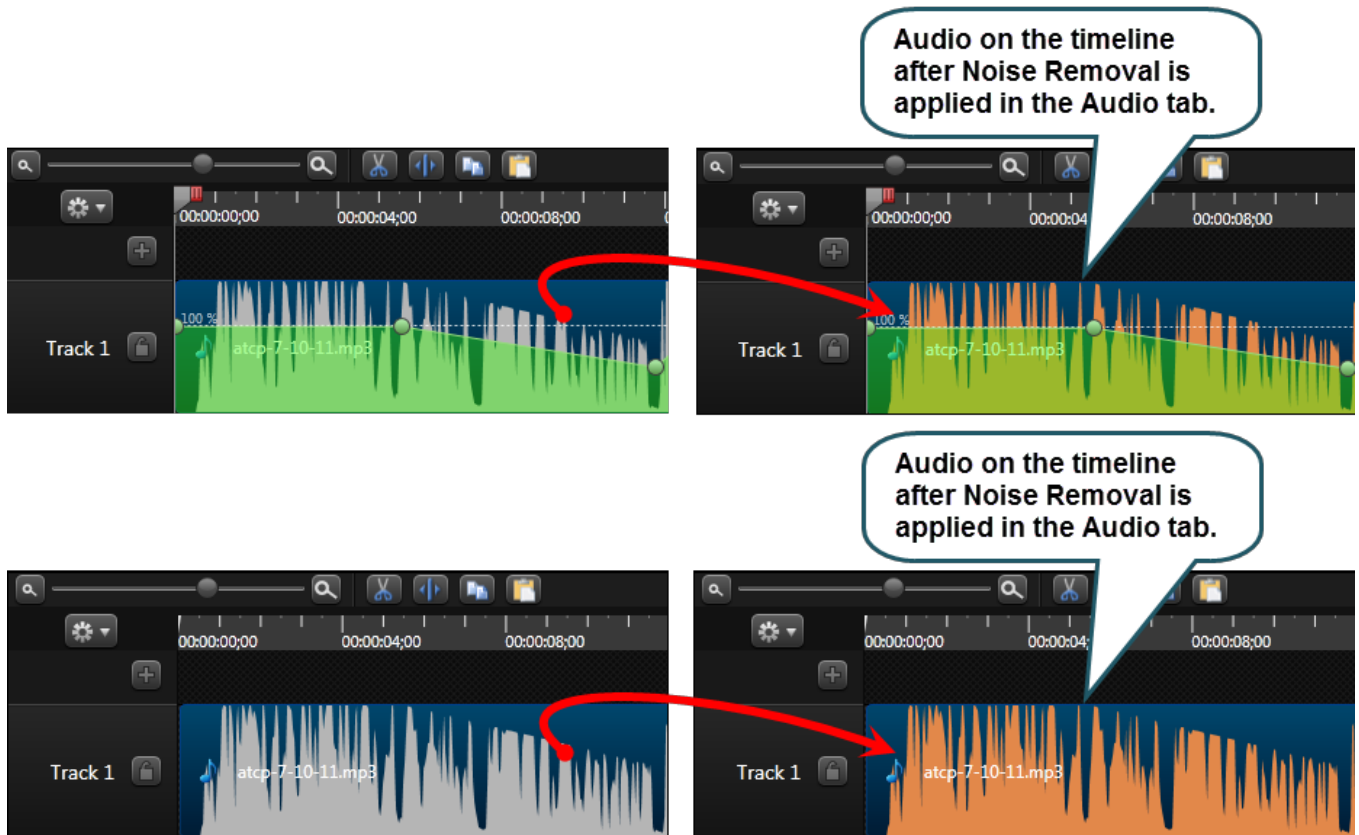
Audio enhancements apply to the entire selected clip and cannot be applied to just a selection.

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 **Enable noise removal** option to reduce background noise for the selected 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 selected 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](#).



To Automatically Remove Noise

1. Click on an audio clip to select it.
- Or -
To select more than one audio clip, press and hold the <SHIFT> key and click on each of the desired audio clips.
2. Click the Audio tab.
3. 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.
4. To hear the new audio, click the **Play** button in the Preview Window.

Manually Remove Background Noise

1. Click on an audio clip to select it.
- Or -
To select more than one audio clip, press and hold the <SHIFT> key and click on each of the desired audio clips.
2. Click the Audio tab.
3. 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.
4. Click the **Advanced** button.
5. 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.
6. 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:

- ▶ **Fade Audio In or Out** on page 16
- ▶ **Adjust Volume Up or Down** on page 18
- ▶ **Replace Audio with Silence** on page 19
- ▶ **Even Out Audio Volume Levels** on page 20
- ▶ **Lessen Audio Distortion** on page 23

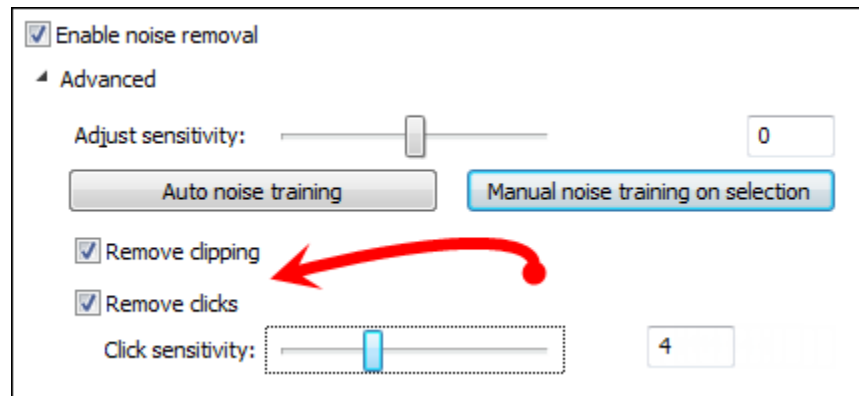
Lessen Audio Distortion

 Camtasia Studio Editor > Audio tab > Enable voice optimization

The Audio Distortion options help improve your audio by removing sibilance, plosives, and more.

Use 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 occur when a microphone is held to close when speaking.
- ▶ Help minimize audio clipping.



To Use Audio Distortion Options

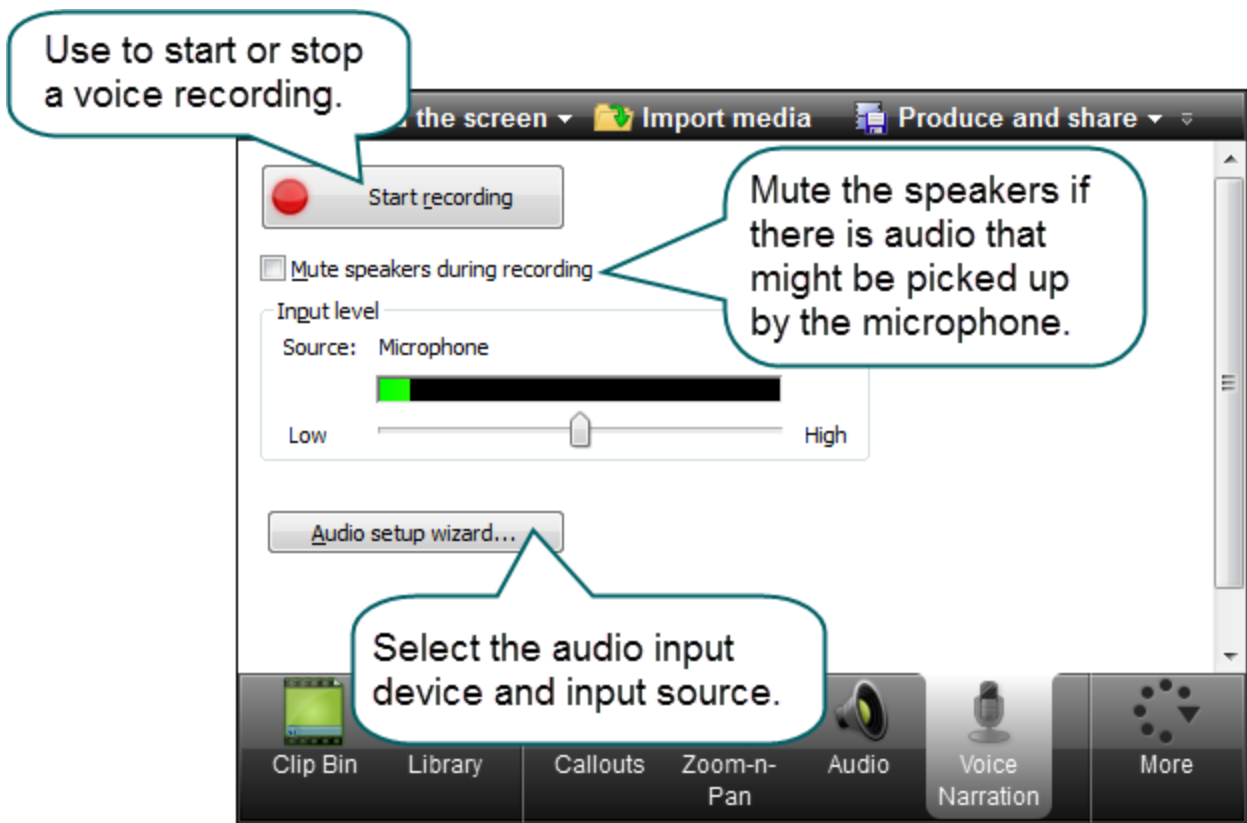
1. Click on an audio clip to select it.
- Or -
To select more than one audio clip, press and hold the <SHIFT> key and click on each of the desired audio clips.
2. Click the Audio tab.
3. Click the **Advanced** button.
4. Choose one of the following:
 - **Remove Clipping**
Cuts off the recorded audio 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.
5. Use the **Click Sensitivity** slider to set the threshold for the filter.

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.



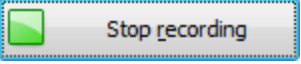
Record Voice Narration

 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. Position the playhead where the voice narration is to begin.
3. Enable the **Mute speakers during recording** option if the microphone may record audio playing from the speakers or timeline.
4. Click the **Audio Setup Wizard** button to set the audio input options.

5. Click **Start Recording** .

6. Narrate the clip using the playback in the Preview Window as your guide.

7. When done, click **Stop Recording** . The *Save Voice Narration* dialog box appears.

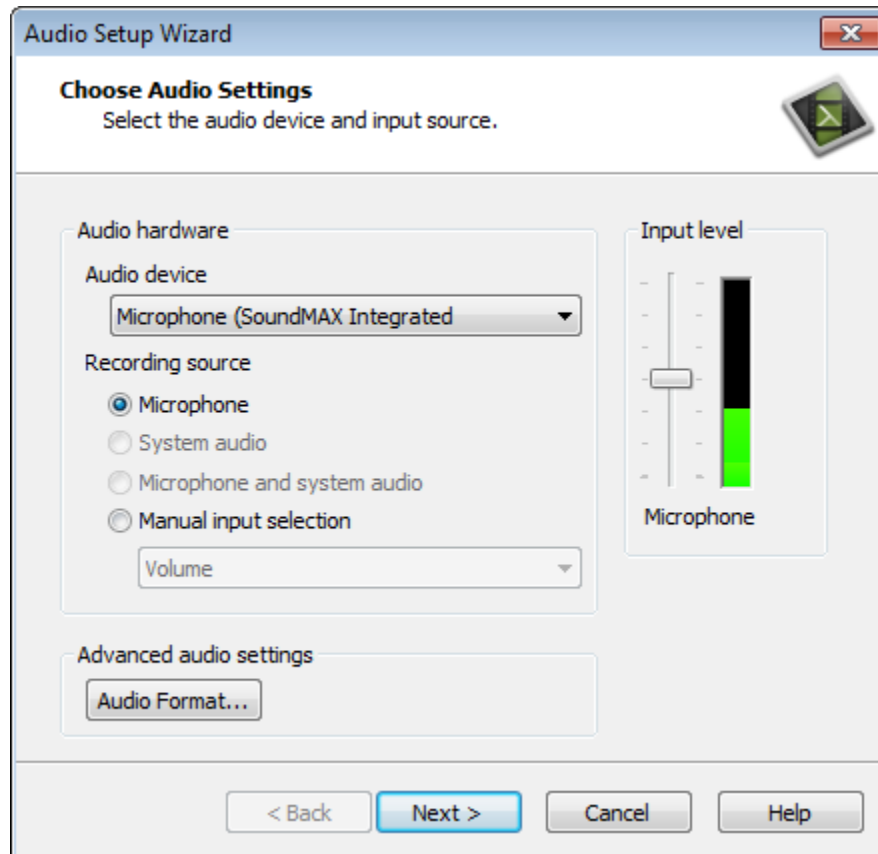
8. Name and save the audio clip. The voice recording clip is added to the timeline.

Editor Audio Setup Wizard

 Camtasia Studio Editor > More tab > Voice Narration tab > Audio setup wizard button

The Audio Setup Wizard assists you in setting up the audio for your voice narration 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.



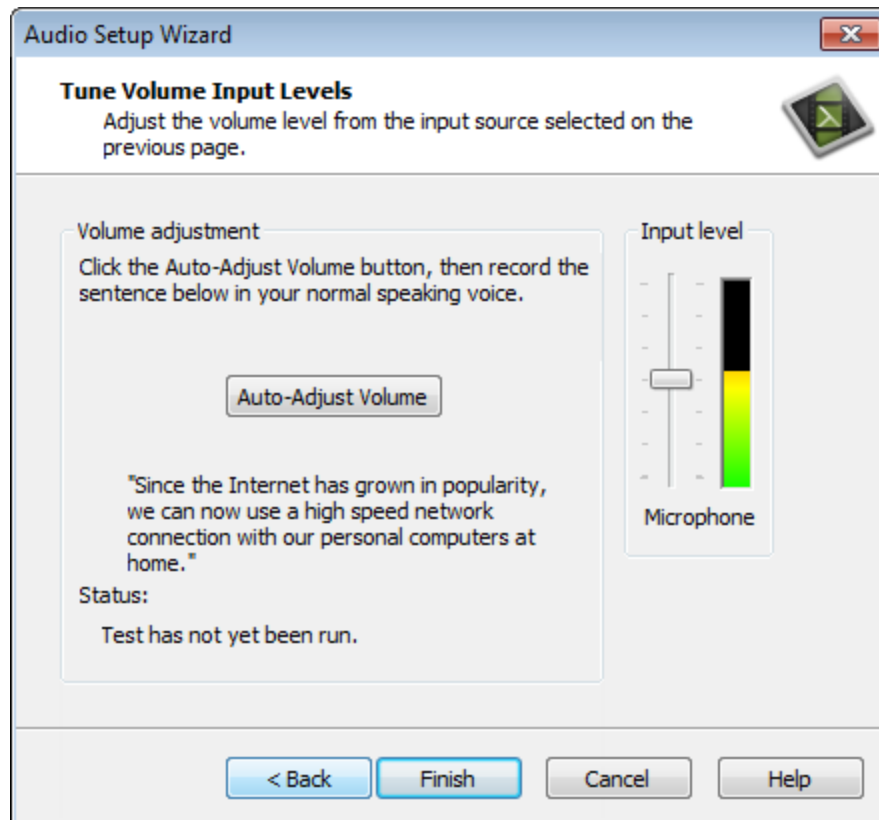
Select the Audio Recording Source

1. Choose the recording device from the Audio device dropdown menu.
2. In the Recording source area, select the audio input source. Only the input sources supported by the current soundcard appear.
3. 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](#).
4. 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.
5. Click **Next**. The Tune Volume Input Levels screen appears.

Continue with **Tune the Volume Input Levels**.


Tune the Volume Input Levels

The Tune Volume Input Levels option automatically adjusts the volume level based on a three second recording 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 box 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 WAV

The **Export audio as** option combines all audio on the timeline into one audio file – either in WAV or MP3 format.

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.

To Save the Timeline Audio

1. Choose **File > Produce Special > Export Audio as**. The *Save Audio As* dialog box appears.
2. From the **Save as type** dropdown menu, choose **WAV** or **MP3** file format.
3. Click **Save**.