

# STORYTELLING TOOLKIT



Editing



Smithsonian  
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***This handbook will guide you in editing your project.*** Once again, remember that if you are editing a video project, audio is a big component of that project, so be sure to read all the audio sections as well. It is also important to read the information about intellectual property in order to understand the importance of choosing royalty free and public domain songs and sound effects when completing your project.

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# Audio Editing Basics

**Ever made a collage with paper? Editing audio is a lot of cutting, pasting, and moving parts to form a whole.** You first have to find the best audio for each moment, clean it, and then arrange and layer the different audio elements to create a pleasing soundtrack that tells the story. The tips below should help you as you edit your project.

- 1 Mix the audio.** Most audio projects use two or more tracks. Mixing is the blending of those tracks together. Remember to balance your levels. For example, your project might include a vocal track and music. You want to lower the volume of the music when the vocal is playing.
- 2 Always dissolve or fade new tracks.** A new sound appearing out of nowhere is very jarring for the listener. Even a short fade-in can make the sound enter more naturally. Use dissolves when one sound is leaving at the same time another is entering.
- 3 Don't forget room tone and background noise.** If you are creating an audio track for a scene, it won't sound natural unless you include a recording from the space that the scene is taking place. It may seem silly to add what seems like silence in an empty space, but it is absolutely essential for setting a scene.
- 4 Edit dialogue.** Dialog editing often involves creative decision-making. You may need to edit out "uhs", stutters, distracting pauses, vocal stumbles, and sometimes words or phrases that you deem unnecessary, or unsuitable. Done well, these kinds of edits can make a tentative, halting speaker sound smooth and focused, but done poorly, it could potentially sound unnatural, so take care in your choices.

**5 Minimize differences in audio clips in the same scene.** Sometimes you'll find that the audio in different shots from the same scene have differences in the background ambience. For example, if you shoot a conversation in a city park, and the shoot lasts all day, you may notice that some shots have more traffic noise in the background because of rush hour. You'll need to edit more "rush hour" background noise into the quieter clips, so that all the clips sound the same. Usually, the shot with the highest ambient background noise level dictates the noise level for other clips.

**6 Make sure your audio edit points aren't noticeable.** Editing audio clips in a sequence mainly involves finding good edit points that sound natural. Audio edit points are often more effective when they are offset from the corresponding video edits. Although you may set your initial audio and video edit points in the same place to create a quick rough cut, editing your audio more finely may involve moving your audio edit points to overlap the end of the video cuts. Those overlapping frames will turn an otherwise obvious cut into a much smoother transition.

**7 Crop out or trim the silence.** At the beginning and end of clips and sometimes at points in the middle, you'll have periods of near silence when no one is speaking. To make your recording as 'neat' and professional sounding as possible, you'll want to remove these "silent" sections.

**8 Normalize the audio.** In general, you'll want the audio of all your scenes to be the same volume – making quiet speakers louder and louder voice more quiet. This requires normalizing the audio on all your clips so they match.

# Editing for the Ear

**The first audio edit should be one for the ear.** Make sure it sounds good. The first time you edit a story will be the only time for you to hear it the way a user would. It should be well-paced, with strong transitions and have a strong storyline – with a surprise or “aha” moment. More information can be found in *Editorial Training* by NPR: <http://training.npr.org/audio/how-to-edit-with-your-ears/>.

## What to listen for during an edit for the ear:

- When did I tune out or get bored?
- When was I confused?
- When was the audio hard to hear or distracting?
- Is any audio misleading?
- When did the story make clear, powerful points?
- Is a key point missing?
- Does the structure of the story make sense?
- Does the tension build through their piece?
- When did something feel off about the audio levels or the story?
- Were there moments that were harsh to the ear or contradictory?
- When did I smile, laugh or feel happy?

## How to use the script during an edit for the ear:

- Make quick, simple marks along the margins: for example, mark an “?” near a section that confused you, then quickly look up again
- Add a checkmark beside a moment you liked
- If you tuned out or got bored, note roughly when that happened.
- If one section raises a clear question, note it – “Why”?

## Four things not to do when editing for the ear:

- 1 Don't line edit.** Don't worry yet about grammar, word choice or line-by-line writing. Save that for later edits.
- 2 Don't get distracted by one glaring flaw.** If you focus too much on one thing you hear, you'll miss other parts of the piece. Just note it, and then return to it.
- 3 Don't explain away problems you hear.** For example, let's say some audio is hard to hear, and your first instinct is, "I couldn't hear that." But what if, almost instantaneously, your next thought is, "Well, maybe it's clear enough. . ."? After all, we're all busy, and we can only solve so many problems at a time. Trust your first instinct! Listeners only have one chance to hear a story, and it's likely they have distractions while listening. If you, while listening closely, couldn't hear something well, there's no way a listener — going about her life, driving a car, walking down the street — will hear it.
- 4 Don't read the script during the first edit.** Reading along becomes a crutch. You think you're reading and listening at the same time, but you're crippling your ability to experience the story as a listener would. The temptation to stop listening is too great.

# Video Editing Basics

**Editing video is a mixture of visual and audio editing.** Be sure to read the audio editing tips to get a fuller picture of what is required for audio and learn more about video editing with the tips below.

- 1 Start with a rough cut.** Put the footage you want to use in chronological order in the time line, without much editing. Once you have the general timeline created, then you trim each clip, cut out all the unusable shots, and add alternate footage.
- 2 Avoid jump cuts.** You should cut out moments when interviewees say “um” and “uh” and stumble over their words. When you cut those moments out, you should layer b-roll over these edited moments. If you do this carefully, it will look like the speaker said things perfectly without a hitch.
- 3 Vary your shots.** Don’t use the same shot for the entire video, vary it with other angles. This can be as simple as recording your interview with two cameras and switching between them.
- 4 Time your cuts well.** Your shots should last longer than 1 second. Static shots can last between 2 and 10 seconds. If there is a lot going on in the shot or somebody is talking, it can be longer. Switch between shot lengths, some longer shots and then some shorter ones.
- 5 Cut on motion.** Motion distracts the eye from noticing editing cuts. When cutting, try to do it when the subject is in motion. For example, cutting from a turning head to an opening door is smoother than cutting from a still head to a opening door.



- 6 Add music and sound effects.** Footage can bring a completely different message across if it is accompanied with appropriate music. Test different kinds of music tracks for your video and “feel” the difference.
- 7 Add lower third titles to your interviewees.** These titles are shown at the bottom part of the screen when someone is talking to introduce that person and give more information about them. Be sure to use legible fonts in easily read sizes for the titles.
- 8 Think about why you are using the shots.** Each shot you put on your timeline should have a purpose. If what is being heard doesn't match what is being seen, fix it. Only use the best shots.
- 9 Use transitions with a purpose.** Different transitions should be used for different purposes. Don't always fade in and fade out of everything. Don't use crazy transitions. Subtlety is the key.
- 10 Correct the color.** Color correction is usually the last step before a video is completed. You can use color correction to make the colors in your video appear more accurate, or you can use it to alter the mood of the film with color filters. Similar to a good soundtrack, well-colored video can complement and help set the mood of the story that you are trying to tell.
- 11 Be invisible.** If your viewer is thinking about the editing, it means something was jarring. The goal is to make your editing invisible.

# Free Audio and Video Editing Tools

**You don't need to invest in expensive editing tools to complete your project.** There are several powerful, free editing tools available for both Windows and Macs that should cover all your audio and video editing needs. If you do decide to spend money on editing software, do your research to find the best software for the price.

## Audio

**Audacity.** Audacity is a powerful multi-track recording app, and it's easy to use. Audacity allows you to record live audio, record from your desktop, convert old tapes/records, edit various formats, cut/copy/splice/mix audio, add effects, change speed/pitch, and much more. Despite all the professional-level set of features that Audacity has, the simplicity of its user interface is one of its most impressive features.

**Levelator.** Levelator is a software that adjusts the audio levels within your audio file for variations from one speaker to the next. It is a compressor, normalizer and limiter in one package. The user interface is as easy as it gets: drag-and-drop any WAV or AIFF file onto Levelator's application window, and a few moments later you'll find a get version with improved sound.

## Video

**Lightworks.** Lightworks is considered one of the best free editing programs out there. It features a beautiful user interface, a timeline, multi-camera support, and real-time video effects and easy-to-use trimming tools. Some features are easy, but it is a complex system and the support documents aren't very comprehensive.

**Blender.** Blender is more than an editor, it's an opensource, 3D animation suite, which allows for modeling, rendering, motion tracking, and more. On the video editing side, there are a ton of features, which means you can produce complex video projects. For the amateur video editor, all the functionality that's available can be a bit overwhelming.

**WeVideo.** WeVideo is one of the most widely used cloud-based video editing applications. This means you can produce and edit videos from an online interface. Most of the editing features are based on a drag-and-drop design and are very simple. Basic editing is free, but if you want access to more sophisticated editing features you will have to upgrade to their paid plans.

**VSDC Free Video Editor.** In addition to supporting nearly every major video format, the program offers advanced video effects, including object transformation and color correction, as well as advanced audio effects like volume correction. If you want technical support, you need to pay.

**Avidemux.** Avidemux is primarily Windows-based, and gives you options for basic editing. This includes easy clip splicing, as well as a host of filters. The editing tools are robust enough to ensure that your videos look professional. The application features an extensive online Wiki for an added layer of support as you learn to edit with the software.

# Intellectual Property Rights

**It is important to understand the laws governing the use of music and audio created by others.** Music and sound re-use are very restricted, so be sure to use care when choosing assets to use in your stories. Here is an overview of music copyright issues: <https://ucomm.wsu.edu/music-copyright>.

## You Are Responsible

You are the sole owner of your content. As such, you are responsible for being in compliance with Intellectual Property (IP) law. Ask yourself: Am I hindering the artist's ability to monetize this material by using it? If the answer is "yes," you are likely violating copyright.

## Public Domain

The only time you do not need to secure special permission to use audio is if it is original material or when that audio is in the public domain. Any song or musical work published in 1922 or earlier is in the Public Domain in the U.S. No sound effects recordings are in the Public Domain in the U.S., no matter how old those recordings are. Luckily there are many people who let others use their recordings for free. Several are listed on the next page.

If the audio you are using is not in the Public Domain, you need to obtain a license to use it.

## Royalty Free

Permission must still be granted for Royalty Free recordings and "Royalty Free" does not necessarily mean FREE – often you must pay a license fee.

## Fair Use

Fair use is a set of exceptions that limit the power of copyright laws and the use of the audio is deemed “fair.” To determine “fair use,” several factors are taken into account.

- The purpose and character of its use – whether it is being used in a for-profit product or for nonprofit educational purposes
- The nature of the copyrighted work – facts and ideas are not protected by copyright—only the way they are expressed
- The amount and substance of the portion used in relation to the copyrighted work as a whole – in general, the less used in relation to the whole, the more likely the use will be considered “fair”
- The effect of the use upon the profitability of the copyrighted work – do not infringe on the original creator’s ability to sell their work
- Acknowledgement of copyrighted source – it is best practice to acknowledge the source of the audio content

This *Fair Use Checklist* can help you decide if your use of the music, audio, or other content is considered “fair use”: <https://copyright.columbia.edu/basics/fair-use/fair-use-checklist.html>.

# Sources for Sound and Music

**All of these sites have different requirements for using their music and sound effects.** Be sure to pay attention to what those requirements are.

## **The Free Sound Project**

A collaborative database of Creative Commons Licensed sounds. You can also upload your own creations to the database. <http://www.freesound.org>

## **Bargus Sound Library**

A small sound library of high-quality royalty free sounds.  
<http://www.bargus.org/soundlibrary.html>

## **The Recordist Sound Library**

A collection of free sound effects in MP3 format for nonprofit use.  
<http://creativesounddesign.com/the-recordist-free-sound-effects>

## **SoundGator**

Free high-quality mp3 sound effects in various categories. The database has more than 400 wav sounds to download. <http://www.soundgator.com>

## **Sound Effects+**

Free high-quality sound effects recorded and designed by a team of audio professionals. <http://www.soundeffectsplus.com>

## **SoundJay**

Professional, high quality sound effects. <http://www.soundjay.com>

**MuseOpen**

Provides access to recordings, sheet music, and textbooks to the public for free. The music collection is classical. <https://musopen.org>

**Incompetech**

The site was created by composer Kevin MacLeod and has music categorized by genre and feel. <http://incompetech.com/music>

**MobyGratis**

Moby has made over 150 tracks from his catalog of music available to licence for free, via a simple online application system. <http://www.mobygratis.com>

**BeatPick**

A great selection of licensed music and if you are using it in a non-commercial or nonprofit production it's free. <http://www.beatpick.com>

**PublicDomain4U**

Old music that is now in the public domain, but also more modern music that is free with artist permission. <http://publicdomain4u.com>

**CCmixer**

CCmixer offers mashups of public domain songs under a Creative Commons license. <http://dig.ccmixer.org>

