


Video Editing
BA(JMC) UNIT 3
Topic 1:
Sound Design and Editing


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Introduction to Sound Design

- Most people think of film making or video production as a visual medium. For many years it was, during the silent era of film. When talkies first came about in the 1920's it was both the greatest and worst thing that happened to the art. Films became more immersive and more subtle.
- Dialogue added layered depth to the story. Sound FX fleshed out the world, making it more real for audiences. Sound Design became essential to storytelling and the silent film era all but died out.
- Nowadays, Sound Design might be half of your story, but it takes a special attention to detail to get it right.


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Introduction to Sound Design

- Sound design is the process of recording, acquiring (getting), manipulating or generating audio elements.
- It is employed in a variety of disciplines including filmmaking, television production, theatre, sound recording and reproduction, live performance, sound art, post-production and video game software development.
- Sound design most commonly involves the manipulation of previously composed or recorded audio, such as music and sound effects.
- In some instances it may also involve the composition or recording of audio to create a desired effect or mood.


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Introduction to Sound Design

- Video/Television is an audio-visual medium. What is more important?
 - Picture or Sound
- There is an inextricable (Complicated) relationship between Audio and Video
 - Audio parallels Video
 - Audio defines Video
 - Video defines Audio
 - Audio and Video define Effects
 - Audio Counterpoints Video
- These categories have relevance to Sound Design


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Audio Parallels Video

- Both Picture and Sound are on equal terms.
- One doesn't dominate the other.
- Example:
- A Character knocks the door. The door opens. In this scene, you can see the character knocking the door, you can hear the knock, and you can hear the door being opened, that is the sound and the visual complement each other .


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Audio Defines Video

- Sound not only dominates the picture, it often provide the point-of-view that the viewer must take.
- It provides a subjective meaning to the visual.
- Example:
- The close up of a person with a neutral expression on his face. The sound on the audio track defines what mood the person is in.


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Video Defines Audio

- We Know that video is planned and decided in advance in terms of camera angle and distance and duration.
- It provides a subjective meaning to the visual.
- Example:
- The close up of a person with a neutral expression on his face. The sound on the audio track defines what mood the person is in.


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Elements of Sound

- MUSIC:** Music can be used for a number of effects. The most obvious way music scores are used is to guide the emotional response of the audience.
 - AMBIENCE:** Ambience is referred to as the atmosphere associated with a particular environment. From music to film ambient sound is something that creates an atmospheric setting and engages the viewer/listener into the surroundings of said environment. Ambient sound is used not only to correlate a particular setting to the story, but to also transition into other parts of a specific setting in film, maintaining the current flow the film proceeds to take when moving from one scene or cut to another.
 - ACTUAL:** In other productions, music may be the only audio track. Music montages without natural sound can be particularly moving if you make wedding or event videos. You'll find that it helps to lay the song on your timeline, then edit your footage to the music.
 - BACKGROUND:** Simply adding a track of background music can greatly improve your videos. Music often creeps in quietly-unnoticed by the viewer-then builds as emotions heighten. Background music is an easy way to add professionalism to a video with dialogue or narration. Background music should be mixed low, so as not to interfere with the words that are spoken.


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Elements of Sound

- **SOUND EFFECTS:**
 - **DIGETIC:** Sound whose source is visible on the screen or whose source is implied to be present by the action of the film:
 - ✓ voices of characters
 - ✓ sounds made by objects in the story
 - ✓ music represented as coming from instruments in the story space (=source music)
 - ✓ Diegetic sound is any sound presented as originated from source within the film's world
 - **NON-DIEGETIC:** Sound whose source is neither visible on the screen nor has been implied to be present in the action:
 - ✓ narrator's commentary
 - ✓ sound effects which is added for the dramatic effect
 - ✓ mood music
 - ✓ Non-diegetic sound is represented as coming from the a source outside story space.


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Elements of Sound

- **LIP SYNCHRONISED SOUND:**
 - **DIALOGUE :** The dialogue is the foremost of the three “ingredients” of a soundtrack. The dialogue brings forth the story by showing the communication and interaction of two or more characters in the film. The dialogue is derived from the film script, but there goes more than just recording a character speaking in designing the film’s sound track.
 - **BYTE:** A sound bite is a short clip of speech or music extracted from a longer piece of audio, often used to promote or exemplify the full length piece.
 - **OFS:** Off-screen sound describes sound assumed to be in the space of a scene yet remains off-screen while the action takes place simultaneously.


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Elements of Sound

- **VOICE OVER:** (also known as off-camera or off-stage commentary) is a production technique where a voice—that is not part of the narrative (non-diegetic)—is used in a radio, television production, filmmaking, theatre, or other presentations. The voiceover is read from a script and may be spoken by someone who appears elsewhere in the production or by a specialist voice talent.
- Synchronous dialogue, where the voiceover is narrating the action that is taking place at the same time, remains the most common technique in voiceovers. Asynchronous, however, is also used in cinema. It is usually prerecorded and placed over the top of a film or video and commonly used in documentaries or news reports to explain information.


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Fundamental techniques of sound design

- The process of sound designing for film or television purposes usually consists of the four phases:
 - Recording,
 - Mixing
 - Synchronization, and
 - Editing.
- All these phases are very complex and deal with huge range of problems. That's why a whole team of sound professionals should be involved in sound design.


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Fundamental techniques of sound design

- Recording.
- The general aim of the recording phase is to record every sound potentially useful in sound design processing and with the best possible quality.
- The quality of recordings depend in most part of the microphone type. Directivity of the microphone is also a particular problem to be solved.
- The position of the microphones during the shooting of some scene is also a very important thing to be defined.
- The temptation in sound recording is to match the camera perspective for each new shot. In early sound recording there was an attempt to fit camera perspective, shot-by-shot to what was seen. A wide master shot was thus more reverberant than the associated close-ups.


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Fundamental techniques of sound design

- Production sound mixing involves microphone technique, recording, synchronization, and has an impact of editing. Strictly technically speaking mixing is dynamically manipulating the level controls of the various microphones during the recording, taking for the purpose of emphasizing the desired sound, and the converse.
- In the modern practice, mixing phase is not strictly connected to the recording phase. Nevertheless, it became the basic part of the sound editing. The term mixed sound (or final mix) relates today on the completed soundtrack of the movie.


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Fundamental techniques of sound design

- Synchronization.
- Synchronization today refers to the two basic terms. At the first place it refers on the technique which enables the picture and sound to be in the same phase and to "move" synchronously. The second meaning relates on the process of later recording of the dialogues and sound effects (Foley) in studios, which couldn't be recorded on the set with the appropriate quality. Even in the situations when the later recording of dialogues and sound effects were not needed, the synchronization was necessary to avoid the problem which turned out during the process of making the film copies, which often caused the asynchrony between picture and sound. In today's practice these problems are over passed with the new digital technology.
- Editing
- Editing is the final step of sound design, and results in getting the final mix (or the soundtrack) of the movie. During this phase all recorded sounds (speech, sound effects and music) are combined together to achieve the final "sound vision".


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Topic 2: Sound Effects and Transitions


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What is Sound Effect?

- Sound effects (or audio effects) are artificially created or enhanced sounds, or sound processes used to emphasize artistic or other content of films, television shows, live performance, animation, video games, music, or other media.
- In motion picture and television production, a sound effect is a sound recorded and presented to make a specific storytelling or creative point without the use of dialogue or music.


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Functions of Sound Effects

- **Simulating Reality**
- Example: In a western barroom fight our hero is hit over the head with a whiskey bottle.
- Explanation: The bottle is fake. It becomes real with the addition of an actual glass bottle crash from the sound editors library.
- In gun battles the weapon actually is actually loaded with blanks and what is called quarter loads which means one-fourth of normal amount of gunpowder contained in a real bullet.
- The actual sound is just slightly louder than a cap pistol until the sound editor has completed work.


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Functions of Sound Effects

- **To add or create something off scene that is not really there/Create Illusion**
- Example: A man and a woman walk into a café. Several other people are sitting at various table in deep conversation. The main couple sits at a table and a series of close ups for their conversation are presented.
- Explanation: By adding the sound of the off-scene diners the audience is convinced that they are still in the café. Obviously, the producer does not want to pay a group of extras to sit off camera. The sound editor places them there with his crowd Walla for the sound (Walla is an industry term for the sound of people talking without hearing specific words)


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Functions of Sound Effects

- To add or create something off scene that is not really there/Create Illusion
- Example: A woman is sitting in her living room. The door opens and her husband walks into the room.
- Explanation: With the addition of a few sound effects, it is possible to inform the audience that he has driven up to the house, parked his car, walked to the door, and used his key to unlock the door. None of this was shot. It was an illusion created with effects.


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Functions of Sound Effects

- **To Help the director create a mood**
- Example: A cowboy sits around a small campfire. The mood of a campfire is warm.
- Explanation: Add an off-scene owl and it becomes lonesome. Add a wolf howling in the distance and it perhaps harkens danger. Cut a gunshot and you are telling the audience that another human is nearby. Is he friend or foe (Enemy) ?
- Anticipation, possible danger, fear, joy - all are being evoked. Which should you be feeling? Move forward in your seat because surely the film will soon tell.


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Sound Effects Disciplines

- **Hard sound** effects are common sounds that appear on screen, such as door alarms, weapons firing, and cars driving by.
- **Background (or BG)** sound effects are sounds that do not explicitly (Clearly) synchronize with the picture, but indicate setting to the audience, such as forest sounds or the buzzing of fluorescent lights. The sound of people talking in the background is also considered a "BG," but only if the speaker is unintelligible and the language is unrecognizable (this is known as walla). These background noises are also called ambience or atmos ("atmosphere").


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Sound Effects Disciplines

- Foley sound effects are sounds that synchronize on screen, and require the expertise of a foley artist to record properly. Footsteps, the movement of hand props (e.g., a tea cup and saucer), and the rustling of cloth are common foley units.
- Design sound effects are sounds that do not normally occur in nature, or are impossible to record in nature. These sounds are used to suggest futuristic technology in a science fiction film, or are used in a musical fashion to create an emotional mood.


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Sound Effects Disciplines

- Echo
- Flanger
- Phaser
- Chorus
- Equalization
- Filtering
- Over Drive
- Pitch Shift
- Time Stretching
- Resonators
- Robotic Voice Effects
- Synthesizer
- Modulation


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Types of Sound Transition

- Overlap
- An overlap is a sound used at one end of a scene that continues without a pause into the next scene.
- Example: In a commercial of a Cricketer's product endorsement, the scene of the crowd cheering lustily to a sixer is followed by that of the batsman accepting the man of the match trophy.


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Types of Sound Transition

- Leading In
- A lead-in occurs when the audio that introduces a scene is heard before the scene actually begins.
- Example: the heroine, alone in a hotel room is gazing (Looking) at the lovely countryside. On the second track we hear the SFX of a car. The scene is then cut to a flashback with the heroine and the hero seated in the car. In this case, the SFX of the car leads us into to car scene.


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Types of Sound Transition


- Segueing
- A Segue is a cut from one sound to another without breaking continuity.
- Example: A character hears an AALAP and this is cut to the sound of a TABLA as a flashback shows the character dancing. In this case, though the AALAP and the TABLA beats are two different cues, they are combined to produce a sense of continuity between the two scenes.

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Topic 3:
Styles of Packaging: News and Non-News


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Introduction

- Reporters tend to classify themselves as either news reporters or feature (non-news) writers.
- There is of course no rule stating that a reporter cannot be a feature writer, or vice-versa, but over time, reporters tend to slot themselves into particular categories depending on their beats and the strengths they identify in themselves.


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Packaging in News

- A news package is a **creative, visual and long form of storytelling** found on television newscasts. News is conveyed to an audience by **packaging together a story that includes characters, facts, plot twists and a climax**. A package is a self-contained taped news report. Many networks use news packages to provide innovative newscasts to broad audiences.
- If they are done well, packages have all the elements that bring a story alive: **good pictures, interesting sound bytes, and a well-written script**.
- If any of these elements is weak, the story may be downgraded (to a VOSOT or even a VO) or kept short. **In other words, the quality of the video and the sound bytes often determines the length of a package**. But even great video and excellent sound bytes do not always guarantee a long package; it depends on what else is going on in the news that day.
- Even on slow days, packages rarely run longer than 90 seconds.


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Structure and Script

- Reporters will often spend large amounts of their time **researching stories and interviewing characters to eventually write the scripts for these packages**.
- A common part of a news package is the appearance of a reporter talking into the camera. **This is called a "standup or PTC"** because the reporter is often seen standing in front of the camera on the scene of the story. **Usually, the news anchor will read an introduction live, then the pre-recorded story will be shown**.
- Most viewers have never seen a script for a news package, as what the audience sees is the video form of the script. When a script is created, it often involves many different elements in addition to the exact words of the story that the reporter is going to present, such as:
 - Storyline
 - Visuals
 - Audio Timing and Cues
 - Tone Voiceovers.


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Structure and Script

- The writer has to **consider both what the viewer sees (visuals) and also what they are going to hear (audio)**. There is the visual aspect of video production, where images and videos of the subject matter are presented, while the audio specifies sound bites, voiceovers and music that may accompany the visuals to help the story along.
- The post production team will then use the script to bring together the whole news package, to create a newscast that is entertaining, compelling and informative, while keeping in line with the reporter's overall vision and storyline. Import your narration voice track into the video editing software along with all video clips. Edit story and export video. Exported video file should not be too big. Editing video is really about structuring stories. It's about establishing a beginning, middle and end, deciding how scenes will transition into each other, establishing a rhythm, and building momentum.
- Knowing how to trim a clip or sequence a series of shots is important in all forms of video storytelling. In video journalism, these techniques can help us advance stories and enhance their journalistic purpose.


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Stages of video edit and package a News story

- **Log sheet** The first thing to do is view your tape and the time code. Make a list, or log, of the different shots you see, the times they start and finish (called in and out points) and what people say (script). If someone can log, while you are filming, even better. It will save you valuable editing time, particularly if you are on a deadline.
- **Assembly edit** Now you are ready to do an assembly edit. That is where you look at your storyboard and cut out the film to match the shots you planned. The paper edit will help you find these sections easily. Lay them down in order. In most computer editing packages, this means laying them on a line from left to right, called a timeline.
- **Sound edit** Listen to the script and cut the film so that it all makes sense when you listen to it. Your edited report on the timeline should now look almost finished.


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Stages of video edit and package a News story

- **Final Edit** This is where you put the finishing touches to your report. For example, you can add different bits of video, to make your report visually interesting, and graphics. The final edit usually involves shortening the report or making it more concise. Make sure your overall editor is happy you haven't cut out any vital bits such as the other side of the argument.
- **Adding visual interest** - If you want to, you can put different video over the sound. For example, if the reporter is speaking to the camera and you want to keep his voice, but show the location, you can cut and paste pictures from the original film and overlay them onto the timeline. As a general rule, these pictures should be two seconds or longer - otherwise, it is too quick for the audience. Make sure you reduce any background noise attached to the location shots, so you can hear the reporter's words clearly. Don't remove the background noise though, at a low level, it makes the report sound natural.


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Stages of video edit and package a News story

- **Editing interviews** - You can cut out the reporter's questions, as long as the interviewee answers in full sentences. This will make your report more concise. You only need to include one or two good answers in your report. Listen to all the answers first and select the best ones. It will save you valuable editing time, particularly if you are on a deadline. Interviews often involve filming the interviewee's head and shoulders. Keep the sound track you laid down in the sound edit and overlay the pictures.
- **Transitions** - There's no need to go overboard with these. If you've filmed your report well, you won't need to add any. Some very common transitions are: Blurring the edges between one shot and the next, called a cross-dissolve. This is often used to show that time has passed. Fading from or to black at the beginning and end of your report, to mark the beginning and end.


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Stages of video edit and package a News story

- **Adding graphics** To make your report look really professional, add name and job titles. Have a look for the "type tool" or something that does the same job. Using titles means that the reporter and interviewees don't need to spend time introducing themselves. When adding titles, keep the font plain and make the words big enough to read on screen. Make sure you spell names correctly.


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Non-News Programme

- News Features
- A feature is a typically longer than a standard news story. It's written and edited in a different style, typically with more detail and background based on more extensive research than would be required to simply report a news event. Features can vary widely - you might write a news feature, an arts feature or a human interest feature. Although the term implies softer news, a feature is often defined by its length and style, not necessarily its subject matter. The style component is important. Features humanize events and issues rather than make a recitation of facts.
- The major steps of video editing are same as editing a news-story. But using same tools a bit different make story much more appealing and of human interest. After pre-production and production stage, the news feature actually gets made on editing table that is post-production.

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Non-news Programme

- **First Assembly** The first assembly is when the action starts to pick up for the video editor. Using the storyboard as a foundation, you start making selections. Usable footage is trimmed and marked, while the bad takes are cast aside. Many directors like to make a paper edit. They take notes while screening the selects of the first assembly and then write out what clips they like and don't like, sometimes rearranging them into a new order.
- **B-roll (secondary shots)** is also separated at this time. Its content is logged and it is sorted into a hierarchy according to the editor's needs. This is all contingent on the project as the organizational needs of the footage are dependent on what's most needed for the video.
- **Sound edit** Sound edit is very differently done when a news story is packaged compared to a non-news one. A non-news story is mainly thematic and according to the topic.


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Non-news Programme

- Here we can't use dramatic or high volume music. This is called aesthetics in use of music. It should support or compliment the visuals rather to distract or disturb the viewers.
- **Editing Interviews** A news feature can have interviews longer in duration as compared to news stories. Because news features are made to give details of the topic and sometimes interviews are enough to do this. Also, there could be background music also for interviews which give a nice environment to the context or topic. It also sets the mood.
- **Transitions and Graphics** We can use these heavily in the non-news stories package. As it is clear that video editor working on non-news stories has more freedom to experiment with various transitions and graphics. Also he or she has more time than news video editor to do a hit and trial method. As there is no concept of breaking news.


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Non-news Programme

- **The Rough Cut** The rough cut is the first true edit and is the stage in which you start to display your craft as more than a technical exercise. At this stage, it is no longer about solely discovering and organizing footage, it's about storytelling and crafting a message, using the footage from production as a foundation to achieve the director's vision.
- Timing is vital to the rough cut. It is during the rough cut that you start to play with the timing. Whether making fast cuts or extending pauses. The rough cut is meant to be shared. The video editor works with the director, producer and a client, if it's their project. Communication is kept open between all parties and much dialog takes place, helping to shape the overall edit. The parties agree on what changes need to take place before the edit moves on to the final cut.


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Non-news Programme

- **The Final Cut** The final cut of an edit is when the cutting and timing of the footage is finalized. It's not the final version of the video, ready for release, but it's awfully close. The edit at this stage is the one that will be used for several finishing steps, all of which need to synchronize perfectly with each other. For this reason, the final cut is often known as picture lock or frame lock, meaning that the frames in the edit will not change in time from this point moving forward.
- The final cut is not just about locking things down however, it's also about elimination. A scene might be finalized, but that doesn't ensure that it stays in the production. Once all the scenes are cut and precisely timed, you review them with the director and producer. If there's a scene that doesn't work or doesn't contribute to the overall narrative of the video, it's eliminated.


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Non-news Programme

- First, visual effects and graphics are added to the video. Most visual effects are planned out during preproduction but aren't generated until post-production because the visual effects artist needs know what footage they're specifically working with to make the effects seamless. Graphics are also planned in advance and are fine tuned to coincide with the final edit. What the audience will see on screen is only part of their experience. After visual effects and graphics are added, audio sweetening is performed.
- The final cut is round tripped to an audio editing suite, sometimes on the workstation, for the placement and editing of sound effects and musical underscores. Dialog is mixed down with these elements to create an audio track that supports and carries the accompanying video.


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Non-news Programme


- Color Grading The final step before deliverables are rendered and shipped is color grading. Color grading is the stage in which you, or a colorist, manipulates color and tonal qualities of the video image to craft a unique look that helps set the mood for the video and visually tell the story. The advent of digital cinema cameras, greater computing power and more advanced codecs has increased the implementation of color grading.

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Topic 4:
Archiving and File Formats


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What is Archiving ?

- Archiving is the process by which inactive information, in any format, is securely stored for long periods of time.
- Such information may – or may not – be used again in the future, but nonetheless should be stored until the end of its retention schedule.
- It should be emphasised that archived, inactive data can be made active again.
- Information should still be readily available if required at short notice.
- Archived data can be stored in a number of different formats, on a variety of devices.


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What is Archiving ?

- Archiving **"Archiving means collecting, organising, describing, preserving, and providing access to materials of evidential, historical, cultural, or other value"**.
- Archiving is really important as you can be sure that at some point either a customer will come back and ask for some footage from an old project or you will find you need to get a hold of some footage and you don't know where it is!
- However, good archiving of old material will help make this a far less painful experience. The process of storing project data so you can get access to it later is called archiving. When you're finished editing your videos, you'll typically export the final file.


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Sound File Format ?

- A sound file format is a file format for storing audio on a computer.
- There are several different formats, each with its own benefits and drawbacks.
- The difference between formats generally has to do with storage space versus sound quality.
- The processor of a computer typically decodes compressed sounds into a format that can be played by the computer.


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Sound File Format

- **Un-compressed Audio Format**
- Uncompressed audio is exactly what it sounds like: real sound waves that have been captured and converted to digital format without any further processing.
- As a result, uncompressed audio files tend to be the most accurate but take up a lot of disk space.
- There are two main format options here, AIFF and WAV.
- Expert recommendation is to use WAV as it is more widely used and supported.


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Sound File Format

- **AIFF (Audio Interchange File Format)**
- AIFF stands for Audio Interchange File Format.
- Similar to how Microsoft and IBM developed WAV for Windows, AIFF is a format that was developed by Apple for Mac systems back in 1988.
- Also similar to WAV files, AIFF files can contain multiple kinds of audio.


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Sound File Format

- **WAV (Waveform Audio File Format)**
- WAV stands for Waveform Audio File Format (also called Audio for Windows at some point but not anymore).
- It's a standard that was developed by Microsoft and IBM back in 1991.
- A lot of people assume that all WAV files are uncompressed audio files, but that's not exactly true. WAV is actually just a Windows container for audio formats.


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Sound File Format

- **Lossy Compressed Audio Formats**
- Lossy compression is a form of compression that loses data during the compression process.
- In the context of audio, that means sacrificing quality and commitment for file size.
- The good news is that, in most cases, you won't be able to hear the difference.
- lossy formats, meaning that audio information is reduced. If you want to distribute your audio over the internet, a compressed format is your best option.
- However, if the audio gets compressed too much or too often, you'll start hearing weirdness that become more and more noticeable.


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Sound File Format

- **MP3 (MPEG-1 Audio Layer 3)**
- MP3 stands for MPEG-1 Audio Layer 3. It was released back in 1993 and quickly exploded in popularity, eventually becoming the most popular audio format in the world for music files.
- There's a reason why we have "MP3 players" but not "OGG players"...
- The main pursuit of MP3 is to cut out all of the sound data that exists beyond the hearing range of most normal people and to reduce the quality of sounds that aren't as easy to hear, and then to compress all other audio data as efficiently as possible.
- Nearly every digital device in the world with audio playback can read and play MP3 files, whether we're talking about PCs, Macs, Androids, iPhones, Smart TVs, or whatever else. When you need universal, MP3 will never let you down.


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Sound File Format

- **AAC (Advanced Audio Coding)**
- AAC stands for Advanced Audio Coding. It was developed in 1997 as the successor to MP3, and while it did catch on as a popular format to use, it never really overtook MP3 as the most popular for everyday music and recording.
- The compression used by AAC is much more advanced and technical than MP3, so when you compare a particular recording in MP3 and AAC formats at the same bitrate, the AAC one will generally have better sound quality.
- Again, even though MP3 is more of a household format, AAC is widely used today. In fact, it's the standard audio compression method used by YouTube, Android, iOS, iTunes, later Nintendo portables, and later PlayStations.


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Sound File Format

- **OGG**
- OGG doesn't stand for anything. Actually, it's not even a compression format. OGG is a multimedia container that can hold all kinds of compression formats, but is most commonly used to hold Vorbis files — hence why these audio files are called Ogg Vorbis files.
- Vorbis was first released in 2000 and grew in popularity due to two reasons: first, it adheres to the principles of open source software, and second, it performs significantly better than most other lossy compression formats (i.e. produces a smaller file size for equivalent audio quality).
- MP3 and AAC have such strong footholds that OGG has had a hard time breaking into the spotlight — not many devices support it natively — but it's getting better with time. For now, it's mostly used by hardcore proponents of open software.


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Sound File Format

- **WMA (Windows Media Audio)**
- WMA stands for Windows Media Audio. It was first released in 1999 and has gone through several evolutions since then, all while keeping the same WMA name and extension. As you might expect, it's a proprietary format created by Microsoft.
- Not unlike AAC and OGG, WMA was meant to address some of the flaws in the MP3 compression method — and as such, WMA's approach to compression is pretty similar to AAC and OGG. In other words, in terms of objective quality, WMA is better than MP3.
- But since WMA is proprietary, not many devices and platforms support it. It also doesn't offer any real benefits over AAC or OGG, so in most cases when MP3 isn't good enough, it's simply more practical to go with one of those two instead.


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Sound File Format

- **FLAC (Free Lossless Audio Codec)**
- FLAC stands for Free Lossless Audio Codec. A bit on the nose maybe, but it has quickly become one of the most popular lossless formats available since its introduction in 2001.
- What's nice is that FLAC can compress an original source file by up to 60% without losing a single bit of data.
- What's even nicer is that FLAC is an open source and royalty-free format rather than a proprietary one, so it doesn't impose any intellectual property constraints.
- FLAC is supported by most major programs and devices and is the main alternative to MP3 for CD audio.
- With it, you basically get the full quality of raw uncompressed audio in half the file size — what's not to love about it?


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Sound File Format

- **ALAC (Apple Lossless Audio Codec)**
- ALAC stands for Apple Lossless Audio Codec. It was developed and launched in 2004 as a proprietary format but eventually became open source and royalty-free in 2011.
- ALAC is sometimes referred to as Apple Lossless.
- While ALAC is good, it's slightly less efficient than FLAC when it comes to compression.
- However, Apple users don't really have a choice between the two because iTunes and iOS both provide native support for ALAC and no support at all for FLAC.


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So Which Format Should You Use?

- For most people, the decision is actually pretty easy:
- If you're capturing and editing raw audio, use an uncompressed format. This way you're working with the truest quality of audio possible. When you're done, you can export to a compressed format.
- If you're listening to music and want faithful audio representation, use lossless audio compression. This is why audiophiles always scramble for FLAC albums over MP3 albums. Note that you'll need more storage space for these.
- If you're okay with "good enough" music quality, if your audio file doesn't have any music, or if you need to conserve disk space, use lossy audio compression. Most people actually can't hear the difference between lossy and lossless compression.
- For those who want utmost quality in their music playback, note that high-quality audio files won't matter if your playback device can't faithfully recreate those sounds. Meaning, you need to have good quality speakers or good quality headphones!

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THANK YOU

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