RADIO TACOMA AUDACITY CLASS GLOSSARY

Audio Jargon

Live broadcasting vs Post-produced: Live broadcasting means that whatever happens in front of the microphone gets broadcast, and it happens in the moment. Post-production means everything is recorded ahead of time and can be mixed, edited, polished, etc, before it is released to the public. [this is what we are doing!]

.**mp3:** A type of sound file that is "lossy" which means that, in order to save file space, it will get rid of what it thinks is useless additional information. That keeps the file size low, but if you edit from an mp3, you end up with "waterfall artifacts" which is a rushing noise in the background. It's the same concept as making a copy of a copy of a copy, where the errors are amplified on each successive copy.

.flac: A type of sound file that is "lossless". It stands for Free Lossless Audio Codec. Unlike the mp3, this does not lose any information when it is saved. It is like having a clean master copy to make future copies from, reducing the errors.

Stereo: A track that has slightly different sounds coming out of each of two different speakers.

Mono: One track that will have identical sounds coming out of the speakers [most podcasts are mono tracks in order to decrease the file size].

Pan: In stereo mixing, the switch that allows you to move audio to the right or left speaker.

Level: A specific measurement of audio loudness, measured in dBFS, or dB for short.

Volume: A relative measurement of audio loudness.

Dynamic Range: The difference in audio loudness between two points in an audio file.

dB (decibel): The decibel is a unit of measurement used to express the ratio of one measurement to another on a logarithmic scale. In this class and elsewhere in audio production, it is used as a shorthand to mean decibels relative to Full Scale, or dBFS.

Full Scale: The maximum audio level of a digital audio file. In other words, as loud as an audio recording can be on a computer.

Peaking: When an audio recording uses the Full Scale of the recorder. Peaking is often a sign of audio being too loud, which can cause distortion.

Headroom: Purposefully recording at a lower level so that in case someone gets loud, the tops of the waves are not clipped off, preventing peaking.

Waveform: One “line” of audio represented visually in Audacity by a squiggly blue line. This represents the input from the microphones. If the input from each microphone is represented by a different waveform, you are working with tracks. If the audio from all microphones has been combined together into one waveform, you are working with mix.

When editing for content in tracks, it is possible to remove breathing, tapping, or other soft noises that appear in one microphone but not others. Editing for content in mix is more efficient, but requires that everyone in the studio be practicing good studio etiquette.

Under the Effects Tab

Amplify

If you enter a positive number, the selected area will get louder in volume, without changing the dynamic range. If you enter a negative number, the selected area will get softer in volume, without changing the dynamic range.

Normalize

The normalize effect applies the same level of gain to the entire sound file. Amplify and normalize have similar effects. In Amplify, you specify a direct change in level. In Normalize, you say what level you want the loudest peak in the audio recording to be, and the computer will decide how much to amplify in order to reach that level. As in Amplify, the dynamic range remains unchanged. [Levels that work for this class: Normalize Max=-2dB]

Compression

The compression effect applies positive and negative amplification to certain parts of the selected sound that are at the extremes to make the sound a more consistent level throughout. This shrinks the dynamic range so that the softest sound and loudest sound are much closer in volume. [Levels that work for this class: Threshold=-20, Noisefloor=-35, Ratio=5:1]

> **Noisefloor:** how loud the room is when no one is talking. It's important to make sure that you measure this when setting up compression so that you don't have changes in noise level when there's a pause in the conversation. To measure the noise floor, find a quiet moment on each track (when no one is talking) and look at the audio meter.
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> **Ratio:** How much louder things will get when Compression is applied. [for a podcast, 5:1 is an okay ratio during your multi-tracked editing process. When you do compression on all your single track as one of the final steps before you export, you should change to 2.5:1]
>
> **Attack time:** how long a noise occurs before Compression will be applied.
>
> **Release time:** how long after someone stops talking before Compression makes the background noise quieter.

Compression is especially important for talk radio, but overuse of compression in music can drastically change how a song is heard and interpreted.

Equalization

Equalization allows you to strengthen or weaken the sound of specific frequency bands. In addition to allowing for aesthetic control while recording music, this also allows you to reduce certain unwanted background noises.

Fade-In, Fade-Out

Fade-Out will gradually decrease the level of a selection down to silence. Fade-In will start the selection silent, but gradually fade it in. Useful for intro and outro music. [the envelope tool gives you a little more control over this]

Noise Reduction

Provide a sample of background noise in the room (fans, traffic, echoes, etc) and the program will filter out some of that background noise so it doesn't appear in your final project.

Keyboard Shortcuts

In MacOS, the use the Command button instead of the CTRL button.

Spacebar = play/pause

CTRL + N = new window

CTRL + A = select all

CTRL + C = copy

CTRL + X= cut

CTRL + V= paste

CTRL + Z = undo

CTRL + F = fit recording in window

CTRL + 1 = zoom in to selection

CTRL + 3 = zoom out

CTRL + B = create label track

CTRL + I = slice

CTRL + L = mute selection