

Audacity Report

About Audacity:

Audacity is an open-source audio editing application developed in 2000. Audacity encourages contributors to extend the application with plugins, and forums share tips and tutorials on how to use Audacity. Due to Audacity's user-friendly interface, wide usage, and established documentation, it is overall, an application that is easy to navigate. It works well for our purposes as an annotation tool due to its label track feature, which will be discussed below.

Annotation Capabilities in Audacity

Tracks

Tracks in Audacity are the visual editing interfaces of the sound file. When a sound is added to Audacity, the default Track that appears is a stereo waveform. Additional tracks can be added to the interface to facilitate visual editing of the audio file.

Label Track

A label track is a track that does not contain sound and is used in conjunction with the stereo or mono sound-containing track(s). The label track is useful for archival audio annotation because it provides a very simple way of adding notes to an audio file. The label track facilitates adding points and ranges. One simple way to add a label to a track is to:

1. Paused by typing "P" or by clicking on the pause icon
2. Click on the selection bar where the audio is paused
3. Click Command + B to add a label
4. Type the label's name/note and click enter to save
5. Type the "P" key or press the play icon to play again

Audacity also allows for ranges to be added within the label track to indicate certain segments of audio over time. To add a range, you simply follow steps 1-4 above, then drag the corners of the label horizontally to adjust the range. Ranges and points can also overlap in the same track.

There's also a setting in Audacity called "Type to create labels." This feature allows for a label to be added as the audio is playing by clicking any key on the keyboard. This can be helpful for quicker editing. To edit this way:

1. Navigate to Edit → Labels, then click "Type to create a label"
2. Now as you're listening, when you type any key, a label will begin
3. Using this method, to pause the audio, you need to use the pause button/icon on the upper left of the interface, because this setting disable shortcuts

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Another benefit of Audacity is that multiple label tracks can be added to facilitate a more organized annotation experience. These label tracks can be renamed, but they cannot be individually downloaded.

Exporting Data

In Audacity, label tracks can be downloaded as .txt files. These files include data for the start and stop time of a point, as well as the label's text contents. A downside to downloading label data in Audacity is that you can't download a single label track, but there is a workaround for this. Essentially tracks can be deleted and exported them individually, then the changes can be undone before saving the file. This is a risky method due to the fact that it involves deleting changes before saving.

Overall Evaluation

Audacity is simple and fairly user-friendly, and though the interface is a bit clunky at times, it is a workable way to add annotations to audio. An overall benefit of Audacity is its active and widespread community of use. Within the application, the label track especially contributes to a straightforward usage, with the ability to add and easily manipulate ranges. This feature is helpful when thinking about the kinds of annotation and segmentation a user listening to archival audio may be interested in annotating. For example, when annotating Anne Sexton's poetry, ranges were used to indicate a poem's structural elements, such as stanzas. In some Sexton performances, ranges can be used to indicate structural elements of the performance itself, such as the introduction, or places where there is a musical interlude between performed poems. A downside to annotation in Audacity is that there is not a way to return text to a new line within an annotation, so longer annotations don't work well within the interface and are difficult to navigate due to the layout of the label track.

Audacity label data is available to download in only one file format, a .txt file, and includes information on point timing and the label title itself. Multiple label tracks can be added, but all tracks are downloaded into one file. Tracks can be renamed, but these names do not appear within the .txt data download. It would be ideal if there was a way to download all or individual label tracks, and if there was an option for the label track title could appear as a column within the data download. More manipulation and customization in data downloading capabilities would be helpful in Audacity.

Another benefit of Audacity is the ability to add plug-ins. Because of the open source nature of the application, and its widespread use, many Vamp plugins exist, that allow the application's features to be extended. Audacity also includes a few built-in analysis plugins. One such feature is the silence finder. This tool allows for the detection of silence within a piece. The tool allows for the user to pick the decibel at which to consider "silence" and allows a minimum duration of time at which silence will be recorded. When run, this tool generates a new label track, with labels placed to show where the silence occurs in the audio. Another built-in tool includes a contrast tool that allows the measuring of the difference in volume that occur in two selections of audio.

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