

Audacity

Audio editing/recording software

Learning objectives

1. Become familiar with Audacity interface
2. Become familiar with common task workflows

Overview

- Open-source (free) software
- First release in 2000; frequent updates
- **Download for Windows, macOS, or Linux**
- **Install FFmpeg plugin** for more file-types

Interface

- **Menu bar:** *File, Effect, View* menus
- **Toolbars:** Playback & recording, special tools, views
- **Audio Setup:** Devices & other settings
- **Volume meters/levels:** Input & output
- **Timeline, canvas:** Tracks, controls, clips within tracks
- **Info panel:** Project rate, timestamps, playback speed

Importing tracks

1. *File -> Import ... -> Audio*

- Default: Imported files have separate tracks (lanes)
- Tracks have separate control panels
 - Track-specific menu: Change settings
 - **Mute vs Solo**: Mute current track or all others
 - Gain: Increase/decrease to volume (dB)
 - Pan: Shift audio left/right

Converting tracks

Convert (one-sided) stereo track to mono track

1. Import track
2. Open track-settings menu (arrow/ellipsis next to name)
3. Select ***Split Stereo to Mono***
4. Delete empty track: click X in control panel

Three vertical lines

- **Marker:** Black line (always shown; at start by default)
 - Click body of track/clip or click ***Skip To*** buttons
- **Skimmer:** White line (stopped)
 - Move cursor along timeline
- **Playhead:** Green triangle, black line (playing/paused)
 - Click timeline or click Play button

Playback

- **Pause [P]**
 - Freezes/unfreezes playhead at position in timeline
- **Play [spacebar]**
 - Plays from marker position
- **Stop [spacebar while playing]**
 - Clears playhead, enables selection & editing

Selecting clips/tracks

a. Select clip via head

1. Single-click section with title

b. Select clip via body

1. Double-click section with waveforms

c. Select all clips in track via control panel

1. Click track-name in side panel

Moving clips

a. **Click & Drag** (need sufficient space)

1. Click clip-head & hold
2. Drag clip left/right

b. **Cut & Paste** (need sufficient space)

1. Select then right-click clip & select **Cut** [**Ctrl/Cmd + X**]
2. Click track (set marker)
3. Right-click track & select **Paste** [**Ctrl/Cmd + V**]

Trimming clips

a. Drag Edge

1. Point to edge (between clip-head & waveform)
2. With double-arrow cursor, click edge & drag inward

b. Split & Delete

1. Set marker
2. Right-click clip & select ***Split Clip*** (**Ctrl/Cmd + I**)
3. Select unwanted clip & press Backspace/Delete

Monitoring volume

- *Watching* volume level is important as listening
- Blue lines mark (local) peaks
- Ideal volume (peak values):
 - Primary audio (speech): -12 dB to -6 dB
 - Secondary audio (BG music): -24 dB to -18 dB

Editing volume

a. *Normalize* function (set peak *to* dB value)

1. Select clip
2. Open ***Effect*** -> ***Volume & Compression*** -> ***Normalize...***
3. (Window) Set ***Normalize peak amplitude to*** [-12] dB
4. Click ***Apply***

b. Track-wide adjustment (change *by* dB amount)

1. Click & drag slider in +/- scale of track control-panel

Fading volume

a. *Fading* functions

1. Select portion of clip (click & drag)
2. Open ***Effect*** menu
3. Select ***Fading***
4. Select appropriate function (e.g. ***Fade In, Fade Out***)

Reducing background noise

1. Select portion of clip with background noise (sample)
2. Open ***Effect*** -> ***Noise Removal and Repair***
3. Select ***Noise Reduction ...*** function
4. (Window) Click ***Get Noise Profile***
5. Highlight entire clip/track, then repeat Steps 2 & 3
6. Adjust values (***Noise reduction***) & click ***Preview*** button
7. Click ***OK*** button

Recording with Audacity

1. Click **Audio Setup** button (toolbar)
2. Select **Recording Device** -> [desired input device]
3. (If applicable) Select **Recording Channels** -> **Stereo**
4. Click Record Meter (mic icon) button
5. Select **Enable Silent Monitoring** & test level by talking
6. Click Record button [**R** or **Shift + R** for new track)
7. Click Pause button to pause/resume or Stop button

Saving (Audacity-only) projects

1. Open ***File*** -> ***Save Project***
2. Select either ***Save Project*** or ***Save Project As...***
3. Set location & name

Exporting audio

1. Open ***File*** -> ***Export***
2. Select ***Export as*** [format]
 - a. MP3 for smaller file-size
 - b. WAV for higher quality
3. Set location & name