

Audio Mixing

Goals

The purpose of this assignment is to learn to

1. Mix two audio sources together to create one
2. Fade two audio source into one another

Programming

How Audio is Structured

The AudioClip object contains a list of channels and each channel contains a list of samples. For this assignment the audio we are creating will only be using one channel.

How Audio is Mixed

To mix two samples together you take the average of the two values. So if you have two samples 2 and 10 then their mixed value is...

$$(2 + 10) / 2 = 6$$

Tasks

Part 1 - Simple Audio Mixing

The first goal is to simply mix two audio sources together. Look at your scaffold code and read through the comments. Implement all of the TODOs for the mix clips method. Run the code and listen to the values and ensure that the two sounds have been properly mixed together.

Part 2 - Audio Mixing with Fade

The goal of this part is to fade one audio source out while another audio source fades in. Think about how song compilations will fade a song out near the end while fading in the next song so that the transition is smooth. Look through the TODOs for the mix fade clips method. Uncomment the 2nd visualize code in main and run the code. Ensure that the two sound sources fade into each other in the center of the new clip.