Assignment 3
EECS 4462 3.0 Digital Audio, Fall 2018, Section A

Due: Tuesday, December 4, 2018, 11:55pm.
Format: In teams of two.

Adding sound to a game with OpenAL

The purpose of this assignment is to give you experience using OpenAL to add sound to a game.

To get started

To begin, follow the steps below. All necessary links are posted on the course webpage in the Assignment 3 section.

1. Download and install OpenAL and alut if you are working on your own computer

2. Ensure you can compile a simple OpenAL program, such as the one posted with Module 10. See the empty project template posted under Assignment 3 as well.

3. Check out the remaining useful links under Assignment 3.

4. Identify a game that you would like to add sound to. This can be a game you found online (some examples posted under Assignment 3), or a game you wrote. The game could be text-based or graphics-based. It will need to have sufficient complexity to implement the required features (see below) in a meaningful way.

What to do

Add sound to your game using OpenAL! Your final submission must have the following features:

1. It must contain all three aspects of video game sound, i.e. music, sound effects, and dialogue.

2. It must demonstrate instances of gain attenuation due to position changes of various sources.

3. It must demonstrate use of pitch shifting.

4. It must demonstrate the use of sound cones.

5. It must demonstrate an instance of the Doppler effect.

6. It must demonstrate an instance of "ducking", e.g. lowering the volume of music, so dialogue can be heard easier.

   Please note that submissions that minimally satisfy the above requirements will receive a mark of at most B. For higher marks, submissions must demonstrate meaningful use of the above features, as well as some level of creativity.

How to Submit

Before the deadline, send an email to your instructor (`bil@eecs.yorku.ca`) that lists the names, student numbers, and emails of both team members, and provides a link to a .zip file hosted online that contains:

1. A Readme.txt file that describes the game briefly, as well as how to test the implementation of the required features.

2. An executable for the final version of your game (any platform, your Readme.txt should mention the required platform).

3. All the source files needed to compile your game, as well as any necessary instructions on how to compile.

4. All the sound files used by your game.

   Do not send the .zip file as an attachment as it may be rejected.
   The .zip files will be downloaded immediately after the deadline.