Audio Editing Exercises

Describe in a moderately detailed step-by-step manner how you did the editing for each exercise in a file called **processing.txt** (or **.doc** or any other **text** format)

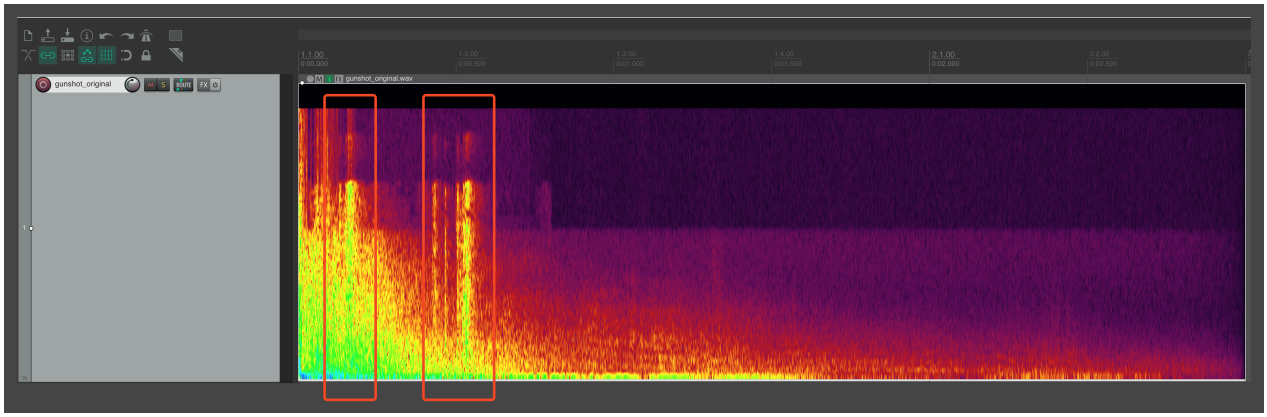
A. Unmixing and widening

File: gunshot_original.wav

For this test you are only allowed to use the provided "gunshot_original.wav" clip and any sound created from it, you should not use any of your own sound effects in the mix.

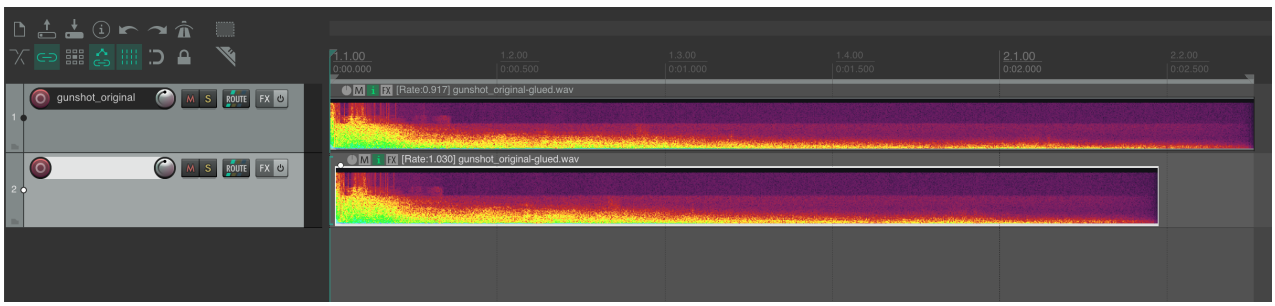
1. You've been given a normalized rifle shot sound onto which a shotgun reload sound has been mixed. Clean the entire reload sound out of the clip, but try to preserve the character and length of the clip as much as possible (three seconds approximately). Do the job so well you consider your edited file to be ready to be put in a game. Save the edited gunshot clip as **gunshot_noreload.wav**. Do not change the original format of the file.

   In this exercise you'll practice surgical editing using the slicing tool and crossfades.



2. Copy and convert the gunshot_noreload.wav clip into stereo and expand its acoustic image – make it sound like you are holding the rifle in your hand and that the echo bounces off the environment around you. The character of the original echo should be preserved. Do the job so well you consider your edited file to be ready to be put in a game. Save the edited gunshot clip as **gunshot_stereo.wav**. Do not change the original bit depth or sample rate of the file.

   In this exercise you'll practice with the time shift tool, add stereo track, split tracks, copy and paste tools and at least one out of change speed, change tempo, change pitch and/or invert.

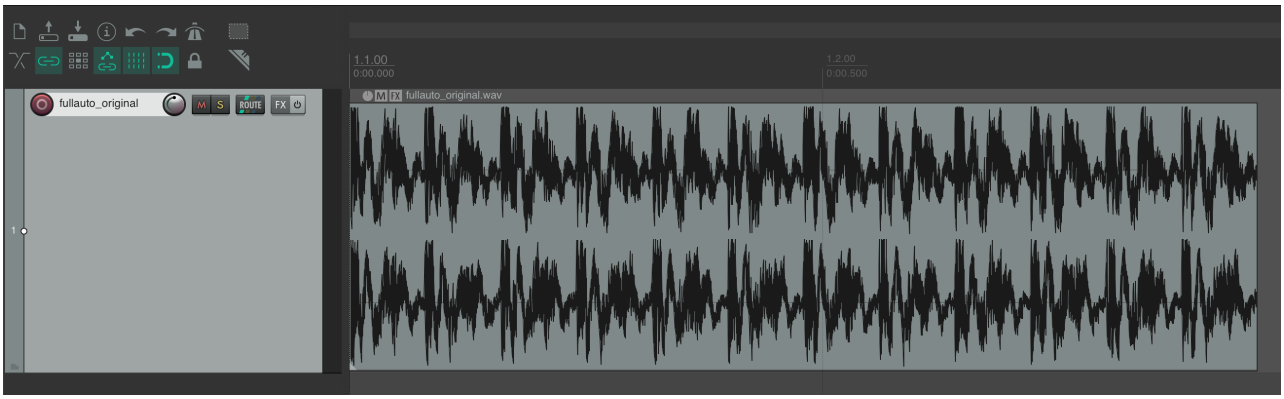


B. Changing firing rate

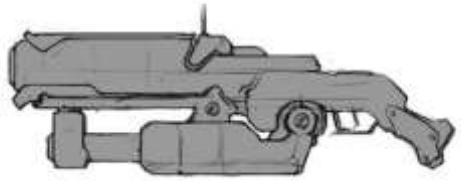
File: fullauto_original.wav

You've been handed a looping stereo clip of a machine gun firing in full auto at 750 rounds per minute. Lower the weapon's fire rate to 550 rounds per minute. Do the job so well you consider your edited file to be ready to be put in a game. Each shot sounds in the new loop should sound as close as the original ones. Save the newly created stereo clip as **fullauto_550.wav**. Do not change the original format of the file. **Take into account that the sample is a loop, so it should sound correctly when looped**. The duration of the resulting file should be approximately 1.31 seconds.

In this exercise you'll practice change speed, change tempo or you can also do a bit complex manual edition which might lead to the best results.



C. Creating a new weapon



For this test, you may use whatever samples you have at hand or can create yourself.

You've received a concept image of a new weapon for a first person action game. Create a stereo sound that delivers a proper feeling for when you fire the gun, and that could be repeated throughout the game without becoming tiresome to listen to.

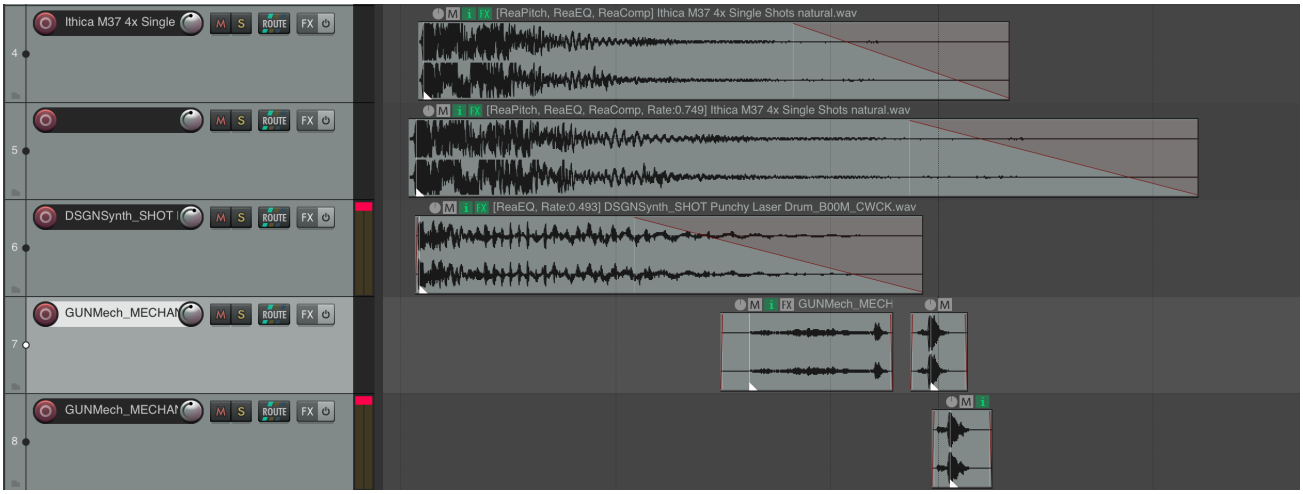
The game is mostly played outdoors, so the sound should work well in an outdoor environment without additional processing. Feel free to add sounds that convey the internal mechanics of the gun after a shot. The weapon is semi-automatic and has a maximum firing rate of 1.5 rounds per second. This means that any reload sounds should take a length of 0.66 seconds at maximum – decay sounds can be longer. The sample can contain just a single shot, as it was intended to be used in a game.

Deliver the final file as a 16bit 44.1KHz stereo wave. Name it **concept_weapon.wav**.

Include all the original samples you've used, and describe any major processing you've done to them.

In this exercise you'll practice multi-track editing and mixing, general edition tools like cut / copy / paste / delete and possibly other effects like amplify, equalization, reverb, speed change, fades and any other effect you think you need in order to achieve the desired effect. You might also practice acousmatic sound design.

Acousmatic sound design refers to the practice of creating or utilizing sounds that are heard without a visible source. In acousmatic listening, the listener does not see the origin of the sound, which leads to a focus purely on the auditory experience rather than associating the sound with its source.



D. Devious dialogue delivery

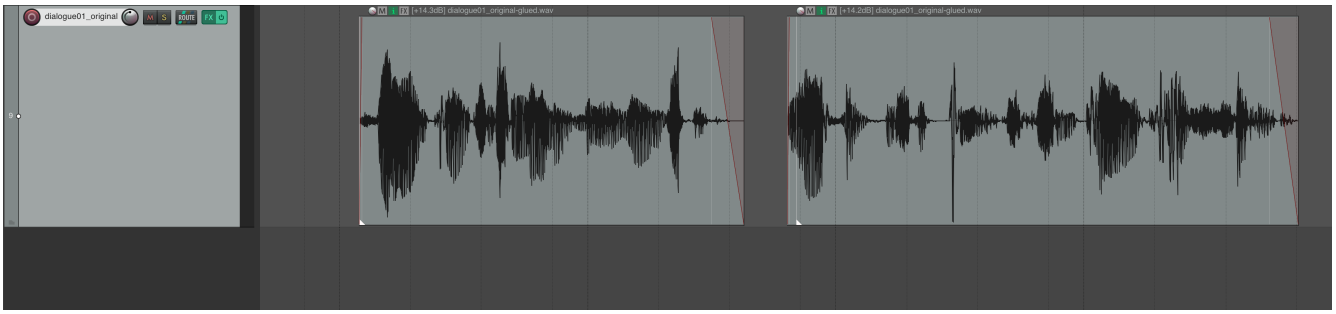
Files: dialogue01_original.wav

You're implementing dialogue for a new game. Some last minute changes to the script by the publisher forced the dialogue to be recorded at two different studios, and the result is less than satisfactory. Clean the dialogue01_original.wav file and make it sound as good, dry and coherent as possible as the **line02.wav** and **line04.wav**. Divide the result into four files named after the order of the lines.

line01.wav: Frank wants his money by Wednesday.
line02.wav: You think you can come here and demand things from me?
line03.wav: I think Mr Peters is entitled to his share.
line04.wav: I'll show you what Mr Peters is entitled to...

Deliver the files as 16bit 44.1KHz mono waves.

In this exercise you'll practice general edition tools like cut / copy / paste / delete, amplify, mixing down stereo to mono track, noise reduction and contrast. The final result should look something like this:



E. Ambient looping

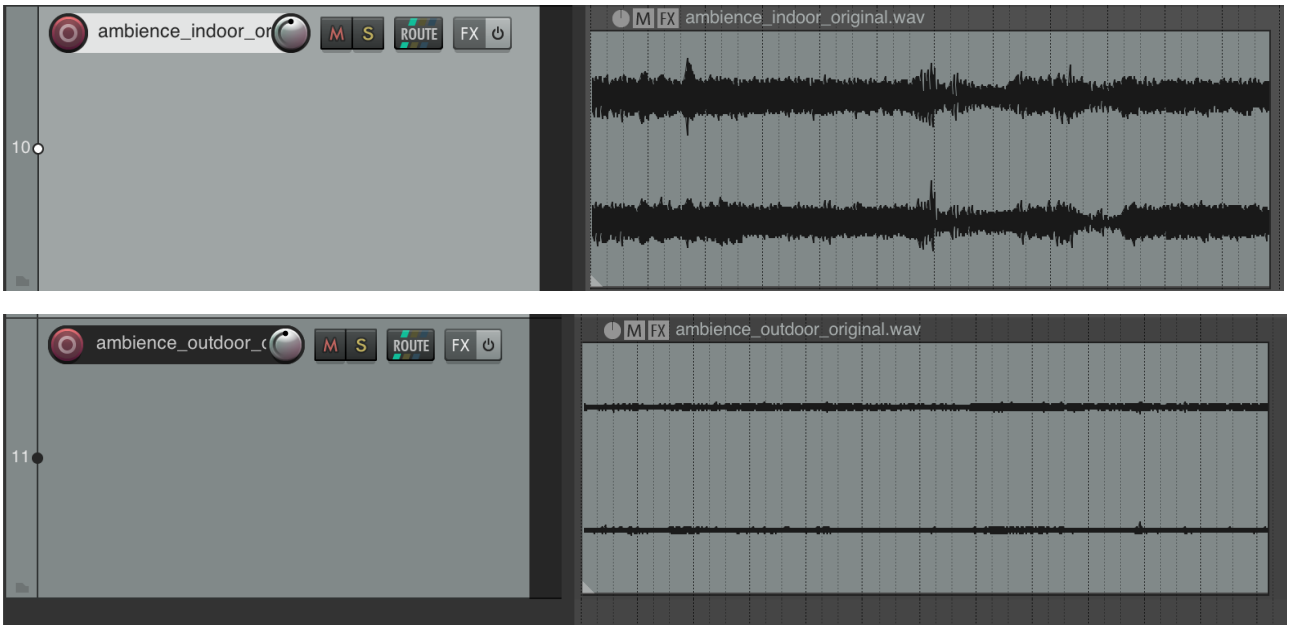
Files: ambience_outdoor_original.wav, ambience_indoor_original.wav

You are to create two looping ambiences from the included files. The first is to represent an outdoor environment close to a marina, the other a high-tech indoor ambience.

Edit the recordings so that they loop seamlessly if played repeatedly. Make sure the ambiences can be looped for a long time without the player noticing that distinct sounds are being repeated. Remember that a shorter edit may mean less time for variation, but also less memory usage in the game.

Deliver the files as 16bit 44.1kHz stereo waves. Name them **ambience_outdoor_loop.wav** and **ambience_indoor_loop.wav**.

In this exercise you'll practice general edition tools like cut / copy / paste / delete as well as cross-fading.



F. Putting sound in an environment

For this test you may only use the files you've created for the other assignments, but you are free to process them in any way.

Put together four montages with the files you've created for this test. Each montage should contain one of the ambiences, all the dialogue and finally the concept gun being fired. If you like you can also add the shotgun or the machine gun to the shootout. Process the sounds to represent how you would want the game to convey them in two different environments:

a. The player (listener) is standing outdoors, 50m away from the two speakers, overhearing their conversation and subsequent shootout. Name this file **montage_outdoor.***

b. The player is the speaker firing the concept gun in a 3rd person perspective game. The conversation and shootout takes place in a futuristic office room. Name this file **montage_indoor.***

c. Create a new track making any of the previous sound as if we were hearing everything through an old radio device. Name this file **montage_radio.***

d. Choose a music track or loop and make a track with the dialogue in foreground and a music background, using auto-ducking to soften the music while dialogue is heard. Leave enough space between phrases to allow music fade up and down. Name this file **montage_music.***

Deliver the files in a compressed stereo format of your choice.

In this exercise you'll practice general edition tools like cut / copy / paste / delete as well as equalization, reverb and auto-ducking.

When you're done with all these assignments, send all the files you have produced, alongside the required explanations and original samples used in the process:

gunshot_noreload.wav
gunshot_stereo.wav
fullauto_550.wav
concept_weapon.wav
line01.wav
line02.wav
line03.wav
line04.wav
ambience_indoor_loop.wav
ambience_outdoor_loop.wav
*montage_outdoor.**
*montage_indoor.**
*montage_radio.**
*montage_music.**
processing.txt