4 speaker setup with Reaper

In this example we work with Reaper, Focusrite interface, 4 speakers, windows desktop.

The idea is to place the speakers in a square position so you can hear the audio coming from different directions.

Software to be installed:

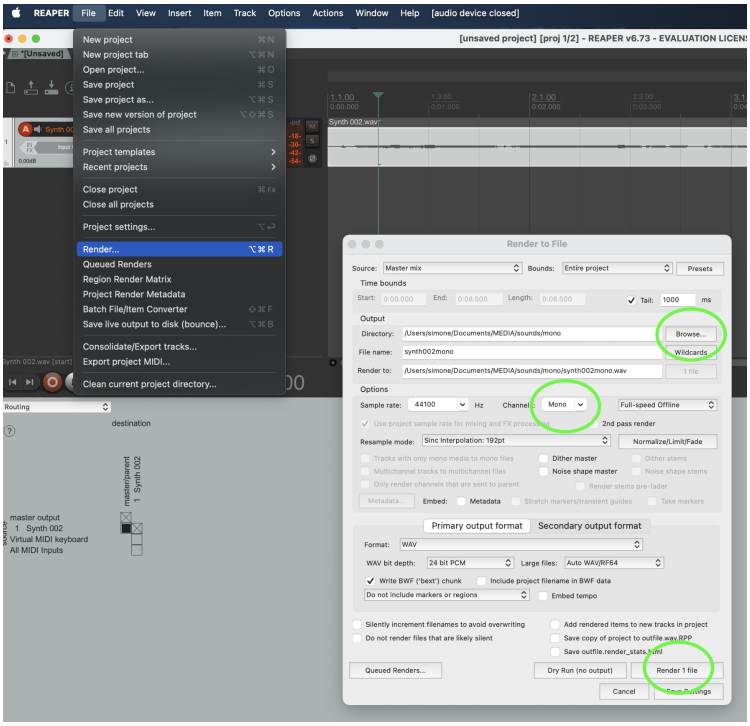
Reaper we work with Reaper because its free and relatively easy to setup, but there is more software to use for 4 channel setups (like Ableton or Isadora), depending on your needs

Focusrite control software (make sure you choose for the right device, Focusrite interfaces come in different types and versions which all have own control software environment) **Since 2024 Focusrite control software only works with newer hardware (generation 3 and up)**

Work with mono files

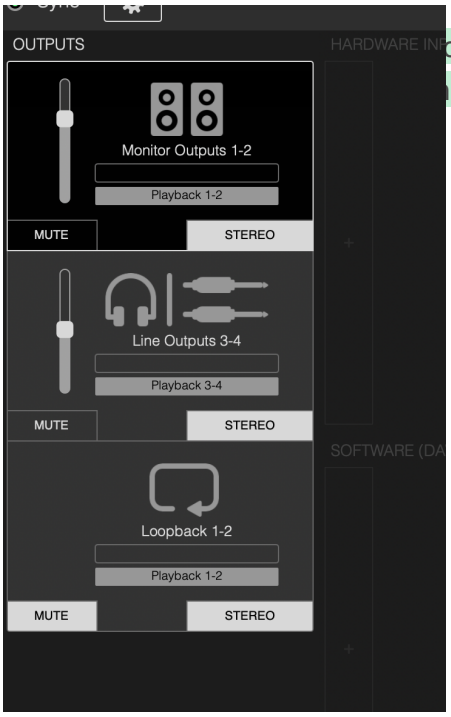
In most conventional audio setups we use 2 channels (left and right) and the audio source file is stereo (2 channels). Since we use a 4 speaker setup, we use 4 audio tracks in Reaper. Thus we have to use a mono (1 channel) audio file. Each mono file will be placed in one of the 4 single channels of reaper. If your source file is stereo you need to convert your files to mono first.

With Reaper follow this short tutorial https://www.youtube.com/watch?v=jLr0FPxd3K0&t=20s
Save the file:

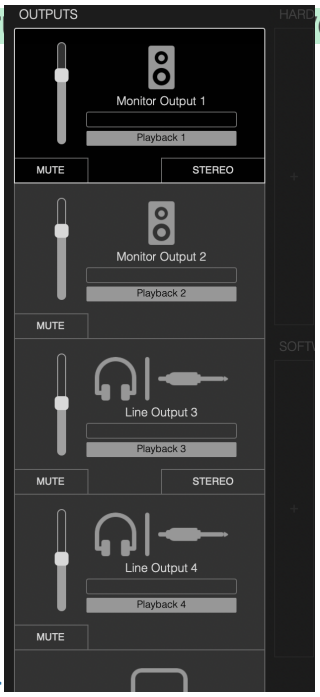


Connect Focusrite interface

Open Focusrite control software
In the Output Routing tab Change stereo Monitor en Line outputs to mono by clicking [stereo]



ough channel 1 & 2 you need to **T** **OLUME** on
ear channel 3 & 4 ;)



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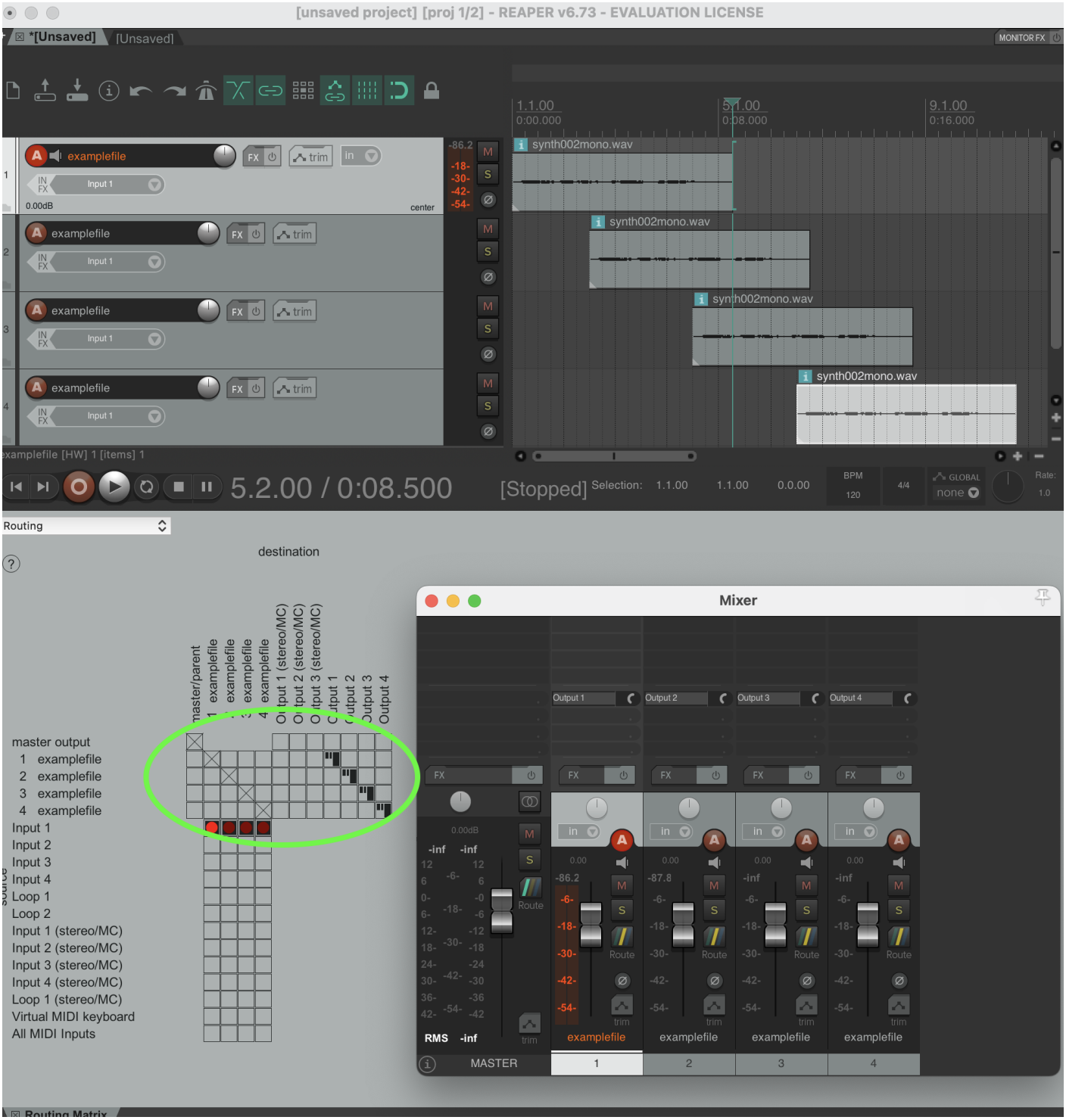
Create your Reaper multichannel audio file

In Menu > Reaper > settings you should be able to locate Audio Device > Scarlet (your Focusrite interface), choose Apply & OK

Use command T(mac) or control T(windows) to make 4 tracks. Place your mono audio files on your tracks

View > Routing Matrix & Mixer

In the Routing Matrix change your settings so it looks like this:



Now you should be able to play your audio through the 4 channels.

In the Focusrite control software you can adjust the level of volume of the different channels. change 3 & 4 so it matches 1 & 2.

Next step might be to automate the volume levels of the audiotrack from other software with MIDI or OSC... depending on the software you use in conjunction with Reaper. Any requests? Send an email to blackbox.ibb-pastoe@hku.nl & blackbox.oudenoord@hku.nl we'll get back to you on that!

If you dont have a multichannel setup at hand READ this:

Mac only!

You need this to create virtual outputs so you can create multichannel audio files in Reaper (or any other audio edit software) without having an actual multichannel setup at hand.

Download and install BlackHole audio plugin

https://existential.audio/blackhole/download/?code=1579271348

Restart your computer Open your audio edit software (Reaper) Go to preferences and go to Audio > Device, choose BlackHole 64ch in your Audio Device settings

This is created by Simone, for questions: simone.vandordrecht@hku.nl

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