MU51047B

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Project 4

Option A

For this project, I decided to focus on improving on my buffer patches from project three as well as focus on my favorite form of synthesis, Frequency Modulation. I originally was going to choose option B and create a tool with this project, but I had too much fun playing around with it during the process of making it and I decided to use it for the purpose of option A because I felt that I created something that achieves sounds that I, as an artist, would use in my compositions and performances. As for other features, I included a small audio effects chain that consists of a delay, a tanH distortion patch with a limiter scaled to match the amplitude of the unaffected signal, and max’s stock reverb (which will be used for added artistic expressional effect in the performance). The frequency modulation aspect comes from the eight FM percussion patches which all have modulation applied to their filters and envelopes. The modulation can be turned off in order to focus on crafting specific percussion sounds. The first buffer uses the pfft~ object to convolute with the drum signal with some of the convoluted signal being roughed through a flanger within the pfft~ object. When the FM percussion sounds are convoluted with the buffer, this results in an almost resonating like sound which is best heard when the reverb unit is off. I also included two stereo buffers which play bits of a buffer at random while controlling a filter at random every time a bang is sent through from the changing data from the buffer’s start ms point. This was an improvement of a buffer sub patch that I made for project three. The improvements include the added auto filtering, as well as a trapezoid~ object which creates an envelope to prevent excessive clicking when the sample is looped. The outputs of both of these buffers are put into a matrix object to allow for spatial control of the audio. This is all sequenced with a master sequencer which uses the GolbalTransport object and a phasor~ signal to drive the sequencing. Lastly, I added a single FM operator that’s tuning is offset to be controlled by midi data from TidalCycles during the performance. The routing of all of these sub patchers is put into a diagram in the main patch file for reference as well as a large amount of comments for a more technical description of how the patchers work. My hope is to improve this objet as a personal performance tool and creative tool in the future specifically centered around sounds that I want to make. It can be easily modified to be a general creative tool, but I felt that this patch was better suited to be a specific tool for my own creative performances.