

Interactive Sonic Arts
Etude 04
Kieran Maraj

Video Link: https://www.youtube.com/watch?v=2uxOpkF1KOc&ab_channel=KieranMaraj

I really enjoyed this assignment - it was interesting to return to this sort of low level mapping after having spent quite some time with my previous instrument and try to construct new, more exciting mappings with the knowledge gained since then. One challenge I faced was that I found myself creating multiple mappings, different modes I think of them as, with slightly different parameters between them. For example, mode a might have no reverb mapping and mode b would have reverb applied to Wacom y axis. In playing with the instrument, I found that switching between slightly different mapping modes to be unintuitive - and instead I approached a mapping itself as something that could be 'sculpted' in real time. Instead of having many slightly different modes, have a single mode that has many of the possible mappings, and then in performance give myself the ability to gate particular mappings. For example, tying stylus pressure to stereo spread, but then also having a button that can gate that mapping if I wanted to play in mono. I found this map-and-gate strategy more useful and it allows me to save the mapping modes for radically different mappings.

And speaking of radically different, I really like the holistic mapping using a self organizing map - the SOM modulates all parameters, aside from volume, paired with the your gesture time-to-playhead mapping. To create the SOM I chose a handful of key states and generated slight variations of those states. These were all added to the SOM, but each key state was added three times for each variation, ensuring that the key states ended up as "central nodes" in the map.

There are many things I would like to add if I had more time - presets, spectral scrubbing, more SOMs, spectrally organized sources, some ease of use features like recalling parameters when switching modes, etc - and I plan to build them in, but the one I'm most excited about is what I'm thinking of as a dual layered SOM. I plan to take two different maps, use the stylus to simultaneously get the weights of both maps, and then use some analysis of the output audio (I'm thinking energy) to interpolate between the two maps. I think this could make for a really interesting and dynamic mapping.