

Description of chosen generation strategy with pros and cons

I aim to create a random pattern that slowly turns into a recognisable rhythm and then slowly becomes random again.

A Euclidean algorithm generates a pattern and stores it in an array. A new random pattern is generated by adding a deviation (a positive or negative value) to every stored value in the array. Every time the full pattern is played the deviation decreases. The number of cycles (generations) it takes before the random pattern becomes the same as the pattern generated by the Euclidean algorithm is decided by the user. The result can be saved as MIDI file, and the settings configured by the user can be saved as a preset in a .txt file. Multiple Euclidean patterns can be played and transformed at once.

Pros:

- Because the generated pattern is not entirely random it won't have to be fixed to a grid to deliver an interesting sound experience for the user.
- Can easily be transformed into a MIDI file

Cons:

- Not very intuitive -> numbers entered aren't very self-explanatory (hard to predict what it will sound like)
- A lot of user input is required before the pattern generation can begin.