

oscillator challenge

- Issue

Implement the following oscillator based on the sawtooth wave (sawtooth).

1. square wave

$$square[n] = \begin{cases} 1 & (sawtooth[n] \geq 0) \\ -1 & (sawtooth[n] < 0) \end{cases}$$

2. choppy sea

$$triangle[n] = 2 \times |sawtooth[n]| - 1$$

3. pseudosine wave

$$pseudo-sine[n] = 4 \times sawtooth[n] \times (|sawtooth[n]| - 1)$$

However, the sawtooth wave shall take values between -1 and 1.

- implementation procedure

1. Add oscillator types Modify oscTypes in

[app/src/parameterDescriptor.js](#)

2. Process Implementation

Add a case in processOscillator() in [app/public/SynthesizerWorklet.js](#) to implement waveform generation process.

Please refer to the commit ([URL](#)) when adding a sine wave as a concrete example.

... and upwards