Component: Additive Synthesizer

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Functionalities I have implemented:

1. Sinusoid playback on demand from the sequencer
2. Definition of all harmonics
   1. Up to 8 harmonics (depending on Nyquist frequency) can be played at the same time. Using the score file, the user can define the amplitude of each harmonic. If the amplitude is set to zero, the corresponding harmonic is not being played
3. Envelope generation
   1. The envelope is preset. The first 10% of the duration of every note is attack, the next 40% decay, the next 40% sustain and the remaining 10% is release
4. Polyphony
   1. An arbitrary number of notes can be played at the same time
5. Vibrato
   1. The user uses the score file to define the amount of vibrato. The frequency as well as the amplitude can be defined.