

Music 171: Computer Music I
Assignment #5,
Due: Tuesday November 15, 2019

Create 2-4 different FM instruments (bell, percussion, woodwind) and demonstrate instruments (and the variety of sounds they can make) in a short sequence (5 - 15 seconds long).

Consider the following:

1. Implement a basic FM instrument: a sinusoid at frequency f_m with amplitude $d = If_m$ that modulates the frequency f_c of a carrier.
2. For multiple instruments (each having this basic structure but with different parameters), turn this into a subpatch.
3. Create a new “exponential” envelope as an abstraction (you can use this in addition to the ASR used in Assignment 4).
4. Use envelopes to control d (and thus timbre) and overall amplitude over time, using different parameters to create different instrument-line tones having different duration, timbre and pitch (if applicable).
5. Create a sequence (5 -15 seconds long) using tables, loops, delay, metro, random number generators (or anything else you can think of to generate control data) to demonstrates your instruments. We should be able to press “start” and have your sequence play from start to end.