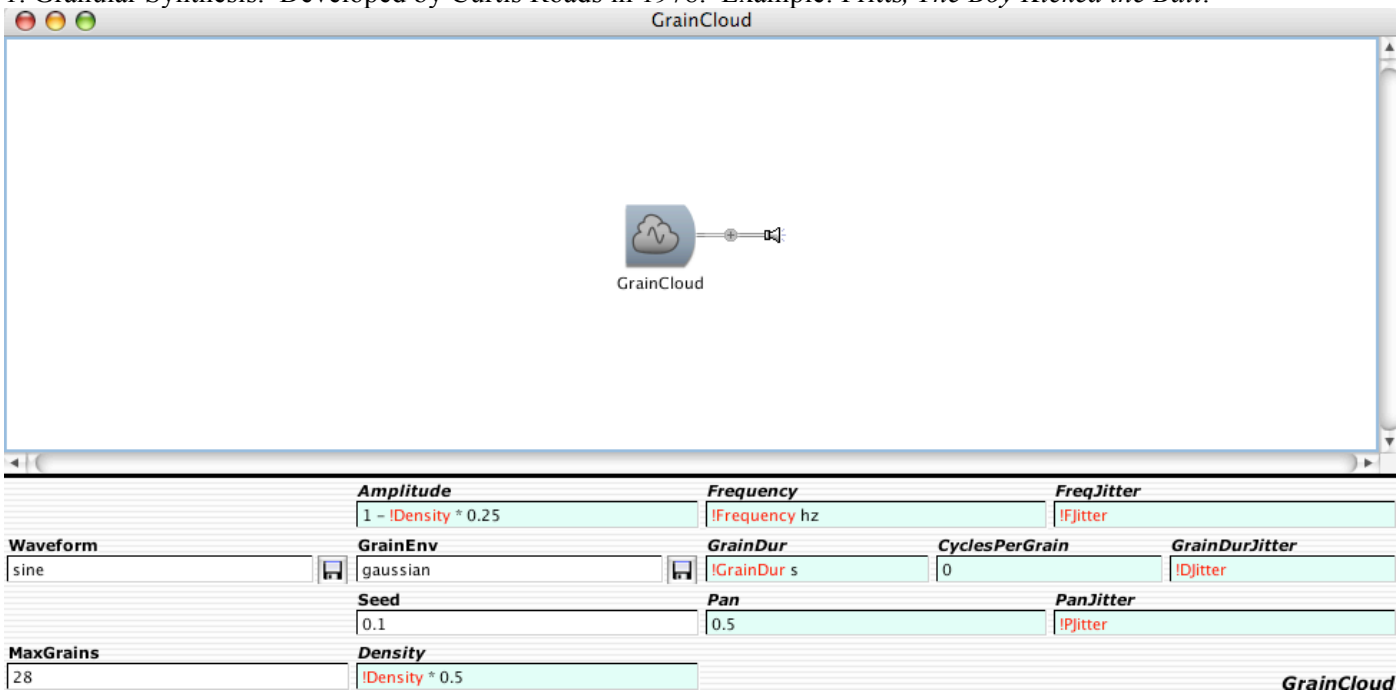
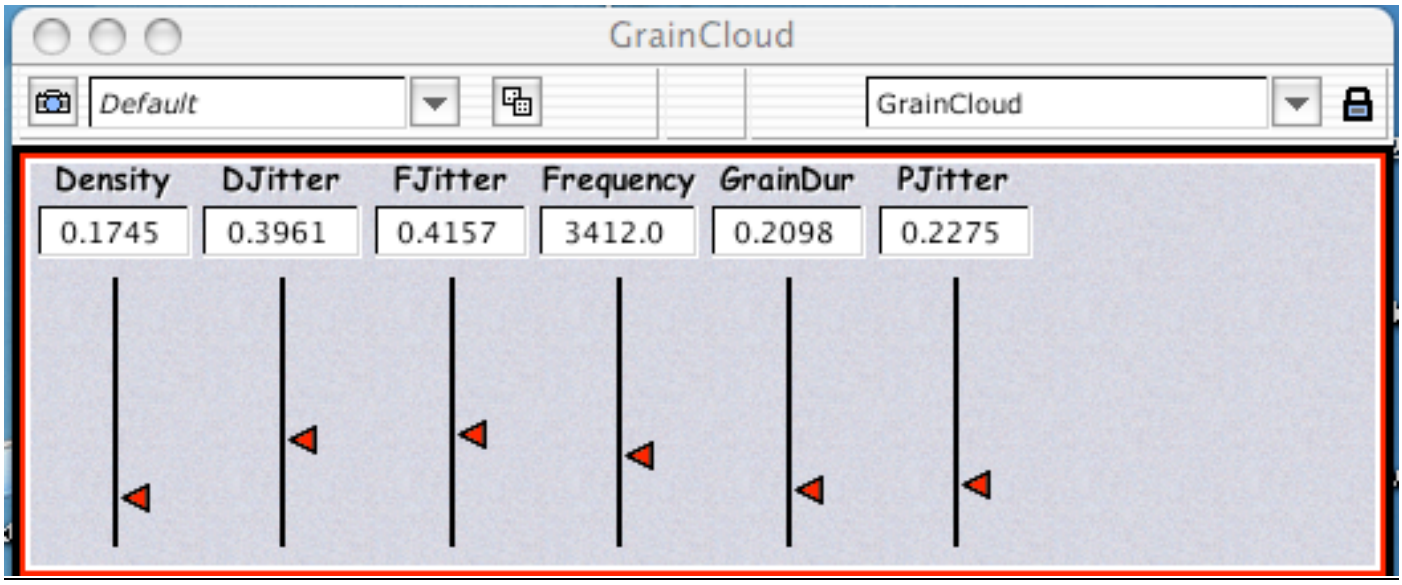
025:250 COMPOSITION: ELECTRONIC MEDIA I
Nov. 7, 2005
Introduction to Digital Synthesis Techniques in Kyma

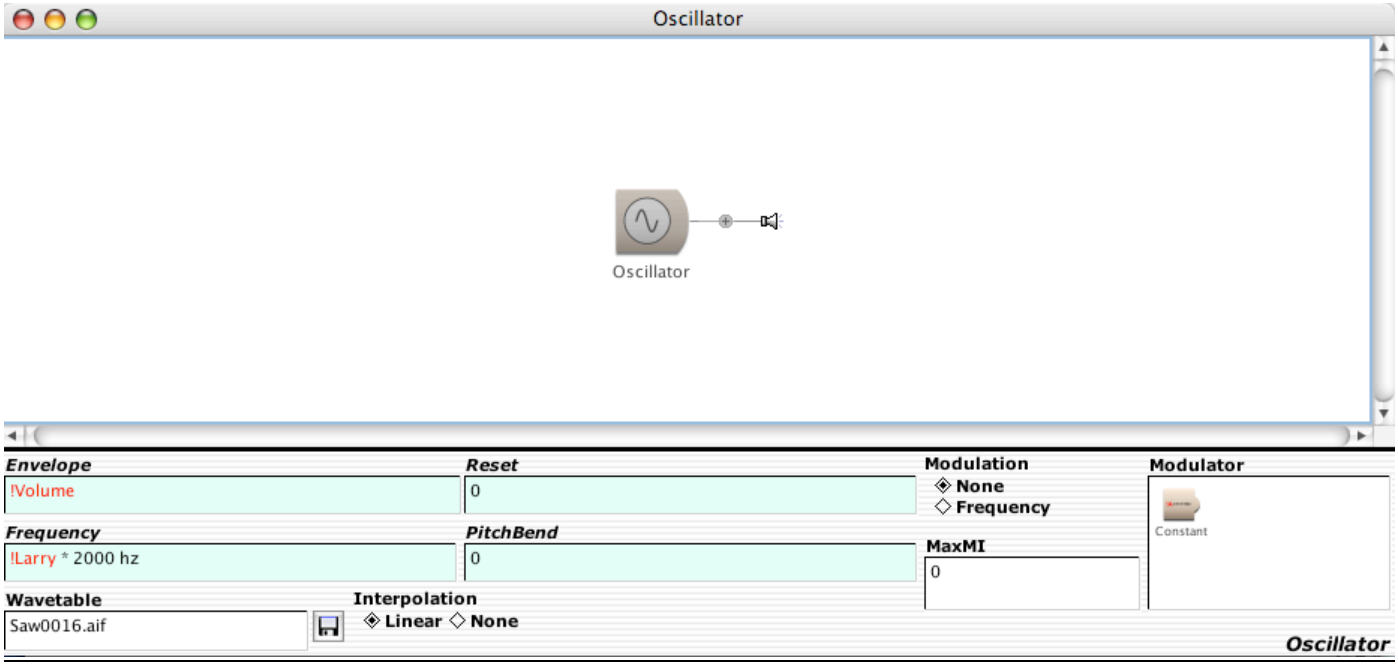
Basic Principles:
--Sound Generation, not reproduction of recording or samples.
--Filter control is important, but not discussed below.
--Envelopes (amplitude, frequency, and timbre) are important and will be discussed, but not described, below.

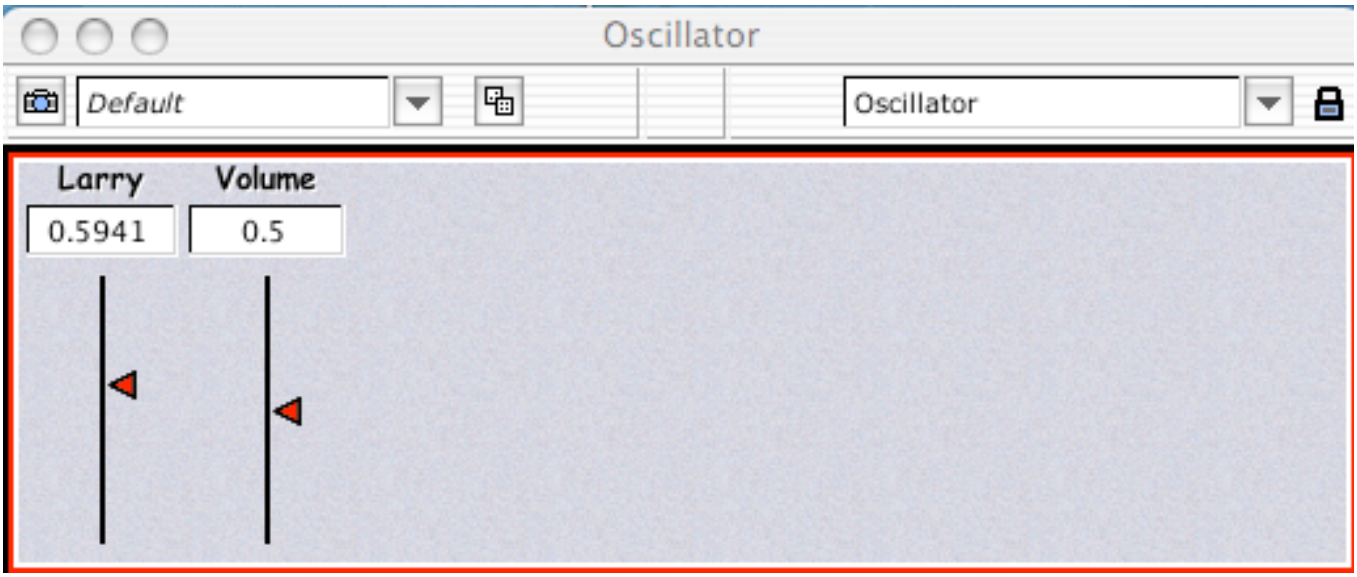
1. Granular Synthesis. Developed by Curtis Roads in 1978. Example: Fritts, *The Boy Kicked the Ball*.



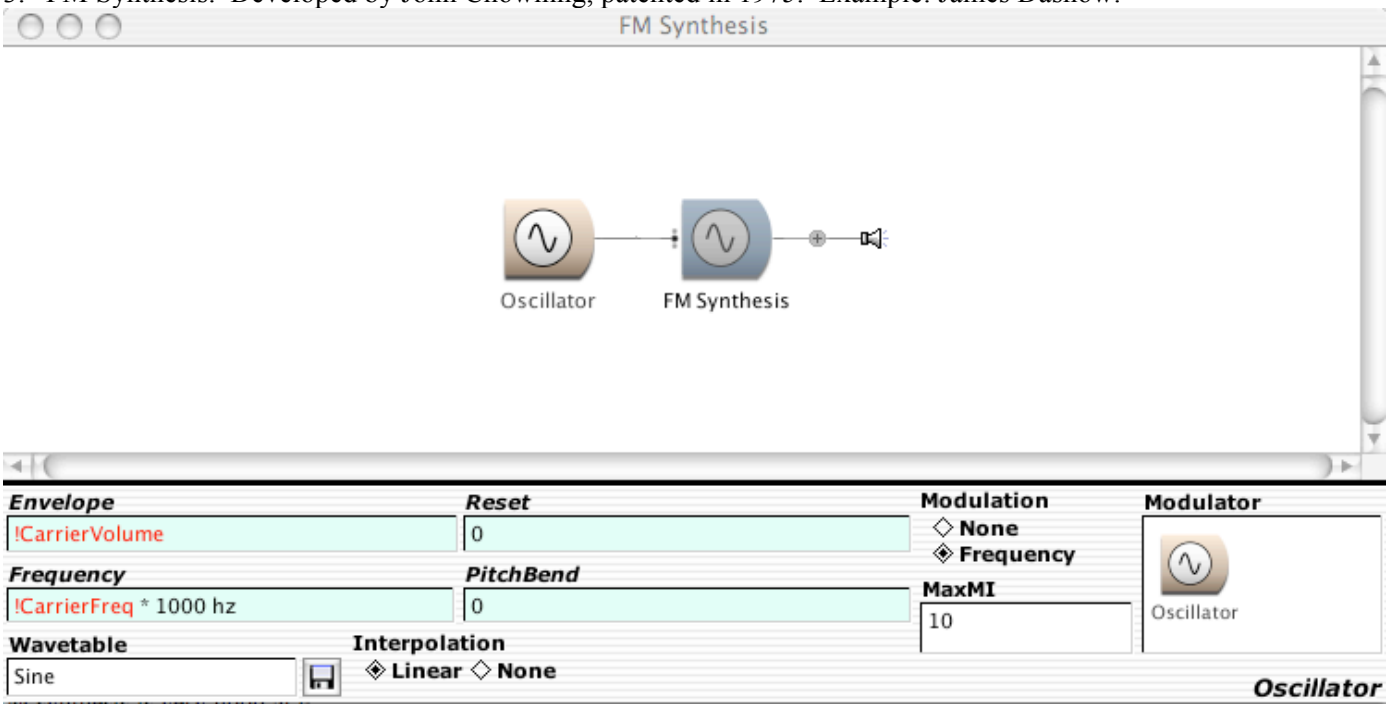


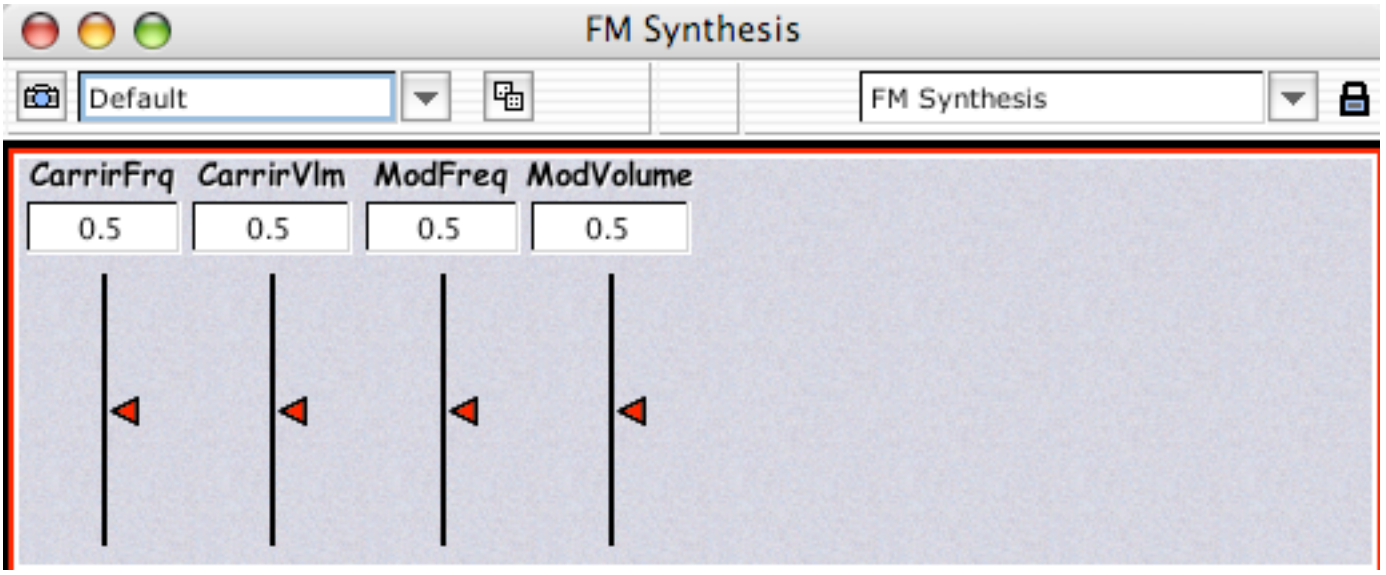
2. Wavetable Synthesis. Developed by Max Mathews ca. 1956. Example: Mathews, A Bicycle Built for Two.





3. FM Synthesis. Developed by John Chowning, patented in 1975. Example: James Dashow.





4. Additive Synthesis. Historical origins not clear (the organ is a predecesor). Example: Go to church.