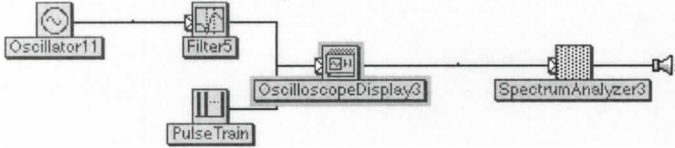


025:250 Composition: Electronic Media I
Subtractive Synthesis in Kyma
Nov. 26, 2001

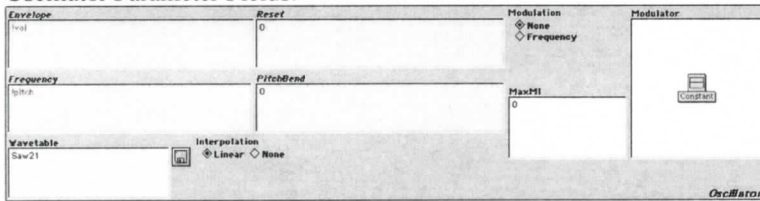
- 1) Subtractive synthesis is the process of filtering or EQ'ing such waveforms as:
 sawtooth (all harmonics with amplitudes A/n , where A = amplitude and n = harmonic number)
 square wave (odd-numbered harmonics with amplitudes A/n)

- 2) Flowchart for subtractive synthesis:



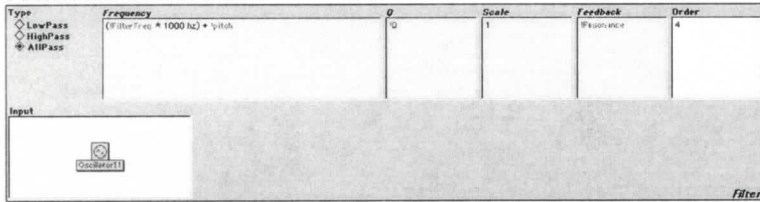
Sources & Generators>Oscillator
 Filters-mono>Filter
 Visual Displays>OscilloscopeDisplay
 Visual Displays>SpectrumAnalyzer

- 3) Oscillator Parameter Fields.



For Wavetable go to Kyma>Waves>Waveforms>Saw21 (or Square21).

- 4) Filter Parameter Fields.



LowPass passes frequencies below !FilterFreq hz and rejects higher frequencies.
 HighPass passes frequencies above !FilterFreq hz and rejects lower frequencies.
 AllPass passes frequencies centered around !FilterFreq hz. The bandwidth is determined by !Q, where 0 is narrow and 1 is wide.

- 5) Virtual Control Surface.

