Composition: Electronic Media II Jan. 25, 2006 Placing Sounds in Kyma

- 1. Review of Sound File, Propotype, Sound.
- 2. Consider the following ways of placing Sounds in Kyma:
 - a. Drag a Prototype into a Sound File window, as discussed in class.
 - b. Change the size of the icon in Edit>Prreferences>Appearance.
 - c. Better, use Edit>Zoom In and Edit>Zoom Out.
 - d. Copy a Sound in the Sound File window. This is useful when the edit parameters contain complex information.
 - e. Drop a Prototype or a Sound onto a line of the flow chart. This works for flowcharts that have a
 - signal > modifier > output structure, as shown below:



Oscillator

Note: Select by highlighting a Sound from which to compile. Sounds to the right of the selected sound will not be compiled. This is a useful troubl-shooting function.

f. Some Sounds have tails. Clicking on a tail will reveal inputs to the Sound. Clicking again on the tail will hide the inputs, as shown below:



g. Some Sounds, like the Mixer shown below allow multiple inputs.



Note the following:

- i. the Mixer Protoype has a built-in input, functioning as a place-holder.
- ii. the Sample Cloud, shown abouve, can be deleted, then replaced by 3 oscillators using drag and drop or copy and paster techniqes. The result is shown below:



Note that the white space, where the flowchart resides does not yet reflect the changes made to the inputs. To update, click on the white space and the new inputs will apppear in thhe flowchart, as shown, below:



Note the lines can be change from right-angle to radial, by selecting Edit>View>Radial, as shown below:



- 3. Discussion on pasting Protoypes or Sounds into a parameter field.
 - a. Create a Sum of Sines Sounds, as discussed in class.
 - b. Find the Protuype "Function Generator." Copy it, then paste it into the DBMorph and PCH Morph fields, then click on the white space to update, as shown below:

				SumOfSines		
			Func Gener	tion SumOfSines		
						.) •
Frequency0		Frequency1		OnDuration		
Frequency0		0 hz		OnDuration IDur * 30 s		
Frequency0 !F * 1000 hz Analysis0		0 hz Analysis1		IDur * 30 s DBMorph	PchMorph)+
Frequency0 !F * 1000 hz		0 hz		!Dur * 30 s	PchMorph [FunctionGenerato] L	
Frequency0 !F * 1000 hz Analysis0		0 hz Analysis1		IDur * 30 s DBMorph		
Frequency0 IF * 1000 hz Analysis0 B1.2 s256	F	0 hz Analysis1	Loop	IDur * 30 s DBMorph FunctionGenerator L	[FunctionGenerator] L	
Frequency0 IF * 1000 hz Analysis0 B1.2 s256 Gate	Envelope	0 hz Analysis1		IDur * 30 s DBMorph FunctionGenerator L LoopStart	[FunctionGenerator] L)•
Frequency0 IF * 1000 hz Analysis0 B1.2 s256 Gate ITrigger	Envelope IVolume	0 hz Analysis1		Dur * 30 s DBMorph FunctionGenerator L LoopStart IStart	[FunctionGenerator] L)*

$\Theta \Theta \Theta$	Sur	nOfSines	
	Mur Function Generator	و معنی معنی معنی معنی معنی معنی معنی معنی	
416) ►
		Wavetable	1.
		Ramp	H
Trigger			
!Trigger			
		FromMemoryWriter	Reverse
OnDuration			
MorphSpeed * 30 s			
			EurotionCongrator

Note: Don't' forget to compile from the Sound on the right..

- 4. Project. Build an additive synthesizer to the following specifications:
 - a. Use ten oscillators, having frequencies that are harmonics of middle C, 261.65 hz.
 - b. The amplitude of each oscillator shoould have a volume faders in the Virtual Control Surface.
 - c. The Oscillators should be feed into a Mixer.

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- d. The Mixer should be feed into an Oscilloscope Display
- e. The Oscilloscope should be feed into a Spectrum Analyzer.