

MUCP 4680/5680  
Spring 2009  
Project #3

The first generation of processing techniques in the digital domain was based on the dizzying variety of ways to manipulate data in a delay buffer.

The “\_delay\_project” environment demonstrates some of the possibilities of this set of techniques. Study the examples; the environment is similar to “synthorama” in structure, including a variety of ways to connect hardware controls to the delay processing patches. It includes an input bank of one live input source and three sound file players. It uses the “receive~” and “throw~” objects to get sound to inputs and outputs, and provides a means of recording the output to a sound file.

For this project, you will choose and configure 2-4 sound sources, 3-5 processing strategies, and any control architecture you like; then practice, perform, and record a manipulation of your source sounds using your processing strategies and control architectures. In other words, you'll use these tools to re-compose some recordings you have available (and possibly live input too) into a really neat piece of music using delay processing!

Note the following:

- as with Synthorama, you can build, destroy, tweak, and patch together modules (other than the "utility" modules) as you please, but give each a distinct name
- all the utility stuff is at the top of the patcher window
- controls are just like synthorama - remember the button to set control source
- if you control the harmonizer with a keyboard, you must choose a "base key" which will be the zero level (no transposition) ... or just hook up the pitch bend!
- as in synthorama, there are internal and external controls that get summed; in the case of the delay time on "delayerizer" and the transposition and window size on "harmonizer," you can control the scaling of the external control signal (sort of like using the "amplifier" box in synthorama), and you can see the resulting total (based on both external and internal control) ...
- to tune comb filtering to the keyboard, use the "pd pitch\_to\_delay" patch; set the "external scaling" of delay time to 1 (as per the example)