

## MUMET 242—Computer Music III

### Project II | Audio Performance Patch

**ASSIGNMENT:** to create an audio performance patch that utilizes several different methods of data manipulation and synthesis controlled by a MIDI keyboard/interface. You will perform the resulting composition in class during a performance session.

#### GENERAL GUIDELINES:

1. This project will build upon the synthesis techniques and MIDI controls that we have discussed in class. Your objective should be to create a performance patch that features real-time control of 8 different parameters. You may consider building synths that will work in conjunction with the data storage objects (tables, histograms, coll, umemu, etc) and control of the basic MIDI parameters that we discussed earlier in class. You should make every effort to be creative with this project. Draw upon your knowledge of experimental art music forms and unique beat-based compositions.
2. You should complete a composition to perform that is **ONE MINUTE** in length. Some elements to consider include:
  - What synths will you use? How will you control them in real-time? Will you use data storage objects to facilitate your performance? Will you control all of the elements your self?
  - You should change pitch ranges, durations, velocities both with in sections, and within gestures.
  - Will you use a control interface? How can mapping your parameters to knobs and sliders increase the expressivity of your performance? How many parameters can you control at a time? Can you automate some of these processes and focus on marco-controls?
3. Write a brief report (two pages, typed, double spaced, 12-point font, 1 inch margins) describing the sounds you created, any use of real-time control of your sounds, and significant DSP processes that you used. In your report, also briefly summarize the central organizing idea of the composition, and describe the formal structure. Make any other comments you feel are relevant.

#### PROJECT SPECIFICATIONS:

1. At least 8 controllable parameters. This may filter components, pitch ranges, delay times, durations, etc. You should choose a VARIETY of controllable parameters.
2. Your project should be at least 1 minute in duration.
3. Your project should make use of layering as means creating a complex sonic texture.
4. You must use at least 4 separate synths (choose from addative, subtractive, chiptune, FM synthesis
5. Your projects must use at least two separate filters (high pass, low pass, reson, biquad, delay lines, or anything else you find! Be creative! Investigate!).

**FILE ORGANIZATION:**

1. Your Max patch should be labeled “*yourLastName\_yourFirstName\_AUDIO*”.
2. Your studio report should be labeled “*yourLastName\_AUDIO\_12*”.
3. All of these materials should be placed in a folder labeled “*yourLastName\_AUDIO\_12*”.
4. “*yourLastName\_FINALAUDIO\_12*” should be zipped into a folder.

**PLEASE TURN IN THE FOLLOWING MATERIALS:**

1. Max patch.
2. Any accompanying audio files/video files.
3. Your studio report, in PDF format.
4. Submit (via a file sharing site i.e. iLocker, yousendit, dropbox) by the due date. Please DO NOT require a login in order to enable download.

**DUE: March 23<sup>rd</sup>, 2012 at 10:00 A.M.**