ECS512U Sound Design • 2014

Lab 3 worksheet

Before starting, download the zip archive ***lab3-resources.zip*** from QM+.

- Go through all of 3.5.1.1 on http://www.pd-tutorial.com/english/ch03s05.html
    - *If some of the concepts still seem unfamiliar to you, read through chapter 3.1.1.1.2 and go through some of the examples.*
- Use an `[hslider]` connected to an `[mtof]` object to control the frequency of the pulse generator from chapter 3.5.1.1.
    - *What do you notice when setting high frequencies?*
- Recreate the implementation described at the following link: http://msp.ucsd.edu/techniques/v0.11/book-html/node98.html
- Again use `[hslider]` and `[mtof]` objects to control the frequency.
    - *This implementation of a pulse train seems to have a larger frequency range without artefacts. Why is this so?*
- Go through the tutorial at this link: http://en.flossmanuals.net/pure-data/audio-tutorials/antialiasing/ The example file J07.oversampling.pd is contained in the zip file.
- Using the example from the tutorial, implement an oversampled version of the last pulse generator *(F01.pulse.pd)*. Remove any user interface objects (e.g. bangs, toggles, sliders) and also remove any table objects used for visualization purposes. Also remember that you will have to save your new oversampled pulse generator as a separate patch (i.e. abstraction) that is loaded from your main patch saved within the same folder.
- Once you're done ask for the second lab assignment sheet!