**Work in Progress Report**

**Major developments/breakthroughs(reference specific code please):**

I have managed to work out a basic frequency visualizer.

It detects the frequency of the audio through forward FFT. (makes both left and right audio channels into one average frequency).

This is then draws the frequency with the *get.band* function. You can then use regular processing adjustments to colour and size to enlarge the image etc.

I have loaded an audio file manually through the data folder.

**Major Challenges/setbacks (reference specific code please):**

I had a hard time just understanding what I was using all these functions for and what they actually did. I had a basic understanding of their function however, parts of the code taken from the internet did not have a very simple explanation as to how they operated.

**Any modifications to your specifications/release schedule:**

None yet. The code is progressing as scheduled.

**Description of your scratch/test program:**

**Describe the generic concept you needed to test out:**

Drawing a basic frequency band on the screen, a basic visualization of audio, no fancy effects.

**Source any web site/book that helped you with that concept:**

<http://stackoverflow.com/questions/20408388/how-to-filter-fft-data-for-audio-visualisation>

<http://code.compartmental.net/minim/fft_method_getband.html>

<http://code.compartmental.net/tools/minim/quickstart/> - This link helped me understand what the hell I was copy and pasting. Helped me understand the code itself.

**Describe the code and the lesson that you learned from it:**

I learned a lot about what FFT’s and frequency bands actually meant. The code that was implemented into my program used much of what is present on the website, as getting a frequency drawn on screen isn’t a very complicated task. Most of my time was spent understanding the code and the principles of digital audio that the code concerned.

**Describe any challenges that you enjoyed in integrating this scratch code into your major project:**

The first scratch is basically the main project so far.