**Work in Progress Report**

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

Loaded the beat detect function and managed to translate that into a circle increasing in size to create an animation. Also managed to make the linear FFT Spectrum into a circular one that stretches around the beat detect elypse.

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

Making the linear FFT Spectrum into a circle was particularly hard because I had to complete recode the calculations involved to increase sizes. I had to use PI and multiply that by the COS and SIN values of the buffer spectrum size. As you can imagine, this was extremely difficult to figure out and understand. The main problem was to also make the ends of the FFT spectrum match each other and blend seamlessly.

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

No modifications to the release schedule, although this build jumped straight from 1.2 to 2.0.

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

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

Use the beat detection function built into minim to increase the size of an ellipse.

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

[**http://code.compartmental.net/minim/beatdetect\_class\_beatdetect.html**](http://code.compartmental.net/minim/beatdetect_class_beatdetect.html) **- Beat Detect**

[**https://forum.processing.org/two/discussion/823/issue-displaying-fft-in-a-circle-minim**](https://forum.processing.org/two/discussion/823/issue-displaying-fft-in-a-circle-minim) **- How to make the FFT band into a circle (that matches at the ends)**

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

I created a loop that upon every beatOnset (beat detected) would launch another loop that would add larger and larger ellipses to the screen. Initially in early builds of this scratch I used simple color change to signify beat detect but I decided to create a nice visual effect as well.

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

Integrating this scratch into the project build was as simple as copy and paste.