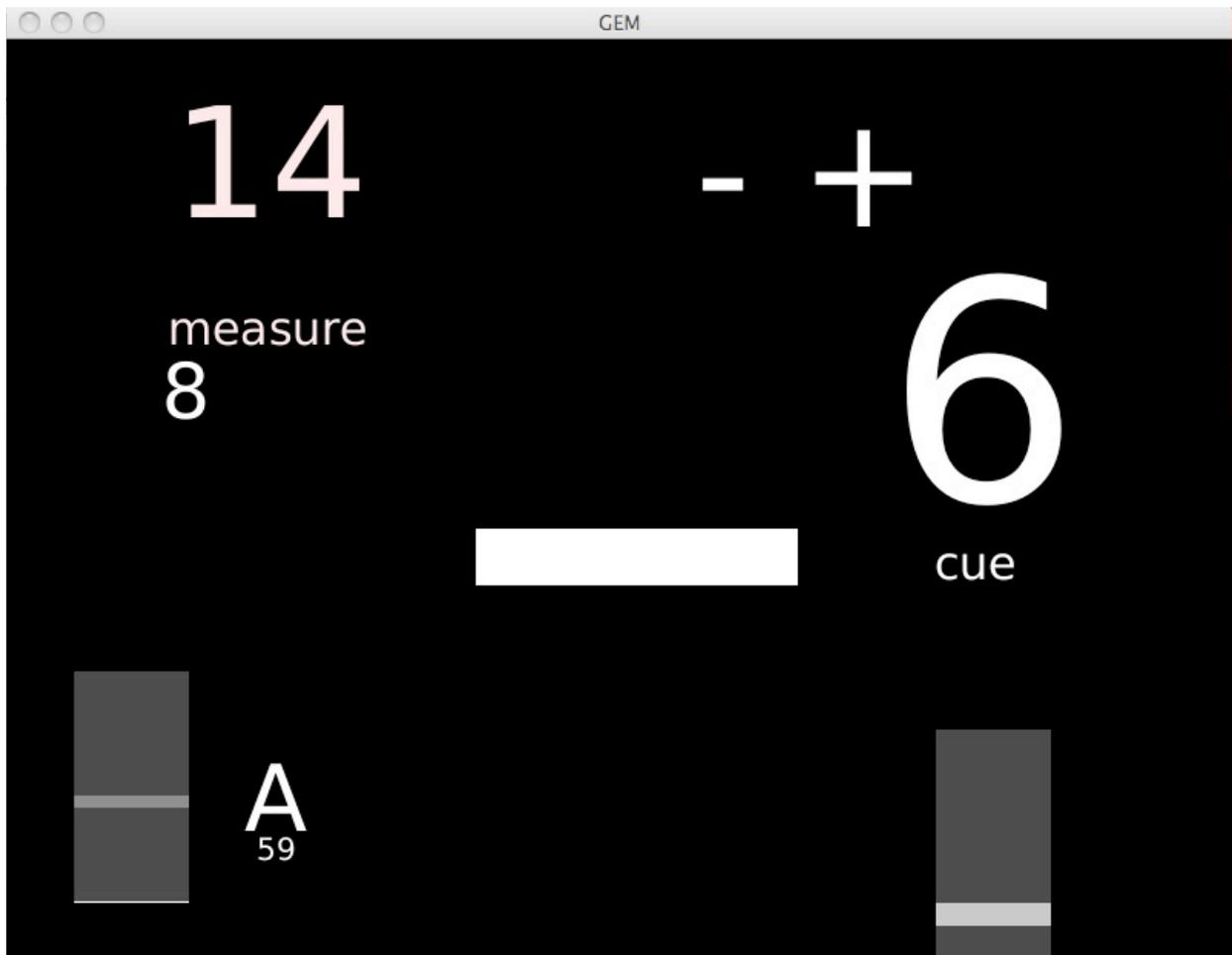


Impending Green Instructions

Thanks for playing this piece. If you have any questions, please email me at natebliton@gmail.com. Updates will be available at nateblitonmusic.com
Thanks! -Nate



This piece is written for the interaction of an alto saxophone, and a computer running the included Pure Data patch. This interaction happens through a microphone connected to an audio interface connected to the computer. In order for the player to stay in time with the computer, it is necessary to have the computer on stage so the performer can watch the computer monitor. For performance, I have been using the following:

Computer: Laptop running Mac OS X or Linux

The important thing is a computer with low latency. Latency in the audio processing will generate a delay between the input and output of audio in the computer. The lower latency, the better. A better outboard audio interface will help, but the main thing is the operating system. Linux is best, with as low as less than 1 millisecond of latency possible. I am able to run my OS X MacBook with about 12-15 milliseconds of latency, but my windows computers have trouble running lower than 50 or 70 milliseconds. Laptops are nice and easier to have on stage.

Audio Interface: I use an M-Audio Firewire 410

The important thing with this is to have at least one microphone input and stereo outputs. If you have an audio interface that doesn't have microphone pre-amps in it (no XLR connections) you could run the microphone into a mixer and run that into a line input on the computer, but whichever way is ok. The important thing is to use something that can connect a higher-quality microphone than any onboard microphone with your computer.

Microphone: I used a Shure SM57

Because of the live processing and reverb on the microphone input, it is important that the microphone be very directional. The Shure SM57 is one of the most commonly found microphones in studios everywhere, so if you know a sound guy, they probably have a couple lying around. There are many other options, so pick something that is very directional and sounds nice. If you continue to have problems with feedback when running the piece, or if the computer sounds particularly muffled, choose a different microphone.

Pd-Extended with GEM

This piece uses a visual interface that requires Pure Data with the extra library called GEM. You can download Pd and GEM and put it together yourself, or you can use the installation files included on this CD. You can find updated downloads at <http://puredata.info> as well as links to Miller Puckette's website to download his more recent versions, but I recommend using Pd-Extended.

Procedure for running the piece:

1. Start up PD Patch in Pd-Extended, or some Pd with the Gem library installed and functioning (the next step won't do anything if you don't have Gem).
2. Press Check Box
3. press letter T on keyboard to start tuner
4. play tuning note at a comfortable forte into microphone, to see that pitch detection is functioning
 - a. check that the input meters on the bottom left corner of the screen show and do not exceed the darker grey line
5. Press T again to remove the tuner
6. Press the up arrow key until the output volume is at a comfortable level achieved through sound-check. This level can be adjusted at any time with these up and down arrow keys.
7. When you are ready, press the space bar on your keyboard, or the right arrow key. Throughout the running of the piece, the space bar will progress to the next cue number, and the right and left arrow keys will navigate between cue numbers. Generally, it will work, but for the best stability, restart the patch if you need to start the piece over or go back.

Cues:

For cue numbers 1 through 14, the computer has control of the tempo, so you should follow the cue and measure numbers on the screen. Cue 15 won't happen until you play the written F under the cue on the score, and the following cues work the same way.

Cues 15 through 52 will wait for different pitches and rests to proceed, so you can push and pull the tempo, and it will follow. If you don't hold rests long enough, or rush through certain sections, the computer may miss a cue, so try it a couple different ways. If the computer does miss a cue, press the space bar or right arrow key to progress to the next cue and catch the computer up.

When you hit cue 53, the computer will take control of the tempo again and play through until cue 65.

When you play the written A at cue 66, the computer will build up on your note until you play the low written Bb at cue 67, which will cut the audio and end the piece.