GE64 "Streamed" music tutorial

This is a tutorial so you all don't forget, as I know nobody reads the vault GE/PD editing channel archives anyway.

Regardless, let's begin! You'll need the following programs (don't worry, they're all free).

- Sekaiju MIDI editor

- GE setup editor

- Carnivorous' footsteps patch. This is required as it uses custom action block functions added with the patch, it can be found here (https://carnivoroussociety.github.io/) Note: If you wish not to use the footstep sounds, the block used to generate them is not required.
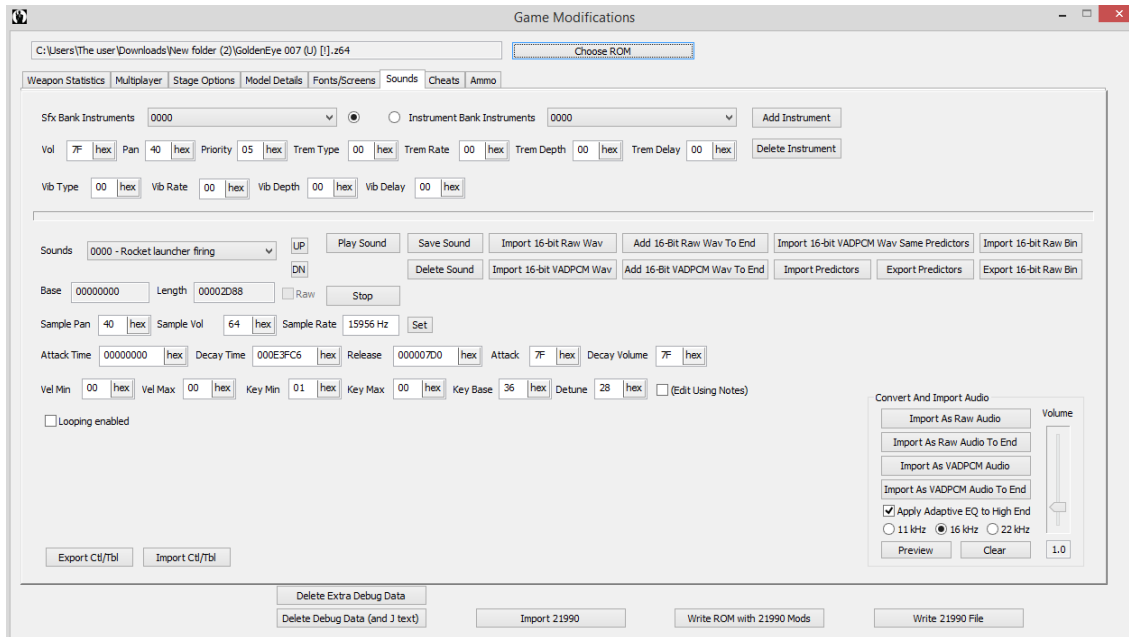
I will be providing a free, public domain song I've made for this tutorial. USE IT WISELY.

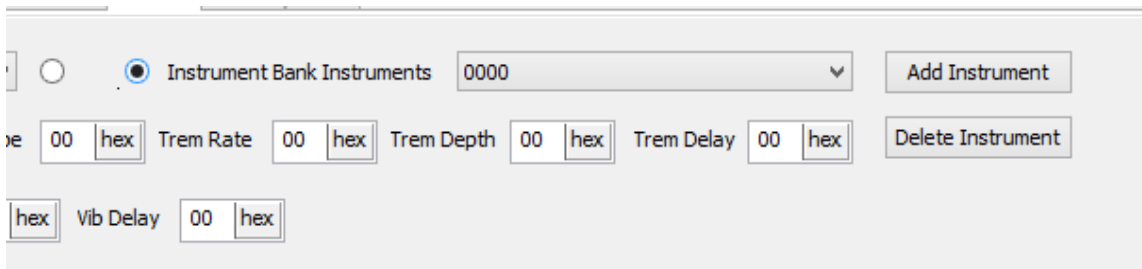Step 1: Importing your .wav into the game

Firstly, I should mention the audio requirements for getting decent sound.

- Track should be normalized and should be audio balanced right so most of the audio can be heard clearly, this is to reduce audio artifacts.

- Track should not be super high pitched, this will cause the audio buffer to drop and create sound issues in GE (sounds like audio clipping).

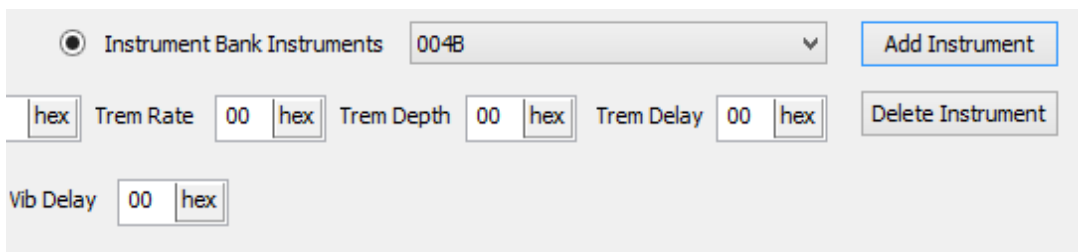- Audio should not be clipping, this one should be obvious.

Anyway, after that silliness, you'll need to open the setup editor, and click "game configurations", and then open your ROM of choice and open the sounds tab. The menu should look like this:
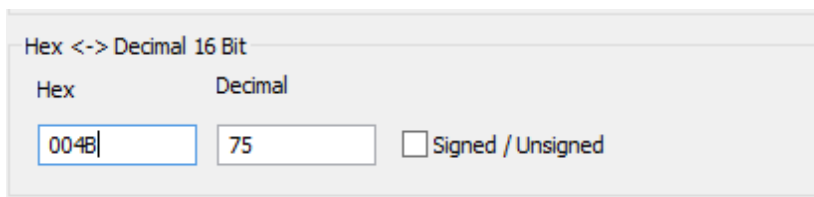
Ones that's done, click the "instrument bank instruments".

Then click "add instrument". Once done, it should show the new instrument number:

This number is in hex, you can use tools > data convertor to convert it to decimal (this is important). Since hex has different bit values, we can tell this value is 16 bits by it's digit length, which is 4 characters.

You will then type down the hex value to get it in decimal. Either write this number down, or remember it for later, as it's important.
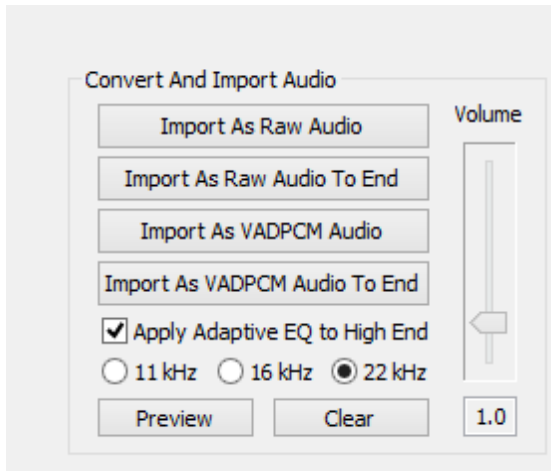
Step 2: Importing your .wav

Now that we have a new instrument, we'll have to assign a sample to it so it actually plays the music.

You should import your sample as an uncompressed format such as .wav, other formats can work, but they may not sound as good upon import.

To import, simply go to "convert and import audio" and click "Import as raw audio to end", ensure the settings are correct on your audio file. If it's already 22khz, untick "apply adaptive EQ to high end". Samples higher than 22khz will be adjusted to fit the sample rate limits of GE.

It is recommended to import as 22khz, or else your sample will play super fast.
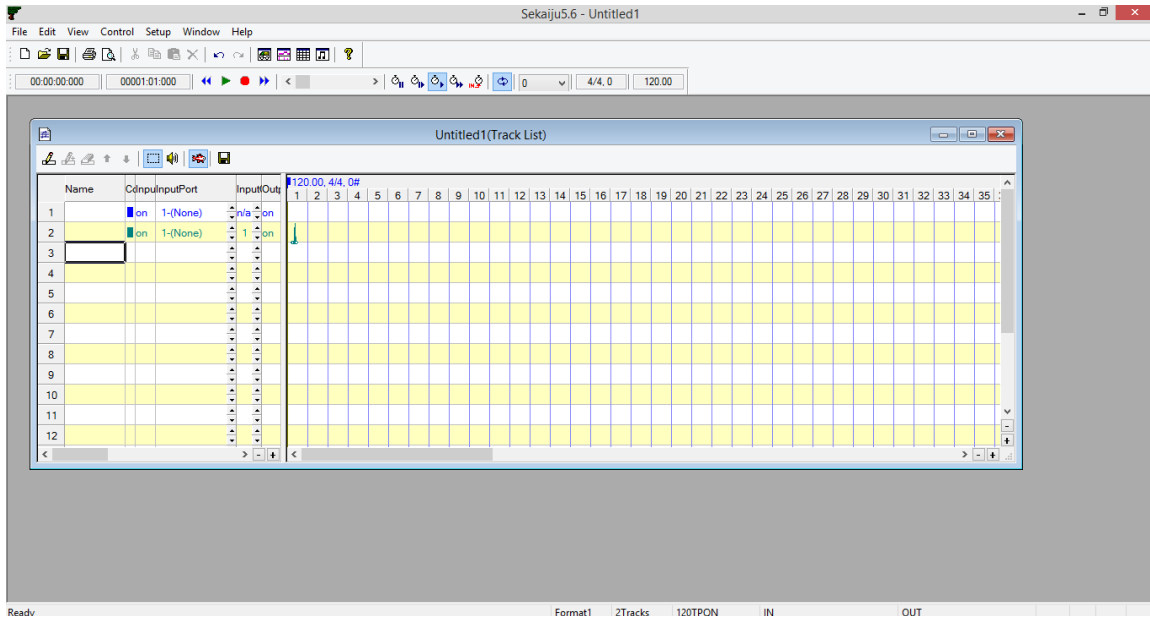

Now check if it plays right. If so, then congrats! You're halfway done.

Step 3: Making the MIDI/technical reasons it cannot be sfx

Now you may be wondering "Streamed audio is not midi", you're correct, but due to the way GE's engine handles sound, making it a sound effect will eventually make other ones take priority and kill any instances of sound when too much is playing.
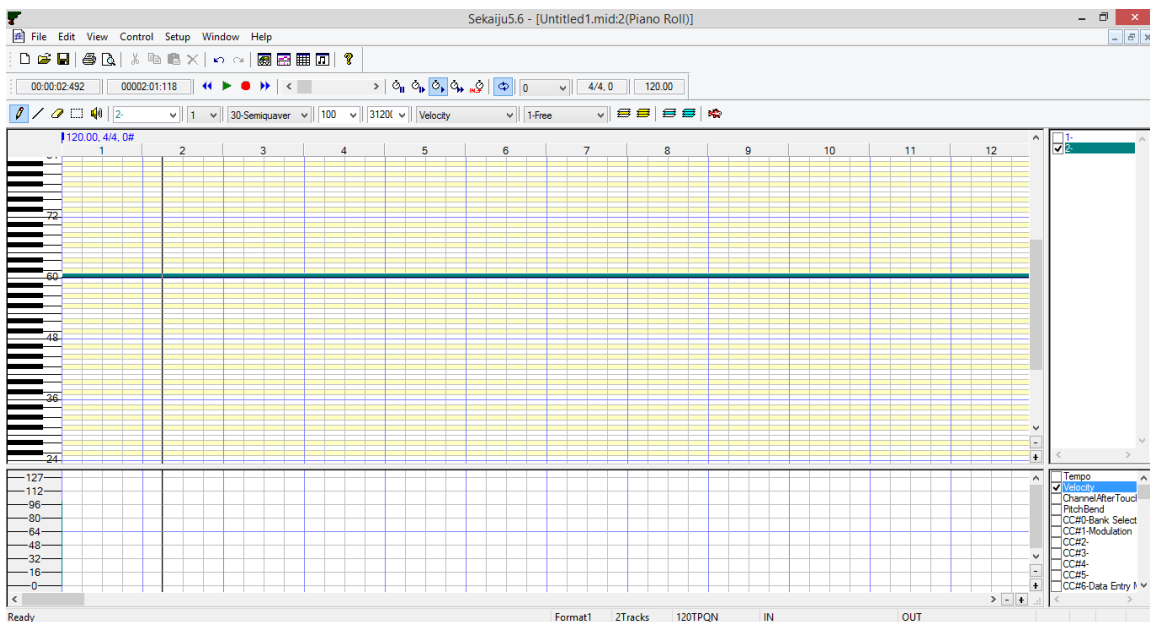
This is basically a simple fix to ensure it always has highest priority, since music does. My method is to make a midi with 1 note using the instrument so it only plays one sample throughout the whole song.

Now, open Sekaiju and start creating your midi. You should remove the unused default new MIDI channels. You should expand the UI so you can see the program/patch number so it looks like this:
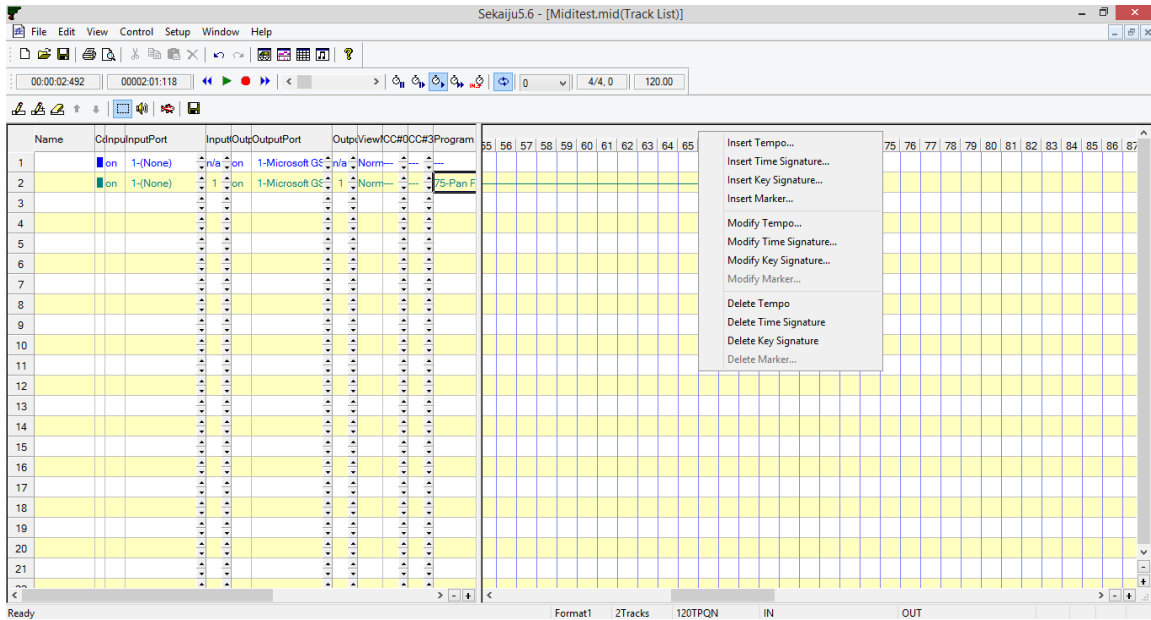
Now, open the piano roll (right click on the right section of the channel), and place the note that you think would be the root key, in Sekaiju , this is usually note 60.

Now, extend the note's length to fit the song's length in seconds, it should look like this (note length and key may vary per song):
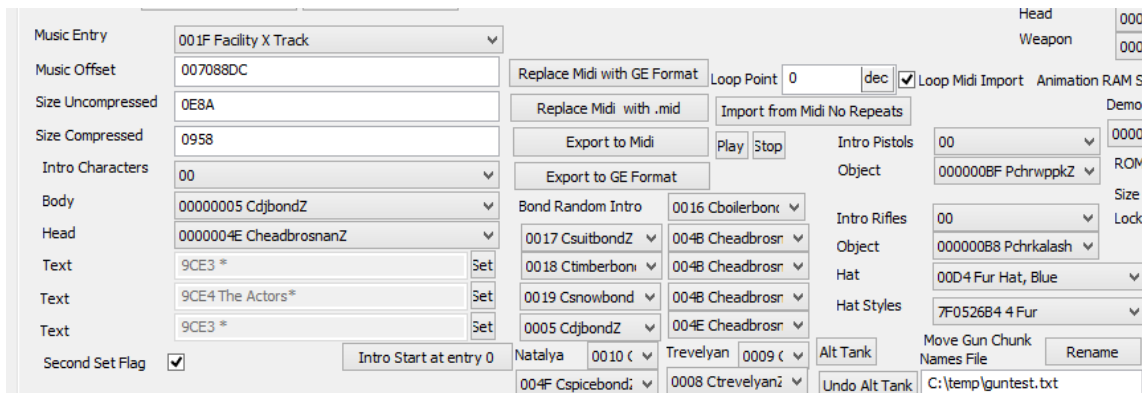

Now, close the piano roll and edit change the program number to instrument number you converted from hex into decimal, in this tutorial, we used program number 75. Then right click ad the top and add a marker and name it "LoopEnd", otherwise the song will not loop.

Now, go to save, and save as .mid.

Step 4: Importing the MIDI into GoldenEye

Now, go back to the setup editor, and to go model details, you should see "Music entry" at the bottom tick on "loop Midi import and then click "replace GE midi with .mid" as shown in the screenshot below:
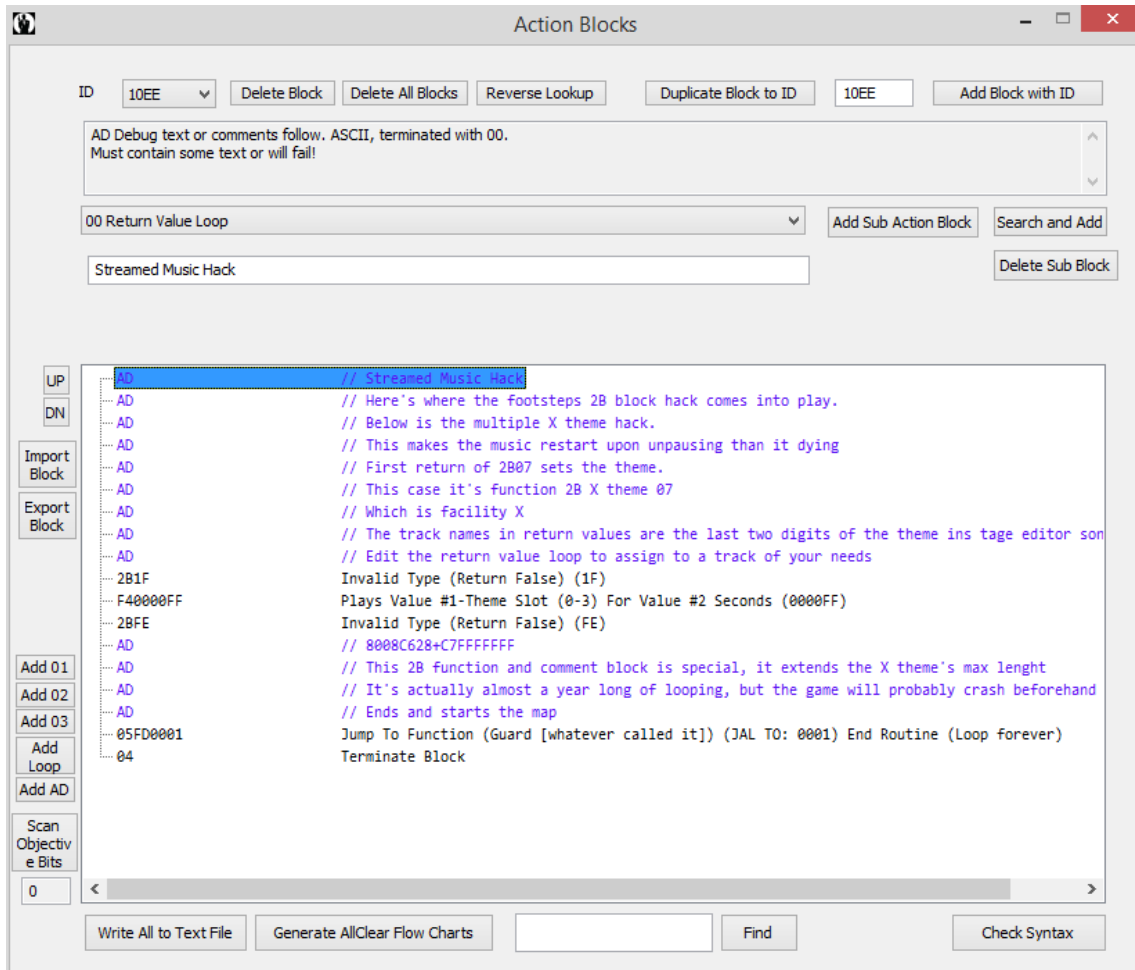

Now, import your midi into the editor. If the song does not play. Write your rom and reload game config. (DO NOT DELETE DEBUG DATA IN FOOTSTEPS MODS, IT WILL REMOVE IT).

Final step: Importing your action blocks.

Now, let's open a stage (let's say facility) and edit the solo level in visual.

Now on the top, you should see a function called "edit action blocks", these allow to edit/import blocks. For this tutorial, I have made a template block just for you using Facility X's track as the example:

You need to import it as a 10XX block. As 04XX is for guards and vehicles.

Lastly, set the main theme to "silence" (001E) so you don't hear it before the streamed music hack starts.

Congrats, you now have streamed music in GE!