🎵 Documentation

Required Packages

How To Use

Main Scripts

AudioAnalyser

This is the main script. It listens to the music and analyses it, splitting it into different frequency bands that can be interpulated.

FrequencyHit

This is a event action which is called every time a frequency is higher then the beatThreshold that is set for that band.

_audioSource

This is just a reference to the audio which is playing on the current gameObject.

samples

This is how many samples are used when sampling the music playing. This is set to static, so don't change this unless you know what your doing.

frequencyBands

This is how many bands the frequencies will be split into.

frequencyBandBuffer

Same as the frequencyBands but it has a buffer applied to it.

_bufferDecrease

This stores the amount that the buffer will decrease by. This causes the bands to smooth out any peaks and stops them from suddenly increasing or decreasing.

_highestBandHeight

This stores each bands highest points which is used to average out each bands height.

audioBand

This stores a value that is calculated by the frequencyBands divided by the _highestBandHeight giving a average height which scales depending on the highest hit.

audioBandBuffer

Same as the audioBand but it also has the buffer applied to it.

beatThreshold

This is a threshold set that if the current frequency hits and goes over. It fires the event calling anything that is listening to it.

defaultDecrease

This is how much the buffer will decrease by.

decreaseAmount

This is how much the buffer will decrease multiplied by the _bufferDecrease by if the current frequency is lower then the frequency buffer.

CreateAudioBands

This just creates the frequency bands from the frequency bands and buffer data.

GetSpectrumAudioSource

This gets the audio spectrum data from the AudioSource

IsFrequencyHigher

This checks if any of the frequency bands are higher than the beat threshold and invoke the FrequencyHit event if they are.

BandBuffer

Creates a buffer for each frequency band to smooth out the audio data and prevent sudden spikes or drops.

MakeFrequencyBands

Calculates the frequency bands from the audio spectrum data thats created in GetSpectrumAudioSource.

FrequencyHit

This script is just responible to subscribe to the event and call functions when it gets called.

WhatFrequencyHit

This is called when the threshold is passed on any of the frequency bands, then just prints the band that hit the threshold to the console.

OnEnable

This just subscribes WhatFrequencyHit to the FrequencyHit event when this gameObject is enabled in the scene.

OnDisable

This just unsubscribes WhatFrequencyHit to the FrequencyHit event when this gameObject is disabled in the scene.

ParamBand

This just controls the current gameObject and sets its size accoring to the frequency set that it should be listening to.

band

This is the band that the current gameObject should be listening to.

startScale

The size the gameObject starts at if no music is playing.

scaleMultiplier

This is the scale of each of the bands. It decides how large each gameObject is given the frequency.

useBuffer

If the current band should use the buffered frequencies.

useUnscaled

If the current band should use the scaled frequencies.