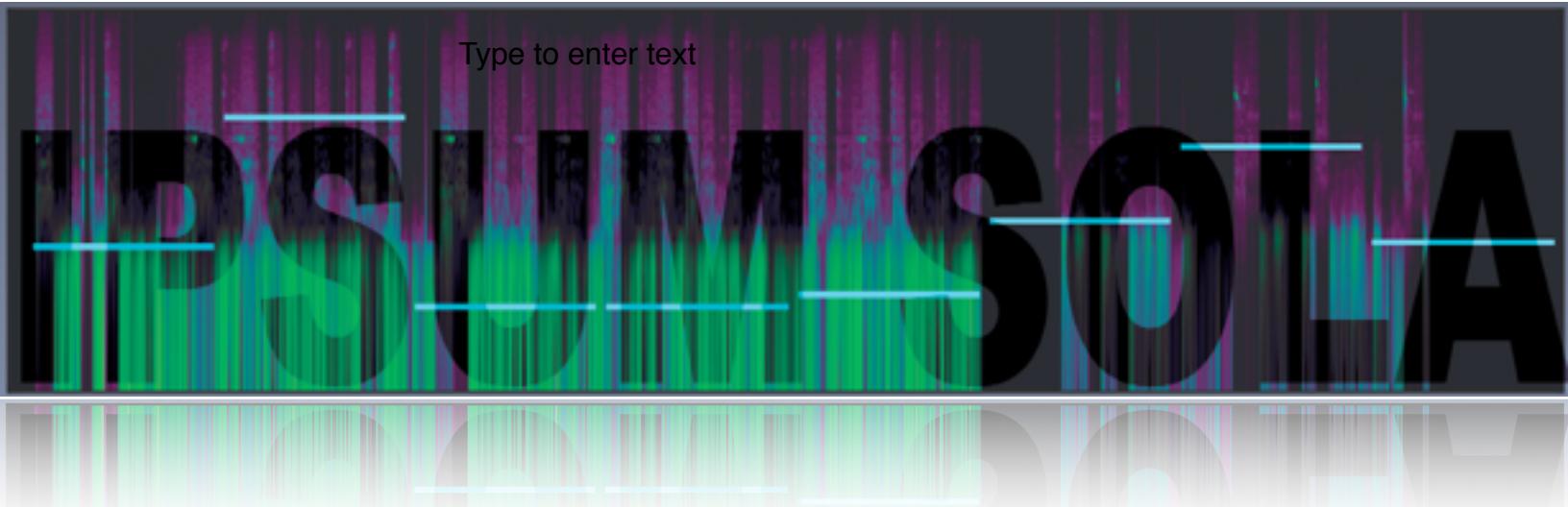


# **Ipsum Sola X**

v0.4.8

User Manual (**INCOMPLETE!**)

Type to enter text



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## About

Ipsum Sola X is developed and maintained by J. J. Hartmann at [JeremyHartmann.com](http://JeremyHartmann.com)

# General Layout

## Main Areas



There are four main areas that are vital to how Ipsum Sola X works.

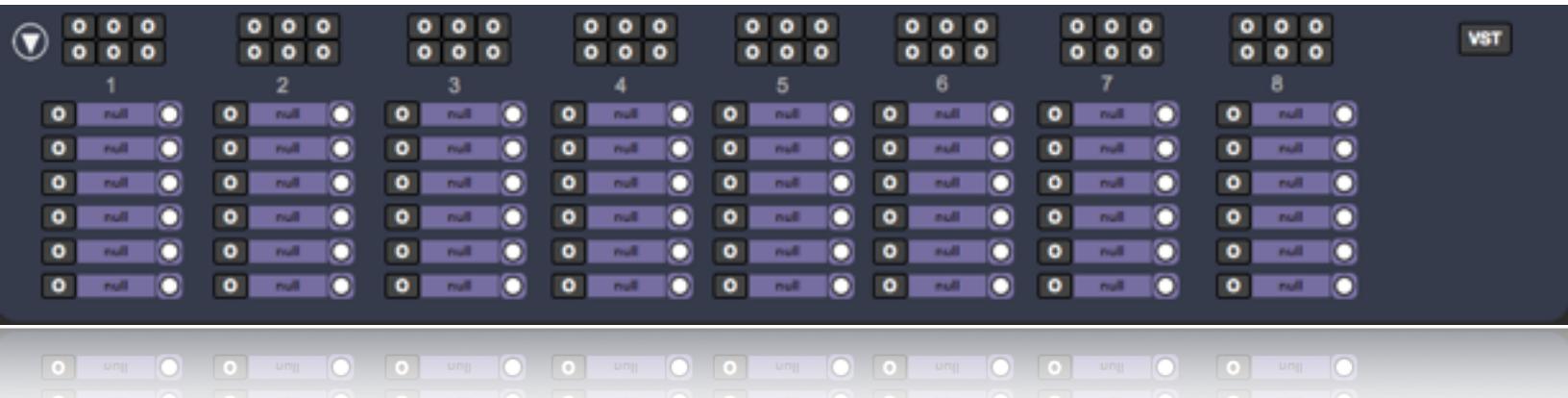
- 1. Parallel Audio Mixer**
- 2. Audio Manipulation Board**
- 3. Dynamic Live Sampler**
- 4. Sounds and Samples**

Each of the four parts create a dynamic work flow that gives quick and easy access to vital components in a live performance or improvisation setting.

## Breakout and Sub-Areas

To help assist and fine tune the available real-estate space occupied by Ipsum Sola X, there are several break-out windows that can help in organizing and optimizing the performance dynamics.

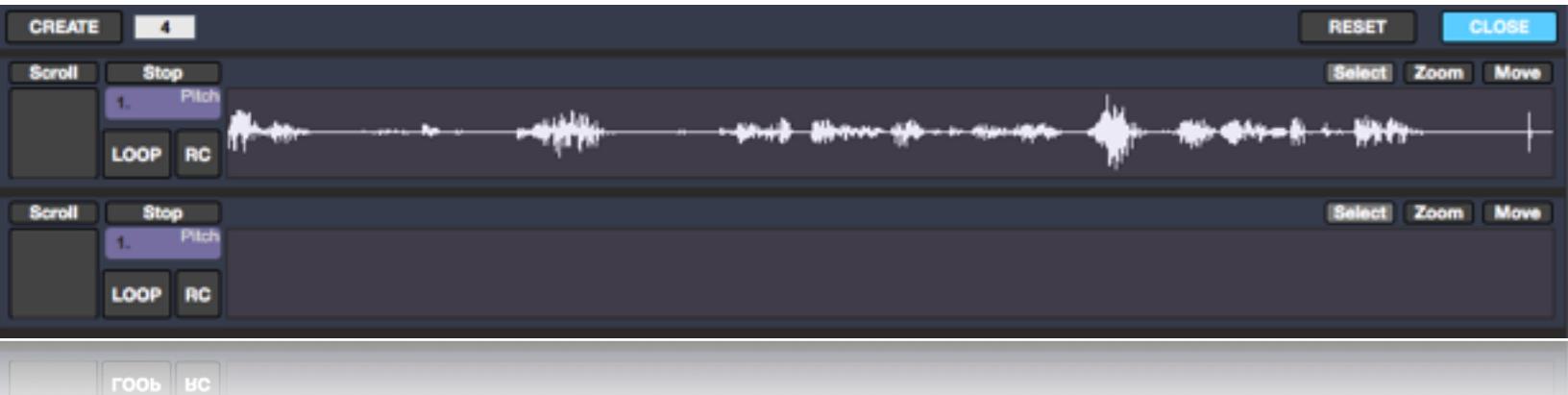
### VST Serial Section



The VST section allows the performer to add up to six different VST Plugins in serial on each of the eight parallel audio streams.

This section is both hidden below the **Parallel Audio Mixer** and can be accessed as a break-out window by clicking on the button titled “VST” on the right side.

### Live Recordings



The break-out window for the **Dynamic Live Recording** allows for the easy access of all the live samples during a set. Up to 32 samples.

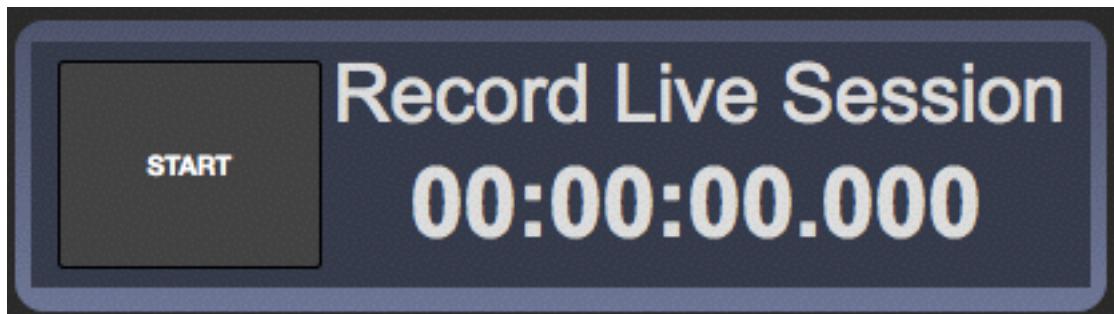
## Sounds and Samples

The Sounds and Samples interface is a window titled "Buffers" with a count of "32". It contains a list of samples:

- Sample 1: LP 1. Pitch ~
- Sample 2: LP 1. Pitch ~
- Sample 3: LP 1. Pitch ~ 1 2 3 4 8
- Sample 17: LP 1. Pitch ~
- Sample 18: LP 1. Pitch ~ 1 2 3 4 8
- Sample 19: LP 1. Pitch ~

Below the samples, there is a row of buttons labeled 1, 2, 3, 4, 5, 6, 7, and 8. A tooltip at the bottom left reads: "Create and manage all your samples and sounds with this break out window. Allows for quick access and adjustment for all your sound files."

## Recorded Live Set



Record all audio output (Command R) that is rendered through Ipsum Sola X. Audio then can be used for production purposes or latter sound manipulations.

**Main Faders**

1	s ▶ 0	▶ 0	s ▶ 0	/	▶ 0	▶ 0
2	s ▶ 0	▶ 0	s ▶ 0	/	▶ 0	▶ 0
3	s ▶ 0	▶ 0	s ▶ 0	/	▶ 0	▶ 0
4	s ▶ 0	▶ 0	s ▶ 0	/	▶ 0	▶ 0
5	s ▶ 0	▶ 0	s ▶ 0	/	▶ 0	▶ 0
6	s ▶ 0	▶ 0	s ▶ 0	/	▶ 0	▶ 0
7	s ▶ 0	▶ 0	s ▶ 0	/	▶ 0	▶ 0
8	s ▶ 0	▶ 0	s ▶ 0	/	▶ 0	▶ 0

**Main Panning**

1	s ▶ 0	▶ 0	s ▶ 0	/	▶ 0	▶ 0
2	s ▶ 0	▶ 0	s ▶ 0	/	▶ 0	▶ 0
3	s ▶ 0	▶ 0	s ▶ 0	/	▶ 0	▶ 0
4	s ▶ 0	▶ 0	s ▶ 0	/	▶ 0	▶ 0
5	s ▶ 0	▶ 0	s ▶ 0	/	▶ 0	▶ 0
6	s ▶ 0	▶ 0	s ▶ 0	/	▶ 0	▶ 0
7	s ▶ 0	▶ 0	s ▶ 0	/	▶ 0	▶ 0
8	s ▶ 0	▶ 0	s ▶ 0	/	▶ 0	▶ 0

**Master Fader**

M	s ▶ 0	▶ 0	s ▶ 0	/	▶ 0	▶ 0
---	-------	-----	-------	---	-----	-----

**Audio Through**

T	s ▶ 0	▶ 0	s ▶ 0	/	▶ 0	▶ 0
---	-------	-----	-------	---	-----	-----

**MIDI Monitor**

Value	CC	Channel
▶ 0	▶ 0	▶ 0

**OSC Midi - Out**

Thru	Out	Host
▶ 9491	▶ 9491	169.254.97.85

**OSC Monitor**

In	▶ 8491
Out	▶ /ping

**OSC and MIDI Control**

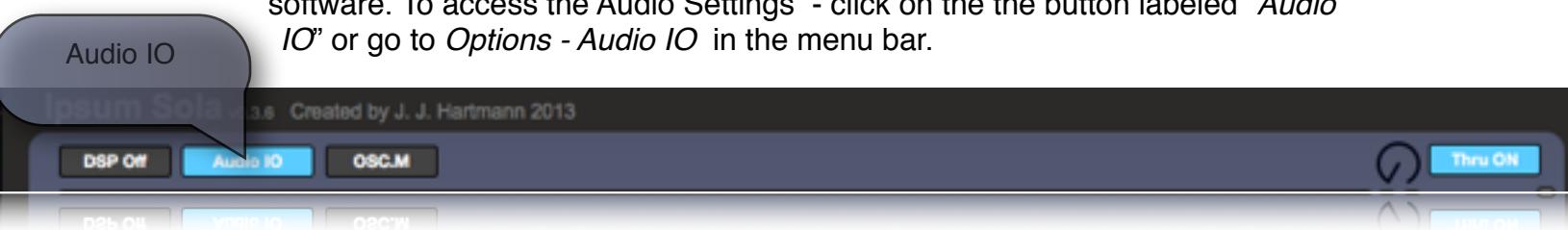
Virtually every element and user interfacing device in Ipsum Sola X can be mapped and used with a MIDI or OSC controller. Works great with many OSC apps.

# Setting Up Ipsum Sola X for Live Set

**Warning!** - Before using Ipsum Sola X with live mic input, it is highly recommend that it be used with an audio interface. The placement of both the mic input and speaker output on most computers, make for some seriously hideous feedback.

## Setting Up an Audio Interface Device

Using some sort of audio interface is highly recommend to get the most out of the software. To access the Audio Settings - click on the button labeled "Audio IO" or go to *Options - Audio IO* in the menu bar.



This will bring up a window containing all the necessary configuration options to properly set up an audio interface device.

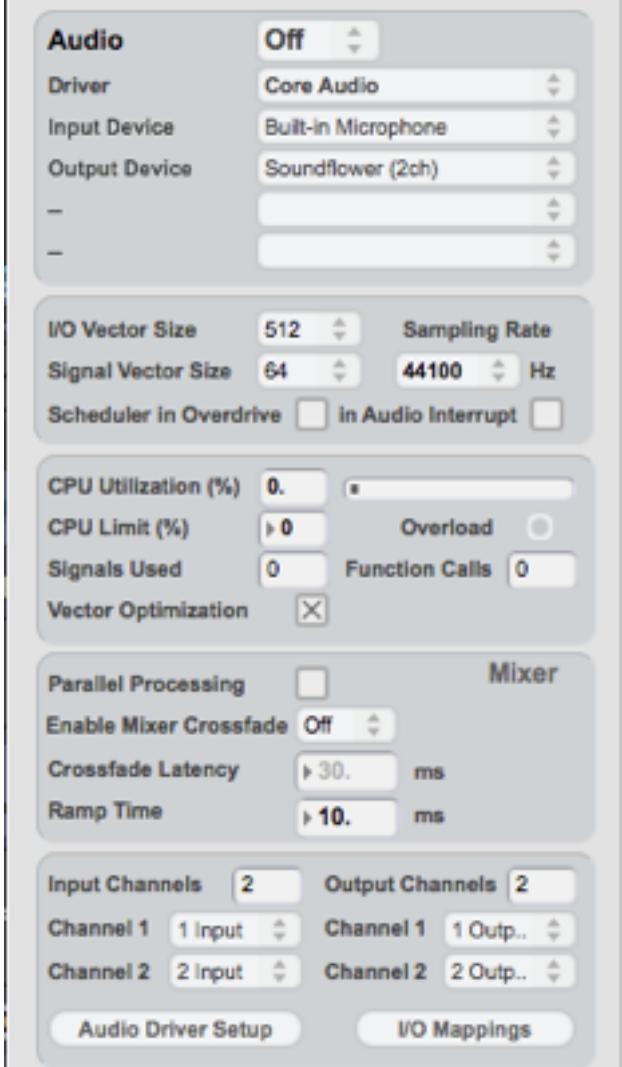
The window will look like this: ----->

### Under **Input Devices**:

Select your audio interface device that you have connected to your computer.

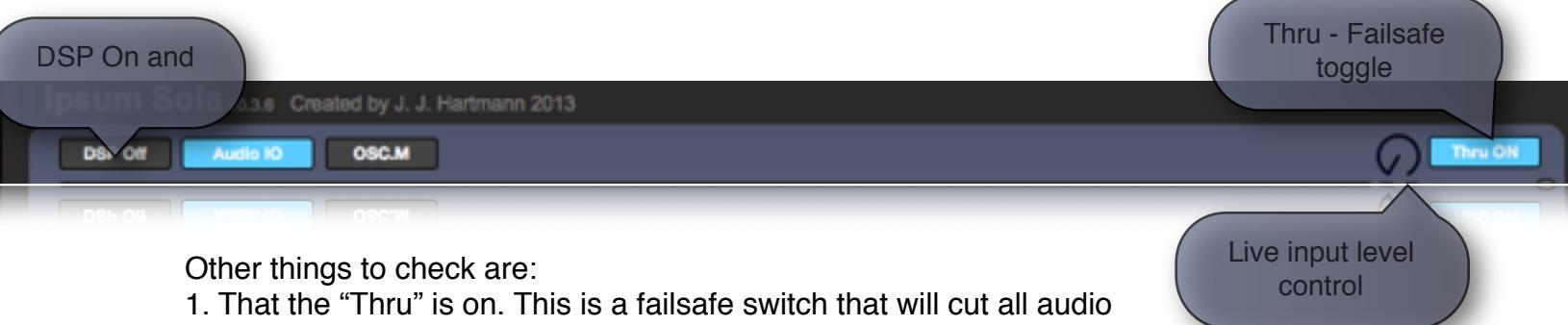
Do the same under **Output Devices**.

*Note - All the other settings can be left the way they are. I would recommend that you leave them alone unless you are aware of their function and know what you are doing.*



## Turning On Ipsum Sola X

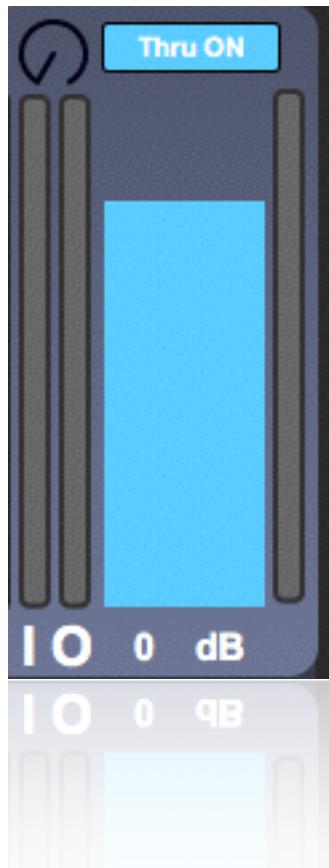
Once your audio interface is set and ready to go. It is now time to turn on Ipsum Sola X. To do this, click on the button labelled “DSP”. This will toggle Audio Processing on and off.



Other things to check are:

1. That the “Thru” is on. This is a failsafe switch that will cut all audio from the speakers.
2. The live input level is at the desired setting.

## Master Output and Level Meters



The master level fader can be found on the right hand side of the parallel audio mixer. This controls the overall output from Ipsum Sola X.

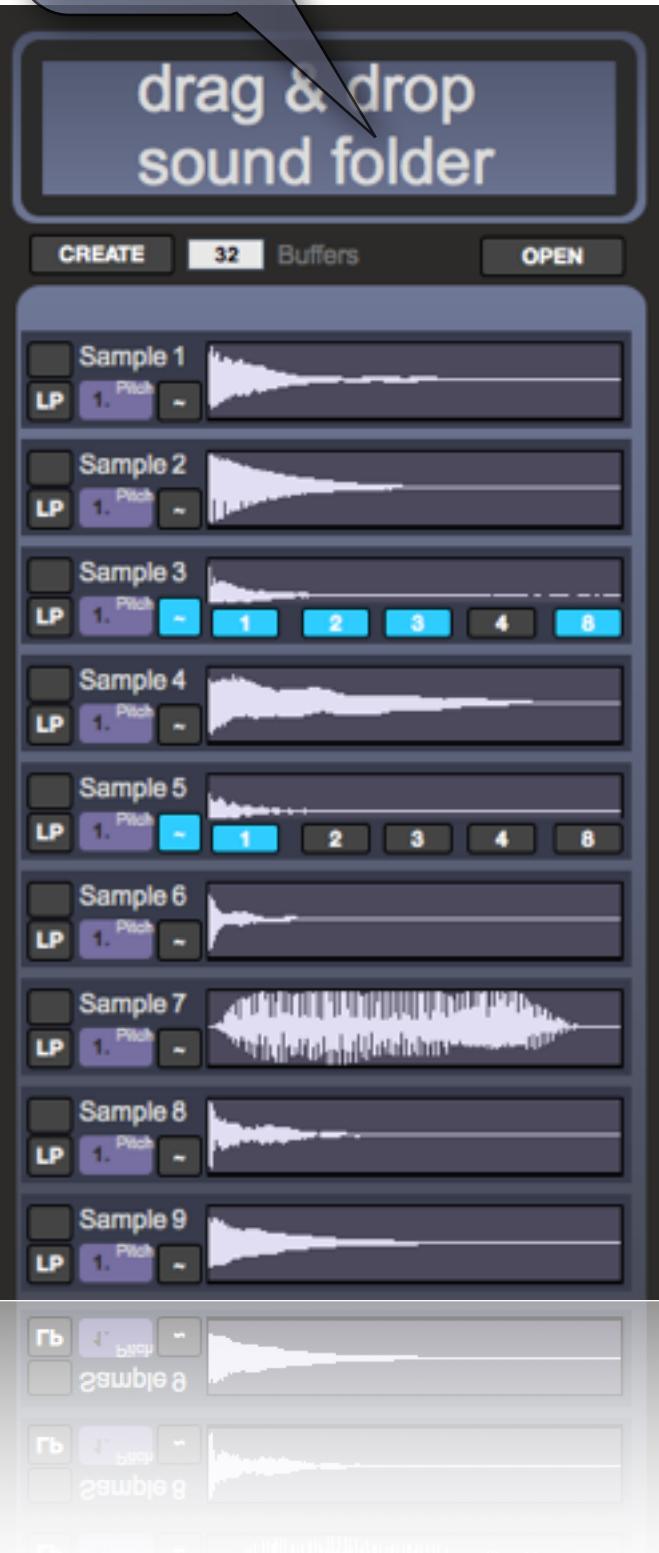
Attached next to the master fader are three level meters. They are arranged as follows:

1. Far left - Labelled **I** - Input level from microphone or line.
2. Middle - Labelled **O** - Output pre master fader.
3. Far right - - Output post master fader.

## Loading Sounds and Samples

Drop Folder  
Here!

Loading sounds into Ipsum Sola X is as simple as dropping a folder with all your sounds onto the area marked “drag & drop sound folder”



The file heirarchy should be as follows:

- Folder “Named Something”
  - List of all Sounds (AIFF or WAVE)

*Note - Ipsum Sola X only supports either WAVE or AIFF file formats when dealing with samples.*

Once the folder has been dropped, all the audio files within it will be transferred into Ipsum Sola X. Initially there will not be any sounds viewable by the interface. In order to create access to the sounds, you must create buffer instances of the sound files.

To do this:

1. Click on the number box next to ‘Buffers’.
2. Put the desired number of samples that you want access to.
3. Click on ‘CREATE’.

This will then load all samples into Ipsum Sola X and create individual controls for each sound file.

## Live Sampling

Live sampling can be an interesting and dynamic way to incorporate material from a live set or performer into your repertoire of audio and sound making tools.



**roob** To set up Ipsum Sola X for live sampling, it is a similar process to loading samples and sounds into the program.

**Do:**

1. Set the number of live sample tracks in the number box next to 'CREATE'.
2. Click on 'CREATE'

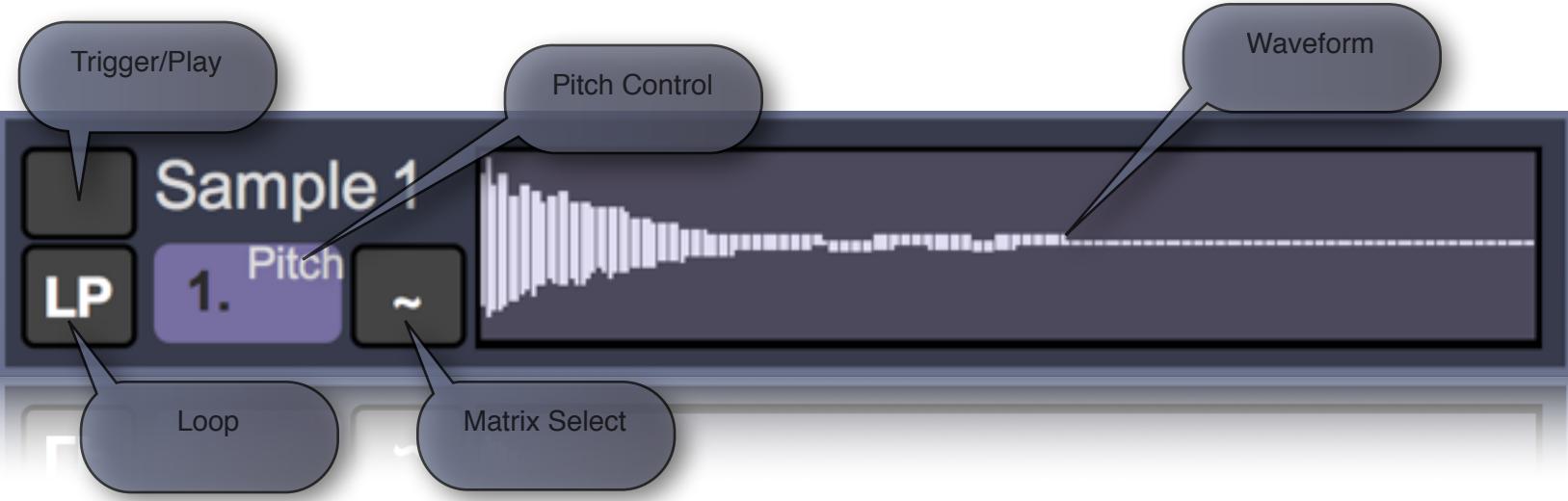
This will then create live sample buffers in which the live feed can be recorded and defined.

# Sample Control

## Sounds and Loaded Samples

There are a number of controls associated with each load sound file in Ipsum Sola X. Each control gives the performer the ability to shape and structure sounds in their own unique and detailed way.

The anatomy of sample control:



**Trigger** - Will fire off the sample and play until the end of the highlighted selection (the entire waveform is highlighted by default).

**LP** - Will loop the selection infinitely until stopped.

**Matrix** - Allows for the routing of the selection through any of the five parallel streams on the mixer. (Eight or DryOut is highlighted by default)



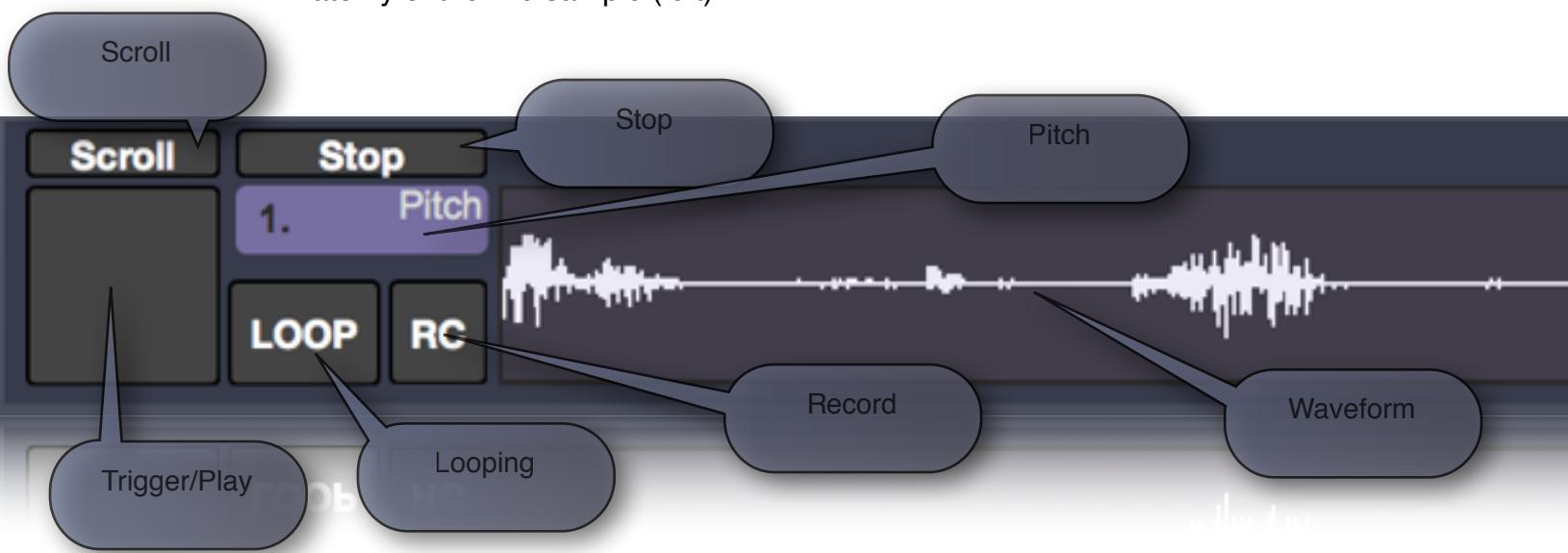
**Pitch** - Controls the pitch of the sample. This affects the sample on both its frequency domain as well as its time domain in a one to one relationship.

**Waveform** - Selection can be controlled by clicking and dragging in the waveform area.

## Live Sample Control

The live sample control is a slightly more in-depth and has features to enhance the performativity of the player.

Anatomy of the live sample (left):



**Trigger** - Causes the file to play within the given highlighted selection. The selection by default consists of the entire audio recording.

**Scroll** - This affects the output of the audio selection. When off by default, no audio output will be triggered. When on, audio will be dynamically triggered when a selection is made

**Stop** - Stops the playback of the file.

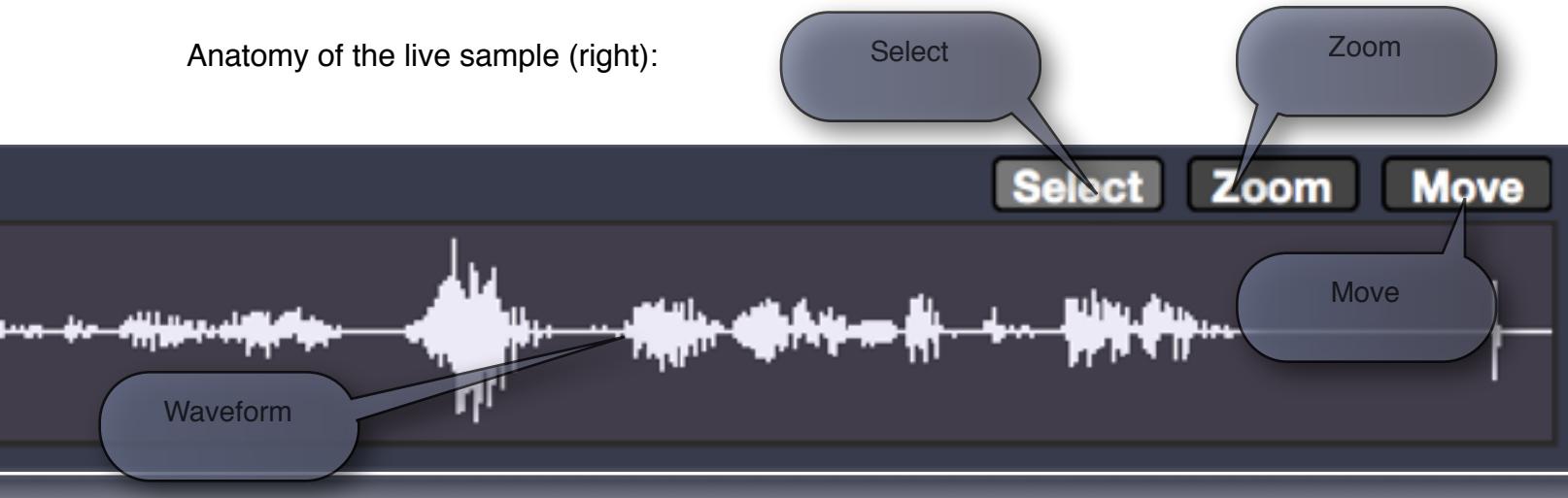
**Loop** - Continuously loops the selection of the audio until stopped by the user.

**Pitch** - Controls the pitch of the sample. This affects the sample on both its frequency domain as well as its time domain in a one to one relationship.

**Record** - Starts recording all incoming audio into Ipsum Sola X. *Warning! - This will erase any previous recorded sample in the buffer with no possible means of recovery.*

**Waveform** - Displays the selection of the audio file for playback.

Anatomy of the live sample (right):

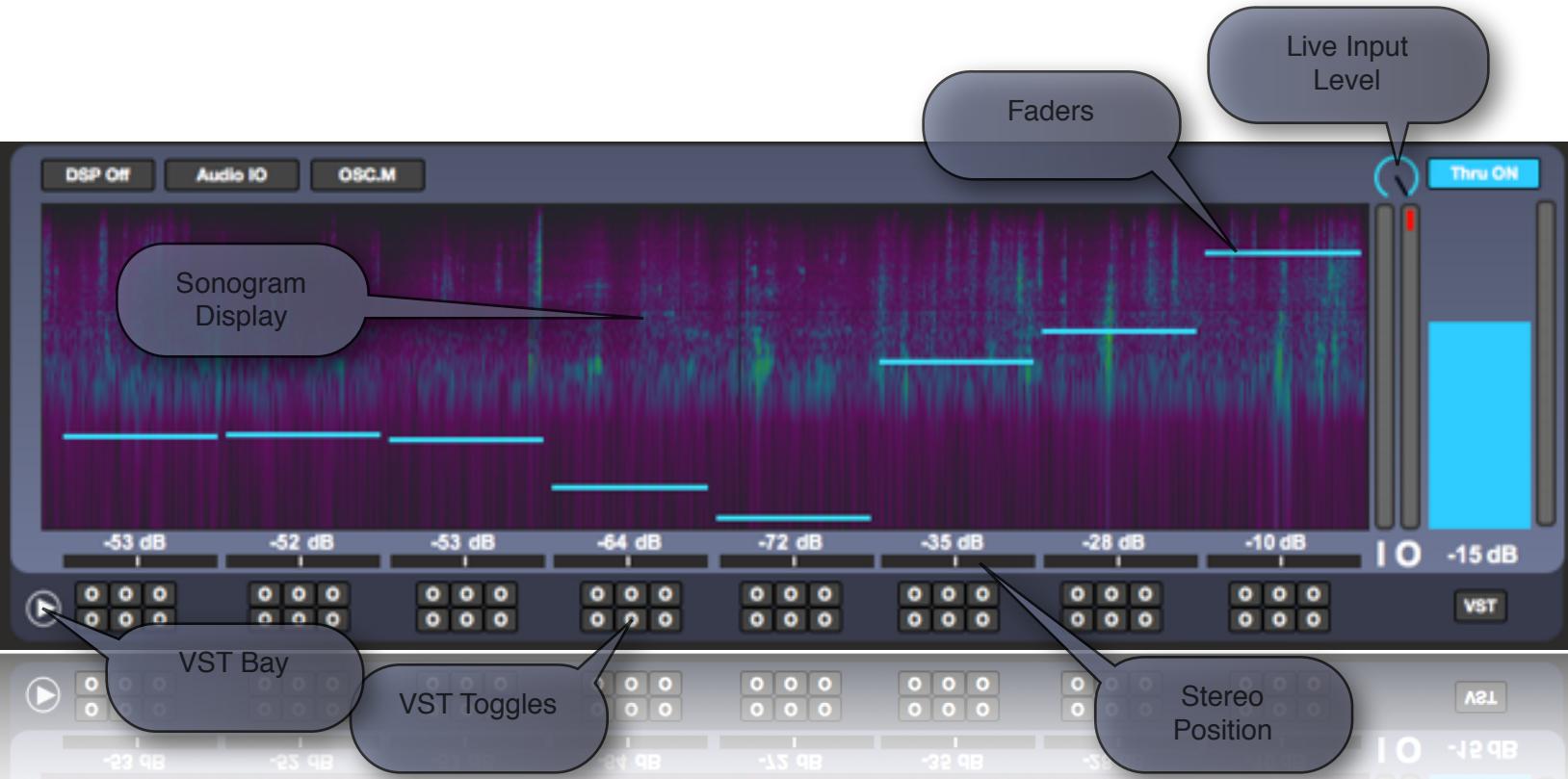


**Select** - *On by Default* - Highlight specific sections of the audio buffer by clicking and dragging across the waveform horizontally.

**Zoom** - Zoom into the the waveform to make more specific selection form the audio.

**Move** - Horizontal movement changes the relative position of the highlighted region. Vertical movement changes width of highlighted selection.

# Parallel Audio Mixer



Audio mixer is fairly basic in its current iteration. There are eight faders, each are controlling the levels of the audio process tabs directly below each fader. Stereo spatialization is controlled by the horizontal sliders directly below the level faders.

The most interesting feature in the mixer is the **Sonogram Display**.

The sonogram display is useful to see where you are placing sounds on the frequency spectrum. This could help you decide how to best fill out the sound based on the current state of Ipsum Sola X.

**Live Input** - Control level of audio in.

**Faders** - Set level for each individual parallel process.

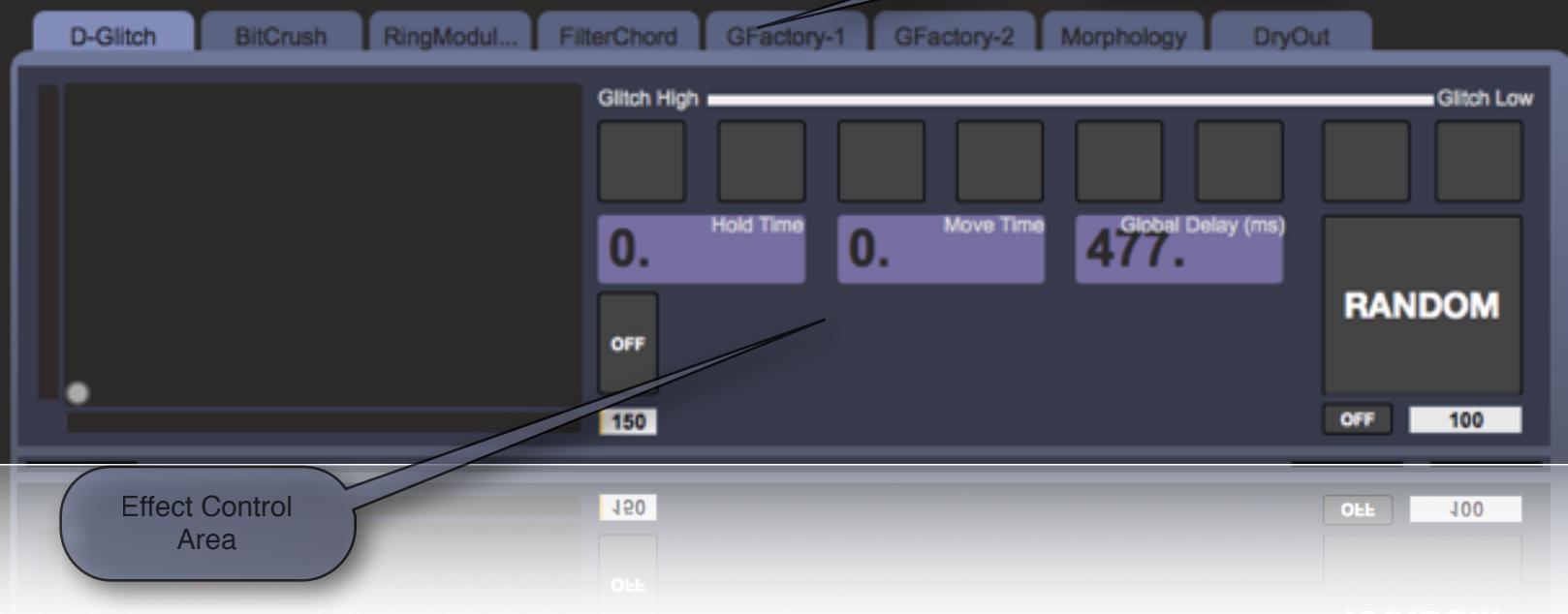
**Sonogram Display** - Provides performance feedback on sound placement with-in the audible spectrum (X Axis - Time, Y Axis - Frequency).

**VST Toggles** - Toggles the VST plugins on(blue) and off(gray).

**VST Bay** - Open VST control.

# Audio Manipulation Board

Tab Selection



The Audio Manipulation Board consists of two main components:

1. The tab menu
2. The effects control area.

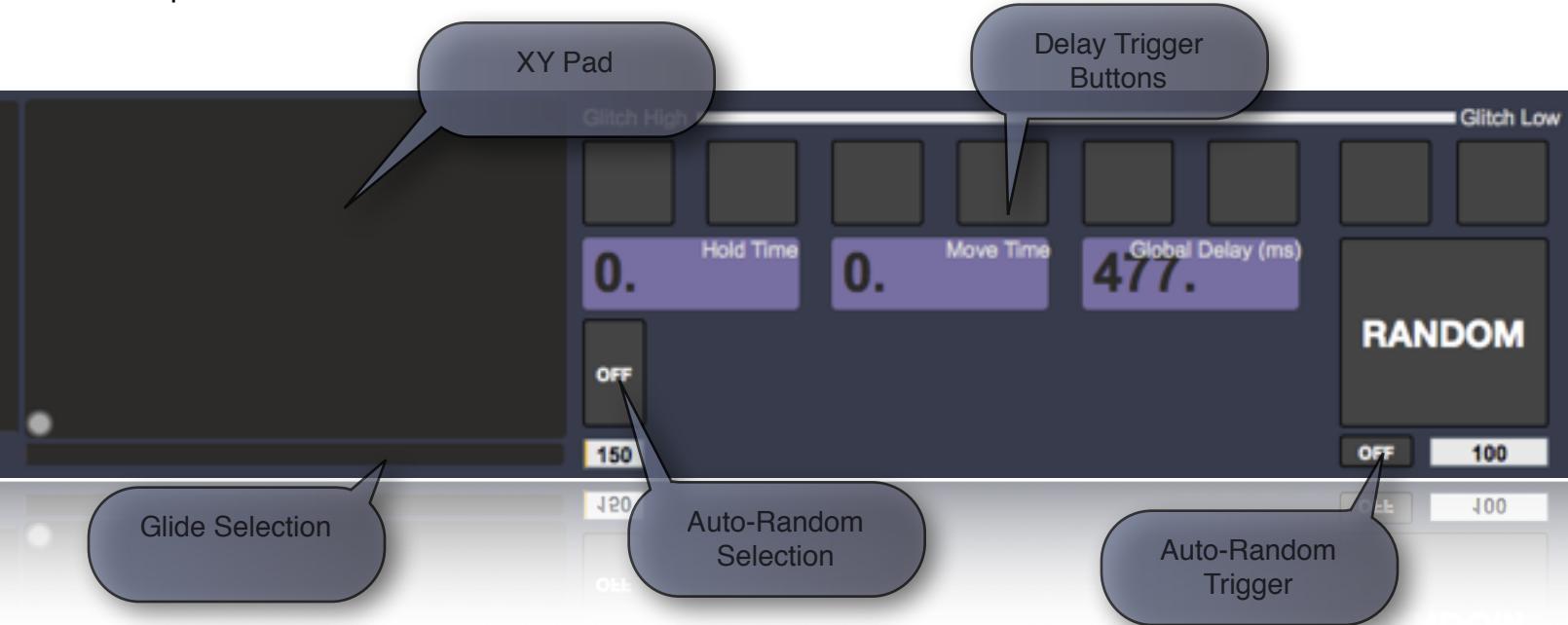
Clicking on the tabs will dynamically change the contents of the *Effect Control Area* and reveal other effect and controls.

There are eight total effect tabs built into Ipsum Sola X:

1. **D-Glitch**
2. **BitCrush**
3. **RingMod**
4. **FilterChord**
5. **GFactory-1**
6. **GFactory-2**
7. **Morphology**
8. **DruOut**

## D-Glitch

Causes various kinds of delays and glitch-jitter kind of effects to an incoming audio path.



**XY Pad** - Controls the *Hold Time* and *Move Time* of the D-Glitch function. (*Horizontal - Move Time, Vertical - Hold Time*)

**Hold Time** - Affect the decay of the delay line. The higher the number results in longer decay times.

**Move Time** - Affects the the rise and fall of the sound over short or long periods of time.

**Global Delay** - In milliseconds, the global delay sets the overall tempo for the delay. Smaller numbers causes tighter repetitions and longer ones cause more spaced repetitions.

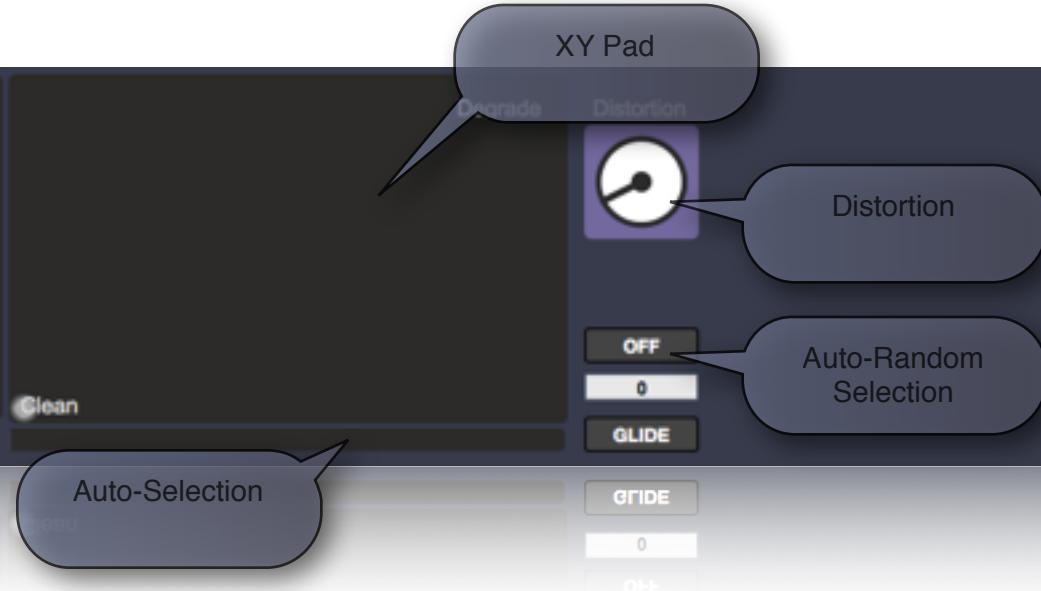
**Auto-Random Selection** - Toggles on and off the automatic and random glide on the XY pad.

**Auto-Random Trigger** - Randomly triggers the Random button at given and random intervals.

**Glide Selection** - Select region in which the *Auto-Random Selection* will affect.

## BitCrush

Adds extreme bit-crushing distortion to the audio path by stripping the audio down sample by sample.



**Auto-Random Selection** - Toggles on and off the automatic and random glide on the XY pad.

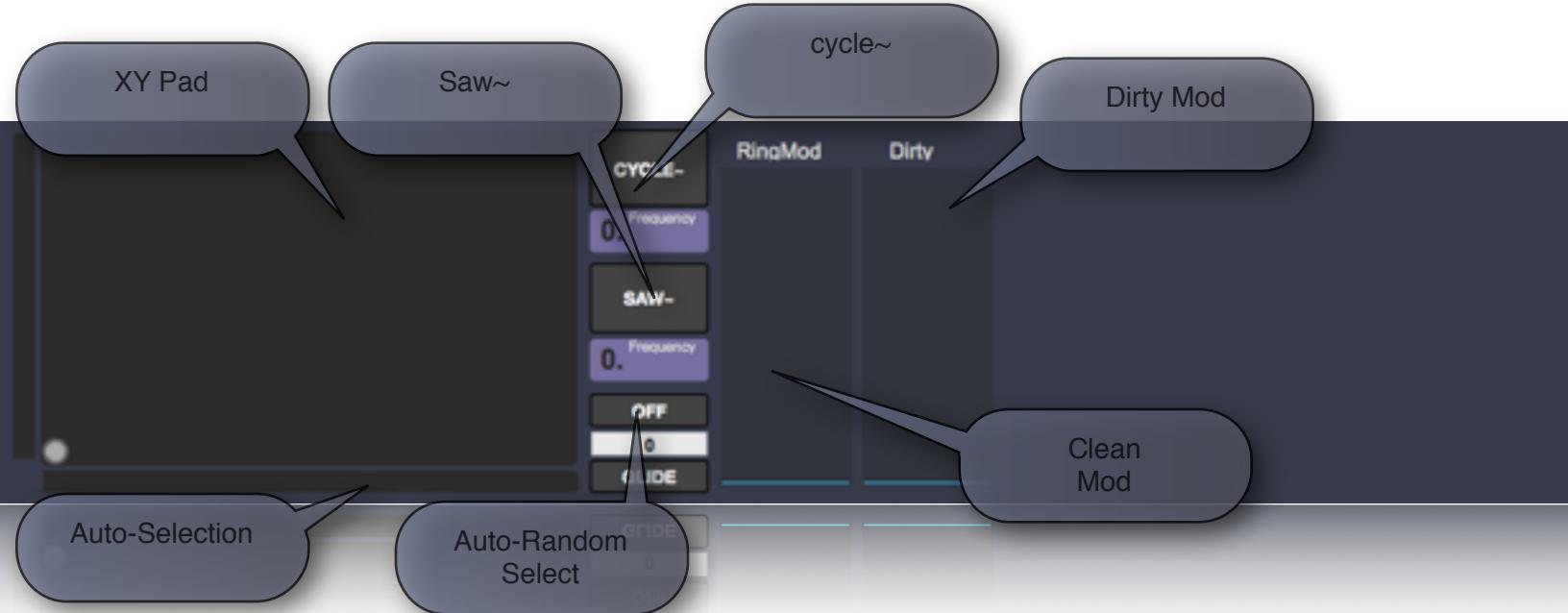
**Auto - Selection** - Select region in which the *Auto-Random Selection* will affect.

**Distortion** - Adds additional distortion to the audio stream.

**XY Pad** - Controls the resampling(Vertical) and restructuring of bitdepth(Horizontal).

## RingModulator

Multiplies the waveforms together by either live stream and samples or using a sine/saw wave for the multiplication.



**XY Pad** - Controls the pitch at the two axes.

**Auto-Random Selection** - Toggles on and off the automatic and random glide on the XY pad.

**Auto - Selection** - Select region in which the *Auto-Random Selection* will affect.

**Saw~** - Multiple waveform with a saw wave.

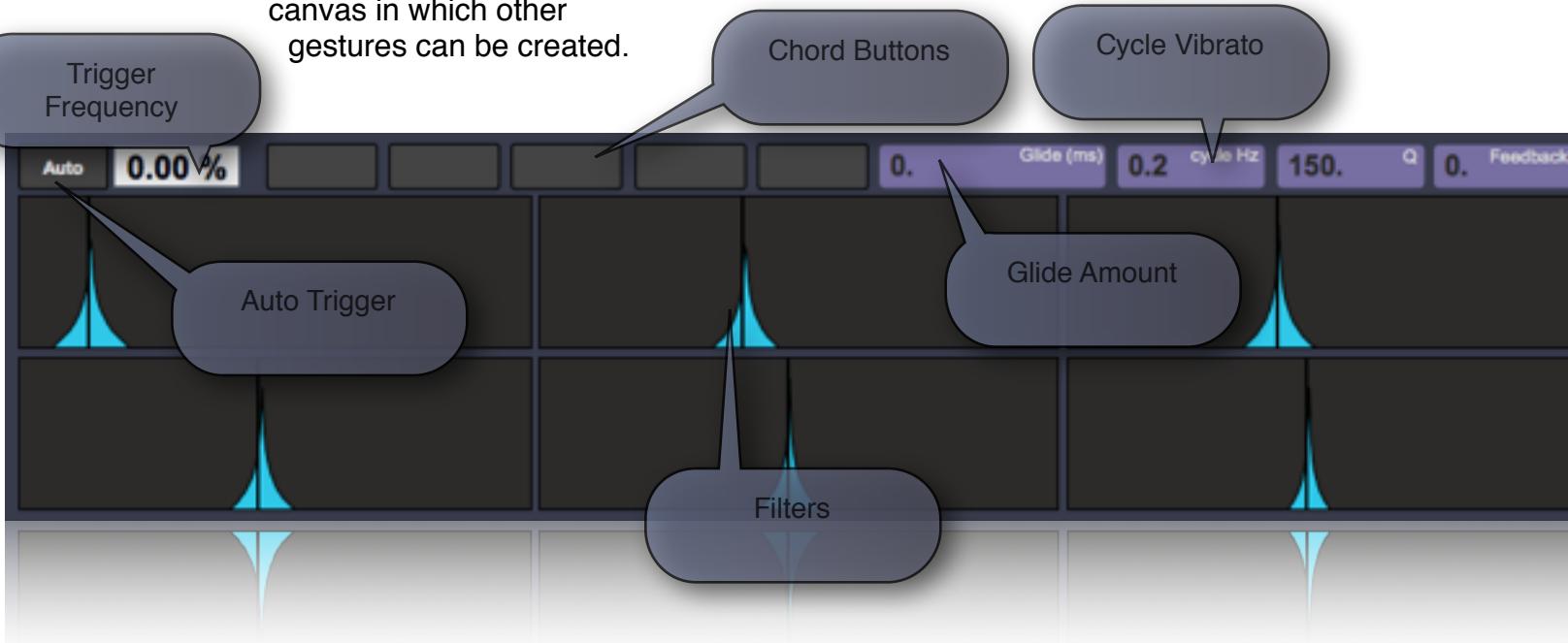
**Cycle~** - Multiple waveform with a sine wave.

**Clean Mod** - Control level of clean classic ring mod sound.

**Dirty Mod** - Control level of hybrid sound multiplication of various incoming signals.

## FilterChord

The filter chord can create rich ambient textures based on the frequency and richness of any incoming audio. Creates a static canvas in which other gestures can be created.



**Auto Trigger** - Randomly triggers one of the five chord buttons.

**Trigger Frequency** - Adjusts the density in which the buttons will be triggered.

**Chord Buttons** - Changes the filter frequency positions.

**Filters** - Visual feedback on where the filters lie.

**Glide Amount** - In milliseconds, glide adjust the rate in which the filters change.

**Cycle Vibrato** - Adjust the rate of the tremolo effect.

**Q** - Adjust filter width.

**Feedback** - Change the looping and feedback function. Can be somewhat temperamental.

## GFactory-1 and GFactory-2

Both GFactory-1 and GFactory-2 provide the ability to slice up recorded live samples into sections that correspond to the relative placement on the sequencer.

Both of these functions are fairly complex and allow for many variations during playback.



**Sequencer** - The sequencer works like a typical sequencer. Where the tempo regulates the horizontal movement and the placement of the slice is regulated by the vertical position of the highlighted cell.

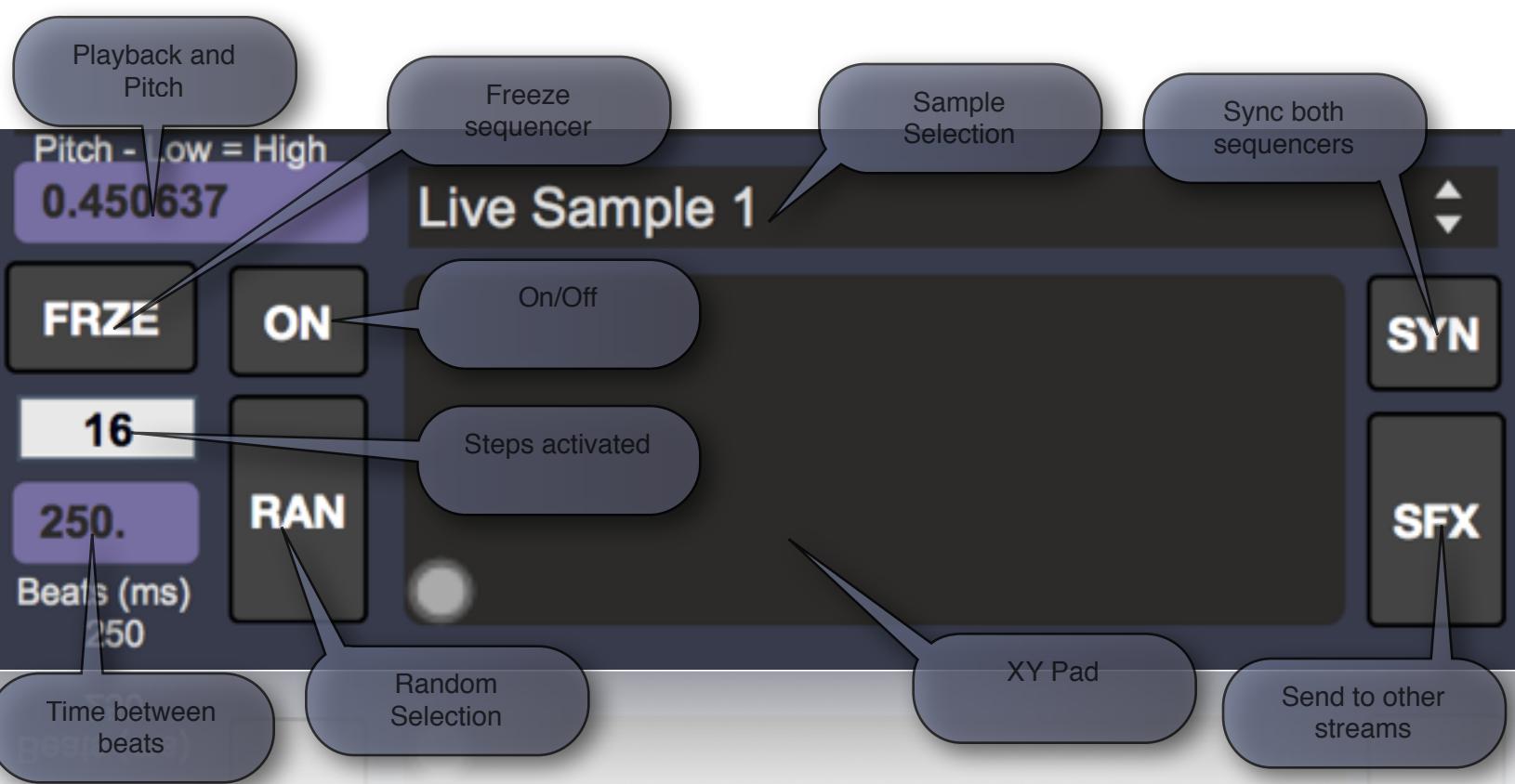
**Enable/Disable Beats** - Below the sequencer, the larger square blocks enable(blue) or disable(gray) the playback of the slice on that particular slice.

**Pitch and Playback** - This adjusts the playback and pitch of the audio slice. The higher the slider, the faster the playback. The lower the slider, the slower the playback.

**Waveform Display** - Visual feed back on where the slice are taking place.

**Control Area** - More details regarding control area on next page.

## Control Area



**Playback and Pitch** - Allows for micro-incremental adjustments to the pitch slider.

**Freeze Sequencer** - Repeats given position of the sequencer

**On/Off** - Turns the sequencer on and off

**Steps** - Determines the active number of steps in the sequencer.

**Ran** - Randomly places values in the sequencer.

**Time b/t Beats** - The number of milliseconds between each step in the sequencer.

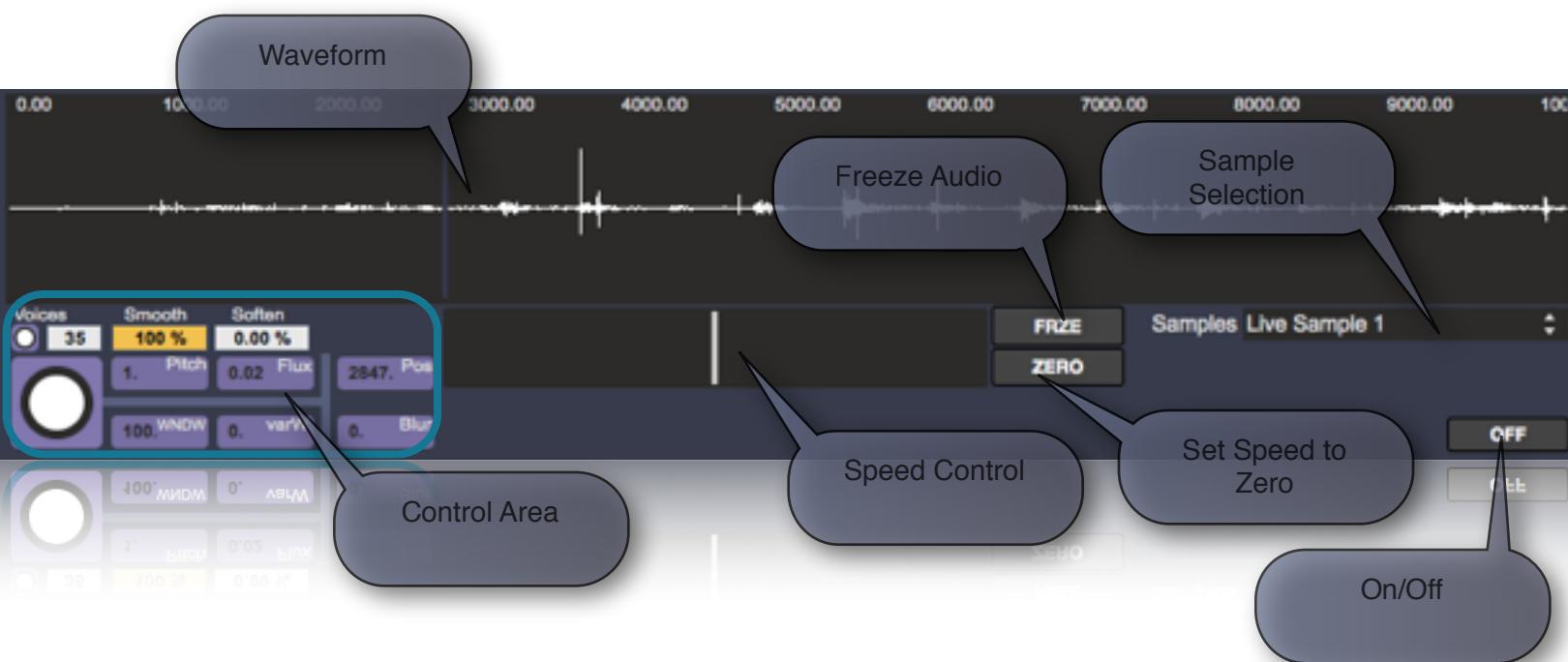
**Sample Selection** - Choose one of four live samples to sequence

**Sync** - Synchronize both G-Factory 1 and 2 with each-other.

**SFX** - Channel output of the sequencer through the parallel streams 1 - 4

## Morphology

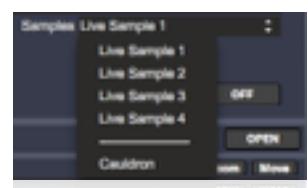
Morphology is a granular synthesizer that takes multiple slices of the audio file through voicing for textured and rich playback. What is unique in morphology is the use of what is called 'FLUX', which allows for stochastic pitch control on the individual voices.



**Waveform** - Displays waveform of currently selected audio file.

**Freeze Audio** - Freeze the position of the playback. Playback will stay frozen until released.

**Sample Selection** - Sample selection gives the user two main chooses, choose from recorded live sessions, or brew up to four samples together with cauldron.



When Cauldron is selected, there will be three options: Earth, Heaven, and Hell. Then click on **Brew**.

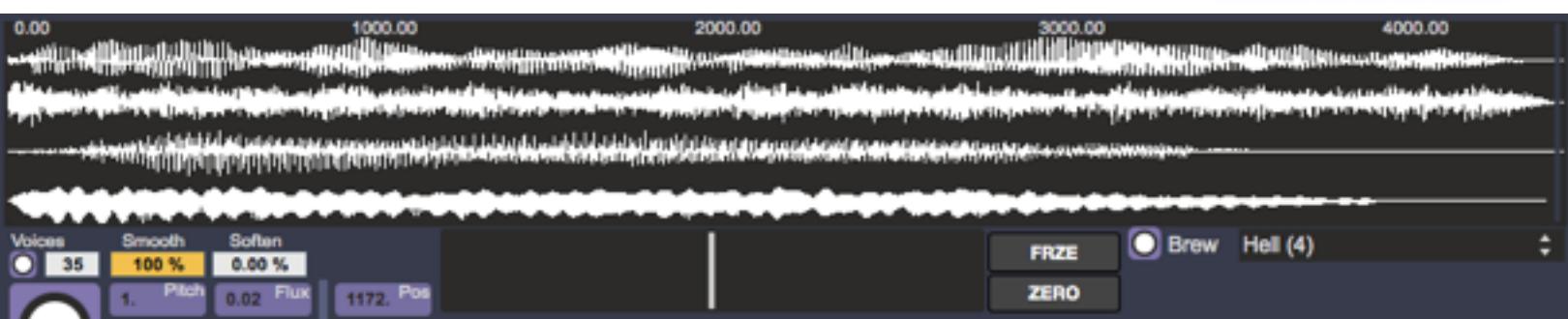


**Earth** - Allows to load one audio file (AIFF, WAVE).

**Heaven** - Allows to mix two audio files (AIFF, WAVE). *Not Working*

**Hell** - Allows to mix up to four audio files (AIFF, WAVE). *Not Working*

\*Hint\*- To load a file, simply drag and drop onto the waveform area.



## **Control Area**