isxysnth is spectral cross synthesis / morphing plugin
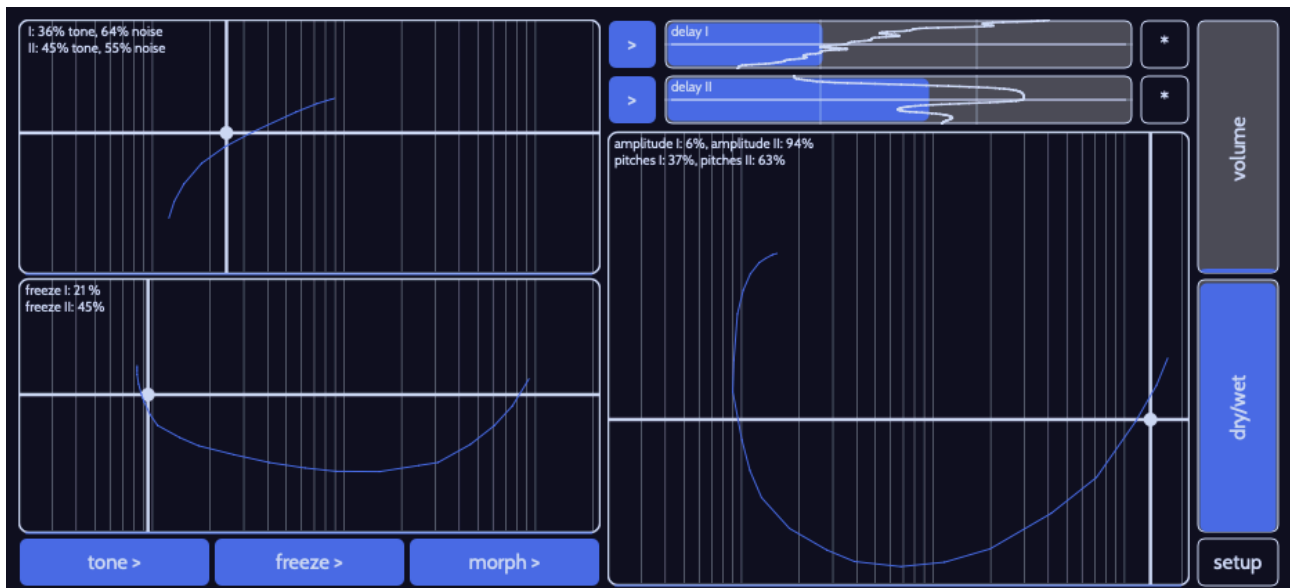
it gets two input signals, splits each one into 2 parts containing noise and tone components and then allows morphing between all these elements. Freeze control allows spectral blurring-like effect for both input signals, two 3 second delay lines allow selection of different signal in time and also provide "freeze" effect

you can process left and right channels on stereo source or use this effect as multi-input AUv3 — in that case it will use 2 stereo inputs. Standalone mode currently works only in "mono" mode

· three XY controls set balance between tone and noise components, amount of freeze and set up morphing
· both inputs have 3-second delay line; freeze button ("*") toggles off recording.
· gestures on all the main controls (3 xy pads and two sliders) can be recorded and played back when appropriate button with ">" label is toggled on

user interface
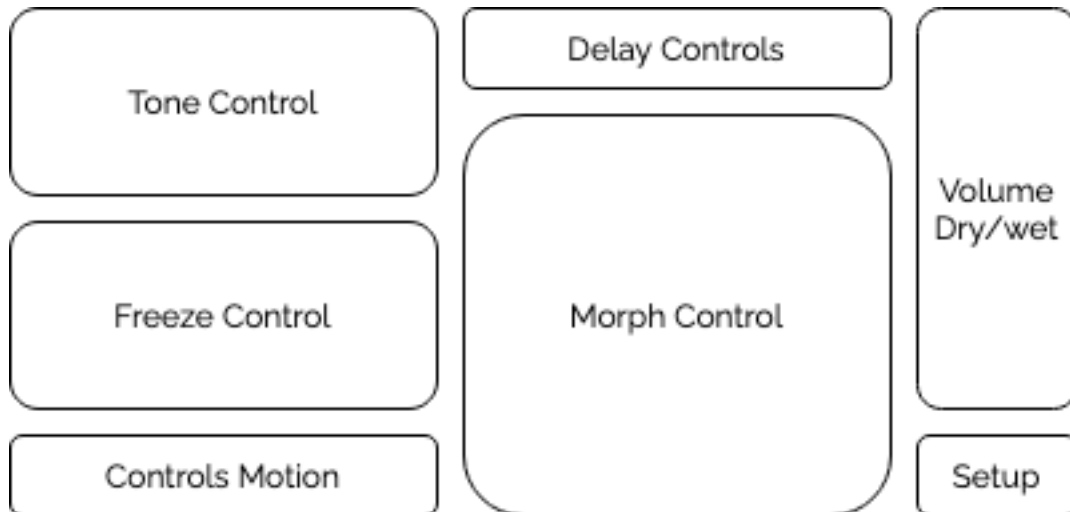
Main synthesis options are controlled by 3 XY pads. All three pads have minimum value for both axis in upper left corner and maximum value in lower right corner. You can double-tap on each XY control to reset it to the default value.

- **Tone control** lets you set amount of noise and pitch-tracked tone components from each signal that will be used for morphing. In case of tone control, upper left corner is 100% noise for both inputs I and II and lower right is 100% pitch-tracked tones. There are actually three types of sound for each axis: 100% noise is spectrum with a FIR filter applied to remove tonal components, 50% noise is just an unprocessed spectrum of an input signal and 100% tone is additive synthesis of detected tones.
- **Freeze control** allows you to mix the new value with the previous one, on 100% level it "freezes" otherwise it works a bit like something known as "spectral blur".
- **Morph control** allows you to select amplitude and pitch components from two sources; full sound of source I is upper left corner and full sound of source II is in lower right.

Each control also works as a display: Tone Control is input I, Freeze Control is Input II and Morph Control is output. You can see a sonogram with logarithmic scale and also frequencies and amplitudes of tracked pitches.

Delay Controls set delay tome for each input. The freeze button **[*]** switches off recording of the delay so the recorded audio in the buffer doesn't change

Volume and **Dry/Wet** controls are for the effect levels. When first run, the volume is set to minimum to avoid feedbacks.

gesture recording & playback

each button with ">" mark switches gesture recording for appropriate control: Controls Motion buttons are for XY controls and " > " buttons in Delay Controls section are for the delays. When enabled, each touch gesture over the control is instantly recorded and played back in a loop when you stop touching it.

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