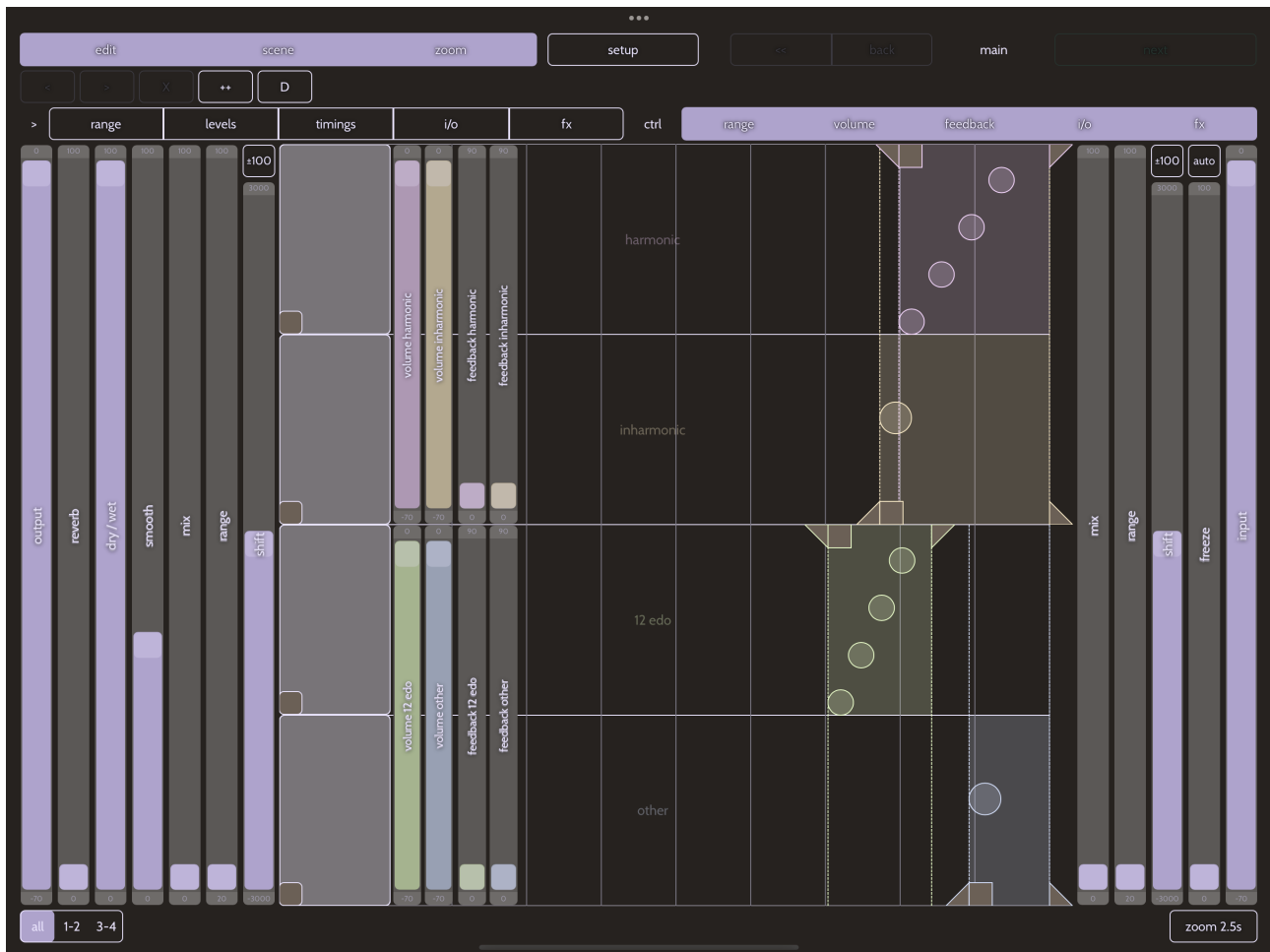


“bells and whistles, literally”



**spectwhirl** is an experimental hybrid spectral / lo-fi effect. It can extract and rearrange sine wave components from input signal to make new textures and bell-like sounds.

- Input sound is converted to sine wave components that are divided into 4 groups: *harmonic*, *inharmonic*, *12-edo* and *other*.
- Each component is fed into a delay line (up to 10 seconds) with the feedback.
- There is a group of frequency shifter and sample-and-hold effects before and after delay lines.
- Each set of sine wave components can be filtered.
- All the parameters can be instantly automated with gesture recording and playback.
- Additional *freeze* and *smooth* parameters provide spectral freeze / blur features.
- Machine state is stored into “scene” and it can be switched during performance.

## Quick Start

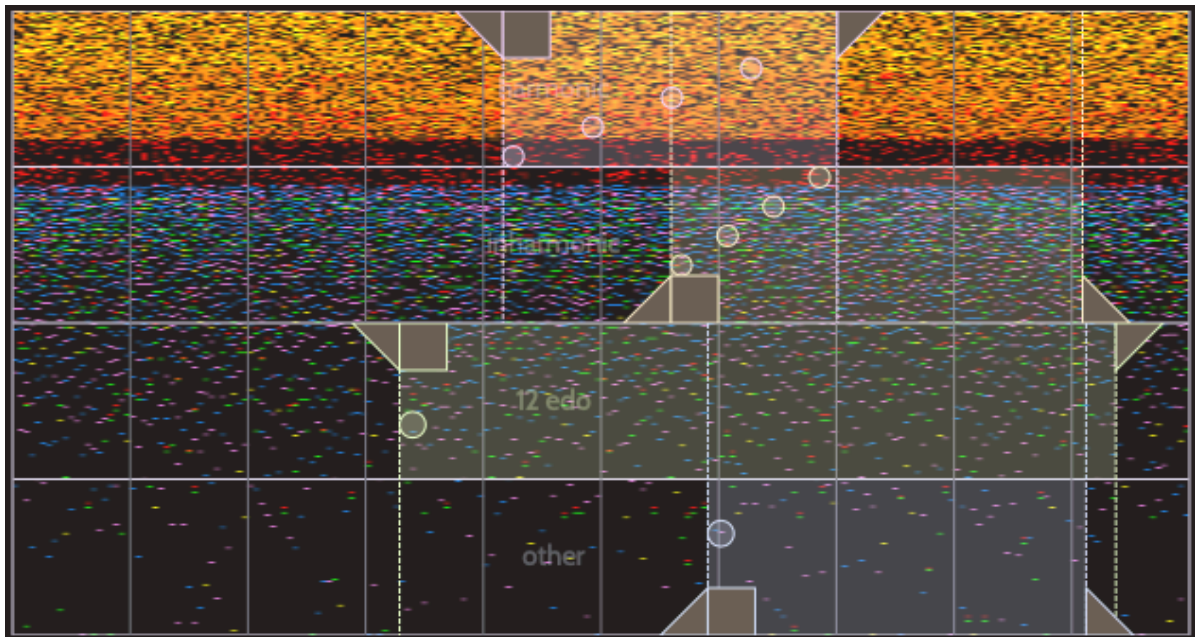
Top row of controls enables different parts of user interface: scenes editor ("**scene**"), controls switch ("**edit**") and "**zoom**" controls.



When the "**edit**" is on, you can show or hide various controls (marked as "**ctrl**") and switch gesture recording automation for some of them (marked with ">")

Main control surface displays sonogram with tracked elements.

Colors are set accordingly to the group they are assigned (**harmonic**, **inharmonic**, **12-edo** and **others**). Each "lane" contains delay time controls.

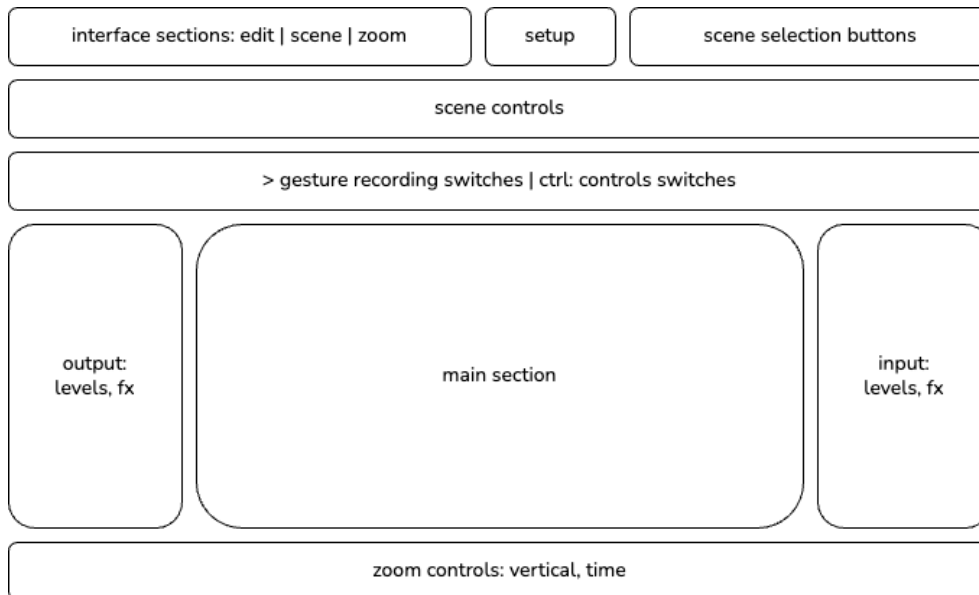


- *Triangle facing left* is for the start locator, it determines initial delay time
- *Square* moves both start and end locators together
- When left locator is first moved you can see the *right locator* with the same triangle. It shows the end of the selected region, the *secondary delay time* is determined by the difference between left and right locators.
- If you drag over the area of the region in a lane, the *circle / four-dotted indicator* will change its appearance, it changes arpeggio mode of the region. If set to leftmost position (all in vertical line) the components go in-sync; if set to maximum value (shown as diagonal line) - components are played sequentially.

Please note that standalone effect starts with output level set to -70dB to avoid feedback.

## Overview

The app has one main screen and another one for audio setup and file import / export.



- **interface section** buttons switch visibility of **scene** controls, gesture recording / parameter sliders (“**edit**”) and **zoom** features.
- **setup** button opens setup / file io screen
- **scene selection** buttons allow you to switch scenes when they are available. This section contains “goto 0” button (“<<”), “**back**” and “**next**”; these are supposed to be the controls for the performance. The initial scene (number 0) is always marked as “main” and there is a counter showing total amount of additional scenes after it. If you haven’t added any scenes all these features will be greyed out.



**Scene controls** section contains these buttons:



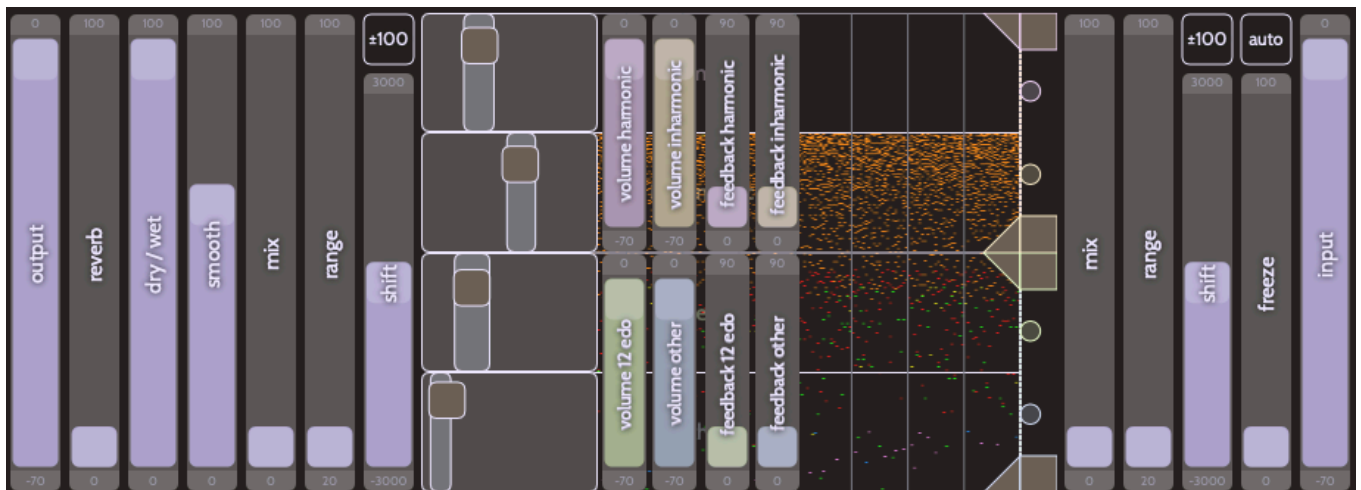
- “<” and “>” swap scenes
- “X” removes current scene. You cannot remove the first scene (and this button will be greyed out) but you can swap it and delete afterwards.
- “++” inserts new scene at current index or at the end of the scenes
- “D” deletes current scene

## Gesture recording and parameter control switches

For the gesture recording there are several groups of parameters that can be enabled or disabled.

- **range** enables automation for the frequency range controls.
- **levels** activates gesture recording for volume / feedback levels for each delay line
- **timings** enables automation for all loops' start / end time and arpeggio mode (with the one - four dot control)
- **i/o** is for pre-fx and post-fx parameters: **freeze**, **smooth**, **dry/wet** and **reverb**
- **fx** activates gesture recording for both pre- and post- fx blocks of frequency shifter and sample-and-hold

For the controls visibility the groups are almost the same; instead of “**levels**” group, **volume** and **feedback** can be switched on separately and the main control (‘**timings**’) cannot be switched off.



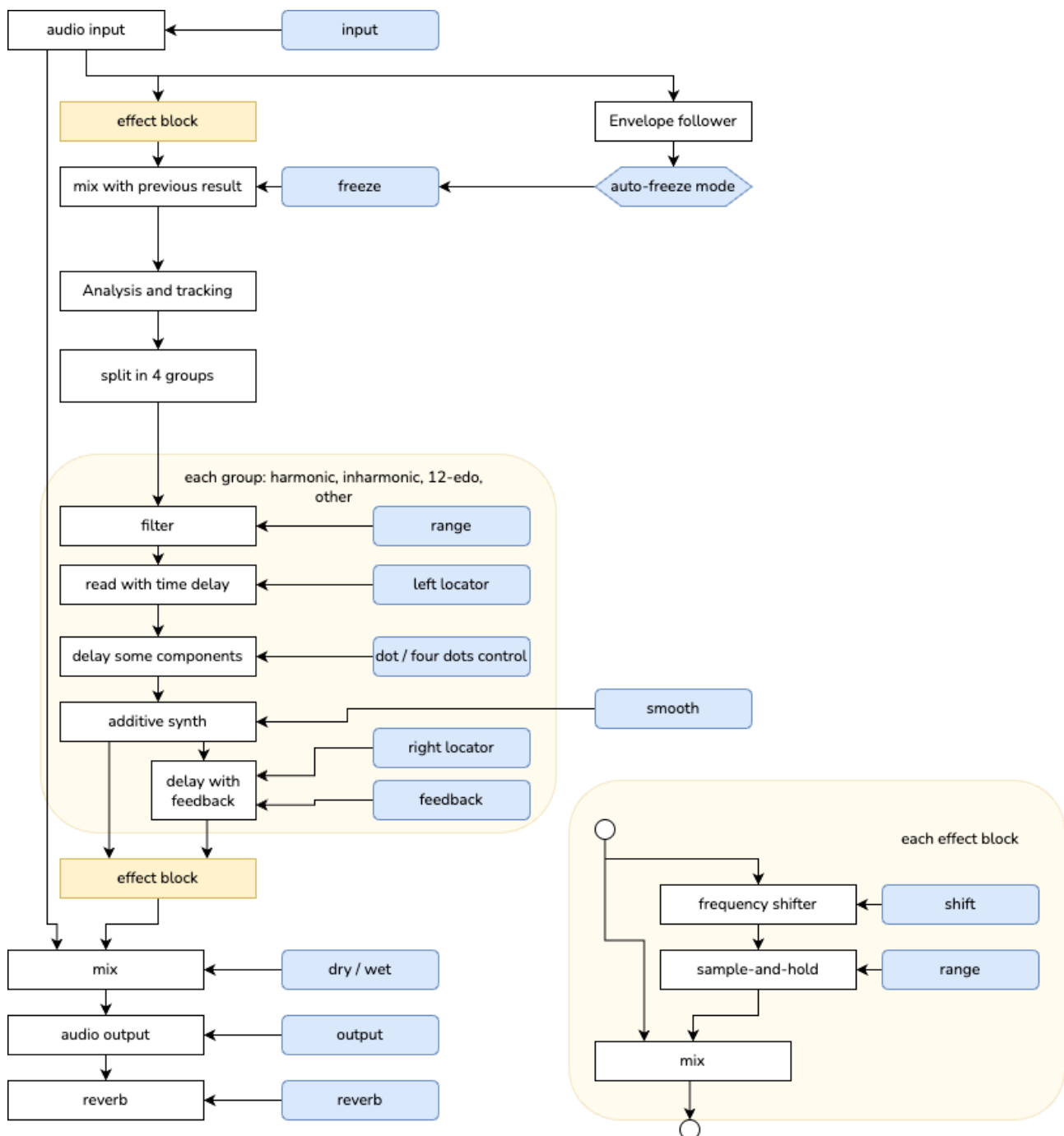
### details

The slider value can be changed by dragging the highlighted handle. To reset the slider double-tap outside the handle area. When the gesture recording is activated for a slider, it gets more controls: min and max values become active elements and allow you to instantly set the value; instead of double-tap-to-reset there is a special button with slider's default value. Recorded gesture is displayed with white line over the slider.

“shift” slider also has a special button to reduce its range



## Effect block diagram:



# **spectwhirl manual**

v1.0.0

rev 1

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