



SINEVIBES

**Fraction** *audio slicing workstation*

# INTRODUCTION

Fraction is an effect plugin for deep real-time manipulation and re-engineering of sound. It features 8 slicers which record and repeat the input audio at defined points in time, slightly or radically changing its rhythmical arrangement. Each slicer has three dedicated effect processors with a wide range of algorithms, and their parameters can be animated in many different ways. Rolls, stutters, fills, breaks and transitions can be done with unprecedented ease – in fact, Fraction has enough power to create whole musical pieces out of almost anything!

Like every Sinevibes product, Fraction has a clean, carefully crafted user interface with animated and color-coded controls. Its live audio waveform lets you visually place slice markers on particular sounds, and custom graphics for each effect algorithm allow to quickly see what's going on. All this makes Fraction a doddle to learn – and a blast to use.

## SOUND ENGINE

- Eight audio slice repeaters with individual settings for size, repeat count, playback direction, trigger probability and more.
- Three effect units per slice, offering 16 algorithms: low-pass, high-pass, band-pass and band-reject filters, phaser, barber-pole phaser, positive and negative flangers, chorus, bit depth and sample rate reduction, analog drive, circuit-bent filter, frequency shifter, pitch shifter and ring modulator.
- Four parameter animation generators per slice, tightly synchronized to slice repeaters.

## GRAPHIC INTERFACE

- Live input audio waveform for visual slice marker placement.
- Fully hardware-accelerated rendering with support for Retina screen resolution.
- Multiple utility and randomization functions.
- Additional functions via multi-touch gestures and force touch on compatible trackpad devices.

## COMPATIBILITY

- Works with any application that supports Audio Unit effect plugins.
- Supports OS X 10.6 or later running on 32 or 64 bit Intel Macs.

# QUICK START

1 Start playback to see the real-time audio waveform

2 Click and drag a slice marker onto the sound you want to repeat

3 Change slice size, slice repeat count and playback direction

The screenshot displays a digital audio workstation (DAW) interface. At the top, there is a 'slice set' section with buttons numbered 1 through 8. To the right of this are navigation buttons: '<<', '<', '>', and '>>'. Further right is a 'loop duration' section with a horizontal scale bar. On the far right, there is a 'beat division' section with a horizontal scale bar. The main area of the interface is a large red audio waveform. Below the waveform, there are several control panels. The first panel on the left has a power button, a 'copy paste reset evolve chaos' menu, a '1/2 beat' slice size indicator, a 'repeat 2x' counter, playback direction buttons ('forward', 'reverse', 'fwd-rev'), a 'trigger probability' slider, a 'random size' slider, and a 'random repeats' slider. The second panel is for a 'low-pass filter' and includes a 'cutoff frequency' slider, an 'animation' bar, and buttons for 'one slice' and 'one round', along with 'ramp', 'up/down', and 'random' options. The third panel is for 'analog drive' and includes a 'gain' slider, an 'animation' bar, and buttons for 'one slice' and 'one round', along with 'ramp', 'up/down', and 'random' options. The fourth panel is for 'ring modulation' and includes a 'frequency' slider, an 'animation' bar, and buttons for 'one slice' and 'one round', along with 'ramp', 'up/down', and 'random' options.

# INTERFACE BREAKDOWN

## SLICE SET & TIMELINE

slice set: 1 2 3 4 5 6 7 8

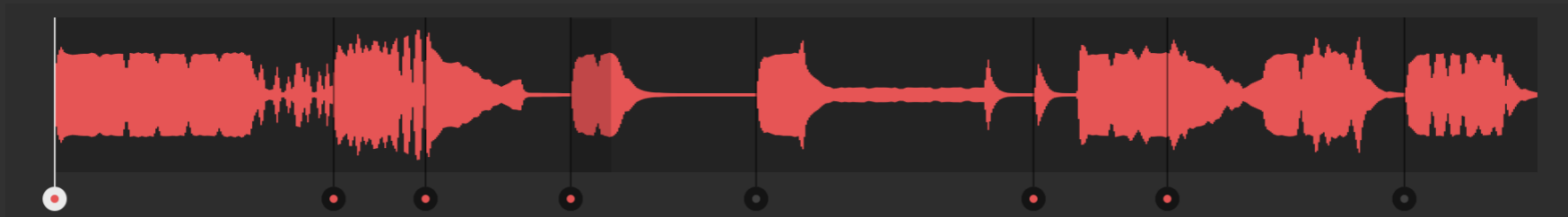
copy paste reset evolve chaos

loop duration

beat division

swing ratio

## LIVE AUDIO WAVEFORM & SLICE MARKERS



## SLICE SETTINGS

copy paste reset evolve chaos

1/2 beat

repeat 2x

forward reverse fwd-rev

trigger probability

random size

random repeats

## SLICE EFFECTS & ANIMATION

low-pass filter

analog drive

ring modulator

cutoff frequency

gain

frequency

animation

animation

animation

one slice one round

one slice one round

one slice one round

ramp up/down random

ramp up/down random

ramp up/down random

## OUTPUT & ANIMATION

sinevibes fraction 1.3.0  
audio slicing workstation

duck mix

gate time

level

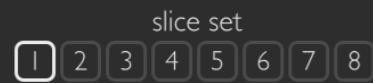
pan

animation

one slice one round

ramp up/down random

# SLICE SET & TIMELINE

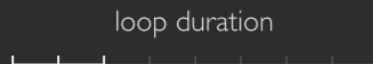


Each slice set stores marker position and switch status for all 8 slices. Use these slice sets to gradually bring slicing effects in and out, or move the same slice onto different timeline locations.

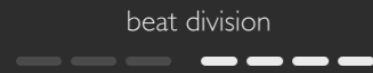


Various functions to manipulate the slice sets:

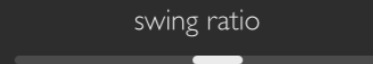
- **copy**: copy current slice set to the intermediary buffer;
- **paste**: paste from the intermediary buffer into the current slice set;
- **reset**: set all slice markers to default locations;
- **evolve**: gradually randomize some slice marker locations;
- **chaos**: randomize all slice marker locations;
- shift the marker positions by one beat (<< and >>) or one step (< and >) left or right.



Set the duration of the live waveform's timeline to 2, 4 or 8 bars.



Set the division of each beat on the timeline into 3 or 4 steps.



Set the swing ratio between odd and even timeline steps, from 25% to equal to 75%.

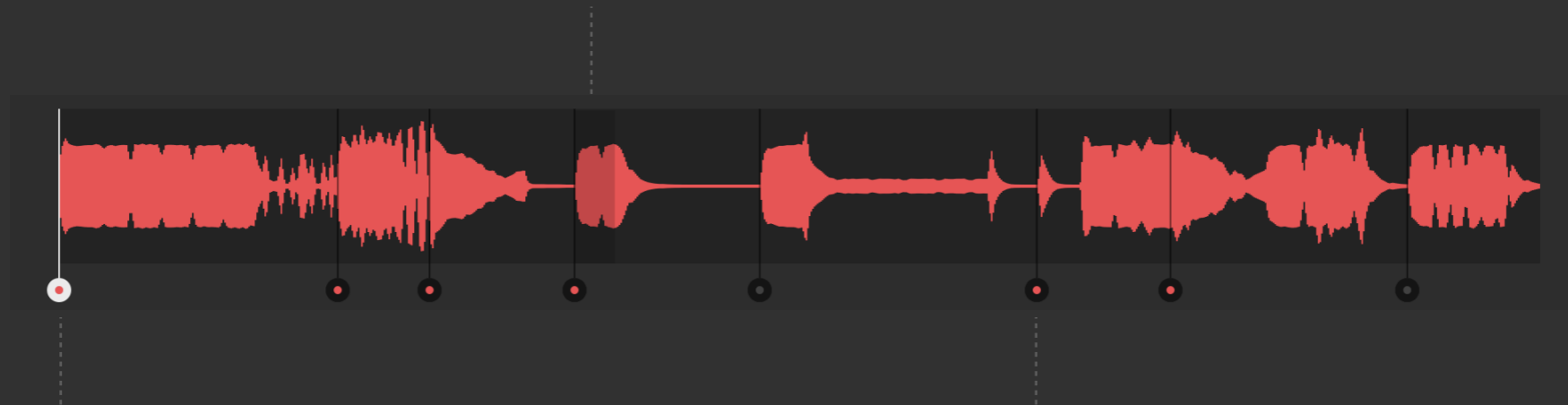
## SHORTCUTS

*Two-finger swipe* left or right anywhere: switch to previous or next slice set.

*Command-click* or *double-click* on any slider: reset to default value.

# LIVE AUDIO WAVEFORM & SLICE MARKERS

Running highlight shows the current location on the waveform timeline.



Click a slice marker to select it for editing.  
Click and drag a slice marker to place it on the desired timeline location. Keep dragging it and the marker will jump over other markers to reach a further location.

Each slice marker has a dot that allows to see whether it's switched on (red) or off (gray).

## SHORTCUTS

*Double-click* on a slice marker: toggle the slice switch on/off.

# SLICE SETTINGS



Slice on/off switch defines whether the slice is currently active or not. Use *command-click* or *force-click* to simultaneously turn all 8 slices off.

copy paste reset evolve chaos

Various functions to manipulate the currently selected slice, effect & output settings:

- **copy**: copy all settings for the current slice to the intermediary buffer;
- **paste**: paste from the intermediary buffer into the current slice;
- **reset**: set all slice, effect & output settings to their default values;
- **evolve**: gradually randomize some slice, effect & output settings;
- **chaos**: randomize all slice, effect & output settings.

1/2 beat



Slice size: from 1/16 beat to one beat (equals 1/128th note to 1/4th note).

repeat 2x



Slice repeat count: from “play once” to 16 repeats.

forward

reverse

fwd-rev

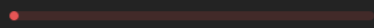
Slice playback direction: forward, reverse, forward-reverse.

trigger probability



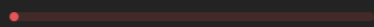
Slice trigger probability: from never (0%) to sometimes to always (100%).

random size



Slice size randomization: none (0%) to heavy randomization (100%).

random repeats



Slice repeat count randomization: none (0%) to heavy randomization (100%).

## SHORTCUTS

*Command-click* or *double-click* on any slider: reset to default value.

# SLICE EFFECTS & ANIMATION



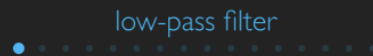
Effect on/off switch defines whether a given effect module is applied onto the slice or not. Use *command-click* or *force-click* to simultaneously turn all three effect modules off.



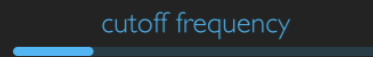
Effect swap button can be used to swap settings between effect modules 1/2 and 2/3.



Each module includes an abstract graphic representation of what it's doing to the sound.



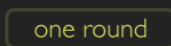
Selector to set the effect algorithm type (see the [effects guide](#) for more details).



Adjust the effect algorithm's main parameter.



Adjust the effect parameter's animation depth (positive or negative). This slider's initial position follows the current value of the main parameter, showing the exact parameter animation range.



Set the animation duration: equal to one slice or equal to one round of repeats.



Set the animation shape: ramp, up and down, random.

## SHORTCUTS

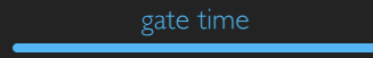
*Command-click* or *double-click* on any slider: reset to default value.



# OUTPUT & ANIMATION



Selector to define whether a slice ducks (mutes) the original audio or is mixed with it.



Adjust the duration of each slice's output gate envelope.



Adjust the slice output level: from mute to +6 dB.



Adjust the slice stereo pan.



Adjust the pan animation depth (positive or negative). This slider's initial position follows the current value of the pan parameter, showing the exact pan animation range.



Set the animation duration: equal to one slice or equal to one round of repeats.



Set the animation shape: ramp, up and down, random.

## SHORTCUTS

*Command-click* or *double-click* on any slider: reset to default value.

**low-pass filter** removes spectral content above its cutoff frequency, making the sound deeper, darker.

**high-pass filter** removes spectral content below its cutoff frequency, making the sound crispier, airier.

**band-pass filter** only passes spectral content in the vicinity of its cutoff frequency, making the sound thinner, isolated.

**band-stop filter** removes spectral content around its cutoff frequency, making a notch in the spectrum.

**phaser** makes multiple peaks and notches in the spectrum, radically reshaping it.

**barber-pole phaser** produces a smooth phaser effect that endlessly cycles down (+) or up (-).

**positive flanger** is a feedback delay line that creates pronounced resonator or “jet” effects.

**negative flanger** is same as positive flanger but has a more hollow, square-wave sound character.

**chorus** has three detuned and mixed time modulation lines for a lush stereo ensemble effect.

**bit depth reducer** reduces the bit depth of the audio signal to create noisy digital distortion.

**sample rate reducer** resamples the audio at a rate of 100 Hz to 20 kHz for bright, harsh digital distortion.

**analog drive** boosts the signal level and mathematically wraps its shape within 0 dB limit, giving warm distortion.

**circuit-bent filter** is a filter with intentionally broken internal connections for noisy, screaming distortion.

**frequency shifter** shifts each frequency component of the input signal into higher (+) or lower (-) frequencies, resulting in a smooth but dissonant sound.

**pitch shifter** divides audio into small portions and plays them faster (+) or slower (-), producing a granulated pitch shift effect.

**ring modulator** multiplies the audio with an output from a sine oscillator, creating a rich metallic sound.



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