



SINEVIBES

FRACTION AUDIO SLICING WORKSTATION

INTRODUCTION

Fraction is a plugin for deep on-the-fly remixing and mangling of sound. It features 8x independent slicers which record and repeat short pieces of incoming audio at defined points in time, either mixing with or replacing the original input. Each slicer has options for variable trigger probability and intelligent randomization for producing infinite variations in the arrangement instead of repeating the same loop over and over. **Fraction** also includes as many as 24x multi-effect processors (three for every slicer) with a diverse collection of finely tuned algorithms, plus effect parameter animation hard-linked to slicer's timing. With such immense power **Fraction** is not just a great tool for intricate stutters, fills, breaks and transitions – it's more like a little sampling groovebox that operates fully in real time.

SOUND ENGINE

- 8x audio slice repeaters with individual size, repeat count, playback direction and trigger probability.
- Intelligent real-time randomization functions with adaptive random number distribution.
- 3x serial effect processors per slice, each with 16 types: 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, ring modulator.
- Per-slice output stage with separate duck/mix setting, gate time, pan and level.
- 4x parameter animation generators per slice, hard-linked to slice repeat timing.

GRAPHIC INTERFACE

- Color-coded graphics with subtle animations.
- 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 functionality and haptic feedback available on compatible trackpads.

COMPATIBILITY

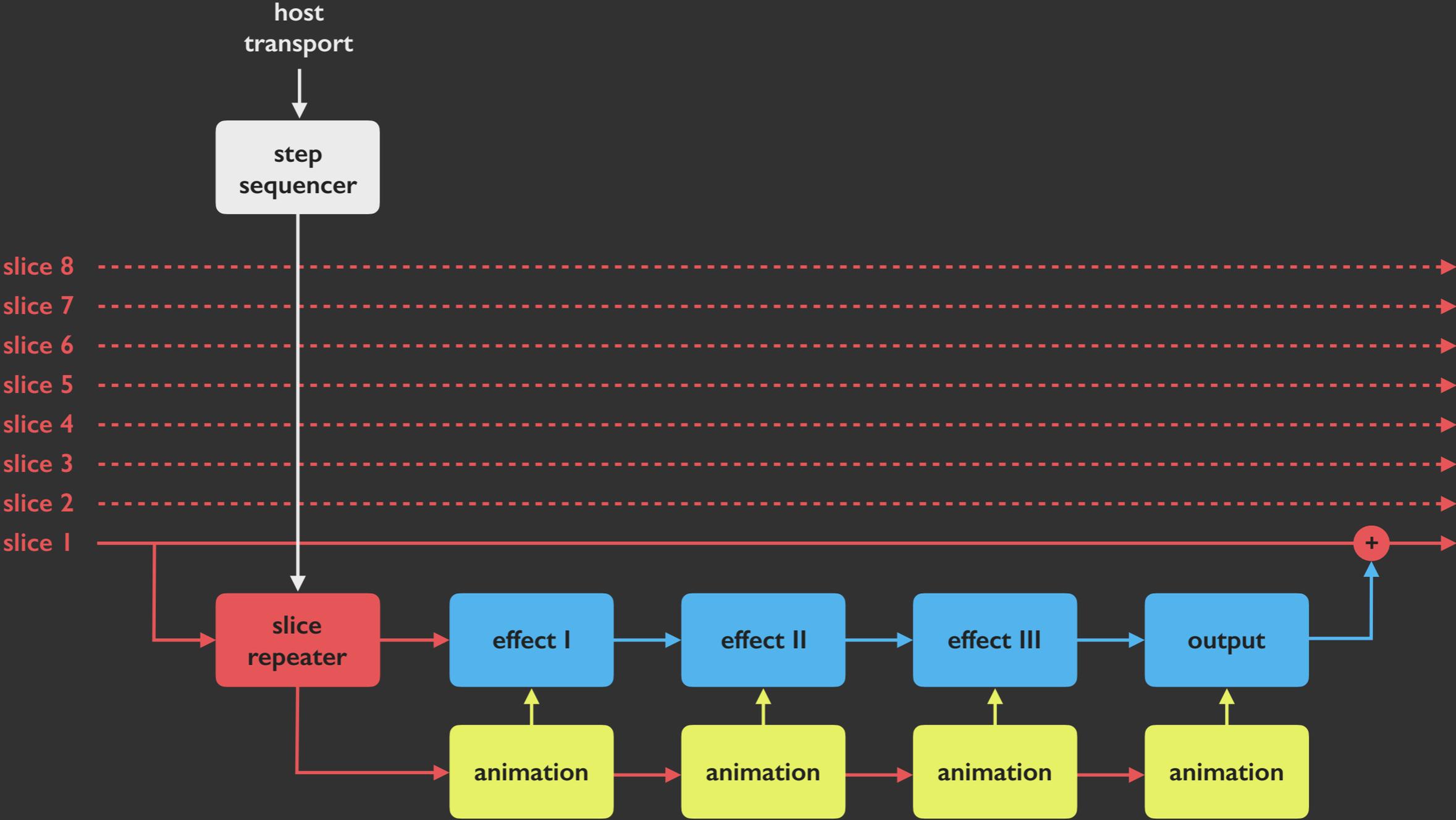
- Works with any application that supports Audio Unit effect plugins.
- Supports OS X 10.6 or later running on 32 or 64 bit Intel Macs.

QUICK START

- 1 Start playback to see the real-time audio waveform
- 2 Click and drag a slice marker onto the target sound
- 3 Change slice size, repeat count and playback direction

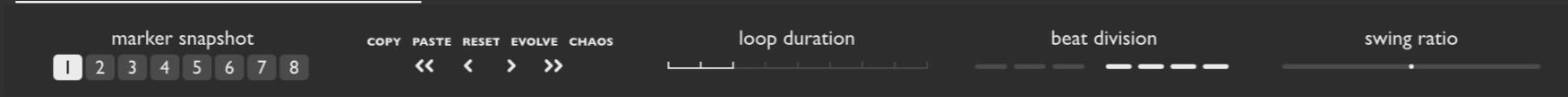
The screenshot displays a digital audio workstation (DAW) interface. At the top, there is a 'marker snapshot' section with buttons numbered 1 through 8. To the right are controls for 'loop duration' and 'beat division'. The main area shows a red audio waveform with several vertical slice markers. Below the waveform, there are four processing modules: '1/2 BEAT' (with a 'repeat 2x' slider and playback direction buttons: 'fwd', 'rev', 'fw-re', 'rand'), 'low-pass filter' (with a 'cutoff frequency' slider and 'animation' buttons: 'one slice', 'one round', 'ramp', 'up/down', 'random'), 'analog drive' (with a 'gain' slider and 'animation' buttons: 'one slice', 'one round', 'ramp', 'up/down', 'random'), and 'ring modulation' (with a 'frequency' slider and 'animation' buttons: 'one slice', 'one round', 'ramp', 'up/down', 'random').

BLOCK DIAGRAM

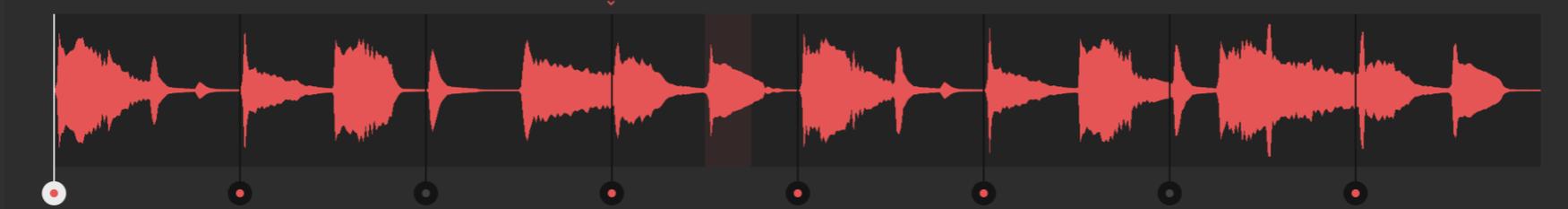


INTERFACE BREAKDOWN

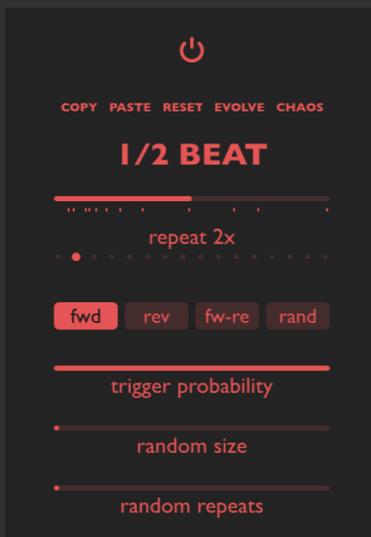
SNAPSHOT & TIMELINE



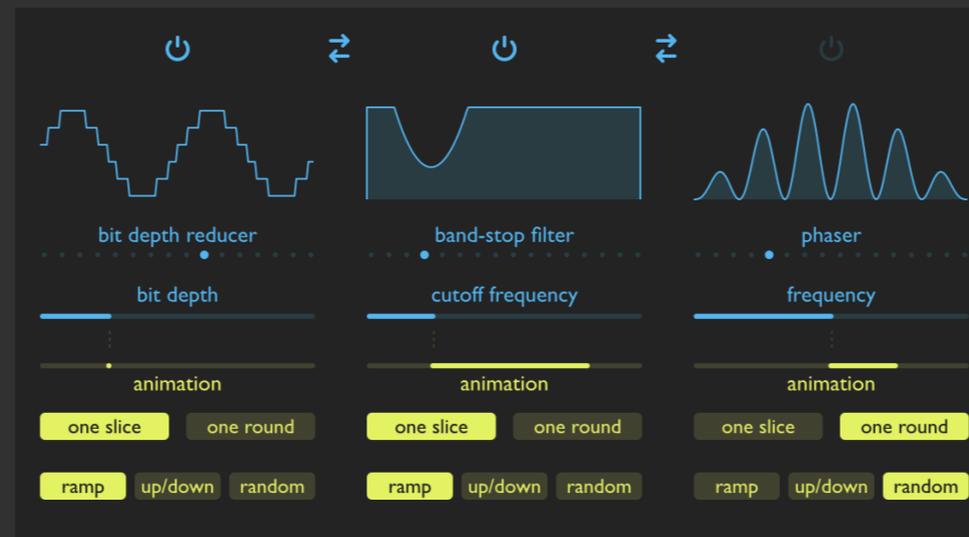
AUDIO WAVEFORM & SLICE MARKERS



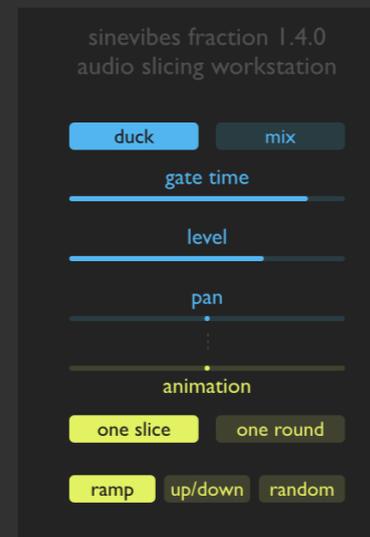
SLICE SETTINGS



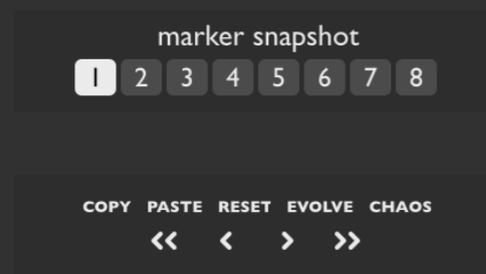
EFFECTS & ANIMATION



OUTPUT & ANIMATION



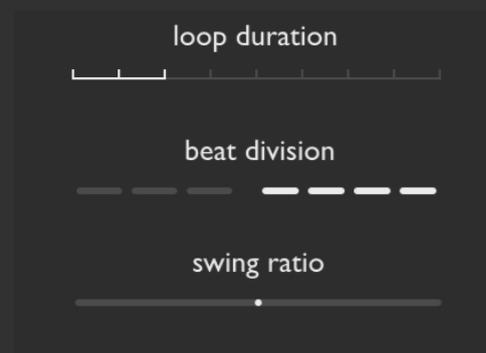
SNAPSHOT & TIMELINE



Each marker snapshot stores position and switch status for all 8 slices. Use marker snapshots to gradually bring slicers in and out, or place same slicers at different timeline locations.

Utility functions for manipulating marker snapshots:

- **COPY:** copy the current snapshot.
- **PASTE:** paste into the current snapshot.
- **RESET:** set all slice markers to default locations.
- **EVOLVE:** gradually randomize some slice marker locations.
- **CHAOS:** fully randomize all slice marker locations.
- shift the marker locations by one beat (◀◀ and ▶▶) or one step (◀ and ▶) left or right.



Set the duration of the live waveform's timeline to 1, 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%.

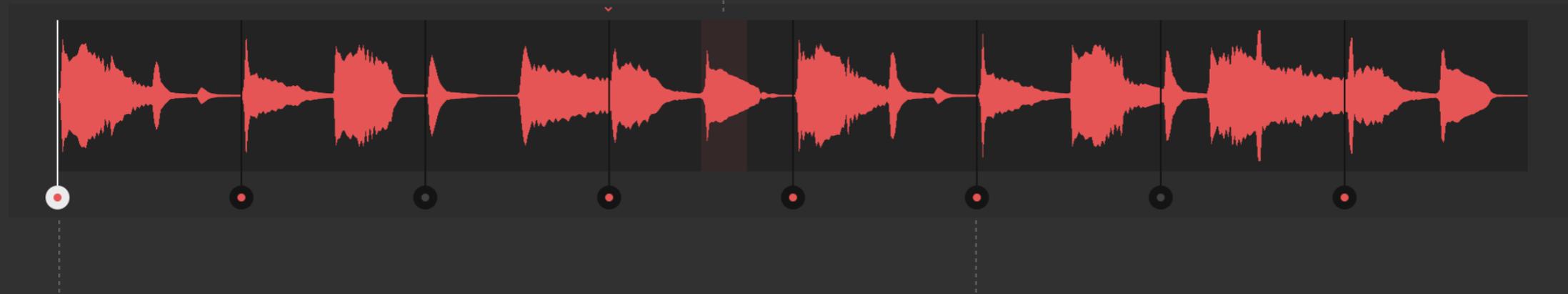
SHORTCUTS

Command-click or *double-click* on any slider to set default value

AUDIO WAVEFORM & SLICE MARKERS

Slice status indicators light up when active slices are played back

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 to toggle it on/off

Command-click or *force-click* on any marker to turn all slices off

SLICE SETTINGS



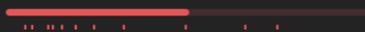
Slice on/off switch defines whether the slice is currently active or not. Use *command-click* or *force-click* to simultaneously turn all 8 slices off.

COPY PASTE RESET EVOLVE CHAOS

Utility functions for manipulating the currently selected slice, effect & output settings:

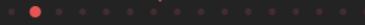
- **COPY**: copy all settings for the current slice.
- **PASTE**: paste settings into the current slice.
- **RESET**: set all slice, effect & output settings to their default values.
- **EVOLVE**: gradually randomize some slice, effect & output settings.
- **CHAOS**: fully randomize all slice, effect & output settings.

1/2 BEAT



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

repeat 2x



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

fwd rev fw-re rand

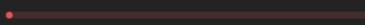
Slice playback direction: forward, reverse, alternating forward-reverse and random (shuffles between forward, reverse and forward-reverse)

trigger probability



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

random size



Slice size randomization: none (0%) to full range (1/16 to 1 beat).

random repeats



Slice repeat count randomization: none (0%) to full range (play once to 16x).

SHORTCUTS

Command-click or *double-click* on any slider to set default value

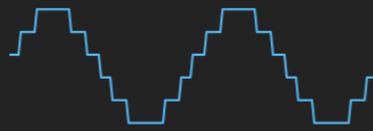
EFFECTS & ANIMATION



Effect on/off switch defines whether a given effect module is applied onto the slice or is bypassed. 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.

bit depth reducer

Effect algorithm selector (see the [effects reference](#) page for more details).

bit depth

Adjust the effect algorithm's main parameter.

animation

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.

one slice

one round

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

ramp

up/down

random

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

SHORTCUTS

Command-click or *double-click* on any slider to set default value

OUTPUT & ANIMATION

duck mix

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

gate time

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

level

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

pan

Adjust the slice stereo pan.

animation

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.

one slice one round

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

ramp up/down random

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

SHORTCUTS

Command-click or *double-click* on any slider to set default value

EFFECTS REFERENCE

- **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 more dry, airy
- **band-pass filter** only passes spectral content in the vicinity of its cutoff frequency, making the sound thinner, more isolated
- **band-stop filter** removes spectral content around its cutoff frequency, making a notch in the spectrum
- **phaser** is a classic configuration of multiple all-pass filters with feedback that produces multiple resonant peaks and notches in the spectrum
- **barber-pole phaser** is a different type of feedback phaser effect that endlessly cycles either down (+) or up (-)
- **positive flanger** is a short delay line with positive feedback, it emphasizes odd harmonics
- **negative flanger** is a short delay line with negative feedback, it emphasizes even harmonics for a hollow, tube-like sound
- **chorus** creates a unison effect using three short delay lines with mutually phase-shifted time modulation
- **bit depth reducer** reduces the bit depth of the signal, gradually adding thick noisy distortion
- **sample rate reducer** resamples the signal at a rate from 100 Hz to 20 kHz, adding frequency aliasing artifacts
- **analog drive** produces a more traditional distortion effect akin to an analog circuit
- **circuit-bent filter** is a unique filter with intentionally broken internal connections that produces harsh, pitched distortion
- **frequency shifter** shifts each individual frequency component of the input signal into higher (+) or lower (-) frequencies, resulting in a smooth but dissonant sound
- **pitch shifter** divides the sound into small grains and then plays them faster (+) or slower (-)
- **ring modulator** runs a sine wave oscillator and multiplies it with the input signal, producing rich new sound spectrum with a metallic character

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