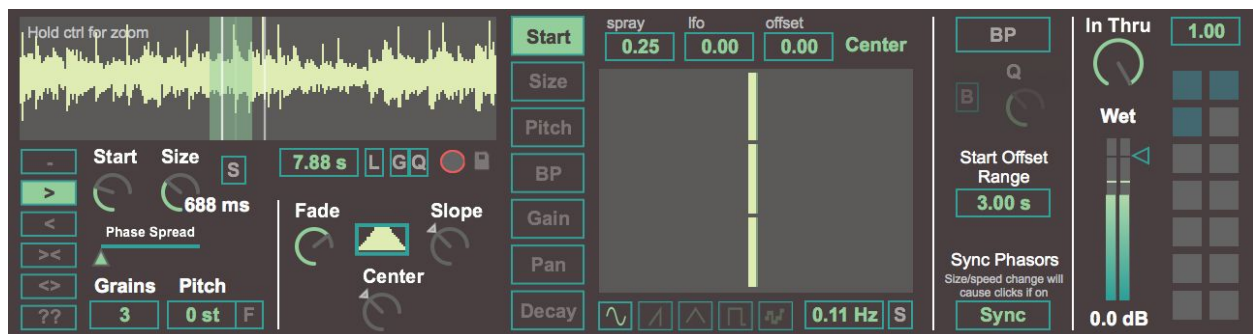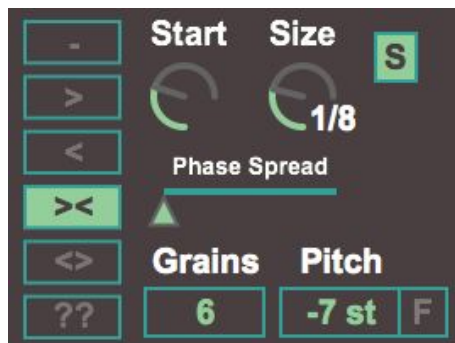# Samsara

User Manual

INTRODUCTION

Samsara is a Max for Live granular looping device geared towards live performance, soundscapes and textures. Samsara gives you access to individual grain parameters and the ability to record audio input.

PLAYBACK

In this section of parameters we control the settings and playback of the looper.

- The radio tab on the left selects the direction: (-) stop (>) forward (<) backward (><) foreback (<>) backforth (??) random; selects forwards or backwards.
- The (Start) and (Size) knobs set the center start position and size of the grains. The grain size can be in Ms, or if the sync button (S) to the right of it is enabled, the size can be set in note divisions based on global pitch and tempo.
- The (Phase Spread) slider sets the spread of the grain's playback phase. To the left, grains phase is the same as the grain size and all grains play simultaneously (starting with an offset of n/amount of grains). To the right all the way, the phase is (grain size * amount of grains), with playback only audible for the length of the grain size, with each grain offset (n) distance. This will create an effect of grains playing back one after another. In between values often give you more empty and quiet spaces. Note that having changes in individual sizes and pitches will dramatically change the effect of phase spreading and synchronization.

- (Grains) sets the number of grains
- (Pitch) sets the transposition pitch, which in turn affects playback speed. Values are set in steps. Pressing the (F) on the right opens the fine tuning numbox.

 These three dials sculpt the volume fading window of each grain. (Fade) sets the amount, (Center) sets the center and (Slope) slopes. In the center, (Slope) has no slope, to the left gives the window an exponential slope, and to the right is log.

RECORDING

 This section of parameters sets the behavior of recording and saving recordings.
- The numbox on the left sets the size of the buffer in Ms/s. Resizing will erase the current contents of the sample buffer, but resizing won't take effect until the record button is pressed again.
- When (L) is enabled, recording takes place in the selected loop section of the buffer (Which is at the grain start position and ends at the grain size. It is highlighted on the waveform). When disabled, recording spans the entire sample buffer.
- When (G) is enabled, when record is on, recording occurs only when the input signal raises over a low volume threshold. Recording stops when the input goes back below the threshold.
- When (Q) is enabled, after the record button is pressed, recording starts at the next quantized beat (as determined by the global quantization setting in Ableton), and stops similarly on the next beat after recording is disabled.
- (G) and (Q) cannot be enabled at the same time as their behaviors conflict. If both are disabled, recording starts/stops as soon as the record button is enabled/disabled
- The red circle is the record button.
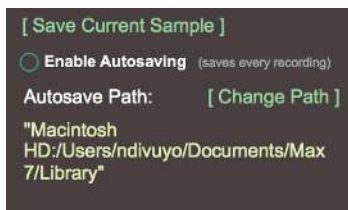
 - The floppy disk button opens the display window for managing saving recordings. In this window you can save the current sample recording. By enabling autosaving, the contents of the sample buffer are saved each time the record button is pressed off. Press (Change Path) to select your desired folder to save to.

INDIVIDUAL GRAIN PARAMETERS

Start
Size
Pitch
BP
Gain
Pan
Decay

This radio tab selects the grain parameters to appear as multisliders to the right of it. Each slider on the multisliders corresponds to an individual grain (number of sliders matches the number of grains). For parameters Start, Size, Pitch and Pan, the center of the sliders (or for Pitch, C3) is the center/original parameter value. For Start and Size, that would be the grain start position and grain size that is in the playback settings. For Pitch, that would be the original speed/pitch. Each multislider has 3 numboxes above them.

(spray) sets the amount of bipolar randomness applied the parameter values, a new random value is selected at the start of the corresponding grain's phase. (lfo) sets the amount of bipolar lfo to apply to each parameter value. Negative lfo values reverse the phase of the lfo. (offset) is a handy numbox for offsetting the parameters values bipolar. The offset is visualized by the overlaying yellow bars. These represent the true value (except for the lfo and spray applied). Pressing (Center) will center the multisliders.

To explain a few perhaps non-obvious parameters:
- (BP) is the cutoff frequencies for the bandpass filters each grain has. (20hz to 20kHz)
- Changing (Size) and (Pitch) parameters will cause clicks unless individual phasors are not synchronized (explained later). They will also change the general synchronization and phases of the grains.
- (Decay) applies a short delay with feedback. It has 2 multisliders. One multisliders sets the amount of feedback/decay. The other sets the delay time (if no delay time, then there is no feedback applied).

This controls the LFO which can be applied to the grain parameters. The radio tab sets the waveform and the numbox sets the rate in Hz or synchronized note divisions (if (S) is enabled).

OTHER SETTINGS

The (BP) button enables the bandpass filters for each grain. The (Q) sets the resonance. The individual center frequencies are set in the parameters multisliders section. When (B) is enabled, all of the indivudal grain frequency

values are accumulated and applied to each grain. This will have less individuality, but perhaps creates a desired effect.

Start Offset Range — **3.00 s**

This numbox sets the the range that the Start position can be offset in. This includes the (Start) multisliders and any spray or modulation applied to them.

Sync Phasors — Size/speed change will cause clicks if on — **Sync**
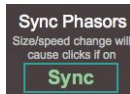
When enabled, phasors remain in sync with the master phasor. This way each remain at an equal phase distance from each other based on the number of grains. If on however, changing individual grain sizes and pitches will cause clicks as it causes jumps in the phase to remain in-sync

In Thru / **Wet** / **0.0 dB**

These control the mix of the output. The (In Thru) is the volume of the thru signal of the input. (Wet) is the volume mix of the granular looper.

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PARAMETER PRESETS

2.00

These pads set and load parameter presets. These are presets for all values, except for the sample contents, and the recording settings. To save a preset, hold shift and press a pad.The numbox above also loads presets, and is mappable. Adjacent preset values can be blended with a floating point.