SILTH Quick Guide

SILTH by Sequoia Synthesizers Co is a hi-fi lo-fi processor. It wears any sound down the way a good record, an old sampler and a stretched tape would, without turning it to mush.

Hover over any control and the bar at the bottom of the window explains it.

A fresh SILTH (and **INIT**) is clean: AGE sits at 50% and every effect knob starts at zero, so whatever you turn up is exactly what you hear. Every knob works the same way: turn it right for more effect. RATE and BITS read **OFF** and TONE reads **OPEN** all the way to the left.

AGE

- **AGE** is the main knob. It turns the TAPE, DECIMATE and VINYL sections up together, from clean (0%) to fully aged (100%).
- The three sliders under AGE set how much AGE moves each section:
- **TAPE** controls the tape section.
- **DECIMATE** controls the DECIMATE section.
- **VINYL** controls the vinyl section.

All three start at 100%. Pull one down to keep that section cleaner while AGE drives the others. - **MIX** blends between dry and processed sound. - **PUNCH** keeps the attack of every hit (kicks, snares, plucks) while the rest wears down. At 0% the effects can eat the attack. The heaviest settings are still allowed to mangle it: FREEZE, very low BITS or RATE, GRAIN past 60%, AGE far past the knobs and DRIVE flat out.

THE SCREEN

- **Top:** the sound coming out (bright line) over the sound going in (faint line).
- **Bottom:** the last seconds of sound, with every live grain on it.
- A higher grain is pitched up, and a longer grain reads more sound.
- The dot shows which way the grain plays.
- Snow appears with DUST while sound is playing.

CAPTURE

CAPTURE records what SILTH plays so you can drag it into your DAW. - **LENGTH** sets how much it records: 1/8, 1/4 or 1/2 bar, or 1, 2 or 4 bars. - **SONG** counts bars at your DAW's tempo. **SET** uses the BPM next to it. To change the BPM, drag it up or down, or double-click it and type. - **DETECT** listens to the last 10 seconds of incoming sound and sets the BPM from its beat. - **REC NEXT** records the

next stretch. While your song plays, it waits for the next bar line. - **GRAB LAST** keeps the stretch that just played, because SILTH is always listening. - Drag **WAV** onto a track in your DAW.

Captures are saved in `Music/Sequoia Synthesizers/SILTH/Captures` (Mac) or `Documents\Sequoia Synthesizers\SILTH\Captures` (Windows).

TAPE

- **DRIVE** adds saturation.
- **BUMP** adds the low-end lift of a tape head.
- **FLUTTER** adds fast, fine wobble.
- **HISS** adds soft tape hiss that follows the sound.

DECIMATE

- **RATE** lowers the sample rate as you turn it right, down to 2 kHz. **BITS** lowers the bit depth: grit at 8 bits, crunch at 6, torn at 4, shredded at 2.
- **SMOOTH** goes from raw aliasing sparkle when low to soft and clean when high.
- **JITTER** makes the sample clock wander.
- **U-LAW** gives the companding of early samplers, cranked: the noise rides the level and loud parts tear.
- **MACHINE** turns SILTH into a whole piece of old gear in one click. It sets the converter and the tape, wobble and tone around it. Tweak from there.
- **12-bit drum sampler**: fizzy, aliasing highs and punchy, driven lows.
- **12-bit studio sampler**: warm, dark and smooth.
- **8-bit u-law** and **8-bit early digital**: two kinds of 8-bit grit.
- **Budget keyboard**: dull, boxy and a little wobbly.
- **Cassette 4-track** and **VHS hi-fi**: tape, with no converter.
- **Old radio** and **Phone line**: narrow and mono.
- **Broken toy** and **Bit smasher**: meant to mangle the sound.

VINYL

- **DUST** adds fine crackle.
- **POPS** sets how often the bigger pops come through.
- **RUMBLE** adds the turntable motor and floor rumble under the sound. It is gentle at first and properly rumbles at the top.
- **WOW** adds slow pitch wobble.
- **TONE** rolls the top end off as you turn it right.
- **MONO** folds the lows to mono, like a record cut.
- **33 / 45 / 78** sets the record speed, which changes how fast WOW sways.

All vinyl noise follows the sound, so silence stays silent.

GRAIN

This is TENFOLD's granular engine, running live on the incoming sound.

The cloud (first row): - **GRAIN** is how much of the cloud you hear. - **SIZE**, **DENSITY**, **SPRAY**, **DETUNE**, **WIDTH**, **REVERSE** and **PITCH** shape the grains. - **WARP** sets how fast the grains move through the sound. - **PITCH HOLD / BEND**: HOLD keeps the pitch steady while you warp. BEND lets the pitch follow WARP, like tape. - **FREEZE** holds the current moment. - **SHAPE** sets the grain fade: Smooth, Soft, Hard, Pluck or Swell.

Deeper controls (second row): - **POSITION** sets how far back in time the grains read from. - **FEEDBACK** feeds the grains back into the cloud. - **CHANCE** is the odds that each grain plays. - **OCTAVE** is the odds of an octave jump. - **JITTER** gives each grain a random level. - **COLOR** filters the grains: left is darker, right is thinner. **RESO** sets its resonance. - **SCALE** snaps grain pitch to a scale. - **SYNC** starts grains on the song tempo, at the division you choose.

SAMPLE page

Quickest way: drag a loop or sample from your DAW or your files and drop it anywhere on SILTH. It opens the SAMPLE page, plays the sound through SILTH once and prints it. Then drag **WAV** onto a track. The print is exactly as long as the loop you dropped in.

Or click **SAMPLE** at the top and work step by step: 1. **LOAD** opens the file browser. The up and down arrows play each file as you move, and ENTER loads one. 2. **PLAY** runs the sample through SILTH in place of the incoming sound. Everything on the MAIN page shapes it. 3. When the pass ends, the result is printed under **OUT**. Drag **WAV** into your DAW.

With **LOOP** on, the sample plays round and round while you tweak, and every full pass is printed as a seamless loop.

TAIL is off at first, so the print is the same length as what went in, and anything still ringing past the end wraps round to the start, so the loop stays seamless. Turn TAIL on for one-shots, to keep the tail after the end.

Prints are saved in `Music/Sequoia Synthesizers/SILTH/Prints` (Mac) or `Documents\Sequoia Synthesizers\SILTH\Prints` (Windows).

MODULATION: the chips along the bottom

There are eleven chips: - **ENV 1–3** are envelopes. - **LFO 1–3** are waves locked to your song. - **VELO, WHEEL, PRESS** and **KEY** come from your MIDI keyboard. - **RANDOM** gives a new value on every 16th note.

To use them: - **Drag a chip onto any knob** to make it move that knob. Drag the dots on the knob's arc to set how far. - **Click an ENV or LFO chip** to open its card. Every knob that chip moves lights up.

- On the ENV card, **TRIG** sets what starts the envelope: - NOTE: a MIDI note - 1 BEAT, 1 BAR, 2 BARS or 4 BARS: your song - INPUT: every hit in the incoming sound - **Right-click any knob** and choose *Modulate with* to add a chip from a menu.

Routings are saved with presets and with your song.

HELP

When **HELP** (in the header) is on, tips pop up beside whatever the mouse rests on. - Close a tip with its x once you know that control. - Right-click the control to bring its tip back, or right-click HELP to bring all the tips back.

MIDI MAP: play SILTH from your controller

1. Click **MIDI** in the bottom-right corner of GRAIN. SOURCE starts on MOD WHEEL. You can pick another source, or choose LEARN and move a knob on your controller.
2. Click **+ ADD** and pick a control from the list. Or choose **CUSTOM** and just touch the knob, slider or button you want. Repeat to make one source move several controls at once.
3. Set each control's **DEPTH**: how far the controller moves it from where you set the knob. A negative depth moves it the other way.

Shortcut: right-click any knob and choose *Map to MIDI*.

Mapped controls show a pink arc and a small tag: `MW` for mod wheel, `AT` for aftertouch, `CC74` and so on. Mappings are saved with your song, not with presets.

Send your controller's MIDI to SILTH's track in your DAW. Some DAWs don't pass MIDI to audio effects.

Presets

There are 60 factory presets in six folders: Dusted, Sampler, Tape, Grain, Warp and Signal Loss.

Presets are saved in `~/Music/Sequoia Synthesizers/SILTH/Presets` (Mac) or `Documents\Sequoia Synthesizers\SILTH\Presets` (Windows).