Chop & Pitch — Manual

Yellow Rhythmic Seed. Version of 2026-11-05. Read the Quick Start first if you have never used it.

About this manual

Chop & Pitch takes **any audio** — a drum break, a bass line, a vocal, a chord stab — chops it, and lets you play it, rearrange it, layer it, shape it with envelopes and effects, and get the result out as audio files or onto a sampler. It runs on its own as an app, and as a VST3 or Audio Unit instrument inside a DAW.

The app explains itself. Press **? HELP** at the top right, then point at any control, and a box tells you what it does. Nothing on screen is explained in words; Help owns every explanation. This manual says the same things, page by page, with the rules that are easy to trip over. If the app and the manual ever disagree, the app is right — and tell us.

How the pages are laid out. There are six tabs across the top: **1 CHOP**, **2 SEQUENCER**, **3 MIXER**, **4 MODULATE**, **5 EXPORT** and **6 CONFIG**. The **OUTPUT** row under them is on every page, and the transport row is on every page but Config. Each page is a set of panels.

What the app remembers. It remembers your machine — the audio device, the MIDI inputs, the list of your effect plugins — and nothing else. Every musical setting starts at its default each time you open it. That is on purpose. A setting left over from last time is invisible, and an invisible setting makes a working app look broken. To keep a session, save it as a project.

The words used throughout.

- A **chop** is a cut in the audio: a marker on the waveform. A **slice** is the piece of audio between one chop and the next.
- A **note** is what you play, from a key on your keyboard or from the sequencer. A note picks a slice.
- The **editing layer** is the audio you are working on: the one you load, chop and play.
- A **Pod** is a print: a frozen recording of what you were hearing, which plays along while you work on the next idea. There are four.
- An **MSEG** is an envelope you draw yourself, aimed at a control. There are eight.
- A **button** is on the screen. A **key** is on your keyboard.

Installing

Chop & Pitch is free. There is no license key and nothing to unlock.

1. Open the installer and follow it through. It puts the **Chop & Pitch** app in your Applications folder, the VST3 plugin where Ableton Live, Cubase and Bitwig look for it, and the Audio Unit plugin where Logic, GarageBand and MainStage look for it. You can leave a part out on the installer's Customize page.
2. Open **Chop & Pitch**.

First thing to do after installing: go to the **CONFIG** tab and press **SCAN PLUGINS**, so the app knows which effect plugins are on your computer. The list starts empty. See *The Config page*.

The window



The head row: Yellow Rhythmic Seed at the left, Chop & Pitch in the middle, and the project buttons.

The head row

The four buttons at the top right are the project buttons: **New**, **Open**, **Save** and **Save as**. A project is one file. It holds the audio and its chops, the sequence, the Pods, the mixer, the MSEGs and every effect plugin's settings. The audio is stored inside it, so a project opens correctly even if the original file has been moved.

New is a first start. The audio, the Pods, the plugins and every setting are cleared, and there is nothing to undo. It asks to save first.

The name of the open project shows at the right of the head row.

The Yellow Rhythmic Seed name at the top left opens the **About** box: the version, who to write to, **LICENCES** (the software and fonts by other people that the app uses) and **REPORT A PROBLEM**.

Report a problem makes one file to email when something goes wrong. Type what you did and what went wrong, press **SAVE REPORT FILE**, and email the file to info@yellowrhythmicseed.com. The file holds your project with its sample, a picture of the window, and the list of the last things you did. It does not record sound. It cannot be made after a crash, so make it while the fault is on screen if you can.

The Output row



Output: level, ceiling, peak, clip, help, undo and redo.

Control	What it does
LEVEL	The level leaving the app. Set it so the loudest peaks sit a few dB under clipping.
CEILING	A soft ceiling on the output, on by default. Below -3 dB it does nothing. Above that it bends peaks so the output cannot reach full scale, which matters once an envelope drives a resonant filter or a plugin hard. It sits before Level and is in every print: what you hear is what you get. Switch it off if you want the overshoot.
PEAK	The highest level reached, held briefly so you can read it.
CLIP	Lights when the output hits full scale. Back the level off if it does.
? HELP	Turns the explanations on and off. Lit, point at anything to be told what it does.
UNDO	Takes back the last thing you changed: a chop moved or deleted, a slice muted, a note drawn, a lane redrawn, a print. Forty steps. The status

	line at the foot says which one it took back. Cmd Z does the same.
REDO	Puts back what Undo took back. Cmd Shift Z does the same. Any new change ends what can be redone. Loading new audio clears it too.

The transport row



Load, Play, Loop, Stop, Record, Overdub, the click, Play through, and the Play mode.

Button	What it does
LOAD...	Loads an audio file. You can also drag one anywhere onto the window.
Play	Plays the sequence. The same button is on the Sequencer page; press either, both light.
Loop	Plays it round and round.
Stop	Stops it.
Record	Arms recording. Press Play and play your keyboard; the notes land on the roll.
Overdub	Recorded notes join what is already on the roll instead of replacing it.
Click	The metronome. Its volume is on the Config page.
Play through	How far a note reads. Off, a note stops at the end of its own slice. On, it carries over the chop line and through the slices that follow, round the end of the audio and back to the start. How long it sounds is still the note's own length.
PLAY MODE	What a key on your keyboard plays: **INT-SEQ**, **CHR-LOOP** or **CHR-PHRASE**. Inside a DAW there is a fourth, **DAW-SEQ**. See *MIDI play*, below.

The window can be made as small as about half size, for a small screen, and never bigger than the screen.

The status line runs along the foot of every page. It says what the page is for, names what Undo took back, and reports what a load, a print or an export did.

Loading audio

Drag a file onto the window, or press **LOAD...**. A box asks **HOW LONG IS THIS LOOP?**



The box that asks how long the audio is.

Set **BARS** and **BEATS** and press **OK**. The app works out the tempo of the audio from its length. With the right bars and beats, the chops and the sequencer stay in time with your project. OK fills Tempo match, shows the whole sample, and sets the sequencer to the same number of bars (the sequencer stops at 32). **CANCEL** does not load the file. Opening a project does not ask.

Got it wrong? Nothing is broken. Change **BARS** and **BEATS** in Tempo match on the Chop page and the tempo is worked out again.

Loading over audio that is already there replaces the editing layer and the sequence — the notes point at slices of the audio that is there now, so they go with it. A box asks first. The Pods are not touched.

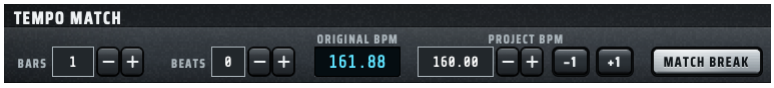
The Chop page

The Chop page is where the audio lives. Everything on it works while the audio plays.



The Chop page.

Tempo match



Tempo match.

How long is the loop, and what tempo is your project?

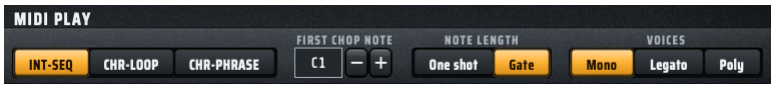
Control	What it does
BARS	How many whole bars the loop runs for.
BEATS	Extra beats beyond the whole bars, for loops that are not a round length.
ORIGINAL BPM	The audio's own tempo, worked out from its length and the bars.
PROJECT BPM	The tempo you want. Double-click to type a tempo. Inside a DAW it is the DAW's tempo and is greyed.

- +	Down or up a whole beat, landing on a round number: from 160.25 they give 159 and 161. The small pair on the box moves in hundredths.
-1 +1	The same, one beat at a time.
MATCH BREAK	Sets the project tempo to the audio's own, so it plays as recorded. Not available inside a DAW, where the tempo is the DAW's.

How the audio follows the project tempo is the **V-SPEED / T-STRETCH** switch of the editing layer, in Auto chop tools: varispeed, or time stretch. See *Auto chop tools*.

Bars and beats are the one thing that does not change during playback. They change the grid itself.

MIDI play



MIDI play.

Play the chops from a keyboard. The device itself is set up on the Config page.

Control	What it does
INT-SEQ / CHR-LOOP / CHR-PHRASE	The Play mode: what a key plays. It is the same switch as PLAY MODE on the transport row; the two always agree.
FIRST CHOP NOTE	The key that plays the first chop. Each key above it plays the next chop. C1 is the low C on most pad grids. The arrows move it a key at a time, or type a name (C1, F#2) or a note number. Middle C is C3. In CHR-LOOP and CHR-PHRASE the box is the **ROOT NOTE**: the key that plays the audio at its own pitch.
NOTE LENGTH: One shot / Gate	One shot plays the whole slice however briefly you touch the key. Gate sounds only while the key is held. With Play through on, Gate runs the audio from that chop for as long as you hold.
VOICES: Mono / Legato / Poly	**Mono**: one slice at a time; whatever starts next cuts what is sounding. **Legato**: Mono, and a new key pressed while one is held does not start again — the run carries on from where it is, at the new key's pitch, with no new envelope. Lift every key and the next key starts from the first chop. **Poly**: slices overlap, each on its own voice, so two chops can sound together.

The Play modes.

Mode	What a key does
INT-SEQ	The app's own sequencer plays, and each key plays one chop on top of it, counted up from First chop note.
CHR-LOOP	A key plays the whole chopped loop at that key's pitch. It runs from the first slice, and the timing stays on the grid. Hold a higher key and the lot plays higher. Chords in Poly.
CHR-PHRASE	A key plays your whole **sequence** — its reverses, levels and lanes — for as long as you hold it, moved to that key against Root note. It needs notes on the roll; with none, the key plays as CHR-LOOP. Its three switches are in the Phrase strip at the foot of the Sequencer page.
DAW-SEQ	Shown only in a DAW. The DAW's notes pick the chops, one note per chop, and the app's own sequencer is quiet. See *Inside a DAW*.

A held key keeps going. With Play through on, a held key does not stop at the end of its chop. It plays straight through each chop point after it, on through the rest of the audio. At the end it wraps round to the start and carries on, as a loop, for as long as you hold the key. A note on the roll does the same for its own length.

Legato in the other modes. In CHR-PHRASE with Voices on Legato, a new key keeps the sequence's place and only the pitch moves. In INT-SEQ and DAW-SEQ, Legato plays as Mono.

Tune to tempo



Tune to tempo.

Match the loop to the project tempo: let the app work it out from the two BPMs, or dial it in by ear.

Control	What it does
Auto from BPM / Manual by ear	Auto works the pitch shift out from the two tempos. Manual lets you dial it in by ear, and ignores the tempos.
COARSE	The tempo-match shift in semitones. Drag up and down; hold Shift for finer. In Auto it is dimmed but still shows the shift the app worked out.
FINE	The same in cents.
= bpm	What the shift comes to as a tempo.
ORIG PITCH	Plays each slice back down by the tempo shift, so it sounds at its own pitch while its trigger stays on the grid.

Original pitch changes the pitch and nothing else. The timing stays on the project grid. With the project slower than the audio, each slice keeps its own length while its slot gets longer, so there are gaps between the slices. **The gaps are right.** A seamless run with Original pitch on would mean the slices were being stretched, which is the very thing the button switches off. Fill the gaps is the dial for the gaps.

You can only hear Original pitch on a **run** — Play through on, or the sequence playing, with the audio chopped and the project tempo away from the audio's own. A single chop played by hand is one trigger and one sound, and proves nothing.

Slice tuning



Slice tuning, and Fill the gaps.

Pitch each slice up or down. The grid does not move, so the tempo holds.

Control	What it does
TUNE	Tunes every slice in semitones. Varispeed, as a sampler tunes: pitch and length move together. It never moves a trigger, so the rhythm stays put.
FINE	The same in cents.

Tune to tempo moves the **whole loop** to the project tempo. Slice tuning moves **every slice** on top of that. They multiply, and so does Original pitch. Three separate jobs, not three versions of one setting. Turn Tune up an octave and each slice plays twice as fast — higher and half as long — but the next slice still fires where the grid put it. Gaps appear, and they are right.

Fill the gaps fills the silence a slowed loop leaves.

Control	What it does
FILL	With Original pitch on against a slower tempo, each hit keeps its length while its slot gets longer, so the rest of the slot is silence. Turn this up and the hole is filled with what actually sounded there: a time-stretched copy of the audio, read from that slice's own place in it, so the ride goes on ringing and the room carries. The hit itself is never stretched. Zero is off.
TONE	Rolls the top off the fill. The fill carries the ride and the next hit's pre-ring along with the sustain, so darkening it lets it sit under your dry hits instead of arguing with them. Fully open is no filter.
SEAM	How long the crossfade into the fill takes. The fill starts underneath the hit's last moments and rises as the hit falls. Wind it up if you can hear

	the join; wind it down on fast audio, where a long crossfade is a big part of a short gap.
REACH	How far across the gap the fill goes. Full carries it right up to the next hit. Wind it back and the fill stops short, leaving air before the next trigger, which often grooves better.

The fill is made for each note as it plays, so it matches that note's gap and pitch. No gap, no fill: with Original pitch off the audio slows with the tempo and its chops still reach the next one. The fill stays inside its own chop — on a long gap high up the keyboard it can sound a little repeated. A held note picks up a change to these four dials from its next chop.

Pods



The four Pods.

A **Pod** holds frozen audio: a print of what you were hearing, through the whole chain, that plays alongside the editing layer. A Pod loops on its own length against whatever else is playing, so a two-bar Pod comes round every second pass of a one-bar loop, and it follows the tempo.

Control	What it does
The picture	What is frozen in this Pod. The hand and **DRAG** mean it can be picked up: drag it out onto a DAW track or the Desktop to take this Pod as a WAV.
V-SPEED / T-STRETCH	How this Pod is fitted to the tempo. **V-Speed** is varispeed: the speed and the pitch move together the way a record does, with no artefacts at all, because nothing is being invented. It is the default. **T-Stretch** is time stretch: the speed changes and the pitch stays, at the cost of smearing the transients a little.
M	Mute. Lit red, this Pod is silent; dark, it plays with the sequence. It is the M button of this Pod's channel on the Mixer.
LEVEL	How loud this Pod sits — its fader on the Mixer, scaled like a desk: 0 dB at three quarters, +10 dB at the top. Double-click for 0 dB.
EDIT	Moves this Pod's audio back onto the editing layer, at the bars it was printed at, ready to chop again. The Pod empties, and the next Print to Pod goes back into it. A box asks first what happens to what the editing layer holds: keep it in a free Pod, replace it, or cancel. One undo step puts everything back.
CLEAR	Empties this Pod.

The fold arrow at the right of the Pods title folds the strip down to its title, so the waveform gets taller. The Pods still play. The app always opens with the strip open. An empty Pod's Level can be set before anything is printed into it.

The Pods do not play from single notes. A Pod is a printed recording with no chop markers, so a note has nothing in it to pick. They play with the sequence in INT-SEQ, and are quiet in the other Play modes. To play a Pod's sound from the keys, bring it onto the editing layer with **EDIT**, chop it there, and play those chops.

Editing layer



The editing layer: the four slice mods, grid, snap, Print to Pod, Resample all, zoom, and the waveform.

Click a slice to hear it, double-click to add a chop, drag a chop line or its number to move it, point at a marker for its m (mute) and x (delete). The colours say what is in the sound: red and orange for bass, yellow and green for the middle, blue and violet for the top. While something plays, its slice is brighter and the rest dims.

Chop 1 starts the audio, so it cannot be moved or removed; its m and x are greyed.

Control	What it does
SLICE MOD (four of them)	The per-slice bars. See below.
GRID	How finely the ruler divides each bar: 4 to 128. **8T**, **16T** and **32T** are the triplets: three in the time of two. It sets the grid lines and Grid snap.
SNAP	Where a chop lands when you place it by hand. **Free**, the nearest **Zero** crossing, the nearest **Trans**ient, **Trans+zero** which finds the attack and steps back to a zero crossing, or the **Grid**.
PRINT TO POD	Prints what the sequence sounds like into a Pod, leaving the editing layer's audio alone. See below.
RESAMPLE ALL	Records the output back in: the editing layer, every Pod that is on, and all their effects become the new audio of the editing layer, uncut and ready to chop again. See below.
NORM	Raises the audio so its loudest point reaches full level: for a print that came back quiet from your gear, or any quiet audio. Only the level changes. The chops stay, and the Pods are not touched. One undo step.
- + FIT	Zoom. The wheel, or an up-and-down trackpad swipe, zooms about the pointer too.

Moving around. When zoomed in, press on the waveform and drag left or right; it follows the hand. A sideways swipe, or Shift with the wheel, scrolls too. A click plays the chop under the pointer at once; if the click turns into a scroll, that chop stops, so scrolling is quiet. Dragging the waveform does not take the loop out as a file — drag the editing layer's small picture in Auto chop tools for that.

Moving a chop line while a note plays. A note held on a key follows the line at once. With Play through on, a held key plays a run, and a run keeps the chops it started with; so does the sequencer. Press the key again to hear the new lines.

The four slice mods

A slice mod gives **every slice its own setting of one control**. Pick a target and each slice on the waveform gets its own bar. **A bar's height is where the target's knob sits for that slice**: the top of the strip is the knob fully up, the bottom fully down. Choosing a target puts every bar where the knob is now, so nothing changes until you move one.

Pull a bar up or down. Tilt it at either end, or bend it in the middle, and the control moves *during* that slice. Drag the small dot above the middle to move the whole bar, keeping its slope.

There are four slice mods, 1 to 4, each with its own target and its own bars.

Control	What it does
EDIT	Makes this the slice mod you are editing. The button lights in its colour, and the waveform shows its bars in that colour. The other three go on working unseen.
The target	What this slice mod's bars drive. The same list the Modulate page offers: the chop filter, the amp envelope, slice tuning, the S950 style stretch, Character, the Mixer's faders and sends, and any knob on a plugin loaded on the Mixer. Choosing a target also makes this the slice mod you are editing. **No target** puts it away.
R	Reset. Puts every bar back where the knob sits, so the bars change nothing again. The target stays.
OPEN	Opens the window of the plugin the bars are driving. Greyed unless the target is a plugin knob.
UNI / BI	How the bars are drawn. Uni fills them up from the floor. Bi draws them from a middle line, which is the knob at 12 o'clock — for a knob that works both ways. Switching moves nothing.

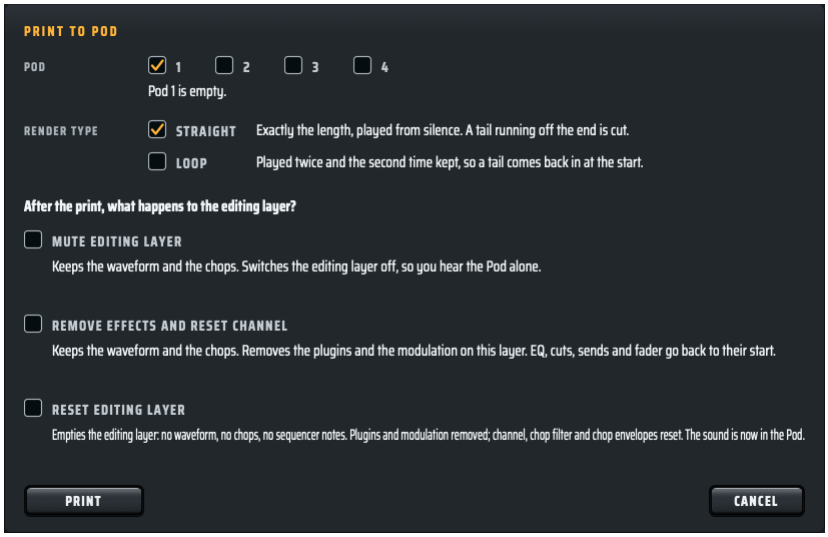
The knob moves the bars. After a slice mod is aimed at a control, turning that control moves all the bars by the same amount, keeping their shape. A bar that reaches the top or the floor stops there, and comes back with its shape when the control is turned back.

A slice mod follows the audio. When a slice plays backwards, its bar is read backwards too.

One thing, one cause. A knob can be driven by an MSEG, by a slice mod, or by a sequencer lane — never by two of them at once. A target already taken is greyed in the other lists.

Print to Pod

PRINT TO POD freezes what the sequence sounds like into a Pod. A box asks first.



The Print to Pod box.

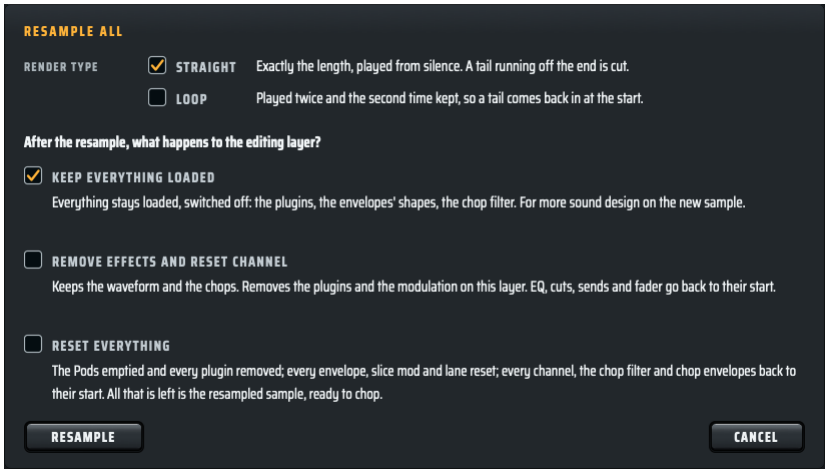
Row	What it does
POD: 1 2 3 4	Which Pod. The first empty one is ticked. A line says whether the chosen Pod is empty or holds a print that this one replaces.
RENDER TYPE: Straight	Exactly the length, played from silence. A tail running off the end is cut.
RENDER TYPE: Loop	Played twice and the second time kept, so a reverb or delay tail running off the end comes back in at the start, and the Pod loops smoothly.
MUTE EDITING LAYER	Keeps the waveform and the chops. Switches the editing layer off, so you hear the Pod alone. A muted editing layer prints nothing: switch it on before the next print.
REMOVE EFFECTS AND RESET CHANNEL	Keeps the waveform and the chops. Removes the plugins and the modulation on the editing layer. Its EQ, cuts, sends and fader go back to their start.
RESET EDITING LAYER	Empties the editing layer: no waveform, no chops, no notes. Plugins and modulation removed; channel, chop filter and chop envelopes reset. The sound is now in the Pod.

One Undo puts everything back: the Pod, the editing layer, its plugins and their envelopes. The same button is on the Sequencer page.

With the copy range looping on the Sequencer page, the print is the sequence's own length with the loop inside it, as you hear it.

Resample all

RESAMPLE ALL runs your sequence from the top and records everything you hear — the editing layer, every Pod that is on, every effect and every moving thing — into **one new piece of audio**, which becomes the editing layer. A box asks first.



The Resample all box.

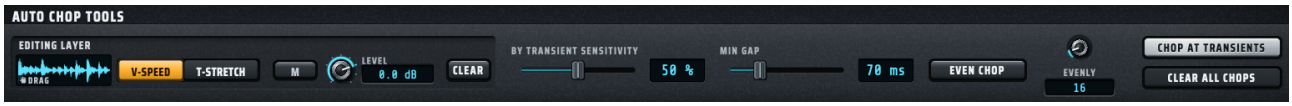
Row	What it does
RENDER TYPE: Straight / Loop	As in Print to Pod. Loop brings a tail that runs off the end back in at the start.
KEEP EVERYTHING LOADED	Everything stays loaded, switched off: the plugins, the MSEGs' shapes, the chop filter. For more sound design on the new sample.
REMOVE EFFECTS AND RESET CHANNEL	Removes the plugins and the modulation on the editing layer. Its EQ, cuts, sends and fader go back to their start.
RESET EVERYTHING	The Pods emptied and every plugin removed; every MSEG, slice mod and lane reset; every channel, the chop filter and the chop envelopes back to their start. All that is left is the new sample, ready to chop.

One Undo puts everything back.

Nothing is heard twice. A print is taken before Character, and a Pod joins the mix after the plugin slots. After a resample the editing layer's inserts are bypassed — bypassed, not unloaded, so one click brings each back — because the print already has them in. The chop filter's Cutoff goes to its open end. Character is never printed, so it never stacks however many times you resample.

Resample all prints the sequence, not the key you are holding. See *Questions and answers*.

Auto chop tools



Auto chop tools, with the editing layer's own controls at the left.

Detect the hits, or divide the bar evenly.

At the left are the **editing layer's** own controls, the same set a Pod has:

Control	What it does
The picture	The file on the editing layer, and how long it is. Drag it out onto a DAW track or the Desktop to take the whole loop as a WAV, as the Export page writes it.
V-SPEED / T-STRETCH	How the editing layer follows the project tempo. **V-Speed**: faster is higher, slower is lower, like a record or a tape. **T-Stretch**: the speed changes and the pitch stays where it was.
M	Mute. Lit red, the editing layer is silent and nothing of it is lost. The Pods keep playing, so this is how you hear the Pods on their own.
LEVEL	The level of the editing layer against the Pods: channel 1's fader on the Mixer.
CLEAR	Empties the editing layer and leaves the Pods alone. One undo step.

Control	What it does
BY TRANSIENT SENSITIVITY	How much of the detection to keep. Higher finds more hits. The markers update as you drag.
MIN GAP	The minimum spacing between detected hits. Raise it to stop a decay registering as a second hit. It starts at 70 ms.
CHOP AT TRANSIENTS	Turns the detected hits into chops, each snapped to a zero crossing so it does not click. Press the x on a pip first to leave that hit out.
EVENLY	How many equal slices to divide the audio into.
EVEN CHOP	Divides the audio evenly, ignoring what is in it. Useful when a loop is machine tight.
CLEAR ALL CHOPS	Removes every chop except the one at the start.

S950 style time stretch



The stretch.

This is the Akai S950's own time stretch, measured off a real machine rather than modelled. It is an **effect**, with the grain and the metallic edge the machine has. It is not a way to put audio in time; **T-STRETCH**, **TO TEMPO** and the tempo dial do that.

Control	What it does
AMOUNT	How far the audio is stretched, as a percentage of its own length. 200 % is twice as long at the same pitch.

D-TIME	How long each grain is. Short grains follow fast audio and sound grainier; long ones are smoother and smear the transients. The dial that decides what the stretch sounds like.
AUTO D	Works a D-time out from the tempo, so the grains land with the beat. A starting point, not an answer.
S950 / Grain	What D-time counts. **S950**: D-time is the repeat you hear, with the fade on top — how the real machine measured. **Grain**: D-time is one grain including its fade, so the repeat is shorter by the Overlap; settings from software stretches that count this way carry over.
OVERLAP	How much each grain overlaps the one before. More is smoother and duller; less is rougher and keeps more attack. The S950 itself has no such control.
SPLICE: Slide / Repeat	What fills the extra time. Slide reads the source more slowly. Repeat plays each grain more than once, which is what the machine does and where the metallic edge comes from.
TIME STRETCH	Switches the stretch on, while it plays. The dials stay live, so the amount can be swept mid-loop. Off, the audio plays as it is and the x buttons are greyed.
x1 x2 x4 x8	How slow the stretch plays. **x1** is the audio's own pace: the S950's stretch-and-pitch sound, with the Amount setting how far up it goes — 200 % is an octave up. **x2**, **x4** and **x8** are twice, four and eight times as slow, at the same pitch as x1.
TO TEMPO	Stretches the audio to the project tempo without moving its pitch.
RESET	Puts the file back exactly as it was loaded, taking every stretch off in the order they went on.

The first hit of stretched audio is never faded in, so the attack stays sharp.

Chop envelopes



One amp ADR, the chop filter, and one filter ADR, shaping every chop at once.

One amp ADR and one filter ADR, shaping every chop at once. There is no on switch. The amp decay is **hold** at the top of its travel, which is the envelope switched off; pull it back to start shaping. The note's own length can still cut a chop shorter than its decay.

The top strip:

Control	What it does
TRIGGER: Every chop / Whole run	Every chop restarts the envelopes. Whole run runs them once across the whole play-through, so a run fades as one gesture rather than pulsing on every slice.
RELEASE: Loop / Play on	What the release plays once the note ends. **Loop**: the chop loops round while it fades. **Play on**: it plays on through the chops after it while it fades, in time, and round to the start of the audio if it gets there. Play on is the default.
STACK	For CHR-PHRASE with Poly. Each time a note of the sequence ends, its release loops round the chop it ended on and fades out over the Release time. Every chop leaves its own loop behind, and the loops stack. In Mono the next note cuts the loop. **It is greyed in every other Play mode.**
DECLICK: On / Off	A very short fade at each slice edge, so cuts do not click. Off for raw edges.

AMP ADR

Control	What it does
ATTACK	How long the amp takes to reach full level. Off is instant, which is what a drum hit wants.
DECAY	How long the amp takes to fall away. At the top it reads hold: the slice simply plays.
RELEASE	How long the sound takes to fade once the note ends, up to 8 seconds — the key let go, or the note's length on the roll. At off it stops at once.
BEND (beside each)	The shape of that stage rather than its length: linear through to a hard curve at either end.

The release begins when the note ends, not when its slice does. While a key is down, a slice that runs out simply stops and waits. One chop cutting another in Mono is not the end of a note: that is still a quick cut.

CHOP FILTER

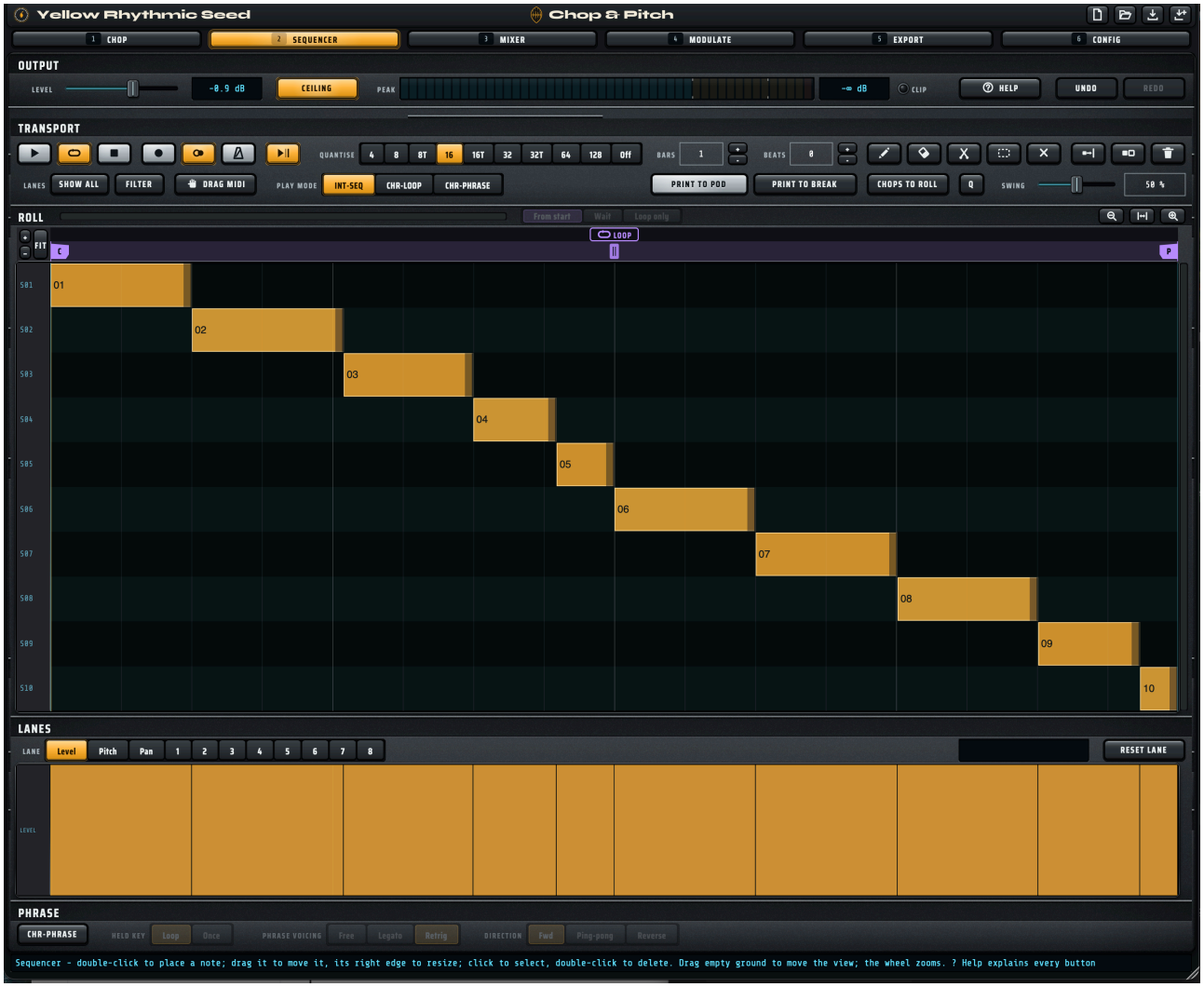
Control	What it does
LP / HP	Low pass or high pass, applied to every chop. **There is no Off**, and you do not need one: with Cutoff at the end of its travel — fully up for low pass, fully down for high pass — there is no filter at all.

CUTOFF	Where the filter sits when its envelope is not moving it.
RESO	How much the filter lifts at the cutoff. High settings ring.
ENV	How far the filter ADR moves the cutoff, and in which direction. With Cutoff fully up, a negative Env still sweeps the filter in at the start of each note.

FILTER ADR has the same six dials as the amp. Its **RELEASE** is how long the filter takes to settle back on the Cutoff once the note ends.

In CHR-PHRASE the notes of the sequence always play on while you hold the key, on either setting of the Release switch. The switch decides what lifting the key does. **Loop**: the sequence stops, and what is sounding loops in the chop it is in. **Play on**: the sequence goes on playing, in its own order, and fades out over the Release time.

The Sequencer page



The Sequencer page.

A roll with one lane per slice. What you draw or record here is the sequence. It plays in time with the project tempo — or the DAW's tempo, inside a DAW.

The roll lays itself out. Each time you open this page, the audio is laid out for you: one note across audio with no chops, a note for each slice once it is chopped. It follows your chops until you change the roll yourself. After your first change the roll is yours, and only **CHOPS TO ROLL** lays it out again. A project opened from a file is never touched.

The transport row



The sequencer's own transport, tools and options.

Control	What it does
Play / Loop / Stop / Record / Overdub / Click / Play through	The same transport as the top of the app, put here so you do not have to leave the roll.
QUANTISE	What the roll snaps to, in divisions per bar: 4 is quarter notes, 16 sixteenths, up to 128. **8T**, **16T** and **32T** are the triplets. One setting for

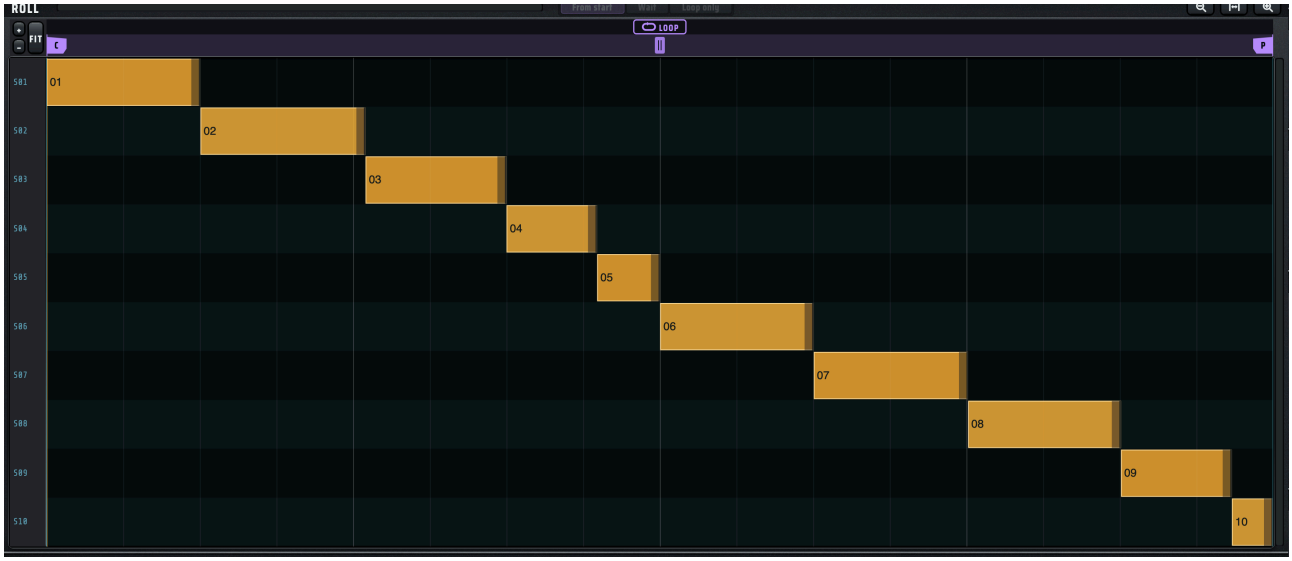
	two jobs: the lines you see and drag to, and what a recorded note is pulled onto. **Off** stops the snapping but keeps the lines as a guide. Changing it never moves what is already down.
BARS / BEATS	How long the sequence runs, up to **thirty-two bars**. A long one is small on screen — zoom in with the wheel and move along with the scroll bar. Extending adds empty bars at the end; shortening leaves anything past the new end alone rather than deleting it.
The tools (right)	Pencil, mute, erase, split, select, close gaps, duplicate, erase all. See below.
SHOW ALL / FILTER	Filter shows only the lanes that have notes on them. Show all shows every lane again.
DRAG MIDI	Drag this button out onto a DAW track, or the Desktop, to take the sequence out as a MIDI clip. See *Inside a DAW*.
PLAY MODE	The same switch as on the Chop page.
PRINT TO POD	Freezes the sequence into a Pod. See *Print to Pod* on the Chop page.
PRINT TO BREAK	Prints the sequence back into the editing layer as the new audio, chopped at the note starts so it can be rearranged again. The order, the timing, the swing, each note's length, pitch, level, play through and the reverses are baked in. The sound is not: the tuning, Repitch, the effects and the filter stay switched on and keep applying to the new audio, so nothing is printed twice. One undo step.
CHOPS TO ROLL	Lays the slices out in their own order, as a starting point to rearrange from. It replaces what is on the roll.
Q	Snaps notes onto the grid. With notes selected it snaps only those; with nothing selected, all of them.
SWING	Fifty per cent is dead straight. Above it, the off-beat of each pair plays late, up to half a step at seventy-five — the laid-back feel an MPC gives. Below it, the off-beat plays early. The downbeat never moves, and your notes are not moved: back at fifty you have exactly what you had. On a triplet grid, swing holds back every second triplet step.

The tools.

Tool	What it does

Pencil	Lays a run of notes as you drag, spaced on the grid, following the lane under the hand. Off, a drag moves the view instead.
Mute	Silences notes without deleting them. Click a note to mute it, again to unmute. Drag across several and the first note you touch decides for the whole stroke. A muted note is hollow, keeps its place and its lanes, and stays silent when you play, when a key plays the phrase, when you print, and in a MIDI clip dragged out.
Erase	Clears notes. Click one, or drag across a run.
Split	Cuts one note into two where you click, on the nearest grid line. Both halves keep the original's level, pitch and start point.
Select	Selects several notes at once: drag a box round them. Shift adds and removes. A plain click picks one note whatever tool is on. What is selected narrows what the lanes write to, what Q snaps and what Copy takes.
Close gaps	Stretches every note until it touches the next one, so a figure full of holes runs on. It only ever lengthens. This is not Fill the gaps: that fills the sound inside a note; this moves the note's own end.
Duplicate	Doubles the sequence and copies the figure into the new half: one bar becomes two with the same notes in each. Past sixteen bars it refuses, since there is no room inside the thirty-two.
Erase all	Erases every note in the sequence.

The roll



The roll.

Action	What it does
Double-click empty ground	Places a note.
Drag empty ground	Moves the view, along and up and down the lanes. The wheel zooms about the pointer; Shift with the wheel scrolls along; Alt with the wheel moves between lanes.
Click a note	Selects it.
Drag a note	Moves it. A note stops at the end of the sequence; it cannot be dragged past it.
Drag its right edge (the darker strip)	Sets how long it sounds.
Double-click a note	Deletes it.
Right-click a note	Its own menu. See below.
Press and hold a lane name (S01, S02 ...)	Plays that slice until you let go, as a key does. To hear what a lane holds while you draw a beat.
Right-click empty ground	Pastes at that beat. The notes keep their own lanes, and everything about each note comes with it.

Triggers are monophonic on the roll: a note is cut by whatever comes next. The lane names light while their slice is sounding.

Around the roll.

- **Top left, + FIT -**: the height of the lanes. FIT fits the lanes into the height of the roll; with Filter lit it fits the lanes that have notes.
- **Top right, - FIT +**: the zoom along the sequence. FIT fits the whole sequence into the width.
- **The two scroll bars** move the roll along the sequence and up and down the lanes. Each is greyed when everything is already on screen.

Neither Fit changes the other.

The copy range. The purple bar above the roll has two flags, **C** and **P**. Drag them to bracket a stretch of the sequence, or take the grip in the middle to slide the whole bracket. **Click C** to copy what is inside; it lights while it holds something. Slide the bracket to where it is going and **click P** to paste. **LOOP** plays the bracket round instead of the whole sequence, and the roll washes violet to say so.

From start / Wait / Loop only — how Play starts while the bracket is looping. Greyed while it is not.

Button	What it does
From start	Play from the top, then loop the bracket once it is reached. The default.
Wait	Stay silent until the bracket, then loop it.
Loop only	Start at the bracket and play only it.

A note that the bracket's start line runs through plays its chop from the beginning at that line. A print, and a key in CHR-PHRASE, follow the three buttons too.

A note's own menu

Right-click a note. With several notes selected, the menu acts on all of them, in one undo step. Ratchet / Loop is the exception: it works on the note you click, because its settings depend on that note's length.

Item	What it does
Reverse each chop	Plays that chop backwards.
Reverse all	Turns the whole run round.
Ratchet / Loop...	Cuts the note into hits. See below.
No loop	Takes a note's loop off.
Half speed	Like tape at half speed: the note plays an octave lower and twice as slowly, and stays in time with the sequence. A Play through note steps through its chops at half the pace. A half speed note is red on the roll. Its timing stays at half speed on every key: played higher, its chops end sooner and leave small gaps, which Fill the gaps can fill. Ticked when on.
Split into chops	With Play through on, a note that plays through several chops becomes one note per chop, each on that chop's lane, at the time it played. It sounds the same, and now each chop can be moved, muted, reversed or given its own level on its own. See below.
Length	Sets how long the note sounds, exactly: a sixteenth, an eighth, a bar.
Cut, Copy, Delete, Quantise	Do what they say.

Split into chops

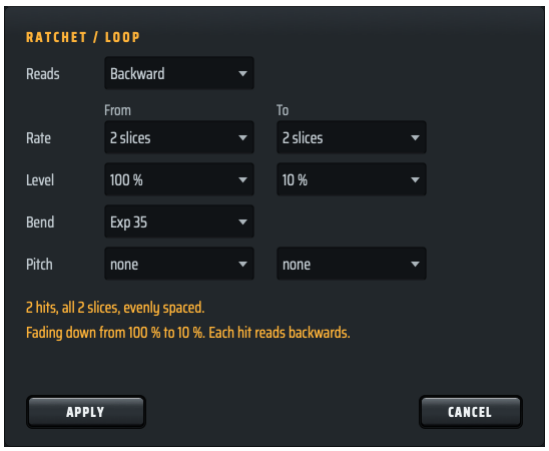
Chops to roll lays out the whole loop. **Split into chops** does the same for **one note**. Take a note on slice 4 that starts part way through a bar and plays on through slices 5, 6 and 7: Split into chops puts slices 4, 5, 6 and 7 on their own lanes, each where it played, and the long note goes.

- Every piece keeps the note's level, pitch, pan and mod lanes, and stays muted if the note was.
- A note set to **Reverse each chop** gives pieces that each play backwards. A note set to **Reverse all** gives the pieces in backward order, last chop first, each one backwards.
- A note that goes round the end of the audio is followed round to the first chop.
- One Undo puts the long note back.

It is greyed with Play through off (a note is then one chop), on a looping note (Ratchet / Loop has already cut it into hits), on a note that stays inside one chop, and while the S950 time stretch is on.

One limit. One long note becomes several short ones, so anything that starts again on a new note now starts again on each piece: an MSEG on Trigger Note, the chop envelopes on Whole run, and Legato. Everything else sounds the same.

Ratchet / Loop



The Ratchet / Loop box.

One tool. It cuts a note into **hits**, one small note each, so every hit has its own Level and Pitch bar to move by hand afterwards. The hits always fill exactly the length the note already had.

Row	What it does
READS	Which way each hit plays. **Forward** strikes the chop again from its start — a drum roll. **Backward** plays each hit backwards. **Ping pong** goes there and back inside each hit.
RATE, From and To	How long the hits are, from the first to the last. The same at both ends is an even roll or loop. Different, and the hits speed up or slow down. Pick a musical length, or **whole slices** (1 slice, 2 slices...) that go round together. A hit longer than its slice plays on into the next one. Choosing a From rate puts the same rate in To; then change To if you want a change of speed.
LEVEL, From and To	A fade across the hits, from one level to another.
BEND	The curve of that fade, on the same scale as the Release bend.
PITCH, From and To	A climb or a fall across the hits, in semitones.

The line under the rows says how many hits you will get before you press **APPLY**. **Undo** puts the uncut note back.

Three recipes:

- **A loop that fades out.** Rate 1/8 to 1/8, Level 100 % to 10 %, Bend Exp 35.
- **A backward roll that speeds up.** Reads Backward, Rate 1/4 to 1/32.
- **One long looping note.** Make the hits, delete all but the first, and drag the first one's right edge out. A looping note wears a repeat sign.

Two limits: a fade moves in steps, one a hit; and a hit stops at the end of the audio — it does not wrap round.

The lanes



The lanes strip: level, pitch, pan and eight mod lanes.

Under the roll, one bar per note. The switch on the left picks what the strip edits.

Lane	What it does
Level	How loud each note is.
Pitch	Transposes it in whole semitones, as far as the range switch reaches.
Pan	Places it left or right, from a middle line. It is a balance: panning left turns the right side down rather than moving the sound, so stereo audio keeps its stereo.
1 to 8	Mod lanes. Each drives a target of your choice — a filter dial, a fader, a plugin knob — with one bar per note. A bar's height is where that knob sits for that note. Choosing a target puts every bar where the knob is now, and a new note starts there too, so nothing changes until you move a bar. A key played by hand leaves the knob where it is. Right-click a numbered button to clear that lane.
RESET LANE	Puts every note in the strip back to normal: full level, no transpose, centred pan, or no change on a mod lane.

The values are drawn: a stroke across the bars sets every note it passes, so a ramp is one gesture and one undo step. With notes selected a stroke touches only those, and the bars it will not touch are dimmed — which is how you reach one of two notes stacked on the same beat.

A bar's height is where the knob is. This is the rule for the slice mods on the Chop page and for the mod lanes here: the top of the strip is the knob fully up, the floor is fully down. Turn the knob afterwards and all the bars move with it.

Recording

Press **Record**, then **Play**, and play slices from your keyboard. They are written to the roll where the playhead was. The grid decides where they land; Quantise **Off** records exactly where you played. How long you held a key becomes the note's length, and how hard becomes its level. Arming sets the keyboard up for it — each key is a slice, and lifting the key ends the note — and it stays that way when you disarm, so you can play back what you just recorded. With **Overdub** off, arming clears the roll first, so the take you play is the whole take. Record and CHR-PHRASE cannot be on together.

The Phrase strip



The Phrase strip at the foot of the Sequencer page.

For **CHR-PHRASE**: a key plays the whole sequence, moved to that key against Root note. It does not need Play, and Stop does not cut it: lift the key to stop it. The strip is dimmed until CHR-PHRASE is on.

Control	What it does
CHR-PHRASE	The same switch as CHR-PHRASE in MIDI play and in PLAY MODE.
HELD KEY: Loop / Once	Loop plays the sequence round and round for as long as you hold the key. Once plays it through and lets go.
PHRASE VOICING: Free / Legato / Retrig	What a new key does while another is held. **Free** (Poly only): a new key starts its own phrase at the top, whatever the others are doing. **Legato**: the sequence keeps its place in the bar and only the pitch moves. **Retrig**: the sequence starts again from the top. With Voices on Legato in MIDI play, the phrase is Legato whatever is set here.
DIRECTION: Fwd / Ping-pong / Reverse	Which way a held phrase reads. **Ping-pong** turns round at each end and comes back the way it came. **Reverse** sets off at the far end and walks to the start, so the notes come in reverse order.

In Poly, every held key plays its own phrase, and two keys are two phrases sounding together. In Mono there is one phrase and the newest key wins.

A phrase going backwards plays its slices backwards. In Reverse, and on the way back of Ping-pong, each slice starts at its back end and plays backwards, and its slice mod is read backwards with it.

The Mixer page



The Mixer page.

Five channels and three aux buses. **Channel 1 is the editing layer**; **channels 2 to 5 are Pod 1 to Pod 4**. The faders and the M buttons are the same controls as the Levels and the Ms on the Chop page: one control, two faces.

A channel runs in this order: the sound, the **inserts**, the **EQ**, the **fader**, the **sends**.

A channel



One channel strip: inserts, aux sends, cuts, EQ, fader.

Control	What it does
INSERTS 1 to 6	Effect plugins on this channel, in order, and they run before the channel's EQ, the way a desk patches an insert. This is the channel's own effect and nothing else hears it, which is what makes resampling work: print to a Pod, put new effects on that Pod's channel, print again.
SELECT PLUGIN	Puts a plugin on the channel, from a list grouped by who made it. Pick into an empty row and it lands after the last plugin in use, so there are never holes. Take one out and the ones after it step up.
C (clock)	Tells the plugin the project tempo and where the bar is, so a synced delay or LFO runs in time with your loop. On by default. Off, the plugin sees no host and falls back to its own tempo, usually 120.
S (slice)	Sends the plugin a trigger every time a slice plays. Slice 1 always sends the same trigger, whichever key played it. Use it to restart an LFO once per chop. Editing layer only: a Pod has no chops.

N (note)	Sends the plugin the trigger you actually played, from the keyboard or the sequencer. On by default. Press the lit one again to send nothing. Editing layer only.
OPEN	Opens the plugin's own window. Closing the window leaves it on the channel and still sounding.
BYP	Takes the insert out without unloading it. Every setting stays; one press brings it back.
AUX A / B / C	How much of this channel goes to each aux bus. A send only adds: the channel's dry sound is already in the mix.
POST / PRE	Where the three sends are taken from, one switch for all three. **Post** takes them where the channel ends: pull the fader down and the send goes down with it. **Pre** takes them before the fader and before the mute, so pulling the channel down leaves the effect sounding on its own at full level.
LOW CUT / HIGH CUT	Takes the bottom or the top off. At the far end each is OFF, so there is no separate switch to forget.
GAIN / FREQ / Q, three rows	A three-band EQ. Each band is a bell: Gain lifts or cuts, Freq is where, and Q is how wide. At zero gain it does nothing.
M	Takes the channel out of the mix. Greyed on an empty Pod channel, where there is nothing to mute.
S (beside the fader)	Hears the channel on its own. Any solo anywhere silences every channel that is not soloed; solo two and you hear both.
The fader	Scaled like a desk: 0 dB three quarters of the way up, +10 dB at the top, off at the bottom. Double-click for 0 dB. It is in every print — a fader that does not print is a picture that lies.

To change the order of the inserts, drag a plugin's name to another row of the same channel. The pointer is an open hand over a name that can be dragged. The plugin keeps its settings, its switches, and every MSEG, slice mod and sequencer lane that drives its knobs.

Plugins that hold the sound back. Some effects - a mastering limiter like Ozone, a linear-phase EQ - need to look a little ahead, so they delay the sound slightly. Chop & Pitch keeps its channels lined up, takes that delay off every print (Print to Pod, Resample all, Sequence to WAV, Export to folder), and inside a DAW tells the DAW, so the track lines up with your others. Playing the keys live you will still feel it: use the plugin's low-latency mode while you play.

Echoes that ring out. An effect in an insert is turned down by the fader, echoes and all. To let echoes ring on when a channel is pulled down, put the delay on an aux and use the channel's send. On an aux, set the effect to 100 % wet, or its dry sound plays too. A channel with a plugin on it keeps running after its own sound stops, so a tail always rings out.

Hardware inserts

Your outboard gear can sit in a slot like a plugin. In a slot's list, on a channel or an aux, choose **Hardware insert...**. A box opens.

Control	What it does
INTERFACE	In the plugin only: the audio interface your gear is plugged into, the one your DAW plays through. The app uses the one on the Config page.
AUDIO TO	The outputs of your interface that go to the gear, with your interface's own names. A gain and a meter beside it.
AUDIO FROM	The inputs the gear comes back on. A gain and a meter beside it.
PHASE	Turns the returning sound upside down, for gear that inverts it.
DRY / WET	How much of the gear you hear against the sound that went in.
DELAY	How late the sound comes back. The other channels are held back by this much, so everything stays in time.
MEASURE	Works the Delay out. The app waits until the gear is quiet (up to 4 seconds), sends a short noise, and times the first copy that comes back. An echo is never taken for it. For the surest figure, set a delay or reverb dry or bypassed first. In a DAW, measure in each DAW: the figure includes the DAW's own buffer.
MIDI	A MIDI output for the gear. Then the slot's **C** sends it MIDI clock, and **S** and **N** send it a note for each slice or each note.

- The first time, macOS asks whether the app may use your microphone. That means your interface's inputs. Allow it. If you said No, turn Chop and Pitch on in System Settings, Privacy & Security, Microphone.
- **Prints go through the gear**, in real time: Print to Pod, Resample all and the Export page's mix. A box shows how far it has got, with **Cancel**. The gear's delay is taken off, so the print starts on the beat.
- **In a DAW**, choose outputs the DAW does not use. The plugin never changes your interface's sample rate or buffer. Your DAW's own export must run in real time to pass through the gear (in Cubase, Real-time export); a faster export leaves the hardware insert silent, and the plugin says so.
- On Windows a hardware insert works in the app only.

The sends



Aux A, B and C.

Each aux is a bus every channel can feed, with one effect on it that returns into the mix. Use it for the things you want shared — one reverb for everything rather than one per channel — and for parallel tricks, since a send adds to the dry sound rather than replacing it.

Control	What it does
SELECT PLUGIN	Which effect sits on the bus. Its own instance, with its own window. The return joins the mix just before Character.
C	Clock, as on a channel. The only one of the three small buttons a bus gets: every channel feeds it, so there is no one trigger it could be sent.
OPEN / BYP	As on a channel. A bypassed bus returns nothing at all rather than a dry copy, since a send has no dry path of its own.
RETURN	How loud the bus comes back into the mix. The send knobs decide how much goes in; this decides how much comes back.
M	Takes the bus out of the mix without touching a single send knob.

Plugins come from the Config page. Press **SCAN PLUGINS** there once, and again after installing something. Chop & Pitch loads effects, not other instruments.

The Modulate page



The Modulate page.

Eight MSEGs. An MSEG is an envelope you draw. Pick a tab, draw a shape, choose what it drives and what restarts it. Cyan is where a knob is set; amber is where the MSEG has it. Anything an MSEG is moving shows it, on every page: the control wears a ring, and you can watch it go.

The tabs



Eight MSEGs, one target each.

Each MSEG has its own shape, target and trigger. The tab shows its target, and the dot says it is switched on. One target per MSEG, and no two may share one.

Trigger and cycle



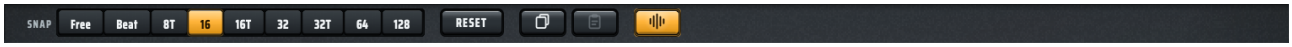
What restarts the MSEG, and how long one pass takes.

Control	What it does
TRIGGER: Bar / Loop / Note / Chop	What restarts the MSEG. The speed is the same in all four; only the restart differs. **Bar**

	restarts every bar. **Loop** restarts once per pass of the sequence, and its cycle is the whole sequence. **Note** restarts when a note starts, played or sequenced — the default. **Chop** restarts at every chop marker, which is what you want with Play through on.
CYCLE: Sync / Free	Sync locks the cycle to the project tempo and the row beside it says how many bars. Free unhooks it: the cycle becomes the Rate slider, in seconds, and holds still when the tempo changes.
1/128 to x32	How many bars one pass takes, from a 128th of a bar to thirty-two. **1/8T**, **1/16T** and **1/32T** are the triplets.
RATE	How long one pass takes when the cycle is Free: 50 ms up to a minute.

The MSEG fires when the read head crosses a chop. A source that is not sounding does not trigger anything.

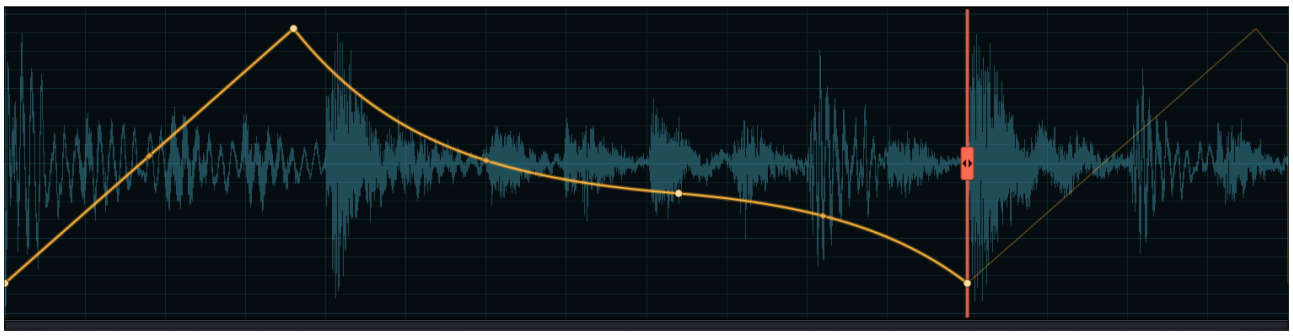
Snap, reset, copy, paste, wave



Snap, reset, copy, paste and wave.

Control	What it does
SNAP	Snaps points and the length marker to a grid: **Free**, **Beat**, or 8T to 128 steps per bar. It starts on 16.
RESET	Returns the MSEG to a flat line at full length: along the bottom in Unipolar, through the middle in Bipolar. A new MSEG starts the same way, so nothing moves until you draw a shape.
COPY	Copies the shape — the drawing on its own, none of the settings.
PASTE	Puts the copied shape onto this MSEG without disturbing what it drives or how fast it runs. Greyed until something has been copied.
WAVE	Shows or hides the audio drawn behind the line. Lit, it shows. The line, the grid and the sound are the same either way.

The canvas



The canvas, with the audio the line passes over drawn behind it.

Action	What it does
Click	Adds a point.
Drag a point	Moves it.
Drag the diamond between two points	Bends that segment.
Shift-click, right-click or double-click a point	Removes it.
Drag the red bar at the right, by its grip	The MSEG's length.
Point just to the side of a point and pull into the bend	Softens that corner, evenly on both sides — down on a corner at the top, up on one at the bottom. A softened point wears a ring.
The wheel, or a pinch	Zooms about the pointer. A sideways swipe or Shift with the wheel pans.
The scroll bar under the canvas	Moves along the MSEG when you have zoomed in. With the whole MSEG on screen it is full and greyed.

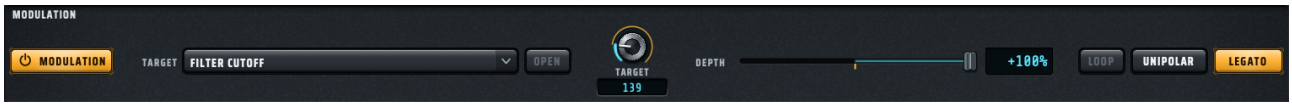
Behind the line is the audio it passes over — the chops as they are cut and ordered, with nothing done to them: no envelopes, no filter, no effects. So you can see which hit each part of your shape lands on. What is drawn depends on the trigger and the Play mode:

Trigger	What is behind the line
Bar or **Loop**, in INT-SEQ	Your sequence, as the sequencer plays it. When the line is shorter than the sequence, the part that is playing now.
Note, in INT-SEQ, DAW-SEQ and CHR-PHRASE	The last note played, every chop of it. Nothing until one is played.
Chop	The last chop played. Nothing until one is played.
Bar or **Note**, in CHR-LOOP	The audio in its own order.
Bar, in CHR-PHRASE	Your sequence, as the Root note plays it.

Softening. Each point has its own amount. The rounding never reaches further than half way to its neighbour, so two of them cannot collide. A corner needs some time to turn in: softening one at the end of an instant drop gives that drop a little time — the point moves a hair, you can see it move, and Undo takes it back.

Shapes that loop. On a shape that goes round, the last point is tied to the first so the wrap has no step in it — and the two ends are then one corner, which you can soften like any other. For a saw, put a vertical at the end: two points on the same spot, one high and one low.

Modulation



On, the target, the mirror knob, depth, loop, polarity, legato.

Control	What it does
MODULATION (the lit button)	Runs this MSEG. It plays while anything sounds, and is printed into a Pod and a resample.
TARGET	What it drives: the chop filter, the amp envelope, slice tuning, the S950 style stretch, Character, the Mixer's faders, sends and aux returns, a knob on any plugin loaded on the Mixer, or another MSEG's Depth, Response, Phase or Warp. The knob you point at stays the base value; the MSEG moves the sound around it.
OPEN	Opens the window of the plugin this MSEG is driving. Greyed unless the target is a plugin knob.
The mirror knob	Mirrors the target's own knob, so you can set the thing being modulated without leaving this page. Cyan is where you set it; the thin amber ring is how far the MSEG can take it; the amber pointer is where it is right now. Drag the outer edge up or down to set the depth.
DEPTH	How far the MSEG pushes the target away from where its knob is set, as a share of the room left in that direction. Negative pushes the other way.
LOOP	What the line does at its end. Lit, it goes round. Unlit, it runs once and holds its last value: a sweep that opens and stays open.
UNIPOLAR / BIPOLAR	Unipolar: the bottom of the shape is where the knob is set and the top is as far as Depth takes it. Bipolar: the middle of the shape is no change, the top drives one way and the bottom the other. Switching moves the line with it, so the sound does not jump.
LEGATO / RETRIG	What a second key does to the line. Legato: a key over held notes leaves the line where it is, and only a key into silence restarts it. Retrig: every note restarts it.

Three controls on this page carry the word "loop". They answer three different questions.

Control	Where	The question it answers
Trigger: Loop	Top row, with Bar / Note / Chop	**What starts the line.** One pass of the line is one pass of your sequence.
LOOP button	Modulation row	**What the line does at its end.** Lit, it goes round; unlit, it runs once and holds.
LEGATO / RETRIG	Beside it	**What a second key does to the line.**

- **Why LOOP is sometimes grey.** It is a choice only on Trigger Note and Trigger Chop. On Trigger Bar and Trigger Loop the line always goes round, so the button is greyed and counts as on.
- **Where Legato is read.** On Trigger Note, for chops you play from the keyboard. And on Trigger Loop, while a key plays your sequence (CHR-PHRASE): on Legato, a second key over a held one changes what you hear and leaves the line where it is. With one held key, Legato and Retrig are the same. A note the sequencer itself plays always restarts a Note MSEG, and on Trigger Bar this button changes nothing.
- **The thing people mix it up with.** Whether the *sequence* starts again at a new key is the Sequencer page's **PHRASE VOICING** switch, not this button.

A worked example: put a reverb on an aux, aim an MSEG at a channel's send to it, set Trigger to Loop and draw a rising line. The reverb opens at the end of every round of your sequence.

Shape

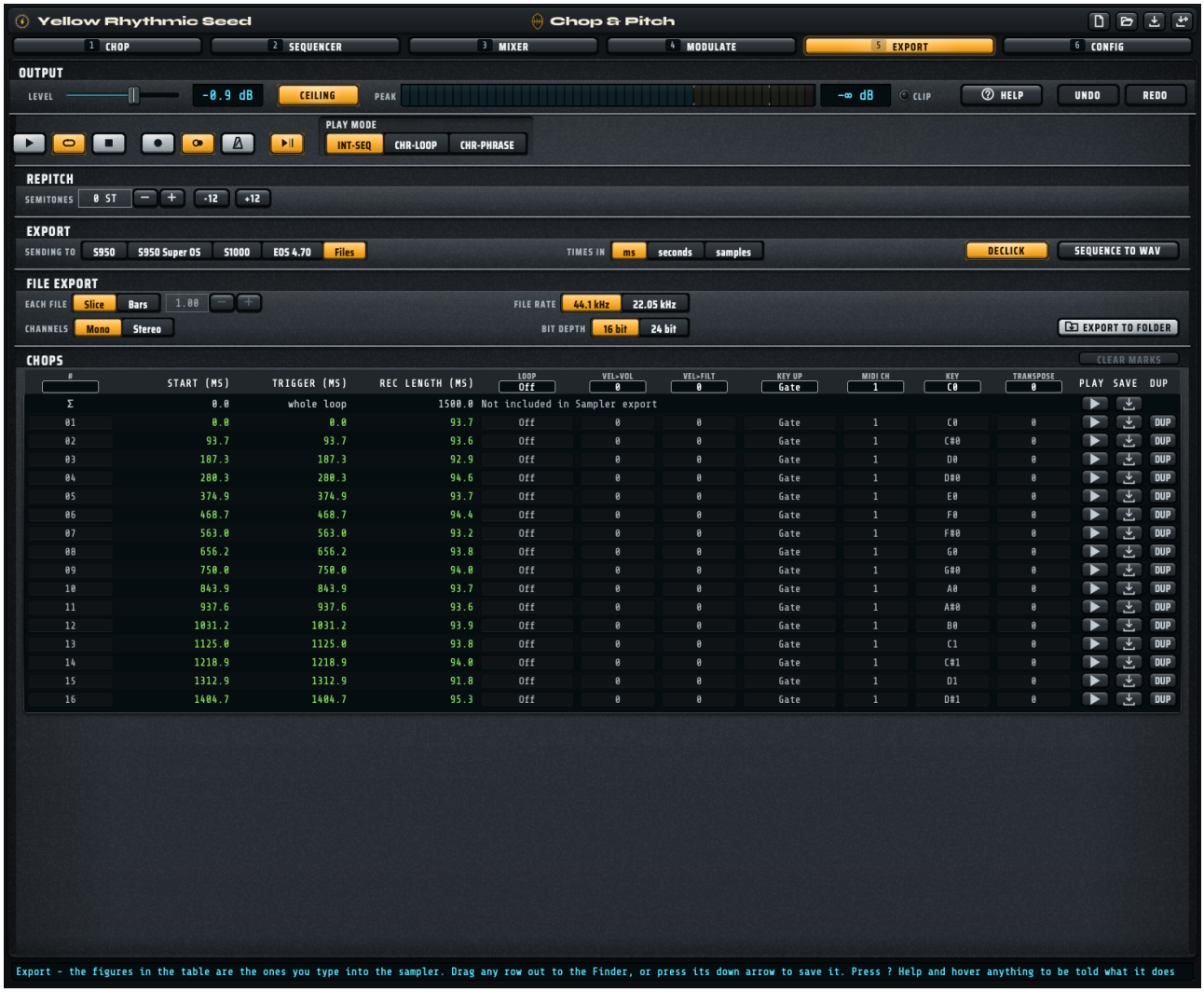


Ready-made shapes, reverse, invert, direction, and the five shaping dials.

Control	What it does
Ramp / Saw / Tri / Sine / Sqr	Lays down a ready-made shape as points, which you can then edit.
REVERSE	Flips the shape left to right. The bends and the softened corners come with it. Twice and you are back.
INVERT	Flips it top to bottom. A shape that opened the filter now closes it by the same amount.
Fwd / Rev / Ping	Which way the shape is read. Ping goes out and back, and that counts as one pass.
RESP	Bends the whole shape up or down without moving a point. To the right it spends more time near the top. The fainter line on the canvas shows what actually sounds.
SLEW	Greyed while another MSEG is moving this one's Response, Phase or Warp. Slows the shape down where it moves fast. The steep parts are given more of the pass and the slow

	parts give it up, so the pass stays one pass long. A curve stays a curve; a square's drop becomes a ramp.
SMOOTH	Greyed, like Slew, while this MSEG's Response, Phase or Warp is being moved. Rounds off every corner — the one for the click a straight drop makes when it drives something that does not like being jumped.
PHASE	Slides the whole shape along under the playhead, a full turn from left to right.
WARP	Bends the time axis. To the right the shape's moves bunch up toward the end of the pass, to the left toward the start.

The Export page



The Export page.

Every row of the table is a chop. Drag any row out to the Desktop or a DAW track, or press its arrow to save it.

An export is the plain cut. It is the audio in the editing layer, cut at your chops, at the project tempo. No chop filter, no envelopes, no slice tuning, no Fill, no mixer effects, no Character and no modulation are added on the way out. That is on purpose: an effect's tail runs past the end of a chop, and it would be cut off there. So do it the other way round. Get the sound you want, press **RESAMPLE ALL** so that it is all *in* the audio, chop that, then export. The tails come with you.

Repitch



Repitch: record high, transpose back down on the sampler.

For sending to a sampler with little memory. Record pitched up by this many semitones so the sample takes less memory, then transpose back down on the sampler. This one really moves the audio. **-12** and **+12** move it an octave, which is the shift that costs the sampler exactly half its memory. It is independent of the slice tuning and the two multiply; the sampler's transpose undoes this alone, so whatever tuning you dialled in survives.

Leaving the page with Repitch on asks first. Repitch moves everything the app plays, so a box asks whether to set it back to the original pitch.

Export



Where the chops are going, the time unit, Declick and Sequence to WAV.

Control	What it does
SENDING TO: S950 / S950 Super OS / S1000 / EOS 4.70 / Files	Where the chops are going. The page opens on Files. The panel you pick is the one that works, and the Chops table counts in its samples, so the page can never show one machine's figures under another's settings. **Files** is plain WAV files, for a DAW or any other device.
TIMES IN: ms / seconds / samples	Which unit the time columns read in. Seconds are rounded up, since a record length rounded down loses the tail. It changes the readout only.
DECLICK	A very short fade at each slice edge in the files, so cuts do not click.
SEQUENCE TO WAV	Exports what the sequencer plays as one WAV file, printed faster than real time through the same engine you hear, so the file is the performance, reverses and all. It is audio: no notes are saved in it. To keep the notes, save the project.

Files

The **Files** panel writes plain WAVs.

Control	What it does
EACH FILE: Slice / Bars	How much of each chop you want. **Slice** runs to the next chop. **Bars** takes that many bars from the chop's start, going round the audio if it runs off the end. The box beside it says how many bars; a quarter of a bar is one beat.
FILE RATE	44.1 kHz or 22.05 kHz. Halving it halves the size and the treble.
BIT DEPTH: 16 / 24	16 bit for a sampler. 24 bit when the chop is going into a DAW.
EXPORT TO FOLDER	Writes every chop into a folder you choose, plus a file for each Pod that holds audio, the editing layer's loop on its own, and the whole mix. Pod files are named `name_pod1.wav` to `name_pod4.wav`.

If two chops have the same name, the panel says so and the export is refused until each has its own.

S950 export



S950 export.

Writes a disk image for the floppy emulator (HxC or GoTek) in an Akai S950.

Control	What it does
EACH FILE: Slice / Bars	As in Files. Bars is the default.
S950 BANDWIDTH	The bandwidth you will set on the S950 when recording through its input: 3,000 to 19,200 Hz. The machine samples at 2.5 times this, so 19,200 is 48,000 samples a second. The Start and Rec length columns count with this box. A file sent over as a file does not use it.
OMNI: Off / On	Omni on plays all MIDI channels at once. Omni off plays only the MIDI channel you have selected. The disk sets it on the sampler as it loads.
SAMPLER EXPORT	Opens the export box. See below.
ANALOG EXPORT	Records the chops into the S950 through its own audio input. See below.
START OFFSET	What the sampler reports after recording. The S950 moves the start point to where the sound begins and tells you where it landed, on sample edit page 6. Type it here and the Start column adds it, so what the app shows is what you dial in. Set it to zero when sending a file.
MEMORY: 750 KB / 2.25 MB	How much memory your S950 has: 750 KB as it left the factory, 2.25 MB fully expanded. It is remembered for this computer, not saved in the project.
SIZE WITH SAMPLES	How much of the memory a Full kit fills, and how many disks it takes: for example "2.20 MB of 2.25 MB - two disks". It follows Each file and Repitch, so recording an octave up really does show half the space. With both MIDI cables connected, the app also reads what is **already** in the sampler: that part is blue, your new kit amber after it, and the figure is the two together (on the S950 the blue part counts the 72 KB the machine keeps for itself). It turns rust when they will not fit, or are more samples than the machine holds. The round arrow beside the bar reads the sampler again. To keep what is there, load the new disk without clearing the memory (S950 DISK page 02, option 2).

The Sampler export box

SAMPLER EXPORT opens a small box in the middle of the page. It asks four things, then writes the disk. There is no Finder window.

Row	What it does
WHAT THE DISK CARRIES: Full kit / Program only	**Full kit** puts the samples and the programs on the disk: load it and play. **Program only** puts only the keygroups on it. Record each sample in by hand on the machine and name it **exactly as the # column of the Chops table shows it**, and its keygroup finds it by that name.
FORMAT: HxC (.hfe) / GoTek (.AKAIHD.IMG)	**HxC** writes an `.hfe` disk image. A GoTek reads it too, and any name works. **GoTek** writes a plain image for a GoTek running FlashFloppy. Its name always ends `.AKAIHD.IMG`, because the GoTek reads that to know the disk type. Do not rename the file without it.
NAME	What the disk file is called.
SAVE TO and **CHANGE**	Where the disks are written. Each computer remembers its own folder, so this is usually the card. **Change** picks another folder. If the card is not connected, the line says "not connected" and the box will not write.
WRITE DISK	Writes the disks into the Save to folder. If a disk with that name is already there, the button says **Replace**, and nothing is written over until you press it.

A big kit is a set of disks, named `Amen 1 of 3.hfe`, `Amen 2 of 3.hfe` and so on. The programs are on disk 1, and whole samples follow in order. **To load: disk 1 with "Clear memory and load disk", then each of the other disks with "Load disk".**

A GoTek card must be FAT16 with a Master Boot Record for FlashFloppy. A Mac formats a small card as FAT32 unless told otherwise. Only drives that have been tested are offered: a GoTek on its original firmware is not, yet.

Analog export

ANALOG EXPORT records the chops into the S950 one at a time through its own 12-bit input, so they carry the machine's sound, and then sends the S950 a program that plays them, over the same MIDI cables. No card is needed. It works on a stock S950 and under Super OS.

Before you start:

1. Connect a cable from your audio interface's output to the S950's **LINE** input.
2. Connect **both** MIDI cables: your interface's MIDI OUT to the S950's MIDI IN, and the S950's MIDI OUT to your interface's MIDI IN.
3. Give the kit a name in the **#** heading of the Chops table (AMEN makes AMEN 01, AMEN 02...), so samples already in the machine are not overwritten.
4. Switch the S950 on, and press **ANALOG EXPORT**.

The box asks the **bandwidth** and the **MIDI port** both cables are on. Then press **Start**. The app walks the S950 to its record pages. For every chop:

1. Press **3** on the S950 — its level page.
2. Press **Audition** in the box and set REC LEVEL and the threshold on the S950. Set the threshold high enough that background noise cannot set it off.
3. Stop Audition. Press **ENT** on the S950. It waits for audio.
4. Press **Continue**. The app plays the chop and the S950 records it.

You press 3 and ENT yourself each time because those two pages of the S950 do not listen to MIDI. The box tells you when.

At the end, press **Send program**: the app sends the program to the S950 over MIDI and checks that it arrived. Nothing in memory is cleared; a program with the same name is replaced. For chops that loop, the box asks you to select each one on the S950, and the app sets its loop. Last, the app puts the S950 in PLAY: select the program, and save it to the S950's own disk.

The box's own rows.

Row	What it does
BANDWIDTH and **MIDI PORT**	As above: the bandwidth, and the port both cables are on.
ADD CHOPS TO	**New program**, or a program already in the sampler, read over MIDI when the box opens. Pick one to add a new audio's chops to a program a song already plays: the chops already there never change or move.
NEW CHOPS ON	**Next free keys**: after the chops already there, each on its channel from the Chops table. Or a **Channel** of their own, where they can use the same keys again. The app switches the S950's Omni off when you pick a channel, and says so.
PROGRAM NAME	A new program starts with the audio's name; type your own over it. When you add to a program, it shows that program's name: leave it, or type a new one to rename it. A new program with the name of one already there turns **Start** into **Replace**.

Before it records, the app checks that no new sample has the name of one in memory; before it sends, that no new chop lands on an old chop's key; after, it reads the program back and checks every old chop. If anything is wrong it stops and says so. New chops can come out louder or quieter than the old ones, because REC LEVEL decides it: leave REC LEVEL where it was, or set it by ear against an old chop with Audition.

The S950 is slow to show what it has done while MIDI keeps arriving, so the app waits about three seconds between looks. That is normal. If the S950 does not start loading the disk, the box asks you to load it by hand (DISK page 02, cursor right, then 2 — never 1, which clears the memory) and press Continue. If the load and the loops do not finish, **Try again** runs them again without recording.

S950 Super OS

The same panel as S950, plus one button: **START POINT PER KG**. It is for an S950 running Bjorn Lustic's Super OS 5.0.1 or later (superos303.com). On Super OS 5.0.0 the chops play late, so update first. It is on by default.

- **Lit:** the audio goes to the S950 once, as one sample with `-ALL` on the end of its name. Every chop is a keygroup with its own start and end point inside that one sample. One copy of the audio in memory.
- **Off:** a sample per keygroup, exactly as the S950 panel writes.

With Start point per KG lit:

- **There is no looping.** Each chop plays once and stops. On the S950 a loop belongs to the sample, and there is only one. The Loop column goes grey and reads Off; each chop keeps its own setting, and it comes back when the button goes out.
- **The one sample is the audio in whole copies.** Once for Slice and any Bars up to the audio's length, twice up to two lengths, and so on. So the bar does not go down with a short Bars setting.
- **The last chops stop at the end of the sample.** To let them play on for longer, double the Bars setting: the sample then holds the audio twice.
- **A stock S950 ignores the points.** Load the disk on the factory OS and every key plays the whole sample from the start. Boot Super OS first.

On the plain **S950** destination this button is not shown.

S1000 export

The S1000 panel works the same way as the S950's, with these differences.

Control	What it does
FILE RATE: 44.1 kHz / 22.05 kHz	The S1000's two bandwidths, 20 kHz and 10 kHz, as sample rates. Halving it halves the memory and the treble. Never type one machine's bandwidth into the other's box.
CHANNELS: Mono / Stereo	Stereo writes each chop as a left and a right sample, `-L` and `-R`, in one keygroup panned hard left and right. It takes twice the room.
M WORDS: 1 / 2 / 4 / 8 / 16	How much memory your S1000 has, in the machine's own unit: one word is one 16-bit sample. 1 as it left the factory, 16 fully expanded (32 MB). Remembered for this computer.
START OFFSET	What the S1000 reports after recording. Type it here and the Start column adds it.

- **Each MIDI channel used in the Chops table becomes its own S1000 program**, all on the same program number, so the S1000 plays them together.
- **The S1000 has no alternating loop.** With S1000 picked, the Loop column offers Off and Forward only.
- An S1000 name is at most twelve characters. With nothing typed in the # column, the samples are named after the audio's file.

- **Analog export works on the S1000 too**, under Sampler export. For each chop you turn the knob to its sample on the S1000's REC2 page and press ARM; the box tells you when. The app plays a short click and a gap before each chop, so the S1000 is already recording when the chop arrives, then puts each sample's start exactly on the chop's first sound. At the end it sends the programs over MIDI, with every setting of the Chops table. Adding to a program works as on the S950: the new chops go into the program on their channel. Keep the S1000's **OMNI override** off (its MIDI page), or every channel plays every program. If the S1000 breaks off a transfer inside a DAW, turn off the DAW's MIDI input from the S1000's port.

EOS 4.70 - E-mu Ultra samplers

For the E-mu Ultra range running EOS 4.70: E4XT Ultra, E5000 Ultra, E6400 Ultra and the rest. There is no disk: **ANALOG EXPORT** is the way in. The panel has Each file, **CHANNELS** (Mono or Stereo; Mono is the left input), and a memory bar that reads the sampler's own memory over MIDI.

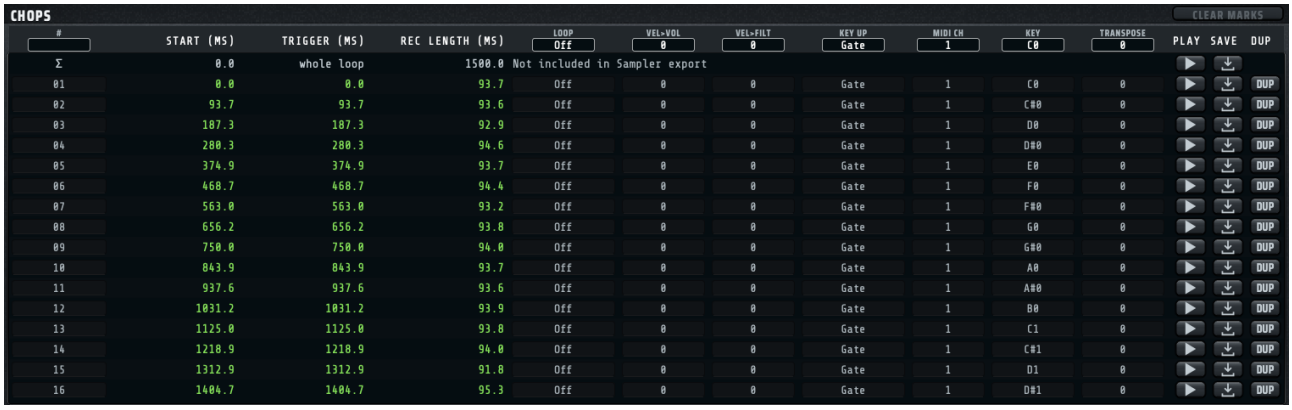
Before you start: connect your interface's outputs to the sampler's inputs, connect **both** MIDI cables, close E-Remote or any other editor, and mute every other input reaching the sampler.

1. Press **ANALOG EXPORT**, then **Start**. The app sets up the sampler's Create Sample page itself, pressing its buttons over MIDI.
2. On the first chop it stops, with the cursor on **ADC Gain** while the chop plays on repeat. Set the gain and press **Continue**.
3. The first take waits on the Keep page: press Audition on the sampler to hear it, then Keep (or Continue in the box). Dispose sets the gain again.
4. The app records the rest by itself, trims each take to its hit (within about 1 ms), names each sample from the # column, and switches Auto Loop on for chops set to loop.
5. **Send preset** builds a new preset: a voice for each chop on its key, with its Transpose, one preset for each MIDI channel. Save the bank to the sampler's disk afterwards.

Adding to a preset: in ADD CHOPS TO, pick a preset. Next free keys puts the new voices into it; a Channel makes a new preset on that channel (the sampler must be in Multi mode). The app checks the sampler's screen before every button it presses, and stops with a message if it shows something unexpected. Other EOS versions are refused.

- The bar turns rust past 200 samples, 100 programs or 400 in all.

The Chops table



The Chops table.

Every chop, and the figures you type into a sampler.

Column	What it is
#	The chop's **name**. Click a chop's cell to type its own name; empty it to go back. Click the heading to set a name for all: AMEN makes AMEN 01, AMEN 02 and so on. The name is what every export is called, and what a sampler's keygroup finds its sample by. A muted chop keeps its row and says so, which is why the numbers can skip. Two chops with the same name are refused before anything is written.
START	Where the chop begins in the file, with the start offset already added. The number a sampler's start point wants.
TRIGGER	When it fires on the grid. Start is a place in a file; Trigger is a moment in the music. With Original pitch on they differ.
REC LENGTH	How long to record it for. It follows Each file.
LOOP	Off, Forward, or Alternating. A loop is the whole sample. The S1000 has no Alternating. Greyed to Off under Start point per KG.
VEL>VOL / VEL>FILT	How much velocity moves the keygroup's level and filter on the sampler, 0 to 99.
KEY UP	**Gate** stops the chop when you let the key up, which is how you play a loop like a keyboard. **One shot** plays it out, as a drum machine does. Gate is the default.
MIDI CH	The keygroup's MIDI channel, 1 to 16.
KEY	Which key on the sampler plays each chop. The heading's key starts the run; each MIDI channel starts its own run again from it. A chop placed by hand keeps its key and the rest close up around it.
TRANSPOSE	Whole semitones, written into the keygroup's tune on the disk. **It is never heard in the app.** If it were, you would record an already-moved sample into a keygroup that moves it again.
PLAY	Plays exactly the file that row would save, out of your audio output — ready to be recorded into any sampler or onto tape. Playing a row **marks** it with a tick and a shading, so while you record a kit one slice at a time you can see how far you have got. Saving does not mark. Marks are never saved into a project, and they clear when the audio or its chops change. **CLEAR MARKS** clears them.

SAVE	Saves that row's file through a dialog. Or **drag** the row straight out to the Desktop or into a DAW.
DUP	Copies the chop's whole row onto the next free key. A copy is an extra keygroup, not another file. With TRANSPOSE, this is how you build a chromatic keygroup, one per key, the way the machine builds one. On a copy the button says **DEL** and takes the copy away.

The top row, **Σ**, is the whole loop. It and any Pod rows say **Not included in Sampler export**: you can play them and save them as files, but they do not go on a sampler disk. The heading row sets a column for every chop at once. Each heading answers Help for its own column.

Mute and delete a chop on the Chop page, on the marker itself.

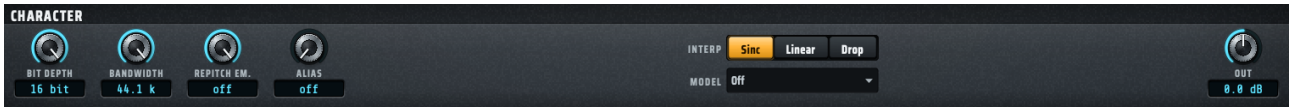
The Config page



The Config page.

Character at the top is saved with the project. Everything under it is your machine, and is remembered between sessions. Nothing musical is.

Character



Character: the machine this is pretending to be.

Character is what machine the app is pretending to be: the sound of the whole instrument. It runs last, on everything you hear. It is never printed into a Pod or a resample, so it cannot stack.

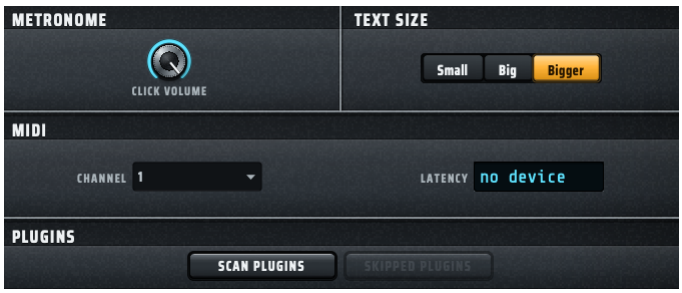
Control	What it does
BIT DEPTH	How many bits the converter has. Twelve is an S950, eight is a Mirage.
BANDWIDTH	How much top end the machine keeps. The readout is the sample rate it stands for.
REPITCH EM.	The memory trick as a sound: recorded high and played back down. It divides the

	bandwidth, and on a clock-changing machine it images too.
ALIAS	The rate the converter images at, with no filter to hide it.
INTERP: Sinc / Linear / Drop	How the machine transposes. Drop is the sound of a machine that changes its clock.
MODEL	Pick a machine and every dial here is set to it in one step.
OUT	Character's own output level, after everything it does.

Your machine



Audio and MIDI.



Metronome, MIDI and plugins.

Control	What it does
Output	Which audio output the app uses, its sample rate and buffer size. Smaller buffers answer the keyboard sooner and cost more of the processor. **TEST** plays a tone through it.
Active MIDI inputs	Tick the MIDI inputs to listen to. **BLUETOOTH MIDI** opens the pairing list.
CLICK VOLUME	How loud the metronome is. 100 is the normal click; there is headroom to 500 for when it is too quiet. Double-click for 100.

CHANNEL	Which MIDI channel plays the chops. Omni is every channel. Pick one to ignore a keyboard or a DAW track sending on the others.
LATENCY	How long the audio device takes to get sound out, in milliseconds — the device's own figure. A smaller buffer brings it down.
SCAN PLUGINS	Looks for the effect plugins on this computer, so they can be picked on the Mixer page. See below.
SKIPPED PLUGINS	Lists the plugins that scans left out. Choose the ones to try again, for example after buying a licence, and press **Try again**.
TEXT SIZE: Small / Big / Bigger	How big the writing is. It changes at once and is remembered for this computer. Bigger is the one it starts on.

Scan plugins.

- **Press it once after installing**, and again after you install a new effect. The list starts empty and is remembered between runs.
- **Both kinds are looked for, every time**: VST3 and Audio Unit. There is one button.
- **Each plugin is shown once.** One that is installed as both is shown as its VST3. One that exists only as an Audio Unit is shown as that.
- **The first scan can take a few minutes.** After that the list is remembered.
- **A plugin that does not answer** is named after 15 seconds: press **Skip this plugin** and the scan goes on, or **Keep waiting** if it has opened a window of its own, such as a sign-in. At the end, one report names the plugins skipped and the ones that could not be opened.
- **Anything missing** is one this computer could not open — usually a demo, or one that wants hardware that is not connected.
- Chop & Pitch itself is left out of the list. It is an instrument, not an effect.
- It is a button, not something that happens at startup, because one badly behaved plugin can take an app down with it.

Inside a DAW, the DAW picks the audio device and the MIDI inputs, and reports the latency. Set them in the DAW's own preferences.

Inside a DAW

Chop & Pitch is a VST3 and an Audio Unit instrument. Load it on an instrument track. It is the same app, in a window. **The tempo always follows the DAW.** The **PLAY MODE** switch on the transport row decides who plays the notes; inside a DAW it has four buttons.

In every mode, the app's own sequencer is locked to your DAW. It starts when the DAW starts, stops when the DAW stops, and keeps the DAW's tempo and place in the song. You never have two clocks to keep together.

INT-SEQ — the plugin is the sequencer

Build and play a sequence inside Chop & Pitch, locked to the DAW.

- The DAW's Play and Stop run the plugin's sequence.
- The sequence stays in step with the song: press Play at bar 5 and it starts where it would be had it looped from bar 1. The DAW's loops and jumps move it.
- While the DAW is stopped, the plugin's own Play and Stop work, for building a sequence.
- The Pods play with the sequence.
- The MSEGs' Bar, Loop and Note triggers all work; Bar and Loop follow the DAW's bars.

DAW-SEQ — the DAW is the sequencer

Play and record the chops from the DAW: its MIDI clips, or a keyboard recorded on the DAW's track.

- Each note picks a chop: First chop note plays chop 1, one semitone up plays chop 2, and so on.
- The plugin's own sequence is quiet. Its Play is greyed and its playhead does not move. The slice names still flash as the DAW plays them.
- **The Pods do not play.** A Pod is a printed recording with no chop markers, so a note has nothing in it to pick. To play a Pod's sound from the DAW, bring it onto the editing layer with the Pod's **EDIT** button, chop it there, and play those chops.
- MSEGs: Bar follows the DAW's bars; Note restarts on the DAW's notes; Loop is greyed, since there is no pass of the sequence to count.

CHR-LOOP — play the loop up and down the keys

Play the whole chopped loop chromatically, or as chords in Poly, from the DAW or a keyboard, and record it in the DAW.

- The plugin's own sequence is quiet, and the Pods do not play.
- MSEGs as in DAW-SEQ.

CHR-PHRASE — play your sequence up and down the keys

Each DAW note plays the whole sequence — its reverses, levels and lanes — for as long as the note is held, moved to that note against Root note. Held key, Phrase voicing and Direction are in the Phrase strip on the Sequencer page.

- The plugin's own sequence and the Pods are quiet.
- MSEGs as in DAW-SEQ.

Why it exists: CHR-LOOP plays the loop's slices in their own order, not your sequence. INT-SEQ loops for ever, and a DAW cannot stop and start it with notes. DAW-SEQ cannot play a note's reverse.

Automation

Twenty of the app's controls can be automated from the DAW: the chop filter's Cutoff, Reso and Env; the amp envelope's Attack, Decay, Release and their three bends; the filter envelope's six; and the five faders. The DAW moves the control itself — you see it move. Move a control in the plugin while the DAW is writing automation, and the DAW records it.

- **Bitwig**: they are listed in the device panel. Right-click one to show its automation.
- **Cubase**: on the track's automation lane, click the name, choose **More...**, then **Chop & Pitch**.
- **Ableton Live**: press **Configure** on the device, move the control in the Chop & Pitch window, press **Configure** again. It now appears in the track's automation choosers.

The DAW cannot automate the controls of an effect you load *inside* Chop & Pitch. See *Questions and answers*.

The spacebar

With the plugin window in front, the spacebar goes to the DAW in every mode. Most DAWs act on it; a few ignore keys a plugin window hands back.

Saving in a DAW

When the DAW project is saved, each Chop & Pitch saves its whole session inside it: settings, the audio and its chops, the sequence, the Pods, the mixer, the MSEGs, every effect plugin's settings, the Play mode and MIDI play. **The audio is stored inside the DAW project**, so it reopens correctly even if the original files have moved. The DAW project grows by about the size of the audio. Effect plugins that are not installed on the computer opening it come back empty, and the status line names them.

Moving a sequence between the plugin and the DAW

Drag MIDI out. Drag the **DRAG MIDI** button on the Sequencer page onto a DAW track, or the Desktop, to take the sequence out as a MIDI clip. Swing is written in. A box then asks whether to switch to DAW-SEQ, so the DAW plays the clip and the plugin's own sequence stays quiet under it. A MIDI clip carries which chop, when, how long and how hard. It cannot carry loops, reverses, semitones or lane values; those notes play as plain chops. The notes mean chops counted from First chop note, so the plugin playing the clip must have the same First chop note.

Drop MIDI in. Drop a MIDI clip — from the DAW, or a `.mid` file from the Desktop — onto the plugin window. It replaces the sequence and takes the clip's length. Undo gives the old sequence back. Notes that pick no chop are left out, and the status line says how many. A box then asks whether to switch to INT-SEQ. **In Ableton Live, a clip cannot be dragged straight onto the plugin.** Right-click the clip, choose Export MIDI Clip, save it, and drop that file onto the plugin.

Drag audio out. Press on the editing layer's small picture in Auto chop tools and drag it onto a DAW track or the Desktop. It takes the whole loop as a WAV, as the Export page's whole-loop row writes it. It is what is on the editing layer: to take a groove made on the Sequencer, **PRINT TO BREAK** first. Press on a Pod's picture to take that Pod.

Effect plugins inside a DAW

Inside a DAW, the scanning is done by a small program that comes inside the plugin, so an effect that crashes while it is being looked at cannot take the DAW down. The list is shared with the app: a scan in one is there in the other. If the scanner is missing, Scan plugins is greyed and Help says to reinstall.

Rules and limits

These are the things that look like faults and are not.

- **Gaps with Original pitch on are right.** A slice played at its own speed is shorter than the slot a slower grid gives it. Fill the gaps is the dial for the gaps.
- **Gaps with Slice tuning up are right**, for the same reason. Tuning never moves a trigger.
- **The app opens at its defaults.** Save a project to keep a session.
- **An export is the plain cut.** Resample all first to take your effects and envelopes with you.
- **The Transpose column is disk only.** You never hear it in the app.
- **Nothing is heard twice.** A print is taken before Character. A resample bypasses the inserts it printed. Character is never printed. The Pods join the mix after the inserts.
- **One thing, one cause.** A knob can be driven by an MSEG, by a slice mod, or by a sequencer lane, never two at once.
- **The Pods play with the sequence only.** Edit a Pod onto the editing layer and chop it there to play it from notes.
- **Stack works in CHR-PHRASE only.**
- **The sequence is at most thirty-two bars.**
- **4/4 only.** A song in another time signature plays, but the bars will not line up with the sequence, the Pods or the MSEGs' Bar.
- **A note already under way when the DAW's Play is pressed mid-song is not heard.** The next one is. DAWs treat MIDI notes the same way.
- **The S950 style time stretch is an effect.** It is not a way to put something in time. T-Stretch, To tempo and the tempo dial are.
- **A big kit goes on a set of disks.** The bar says how many. It turns rust when the kit is bigger than the sampler's memory, or has more samples than the machine can hold.
- **Bars and beats change the grid.** Every other control takes effect during playback.

Questions and answers

I pressed Export and I cannot hear my effects, my envelopes or my filter. That is on purpose. An export is the plain cut: the audio in the editing layer, cut at your chops. Effects have tails; if the export applied an effect to each chop on its own, the tail would be cut off where the chop ends.

1. Shape the sound: envelopes, filter, mixer effects, modulation, a sequence.
2. Press **RESAMPLE ALL**. That prints everything you hear, tails and all, back into the editing layer.
3. Place your chops on the new audio.
4. Open the Export page and export.

I held a key and heard a lovely sweep. Resample all printed something else. Resample all prints the sequence, not the key you are holding. It runs your sequence from the top and records it. A Note-triggered MSEG starts again on every note of the sequence, so a slow sweep only gets part of the way each time.

1. Open the Modulate page.
2. Click the tab of the MSEG that makes the sweep.
3. Set its Trigger to **Bar** or **Loop**.

4. Press **RESAMPLE ALL**.

Why can't I choose Stack? It is greyed out. Stack works in CHR-PHRASE only. It waits for a note to end, then leaves that note looping round its chop while it fades. In CHR-PHRASE a key plays your sequence, and a sequence is made of notes, each with its own end. In CHR-LOOP a held key is one note that runs through the whole loop, so there is nothing for Stack to catch.

1. Open the Sequencer page. Your chops are laid out as notes, in order. (If you have changed the roll, press **CHOPS TO ROLL**.)
2. Press **CHR-PHRASE**.
3. Set Voices to **Poly**.
4. Turn the Release up.
5. Light **STACK**.
6. Hold a key.

I hear clicks when a note loops or goes round. Your chops are not on zero crossings. A chop placed on the Grid lands wherever the wave happens to be, and each time a slice starts again it starts from that point. A saturator or a distortion on the channel makes it far more obvious.

1. Open the Chop page.
2. Set Snap to **Zero**, or to **Trans+zero**.
3. Move each chop a little, or chop the audio again.

I hear a click each time my MSEG goes round to its start. There is a sudden jump in the line you drew, most often at its end. Where the line drops or rises straight, the control it drives jumps in no time, and a jump is a click. A filter makes it very easy to hear. On a shape that goes round, the app ties the last point to the first, so the join itself has no jump — but a straight drop just before it, the end of a saw, does. Do one of these:

1. Find the straight drop — two points one above the other — and drag one of the two a little to the side. The drop is now a short slope.
2. Or turn **SMOOTH** up a little, until the click is gone.
3. Or soften that one corner: point just beside the point, and when the pointer becomes two arrows, pull into the bend.

Why can't I automate the plugins inside Chop & Pitch from my DAW? Your DAW can automate Chop & Pitch's own controls. It cannot reach the plugins you load inside it. A plugin hands the DAW one list of its controls, and the DAW expects that list never to change. The effects you load inside Chop & Pitch can be any plugin, swapped at any time, so they cannot be on the list. Move the effect's control from inside Chop & Pitch instead:

1. Open the Modulate page and click an MSEG's tab.
2. Click Target, go to the plugin, and pick the control.
3. Draw the shape and switch Modulation on.

Or, chop by chop: aim a slice mod at the control and set the bar on each chop. Both follow your DAW's tempo, and both are printed by Resample all. If the effect must follow a line drawn in your DAW, take it out of Chop & Pitch and load it on the DAW track after Chop & Pitch.

One of my plugins is not in the list. Press **SCAN PLUGINS** on the Config page again. If it is still missing, this computer could not open it: usually a demo, or a plugin that wants hardware that is not connected. Other instruments are not loaded; Chop & Pitch hosts effects.

Why do my chops not loop on S950 Super OS? With Start point per KG lit, the kit is one sample, and on the S950 a loop belongs to the sample. For a kit that needs loops, switch Start point per KG off: a sample per keygroup loops as before.

Why does the size bar not go down when I make Bars shorter on Super OS? The one sample must hold every chop, so it is never shorter than the audio. It is the audio in whole copies. A sample per chop is where a short Bars saves memory.

Why do the last chops stop short on Super OS? With Bars 1.00 on a one-bar loop, the sample is the loop once, and there is nothing after the end to play. Set Bars to 2.00: the loop twice gives every chop a full bar to run on into.

Why is there a little silence at the end of the Super OS sample? Up to about a third of a second. The S950 counts its start and end points in steps of the sample's length over 16,384, and throws the fraction away. The app pads the sample to a whole number of steps so that every step is exact. The bar counts the padding.

I loaded the Super OS disk and every key plays the whole sample. The S950 is running its factory OS. The start and end points are Super OS 5.0's, and the factory OS skips them. Boot Super OS first, or use the S950 destination.

Super OS is gone after I switch the S950 off. A power cycle returns the S950 to the OS in its chips. The floppy emulator loads the last disk you picked when it powers on, so pick the Super OS disk last before you switch off.

Why can I not put the whole loop or a Pod on a sampler disk? Those rows are for files. Play them or drag them out as WAVs. A sampler disk carries the chops.

Stuck?

1. Press **? HELP** and point at the thing you are stuck on.
2. Still stuck? Go to **yellowrhythmicseed.com/support** and see if your issue is in the questions and answers.
3. Still stuck? Write to **info@yellowrhythmicseed.com**

Think you have found a bug? Send us a report from the app. It is one file, and it tells us what happened.

1. Leave the fault on screen if you can. A report cannot be made after the app has closed.
2. Click the **Yellow Rhythmic Seed** name at the top left of the window.
3. Press **REPORT A PROBLEM**.
4. Type what you did, and what went wrong, in your own words.
5. Press **SAVE REPORT FILE** and choose where to save it.
6. Email that file to **info@yellowrhythmicseed.com**

The file holds your project and its sample, a picture of the window, and the list of what you did before it happened. It does not record sound.