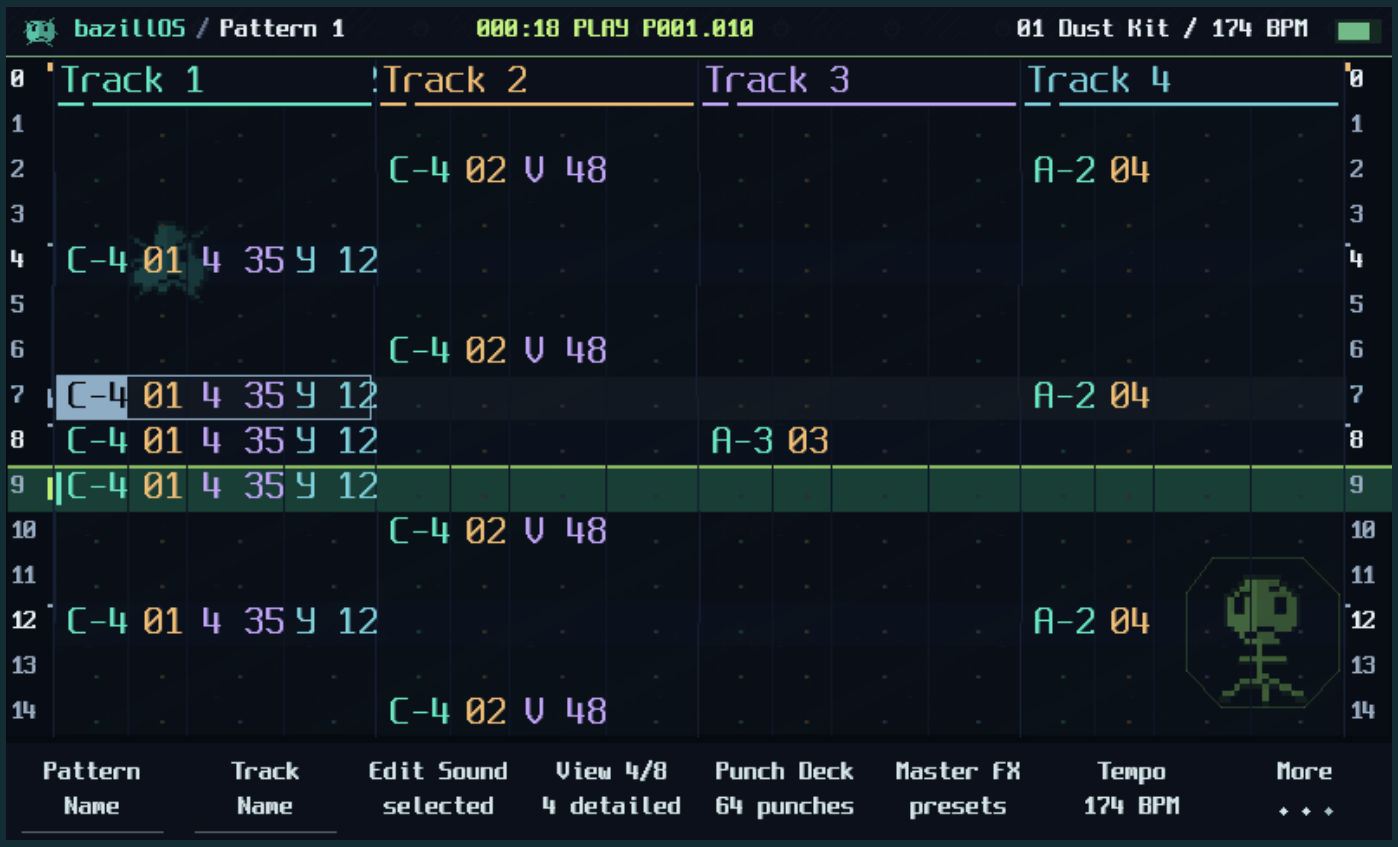
bazillOS

Start a different culture.

FIRST SESSION

COMPLETE ENGLISH HANDBOOK

A tracker at heart. A different culture around it.



CHOP / COMPOSE / SYNTHESIZE / PERFORM

The native Tracker Mini workflow, all bazillOS musical tools, eleven synth engines, effects, demonstrations and a tested route back. Read it as a complete session guide or jump through the linked contents and reference pages.

0.9.0 bazillOS / bz090c / by Kid Bunka

Independent documentation. Software UI illustrations use demonstration states.

github.com/kidbee85-beep/bazillOS

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Find your workflow.

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Source-rendered UI / demonstration state; not a device capture.

Follow the screen buttons

The eight function buttons operate the labels along the bottom edge. More changes the Pattern toolbar page. The direction pad moves the selection; +/- edits the focused value or changes the selected menu subpage. Note, Instr, FX1 and FX2 choose the corresponding step field.

Keep Menu open

Tap Menu and release it. Move to a tile, read its title, use +/- for another named view if available, then confirm with the middle navigation button. Press Menu again to cancel. A changed subpage must not send you to a different tile.

Ask the current screen

Shift+Menu opens context help. Supported long-held function keys show an explanation of their current action. Releasing after help must not also perform the short action. Punch Deck uses holds for its performance gestures; do not treat every held Punch button as a help request.

A dimmed command usually needs a selection, a loaded sound or the correct editing state. Read its help before assuming that it has failed.

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The culture map.

MENU / FOUR LOGICAL ROWS



Source-rendered UI / demonstration state; not a device capture.

Samples

Load Samples, Sample Play, Sample Edit and Recorder sit together. The Chop workspace tile switches between Chop Studio, Slice Lab and Chop Patterns. These share a workflow, but do different jobs: marker recipes, direct marker controls, then musical pattern generation.

Instruments and live tools

Synth Lab, Sound Params / Env-Macros, PERC Kits, Drum Lab and the Arcade tile form the next row. Arrangement and performance sit below: Pattern, Song, Perform / Remix, Punch Deck, then Master FX / Track Mixer / Send Mixer / Master Lab.

Project and analysis

Projects, Config, Live Spectrum, Sample Memory and Composer occupy the last row. The physical configurable function shortcuts retain their native assignments. The grouped menu does not rename the internal modules or change your project data.

Dots are destinations, not decoration. The tile name changes before you open a different view. The Arcade tile names Pulse Pong or Virus Breaker explicitly.

What lives where.

PROJECT ARCHITECTURE

Notes are instructions

A Pattern contains steps. Each step can select a note, an instrument, velocity and timing, plus two effect fields. Audio tracks trigger samples or the three internal synth parts. The native MIDI tracks address external instruments. A Song arranges references to Patterns; it does not make independent copies of their notes.

Sounds are shared

A sample slot combines an audio source with playback settings, envelopes and modulation. Many notes can refer to that same slot. A synth part combines an engine, patch, macros and voice allocation. Changing a shared sound affects every step that refers to it.

Your card is part of the project

Keep Projects, Samples, Instruments, Synths, Themes, Fonts and Workspace intact. A project folder can contain multiple patterns and saved instruments. Do not move only the visible project header and expect its dependent files to follow. Computer backups should include hidden files and configuration.

0.9 keeps 48 independent sample slots, two Step FX columns and three synth parts. The native shared synth voice budget is eight; individual engines can impose smaller limits.

Create or open

Open Projects and use New for an empty session. Audio tracks begin as Track 1 through Track 8. Existing projects retain their saved names, including Kick, Snare or custom labels. Loading a different sample does not automatically rename a track; use the track-name action in the Pattern toolbar.

Save As before experimenting

Save As creates a separately named project. Make destructive sample edits, kit replacements and generator experiments in that copy. Save normally to update the active copy. Reload it and check both the notes and the sound, rather than judging persistence from a project name alone.

Workspace is not an archive

Automatic workspace saving supports continuity during a session. It does not replace your deliberate named saves or a full computer backup. When moving between projects, allow file operations to finish. Before removing a card from a computer, eject it normally.

Old multi-pattern projects were checked through load, playback, Save As and repeated project switching. Returning to stock firmware still requires compatible original project data, not only an older updater.

Tempo, swing and a little air.

Change tempo where you work

The Song page retains native tempo access. Pattern toolbar page 3 also opens Tempo/Swing, so you can adjust the project without leaving the writing workflow for a deeper settings menu. Test tempo changes with the actual arrangement and synced equipment you intend to use.

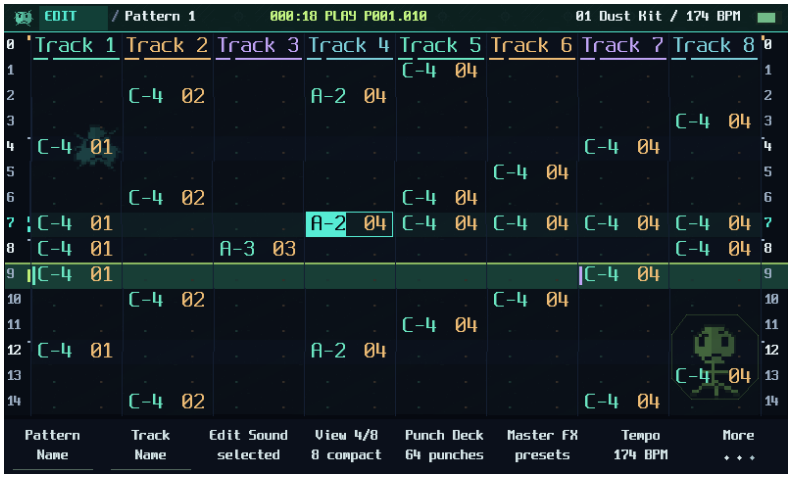
Global Swing

Global Swing alternates the relative duration of successive steps without spending an effect column. The stored range is 25-75; 50 is straight. Begin with a small change, listen to the hats and bass together, and avoid compensating the same groove twice with both global swing and heavy note-level microtiming.

Microtiming and external clock

Micro Move adjusts an individual event; global swing changes the project feel. Use Micro Move for a late snare or a single laid-back hat. Step tempo/swing commands can still make local changes, so inspect existing patterns when timing surprises you. External clock performance depends on the configured source and connected setup.

> The versioned swing value uses a bounded project extension. Older projects without it default to straight timing. Save and reload a test copy after changing global timing.



Source-rendered UI / demonstration state; not a device capture.

Four detailed tracks

The detailed view exposes note, instrument and both effect fields. Move to the destination track and row before editing. Pattern, Length and Step Jump are working controls, not merely readouts: a short pattern and a wider Step Jump can make initial drum entry much faster.

Eight tracks on demand

Shift+More toggles compact and detailed views from each toolbar page. Page 3 also offers View 4/8. Compact mode hides the effect columns and displays all eight audio tracks. Pressing FX1 or FX2 returns to a detailed view, preserving the selected track and the underlying pattern data.

Read the states

Browse is cool blue. EDIT uses a split cyan indication. ARMED is amber; active recording is coral with REC and a square. PLAY, SONG and STOP describe transport separately. The running rail follows playback rather than replacing the editing cursor.

> Pattern number and Song position are different. To inspect an old project, use the Pattern selector and +/-; seeing Pattern 1 initially does not prove that other patterns are missing.

Write the first useful bar.

NOTE / INSTR / FX1 / FX2

Choose a sound and note

In a saved test copy, select the note field and enter a note in the desired row. Choose the sample or synth part with Instr. A one-shot drum can use the same trigger note on each hit; a tuned sample or synth needs notes that fit the intended root and scale.

Velocity is arrangement

Vary accents before adding more sounds. Strong downbeats, softer ghost notes and a few open spaces often do more than a dense random fill. Use volume/velocity edits appropriate to the instrument and listen to their interaction with distortion or compression.

Leave room for the phrase

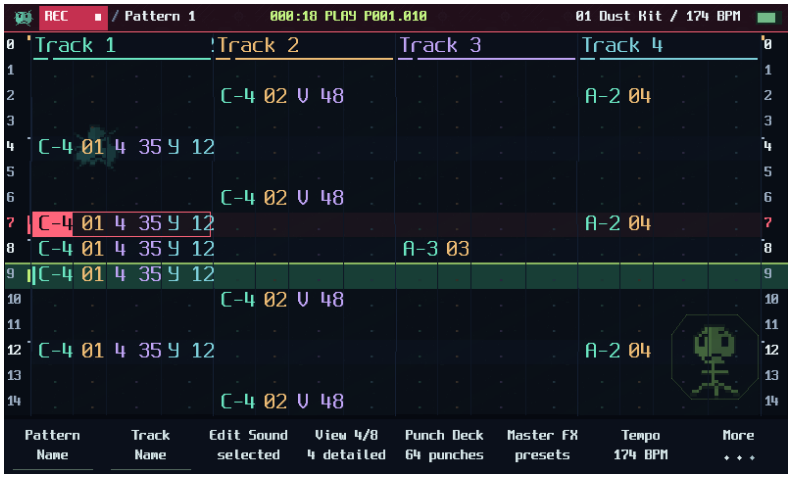
Set a short useful length, press Play, then add or remove events. A step without a new note does not necessarily stop a sustained sound; use the native note-off/cut behavior or gate length when a sound must end. Save a named version once the loop works.

Track names describe your intention; they do not bind a track to a fixed drum role. Any audio track can trigger a different sample or internal synth part on another step.

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Record deliberately.

REC / PLAY / EDIT STATES



Source-rendered UI / demonstration state; not a device capture.

Step input and live input

Step entry places data at the editing cursor. Step Jump determines where repeated entry goes next. Live recording combines running transport with record enabled and incoming playable events. Before recording, confirm the track, instrument and cursor state, not only the Play indicator.

Armed is not recording

With transport stopped, record readiness displays ARMED. When transport runs in recording state, REC uses a coral marker and a square. Stop should return the indication to the appropriate remaining state. Browse and edit colours are independent of the green running playhead.

Capture a safe take

Use Save As, select a short pattern and listen once before recording. Set the metronome in the native timing controls if required. For an external controller, verify MIDI input and channel first. After a take, stop, inspect the recorded notes and audition the whole pattern before saving.

> A bright cursor is a state cue, not proof that every connected MIDI device is recording. Check the selected track and route, and confirm a short recorded take.

Selections, names and native Undo.

Edit a range

Use the native selection controls to choose the intended row and track range before copying, deleting, filling or transforming. Watch the highlighted boundaries. Copy and paste within a test copy first, especially when track lengths differ or the destination contains useful material.

Undo the pattern write

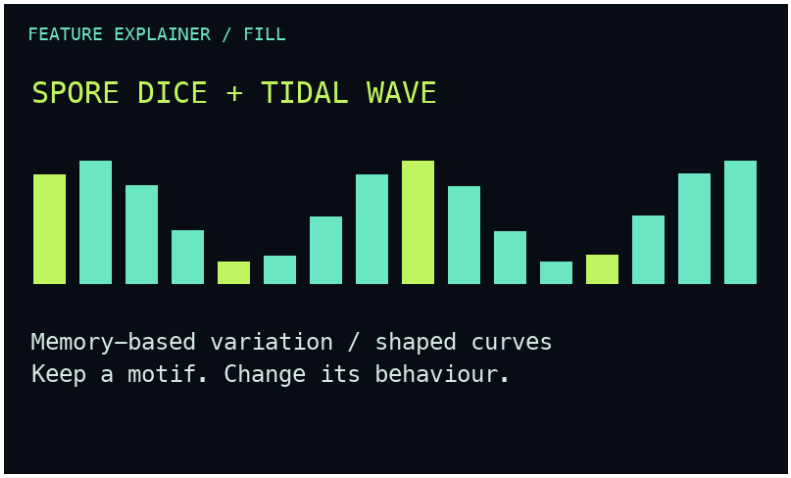
The Pattern toolbar exposes Undo and Redo. Generator actions that explicitly store a native revision can be reversed there: Composer, compact Drum Lab writes, Chop Patterns and Arcade phrase capture are examples. One write should correspond to one deliberate revision rather than dozens of unrelated changes.

Rename only when you mean it

Use the Track/Name action in the Pattern toolbar to enter your own label with the on-screen keyboard. New sessions use Track 1-8; older projects keep their saved labels. A name change belongs to the project, not to a sample file on disk.

Pattern Undo is not a complete session history. Loading a patch, replacing a kit, editing audio or applying a slice map may require restoring a saved project copy rather than pressing Undo.

Fill remains your everyday generator.



Source-rendered UI / demonstration state; not a device capture.

Start with a selection

Classic Fill operates on the selected range and element type. Decide whether you are filling notes, instruments, effect types, effect values or another supported parameter. Choose a constant, a progression or a controlled random range using the labels for that element.

Make randomness musical

For notes, choose a root, scale and sensible register. Limit density before widening the pitch range. For velocity, use a narrow range that supports the existing groove. For effects, choose compatible targets; random effect codes are a different operation from random values of one effect.

Build one layer at a time

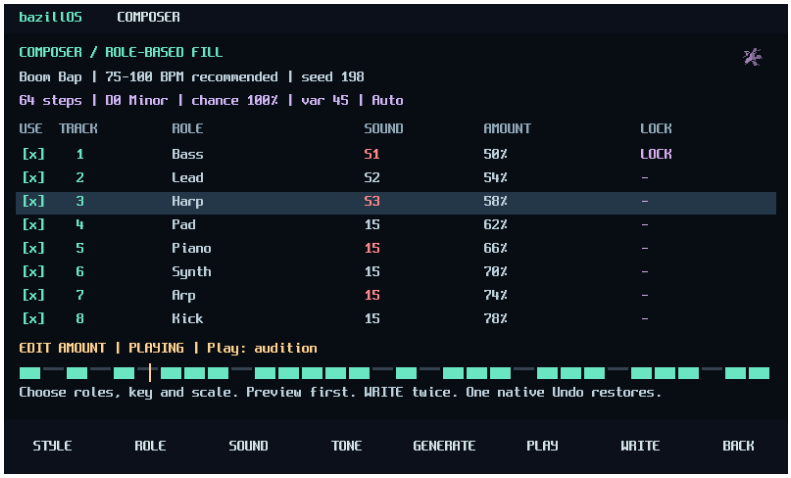
Fill hats first, then keep only useful accents. Generate a bass line against the kick rather than filling every track at once. Save a version you like and use native Undo if the last committed pattern transform is worse than its source.

Composer supplements Classic Fill; it does not remove it. Pattern page 1 > Shift+Fill opens Composer, and the main menu also has a Composer tile.

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Composer: roles before randomness.

MENU / COMPOSER



Source-rendered UI / demonstration state; not a device capture.

Define the ensemble

Choose style, key, scale, length and chance, then assign roles and existing audible sounds to the included lanes. A role describes musical behavior; it does not create a new synth voice. Preview sound assignment in the current project before judging the generated phrase.

Keep the useful decisions

GENERATE rerolls unlocked material. Shift+Middle locks a lane. Shift+GENERATE mutates pitch and accents while retaining rhythm and gates. Use this to preserve a good rhythmic backbone while searching for a better contour. The repeatable seed supports deliberate comparison.

Audition and commit

Play auditions the staged phrase. WRITE first shows the intended scope; WRITE again commits a native Undo revision. Composer can change audio-track lengths together, so read the summary. If the source changed while staging, generate a fresh preview instead of applying stale material.

> The preview continues through periodic workspace saves. bz090c also prevents native transport refresh from replacing Composer labels or key bindings. The focused Mini check includes repeated Play/Stop and at least 70 seconds of audition.

Spore Dice and Tidal Wave.

Spore Dice

This selected adaptation brings memory-guided variation to Fill. A remembered motif and repeatable variation are useful when a completely new random line destroys the groove. Treat the amount as a musical range: begin conservatively, compare and retain a recognizable anchor.

Tidal Wave

Use shaped curves for supported selected values. A rising, falling or cyclical contour can make velocity, timbre or another value coherent across a phrase. It is a generator of stored values here; it is not an extra free-running modulation cable between every synth parameter.

Use the existing selection rules

Choose the track, range, destination parameter and safe value limits before generating. Preview where offered, then commit deliberately. Spore Dice, Tidal Wave and the TIDAL synth are related inspirations with different jobs. Neither adds a hidden third effect lane.

Selected algorithms are adapted and credited in source. These tools are not complete hardware module ports, and they do not imply all original patching modes or CV connections.

Load samples, keep the pool clear.

Browse and audition

Open Load Samples, browse the card and preview an appropriate file. Choose the intended project slot before loading it. A short one-shot and a long stereo loop have different memory and streaming costs, even though each occupies one instrument slot.

Choose useful source material

44.1 kHz uncompressed WAV is the normal working route. If a file is rejected or behaves oddly, convert a copy to a conventional PCM WAV and retry. Preserve the original recording. Check mono/stereo behavior and source level before blaming a generator for a bad audition.

Understand the limit

Sample Memory helps inspect the existing pool and memory situation. There are 48 independent sample slots in this release; short drums do not gain extra IDs automatically. Slices divide one source into playable regions and can provide a compact kit, but those regions share the source instrument settings.

From a synth or MIDI selection, Sample Play, Chop Studio and Slice Lab now select the first loaded valid sample. With none loaded, the normal empty slot is shown. A valid sample selection is left alone.

Sample sound: parameters and envelopes.

Shape the shared instrument

Volume, pan, tuning, filter, drive/bit reduction and effect sends influence the selected sample instrument. A sample used by many steps is still one instrument: changing it affects those steps together. Per-step effects can override supported aspects locally.

Control time and motion

Attack/release and filter envelope controls change how a hit opens and closes. LFO targets create repeating movement. Rate, depth and shape need to work together; choosing an LFO Step FX rate with zero depth can correctly sound static.

Tune with the pattern

Set the source root and musical register by ear, then check the bass and melody together. Heavy pitch shifts can change the length of ordinary sample playback. Use intentional playback modes for a loop rather than assuming every mode is a time-stretch engine.

Sample Play is the mode/region screen; Sound Params edits the instrument sound. Sample Edit alters or processes audio. Their different jobs are preserved.

Playback modes: choose the mechanism.

SAMPLE PLAY

One-shot and loops

Use One-Shot for discrete hits. Forward, reverse and bidirectional loop modes use loop boundaries to sustain or repeat material. Edit start/end and loop points while listening for clicks or an unintended tail. The mode name determines whether a region repeats or completes once.

Slice and Beat Slice

Slices use a marker map to make regions addressable. Beat Slice supports a break-oriented workflow; the map created by Chop Studio or Slice Lab is used by playback and pattern generation. Marker numbers are not new independent samples or free extra instruments.

Wavetable and granular

Wavetable modes scan a suitable source region as an oscillator-like timbre. Granular modes use short grains and position controls. Choose source material and modulation depth deliberately. Some position effects require these modes; the same effect on a one-shot may have a different or limited role.

After keeping new cuts, audition their boundary behavior in the playback mode you will actually use. A visually tidy waveform is not sufficient evidence of a good sounding slice.

Sample Edit: audio surgery.

SAMPLE EDIT

Work on a saved copy

The native editor selects a region and applies supported audio operations. Trimming, normalization, fades and effect processing belong here. These operations differ from merely staging slice markers. Make a test project copy before committing destructive processing.

Process one step at a time

Select the range, choose the effect or editing operation, set its controls, audition if offered and apply deliberately. Inspect the resulting length, stereo behavior and level. Repeated normalization followed by distortion is not a substitute for a balanced gain structure.

Plugins remain available

The native Sample Editor plugin route is retained. Use packages built for the actual Mini/CE plugin interface and respect their licences. An offline sample-processing plugin is not automatically a real-time insert effect or a synth engine in the three-part budget.

If an operation changes the audio length or source identity, reopen a staged Chop tool and regenerate. Applying markers based on an earlier version of the waveform is intentionally rejected.

Record your own material.

Choose the actual input

Open Recorder, choose the intended source and watch its level. Use the Mini input or microphone/USB route supported by the current configuration. Start with a short test recording, then replay it through the project before capturing a long performance.

Leave headroom

Set the input gain so that loud hits remain controlled. A clipped source is not repaired by making its waveform smaller afterwards. Headphones, monitoring and input routing can interact; if you hear feedback or a growing loop, stop and check the route before continuing.

Bring it into the project

Save the take with a clear name, assign it to a suitable sample slot and inspect start/end points. For a break, try Chop Studio; for a melodic phrase, try Slice Lab with a melodic profile or silence-based phrases. Save the project after confirming the recorded file is where it belongs.

Recorder opens its native workflow and safeguards. Choosing another menu tile must not bypass a pending recording/save confirmation.

Render, export and USB audio.

Render a useful range

Choose the native render/export operation for the material you want: a pattern/selection, an arrangement or separate tracks where offered. Check the range and tail before rendering. A reverb ending may require extra time after the final note.

Listen to the exported file

Open the actual exported WAV on the computer and inspect its duration, channels, start and end. Do not infer a correct export solely from a completed progress bar. Keep the musical project alongside the rendered audio so that future edits remain possible.

USB is several workflows

USB storage exposes the card for file transfer and requires safe eject. USB audio and MIDI depend on the chosen device/host configuration. Avoid trying to edit projects on the computer while the Mini is actively using their files. Test the exact routing and clock setup you will record with.

> The included demo listening previews and promo soundtrack are host-rendered production audio. They are labelled separately from recordings captured from a physical Mini.

One Chop workspace, three jobs.

CHOP STUDIO / SLICE LAB / CHOP PATTERNS



Source-rendered UI / demonstration state; not a device capture.

Choose the stage you need

Chop Studio uses named cutting recipes. Slice Lab exposes the same marker engine directly through mode and profile. Chop Patterns turns a useful slice map or existing phrase into musical patterns. They are grouped in one menu tile without removing their distinct controls.

A dependable sequence

Load/select the source sample. Find useful cuts in Chop Studio or Slice Lab. Preview and KEEP CUTS twice. Then open Chop Patterns to generate, lock, compare and write notes. Confirm the destination scope; one native Undo restores its committed pattern write.

Keep the other editors

Sample Edit changes/processes source audio. Sample Play selects playback behavior, including Beat Slice. A marker tool does not replace either. Switching tools cancels unconfirmed staged cuts, so keep them first if you want to use them in the next stage.

> Some earlier screens or hints used Beat Lab as a historical name. The grouped menu destinations are the current names; the underlying pattern/groove workbench remains available as Chop Patterns.

Chop Studio: recipes with intention.



Source-rendered UI / demonstration state; not a device capture.

Start with STYLE

STYLE and +/- choose an original cutting recipe. Drum Hits isolates attacks; Tight Break finds more detail; Loose Break leaves longer regions. Melody handles softer attacks with a useful fallback. Equal 8/16/32 divide the source predictably, while Tempo Grid explicitly uses the project BPM.

Listen and repair

Play listens to the staged cuts; preview the source when comparing. Select a cut with Left/Right. Nudge moves an internal boundary within the minimum separation; the first cut stays at zero. Split adds a boundary and Join removes one. These operations do not rewrite the source audio.

Commit the map

KEEP CUTS first asks for confirmation; repeat it to replace the instrument marker map and enable Beat Slice. Cancel/back leaves the original map. Save As before committing if you need a separate preserved version, since marker replacement is not the same transaction as Pattern Undo.

Vocal Gaps looks for shorter silence gaps; Long Phrases uses a longer pause. Continuous material can correctly produce one phrase. No detector can infer the musical structure of every sample automatically.

Slice Lab: direct cutting controls.

CHOP TILE / +/- / SLICE LAB



Source-rendered UI / demonstration state; not a device capture.

Choose MODE

Select MODE and use +/- to move through Onsets, Evenly, Grid and Phrases. Hold Shift with +/- to change the profile: Drums, Breaks or Melodic. This exposes the cutting decision directly, rather than forcing a named recipe for every source.

Match the material

Onsets suits separated attacks and transient-rich breaks. Evenly is predictable for a balanced source or a deliberate equal chop. Grid uses project tempo and its selected subdivision. Phrases looks for quiet gaps, which is useful for vocal or melodic passages with rests but less useful for a continuous drone.

Tune and keep

Adjust the count/grid and relevant detail/gap settings, then listen. Nudge, split and join repair awkward boundaries. The source identity is checked before applying; if it changes, reopen the tool. KEEP CUTS twice commits the markers; it does not create extra sample slots.

> Use your ears on a long melodic source. A correct transient can still cut through a sustained note; phrases or manual adjustments may preserve its musical ending better.

Chop Patterns: make the cuts musical.

Select the task

Original Chops reconstructs a source-oriented sequence; Rhythm Chops rearranges regions into a beat; Variation changes a captured phrase; Apply Groove transfers a captured timing/velocity feel. Use Beat Slice and a useful map for chop-oriented tasks.

Work on a staged phrase

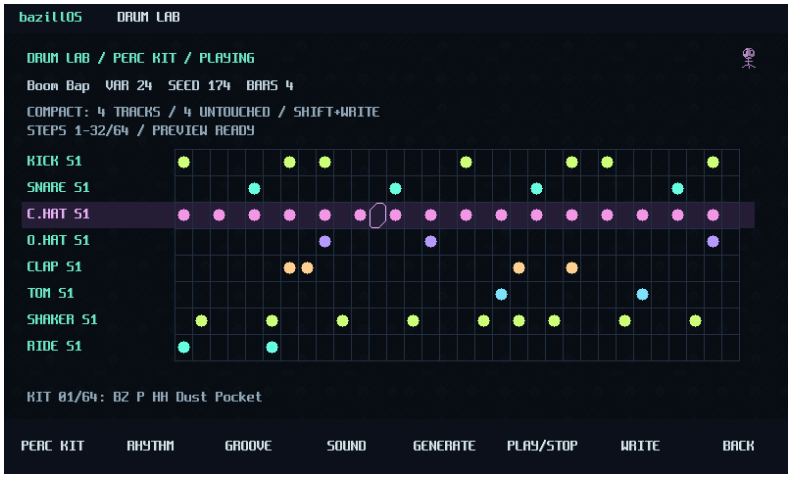
Choose an existing track/range, an appropriate sound, task, preset and amount. Generate, audition, lock useful events and compare A/B. The preview demonstrates notes, timing and velocity. Step effects are heard after WRITE in the native Pattern playback path.

Confirm what will change

WRITE shows the destination track and row range, then WRITE again commits. The source is checked so a stale preview does not overwrite a changed pattern. Native Undo restores the previous pattern content. Audio source and kept marker map are separate from that pattern revision.

Groove extraction needs meaningful event positions. If collisions cannot fit the selected grid, use a finer grid or a simpler phrase; do not force an invalid preview into the pattern.

Drum Lab: a beat before setup.



Source-rendered UI / demonstration state; not a device capture.

Ready PERC voices

A new project has useful drum voices available for the Lab. Choose RHYTHM and audition a ready pattern. PERC KIT selects contrasting kit recipes; GROOVE varies the feel. GENERATE changes the proposed beat while the current project pattern stays untouched until WRITE.

Existing sessions need care

In an existing project, read the PERC KIT setup confirmation. It can replace the shown synth parts with a kit and shaker. Keep a Save As copy before that change. A ready kit is a shared sound assignment, not a separate permanent engine per drum lane.

Compact export

WRITE nT shows the number of tracks needed for non-overlapping hits. Confirm twice. Hits that need the same row occupy different tracks; other hits can share a track. Only the shown destination tracks are replaced. Shift+WRITE uses separate role lanes when that layout is what you want.

Compact packing reduces occupied columns; it does not create more simultaneous playback voices. Protect any existing musical material outside the displayed destination, and verify with Undo in a test copy.

Replace a drum role

Select SOUND, use Up/Down to choose Kick, Snare, hats or another role, then +/- to choose a loaded individual one-shot or return that role to PERC. Middle auditions it. The role label is a musical assignment inside the Lab, not an automatic track renaming rule.

Edit the synth sound

Shift+SOUND opens the PERC route; EDIT changes the sound. In PERC Kits, audition the kit groove and individual roles instead of judging every patch on a single trigger note. A tuned tom or cymbal can sound misleading if auditioned with the kick trigger.

Try a deliberate contrast

Compare a shorter dry kit with a heavier or more open recipe at the same listening volume. Adjust kick decay/tone before increasing drive. Short hats and a longer open hat should leave different spaces. Keep sample replacements that already work while searching for another PERC recipe.

The added PERC library has 64 original kit recipes plus the shaker workflow. A recipe count is not a promise that every role becomes a separate synth instrument slot.

Synth flow: choose a part first.

Three parts, eleven choices

A part is S1, S2 or S3. It can use ACD, FAT, VAP, WTFM, PERC, DIRT, CHIP, DREAMS, TIDAL, CROSSBREED or QUAD FM. Sound Params retains the native model selector and patch editor. Synth Lab makes the added palette easier to reach.

Load deliberately

Choose the engine and part. PRESETS browses the assigned engine; LOAD twice confirms replacement of the selected part. Choosing another slot alone should not replace its sound. EDIT opens sound design. A pattern note addresses the part, so changing its model changes all notes that use that part.

Budget voices and level

The native shared total is eight synth voices across the three parts. DREAMS, TIDAL and CROSSBREED are deliberately bounded to one voice per part; QUAD FM allows up to four within the shared budget. Long releases and overlapping notes can still stress a busy project.

If allocation fails, reduce unused voice allocations or save/reopen. Do not claim unlimited polyphony from a large preset library. The earlier DREAMS false memory threshold was corrected and audition tested.

ACD and FAT.

NATIVE SYNTH PALETTE

ACD: a focused voice

Begin with a simple patch, set oscillator mix and pulse width, then shape cutoff, resonance and envelope movement. Use a short repeating bass phrase to hear envelope changes clearly. A restrained filter and velocity pattern often creates more groove than a wide random pitch range.

FAT: weight and movement

Adjust Fatness, Brightness, Timbre and Noise before adding more modulation. Small detune/drift-like changes make repeated notes move without making the bass center unstable. Compare the same phrase at matched gain when choosing a heavier sound.

Presets are editable

Both retain native patch loading, full parameter pages and six macros. Added BZ recipes supplement the native sound bank. Save an edited patch under your own name, then save the project and check it after reloading. Macro names can differ between patches because their assignments belong to the patch.

Useful starting controls are taken from the native SDK metadata. The complete current parameter names are listed in the reference appendix; the real editor displays each range/unit.

VAP and WTFM.

NATIVE SYNTH PALETTE

VAP: layered oscillator colour

Start with oscillator shape, pulse width, mix and tuning. Reduce release while writing a rhythm, then lengthen it once the phrase works. Use filter and modulation deliberately so a sustained texture leaves room for the break and bass.

WTFM: wavetable FM

The native two-operator wavetable/FM engine is distinct from QUAD FM. Ratio, fine tuning, shape and character can change the harmonic behavior. Change one operator control at a time while sustaining or repeating a note; broad simultaneous moves can hide the cause of a harsh result.

Listen in the arrangement

A solo patch may sound impressive but mask the snare or low end. Match gain before choosing, then try a small macro motion over a repeated pattern. The added BZ patches are starting points, not alternate firmware versions or new hardware voices.

Use Sound Params > Model to reach the full engine list. The added-engine launcher does not replace the native model and patch editor workflow.

DIRT and CHIP.

DIRT: shaped tone

The DIRT model exposes source shape, sub/noise mix, warp and shaping controls. Load a real patch or a working Init before judging it. A silent or unchanged selection can reflect the current sound/part rather than the absence of an engine.

CHIP: deliberately small ingredients

Try Model, Tune, Duty/Shape and pulse-width motion, then the sub oscillator, chord arpeggio and pitch sweep controls. Strongly quantized tones can occupy a useful upper register without requiring a dense chord arrangement.

Make contrast useful

Choose two clearly different patches and audition the same phrase at matched gain. Then vary only one macro. Both models have extra BZ recipes in addition to the existing patch workflow; load and save them through the engine-appropriate browser.

DIRT is a playable synth model, not the Punch Deck DUST effect and not an audio-file-processing plugin. These similar names describe different parts of the instrument.

PERC as a sound-design instrument.

A kit can live in one part

PERC maps different trigger notes to drum roles, so a whole kit does not require one synth part for every sound. Its internal drum handling and the tracker track grid are separate. Drum Lab uses this existing engine rather than raising the three-part limit.

Audition the intended role

In the Lab mapping, kick is C5 / MIDI60, snare D5 /62, closed hat E5 /64, open hat F#5 /66, tom C4 /48, clap-role G#5 /68 and ride-role A#5 /70. Those role labels refer to the chosen kit recipe; audition the actual assignment when editing.

Build a better kick

Start with pitch/tune and decay. Balance attack character and body before adding drive. If two kits appear identical, make sure the browser is actually changing the kit and that you are comparing the relevant drum role. Use the groove audition to hear the entire kit.

Changing a PERC patch changes the shared kit for all notes that use that part. Save a copy before replacing it in a project that already depends on its sounds.

A broad voice with seven controls

Model chooses the algorithm. Timbre, Harmonics and Morph/Damping shape it; Attack, Release and Gain control the amplitude behavior. The audible meaning of a timbral control depends on the selected model, so compare controls within one algorithm before switching it.

From texture to percussion

The bank spans FM/analog/harmonic colours, modal and plucked resonances, distortion/folding, grain/formant textures, noise/percussion, chord and voice-like sounds. They are selected adaptations with original credits, not a complete rack or every Mutable Instruments module mode.

A useful audition

Choose one part and a restrained voice allocation, load two contrasting presets and trigger a phrase with enough space for release. The 640 named recipes include an Arcade-oriented bank. Audition, edit, save a patch if needed, and verify the project after reopening.

Model names: Prism FM, Prism Analog, Prism Harmonic, Reson Modal, Plucked String, Phase Distort, Noise Percussion, Fold Circuit, Grain Formant, Clock Dust, Circuit Kick, Wire Snare, Alloy Hats, Chord Garden, Swarm Signal, Table Atlas, Viral Vox, Vowel Spore, Reson Bloom.

TIDAL.

SHAPED STEREO VOICE

Shape an evolving tone

Mode offers Phase or Ratio. Shape, Slope, Smoothness and Spread shape its behavior, followed by Attack, Release and Gain. Begin with one note and a small Shape change, then compare Slope and Smoothness separately so their interaction stays understandable.

Use space deliberately

TIDAL is a bounded monophonic stereo voice. Spread can change the sense of movement; check the result in the mix and through your real monitoring route. A wide solo patch is not automatically a good bass patch.

Start with a recipe

The 32 recipes cover useful starting colours. Load a contrasting pair, match level, then use one macro to animate the phrase. This engine is different from the Tidal Wave Fill curve generator: one renders sound, the other writes useful control values.

This is a selected Tides-inspired DSP adaptation, not the full original module firmware, CV interface or a general-purpose modulation bus for all other parts.

CROSSBREED.

TWO INTERNAL SOURCES

Choose the interaction

The six modes are Crossfade, Fold, Analog Ring, Digital Ring, XOR and Comparator. Color changes the interaction, Interval offsets the sources, and Carrier/Modulator choose Sine, Triangle or Saw. Attack, Release and Gain complete the playable voice.

Find a musical center

Start with a simple mode, modest Color and a consonant Interval. Then increase the interaction gradually. Ring and logical/comparison modes can produce abrupt harmonic changes; match gain before deciding whether the extra edge is useful.

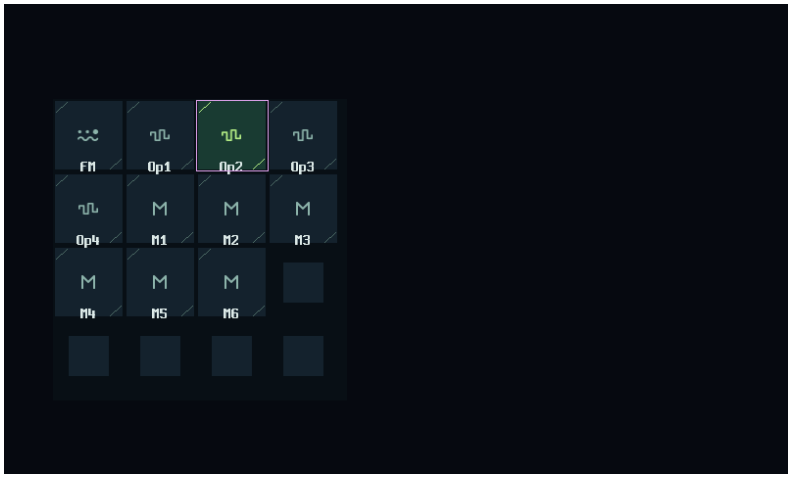
Use the patch bank

The 32 recipes provide contrasting starts. Save a good variant under your own name and check its release in the pattern. This is a bounded monophonic internal-source voice; it does not accept an arbitrary pair of external track audio streams.

A selected Warps-inspired adaptation with original notices. No vocoder is included. CROSSBREED is a synth voice here, not an unrestricted master insert processor.

QUAD FM.

FOUR OPERATORS / 16 ALGORITHMS



Source-rendered UI / demonstration state; not a device capture.

Routing before complexity

Choose an algorithm in the FM routing section, then edit Op 1-Op 4. The icons identify routing/modulation and oscillator sections. Operator ratios, levels, envelopes and feedback decide whether a sound behaves like a round bass, a bell, keys or a more unstable texture.

Change one modulator

Start from a controlled patch. Increase one modulator level while repeating a note; return to the source, then try its ratio or feedback. If every operator changes at once, it becomes hard to hear what improved the sound. Reduce gain when a brighter result becomes louder.

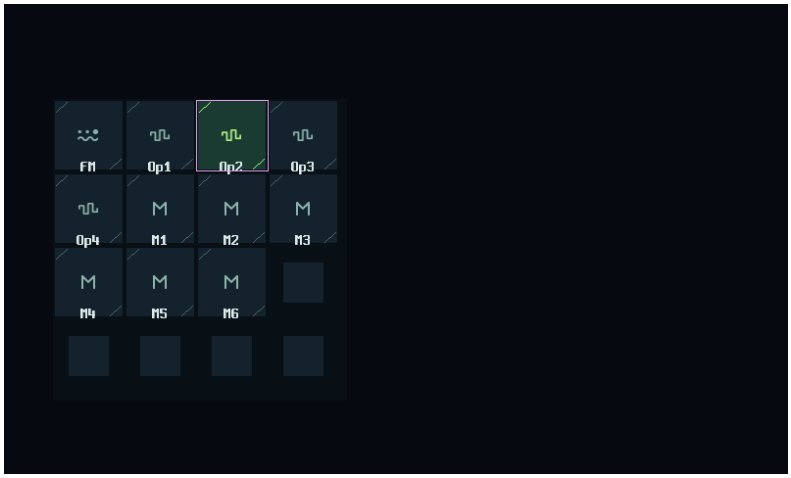
Macros and recipes

There are 128 original recipes. Default macros include Mod 2, Mod 3, Mod 4, Feedback, Release and Gain. Up to four voices can be assigned to a part within the existing shared eight-voice budget. Long operator releases can make a dense pattern much busier than its note count suggests.

QUAD FM supplements WTFM. It does not replace the native two-operator engine. Its imported FM core and exact provenance remain credited in the matching source archive.

Patches, macros and a consistent editor.

EDIT SOUND / PATCH EDITOR



Source-rendered UI / demonstration state; not a device capture.

Open the selected sound

Pattern toolbar page 3 > Edit Sound follows the selected instrument. Sample sounds open their parameter workflow; synth parts open the relevant synth route. This is quicker than returning through the main menu for every adjustment.

Sections and symbols

Oscillator/operator, envelope, filter, modulation, shaper and drum-role icons provide landmarks. QUAD FM routing and all four operators now have symbols; custom section names retain their authored labels. Unused cells remain empty. Long labels are bounded to their tiles.

Understand a macro

A macro controls its assigned parameter relationships, which can differ between patches. Edit a macro with a repeated phrase and watch the relevant section if needed. Save the patch when you want a reusable sound, and save the project when you want the session state. One does not replace the other.

Audition presets at matched level. A name or recipe count is not proof of sonic variety; use contrasting patches and check that the audible result actually changes.

Native Step FX: timing and performance.

Timing and note behavior

Micro Move shifts an event; Gate Length controls its duration; Roll repeats it inside the step; Arpeggiator adds a note pattern. Chance and the Random Note/Instrument/Volume/FX options produce different kinds of variation. Tempo, Swing and Break Pattern change larger timing/flow behavior.

Choose the right value

Each effect picker displays the supported value range, unit or enumeration. A random note range is not the same as a random effect-value range. Keep a useful initial phrase and alter only the parameter you intend to vary. External MIDI and internal audio can respond differently to sound-specific effects.

None, Off and two columns

None leaves a field empty. Off releases the corresponding active effect behavior through the native handling; it is not a universal numeric zero. Two effects can coexist when they address independent controls. If both address the same control, the right FX2 path takes precedence where implemented.

The two effect columns are preserved to keep project compatibility and a predictable editing model. A third effect lane is outside 0.9.

Native Step FX: sound and routing.

Pitch, position and tone

Tune, Microtune, Glide and Slide Up/Down alter pitch behavior. Position, Slice and Reverse change sample playback. Volume/Pan, their LFO effects and filter/position/finetune LFO controls add movement. Their result depends on the selected sound and playback mode.

Texture and sends

Overdrive, Bit Depth and low/high/band-pass filters shape sample tone. Delay and Reverb set sends into shared effects. Envelope and granular-length controls belong to compatible sound paths. A send is not a separate reverb instance per note.

MIDI and macros

The CC A-F effect paths and MIDI Chord options address the native MIDI/macro configuration. Verify the destination, channel and controller assignment before using automation. A sound-specific sample effect should not be assumed to process an external synth or every internal model identically.

When an effect seems inactive, check its sound type, playback mode, modulation depth and current value. Test it alone in a saved short pattern before combining it with compound effects.

Twelve new compound Step FX.

TWO LANES / MORE COMBINATIONS

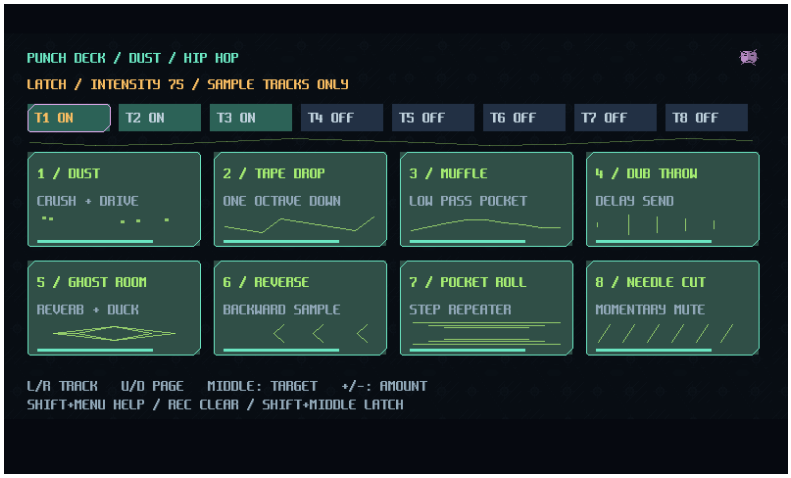
Small codes, linked controls

These additions combine existing parameter paths for a deliberate effect gesture. Most target sample tracks; SPACE also supports internal synths. They do not create new inserts or a second dry voice. Apply them to a test copy and compare the source at the same listening level.

Q CRUSH	0-100: increasing drive, bit depth 16 to 4.
Y SPACE	0-100: combined delay and reverb sends.
W WOBBLE	Native LFO rate for filter + finetune; set depth/shape.
O ORBIT	LFO rate for pan + position; WT/Granular position required.
1 RADIO	0-100: band-pass cutoff 35-70, bit depth 16-6.
2 ACID	0-100: low-pass cutoff + drive; low values can be quiet.
3 GHOST	Reverse sample; amount sets reverb send.
4 DUST	Darker low-pass tone and reduced bit depth.
5 HALO	Tune +12 semitones; amount sets reverb, no extra dry voice.
6 DIVE	Tune 0 to -24 semitones with a closing low-pass.
7 RUST	Reverse sample; amount sets drive.
8 SPORE	Repeatable sample-start/pan pair; not transient analysis.

Off in the same column releases an effect. Zero is not a universal bypass. For overlapping control targets, the right FX2 path wins where implemented.

Punch Deck: the performance instrument.



Source-rendered UI / demonstration state; not a device capture.

Choose targets and intensity

Left/Right moves among sample-track targets; Middle toggles the selected target. Up/Down changes the bank. +/- adjusts intensity. Begin around 75%, compare clean sound and verify that you are processing the intended tracks.

Hold, combine, release

Hold a function button for a momentary gesture. Hold two to combine them; release one and the other stays active. Shift+Middle toggles LATCH, where a tap stays active until tapped again. REC clears; changing bank or opening Menu also clears active gestures.

Coder visuals with limits

The active cards gain compact demoscene accents in Full animation mode. Reduced uses static accents; Off removes the extra Punch graphics. Text, targets and amount remain readable. These graphics do not analyse the waveform or add audio effects.

Drive/saturation, echoes and rolls were balanced and user-tested at 75% and 100%, including release, overlapping holds and clear paths. Natural delay/reverb tails can continue after release.

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The Punch recipe map.

EIGHT BANKS / 64 RECIPES

Browse by behavior

DUST/HIP HOP emphasizes grain, filtering and dirt; BREAKS/DNB supports fast rhythmic mutations; CLUB/DUB and DUB LAB provide spatial throws. MUTATION, BASS DAMAGE, ROLL SCIENCE and CUT/GLITCH extend the palette. Read the short recipe description on the current card.

Build a performance

Keep a clean phrase as a reference. Introduce a longer texture gesture, clear it, then use a short roll before the beat switch. Avoid leaving every available effect active throughout a song; contrast makes each gesture easier to hear.

Use the catalogue

The table on the next page lists every exact recipe name from this build. It helps report a loud or unexpected result precisely. Include bank, amount, targets, momentary/latch state and source project when sending feedback.

> The names are creative recipes over the existing audio control paths, not 64 independently allocated plugin instances. Punch Deck targets samples; synth parts retain their own sound/macro controls.

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Punch catalogue 1/4

EXACT RECIPE NAMES / bz090c

DUST / HIP HOP / 1 DUST	CRUSH + DRIVE
DUST / HIP HOP / 2 TAPE DROP	ONE OCTAVE DOWN
DUST / HIP HOP / 3 MUFFLE	LOW PASS POCKET
DUST / HIP HOP / 4 DUB THROW	DELAY SEND
DUST / HIP HOP / 5 GHOST ROOM	REVERB + DUCK
DUST / HIP HOP / 6 REVERSE	BACKWARD SAMPLE
DUST / HIP HOP / 7 POCKET ROLL	STEP REPEATER
DUST / HIP HOP / 8 NEEDLE CUT	MOMENTARY MUTE
BREAKS / DNB / 1 BREAK ROLL	HALF STEP ROLL
BREAKS / DNB / 2 JUNGLE FLAM	THIRD STEP ROLL
BREAKS / DNB / 3 VIRUS DRILL	QUARTER STEP
BREAKS / DNB / 4 AMEN REWIND	REVERSE + LOW
BREAKS / DNB / 5 METAL SPORE	CRUSH + HP
BREAKS / DNB / 6 RADIO BREAK	BAND PASS
BREAKS / DNB / 7 DROP LEFT	PAN + DELAY
BREAKS / DNB / 8 DROP RIGHT	PAN + REVERB

Read the active card for behavior. Match level, choose sample-track targets and clear with REC. Natural echo/reverb tails may remain after release.

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Punch catalogue 2/4

EXACT RECIPE NAMES / bz090c

CLUB / DUB / 1 FILTER DIVE	DEEP LOW PASS
CLUB / DUB / 2 AIR LIFT	HIGH PASS
CLUB / DUB / 3 WAREHOUSE	DRIVE + ROOM
CLUB / DUB / 4 ACID DUST	BP + CRUSH
CLUB / DUB / 5 CLUB ROLL	TWO STEP ROLL
CLUB / DUB / 6 DUB CHAMBER	DELAY + ROOM
CLUB / DUB / 7 OCTAVE UP	PITCH RISE
CLUB / DUB / 8 VACUUM	HP + DUCK
MUTATION / 1 PIXEL FEVER	HEAVY CRUSH
MUTATION / 2 GLASS SPORE	UP + TINY ROLL
MUTATION / 3 DEEP SPORE	LOW + DRIVE
MUTATION / 4 MUTANT TAIL	REVERSE + ROOM
MUTATION / 5 NANO DRILL	SIXTEENTH ROLL
MUTATION / 6 WIDE LEFT	PAN + PITCH
MUTATION / 7 WIDE RIGHT	PAN + PITCH
MUTATION / 8 OUTBREAK	CRUSH ROLL ECHO

Read the active card for behavior. Match level, choose sample-track targets and clear with REC. Natural echo/reverb tails may remain after release.

Punch catalogue 3/4

EXACT RECIPE NAMES / bz090c

DUB LAB / 1 TAPE SPACE	LOW ECHO ROOM
DUB LAB / 2 BUBBLE DUB	BP ECHO
DUB LAB / 3 ECHO LEFT	LEFT DRIVE ECHO
DUB LAB / 4 ECHO RIGHT	RIGHT DRIVE ECHO
DUB LAB / 5 FOG TANK	LOW REVERB
DUB LAB / 6 RUST ECHO	CRUSHED ECHO
DUB LAB / 7 REVERSE DUB	REWIND ECHO
DUB LAB / 8 DEEP ECHO	LOW FILTER ECHO
BASS DAMAGE / 1 SUB DIVE	TWO OCTAVE LP
BASS DAMAGE / 2 REESE CUT	DETUNED HP DRIVE
BASS DAMAGE / 3 BASS RUST	LOW CRUSH DRIVE
BASS DAMAGE / 4 FIFTH DOWN	LOW FIFTH ROOM
BASS DAMAGE / 5 FIFTH UP	HIGH FIFTH ECHO
BASS DAMAGE / 6 DARK ROOM	LOW LP REVERB
BASS DAMAGE / 7 WIRE BASS	BP CRUSH DRIVE
BASS DAMAGE / 8 BASS REWIND	LOW REVERSE ROLL

Read the active card for behavior. Match level, choose sample-track targets and clear with REC. Natural echo/reverb tails may remain after release.

bazillos

Punch catalogue 4/4

EXACT RECIPE NAMES / bz090c

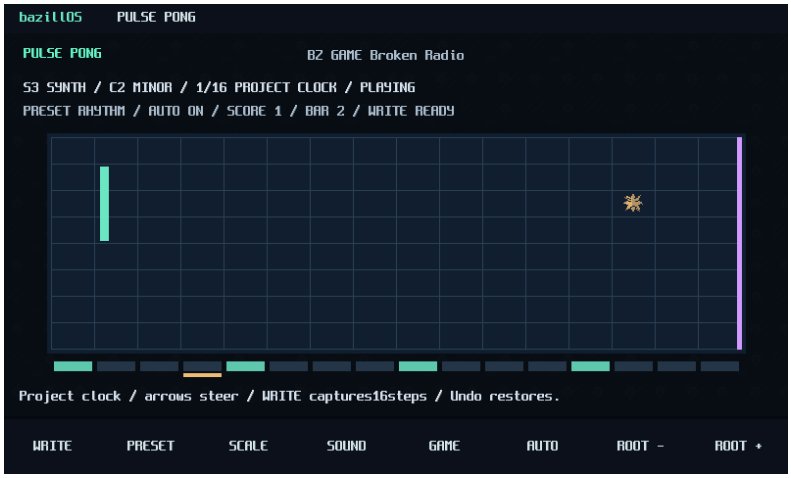
ROLL SCIENCE / 1 DUB ROLL	ROLL INTO ECHO
ROLL SCIENCE / 2 TRIPLET AIR	HP TRIPLET
ROLL SCIENCE / 3 CRUSH ROLL	BITTEN QUARTERS
ROLL SCIENCE / 4 LOW RATCHET	DOWN + FAST ROLL
ROLL SCIENCE / 5 ROOM DRILL	TINY ROOM ROLL
ROLL SCIENCE / 6 REWIND ROLL	REVERSED DRILL
ROLL SCIENCE / 7 STEREO ROLL	RIGHT DUB ROLL
ROLL SCIENCE / 8 SILK ROLL	LOW PASS ROLL
CUT / GLITCH / 1 PAPER CUT	THIN CRUSH
CUT / GLITCH / 2 ROBOT STAB	BP FAST REPEAT
CUT / GLITCH / 3 PIXEL ROOM	CRUSHED REVERB
CUT / GLITCH / 4 LEFT STAB	LOW LEFT CUT
CUT / GLITCH / 5 RIGHT STAB	HIGH RIGHT CUT
CUT / GLITCH / 6 GHOST FLIP	QUIET REVERSE
CUT / GLITCH / 7 RADIO ECHO	TINY BAND ECHO
CUT / GLITCH / 8 FEVER FLIP	CRUSH REWIND

Read the active card for behavior. Match level, choose sample-track targets and clear with REC. Natural echo/reverb tails may remain after release.

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Arcade Synth: play the sequence.

ARCADE TILE / TWO NAMED GAMES



Source-rendered UI / demonstration state; not a device capture.

Pulse Pong

Press Play with AUTO enabled for continuous project-tempo motion and recurring notes. Steer with the direction buttons if you want to intervene. Choose a musical scale, sound and preset rather than treating the screen as a disconnected game.

Virus Breaker

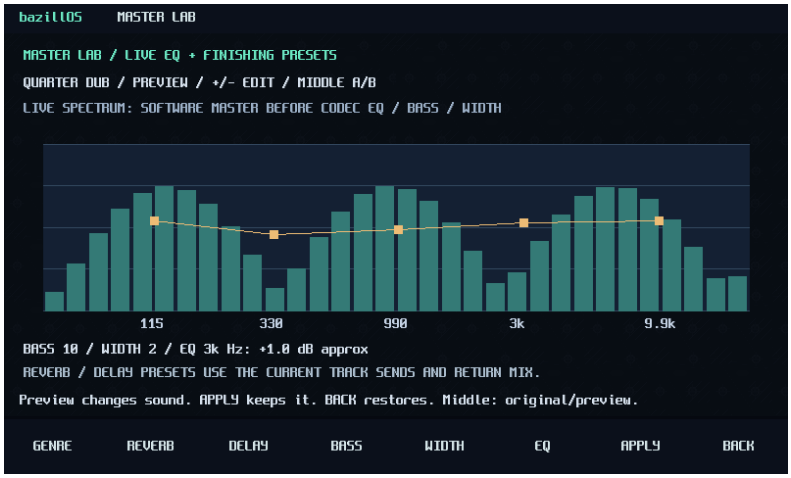
Change the Arcade tile to Virus Breaker, or use GAME from the Arcade workflow. Motion and repeated notes continue at the project pace. Move the paddle or let AUTO run, and listen for a phrase worth keeping. The presets shape playable sound/phrase behavior rather than adding a new synth part.

Capture a useful accident

WRITE captures a completed 16-step phrase into the shown destination. Read any confirmation and work in a test copy. One native Pattern Undo restores the previous content. The user checks confirmed continuous playback and correct directional controls for both games.

A video tour can show Arcade while an unrelated beat continues. The promo discloses that UI/game simulations and the soundtrack are independent; it does not claim those game notes were recorded into that beat.

Master FX, presets and a fair comparison.



Source-rendered UI / demonstration state; not a device capture.

Native master and mixers

Use the Master tile pages for Master FX, Track Mixer, Send Mixer and Master Lab. Track gain, pan/mute and sends determine what reaches the shared delay/reverb and final processing. Start with a balanced mix before choosing a finishing preset.

Master Lab

Genre, delay and reverb presets provide useful starts. Compare/preview and cancel restore the prior settings; apply keeps the result. Bass, width and EQ shape the whole mix, so listen to the kick and bass together and keep enough headroom for a Punch gesture.

Spectrum is a separate view

Live Spectrum offers a useful activity/spectral display, and HEALTH reports diagnostic values. It is not a calibrated post-codec master-EQ measurement. A pleasing spectrum picture does not prove an unclipped output or exact loudness.

A louder preset can seem better during a quick comparison. Match listening level and check the exported or recorded result before choosing a final master setting.

Arrange, perform and remix.

SONG / PERFORM / REMIX

Song is an arrangement of references

Place the desired Pattern references in the Song structure and audition transitions. Editing a referenced Pattern changes every place that uses it. Duplicate a Pattern first when the second occurrence needs a different ending or fill.

Native Perform remains

The native Perform view and its configurable effects are retained alongside Punch Deck. Select tracks and adjust the performance behavior using the on-screen labels. Inactive tracks remain readable. The Remix page provides the existing arrangement/playback experimentation workflow.

Prepare the live route

Check the intended starting Pattern, tempo and clock source. Decide whether a gesture should be momentary or latched, and practise its clear action. Save the musical arrangement before moving into a performance so a useful take does not depend on an accidental workspace state.

Punch Deck is an added targeted performance page, not a replacement for Song, Perform or Remix. Its separate tile avoids hiding the fork-specific workflow behind a native submenu.

MIDI, USB and configuration.

Route before sequencing

Choose MIDI input/output, channels, clock source and start/stop behavior for the actual connected equipment. MIDI instruments and CC A-F assignments carry performance instructions, not audio. Listen through the external synth return or your mixer when evaluating them.

USB storage and audio

Use USB storage for card file transfers, then eject normally before returning to music. Audio/MIDI connections use their configured host/device routes. Do not assume every computer/DAW port behaves the same; qualify your own interface, cable, sample-rate and clock setup.

Appearance and system options

Config includes the display theme/font, animation level, general behavior and function-key assignments. Select bazillOS Phosphor Culture and bazillOS-Spore-Phosphor for the supplied identity. Full, Reduced and Off control supported animation; they do not change the project music.

USB/MIDI/clock checks in the returned review are user-reported; a detailed list of external devices was not filled in. This is not a claim of universal interoperability.

Fifty starters, three arrangements.

Load through Projects

Merge the optional Projects folders into the card without replacing your own sessions. Browse the bazillOS starter or feature-demo folders from Projects, open a project and use Save As before modifying it. Demo songs intentionally do not occupy an extra main-menu tile.

Explore different cultures

The 50 genre starters are compact musical starting points. Night Serum is a 174 BPM DNB feature arrangement; Velvet Colony is 87 BPM hip-hop; Petri Floor is 130.5 BPM house/techno. They demonstrate combined instrument, pattern, chop and arrangement ideas rather than forcing one genre.

The promo beat is separate

Kid Bunka selected 0002 french for the tour, with repeated 10/11 sections and a 12-16 beat switch. A new 17 variation was generated from 16, with added percussion and Punch gestures. The private source project/card backup is not part of the public firmware/source package.

Listening previews are host-rendered production mixes and are labelled that way. Native demo project playback may differ with engine/voice settings and the actual Mini audio path.

Troubleshooting without losing a session.

SAVE A COPY / REPORT THE REPEATABLE CASE

No sound or unexpected tone

Check the selected instrument/part, active sample, trigger note, mixer mute, volume, sends and output route. For a PERC patch, audition its intended drum role. For an added synth, check its part and allocated voice count. For an LFO effect, check depth and the compatible mode.

A generator refuses to apply

Check that the source sample/pattern has not changed, the selected range fits, the preview is ready and the required Beat Slice map or groove exists. Reopen and regenerate from the current source. Do not bypass a stale-source warning by repeatedly confirming.

A stall or corruption concern

Stop writing to the affected project. Record build, project/pattern, last actions, sound and animation mode. Preserve a full card copy before repair. Reopen a known-good copy and report whether the issue repeats after restart. Never describe missing data from the first selected Pattern alone.

Useful feedback: exact build, a minimal reproducible project you may share, steps to reproduce, expected/actual result, and audio/video if available. Ideas and musical suggestions are welcome too.

Normal update

Back up the complete card first. Extract the Mini firmware pack and merge its Firmware, Themes and Fonts as described. Safely eject and use Config > Firmware on the Mini to choose TrackerMini_bz 090 b.ptf. Allow the update to finish; original updates can power off at 100%. Check version/build after powering on.

Return to a known firmware

Use a verified Mini updater and its model-specific normal/emergency procedure. The project tested return to stock 2.2.1 after an unsuccessful early custom build, then confirmed normal interface and audio playback. This is a tested route, not an absolute guarantee for every failure.

Restore data separately

An older firmware does not convert CE/custom saved projects backward. Preserve and restore the matching original card data and Workspace from the original backup when returning to stock. Keep recovery images outside the active updater folder except when deliberately preparing the required recovery image.

The short Installation & Rollback PDF gives the model-specific route and official reference. The browser does not flash the Mini, modify its bootloader or automatically erase the card.

What was checked, and what remains bounded.

Device evidence

The returned 40-case form recorded 38 passes and two issues: missing synth icons and an intermittently stopping Composer preview. Earlier focused checks confirmed playback, Save As/reload, old-project switching, Arcade capture/Undo and balanced Punch behavior. Recent reported tests had no crashes; earlier development faults are not erased from that history.

0.9 corrections

The menu is grouped and names its subpages, sample screens recover from a synth selection, custom synth sections have icons, and the Chop workflow is made explicit. Composer no longer treats its periodic workspace save as a project switch. The bz 090 b follow-up worked except for a native toolbar takeover after Play; bz090c adds the dedicated UI-ownership guard. Host checks are recorded separately. The final bz090c check confirmed startup/build, repeated Play/Stop,70-second Composer audition with its own controls retained, and normal return to Pattern.

Known limits

48 sample slots; two Step FX columns; three synth parts with shared eight voices and per-engine limits. No OG/Plus build is qualified. No complete Mutable module rack, unrestricted vocoder, third effect lane or extra sample-slot conversion is claimed. External rigs and long-run behavior still depend on actual device testing.

Feedback, reproducible bug reports, patch ideas and feature suggestions are welcome. Support is voluntary; donations do not buy a feature promise or replace source/licence terms.

bazillOS

Credits, source and community.

INDEPENDENT FIRMWARE / KID BUNKA

Built on Community Edition

Polyend and the Tracker CE contributors remain credited. The root licence is PolyForm Noncommercial 1.0 with Polyend additional permissions, including the stated music/performance/monetized-content permissions. The original component terms are included; this is not a blanket MIT claim for the entire firmware.

Selected components

Mutable Instruments DSP retains Emilie Gillet's original MIT notices and provenance. The imported FM core, Spleen-derived fonts and other components retain their licences. Polyend binary libraries are unmodified and retain their authentic-hardware restriction. Exact notices accompany the matching source.

Find the current release

Use the public bazillOS repository for release files, source, issues and current links. The website provides this handbook, installation guide, release notes and demos. bazillOS is independent, with no implied endorsement by Polyend or the original component authors. Your music and feedback are welcome.

Project: https://github.com/kidbee 85-beep/bazillOS | Official device reference: https://polyend.com/downloads/tracker-mini-downloads/ | Contact: kidbee 85@gmail.com

ACD parameter index

NATIVE SDK / EDITOR NAME REFERENCE

Find it in the editor

These are the parameter names exposed by the native engine metadata used for the source checks. Names can repeat across different sections; the section and selected element determine the actual target. The device editor displays its supported range, unit and value. Patch macros are separate assignments.

Saw Mix	Attack
Square Mix	Decay
Sub Mix	Sustain
Noise Mix	Release
PW	Attack
Sub Mode	Decay
PW LFO	Sustain
PW Env	Release
Pitch LFO	Frequency
Cutoff	Waveform
Resonance	Retrigger
Type	Glide Mode
Note Track	Glide Time
LFO Amt	Volume
Env Amt	

Use the section icons, compare one change at a time and save a named patch. This index is a navigation aid, not a promise that every parameter is a global or per-step control.

FAT parameter index

Find it in the editor

These are the parameter names exposed by the native engine metadata used for the source checks. Names can repeat across different sections; the section and selected element determine the actual target. The device editor displays its supported range, unit and value. Patch macros are separate assignments.

Fatness	Sustain
Brightness	Release
LFO Amt	Attack
Timbre	Decay
Noise	Sustain
Reset	Release
Type	Frequency
Cutoff	Waveform
Resonance	Retrigger
LFO Amt	Glide Mode
Env Amt	Glide Time
Attack	Volume
Decay	

Use the section icons, compare one change at a time and save a named patch. This index is a navigation aid, not a promise that every parameter is a global or per-step control.

VAP parameter index

NATIVE SDK / EDITOR NAME REFERENCE

Find it in the editor

These are the parameter names exposed by the native engine metadata used for the source checks. Names can repeat across different sections; the section and selected element determine the actual target. The device editor displays its supported range, unit and value. Patch macros are separate assignments.

Shape 1	Sync
Shape 2	Ratio
PW 1	Waveform
PW 2	Retrigger
Mix	Sync
Tune 1	Glide Mode
Tune 2	Glide Time
Detune	Note Track
Finetune	Mix Env Amt
Reset 1	Volume
Reset 2	Sync
Type	Noise
Cutoff	Src 1
Resonance	Dest 1
Env Amt	Amt 1
Attack	Src 2
Decay	Dest 2
Sustain	Amt 2
Release	Src 3
Attack	Dest 3
Decay	Amt 3
Sustain	Src 4
Release	Dest 4
Attack	Amt 4
Decay	Src 5
Sustain	Dest 5
Release	Amt 5
Ratio	Src 6
Waveform	Dest 6
Retrigger	Amt 6

Use the section icons, compare one change at a time and save a named patch. This index is a navigation aid, not a promise that every parameter is a global or per-step control.

WTFM parameter index

NATIVE SDK / EDITOR NAME REFERENCE

Find it in the editor

These are the parameter names exposed by the native engine metadata used for the source checks. Names can repeat across different sections; the section and selected element determine the actual target. The device editor displays its supported range, unit and value. Patch macros are separate assignments.

Ratio 1	Waveform
Ratio 2	Retrigger
Finetune 1	Sync
Finetune 2	Ratio
Shape 1	Waveform
Shape 2	Retrigger
Oversampling	Sync
Character 1	Glide Mode
Character 2	Glide Time
FM	Volume
Feedback 1	Src 1
Feedback 2	Dest 1
Feedback 2>1	Amt 1
Type	Src 2
Cutoff	Dest 2
Resonance	Amt 2
Env Amt	Src 3
Note Track	Dest 3
Attack	Amt 3
Decay	Src 4
Sustain	Dest 4
Release	Amt 4
Attack	Src 5
Decay	Dest 5
Sustain	Amt 5
Release	Src 6
Attack	Dest 6
Decay	Amt 6
Sustain	Reset 1
Release	Reset 2
Ratio	

Use the section icons, compare one change at a time and save a named patch. This index is a navigation aid, not a promise that every parameter is a global or per-step control.

DIRT parameter index

NATIVE SDK / EDITOR NAME REFERENCE

Find it in the editor

These are the parameter names exposed by the native engine metadata used for the source checks. Names can repeat across different sections; the section and selected element determine the actual target. The device editor displays its supported range, unit and value. Patch macros are separate assignments.

Shape	LFO Amt
Sub Mix	Env Amt
Noise Mix	Attack
Warp	Decay
Sub Mode	Sustain
Warp LFO	Release
Warp Env	Attack
Pitch LFO	Decay
Shaper	Sustain
Amount	Release
Routing	Frequency
Mod Env	Waveform
Pre Gain	Retrigger
Cutoff	Glide Mode
Resonance	Glide Time
Type	Volume
Note Track	

Use the section icons, compare one change at a time and save a named patch. This index is a navigation aid, not a promise that every parameter is a global or per-step control.

CHIP parameter index

NATIVE SDK / EDITOR NAME REFERENCE

Find it in the editor

These are the parameter names exposed by the native engine metadata used for the source checks. Names can repeat across different sections; the section and selected element determine the actual target. The device editor displays its supported range, unit and value. Patch macros are separate assignments.

Model	Attack
Tune	Decay
Fine	Sustain
Duty / Shape	Release
PWM Rate	Cutoff
PWM Depth	Resonance
Sub Osc	Env Amt
Chord Arp	Bitcrush
Arp Speed	Decimate
Pitch Sweep	Glide Mode
Sweep Time	Glide Time
Vibrato Rate	Volume
Vibrato Depth	

Use the section icons, compare one change at a time and save a named patch. This index is a navigation aid, not a promise that every parameter is a global or per-step control.

bazillos

The quick route card.

KEEP THIS PAGE BY THE MINI

Menu / confirm / Menu	Open, choose the named destination, or cancel.
Menu tile + +/-	Cycle a dotted tile by its changing name.
Shift+Menu	Context help.
Shift+More	Toggle4/8 audio-track view from Pattern.
Pattern page3 / Edit Sound	Edit the selected sample or synth part.
Pattern page3 / Tempo	Open Tempo/Swing;50 is straight.
Pattern page1 / Shift+Fill	Open Composer.
Chop tile	Chop Studio / Slice Lab / Chop Patterns.
Slice Lab / MODE + +/-	Change cut mode; Shift +/- changes profile.
Drum Lab / SOUND	Up/Down role; +/- one-shot or PERC; Middle listen.
Punch / Left-Right	Choose target; Middle toggle; Up/Down bank.
Punch / Shift+Middle	Latch toggle; REC clears; Menu/bank clears.
Pattern Undo	Restore a committed native pattern revision.
Save As	Preserve a named project before larger changes.

Some tools use confirmations. Read the shown scope before a second WRITE, KEEP CUTS or LOAD. The screen labels and contextual help describe the current action.