Boards of Audio

Complete Instrument User Manual

The Asylum

The Asylum Boards of Audio is a playable synthesizer built around warm, imperfect electronic tones, worn tape and environmental texture. Complete Instrument combines three tonal sources, material-inspired body colour, circuit filtering and internal effects with a Behaviour Matrix for evolving and gesture-driven sounds. This manual takes you from loading a sound to designing your own instrument and performing with it.

Start with Quick start if you want to play immediately. Use the module chapters when you want to build or reshape a sound, and the Behaviour and Performance chapters when you want to make it respond to gestures.

This manual covers the Complete Instrument and its Original compatibility bank. The internal effects shape the instrument; there is no separate external audio effects plug-in in this product.

Keep your monitor or headphone level low while trying new sounds. Raising resonance, drive, feedback or several performance mappings together can increase output level. Watch the output meters and leave headroom.

the-asylum.com

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Quick start

Load Complete Instrument on an instrument track, route MIDI to it and begin with a factory sound. You do not need to programme the Behaviour Matrix to play the instrument.

1. Install the plug-in format supplied for your system. Windows uses VST3; the macOS release formats are VST3 and Audio Unit. Close your host before installing or replacing a plug-in, then reopen it and rescan if necessary.
2. In your DAW, create an instrument track and choose The Asylum Boards of Audio Complete Instrument. Enable the track's MIDI input and monitoring or record arm as required by your host.
3. Let the loading screen finish. Choose Complete in the bank menu, then a category and a preset. Start with 85 Amber Voltage for rounded synth chords, or 86 The Velvet Circuit for a darker, wider sound.
4. Play a MIDI controller or click the on-screen keyboard. Start with a low monitoring level and watch the L/R output bars. Adjust Volume to suit the track.
5. Shape the sound with Cutoff, Deterioration and Isolation. Attack softens the beginning of a note; Release controls how long the voice fades after you release it.
6. Choose the Movement category and 101 Lanterns Under Water. Hold a chord, open Performance, then move Lantern Glow or Distance. Press and hold pads to add temporary overlays and restart their assigned lanes.
7. Use Save to keep your edits in a .boardsi preset, and save your DAW project. If a note or effect tail needs to stop immediately, click Panic.

Installation and file locations

If your download includes an installer, use it. For a manual Windows installation, copy the entire .vst3 bundle to C:\Program Files\Common Files\VST3. Do not copy just the module inside Contents. On macOS, standard system plug-in folders are /Library/Audio/Plug-Ins/VST3 and /Library/Audio/Plug-Ins/Components; user-level equivalents sit under ~/Library/Audio/Plug-Ins. Install only the formats included in your download.

Check the product download information for supported operating systems and tested hosts.

The main interface

The top area contains the bank, category and preset browser, editing actions, search and output meters. The central panel keeps the eight familiar sound controls in view. The tabs below expose detailed editing, and the bottom strip contains the wheel preview, keyboard and status displays.



Figure 1 Complete Instrument at its default window size. Include the preset browser, eight central controls, tabs, meters and keyboard.

Resize the window using its corner or your host's editor controls. The keyboard scroll buttons reveal other notes; widening and shrinking the editor preserves your preferred keyboard position. Hover over a control for a tooltip.

The central eight knobs are base sound controls. The four named sliders on Performance are separate, routable macros. Behaviour and Performance can change the effective sound while the base control values remain unchanged.

Banks presets and saving

Complete and Original

Complete contains 108 editable native sounds across Leads, Pads, Synth, Environment, Bass, Keys, Bells, Textures and Movement. Original contains the twenty programmes from the Free Edition using its original engine and eight-control processing path. The additional Complete editing tabs are unavailable for Original sounds; they do not add extra saturation, compression or Behaviour to that bank.

Find and compare sounds

Category and Search filter the current bank. Search checks preset names, categories and descriptions without changing the playing sound. An empty search result is not a silent preset: clear the search or change the category. Favourite marks the loaded factory programme; Favourites restricts the browser. Favourites are stored with host state, not as a shared global library.

Choosing a factory preset loads its settings and macro names, stops the previous sound and tails, and clears the clip indicators. Save useful edits before moving to a different sound. Preset numbers are names in the native collection; the Original bank is interleaved internally, so a DAW's programme index need not match the displayed number.



Figure 2 Crop the bank and category menus, selected preset, search and favourite controls.

Editing actions

Init loads the initial Complete sound. Variation makes a small change to selected tone, source and transport controls. Undo restores up to 32 recent sound edits, including preset selection, typed values, lane edits and macro names. Search, favourites and momentary pad gestures are not sound edits. A / B switches between two temporary snapshots, saving the side you leave; use it to compare edits before saving.

Save writes an instrument preset with the .boardsi extension. Load recalls that file; it does not add a new item to the factory browser. Routes, Behaviour, macro amounts and macro names are saved. Favourites stay in host state rather than in the preset file. Your DAW project also stores the instrument state. Imported recordings remain external assets: keep the audio files and reimport them if their saved paths change. Do not rely on the plug-in preset to contain a recording.

The eight main controls

These controls are always visible and provide the fastest way to adapt a preset. Their values describe the base patch; a Behaviour or Performance overlay may also be acting on the same destination.

Control	Range	What it changes
Volume	-60 to +6 dB	Final instrument output level, after the native compressor.
Cutoff	40 to 18000 Hz	Voice filter frequency. Raising it generally admits more upper harmonics in low-pass mode.
Resonance	0 to 100%	Emphasis around the filter frequency. High settings can make level and timbre change sharply.
Deterioration	0 to 100%	Overall media wear. The Complete sources retain their built-in imperfect character even at low settings.
Static / Vinyl	0 to 100%	Amount of hiss, crackle and related noise. This is separate from the Noise Gate readout.
Isolation	0 to 100%	Room contribution. Use Space to choose the room character, size and damping.
Attack	1 to 8000 ms	Time for a new voice to rise. Longer values soften or hide the initial strike.
Release	10 to 12000 ms	Voice fade after note release. Delay and room tails can continue beyond this envelope.

Dialling down the damage

For a steadier sound, reduce Deterioration, Transport Wow and Dropout Wear, then reduce Organic Drift and Pitch Motion if needed. Lower Static / Vinyl separately. Complete's organic source character is intentional; low wear settings do not turn it into a perfectly clean oscillator instrument. Original follows the released Free engine's behaviour instead.

Base values and modulation

If Cutoff reads 1080 Hz while a Behaviour lane opens the sound, that is expected: the knob still shows the base frequency. Check the moving lane cursor and Performance net bars for overlays. Disable the lane or return the macro to zero to compare the base patch, allowing the smoothing to settle.

Sources and visual routing

Sources is both a live signal display and an editor. Oscillators A, B and C provide tonal material; Body + Colour derives its contribution from the source mixture. The diagram shows the shared voice, wear, noise, room and Environment stages rather than a freely reorderable modular rack.

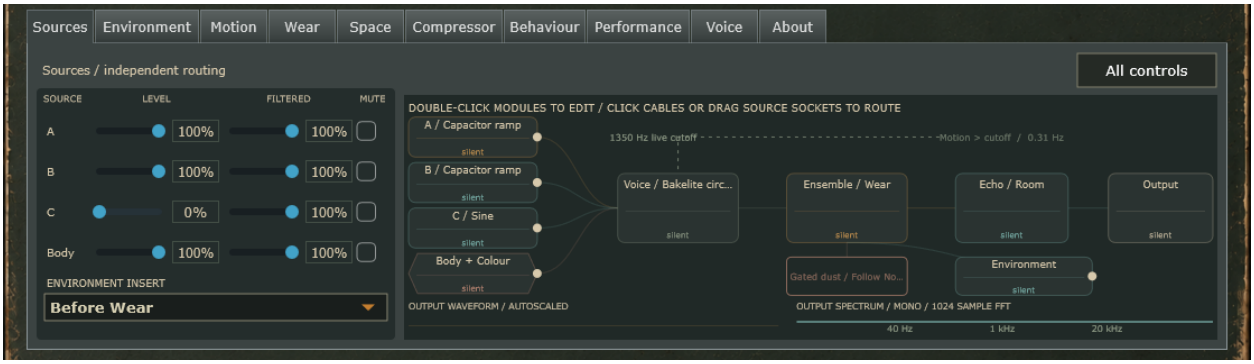


Figure 3 Sources tab showing A, B, C and Body levels, Filtered amounts, mute controls and live connections.

Each source row has Level, Filtered and Mute controls. Filtered at 100% sends the whole path through the Voice Filter. At 0% the path bypasses that filter in parallel. Intermediate values split the path. This bypass does not remove its amplitude envelope or the shared wear processing. A/B levels still work with A / B Blend and also influence material excitation; C has its own level.

Drag an A/B/C/Body source socket to Voice Filter or Wear to choose a filtered or parallel route. Clicking a source cable switches between endpoints. Use the Filtered slider for a partial split. Drag the Environment socket to Wear, Space or Output to choose its insertion stage. The Environment Insert menu provides the same three choices explicitly.

Double-click a module to open its editor. A, B and C have visual waveform choices; other modules expose their related controls. All controls shows the source-control overview. Back to routing returns to the live diagram. Waveform cards illustrate a shape; they are not a measurement of the final sound.

Reading the display

Node traces and connection activity follow audio measured inside the instrument. A silent node can mean that its source has no level, is muted or has not been excited. The output waveform is auto scaled, so its height is not an absolute level meter. Use the L/R bars for output level. The spectrum helps identify broad tonal changes; it is not a replacement for listening.

Oscillators and material body

Begin with A and B, then add C or Body for support. A restrained low source often gives a degraded sound weight without requiring more brightness or output gain.



Figure 4 Double-click oscillator A to show the waveform cards, A Model and shared source controls.

Source choice	Starting point
Classic wave	Sine, Triangle, Saw or Pulse. Sine and triangle are useful foundations; saw and pulse supply more harmonics.
Reel organ	Organ-like partials for rounded held tones and octave shadows.
Hollow reed	A hollow, voiced colour for breathy or resonant mixtures.
Copper bell	Ringing overtones for restrained attacks, metallic colour or struck mixtures.
Capacitor ramp	An uneven ramp-like source for softened brass and imperfect strings.
Soft pulse	A rounded pulse for substantial chords without a hard square-wave edge.

A/B Model selects an alternative to the classic waveform. Choosing a classic A/B waveform card returns that oscillator's model to Classic wave. B Detune and B Octave change the second source; A / B Blend changes their balance. C offers its own nine waveform/model choices, Level, Octave and Detune. Oscillator Colour is shared shaping, not an independent colour setting for each oscillator.

Magnetic, Felt, Reed and Wire are material-inspired body characters. Body sets their contribution; Richness adds supporting voice character. Body/Colour is derived, not a fourth independent oscillator. Organic Drift makes voices less uniform, and Stereo Spread distributes their sound. Tonal Sources controls the overall tonal layer, allowing Environment textures to dominate when desired.

Filtering and Motion

The Motion tab groups voice filtering, slow movement and wheel response. For the complete filter and envelope controls, double-click Voice / Oxide circuit in Sources; the node's displayed label follows the current circuit character.



Figure 5 Motion tab with Filter Character, Circuit Drive and Sag, motion depth and wheel controls.

Filter character and envelope

Clean SVF is the more neutral filter option. Oxide circuit and Bakelite circuit add different non-linear character. Circuit Drive controls how hard the filter is driven; Circuit Sag increases the unstable circuit response. Filter Mode selects low-pass, band-pass or high-pass. Sources routed around the filter retain more of their original spectrum.

Filter Envelope is a signed amount in octaves. Positive values open the filter as its envelope rises; negative values move it down. Filter Attack, Decay, Sustain and Release are available in the Voice Filter module editor. Use Cutoff as the starting point, then set the envelope movement around it. Resonance, drive and a large envelope amount can make a patch louder or sharply emphasise a narrow band.

Motion and the modulation wheel

Motion Rate sets the rate of the internal motion source. Filter Motion adds cutoff movement in octaves, and Pitch Motion adds pitch variation in cents. Organic Drift and tape wow remain separate sources of instability.

Wheel Vibrato sets the vibrato depth available at full MIDI CC1, Wheel Rate sets its speed, and Wheel Tone sets a signed filter movement in octaves. All three can be neutral, so a wheel may appear to do nothing until its depth or tone is raised. Drag Mod / CC1 beside the keyboard to preview the wheel without a controller; incoming MIDI also updates this display.

A Behaviour trigger called Mod wheel rise is separate from these continuous wheel controls. It fires once when CC1 reaches 64 or more after rearming at 48 or below. It needs an enabled, mapped lane. The wheel's current performance position is not saved as a preset parameter.

Voice envelopes and glide

The Voice tab controls how notes start, sustain, release and move between pitches. Complete has sixteen native voices in Poly mode. Long releases and sustained chords can keep voices active after your hands leave the keys.



Figure 6 Voice tab showing Voice Mode, Glide Time, Glide Behaviour and the amplitude envelope.

Amplitude envelope

Attack is the rise from the note's start. Decay moves from that peak to the Sustain level, which is held while the note remains down. Release fades the voice after note-off, subject to sustain-pedal behaviour. Sustain at zero is useful for struck sounds; a high Sustain produces a held tone. Lowering Attack does not remove transient colour from a material model.

Playing modes

Poly lets notes overlap as chords. Mono retrigger plays one voice and restarts its envelopes for a new note. Mono legato links overlapping notes without the same repeated envelope attack, making it useful for connected melodies. Test a phrase with overlapping and separated notes to hear the difference. Changing voice mode clears the old voice allocation.

Glide Time sets the transition time, from 0 to 2000 ms. Glide Behaviour chooses Overlapping notes or Always. Start in Mono legato with 80-150 ms and Overlapping notes; hold one key while playing another. Separated notes make the policy difference easier to hear.

Tails and stopping

The amplitude envelope is not the whole effects tail. Memory delay and the room can keep sounding after the voice releases. Preset selection intentionally resets the previous sound and clip lamps. Panic stops voices and tails immediately. If you want a fade rather than a hard stop, shorten Release, lower feedback or reduce the effect mixes before the transition.

Wear saturation and noise

Wear is where you control the amount and type of damage. It is possible to keep a warm, substantial source while making the transport and noise layers much less reliable.



Figure 7 Wear tab with Warmth / Saturation, Media Drive, Transport Wow, dropout and noise behaviour controls.

Warmth and media wear

Warmth / Saturation adds rounded harmonic density and compression-like colour. Media Drive changes how hard the media stage is driven. These are separate from Circuit Drive in the voice filter. Use modest drive changes, then match Volume when judging whether a sound is genuinely fuller rather than simply louder.

Transport Wow increases transport-related pitch instability. Dropout Wear controls interruptions and unevenness. Digital Wear adds damaged digital texture. Deterioration sets the broader media-age character; these individual controls let you choose which faults stand out. For lush chords, keep enough stable low-frequency content beneath the wear.

Noise behaviour

Static / Vinyl sets the noise amount. Noise Behaviour chooses Follow Notes, Follow Audio or Continuous. Follow Notes uses the active amplitude envelopes and velocity, so noise accompanies the instrument rather than running constantly. Follow Audio uses the audio follower; it does not turn the instrument into an external-input effects plug-in. Continuous leaves the noise gate open and can produce noise without held notes.

Follower Threshold, Hold and Release shape audio-following behaviour. They are not the amplitude envelope's Attack and Release. If you want normal note-gated synth noise, begin with Follow Notes. Environment has its own separate gate setting.

Noise Gate in the bottom corner shows how open the hiss/crackle gate is, not the percentage of noise in the output. It may show a value with Static / Vinyl at zero. A non-zero gate value alone does not mean the noise layer is audible.

Space ensemble and memory

Space gives a patch width, repeats and distance. Start with the dry source, then add enough ensemble and room to support it. More effects are not always more spacious: excessive feedback and high room levels can mask the note's centre.

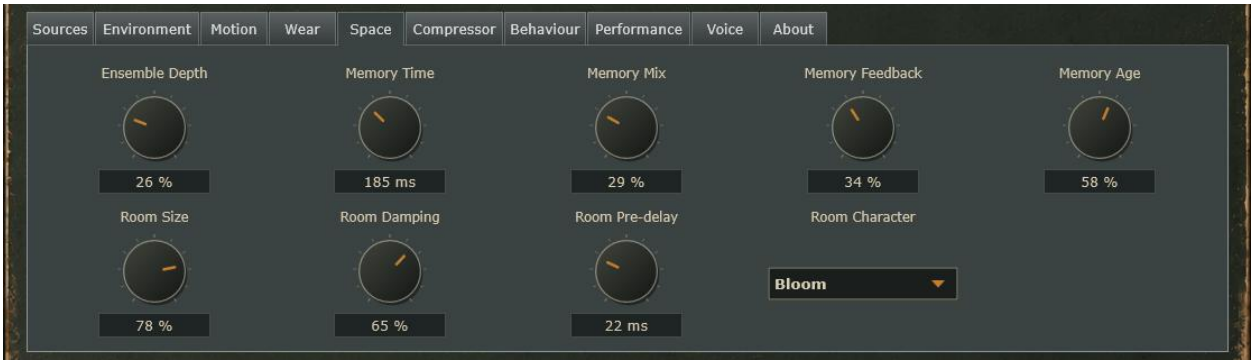


Figure 8 Space tab showing ensemble, Magnetic Memory controls and room settings.

Ensemble and Magnetic Memory

Ensemble adds shared broadening around the source. Memory Time sets the delay interval from 20 to 1800 ms. Memory Mix sets how much delayed sound is added, and Memory Feedback controls repeats up to 88%. The time control is in milliseconds; Behaviour tempo sync does not turn it into a note-division selector.

Memory Age makes repeats more worn. Try moderate feedback and high age for echoes that lose definition over time, or a short time and low mix for extra body. A long time, high mix and feedback can keep audio running for many seconds after release. Reduce feedback before judging a new source sound.

The room

Isolation on the main panel sets the room contribution. Room Character selects Classic or Bloom, two different room engines. Room Size controls the size/decay character, Room Damping controls the upper-frequency loss, and Room Pre-delay separates the source attack from the room by up to 80 ms. A little pre-delay can keep warm chords clear while leaving a long tail behind them.

Switch room characters while listening at a sensible level; a change of room changes the spatial impression, not just its amount. Internal tail handling allows necessary effects history to decay. Preset switching and Panic deliberately reset old sound instead of preserving it indefinitely.

A practical balance

For a broad but intelligible patch, try Ensemble around 40-65%, Memory Mix around 15-25%, moderate feedback and Isolation around 50-70%. These are starting points, not calibrated rules. Adjust against the rest of your mix and check the output meters after increasing several effects together.

Output meters and compressor

The L/R bars show sample peaks in dBFS with peak holds. CLIP latches a native pre-protection overload or a full-scale final output overload. It is not true-peak metering, and output protection does not make every gain combination suitable for a mix. Click either bar to clear the clip lamps and holds; choosing a preset also resets them.



Figure 9 Compressor tab with Preset Trim, Threshold, Ratio, Makeup and the gain-reduction readout.

Gain staging

Preset Trim is the patch's level calibration after its tone, wear and space, before the compressor. It works even when compression is off. Raising it also drives the compressor harder. Volume is after the compressor, so lowering Volume does not prevent excessive compressor input. Original bypasses the Complete trim and compressor.

Enable the compressor, lower Threshold until the gain-reduction readout moves, then choose a Ratio. A ratio of 1:1 leaves dynamics unchanged; larger ratios reduce peaks more. Makeup is manual gain after reduction and works only with the compressor enabled. Compression without makeup normally reduces level rather than making a patch louder.

The compressor is stereo-linked, with a fixed 10 ms attack, 120 ms release and 6 dB soft knee. These are not adjustable controls. It has no lookahead and adds no latency of its own. A fast transient can still pass, so leave output headroom.

A gentle starting setup

1. Play the loudest chord or phrase you expect to use, with your performance mappings active.
2. Enable compression and set Ratio around 2:1. Lower Threshold until the loud passages show a few decibels of reduction.
3. Add only enough Makeup to compare fairly with bypass, then use Volume for track level. If CLIP returns, reduce trim, makeup or the sources rather than relying on protection.

Environment and field recordings

Environment is a separate texture layer, not an oscillator wavetable importer. The built-in Wind, Rain, Shore, Room, Electrical, Insects and Rail choices are procedural environments. Imported recording plays an external audio file as a looping layer; it does not automatically turn the recording into a keyboard-tracked multisample or wavetable.



Figure 10 Environment tab showing source, gate, insertion point, Import and recording status.

Environment Level controls its amount. Speed / Pitch ranges from -24 to +24 semitones; slower playback lowers pitch and changes duration. Tone darkens or brightens the layer, Width adjusts its stereo spread, and Motion introduces variation. Tonal Sources changes the synth layer independently, useful when you want environmental sound in the foreground.

Gate selects Follow Notes, Follow Audio or Continuous. Continuous can remain audible with no keyboard notes. Before Wear sends Environment through wear and space; Before Space bypasses wear but feeds echo/room; After Space adds it before trim and compression without those effects. All three routes retain the instrument's fixed alignment.

Import and keep recordings

1. Click Import and choose WAV or AIFF audio. Supported input rates are 8-192 kHz. The first 30 seconds are loaded; mono is copied to both channels, and playback loops with a short overlap at the seam.
2. Wait for the status to name the file, then adjust Level and Speed / Pitch. Import chooses Imported recording and raises the level to at least 25% if it was lower; check your monitoring level first.
3. Keep the original audio file with your project. Presets store its path, not its audio. On another machine, or after moving it, import the file again and resave. A missing or unsupported file clears the previous recording rather than substituting unrelated audio.

Clear removes the imported layer and sets the Environment source to Off; it does not delete your original file. Use recordings you have permission to use. The built-in procedural environments do not require external recordings.

Understanding the Behaviour Matrix

The Behaviour Matrix adds timed parameter gestures to the base patch. Each of four global lanes has an eight-point curve, a trigger or ordered trigger pattern, timing controls and two signed destinations. A lane affects the combined sound, not a separate copy of its curve for every played voice.



Figure 11 Behaviour tab with four lanes, two destinations, signed depths and an edited eight-point curve.

Curves depths and overlays

Curve points run from -1 to +1. Each point multiplies the route's signed Depth, so a negative point and a negative depth produce a positive movement. Depth at zero or Destination set to None has no effect. Several lanes, macros and held pads can contribute to the same destination; their combined overlay is bounded and the destination stays within its parameter limits.

Behaviour Amount scales the overall matrix contribution, including pad and macro mappings. At zero, mapped motion is suppressed. Smoothing softens overlay changes from 2 to 250 ms; high values blur sharp steps. The base patch remains editable and is not overwritten by the moving curve.

Timing and playback

One-shot plays the curve once, Loop repeats it, and Ping-pong traverses it forwards and backwards. Clock selects Seconds or Tempo sync. Seconds gives a 0.1-32 second forward traversal. Tempo sync selects 1/16 through 4 bars and uses the host tempo, with a 120 BPM fallback when timing is unavailable. Ping-pong's return traversal takes the same time again.

Smooth rounds transitions between points, Linear joins them directly, and Steps holds each value until the next segment. The moving cursor shows lane progress; the readout reports lane state and the net contributions at its selected destinations. Lanes can remain running during silence without generating notes themselves.

Building a Behaviour gesture



This example makes a held chord open and widen gradually. Use a Complete sound with enough sustain to hear the movement; the Original bank does not run the Behaviour Matrix.

1. Select a warm Synth preset, then open Behaviour and choose Lane 1. Reset the lane if you want a clean starting point.
2. Turn the lane On. Set Trigger to Note On, Playback to Ping-pong and Clock to Seconds. Set Seconds to about 6.
3. Set Destination A to Tone with Depth A around +15%. Set Destination B to Ensemble with Depth B around +12%. Keep Behaviour Amount at 100%.
4. Drag the eight curve points into a gentle rise and fall, keeping them within roughly -0.3 to +0.8. Play and hold a chord, watching the curve cursor.
5. Increase Smoothing if movement is too abrupt. Adjust the base Cutoff and Ensemble so both the lowest and highest curve positions remain useful. Save the patch.

Triggers and preview

Single-event triggers include Note On, Note Off, Mod wheel rise, Transport start and Manual. Fire previews a single-event lane without requiring its normal trigger. A new trigger restarts that lane rather than creating another independent instance.

Stop all stops lanes and clears unfinished patterns, but held pads and non-zero macros remain independent overlays. Return those controls to neutral too if you want the unmodulated sound. Host stop or a transport seek also releases old notes and stops unfinished gestures; ordinary effect tails may still decay.

Examples and lane editing

Load behaviour offers Memory Bloom, Broken Transmission, Dust on Release, Breathing Chorus, Slow Tape Weather, Filter Pulse, Environment Tide and Wheel Bloom. Loading an example replaces the current lanes and their patterns, not the underlying source sound. Environment Tide needs an active Environment source. Copy and Paste transfer a lane's curve, routes, timing and pattern within the instance. Reset disables only the selected lane. Undo can restore these edits.

Ordered trigger patterns

A pattern waits for a sequence of one to four events before starting its lane. This trigger pattern is different from the eight-point curve played afterwards. Pattern length 1 keeps ordinary single-trigger behaviour.

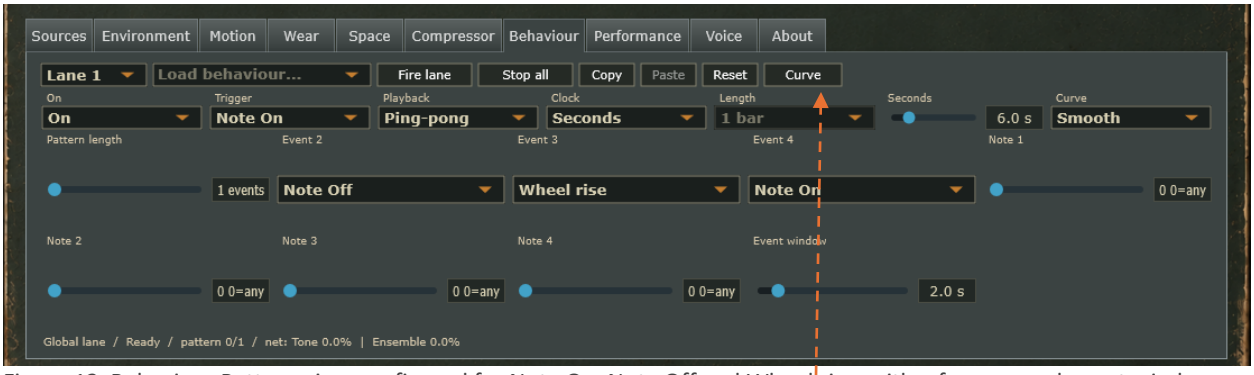


Figure 12 Behaviour Pattern view configured for Note On, Note Off and Wheel rise, with a four-second event window.

Click Pattern to edit the event sequence; the button changes to Curve so you can return. The first event uses Trigger in the top row. Event 2, Event 3 and Event 4 add the remaining conditions. Event window is the maximum gap between consecutive matched events, not the overall curve duration.

Available pattern events include note on/off, wheel rise, transport start, manual fire, pedal down/up, pad press and lane complete. Pad press means any programmed pad; Lane complete means any one-shot lane completes, not a specifically named lane. Input audio transient is unavailable in the instrument. Note filters only affect Note On and Note Off: 0 means any note, while 1-128 means MIDI note 0-127.

A note and wheel unlock

1. Enable a lane, map its two destinations and make a clearly audible one-shot curve.
2. Set Trigger to Note On, Pattern length to 3, Event 2 to Note Off and Event 3 to Wheel rise. Leave the note filters at zero and set Event window to 4 seconds.
3. Lower the wheel below 49, play a note, release it, then raise CC1 to 64 or more. Keep each matched event within four seconds of the previous one.

Unrelated events are ignored. A new first event restarts an unfinished pattern, and a timeout resets it. For a multi-event pattern, Fire submits Manual fire to that lane; it does not bypass the conditions. A pad explicitly assigned to fire a lane starts it directly, which is useful for auditioning a complex pattern.

Performance macros and pads

Performance puts repeatable gestures under your hands. Four named macros provide continuous, saved amounts. Eight pads provide momentary overlays and can also start a Behaviour lane. Neither system generates a new synth note by itself.



Figure 13 Performance tab with mapped macros, pads, destination depths and live net bars. Use a Movement preset to show meaningful names.

Map and play a macro

Choose Macro 1-4 in the mapping menu, assign Destination A/B and signed Depth A/B, then move its top slider. Click the displayed name to rename it. Zero is neutral for that macro; other lanes or pads may still affect the same destination. Macro amounts can be automated in the DAW and are saved with the patch. In the image the macro sliders have been labelled as Memory, Weather, Distance and Malfunction. These are Macro 1, Macro 2, Macro 3, Macro 4.

Map and play a pad

Choose Pad 1-8 in the mapping menu. Assign its routes and, optionally, Fire lane (Behaviour Lane). Hold its on-screen button to apply the overlays and release it to return smoothly. A fired looping lane can continue after release; use Behaviour's Stop all to stop that lane. Switching tabs or closing the editor releases mouse-held pads.



MIDI pad note 0 disables MIDI triggering. Values across all MIDI notes on any channel; that note triggers the pad rather than the synth, and velocity scales its overlays. Set a note outside your playing range deliberately. Factory Movement pads leave this assignment disabled, so no notes are stolen by default. Macros have host automation but no built-in arbitrary MIDI CC learn control.

Starter mappings and feedback

Tape gestures installs a useful neutral-at-rest macro/pad map, replacing the existing performance mapping without replacing base tone or lanes. Clear mapping resets the selected macro or pad. The net bars show the combined smoothed overlay at the selected destinations: amber increases and blue decreases, with the centre at zero. They are modulation-depth indicators, not audio meters. Behaviour Amount must be non-zero, and a mapped effect must be enabled or audible for its change to be heard.

Playing Movement presets

Movement contains ready-to-play Behaviour designs. Each sound starts a lane from normal note-on, has four named two-destination macros and eight mapped pads. Hold notes long enough for slow changes to unfold. The tempo patterns change sound parameters, not the MIDI notes of an arpeggiator.

Preset	Try this
101 Lanterns Under Water	Hold a chord for slow tone and ensemble tides. Raise Lantern Glow and Distance.
102 The Faulty Sequencer	Hold a chord for tempo-synced tone/blend steps. Change host tempo, then try Voltage.
103 Signal Bloom	Play a note and let its first bloom hand off to echo and space. Pad 1 restarts the bloom.
104 Rail Window Rhythm	Hold notes beneath a filter pattern and procedural rail movement. Try Window Light and Air.
105 Weather Dial	Listen to wind level, width and speed evolve around reeds. Air brings the environment forward.
106 Capstan Carousel	Hold a broad chord while blend, ensemble and wow circle at independent rates.
107 Letters After Release	Release a key and listen to its long tail bloom into memory and room.
108 Hold The Broadcast	Play, release, then raise the wheel within the event window to unlock memory. Pad 2 fires it directly.

Shared performance layout

The first macro has a preset-specific name and opens tone while adding warmth. Tape Damage increases wear and wow. Distance adds room and memory mix. Colour adds ensemble and richness; on environmental sounds, Air adds ensemble and Environment level instead. All start at zero, leaving the preset's built-in lane motion intact.

Pads 1-4 start lanes 1-4 and add their momentary overlays. Pad 3 produces a short tape-wear gesture. Pads 5-8 add echo, space, drive and wear/digital residue. Wheel rise starts lane 4. For 108's ordered memory pattern, lower the wheel to rearm it, then allow no more than four seconds between successive matched events. Return macro sliders to zero and stop the lanes when comparing the base patch.

Designing warm and spacious sounds

A substantial worn poly sound

1. Start with 86 The Velvet Circuit or Init in the Complete bank. Choose Soft pulse for A and Hollow reed or Capacitor ramp for B. Keep A / B Blend near the centre and B detune modest.
2. Add C at a low level using sine, triangle or soft pulse. Try an octave below for weight. Keep most of it filtered, or allow a small parallel contribution if the main filter removes too much foundation.
3. Choose Oxide or Bakelite, use a dark base Cutoff and modest resonance, then add a positive filter envelope with a gentle attack. Raise Warmth before reaching for a brighter waveform.
4. Add Richness and Ensemble, then moderate memory and room. Leave some pre-delay so the source stays clear. Use a release of a few seconds for chords, but avoid overlapping too many long tails.
5. Set Deterioration fairly high and adjust Wow and Dropout Wear independently. If pitch becomes distracting, reduce those controls without stripping away all the warmth and space. Match Volume before comparing A / B.

A playable drifting melody

Start with a reed or soft organ mixture and a quieter low C source. Use Mono legato, overlapping-note glide around 100 ms and a shorter release. Keep pitch motion subtle, then use Wheel Vibrato for expressive increases rather than permanent heavy vibrato. A small amount of warm memory can provide distance without obscuring the line.

What to change when a sound is thin

Check the source octaves and blend before adding gain. Reduce an overly narrow band-pass setting or excessive resonance, add a rounded lower source, and restore some Body or Richness. Then add moderate saturation and ensemble. If a layer sounds buzzy, lower its level or colour, use softer oscillator models, and darken the filter rather than masking it with more reverb.

Designing textures and responsive patches

An environmental instrument

1. Choose a Texture or Environment preset. Use long Attack and Release, then lower Tonal Sources until the environment becomes part of the foreground.
2. Choose procedural Wind, Shore or Room and set Gate to Follow Notes. Begin with a low Environment Level. Darken Tone and slow Speed / Pitch if needed.
3. Compare Before Wear with Before Space. The former ages the whole texture; the latter keeps more environmental detail while still placing it in the room. After Space gives a drier foreground layer.
4. Load Environment Tide in Behaviour, or map a slow lane to Environment Level and Width. Keep the source active; moving a level cannot produce a layer whose source is Off.
5. Map a Performance macro to Environment Level and Tone. Save the patch, keeping any imported audio with the project.

A release that changes the room

Choose a patch with a long Release. In a new lane, use Note Off, One-shot and a four-second smooth curve. Map Memory Mix and Space with modest positive depths. Play and release a chord; the source tail now moves into the room. To make the response optional, use a manual lane and assign a pad to fire it instead.

A performance safe tape gesture

Map one macro to Wear and Wow using conservative positive depths, and a second to Tone with a negative depth and Warmth with a positive depth. The first makes the transport less reliable; the second darkens and thickens it. Test every macro at zero and maximum while playing your loudest chord. Test combinations and pads too, then reduce Preset Trim or makeup if the clip indicator latches.

Save an unmodulated version and a performance version separately. A / B and Undo are useful while editing but are not substitutes for named preset files or saved DAW projects.

MIDI automation and project recall

Complete responds to ordinary MIDI notes, note velocity, pitch bend, modulation wheel and sustain. Native pitch bend uses a fixed two-semitone range in either direction. The on-screen keyboard is an audition source; it does not replace your DAW's MIDI recording workflow.

Input or action	Behaviour
Note On and Note Off	Play and release voices; also feed enabled Behaviour trigger patterns.
Velocity	Changes note response and note-following gates. Reserved MIDI pads use velocity to scale overlays.
Pitch bend	Bends native pitch by up to two semitones each way.
CC1 modulation wheel	Continuous vibrato/tone from Motion; threshold crossing can trigger a Behaviour gesture.
CC64 sustain pedal	Holds released notes; pedal edges can also be pattern events.
Reserved pad note	Triggers its assigned pad instead of a synth note on that MIDI note.
Host automation	Changes exposed parameters, including macro amounts and Behaviour settings. Availability and naming depend on the host.

Automate the intended layer

Automating Cutoff edits the base sound. Automating a Performance macro changes its mapped overlay while the base controls remain at their values. Use macros when one gesture should move two destinations together. Macro names are descriptive saved metadata, not a MIDI-learn assignment. Use your DAW's parameter-to-controller tools if you want hardware control of a macro.

Project recall stores parameter values, Behaviour, macro mappings and names, and favourites. It does not save the current wheel preview as a preset parameter or bundle imported audio. Treat running lanes and held pads as live performance state, not a promise that a saved project resumes at the same point inside a gesture. Save or record MIDI and automation needed to recreate the performance.

The instrument reports a fixed approximately 6 ms latency to the host. Enable your DAW's usual plug-in delay compensation. The Original compatibility path is aligned to the same reported latency, and the compressor adds no extra lookahead latency.

CPU meters and reliable playback

DSP shows this instance's audio callback time as a percentage of its block deadline. It is not total computer CPU usage and it is not directly interchangeable with your DAW's realtime meter. Overruns count callbacks that exceeded the deadline, not confirmed audio-interface dropouts. Editor spectrum processing is outside this number.

High sample rates and very small buffers leave less time for each callback. More active voices, long tails, room processing, environmental sound and modulation can all contribute to the work being done. A patch can remain active after the visible keys are released. Continuous noise or Environment can also keep producing audio.

We have attempted to make Boards of Audio as CPU optimised as we possible can, without sacrificing audio quality, however CPU usage can run high if large quantity of notes are played together.

If realtime load is too high

1. Increase the host's audio buffer if your recording latency allows it. Compare a lower project sample rate in a separate project rather than changing an important session without a backup.
2. Shorten unusually long release and effects tails, reduce unnecessary sustained voices, or choose a mono mode for a single-note part. Stop any unneeded continuous noise/environment layers.
3. Close the plug-in editor to remove its visible scope and spectrum work. Check the host's realtime meter as well as the plug-in DSP value.
4. Freeze or render finished parts if your host supports it. Test multiple instances at your actual session settings rather than assuming one successful instance predicts the whole arrangement.

Idle does not mean zero

The native engine can suspend settled silent audio work, but it still maintains timing, MIDI, control smoothing and necessary effect history. A non-zero DSP reading during silence is not by itself a fault. Likewise, a CLIP lamp is an audio-level warning, not a CPU warning. Use Panic to stop a sound immediately when diagnosing; it intentionally clears tails.

When replacing a build, close the host and copy the entire VST3 bundle, then restart and rescan if necessary. Avoid keeping several differently named copies of the same plug-in in scan folders, which can make it unclear which build the host loads.

Troubleshooting and support

The plug in is missing or silent

Check that you installed the instrument format your host supports and copied the whole VST3 bundle. Rescan after closing and reopening the host. For silence, confirm track input, monitoring, MIDI routing, output routing and Volume. Check source levels and mutes, Tonal Sources, filter cutoff and envelope settings. If the environment is the only layer, make sure its source is active and its gate has a trigger.

A note keeps sounding

Release the sustain pedal and all on-screen or MIDI keys, then allow the release, memory and room to decay. Check Continuous noise and Environment modes and any looping Behaviour lanes. Use Stop all for lanes and return macros/pads to neutral; use Panic to stop voices and tails together. If it repeats, note the preset, input device, pedal state and sequence of actions.

A macro wheel or lane seems inactive

Use Complete rather than Original. Check Behaviour Amount, lane On, destination and non-zero depth. For a macro, select the correct mapping and move its actual amount slider. For wheel modulation, check Motion's wheel depth/tone. For wheel-rise patterns, lower CC1 to 48 or below before crossing 64. Environment routes need an active source; effect routes need an audible stage. Watch lane cursors and net bars to distinguish inactive mapping from a subtle audio change.

The compressor seems to do nothing

Enable it, choose a ratio above 1:1 and lower Threshold while playing. Check gain reduction. Master Volume is after the compressor, so changing it does not drive compression. Original bypasses the native compressor. Makeup is manual and has no effect with the compressor off.

An imported recording is missing

Check its saved path and the Environment status. Reimport the WAV/AIFF from its new location and resave the preset/project. The plug-in does not embed or automatically collect external recordings.

Reporting a problem

Use the product support contact at the-asylum.com. Include your OS, DAW and version, plug-in format, sample rate and buffer size, preset name and exact reproduction steps. Include a .boardsi patch or short audio example when useful, but do not send private project audio without checking it. Software use is governed by the terms supplied with the product. You may be asked for a short video or screen shots showing the issues so we can try to replicate them to resolve.