

ORRA EQ

16-Band Parametric EQ & Saturation Suite

User Manual

Orra Audio LLC

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1. Introduction

What is Orra EQ?

Orra EQ is a professional 16-band parametric equalizer for music production, mixing, and mastering. It combines transparent equalization with saturation, dynamic saturation, dynamic EQ with full sidechain support, stereo width, spectral ducking and vintage analog emulation in one interface.

Key Features

- 16 fully parametric EQ bands with extended frequency range (10 Hz to 22 kHz)
- Eight processing modes per band: EQ, Orra Tube, Tape, Models (10 saturation types), Dynamic EQ, Excite, Width and Make Room
- Seven filter shapes: Bell, High Shelf, Low Shelf, Low Cut, High Cut, Tilt and Notch, with slopes from 6 to 96 dB/oct
- **Make Room mode** — the band ducks this track, slice by slice, wherever another track plays inside its range (new in v1.5.0)
- **Dynamic EQ with CUT, BOOST and LIFT** — cut when loud, boost when loud, or lift when quiet, with an AUTO threshold and a MASK trigger (new in v1.5.0)
- **Excite and Width modes** — saturate only what the band changes; widen or narrow one frequency range (new in v1.5.0)
- **Tilt, Notch, a 6 dB/oct slope and the Harmonics tab** (new in v1.5.0)
- **Preset Browser** — 20 factory presets in 6 categories, your own categories (folders), favourites, search, import / export and a saved default for new instances (new in v1.5.0)
- **Resonance Hunter** — marks ringing peaks on the display; click one to cut it (new in v1.5.0)
- **Refreshed Orra family interface** — labelled header, bigger points with mode letters, units on the values, typed values, Shift for fine control (new in v1.5.0)
- **Tooltip languages** — English, Dutch, Japanese, Spanish, Brazilian Portuguese, German and French (new in v1.5.0)
- **Low Cut & High Cut filters** — high-pass / low-pass with slopes up to 96 dB/oct (brickwall) (new in v1.3.0)
- **Per-band sidechain** for Dynamic EQ and Make Room bands — Off / External / Link channels (new in v1.2.1)
- **Cross-DAW sidechain via Orra Link** — route any track in your session to any band, regardless of DAW routing limitations

- **Orra Link 2 integration** — pick sidechain sources by track name, and view any linked track's spectrum and masking behind your EQ curve (new in v1.4.0)
- **Per-band pitch tracking** — a band's frequency can follow the pitch of its input, the sidechain, or any Link 2 track (new in v1.4.0)
- **Vertical display zoom** — zoom the gain axis from Full down to ± 3 dB for fine, surgical moves (new in v1.4.0)
- **Rebuilt oversampling engine** — cleaner anti-aliasing on the saturation and Excite bands, still with zero added latency (new in v1.4.0)
- Per-band Mid/Side processing
- Real-time FFT spectrum analyzer with pre/post visualization
- **Settings panels with tabs** — every band has its own settings area that opens automatically when you select it
- **Piano view** — vertical piano keyboard showing which note your band sits on (new in v1.2.1)
- **Zones view** — frequency-region overview from SUB to AIR (new in v1.2.1)
- **Tips carousel** — rotating workflow tips when no band is selected (new in v1.2.1)
- Dynamic saturation: extra drive for quiet signals, with Auto Gain to keep the level steady while you change drive
- 100-snapshot history system: non-destructive experimentation with instant recall
- Solo, Bypass (saved with the session), Delta, and Hide Curve for surgical EQ work
- Comprehensive keyboard shortcut support
- Input/Output metering with separate gain controls

2. Getting Started

System Requirements

- **macOS:** 10.13 or later (11 or later on Apple Silicon); Intel or Apple Silicon (AU, VST3, AAX)
- **Windows:** Windows 10 or later (VST3, AAX)
- **Plugin Formats:** Audio Unit (AU), VST3, AAX. There is no standalone app.
- **DAW Compatibility:** All major DAWs including Ableton Live, Logic Pro, FL Studio, Cubase, Studio One, Reaper, and Pro Tools 2020+ (AAX)

Installation

- Download the Orra EQ installer from orraaudio.com
- Run the installer and follow on-screen instructions

- The plugin will be installed to your system's standard plugin directories
- Restart your DAW if it was running during installation
- Scan for new plugins in your DAW's preferences

Activation

Orra EQ requires activation to use beyond the 14-day demo period.

Option 1: Enter License Key

- If you've purchased Orra EQ, click "Enter License Key" on the overlay
- Enter your license key (format: XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXXX)
- Your license activates on this machine (3 activations total per license)

Option 2: Start 14-Day Demo

- Click "Start 14-Day Demo" to try Orra EQ with full functionality
- Demo can only be started once per machine
- All features unlocked during demo period
- The days remaining are shown in the License panel (click the ORRA EQ wordmark in the header)

Option 3: Purchase

- Click "Purchase Orra EQ" to visit our website
- After purchase, use Option 1 to activate

3. Interface Overview

Main Layout

Orra EQ wears the Orra family look (**new in v1.5.0**): a black-gold faceplate, raised cards for the side panels, a recessed glass display, gold knobs and recessed buttons. Every control is where it was in v1.4.

The window has five areas:

- **Header (top):** the ORRA EQ wordmark, the analysis tools, the analyzer lights, the display and oversampling menus, and undo, history, presets and tips
- **EQ display (left and centre):** the curves, the spectrum analyzer and up to 16 band points

- **Settings panel:** the selected band's tabs (the tips carousel when no band is selected). It never collapses, so the display keeps a constant width.
- **Band panel:** the selected band's knobs and menus
- **Meter panel (far right):** input and output meters with their gain knobs

While the Preset Browser is open it covers the settings panel, band panel and meter panel as one card; the EQ display keeps its full size (see section 16).

Header Bar

From left to right:

- **ORRA EQ wordmark:** click it for the License panel.
- **R:** the Resonance Hunter (**new in v1.5.0**). It marks ringing frequencies on the display; click a gold ring to cut it. It is off each time the plugin window opens. See section 15.
- **Layers button (new in v1.4.0):** opens the overlay panel for Orra Link 2 source spectrum and masking overlays. It lights gold while any overlay is on. See section 10.
- **PRE / POST / HOLD / BANDS:** the analyzer lights. PRE (green) shows the input spectrum, POST (blue) the output spectrum, HOLD (teal) adds peak hold, and BANDS (orange) draws each band's own curve. All four are on by default and saved with the session. In v1.5.0 they are lit buttons with labels; they used to be coloured dots.
- **Analyzer menu:** DISPLAY ("FFT bins (evenly spaced)", "1/3 octave bands", "Hybrid (both)") and SPEED (Slow, Medium, Fast, Real-time). See section 18.
- **Zoom menu:** the UI scale, 50% to 200%, or a custom readout (e.g. "137%") after a corner drag. See Window Sizing below.
- **OS: Off / 2x / 4x:** oversampling for Orra Tube, Tape, Models, Dynamic Saturation and Excite bands. Saved with the project. See section 13.
- **Undo** (curved arrow): one step back, the same as Cmd/Ctrl+Z. See section 17.
- **History** (arrow with clock hands): the 100-step snapshot history. See section 17.
- **Presets** (three lines): opens the Preset Browser. See section 16.
- **? (gold ring):** click to turn hover tooltips on or off. Right-click for **Keyboard Shortcuts...** and the **Tooltip Language** menu. See Tooltips below.

The undo, history and presets icons are drawn, so they stay sharp at every window size.

Window Sizing & UI Scaling

NEW IN v1.4.0

Orra EQ's window resizing was rebuilt for reliable behavior across every host (this fixes size and layout issues in Pro Tools and Bitwig):

- **Corner-drag zooms the whole UI** at a locked aspect ratio, anywhere from 50% to 200%. The layout no longer re-flows as you drag — it scales as one piece, so nothing jumps around.
- **The zoom menu** offers fixed sizes and shows a live custom readout (e.g. "137%") when you've dragged to a size between them. Re-selecting a fixed size always snaps cleanly to it.
- **Window size is saved with the session** and restores exactly — including sessions saved by v1.3.0, whose old scale setting migrates automatically.

Behavior change to note: dragging the corner no longer re-flows the layout the way it did before v1.4.0 — it zooms it. The controls stay in the same relative positions at every size.

EQ Display

The central display shows:

- The overall response curve (off-white), and with BANDS on, each band's own curve: the band's colour for EQ bands, gold for driven Orra Tube, Tape and Models bands, warm gold for Excite, teal for Width, an orange zone for Dynamic EQ and a soft-blue zone for Make Room
- Up to 16 numbered band points. EQ points use the band's colour; every other mode has its own colour and a letter above the point (T, S, X, D, E, W or R; see the table in section 5)
- Small badges around a point show its state: an S and a yellow ring for Solo, a B and a red slash for Bypass (the point dims), a dotted cyan ring for Delta, an M or S at the lower right for a Mid or Side band, and a musical-note badge while pitch tracking
- Real-time spectrum analyzer (green = input, blue = output)
- Grid lines for frequency (10 Hz to 22 kHz) and gain
- A frequency readout when hovering over the display; over a Dynamic EQ or Make Room point it shows the band's AMOUNT
- A gain-range readout in the top-left corner of the dB ruler (see section 12)
- Mid and Side response curves (amber and teal) when bands use M/S processing
- On a Dynamic EQ band, a small gold marker at the band's centre that shows the gain the band applies right now
- On a Make Room band, a line that shows the cuts as they happen
- Resonance Hunter rings while R is on (see section 15)
- Optional Orra Link 2 source spectrum and masking overlays (see section 10)

Band Panel

Top Row: S / B / D / H

Four recessed buttons that light in their colour when on (bigger in v1.5.0):

- **S (Solo):** hear only this band's effect

- **B (Bypass):** switch this band off. Saved with the session and in presets (new in v1.5.0).
- **D (Delta):** hear only what the band removes or adds
- **H (Hide):** hide this band's curve

Band Selection

- Band Selector: dropdown showing all active bands

Core Knobs (when a band is selected)

- **FREQ:** 10 Hz to 22 kHz
- **GAIN:** -60 dB to +30 dB. Its caption follows the mode: GAIN in EQ and Excite, DRIVE in Orra Tube, Tape and Models, WIDTH in Width, and AMOUNT (0 to 48 dB) in Dynamic EQ and Make Room.
- **Q:** 0.1 to 40.0. In Make Room it reads RANGE, 0.5 to 10 octaves.

Menus and Buttons

- **FILTER TYPE:** shown for EQ, Dynamic EQ, Excite and Width bands. Bell, High Shelf and Low Shelf in all four; Low Cut and High Cut in EQ and Width; Tilt and Notch in EQ only (new in v1.5.0).
- **SLOPE:** shown for EQ bands set to a shelf or a cut. 6 (new in v1.5.0) / 12 / 24 / 36 / 48 dB/oct; 72 and 96 dB/oct for cuts only.
- **MODE:** EQ / Orra Tube / Tape / Models / Dynamic EQ / Excite / Width / Make Room (the last three new in v1.5.0)
- **CHANNEL:** Stereo, Mid, or Side. Greyed on Width bands, which always work on Stereo.
- **CUT / BOOST / LIFT (new in v1.5.0):** three buttons under AMOUNT on Dynamic EQ bands. See Mode 5.
- **SIDECHAIN (Dynamic EQ and Make Room):** Off / External / Link 2 tracks by name / Link channels, plus a per-band layers button for source overlays (new in v1.4.0). The SIDECHAIN caption row holds **MASK** on Dynamic EQ bands and **UNMASK** on Make Room bands (new in v1.5.0).

Knobs and Typed Values

NEW IN v1.5.0

- The band knobs and the Dynamic EQ, Harmonics and Excite knobs show their units: Hz / kHz, dB, ms, ": 1" for RATIO, oct for RANGE and % for Excite DRIVE.
- Click the value under a knob to type a new one, then press Return. FREQ takes "1200", "1.2k", "1,200" or "1,2k" (all 1200 Hz). RANGE takes octaves ("3" or "3 oct").
- Drag a knob up or down. A 400-pixel drag covers the full range; hold Shift for fine moves.
- Double-click a knob to return it to its default.

Settings Panel

The settings panel sits between the display and the band panel. When you select a band it opens the right tab for that band's mode: Zones for EQ, TAPE for Tape, the Make Room tab on a Make Room band, and so on. Section 6 lists every tab.

Tooltips and Tips Carousel

- Click the ? button in the header to turn hover tooltips on or off. A tip appears next to the mouse pointer after half a second.
- Right-click ? and pick a **Tooltip Language**: English, Dutch, Japanese, Spanish, Brazilian Portuguese, German or French (new in v1.5.0). The menu shows each language by its own name.
- The language is saved with each plugin instance, and each open plugin window uses its own. Sessions from before v1.5.0 open in English.
- Hover tips are translated. Menus, captions and the keyboard legend stay in English.
- The ? button has a tip of its own.

When no band is selected, the settings panel shows a rotating tip carousel — a quick refresher on shortcuts, mouse modifiers, and workflow features. Tips fade in and out every ~8 seconds.

Meter Panel (far right)

Input Section

- Input meter: stereo L/R, RMS bar and peak line
- INPUT knob: -12 dB to +12 dB trim before the EQ

Output Section

- Output meter: stereo L/R, RMS bar and peak line
- OUTPUT knob: -12 dB to +12 dB output level

The meter bars are gold, turn warm above -12 dB and red above -3 dB (new look in v1.5.0). See section 18.

4. Working with EQ Bands

Creating Bands

Double-Click on the Display

- Double-click an empty part of the EQ display
- A new EQ band is created at that frequency and gain, with Q 0.75. Its type follows the frequency: Low Shelf at 100 Hz and below, High Shelf at 10 kHz and above, Bell in between.
- The band is selected for editing and the settings panel opens the right view

Click Existing Control Point

- Click any numbered control point (1–16)
- Band becomes active for editing
- Parameters appear in the band panel
- Settings panel switches to that band's last-used tab

Band Selector Dropdown

- Click the band selector dropdown in the band panel
- Choose from list of active bands
- Band selected and ready to edit

Quick Band Creation Shortcuts

- **Double-click:** EQ band
- **Double-right-click:** Orra Tube
- **Shift + Double-right-click:** Models
- **Alt/Option + Double-right-click:** Tape
- **Shift + Alt/Option + Double-right-click:** Dynamic EQ

Saturation bands never start below 0 dB of drive. For Excite, Width and Make Room, create a band and pick the mode from the MODE menu or the right-click menu.

Editing Bands

Moving Control Points

- Drag a point left or right to change its frequency (10 Hz to 22 kHz).

- Drag it up or down to change its level. What that is depends on the mode: GAIN in EQ and Excite, WIDTH in Width, DRIVE in Orta Tube, Tape and Models (never below 0 dB), and AMOUNT (0 to 48 dB) in Dynamic EQ and Make Room.
- Hold Shift while dragging the selected point for fine moves (a tenth of the speed). You can press or release Shift mid-drag; the point does not jump.
- Low Cut and High Cut have no gain: dragging them up or down does nothing.

Adjusting Q (Bandwidth)

- Cmd/Ctrl + drag a point up or down to change Q. Shift + Cmd/Ctrl + drag changes it finely.
- Scroll over a point: Q, at the same speed as the Q knob. Shift + scroll: Q in 0.1 steps.
- Alt/Option + scroll over a point: gain in 0.5 dB steps; Alt/Option + Shift + scroll: 0.1 dB steps. On Dynamic EQ and Make Room bands this sets AMOUNT.
- On a Make Room band, Q is RANGE: Cmd/Ctrl + drag up, or scroll up, widens the range; Shift + scroll moves it in 0.1 octave steps.
- A low Q is wide and gentle; a high Q is narrow and surgical.

Resetting a Band

- Double-click a point: gain back to 0 dB and Q to 1.0; the frequency stays.
- On a Dynamic EQ or Make Room point, a double-click resets AMOUNT to its default (6 dB) and Q (Make Room: RANGE back to 4 octaves).

Multi-Band Selection

- Drag on an empty part of the display to draw a selection box; hold Cmd/Ctrl to add to the current selection
- Cmd/Ctrl + click a point to add it to the selection or remove it; Shift + click selects a range of bands
- Drag any selected point to move them all together
- Right-click the selection for batch operations (see section 14)

Band Right-Click Menu

Right-click any control point to access:

Filter Type (EQ, Dynamic EQ, Excite and Width bands)

- Bell (parametric peak/dip) — EQ, Dynamic EQ, Excite and Width modes
- High Shelf — EQ, Dynamic EQ, Excite and Width modes
- Low Shelf — EQ, Dynamic EQ, Excite and Width modes
- Low Cut (high-pass) — EQ and Width modes

- High Cut (low-pass) — EQ and Width modes
- Tilt (see-saw around the centre) — EQ mode only (new in v1.5.0)
- Notch (deep narrow cut) — EQ mode only (new in v1.5.0)

Slope (EQ bands set to a shelf or a cut)

- 6 dB/oct (new in v1.5.0), 12, 24, 36, 48; 72 and 96 dB/oct for cuts only

Processing Mode

- EQ (traditional equalization)
- Orta Tube (tube saturation)
- Tape (vintage tape emulation)
- Models (10 saturation algorithms)
- Dynamic EQ (frequency-selective dynamics)
- Excite (saturate only the band's EQ delta) — new in v1.5.0
- Width (band-limited stereo width) — new in v1.5.0
- Make Room (spectral ducking inside a range) — new in v1.5.0

Channel

- Stereo, Mid, Side (Mid and Side are greyed for Width bands)

Snap to Note

- One entry per note, C to B. Each entry shows where the band will land (for example "A -> A3").
- The band moves to the nearest frequency of that note.

Pitch Tracking

NEW IN v1.4.0

- Make the band's frequency follow the pitch of a monophonic source. See section 11.

Solo / Bypass / Delta / Hide Curve

- The same toggles as the S / B / D / H buttons.

Duplicate

- Copies the band, with all its settings, to the next free band one octave higher.

Delete Band

- Removes the band.

Snap to Key is in the right-click menu of a multi-band selection (see section 14).

Deleting Bands

- Right-click a control point → Delete Band
- Select the band and press Delete / Backspace
- Several bands: select them, right-click the selection → Delete All Selected

5. Band Processing Modes

Each of Orra EQ's 16 bands runs in one of eight processing modes. Pick the mode from the MODE menu in the band panel or from the band's right-click menu. The point's colour and letter show the mode:

Mode	Point	Level knob	Default tab
EQ	band colour, no letter	GAIN	Zones
Orra Tube	orange, T	DRIVE	Dynamic
Tape	brown, S	DRIVE	TAPE
Models	red, X	DRIVE	Models
Dynamic EQ	purple, D	AMOUNT	Dynamic
Excite	gold, E	GAIN	Excite
Width	teal, W	WIDTH	Zones
Make Room	soft blue, R	AMOUNT (Q knob: RANGE)	Make Room

Channel Processing: Mid/Side

Every band has a Channel selector that determines which part of the stereo signal it processes:

- **Stereo** (default): band processes the full stereo signal
- **Mid**: band processes only the center (mono) content
- **Side**: band processes only the side (stereo difference) content

This works with every mode except Width, which does its own Mid/Side split and always runs on Stereo. You can EQ the mid channel, saturate the sides, or apply dynamic EQ to just the center — all within a single plugin instance.

Any of these methods can be used to set a band's channel:

- Right-click any band and select the channel from the context menu
- Use the CHANNEL menu in the band panel

- Press **C** to cycle through Stereo, Mid, Side (Width bands stay on Stereo)

Separate Mid and Side response curves are drawn on the display in amber and teal.

Mode 1: EQ (Traditional Equalization)

Description: transparent, surgical equalization with extended range and precision.

Parameters

- Frequency: 10 Hz to 22 kHz
- Gain: -60 dB to +30 dB
- Q: 0.1 to 40.0
- Type: 7 filter types (Bell / High Shelf / Low Shelf / Low Cut / High Cut / Tilt / Notch)
- Slope: 6 / 12 / 24 / 36 / 48 dB/oct (shelves); 6 to 96 dB/oct (Low/High Cut)

Default Settings Tab: Zones.

Use Cases

- Corrective EQ (removing resonances, rumble, harshness)
- Tonal shaping (brightening, warming, body)
- Mastering EQ (subtle adjustments)
- Surgical frequency removal

Professional Tips

- Use narrow Q (above 5.0) to notch out specific problem frequencies
- Use wide Q (below 1.0) for musical tonal shaping
- Stack multiple gentle boosts/cuts instead of extreme single adjustments
- Cut first, boost with saturation second (cleaner results)

Low Cut & High Cut

NEW IN v1.3.0

Two dedicated cut filters, available on any band in EQ mode:

- **Low Cut** — a high-pass filter. Removes everything below the corner frequency. Use it to clear sub-rumble, mic handling noise, and stage bleed, or to tighten the low end of a busy mix.
- **High Cut** — a low-pass filter. Removes everything above the corner frequency. Use it to tame fizz, hiss, and harsh top, or to roll off the air on background elements.

Slope: 6 / 12 / 24 / 36 / 48 / 72 / 96 dB/oct. The 72 and 96 dB/oct settings are brickwall-steep for surgical removal; the gentler slopes are better for musical, transparent roll-offs. The response is maximally flat (Butterworth) — there is no resonant bump at the corner.

Using them

- Choose Low Cut or High Cut from the FILTER TYPE menu, or from the band's right-click menu.
- Set the corner frequency by dragging the band point left/right or with the FREQ knob. Dragging up/down does nothing — cut filters have no gain.
- GAIN and Q are greyed out: cut filters are pure Butterworth, so neither applies.
- Zero added latency, same as the rest of the EQ.

Cut filters are EQ-mode only (and Width mode, where they fold the range beyond the corner to mono). If you switch a band that's set to a cut into Orra Tube, Tape, Models or Make Room, the cut is held but inactive and restored when you switch back to EQ; switching to Dynamic EQ or Excite converts it to a Bell.

Tilt & Notch

NEW IN v1.5.0

- **Tilt** — gain goes up on one side of the centre frequency and down on the other: a one-knob tonal balance. Built as a low shelf and a high shelf of opposite sign, each at half the band gain, so +6 dB of Tilt is +3 dB above and -3 dB below the centre. Q sets how quickly the see-saw turns over.
- **Notch** — a deep, narrow cut at the centre frequency. Q sets the width; GAIN is greyed out because the depth is fixed. Use it for hum, whistles and single ringing partials.

Both are EQ-mode only. Switching such a band into another mode converts it to a Bell so the stored type, the DSP and the menus agree.

6 dB/oct Slope

NEW IN v1.5.0

A first-order (one-pole) option for Low Cut, High Cut, Low Shelf and High Shelf in EQ mode: the softest slope there is. Gentle roll-offs that stay out of the way, and shelves that lean rather than step. The shelf's corner sits at the half-gain point.

Harmonic Series — the Harmonics tab

NEW IN v1.5.0

EQ bands get a **Harmonics** tab in the settings panel. On a Bell band it stacks extra bells at 2x, 3x ... up to 8x the band's frequency, so one band shapes a whole harmonic series at once. On other filter types, and at 0 dB of gain, the tab has no effect.

- **HARMONICS** — Off, or +1 to +7 extra bells (2x up to 8x).
- **PARITY** — All (2x, 3x, 4x ...), Odd (3x, 5x, 7x) or Even (2x, 4x, 6x, 8x).

- **DECAY** — how much quieter each successive bell is, 0 to 12 dB (default 3 dB, like a natural overtone series). Gains step toward 0 dB and never cross it.

Each harmonic bell uses the band's Q. The whole stack is drawn in the band's curve, and it follows pitch tracking: track a bass note and the stack rides its overtones.

Q of 3 or higher keeps neighbouring bells from overlapping. With wide bells (Q below about 2) the bells add up and the sum is louder than a single bell; that is real physics, not a bug.

Use cases: cut a ringing snare's fundamental and its overtones in one move; thicken a vocal with a gentle even-harmonic boost; carve a guitar's harmonic series out of a keyboard part.

Mode 2: Orra Tube (Tube Saturation)

Description: musical tube saturation with dynamic response. Based on vintage tube preamp characteristics with asymmetric distortion.

Parameters

- **FREQ:** centre of the band that is saturated
- **DRIVE** (the gain knob): 0 dB is clean; the drive rises with the knob and is full at about +20 dB. Settings below 0 dB add no drive.
- **Q:** bandwidth of the effect

Dynamic Tab (Dynamic Saturation)

- **Enable** button (Disabled / Enabled): turns dynamic saturation on. Switching the band to another mode turns it off.
- **THRESHOLD:** -60 to 0 dB, default -30 dB (level below which extra drive is added)
- **ATTACK:** 1–100 ms, default 10 ms (response speed to quiet signals)
- **RELEASE:** 10–1000 ms, default 100 ms (how quickly the extra drive fades when the signal gets louder)
- **Auto Gain** toggle (new in v1.5.0): see Saturation Auto Gain below
- **INPUT** and **SAT** meters: the band's level and how much drive is being added

With Dynamic Saturation on, **DRIVE** sets the most drive the band can reach; the detector moves the drive between none and that maximum. Dynamic Saturation is stereo-linked (changed in v1.5.0): one detector on the louder side sets the drive for both sides, so a source panned to one side is no longer saturated harder on its quiet side. Mid and Side bands listen to their own channel.

Saturation Auto Gain

NEW IN v1.5.0

Orra Tube, Tape and Models bands have an **Auto Gain** toggle under RELEASE in their Dynamic tab. When it is on, the band's power before and after saturation is measured every block and the difference is trimmed away (up to 12 dB, about 100 ms of smoothing), so more drive adds colour, not loudness. Turn it on before comparing drive settings: louder always sounds better otherwise.

Oversampling: can be controlled globally from the header (Off / 2x / 4x). With the rebuilt v1.4.0 engine, 2x is clean enough for most work; reach for 4x on mastering-grade hot drive.

How It Works

- Band isolates selected frequency range using bandpass filter
- Signal processed through tube saturation algorithm
- Saturated band mixed back with dry signal
- More DRIVE = more harmonics
- Dynamic saturation adds extra drive to quiet signals below threshold

Use Cases

- Adding warmth to vocals (2–5 kHz, moderate drive)
- Thickening bass (80–200 Hz, subtle drive)
- Enhancing presence (3–8 kHz, gentle drive)
- Creating analog character on drums
- Bringing up quiet details dynamically

Professional Tips

- Start with +4 to +6 dB of DRIVE and adjust to taste
- Wider Q (0.5–1.5) for musical saturation
- Narrower Q (2.0–5.0) for focused enhancement
- Use dynamic saturation to add detail without muddying louder passages
- Set threshold 10–15 dB below average signal level for subtle enhancement
- Set threshold above average signal level for constant saturation that has movement
- Engage 2x oversampling when driving hard or working with bright source material

Mode 3: Tape (Vintage Tape Emulation)

Description: authentic analog tape machine emulation with multiple tape formulations, speeds, and noise options.

Parameters

- **FREQ:** centre of the band that is saturated
- **DRIVE** (the gain knob): 0 dB is clean; the drive is full at about +18 dB
- **Q:** bandwidth of the effect

TAPE Tab

MODEL

- **Studio Reference** — clean, professional studio tape
- **Console Master** — mix bus tape with subtle coloration
- **Multitrack Wide** — wide stereo imaging characteristics
- **Vintage Mono** — classic mono tape sound
- **Valve Preamp** — tube-driven tape warmth
- **Half-Inch Hi-Fi** — high-fidelity tape response

SPEED

- **High (Fast)** — cleanest, most transparent
- **Medium (Balanced)** — balanced vintage character (default)
- **Low (Vintage)** — maximum saturation and coloration

NOISE

- **On** — full tape hiss
- **Medium** — about half the hiss
- **Light** — a little hiss
- **Off** — no hiss (default)

Click **Dynamic** for the dynamic saturation controls and Auto Gain (same as Orra Tube mode).

Oversampling: controlled globally from the header. Tape benefits from 2x or 4x at high drive. Tape's own noise generation always runs at the native sample rate, so oversampling doesn't change the character of the hiss.

Use Cases

- Vintage drum character (Vintage Mono, Low speed)
- Warm vocal treatment (Studio Reference, Medium speed, NOISE Light)
- Lo-fi/vintage effects (Vintage Mono, Low speed, NOISE Medium or On)
- Mix bus glue (Console Master, High speed, NOISE Off)
- Tube-colored processing (Valve Preamp, Medium speed)

Professional Tips

- Low speed = more coloration (good for creative effects)
- High speed = more transparent (good for subtle enhancement)
- Half-Inch Hi-Fi + High speed = cleanest saturation
- Vintage Mono + Low speed = maximum vintage vibe
- NOISE Light or Off for a realistic tape feel without too much hiss
- Apply to full frequency range (wide Q) for mix bus glue
- Apply to specific ranges (narrow Q) for targeted vintage color

Mode 4: Models (10 Saturation Algorithms)

Description: professional saturation toolkit with 10 distinct algorithms ranging from vintage hardware emulation to creative digital processing.

Parameters

- **FREQ:** centre of the band that is saturated
- **DRIVE** (the gain knob): 0 dB is clean; the drive is full at about +20 dB
- **Q:** bandwidth of the effect

Models Tab

Pick the algorithm from the TYPE menu:

- **Vintage Preamp** — warm, smooth preamp saturation. Best for: vocals, acoustic instruments, smooth character
- **Power Tube** — aggressive power amp distortion. Best for: electric guitars, bass, aggressive character
- **Transistor** — solid-state transistor clipping. Best for: modern production, punch, aggression
- **Diode Germanium** — germanium diode clipping (asymmetric). Best for: bass, creative distortion, vintage vibe
- **Diodes Symmetric** — silicon diode clipping (symmetric). Best for: modern rock/metal, defined distortion
- **Wavefolder** — complex waveshaping and folding. Best for: creative effects, experimental sound design
- **Bit Crusher** — digital bit reduction and sample rate reduction. Best for: lo-fi aesthetics, creative degradation
- **British Console** — classic SSL-style console distortion. Best for: mix bus glue, professional polish

- **VCA Console** — API-style VCA console saturation. Best for: drums, mix bus, controlled aggression
- **Exciter** — psychoacoustic harmonic generation. Best for: mastering, air, perceived brightness

Common Parameters (all types)

- TONE: -100% to +100% (frequency tilt)
- BIAS: -100% to +100% (asymmetry)

Type-Specific Parameters

- BIT DEPTH (Bit Crusher only): 1–16 bits (default 8)
- SAMPLE RATE (Bit Crusher only): reduction factor 1.0 to 20.0 (default 2.0)
- FOLD (Wavefolder only): 0.1 to 5.0 (default 1.0)

Click **Dynamic** for the dynamic saturation controls and Auto Gain (same as Orta Tube mode).

Oversampling: controlled globally from the header. The Bit Crusher and Wavefolder benefit most from 4x when used aggressively.

Professional Tips

- TONE is a frequency-dependent saturation tilt (use it to balance brightness)
- BIAS creates asymmetry (try small amounts for subtle character)
- Bit Crusher at BIT DEPTH 8 with SAMPLE RATE 4 = "vintage sampler" character
- Wavefolder with FOLD 2 to 3 = harmonic bass enhancement
- Exciter on master = surgical high frequency enhancement (use sparingly)
- VCA Console on drum bus = punchy, controlled aggression
- Stack multiple gentle saturation types for complex character

Mode 5: Dynamic EQ (Frequency-Selective Dynamics)

Description: frequency-selective dynamic processing. The band cuts or boosts its frequency range depending on the level it detects: CUT, BOOST or LIFT.

Parameters (band panel)

- **FREQ:** centre frequency to process
- **AMOUNT** (the gain knob): 0–48 dB, default 6 dB. The most the band cuts or boosts.
- **Q:** bandwidth of the dynamic processing
- **FILTER TYPE:** Bell, High Shelf, Low Shelf
- **CUT / BOOST / LIFT:** three buttons under AMOUNT (new in v1.5.0)
- **SIDECHAIN**, with MASK in its caption row (MASK new in v1.5.0)

Dynamic Tab

- **ATTACK:** 0.1–1000 ms, default 10 ms (response speed to a level increase)
- **RELEASE:** 1–5000 ms, default 100 ms (return speed to rest)
- **THRESHOLD:** -60 to 0 dB, default -18 dB (level where processing begins), with AUTO in its caption row (new in v1.5.0)
- **RATIO:** 1:1 to 20:1, default 3:1 (amount of processing)
- **INPUT** and **GR** meters

CUT, BOOST and LIFT

NEW IN v1.5.0

- **CUT (default):** cuts by up to AMOUNT as the band gets louder than the threshold. Classic dynamic EQ: de-essing, taming a boomy note.
- **BOOST:** boosts by up to AMOUNT as the band gets louder than the threshold. Brings out hits: snap, crack, bite.
- **LIFT:** boosts by up to AMOUNT as the band drops below the threshold (upward compression). Keeps presence when a part gets quiet. The lift grows with how far the band is below the threshold, scaled by RATIO and capped at AMOUNT.

LIFT leaves near-silence alone: from 24 dB under the threshold it fades out, and it is gone 34 dB under, so pauses and room noise are not lifted. Its boost comes in at RELEASE speed and falls away at ATTACK speed, so a phrase that starts out of silence gets no burst.

The range shading draws above 0 dB for BOOST and LIFT. Host automation of the direction moves the buttons too.

AUTO (Auto Threshold)

NEW IN v1.5.0

AUTO sits in the THRESHOLD caption row of the Dynamic tab.

- The threshold follows the band's average level over about 1.5 seconds. The THRESHOLD knob becomes an *offset* around that average; its -18 dB default equals zero offset.
- Set it once and move the plugin between quiet and loud sources without retuning.
- The average only moves while the band is playing. Pauses, gaps and passages more than 20 dB under the average hold it, so the band does not clamp down when the music comes back.
- Switching AUTO on starts a fresh average.
- With LIFT, AUTO lifts whatever falls below the recent average.

MASK

NEW IN v1.5.0

MASK sits in the SIDECHAIN caption row of the band panel and needs a sidechain source (External or Link).

- The band reacts to how much *louder* the sidechain is than this track inside the band, not to the sidechain's absolute level. It only ducks when the other track would actually cover you.
- Both the sidechain and this track are band-passed around the band's frequency for the comparison.
- MASK works with CUT and BOOST. It is greyed in LIFT.
- Made for Orra Link 2 sources and the masking overlay.

The Point and the Meters

CHANGED IN v1.5.0

- A Dynamic EQ point sits at the band's full depth: -AMOUNT for CUT, +AMOUNT for BOOST and LIFT (the edge of the orange range). It no longer rides the gain reduction, so you can grab it during playback.
- Drag the point up or down to set AMOUNT (0 to 48 dB); Alt/Option + scroll does the same. Double-click it to reset AMOUNT and Q.
- A small gold marker at the band's centre shows the gain the band applies right now. It hides below 0.1 dB and while the band's curve is hidden.
- Hovering the point shows its AMOUNT.
- **INPUT** meter (gold, with an off-white threshold mark): the band's detected level.
- **GR** meter (hangs from the top, gold to warm, with a dB readout): the gain the band applies right now.

The Detector

CHANGED IN v1.5.0

- ATTACK and RELEASE do what the knobs say, at every frequency: the detector follows the band's level directly. Releases are longer than in v1.4.x at the same setting, and steady tones read about 0.5 dB hotter.
- Dynamic EQ bands are stereo-linked: one detector listens to the louder side and both sides get the same gain, so a dynamic band never moves the stereo image.
- Mid and Side bands listen to their own channel only and show their full gain reduction on the curve and meter.
- A stereo sidechain drives every band from both of its channels.

Sidechain

NEW IN v1.2.1

The band panel has a **SIDECHAIN** picker directly under CHANNEL. See section 9 for full details. Quick summary:

- **Off:** band detects on its own input (classic behavior, frequency-conscious)
- **External:** band detects on the host's external sidechain input — route any track into Orra EQ's sidechain to key the band
- **Link 2 tracks and Link channels:** band detects on an Orra Link source — works across busses, tracks, and any DAW routing without host-specific limitations. With Orra Link 2, sources are picked by name (new in v1.4.0).

Each band can independently pick its own sidechain source. Duck the low band off the kick, the mud band off the snare, and the harsh band off the lead vocal — all in one plugin instance.

Tip: a Dynamic EQ band sidechained to a Link 2 track pairs naturally with that track's masking overlay — the shading shows you exactly where the two signals collide, and the band ducks it. Turn on MASK and the band only ducks when the other track really covers yours. See section 10.

Mode 6: Excite

NEW IN v1.5.0

Description: saturation that only ever touches what the band changes. Excite takes the difference between the band's EQ curve and the dry signal (the "delta"), runs only that delta through one of the ten Models saturators, and adds it back. The rest of the mix never meets the saturator, so harmonics appear exactly where the band is working and nowhere else.

Parameters

- **FREQ, Q:** as in EQ mode
- **GAIN:** -60 dB to +30 dB — the EQ change that feeds the saturator. More gain, hotter delta, more harmonics. At 0 dB the band changes nothing, so there is nothing to excite: give it some gain, even with Harmonics Only.
- **Type:** Bell, High Shelf, Low Shelf (Tilt, Notch and cuts are not available in Excite)

Excite tab

- **Model:** the same ten saturation algorithms as Models mode (shared with that mode's TYPE menu)
- **DRIVE:** 0–100 % — how hard the delta hits the model (default 35 %). The saturator's own level gain is measured and removed automatically, so DRIVE changes harmonic content, not loudness.

- **Harmonics Only:** drop the band's linear boost or cut and add only the newly generated harmonics. The curve draws flat because there is no EQ change.

Excite also uses the band's other Models settings (TONE, BIAS and the type-specific knobs), which are only shown on the Models tab. Excite follows the global oversampling setting.

Use cases

- Presence without a visible boost: +6 dB bell at 3 kHz, Harmonics Only on
- Air on a mix bus that stays clean on the fundamentals
- Bass harmonics for small speakers, generated only from the low band

Display: gold point with an E; the warm-gold curve shows the band's target shape (flat with Harmonics Only).

Mode 7: Width

NEW IN v1.5.0

Description: band-limited stereo width. The band's shape is applied to the Side (L-R) channel only; the Mid channel and the mono mix never change.

Parameters

- **FREQ, Q:** as in EQ mode
- **WIDTH** (the gain knob): positive widens that frequency range, negative narrows it
- **Type:** Bell, High Shelf, Low Shelf, Low Cut, High Cut
- There is no Slope in Width mode. Width cuts are a gentle 12 dB/oct (Butterworth); WIDTH and Q are greyed for them.

The mono trick: a Low Cut in Width mode removes Side content below the corner, folding everything under it to mono. A High Cut does the same up top. No separate plugin needed.

Channel: Width bands always work on Stereo. The CHANNEL menu is greyed, the C key leaves them alone, and "Set All to Mid/Side" skips them.

Display: teal point with a W; the teal curve shows the Side-channel shape.

A Width band on a mono signal does nothing, because there is no Side channel to shape.

Mode 8: Make Room

NEW IN v1.5.0

Description: spectral ducking inside a band. Pick another track in SIDECHAIN (an Orta Link 2 track or the external sidechain) and the band ducks this track inside its range wherever that track plays, following it as it moves: a vocal melody, a riff, a kick. Think of it as a sidechain EQ that listens in many narrow slices (6 per octave) instead of one band.

Parameters (band panel)

- **FREQ:** the centre of the range
- **AMOUNT** (the gain knob): 0–48 dB, default 6 dB. The deepest cut: the sidechain's loudest slice gets all of it, a slice 18 dB quieter gets none, and the slices in between get a share. The cut takes the shape of the other track. Start around 4 to 6 dB.
- **RANGE** (the Q knob): the width of the range in octaves, 0.5 (left) to 10 (right), 4 by default. Turn it right to widen. Click the value to type octaves.
- **CHANNEL:** Stereo, Mid or Side
- **SIDECHAIN:** Off / External / Link 2 tracks / Link channels, with **UNMASK** in its caption row
- Make Room has no FILTER TYPE, SLOPE or CUT / BOOST / LIFT.

Make Room tab

- **ATTACK** and **RELEASE:** as in Dynamic EQ; each slice follows the sidechain in its own slice
- **THRESHOLD:** opens the band on the sidechain's overall level, fading in over the 12 dB below the threshold
- **AUTO** (in the THRESHOLD caption row): the threshold follows the sidechain's average over about 1.5 s, held through pauses; switching it on starts a fresh average
- **INPUT** meter (the sidechain's level) and **GR** meter (the deepest cut right now)
- **RATIO** is not used in Make Room.

UNMASK

- **Off** (default): the band cuts wherever the sidechain plays, shaped like it.
- **On:** the band cuts only where this track covers the other one (is louder than the other track minus 6 dB), and leaves alone the places where the other track is already on top. **AMOUNT** is the most it cuts.

Without a sidechain

- **SIDECHAIN Off:** the band listens to itself and smooths its own loudest frequencies inside the range (resonance taming).
- **A sidechain that gives no audio** (a Link 2 track that is stopped or gone, External with nothing connected): the band does nothing. It never falls back to ducking its own track.

The point

- The point sits at -AMOUNT, the deepest cut. Drag it up or down, or Alt/Option + scroll, to set AMOUNT.
- Scroll over it to change RANGE (up = wider); Shift + scroll moves RANGE in 0.1 octave steps. Cmd/Ctrl + drag up also widens it.
- Double-click the point to reset AMOUNT (6 dB) and RANGE (4 octaves).

- In a group drag it moves in frequency only.

Display: soft-blue point with an R. The range is shaded soft blue, and a brighter line shows the cuts as they happen.

Good to know

- Zero latency. While no slice is cutting, the band changes nothing at all.
- Delta plays what the band removes.
- The range is kept inside 20 Hz to 20 kHz.
- Oversampling does not apply to Make Room.

Starting points

- Guitar bus under a vocal: **FREQ** about 1.2 kHz, **RANGE** 4 oct, **SIDECHAIN** = the vocal track, **AMOUNT** 4–6 dB.
- Bass under a kick: **FREQ** about 120 Hz, **RANGE** about 2 oct, **SIDECHAIN** = the kick, **ATTACK** 1–5 ms, **RELEASE** 50–150 ms.

6. Settings Panels & Tabs

The settings panel sits to the right of the EQ display and is always visible — it's permanent furniture, not a pop-out.

Behavior

- **Auto-open:** when you select a band, the panel automatically opens to the right view for that band's mode (see the list below).
- **Mode switching opens the panel (new in v1.4.0):** switching a band to another mode opens that mode's default tab, so the new controls are in front of you immediately.
- **Tab memory:** each band remembers its last visited tab. Selecting between existing bands restores what you were looking at.
- **Graceful fallback:** if a tab no longer applies after a mode change (e.g. you switch a band from Tape to EQ), the panel falls back to the mode's default tab.
- **No band selected:** the panel displays the rotating tips carousel.
- **Preset Browser open:** the browser covers the settings panel, band panel and meters. They come back as they were when it closes.

Tab Layout

The panel header has up to two rows of tabs:

Row 1 — mode-specific (depending on band's mode)

- EQ: **[Harmonics]** (new in v1.5.0)
- Orra Tube: **[Dynamic]**
- Tape: **[TAPE | Dynamic]**
- Models: **[Models | Dynamic]**
- Dynamic EQ: **[Dynamic]**
- Excite: **[Excite]** (new in v1.5.0)
- Width: row omitted
- Make Room: **[Make Room]** (new in v1.5.0)

Row 2 — always available: **[Zones | Piano]**

Default tab per mode: EQ → Zones, Orra Tube → Dynamic, Tape → TAPE, Models → Models, Dynamic EQ → Dynamic, Excite → Excite, Width → Zones, Make Room → Make Room.

Click any tab to switch the view. Tabs highlight to show which view is active.

Tab Reference

- **TAPE:** MODEL, SPEED, NOISE
- **Models:** TYPE, TONE, BIAS, plus BIT DEPTH and SAMPLE RATE (Bit Crusher) or FOLD (Wavefolder)
- **Dynamic (Orra Tube, Tape, Models):** the dynamic saturation Enable button, THRESHOLD, ATTACK, RELEASE, the **Auto Gain** toggle (new in v1.5.0), and INPUT / SAT meters
- **Dynamic (Dynamic EQ):** ATTACK, RELEASE, THRESHOLD with **AUTO** in its caption row (new in v1.5.0), RATIO, and INPUT / GR meters. CUT / BOOST / LIFT and MASK are in the band panel.
- **Make Room (new in v1.5.0):** ATTACK, RELEASE, THRESHOLD with AUTO, and INPUT / GR meters (no RATIO). UNMASK is in the band panel.
- **Harmonics (new in v1.5.0):** HARMONICS, PARITY, DECAY
- **Excite (new in v1.5.0):** the saturation model, DRIVE, Harmonics Only
- **Zones:** vertical strip of frequency regions (SUB to AIR) with a gold indicator showing where the band sits
- **Piano:** vertical scrollable piano with the band's nearest key highlighted

7. Piano View

A vertical scrollable piano keyboard, available on every band:

- Lays out all 88 standard piano keys plus extended octaves so the full 20 Hz – 20 kHz range is reachable
- The key that matches the selected band's frequency glows: green when perfectly in tune with a note, fading to yellow as the band moves off-pitch
- Smooth crossfade animation when the active key changes
- Mouse-wheel scrolls; the view auto-recenters on the active key whenever you change a band's frequency to a different note
- Compact readout at the top shows Hz, note name, and cents off

Great for tuning drums, finding harmonic resonances, snapping bands to musical pitches, or just keeping a musical sense of where you're EQ'ing.

Orientation

NEW IN v1.4.0

By default the Piano runs with low frequencies at the top. Right-click the Piano view and choose **"Low frequencies at bottom"** to flip it. The setting also flips the Zones strip so the two views always agree, and it's remembered globally — across every session and every plugin instance. The default remains low-at-top.

8. Zones View

A vertical problem-zone strip showing the frequency regions every mix engineer ends up thinking about:

SUB / BASS / MUD / BOXY / BODY / HARSH / SIBILANCE / AIR

A gold indicator line shows where the selected band's frequency sits. Useful for a quick gut-check of what you're working on — especially helpful for less experienced ears or for sanity-checking the frequency you just dialed in.

Zones is the default settings tab for EQ and Width bands.

Orientation

NEW IN v1.4.0

Right-click the Zones strip and choose **"Low frequencies at bottom"** to flip both the Zones strip and the Piano view (the two always share orientation). The preference is remembered globally across all sessions and plugin instances. The default is low frequencies at top.

9. Sidechain (Dynamic EQ and Make Room)

NEW IN v1.2.1

Each Dynamic EQ band, and each Make Room band ([new in v1.5.0](#)), has its own SIDECHAIN picker in the band panel, directly under the CHANNEL menu. Select what audio drives the band — independently per band.

Sidechain Modes

Off (default) — The band detects on its own input. On a Dynamic EQ band this is the classic behavior: a bandpass filter at the band's center frequency feeds the detector, so the band only reacts to energy in its own frequency neighborhood. Use Off when you want the band to self-trigger (de-essing, resonance taming, etc.). On a Make Room band, Off means the band smooths its own loudest frequencies inside its range.

External — The band detects on Orra EQ's external sidechain bus. Route any track in your DAW into the sidechain input, and the band reacts to that signal. Use External when you want a kick to trigger a low-shelf cut on the mix bus, a snare to duck a harsh band on guitars, etc.

Link channels — The band detects on an Orra Link channel. Insert the Orra Link plugin on a source track, set it to a channel number, then pick that same channel here. Works across busses, tracks, and groups regardless of whether your DAW supports flexible sidechain routing.

MASK and UNMASK

NEW IN v1.5.0

The SIDECHAIN caption row holds one more toggle: **MASK** on Dynamic EQ bands, **UNMASK** on Make Room bands. It is the same setting under two names.

- **MASK** (Dynamic EQ, CUT and BOOST): the band reacts to how much louder the sidechain is than this track inside the band. It needs External or Link.
- **UNMASK** (Make Room): the band cuts only where this track covers the other one.

See Mode 5 and Mode 8 for details.

Picking Link Sources by Name

NEW IN v1.4.0

With **Orra Link 2** inserted on your source tracks, the sidechain picker gets much friendlier:

- The picker lists **every live Link 2 track by name**, each with its track colour shown as a swatch — no more remembering which channel number was which.

- Selections **persist by track name** and survive session reloads. If you rename a track in your DAW and give it Link 2's custom name field, the band follows that name.
- **Two tracks with the same name:** the first one found wins. Give tracks unique names — or use Link 2's custom name field — so a band always keys off the source you meant.
- The numbered **"Link channels" submenu** now only shows channels that are actually live. When a sender publishes a name, the entry reads like **"Link 3 — Drums"**. The submenu hides entirely when no numbered channels are live.

The original Orra Link still works for numbered channels — you don't have to upgrade every track. Link 2 simply adds the by-name workflow, colour swatches, and the source overlays described in the next section.

How the Sidechain Is Detected

Dynamic EQ: when the band uses an External or Link sidechain, the detector reads the full sidechain signal directly, without the band's own bandpass. Moving the band's frequency knob doesn't change how the kick triggers it; the frequency knob only controls **which frequencies get ducked**. This matches the convention in Pro-Q 3, Pro-MB, and other modern dynamic EQs. The exception is MASK: with MASK on, both the sidechain and this track are band-passed around the band's frequency so they can be compared.

In contrast, self-detect mode (Off) keeps the frequency-conscious bandpass behavior — the band only sees energy near its own center freq.

Make Room: the band always listens slice by slice inside its range, so it follows where the other track's energy is.

Stereo (changed in v1.5.0): a Dynamic EQ band has one detector. With a stereo sidechain it hears both channels and follows the louder one, and both sides of your track get the same gain, so the stereo image never moves. A Make Room band also applies the same cuts to both sides.

Routing External Sidechain in Major DAWs

Logic Pro (AU)

- Insert Orra EQ on the destination track as usual
- Above the plugin window, click the small "Side Chain" dropdown
- Pick the source track or bus

Pro Tools (AAX)

- Insert Orra EQ on the destination track
- In the plugin window header, click the "Key Input" (Side Chain) selector
- Pick the source bus

Ableton Live (VST3)

- Insert Orra EQ on the destination track
- Click the wrench icon (top-left of plugin window) to expose the device's sidechain panel
- Set the SC source

Reaper (VST3)

- Insert Orra EQ on the destination track
- Open the plugin and click "2 in 2 out" in the title bar to show the routing matrix
- Route extra input channels (3 / 4) from your source track

Cubase / Studio One (VST3)

- Insert Orra EQ
- Click the side-chain "activate" icon in the plugin header
- Send the source track to the resulting send

Orra Link — Cross-DAW Sidechain Routing

Orra Link is a free companion plugin (included with Orra Press) that bypasses DAW routing entirely. It writes audio into a shared memory region with numbered channels. Any Orra EQ band can read from any of those channels. Orra Link 2 adds named tracks, colour, and source overlays on top of the same system.

To use Orra Link

1. Insert **Orra Link** (or **Orra Link 2**) on the source track (the track whose audio should trigger the band).
2. Set Orra Link's channel number, or, with Link 2, give the track a name.
3. In Orra EQ, pick the matching entry in the band's SIDECHAIN picker — by channel number, or by name with Link 2.

Why use Link instead of External

- DAWs differ in sidechain routing flexibility — some don't let you sidechain across bus types. Link bypasses all of that.
- One source can feed multiple receivers across multiple plugin instances.
- Different bands of the same Orra EQ can pick different Link channels — duck different bands off completely different sources.

Liveness and fallback: if an Orra Link sender stops (track removed, plugin disabled, host crash), a Dynamic EQ band falls back to self-detection within ~340 ms. A Make Room band whose sidechain gives no audio does nothing instead. Audio keeps flowing — no stuck gain reduction, no

buzz.

Latency: zero added latency on the receiver side. The detector envelope follower's existing ms-scale time constants smooth over the standard one-block intrinsic Link latency below perceptual threshold.

Offline Rendering with Link Sidechains

IMPROVED IN v1.4.0

Offline bounces now use **time-stamped Link reads**, keeping sidechain timing sample-aligned no matter how the host schedules its tracks during a render. And track freeze / commit / AudioSuite-style renders — where the Link source track isn't actually running — now cleanly treat the source as absent from the very first sample, instead of consuming stale audio left in the shared buffer.

Tips

- **Many bands, many sources:** insert Orra Link on the kick, snare, and lead vocal, then on your mix bus Orra EQ pick each source for a different band. Three independent ducks, one EQ. With Link 2 you pick them by name.
- **Input gain doesn't affect SC level:** the INPUT knob in the meter panel scales only the main signal, never the sidechain input.
- **Saving:** the SIDECHAIN choice is saved with the project and in presets; Link 2 selections are saved by track name. The snapshot history stores parameters only, so restoring a snapshot does not bring back a Link 2 name pick.

10. Orra Link 2 Source Overlays

NEW IN v1.4.0

When you're running **Orra Link 2** on your source tracks, Orra EQ can draw those tracks' spectra right behind your EQ curve — so you can see what you're EQ'ing against, not just hear it. Overlays are purely visual: they add no CPU cost on the audio path and nothing to latency.

Source Spectrum Overlay

View any Link 2 track's live spectrum behind the EQ curve, drawn in that track's own colour. Line up a boost in your signal against a dip in the other track, or spot exactly where two elements are competing for the same range.

Masking Shading

Turn on masking for a linked track and Orta EQ shades — in translucent highlighting — the regions where that track's energy collides with your own signal. It shows you, at a glance, where two sources are fighting and where to cut. This pairs naturally with a Dynamic EQ or Make Room band sidechained to that same track (see section 9): the shading shows where the clash is, and the band ducks it dynamically.

Global Overlay Panel

Click the **layers button** in the header to open the overlay panel. It lists every live Link 2 track with **independent Spectrum and Masking toggles per track**, so you can build up exactly the picture you want:

- Enable a track's Spectrum to see its curve; enable Masking to see the collision shading; enable both, or neither, per track.
- Entries whose track has vanished (closed, disabled) are shown **greyed out with a remove button**, so stale entries never clutter the panel.

The layers button lights gold while any overlay is on.

Per-Band Shortcut Toggle

In the band panel, right of the SIDECHAIN picker (Dynamic EQ and Make Room bands), there's a **per-band layers button** — the same layers icon — that toggles the overlay for the source that band is keyed to, without opening the global panel. Handy while you're dialing in a single band against its trigger track.

Persistence

Your overlay setup — which tracks show Spectrum, which show Masking — is saved with the session and restored on reload.

11. Per-Band Pitch Tracking

NEW IN v1.4.0

Any band's frequency can follow the **pitch** of a monophonic source in real time. Put a notch, a boost, or a saturated band on a bass note or a vocal and it rides the pitch as the performance moves — without writing anything to automation.

Turning It On

Right-click a band point and open "**Pitch Tracking**". Choose:

- **Source:** this band's own input, the external sidechain, or **any Link 2 track**.
- **Harmonic:** $\times 1$ / $\times 2$ / $\times 3$ / $\times 4$ — ride the fundamental ($\times 1$) or an overtone. For example, put a notch on $\times 3$ to kill a resonance that moves with the note but sits well above the fundamental.
- **Glide:** Fast / Medium / Slow — how quickly the band slides to a new pitch.

While Tracking

- The point shows a **musical-note badge** and follows the tracked pitch on screen.
- **Horizontal dragging is disabled** (the pitch is driving frequency now) — but **gain dragging still works**, so you can ride the amount while it tracks.
- The **FREQ knob value is untouched** — nothing is written to automation. The band returns to its knob frequency whenever tracking is turned off or the source goes silent.

Engine Facts

- Tracks fundamentals from roughly **40 Hz to 1.5 kHz**.
- Locks onto a new note in roughly **65–75 ms**.
- Designed to **hold steady** through noise and transients rather than jumping around.
- Built for **monophonic sources** — bass, vocal, lead. Chords will settle on a root-ish pitch rather than tracking a single note.
- **Zero added latency** — the analysis is fully causal.
- **Works in offline bounces**.

Tip: use a slow glide on a vocal for a musical, legato feel; a fast glide on a bass for tight, per-note tracking. Higher harmonics ($\times 2$ – $\times 4$) are great for chasing a moving resonance or air partial that a fixed-frequency band would miss.

12. Vertical Display Zoom

NEW IN v1.4.0

The EQ display's gain axis can be zoomed in for fine, surgical moves. At the wide end you see the whole picture; at the tight end you can place a boost to a hundredth of a dB.

Display Ranges

- **Full** — +30 / -60 dB (the classic full view)
- **±30 dB**
- **±12 dB**
- **±6 dB**
- **±3 dB**

At ±3 dB the display resolves **better than 0.01 dB per pixel** — mastering-grade precision for tiny tonal moves.

Zooming

- **Scroll on empty display space, or on the dB ruler**, to change the range. (Scrolling on a band point still adjusts that band: Q, or with Alt/Option its gain; see section 4.)
- **Double-click the dB ruler** to reset straight back to Full.
- **Click the range readout** at the top of the ruler for a menu of ranges.

Bands Beyond the Visible Range

Zoom in tight and some bands will sit off-screen. They don't disappear or become unreachable:

- Bands outside the visible range **pin to the top or bottom edge** of the display and stay grabbable.
- While you drag a pinned band, its **value keeps moving at the same rate** even past the edge — so a band pinned at the top of a ±3 dB view still adjusts smoothly, exactly as if the display were full-range.

The chosen range is saved with the session.

13. Oversampling

REBUILT IN v1.4.0

The global oversampling menu in the header (OS: Off / 2x / 4x) reduces aliasing on Orra Tube, Tape, Models, Dynamic Saturation and Excite bands:

- **Off** — native sample rate. Lowest CPU. Suitable for tracking and lighter drive amounts.
- **2x** — doubles the internal sample rate during saturation. Genuinely clean for most work.
- **4x** — extra headroom for mastering-grade hot drive or material with lots of high-frequency content.

The setting persists with the project. Oversampling has no effect on EQ, Dynamic EQ, Width or Make Room bands — those run at the native rate and create no aliasing.

The v1.4.0 Engine

The up/downsampling behind these modes was rebuilt around a **minimum-phase elliptic IIR** design, giving proper image rejection on the way up and steep anti-alias filtering on the way down. On a hot-drive test tone, measured in-band alias suppression is roughly **-90 dB at 2x**, and better still at 4x.

- **Still zero added latency.** There's no lookahead — only a few samples of high-frequency group delay.
- **Phase-matched wet/dry mix.** A matching filter on the dry side keeps the wet and dry paths aligned, so blending saturation back in no longer risks comb filtering.
- **Tape noise stays native.** Tape mode's noise generation runs at the native rate, so oversampling doesn't alter the character of the hiss.

Practical guidance: 2x is now genuinely clean for the large majority of mixing work — leave it there and drive freely. Step up to 4x when you're pushing hard drive on a master or on very bright, high-frequency-rich source material.

Changes in v1.4.1

- **No more high-frequency roll-off with oversampling on.** In v1.4.0 the band's saturated signal was delay-matched against the dry band signal, but the untouched input it was added back to was not — so with oversampling on, a saturation band combed against its own input (a dip near 7 kHz at 2x, near 5 kHz at 4x). All three legs of the mix are now delay-matched. 2x and 4x sound the same apart from alias suppression, and turning oversampling on no longer darkens the band.
- **Tape and Models keep their tone at 2x / 4x.** The tape head-loss, low-shelf and DC filters, and the Models tone/console filters, are now derived for the rate they actually run at. Previously their corners slid up by the oversampling factor, so 7.5 ips at 4x lost most of its high-frequency roll-off. The Bit Crusher's sample-rate reduction likewise now crushes at the same audible rate with or without oversampling.
- **Oversampling is a global setting.** Loading a preset does not change it, and a session always comes back with the oversampling it was saved with, even when the plugin window is closed.

14. Solo, Bypass, Delta, Hide and Multi-Band Editing

Solo, Bypass, Delta, and Hide Curve

Each band has four state buttons at the top of the band panel (recessed buttons that light up when on). The same toggles are in the band's right-click menu and on the S, B, D and H keys.

S — Solo Mode

- Hear ONLY the selected band's effect
- All other bands temporarily muted; like bypassed bands, they keep running in the background
- Multiple bands can be soloed simultaneously
- Perfect for identifying problem frequencies by sweeping with gain boost
- Solo is a listening tool and is not saved with the session

B — Bypass Mode

- Switch this band off while keeping its settings in the chain
- Useful for A/B comparison
- Saved with the session and in presets, one undo step, and automatable: hosts list it as "Band N Enabled" (new in v1.5.0)
- Fades over 10 ms, so it never clicks. A bypassed band keeps listening in the background: a Dynamic EQ band that comes back applies exactly the gain it would have had.
- Sessions and presets from before v1.5.0 open with every band on, exactly as they used to play
- The point shows a B and a red slash, and dims

D — Delta Mode (Difference/Isolation)

- Hear ONLY what the band removes or adds
- Everything else is inverted out
- Extremely powerful for surgical resonance removal and verifying de-essing; on a Make Room band it plays what the band removes
- Delta is a listening tool and is not saved with the session

H — Hide Curve

- Hides this band's curve (and its Dynamic EQ or Make Room zone)
- Band still processes audio

- Useful for decluttering the display when working with many bands
- Saved with the session

Tips

- Solo + gain boost + frequency sweep: classic method for finding resonances
- Delta mode: most powerful for precision work
- Bypass: always check bypass to verify improvements
- Hide: hide unused bands for cleaner workspace

Multi-Band Selection and Editing

Selecting

- Click and drag on an empty part of the display to draw a selection box; all bands within it are selected
- Hold Cmd/Ctrl while drawing the box to add to the current selection
- Cmd/Ctrl + click a point to add it to the selection or remove it; Shift + click selects a range of bands
- Selected bands show a gold selection ring

Group Operations

- Move together: drag any selected band to move all. Dynamic EQ and Make Room bands in the group move in frequency only.
- Batch context menu (right-click the selection):
 - Set All to Bell Filter / High Shelf / Low Shelf / Tilt / Notch (Tilt and Notch only change EQ-mode bands)
 - Set All to EQ / Orta Tube / Tape / Models / Dynamic EQ / Excite / Width / Make Room Mode
 - Set All to Stereo / Mid / Side (Width bands stay on Stereo)
 - Snap to Key
 - Reset All Selected (gain 0 dB and Q 1.0 on each selected band)
 - Delete All Selected

Clear Selection

- Click on empty area to deselect

Snap to Note and Snap to Key (Musical Alignment)

Align band frequencies to musical notes and keys for tonal, musical EQ adjustments. Orra EQ provides two different snapping systems depending on whether you have a single band or multiple bands selected.

Single Band: Snap to Note

When you have ONE band selected, you can snap it to the nearest frequency of any musical note.

How to Use

- Select a single band (click control point)
- Right-click the control point
- Choose "Snap to Note"
- Select any note (C, C#, D, D#, E, F, F#, G, G#, A, A#, B); each entry shows where the band will land
- Band snaps to nearest octave of that note

Example

- Band at 250 Hz → Snap to A → moves to 220 Hz (A3)
- Band at 800 Hz → Snap to G → moves to 784 Hz (G5)

Multiple Bands: Snap to Key

When you have MULTIPLE bands selected, you can snap them all to notes within a specific musical key/scale. This ensures all selected bands align to harmonically related frequencies.

How to Use

- Select multiple bands (drag a selection box over control points)
- Right-click the selection
- Choose "Snap to Key"
- Select scale type, then root note
- All selected bands snap to nearest note within that key/scale

Available Keys/Scales

- Major: C Major through B Major (all 12)
- Minor: C Minor through B Minor (all 12)
- Major Pentatonic: all 12 root notes
- Minor Pentatonic: all 12 root notes

Example — Song in G Major

- Select 5 bands across the frequency spectrum
- Right-click selection → Snap to Key → Major → G Major
- Result: all bands snap to notes in G Major scale (G, A, B, C, D, E, F#)
- Creates harmonically coherent EQ adjustments that reinforce the song's key

Professional Tips

- Single band precision: use "Snap to Note" when you know the exact problematic note or want to enhance a specific harmonic
- Multi-band harmony: use "Snap to Key" when sculpting multiple bands to create harmonically coherent adjustments
- Major vs Minor: choose based on song key
- Pentatonic safety: pentatonic scales contain fewer notes, making them "safer" choices that avoid dissonance
- Boost fundamentals: in a song's key, boost low/mid frequencies at root, third, and fifth of the key
- Air and presence: use Snap to Key in upper frequencies (4–10 kHz) to add harmonically-aligned air
- Experimental approach: try snapping to the key, then listen — if it sounds musical, keep it

15. Resonance Hunter

NEW IN v1.5.0

The **R** button in the header turns on the resonance hunter. While it is on:

- The input spectrum is watched with a slow peak hold, so a resonance keeps its marker for a couple of seconds after it last rang. It works with the PRE analyzer on or off.
- Narrow peaks that stand at least 8 dB above their surroundings (about a third of an octave either side) are marked with a **gold ring right on the peak**, with a frequency chip above it (or below it, when two chips would overlap). Up to six rings, at least a quarter octave apart, between 40 Hz and 16 kHz.
- Rings settle for half a second before they appear, glide instead of jumping, and hold still while you move the mouse toward one.
- **Hover a ring** to preview the cut it would add: a dashed gold curve, and the chip shows the depth.
- **Click a ring** to add a Bell cut there. Its depth is measured from the peak (three quarters of how far it stands out, 3 to 12 dB in 0.5 dB steps) and its Q comes from the peak's width (2 to

10). The preview shows exactly this cut. The ring disappears; adjust the band to taste. A double-click adds one band, not two.

- **Right-click a ring** for a menu: "Cut ... here (static Bell)" or "Cut up to ... only when it rings (Dynamic EQ, AUTO)". The second adds a Dynamic EQ band with AMOUNT set to the measured depth and AUTO on, so it only acts when that frequency rings.

Play the loudest section of the part and give the rings a few seconds to settle. Sustained notes can show up as peaks too: let your ears decide. The hunter is a session-only aid: it is off whenever the plugin window opens, and it changes nothing in the audio by itself.

16. Preset Browser

NEW IN v1.5.0

The Preset Browser replaces the old preset window.

Opening and Closing

- Click the **presets icon** (three lines) in the header. The browser opens as one card over the settings panel, band panel and meters; the EQ display keeps its full size while you browse.
- Close it with its X, the presets icon, or Esc. The panels come back as they were.

Layout

- **Title row:** PRESETS and a count ("20 factory · N yours"), or a short status message after an action.
- **Search:** matches name, category, description and author. Several words narrow the list. Esc clears the search (press it again to close the browser); Return loads the first match.
- **Categories (left):** All, Favourites, then every category A to Z with its preset count, and **+ NEW** at the foot.
- **Presets (right):** A to Z ("2" sorts before "10"). A star marks favourites; a lock marks factory presets.
- **Info strip:** the loaded preset's name; its CATEGORY · FACTORY or YOURS · date; its description.

Loading Presets

- Click a preset to load it. The browser stays open, so you can audition presets one after another with the mouse or the Up / Down keys.
- Return reloads the selected preset (back to its saved sound).

- Every load is one undo step: just before a preset loads, a snapshot "Before preset: <name>" is recorded, so one Undo (Cmd/Ctrl+Z) takes you back to the sound you had.
- Loading a preset does not change oversampling (a global setting).
- A reopened project highlights the preset it was on.
- Typing in Search never triggers EQ keys, and Delete in the list never deletes a band.

Favourites

Click the star on any preset (or right-click it → Add to Favourites). The Favourites list is shared by every Orra EQ on your computer.

Saving and Managing

The buttons under the list:

- **SAVE:** overwrite your loaded preset with the current settings. Greyed on factory presets.
- **SAVE AS:** a sheet with NAME, CATEGORY (pick one, or type a new one) and DESCRIPTION. If that category already has a preset with the same name, it asks before replacing it.
- **RENAME** and **MOVE** (to another category, or New category...): your own presets only.
- **DELETE:** asks first, then moves the file to the Trash (Recycle Bin on Windows), so it can be put back. v1.4.1 deleted it for good. Your own presets only.
- **IMPORT:** add .orrapreset files. They are copied into the selected category (or the category written in the file) and never overwrite anything: a clash gets a numbered name.
- **EXPORT:** save a copy of the loaded preset as a file, to share or back up (factory presets too).
- **FOLDER:** open the Presets folder (or the selected category's folder) in the Finder / Explorer.
- **SET DEFAULT:** see below.

Right-click a preset

- Your presets: Load, Add to / Remove from Favourites, Rename..., Move to, Duplicate, Export..., Show in Finder / Explorer, Move to the Trash / Recycle Bin...
- Factory presets: Load, Add to / Remove from Favourites, Duplicate as your preset, Export...

Categories Are Folders

- Each category is a folder in **Documents/Orra Audio/Orra EQ/Presets**, and each preset is a .orrapreset file inside it, so you can also organise presets in the Finder / Explorer.
- **+ NEW** (or right-click a category → New category...) makes a category.

- Right-click a category → **Delete category** moves its presets to User and removes it. The factory categories and User cannot be deleted. **Show in Finder / Explorer** opens its folder.
- User is where presets without a category go.
- Preset files lying directly in the Presets folder (older saves, Orra Tone Zone Pro exports) show under the category written inside them.
- The browser reads the Presets folder each time it opens. Presets saved while Orra EQ is open (from the Finder, from Orra Tone Zone Pro's TO ORRA EQ, or from another Orra EQ instance) appear when you reopen the browser.
- Favourites are stored in the Presets folder as .favourites.

Drag and Drop

Drag .orrapreset files onto the plugin window: the browser opens, the files are imported, and the first one loads. Pro Tools does not pass file drags to plugins; use IMPORT there.

SET DEFAULT

- **Use current settings for new instances:** new Orra EQ instances start from the current settings, including window size, display range, oversampling and tooltip language. The default is stored as Documents/Orra Audio/Orra EQ/Default.orrapreset.
- **Clear default (new instances start flat):** moves that file to the Trash / Recycle Bin.
- Only new instances use the default. Saved projects always open as they were saved.

Factory Presets

Category	Presets
Vocal	Vocal - Modern Pop Shine, Vocal - Warm Intimate, Vocal - Broadcast Clear
Mastering	Master - Modern Loud, Master - Analog Console, Master - Vinyl Warm, Master - Stereo Widener, Master - M/S Sculptor
Creative	Creative - Lo-Fi Crush, Creative - Vintage Radio, Creative - Telephone
Corrective	Corrective - De-Mud, Corrective - Harsh Tamer, Corrective - Thin to Full
Instruments	Kick - Punchy Modern, Bass - Sub Power, Guitar - Acoustic Sparkle
Starting Points	Starting Points - Clean Start, Starting Points - Saturation Layers, Starting Points - Dynamic Control

The three Starting Points presets were called "User - ..." before v1.5.0.

17. Snapshots and Undo

Snapshot History System (100-Step Undo)

Orra EQ features a professional, non-destructive 100-snapshot history system.

How It Works

- Almost all single-band parameter change gestures create a snapshot automatically
- History stores last 100 snapshots (oldest removed when full)
- Each snapshot shows timestamp and description of changes
- Non-destructive: restore any snapshot, create new branch

Undo

- Click the undo icon (curved arrow) in the header, or press Cmd/Ctrl+Z, to step back one snapshot at a time.

Accessing Snapshot History

- Click the history icon in the header (the arrow with clock hands)
- Window overlays EQ curve (40% transparent)
- See up to 100 previous states

Using Snapshots

- Single-click: immediately preview that state
- Close window: keep the previewed state
- Navigation: click different snapshots to preview
- No undo needed: just click and explore

Snapshot Descriptions (Auto-Generated)

- Single parameter: "Band 1 Gain"
- Multiple parameters: "Band 3 Freq, Band 5 Type"
- Many parameters: "5 parameters changed"

When Snapshots Are Captured

- After mouse release on any control
- After completing a drag on EQ curve
- After text entry in parameter fields

- Just before a preset loads ("Before preset: <name>"; skipped when nothing has changed since the last snapshot)
- NOT during automation playback

Pro Workflow

- Make aggressive EQ changes
- Doesn't sound right? Click snapshot history
- Preview previous states with single clicks
- Find the sweet spot from earlier
- Close history window — state is kept

18. Metering and Analysis

Spectrum Analyzer

Professional real-time FFT spectrum analyzer with multiple visualization modes. Both settings live in the **Analyzer** menu in the header (new in v1.5.0; the old "Lin" button is gone).

DISPLAY

- FFT bins (evenly spaced): traditional FFT bin representation
- 1/3 octave bands: 1/3 octave smoothing
- Hybrid (both): combines FFT detail with octave smoothing (default)

SPEED

- Slow (~15 fps): more stable, less CPU
- Medium (~30 fps): balanced (default)
- Fast (~45 fps): responsive
- Real-time (~60 fps): maximum responsiveness, higher CPU

Analyzer Lights (header)

- PRE (green): shows signal before EQ processing
- POST (blue): shows signal after EQ processing
- HOLD (teal): peak hold on the pre and post spectra
- BANDS (orange): draws each band's own curve; turn it off to hide them all

All four are on by default and saved with the session.

Tips

- Use PRE when identifying problems
- Use POST when verifying fixes
- Use both for real-time feedback
- Enable HOLD to catch transients

Input/Output Metering (Meter Panel)

Input Meters

- Shows signal level BEFORE any EQ processing (after the INPUT knob)
- Range: -60 to 0 dB

Output Meters

- Shows signal level AFTER all EQ processing
- Range: -60 to 0 dB

Meter Colours

NEW IN v1.5.0

- The RMS bar rises gold, turns warm above -12 dB and red above -3 dB
- The peak shows as a translucent extension of the bar with an off-white peak line

Gain Control Knobs

- INPUT and OUTPUT: -12 dB to +12 dB
- Double-click INPUT or OUTPUT to reset it to 0 dB (unity gain)
- Shift + drag for fine adjustment (all knobs)
- Applied in signal chain: Input Gain → EQ Processing → Output Gain
- Input gain affects only the main signal — never the sidechain bus

Professional Gain Staging

- Set input gain so peaks are around -12 dB
- Apply EQ processing
- Adjust output gain to match input level
- Compare input and output meters to verify headroom

19. Licensing and Demo

License Types

Full License

- Perpetual license (pay once, use forever)
- 3 activations per license
- Includes all future 1.x updates
- Manage activations via License panel

Demo Version

- Full functionality for 14 days
- Can only be started once per machine
- Days remaining shown in the License panel
- After demo expires, must purchase to continue

Activation

Activating Your License

- Open Orra EQ
- Click "Enter License Key" on overlay
- Enter your license key (from purchase email)
- Click "Activate"
- License activates on this machine (counts as 1 of 3 activations)

License Validation

- Orra EQ validates license online periodically

Multiple Instances (v1.4.1)

- Activate in any one instance and every other Orra EQ instance already loaded — in the same session or another host — picks the license up within a second or two. You no longer need to enter the key per instance or reload the session.
- Re-entering a key that is already activated on this machine does not use an activation. If you did use extra activations on earlier versions, free them from the License panel (Deactivate) on the machine in question, or contact support.
- Starting the demo now unmutes audio immediately.

- Plugin scanning and session loading no longer wait on the license server, so an offline machine loads without delay.

Managing Your License

License Status Panel (click the ORRA EQ wordmark in the header)

Displays

- License status (Active/Demo)
- Licensed user name and email
- Activation usage (e.g., "2/3" = 2 of 3 activations used)
- During the demo, the days remaining

Actions

- Deactivate: free up this machine's activation slot
- Purchase (if demo): link to Orra Audio website

Deactivating

- Open License Status Panel
- Click "Deactivate"
- Confirm deactivation
- Activation slot freed immediately

Common Scenarios

Moving to New Computer

- Deactivate on old computer
- Install on new computer
- Activate with same license key

Reached 3/3 Activations

- Deactivate on machine you no longer use
- Activate on new machine

Demo Mode

Starting Demo

- Open Orra EQ (unlicensed)

- Click "Start 14-Day Demo"
- Demo begins immediately
- Full functionality for 14 days

During Demo

- All features unlocked
- "Demo: X days remaining" shown in the License panel
- Reminder to purchase as expiration approaches

Demo Expiration

- After 14 days, plugin displays overlay
- Must purchase license to continue
- Can activate license during demo period (demo ends, license begins)

Demo Limitations

- Can only be started once per machine
- Cannot restart demo after expiration
- No time-based crippling or audio degradation during demo

20. Keyboard and Mouse Shortcuts

Band Navigation

- , (comma) — Select previous active band
- . (period) — Select next active band

Band Actions (with a band selected)

- **S** — Toggle Solo
- **B** — Toggle Bypass (saved with the session, one undo step)
- **D** — Toggle Delta (hear only what the band changes)
- **H** — Toggle Hide Curve
- **C** — Cycle Channel: Stereo > Mid > Side > Stereo (Width bands always stay on Stereo)
- **Delete** / **Backspace** — Remove band
- **1** — Filter type Bell
- **2** — Filter type High Shelf
- **3** — Filter type Low Shelf

Global

- **Cmd/Ctrl+Z** — Undo
- **Space** — Play / Stop (always passes through to your DAW)

Creating Bands

- Double-click — New EQ band at the cursor position
- Double-right-click — New Orta Tube band
- Shift + Double-right-click — New Models band
- Alt/Option + Double-right-click — New Tape band
- Shift + Alt/Option + Double-right-click — New Dynamic EQ band

Moving a Band (drag its point)

- Drag — Frequency and gain (Dynamic EQ / Make Room: AMOUNT)
- Shift + drag — Fine (a tenth of the speed)
- Cmd/Ctrl + drag — Q (Make Room: RANGE, up = wider)
- Shift + Cmd/Ctrl + drag — Fine Q
- Double-click a point — Gain 0 dB and Q 1 (Dynamic EQ / Make Room: AMOUNT back to its default; Make Room RANGE 4 octaves)

Selecting Bands

- Cmd/Ctrl + click — Add a band to the selection, or remove it
- Shift + click — Select a range of bands
- Drag on the empty display — Selection box (Cmd/Ctrl adds to the selection)
- Right-click a selection — Set All to a type / mode / channel, Snap to Key, Reset All Selected, Delete All Selected

Scroll Wheel

- Over a point — Q, at the Q knob's speed (Make Room: RANGE)
- Shift + scroll — Q in 0.1 steps (Make Room: 0.1 octave)
- Alt/Option + scroll — Gain in 0.5 dB steps (Dynamic EQ / Make Room: AMOUNT)
- Alt/Option + Shift + scroll — Gain in 0.1 dB steps
- Over the empty display or the dB ruler — Vertical display zoom (Full, ± 30 , ± 12 , ± 6 , ± 3 dB)

Display

- Click the range readout (top left) — Display range menu
- Double-click the dB ruler — Display range back to Full

- Corner-drag the window — Zoom the whole UI, 50%–200%

Knobs

- Drag — 400 px for the full range
- Shift + drag — Fine
- Click the value — Type a value: FREQ takes "1200", "1.2k", "1,200"; RANGE takes octaves ("3 oct")
- Double-click — Default value

Resonance Hunter (R button in the header)

- Click a gold ring — New Bell cut there, depth and width measured from the peak (3 to 12 dB, Q 2 to 10)
- Right-click a gold ring — Choose that cut, or a Dynamic EQ cut (AUTO on) that only acts when the frequency rings
- Hover a ring — Preview of the cut
- Works with PRE on or off

Preset Browser (presets icon in the header)

- Click a preset — Load it (the browser stays open)
- Up / Down — Load the previous / next preset
- Return — Reload the selected preset (back to its saved sound)
- Esc — In Search: clear it (again: close); elsewhere: close
- Star — Add to / remove from Favourites
- Drag .orrapreset files onto the window — Import and load the first one (not in Pro Tools: use IMPORT)

Header

- ORRA EQ wordmark — Click: licence panel
- ? button — Click: tooltips on / off; right-click: keyboard legend and tooltip language

Right-Click Menu (on a band's point)

- Filter Type — Bell, High Shelf, Low Shelf, Low Cut, High Cut, Tilt, Notch (Tilt/Notch: EQ mode only; cuts: EQ and Width; the menu shows in EQ, Dynamic EQ, Excite and Width)
- Slope — 6 / 12 / 24 / 36 / 48 dB per octave (cuts and shelves), 72 / 96 (cuts only); EQ mode only
- Processing Mode — EQ, Orra Tube, Tape, Models, Dynamic EQ, Excite, Width, Make Room
- Channel — Stereo, Mid, Side (Mid / Side not for Width bands)

- Snap to Note — Snap frequency to nearest musical note
- Pitch Tracking — Follow a source's pitch (band input, external sidechain or a Link 2 track)
- Solo / Bypass / Delta / Hide Curve — toggles
- Duplicate — Copy band with frequency shifted up one octave
- Delete Band — Remove band

Right-click the ? button in the header for the in-app keyboard legend and the tooltip language menu.

21. Technical Specifications

Audio

- Processing: 32-bit floating point
- Sample Rates: 44.1 kHz to 192 kHz (and beyond)
- Latency: Zero samples (including with sidechain, oversampling, pitch tracking and Make Room)
- Frequency Range: 10 Hz to 22 kHz
- Gain Range: -60 dB to +30 dB (EQ mode); AMOUNT 0 to 48 dB (Dynamic EQ, Make Room)
- Q Range: 0.1 to 40.0; RANGE 0.5 to 10 octaves (Make Room)
- Dynamic Range: >120 dB

EQ Specifications

- Bands: 16 fully parametric
- Filter Types: 7 (Bell, High Shelf, Low Shelf, Low Cut, High Cut, Tilt, Notch)
- Shelf slopes: 6 / 12 / 24 / 36 / 48 dB/oct
- Low/High Cut slopes: 6 / 12 / 24 / 36 / 48 / 72 / 96 dB/oct (Butterworth); Width-mode cuts: fixed 12 dB/oct
- Processing Modes: 8 per band (EQ, Orra Tube, Tape, Models, Dynamic EQ, Excite, Width, Make Room)
- Per-band Mid/Side channel processing
- Per-band sidechain source (Dynamic EQ and Make Room): Off / External / Link (numbered or, with Link 2, by name)
- Per-band pitch tracking: source = band input / external SC / any Link 2 track; harmonic ×1–×4; glide Fast/Medium/Slow

- Harmonic series (EQ mode, Bell): up to 8x, All / Odd / Even, decay 0–12 dB per harmonic
- Saturation Algorithms (17 types total): Orra Tube, Tape (6 models), Models (Vintage Preamp, Power Tube, Transistor, 2× Diode, Wavefolder, Bit Crusher, 2× Console, Exciter)

Dynamic EQ

- ATTACK 0.1–1000 ms, RELEASE 1–5000 ms, THRESHOLD -60 to 0 dB, RATIO 1:1 to 20:1, AMOUNT 0–48 dB
- Directions: CUT, BOOST, LIFT (LIFT fades out from 24 dB under the threshold, gone at 34 dB under)
- AUTO threshold: about 1.5 s average, held through pauses
- Detector: follows the band's level directly; stereo-linked (one detector on the louder side, same gain on both sides)

Make Room

- 6 slices per octave (up to 48 slices), each with a band-pass detector and a bell (both Q 6)
- RANGE 0.5–10 octaves, kept inside 20 Hz–20 kHz; AMOUNT 0–48 dB, cuts only
- The sidechain's loudest slice gets the full AMOUNT, a slice 18 dB quieter gets none; UNMASK margin 6 dB
- THRESHOLD fades in over 12 dB; gains updated every 16 samples
- Zero latency; about 0.4–2 % of one CPU core per band

Sidechain & Orra Link

- External SC input bus: 1 (mono or stereo)
- Orra Link channels: numbered (cross-DAW shared memory); Link 2 adds named tracks with colour
- Dynamic EQ detector (external/Link SC): wide-band, frequency-independent; with MASK, both signals band-passed at the band's frequency
- Dynamic EQ detector (self-detect): bandpass-filtered at band's center frequency
- Stereo: one detector per band, following the louder sidechain channel
- Offline rendering: time-stamped Link reads keep sidechain timing sample-aligned during bounces; absent sources handled cleanly from the first sample
- Source overlays (Link 2): per-track spectrum and masking, display-only (no audio-path CPU, no added latency)

Pitch Tracking

- Fundamental range: ~40 Hz to 1.5 kHz
- Lock time: ~65–75 ms to a new note
- Designed for monophonic sources; holds steady through noise and transients
- Fully causal — zero added latency; works in offline bounces

Oversampling

- Modes: Off / 2x / 4x
- Filter design: minimum-phase elliptic IIR up/downsampling
- Measured in-band alias suppression (hot-drive test tone): roughly -90 dB at 2x, better at 4x
- Zero added latency (no lookahead; a few samples of high-frequency group delay)
- Phase-matched wet/dry mix: the dry band signal AND the pass-through input go through matching filters (v1.4.1; v1.4.0 matched only the band signal)
- Saturator internal filters (tape head loss, tone, console, DC) derived at the oversampled rate (v1.4.1)
- Scope: Orta Tube, Tape, Models, Dynamic Saturation and Excite bands
- Applied via the header menu; persists with project state

Display

- Window: 1450 × 685 at 100%; UI scaling 50%–200%, aspect-locked; size saved with session
- Control points: 20 px, with the band number and a mode letter for non-EQ modes
- Vertical zoom ranges: Full (+30 / -60 dB), ±30, ±12, ±6, ±3 dB
- Resolution at ±3 dB: better than 0.01 dB per pixel
- Zone / Piano orientation: low-at-top (default) or low-at-bottom, remembered globally
- Tooltip languages: English, Dutch, Japanese, Spanish, Brazilian Portuguese, German, French

Analyzer

- FFT Size: 4096 samples
- Window: Blackman-Harris
- Resolution: 1024 display bins
- Refresh Rates: 15, 30, 45, 60+ fps
- Analysis Types: FFT bins, 1/3 octave bands, Hybrid
- Pre/Post Analysis: independent input/output analyzers

System

- Presets: 20 factory presets in 6 categories; your presets in Documents/Orra Audio/Orra EQ/Presets/<Category>/
- Favourites: Presets/.favourites, shared by every instance
- Default for new instances: Documents/Orra Audio/Orra EQ/Default.orrapreset
- Snapshot History: 100 states
- Plugin Formats: AU, VST3, AAX (no standalone)
- Platforms: macOS 10.13 or later (11 or later on Apple Silicon), Intel or Apple Silicon — AU, VST3, AAX; Windows 10 or later — VST3, AAX

22. Troubleshooting

Common Issues

"Orra EQ not showing up in DAW"

- Solution: Rescan plugins in DAW preferences
- macOS: check AU validation in Audio MIDI Setup; AAX path: **/Library/Application Support/Avid/Audio/Plug-Ins/**
- Windows: verify VST3 or AAX path is scanned
- Try: restart DAW, restart computer

"License validation failed"

- Solution: check internet connection
- Verify license key was entered correctly
- Contact support if persistent

"Sound is distorting/clipping"

- Solution: check input/output meters
- Reduce input gain if input is clipping
- Reduce overall EQ gain (multiple boosts add up)
- Check output gain
- Verify gain structure in DAW
- For saturation modes, try engaging 2x or 4x oversampling

"EQ curve not visible"

- Solution: check band is not hidden (H button)
- Check that BANDS is on in the header (it shows each band's own curve)
- Verify band gain is not at 0 dB
- Verify band is enabled (not bypassed)
- If you've zoomed the vertical range in, a band may be pinned to the top or bottom edge — double-click the dB ruler to reset to Full

"A band won't move left/right"

- If the band shows a musical-note badge, it's pitch-tracking — horizontal dragging is disabled while tracking. Turn Pitch Tracking off (right-click the point) to move it by hand again. Gain dragging still works while tracking.

"A Dynamic EQ point doesn't move while the band works"

- That is by design since v1.5.0. The point sits at the band's full depth so you can grab it; the small gold marker at the band's centre shows the gain it applies right now.

"MASK is greyed"

- The band is set to LIFT. MASK works with CUT and BOOST.

"CHANNEL is greyed, or C does nothing"

- The band is in Width mode. Width bands always work on Stereo.

"A Link 2 source isn't in the sidechain list"

- Confirm Orra Link 2 is inserted and enabled on the source track — the picker only lists live Link 2 tracks
- If two tracks share a name, only the first is used — give tracks unique names, or use Link 2's custom name field
- The original Orra Link appears under the numbered "Link channels" submenu instead of by name

"Sidechain isn't working"

- For External SC: confirm your DAW is actually routing audio to Orra EQ's sidechain input. Most DAWs require explicit sidechain routing via the plugin header.
- For Link: confirm Orra Link is inserted on the source track, enabled, and set to the same channel (or, with Link 2, the same named track) as the band's SIDECHAIN selection.
- Confirm the band is in Dynamic EQ or Make Room mode — the SIDECHAIN picker only affects those bands.

- Confirm the band's AMOUNT > 0 and THRESHOLD isn't set so high that no signal triggers it. With LIFT the band acts below the threshold; with AUTO the threshold is an offset from the recent average.

"A Make Room band does nothing"

- A Make Room band with a sidechain picked that gives no audio (a stopped or missing Link 2 track, External with nothing connected) does nothing. Check that the other track is playing and routed.
- Check AMOUNT, THRESHOLD, and that the other track has energy inside the band's RANGE.

"Dynamic EQ releases more slowly than in v1.4.x"

- By design: RELEASE now does exactly what it says. Shorten RELEASE if a session relies on the old, faster recovery.

"The Harmonics tab does nothing"

- The harmonic series works on Bell bands with some gain. Set FILTER TYPE to Bell and move GAIN away from 0 dB.

"An Excite band does nothing"

- Excite needs GAIN away from 0 dB, even with Harmonics Only on.

"Automation of Mode, Filter Type or Slope from v1.4.x picks the wrong entry"

- VST3 and AAX hosts store automation of a menu as a position along the list, and these three menus gained entries. Check and redraw those lanes. Saved settings and AU automation are not affected.

"The Resonance Hunter shows no rings"

- R is off each time the plugin window opens: turn it on again.
- Play the part: rings need a peak that stands 8 dB above its surroundings for half a second, between 40 Hz and 16 kHz.

"A preset saved outside Orra EQ isn't listed"

- Close and reopen the Preset Browser; it reads the Presets folder each time it opens.

"Presets can't be dropped onto the plugin in Pro Tools"

- Pro Tools does not pass file drags to plugins. Use IMPORT in the Preset Browser.

"New Orra EQ instances don't start flat"

- A default is set. Open the Preset Browser → SET DEFAULT → Clear default.

"Demo period already used"

- Solution: demo can only be started once per machine
- Purchase license to continue using
- Demo tied to hardware fingerprint

Getting Help

Support Resources

- Email: support@orraaudio.com
- Website: <https://orraaudio.com/support>
- Documentation: <https://orraaudio.com/docs>

Before Contacting Support

- Check this manual for solution
- Visit FAQ at <https://orraaudio.com/support>
- Try restarting DAW
- Verify system meets requirements
- Check DAW's plugin scanner/validator
- Test in different DAW (if possible)

23. What's New in 1.5.0

A feature release. Orra EQ gets the Orra family look, a new Preset Browser, three new band modes (Excite, Width and Make Room), new filter shapes, and a Dynamic EQ that follows its ATTACK / RELEASE knobs exactly and can boost as well as cut. Per-band Bypass is now saved with your sessions. Sessions saved with v1.4.x load: every new control is a new parameter whose default reproduces the old behaviour. The deliberate differences are listed under For Existing Sessions.

New

- **Refreshed interface:** the Orra family look, a grouped and labelled header (PRE, POST, HOLD and BANDS lights; one Analyzer menu with full names; drawn undo, history and presets icons), bigger band points with mode letters (T, S, X, D, E, W, R), bigger S / B / D / H buttons, units on the band and Dynamic EQ knobs, typed values ("1.2k", "1,200"), and gold input / output meters. See section 3.

- **Preset Browser:** categories and favourites, search, one undo step per load, SAVE / SAVE AS / RENAME / MOVE / DELETE (to the Trash), categories as folders, IMPORT / EXPORT and drag and drop, SET DEFAULT for new instances, and a rescan each time it opens. See section 16.
- **Per-band Bypass is saved:** with the session and in presets, one undo step, automatable as "Band N Enabled", with a 10 ms fade. Bypassed and solo-muted bands keep running in the background. See section 14.
- **Excite mode:** saturates only the band's EQ delta, with a Model, DRIVE and Harmonics Only. See Mode 6.
- **Width mode:** the band's shape on the Side channel only; a Low Cut monos everything below the corner. See Mode 7.
- **Make Room mode:** spectral ducking inside a range, following the sidechain slice by slice, with RANGE in octaves and UNMASK. See Mode 8.
- **Tilt and Notch filter types, and a 6 dB/oct slope** (EQ mode). See Mode 1.
- **Harmonic series:** the Harmonics tab stacks bells at 2x to 8x a Bell band's frequency. See Mode 1.
- **Dynamic EQ CUT / BOOST / LIFT, AUTO and MASK.** See Mode 5.
- **Resonance Hunter:** the R button marks ringing peaks with gold rings; click one for a measured cut. See section 15.
- **Saturation Auto Gain** for Orra Tube, Tape and Models bands. See Mode 2.
- **Tooltip languages:** English, Dutch, Japanese, Spanish, Brazilian Portuguese, German and French, per plugin instance. See section 3.

Changed

- Dynamic EQ: ATTACK and RELEASE now do what the knobs say, at every frequency. The detector used to smooth the level in dB, so a 100 ms release acted like 10–20 ms on mid and high bands. On a steady tone it reads about 0.5 dB hotter than before.
- Dynamic EQ bands are stereo-linked: one detector on the louder side, the same gain on both sides. Mid and Side bands listen to their own channel only, and a stereo sidechain drives every band from both of its channels.
- Mid and Side Dynamic EQ bands now show their full gain reduction on the curve and meter (they showed about half).
- Dynamic Saturation (Orra Tube, Tape, Models) is stereo-linked too. Centred material and bands with Dynamic Saturation off sound exactly as before.
- Dynamic EQ points no longer ride the gain reduction: they sit at full depth, drag to set AMOUNT, double-click to reset it, and a gold marker shows the live gain.
- Mouse wheel over a band: Q changes at the Q knob's speed; Shift = Q in 0.1 steps; Alt = gain in 0.5 dB steps, Alt+Shift = 0.1 dB steps. Shift+drag moves a band finely; Shift+Cmd/Ctrl+drag

adjusts Q finely.

- Knobs need a longer drag for their full range (400 px), and Shift+drag is the fine mode (it used to be Cmd/Ctrl/Alt).
- Tooltips appear next to the mouse pointer after half a second, in the chosen language.
- The band and multi-band menus list the new types and modes; "Set All to Tilt/Notch" only touches EQ-mode bands; "Set All to Mid/Side" leaves Width bands on Stereo.
- Instances no longer read the Presets folder when they are created (only when the browser opens), so sessions with many Orra EQs load faster.

Fixed

- Closing the preset browser with its X could lose an open Dynamic Saturation panel.
- The keyboard legend's dashes rendered as garbage in release builds.
- A crash when hovering a control with tooltips on, after a second Orra EQ window had been opened and closed (or the host re-created the window).

For Existing Sessions

- Nine new parameters per band, appended after every existing one, so host automation lanes keep pointing at the same parameters. Defaults: Dynamic Direction Cut, AUTO off, MASK off, Auto Gain off, Harmonics Off, Parity All, Decay 3 dB, Excite Drive 35 %, Harmonics Only off.
- Per-band Bypass was never saved before, so every older session and preset opens with all its bands on, exactly as it used to play.
- The Mode, Filter Type and Slope menus have new entries at the end. VST3 and AAX hosts store automation of a menu as a position along the list, so an automation lane recorded in v1.4.x on a band's Mode, Filter Type or Slope now lands on a different entry (for example Tube becomes Tape). Saved settings and AU automation are not affected. If a session automates one of these three, check it.
- Dynamic EQ bands sound different on purpose: they release as slowly as RELEASE says (longer than before at the same setting), read steady tones slightly hotter, and no longer duck one side of the mix more than the other. If a session relies on a dynamic band, check its RELEASE; ducks keyed from Orra Link 2 recover more slowly than they used to.
- Dynamic Saturation on material that is louder on one side now drives both sides equally (the quiet side gets less colour than before). Everything else in a saved session loads and sounds as it did.
- The tooltip language is stored per instance; older sessions open in English.
- Your saved presets stay where they are and show under the category they were saved with. The three factory presets that were filed under "User" are now "Starting Points - Clean Start / Saturation Layers / Dynamic Control".

- Sessions and presets saved with v1.5.0 that use the new modes, types or slopes do not open correctly in v1.4.x.

Known

- Solo and Delta are listening tools and are not saved with the session (Bypass and Hide Curve are).
- Excite uses the band's Models tone settings (TONE, BIAS and the rest), which are only shown on the Models tab.
- Window position is remembered by the host, not the plugin; Logic places plugin windows itself on project load. Window size is saved with the session.
- Linear-phase oversampling (and a minimum / linear phase selector) is on the roadmap; v1.5.0 keeps the zero-latency minimum-phase engine.

Quick Reference Card

Most Important Controls

Creating Bands

- Double-click — EQ band
- Double-right-click — Orta Tube
- Shift + Double-right-click — Models
- Alt/Option + Double-right-click — Tape
- Shift + Alt/Option + Double-right-click — Dynamic EQ

Essential Actions

- Right-click a point — context menu (filter type, slope, mode, channel, snap to note, pitch tracking, solo / bypass / delta / hide, duplicate, delete)
- S / B / D / H buttons or keys — Solo / Bypass / Delta / Hide
- Drag a point — frequency and gain (AMOUNT on Dynamic EQ and Make Room); add Shift for fine moves
- Cmd/Ctrl + drag a point — Q (Make Room: RANGE); add Shift for fine Q
- Scroll over a point — Q; Shift = 0.1 steps; Alt/Option = gain in 0.5 dB steps; Alt/Option + Shift = 0.1 dB
- Double-click a point — gain 0 dB and Q 1 (Dynamic EQ / Make Room: AMOUNT default)
- Scroll over empty display / dB ruler — zoom vertical range
- Shift + drag any knob — fine adjustment; click a knob's value to type it
- C — cycle channel (Stereo / Mid / Side)
- , / . — select previous/next band
- Cmd/Ctrl + Z — undo

New in v1.5.0

- **Make Room mode** — duck this track slice by slice wherever the sidechain plays; RANGE in octaves, UNMASK
- **Dynamic EQ CUT / BOOST / LIFT, AUTO, MASK** — boost or lift as well as cut; stereo-linked detector that follows ATTACK / RELEASE exactly
- **Excite mode** — saturate only the band's EQ delta; Harmonics Only adds nothing but harmonics
- **Width mode** — band-limited stereo width; a Low Cut here monos the sub

- **Tilt** and **Notch** filter types, **6 dB/oct** slope (EQ mode); **Harmonics tab** for a whole harmonic series
- **Preset Browser** — favourites, categories as folders, SAVE AS, IMPORT / EXPORT, drag and drop, SET DEFAULT; one undo step per load
- **Per-band Bypass saved** with the session ("Band N Enabled")
- **Resonance Hunter** (R in header) — click a gold ring for a measured cut; right-click for a Dynamic EQ cut
- **Refreshed interface** — labelled header, bigger points with mode letters, units and typed values, Shift for fine control
- **Auto Gain** for saturation bands; **tooltip languages** (right-click ?)

New in v1.4.0

- **Orra Link 2** — pick sidechain sources by name, and overlay any linked track's spectrum and masking behind your curve (layers button in header)
- **Per-band pitch tracking** — right-click a band → Pitch Tracking; the band's frequency rides a monophonic source's pitch
- **Vertical display zoom** — scroll the display/ruler to zoom the gain axis from Full down to ± 3 dB
- **Rebuilt oversampling engine** — dramatically cleaner anti-aliasing, still zero latency
- **UI zoom & reliable window sizing** — corner-drag scales the whole UI (50%–200%); size is saved with the session
- **Zones/Piano orientation** — right-click to flip to low-frequencies-at-bottom (remembered globally)

New in v1.3.0

- **Low Cut** and **High Cut** filters (EQ mode) — high-pass / low-pass with slopes up to 96 dB/oct

New in v1.2.1

- Header **Oversampling** control — saturation aliasing reduction
- Band-panel **Sidechain** picker for Dynamic EQ bands
- **Settings panel** is always visible with auto-opening per-mode views
- **Piano** and **Zones** tabs available on every band