



Gravity Channel

User Manual

GANUE Audio

Version 1.1

Free – no iLok, no activation

Restraint, by design.

Contents

1. Overview	2
2. The sound	3
3. Quick start	5
3.1 Install	5
3.2 First sound	5
4. Signal flow	7
5. The header	8
5.1 Presets	8
5.2 Channel selector	8
5.3 Advanced Mode	8
5.4 Kebab menu	8
6. Section reference	10
6.1 INPUT	10
6.2 FILTER	10
6.3 EQ	11
What the numbers mean (v1.1)	11
Designed, not measured	12
6.4 COMP	12
Detector, topology and look-ahead (v1.1.0)	13
6.5 VU	13
6.6 BLOOM	14
6.7 OUTPUT	15
6.8 Displays (upper rack)	15
7. Oversampling	16
8. User interface	17
9. Presets	18
9.1 Managing presets	18
9.2 Factory presets	18
10. Specifications, credits, and license	19

1. Overview

Gravity Channel is a free channel-strip plugin by GANUE Audio. It brings together the everyday tools of a mixing chain – input trim and polarity, high-pass and low-pass filters, a three-band EQ, a smooth compressor, a harmonic “BLOOM” stage, and a clean output trim – in one restrained, precise front panel.

It is designed to sit on any track and do the ordinary jobs well: shape tone, control dynamics, add weight or air, and set level, all without leaving the strip.

Key facts:

- Formats: **Windows** – VST3 and AAX (Pro Tools). **macOS** – VST3, Audio Unit (AU), and AAX (Pro Tools). There is no standalone application.
- Free. There is no license key, no iLok, and no online activation.
- Runs on macOS and Windows.
- On-screen text is plain ASCII for maximum host compatibility.

This manual documents Version 1.1.

What changed in 1.1. A low-pass filter joins the HPF (Section 6.2). The compressor gains an AUTO release, a Peak/RMS detector, a Feed-Forward/Feedback topology, look-ahead, and a deeper threshold (Section 6.4). The factory bank grows from 21 presets to 31 (Section 9.2). At their default positions the new controls are bit-identical to 1.0. Separately, with oversampling on (2x/4x/8x) the output now arrives a few samples later, and with BLOOM engaged it is band-limited above 20 kHz (see Section 7, “Oversampling”, and the release notes); below 20 kHz the difference from 1.0 is under 0.02 dB.

One caveat if you automate: the threshold and release ranges are wider than in 1.0. Sessions and presets store real values and are unaffected, but a **normalised automation lane** written against either parameter now maps to a different value.

2. The sound

Gravity Channel is built around a clean, modern signal path. Left at its defaults it stays neutral and transparent – it lets the source speak rather than stamping a sound on it. Color is something you add deliberately, in measured amounts, when the material calls for it.

A clean core. The input stage and EQ aim for an open, uncolored tone with fast transients and a flat frequency response, so the strip is equally at home as a precise corrective tool or as a character device.

Transformer-style harmonics (BLOOM). The BLOOM stage adds gentle second- and third-harmonic coloration in the spirit of classic Class A transformer output stages. Two voicings tilt the harmonics:

- **Body** adds warmth and weight in the low and low-mid range.
- **Air** adds sheen and sparkle in the highs.

With BLOOM off, the output stage is linear and flat – no added harmonics, no tilt. Air and Body each add their own audible harmonics on top, in a program-dependent, musical way – easy to reach for and easy to overdo, so a little goes a long way. Amount sets the intensity. (Before v1.1.0, Off kept a very faint transformer character of its own; that was a side effect of the signal-conditioning filters, not an intentional design goal, and has been removed. Air and Body are unchanged.)

A musical EQ. The three-band EQ is voiced to be easy on the ear and intuitive: broad, gentle shelves for LF and HF (each with two switchable corners) and a swept mid bell, ± 12 dB per band. Its shapes come from measurement – a resonant shelf rather than a textbook one, a bell whose Q follows the gain differently for boosts and cuts, and an opposite-polarity dip in the lower-middle band that gives the shelves their curve. It is made for shaping tone by feel, not for clinical correction. What it is not is vague: the printed numbers are the measured ones (see 6.3).

Smooth dynamics. The compressor is a natural, smooth VCA design – a fixed 2:1 ratio, a soft knee, and a fixed 20 ms attack that lets transients through cleanly, with release, threshold, and makeup under your control. It steadies level without squeezing the life out of a performance. Version 1.1 opens up how it listens: RMS or Peak detection, feed-forward or feedback topology, an AUTO release that follows the programme, and optional look-ahead. Left alone, it behaves exactly as before.

Clean control at both ends. The high-pass filter tightens the low end without thinning the sound, clearing rumble and mud before the rest of the chain. The low-pass filter, added in 1.1, does the same job at the top: it takes the edge off a bright source, or sits a track behind something else without dulling it.

In use. Gravity Channel suits vocals, instruments, drums, bass, and buses – anywhere you want a clean, modern front end with optional analog-style character on tap.

Under a plugin analyzer. If you like to inspect plugins with measurement software (a spectrum/phase analyzer), everything you will see is deliberate:

- Inserting Gravity Channel is meant to feel like patching into a console channel, not a bit-transparent bypass – but as of v1.1.0 that character lives entirely in Air and Body. With BLOOM off, the default state, the response is flat to within about 0.04 dB from 20 Hz to 20 kHz and no harmonics are added. (Before v1.1.0, Off kept a faint always-on “iron” character of its own – roughly 0.6% second-harmonic content on a hot (-6 dBFS) signal and a gentle easing of the extreme highs of about 0.5 dB at 18 kHz. That was a side effect of the signal-conditioning filters, not an intentional design goal, and has been removed.) Bypass the plugin when you need a fully clean path regardless of BLOOM setting.
- BLOOM’s harmonic signature is identical at 44.1, 48, and 96 kHz.
- The EQ responds the same at every supported sample rate – 44.1, 48, 88.2, 96, 176.4 and 192 kHz – because each rate’s filter coefficients are designed separately against the same target curve rather than derived from one rate’s. LF and HF hold to 0.02 dB; MID holds to 0.16 dB at its marked positions and 0.55 dB between them, MID being the band whose frequency sweeps continuously and whose intermediate curves are blended rather than stored. Earlier versions moved by up to 3.2 dB (HF) and 2.4 dB (MID) between 48 and 192 kHz. A host running some other rate gets the

nearest of those six tables, which is a safety net rather than a design – the figures above are not claimed there.

- At the default 2x oversampling with the Iron engine, Body at full amount and a hot -6 dBFS input measures 107 dB below the fundamental at worst, and Air at full amount 117 dB below at worst (19 kHz test tone). A tone just above one sixth of the sample rate, whose 3rd harmonic lands just above Nyquist, stays 110 dB or more below the fundamental. The Satin engine measures 141 dB down or lower. With BLOOM off, the default position, aliasing sits around 145 dB below the fundamental at 44.1 kHz. (Before v1.1.0's anti-aliased BLOOM saturator, the worst case was closer to 63 dB down.)
- Reported latency matches the measured delay to within a sample. The oversampling filters are minimum-phase IIR, so the phase trace bends near Nyquist instead of being linear-phase – normal for this filter class, and the price of the lowest possible latency.

3. Quick start

3.1 Install

Gravity Channel ships as a signed installer for each platform. Run it and rescan (or restart) your DAW or Pro Tools afterward so it picks up the new plug-in.

Windows – run `Gravity-Channel-v1.1.0-Windows-Installer.exe` and follow the prompts. It installs the components you choose:

Component	Destination
VST3 plug-in	C:\Program Files\Common Files\VST3\
AAX plug-in (Pro Tools)	C:\Program Files\Common Files\Avid\Audio\Plug-Ins\
User manual (PDF)	Start-menu shortcut

The installer writes to Program Files\Common Files, so it requires **Administrator rights** and will prompt for elevation.

macOS – run the installer package (.pkg) and follow the prompts. It installs:

Component	Destination
VST3 plug-in	/Library/Audio/Plug-Ins/VST3/
Audio Unit (AU)	/Library/Audio/Plug-Ins/Components/
AAX plug-in (Pro Tools)	/Library/Application Support/Avid/Audio/Plug-Ins/
User manual (PDF)	included in the package

The package is Developer ID signed and notarized by Apple, so it opens and installs normally with no Gatekeeper warning and no manual step to clear a quarantine flag.

No standalone application. Gravity Channel shipped a Windows standalone application through v1.0.5. As of v1.1.0 the standalone is discontinued on both platforms – Gravity Channel is a plug-in only (VST3 / AU / AAX), used inside a host. If you used the standalone before, insert the plug-in on a track in your DAW or Pro Tools session instead.

3.2 First sound

1. Insert Gravity Channel on a channel in your DAW or Pro Tools session.
2. Play audio through it. With the defaults the strip passes signal cleanly: EQ is on but flat (a bit-perfect pass-through), the compressor is off, and BLOOM is off (linear and flat, no added harmonics).
3. Try a factory preset (see Section 9) to hear the strip working, then adjust to taste.



Gravity Channel at its default settings, as freshly inserted.

4. Signal flow

On the panel the sections read left to right: INPUT, FILTER, EQ, COMP, VU, BLOOM, OUTPUT. The audio path is:

```
INPUT --> FILTER --> EQ <--> COMP --> BLOOM --> OUTPUT
(trim,      (HPF,      (order swaps (Air/      (trim; on stereo,
phase)      LPF)        via PRE/POST)  Body)      final width / mono)
```

- **VU** is a metering tap, not a processing stage; its IN / OUT / GR selector chooses which point it displays.
- **PRE / POST** (in the COMP section) swaps the EQ and compressor order. POST (the default) runs EQ then compressor; PRE runs the compressor first.
- **Look-Ahead** (Section 6.4) delays the audio path so the compressor's detector hears the signal early. The delay is reported to the host as latency, so other tracks stay aligned automatically.
- BLOOM and the output trim sit at the end of the chain. On stereo tracks the WIDTH and MONO controls apply as the final stereo shaping, after the trim.

Metering taps let you watch the signal at input, gain reduction, and output on the VU (Section 6.5) and on the bar meters (Section 6.8).

5. The header

The header runs across the top of the plugin. Preset management sits on the left; the channel selector, RESET, the Advanced-Mode chevron, and the kebab (three-dot) button sit on the right.

5.1 Presets

- **Preset name** – click to open the preset list (factory presets grouped by category, with any user presets under “User”).
- **◀ / ▶** – step to the previous / next preset.
- **SAVE** – save over the current user preset. If the current preset is a factory preset, or none is selected, SAVE behaves like SAVE AS.
- **SAVE AS** – name and store the current settings as a new user preset.
- **RESET** – return every control to its default (“Init”).

User presets are stored as `.gravpreset` files in your user application-data folder. See Section 9 for the factory list.

5.2 Channel selector

On the right of the header: **◀ CH n ▶** with **RAND** and **AUTO**.

This selects the analog channel index (1 to 72). Each index applies a small, fixed, deterministic component-tolerance variation, so different channels sound very slightly different from one another – useful for giving multiple tracks their own subtle character while staying in the same family.

- **◀ / ▶** step the channel number.
- **RAND** assigns a random channel to this instance.
- **AUTO** assigns the next channel number automatically, so freshly added instances spread across the range like console slots.

On stereo tracks the readout shows a channel pair (for example “L1 R2”).

5.3 Advanced Mode

The double-chevron button toggles between the full view (both racks) and a compact view that shows only the lower controls rack. The chevron points up when both racks are visible (click to collapse) and down when compact (click to expand). The choice is saved with the plugin state.

5.4 Kebab menu

The three-dot button opens the options menu:

- **VU calibration** – 0 VU reference: -18, -20, or -14 dBFS (see Section 6.5).
- **UI scale** – discrete scaling at 100%, 125%, 150%, 175%, and 200%.
- **Comp detector** – RMS or Peak (see Section 6.4).
- **Comp topology** – Feed-Forward or Feedback (see Section 6.4).
- **Look-Ahead (detection)** – Off / 5 / 10 / 20 ms (see Section 6.4). While the topology is Feedback the submenu is headed “Inactive in Feedback mode”; the settings stay selectable so you can always dial it back to Off.
- **Bloom engine** – Iron or Satin (see Section 6.6).
- **Oversampling (Realtime)** – Off / 2x / 4x / 8x (see Section 7).
- **Oversampling (Offline)** – Same as Realtime / Off / 2x / 4x / 8x.
- **Oversampling phase** – Minimum or Linear (see Section 7).
- **Latency** – a read-only line showing the current latency in samples.
- The top line shows the product name and version.

Detector, topology, and Bloom engine are part of the sound, so they are stored in presets. Look-ahead, the two oversampling settings, and oversampling phase are your configuration rather than the preset's, so recalling a preset leaves them alone.

There are no web links in the menu; this manual ships alongside the plugin in the download.

6. Section reference

This section documents every control, with its range, unit, and default. Where a knob’s far-left position acts as an off position, that is noted.



A closer look at the control knobs.

6.1 INPUT

Control (caption)	Range	Unit	Default
Input Trim (TRIM)	-12 to +24	dB	0
Polarity	off / on	–	off

- **TRIM** sets the level going into the strip.
- **Polarity** inverts the signal phase (a small dot below the knob). Use it to fix polarity between mics or against another track.

6.2 FILTER

Control (caption)	Range	Unit	Default
HPF	20 to 250	Hz	20
LPF	1500 to 20000	Hz	20000

- **HPF** is a 12 dB/octave high-pass filter. At the far-left position (20 Hz) it reads **OFF**; turn up to remove low-frequency rumble and mud.
- **LPF** is a 12 dB/octave low-pass filter, added in v1.1.0. At the far-right position (20 kHz) it reads **OFF** – a true bypass, not a filter parked out of the way, so nothing is touched until you turn it down. Bring it down to take the edge off bright sources, or to sit a track behind something else in a busy mix.
- Both filters are drawn on the EQ CURVE display, so you can see where they land against the rest of the chain.



INPUT and FILTER.

6.3 EQ

Control (caption)	Range	Unit	Default
EQ on	off / on	–	on
LF GAIN	-12 to +12	dB	0
LF FREQ	60 / 150	Hz	60
MID GAIN	-12 to +12	dB	0
MID FREQ	220 to 7000	Hz	1000
HF GAIN	-12 to +12	dB	0
HF FREQ	8000 / 16000	Hz	8000

- **LF** is a low shelf. **LF FREQ** switches its corner between 60 Hz and 150 Hz.
- **MID** is a swept bell. **MID FREQ** sweeps the center from 220 Hz to 7 kHz; **MID GAIN** cuts or boosts. The Q follows the gain, and it follows it differently for a boost than for a cut: boosts keep a broad, open skirt at any amount, while cuts tighten as they deepen.
- **HF** is a high shelf. **HF FREQ** switches its corner between 8 kHz and 16 kHz.
- Each shelf carries an opposite-polarity dip in the lower-middle band. It does not sit just inside the corner and it does not scale in a straight line with the dial – both its frequency and its depth follow a measured law, which is what gives the shelves their curve.
- The EQ on-switch bypasses the whole EQ section when off. With all three GAIN knobs at 0, the EQ is a bit-perfect pass-through whether it is on or off.

What the numbers mean (v1.1)

Every printed value on the EQ is a **measurable feature of the response**, not a name for an internal coefficient. Measured at 48 kHz, with a 1/24-octave average over 20 Hz - 20 kHz, on that band's own curve:

Printed	Means exactly
LF FREQ / HF FREQ	the half-gain point : where the shelf has reached half of its dB
MID FREQ	the center of the bell (its peak or trough)
LF / MID / HF GAIN	the extremum : the most the band does anywhere

So LF at +6 dB really reaches +6.0 dB, and it reaches +3.0 dB at 60 Hz. Gravity holds this to within 1 % in frequency and 0.05 dB in gain at **every** position of every dial, and a machine gate proves it on every build.

Measured at 48 kHz with the console-variance model at unity – that is how the calibration itself is judged. The signal path you hear is never at unity: the per-channel component tolerance scales each band's gain

by up to 1.5 %, so a channel other than a nominal one can sit a further ± 0.18 dB away at a ± 12 dB setting, and the CHANNEL selector moves it. That spread is the console model working as intended; the 0.05 dB figure is the accuracy of the calibration, not of one particular channel. Frequencies stay inside 1 % either way (± 0.3 %).

Designed, not measured

Gravity's EQ shapes are built from measurement, but not every one of them could be. These are designed, and are called out so you know which is which:

- **LF 150 Hz** – placed by interpolating the law between the two measured positions on either side of it.
- **MID between its reference positions** – the sweep is continuous; the measurements behind it are not. Positions between them are interpolated.
- **MID above about 6.8 kHz** – the top of the sweep is an extrapolation of roughly 3 %.
- **HF 16 kHz** – the shelf geometry is Gravity's own. The shape it would otherwise inherit is so gentle that it does not finish inside a 48 kHz band, which is incompatible with printing "16 kHz" honestly. Its opposite-polarity dip does follow the measured law.
- **HPF** is unchanged from v1.0.



EQ.

6.4 COMP

Control (caption)	Range	Unit	Default
Comp on	off / on	–	off
Comp Threshold (THRESH)	-50 to +20	dB	+20
Comp Release (RELEASE)	50 to 560, then AUTO	ms	200
Comp Makeup (MAKEUP)	-6 to +20	dB	0
Comp SC HPF (SC HPF)	0 to 300	Hz	0
Comp Pre-EQ (PRE / POST)	POST / PRE	–	POST
Comp Stereo Link (LINK)	off / on	–	off
Detector (kebab menu)	RMS / Peak	–	RMS
Topology (kebab menu)	Feed-Forward / Feedback	–	Feed-Forward
Look-Ahead (kebab menu)	Off / 5 / 10 / 20	ms	Off

The compressor is a smooth VCA design with a fixed 2:1 ratio, a soft knee, and a fixed 20 ms attack. You set threshold, release, and makeup on the panel; the detector, topology and look-ahead live in the kebab menu (section 5.4) because they are set once for a source and then left alone.

- **THRESH** sets where compression begins. At the far-right (+20 dB) the compressor is effectively open (no gain reduction). v1.1.0 extended the bottom of the range from -30 dB to **-50 dB**, so quiet material can be reached without first pushing gain into it.

- **RELEASE** sets how quickly gain recovers (a dual-stage recovery: quick at first, then a gentle settle). The far-right position is **AUTO**: instead of a fixed time, the release follows the programme, blending the fast and slow envelopes from a smoothed history of the gain reduction actually applied. Busy, varied material tends to sit better on AUTO; a steady source is often easier to place by hand.
- **MAKEUP** adds level to compensate for gain reduction.
- **SC HPF** high-passes the detector sidechain so low frequencies drive the compressor less; 0 Hz means off. It affects detection only, never the audio. As of v1.1.0 it is a 2nd-order Butterworth (12 dB/octave), matching the reference console family's own sidechain filter; earlier versions used a gentler 1st-order (6 dB/octave) slope. At 0 Hz the two are identical.
- **PRE / POST** places the compressor before (PRE) or after (POST) the EQ.
- **LINK** links left/right detection on stereo tracks so the image stays centered. The LINK button sits in the COMP section's title bar, next to PRE/POST, and appears on stereo tracks only.

Detector, topology and look-ahead (v1.1.0)

These three sit in the kebab menu. All are free – there is no wrong combination, only ones that suit a source better.

- **Detector – RMS or Peak.** RMS (the default, and the only behaviour before v1.1.0) hears loudness: it rides the body of a performance and lets short transients through. Peak hears the transient itself and catches it. Vocals and bass usually want RMS; a drum bus you are trying to tame usually wants Peak.
- **Topology – Feed-Forward or Feedback.** Feed-Forward (the default, and the pre-v1.1.0 behaviour) detects from the input, so the amount of gain reduction is decided before the signal is touched. Feedback detects from the compressor's own previous output – the arrangement used before VCA designs became common, and the signature of the console family this strip is built around. Because the detector only ever sees already-compressed signal, it becomes softer and more forgiving the harder you push it, rather than more aggressive.
- **Look-Ahead – Off, 5, 10 or 20 ms.** The audio is delayed while the detector hears the signal early, so a fast transient is already being handled by the time it arrives. Reported to the host as latency, so your DAW compensates automatically. **Inactive in Feedback mode** – a feedback detector cannot look ahead at an output that does not exist yet, so the setting has nothing to act on there.



COMP.

6.5 VU

The analog VU meter has an **IN / OUT / GR** source selector.

Control	Options	Default
VU Source	In / Out / GR	In
VU Calibration	-18 / -20 / -14 dBFS	-18 dBFS

- **IN / OUT / GR** chooses what the needle shows: input level, output level, or gain reduction.

- **VU Calibration** sets the 0 VU reference point, chosen from the kebab menu.
- The meter lamp goes dark while Gravity is bypassed by the host: the dial is then lit only by the room and the needle casts no shadow. The needle keeps showing IN / OUT while bypassed; GR reads 0.



VU.

6.6 BLOOM

Control (caption)	Range	Unit	Default
Bloom (OFF / AIR / BODY)	Off / Air / Body	–	Off
Amount (AMOUNT)	0 to 100	%	30
Bloom engine (options menu)	Iron / Satin	–	Iron
Width (WIDTH) – stereo only	0 to 200	%	100
Mono Maker (MONO) – stereo only	20 to 500	Hz	20

BLOOM is GANUE's harmonic output stage. It adds gentle, program-dependent second- and third-harmonic content with a tonal tilt:

- **AIR** tilts toward the highs – sparkle and openness (vocals, acoustic, snare).
- **BODY** tilts toward the lows – weight and warmth (bass, drums, low male vocal).
- **OFF** removes the added harmonics: the output stage is linear and flat, no coloration.
- **AMOUNT** sets how much harmonic character is applied.

BLOOM has two engines, chosen from the kebab menu (**Bloom engine**):

- **Iron** (default) – dense, driven, harmonically rich. The original BLOOM.
- **Satin** – a transparent sheen: a gentle tonal tilt with level-proportional, low-order harmonics that stay well below Iron's. With Satin selected, the caption reads e.g. **AMOUNT - AIR (SATIN)**. Switching engines crossfades (no click); latency is the same. Like Oversampling, the engine is not automatable; it is saved with sessions and presets.

On stereo tracks the BLOOM bay also shows the final stereo-shaping controls (they are hidden on mono tracks):

- **WIDTH** narrows (below 100%) or widens (above 100%) the stereo image; 100% is unchanged, 0% is mono.
- **MONO** (Mono Maker) collapses everything below its cutoff to mono for a tight low end. At the far-left position (20 Hz) it reads **OFF**.



BLOOM.

6.7 OUTPUT

Control (caption)	Range	Unit	Default
Output Trim (TRIM)	-60 to +10	dB	0

- **TRIM** is the final clean output level. At the far-left position (-60 dB) it reads **-inf** and mutes the output.

6.8 Displays (upper rack)

The upper rack holds three recessed screens:

- **EQ CURVE** – the live EQ response.
- **GR HISTORY** – a scrolling history of gain reduction, with the current value shown at the top. (The LINK button lives in the COMP section’s title bar, lower rack – see 6.4.)
- **IN / GR / OUT** – bar meters for input level, gain reduction, and output level.

7. Oversampling

Oversampling runs the nonlinear BLOOM stage at a higher internal sample rate to reduce aliasing. It is set from the kebab menu and is not automatable, because changing it changes the plugin's latency.

Setting	Options	Default
Oversampling (Realtime)	Off / 2x / 4x / 8x	2x
Oversampling (Offline render)	Same as Realtime / Off / 2x / 4x / 8x	Same as Realtime
Oversampling phase	Minimum / Linear	Minimum

Setting	Off	2x	4x	8x
Reported latency (samples, any sample rate)	0	19	13	11
Reported latency with Phase: Linear	0	140	141	142

The COMP Look-Ahead adds its own delay on top of these figures (see 6.4); the plugin reports the sum to the host.

Oversampling phase. Minimum (default) uses minimum-phase filters: the lowest latency, with the gentle high-frequency phase bend described below. Linear uses linear-phase filters throughout the oversampling: the clean part of the signal becomes a pure delay (0 degrees of phase at every frequency after the host's latency compensation). Use Linear when Gravity runs in parallel with a dry copy of the same source (parallel processing, mixing an insert with an untreated duplicate, multi-mic phase work) or when you check it against a reference in a phase analyzer. The price is latency (about 3.2 ms at 44.1 kHz instead of 0.3-0.4 ms) and a little more CPU with BLOOM engaged; for normal insert use, Minimum is the better choice. Switching phase while audio plays crossfades cleanly, but the host re-aligns the track to the new latency at that moment.

- The **realtime** setting applies during normal playback. The default is 2x, which is the shipped sound.
- The **offline** setting applies during bounce/render. "Same as Realtime" keeps the realtime quality. The default 2x is the recommended setting; 4x and 8x are anti-aliased too (8x with a lighter form of the same method) and cost more CPU.
- Higher oversampling generally reduces aliasing at the cost of CPU; with the Iron engine the BLOOM anti-aliasing runs at every setting (2x, 4x and 8x; see the release notes). The plugin reports its latency to the host when the setting changes. The oversampling filters are minimum-phase (lowest latency). The default 2x has the highest latency (19 samples) because it also keeps BLOOM's harmonic path exactly in time with the clean path and runs a steep low-pass that stops harmonics from folding back below Nyquist (flat to 20 kHz; at 44.1/48 kHz the band above 20 kHz is removed while BLOOM is engaged). The latency never changes with the BLOOM mode or the engine.
- With BLOOM Off and oversampling on, the plugin's BLOOM stage is a pure delay of the reported latency (0 degrees of phase at every frequency). Switching BLOOM Off to Air/Body (or back) while audio plays crossfades for 30 ms; at 44.1/48 kHz a steady tone near 14-16 kHz can briefly dip during that fade (see the release notes).

8. User interface

- **Discrete scaling.** The panel is drawn at a fixed base size and scaled as a whole. Choose 100%, 125%, 150%, 175%, or 200% from the kebab (UI size). There is no free drag-resize.
- **Advanced (compact) mode.** The header chevron collapses the upper display rack, leaving only the controls. Handy on small screens or when you do not need the meters.
- **Knobs.** Drag a knob up (or right) to turn it up, or roll the mouse wheel over it; double-click it (or Alt+click) to return it to its default. For fine adjustment, hold **Ctrl** (Windows) or **Cmd** (macOS) while dragging or rolling the wheel: the value then moves in exact steps of what the caption shows – 0.1 dB on the TRIM, EQ gain, THRESH and MAKEUP knobs; 1 Hz on HPF, SC HPF and MONO; 1 Hz below 1 kHz and 10 Hz above on MID FREQ and LPF; 1 ms on RELEASE; 1 % on AMOUNT and WIDTH – one step per wheel notch. An OFF, AUTO or -inf end is one step. You can press or release the key in the middle of a drag.

9. Presets

9.1 Managing presets

Use the header buttons to step through, save, or reset presets (Section 5.1). Saved user presets sit alongside the factory list.

9.2 Factory presets

Factory starting points (from `Source/gui/FactoryPresets.h`):

Basic: Init, Transformer Glue

Vocals: Lead Vocal, Vocal Sparkle, Male Vocal Body, Rap Vocal, Backing Vocals, Spoken Word

Drums: Kick, Snare, Overheads, Drum Bus, Room Mics, Toms

Bass: Bass DI, Bass Amp, Sub Bass

Guitar: Electric Guitar, Acoustic Guitar

Keys: Grand Piano, Synth, Strings, Brass

Bus: Mix Bus, Master Sheen, Wide Mix, Mastering Polish

Utility: Clean Pre, Heavy Iron, Air Lift

FX: Lo-Fi Colour

Thirty-one in total; v1.1.0 added ten, filling out the categories the first set left thin and introducing FX.

These are starting points, not finished settings – adjust to your source.

Recalling a preset restores the sound: every panel control plus the detector, topology, and Bloom engine. It leaves your configuration alone – look-ahead, the two oversampling settings, oversampling phase, and the UI scale stay where you put them.

10. Specifications, credits, and license

Specifications

- Formats: VST3 on both systems; AU on macOS; AAX (Pro Tools) on both systems. No standalone application.
- Platforms: macOS and Windows.
- Channels: mono and stereo (stereo width / mono-maker on stereo tracks).
- UI scaling: 100% to 200% (discrete).
- Oversampling: up to 8x, separate realtime and offline settings.
- Latency: zero unless Look-Ahead or oversampling is engaged; whatever delay they introduce is reported to the host, and the kebab menu shows the current figure in samples.

Credits

- Gravity Channel is designed and built by GANUE Audio.
- KVR Developer Challenge 2026 entry.

License

Gravity Channel is free. There is no license key, no iLok, and no activation. You may use it in personal and commercial productions. All panel and control artwork is original.

Restraint, by design.