Records

USER MANUAL

VERSION 1.0 · MACOS

P-Quell

INTELLIGENT DRUM GATE & DE-BLEED

Keep the drum.
Reduce the spill.
Stay musical.



VST3 · Audio Unit · Standalone · macOS 10.13 or later, Intel & Apple Silicon

A Kenya-based Páa Records product

WELCOME

A gate that knows your drum from the spill.

Every close mic hears the whole kit. A classic gate only knows **loud** from **quiet**, so a crashing hi-hat opens the snare gate and a soft ghost note stays shut. P-Quell listens the way you do: it judges **what** each hit is, opens only for your drum, then cleans the spill out of the ring **while the drum is still sounding**, so you hear exactly what P-Quell is deciding as it works.

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HOW P-QUELL WORKS

1 · LISTEN

Judge every hit

The detector hears the track a few milliseconds **ahead** of the audio. For each onset it weighs four cues: level, how sharp the attack is, its tone across six bands, and your learned drum profile. Your drum is accepted; spill that is loud enough to cross the threshold is rejected.

2 · GATE

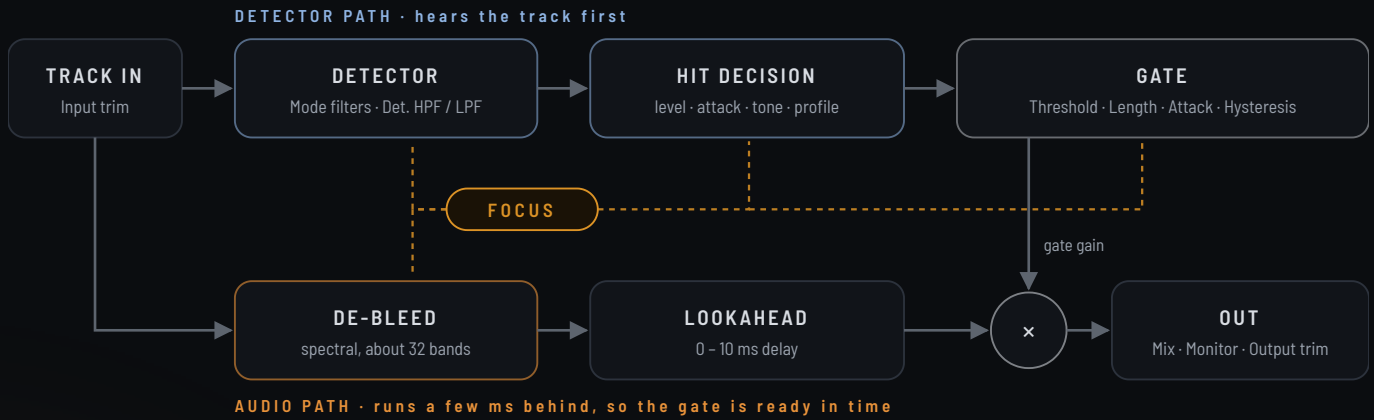
Open before the hit

An accepted hit opens the gate. Because the audio runs slightly behind the detector, the gate starts opening **before** the transient arrives, so the attack is never clipped. Between hits the track is turned down by REDUCTION.

3 · CLEAN

De-bleed the ring

While the drum rings, DE-BLEED works band by band. It learns a "spill print" while the gate is closed and knows how your drum decays, so it turns down cymbals and neighbours in the tail and keeps the drum's body and crack.



One knob, FOCUS, sets how strict the detector is, how hard De-Bleed works and how long the gate stays open. The reported latency (about 10.7 ms plus the lookahead) is compensated by your DAW, so P-Quell stays in time with the other mics.

01 Quick start

From a raw close mic to a clean drum in about a minute. Loop a busy part of the song, a chorus with cymbals, and follow along.

1. **Insert P-Quell on the close mic**
   Put it first in the chain of the snare, kick or tom track, before EQ and compression, so they work on the cleaned drum.

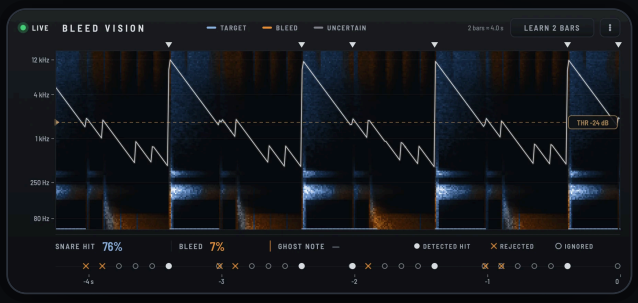
2. **Choose the mode or a preset**
   Pick the tab that matches the mic: `SNARE TOP` `SNARE BOTTOM` `KICK` `TOMS`. Or choose a preset from the bar at the top; it sets the mode for you.

3. **Press `LEARN 2 BARS` while it plays**
   P-Quell listens for two bars at your song's tempo, sets the threshold between your hits and the spill, and learns what your drum sounds like.

4. **Read Bleed Vision**
   Every real hit should get a white dot ● ; loud spill gets an orange ✕. If a real hit is missed, drag the dashed threshold line down a little; if spill gets through, drag it up.

5. **Shape the gate**
   Set `REDUCTION` for how quiet the spill should be (−20 dB sounds natural; −40 dB is very tight) and `LENGTH` so the drum rings out naturally.

6. **Turn `FOCUS` to taste**
   Left keeps every bit of the drum; right removes as much spill as possible. Press `COMPARE` to hear the untreated drum at the same loudness, so "louder" never fools you.



Bleed Vision on a snare-top mic: snare hits are white dots, hi-hats and cymbals that crossed the threshold are orange crosses, quiet onsets below it are hollow circles.



The main controls. Double-click any knob to return it to its default; double-click a value box to type a value.

FIRST TIME ON THIS COMPUTER?

P-Quell asks for your pass once, with an internet connection. Until it is activated, audio passes through untouched and a banner says so. The Install & Activation Guide in your download walks you through it.

WHERE TO PUT IT

On a mono or stereo track, as an insert. For the steadiest triggering on a snare bottom or a tom, you can feed another mic into P-Quell's sidechain and set `SIDECHAIN` to External (see page 6).

02 The window at a glance

Everything is on one screen: what P-Quell hears at the top, what it does at the bottom, and how much it changes on the right.



1 Preset bar
‹ › step through the chosen category; click the name for the full list and to save.

2 A / B, Copy, Revert, Settings
Two settings to compare; ↶ goes back to the loaded preset; ⚙ sets the window size.

3 Bypass
Click-free and latency compensated, so nothing jumps in time.

4 Bleed Vision
The engine's own view of drum, spill and every decision. Page 5.

5 Learn 2 Bars
Sets the threshold and learns your drum in two bars. Page 9.

6 Bleed Reduction
Drum and spill before and after, with the dB of spill removed. Page 7.

7 Target vs Spill
Live level of the drum against the spill on the input.

8 Mode
Snare Top, Snare Bottom, Kick or Toms: what P-Quell listens for.

9 Threshold · Reduction · Length
The gate: when it opens, how far it closes, how long it rings.

10 Ghost & Sidechain
Open for quiet drum-like notes; listen to another track.

11 Focus
One move from drum preservation to bleed removal. Page 7.

12 De-Bleed · Mix
Spectral cleaning in the ring; blend with the untreated drum.

13 Advanced
Lookahead, attack, hysteresis, detector filters, trims, monitor. Page 8.

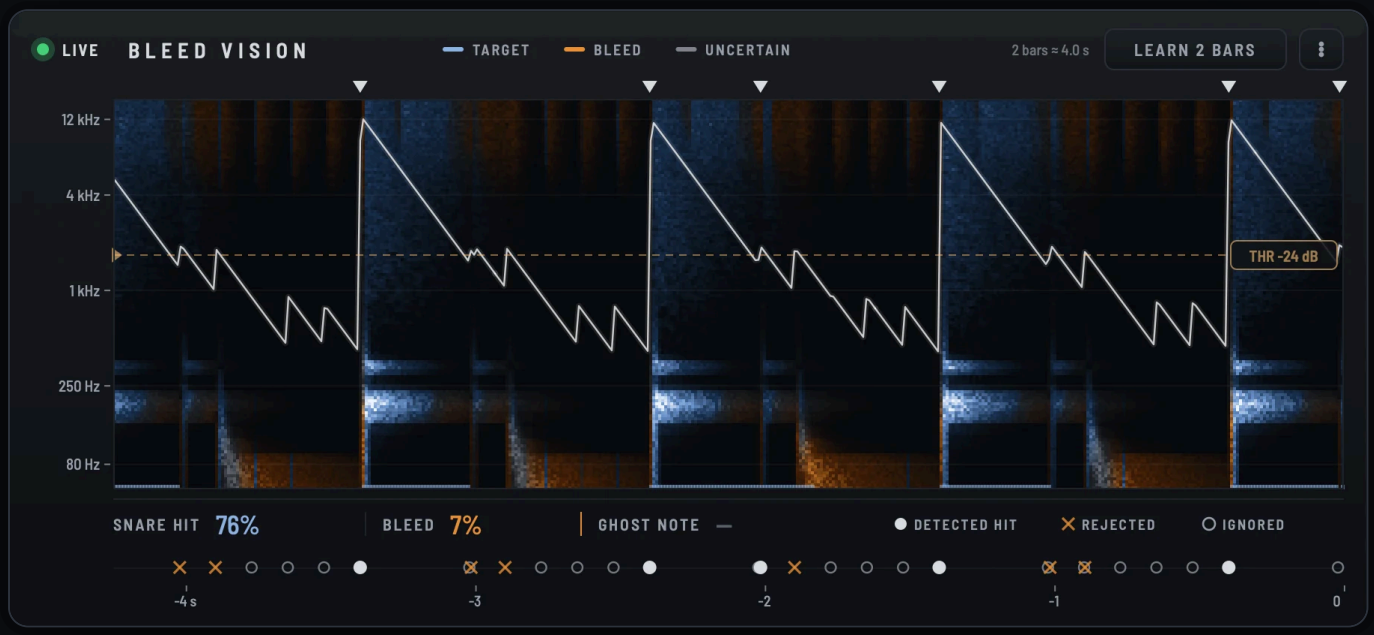
14 Input · Gain Reduction · Output
Levels in and out, and how much the gate is turning down now.

15 Learn · Reset · Undo · Redo · Compare
Learn My Drum, P-Quell's own history, matched-loudness compare.

16 Preset category & menu
Filter presets by style; ≡ holds presets, profile and About.

03 Bleed Vision

Not an ordinary spectrogram. Bleed Vision is painted by P-Quell's own judgement, so you **see** what it thinks is drum and what it thinks is spill, and why each hit opened the gate or didn't.



COLOURS AND LINES

Blue · Target
Energy P-Quell hears as your drum.

Orange · Bleed
Energy that sounds like spill: hats, cymbals, the other drums.

Grey · Uncertain
Could be either. De-Bleed treats it gently.

White trace · Detector level
What the detector hears after the mode filters. Hide it from the ⋮ menu.

Dashed line · Threshold
Drag it up or down; the tag shows the value. Same as the THRESHOLD knob.

Triangles · Gate opened
Each accepted hit; the thin blue strip along the bottom shows when the gate is open.

THE HIT ROW

Detected hit
Your drum, above the threshold. The gate opens.

Rejected
Crossed the threshold but sounded like spill. The gate stays shut.

Ignored
An onset below the threshold, usually spill or room.

Ghost
A quiet, drum-like hit up to 14 dB under the threshold, accepted because GHOST is on.

READOUTS AND OPTIONS

- **Snare hit / Kick hit / Tom hit %**: how sure P-Quell was that the last hit was your drum. **Bleed %**: the share of spill in what the mic hears. **Ghost note %**: confidence of the last ghost note, when Ghost is on.
- **Live / Idle** shows whether audio is flowing. **"2 bars ≈ 4.0 s"** is how long LEARN 2 BARS will listen at your song's tempo.
- The **⋮ menu** sets the time window (2, 4 or 8 seconds), freezes the display so you can study a moment, and shows or hides the detector level.

04 The main controls



MODE — Snare Top · Snare Bottom · Kick · Toms

Tells P-Quell which drum the mic is on: which frequencies the detector listens to, which bands count as drum and how fast that drum naturally decays. Snare Top listens around the body and crack, Snare Bottom to the wires, Kick to the lows, Toms to the low-mids.

TIP Match the mic, not the problem: a kick mic is Kick even if the snare is what leaks into it.

THRESHOLD — −60 … 0 dB · **default −24 dB**

The detector level a hit must reach to open the gate. Set it just below your softest real hit and above the spill. You can also drag the dashed line in Bleed Vision, or let LEARN 2 BARS set it.

REDUCTION — 0 … −60 dB · **default −30 dB**

How far the spill is turned down while the gate is closed. 0 dB means no gating at all (De-Bleed only). Around −15 to −25 dB keeps a natural kit sound; −40 dB and beyond is tight and modern.

LENGTH — 10 ms … 1 s · **default 120 ms**

How long the drum rings on after it falls below the threshold (hold plus release). Snares sit around 100–150 ms, kicks 120–200 ms, toms 300–650 ms. Focus trims it slightly: a little longer on the left, a little shorter on the right.

GHOST — On / Off · **default Off**

Also opens for quiet, drum-like hits up to 14 dB below the threshold, but never for spill. Turn it on for ghost notes, gospel chops, rim work and brushes.

SIDECHAIN — Internal · External

Internal listens to this track. **External** listens to the DAW's sidechain input instead, for example the snare top mic feeding the snare bottom's P-Quell. Only the detection moves; P-Quell still processes this track.

DE-BLEED — 0 … 100 % · **default 65 %**

Frequency-selective spill reduction while the drum rings and between hits. It keeps the bands your drum lives in and turns down the ones that sound like spill, smoothed over about 32 bands so it never sounds chirpy. Transients are protected. At 0 % P-Quell is a pure gate.

TIP If the ring starts to sound watery, back De-Bleed off before you touch anything else.

MIX — 0 … 100 % · **default 100 %**

Blends the processed drum with the untreated one, perfectly in time. Around 70–85 % gives a "parallel gate": the punch of a tight gate with some of the room left in.

05 Focus

The big knob in the middle is P-Quell's personality. One move sets three things together, so you never have to balance them by hand.

← DRUM PRESERVATION

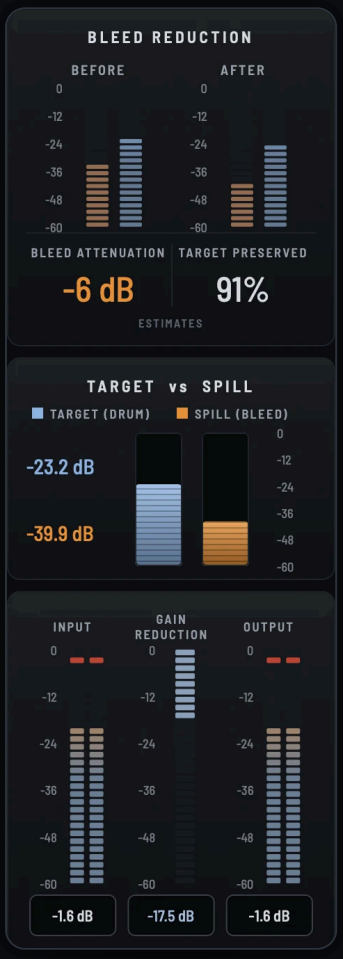
Lenient detection: anything drum-like opens the gate. Gentle De-Bleed. The gate stays open a little longer. Near 0 % P-Quell behaves much like a classic gate.

BLEED REMOVAL →

Strict detection: a hit must really sound like your drum. A band must stand clearly above the spill to be kept. The gate closes a little sooner.

- **Start at 50 %** (the default) and move it while the loop plays. Most snares settle between 45 and 65 %, kicks between 50 and 70 %.
- Go **left** when soft hits are missed or the tail sounds choked; go **right** when cymbals or a loud stage still leak through.

06 Meters



BLEED REDUCTION

before · after

Two pairs of bars: spill and drum as the mic heard them, and after P-Quell. A good setting drops the orange bar a long way and leaves the blue one almost where it was.

BLEED ATTENUATION · TARGET PRESERVED

Bleed attenuation is how much quieter the spill is now (–6 dB, –12 dB…). **Target preserved** is how much of your drum's energy is kept. Aim for lots of the first without losing the second.

TARGET VS SPILL

The live level of your drum against the spill on the input. A small gap means a leaky mic: lean on De-Bleed and Focus rather than a high threshold.

INPUT · GAIN REDUCTION · OUTPUT

Peak levels in and out, with readouts below. Gain Reduction shows how far the gate is turning the track down right now: it falls to zero on every hit and sinks to your Reduction between them.

WHY "ESTIMATES"?

Without a clean recording of the drum alone, no plugin can measure true spill. These numbers are the engine's best estimates, steady enough to compare settings. Let your ears make the final call.

07 Advanced

Press **ADVANCED** for the fine controls. The presets already set these sensibly; reach for them when one hit or one spill won't behave.



LOOKAHEAD

0 · 1 · 2 · 5 · 10 ms · **default 2 ms**

Lets the gate open before the hit arrives. It adds latency, which your DAW compensates; the drawer shows the total (12.7 ms at 48 kHz with 2 ms). Presets never change it. Use 0 ms when you play live through P-Quell.

MONITOR

Output · Delta · Detector

Output is the processed drum. **Delta** plays only what P-Quell removes: it should sound like spill, never like your drum. **Detector** plays what the detector listens to.

ATTACK

0.05 … 10 ms · **default 0.5 ms**

How fast the gate opens. With lookahead the ramp starts before the hit. Short keeps the crack; 1–2 ms softens a click on a deep kick.

HYSTERESIS

0 … 12 dB · **default 6 dB**

How far below the threshold the drum may fall before the hold timer starts. More hysteresis stops a gate from chattering on a slow tail.

DET. HPF · DET. LPF

20 Hz – 2 kHz · 1 – 20 kHz · **Off**

Extra filters on the detector only; the audio is untouched. A high-pass at 150–250 Hz keeps the kick from opening a snare gate; a low-pass at 1–2 kHz keeps hats away from a kick gate.

INPUT · OUTPUT

−24 … +24 dB · **default 0 dB**

Trims before detection and after processing. Input moves the track against the threshold, so set it first and the threshold after.

LEARNED DRUM PROFILE

Clear profile

Shows whether a profile is in use and from how many hits. **CLEAR PROFILE** forgets it.

08 Listening

COMPARE

Plays the untreated drum, turned down to the processed loudness. Louder always sounds "better", so this is the honest A/B.

MONITOR · DELTA

The fastest way to set Focus and De-Bleed: turn them up until you hear drum in the Delta, then back off a touch.

BYPASS

The power button, top right. Click-free, and it keeps the latency so the drum never jumps against the other mics.

09 Learning your drum

P-Quell can learn the tone of your drum in your room. A learned profile becomes a fifth cue for the detector and a guide for De-Bleed, and it is saved with your session.

LEARN 2 BARS in Bleed Vision

1. Play a normal groove with the usual spill: a verse or chorus.
2. Press **LEARN 2 BARS**. It shows **LISTENING 42%** while it listens for two bars at the DAW's tempo (120 BPM in 4/4 if the DAW doesn't say).
3. P-Quell sets the threshold between your hits and the spill and learns the profile. Press again to cancel; **UNDO** takes it back.

LEARN Learn My Drum, in the footer

1. Find a passage where the drum is clear: a soundcheck, a solo hit, a fill.
2. Press **LEARN**. It lights and counts the hits: **LEARNING · 12**.
3. Press it again to finish. Only the profile changes; your threshold stays where you set it.

On a kick mic with a very loud snare in it, Learn 2 Bars can set the threshold a little low. Glance at the dashed line afterwards and raise it if snare hits get through.

10 Presets & workflow

- **32 factory presets** in eight styles. Pick a style with **PRESET CATEGORY**, then step with ‹ ›. Presets never change Lookahead, so the latency stays put.
- **Your presets**: click the preset name, then Save preset as…. They live in `~/Music/P-Quell/Presets`, under the **USER** category.
- **A / B** holds two complete settings. **COPY** copies the current one to the other; ↶ reverts to the loaded preset.
- **UNDO** **REDO** are P-Quell's own history (200 steps), separate from your DAW's. **RESET** returns every control to its default.
- **Window size**: ⚙ offers 70–150 %, or drag the corner (60–160 %).
- **Knobs**: drag up and down; double-click to reset; double-click the value to type one. P-Quell never steals the keyboard, so Space and ⌘Z still reach your DAW.

STUDIO

Studio Snare — Tight · Studio Snare — Open · Snare Bottom — Wires · Studio Kick — Punch · Studio Kick — Long Boom · Rack Tom — Natural · Floor Tom — Big Ring · Gate Only — Classic · De-Bleed Only — No Gating

WORSHIP / LIVE

Worship Snare — Clean · Live Snare — Loud Stage · Worship Kick — Soft Player · Live Kick — Stage Spill · Live Toms — Cymbal Heavy · Worship Toms — Swells

ROCK

Rock Snare — Crack · Rock Kick — Tight · Rock Toms — Huge

POP

Pop Snare — Polished · Pop Kick — Clean Sub

GOSPEL

Gospel Snare — Chops & Ghosts · Gospel Kick — Fast Feet · Gospel Toms — Fills

JAZZ

Jazz Snare — Brushes · Jazz Kick — Feathered

METAL

Metal Kick — Double Bass · Metal Snare — Blast · Metal Toms — Machine Gun

AFRO

Afrobeats Snare — Rim & Ghosts · Bongo Flava Kick — Round · Benga Snare — Bright · Amapiano Kick — Log Drum Safe

11 Recipes

Starting points that work on most kits. Load the preset, press LEARN 2 BARS, then adjust with your ears.

Snare top in a full kit — SNARE TOP

Studio Snare — Tight

- Reduction –25 to –35 dB, Length 110–150 ms.
- Focus 50–60 %. Kick opening the gate? Det. HPF 150–200 Hz.
- Ghost notes in the part? Turn GHOST on.

Snare bottom — SNARE BOTTOM

Snare Bottom — Wires

- Length a little longer than the top mic, so the wires sizzle out.
- For rock-steady triggering, send the snare top to the sidechain and set Sidechain to External.

Kick — KICK

Studio Kick — Punch

- Reduction –40 dB, Length 120–200 ms (longer for a boomy kick).
- Hats or snare opening it? Det. LPF 1–2 kHz and Focus to the right.
- A click on the start of a deep kick: Attack 1 ms.

Toms — TOMS

Rack Tom — Natural · Floor Tom — Big Ring

- Length 300–650 ms so the toms ring like toms.
- De-Bleed 55–80 % cleans cymbals out of the ring.
- A cymbal-heavy player: Live Toms — Cymbal Heavy, Focus 65–75 %.

Loud stage, worship or live — ANY MODE

Live Snare — Loud Stage · Live Kick — Stage Spill

- Focus 65–75 % and De-Bleed 75–80 % for wedges and cymbals.
- Monitoring live through P-Quell? Lookahead 0 ms.

Ghosts, chops and rim work — SNARE TOP

Gospel Snare — Chops & Ghosts · Afrobeats Snare — Rim & Ghosts

- GHOST on, Length 90–120 ms, Hysteresis about 5 dB.
- Missing soft notes? Focus left before lowering the threshold.

Clean, but never gate — ANY MODE

De-Bleed Only — No Gating

- Reduction 0 dB, De-Bleed 75 %: the room stays, the cymbals in the drum go.
- Great on overhead-heavy, roomy recordings.

Old-school gate — ANY MODE

Gate Only — Classic

- De-Bleed 0 %, Focus 0 %: a fast, honest gate with lookahead.
- Add De-Bleed slowly to hear what it brings.

12 Troubleshooting

YOU HEAR	TRY
Some real hits don't open the gate	Look for a ✕ or ○ on them in Bleed Vision. Drag the threshold down a little, move Focus left, or turn Ghost on for soft notes.
Hi-hat or cymbals open the snare gate	Raise the threshold slightly, move Focus right, set Det. HPF to 150–250 Hz, and teach P-Quell your drum with Learn.
The gate chatters on the tail	Raise Hysteresis to 8–10 dB and lengthen Length.
The drum sounds choked	Longer Length, less Reduction (–20 dB), Focus a little left.
The attack is soft or clicks	Lookahead 2–5 ms. Shorter Attack for crack; 1–2 ms if a deep kick clicks.
The ring sounds watery	Lower De-Bleed first, then move Focus left. Check Monitor › Delta: you should hear spill, not drum.
Out of time with the other mics	Make sure your DAW's plug-in delay compensation is on (it is by default in most DAWs). Bypass keeps the latency, so a bypassed P-Quell stays in time too.
Audio is unprocessed and a banner shows	P-Quell isn't activated on this computer yet. Click the banner and enter your pass; see the Install & Activation Guide.

SPECIFICATIONS

Formats	VST3, Audio Unit, Standalone app	**Sample rates**	44.1 to 192 kHz
System	macOS 10.13 or later; Intel and Apple Silicon	**Latency**	about 10.7 ms + lookahead, reported to the DAW
Channels	Mono or stereo, optional sidechain	**Presets**	32 factory; yours in `~/Music/P-Quell`

SUPPORT

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SHOP & DOWNLOADS
shop.paddydanielmusic.com

Tell us your macOS version, your DAW and what you hear; a screenshot of Bleed Vision helps a lot.

One pass activates one computer. P-Quell is made with care by Páa Records, a Kenya-based label. © 2026 Páa Records.

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