Jay Kumar - BIND1 (Develop) - Max/MSP Patch Documentation

Patch file: **jaykumar_BIND1_patch.maxpat** | Date: 2026-01-11

1. Overview

This patch is a stereo audio effect for conceptual work in BIND1. It creates rhythmic recontextualisation by combining a rhythm gate, a low-pass filter, and a feedback delay, then blending the processed signal with the original using Wet/Dry. It can be used in real time or recorded as multiple passes for arrangement.

2. Signal Flow

Input (L/R) -> **Rhythm Gate** -> **SVF Low-pass Filter** -> **Delay with Feedback** -> **Wet/Dry Mix** -> **Output (L/R)**.

The dry input is preserved in parallel. The wet path is the delayed signal. Wet/Dry sets how much of each reaches the output.

3. Controls (Presentation Mode)

Gate Rate (Hz)	0.125 to 16	Sets gate speed using a phasor-driven square envelope.	Try 4 to 10 Hz for 16th-note style motion at mid tempos.
Gate Depth	0 to 1	Blends between no gating (0) and full gating (1).	0.3 to 0.6 is subtle, 0.8+ is hard cuts.
Filter Cutoff (Hz)	80 to 12000	Low-pass tonal shaping before the delay.	Automate slowly for evolving brightness and tension.
Resonance	0.5 to 4	Emphasizes frequencies near the cutoff.	Keep moderate if the tone gets sharp.
Delay Time (ms)	10 to 800	Sets the echo time (tapout).	90 to 180 ms for slap, 250 to 450 ms for rhythmic space.
Feedback	0 to 0.95	Feeds delayed signal back into the delay input.	Above 0.75 can build quickly. Reduce Feedback or Wet/Dry.
Wet/Dry	0 to 1	Mix between dry input and processed delay output.	0.2 to 0.5 is subtle, 0.6+ is obvious transformation.

4. Quick Start

1. Open the patch in Max 8 or later. Presentation Mode shows the main controls.
2. Route a stereo audio signal into inlet~ L and inlet~ R.
3. Set Wet/Dry to 0.3 to start.
4. Set Gate Rate to 6 to 10 Hz and Gate Depth to 0.6 to 0.9 for rhythmic cuts.

5 Shape tone with Filter Cutoff (try 800 to 4000 Hz) and Resonance (0.8 to 1.6).

6 Add motion with Delay Time (120 to 350 ms) and Feedback (0.2 to 0.6).

7 Record automation or multiple takes and choose the best pass for arrangement.

5. Operation Notes and Safety

- Feedback can build quickly at high values. If the delay starts to ring, reduce Feedback and lower Wet/Dry.
- Resonance emphasizes narrow bands. Use moderate settings if the tone becomes sharp.
- If you hear clicks from gating, reduce Gate Depth or slow Gate Rate.
- For submission renders, ensure the exported audio peaks do not exceed -6 dBFS.

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