

Cherwell Transient

A clean, mid-90s digital-desk transient shaper in two or three bands: sharpen or soften the front of every hit and lengthen or shorten its tail, band by band, whatever the level.

A Lab plug-in. The Lab is where new GFX plug-ins are built in the open: they may change sound or controls between versions.



Overview

The Cherwell series is clinical digital-console processing in the spirit of a mid-90s British digital desk. The Transient shaper doesn't use a threshold: it follows the shape of the sound, not its level, so a soft ghost note and a full-strength hit are shaped the same way.

Version 0.2 splits the sound into two or three bands, and each band has its own ATTACK, SUSTAIN and SPEED. A kick's click can be sharpened while its boom is shortened; a snare's top can be tightened while its body rings on. The split replaces the old FOCUS knob and HIGH key.

Each band watches the level with a fast and a slow follower. Where the fast one jumps ahead, that is the front of a hit, and ATTACK turns it up or down; where the sound dies away more slowly than it started, that is the tail, and SUSTAIN turns it up or down. Each

can move the level by up to about 12 dB, and every move glides smoothly. Both sides are linked, and there is no latency.

MIX blends in the untouched sound (worked inside each band, so mixing never sounds phasey), DELTA lets you hear only the change, and CLIP puts a soft ceiling at 0 dBFS after it all, because a big attack boost can spike. Below about -2 dBFS CLIP leaves the sound alone. There is no DRIFT: this is a clean digital unit.

Reach for it for

- Punch on a kick without more boom, or less boom without losing the click
- Crack on a snare's top with its body left alone
- Drying up a roomy drum recording, or bringing the room up, in the lows or highs only
- Pluck and pick definition on bass and guitar, with the low end steady
- Softening hard strums or a hammer piano
- Gentle parallel punch on a mix bus (MIX)

Controls

The header

PRESETS	Opens the preset list (with "Reset all to defaults" at the end).
◀ / ▶	Steps to the previous or next preset, wrapping round.
Preset display	Shows the preset's name. Click it for the preset list too.

The display

GAIN MOVES	Every gain change over the last few seconds, one lane per band in its colour (LOW brown, MID green, HIGH red), newest on the right: boosts rise above each lane's centre line, cuts fall below it, ± 12 dB. "DELTA" appears in the corner while DELTA is lit.
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SHAPE

MIX	0 to 100 %: the shaped sound against the untouched sound. 100 % is fully shaped.
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BAND KEY	Dark (default): every band's detector hears the whole sound, each at its own SPEED. Lit: each band's detector hears only its own band, so the highs react to the hat and the lows to the kick.
CLIP	A soft ceiling at 0 dBFS after the shaping (on by default).
DELTA	Hear only the change: the shaped sound minus the original.
IN	Switches the shaper in or out (crossfaded, never a click).

Bands and split

BANDS 2 / 3	Two bands (LOW / HIGH, split at the first SPLIT knob) or three (LOW / MID / HIGH). Switching glides, never a click.
SPLIT LOW MID	40 Hz to 1 kHz, default 150 Hz: where LOW ends. The readout under it shows the frequency. In two-band mode it is the LOW HIGH split.
SPLIT MID HIGH	800 Hz to 12 kHz, default 3 kHz: where HIGH starts (always at least an octave above the first split). Three bands only.
The split	24 dB per octave crossovers with no latency. With every band left alone the bands add back flat in level; only the phase turns a little round the split points.
LINK	A menu (click the box): one band's detector drives another - LOW drives MID, LOW drives MID + HIGH, or MID drives HIGH (two bands: LOW drives HIGH). The led band keeps its own ATTACK and SUSTAIN but reacts to the leader's hits; its SPEED is greyed and shows "LINKED: LOW" (or MID).

Each band's row

LOW / MID / HIGH	The band key: lit = that band is shaped, dark = it passes untouched (the row greys).
SOLO	Hear that band alone. Click again to hear them all.

Gain bar	The band's gain move right now: up for a boost, down for a cut, ± 12 dB.
ATTACK	-100 to +100 %. Positive sharpens the front of each hit (more snap, more click); negative softens it. The small 0 marks no change.
SUSTAIN	-100 to +100 %. Positive lengthens the tail (more ring, more room); negative shortens it (tighter, drier). The tail boost lets go the moment a new hit arrives.
SPEED	1 to 10, default 5: how quickly that band reacts. Higher catches only the very front of a hit; lower shapes a longer stretch of the attack and tail.

Output and meters

OUTPUT	A fader, -12 to +12 dB.
IN / OUT	Input and output level, -48 to +3 dBFS.

Knobs and the fader: drag up or down (hold Shift for fine moves) or use the mouse wheel; double-click or Ctrl-click returns to the default. Values show while you hover. S / M / L set the panel size; ? shows the credits and this manual's address.

Presets

Init	The defaults: two bands at 150 Hz, nothing shaped yet (every ATTACK and SUSTAIN at 0), SPEED 5, CLIP on. Turn the same knobs on every band and it sounds as the original one-band shaper.
Drums: Snap Top Only	HIGH above 200 Hz: ATTACK +50, SUSTAIN -10, a little faster. Snap on the kit with the low end steady.
Drums: Tighten Room	Three bands: a little more attack and much less tail, most in the mids and highs. Dries up a roomy kit.
Drums: Big Room Lows	LOW below 250 Hz: SUSTAIN +60 with softer fronts; a little more tail in HIGH. A bigger, rounder room.

Kick: Punch Not Boom	LOW below 120 Hz: SUSTAIN -70, slow; HIGH: ATTACK +60, fast. More click, shorter boom.
Snare: Crack and Body	Three bands: the body (below 250 Hz) rings longer, the mids get a little attack, the top gets crack (+70) and less rattle.
Snare: Short Ring	LOW below 300 Hz: SUSTAIN -50; HIGH a little sharper and shorter. A tight snare.
Bass: Pluck Keep Lows	HIGH above 200 Hz: ATTACK +40. The pluck comes forward; the low end stays steady.
Guitar: Pick Attack	HIGH above 300 Hz: ATTACK +45, fast. Clearer picking.
Acoustic: Soften Strums	Split at 2 kHz: the top softened (-50), the lows a little (-20), a touch more tail. Rounds off hard strums.
Piano: Hammer	HIGH above 150 Hz: ATTACK +30. More hammer definition.
Loop: Own Bands	Three bands with BAND KEY lit: each band shaped by its own hits - punchy lows, livelier mids, crisp short highs.
Drum Bus: Kick Drives All	Three bands, BAND KEY lit, LINK LOW drives MID + HIGH: the whole kit is shaped around the kick's hits.
Mix Bus: Gentle Punch	ATTACK +25 / +20, a little less tail, slowish, at 60 % MIX: a subtle lift across a mix.

Tips

- Light DELTA and SOLO one band while you set its ATTACK: you hear only the clicks it adds (or takes away) in that band.
- For a kick, put the first split just above the boom (80 - 150 Hz): shorten the LOW tail, sharpen the HIGH attack.
- BAND KEY lit stops the kick from pumping the hats on a drum bus: each band only reacts to its own hits.
- Large positive ATTACK settings can add several dB of peak level: leave CLIP on, or watch the OUT meter.

- Turn a band key off to leave that band untouched - quick for checking what each band is doing.

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