RSL FORESIGHT

OFFLINE COMPRESSION PREVIEWER

User Manual

Renegade Sound Labs

Version 1.1.0 · Free plugin

What RSL Foresight is

RSL Foresight shows you what a compressor *would* do to your audio, before you commit to compressing it.

It captures up to sixty seconds of whatever is passing through it, then runs a full compressor simulation over that capture and draws the result: the input, the compressed output, and the gain reduction envelope. Move a knob and the whole capture is simulated again and redrawn. You are looking at the actual result of a setting on your actual material, not a meter reacting in real time.

> **RSL Foresight never processes your audio.** The signal passes through completely untouched. There is no latency, no oversampling and no delay compensation to worry about. You can leave it anywhere in a chain and it changes nothing. Every compressed waveform it draws is a simulation.

Why that is useful

A gain reduction meter tells you what just happened, for an instant, while the music moves past. RSL Foresight holds a passage still so you can study it: where the compressor grabs, how long it takes to let go, which transients survive and which get flattened. You can compare two settings on the same performance instead of on two different bars.

Getting started

1. Insert RSL Foresight on a track or bus.
2. The first time it opens, a short guided tour walks you around the interface. Follow it with **NEXT**, or press **SKIP** to go straight in.
3. Press **CAPTURE**. The button reads **CANCEL** while it waits.
4. Roll the transport. Recording starts as soon as the DAW plays, and the readout counts up.
5. Press **STOP** when you have enough, or let it run to the full sixty seconds.
6. Press **SUGGEST** for a starting point, or move the knobs yourself. The display redraws as you turn them.

The full interface after a capture, with a suggestion applied, two points pinned and the readout showing a third.

Capture states

READOUT	MEANING
READY	Nothing captured. Press CAPTURE to arm.
ARMED	Waiting for the transport to roll. Nothing is being recorded yet.
RECORDING	Writing to the capture buffer, counting up to 60 s.
CAPTURED	The buffer holds audio. Its length and sample rate are shown.

Pressing the button again at any point cancels or stops. **RECAPTURE** discards the current capture and arms a fresh one.

The guided tour

The tour dims the plugin and lights one control at a time, with a short note beside it. Use **NEXT** and **BACK**, or the arrow keys, to move through it. **SKIP** or Esc ends it. It runs once on each computer. Press **HOW TO** in the header to see it again whenever you like.

The guided tour on its capture step.

The preset bar

The RSL preset bar across the top of the plugin.

The bar along the top is the same one every RSL plugin carries. From left to right:

CONTROL	WHAT IT DOES
RSL logo	Opens renegadesoundlabs.com.
A / B	Flips between two independent setting slots, so you can compare two treatments of the same capture. The letter shows the slot you are on.
Undo	Returns every control to the preset as it was loaded.
Save	Saves the current settings over your preset, or as a new preset when a factory one is loaded.
Preset name	Click it to browse factory and user presets, save as, delete, or show the preset folder. The arrows either side step to the previous and next preset.
Import / export	Loads a preset file from disk, or writes the current one out to share.
Settings	Product information, this manual and support links.

RSL Foresight has no bypass button. It never changes the audio, so there is nothing to bypass.

Factory presets

Six starting points ship with the plugin. Each sets the controls listed and returns every other control to its default, so a preset always sounds the same however you arrive at it. The detector default is PEAK.

PRESET	SETTINGS
Bus Glue	–18 dB, 2:1, 6 dB knee, 30 ms attack, 150 ms release, SC HPF 80 Hz, +2 dB makeup, RMS
Drum Punch	–20 dB, 4:1, 3 dB knee, 15 ms attack, 80 ms release, +4 dB makeup
Vocal Control	–24 dB, 3:1, 6 dB knee, 5 ms attack, 100 ms release, SC HPF 100 Hz, +4 dB makeup
Bass Even	–22 dB, 4:1, 6 dB knee, 20 ms attack, 200 ms release, +3 dB makeup, RMS
Peak Catch	–8 dB, 8:1, 2 dB knee, 0.3 ms attack, 60 ms release, 2 ms lookahead, +2 dB makeup
Smash	–30 dB, 10:1, 1 ms attack, 50 ms release, +10 dB makeup

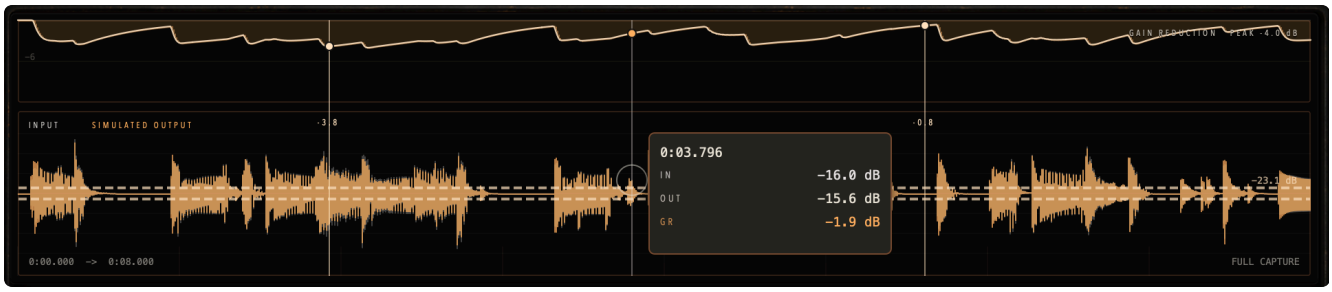
Presets are a fixed place to start. **SUGGEST** goes further and measures your capture, so on real material it is usually the better first move.

The header

The header, the capture row and the suggest row.

CONTROL	WHAT IT DOES
HOW TO	Runs the guided tour again.
COPY	Copies the current settings into the other A/B slot. The usual way to compare is to copy, then change one thing.
AUTO / PEAK / RMS	The detector. See Detector, later in this manual.
FIT	Zooms the display back out to the whole capture.
CLEAR PINS	Removes every pinned point. It shows how many there are.

The display



Gain reduction across the top, input and simulated output below, with the threshold drawn as dashed lines and a readout at a point in the audio.

Gain reduction strip

The upper pane is the gain reduction envelope, hanging down from zero. Gridlines mark every 6 dB, and the strip rescales to whatever the current settings actually reach. The deepest reduction anywhere in the capture is printed at the top right as **PEAK**.

Waveform pane

Two waveforms are drawn on top of each other.

TRACE	WHAT IT IS
Silver	The captured input, exactly as it arrived.
Amber	The simulated compressor output.

Where the two match, nothing is happening and the amber simply covers the silver. Where the compressor is working, the silver shoulders show above and below the amber. **That gap is the gain reduction.** The dashed lines mark the threshold, mirrored above and below the center.

Reading a point

Hover anywhere on the display for a crosshair and a readout giving the time and the input level, output level and gain reduction at that instant. A ring marks the point on the output waveform and a dot marks it on the gain reduction envelope.

Click to pin a point. Pinned points stay put while you move the knobs, each carrying its gain reduction figure, so you can watch a single transient respond as you dial. Click a pin again to remove it, or use **CLEAR PINS**.

Zooming

ACTION	RESULT
Scroll	Zoom in and out around the pointer.
Drag	Pan through the capture.
Double click	Fit the whole capture.
FIT	The same as a double click.

Zooming simulates again at a higher resolution rather than magnifying pixels, so detail sharpens as you go in. Pins survive zooming. The visible time range is shown at the bottom of the pane.

Controls

The control row. Each knob prints its value on the cap, with the unit underneath, and its name below.

Drag a knob up or down to turn it. Hold Shift while dragging for fine adjustment, and double click a knob to return it to its default. The LED ring around each knob shows how far it is turned.

CONTROL	RANGE	WHAT IT DOES
Threshold	–60 to 0 dB	The level above which compression begins. Drawn on the display as the dashed lines.
Ratio	1:1 to 20:1	How much of the level above the threshold is removed. 1:1 is no compression.
Knee	0 to 24 dB	How gradually compression starts. 0 is a hard knee, nothing and then the full ratio. A wider knee eases in below the threshold and reaches the full ratio above it.
Attack	0.1 to 200 ms	How quickly gain reduction builds once the signal crosses the threshold. Short attacks catch transients. Longer ones let them through.
Release	5 to 2000 ms	How quickly gain reduction lets go afterwards. Watch the recovery on the strip. Too short pumps, too long never recovers between hits.
Lookahead	0 to 20 ms	Lets the detector see ahead of the audio, so reduction is already under way when the transient lands. It costs nothing here, because RSL Foresight works offline and has no latency to compensate.
SC HPF	OFF, 20 to 500 Hz	High-passes the detector only, so bass energy stops driving the compression. The audio itself is unaffected. Reads OFF at the bottom of its range.
Makeup	0 to 24 dB	Gain applied after compression, to bring the level back up.

Detector: AUTO, PEAK, RMS

PEAK follows the instantaneous level and reacts to every transient. **RMS** averages over a short window and ignores brief peaks, the way a bus compressor does.

AUTO lets SUGGEST choose the detector to suit the source you picked. Clicking PEAK or RMS pins your choice. Suggestions from then on build around it rather than replacing it, and the threshold is solved again so the goal is still met with the detector you asked for. Press AUTO to hand the choice back. PEAK and RMS always show which detector is actually running, so AUTO lit alongside RMS means it was chosen for you and it picked RMS.

A/B

Two independent setting slots. Flip between them with the A/B button in the preset bar, and use **COPY** in the header to copy the current settings into the other slot. Both slots are saved with your session.

Suggest

Tell RSL Foresight what it is listening to and what you want from it, and it fills in all nine controls against your actual capture. Pick a source and a goal from the two menus beside SUGGEST FOR, then press **SUGGEST**.

SOURCE	WHAT IT SETS
Vocal	Medium attack and a soft knee, fast enough for consonants without dulling them.
Drums	Fast attack, hard knee and a sidechain filter, so kick energy does not duck the kit.
Bass	Slow attack, so it follows the note rather than chasing each cycle.
Guitar / Keys	Middle ground with a soft knee.
Room / Overheads	RMS detection and a long release, so the decay does not pump.
Full Mix	Bus settings: RMS, a high-passed sidechain, slow timings and lookahead.

GOAL	RATIO	TARGET PEAK GAIN REDUCTION
Glue	2.0:1	4 dB. Gentle, always working, holds the parts together.
Balance	3.0:1	7 dB. Evens out the performance so nothing disappears.
Control	4.5:1	10 dB. Firm, catches peaks and leaves the rest alone.

The threshold is not worked out from a rule of thumb. RSL Foresight searches for it. It runs the compressor over your capture again and again, adjusting the threshold until the measured peak gain reduction matches the goal. That is why the same goal behaves consistently on quiet and loud material, and why the number it targets is the same PEAK figure shown on the gain reduction strip. You can check its work.

Makeup is measured the same way. A final pass finds the compressed peak and sets makeup to restore the original level, so switching a suggestion in and out is a fair comparison rather than a loudness contest.

After a suggestion, the line to the right of the menus reports what actually happened: which detector was chosen or kept, the measured peak gain reduction, and the makeup applied.

> **Suggestions are starting points, not answers.** They put you in the right area on this material so you can hear and see what to change. Nothing stops you moving every control afterwards.

Working with it

Capture something representative

Capture the loudest, busiest section you care about, not an intro. The compressor responds to what is there, and a threshold placed against a quiet passage will be wrong everywhere else.

Watch the recovery, not just the depth

Most compression problems are timing, not amount. Pin a point just after a transient and vary the release. You are looking for the envelope to return to zero before the next hit, without snapping back so fast it pumps.

Use the shoulders

The silver above the amber is the reduction, drawn on the waveform itself. If a transient you wanted to keep has been flattened, you will see its silver peak standing alone above a blunt amber edge. Lengthen the attack.

Then go and set your compressor

RSL Foresight does not compress. Once you know the settings you want, dial them into the compressor you actually intend to use. The model is a clean, transparent feed-forward design. A compressor with its own character will not sound identical, but the threshold, ratio and timing relationships carry across.

Specifications

ITEM	DETAIL
Formats	macOS: Audio Unit, VST3, AAX and Standalone. Windows: VST3 and Standalone.
System	macOS 11 or later, Universal (Apple Silicon and Intel). Windows 10 64-bit or later.
Channels	Mono or stereo
Latency	Zero. No oversampling and no delay reporting.
Audio path	Bit-transparent pass-through. The plugin never alters the signal.
Capture	60 seconds, stereo, at the host sample rate
Model	Feed-forward, log domain, per sample. Peak or RMS detection, soft or hard knee, stereo linked on the louder channel, optional detector high-pass and lookahead.
Presets	Six factory presets, plus your own, saved as files you can import and export
License	Free. No key, no time limit, no watermark.

Support

If something looks or behaves wrong, please tell us. It helps to include:

- Your DAW and the plugin format (AU, VST3, AAX or Standalone)
- Your macOS or Windows version, sample rate and buffer size
- The control settings, and what you expected to see
- The steps to reproduce it

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RSL Foresight updates through RSL Hub, or from your account at renegadesoundlabs.com.

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