



## COUTURE USER MANUAL



Version 1.6

## Foreword

Thank you for using AUBURN SOUNDS® COUTURE.

COUTURE's goal is to get **exquisite control** over your dynamics, and particularly **attacks**. It solves a surprisingly huge range of mixing problems, with **very low effort**.

Dynamics are key to competitive Electronic Music. Historically most dynamics processors were made to reduce dynamic range of recorded materials. For Electronic Music where sources are mostly not recorded, and mostly lower dynamic range, this makes less sense.

COUTURE works by emphasizing attacks while at the same time reducing releases, or vice-versa. The balanced gain compensation allows to **make dynamics decision without being fooled by loudness changes**.

COUTURE embeds a distortion unit working in tandem with the transient shaping. We feel that **saturation is a decision that affects dynamics** and thus it makes sense to think about both at the same time.

COUTURE processing is always **volume-independent**. You can change the input volume and the plug-in output will have the exact same gain reduction and distortion applied. What we wanted was to **keep the freedom to change input gain** without silently breaking apart later in the mix.

**We made the plug-in we were dreaming of. We strongly recommend that you purchase the FULL EDITION to get to know the real COUTURE.**

You may use COUTURE to:

- Make individual drum tracks a lot more dynamic and punchy
- Remove the "click" out of a kick drum sample
- Deess the very start of notes for vocals
- Give glue to a mix by emulating a tape machine
- Make a whole bus more or less dynamic
- Give life to inane lead synths
- And many other use cases that we have not yet found.



## Compatibility

COUTURE is available as a **VST2 / VST3 / Audio Unit / AAX / LV2** plug-in for **Windows 7 or later, macOS 10.10 or later, and Ubuntu 16.04 or later.**

Our plug-ins have been tested with a wide variety of Digital Audio Workstations hosts (DAW). However if you find out your DAW isn't supported, please report a bug at [contact@auburnsounds.com](mailto:contact@auburnsounds.com).

Supported sampling rates range from 22050 kHz to 384 kHz.



## Installation

For Windows users:

**Double-click on the .exe installer and follow the instructions.**

When using the VST 2.4 format, you may have to enter the right VST 2.4 directory in order for your DAW to find the plug-in. This is usually explained in your DAW support page.

For macOS users:

**Double-click on the .pkg installer.** If GateKeeper complains about the Developer being unidentified, try again with Right Click / "Open".

**You will need to reboot your Mac computer to see the new Audio Unit (Logic, Live, GarageBand...).**

For Linux users:

- Copy the LV2 plug-in in your LV2 directory
- Copy the VST2 plug-in in your VST2 directory
- Copy the VST3 plug-in (a .vst3 directory) in your VST3 directory.



## Parameters

### Detector Settings

#### **Flat / Human / Sybil**

"Flat" will treat all energy equally in the detector, regardless of their perceived loudness.

"Sybil" allows to affect harsh frequencies .

The default one ("Human") really means Equal Loudness, this will give the compression a very even feel.

#### **Bass Detect**

Turning this knob changes how much COUTURE's Transient Shaper react to bass.

### Transient Shaper

#### **Sharpen / Soften**

- When turned to the right, attacks get emphasized and releases deemphasized.
- When turned to the left, releases get emphasized and attacks deemphasized.

**x1 / x2 / x3** Affects the quantity of transient sharpening/softening.

**Speed** Affects how long the effect applies after a transient.

**Front/Back** Affects where in the transient the effect applies: start or sustain part of the note.

**Off/20 Range** Limits possible gain change to +20 dB / -20 dB. This is useful for the most extreme settings who could have a dramatic effect on dynamics.



## Output Section

**Amount** Scales the whole effect 0 to 100%.

**Wet Mix** Output gain for the processed effect.

**Dry Mix** Amount of unchanged dry signal. Not affected by Amount.

## Saturation Settings

**On / Off** Enables saturation or not.

**Drive** Quantity of saturation.

**Shape** chooses between 6 types of saturation.

**HP** is a 12dB/oct highpass filter. *Disabled if turned completely left.*

**LP** is a 6dB/oct lowpass filter. Its cutoff frequency is affected by **Mood**.

**Mood** feeds crest factor of the input signal into the LP cutoff frequency.

**Smooth** Softer gain change between and after the saturation, as it need to operate in a volume-independent manner. When turned to the left (default), this will preserve dynamics of the input.

**Pre/Post** Whether the highpass and lowpass filter are before or after the saturation stage.

**Oversampling** Quantity of oversampling.



## Details

### Detection Circuit

COUTURE detects transients with a two-band, program-dependent, RMS detector design. The quality of this design sets COUTURE apart, in a league of its own.

### Volume Independence

COUTURE has volume independent saturation. It is an innovative new effect, similar to FM modulation, that adds harmonic content independently of a threshold.

### Stereo Support

COUTURE has 100% linked L/R behaviour. The envelope estimation will only break down for 100% antiphase signals, which should be a rare occurrence.

### Latency

COUTURE has a latency of about 14 milliseconds. This is because COUTURE heavily favours lack of phase distortion in the Gain Reduction stage, and also favors being always aligned with the transient event. Be sure to enable **Plugin Delay Compensation (PDC)** in your Host to keep proper timings.



## Credits

COUTURE is a work of love and a few key people provided input so valuable, the product wouldn't exist without them.

### Programming, UI, DSP

- Guillaume Piolat

### Sound Design, Presets

- Simon Gallifet

### Testers

- Vas Fuller
- Denis Morin

I'd like to thank **Robert Randolph** for the quality and depth of its beta-testing. COUTURE was made much better thanks to Robert's work.

## Thanks

Céline Alary, Campus Grenoble Radio, Charles Guillemet, Mickael Istria, Thierry Mastrosimone, Quentin Sabah, and everyone else who hosted me for co-working!

I'd also like to thank the awesome D language community for their continuous help, and especially the D Discord server.

Also thanks to all friends, family members, and supporters who didn't make it to the list. I'll never forget your support.



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## Technical Information

- Our products are made with the D language, and the open-source framework Dplug.



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## Changelog

### Version 1.6

- **Resizable UI.** Drag the bottom-right corner to resize the plug-in.
- Fix crash when closing **OBS Studio**.
- Now comes with a Windows desinstaller.
- Fix latency reporting with LV2 .
- "Clip" was renamed to "Range", which is more accurate.
- "Bass Amount" was renamed to "Bass Detect".

### Version 1.5

- **Experimental support for Apple Silicon and macOS 11.0 arm64.**  
The minimum macOS supported version is now 10.12.
- **Fixed Linux X11 crash** with multiple instances.  
Closing the second window while the first is opened would crash.  
This greatly enhances Linux stability.
- **Fixed VST3 latency reporting**, which was only correct for 44100 Hz.
- Fixed installer when the "Program Files" directory is localized.

### Version 1.4

- Reduced CPU usage of the UI, especially on macOS and Linux.
- **Fix Linux crashes and bugs** (eg: when opening or closing the UI).
- Fix detection of VST3 by Bitwig on Linux.
- UI rendering is a bit more detailed.



### Version 1.3

- **New:** Linux x86\_64 support.
- **New:** Windows installer.
- Compatible with macOS 10.15 Catalina.
- Notarization.
- Added AUv2 Audio Component API, brings back GarageBand compatibility.
- Remove high CPU load on stop in AU, VST3, and AAX.
- Fix improper signing of macOS AAX binaries.
- Fix AU validation in Logic.

### Version 1.2

- **New:** Dry Mix control.
- **New:** Variable oversampling (FULL Edition only).
- **New:** Envelope detection is now more precise with short attacks.
- Added VST3 format.
- Added Mac installer.
- Fix excessive long volume spikes at startup.
- Fix compatibility with hosts: Audio Hijack.
- 2x less CPU usage from an open UI.
- **Removed:** 32-bit support on macOS.

### Version 1.1

- Add Pro Tools bypass support.
- Add compatibility with Open Broadcast Studio (fix VST2 client).
- Fix crash in Cubase and other hosts when reopening the interface.



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**Version 1.0**

**Initial release.**

