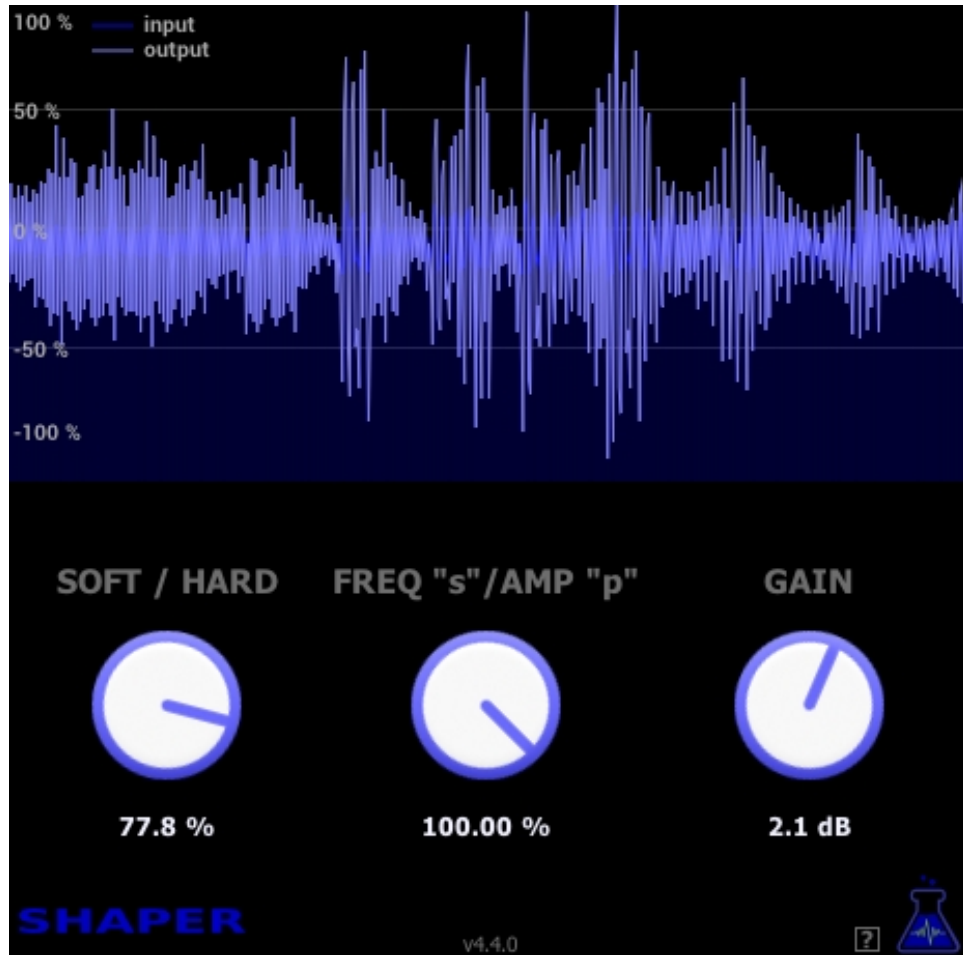


# SHAPER



## DESCRIPTION

**Shaper** is a plugin that amplifies or attenuates the transients on an audio track, namely it is a transient shaper. It uses an innovative principle by defining two types of transients. This plugin can be used to increase or decrease the attack of sounds, or to boost or attenuate some particular parts of the sounds.



## DEFINITIONS

### Usual definition:

The **transients** are the brief sounds with high level which appear at the beginning of a waveform. For example at the beginning of a bass drum hit.

### Other definition:

The **transients** are the sounds having high amplitude and frequency changes.

It is this second definition that is used in the **Shaper** plugin.

For example a white noise with high volume will have a very high "transientness", because it is made of many frequencies changing very quickly. At the opposite, a pure frequency such as a sine wave at 440Hz will have a very low transientness.

These two definitions are linked: on a bass drum strike for example, the time of the hit on the skin contains many frequencies that change very quickly (high transientness), whereas the remaining of the sound, corresponding to the resonance of the bass drum and the skin, contains more pure frequencies (low transientness).

## EXAMPLES OF USE

### Increase or decrease the attack

The **Shaper** plugin can be used in a simple way to increase the attack of a percussive sound (bass drum, snare drum, toms...), to make the play more "nervous". Or at the contrary, to decrease the attack to make the play "softer".

### Processing on a voice

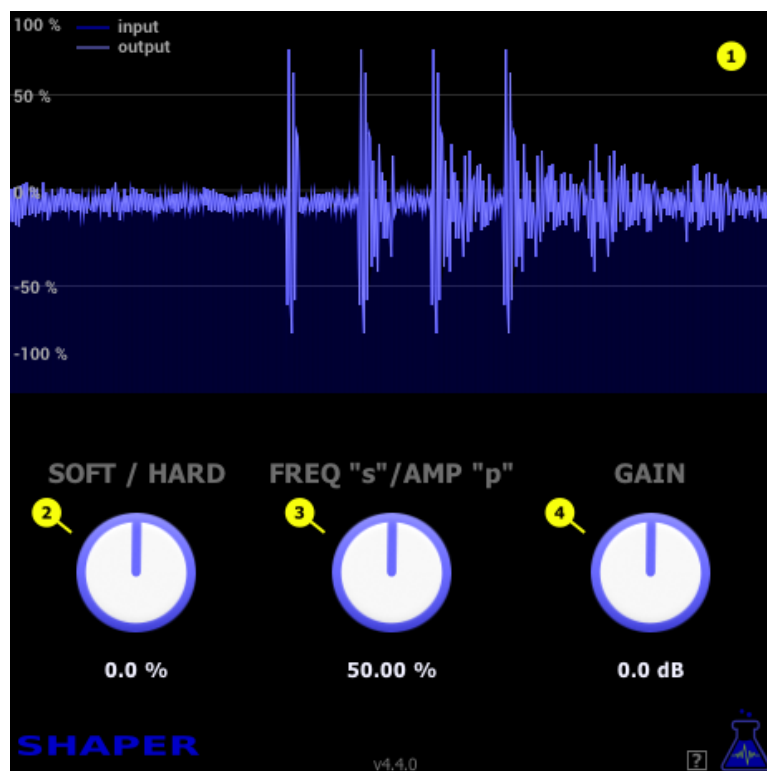
On a voice, the plugin can increase the sounds that are close to a white noise (sibilance and all the breath noises). Or at the contrary we can decrease the breath noises to bring the vowels out.

## PRINCIPLE

The innovative point of the **Shaper** plugin is that the transient detection is based on quick signal changes, in terms of frequencies, in addition to the more usual one in terms of amplitude. In a given part of a sound, the more the frequencies and the amplitude change quickly, the more this part of the sound is detected as transient.

The **Shaper** plugin makes the difference between "two types" of transients: transients resulting from fast frequency changes, and transients resulting from fast amplitude changes.

## USAGE



The **GRAPH (1)** displays the **INPUT** and **OUTPUT** waveforms.

The **SOFT/HARD (2)** parameter is the main parameter. It defines if the detected transients are amplified or attenuated. With a value of 0%, the result is the same as the input signal. With a value of 100%, the transients are increased to the maximum. With a value of -100%, the transients are decreased to the minimum.

The **FREQ "S"/AMP "P" (3)** parameter defines if the plugin detects mainly the transients that come from frequency changes or the ones that come from amplitude changes.

When processing a speaking voice for example, the first type of transients are detected on the sibilance, hissing etc., in other words on the sounds like "s", "sh", "f". The second type of transients are detected on the plosives, like the sound "p", "t", "c".

When set to 50%, the plugin detects and processes both. When set to 0% it mainly detects and processes the sounds like "s", and when set to 100%, it mainly detects and processes the sounds like "p".

**Note:** the explanation above takes the example of a voice, but the plugin can process any type of sound. Another example: if the parameter is set to 100% with a drum sound, this is the impact of the stick that will be mainly increased, whereas if it is set to 0% the cymbals sound will be mainly increased.

The **GAIN (4)** parameter adjusts the output gain. If for example we remove many transients, the global level can decrease consequently. This parameter is used to correct the gain of the result.

## FAQ

### The output sound saturates

When parts of the sound are detected as highly transient, they are increased proportionally, and in some cases the result can saturate. In this case, it is recommended to reduce the sound level coming into the plugin by inserting a gain plugin just before it in the chain.