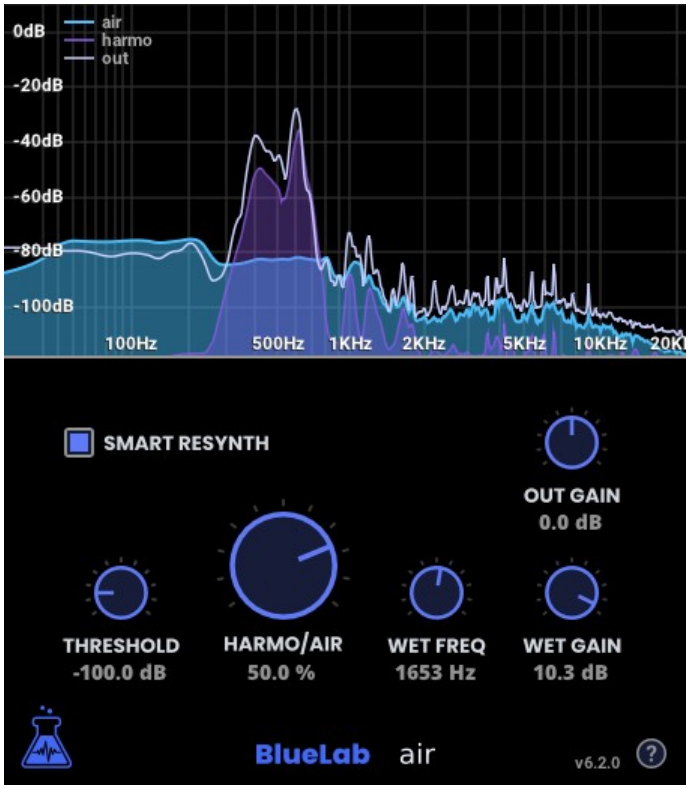
BlueLab air

plugin version: 6.2.0
manual version: 2.0

www.bluelab-plugs.com

DESCRIPTION

The **Air** plugin separates the harmonic content and the noise content from a sound and remix them. The harmonic content consists in pure frequencies, which define for example the pitch of a sound. The noise content is for example the breath in a singing voice or the transients.



EXAMPLES OF USE

Adjust the amount of breath sound in a singing voice
The **Air** plugin can be used to separate the musical sound, from the breath sound in a sound of a singing voice. Then it enables the possibility to adjust, from almost 100% of musical sound, to almost 100% of breath sound.

Adjust the amount of air sound in a wind musical instrument
The **Air** plugin can be used to separate the musical sound, from the air sound of a wind musical instrument. Then it enables the possibility to adjust, from almost 100% of musical sound, to almost 100% of air sound.

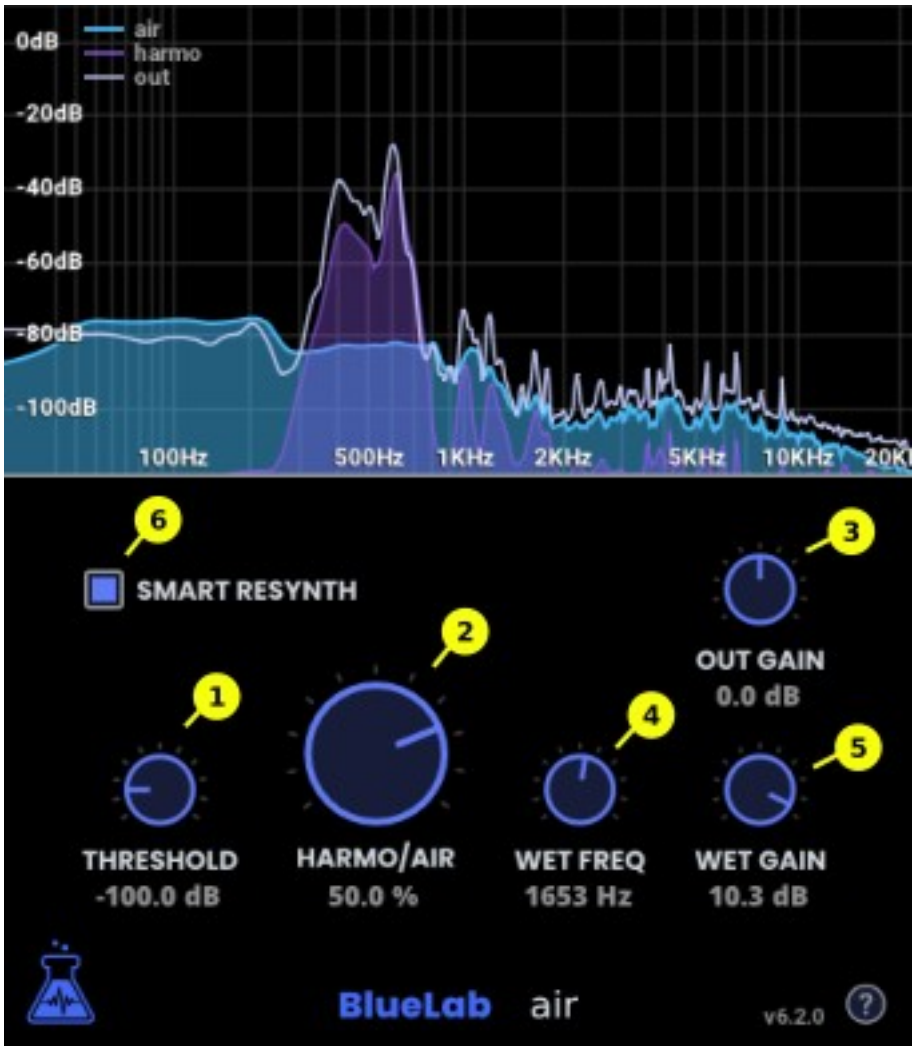
Adjust the amount of string noises in a guitar
The **Air** plugin can be used to separate the musical sound, from the strings noises of a guitar track. Then it enables the possibility to adjust, from almost 100% of musical sound, to almost of 100% string noises.

Adjust the amount of noise in any instrument or other sounds
More generally, the **Air** plugin can be used to extract noise parts (air, transients, other noises...) and the harmonic parts, and remix these two parts.

DISCLAIMER

The **Air** plugin is designed to **increase** the harmonic part or the noise part from a given sound. But the sound quality won't be optimal when keeping almost 100% of harmonic part, or almost 100% of noise, i.e. when **extracting totally** one of the parts.

USAGE



It can be helpful to use the **Air** plugin with a **spectrogram viewer** plugin inserted just after, in order to understand exactly the harmonic part and the noise part.

The **THRESHOLD (1)** (threshold) parameter sets the separation threshold between the harmonic part and the noise part. Typical good values will be around -100 dB.

The **HARMO/AIR (2)** parameter defines the amount of harmonic sound and noise sound in the result. With a value of 0% we will get 50% of harmonic sound and 50% of noise sound (the result sound will be close to the original

sound). With a value of -100% we will get 100% of harmonic sound. With a value of 100% we will get 100% of noise sound.
The quality of the sound is not guaranteed for extreme low or high values of the **MIX (2)** parameter.

The **OUT GAIN (3)** parameter changes the output gain of the mixed signal. It is particularly useful to increase the gain to compensate when the **HARMO/AIR (3)** parameter is high and we keep much noise and few harmonic sound.

The **WET FREQ (4)** parameter chooses at which frequency the processing starts. In order to process the air only after 5000Hz for example, set the wet frequency to 5000Hz.

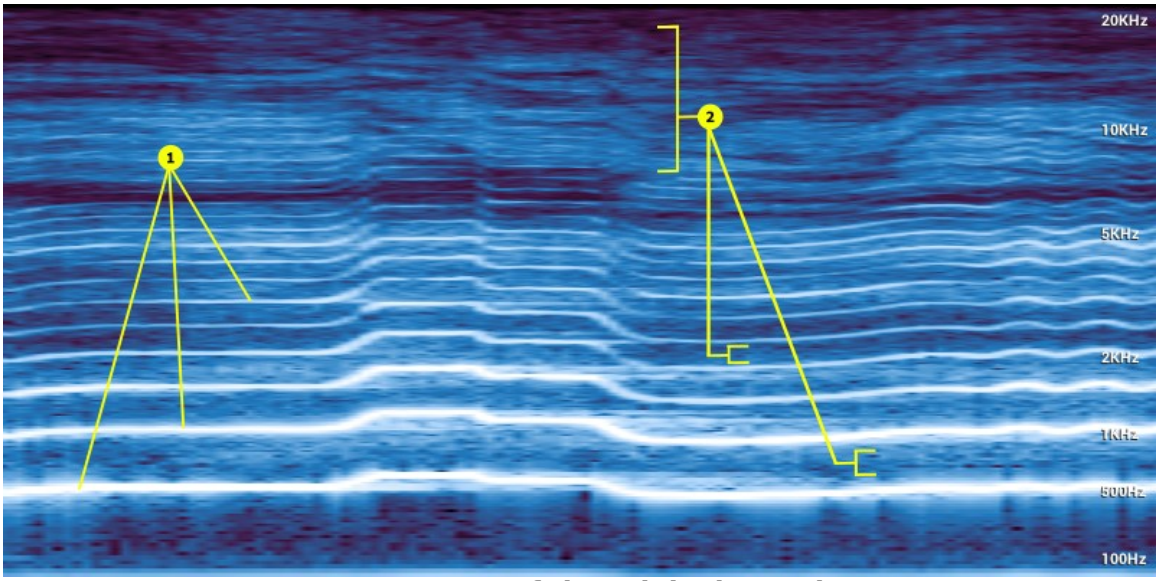
The **WET GAIN (5)** parameter applies a gain to the wet signal only. It can be used for example to increase the air even more.

The **SMART RESYNTH (6)** option processes in order to get a better result sound quality (but it takes more CPU resource).

The graph on the upper part of the plugins shows the air signal, the harmonic signal, and the result signal.

DETAILED USAGE

This section describes an example where we want to adjust the amount of breath noise from a singing voice.

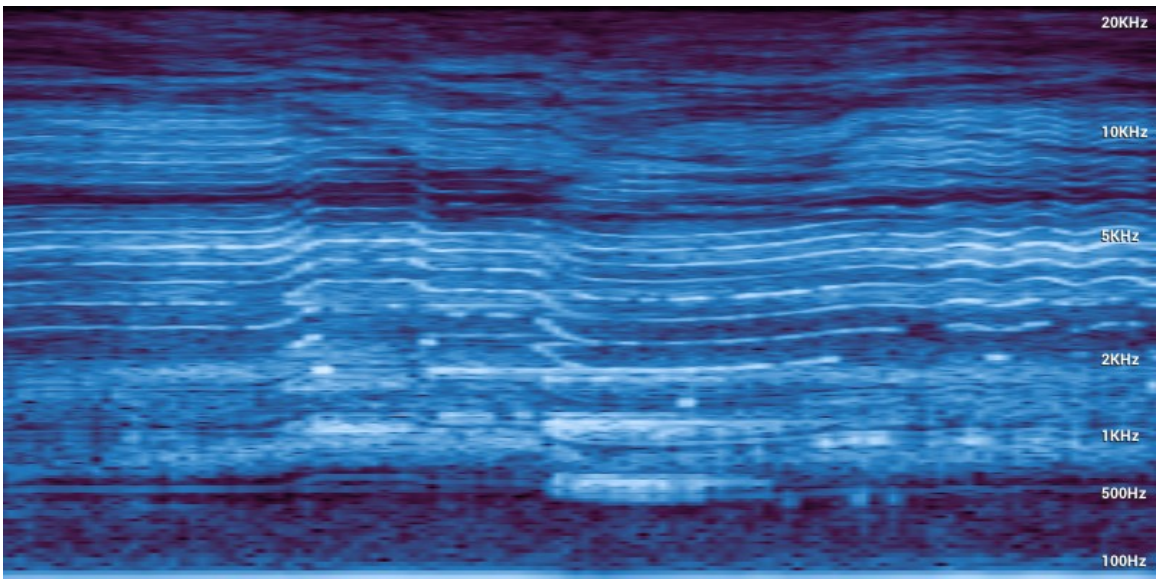


Spectrogram of the original sound.
(1) Some harmonic parts (bright horizontal lines)
(2) Some noise parts corresponding to breath sound (more fuzzy zones)

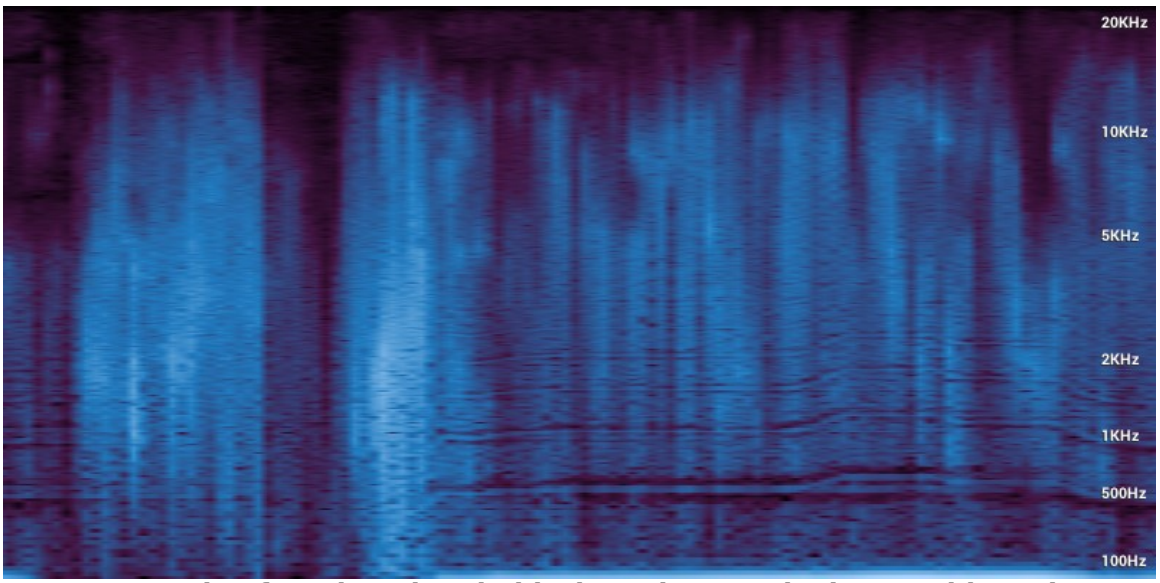
Adjust the threshold

To adjust the threshold **THRS (1)** efficiently, it is recommended to turn the **MIX (2)** knob to 100%, in order to keep only the noise part. Then progressively decrease the threshold while playing, until almost no harmonic part remains.

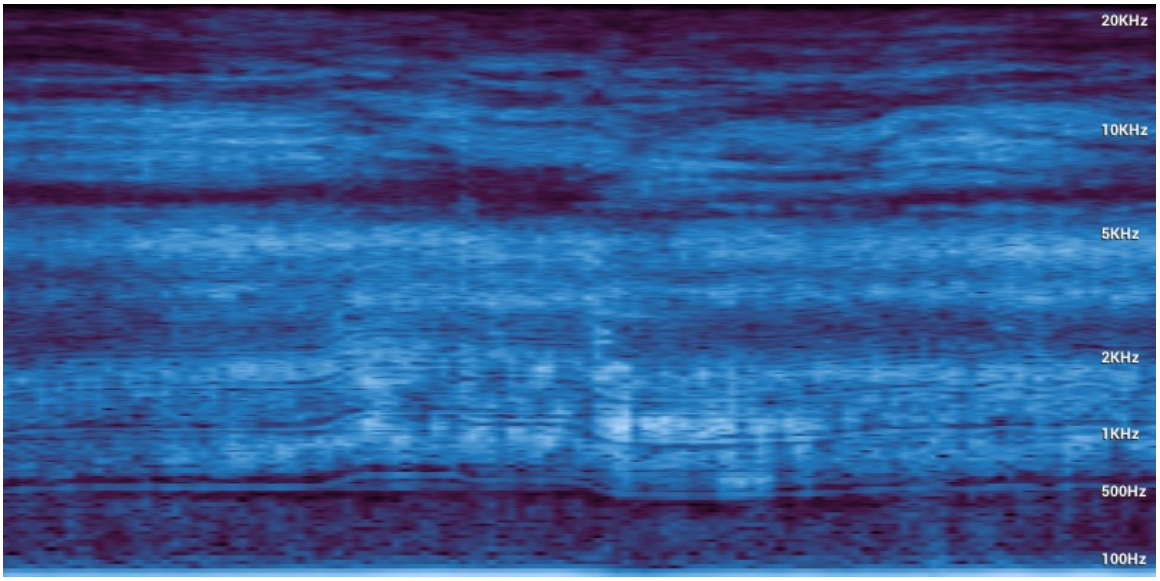
If the threshold is too high, some harmonic parts will remain. If the threshold is too low, the noise part will not sound good.



Example of too high threshold: there remains some harmonic parts (some lines and some pieces of lines)



Example of too low threshold: the noise part looks very blurred



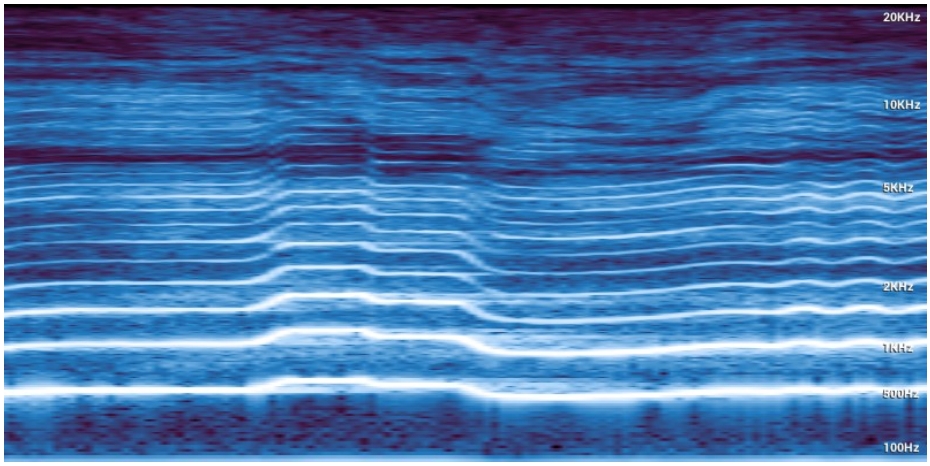
Example of threshold setup correctly: there remains almost no harmonic parts, and the noise spectrogram looks the same as in the original sound

On the contrary, the **THRS (1)** parameter can also be setup with the **MIX (2)** knob set to -100%. In this case, we will try to remove as much noise sound as possible, without suppressing the harmonic parts.

Adjust the mix parameter

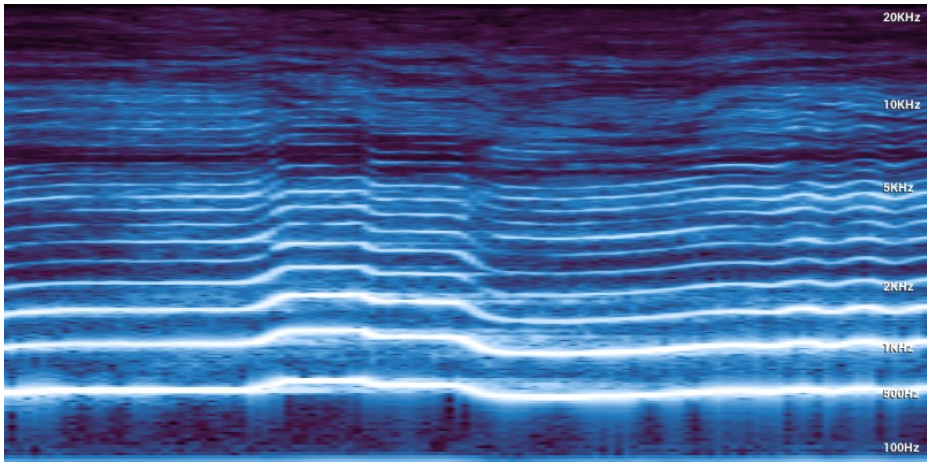
After having adjusted the threshold, the **MIX (2)** parameter can be modified, to increase the harmonic part or the noise part. The **OUT GAIN (3)** parameter can be used to adjust the level. The **THRS (1)** parameter can be adjusted again if necessary.

Original



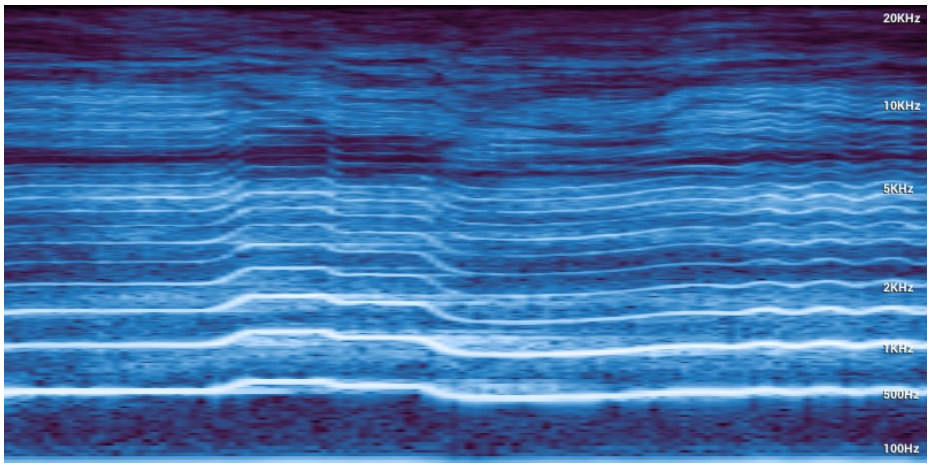
sound: singing voice

Result:



voice breathing decreased

Result:



voice breathing increased