

Two vocoders

Vocoder 15 bands

This vocoder has better performances for vocoded human voice : the filters are tuned on the human voice formants. Insert the vocoder in a group track of the host sequencer. Send the voice (or the sound for the modulation) to the left channel of the group, and the synthesizer sound (or the sound to be modulated) to the right channel.



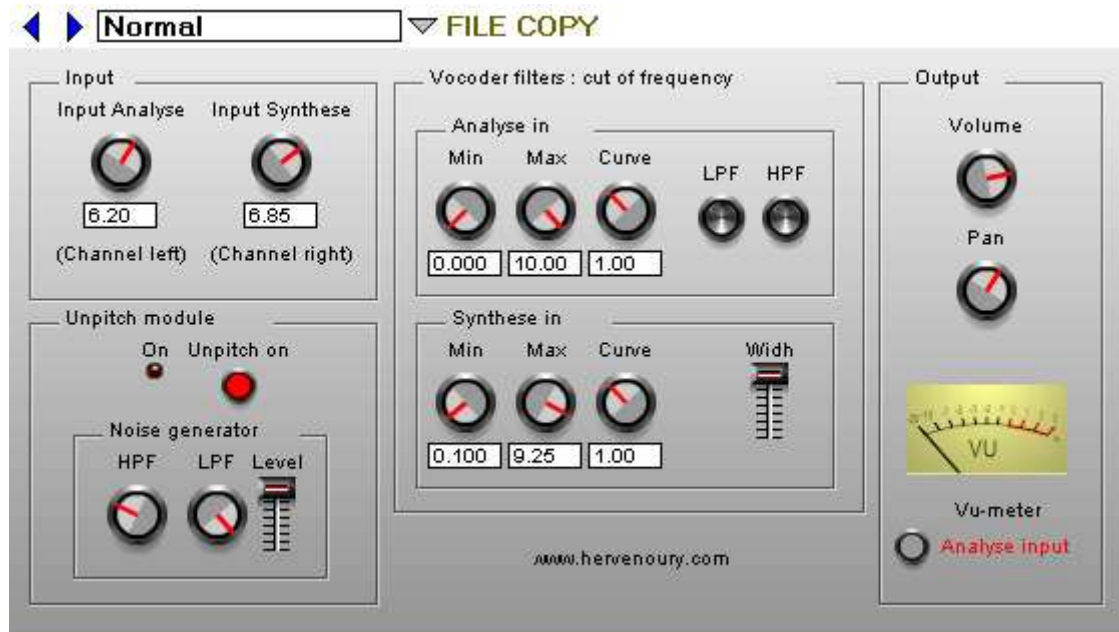
Input controls : set the volume of the analyze input (the voice) and of the synthesis sound input (the synthesizer).

Unpitch module : this module is important to understand the human speaking. When a consonant is told, this module sends the sound of a noise generator instead of the synthesis sound to the vocoder : this permits to understand better the meaning of the sentence. When a vowel is heard, the synthesis sound is sent to the vocoder. This reproduces well the voice : unpitch sounds are reproduced y the noise generator, and pitched sounds by the synthesizer. For a better control, you can filter and control the volume of the noise generator (LPE, HPE, volume controls).

Vocoder 15 bands controls : The "Freq +/-" controller transposes the frequencies of the vocoder (the synthesis part of it only) for +/- 1 octave. This permits to control high values of pitch (high musical notes) with the voice of a man, or low values of pitch with the voice of a woman. You can control the volume and the pan of the output too.

Vocoder 23 bands

This second vocoder is based on the same bases : input and output controls are similar. Unpitch module is the same also. The difference is that the second vocoder permits a different control of the filters.



Vocoder filters : cut of frequency controls :

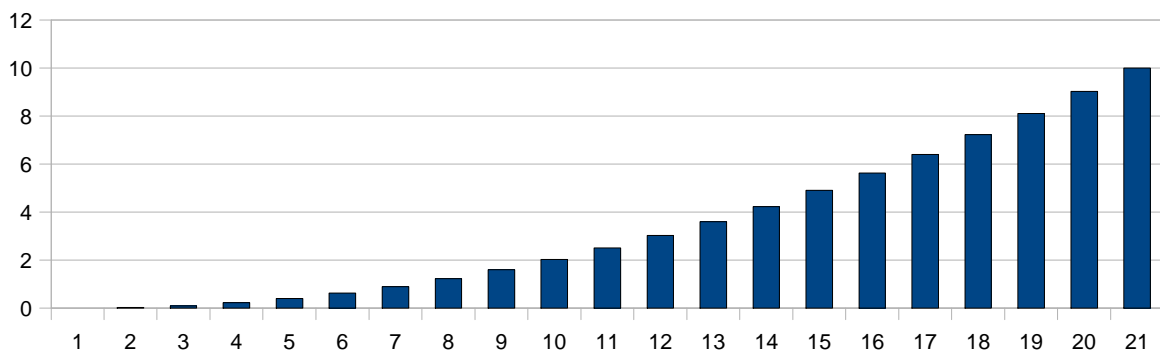
These controls are :

Min : minimum frequency used by the vocoder for each input. This control is this of the LPF channel also.

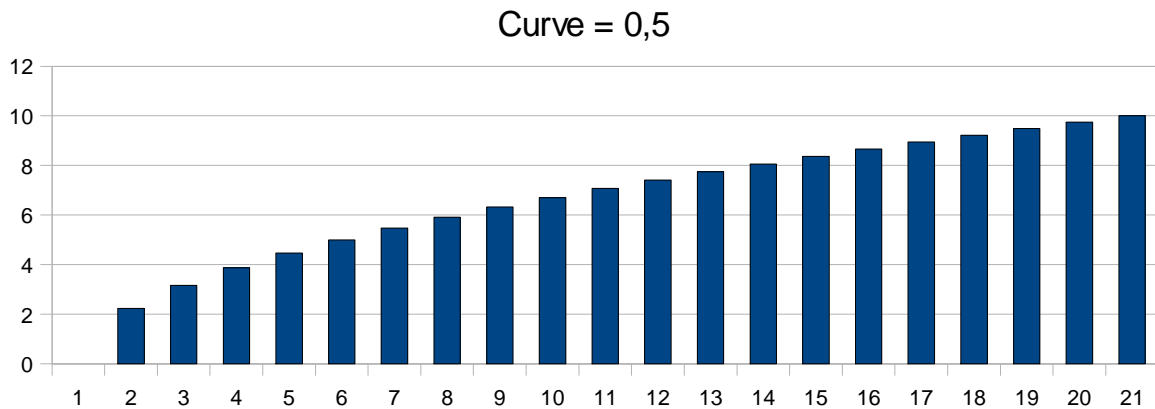
Max : maximum frequency used by the vocoder for each input. This control is this of the HPF channel also.

Curve : depending of this control, the frequencies of the 21 BP filters will change.

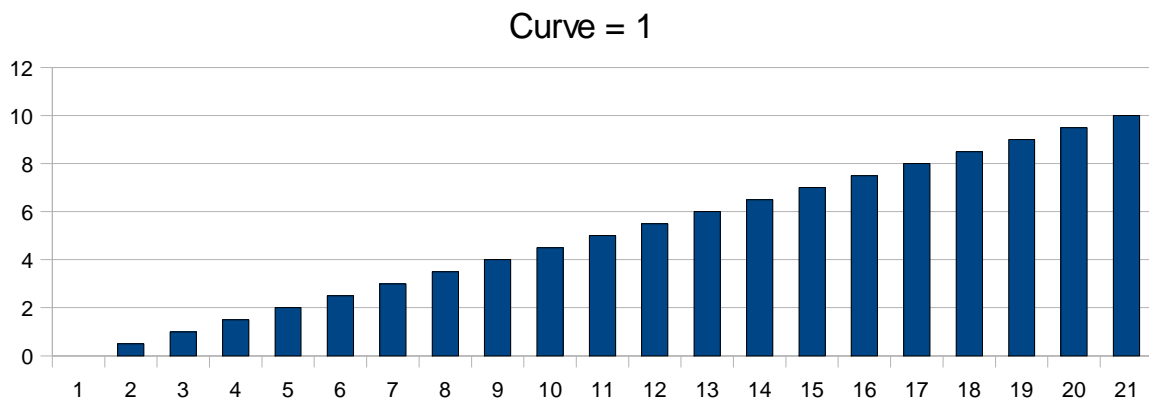
Curve = 2



At the maximum, definition of the vocoder is better in the basses. (Curves pictures are calculated with min value to 0, and max value to 10).



At the minimum, definition of the vocoder is better in the trebles. This curve value is better for the human voice for example.



At 1, the filters are equidistant.

If, for one of the two series of filters, the max value is less than the min value, then the filters are reversed : basses of the analyses sound controls treble of the synthesis sound, and trebles of the analyses sound controls basses of the synthesis sound. This can be interesting in a experimental music context.

LPF and HPF : permit to switch on or off the LPF and HPF filters of the vocoder.

Width : controls the width of the synthesis part filter, for a better definition of the vocoded effect.

Vu-meter : permits to visualize the input levels (analyses or synthesis ones) or the output level of the vocoder before the volume control.

These vocoders are freeware

www.hervenoury.com