VipersAudio Sound Effect Brief Introduction

1. Master Power（总开关）

This option defines whether to enable sound effects, also known as main switch.

2. Playback Gain Control（回放增益）

It is mainly used to dynamically control the audio volume, to amplify or to attenuate.

(1) Enable checkbox. Whether the effect is enabled.

(2) Select Effect Strength. Effect Strength is the speed of amplification or attenuation, the stronger the faster the speed and the higher the final volume, the weaker the slower the speed, the closer to the original volume. Recommended medium.

(3) Max Gain. When the volume of the note is too small, in order to uplevel the sound, there may be very large magnification. The higher the value, the louder the volume. But too large will also amplify the noise within the song. Recommended 4 times.

(4) Max Output. This value defines the maximum volume of the PlaybackAGC sound in decibel value, the greater the value the greater the volume, 0 db is the maximum. In order to make the sound softer recommended -1.9 dB.

3. FIR Equalizer（FIR 均衡器）

511-order 10 bands FIR linear equalizer.

(1) Enable checkbox. Whether the effect is enabled.

(2) Select Preset. Here you can select default equalizer presets. When choosing custom, it will follow the user-defined lines drawn.

(3) Linear Equalizer graphic. Will pop up when you touch the graphic equalizer, you can manually adjust the levels of amplification and attenuation of the 10 bands.

4. Convolver（脉冲反馈）

When an impulse response(IR) sample is loaded, music will show the same characteristics of the loaded sample, for example equalizer, surround, reverberation, tube etc.

(1) Enable checkbox. Whether the effect is enabled.

(2) Select Impulse Response. Here you can select and load IR Samples.

(3) Cross Channel. Brings audio in front of you.

5. Field Surround（场环绕）

It is mainly used to create sound field surround effects. The sound field can be understood as mono field or stereo field.

(1) Enable checkbox. Whether the effect is enabled.

(2) Select Field Surround Strength. This value defines the strength of the field surround effects. The stronger, the stereo effect will be more obvious, the sound will come from left and right sides.

(3) Select Mid Image Strength. This value defines the central vocal intensity. More strongman sound more clear, the weaker the more ethereal sound.

6. Differential Surround（差分环绕）

Also known as Haas effect.

(1) Enable checkbox. Whether the effect is enabled.

(2) Select Delay Time. This value defines the delay(gap) between left and right. The greater the wider the sound.

7. Reverberation（数字混响）

It uses mathematical methods to simulate the environmental feeling sensation. Example a song can be felt playing inside the auditorium, living room, bathroom, and so on.

(1) Enable checkbox. Whether the effect is enabled.

(2) Room Size. This value defines the virtual environment area size. The larger the value, the sound is wider and more echoes.

(3) Sound Field. This value defines the width of the room above, in meters. Assumed that the above room size is 100 square meters, here to set a width of 14 meters, then the length of the room will be 7.14 m.

Therefore, the room size and width defines the aspect ratio of the virtual environment.

The larger the value, the sound coming from both sides will felt more obvious.

(4) Damping Factor. This value defines the humidity of air in the above virtual environment, the moisture vapor in the air will easily absorb the echoes.

So the bigger this value, the less echoes heard.

(5) Wet Signal. This value defines the volume of the simulated environment effect.

(6) Dry Signal. This value defines the volume of the original sound.

For environments with low air humidity such as living room, auditorium and other indoor environment, you can use room size and sound field to define the area of the virtual environment, water vapor content values from 0 to 20, the reverb signal values 20 to 50, the proportion of the original signal to take value of about 50.

For environments with high air humidity such as bathroom and other indoor environment that contains a lot of moisture, you can use room size and sound field to define the area of the virtual environment, water vapor content values of 50 to 100, the reverb signal values 40 to 80, the proportion of the original signal value of about 50.

8. Dynamic System（动态系统）

It handles the dynamic range of the sound. In other words the bass, treble, and limiting.

(1) Enable checkbox. Whether the effect is enabled.

(2) Select Listening Device. This value defines the headset type connected to the audio jack. If you cannot get the right device for good bass tone, then select Common earphone. Common earphone is a common choice. Recommend Common earphone.

(3) Select Dynamic Bass. This value defines the average dynamic bass, the greater the stronger bass.

Recommend 33%.

9. Tube Simulator(6N1J)（电子管模拟器）

This option defines whether to enable tube simulator effect. Tube simulator uses a simplified mathematical simulation of tube effect.

If turned on, will greatly reduce high-frequency odd harmonic distortions, while increases even-order harmonic distortions of tube simulator.

10. ViPER Bass（ViPER 低音）

Whether ViPER Bass is enabled.

(1) Select Bass Mode. Natural, Pure bass+ and Sub-woofer. Natural bass is alike ViPER XHiFi's Lo Contour. Purebass+ gives clean bass. Sub-woofer gives huge bass.

(2) Select Bass Frequency. Adjust bass frequency. Recommended at least 60Hz for both modes.

(3) Select Bass Boost. Volume of ViPER Bass. Recommended at least 6dB for Natural, at least 8dB for Pure bass+

11. ViPER Clarity（ViPER 清晰度）

Whether ViPER Clarity is enabled.

(1) Select Clarity Mode. Natural, Ozone+ and XHiFi offers 3 different types of clarity. Natural has high vocal&treble. Ozone+ offers clean clarity. XHiFi is alike ViPER XHiFi's Hi Clarity.

(2) Select Clarity. Volume of ViPER Clarity. Recommended at least 3.5dB for Natural, at least 8dB for Ozone+, at least Default for XHiFi.

12. Auditory System Protection（听觉保护）

Protects auditory system.

(1) Enable checkbox. Whether CureTech+ is enabled.

(2) Select Binaural Level. Strength of Binaural protection. Recommended Moderate.

13. AnalogX

This option defines whether to enable Field effect transistor based amplifier effect. AnalogX uses a simplified mathematical simulation of field effect transistor.

14. Spectrum Extend（频谱扩展）

This option defines whether to enable spectrum extension effect. If turned on, the audio spectrum will be reconstructed to recover some high frequency (16k~22kHz) sound data, just like Sony DSEE.

15. FET Compressor（场效应压缩器）

This option defines whether to enable compressor effect. FET compressor uses a simplified mathematical simulation of field effect transistor based compressor.

16. Master Gate（总输出门）

This option is output limiter, its used to prevent overloud clipping distortion.

(1) Ouput Gain. This value defines the main output volume. Its something like a volume control.

(2) Channel Pan: This is output gain ratio for left and right channel.

(3) Limit Threshold. This value defines the limits of waveform amplitude by the limiter, 0 dB is the maximum value.

The smaller the value, the easier to experience audio frequency compression(the smaller the volume), will lose sound details, but can effectively control the final output volume. Recommend 0 db.