AUDIO FILTERS

Audio Filters control selected frequencies and alter the overall sound of your audio clips.

3 Band Band Pass Filter Compressor/Limiter DC Notch Echo Expander/Noise Gate Hi Pass Hi Shelf Hum Remover Lo Pass Lo Shelf Notch Parametric Eq Vocal DeEsser Vocal DePopper

3 BAND EQUALIZER

Divides the audio spectrum into three frequency bands, corresponding to treble, mid-range, and bass.

Gain Setting–allows you to set the center frequency for each band and adjust the volume of each band relative to the others

BAND PASS FILTER

sets high and low frequency cutoff points and permits the band of frequencies between to pass.

Q-you can modify the Q value to narrow or widen the frequency range that is heard and the level of accentuation at the center of the band.

A low Q value gives less accentuation and wider audibility across the band.

A high Q value focuses more sharply on the center of the band, screening out more of the frequencies above and below it.

COMPRESSION

The Compressor/Expander controls dynamic range, the difference between the loudest and softest sounds. For example, if you want to make soft sounds louder, you could increase the gain, but because gain changes the entire clip, you risk making moderately loud sounds in the clip too loud. Instead, you can use this filter to raise the level of the softest sounds without changing the level of the loudest sounds. This compresses the dynamic range, creating a smaller difference between the softest and loudest sounds.

LIMITER

Puts a ceiling on the loudness of a sound. Regardless of how loud a input signal is, the output signal will not go above the ceiling.

DC NOTCH (HUM) FILTER

Power lines can introduce a humming noise in audio clips. This can happen when cables or equipment are improperly shielded or grounded. You can use the Notch/Hum filter to help remove hum from an audio clip. Because this filter is a notch filter, tuned to remove one frequency, you can use it to remove any unwanted sound that exists at a specific frequency. Compensates for a specific type of signal artifact caused by DC current leakage by allowing you to remove the DC offset component potentially introduced during recording.

ECHO

Adds reverb to your clip (or a series of repeats). You can adjust the mix of the original source with the repeating echo (wet to dry). Level—sets the amount of the effect Brightness— Feedback—duration of repeats Delay—time between repeats

EXPANDER / NOISE GATE

Expansion creates a larger difference, which can emphasize volume differences. For example, to make sounds more percussive or to reduce noise, you can emphasize loud sounds and deemphasize quiet sounds.

Although you can compress audio to a smaller dynamic range than the original, you cannot expand dynamic range beyond what was originally available in the audio clip. When you expand a portion of the dynamic range—the portion you want to emphasize—the expansion is always acquired at the expense of the remaining original dynamic range.

HIGH PASS/LOW PASS

The High Pass filter removes low frequencies from an audio clip. This filter can be useful for reducing the amount of rumble in a clip

The Low Pass filter removes high frequencies from an audio clip. This filter can be useful for pulling down noises which are too high or "bright"

HIGH SHELF/LOW SHELF

High Shelf–cuts off sharply the upper end of the frequency range, while lower frequencies are allowed to pass.

You can use the Gain setting to boost or cut the relative volume of the upper end of the frequency range.

Low Shelf- cuts off sharply the lower end of the frequency range, while high frequencies are allowed to pass.

You can use the Gain setting to boost or cut the relative volume at the lower end of the frequency range.

NOTCH FILTER

Can cut out an extremely narrow band, allowing the frequencies on each side of the notch to pass. For example, a constant problem in audio is hum, which has a frequency of 60 Hz. A Notch Filter can remove it without appreciably affecting adjacent frequencies.

PARAMETRIC EQ

The Parametric Equalization filter allows fine-tuning of tone for an audio clip. This filter is superior to the Equalization filter because you can precisely isolate specific frequency ranges. You can enhance up to three different bands of the audio clip.

Frequency Specifies which frequency to modify. This acts as the peak of the effect—the center of the Bandwidth you specify.

Bandwidth Specifies the range to enhance above and below the frequency you specified. **Boost/cut** Specifies the amount of boost or cut applied inside the specified Bandwidth. **Q value** A low Q value gives less accentuation and wider audibility across the band. A high Q value focuses more sharply on the center of the band, screening out more of the frequencies above and below it.

Vocal DeEsser

a frequency selective filter that handles the highly sibilant signals without affecting the rest of the sound.

Sibilant signals- high frequency sounds around the 3,200 Hz such as "s", "z", "ch", and "sh."

Vocal DePopper

a frequency selective filter that handles intermittent popping noises, or "plosive sounds", created by speech