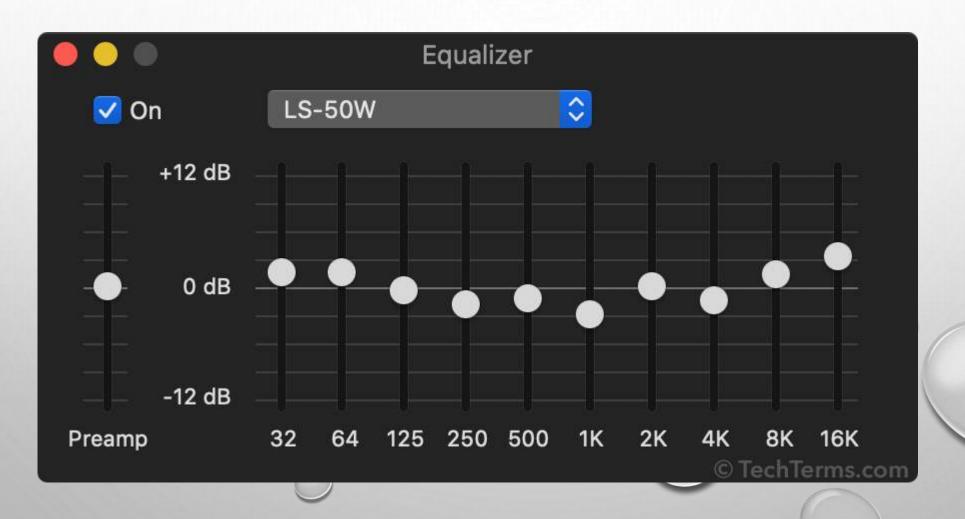
## **EQUALIZATION**

Equalization is all about cutting or boosting bands of frequencies with respect to other bands of frequencies.



## Reasons to use Equalization

Firstly as a corrective tool to compensate for frequency response irregularities caused by inadequate equipment, a less than satisfactory instrument, or poor acoustics or microphone positioning.

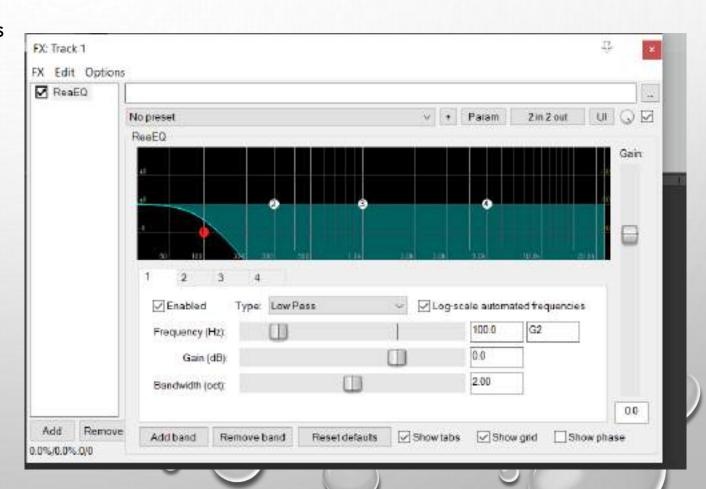
Secondly we go further and use it to enhance the sound to our liking

## FILTERS

The filter is the simplest form of equalizer. A filter removes bands of frequencies. It never boosts.

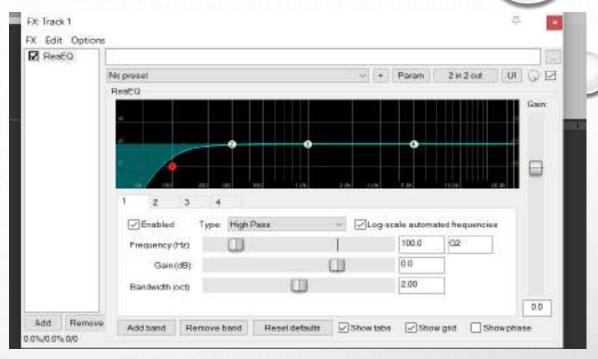
There are five principal types of filter

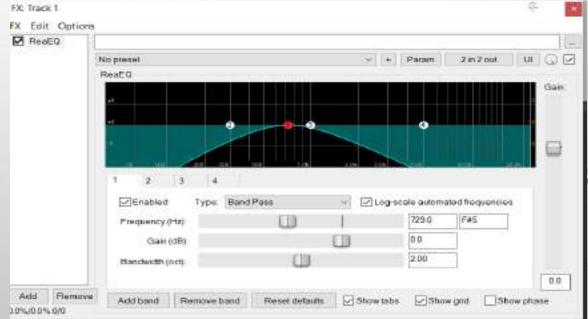
Low-pass: where low frequencies are allowed to pass through but high frequencies are reduced in level ('attenuated')



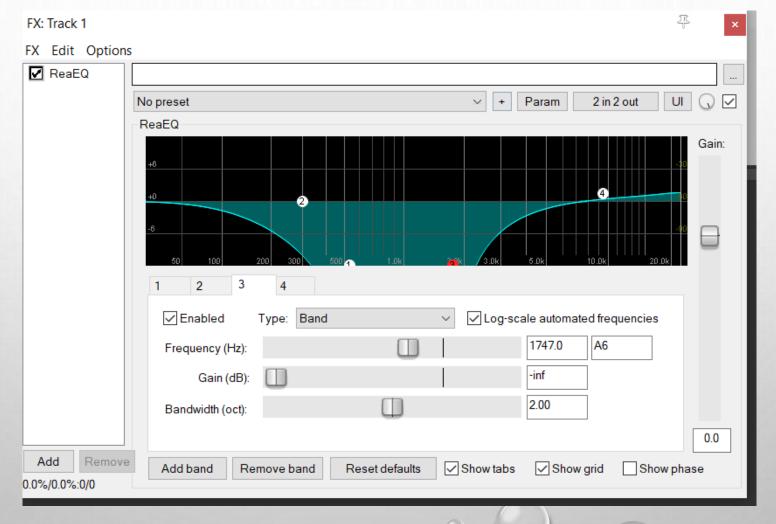
High-pass, where high frequencies are allowed to pass through but low frequencies are reduced in level

Band-pass, where both low and high frequencies are attenuated; mid frequencies are allowed through.





Band-stop, where both low and high frequencies are allowed to pass, but a region in the mid-band is attenuated.



Notch filter – a very narrow band-stop filter, taking out a small range of frequencies

