

Chapter Five

Effects

OUTLINE

Tremolo & Vibrato

Pitch Shifting & Auto-Tune

Equalization (EQ)

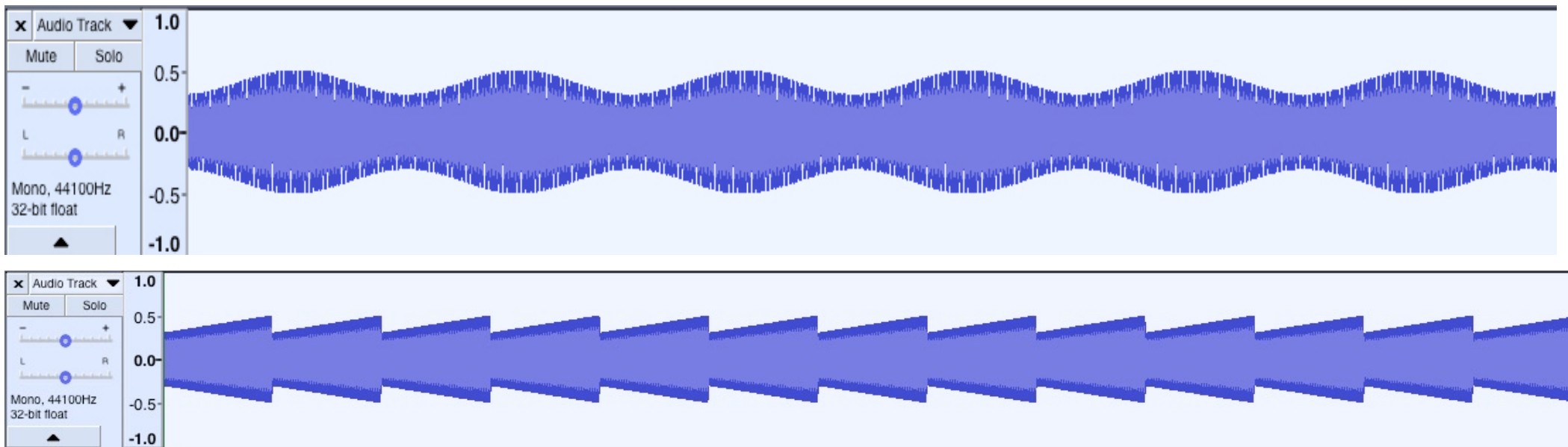
Filters

Modulation

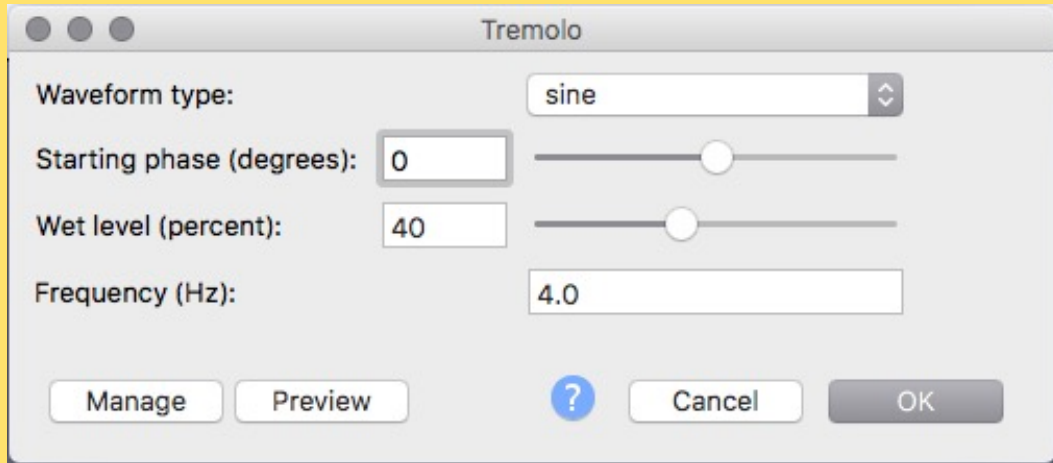
Distortion

Tremolo

“trembling” - Modulates amplitude



Tremolo in Audacity



Waveform Type: alters shape of amplitude pattern

Starting phase: where to start in cycle

Wet level: depth of sweep of amplitude

Frequency: speed of oscillation (how “trembly”)

Vibrato

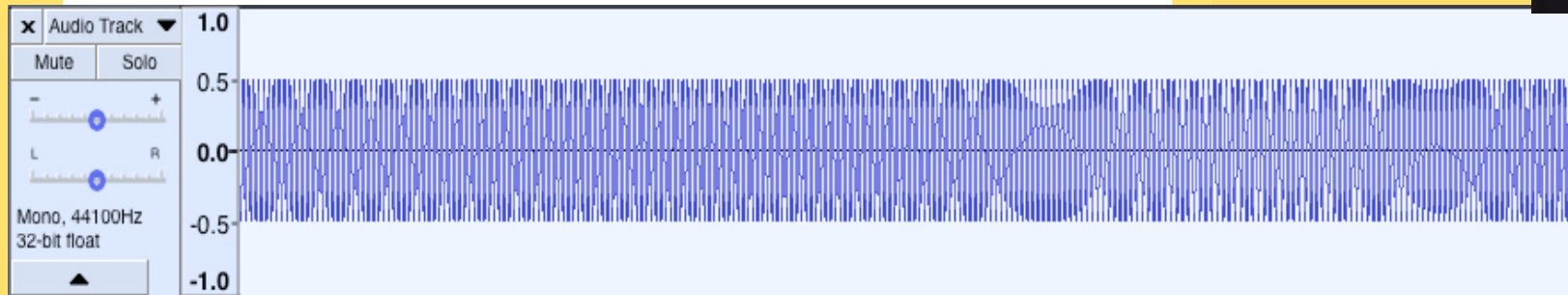
- “vibrare” = to vibrate
- Modulates **Frequency**



whammy bar

<https://www.yellowpages.ca/tips/using-a-tremolo-bar-while-playing-guitar/>

(wrong!)



Pitch shifting & Auto-Tune



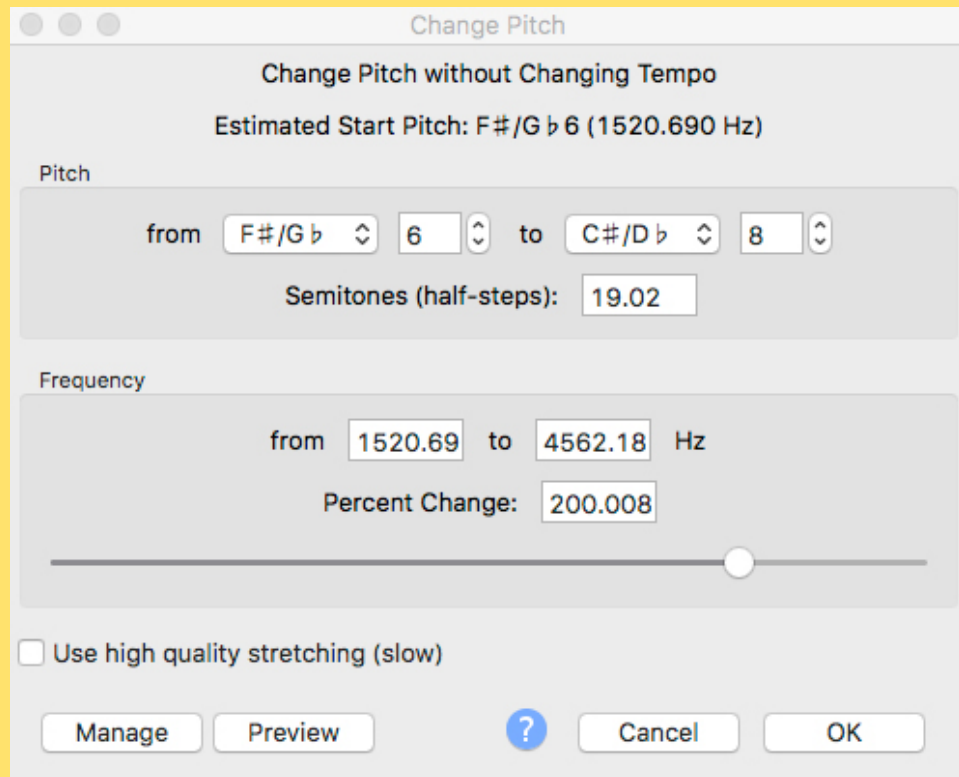
Antarestech.com

Pitch = Frequency

Auto-Tune = Antares Plug-In



Pitch Shifting in Audacity



Effects > Pitch Change
Pitch OR Frequency

Equalization



Realhdaudio.com

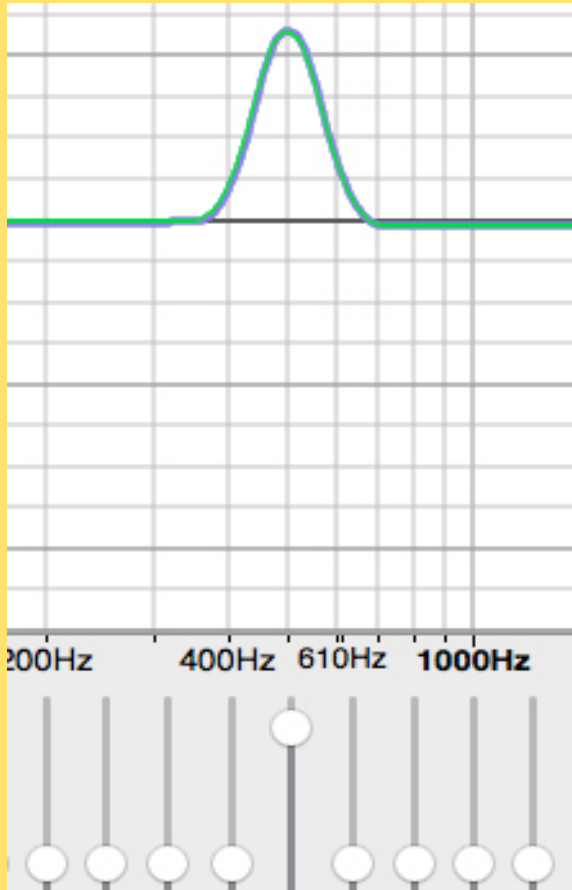


Thomann.de



Yamaha.com

EQ

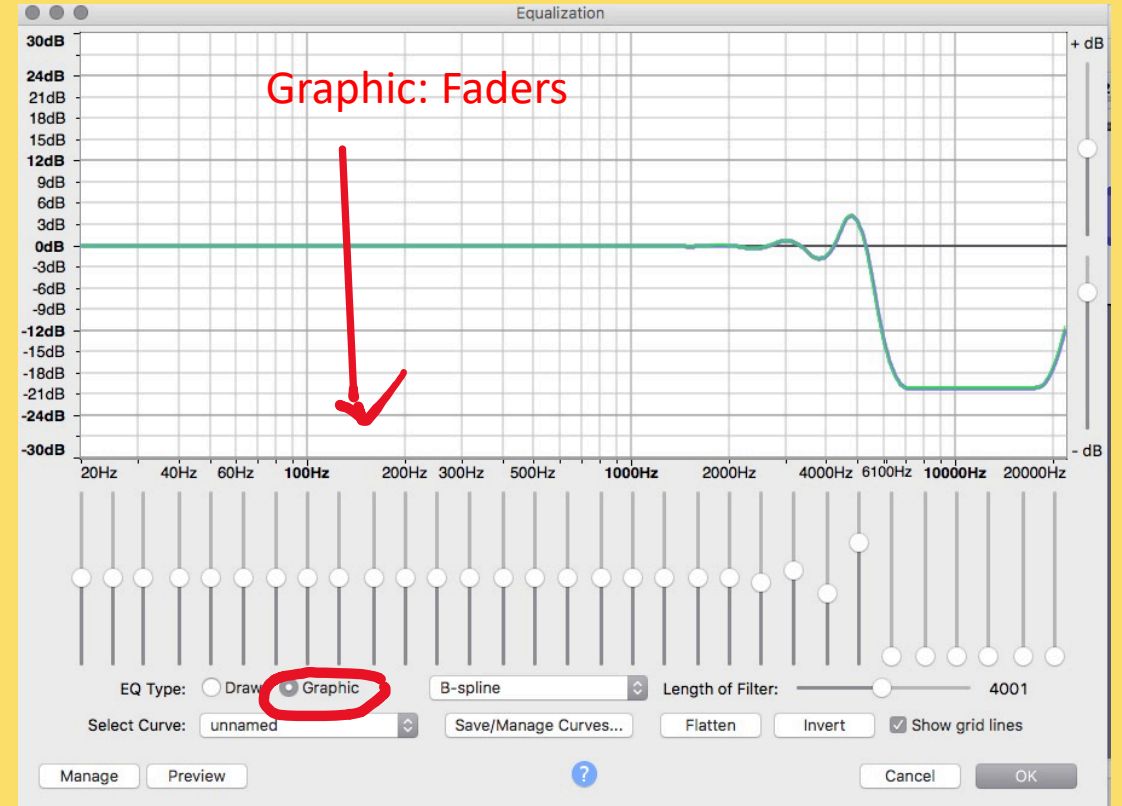
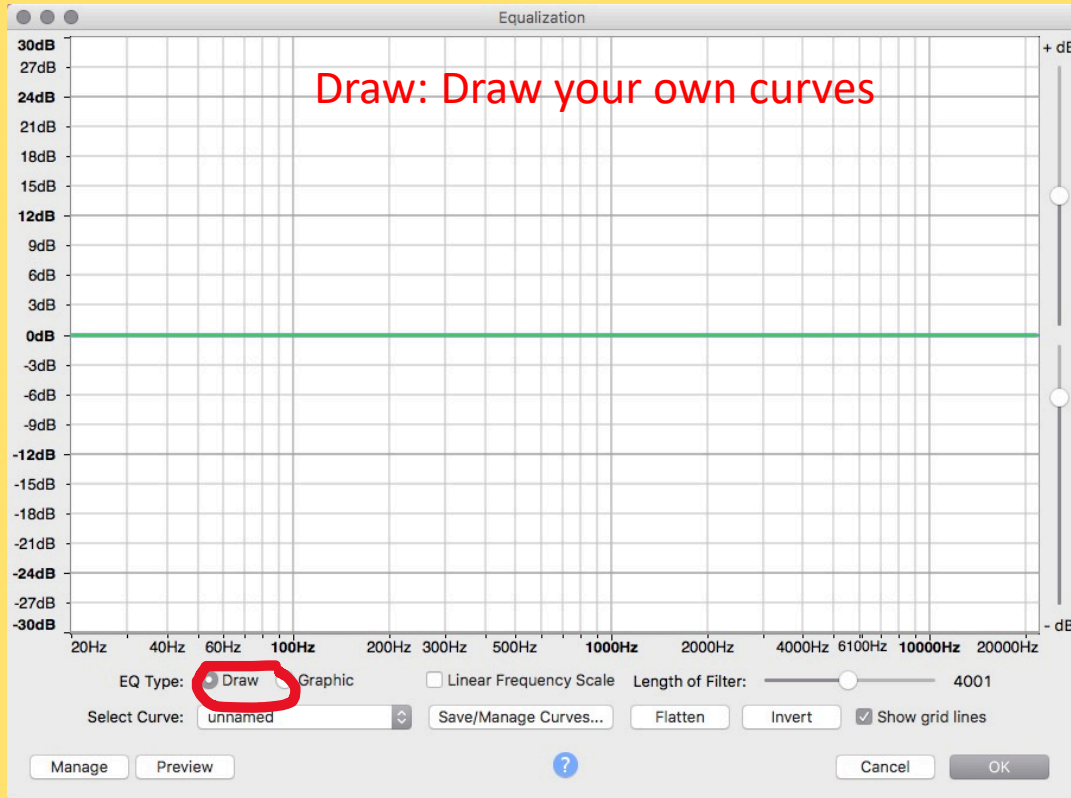


Bands: group of frequencies

Bandwidth: set of bands affected by slope

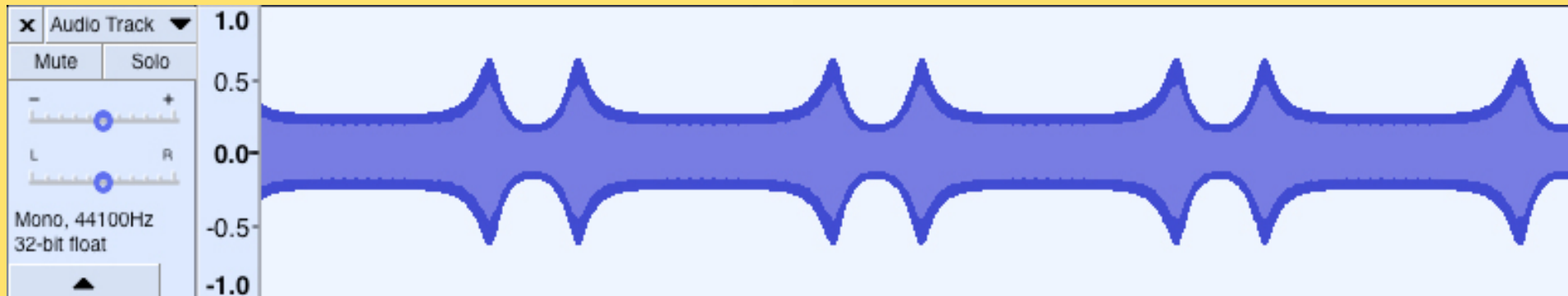
Q value: ratio of centre frequency to bandwidth:
increase Q = lower bandwidth

EQ in Audacity

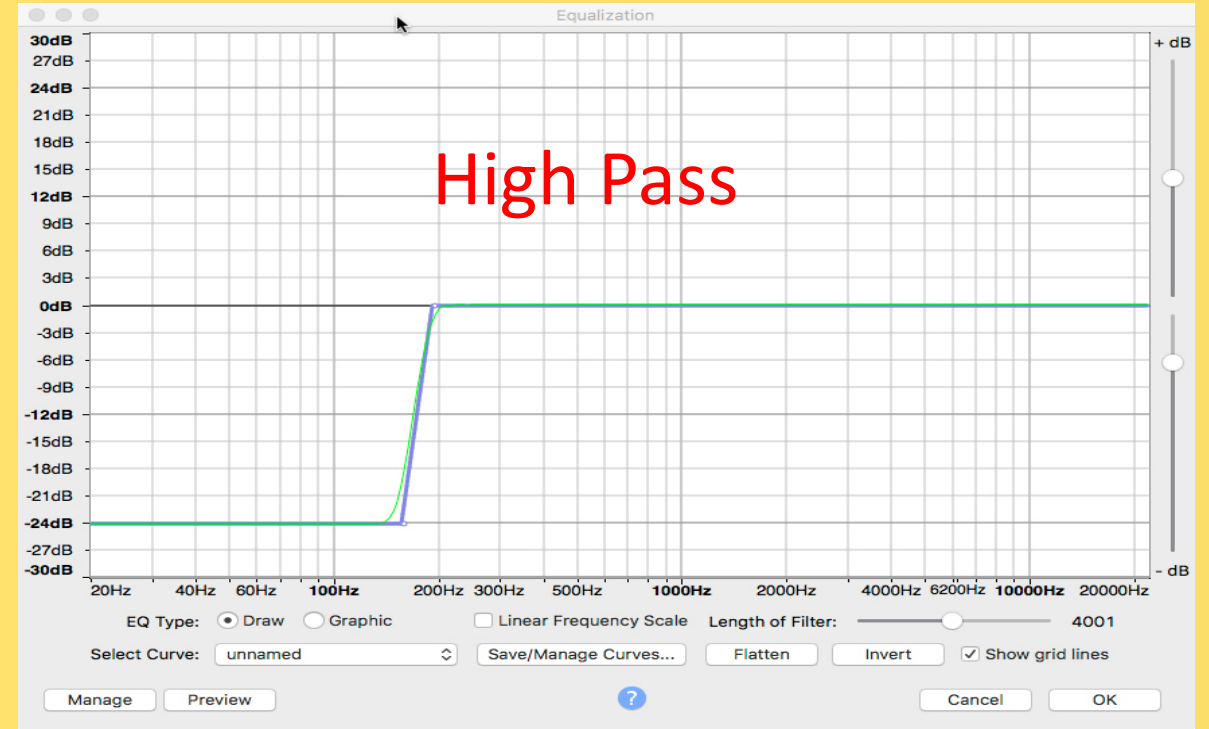
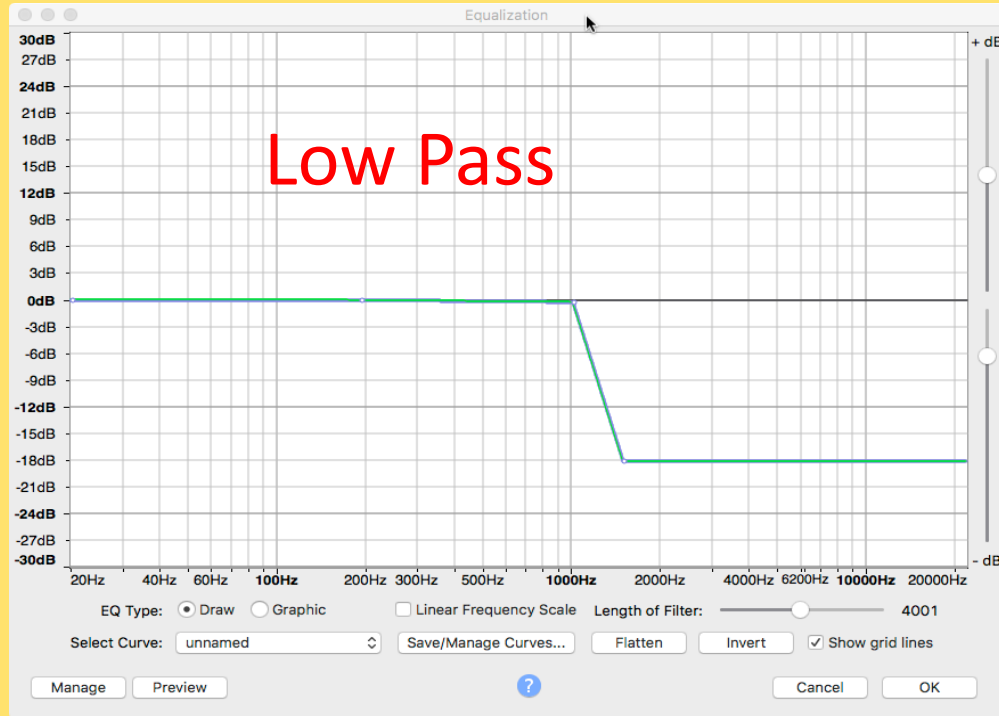


Wah-Wah

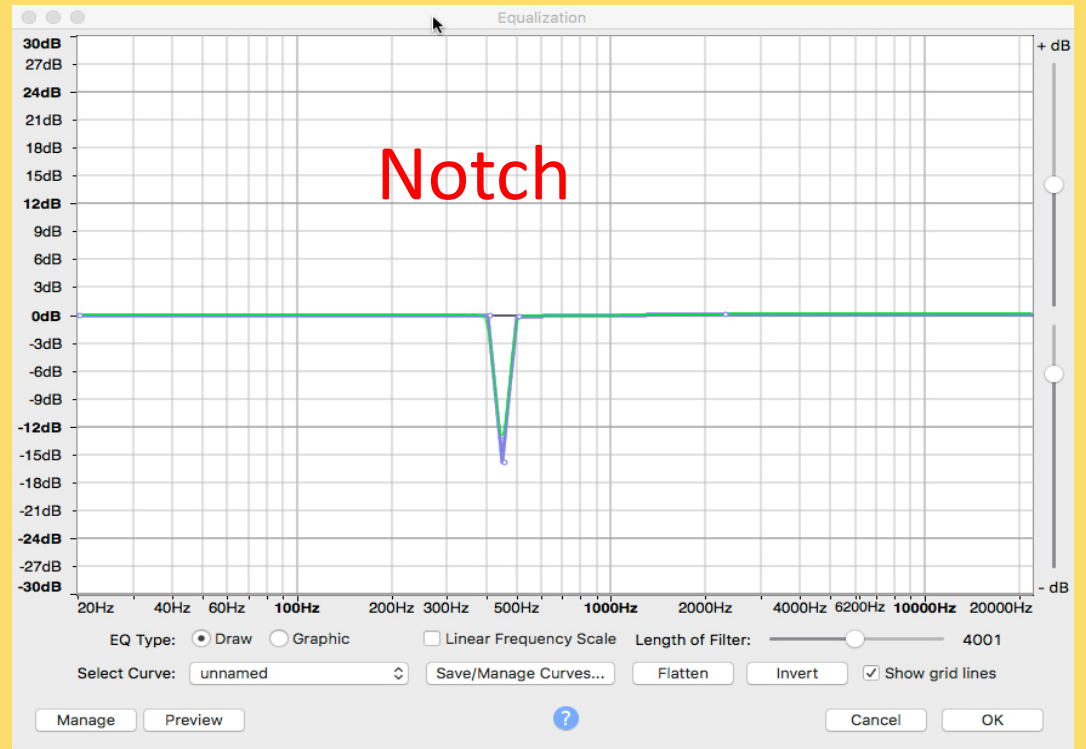
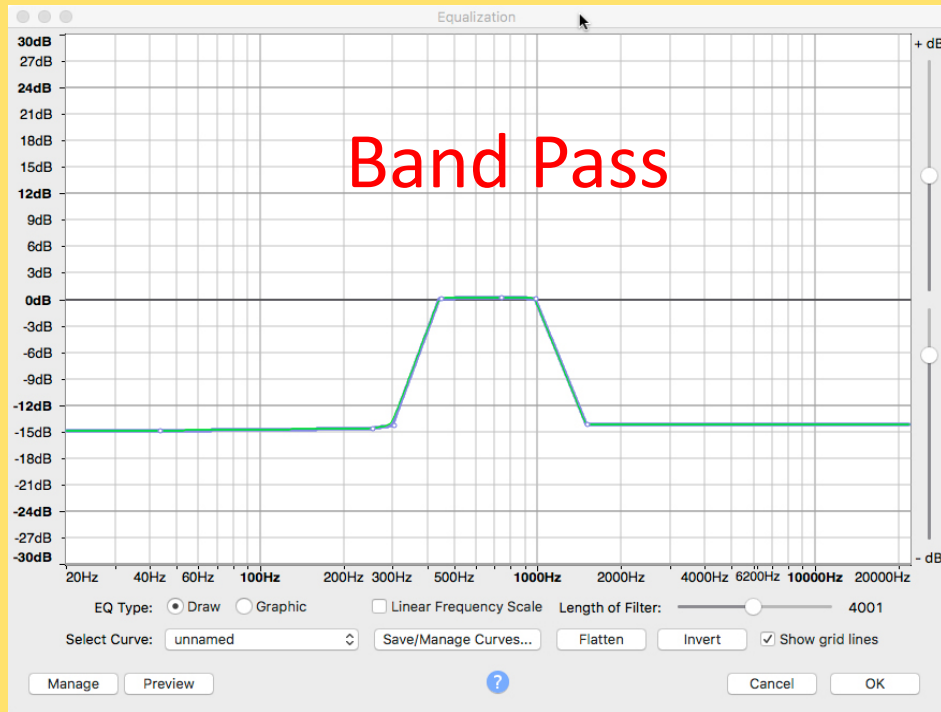
Variable EQ with sweep of frequency band



Filters



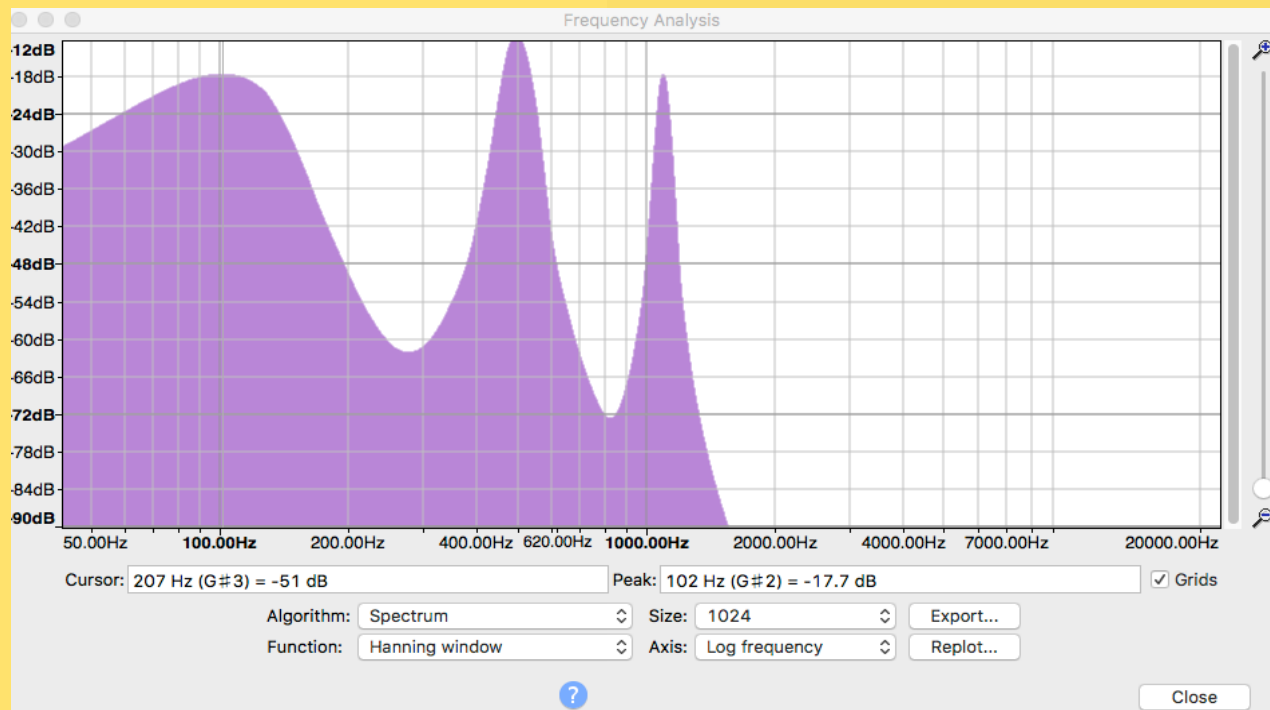
Filters



Ring Modulator

Remember Combination Tones

Ring Modulator = Sum and Difference of inputs

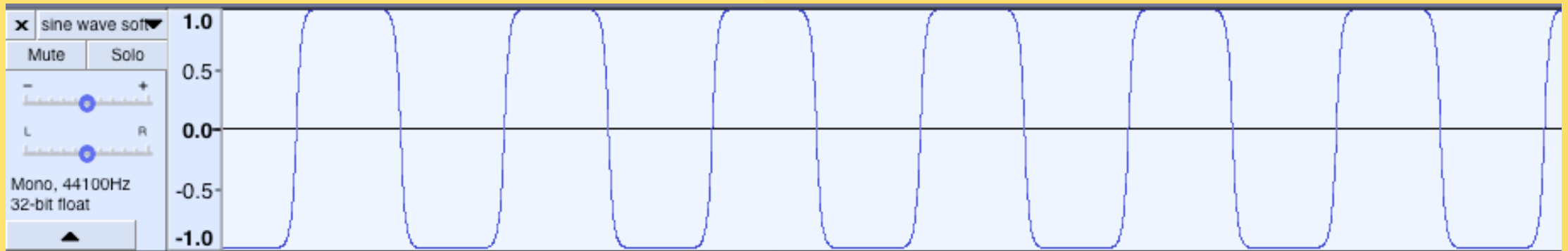


Distortion

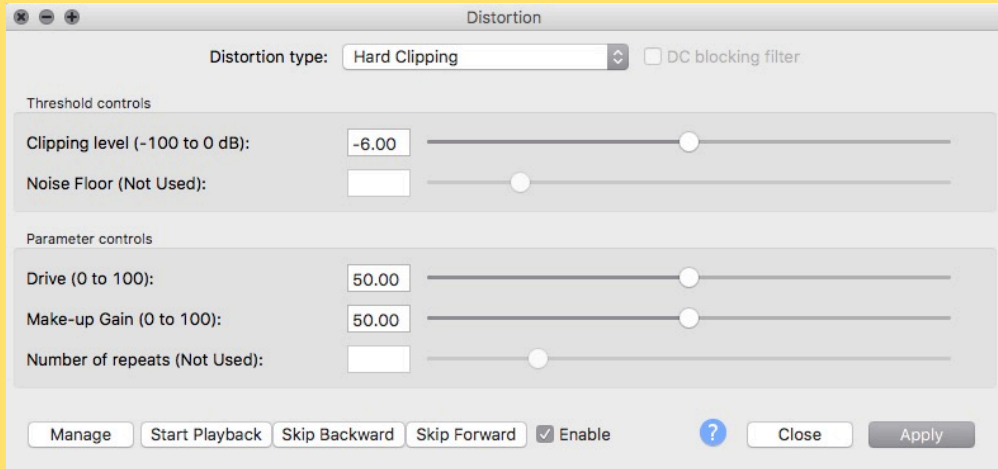
Overdrive: “soft clipping”

Distortion: “hard clipping”

Fuzz: hard clipping + saturation of harmonics



Distortion in Audacity



Clipping Level: peaks greater than level are clipped

Drive: amount signal amplified before clipping

Make-Up Gain: overall output amplification

Distortion Amount: Strength of distortion