

//DSPplug freq3

by King OZ Records

User Manual (v1.0)

Last updated 10/10/2020

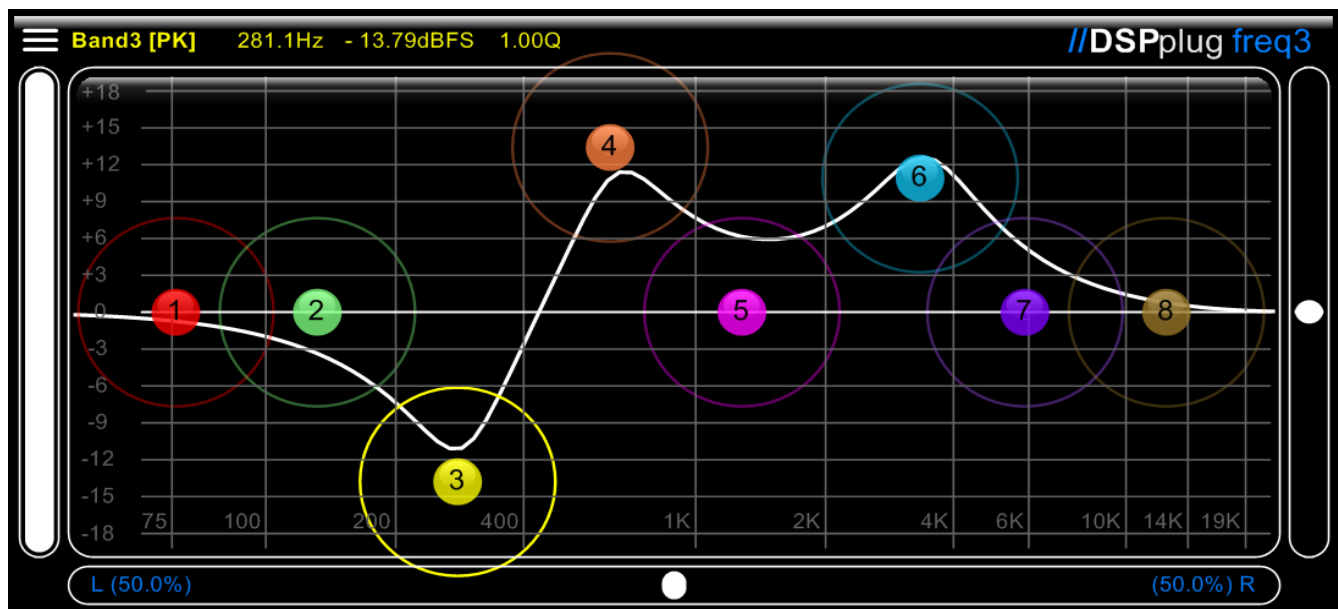


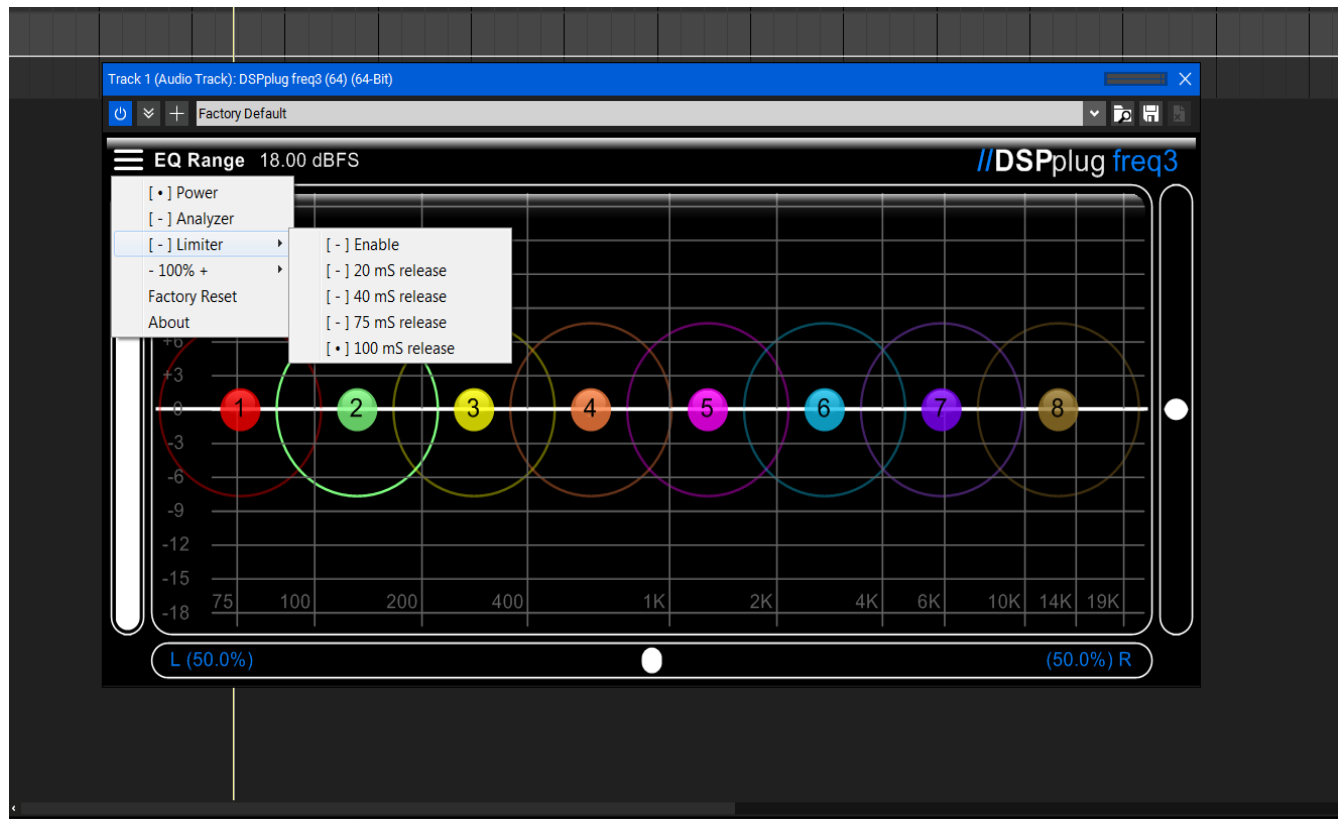
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Getting Started

There are many equalizers both free and paid and yet often there is something that equalizer possesses which is original. There's not much to know about the freq3 equalizer and it is designed for easy, day to day utilization.

When Opening the freq3 in your DAW (like in Mixcraft below):



You will notice a hamburger menu on the top left. This menu allows you to select whether or not to turn on the Power, Analyzer, Limiter, and also it provides the option of sizes, ranging from 80% to 120% of the default size.

While the Power, Analyzer, and Limiter settings are saved

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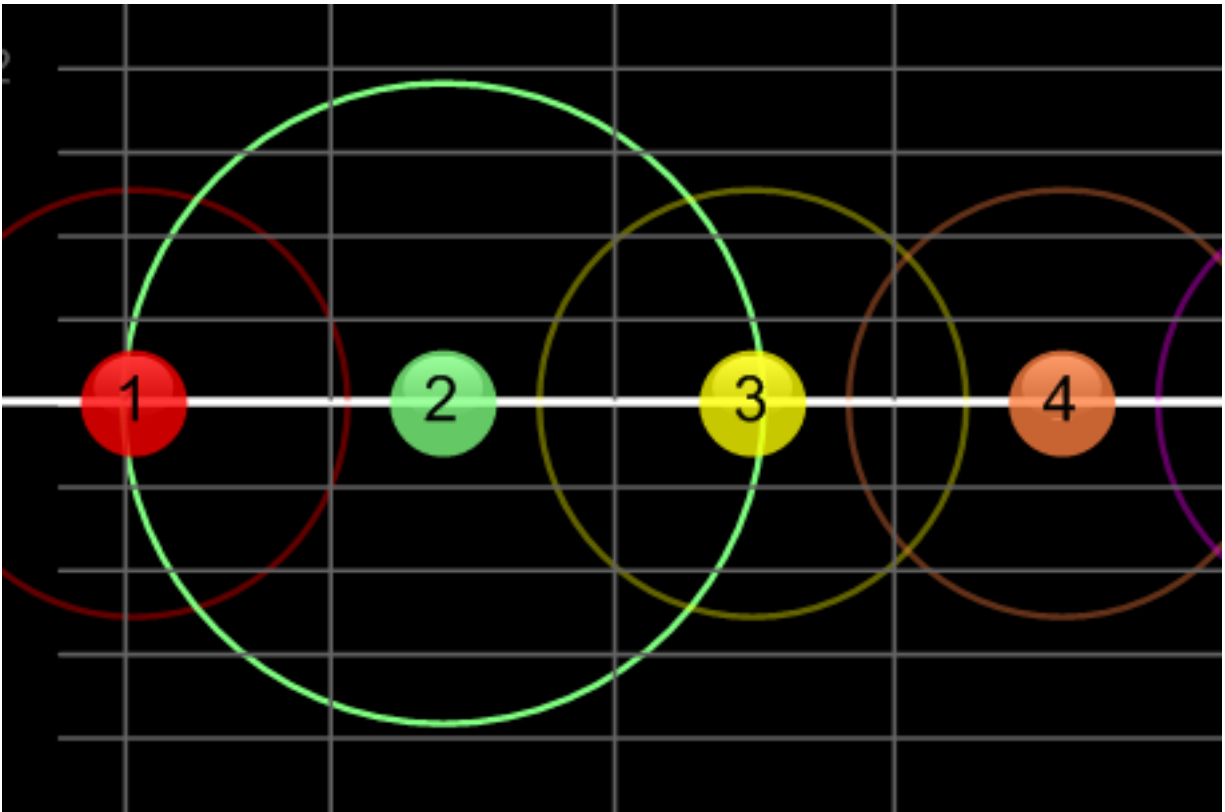
in a local preset (a preset saved for that instance of the freq3 plug-in); but in contrast, the size preset is a global one, automatically loaded for every instance of the freq3 plug-in to reduce the amount of configuration for the end-user.

To turn "off" the Power setting, merely press that setting in the drop-down menu, and the same for the Analyzer feature, the limiter setting however provides more than one option for configuration and to enable the limiter, choose:

Limiter > Enable

There's a choice of release times available for the limiter, these times can be a crucial selection dependent on the nature of the sound which you are mixing (Given that the release time is not automatically chosen by the software). The reason this is, is taste. A good limiter will quaver a little when dealing with high bass and in situations where the volume is well over the 0 dBFS threshold; meaning that the faster the release time; then likely the faster that the limiter will recover from such an event.

Yet, like all things, there is balance. Likely 40 mS will be an ideal selection.



The Q (resonance)

feature is depicted by the circle surrounding each of the eight bells and can only be manipulated by the mouse or touchscreen while that bell is currently selected.

To select a bell, press it with the left or right mouse button (dependent on your configuration), or alternatively with your touchscreen.

Originally, you may have noticed that the circle surrounding that bell has increased in opacity. This means that it is selected. Horizontal movement while holding the mouse or the touchscreen down on this area will cause the resonance to be affected.

Hint: The mouse wheel can also affect the Q/Resonance by mousing over the bell and adjusting the mouse wheel accordingly.

Optional Filters

The paid version of the freq 3 allows the selection of the following filter types:

High Pass [HP]

Low Shelf [LP]

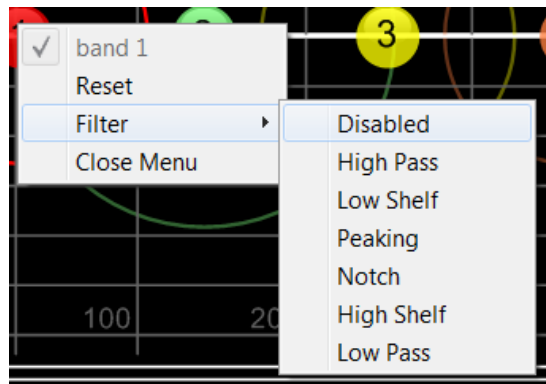
Peaking (default) [PK]

Notch [NF]

High Shelf [HS]

Low Pass [LP]

To select from these filters, simply double click a bell to select from the above filters available, or alternatively, disable the bell.



Information

The freq3 uses filters designed by Robert Bristow Johnson, and the designs outlined in his EQ cookbook. All filters employed by the freq3 are linear (1st order) filters which are faster in nature innately, than second or third, or fourth order filters (steeper) filters.

The reason that first order filters are ideal is due to the fact that the processing is symmetrical and faster; allowing a greater tolerance for workload and a speed which would be hard to match should the filters employed be more complicated than the ideal first order filter's design. The only difference between a first and second order filter, is that it is processed once, rather than twice.

Perhaps it is warranted to mention that High Pass and Low Pass filters, by design can cause more tremulousness and draw on more CPU resources than the Low and High shelving filters in contrast.

Given this nature, shelving filters are an ideal alternative to using either HP or LP filter types in the freq3, or other EQ's in general.

The freq3 is loosely based on the older design of the original Freq EQ by phonics audio. DSPplug (formerly known as VSTplug) studied DSP design since 2017 and had been mixing audio daily since 2016, eventually creating equalizers like the freq3; based upon the DSP designs of Nicholas Johnstone, the owner of Phonics Audio (<https://phonicsaudio.com>).

The freq3's design and innovations are mostly the result of code design and experience from 10 years of web development experience (4 years professionally). *Flowstone* is the product employed to create the VST .dll and the technologies therein, while much of the programming language employed consists of [Ruby](#) code.

A main goal of the freq3 is to provide much the same experience as users of the fruity parametric EQ2 (by [image-line](#)) in other DAW's, such as Mixcraft by Acoustica, Ableton Live, Cakewalk and Studio One. By providing the same level of functionality in a unique way, it achieves the goal of providing the end user with an equalizer that can be used in all Windows based (VST compatible) DAW and Audio editor software (such as Soundforge) universally, resulting in less of a learning curve. A future goal of the software is to possess an inter changeable preset system which is cross compatible between DAW and Editor environments.

Acknowledgements

Nick Johnstone (<https://phonicsaudio.com>)

Martin Vicanek (<https://vicanek.de>)

Myco

DjBrynte (www.infectedsounds.com)

Fanan Team Pro (<https://fananteampro.com>)

Trogluddite

Acrobat

Exonerate

Nick Dellow (freelance sound designer)

Kirkagur

MvdLee

Bootsy (<https://varietyofsound.wordpress.com>)

Thomas Weber

Digital White Byte (DWB)

Infuzion

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