



DrumQ User's Guide

Quickstart TL;DR

1. Play your track and note where the resonant peak of that particular drum is
2. Turn the "Tune Frequency" knob until the blue line in the spectrum display is on the peak resonance of the drum
3. Turn up or down the Gain knobs of the Octave Filters across the various octaves
4. Use the Alternate Resonance to pick frequencies to affect a "smooth" vs "angry" sound from the drum and turn up and down the Gain Knobs of the Resonant Note Filters.
5. If desired, press the "D" button on any particular filter band and use the individual compressors to further control the sound of that drum.

Background

DrumQ was created to greatly simplify and make far more ergonomic, the time honored practice of eq-ing multiples of a drum's resonant frequency. For instance, if a kick drum peaks at 60Hz, you would also be considering cutting or boosting 120Hz, 240Hz, 480Hz, etc.

Why do we do this? Sometimes you can create just as big of a sound in much much less sonic real estate by deciding which octaves of this drum will be prominent in the mix. You might be very surprised how much of a difference this can make, and how much room you can open up for other instruments, but not losing any of the impact of that drum!

Also, as playback devices' speakers get smaller and smaller, you often have to simulate the feeling of a lower frequency by using higher octaves. You guys mix checking on your iPhones can surely attest to this trick!

With the Alternate Resonant set of filter bands, you can also alter the character of the drum itself in much the same way as the bottom head tuning in a tom tom.

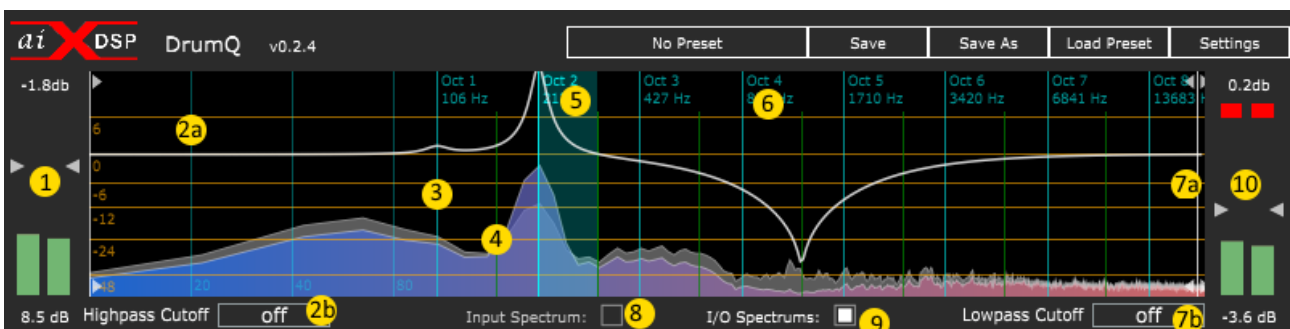
A compressor (with hold control) in each band allows you to further tailor the sound of your drum adding or removing sustain among other creative uses.

The User Interface

The user interface can roughly be divided into three sections, as shown below: The *Spectrum Display*, the *Tuning Section*, and the *Filter Sections*.



Spectrum Display



The *Spectrum Display* shows frequency vs level as well as the current state of all the Filter Bands. Here you can also work with general functions, like input and output levels.

In the picture above, the spectrum display is in its normal mode of operation, and the controls are as follows:

1. Input Meter and input gain control. At the top is a peak reading and an over indicator. At the bottom is the gain amount
2. a) Draggable high pass filter line. b) High Pass filter text box
3. Octave Filter frequency indicator (in this case, Octave 1)
4. Spectrum Display (in this case as *Input Spectrum* is unchecked and *I/O Spectrum* is checked, both the input and output spectrums are shown with the output spectrum in color and the input spectrum in gray)
5. Selected Octave Filter band (click in this area to select the octave)
6. Unselected Octave Filter band (click in this area to select the octave)
7. a) Draggable Low Pass filter line. b) Low Pass filter text box
8. Input Spectrum Checkbox: When checked, the spectrum display shows the input signal. When unchecked shows the output signal
9. I/O Spectrums: When checked, shows both input and output spectrums in the Spectrum Display. At this point, the Input Spectrum checkbox, when checked will show the input spectrum in color and the output spectrum in gray. When unchecked, the input spectrum will be gray while the output spectrum will be in color
10. Output Meter and output gain control. At the top is a peak reading and an over indicator. At the bottom is the gain amount (post-gate)

The Tuning Section



1. Tune Frequency: Turn this knob to match your drum's resonant frequency or peak frequency by putting the Octave filter frequency line (item 3 above in the Spectrum Window explanation) on the drum's peak in the spectrum window. This will set every octave filter to center on a multiple of this frequency
2. Alternate Resonance: This will tune the Alternate resonance frequency's relationship to each octave filter. This will set every Resonant Note Filter to center on a multiple of the selected frequency. This is very similar to the relationship between the top and bottom heads' tuning on a tom drum. You can often go between "smooth" to dissonant to "angry" by changing this relationship
3. View Filters: This knob picks which Octave and Resonant filter band is currently active with its controls showing in the Filter Section. This does the same as clicking the octave Filter band (5 in the Spectrum Display)
4. Overview: Clicking this button shows all of the Octaves at a glance in a simplified view missing some controls, but good for a quick overview of the settings as shown below



The Filter Section



The Filter Section has the EQ and Dynamics control for each Octave band and each Resonant Filter band. Each band has an EQ with a gain control and a bandwidth control. Each band also has a dynamics processor with the standard threshold, ratio (from and expander at a 0.5 to 1 ratio up to a hard limiter at infinity to 1), attack and release controls as well as a hold control.

1. Octave Filter section. The number here specifies which octave band is currently selected
2. Enable control for this particular band

3. Solo control for the selected band
4. Dynamics enable/disable for the selected band
5. Frequency of the selected band, as set by the Tuning Frequency (1 in the Tuning Section)
6. Gain control for the selected band's Octave Filter EQ
7. Bandwidth or Q control for the selected band's Octave Filter EQ
8. Threshold for the selected band's Octave Filter dynamics section
9. Ratio for the selected band's Octave Filter dynamics section
10. Attack control for the selected band's Octave Filter dynamics section
11. Hold control for the selected band's Octave Filter dynamics section
12. Release control for the selected band's Octave Filter dynamics section
13. Resonant Filter section. The number here specifies which octave band is currently selected
14. Enable control for the Resonant Filter section of this particular band
15. Solo control for the Resonant Filter section of this selected band
16. Dynamics enable/disable for the Resonant Filter section of this selected band
17. Frequency of the selected band, as set by the Alternate Resonance (2 in the Tuning Section)
18. Gain control for the selected band's Resonant Note Filter EQ
19. Bandwidth or Q control for the selected band's Resonant Note Filter EQ
20. Threshold for the selected band's Resonant Note Filter dynamics section
21. Ratio for the selected band's Resonant Note Filter dynamics section
22. Attack control for the selected band's Resonant Note Filter dynamics section
23. Hold control for the selected band's Resonant Note Filter dynamics section
24. Release control for the selected band's Resonant Note Filter dynamics section