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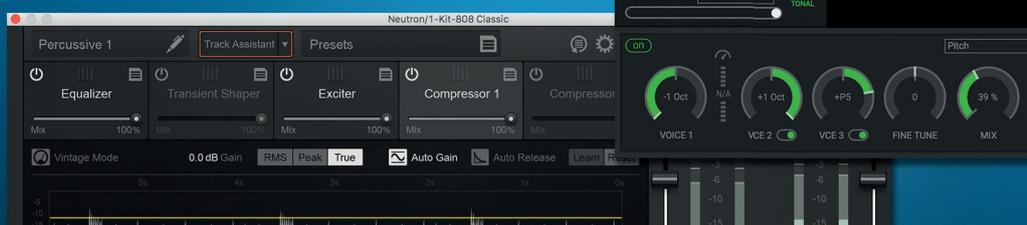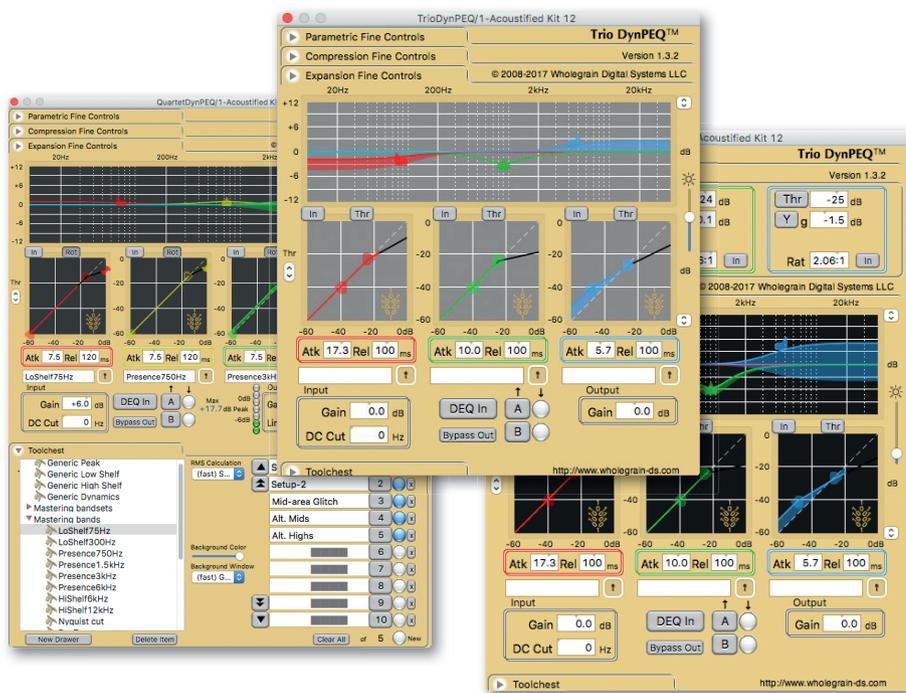
Wholegrain Digital Systems
Trio DynPEQ and Quartet DynPEQ

By Darwin Grosse

Sometimes a little luck is all you need. At the 2017 Winter NAMM show, Mike Metlay asked me to stop by the NAMM Software Center for a product presentation by Wholegrain Digital Systems. Thinking that I was going to get a typical jargon-filled info-blast by a software developer, I was surprised to get a demo by Grammy and Emmy award-winning engineer Nathaniel Kunkel. What he showed me certainly got my attention.

The product is Wholegrain's DynPEQ, and it could easily fly under your radar. It's a *dynamic parametric EQ*, which is to say that it is a multiband compressor/expander and EQ combined. It's not a 'looker'—it doesn't feature the faux woodgrain panels or nixie tube graphics common in many modern plug-ins. But what it does offer is a twist on EQ and multiband compression that

could change the way you imagine your everyday processing setup.

Combining EQ and dynamics

DynPEQ is a pair of complementary plug-ins that provide a finely-tuned set of parametric EQ-style controls to alter both the gain and compression/expansion characteristics of your track. One of the plug-ins, the Trio DynPEQ, features three processing bands and would typically be used as a track processor. The second, Quartet DynPEQ, has four processing bands, a brickwall limiter, and a dual-mono variant useful for M/S processing. With either Trio or Quartet, you get a basic set of functions where you select frequencies and bandwidth, breakpoints and compression amount; from there, you can gain-manage the audio in many ways.

What, exactly, do I mean by "gain-manage"? Well, in a typical parametric EQ, you choose a frequency,

the Q or bandwidth (the amount of effect on adjacent frequencies), then either increase or decrease the level of that frequency range. It's probably the most-used function outside of a volume control on any DAW's channel strip. However, if you add compression to that process, you can change the way that the frequencies are altered. When the level reaches a threshold, it will begin having its volume reduced. It's sort of like having an auto-EQ, and is super-useful for dealing with specific issues in a sub or master mix.

You get even more functionality if you allow expansion as part of the system. Expansion isn't nearly as common as compression, but is very useful: you set a threshold, and if you then drop *below* the threshold, the levels get increased, allowing you to 'pull up' the selected frequency that you are working upon. At its most extreme, expansion can 'pump' the sound, but used with subtlety it can even out the quiet parts of a track without forcing the use of a lot of added gain.

This may make DynPEQ look like an overly complex plug-in, and in some ways it is. The combination of EQ, compression, expansion, and limiting functions means there is a lot of conceptual ground to cover. Also, there are two ways to attack your settings: you can do coarse adjustments by adjusting the controls directly, or you can do detailed adjustments through numeric entry. Each has its uses; I found myself gravitating to the graphical UI for frequency adjustments, but using numeric entry for entering compression ratios and EQ bandwidth.

One of the keys to learning how to use these devices is found on the Wholegrain website (**www.wholegrain-ds.com**). There you will find a series of videos that walk through the process of dealing with the controls, bands and storage options available in the Trio and Quartet plug-ins. Frankly, using this was important, since my previous experience with multiband compressors and parametric EQs didn't necessarily set me up for success with DynPEQ.

Once you get a handle on how to work with the breakpoint handles (which Wholegrain calls 'beads'), you

can go to town. That's when you find out how special these plug-ins are. The visualizations, while not particularly 'sexy', help you get a firm grasp on activity in each frequency band and with each compression/expansion function. And the response of the compressor/expander is as snappy as you would wish.

Handy extras

Two cool things about the DynPEQ series are the Band Toolchest and the A/B Switcher.

The A/B Switcher allows you to have two completely different plug-in settings, switched with a single mouse click. This sort of function in other plug-ins is a pain, since you often end up polluting your preset system with temporary settings just to maintain states as you switch back and forth. DynPEQ just lets you click on a 'register' to save the current state, then recall that state quickly. I found myself using this feature constantly, especially when I was searching for a way to tame the harmonics of pesky acoustic instruments.

The Band Toolchest is a preset system for both single band or multiple bands. This system allows you to develop and store your favorite settings in your own 'stash', and use them from project to project. The Quartet plug-in has a secondary storage system that allows multiple settings (which work like the A/B registers) to be placed in a storage 'rack' and saved with your DAW project; this is perfect for complex mastering applications where you want to maintain several states for sub-projects or individual stem tweaking. The Pro Tools version even lets you automate switches between these registers.

I started working with DynPEQ shortly after NAMM, and I've been using it consistently ever since. While I find the Quartet useful for mastering and master bus use, it's the Trio that is seeing daily use because it's simultaneously easy on the CPU and strong on results.

Perhaps the aspect that has me most interested in using this product is the way it makes me think about my work— while it is clearly both an EQ and a compressor/expander, it is viable to approach it like a super-EQ. I find myself using it in place of standard EQs

in some of my tracks, and especially in more active and full-frequency (drum, percussion, guitar) tracks. Grabbing the 'beads' and making big changes is easy, but the results are rock-solid.

One of the tricks that I gleaned from Kunkel's NAMM presentation is the fact that, unlike a standard EQ, you can actually work with overlapping bands in a purposeful way. An interesting example was a bass track that I was working on; overall, the track needed a midrange boost, but on occasion the player caught his nail on the string which gave it an undesirable twang. This artifact was right in the middle of the 'speaking' range of the bass' midrange, and I was loath to carve out that section of the track with an EQ.
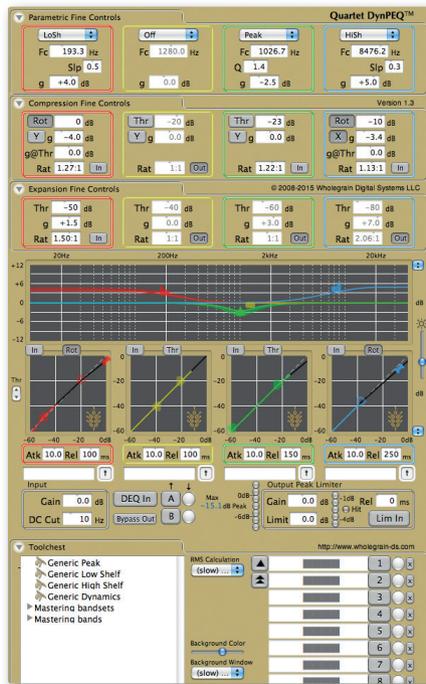
Instead, I could broadly boost and mildly compress the mids with one band of DynPEQ, then use a second band as a tight compression band for dealing with that nasty twang. Even though the bands overlap, the different compression and gain settings allow them to work in a complementary way. In most cases, that second band was never activated, but when the levels went hot, it would kick in and drop that level immediately. This three-minute setup, compared to the hours-long automation march I was dreading, left me loving this plug-in.

I did have the opportunity to use the Quartet for a mastering run on an important electronic music project, and it was exceptional. One of the things I

especially appreciated was the ability to be aggressive with the compression and limiting without hearing a lot of artifacts. I'm not sure what kind of digital magic is in use here, but even using a heavy hand left the tracks with a great sound. This means that I could focus on the dynamic level of the track with little worry about managing brickwall limiter garbage.

Conclusions

DynPEQ is an amazingly versatile plug-in, and has won a pretty strong following among engineers in the know. Once I got used to the UI and the visual feedback system, I found it useful in many situations— in fact, when I would try to use other multi-band systems, I would end up a little frustrated by their lack of flexibility.

The sound of the DynPEQ is transparent and tight, and the compression/expansion was as flexible as I needed. I ended up using Trio on a fair number of mix channels, and Quartet has also become a favorite for my mastering projects—especially with its ultra-effective limiter.

This is one of those cases where you must look beyond the graphical eye candy to understand the value of a plug-in. I was lucky enough to get a great demo at NAMM; now you can check out the videos and manual available at the Wholegrain website. I feel like these plug-ins, despite having been around for a while, are an exciting new way for me to manipulate my audio projects. Download the trial and give it a swing—it might change your view of EQ and compression! ✍

Darwin Grosse (grosse@recordingmag. com) is a recording and mastering engineer, musician, music software developer, and educator, living and working in the Minneapolis area.