

Column by Renzo van Riemsdijk (Masterenzo):

Dynamics 2: tools to influence dynamics.

In this second part about dynamics I will continue where I stopped last month: tools to influence the dynamic range of your music.

Yes, I'm talking about the compressor. But also the limiter plays an important role in controlling dynamics, together with a secret weapon used by many mastering engineers. I think I'll save the secret weapon for next month's column, for the sake of rising the expectations.

The compressor

The compressor is perhaps the most well known piece of machinery to influence dynamics. Probably because it's also been used in so many mixing and recording situations.

I won't discuss how a compressor exactly works, that you can easily find on the internet (YouTube tutorials).

I will discuss the various effects a compressor can have on your music, especially when used on full mixes.

There are a couple of these effects. First the softer passages get turned up louder and the louder parts (peaks) are being turned down. Yeah right, tell me something new.

Ok, another effect of a compressor is coloration. A compressor generates overtones (harmonics). These tend to fatten up your music slightly. An effect used generously by us, the mastering engineers, to give our masters more energy and impact.

A great benefit, but beware: too much of this will kill your music. A lot of music is actually being destroyed by using too much compression. **Compression effects are irreversible!**

Once those peaks have been treated, there is no way back.

A third effect of compression is that it can ever so slightly change the balance between vocals and instruments in a mix. An example: imagine a mixed track where the vocals just don't seem to blend in well. Try using a compressor on the mix bus. With the right amount of compression you'll start to notice small changes in the proportions of vocals and music.

Don't expect huge changes but it can be just that little bit of change a mix needs to feel great. Again: be gentle! An overcompressed mix is a real shame.

I can hear you thinking: "Okay great, but what type of compressor should I use? Optical? Vari-mu? VCA?"

Well, it's not easy to answer that question. Perhaps that question is very well meant not to be answered at all. The different types of compression are all very different in how they change dynamics. It should suit the music. Does it need (extra) colouring? Maybe transformer input and output stages?

You can find lots of info about the various types of compression on the internet and how much fun is it to find out for yourself what compressor works best for your needs.

Send a whole mix through different compressors with the same global settings and be amazed by the differences!

The limiter

The (digital) limiter, the famous machine behind the loudness war that started in the nineties (Waves L2, the hardware version).

The L2 was/is capable of getting music insanely loud with relative few side effects. Flat like flatbread and sterile but used on so many recordings made in that era.

When used moderately a limiter (plugin or hardware) can definitely add some extra punch and presence to a master. Without coloration because limiters are made to preserve transparency. Just a little extra volume, that's all to it.

The secret weapon

I'll discuss that one next month, see you then! ;-)

Renzo

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