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Subject: changing phase for a thicker sound  
Posted by [mikeaudet](#) on Tue, 08 Feb 2011 22:03:08 GMT  
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Hi guys,

I was reading about a hardware mod the other night, and it mentioned that one of the things that makes transformer isolated mic pres sound so much better is that the high frequencies get delayed relative to the bass. I did some more reading, and it turns out (supposedly) that the human ear can't tell phase difference above around 200hz, but is very sensitive to changes below 200hz.

So, I split an acoustic guitar track over two tracks with a crossover set so that below 200hz was on one track and above 200hz was on the other, and then I used sample slide to delay the high frequencies by around 40 samples.

I haven't listened for all that long yet, but my first impression was that the sound was definitely fuller and bigger, with no eq applied except for the crossovers.

Has anyone else ever tried this? I'm curious how close to the thickness of transformers one could come using this kind of approach. A compressor could be put on the lower frequencies, too, to try to simulate the low end saturation that a transformer provides.

Just wondering what people's thoughts are on this.

Mike

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Subject: Re: changing phase for a thicker sound  
Posted by [drfrankencopter](#) on Wed, 09 Feb 2011 13:41:17 GMT  
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I doubt it captures the magic of transformers...which would be more like a frequency sensitive hysteresis, but it's still a cool effect and something I've thought about making a plugin for.

I've thought that a spectral panner would be interesting, where you could route the low frequencies to the center channel, and higher frequencies could be sent to the sides...or alternatively, a stereo signal could be collapsed to mono below a certain cutoff, and kept stereo above it.

Similarly, you could do spectral delays by splitting into multiple frequency bands, each with separate feedback controls, and times delay times that are rhythmically related...

Cheers

Kris

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Subject: Re: changing phase for a thicker sound  
Posted by [dnafe](#) on Wed, 09 Feb 2011 17:21:22 GMT  
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That's a interesting idea and could be a rather spectacular effect especially if you control the speed of the outward pan...hmmm...gonna give that a go this afternoon as I have some really nice acoustic guitar tracks I can play with

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Subject: Re: changing phase for a thicker sound  
Posted by [Ted Gerber](#) on Thu, 10 Feb 2011 01:18:34 GMT  
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Brainworx Digital does this well.

<http://www.brainworx-music.de/>

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