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Subject: Making Something Like ADT in a graph

Posted by [DBL9](#) on Fri, 12 Feb 2021 23:45:32 GMT

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Hi All,

I am trying to make something like vacuumsound ADT with a graph. It just splits the mono signal and puts some delay, wow and flutter on one side, then pans them left and right.

The delay part is easy but I am unsure how to do the wow and flutter.

Any ideas?

thanks

Also, Does anyone know that the DwT button is? I see it in some of the delay plugins and I can't find any reference to it in the manual. I can't figure out what it does...

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Subject: Re: Making Something Like ADT in a graph

Posted by [bj](#) on Fri, 12 Feb 2021 23:57:29 GMT

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Wow and flutter are caused by LF variations in the pitch of the signal caused by variation in the playback speed. Wow is a very slow variation, and flutter is still slow, but faster. There may also be amplitude variations associated with it.

Can create Wow and Flutter by using a MIOModDelay, one or more QuadLFOs and Scale/Offset.

Take the QuadLFO, run it into the Scale/Offset. If you will just use one LFO, then set the scale/offset to 0.5, 0.5 (so that you have a sine wave that varies between 0 and 1). If you will use LFOs (to do Wow and flutter), then you might need to play with the scale offset settings: perhaps 0.25 for both offsets, and no more than 0.25 for both scales, but you might experiment with making the scale for the Flutter lower.

Then sum the the outputs of the scale/offsets (if you are using two LFOs) and run that signal to the Cntrl input of the ModDelay.

Set the LFO frequencies; for wow, probably 1 Hz or less, for Flutter 4-10 Hz.

Adjust the delay time for the ModDelay to control the depth of the effect.

You can do something similar to do the Amplitude modulation, using a Channel Multiplier to apply the gain rather than the ModDelay. In that case, the scale will set the depth of the amplitude modulation, and you can set the offset to be 1-scale.

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Subject: Re: Making Something Like ADT in a graph

Posted by [bj](#) on Sat, 13 Feb 2021 00:02:29 GMT

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> Also, Does anyone know that the DwT button is? I see it in some of the delay plugins and I can't find any reference to it in the manual. I can't figure out what it does...

DwT = Drive With Time.

It controls what happens if you change the Sample Rate; when it is on, the Delay in Milliseconds will be preserved (and the number of samples will change), when it is off, the delay in samples will be preserved (and the number of milliseconds will change). If you are always at the same sample rate, it has no impact.

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Subject: Re: Making Something Like ADT in a graph

Posted by [DBL9](#) on Sat, 13 Feb 2021 06:03:33 GMT

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Thanks BJ, That worked great! I got what I was thinking of and more. I used some volume blocks to control the relative amount of wow to flutter. Very cool. Thanks again.

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