

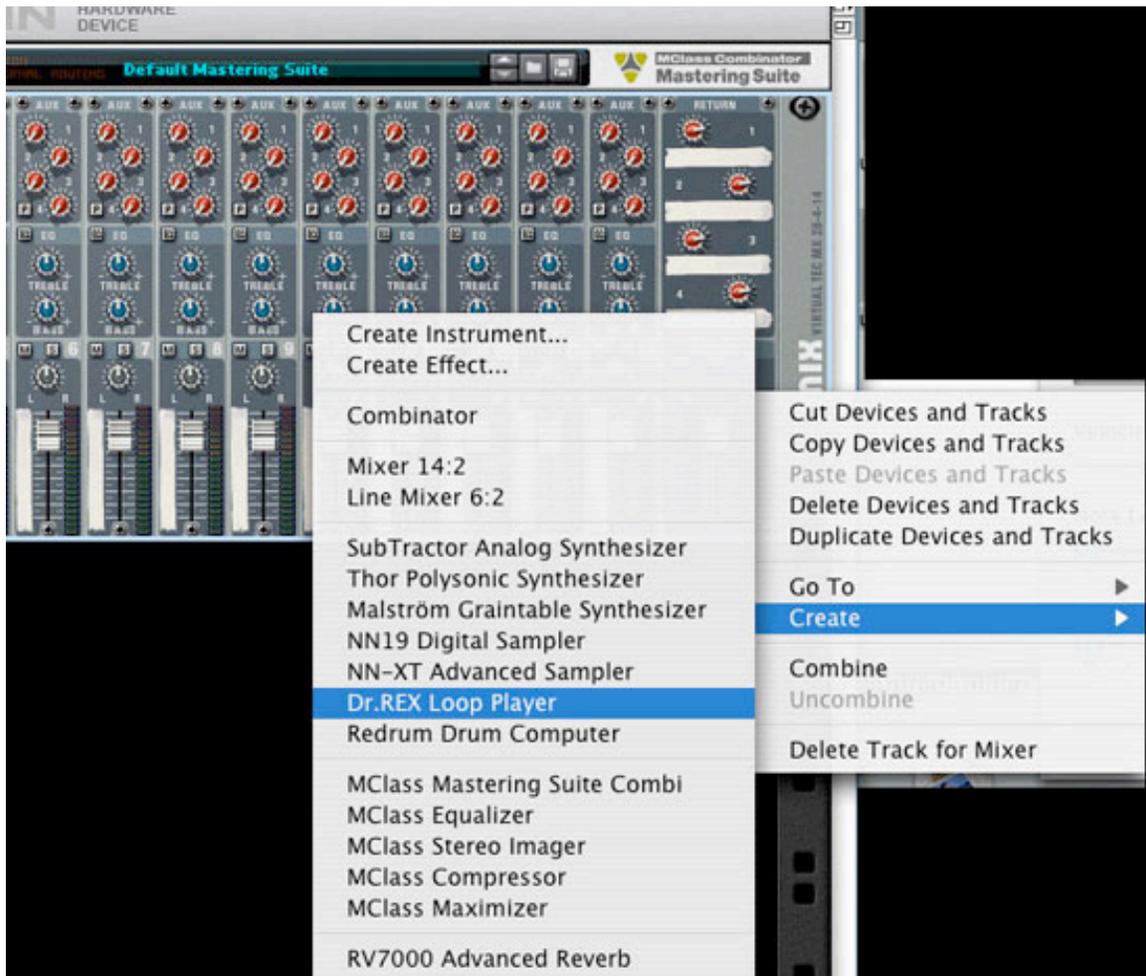
Create a BPM-Locked Delay Effect in Reason.

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Stereo echoes are great to fill up a track with some added ambience. They can be used to make a synth trail off, or a beat bounce. In this tutorial I will show you how to create a slap-back BPM locked delay using 2 DDL-1 effect boxes. This effect can be used on anything. This tutorial uses Reason, but the principles should be the same in any DAW.

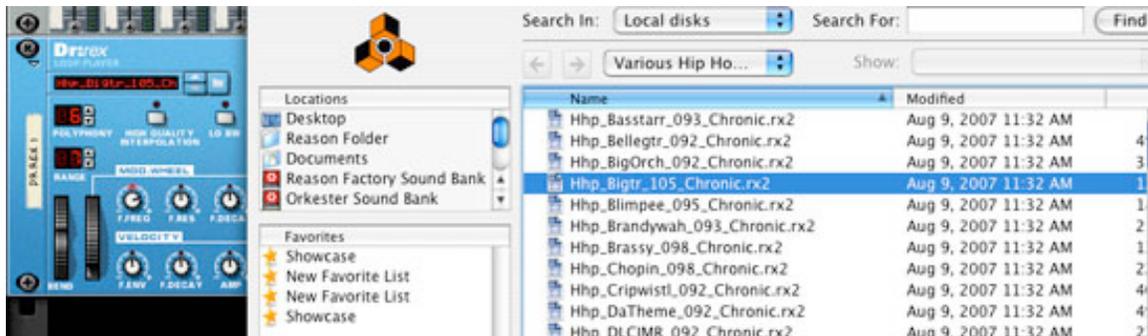
Step 1

Start off by creating a Remix mixer then creating a Dr Rex machine. If you select the Remix in the rack first, then right-click and use the drop-down to create a module, Reason automatically connects your newly created instrument or effect directly to the Remix in the next available channel.



Now select a sound for the Rex that has pauses or gaps in it. I used this sweet guitar riff. (Here's what it sounds like untreated).

 *untreated.mp3*



Step 2

Now create 2 DDL-1's (Digital Delay Lines). Name them Slap Echo 1 and Slap Echo 2.

Make sure the Remix isn't selected by clicking on an empty part of the rack, and again right-click and create a new effects box while holding down the Shift key. By using this shortcut you will set up an effect not routed to anything. It's a very handy trick when you're in a rush. We will set up a custom routing in a few steps.

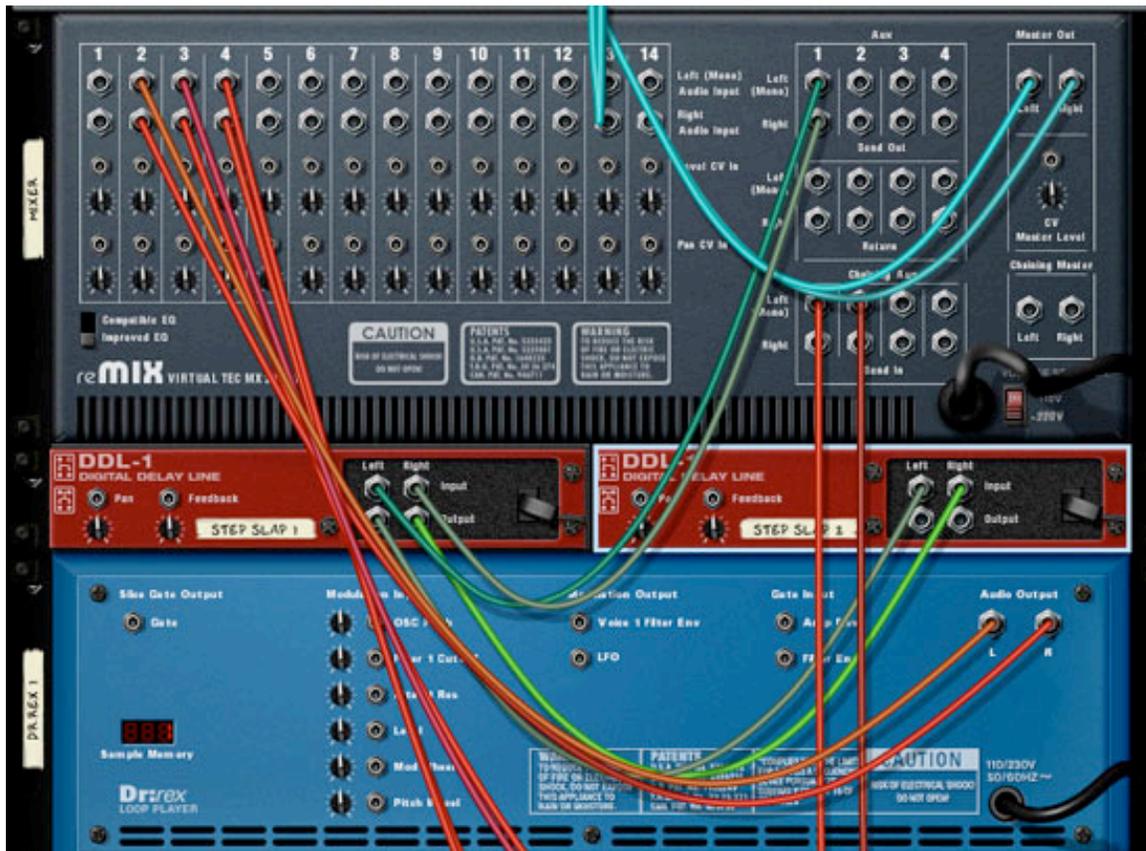


Step 3

Hit Tab. Gotta love the back of the rack, you can't trip over the wires and break your head... ;)

Connect the Aux send out, L/R Channel 1 on the Remix to the L/R channel input of Step Slap 1. Now connect

the outputs L/R of Step Slap 1 to the inputs of Step Slap 2 L/R.

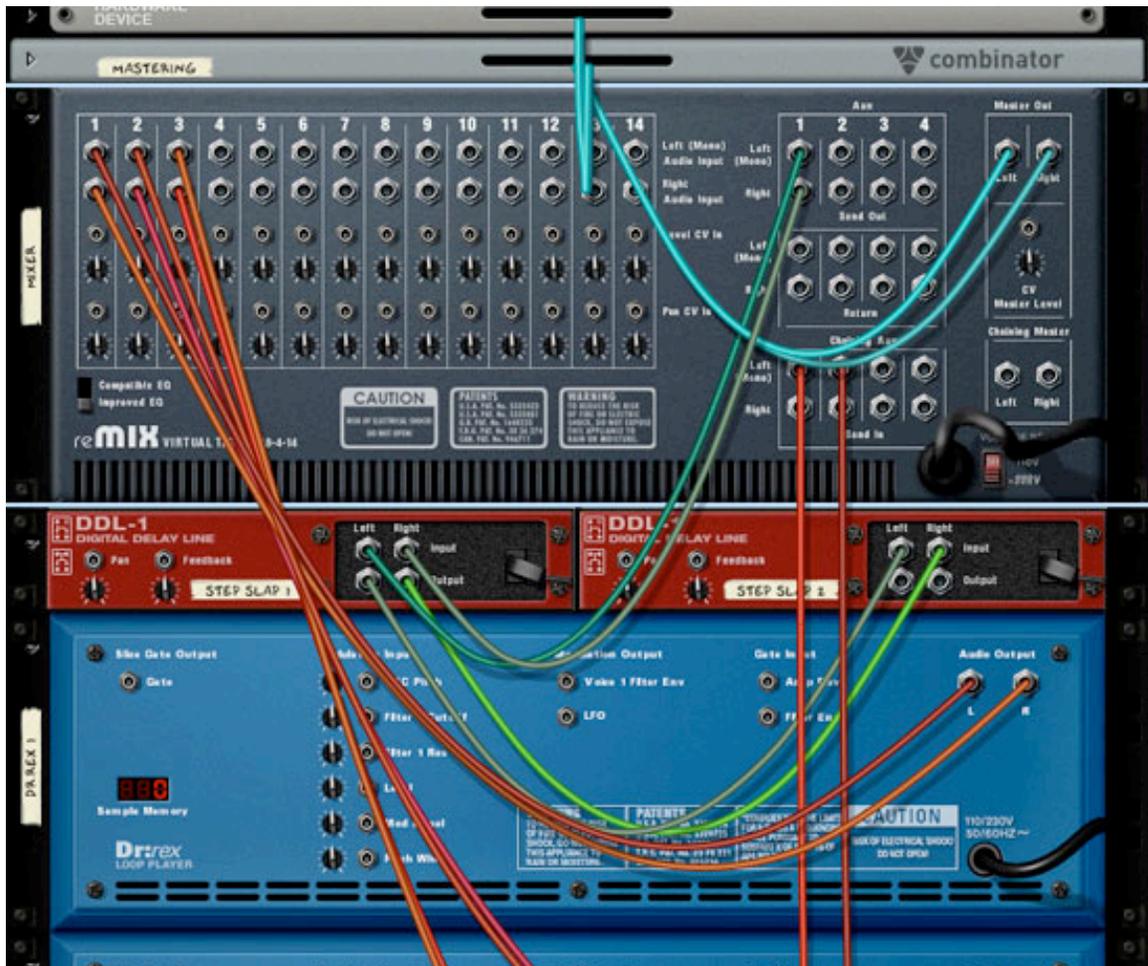


Step 4

Now we are locked together with the 2 effects, but we still have an issue. The signal has to come back to the mixer otherwise you won't hear anything.

Flip the rack again. On the back of the Remix use the Aux return section to return your effected signal back to the mixer so you can hear it's effect.

Take the DDL-1 named Step Slap 2 and connect its outputs L/R to the Aux Returns Channel 1 L/R. Hit tab to flip the rack again. Almost done here.



Step 5

Now go over to the DDL-1's and make sure they are both set to steps. Most Hip Hop and Electronic music is 4/4, and for that reason, it's good to use divisible numbers. Try using 2 for the first, and 4 for the second, then pan each delay far left and far right, dropping the Dry/Wet

down to about 95. Play with the feedback, but keep it under 60. Anything more and you will get a doubling effect that will carry over into too many bars and make it sound muddy.

There we have it: slap-back stereo delay locked to BPM. If you listen, you will notice the effect uses a good deal of spectral width and bounces from left to right and back and forth.

That's it! You can test this technique by increasing the tempo of the track and notice the delay will speed up or slow down with your changes. You can also play with the steps, the wet/dry effects and automate everything to get some really cool on the fly sounds.



Listen to the finished product:

 *finalversion.mp3*

Listen to the effect at a higher tempo:

 *faster.mp3*

I took the liberty of adding a simple beat and sample in the background. Both of the Dr. Rex's are being fed the effect through the send/returns of the Remix. Since they are hardwired together you only have to use one knob to

control the effect.