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Spectrasonics Stylus RMX

GETTING DOWN WITH THE ULTIMATE BEAT MACHINE

BY JIM AIKIN

Software plug-ins that pretend to play drums are definitely a growth industry. But unlike some of those other killer drum set plug-ins that have surfaced in the past year, Spectrasonics Stylus RMX is

not trying to take your job away. RMX is bursting with awesome beats, true – but its special strength is in creative sound design, not in emulating an acoustic kit.

Even so, you're a drummer already. Why should you care about a computer program that does drums? I can think of several reasons.

First, if you're doing studio work, a producer may call on you as a percussion expert. The question of whether you play the part yourself or program it won't matter; if you can come up with the right feel, you'll get the call for the next session.

Second, when working on your own studio material, you may want to switch back and forth between your own playing and an RMX loop by say, using a robotic or heavily processed RMX beat in the verses, and then cutting loose on the kit in the choruses for a

Fill up four or five of the eight slots with elements, and you've got a new composite beat

live feel. RMX also provides a quick way to track background hand percussion, such as shakers, with no need to set up mikes.

Third, you can integrate RMX into your live gigs by triggering loops from MIDI pads. This article will show you some techniques for doing this.

Fourth, if you're touring with a small group, you may need to keep the groove tight while playing along with backing tracks. So put an RMX beat in the headphones and practice to it.

Fifth, if you also have ProPellerhead ReCycle (see the ar-

ticle "Beat Mangling" in the August '06 issue of DRUM!), you can build your own library of RMX beats based on the sounds in your own kit. Among other tricks, this would let you stealthily toss in a fill so fast and precise that neither you nor anybody else could play it!

Once you've learned the software, you may think of still other uses for it. The following are some of my favorite RMX programming tricks, as well as a few suggested by Percussion Institute of Technology drum teacher and session drummer Donny Gruendler. (We'll also look at some RMX add-on resources.)

TIP 1 GET WITH THE PROGRAM

The best way to become an RMX power user is to watch the great instructional videos Spectrasonics provides. Some are on the RMX installation DVD. Others are at the company's web site, spectrasonics.net. If you don't yet own RMX, viewing the latter will give you some ideas about what it might do for you. Or, if you don't mind typing in a hefty web address, you could read an online feature written for O'Reilly Digital Media at: <http://digital-media.oreilly.com/2005/12/21/spectrasonics-stylus-rmx-tips.html>

TIP 2 MIX & MATCH

RMX is 8-channel multitrack, which means you can load a different beat into each of the machine's eight slots. Having eight beats playing at once would be ridiculous – but even so, the feature has more uses than you might think. The most obvious use involves choosing loops from the Core Library's "Groove Elements" list. Here, the bongos, claps, hats, kicks, and so on are organized into neat submenus. Fill up four or five of the eight slots with elements, and you've got a new composite beat that's never been heard before.

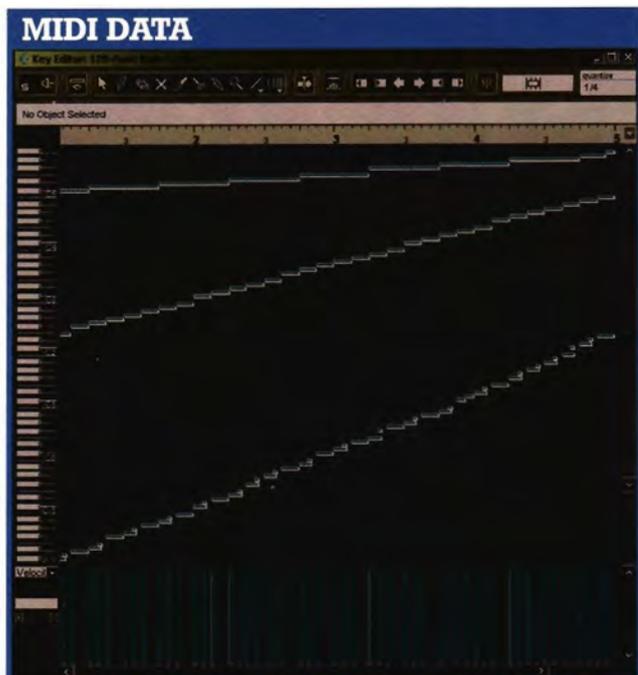
Those last five words are maybe the most important in this article. If you're using RMX, the last thing you want is for someone to say, "Oh, yeah, that's Stylus RMX. I recognize that beat. In fact, I just used it in my latest song." You should always strive for ways to customize and personalize the library's beats. (Fortunately, there are dozens of ways to do this.)

Another idea is to put the same beat in three or four slots and then apply different effects to each slot. For instance, in one slot you can create an "old-time radio mix" effect using EQ to pull back everything but



(FIG. 1) The Edit page in Stylus RMX looks elegantly simple, but there's more here than meets the eye. The Envelopes section on the right, for instance, has three separate AHDR (attack-hold-decay-release) envelopes – one for amplitude,

one for filter, and one for pitch. Using the Edit Group controls, as discussed in the "SLICE & DICE" section of the article, you can have three envelopes, plus separate filters and all of the other parameters, for each percussion hit in a loop.



(FIG. 2) The MIDI data from the Funk Rain Combo beat, as seen in the piano-roll edit window in Steinberg Cubase 4. Sample slices within the beat are assigned to the notes of the chromatic scale.

The Chaos Designer in RMX is great for adding the small variations that keep a loop fresh as it repeats

the mids, and then run the result through a reverb. A second slot might munch up the beat using the Flame Distortion effect, while a third slot adds a delay line. You can cut from one to the other by editing the data in the sequencer track, or use a MIDI fader to crossfade smoothly between effects.

In a recent project, I used one RMX beat in the A section and a different beat in the B section. To tie them together sonically, when I repeated the A section I deleted its kicks (see "TIP #3") and overlaid a new

kick pattern using a kick from the B section.

Explore the factory multi setups. Before loading them from the Mixer page, go to the Browser page and make sure the Settings button is lighted. (Bonus tip: The state of this button is stored with each multi, so loading a new multi may shut it off.) When this button is lighted, all of the voicing settings of each loop will be loaded. If it's off, any settings that you made in a slot, such as filter cutoff or envelope adjustments, will still be

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active after you load a new loop into that slot.

TIP 3 THE SEQUENCER IS YOUR FRIEND

When you drag-and-drop an RMX beat into a MIDI track, you'll see what appears to be a chromatic scale – or perhaps two or three of them (FIG. 2). Your sequencer will provide several ways to edit this data. For instance, you could select and delete all of the notes that play snare backbeats and then swap in a different sampled snare sound. Or better still, don't delete them – cut them to the clipboard, paste them into a different MIDI track, and transpose them up or down as needed to trigger that other snare sample. This way, the subtle timing variations of the RMX beat will be preserved, so the new snare will probably sit

FREEZER BURN

When you freeze a track in your digital audio recorder program, the program renders the track to the hard drive as a new audio file. As the music plays, the program only has to read one stereo file from the drive and send it directly to the output. The effects and any other CPU-hungry processing is rendered into the file ahead of time, so it can be bypassed on playback.

When a track is frozen, its controls are locked. But if you need to make further changes, you can unfreeze it, usually with a single mouse-click. With complex projects, I usually freeze five or six soft-synth tracks, leaving only the two or three tracks that I'm working on in an unfrozen state at any given time.

better in the track. (Check the manual or Help file for your sequencer to learn exactly how it pastes MIDI notes. The start time of the pasted material needs to be the same as the original start time of the data.)

The RMX MIDI notes all have velocities of 127 (the max). Using the sequencer's pencil tool, you can drop back some velocities to adjust the level of certain notes or create a fade-in or fade-out.

Many of the RMX beats are four bars long, and many of

them end with a little fill of some kind – an accent hit on a tom or an open hat, for instance. If this repeats without variation, the track will scream, "drum machine!" So copy the MIDI part lengthwise down the track, go into the MIDI data, and change the fill a little on each repetition. Add a ghost note with a low velocity, or move a note to a different beat.

Using the sequencer's Quantize commands is not generally a good idea with RMX beats, since they have built-in varia-

tions in timing that add to the feel. But if you're combining two or more beats (see "TIP #2"), you may want to extract the timing information from one beat and turn it into a quantization template. You can then apply this template to another RMX beat, or to a MIDI bass sound. This will give you a much tighter groove. Your sequencer's manual will explain how to extract a quantization template.

TIP 4 STIR UP SOME CHAOS

The Chaos Designer in RMX is great for adding the small variations that keep a loop fresh as it repeats. But Chaos Designer is not the easiest module in RMX to use. The main reason is that not all of its functions can be exported to MIDI tracks using the Capture and Export buttons. >>

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left-hand corner of the panel shows about 0.05. That number translates to 5 percent, or "1 hit in every 20 will be affected."

TIP 5 SLICE & DICE

When you click on the metal grill in the middle of the RMX interface, a new sub-panel called Edit Group opens. This section looks extremely simple (FIG. 1), but it multiplies the power of RMX by about a hundred times. Each sampled hit in each loop can have its own complete set of sound parameters and effects processing. The main limitation here is the CPU power of your computer. If you add too many effects, you may have to "freeze" the RMX track in your sequencer (see "FREEZER BURN" sidebar). But this is a painless process. Don't let it intimidate you into ignoring this powerful resource.

You can do tricks like adding an occasional reversed snare sound without affecting anything

When you click on the Assign button in the Edit Group panel, you'll see a menu (FIG. 3) that lets you grab various rhythmic elements and automatically turn them into a separate group. For example, you might select the backbeats and then route this Edit Group through a reverb effect.

But what if the beat you're using has an anticipation on one of the snare hits? In that case, automatically grouping the backbeats won't work. Instead, you'll need to create an Edit Group by hand. Here's how:

1) Make sure your sequencer is routing incoming MIDI to RMX. Play a chromatic scale on

your MIDI keyboard and identify all the notes that you want to be in the new Edit Group.

2) Play the first note that you want to group.

3) In the Assign menu, choose "Create Edit Group (First Play a MIDI Note)." A new group called Edit Group 1 will appear in the upper dropdown menu. The note you just played will be assigned to it.

4) In the Assign menu, choose "Enable Add/Remove Slice." This will cause a new button to appear in the Edit Group subpanel.

5) Play the next note you want to assign to Edit Group 1. The Remove Slice button will

change to an Add Slice button - click it.

6) Repeat step 5 until you've added all the notes you tagged in step 1 to the Edit Group.

7) Go back to the Assign menu and select "Disable Add/Remove Slice."

That's all there is to it. Now you have a new Edit Group that contains all of your selected hits. You can now do whatever over-the-top things you can think of with this group. You can change the pitch of those notes; reverse their sample playback; filter or pan them differently; add different effects to them in the RMX effects rack; even route them to a separate audio output for processing with other plug-in effects. Each Edit Group also has its own Chaos Designer panel, so you can do tricks like adding an occasional reversed snare sound without affecting anything else in the loop.

SECRETS OF MIDI QUANTIZATION

By JIM AIKIN

HOW TIGHT IS TOO TIGHT?

MIDI sequencing was born in 1984. Within a few months it already had a bad rap because sequences sounded stiff and robotic. The MIDI just couldn't let the time breathe. Of course, if you like that sound, any MIDI sequencer will be happy to help you. But today's sequencers have some slick tools that let you tighten up a sequenced beat while preserving a human feel.

To begin with, you need a MIDI module that has sampled drum sounds, a sequencer in which to record a few patterns, and either a keyboard or (better yet) some MIDI trigger pads to do the recording with.

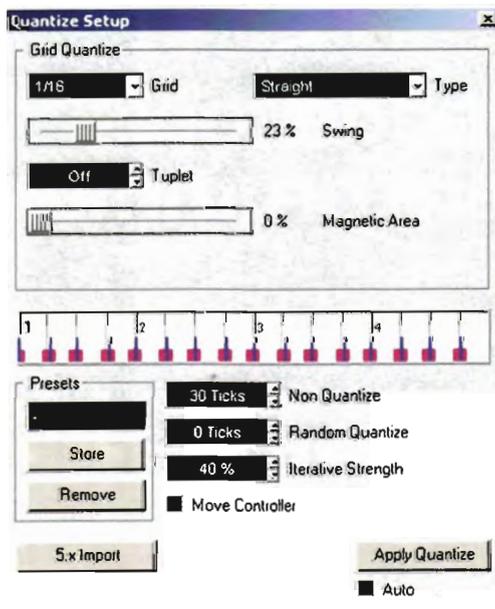
The process of fixing the timing of MIDI tracks is called quantization. When you quantize a note, you're moving it forward or backward in time from the spot where it was recorded - shifting it so that the start of the note aligns with the beat. Quantization is usually applied not to a single note,

but to a group of notes or to a whole track.

Before quantizing, you select the rhythmic grid to which the notes will be quantized. Most often this is a sixteenth-note grid. But depending on your sequencer's features, you can also use some other value, like triplets.

Instead of slamming all of the notes rigidly onto the grid, you can use percentage quantization. This command moves each note partway to the nearest point on the grid. With a sixteenth-note grid and a setting of 75 percent, for instance, each note will move 3/4 of the way to the nearest sixteenth-note. Percentage quantization is a terrific way to tighten up loose playing without losing the feel.

Some sequencers offer a quantization window. With this feature, you select a narrow region around each line on the beat grid and tell the sequencer, "If the note is within this region, don't move it at all." This way, notes that are recorded with a good feel will stay exactly the same,



This is an example of the Quantize Setup window in Steinberg Cubase 4. I've selected a sixteenth-note grid with 23 percent swing. The blue lines in the strip in the middle of the window give a rough idea of the result. The non-quantized value of 30 ticks (visible as red areas in the strip) tells Cubase not to quantize notes that are close to the desired placement. "Iterative strength" is the Cubase-specific term for percentage quantization.

while sloppy timing will be cleaned up.

Instead of quantizing to a straight-time rhythmic grid, you can add a little swing or shuffle (or a lot). The amount of swing should be adjustable, and you should be able to choose either eighth-note or sixteenth-note swing.

Another advanced feature is groove quantization. You may be able to define a groove template using hand editing, or extract a template from an existing part where you particularly like the feel of the groove. Then the template can be used to quantize other parts so that they'll lock onto the groove.

Some sequencers will let you add a bit of randomness to the timing of quantized parts. The theory is that this adds a "human" element, but I've never cared for the sound. I don't think good drummers have random timing, and I don't think a good sequenced part needs it either.

SHORTCUTS

Enable Add/Remove Slice

Create Edit Group (First Play a MIDI Note)

Rename Edit Group

Create an edit group for each groove in suite

Create an edit group for all slices in element

Clear all edit group assignments in element

Assign (1 and 3) Downbeats

Assign (2 and 4) Backbeats

Assign (3) Half-time Backbeats

Assign (1) First 16th

Assign (e) Second 16th

Assign (l) Upbeats

Assign (a) Fourth 16th

Assign 1/1 - Whole notes

Assign 1/2 - Half notes

Assign 1/4 - Quarters

Assign 1/8 - Eighths

Assign 1/16 - Sixteenths

Assign 1/32

Assign 1/48

Assign 1/64

Assign 1/96

Assign 3/4 Dotted Halfs

Assign 3/8 Dotted Quarters

Assign 3/16 Dotted Eighths

Assign 1/3 Half Note Triplets

Assign 1/6 Quarter Note Triplets

Assign 1/12 Eighth Note Triplets

Assign 1/24 Sixteenth Note Triplets

(FIG. 3) The Assign menu contains numerous shortcuts for grouping the slices within a beat. All of the slices in any group will use the same settings for parameters like filter and envelope.

TIP 6

USING RMX LIVE

Donny Gruendler tells me he takes Stylus RMX on stage and triggers loops from a MIDI percussion pad. He runs RMX within Ableton Live as a host. The nice thing about Live is that it lets you start or stop a loop perfectly on the beat. (That's assuming the band is already playing in sync with Live.)

While preparing the Live setup for onstage use, you can drag-and-drop various MIDI loops from RMX into Live's MIDI clip slots. You can assign each slot its own external MIDI note trigger, or you can use MIDI notes to trigger entire "scenes" (Live's term for coordinated multitrack loops). The outputs of the MIDI tracks need to be routed to the track where RMX has been inserted, and you'll also need to set up each track to send on the correct MIDI channel.

Gruendler suggests using Chaos Designer to create variations on the RMX beats, dragging the variations into clip slots, and then using Live's

"follow actions" to automatically segue from one variation to another. This gives you the best of both worlds – spontaneous-sounding variations that you can sequence in any desired order.

RMX TO THE MAX

A new drummer recently sat in at a rehearsal with my band. She was very, very good – and on the music stand she set up next to

her kit was a classic bumper sticker that read, "Drum Machines Have No Soul." That statement couldn't be more true. And for all of Stylus RMX's fancy features, which go way beyond that of a mere drum machine, it too has no soul. Adding the soul, the taste, and the vibe to the finished percussion track is up to you. But RMX gives you a whole new set of tools that'll help you get the job done right. ■



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