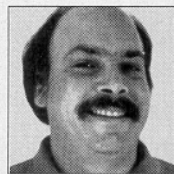


DRUM MACHINE PROGRAMMING



NORMAN WEINBERG

CREATIVE PROGRAMMING IDEAS

"GOOD MORNING, MR. PHELPS. YOU HAVE BEFORE YOU A tape of The Company's newest product. This group of highly talented, unique individuals has created an entirely new musical concept. The Company feels that their unique sound requires a rhythm track that complements their extraordinary approach. Your assignment, should you choose to accept it, is to create an entirely original rhythm track. This track should be unlike any heard before. As always, if you or any member of your team should be caught not meeting this challenge, The Company will disavow any knowledge of your action."

A distinctive groove can often influence the compositional direction of a tune, and a unique rhythm might be the hook that captures a listener's attention. But it's not easy to be original. As musicians, we bring preconceived ideas and years of musical experience to every project. One way to arouse the muse of originality is to turn off these musical experiences and influences of the past. Want to get weird? Experiment with these exercises in forced creativity.

Silent Programming. Here's a simple yet effective technique for building drum machine patterns that are totally unique. First, turn off all of the audio outputs coming from your drum machine. Next, put the machine into record mode and start hitting buttons. That's all there is to it!

Since you won't be able to hear the machine's metronome, you can't support the meter in the traditional manner (like putting the snare on counts two and four). In addition, you won't be listening to how one instrument interacts with another (bass drum relating to snare or high hats).

Once you've banged on the buttons for a while, turn up the audio outputs and see what you've got. If it sounds too busy, don't press so many buttons next time—or turn the audio down and do some random erasing. If it sounds too empty, press more buttons next time. You may want to try playing at different dynamic levels, assigning different sounds to the buttons, or recording with different levels of quantization.

The nicest aspect of this technique is that you can create 40 to 50 patterns in a very short amount of time. From that large number, you should find at least three or four that sound very hip. Another five or six might work fine with just a few minor changes such as adding a single bass drum, snare drum, or cymbal crash in just the right place.

Alternate Sound Generators. A drum machine is nothing more than a box of sounds with an internal sequencer. Have you ever thought of sending the sequenced MIDI information from your drum machine to a different sound generator?

One technique that works extremely well is to MIDI your drum machine directly to a multitimbral sound generator that contains percussion samples (like the Roland D-110, E-mu Proteus/1, or Korg M1, to name just a few). Sometimes the timbres will correspond (the drum machine's bass drum will also fire the sound generator's bass drum), but the most original patterns occur when the timbres don't line up. Maybe the drum machine's bass drum will fire a cowbell or a timbale. Even if the drum machine's rhythm track is fairly standard, the relationships of the different percussion colors coming from the sound generator will make the pattern distinctive.

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If you use a computer sequencer, you might consider recording the drum machine pattern into your computer and then transposing the track. Since multitimbral instruments typically contain 60 or more drum sounds, you're likely to find a transposition that contains many interesting timbral relationships.

Wrong MIDI Channel. If you're working with a fairly complex MIDI system, you've probably run across this next technique by accident. Simply send the melody or bass line of a song from your sequencer to your drum machine. Since melodic passages are usually longer than rhythmic grooves, the trick is to listen to the entire passage and try to find an interesting phrase. Once you run across something you like, loop the passage and see how it feels as a drum pattern. If single melodic lines are used, the rhythm track will sound linear in nature. A polyphonic section—like a fugal passage, background chords, or a melody/counter-melody structure—will produce a vertical drum track.

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Ex. 1. "Wrong MIDI channel" drum part created by shifting a bass part forward one eighth-note and transposing it down a minor seventh.

key

snare drum 2 low tom 2 high tom 1 high tom 2

closed hi-hat 1 middle tom 1 crash cymbal china cymbal

♩ = 132

bass

drums

Ex. 2. "Wrong MIDI Channel" percussion part created using two bars of an organ part.

key

high bongo low conga high agogo short whistle

high conga mute high timbale cabasa

♩ = 132

percussion

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As an example, let's build a new rhythm track from other tracks within an existing tune. To create the drum track, the bass line was shifted forward by one eighth-note and transposed down a minor seventh (see Example 1). It was then sent to a Roland D-110 using the unit's default drum/note-number assignments. Since we started with a single line, the result is a linear-sounding groove. The rhythmic relationship between the two parts is very close, but not immediately obvious to the listener.

An additional percussion track was created by looping two measures of the organ part from the middle of the verse and sending it to the D-110 as is (see Example 2). Since the D-110 has percussion sounds assigned to its upper register, it sounds as if two people are playing percussion. When the drum and percussion tracks come together, they form an interesting groove in terms of rhythm and instrumental color.

When trying to be creative, keep an open mind and an open ear. The real beauty of MIDI and electronic instruments is that hundreds of ideas can be tried quickly and inexpensively. If you come up with something that doesn't work, just throw it away and try again. Your next effort may please The Company, and you can take the credit. ■