DRUM MACHINE PROGRAMMING

Musicians cannot live by common time alone. The 4/4 time signature is great for general rock or dance tunes where steady grooves must reign supreme. But introduce even the most subtle time changes to an otherwise standard groove and you'll be surprised at how different your music can sound and feel. This month we'll examine a few programming methods for drum patterns in less common meters.

One favorite tip is compressing or expanding a beat so that it fits a new time signature. Example 1 is a garden-variety pattern in 4/4 time. In Example 2 you'll notice that the last eighth-note has been deleted, thus transforming the time signature to 7/8. In Example 3, an extra

Ex. 1: A standard 4/4 groove.

Ex. 2: The groove from Example 1 minus its final eighth-note.

Ex. 3: The groove from Example 1 with an additional eighth-note added to the end.

Ex. 4: Rather than adding or deleting notes from the end of a pattern, try altering the middle section, as illustrated in the following patterns.

Ex. 5: Three ways to phrase a pattern in 7/8.

Ex. 6: Four ways to phrase a pattern in 9/8.

Norman Weinberg hates the term "odd meter." He prefers the phrase: "measures of enhanced metric invariance."
eighth-note is added to the hi-hat track (without altering the pattern of the other instruments). The time signature has now changed to 9/8. Patterns programmed using this technique still retain a hint of the original common time groove—but perhaps it's more accurate to call them "common time grooves with a limp."

With just a little variation, these patterns can be altered in a way that disguises their common time genealogy. Instead of subtracting or adding an eighth-note at the end of the bar, we can alter the eighth-notes in the middle of the measure. Example 4 shows a few ways that this technique can be applied.

Another phrasing method involves breaking a measure down into smaller groups of two or three eighth-notes. For example, a measure of 7/8 could be phrased in the following three ways: 3+2+2, 2+3+2, and 2+2+3. Example 5 illustrates these three styles of phrasing. Patterns in 9/8 time can also be phrased in several ways: 3+3+3, 3+2+2+2, 2+3+2+2, 2+2+3+2, and 2+2+2+3. Example 6 shows several such ideas.

While the patterns in all of the examples are quite basic (for the purpose of illustration), more complex and syncopated patterns can be created using the same techniques. These methods work equally well in all musical styles—from rap to reggae to swing to samba. Have fun!