

# Rhythm methods

**You'll never have a hit on your hands without a good drum track. Steven Helstrip has ways of making it sound live, and looks at Steinberg's latest release and at a new sampling CD.**

Early betas of Cubasis Audio didn't look too promising, but I recently checked out the shipping version and was pleasantly surprised. In addition to its 60 MIDI tracks, Cubasis Audio will record and playback four mono, or stereo, audio files. You can lay down a vocal, guitar, or whatever on top of your sequenced parts. I ran the program on 486 and Pentium systems fitted with 8Mb and 16Mb RAM respectively and squeezed out four simultaneous audio tracks without hiccups.

The only real problem is the demand placed on your hard disk, but if it can sustain a data transfer rate of around 1.5Mb per second and has an access time of around 12ms you should be okay. The software works with any 16-bit Windows-compatible sound card, and that accounts for just about every card there is. However, if you want to play and record at the same time (a great help when it comes to recording vocals) you will need a card with duplex audio. Try cards from Turtle Beach, MediaTrix and Digital Audio Labs.

Without spending upwards of £1,000 you won't find any competitors to Cubasis Audio right now, even though it does lack MIDI features. Steinberg will be implementing the audio engine into the full version of Cubase however and it is likely to be available before the year is out. The new product, yet to be named, will have better audio editing facilities and may include digital effects, parametric EQ and automated fades.

Existing users of Cubasis can upgrade to the audio version for £120. Otherwise it will cost you £249.

## Making waves

Just about every high-end keyboard manufacturer has now released a WaveTable expansion card enabling you to upgrade from FM. These include Kurtzweil, Roland,

Korg and more recently Yamaha with its new XG synth. For those who don't have compatible sound cards, Et Cetera distribution has started work on a combined MIDI interface and host connector. It will have four independent MIDI ports to provide 64 MIDI channels. And because it isn't a sound card in the traditional sense, it will have a quieter output. The price has yet to be fixed but is expected to be under £250. It should be available by October.

## Get into the groove...

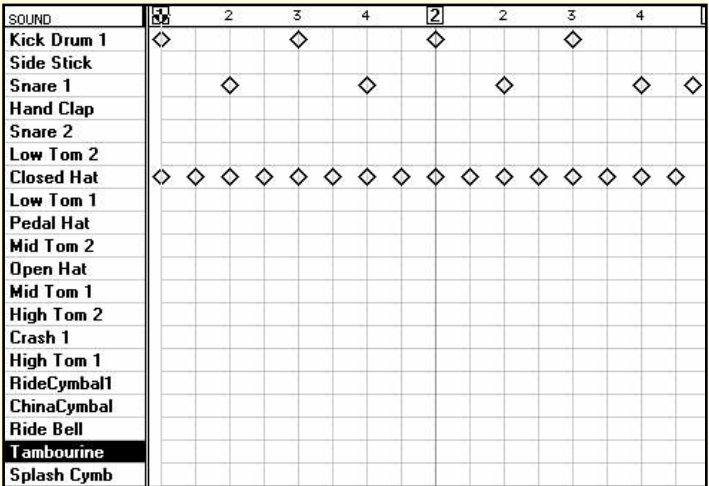
Programming rhythm tracks is a subject I frequently receive letters about, so this month we'll be taking a close look at what makes a good drum track. We'll look at what you need, and how to go about putting grooves together.

The old maxim less is more applies to programming drum and percussion parts. There's little point in having 28 instruments playing at the same time if they are all fighting to be heard, cluttering up the song.

Depending on the style of music you are working on, you can usually get away with a basic kit consisting of kick, snare, hi-hats, cymbals and tom toms. If you're going for a more commercial, poppy

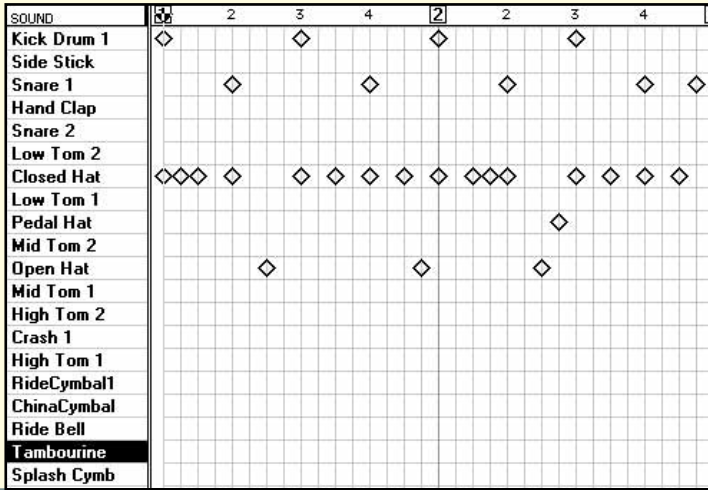
sound, it might be a good idea to add tambourine, finger snaps and hand claps to the list.

If you are using drum samples, as opposed to a drum kit from a synthesiser, it is worth sticking to the General MIDI keyboard lay-



**Fig 1 (above)**  
*A dull but typical drum pattern*

**Fig 2 (right)**  
*Spicing up the hi-hats and snare starts to create a groove*



out (see panel alongside). This will make life much easier when you come to playing back the piece on different equipment. You will also become familiar with the layout, saving you time when looking for the hand clap, for example.

When selecting sounds to use, take into consideration the style of the track. For example, use an electronic snare like the 909 (included on last month's CD) if it's a dance-orientated track. A live snare is better suited to more laid-back tracks. You might consider using two or sometimes three different snare samples, or sounds, to create a more convincing "live" feel.

If you break down a typical drum part with a 4/4 time signature, you will find the kick drum plays religiously on beats one and three, and the snare beats two and four. On top of this the hi-hats will play either quavers (eighths) or semi-quavers (sixteenths). Leave a drum track like this and you will not have a hit - it needs more. Whether this means making the snare drum pattern more exciting, adding the kick to beats two and four or introducing new elements, often depends on the track. Here are some guidelines for making your track a bit more interesting.

Instead of repeating a single bar over and over again, vary the pattern of a four-bar section slightly. The snare drum is probably the best place to start. Adding a short fill, or push, at the end of each second bar (Fig 1) can start to give the track a groove. Quantising to a heavy or slow shuffle can make the part more interesting.

Put aside a separate track for each element when recording the parts. Doing this makes it much easier to alter the level, feel and offsets if you should need to. It also means you can just copy the hi-hat pattern, if that's all you require in a link or middle-eight section.

When using hi-hats, make sure you work in the pedalled and open hats. These often work best on the off-beat. As with the snare pattern, quantising with a groove template can make them more interesting. Fig 2 shows simple yet effective variations for hi-hats.

The kick drum and bass guitar provide the foundation to a track, and it's vital that they work well together. When starting a track from scratch, it's worth putting in a simple "four on the floor" pattern and adding or removing notes once the bass line has been recorded.

Adding a clap, or finger snap, to beats two and four can lift a drum track. It's not usually a good idea though simply to copy what the snare drum is doing. As for tambourines, they can often do something similar to the hi-hats. Once you have a

General MIDI percussion map		
MIDI Note No.	Octave	Instrument
35	C1	Kick 1
36		Kick 2
37		Side Stick
38		Snare 1
39		Clap
40		Snare 2
41		Low Tom 2
42		Closed Hat
43		Low Tom 1
44		Pedal Hat
45	C3	Mid Tom 2
46		Open Hat
47		Mid Tom 1
48		High Tom 2
49		Crash 1
50		High Tom 1
51		Ride 1
52		China Cymbal
53		Ride Bell
54		Tambourine
55	C4	Splash Cym
56		Cowbell
57		Crash 2
58		Vibra-Slap
59		Ride Cymbal 2
60		High Bongo
61		Low Bongo
62		Mute High Conga
63		Open High Conga
64		Low Conga
65	C5	High Timbale
66		Low Timbale
67		High Agogo
68		Low Agogo
69		Cabassa
70		Maracas
71		Short Whistle
72		Long Whistle
73		Short Guiru
74		Long Guiru
75	C6	Claves
76		High Wood Block
77		Low Wood Block
78		Mute Cuica
79		Open Cuica
80		Mute Triangle
81		Open Triangle
82		Shaker
83		Jingle Bell
84C6		Bell Tree

General MIDI layout of percussion instruments found on MIDI channel 10.

basic pattern, play with the velocities of each note as this can add a lot of interest. If you set all the velocities to 64, for example, make the off-beat notes louder, or

When trying to create a live

[illegible]

feel, don't do what a drummer can't — for example playing sixteens on the hi-hats while playing ride cymbal and snare at the same time. When it comes to drum fills, think what a drummer can and can't do. If you are aiming for an electronic feel, however, this is obviously not

Here's another Time and Space sampling CD. This time around the sampling has been done for you and arranged into sample banks, or SBKs, for the AWE-32. I actually was involved in putting the CD together, but since it fits in well here, I thought I'd tell you about it. The basic idea is that there are seven drum kits each containing 25 instruments best suited for different styles. These include Hip Hop, Soul and other dance-orientated grooves. Each kit has 25 different drum loops in standard MIDI format that can be played from any sequencer. As the programming has already been done, you can break down any loop to see how it has been constructed. You can edit the loops, put them in your own productions or use the samples for something else. The samples on the CD have also been included as separate .wav files so you can incorporate, say, a kick drum from the Street Soul kit into another sample bank. For convenience the CD has audio tracks, should you want to hear the loops before loading them to RAM. Each sample bank has been edited to work with just 512Kb, so no additional RAM is needed on the card to use it. There are banks with extra samples, however, so you will need 2Mb RAM installed. Groove Construction is good for building your sample collection, and even better if you want a 'hands on' approach. It costs £29.95, including VAT and delivery.

so important.

We will introduce more percussion next month. Until then, try out some of these ideas, listen to other people's tracks and have fun experimenting.

Readers' contributions to the Sound column are music to our ears. If you have any hints or tips, any MIDI-related items or general comments, send them in to the usual *PCW* address, or to **shelstrip@cix.compulink.co.uk**

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