

## The art of noise

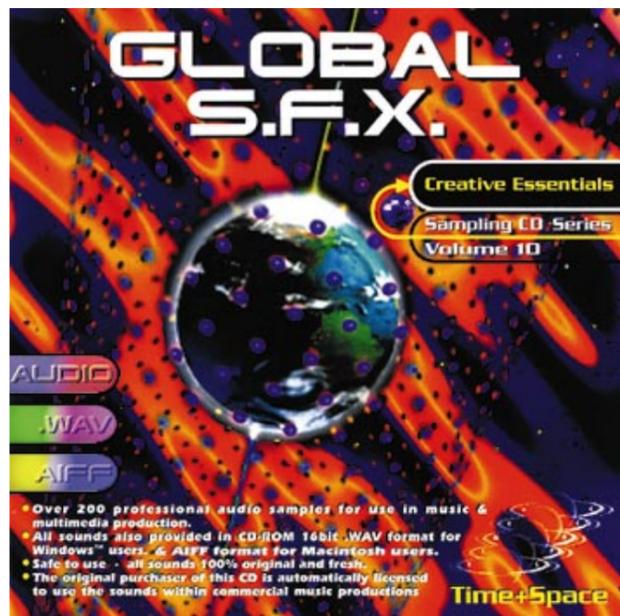
Background noise adds atmosphere to music tracks. Steven Helstrip looks at sampling CDs and how to layer sound for more depth.

Every once in a while, the need for day-to-day sounds such as footsteps, creaking doors and voices, pops up in music production. If you have the time and a portable DAT machine, you shouldn't need to travel far to find the right sounds, providing it's not tropical rain forest ambiances that you're looking for. In the absence of a pocket-sized DAT, the next best thing is to get hold of one of the many "world effects" sampling CDs.

There is a drawback with sampling CDs: your soundtrack (whether it be for a game, film or multimedia) won't be completely original as somebody, somewhere, will have used the same sounds. Later we'll be looking at ways to change commercial samples to make them unique but first let's have a look at what is available and how they can be used.

By far the largest and most varied collection of world sounds and special effects come from the BBC sound effects library. Although many of the recordings are in their late twenties, they still sound great today, especially from vinyl if you can get your hands on it. BBC recordings are restricted for use in amateur productions, which means they're fine for use in home movies and shareware games titles. However, if you have bigger plans for your music, then you'll need to take a look at what's on offer from the larger sampling CD specialists. BBC sound effects CDs can be found in larger record stores and start from around £8 each.

Time + Space has a range of sampling CDs crammed with everyday sounds, and without limitations on use. Global S.F.X., which is part of the Creative Essentials range, covers sounds from vinyl static (the



This CD-ROM, from Creative Essentials, holds over 200 stereo samples. There are nine of these samples on our cover-mounted CD-ROM this month

one sound you wouldn't expect to hear on CD) to police sirens and railway station announcements. There are also plenty of unusual sounds to be found such as spray cans, staplers and toasters. There are over 200 stereo samples in both CD audio and .WAV format.

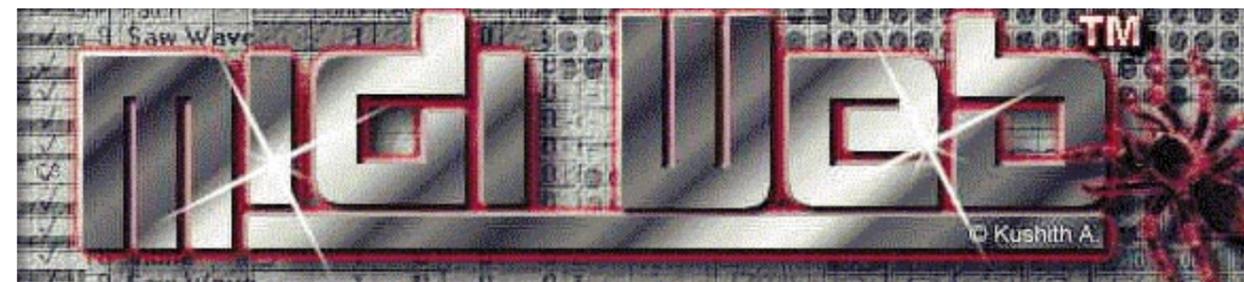
The quality of the recordings is excellent although not as warm as some of the earlier BBC recordings. There are nine samples from Global S.F.X. on our free, cover-mounted CD-ROM this month. If you like what you hear, the CD can be purchased for a shade under 20 notes.

Everyday sounds can be used creatively in all styles of music, from ambient to pop. The Art Of Noise were one of the first bands to carry this off successfully using samples from nature, such as running water, horses and countryside ambiances. To make these

types of sounds work, they must contrast well with other musical elements and help paint a picture of what the music is about.

If you listen to the B52's Love Shack, you can hear a party atmosphere mixed in quietly in the background. It's not something you consciously hear at first but it's there and adds to the fun nature of the track. This is maybe why it was such a successful track. It cheers you up, and makes you want to get up and dance.

At the opposite extreme, if you listen to the soundtrack along with the effects from Doom, you can almost feel the atmosphere it creates. The music is tense and draws you in, while the sound effects scare the hell out of you. Try playing Doom without the sound, and you'll notice a huge difference in the quality of the game play. Sound effects enhance games and film on a huge scale



(Above) If you're on the internet, check out [www.midiweb.com](http://www.midiweb.com) for sample MIDI files, discussion and new ideas.

(Right) Creative Labs' home page is also useful for getting hold of the latest drivers

and are, more often than not, treated to make them sound larger than life.

### Treating sounds

In the seventies, techniques for making sounds appear larger than they really were, involved adding a touch of reverb or a short echo. With slightly more technology around today, there are more tricks we can use. Let's say we wanted to create a party atmosphere, like the one on the B52 track. This can be created with just a multi-track tape recorder, one microphone and two people who don't mind making fools of themselves. A stereo microphone would help save time but is not essential.

To start with, record 30 seconds of conversation on to one track. This could be a tape track, or a digital audio recorder, such as Cubase Audio. Then record 30 seconds of clapping in time with the music and throw in the odd cheer and laugh. When the two tracks are played back together, you have the beginnings of a party atmosphere. The more takes you record, the bigger the party becomes.

By panning each track slightly off centre, you can create a wide and natural sound. Adding a touch of reverb (preferably stereo) to some tracks will help voices appear distant and more natural. If you have a surround processor, such as the Ultrafex II or Vitalizer, try routing the return from the reverb through it to add more space and depth. This technique of layering voices can be applied to any other sound.

Let's say we have a mono sample of a jet aeroplane, but would ideally like a stereo sample of Concorde passing overhead. To make the sound bigger, begin by sampling the jet and playing it back at a lower pitch along with the original. Try mixing in a touch of white noise, which is essentially what we



hear from a jet plane. If you don't have a synthesiser, record some white noise from a television set. By applying a short delay, say around 20ms, to the overall mix, and a touch of reverb, you'll be well on your way.

To make the aeroplane seem to pass above, fade in the mix while panning from left to right and fade out again. As a jet gets closer, we tend to hear more bass, or more of the lower frequencies. Ideally, we need to put the mix through a high pass filter. Gradually close the filter as the jet gets closer and open it up again once it has passed. You could also crank up the bottom end as the jet gets closer to give it that extra rumble. Sound enhancement processors can be used to thicken the overall mix.

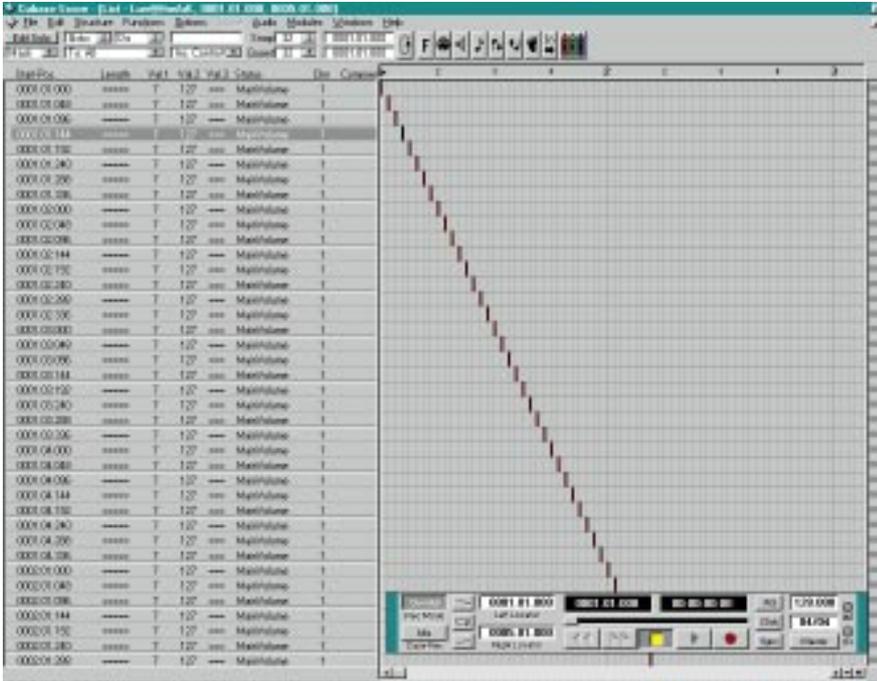
### Net noise

I rarely log on to the internet because I fear that someday I might pass the point of no return and be tempted to dine with a Cyberchick at the Internet Café. Not a warming thought. So, I limit myself to just half an hour

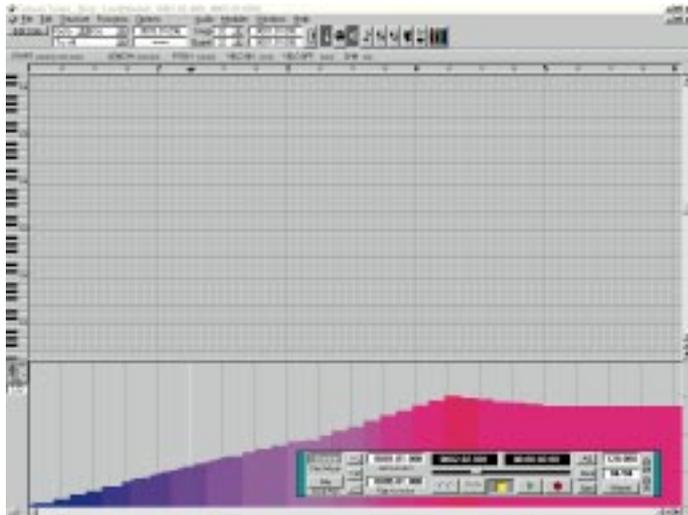
each week. I must admit I have spent more than my allotted time over the past few days digging up the better sound-related sites.

The first is Creative Labs home page, Creative Zone, which can be found at [www.createlabs.com](http://www.createlabs.com). In addition to an abundance of useful tips, you can download the latest drivers for Creative's cards along with soundbanks and MIDI files for the AWE-32. The latest drivers for the AWE-32 are worth getting hold of as they let you record and play back samples simultaneously, making the card better suited for D2D work.

The next site of interest is the MIDI Web, which can be found at [www.midiweb.com](http://www.midiweb.com). MIDI Web is a user-supported site that has recently been nominated one of the best 25 computer-related sites. Because it's user supported, it relies on you to keep it up-to-date with fresh MIDI files, text tutorials, source code and new ideas. At the moment there is demand for Mac products, so please send anything you have to [upload@midiweb.com](mailto:upload@midiweb.com). Currently, the site



(Above) The fill command in Cubase allows you to insert a string of controllers at a given resolution



(Right) The key editor can be used to create a fade in/out

has a wealth of resources, from tutorials and DIY projects to samples and shareware applications. You'll find a zillion links to other interesting web sites, too, but that's quite enough on the internet.

**Smooth tip**

Anyway, back to some more useful tips, courtesy of Martin Simpson in Duns Tew, Oxon: "I noticed several months back that you discussed ways to use controller messages in Cubase to create smooth volume curves. I have been trying your ideas and recently stumbled across the 'Fill' command in the List Editor. This allows you to insert a string of controllers (or CCs) at a resolution determined by the current quantise value.

So if you do a fill with insert controllers selected and a quantise value of 32, Cubase

inserts 32 controller messages in each bar of the selected part. However, Cubase defaults to inserting controller value 1, which is Bank Select. To change all the controllers to volume messages, hold down Alt while double-clicking on one CC. Then type 7, which is the controller for volume, and all events become volume CCs. To then create a fade in/out, go into the Key Editor and use the gradient tool to draw a curve. The same trick can be applied to panning information (CC10), or any other CC." Thank you for the tip, Martin.

**PCW Contacts**

If you have any hints or tips, MIDI-related items, or general comments, send them to **Steven Helstrip** at the usual PCW address, or to [steven\\_helstrip@pcw.cmail.compuserve.com](mailto:steven_helstrip@pcw.cmail.compuserve.com)

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