Playing at home

Record, edit and master your own CDs at home. Steven Helstrip shows you how.

Over the next few months we're going to tackle the basics of recording, editing and mastering your own audio CDs at home. On the way, we'll look at how to get the best from your sound card and how to record synths into your sequencer, and we'll include hints and tips to help you polish your home recordings. Even if you don't have access to a CD writer, there will still be lots here to interest you.

Transferring MIDI tracks to audio tracks

To prepare a two-track master which can be used to write an audio CD, MIDI tracks from your sequencer, including those played from a sound card, need to be recorded to your PC as audio files. If your music is purely MIDI-based (i.e. there are no sequenced audio tracks) this is pretty straightforward.

☞ **Using your sound card's** mixer utility, select Record Options and mute all the inputs except for MIDI.

☞ **Simply set** your wave editor into Record mode and play back your MIDI sequence. This will record all FM, WaveTable and SoundFont instruments.

☞ **Because we're preparing** an audio file for a CD, ensure the sampling rate is set to 44.1kHz 16-bit stereo. More than likely, you'll have a couple of audio tracks lined up in your sequencer and will need to transfer your MIDI tracks over. Not only will this allow you to create a two-track mixdown of your song, but you'll also be able to process MIDI parts with plug-in effects and EQ.

For maximum flexibility, record MIDI instruments to as many separate tracks as possible. You can always bounce, say, all the drums down to a stereo track once you have a mix you're happy with.

MIDI instruments can be recorded to audio tracks using the same approach we've just covered. However, if you also have external synths playing, these must be connected to your sound card's line

FAST GUIDE TO CUBASE VST

Cubase has come such a long way over the years that sometimes I wonder how newcomers to the program ever get off the ground. MIDI and audio are complex enough issues by themselves, but when they're thrown together in a full-blown professional package, where do you turn for help? Whether you're looking for quickstart tutorials or involved in mixing projects, the *Fast Guide to Cubase VST* could be just what you're looking for. The book covers most MIDI and audio topics in detail, and includes excellent chapters on Logical Edit, audio editing and mixing with VST. The author, Simon Millward, is clearly a proficient Cubase user and has plenty of sound advice (no pun intended) to offer, including the use of plug-in effects and EQ, through to choosing and setting up the right sound card. It's not just about what you can do with Cubase, though. The program's limitations are clearly revealed, as are the potential problems you're likely to encounter. If you're a new or intermediate VST user, you will find this book to be an excellent supplement to the online Cubase manuals. It is well written and packed with practical tips, although there really wasn't any need to include another list of general MIDI instruments.
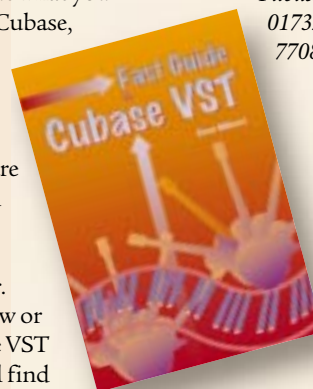
Price *£19.95 (inc VAT)*
Contact *PC Publishing 01732 770893*

NEW — SOUNDBLASTER LIVE

I recently checked out the new SoundBlaster Live sound card. I was so impressed with its output quality that I installed an Event Gina, a £500 professional audio card, alongside it to do an A/B comparison. For the various listening tests I monitored each card's performance over a pair of Tannoy studio reference monitors. Suffice it to say, there was little to set the two cards apart. The Live has a very clean and detailed output with virtually no discernible levels of noise. Add to this 256 voices of polyphony from its three onboard synthesisers, and the ability to use up to 32Mb of your PC's system RAM for sampling, and you have a very desirable card for making music with your PC. Given the asking price of just £130, I'd recommend it highly.

Contact *Creative Labs 0118 934 4744*
www.soundblaster.com

Winner of Terratec Home Studio

In the September '98 column we ran a competition to give away a Terratec Home Studio, comprising an EWS 64S sound card and a full-size, four-octave MIDI controller keyboard. We were swamped with entries, but the first out of the bag was from Martyn Comerie in Nottingham. Well done, Martyn!

Questions & *answers*

Q I have purchased Cakewalk Pro Audio 7 and I'm having a lot of fun with the audio effects. The problem I have is working out delay times in milliseconds to match the tempo of the music. Is there a formula I can use?
DAVID SAUNDERS

a There certainly is: a quarter-note delay (crotchet)=60/tempo. Try using multiples and divisions of this, for rhythmic variation. For example, dividing the result by four will give you a semi-quaver delay. Multiply this further, by three, to produce a dotted quaver delay which is useful for semi-quaver-based synth patterns. For stereo delay, simply double or triple the delay time for the opposite side.

Q Having just upgraded my MIDI controller to a seven-octave piano-weighted keyboard, my sustain pedal no longer works properly with my sound card (a Turtle Beach Pinnacle). It now works in reverse, in fact, and is active when the pedal is released rather than pressed. This makes it

[FIG 4]

[FIG 5]
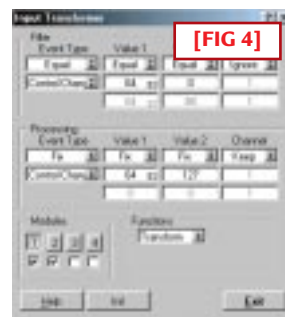
impossible to use. Is there a MIDI fix for this, or will I need to buy a new pedal?
PAUL CUSICK

a I have come across this problem myself. There are two options. Depending on the model, there may be a polarity switch inside the pedal, which will solve the problem easily. If not, there is a "fudge" you can implement if you use Cubase: using the Input Transformer, you can convert sustain pedal on events (CC64:127) to sustain pedal off events (CC64:0) and vice-versa. *Figs 4 & 5* show the settings you need.

FREE PLUG-INS

Collecting plug-ins can be an expensive hobby, especially when some of the better ones can set you back up to £300 apiece. In fact, some of the best are available for free. As I write, there are already over 80 free plug-ins, many of which can be downloaded from the Cubase web ring. Three in particular have caught my attention this month: Vellocet's Reorder [Fig 1], Prosoniq's NorthPole [Fig 2] and KwikKomp 2 [Fig 3] from Synchromesh.

For the current list of Cubase web-ring sites, visit www.webring.org/cgi-bin/webring.

◀**FIG 1** REORDER SPLICES DRUM LOOPS INTO **16** PARTS AND RECYCLES THEM TO CREATE NEW GROOVES. **YOU** CAN REVERSE ANY PART AND CROSS-FADE BETWEEN SPLICES FOR GLITCH-FREE PLAYBACK

▲**FIG 2** NORTHPOLE IS A FOUR-POLE ANALOGUE FILTER WITH LOW- AND BAND-PASS SETTINGS, ADJUSTABLE RESONANCE, AN ENVELOPE FOLLOWER AND BUILT-IN DELAY

▶**FIG 3** KWIKKOMP IS AN ANALOGUE-STYLE COMPRESSOR OFFERING RATIO, THRESHOLD, ATTACK, DECAY AND GAIN MAKE-UP PARAMETERS. **IT'S** EASY TO USE AND CAN ADD A LOT OF PUNCH TO INDIVIDUAL DRUM SOUNDS

input. For the best possible recording, ensure the synth's output and MIDI volume are set to maximum, as this will improve the signal-to-noise ratio. If you're running low on audio tracks, group like-minded instruments together.

We'll look at the processing options in next month's *Hands On Sound*. In the meantime, in the panel above are details of plug-ins you can get for free.

PCW CONTACTS

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