



Loop the loop

Steven Helstrip looks at Steinberg's new audio editing package designed to run under Windows 95 and NT, shows you how to create a Mixer Map, and recommends the best loop collection yet.

Last month we looked at ways to add delay, or echo, to synth parts using MIDI information instead of a dedicated

delay unit. Not only does this save you from buying an effects unit in the short term, it provides greater flexibility —

assuming, of course, that your synth has enough polyphony. Delays, and particularly stereo delays, can help to "bring out" parts within a mix. Over the next few months we'll be looking at other ways to enhance your tracks, without necessarily having to buy expensive studio equipment. First, though, some interesting developments for Windows 95 and NT users.

Mixer maps made easy

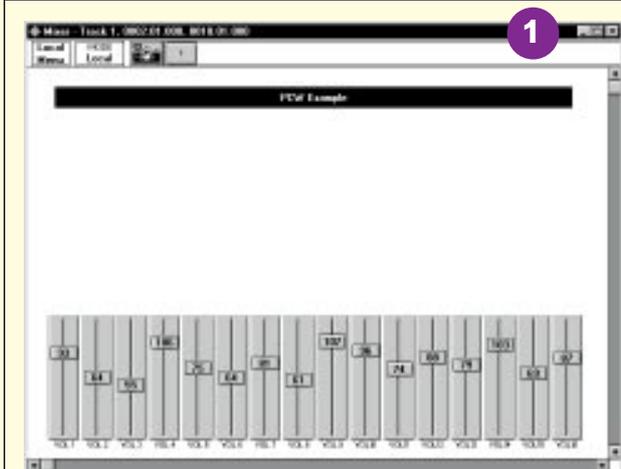


Fig 1 *Faders to control main volume for each of the 16 MIDI channels*

Fig 2 *The object editor looks pretty scary, but it doesn't take long to get to grips with it*

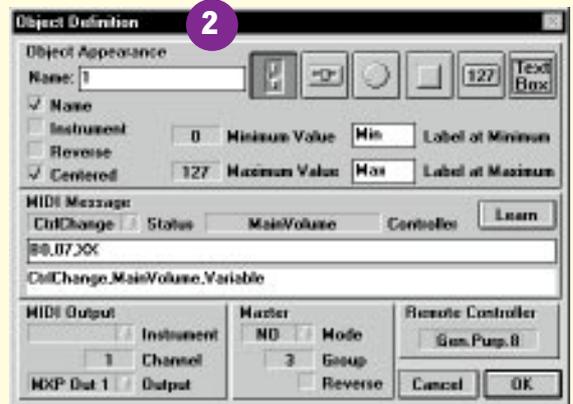


Fig 4 *The finished mixer map. Looks good, doesn't it?*

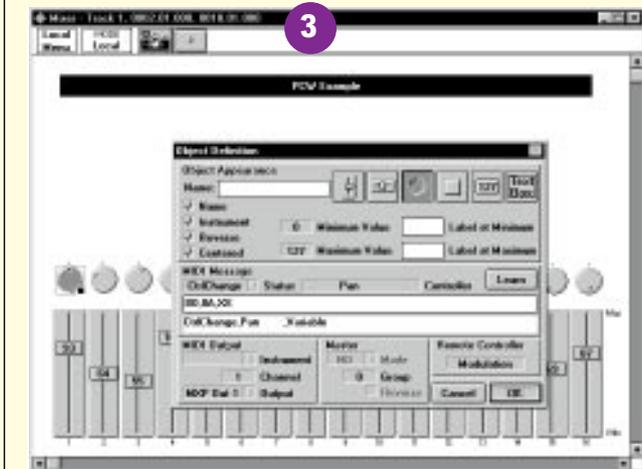
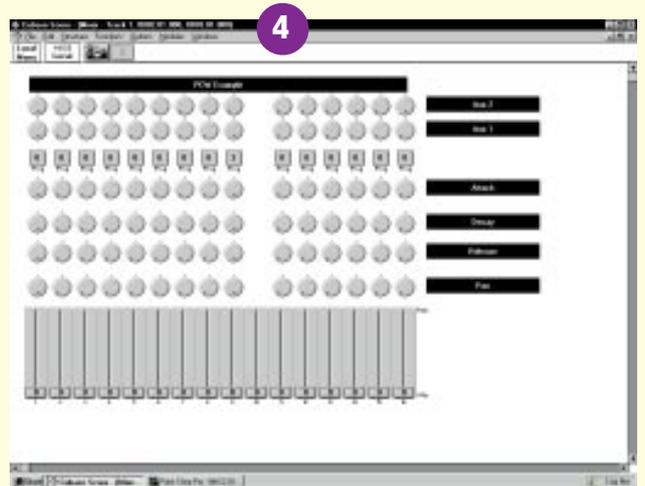


Fig 3 *Adding objects to control pan position*



WaveLabs

Just before Christmas, Steinberg released details of its new 32-bit wave editor, WaveLabs. This is the first pro-audio application to run under Windows 95 and NT and is, according to Steinberg, the fastest editor to be available to date.

WaveLabs has been developed for pro-studio use and integrates features such as time stretching, pitch correction, harmoniser, parametric EQ and sample conversion. The package supports .WAV and .AIFF formats, and has unlimited zoom and undo. WaveLabs is expected to be available by February, although no prices are available as I write.

Tapeless tape, high-speed applications and automated mixing are welcomed with open arms by today's musicians, but for the recording studios it's not such good news. Not because it's expensive to keep up to date, but because the time needed to mix a track gets shorter and shorter as new technologies appear.

Take for example the introduction of hard-disk recording, which, among other benefits, provides instant random access to any part of a track. Time taken up with fiddly things like rewinding tape on a traditional 24-track is cut right down. Over a five-day session, it amounts to a saving of around half a day.

An album can now be edited on one PC, cutting in half the time it took two years ago. The studios are losing out.

Using Continuous Controllers

Most synthesisers, including sound cards, allow you to control many settings, or parameters, of its instruments via MIDI. Such parameters include the attack, decay and release times; cut-off frequency, resonance and modulation settings. By adjusting these settings, new sounds can be created. More to the point, it is easier to simulate "live" instruments more accurately, making for a better final product.

In most cases these parameters can be controlled using Continuous Controllers (CCs). A common example is a CC to set the volume of an instrument at the beginning of a song. To do this you would insert a CC event (Continuous Controller 7) with a parameter between 0 and 127 where 0 equals off and 127 is maximum.

It is possible to control these parameters in real time with most sequencers. Cubase lets you do this in several ways. Firstly, you can map Modulation to any CC from the MIDI setup dialogue box. This will allow you, for example, to control the

Important Controller Numbers

00	Bank Select
01	Modulation Wheel
05	Portamento Time
07	Main Volume
10	Pan Position
65	Portamento On/Off (0=off 127=on)
91	Reverb Level
93	Chorus Level

reverb level for a single instrument by moving the modulation wheel on your master keyboard. The most flexible way to manage controllers, though, is to create a Mixer Map. Mixer Maps allow you to assign sliders, dials and buttons to Controllers, providing an intuitive and graphical environment to play around with and record CCs in real time.

Creating Mixer Maps in Cubase

Although setting up a mixer map requires some knowledge of the workings of MIDI, don't let this put you off — we'll cover all the main elements in this column. To create a mixer map you need first to set up a mix track. To turn a track into a mix track, pull down the Track Class menu (the C column) and select Mix Track. Next, create a part by double-clicking between the left and right locators.

The track info column will display "Untitled" in the instrument column and the default mixer map will be loaded. This is a generic mixer that allows you to control program change, volume and pan for each of the 16 channels. To create a new mixer map, however, double click the "Untitled" box and select empty.

When you double-click on the new part which was created earlier, the "empty" mixer will be opened. In this first example we will create faders to control the main volume of each one of the 16 channels.

When the right mouse button is clicked, a toolbox is displayed. Select the "new" tool and click with the right mouse button. This creates a new object and opens the object editor. You can choose from six objects — horizontal and vertical faders, dial, on/off switch, numerical display, and text boxes. Select the vertical fader and choose control change in the MIDI message box. Next, select main volume from the controller box (CC7). Once you have selected your MIDI output and MIDI channel one, you're ready to try it out.

Press OK, then select the play tool (the pointing finger icon) and move the slider up and down. All being well, this should control the volume on MIDI channel one. The quickest way to create the remaining 15 faders is to duplicate the first. This is



done by holding down the Alt key while dragging the fader to a new position. When you let go of the mouse button, the object dialogue is reopened. Select channel two for the output and click OK. Do this for all 16 channels. If you want to give names to each object, or fader, enter this in the name field of the object editor. Double-clicking on any object will reopen the editor.

No mixer is complete without panpots, so the next job is to create pan dials for each channel. This is done in exactly the same way, only you need to select continuous controller ten. You can also add program change buttons to your mixer.

Creating objects to control instrument parameters

This can be done in exactly the same way as before, but first you need to do a little research. Because there are few standards in the MIDI specification, there isn't a standard CC to control, for example, the release time of an instrument. Some synths enable you to set a CC number manually, but when it comes to sound cards, you need to check its MIDI implementation chart. This can be found towards the end of the card's manual.

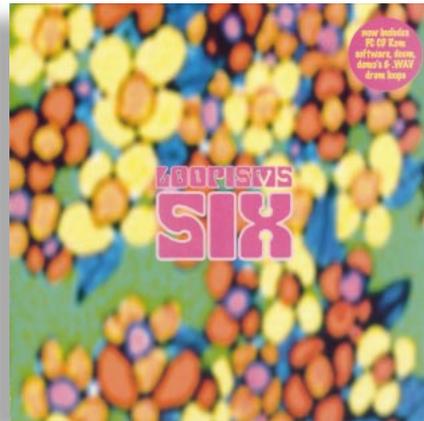
In *Fig 4* (page 326) I have added three sets of dials to control attack, decay and release times for each of the 16 channels. The synth they were set up to control was a Roland U220. From its setup pages you can map any parameter to a Continuous Controller; therefore, I assigned attack to CC 60, decay to 61 and release to 62. When I created the dials for the mixer map

Here we go round again: Loopisms 6

This is Dzone's latest, and by far its best collection of loops yet. There are 24 loops altogether, each repeated 20-odd times, and one-shot samples taken from the Vintage Keys sound module for added value. There's a CD-ROM partition on this disc, with each sample stored as .WAV files, and fully-working demos of Cubasis and Software Audio Workshop. Oh, there's also the shareware version of Doom, should you not already have a copy.

The majority of loops fit into the house/garage genre, with rhythms reminiscent of Joe T Vanelli, Frankie Knuckles and David Morales. You'll also find three jungle-esque loops in this collection. They don't quite fit in here, but they're there for good measure.

The quality of these loops is consistently high, with tempos ranging from 64bpm right up to 165 — obviously one of the jungle loops. For just £12, this is yet another bargain from Dzone. Don't bother with the Vintage Keys samples, though. As they've only been sampled at middle C, they're just about useless.



I followed the same steps as before, only entering different CC numbers.

Fig 3 shows two rows of dials which have been set to control auxiliary send levels — in this case, reverb and chorus. Thankfully, there are standard controller numbers for these, which are shown in the table (page 327).

These examples have been set up to control very simple parameters, but almost any parameter can be accessed. If they cannot be accessed using CC messages, they can be controlled using system exclusive messages. We'll look at system

exclusive events next month, and at more creative ways to use the mixer maps.

PCW Contacts

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 steven_helstrip@pcw.ccmil. compuserve.com

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