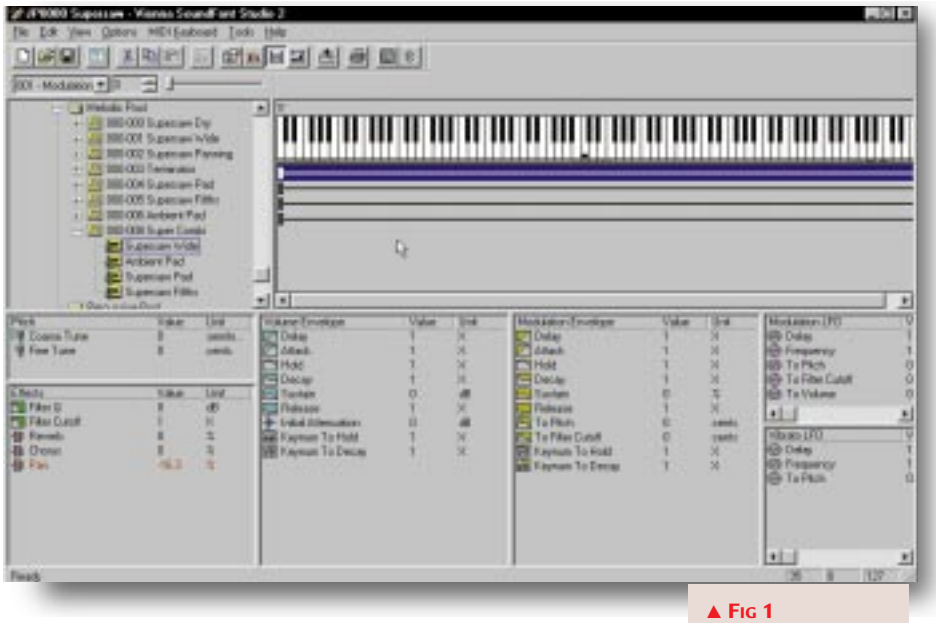
Padding around

Steven Helstrip shows you how to pad out the music in your mix.

Last month, we started to create a SoundFont bank using Creative's Vienna Studio. As promised, we're now going to finish it off by incorporating four new Presets.

Hopefully, you've had some fun with the first four and have come up with some quality sounds of your own. Both the existing SoundFont (JP8000 Supersaw .SF2) and the finished product (JP8000 Supersaw II.SF2) can be loaded from the Hands On folder on this month's cover CD — shall we get stuck in, then?

The sample we've been using to create these patches (Supersaw .wav) is quite a versatile waveform. So versatile, in fact, that it can produce some wildly different sounds when manipulated with just a few synth parameters. And because it loops seamlessly, it can be shaped over time into almost anything you like, from short, percussive instrument stabs through to oddball sound effects.



▲ FIG 1
IF EVERYTHING HAS GONE ACCORDING TO PLAN, YOU SHOULD HAVE SOMETHING SIMILAR TO THIS

To start the second part of this workshop, we're going to look at creating two instruments that fall into the pad category. Pads are so named because they are used to 'pad out' your music, usually by playing-back chords. Pad sounds are generally defined with a slow attack and a long release. This makes the instrument less obtrusive in a mix and allows chord changes to subtly drift into one another.

Chord changes subtly drift into one another

☛ **With the JP8000** Supersaw SoundFont loaded into Vienna, select and copy the Supersaw Wide Instrument. To briefly recap, this can be achieved by right-clicking on it and selecting copy from the pop-up menu.

☛ **Right-click** on the Instrument Pool folder and select Paste Instrument. Following this a dialogue box springs up requesting a name — how about 'Supersaw Pad'? Although we can use the Supersaw Wide as a template, there are several tweaks to make before setting the Attack and Release parameters.

☛ **Select each sample** in turn and set their Fine Tune settings to -5 and +5 cents respectively. This makes the stereo flange effect more subtle. In order to edit the remaining parameters for both samples simultaneously, create a Global Zone.

☛ **In the Volume Envelope** section, set Attack and Release to 0.71 and 5.676 seconds. *Tip: you can dial-in numbers quickly by double-clicking in the parameter boxes.*

☛ **In the Effects** department, set Filter Q (resonance) and Filter Cutoff to 8.9dB and 20,005Hz to give the instrument a slightly brighter sound. Applying reverb can also help — try a setting somewhere between 20 and 40. And that's it, finished. You can now link the Instrument to a Preset.

As a starting point for the next patch, select and copy the pad we have just created and call it 'Ambient Pad'. In this example we're going to use the Modulation Envelope settings to shape, or control the Filter section. By so doing we can produce a slow attack effect by gradually opening the Filter Cutoff. To put a quirky slant on the sound, we can also make the Filter dive back down once a key is released.

Before we look at that, though, apply these settings in the Effects section:

- Filter Q 21.8dB
- Filter Cutoff 1,437Hz
- Reverb 31.2

Also, in the Volume Envelope section, set Release to 12.765 and Attack to 0.001 seconds. To route the Modulation Envelope to the Filter, set the To Filter Cutoff parameter to 1,200 cents.

All the Envelope settings are now applied to the Filter. Try these for size: Attack 100.022 and Release 0.001 — not bad, eh?

In contrast, the next instrument is quite basic but the technique can be very useful in certain situations. All that we're going to do is create a plain, vanilla patch that has an interval of a fifth (seven semi-tones). So, when you press a single key (C, for instance), you actually hear two notes (C and G) play back.

To do this, copy the original Supersaw Dry Instrument. Next, create a new zone with our original sample and set its Pitch parameter to 7. Simple.

Questions & answers

Q I used to record my favourite music CDs onto my computer using Creative's Wave Studio. I then discovered that I had the Fraunhofer mp3 CODEC installed. I like this format because it compresses audio at somewhere in the region of 10:1. I have since bought a new computer and would like to install the CODEC but cannot find it anywhere. The Fraunhofer site only has commercial programs, not the CODEC. As I still have my old computer I was wondering if I could transfer the files across and reinstall them?

ALASTAIR GRANT

***A** The Fraunhofer CODEC has been the de facto MP3 encoder for some time but, as you point out, it is no longer distributed through its web site. The file you need to copy over from your old PC is called l3codeca.acm. (Note that the first letter is a lower case L — not a 1). Copy this file to your C:\windows\system directory. Your system.ini will also need the following single line of code added to the [drivers32] section:*

```
msacm.l3codec=codeca
.acm
```

You can check if the CODEC is installed properly, in the Multimedia Control Panel. We'll be exploring the world of MP3s in a future column, so stay posted.

Q I use a mini disc to make recordings of birds and would like to transfer them digitally to my PC for sonograms, etc. Can you recommend a cheap sound card with an optical digital input?

DAVID MELDRUM

***A** Well I have come across a few cards which provide an optical digital output, but I have yet to see a 'cheap' card with a digital input as standard. At the moment, your best option is to buy a SoundBlaster Live! with the new digital Input/Output expansion card. This provides a second set of digital ins and outs, one of which is optical. It even comes with the relevant cable to hook up to your mini disc. The two cards together are likely to set you back about £170, but you will have an enviable setup that will do the job nicely.*

CUBASE VST UPDATE

Steinberg has announced that the upcoming version of Cubase VST (release 3.7) will incorporate the new VST 2.0 plug-in interface. Talked about for some time, this will enable software synthesisers and software samplers to be written in plug-in format and integrated directly into Cubase [Fig 2].

Plug-ins written for VST 2.0 will have their own virtual MIDI input to enable remote operation from external controllers, such as KeyFax's Phat Boy. This should make child's play of automation and editing. Most mixer elements, including EQs and faders, can also be controlled over MIDI and recorded to Cubase tracks. How welcome is that going to be?

If this alone doesn't have you logging onto the net to download the update, there's more to come. An improved ASIO (Audio Stream Input Output) system enables applications to share audio hardware. In addition, when recording, audio can be monitored with zero latency. If you use Cubase VST 24, five real-time processing modules have been added to the mixer/EQ section. These include a compressor, limiter, auto gate, auto limit and soft clip. Other new features include support for MixMan TRK files and Pentium III SIMD extensions. Cubase 3.7 is expected to ship before the end of July and is available as a free download for existing 3.6 users.

▲ FIG 2 A SNEAK PREVIEW OF CUBASE 3.7 — LOOK AT ALL THOSE MIXER CHANNELS AND NEW EFFECTS. THERE'S A MINIMOOG SYNTH TUCKED AWAY IN THERE, TOO

☛ *See PCW Contacts box.*

I have saved the best bit until last: we are now going to create a combination Preset. In other words, a Preset that comprises four layered instruments. First create a new Preset called 'Super Combi' or something, then select the Ambient Pad, Supersaw Pad, Super Fifths and Supersaw Wide — sounds pretty huge, doesn't it? To add more interest, why not pan each instrument off-centre, or even transpose parts over an octave? The possibilities are endless.

PCW CONTACTS

Steven Helstrip welcomes your feedback on the Sound column; it's music to his ears. Contact him via the PCW editorial office (address, p10) or email sound@pcw.co.uk

Cubase VST update from Arbiter Music Technology 0181 970 1909, www.steinberg.net