

SPL Transient Designer

Rarely a manufacturer of the 'ordinary', SPL has put another spin on dynamics as **Dave Foister** discovers

NEVER let it be said that SPL is a dull company. There is almost nothing in its catalogue that is completely 'normal', and half of it is fairly off the wall. No surprise then that in the wake of the Spectralizer, the Level Maximizer and the Machine Head tape-saturation simulator we have the Transient Designer, a rather individual dynamics processor with aims and methods all its own.

To be precise it has four dynamics processors; such is the operational simplicity of this rather remarkable device that four of them sit happily in a 1-U high rack space. This is not one of SPL's all-digital fairy-dust boxes, but a bluntly analogue processor designed to do one of the standard jobs of a compressor with the minimum of fuss. Once you know this the name makes sense, describing with

The Sustain circuitry does the same at the other end. Again an envelope is generated that is longer and higher in amplitude than the real one, with its shape influenced by the peak level of the incoming signal. This, too, can be added to, or subtracted from, the original envelope to lift the sustain part of the sound or to reduce it. It sounds like of a sledgehammer to crack a nut, but the resulting effects, and the simplicity with which they can be adjusted, make it all worthwhile.

The results are quite spectacular. The obvious first candidate for treatment was drums, and here the control over the attack of a kick drum or toms was something I would have found hard to emulate with a conventional compressor. The amount of added bite could be precisely adjusted, all the way up to far

commendable clarity its intended aim of manipulating the envelope of a sound, no more or less.

A compressor is often used to alter the front end of a sound, either to exaggerate its attack or to reduce it, and also is a convenient means of controlling the way a sound sustains. The Transient Designer has just two controls on each channel, marked up to do precisely those two things. It does nothing else—no overall level control, no limiting—but its approach to these two aspects is, perhaps, unique and certainly very powerful.

It all looks very simple. The back has XLR inputs and outputs for the four channels, and the front has rotary controls for Attack and Sustain, in-out switches and stereo links. That is the lot; but behind it all is a set of four envelope generators for each channel that allow the attack and sustain of the source sounds to be adjusted both up and down in terms of dB via the centre-detented controls. The key is the envelope follower circuitry that is used in conjunction with program-dependent envelopes to drive a VCA.

The Attack stage follows the envelope of the original sound, and also generates a second envelope with a substantially slower attack time. The trick is to take the difference between these two envelopes and use it in varying amounts, both positive and negative, to control a VCA. When the difference signal is applied in a positive direction the level is increased for the time between the real envelope and the slow one, effectively boosting the attack of the sound. Similarly if it is used in a negative direction level of the attack will be reduced.

Contact
SPL, Germany.
Tel: +49 21 63 8761.
Stirling Audio UK:
Tel: +44 171 624 6000.
USA: +1 516 293 3200.

more than you could ever want. The unit can generate an extra 15dB on the attack, which in the case of a drum sound is likely to end up too hot to handle on most systems. In these cases it would be useful to have some sort of gain compensation on the unit.

This much could almost have been predicted, but the effects on other instruments were more of a surprise. Piano was a prime subject for experiment and a severe test, and on both counts the SPL was very impressive. A decent basic piano sound could be given real hard punch or smoothed out completely, or tailored to have any dynamic character in between.

Perhaps the biggest surprise was bass guitar, a sound that can test the attack behaviour of a lot of straightforward compressors and something that might have been expected to bewilder the Transient Designer. In fact it proved to be a real strength. The same raw bass sound could be treated very simply to produce a wide variety of effects without any additional processing; the attack was under full control to punch it through when required without a trace of distortion, and for the more open laid-back material the

sustain could be as long and smooth as needed and still sound completely natural. No doubt a noisy source would be made to pump a little with extreme settings, but with a reasonably clean original any side-effects were undetectable.

This is a deceptively powerful unit that will win SPL new admirers, achieving remarkable shortcuts to a whole palette of dynamic effects. Try one and you will want two. ■

NEW TECHNOLOGIES

More Meeks

JoeMeek's SC4 is an M&S compressor, adding a width control to the JoeMeek compression sound, and a claim to absolute image accuracy. The unit also has 24-bit 'any rate' converters that may run independently. The new, upgraded version of



the VC1, transformer mic preamp, mono photo-electric compressor and enhancer channel is the third generation of the Studio Channel and has many extra features, while maintaining the same price. The unit has a larger meter, phase reverse switch, an improved, smoother-sounding enhancer, and now has the same compressor slope settings as its big brother—the SC2 compressor. This is as well as a more 'chunky' looking front panel.

JoeMeek, UK. Tel: +44 1626 333948.

Lawo demos real-time ATM audio transfer

Lawo demonstrated the transfer of audio data in real-time via ATM network as a WAN link at the Tonmeisterstagung in Karlsruhe. The presentation of Lawo's mc2 technology was realised by Lawo (with two booths), Deutsche Telekom and Südwestrundfunk (SWR) with live transmissions from the radio house in Baden-Baden via WAN to the Congress Centre in Karlsruhe. Co-operating IBM-Switches 8265 in Baden-Baden and Karlsruhe, together with the sources, integrated mixing consoles, video cameras and peripherals and formed a DSN (Distributed Studio Network).

Control of the sources at the SWR in Baden-Baden and mixing of the transferred audio signals in real-time were carried out on a Lawo mc2 82 production console at one Lawo booth with the signals transferred to the other Lawo booth via DSN. A video camera filmed a monitor at SWR and video and audio signals were sent simultaneously via this network.

Apart from transferring audio and video signals all other services like file transfer, telephone, LAN and WAN can also be integrated in the DSN.

Lawo also showed its Diamond digital on-air console, that has been extended in functionality and now uses mc2 mechanicals. Signal processing and control surfaces are modular and complete setups with all audio parameters, assignments of console modules (sources to faders) and special functions may be stored and loaded from memory cards. The system can also be integrated with radio automation systems.

Lawo, Germany. Tel: +49 7222 10020 >