

THE
MUSIC
TECHNOLOGY
MAGAZINE

April 1993

£1.95

Stereo MC's

...to the left, to the right



John Cage

The final frontier

Declaring Independence:

K-Creative

Thomas Lang

Roland AX

New Series:

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On Test:

E-mu Vintage Keys

Notator Logic

Zoom 9120 FX

Spirit Folio
Mixer



Peavey PC 1600 MIDI Controller



Farfisa F1
Keyboard



ATARI ST

REPLAY

The first and only 16 Bit sampler for the Atari ST

EDITOR program has both mono input and output, the software contains a full sample editor that can sample in 16 bits up to 48khz, all the normal sample editor functions are included and the Atari's on screen display means that sample editing is simplified. Also included is a Sample Track Sequencer which allows you to Re-arrange/Re-mix samples using a sample list style editor.

SAMPLE DUMP included in the editor program, allows you to transfer samples to rack or keyboard samples using the International Midi Specification.

DRUMBEAT is a drum sequencer that allows up to 30 samples in memory and then can play up to 4 simultaneously. Full midi support is included with drumbeat

MIDIPLAY allows you to assign samples to keys or groups of keys on a sequencer, individual samples can then be played back in a range of up to 9 octaves. Midiplay can also handle up to 4 voice/note polyphonic playback.

What the press says about Replay 16

ST FORMAT: Gold Award 92% "this is a must".

ST REVIEW: 84% "As powerful as many standalone samplers costing twice as much".

ST USER: "Features Excellent" "The sound quality is outstanding".

MUSIC TECHNOLOGY: "I was impressed by the quality", "true professional".

FUTURE MUSIC: 89% "Outstanding sampling with great software support at a very accessible price".

AMIGA

Clarity

BIT POWER



Clarity 16 is available at specialist computer dealers and music shops for £149.95 (includes 16 bit Stereo sampling hardware and software).



Replay 16 is available at specialist computer dealers and music shops for £129.95 (includes 16 bit mono sampling hardware and software).

EDITOR program included in this package allows you to record stereo samples up to 32khz and mono up to 44khz on a standard Amiga. Accelerated Amiga's can handle up to 44khz in stereo. All normal sample editing features are included in the software including: *Cut *Paste *Overlay *Insert *Mix *Delete *Hide *Volume Up/Down *Fade In/Out *Normalise *Reverse *Sample *Play *Monitor *Sample/Play *Block *Trigger Sampling *Channel Swap *Stereo Pan.

MIDI functions include a Midi Keyboard emulator which allows you to assign samples to any individual note or range of notes in a 7 octave range.

SAMPLE SEQUENCER featured within the editor allows you to re-arrange/re-mix your samples using a sample list style editor. Clarity 16 is fully multi tasking and the cartridge includes Midi in/out ports. 1 Meg of Ram is essential, 2 Meg is recommended.

ENHANCED EDITING FEATURES can also perform more advanced forms of editing such as sample fourier analysis using a 3D FFT, special effects (including Echo, Flange, Reverb, Chorus and Distortion), Digital Filtering (Band Pass, Low Pass, High Pass and Band Stop) and Re-synthesis of samples to any other frequency.

What the press says about Clarity 16

AMIGA COMMUNITY: "Value for money 10/10, "Overall 9/10", "Nothing comes even remotely close for price and performance".



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MAKER**
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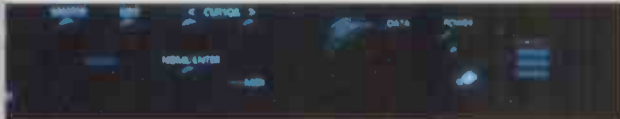
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Music Technology April 1993

COMMENT

Among the more pleasant aspects of the Frankfurt Music Show is the fact that it is genuinely International in flavour and the range of instruments on show is as broad as the impressive list of manufacturers vying for your attention.

Many times, as you stride purposefully past the displays of traditional instruments on your way to one of the hi-tech manufacturers, there is a great temptation to stop a while and pluck, tap or blow - and for a brief moment or two, be caught up in the sheer pleasure of playing a 'real' instrument.

Indeed, as a representative of the hi-tech side of the music industry, one sometimes feels like the poor relation at these events - at least from an aesthetic point of view. As comforting as it is to know that the latest sample-based sound module is capable of highly creditable reproduction of probably half the instruments at the Show, when set against the exotic woods and polished metals from the traditional manufacturers it's easy to forget that it too is a musical instrument, capable of expression and nuance and indeed, considerably more timbral diversity.

It's easy, too, to understand why young musicians, faced with racks of push-buttons and LCDs, have, in many cases, opted for the more certain ground offered by guitars, drums and the like. They're cheaper to buy, easier to understand - and, of course, they also happen to be the instruments behind which poses can be struck.

The problem is compounded by the fact that more and more people are opting for rackmount equipment in preference to keyboard alternatives. There's a certain inevitability about this; with one decent keyboard in your set-up and MIDI on your side, what need is there to go on purchasing further keyboard-based synths or samplers? Clearly none. But each time a rackmount is sold in favour of a keyboard, that most enduring of musical images - the black and white notes of the keyboard - is further eroded, and with it, the perception of the users as musicians rather than 'boffins'.

I well remember a 'discussion' I had with a manufacturer at a NAMM show a few years ago who reacted rather angrily to my comment that good as his percussion instrument was in software terms, the battleship grey boxes and foam rubber pads were likely to prove somewhat of a turn off to mallet players more used to polished rosewood and chromium steel. Once those musicians had been introduced to the incredible sonic diversity opened up by the instrument, they couldn't fail to be impressed. Getting them to that stage, however, was going to take an aesthetic leap which, it seemed to me, few of them would be prepared to make.

Without wishing to get embroiled in a discussion of form and function, we cannot simply ignore the fact that traditional instruments have a desirability about them which will always be favoured over matt black cabinets and multi-function buttons. It's time hi-tech manufacturers started showing their awareness of this with instruments that attract rather than repel potential new players. NL



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Simon 'Lost In Space' Trask and Sarah 'Forbidden Planet' Short

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KEYBOARDS AND MODULES



	NORMAL PRICE	CREDIT CARD PRICE
Akai S01 16 Bit Sampler	£799	£789
Akai S2800 Sampler	£2199	£POA
Akai S3000 Sampler	£2999	£POA
Akai S3200 Sampler	£3999	£POA
Akai CD3000	£2399	£POA
Akai S950 Sampler	£1199	£999
Akai S1000 Sampler	£2400	POA
Akai MX1000 Mother Keyboard	£1099	POA
Akai PM76 Module	£499	£479



	NORMAL PRICE	CREDIT CARD PRICE
Ensoniq ASR 10	£1999	£1895
Ensoniq ASR10R	£1999	£1850
Ensoniq SQ2 - 32 Voice	£1350	£1299
Ensoniq SQ1 Plus - 32 Voice	£1250	£1135
Ensoniq K532 - Piano Weighted	£1595	£1530
Yamaha SY99	£2300	POA
Yamaha SY35	£599	£549
Yamaha SY85	£1399	£1299
Yamaha TG500 64 Note Polyphonic	£999	£899



	NORMAL PRICE	CREDIT CARD PRICE
Yamaha TG100 Sound Module	£349	£325
Roland JV1000 synth	£1850	£1850
Roland JD990	£1450	£1450
Roland JV80 Synth	£1245	£1225
Roland JV30 Synth	£759	£POA
Roland JW50 Workstation	£1349	£POA
Roland DJ70 Sampling Workstation	£1750	£POA
Roland E70 Synth	£1250	£POA
Roland E15 Synth	£499	£POA
Roland E35 Synth	£899	£POA
Roland FP8 Piano	£1619	£POA
Roland PC200GS Keyboard	£200	£POA
Roland A30 Master Keyboard	£449	£POA
Roland AX1 Remote Keyboard	£449	£POA
Roland JV880 Synth Module	£679	£POA
Roland SC155 Sound Canvas	£595	£POA
Roland SC55 Sound Canvas	£549	£POA
BOSS DS330 Dr Synth Sound Module	£330	£299
Korg 01/FD	£1795	POA
Korg 01	£1695	POA
Korg WS1 Wavestation	£1299	£1275
Korg M1 Workstation	£999	£985

KEYBOARD STANDS

	NORMAL PRICE	CREDIT CARD PRICE
Ultimate Support Stealth Stand	£63	£60
'X' Keyboard Stand	£25	£23
3 Tier Keyboard Stand	£125	£120

SOFTWARE

	NORMAL PRICE	CREDIT CARD PRICE
C-Lab Notator	£299	£279
C-Lab Notator Logic	£449	£429
C-Lab Creator	£239	£227

ACCESSORIES

	NORMAL PRICE	CREDIT CARD PRICE
Roland R8/R8M, U20/U220/D70 Cards		Phone
Roland JV80 Cards - Patch/wave	£69	£65
Roland DP6 Damper Pedal	£38	£36
Roland DP2 Damper Pedal	£29	£27
Roland EVS Expression Pedal	£75	£69
Roland Space Echo Tapes (box 10)	£40	£38
Roland M256E RAM Memory Cards	£86	£79

EFFECTS

	NORMAL PRICE	CREDIT CARD PRICE
Korg A5 Multi Effects	£229	£219
Korg A5 Bass Multi Effects	£229	£219
Akai AR900 Digital Reverb	£289	£POA
ZOOM 9120 reverbs etc	£449	£399
ZOOM 9000 Multi FX + F/switch		
+ Power Supply	£285	£275
ZOOM 9001 Studio Effects	£249	£239
ZOOM 9000 Power Supply	£20	£18
ZOOM 9002 Multi Effects	£259	£255
ZOOM 9030 Multi Effects	£525	£499
ZOOM 8050 Foot controller	£189	£170
Yamaha FX500	£299	£289
Yamaha FX900	£595	£399
Yamaha EMP 700 Effects	£450	£430
Yamaha EMP100	£235	£220
Yamaha R100 Reverb	£179	£169
Yamaha GSP1000 GS processor	£139	£129
Yamaha Q100 stereo graphic EQ	£109	£100
Rolls MIDI Pedal	£85	£83
Morley Wah/Volume	£89	£79
Morley Wah Pedal	£79	£69
Cry Baby (Jim Dunlop original)	£75	£365
Alesis MEQ230	£245	£229
Alesis Quaderverb Plus	£449	£435
Alesis Midiverb III	£299	£285
Alesis Quaderverb GT	£549	£525
Alesis Microverb III	£229	£217
Art Multiverb LTX	£179	£175
Art Multiverb Alpha	£349	£339
Art X-15 Ultrafoot	£179	£169
Roland SRV 330 space reverb	£650	£650
Roland SDE 330 space delay	£650	£650
BOSS SE70 multi-effects	£569	£569
BOSS DRP II Drumpad	£55	£45
BOSS ME6B Bass Effects	£255	£235
BOSS ME6 Multi Effects	£255	£235
BOSS ME10 Multi Effects	£545	£525
BOSS SE50 Multi FX Unit	£359	£339

	NORMAL PRICE	CREDIT CARD PRICE
BOSS AW2 Autowah	£75	£69
BOSS BF2 Flanger	£120	£110
BOSS CE5 Chorus	£76	£69
BOSS CH1 Super Chorus	£88	£80
BOSS CS3 Compressor	£99	£95
BOSS DD3 Digital Delay	£135	£125
BOSS DS2 Distortion	£75	£69
BOSS DS2 Turbo Distortion	£85	£79
BOSS FW3 Foot Wah	£85	£79
BOSS GE7 Graphic EQ	£95	£89
BOSS HM2 Heavy Metal	£75	£69
BOSS MT2 Metal Zone	£85	£79
BOSS M22 Metalizer	£120	£110
BOSS DD2 Turbo Overdrive	£95	£89
BOSS OS2 Overdrive Distortion	£75	£69
BOSS PS2 Pitch Shifter	£150	£140
BOSS PH2 Super Phaser	£95	£85
BOSS SD1 Super Overdrive	£69	£63
BOSS SD2 Dual Overdrive	£69	£65
BOSS F22 Hyper Fuzz	£65	£59
BOSS HM-2 Hyper Metal	£65	£59
BOSS FC50 Midi Foot Controller	£150	£140
Digitech "The Vocalist" VHMS	£899	£879
Digitech DSP128P	£299	£279
Digitech DSP16	£199	£189
Digitech GSP7	£395	£370
DOD 7 Band EQ	£65	£63
DOD Overdrive plus	£39	£37
DOD Classic Tube	£35	£33
DOD American Metal	£45	£43
DOD Metal Maniac	£46	£44
DOD Stereo Chorus	£59	£57
DOD Stereo Flanger	£69	£67
DOD Compressor/Sustainer	£45	£43
DOD Analog Delay	£99	£97
DOD Wah/Volume	£79	£77

GUITAR SYNTHS

	NORMAL PRICE	CREDIT CARD PRICE
Roland GR1 Guitar Synth	£999	£950

Communiqué

**Send Your Letters To:
Communiqué, Music
Technology, Alexander
House, Forehill, Ely,
Cambs CB7 4AF.**

Dear MT,

First, may I congratulate you for a great mag. It must be the best read of the month. Secondly, it would be great to see a new monthly section concentrating on vintage synths such as the much loved Minimoog and ARP Odyssey – not to mention the then state-of-the-art Moog IIIc system.

Though it may seem that these old machines are now out of fashion, they are still in widespread use by musicians such as The Shamen and 808 State – even Prodigy have an old Minimoog up and running.

Last of all, I would be grateful if you could give me an address of anyone specialising in vintage machines who could supply me with original or even photocopy ARP and Moog manuals.

**A Illingworth
Rotherham**

Glad you enjoy the mag each month, Mr Illingworth – but are you sure you're actually reading it? Over the past few years we've 'revisited' the ARP Odyssey, the ARP 2600, the ARP ProSoloist, the Clavinet, the Roland Jupiter 8, the Roland SH2000, the Roland TR808, the Roland TB303, the Memorymoog, the Minimoog, the Moog Source, the Multimoog, the Polymoog, the Moog Series III, the Mellotron, the Korg MS20, the Korg Sigma, the Korg Mono/Poly, the Oberheim OBX, the Yamaha CS80, Sequential Pro One, the Prophet 5, Prophet 600 – er, phew?

Still, if you have missed them, we are planning a more 'encyclopaedic' look at everything analogue in the not too distant future. As regards the circuit diagrams, try contacting The Synthesiser Service Centre on 071 586 0357. – NL

Dear MT,

Concerning your article some months back on the manufacturing of vinyl and the cost of doing so – I have been trying to match the prices quoted. After many phone calls to London, I have found out that I cannot get the cost of cutting, processing and manufacturing 500 white labels under £606.

Somehow, I feel I have been talking to the wrong people.

Please would it be possible for you or manufacturers reading this letter to send me pricelists, quotes, telephone numbers, addresses etc., of anyone who can compete with the above.

**Jae Rowe
Bristol**

In fairness, Jae, the prices given in the Cut & Thrust article were only intended as a guideline – though I'm sure someone reading this will be able to come up with a more competitive quote.

Incidentally, if you care to wait a couple of months, our sister magazine *Home & Studio Recording* are planning a detailed investigation into the setting up of a record

Dear MT,

In the last decade we have seen remarkable progress in electronic music. Research and development has been almost continually upward, whilst real attempts at product improvement have been paramount.

Alas, I can detect a decline. The height of synthesiser achievement seemed to be Yamaha's SY77/99 where FM was improved and AWM2 was introduced.

Unfortunately, Korg had entered some time before with PCM sample-based machines whose sound was improved beyond recognition by a quality effects chip. Result? Well, as we all know the M1 sold and sold. Easy to program, easy to listen to and cheaper to mass produce than the complex FM of Yamaha.

Responding to Korg's continuing success, Yamaha's recent products have all been AWM 1 or 2; no FM, but a higher level of effects, allowing the company to cut costs and obtain quality – just as Korg themselves have done by using effects to make up for lack of 'body'. Even this is not always enough, hence the layering methods used by both companies to enhance the sound.

It can be stopped, if the customer wants further improvements – real improvements. We must recognise what we are doing when buying a product and evaluate the end product both with and without onboard effects.

**Bill Simpson
Upminster**

company, and this will, of course, include names, addresses, phone numbers and a mass of other useful information. – NL

Dear MT,

I am writing regarding opportunities for a career involving composition and recording.

I have, for several years, written and composed my own music on a small 4-track set-up at home. I play keyboards and guitar, do all the relevant programming and

engineering and, in my opinion, the results are of a fairly high standard.

My main query is the likelihood of finding a job that involves this kind of experience. Obviously, there are hundreds of instances where original music is needed, such as TV programmes, films and advertising, but who makes this music and how do they get into the business?

I would be interested in a career which would involve making music for a living and I would be very grateful for any information you could give me on what jobs exist in the music market for original music.

**Steve Ash
Broxbourne**

Music is not an industry occupied by round pegs in round holes, duly polished and prepared for their clearly defined slots. It's an archaic business surviving on something pretty akin to the medieval journeyman system, wherein those prepared to knot their hankies to a pole and work 24-hours a day without sunlight may eventually forge a career in engineering and production, while those prepared to sacrifice any normal social, personal or family life and go into intractable spiritual and financial debt may one day grab 15 minutes of fame as an artist. And usually, artists have defined their own slots for themselves, based on and reflecting the true degree of their originality.

In other words, careers advisers have no files marked 'Music'. However, this situation is – slowly – beginning to improve, with various courses in music technology, recording and engineering now appearing, and one or two publications offering practical advice. The best of these, because they tackle the harsh realities head-on and emphasise the weight of responsibility to get things done on you the reader, is *Making It In The New Music Business*, written by James Riordan, and *Profit From Your Music*, by James Gibson – both published by Omnibus Press as part of their *Business Of Music* series of guides distributed by Book Sales Ltd., 8/9 Frith Street, London W1V 5TZ. For information on educational courses, contact the Musicians'

Union, 60-62 Clapham Road, London SW9 0JJ, and for regular dollops of arcane learning and subtle insight, carry on reading your friend and mine, *Music Technology* magazine. – PW

Yes, Phil, that's all very well, but why not tell him about the Rumpelstiltskin method? Wait for the next full moon and at the stroke of midnight steal down to the bottom of the garden with a dead ocelot and a picture of John Selwyn Gummer. Bury these to a depth of exactly nine inches and say the word 'Rumpelstiltskin' three times in quick succession. The next day, prepare to be besieged by tabloid journalists trying to get an exclusive on your sex life, and look forward to copious nights out at Stringfellows with Nigel Kennedy – NL

Dear MT,

As an Akai and Yamaha wind-synthesiser user, I am researching applications of wind synthesis. My extensive archive of your splendid publication *Electronics & Music Maker/Music Technology* has provided four very informative test reports on all the (then) available wind-synths – all in 1988.

These four expert articles were written by Andy Blake and Michael Andreas – both clearly experienced players. Would it be possible for you to let me have contact

addresses/phone numbers for these contributors so that I can follow up aspects of wind-synthesis through correspondence?

**Noel Lundgren
Sunderland**

I'm sorry Noel, but an extensive search through our records has failed to come up with contact numbers or addresses for either of the two contributors you mention. Your best hope is that one or both of them will read this and get in contact with us at the editorial address. – NL

Dear MT,

Further to Tony Warren's comments on the role of *Demo Takes* (MT, March 1993), I was wondering whether exposure in the pages of MT could (or indeed has) ever resulted in serious interest in the artists concerned from real-life record companies? Is it too much to expect hard-pressed A&R scouts to dutifully plough through all the technical mags in search of promising material, or might it actually be a welcome short-cut for them, given that Phil Ward or his equivalent has already done (at least) some of the work for them?

Tony's right in saying that you ultimately have no idea what the music's like simply from reading about it – so how about a

sample cassette attached to the cover or something? Personally I assume every demo is inviting comparison with the very best, and would certainly expect criticism of my own work as if I was after a deal – why else bother? Those in positions of power in these matters must be imagining the logical conclusion of assessing a demo – ie. is this suitable chart material or not? Nice discussions of reverb etc. are then pretty pointless. Furthermore, if *Demo Takes* is not a 'stairway to heaven' (useful though it is), how do we get to the record companies that we want?

**Yours frustratedly,
P Culham
Wilmslow**

PS: No, you can't have my demo, yet. It's not finished.

I think it fair to say MT has, on a number of occasions, acted as the conduit down which bands pass on their way to greater things – see *Communiqué* January '93. Personally, I would have thought it was the least that A&R scouts could do to 'plough through' copies of mags like MT. When I were a nipper, talent scouts 'ad to do job proper and slog it round t'clubs and wear out t'shoe leather. Then there were t'press receptions and t'gala luncheons – and what the bloody 'ell's a tungsten carbide drill, etc., etc. – NL



A CYNIC WRITES...

Comment by Reg Smeeton

OUR PRICE OF PROGRESS

Last year, the Office of Fair Trading reached a not altogether surprising conclusion following its investigation into record pricing. I quote: "The high price of CDs is explained by the fact that producers and retailers have taken advantage of the willingness of consumers to pay a higher price for the perceived higher quality of the CD." The argument that 'better must cost more' is not a new one, and no doubt it will be trotted out again to justify the higher prices we'll all be expected to pay for Digital Compact Cassettes and MiniDiscs. Undoubtedly the introduction of new formats does provide interested parties with an excuse to hike up their prices. In fact, a spokesperson for the BPI was recently quoted as saying, "Tapes are too cheap. When we launch DCC and MiniDisc there will be parity between prices" – meaning that the new formats will cost as much as CDs.

Rather more surprisingly, then, the OFT also found that there was "no evidence to suggest any collusion between either record

producers or retailers", and consequently concluded that there was no action they could take to "stimulate a sharper degree of price competition". Oh yeah?

How can it be healthy for the production and distribution of recorded music in the UK to be all but completely controlled by a mere handful of multinational record companies and a single retail company? And isn't there something just a little bit dodgy about at least one of these multinationals producing the hardware (ie. CD players, MiniDisc players) on which the software (ie. music) they sell is played?

But what really pisses me off is the part the exorbitant cost of CDs has played in creating today's climate of stifling musical conservatism. Quite simply, CDs are just too damned expensive for the majority of people to do anything other than play safe in their buying habits – hence the runaway success of compilations and back-catalogue reissues.

Isn't it about time someone took a lead and started to release music at a sensible price? Maybe then the music-buying public would be more inclined to take a chance on the untried and untested.

(Brian Aspin is extremely unwell)

Incoming Data

Multimedia Amiga

Report by Ian Masterson

With all the recent talk of the new Atari Falcon, the increase in popularity of the PC for music, and the new low-price Apple Macs, you might be forgiven for thinking that poor old Commodore have been shunted out of the musical arena altogether. The image of their Amiga computers, in music circles at least, has not exactly been glowing; perhaps this has as much to do with the Amiga's lack of factory-fitted MIDI ports as anything else. But over the past year or so Commodore have been gaining important ground in this industry, largely through the video and multimedia markets – and now they are launching into battle with the Falcon, to see just who will become the 'studio standard' in the next five years.

The new Amiga 4000/030 is the major player in Commodore's attack strategy. Launched on 22nd March, the 030 is the direct relation of the larger 4000/040, with the only fundamental difference between the two being the Motorola processor fitted inside – as you might have guessed, the 030 features the more economical 68030 chip, the same as that fitted in the Falcon and cheaper Apples. So, in straight spec terms, what we're talking about is a computer with a 25MHz processor, 2Mb or RAM as standard (upgradable to 16Mb), 40mb or 120Mb hard disk and incredible expansion abilities for a highly attractive £999 (inc VAT) RRP.

This is all very well, but just how does it relate to the world of music technology? Simply put, one of the packages available that features the 030 will contain the



computer, Bars & Pipes Pro sequencing software, One-Stop Music Shop software and a Blue Ribbon sound board configured only for the Amiga (prices have yet to be fixed). Not just any sound board though – this one is essentially an E-mu Proteus, containing all the sounds from all three Proteus modules. Further boards, based around an E-mu Proteus MPS, a Kurzweil K1000 and Ensoniq synth yet to be decided will also be available, and up to four such sound cards can be installed in the Amiga at any one time, each accessible over their own individual set of MIDI channels. Ultimately, this means that Bars & Pipes can directly control four internal boards and a set of four standard MIDI outs simultaneously – how does 128 discrete MIDI channels sound to you?

But for those unfamiliar with the Amiga, the real joy lies in its true multitasking operation. The PC, for example, using the Windows system, gives the impression of multitasking – but in reality, when one Window is closed to access another program behind, the machine 'freezes' that program until it is reactivated. The Amiga's approach lets you run up to ten programs simultaneously, all accessible without closing windows. Instead, mouse commands can scroll the various screens around to let you work on one system while the other nine remain uninterrupted in their operation. Bearing in mind that with the right software this computer produces true, broadcast-standard video from one of its rear panel ports, it suddenly becomes possible to run your sequencer, create animated graphics (à la Industrial Light & Magic, who have just bought a load of these machines), control your video signals, record onto hard disk (a DSP board is also optional) and edit the sounds on your synth all at the same time. No program stalls, no glitches are seen or heard – no other computer lets you do this.

So why don't we all rush out and buy them? Well, that depends on Commodore and the associated software developers. Providing they're willing to take the music industry seriously this time, we should be willing to take them seriously. It's about time we had some rivalry in the music computer market – long live individuality!

Classic Cuts

MIDI songfile suppliers Words & Music have added four new file-packed disks to their Classical Music collection. All files are in Standard MIDI Files format 1, and will load into any sequencer which correctly supports SMF.

The new files all conform to General MIDI/GS Format, so they will automatically play back with the correct type of sounds on such instruments as the Roland Sound Canvas series, Yamaha's TG100 module and Korg's O3R/W module.

Volume 4 includes an extract from Mozart's Kyrie Eleison, together with Purcell's Trumpet Tune, Mozart's Divertimento in F for String Quartet, Mendelssohn's Opus 25 for piano, and the Rondo from Mozart's Eine Kleine Nachtmusik.

Volume 5 includes Erik Satie's three Gymnopédies, Debussy's Arabesque 2 and Danse, Beethoven's Opus 6 for piano duet, and Haydn's London trios.

Volume 6 includes Mozart's Piano Sonata in C major No.15, Chopin's

Polonaise in A, ten virtuoso pieces for Spanish Guitar, and a collection of Mozart's early works.

Finally, the fourth of the new disks contains the complete set of 24 Preludes and Fugues which make up JS Bach's Well-Tempered Clavier.

Each disk comes with a four-page leaflet giving information on each file, plus a four-page instruction guide.

Available for the Atari ST, Commodore Amiga, IBM PC and compatibles (3.5" only), and the Acorn Archimedes, the disks cost £10.95 each, inclusive of p&p and VAT. You can save over £5 on the combined individual costs by ordering all four disks at the same time for £37.95. State computer type when ordering. Overseas readers should add £6 to the order cost, and ensure their cheque is drawn on a UK bank.

For more details, send an sae to Words & Music at 26 Newark Drive, Whitburn, Sunderland, Tyne & Wear SR6 7DF, or Tel: 091 529 4788.

Getting In Deep

Novation Electronic Music Systems Ltd, whose budget MM10 MIDI master keyboard includes a moulded recess for Yamaha's QY10 walkstation, have announced an adaptor moulding to cater for the slightly greater depth of the new QY20. The ADP1, which costs £15.99, clips into the front edge of the MM10's recess.

For more information, contact Novation at The Ice House, Dean Street, Marlow, Bucks SL7 3AB, Tel: 0628 481992.

Rising Profile

The brainchild of computer science graduate and keyboard player Alan Broady, Waterfall Digital is a new Manchester-based software house specialising in producing MIDI software.

First product from the company is Patchking, a generic graphically-based editor/librarian initially available only for the ST. With the addition of the appropriate Profiles (disk files which instruct the program how to edit a particular MIDI device), Patchking has the potential to provide editing and storage for any instrument in your MIDI setup.

Editing is performed by operating onscreen 'virtual' knobs and faders, by

dragging envelopes to the required shape, and by selecting waveforms from graphic displays of their shape.

Patchking can run as a desk accessory alongside popular sequencing packages, giving users the ability to edit a sound graphically as a sequence using that sound plays.

If you only want to edit a single MIDI device, you can buy a basic version of the program for just £29.99, then buy further Profiles for £29.99 each as you add to your setup.

As an introductory offer, Waterfall Digital are giving away free demo disks of the program; all you have to do is ring

them up and tell them what device(s) you're using. If they don't have a relevant Profile, they'll keep you on record and send you a demo version when one becomes available.

Patchking currently supports the following devices: Yamaha TX81Z, DX11, SPX90, DX7; Roland U110, U220, MKS70, JX10, D50; Korg M1. The company are planning to develop new Profiles at the rate of about three a month.

For more information, contact Waterfall Digital at PO Box 50, Chorlton District Office, Manchester M21 1LJ, Tel: 061 882 0895.

Rendez-vous With J-M J



Attention fans of Jean-Michel Jarre! May 8th is the date of an International Rendez-vous with all things J-M J (apart, it seems, from the man himself), to be held in Holland.

Following on from a similar event

in Belgium last year which attracted visitors from far and wide, International Rendez-vous will start at 11am and end at 6pm. In between times, you are promised "a spectacular seven hours of sound, light and colour" which will include

concerts, a continuous video display, an exhibition of rare and collectable items, an auction of Jarre material, and "a real Jarre-car" (!). Visitors can bring along items to sell in the second-hand market which is to be held during the day.

The latest issue of J-M J fanzine *Conductor Of The Masses*, features an exclusive interview with the man himself, along with a behind-the-scenes look at his recent "techno-fantasy extravaganza" in the mountains of Switzerland. The issue currently in production will feature an in-depth analysis of his latest project, which finds our hero in the Southern African republic of Bophuthatswana, using the unique architecture of the area as a 'canvas' on which to recreate The Legends Of The Lost City. You have been warned.

For further information on both International Rendez-vous and the magazine, call Mark on 0933 55273.

The Video Creator

Users of Emagic's Creator and Notator sequencing software who would like a helping hand can now turn on their video machine, insert a video cassette from Labyrinth Video Manuals, and learn the visual way.

Part One of the Creator/

Notator video has a running time of 1hr 45m and is aimed at the basic/intermediate user, with 18 step-by-step tutorials aiming to give viewers a clear overall understanding of the software. Part Two, which provides more in-

depth coverage of specific areas, runs for around 1hr 45m.

Labyrinth have also just produced a video for Gajits Sequencer 1 and Sequencer 1 Plus, and are in the process of recording a video for Gajits Breakthru

Sequencer.

For more information, contact Labyrinth Video Manuals at Unit P3, Roe Lee Industrial Estate, Whalley New Road, Blackburn, Lancashire BB1 9SU, Tel: 0254 662096, Fax: 0254 679306.

Battle of the Killer Sample CDs

Well-known sample CD fiends The Advanced Media Group have moved to new premises in leafy Surrey, and can now be contacted at PO Box 67, Farnham, Surrey GU9 8YR, Tel: 0252 717333, Fax: 0252 737044.

Keeping ever on the move CD-wise, AMG are releasing the latest sample CDs from German company Masterbits. Volume 6 in the Climax Collection, Saxophones, features baritone, tenor, alto and soprano saxophones playing licks and multisamples. In all there are 399 licks, grouped by type and bpm with pitch information included. Additionally there are 189 single samples plus 16 S1000 data banks for direct loading into the sampler via Akai's IB 104 interface. The cost of the CD is £59.

Meanwhile, the Sampling Collection 1000+ (£45) features sounds sampled from the K2000, KS32, SY99, SY35, SY85, JV30 and JD800 synths plus drums from the RY30. Also included are 'Hammond Organ' sounds from the XB2 and VK1000, and a 'Sci-fi and FX' section which was created using the Synclavier and the Fairlight.

New in the Uberschall series of sample CDs from Masterbits are *World Party Dance Samples* (CD: £50, S1000/1100 CD ROM: £249) and *Special Sound Effects* (£59). The former is a 'best of' dance sample collection which features loops, breaks, scratches, ethnic samples, vocals, FX, synths, basses, and Roland Sound Space FX. The latter, described by AMG as a "multimedia sample CD created using the latest 20-bit technology", has been designed for movie, TV and video use and features atmospheres, psycho sounds (!), horror, spacey, industrial, and comedy FX samples - some provided in RSS or Holophonic versions. Also provided are hundreds of 'zap' FX and the first-ever samples designed for four-channel use.

For more information, contact AMG at the above address/phone/fax.

Frank Exchanges



Report by Simon Trask

Love 'em or loathe 'em, the likes of the Frankfurt and NAMM trade fairs do at least provide valuable focal points for the music industry – opportunities to suss out the latest products all under one roof, to assess current trends, to head for the nearest bar...

At this year's Frankfurt Music Fair (which took place in early March), the most interesting action was not so much on the surface level of new products as on the deeper level of underlying trends. We're talking nothing less than what renowned

futurist Alvin Toffler would probably call a 'paradigm shift' taking place in the hi-tech area of the music industry. To put it bluntly, all the action, all the excitement and all the cutting-edge technological development is currently taking place not in the synthesiser market, as has traditionally been the case, but in the keyboard market. Yes, keyboards are getting sophisticated, sexy and s-o-o-o well-developed. And they're threatening the synthesiser's traditional position at the forefront of musical technology. Watch out for Technics' KN-2000 in particular – more on this soon...

At the same time, synthesisers are,

well, stagnating – as is the synth market. Unless we're all about to be astounded and astonished by some totally new, totally exciting and totally easy-to-use method of sound synthesis which has nothing whatsoever to do with PCM samples, the synth as a distinct instrument genre could be on the way out.

To be blunt once again, there's simply more money to be made in the keyboard market, which is currently buoyant despite the 'worldwide' recession. There's also plenty of money to be made from the burgeoning budget GM/GS module market, with its tie-ins to the burgeoning MIDI songfile market and the burgeoning multimedia market with its computer connections. Yes, there's a lot of burgeoning going on.

When even Korg get in on the budget GM module act, you know that there's an irresistible tide of change sweeping through the hi-tech music companies. From Korg, then, come the O5R/W (basically a slimmed-down

version of the O3R/W which concentrates on the O3's GM capabilities) and the Audio Gallery (similar but with a built-in computer interface and computer-type styling).

The importance of 'traditional' MI companies like Korg, Roland and Yamaha getting in on the populist act was underlined at Frankfurt by the surprise presence of Korean consumer electronics company Goldstar, who were showing a large range of GM/GS keyboards and digital pianos – some of which were even able to give 'music lessons' via their LCD windows. If the consumer electronics giants scent big money to be made, the existing MI companies had better watch out.

One happy trend for Euro-enthusiasts was the continuing evidence of an Italian hi-tech renaissance, with companies like Farfisa and Generalmusic gearing up for some heavyweight technological offerings – watch this space.

Finally, running completely counter to the tide of keyboards and GM/GS sound modules with their sonic predictability is Waldorf's truly wonderful Wave synthesiser – all £6000+ of it! For those among you who love slider-packed front panels, insane modulation routings and wildly beautiful, creative sounds: start saving your pennies right now! In the meantime, if you're lucky, there'll be a picture of the Wave in all its glory right next to this text.

This short piece is only a first glimpse of the musical instrument industry's very own New World Order – in upcoming issues we'll be expanding on the themes and the products discussed here. As always, stay tuned...

The New Soundscape

Further developments on the ex-Cheetah front have occurred since last month's news item ('Cheetah Roll Over'). A new company, Soundscape Digital Technology Ltd, has been set up by former Cheetah employees Chris Wright and Nick Owen, and has taken on the products which were about to come to market when the musical side of Cheetah was closed down.

This means that the Soundscape PC-based multitrack hard-disk recording system, the MS7000 and MS8000 MIDI controller keyboards and the MS6 MkII analogue synth module will all now be going ahead (the MS6 MkII in a more sophisticated form than originally envisaged, and with a new, as yet undecided, name). For initial details on these products, see the news item 'Cheetah: Cutting A Swathe Through The Hi-Tech Jungle' in *MT* Feb '93 (little did we know...).

Soundscape will be available at the end of April, while the controller keyboards are set for late June release, and the renamed and upgraded synth module will be released later on in the year.

Soundscape Digital Technology will be running two seminars on their hard-disk recording system at Gigsounds Streatham on April 19th, one in the afternoon and one in the evening. For more information, contact Soundscape Digital Technology, or Steve Black of Gigsounds (081 769 5681). Further seminars are planned for around the country.

Good news for Cheetah users is that the new company has also taken on servicing of existing Cheetah musical products under warranty.

For further information, contact Chris Wright on 0222 811512 or Nick Owen 0895 810259 (London office) or 0836 798198 (mobile).

Shut Up and Don't Sample

In the first case of its kind, the MCPS recently reactivated proceedings commenced last year on behalf of a number of copyright owners – and have had a judgement handed down in their favour.

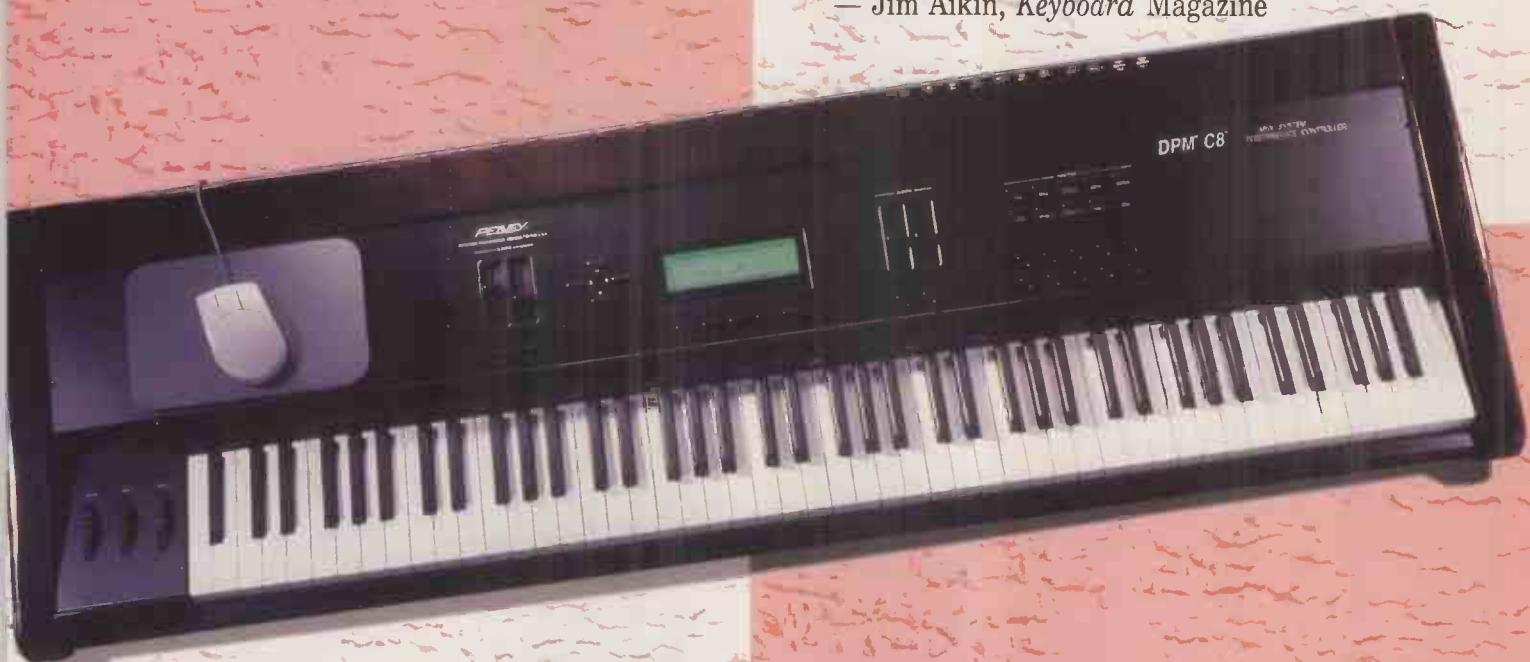
The case was brought against North London independent dance label Shut Up And Dance for their persistent refusal to respect copyright ownership in their sampling of other people's music. As well as awarding damages and legal costs to the copyright owners,

the court ordered a perpetual injunction against SUAD manufacturing and distributing copies of musical works embodying samples.

For more on the sampling Issue, see the article *Sampling Confidential* elsewhere in this month's *MT*. Anyone wanting more details on the SUAD judgement and the current legal position regarding the use of samples should ring the MCPS on 081 769 4400 and ask for either Nick Kounoupas or Graham Churchill.

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'Under 16' MIDI Virus Discovered

Report by Ian Waugh

It was perhaps only a matter of time before the two-year old mentality of the computer virus writer would turn its attention to MIDI software (though we are probably being unfair to two-year olds here!). Yes, it's finally happened, the first MIDI virus has been discovered on a Canadian bulletin board and is rapidly spreading through the comms-linked UK and European music fraternity.

The 'Under 16' virus – as it has been christened – takes the form of a System Exclusive code which can hide itself inside a standard MIDI file. On playing the file, the virus accesses the sound banks of any attached programmable synthesiser or sound module and reduces all their settings to their default state.

It has the capability to infect

most musical instruments because it contains all the MIDI ID codes of every musical instrument manufacturer. When an instrument recognises its code it lets through all following data, which, even if it doesn't 'flatten' all the settings, certainly has the ability to screw them up.

The virus also runs through the range of Device Numbers which an instrument uses to identify itself from a similar instrument in the same MIDI network. Device Numbers normally run from 1 to 16 to correspond to the SysEx MIDI receive channel. The virus only tries to access devices on channels 1 to 16, so any instrument which can be assigned a Device Number higher than 16 should be safe – hence the 'Under 16' tag.

Unfortunately, you can't guarantee to protect your instrument by ensuring that the SysEx/Bulk Dump Protect setting is on, as the virus can disable

this in exactly the same way as voice and librarian software. The virus can also infect other MIDI files – although it only becomes active when you actually play an infected file. It searches the disk it was loaded from for a MIDI file header and writes itself into the file. This is usually to an otherwise empty track and unlikely to be noticed in today's modern sequencers.

Virus expert Professor Alan Solomon is currently examining the virus and developing a 'vaccine' which will examine MIDI files 'on disk' and replace occurrences of the virus with the musical equivalent of harmless REM statements. 'Under 16' virus killers for the ST, PC, Mac, Archimedes and Amiga should follow soon.

Meanwhile, to minimise the risk of infection take the following precautions:

- Don't load a file from a hard disk. If you do it could infect all

the music files on the disk.

- Keep each file on a separate floppy disk.
- Check the length of each file when saving. If it increases, it may be infected.
- Only buy MIDI files from reputable suppliers and Bulletin Boards.
- Backup all the voices in your instruments.
- Assign your instrument's Device Numbers over 16 if you can.
- If you do discover the virus in a file you can destroy it by removing all SysEx data in the file with an event editor – although this will, of course, also remove genuine SysEx data, too.

We'll bring you an update on the situation as soon as we can. We're currently trying to organise the distribution of a virus killer – perhaps as a cover disk. Meanwhile, let's be careful out there...

Work Pays Off



Of the various synth manufacturers it is perhaps Korg who have most closely aligned themselves with the workstation concept – and it certainly seems to have done them no harm. The company recently announced that, across the complete range i.e. M, T and O Series, they have sold over a quarter of a million workstation synths worldwide.

For more information on the current workstation line-up, contact Korg UK at 8-9 The Crystal Centre, Elmgrove Road, Harrow, Middlesex HA1 2YK, Tel: 081 427 5377, Fax: 081 861 3595.

Essential Upgrade

Essential Software have upgraded their Protege 123 Librarian/Editor software for the E-mu Proteus series of modules so that it will now also edit all aspects of the MPS and MPS+ keyboards. The V2.03 software also features easier creation of multitimbral setups, much faster screen redraws, and enhanced Voice editing with Intelligent Random Voice Generation and Preset

Envelope Styles.

Protege 123 V2.03 costs just £29.50 including p&p. Upgrades for existing users can be obtained by returning the original disk together with £5. A demo version of the program is also available, costing £2.

For more information, contact Essential Software at 6 Malvern Grove, Chellow Dene, Bradford BD9 6BU, Tel: 0274 488356.

Out of Control

Having outgrown their original Staffordshire base, the equipment-locating and sales company Music Control have moved into new, two-storey premises in Alsager, Cheshire. The company have also updated their already extensive computer database of secondhand and rare keyboard equipment. Demonstration facilities are

available for 'retro' analogue synths from Roland, Moog, ARP, Oberheim and Korg, along with the latest in hi-tech equipment from Akai, E-mu Systems, Mackie, Generalmusic and Korg.

For more information, contact Music Control Ltd at Chapel Mews, Crewe Road, Alsager, Cheshire ST7 2HA, Tel: 0270 883779, Fax: 0270 883847.

A Splash of Colour

Edinburgh music shop Rainbow Music have moved to larger and more modern premises at 13 South Clerk St. They now have 1500 square feet of floor space spread over two levels, and stock acoustic and electric guitars, amplification and PA equipment, synths, keyboards, digital pianos, 4- and 8-track recording equipment, effects processors, drum machines, sequencers and software. A sound booth is available on the lower level for you to try out new equipment.

For more information, contact Rainbow Music on 0382 201405.



Master In Command

Bluebridge Music are bringing in a new 88-note MIDI controller keyboard from Italian company Orla, the Commander C80. Fitted with a piano-style keyboard responsive to both velocity and aftertouch, the C80 also comes in a sturdy flightcase. Default patch mapping on the C80 is to General MIDI standard, but the mapping can be changed to suit other MIDI modules.

The C80 provides four independent keyboard zones, each of which has its own volume slider and can be assigned to one of four independent MIDI Outs. Zones can be freely split and overlapped as required. Also provided by the keyboard are two mergeable MIDI

Ins with independent MIDI data filtering, and two MIDI Thru sockets. A fifth section is dedicated to the control of drum machines and sequencers, while a sixth section allows two control changes and two patch changes, both programmable, to be transmitted. Other features include a backlit LCD, C80 Patch chaining, and a MIDI DDL.

The internal memory of the C80 can store up to 280 controller setups, while a further 280 can be stored on an optional memory card.

RRP on the Commander C80 is £1199 inc VAT.

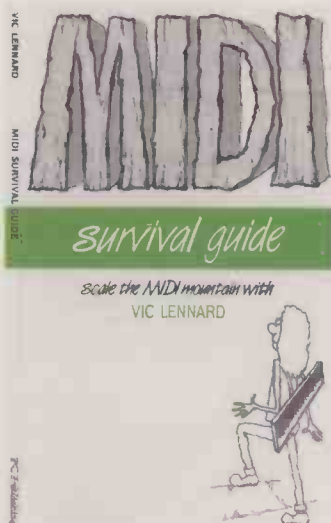
For more information, contact Bluebridge Music Ltd at 3/5 Fourth Avenue, Halstead, Essex CO9 2SY, Tel: 0787 475325.

Survival Course

New from specialist publishers PC Publishing is the MIDI Survival Guide, a 96-page book written by MT's Technical Consultant and UKMA founder, Vic Lennard. Providing practical advice on "starting up, setting up and ending up" with a working MIDI system, the book includes over 40 cabling diagrams and discusses how to connect together synths, modules, sequencers, drum machines and multitrack tape machines.

The MIDI Survival Guide costs £6.95.

For more information, contact PC Publishing at 4 Brook Street, Tonbridge, Kent TN9 2PJ, Tel: 0732 770893, Fax: 0732 770268.



Techno Heaven

It had to happen sooner or later. Well-known MIDI songfile purveyors Heavenly Music have taken to the dancefloor with their latest venture: *Technofiles!* Fighting shy of modesty, Heavenly claim that each volume contains "16 of the heaviest club grooves to be found anywhere!"

All files are configured for General MIDI/GS Format and come in Standard MIDI Files format 1

(format 0 files will be supplied if demand is great enough). Each file comes ready-configured with empty template tracks set up and ready for you to start making music straight away. And the price of this serious grooving? Just £16.95 + £1.50 p&p.

For more information, contact Heavenly Music at 39 Garden Road, Clacton-on-Sea, Essex CO15 2RT, Tel/Fax: 0255 434217.

The Key to Storage

The Dynatek range of mass storage products is now available in the UK courtesy of new distributors Key Audio Systems. Dynatek are the largest manufacturers of mass storage products in Canada, and their hard and optical drives, which have fast access times, are ruggedly constructed and are approved by

such companies as Digidesign and Yamaha – in fact, the company are official data storage suppliers for the latter's CBX-D5 Digital Recording Processor.

For more information, contact Key Audio Systems Ltd at Unit D, Chelford Court, Chelmsford, Essex CM1 3AG. Tel: 0245 344001, Fax: 0245 344002.

In The Alesis Groove

New from The Groove Factory is a collection of 50 rhythm patterns, complete with associated variation and fill patterns, for Alesis' best-selling SR-16 drum machine. Music styles covered include '50s/'60s/'70s/'80s pop (I), house, funk, bossa nova, swing,

march, slow rock, Motown and the lambada.

The data is available in two formats: data cassette and (on disk) Standard MIDI Files. Both formats cost £10.45 including p&p.

For more information, contact David Myhill on 0483 476524.

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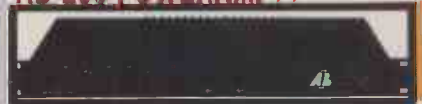
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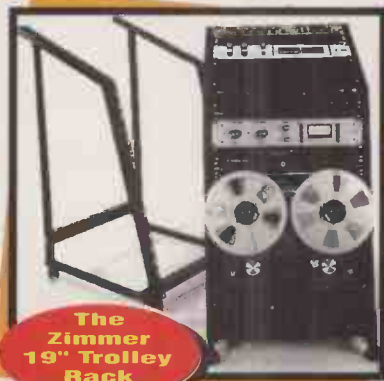
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Strange But True – Fact #176: The world's most popular computer produces the world's worst sounds. Its true: next to Bryan Adams, the noise most likely to annoy emanates from the sound chip inside the PC computer. Which is why there are so many PC sound cards on the market. Most cards are used for games: the magic words here being Ad Lib and Sound Blaster compatible. Most games support one or both of these cards and you can pick up suitable examples for £60-£80.

But as a music lovin' PC owner you're likely to want more than simple game soundtracks so it's well worth seeing what some of the more sophisticated cards have to offer – cards such as the LaserWave Plus and LaserWave 16. And it just so happens that I currently have the 16 in my machine, so let's take a look at that...



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One of the umpteen proggles supplied with LaserWave lets you create your own FX

It's actually a Mediavision Pro Audio Spectrum clone at a smarter price and with lots more facilities than a bog-standard games sound card. It is, of course, compatible with the Pro Audio Spectrum and also with Ad Lib and Sound Blaster and comes with the infamous Yamaha four-operator FM chip which is still capable of producing a reasonable sound or two.

Included on the card are Mic and Line input sockets and a mini stereo jack out and there's also a built-in MIDI interface/joystick port – although you'll need a MIDI adaptor cable to use the MIDI interface. There's also a SCSI interface which you can use to connect to a CD ROM drive, for example, and it's MPU-401 compatible so it should work with the vast majority of PC music programs. Running under Windows you should find you can use it without invoking the MPU-401 emulation.

The worst part of installing any PC card is setting up the IRQ, DMA and port assignments. There are hardware jumper leads to do this but you can also configure the card from software – which is easier, especially if you have a few cards in your machine vying for attention. And speaking of software, the package comes with quite a bit of it, including drivers (Windows amongst them) for the various sections of the card. The Sound Blaster and MPU-401 emulation can also be switched on and off through software.

Included with the package is the Sequencer Plus Spectrum which is one of Voyetra's junior DOS-based sequencers. This works well, but the interface is somewhat antiquated. And there's another Voyetra program which the more adventurous could use to edit the FM voices. Personally, I'd prefer to spend my time in more productive ways.

Amongst the plethora of Windows software, Media Player lets you select a MIDI sequencer, a sound file or a CD for playing and you can record from CD or an audio source, too. In fact, you can playback several sources at the same time if you want (this must be the 'multi' in multimedia!), and the mixers allow you to balance the sources and tweak the bass and treble settings.

The manual is a hefty tome which extends to around 400 pages with each section numbered individually. However there's no index and not even a single, complete contents page – so no brownie points for organisation.

If you're thinking of buying a sound card, a MIDI interface or a SCSI interface, it makes sense to look at an all-in-one card. It will work out cheaper and it will only take up one card slot in your PC. The LaserWave card is a neat bit of kit. It's easy to fit and configure and it works well. Highly recommended. ■

**Text by
Ian Waugh**

LaserWave 16 & LaserWave Plus

The LaserWave 16 handles 16-bit audio, the LaserWave Plus card is only 8-bit, but otherwise they are identical. Though the sound quality is improved – those extra bits do make a difference – you don't really need them for general use with your PC. The editing software lets you manipulate the samples although it's not particularly sophisticated.

Info

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Roland AX-1

MIDI Keyboard Controller

Text by
Nicholas
Rowland

Photography: James Cumpsty



Tired of being stuck behind a keyboard stand? With this new controller from Roland you can get out front and spank the plank with the best of them...

Let's face it, if you want to win fans and influence members of the opposite sex, the last thing you want to do is play keyboards. Whatever we may think about it, watching a keyboard player from an audience is about as interesting as watching someone doing their ironing or struggling over a particularly tricky algebra problem.

Of course, this image problem has not gone unheeded by many seminal keyboard greats who have gone to considerable lengths to inject a little visual excitement into the tickling of the ivories. Rick Wakeman, for example, used to wear sparkly capes, while Jerry Lee Lewis played with his feet. Keith Emerson, of course, was known for ritually abusing his Hammond with daggers – not to mention with ELP's music.

It all smacks of desperation, you have to agree; in the Karma Sutra of rock 'n' roll sexiness, it's the equivalent of cuddling through blankets. But now there's a solution which frees keyboard players from the tyranny of the X-stand and still leaves them with their dignity intact. It's called the Roland AX-1 and it's designed to be slung round your neck and held in much the same way as a guitar. Imagine, you can now cock your leg on the monitors and make power fists with the best of them.

Of course, the idea is by no means new. Roland themselves introduced it some years back when they brought out a modulation grip which used to clip on to the end of the trusty SH101 mono synth. And while we're discussing times past, I also have misty recollections of a similar offering from Yamaha called the KX-1 which included on-board sounds. By contrast, the AX-1 is completely silent, being a portable MIDI mother keyboard.

It will probably come as no surprise to you that the AX-1, being a Roland instrument, conforms to the GS MIDI format, also to be found on instruments like the JV30 and the Sound Canvas modules. If you don't know the drill, GS is effectively a superset of the General MIDI standard, in that it uses multiple banks of 128 sounds, the first of which is equivalent to the single bank of sounds offered by GM. That's not to say that the AX-1 can only be used with other GS gear, but you'll find that it possesses a number of GS-dedicated functions which simply won't work with anything else.

With its 45 keys, the AX-1 keyboard is touch sensitive and fairly pleasant to play, once it's loosened up a bit. It's not weighted, but then, you wouldn't want to spend the rest of life in traction after slinging it round your neck. Power is by batteries, though for sedentary use a mains adaptor is an option. New batteries will give you enough juice to rock the house for around 25 hours. To avoid the potential embarrassment of running on empty, the AX-1 gives you a rough estimate of remaining battery life via the line of LEDs which are normally used to indicate the selected program.

Accessories (apart from your first set of batteries) include a shoulder strap and a five-metre MIDI lead – long enough to get you to the end of the catwalk, but still short enough to allow the MIDI data to get back to your synth modules without dying of exhaustion half way.

The neck section is perhaps the most interesting part of the instrument. Instead of the familiar wheel, the pitchbend is controlled via a touch sensitive grey plastic strip. Run your finger up and down this and you'll be able to bend notes just like you would on a guitar. Next to it is a bar which you grip in the palm of your hand. By simultaneously squeezing it and rocking slightly backwards or forwards you can apply varying degrees of modulation or aftertouch, according to how the AX-1 is programmed at the time. Finally, on the back of the neck, you'll also find a small button – the sustain control. Press this with your thumb and you'll be able to hold notes.

What with pressing, squeezing and running your fingertips up and down you can have a rare old time, bending, modulating and sustaining the keyboard lines played with your right hand. Not only is it an enjoyable experience, it also makes for much more realistic and expressive performances – particularly when using guitar and string related sounds.

At the end of the neck you'll also find the data entry potentiometer – a posh name for a little knob. Normally this is assigned to controller #7 and acts as a main volume control. However, with the press of a few buttons, you can assign any other MIDI control change number to it and thus use it for more general MIDI programming and control duties. That said, the knob itself is quite small and rather awkwardly placed, so its use would probably be quite limited in a performance.

At the end of the list of MIDI controller numbers there are a couple of more unusual functions. Assign controller #128 to the data entry knob and you can set a velocity curve for the keyboard itself – although your choice is limited to light, medium or heavy. Controller #129, on the other hand, allows you to remotely change the tempo of external sequencers or drum machines... useful for speeding up the rest of your MIDI band when you feel like rocking out. Incidentally, sequencers and drum machines can also be stopped and started from a button at the tip of the neck section.

On the neck you'll also find three buttons for transpose (two giving you a whole octave either up or down) plus two more for stepping through patches sequentially. You can also call up any of the 32 programmable patches using the 16 buttons and shift key on the main body of the keyboard. All the buttons on the AX-1 are round, 'clicky' affairs which are slightly recessed and need a pretty good prod to engage – double insurance against potentially embarrassing accidental patch changes during a crucial keyboard solo.

Fresh from the factory, you'll find that patches are already assigned to particular GS sounds (Piano, Organ, Bass etc.) and each button is appropriately labelled. Two more buttons – CC00 and CC32 – can also be used to access variants within these groups. For custom programming, you simply press the MIDI/Param button and the numeric buttons switch to programming/data entry functions.

Patch information can also include overall volume data, as well as reverb and chorus send levels. Two dedicated buttons allow remote switching of reverbs and choruses – providing, of course that the units in question conform to the GS standard.

As you can see, for all its apparent gimmickry, the AX-1 makes a pretty decent master keyboard – especially if you happen to use it with other GS sound modules such as the Sound Canvas series.

Having said that, there are a couple of limitations that should be borne in mind when using the AX-1 in the keyboard equivalent of the missionary position. One is that unless you're a contortionist or a genetic mutant, the sustain button is well nigh impossible to reach. (An input for a foot pedal would have easily solved this problem.) Secondly, the 45-note keyboard does leave the AX-1 a few octaves short of a full Schumann piano concerto (even with the transpose function) so you'll need to take this into account when arranging.

On a more positive note, it's perhaps worth pointing out that you don't have to be on stage to make use of its portability. It's surprising how handy it is to be able to walk around with your keyboard during rehearsals or in the studio – particularly when you have to output MIDI data (ie. play) as you push faders or twiddle effects controls. Another big selling point for me was the expression bar arrangement, which for a fleeting moment really did make me think I had inherited the soul of Jimi Hendrix (*Really? – Ed*).

If you want to earn your rock 'n' roll stripes without getting your shirt dirty, the AX-1 is for you. It's fun – it's a funny shape – but ultimately it's a very useable instrument. No longer will you have to wear capes, wrestle with your DX7 or play with your big toes to get your fair share of audience attention. Careful with that AX, Eugene? ■



Keyboard configurations

The keyboard itself can be divided into Upper and Lower sections, each of which can transmit over a separate MIDI channel. Like the A-30 (reviewed in the January issue), if you activate either the Lower or Upper sections, the MIDI channel and parameters for that section control the whole keyboard. You can create split patches and the split points are programmable in such a way that you can easily configure the keyboard to give you layered sounds over all or some of the notes. These split points are saved as part of each patch. You can also choose to disable the pitchbend and modulation functions for either Upper or Lower keyboard sections (or both) and again save that information as part of the patch.

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Declaring Independence - 1

Creative Dilemma

**Interview
by Simon
Trask**

Getting dropped by a major label needn't be the end of the world. Jim C of jazz/rap collective K-Creative explains how they've turned their departure from a major to their own advantage...

This time last year, K-Creative were signed to a major label (Phonogram via independent Talkin Loud), full of youthful enthusiasm and hard at work on their debut album. Yet at the tail end of the year, scarcely two months after the album, *Q.E.D.*, had been released, they were unceremoniously dropped from the label. Today the group are still full of youthful enthusiasm, still hard at work on material – but also still without a deal...

“To be honest, it doesn't really worry us,” says Jim C of the group's newfound status, speaking on the phone from their communal north London home. “In fact, we were looking to terminate our contract anyway, because we weren't being

particularly well treated. Even though we had four singles and an album out in the space of nine or ten months, and were playing plenty of gigs, the extent of promotion and tour support from the company was minimal. We did a university tour last October and had some Levi's sponsorship, which was actually the only injection of cash and promotion that we had."

K-Creative weren't the only Talkin Loud act to exit stage left - Omar, for one, followed soon after them. At the heart of the situation which led to their departure, it seems, were a clash of personalities between the A&R heads of Talkin Loud and Phonogram and a clash between two very different cultures, one fast-moving and entrepreneurial, operating at street level, and the other slow-moving and corporate, operating out of the boardroom.

"Phonogram have no real experience in the dance ethic," Jim explains, "because they're so used to the rock market, with Tears For Fears, Dire Straits and Elton John. That's where all the money was going, and that's where they'd had all their experience, so they didn't really know what was going on with Talkin Loud, they couldn't understand the real nitty-gritty of what they had to do to succeed in the dance market. They didn't know about having to put out a lot of promos. In fact, they were very tight with their product; the promotions manager had a terrible time getting records to send out to DJs."

There were also some ironic aspects to K-Creative's relationship with their record company, again perhaps down to the latter's misconceptions about the longevity and appeal of 'dance music'.

"The way we were looking at our deal," says Jim, "was like the Stereo MC's on Island, where it came to their third album and that was where they finally matured into a sound which was hugely marketable. Unfortunately, Phonogram decided we weren't worth it - even before our album came out. We know that now."

K-Creative were also prepared to take time building up a fan base in the traditional manner i.e. by going out and gigging. In fact, in a little over 14 months they've played 120 gigs in the UK, Europe and Japan. Live playing has always been important to the members of the group, who, inspired by the likes of Trouble Funk and Chuck Brown & The Soul Searchers, formed their own go-go band while still at school so that they could put on live jams for their friends.

Looking on the positive side of K-Creative's departure from Phonogram, Jim says the band were relieved to have been able to make a clean break: "The company could actually have strung our contract out for at least another six months, we could still be signed to them now and not have any records out."

Instead, K-Creative are free to move in whatever direction they want. Far from being dispirited by their experience, the group see their enforced 'layoff' as an opportunity for reassessing their direction.

Trumpeter, keyboard player and bassist Zen B is going his own way on amicable terms, leaving Jim C, Rhodes/synth player Dominic - aka The Botanist - and rapper/guitarist V-Love to carry on as the nucleus of the group. To this nucleus will be added a bassist and a singer, as soon as auditions turn up the right people; the new line-up will be completed by saxophonist Chris Bowden, who has worked with the group for some while.

Like their line-up, the group's musical direction from now on will be a mixture of old and new... "What we're looking at now is a more song-based approach on the one hand," Jim explains. "While on the other, we'll still be pursuing the rap angle. Because we've got such a good unit as a band, we can put our strengths into two different approaches."

"The important thing is that it won't be anything wishy-washy - not this sort of soul stuff with a nice-sounding band, because we're not really into that. We will be doing songs, but they'll have the K-Creative edge to them. I guess the song direction will be based more on the live aspect of having a band playing quite a hard funk track, and then having a sweet, but powerful soul vocal on top of that - probably bordering on garage-type house music."

Perhaps the most fundamental decision the group have to make in the coming months is whether to sign with a major again or opt for an independent... "Because we've learnt the ins and outs of the politics that go on in a major company, we could quite easily say that we wouldn't touch the majors with a barge pole," comments Jim. "Our management would prefer it if we could get a nice big deal with a major, but our tip really is that it would be very nice to get licensed through a major but have our own record label, or at least put out some white labels in the next few months."

"There are a couple of labels in Germany which are prepared to get us out there for four weeks and do a six-track EP or something, any time we want. But we just want to keep the plot simple for the time being, get a good couple of albums' worth of demos together, then go round and see what the majors have to offer. The problem with our contract with Phonogram was that we didn't have any management when we signed, and we also didn't have any experience with the legal side. This time around if we go for a major we'll have a lot more demands - clauses for promotion, for tour support, things like that."

On the other hand... "The independents have often got far more interesting ideas for marketing and promotion. I think the majors really need to watch out at the moment, because there is so much dance coming out and being successful that isn't on a major label. These smaller labels are much more sussed in knowing what the market wants, and because there are so many DJs and clubs that are involved at an independent level, they know the score right from the dancefloor. Whereas the majors haven't really got much of an idea, they're still stuck with their big acts."

Jim also identifies another reason why the independents could be mounting a strong challenge... "Once recordable CD gets to a level where the independents can really exploit it, I'm sure that you'll be able to buy independent CDs for at least half the price of what they're going out at right now. If an independent can whack out a load of CDs cheaply, all they need to do is spend a bit of money on an inlay, then they can put a load of boxes in the back of a van, go round the country, and there's your distribution."

"Another problem with Phonogram is that they're the most expensive major label for anything - CDs are £13.49. As far as ►►





» I'm aware, CDs are not expensive to manufacture, it's all the other costs that are incurred which make the price so high. The production costs of a CD on Phonogram, there's so many different departments and costs that it has to go through, whereas if you're talking on a smaller scale, with an independent doing it all in-house, the costs for making a CD would be just so much cheaper. There could be a real storm brewing there."

In many respects, now is a good time for K-Creative – indeed, any unsigned band – to be considering their options. Are we perhaps approaching a time when nimble-footed independents will be able to undercut and undermine the majors?

"It's certainly food for thought for any band that's looking for a deal," Jim replies, "because if they do sign a long-term deal with a major, you never know, they may be shooting themselves in the foot in the future. They may find themselves tied to a deal with a major which is putting out CDs at £13 a shot, whereas another band that's been persevering with an independent can get their albums out for a fiver or six quid, thus selling that much more and making just as much money." Food for thought indeed.

Although K-Creative have no plans to play any gigs at the moment, if you live in or around London it's worth keeping an eye and an ear open for information on the sporadic all-night North London Cosmic Jams, at which K-Creative often form the core band. Any musicians can get up and jam at these events – so who knows, go along and you could end up jamming with Jim and Dominic. ■



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SAMPLING CONFIDENTIAL

1 - Anything to declare?

In the first of three articles our industry guru Dom Foulsham explores and explains the modern music minefield they call, simply, sampling...

Amidst the retrogression of the rock'n'roll compilations, the jazz revivals and the blues re-unions, the evolution of sampling as a dominant force in contemporary music has come as a welcome breath of fresh air. In little more than a decade, sampling has gone from being virtually a black art to becoming a fine art.

Yet even after Paul Hardcastle's chart- (and ground-) breaking electro-hip-hop workout - '19' - first stuttered the narrative of Vietnam documentaries over a militaristic dance beat in '85, the full potential of the sample as a musical building block and instrument of composition, was not fully recognised. It was, in effect, the street culture of mixing instrumental drum riffs from old records - the music they call rap and hip-hop - that gave birth to a far wider circle of artists who discovered in the early samplers an easier way of achieving the same thing.

Indeed it was the need to produce drum loops and break beats that provided the impetus for DJ-producers like New York's Larry Levine to move from using 7" records to 12", to drum machines, and finally to samplers. Why waste time programming a complex beat to rap over when there were

machines that could engulf that riff - digitally - and spit it out with quartz-crystal regularity.

But of course, it was the availability of these cheap, sample grabbing machines to a mass market - and perhaps more importantly, the culture of the sampler *outside* the studio - that planted the legal minefield, which, five years on, has only just begun to be cleared. Albums like Coldcut's *What's That Noise?* with its Disney samples, and De La Soul's daisy age *Three Feet High* with its Gwen McCrae samples, television programme themes (...and the adverts between them) - and the dance music in all of them - shook music law into recognising the complexity of the subject.

So what is the official definition of sampling? Ironically it's not defined in any UK legislation, but it is commonly understood as "The taking of a portion or extract of sound from one permanent recording together with its subsequent use in another". So what if you've used samples in your latest and greatest drumscape; just how much of a snippet constitutes a sample? How much is using it likely to cost? Should you bother asking permission?

To begin with the last question: the answer is, unfortunately, yes - in almost all cases. As mentioned in previous discussions, the value of music lies in the song that was written, as well as in the recording itself - and the same is true of samples. The sample must have some musical value because it has been taken rather than 'created', and, since it has a value, to use it you must ask permission.

What many sample-seekers often forget is the crucial point that almost all samples have both a song (or publishing) value *as well as* a sound recording value. You may well find yourself having to pay the artist (or his label)

for the right to sample a part of a recording - and also a similar (sometimes greater) amount for the right to sample the song on that recording.

This is by no means universal. Some samples need only a sound recording copyright clearance - an example might be that floor-shuddering "da-da-da-daaa... da-da-da-daaa!" from Beethoven's Fifth Symphony. Some only require a publishing clearance - a sample taken from one of your own records, for instance, that might itself include a James Brown sample.

The explanation of the first example is simple. Beethoven, most people would agree, is dead. And has been so for, well... over fifty years anyway. In this instance there are no songwriter's (publishing) copyright royalties due, because you can only copyright a song up to and until fifty years after the songwriter's death (...sorry Ludwig). You must, however, pay a sound recording royalty to the performers of the track (ie. the orchestra). The second case of paying a publishing contribution to the original songwriter, is rare, but does occur when the sample you've taken has a songwriting value, but no sound recording value *to you* because you are sampling your own recording of a sample.

There are many instances when you need to consider one further clearance matter. What happens if you get permission from the record company (who own the recording rights to the record you want to sample) as well as permission from the publisher (who, remember, is responsible for collecting fees on songs and samples of songs) but you want to use the sample in a 'controversial' manner? For example, using a Malcolm X



speech sample in a condom advert? Or sampling James Brown for a record which pokes fun at him? In any situation where the person being sampled believes there to be a misuse of that sample, he is entitled to refuse permission on the grounds of moral rights.

James Brown objects to the use of his samples in some hard-core rap records, while George Michael successfully stopped a Wham! mega-mix because the manner in which the sampling was done amounted to "distortion or mutilation of the original recording" (...that never seemed to worry Jive Bunny too much, though). Other artists like hallowed rockers Led Zep, and soul diva Anita Baker have never agreed to any sampling of their records, and Michael Jackson's more recent records – the rights to which he jointly controls with Sony – are also off limits to the \$1000. Ironically there are parts of Jackson's early catalogue on Motown (which is not in his control) – that are easier to clear.

The refusal to allow the sampling of a record on moral grounds is encapsulated in two ways: the 'right of integrity', where you must show respect and consideration for the way in which an artist might want his samples used (and placed); and the 'right of paternity' where, at the request of the artist you're sampling you must include the necessary credits detailing the origin(s) of the sample(s) you have used.

But when is a sample not a sample? Surely a sample could be so small as to be not worth bothering getting clearance for? This is where we enter a grey area...

In theory, every sample that's ever used should be cleared, because sampling without permission is, purely and simply, theft of someone else's intellectual property. Yet in many cases rules of thumb operate within the industry. If the sample is distinct, say a James Brown "Good God!", then it has sufficient artistic value to warrant clearance. If, however, you sample a single snare from a record, and there is nothing in any way distinctive about the snare, then, clearly, it has little value.

Using this rule of thumb, some of the top sample clearance lawyers in the United States will – when presented with a list of

samples used in a recording – ignore as many as half of them if they feel that their use will not be noticed. But of course such people are highly trained in this field and know exactly what to look for; applying the 'substantiality test' is no job for the amateur. That's why it makes sense to have tracks checked for sample clearance before release.

Having mastered a recording *prior* to manufacturing, it is necessary to approach both the publishers of the work and the representatives of the performers. By contacting the Mechanical Copyright Protection Society – or the MCPS (an organisation that represents the vast majority of composers and publishers in this country) they can help to clear the publishing (or



songwriters) side of your sampling. You must write telling them your name (or the name of your band), the name of the track that will contain the samples, a name and description of *all* the samples you are declaring, and details of the record company and the publishers (or songwriter) of each of the tracks from which you have taken samples.

The MCPS then sends a sample form off to each of the samples' original owners which they trace through the National Discography – an impressive list of millions of song titles, together with the associated artists, songwriters, and record companies (where known) – and asks them whether or not

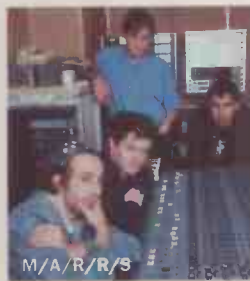
they'll allow the sample to be used and how much they wish to charge. If successful in securing an agreement, the MCPS will then grant you the necessary license to release your record.

But what about the sound recording copyright? Well, the MCPS should also be able to help you contact the record company who owns this, but it is then up to you to agree a fee or a percentage of your earnings from sales of the record which has been made with the aid of samples of their artist. Until this has been done, you are not allowed to release the record.

"At present", points out an MCPS spokesperson, "talks are afoot between the publishers organisation (the MCPS) and the recording labels organisation (the British Phonographic Industry) to simplify much of these procedures". This is likely to be done by creating a single sample clearance form that covers the publishing, sound recording and moral rights clearance of each and every sample.

So how much should you expect to pay for the song and sound rights of a sample? Unfortunately, this is one of the hardest questions of all to answer. Some record companies charge a proportion of the sampling artists song and sound recording royalties. For substantial samples – like the Shut Up And Dance 'Raving I'm Raving' single, the act ended up paying half of its publishing income back to the owners of the sample they'd used. (And in the case of a number one record, that could add up to an awful lot of money.) In other cases, James Brown might only ask you to pay around 2% out of your 8.5% songwriter's royalty for a reasonably small sample from one of his recordings – together with, perhaps, a lump sum payment of say \$1000 for the sound recording royalty.

This latter payment is a straight, one-off buy-out of the sample clearance. In other cases, some US labels operate a roll-over system whereby you repeat the \$1000 payment, for (say) every 250,000 extra units above the first 250,000 records that you sell. "Other labels, like Sal Soul, have a reputation for charging the earth for their



SAMPLING CONFIDENTIAL

► samples, simply because they do not like sampling!" says Hope Carr, a sample clearance specialist based in New York. Some companies like Disney have only just begun issuing sample clearance, and then, only to artists on their own labels.

But whilst America abounds with sample clearance agencies, none currently exist in the UK. The reason for this is that over here the MCPS keeps accurate records of songwriters and the songs they own, so publishing clearance on samples is a lot easier. "Unfortunately in the States, our MCPS equivalents, BMI and ASCAP aren't as organised with their records!" says Carr. "I've often had to go through the MCPS in London in order to track down some of the owners of these works, for American acts!" she points out.

As you've probably realised by now, the development of a seemingly innocuous piece of hi-tech kit has led, in only a few short years, to the establishment of a highly complex network of sampling practices and policies. The story may begin with an S1000, but unless you want it to end with a court injunction (or worse!) understanding your obligations to the artists that have provided us with the 30-year musical legacy from which we sample, is essential for the well-being of all concerned.

So much for the legalities. Next month we'll take an in-depth look at the tricks of the trade and learn how the top producers go about getting their samples. ■



Prof. Paul Hardcastle at home with his rigs...

The author points out that all contract rates, fees and methods of trade mentioned in this article are intended purely as guidelines and should not be regarded as authoritative figures or universally applicable methods of business.

Sampling Milestones

1979

Sugarhill Gang take the the first 'sample' (using a record deck) of Chic's 'Good Times' and uses the recording without clearing the sample with the original songwriters Nile Rogers and Bernard Edwards. Both writers later receive full credits for the usage.

1981

Grandmaster Flash releases 'Adventures Of Flash' on Sugarhill Records, a track that borrows heavily from Queen, Chic and Blondie. Though no clearance permission was initially gained, a publishing royalty share was made between the owners of the original 'snippets'.

1986

Jimmy Calstor files a \$750,000 law-suit against the Beastie Boys for the unauthorised use of his song 'The Return Of Leroy (Part 1)'. Settlement is made out of court.

1987

KLF ceremoniously burn copies of their sample-laden album *1987* in Sweden after an aborted attempt to negotiate a deal with Abba, who had ordered the destruction of the record on the grounds that 'Dancing Queen' had been sampled.

1987

M/A/R/R/S reaches number one with 'Pump Up The Volume'. Pete Waterman sues for the illegal use of a few seconds' worth of samples from 'Roadblock', released on his label P.W.L. Eventually the parties settled out of court with the proceeds going to charity. Apparently after years of wrangling the group have yet to receive substantial royalties from the highly successful record.

1987

The use by **Coldcut** of a sample taken from Eastern artist Ofra Haza in Eric B and Rakim's 'Paid In Full' remix resulted in both a settlement of royalties with Ofra as well as helping to revitalise her flagging career and launch an album.

1987

Black Box score a six week number one with 'Ride On Time' using samples from Loleatta Holloway's 'Love Sensation'. Both Loleatta and the original songwriter receive payment.

1990

Beats International reach number one with 'Dub Be Good To Me'. Norman Cook, the track's producer, originally shares writers' credits with Jam & Lewis, the song's original writers for The S.O.S Band, but ends up losing credits on the UK number one reworking. With Cook receiving no credits, the track is considered as a cover version, despite Cook's creative use of The Clash's 'Guns Of Brixton'.

1990

De La Soul settles with George Clinton for one half of the royalties for the use of samples on some tracks from their debut album *Three Feet High And Rising*.

1992

George Michael settles with artists The Bad Boys after an Interlocutory Injunction (there was no final order necessary) over their 'Bad Boys Megamix'. Michael objected on moral grounds.

1992

Shut Up And Dance are nearly bankrupted when Marc Cohn decided to exercise his moral rights over S.U.A.D's interpretation of 'Walking In Memphis', which is used in 'Raving I'm Raving'. S.U.A.D tried to seek permission, but nevertheless pressed up and released records prior to settlement. Cohn settled by allowing pressed records to be released and cleared, but stopped further manufacture.

March 1993

S.U.A.D face an indefinite ban on releasing records, containing certain artists' samples, for persistently flouting the wishes of recording artists whose permission to release samples had not been first sought. The judgement went in favour of the plaintiffs, the Music Publishers Association (or M.P.A), when S.U.A.D did not appear at the recent hearing. This was the first case that went to court in full and final judicial settlement in the UK and thus was the first to set a legal precedent on the requirements of samplers.

Useful Reading

On The Right Track - An Introduction To The Music Business

Making Records For Retail Sale - A Guide To The MCPS Agreement

Both published by the MCPS
Tel: 081 769 4400

Music Week Directory
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MIDI by example

Part 8

Sixteen MIDI channels not enough for you? It could be time to find another way Out...

Text by Vic Lennard

When MIDI was first developed some ten years ago, instruments were generally monitimbral: that is, they could play only one sound at a time from MIDI notes received on a single MIDI channel. So the 16 available MIDI channels could control up to 16 different synths or sound modules. But of course, the technology has developed to such an extent that a single multitimbral sound module may now require all 16 MIDI channels, particularly where such units boast a polyphony of up to 64 notes.

Take a typical live set-up of a synth and a couple of sound modules cabled together as in **Figure 1**.

Playing keys on the synth sends out note information to both of the modules. But let's say that each of them is 16-part multi-timbral

– General MIDI modules, perhaps. The only way this system can operate is with both modules in tandem, responding to the same note information on the same MIDI channels. Also, a Program Change message sent from the synth will switch both modules to the same patch number, so you'll have to carefully organise your sounds if this is not desirable.

Now, what happens if your synth has a pair of independent MIDI Outs? The set-up would be as in **Figure 2**.

Here, each sound module can be individually addressed from the keyboard and the problem with patch changing no longer exists. Such a synth is likely to support multiple splits so that different zones of the keyboard transmit MIDI information on discrete MIDI channels – a very powerful live system.

Working live with a sequencer/workstation or back in the studio with a sequencer, there's a much more important reason for having independent MIDI Outs. Taking the above example of two 16-part multitimbral sound modules: having one MIDI Out means only being able to access 16 instruments. While this might seem a lot, it doesn't allow you to individually use each sound on both modules.

The reason for having a pair of expanders might be to make use of their different synthesis methods. For instance, one might be of the sample playback type offering 'real' instruments like strings, brass and the like. The other unit may be a standard synth for pads, allowing you to double up sounds to create useful textures. Additionally, being able to automatically access all instruments on a pair of sound modules means you are far less dependent on patch changing.

Figure 3 shows a typical set-up for this; here, one MIDI Out plays the sounds on the synth while the other is used purely for the two sound modules, using the MIDI Thru of the first to connect to the MIDI In of the second.

A second MIDI Out can also be used for the sending of accurate sync information. Obviously, the timing of this kind of data is very important, bearing in mind that it is responsible for keeping two devices locked together – a sequencer and a drum machine, for example. This is shown in **Figure 4**.

MIDI Out1 transmits the note and performance information to the synth while MIDI Out2 is responsible for sending the MIDI Start, Clock, Continue and Stop commands to the drum machine whose patterns will

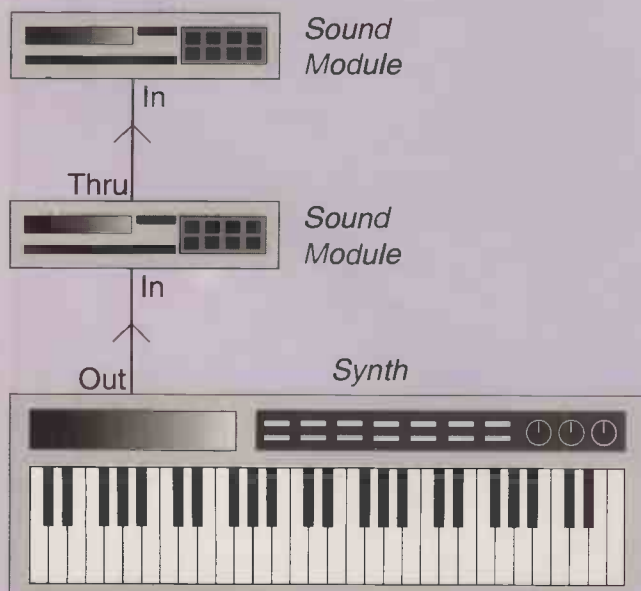


Figure 1: Typical live set-up of synth and a pair of sound modules

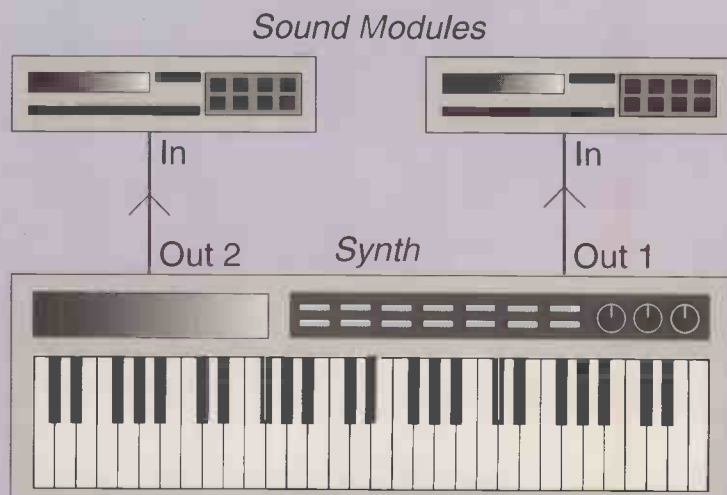


Figure 2: Far more flexibility is possible with a pair of independent MIDI Outs

MIDI Glossary

General MIDI has been mentioned in the main text – but what exactly is it?

General MIDI

Suppose you use a particular sound module with a sequencer to record a song, and on playback, switch to a different unit. For the song to bear any resemblance to the original, the following have to be true:

- 1 Any Program Change numbers used must call up the same type of sound on the new module.
- 2 The MIDI Note numbers assigned to the drum and percussion instruments have to be the same – and on the same MIDI channel.

- 3 The polyphony of the new module must be at least as high as the original one.
- 4 The new module must respond to any MIDI Control Changes that have been used, such as MIDI Volume and Modulation.

General MIDI was designed with all the above criteria in mind. All GM sound modules have the same basic 128 sound types assigned to the same MIDI Program Change numbers according to the GM Sound Set.

Figure 5: The General MIDI logo

This means that if you have selected Program Change #1 (Acoustic Piano) when recording, the same patch (or a sound close to it) will be called up on playback. Any key-based

percussion is always assigned to MIDI channel 10 and follows the GM Percussion Map which is, perhaps, a little limiting as only 47 sounds are used – 20 of which are Latin percussion instruments – with only two bass drums and a single acoustic snare drum.

In terms of polyphony, any GM module must provide at least 24 voices – although, as the specification currently stands, more than one of these may be used per sound, thus making it impossible to guarantee a specific number of notes. Finally, certain MIDI Control Changes must be recognised, including Modulation, Volume, Pan, Expression and Sustain Pedal. How do you know if a sound module is GM compatible? Look for the logo (Figure 5). But be careful; some modules are using the logo without properly conforming to the specification. Check the polyphony – if it can't provide 24 voices, it isn't GM. The result of this will be the audible cutting off of notes.

then play in time with the sequencer. While the speed of MIDI is not usually an issue, a sequencer will often prioritise the transmitted MIDI messages, and MIDI sync commands generally come way down the list. By using the second MIDI Out in this way, you ensure

that the playback timing of the drum machine is not compromised.

While generic multiple MIDI Out units are available for the PC and Mac, sequencer software manufacturers for the ST tend to provide dedicated units. These often provide

you with more than simply an extra MIDI Out – key (dongle) expanders, SMPTE generators etc. are also included. For most ST sequencers, there are cheap third party options such as 16 Plus from Hands On MIDI Software and ModemMIDI from the UKMA.

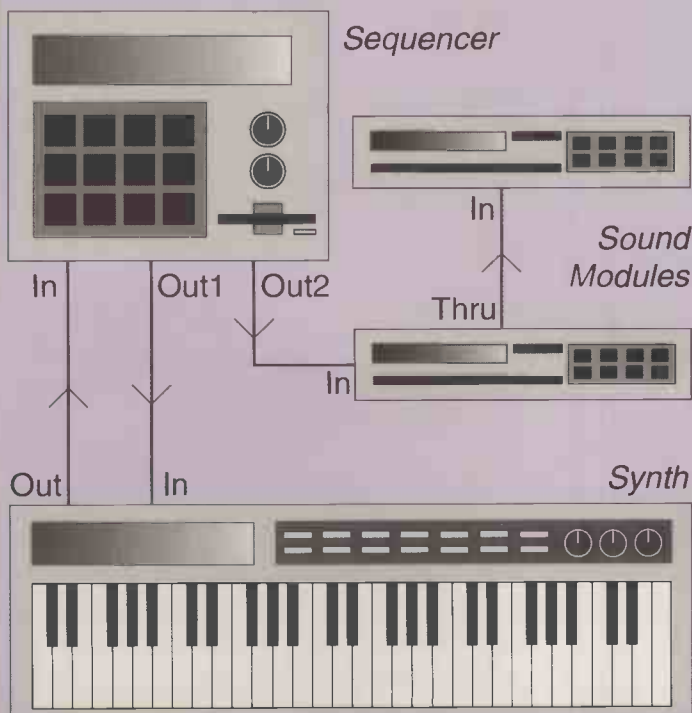


Figure 3: Having two independent MIDI Outs makes it possible to individually address up to 32 MIDI channels

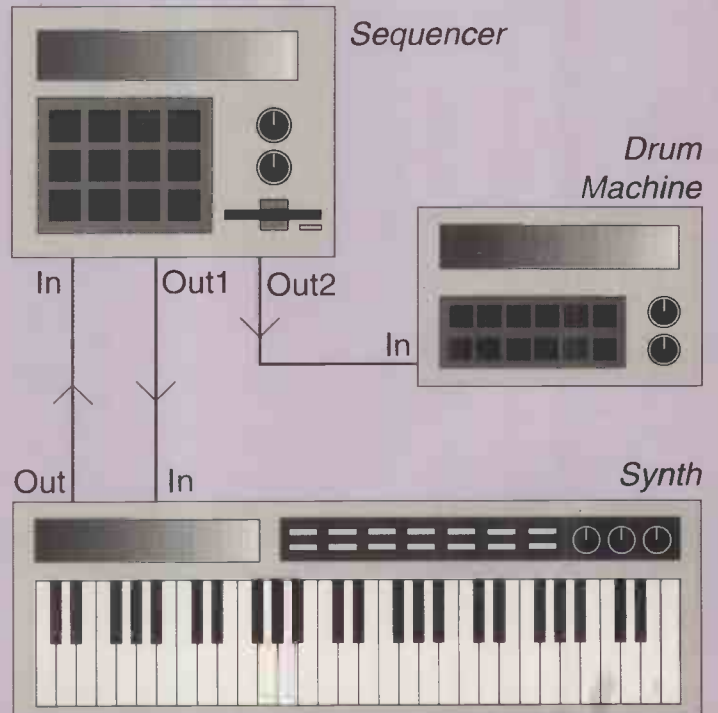


Figure 4: Using a separate MIDI Out to sync a drum machine to your sequencer

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Peavey PC-1600

MIDI Controller



Photography: James Cumpsty

**Text by
Vic Lennard**

Need total control over your MIDI system? Peavey have designs in that direction...

Reviewing the JL Cooper FaderMaster – an 8-slider MIDI control unit in October 1989, I made the remark that “there is absolutely no way this unit is leaving my studio”. A hackneyed reviewer’s comment perhaps, but it’s one which this reviewer seldom makes. And certainly, the FaderMaster went on to see daily use as a real-time controller of my MIDI devices until a couple of months ago.

In the intervening period, certain shortcomings have come to light (the most serious of which was the fact that I needed 16 sliders!) – shortcomings, which, seemingly, have been addressed in the design of a new unit from Peavey, the PC-1600.

From the moment you set eyes on the PC-1600, you start to get ideas of what it may be capable of. Sixteen 6cm faders and on/off switches adorn the angled front panel along with a 20-character x 2-line display which has a set of four cursor keys and half a dozen control buttons; Edit, Copy, Enter, Utility, Scene and Exit. While the cursor keys are used to select the on-screen parameter whose value needs to be altered, the actual changing of values is carried out via a neat metal data wheel, reminiscent of the ‘alpha’ dial used on various Roland synths. The rear panel has the standard MIDI In and Out sockets along with a couple of control voltage/footswitch input sockets. Power is via a hefty external psu.

Each fader can adopt any one of three functions, but the first of these – Continuous Controller – is likely to be the most often used. Here, any Control Change between #1 and #120 can be programmed; MIDI Controller numbers and MIDI channels can be independently set per fader – as can the

minimum and maximum values transmitted at the bottom and top of the fader range.

The second function allows the fader to be designated as a ‘Master’ controller in command of a group of others – great for fading out a number of synths. The third, and most powerful, fader function is that of MIDI ‘String’ where any number of data bytes can be assigned to any fader. While the initial set-up is that of a SysEx string (with ‘FO 00 F7’ appearing on the display), any string of bytes can be entered. Flexibility is the key here; the PC-1600 uses dynamic RAM to hold the information for the 50 presets and you therefore aren’t restricted to a certain number of bytes per preset. In fact it’s possible to set up some very long strings of MIDI data... if that happens to be your cup of tea.

The four functions assignable to the switches are equally useful: Mute transmits the value assigned to the bottom of the fader’s position while Solo sends out such values for the other 15 faders. This is particularly neat, and one of those facilities which helps make the FaderMaster seem rather lacking.

The other basic assignments for the switches are Program Change transmit – on a selectable MIDI channel – and the sending out of Note On messages by pressing a button and the corresponding Note Off on releasing it. Of course, you probably wouldn’t want to use the 16 switches to play notes on a synth, but many sequencers allow you remote access to their transport functions using Note On and Off messages, for example, and there are a range of other functions in everyday MIDI use which could be controlled in this way.

As with the faders, if the primary functions aren’t sufficient you can assign any MIDI string to any button, and three further modes are available here. First, you can set up a MIDI event to be transmitted when a button is pressed; for instance, a Bank Select and Program Change message can be

sent simultaneously. Second, two related MIDI events can be programmed and sent by the actions of the button press and release – useful for sending sustain pedal messages which generally require a value of 127 for On and 0 for Off.

Finally, two MIDI Events can be sent on two consecutive presses of a button; so, if the two events are some distance apart time-wise, there's no need to keep your finger on the button.

The settings for each fader, button and CV input can be saved to one of the 50 patches which can then be named (resolving a further failing of previous units). On selecting a patch, you may want values to be sent out for certain parameters; the PC-1600 allows you to set these for Bank Select, Program Change and MIDI Volume – along with a general MIDI string. One minor criticism here is that you have to overwrite existing presets to save your own patches. As many of these will, in all probability, relate to equipment you don't own, this shouldn't present much of a problem, but it would have been nice to be able to recall individual presets rather than completely re-initialise the memory which is the case here.

On a more positive note, the position of each fader and CV input can be saved as a 'scene' and transmitted at the press of a button. This is particularly useful; how often do you

Beyond Sixteen

Though sporting 16 faders on its front panel, the PC-1600 effectively offers 18 continuous MIDI controllers because the two Control Voltage sockets on the rear have been designed to accept standard volume pedals (such as those used with guitars or keyboards), or a 10-volt control signal (typically derived from the CV output of an analogue synth), and treat them as an extra pair of faders. Consequently, you could add a couple of MIDI functions to a keyboard to control MIDI Volume, Pan or various other facilities missing from a synth with restricted MIDI Implementation.

The CV option certainly opens up a range of interesting possibilities. Many analogue synths use a ten-volt range to transmit note values within an octave, so it should be possible to control various MIDI functions in this manner. This, of course, may have limited appeal (I confess I didn't have an analogue synth around to try it out), but there's clearly room for considerable experimentation.

create the perfect mix of levels and pans for a song and then struggle to recreate those settings when you return to it a few weeks (and perhaps several songs) later? With the PC-1600 you simply set the sequencer to record, send the positions as you've set them and the work is done. Up to 100 scenes may be stored and each may be accessed by using a Song Select message.

Perhaps the greatest advantage that the PC-1600 has over similar units is that it's totally self-contained. Any editing can be done on the screen without having to resort to a program running on computer. Did I replace my FaderMaster with a PC-1600? You mean you didn't see it advertised in the back of MT...?

Info

Price: £329 inc VAT
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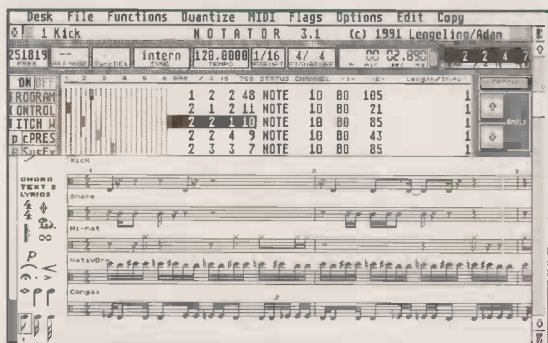
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Swift Halves

Realfeel Groove Library Volume 1

Text by Ian Waugh



Realfeel: drum tracks – with Realfeeling

After the thrill sequencer users experienced when they discovered they had the means to play orchestral and rock instruments, came the realisation that the perfect guitar lick was not a product of notes alone, but of timbre, subtle timing and judicious bending of the strings. None of which can be easily replicated by the twiddling of a pitchbend wheel. And so it was that people started putting together specialised guitar grooves recorded by a MIDI guitar.

And now it's happened with drum patterns. Realfeel has produced a collection of 99 drum patterns recorded with a Roland SPD-8 Total Percussion set in an effort to capture the flams and parawhatsits which drummers, in the throes of inspiration, tend to play. Realfeel admit that the patterns are not aimed at those who primarily want dance and rock rhythms – although the patterns do have something of a rocky edge (*isn't that a cliff? – Ed*) – but rather, at users who simply want drums that 'breathe' a little.

During recording, the pads triggered a D110 and the patterns are mapped to the MT32. It's close to the GM/GS standard, but there is a drum map so individual assignments can be made to suit your own equipment. The patterns are eight bars long with a fill in the last bar or two, so it's very easy to cut and paste them to suit just about any song. You must, however, be careful not to cut out any hits if these are programmed slightly ahead of the first beat of the bar.

Around 30 different styles are covered and these are divided into six categories: Intro/Fill, Rock, Soul, Jazz, Reggae and Latin. So, you can look down a category list and pick a range of patterns to suit the style of the day. It's worth pointing out, however, that most patterns fit into more than one category.

Realfeel admit that some patterns have been 'tidied up' a little, most of the quantisation having been applied to the Latin and secondary percussion to bring it squarely on the beat. By and large, this proves to be an acceptable compromise, though there were a few too many maximum (ie. 127) velocity notes for my personal preference.

The patterns definitely have something of the openness of a live performance about them, and where this is the desired effect, should fit the bill admirably. For myself, I have to say I have developed a preference for some of the harder-hitting, up front, down-the-line patterns which I've heard programmed from a keyboard: it's all too easy to confuse sloppiness with feel. But then, much of this depends on your application, and there's no doubt these patterns could give drum track users a different perspective on their music – which, for the price, is not to be sniffed at. ■

Info

Realfeel Groove Library Volume 1 – Available on Atari disk in Creator/Notator and MIDI File format.

Price: £13.95

More from: Realfeel, Flat 3, 156A Stoke Newington Road, London, N16 7XA. Tel: 071 241 0621.

Voice Crystal SY77 Sound Disks

Text by Ian Waugh



As anyone familiar with the SY77 will know, its powerful AFM/AWM voice architecture gives it pretty formidable sonic potential, but like most synths, there is a limit to the number of radically different sounds it can produce. Having ploughed through around 3,000 of them during my time as an SY77 owner, I reckoned I knew the limits of the machine and wasn't expecting to hear anything radically different on these two disks from Voice Crystal.

I was partly right: the first few sounds on Disk 1 are a fairly uninspired collection of pianos with little to distinguish them. Things change dramatically, however, when you run into 'Dream Piano' which, I'm sure, is where the inspiration came for the sound in the SY85's first Performance position. Then there's 'Two Pianos' which sounds like... well, two pianos, really – but it's interesting all the same. 'Zip Strings' is the only pure string sound on the disk; there's lots of scraping bows – which I particularly like – and I also grew fond of 'Horn-Strings', a nice open combination with lots of reverb.

Then there are the acoustic guitars; these can sound very effective if you strum a few open chords – though it must be said, they suffer a little from their limited decay times. 'Guitar Vox' is quite different: I couldn't decide in what context I'd use it, but it sounds great. One thing I did decide is that 'Chroma 1' is going on my next house track, whatever that may be. It's an excellent sound only eclipsed by my overall favourite in this collection, 'Lexus' – a raspy, mellow horn with delayed strings.

Disk 2 is broadly similar to Disk 1 and, oddly enough, starts off with some bland pianos. It progresses to organs, flutes, saxes, brass, strings, electric guitars (some nice heavy stuff here) and then onto synths, pads, and analogue imitations. There are some interesting vocal textures, too, which are actually pretty useable (for a change), and also a collection of sound effects for those who like that sort of thing.

Both disks seem to take a 'something for everyone' approach, which is commendable enough, but I would liked have to see a description of each sound included with the disks – as it is they come with voice lists only. Many sounds use velocity and aftertouch and give the impression that they have been put together with considerable care. Certainly, both disks are worth exploring if you're looking for a collection of general sounds – though if you already have plenty of other disks, you may not find anything here radically new. Then again, there are a few tasty items and many people are prepared to buy collections like this for the handful of stars. ■

Info

Price: Voice Crystal SY77 Disks £29 each

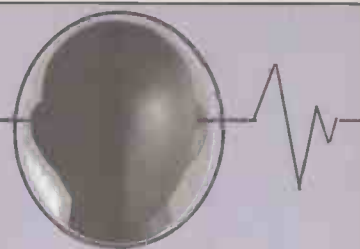
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Stereo Speakers

The Stereo MC's may have graduated from home 8-track to SSL studio for their latest album *Connected*, but they still take a defiantly rough and ready approach to music and equipment. Rob Birch and Nick Hallam speak out, on both channels...

Interview by
Phil Ward

"This is the studio, right here", says Rob B. But he's not showing you a desk, some monitors and a multitrack. Or even a computer. He's pointing, with that gaunt, pointy frame of his, at the Stereo MC's record collection. "I sometimes go to Reckless Records in Islington, and maybe the Record & Tape Exchange, but the music they play gets on my nerves and I have to get out of the shop. But I usually spend a couple of hours in a record shop, at least." Whatever the lawyers might say, constructing new music from snatches of old is a convenient, immediate and highly fluent method of working that won't go away as long as the equipment exists to do it.

Furthermore, to an outfit like the Stereos, steeped in hip-hop's street-level groove kind of thing, it's actually preferable to do it this way rather than getting bogged down in technology's other propensity for meticulous programming. Now heavily promoting their third album, mainstream success is theirs, but they've lost none of the sense of urgency and inventiveness about working which made them such an attractive prospect for British hip-hop back in the late '80s.

All this is in spite of the fact that the 8-track machine which recorded their last album *Supernatural* has since been superseded by their own 16-track, and that the recording budget now secures them plenty of time in commercial studios – SSL desks *et al* – to develop the material on a much broader canvas. In the basement of their South London home, singer Rob Birch and DJ/mixer Nick Hallam (a.k.a. The Head) catch their breath and look back on the making of the album which has propelled them to their newly found status of Proper Pop Stars. The interview, by the way, is actually in stereo: Nick is sitting on the left, and Rob on the right...

"*Connected* was all started here," begins Nick. "Every track started with a loop, a break, and we probably filled about 11 or 12 tracks on the 16-track. I'm sure we had about 20 songs with 12 or so things on each song, but then we took it into the studio and started putting the live music on it. So every track changed; the original thing was down on every track, and was developed from there; we probably got rid of some things but kept the basic stuff."

The Stereos have also graduated from sampling on a single Bel BD320 to the wonderful world of the Akai S1000 – an inevitable move and one they don't regret. At the same time, greater use of the fully fledged multitrack studio is expanding their horizons still more, as Nick explains. "We bought an Akai before we started recording this album, which certainly helped. With so much stuff on disk, some of the tracks never even got to tape. But mostly we started tracking once we got into the studio; now we always take it into the studio to develop the music. You can just EQ better, and there are more live instruments, like trumpets, and Owen's drums, which you just can't record at home. And vocals are so hard to record at home, because you just can't tell what it sounds like when you're doing them in the same room. Also, we make a lot of use of compressors, so a good range of those is another advantage.

"We started in a studio which we don't like to talk about, so we won't, and ended up in a place called The Workhouse in the Old Kent Road, which is probably the nicest studio we've ever found, in terms of how it sounds, and the general vibe there. There's an old SSL desk, and the other main ingredient was definitely the engineer, Al Stone. We'd worked with him once before, at Olympic, and we asked him to finish the album



Photography: James Cumpsty

with us. It was great, he got all the sounds we wanted, and it was the only time we've had an engineer we could trust. We could leave the room for a few hours, and know that it was in safe hands."

Rob is in complete concurrence. "Like Nick says, we'd never been with an engineer before where we hadn't wanted to do some EQ'ing ourselves. With Al, I could trust him to get much better sounds than I could, whereas I'd always felt before that there was something missing in the sound. As soon as you suggest something to Al, he'll find exactly what it needs. He has a really good way of balancing the music up so that everything comes through in the right places." "Which was really important on this album," Nick adds, "because it meant that we could think about the basic songs, rather than worrying about whether the snare sound was right. We

weren't preoccupied with whether the engineer was doing his job. Before, we'd always taken such an active role in the desk and so on, and it was good to sit back a bit. Although we were still totally involved in the sound and stuff, it was just a bit of breathing space."

The suggestion that 'sitting back a bit' somehow confirms them in the role of producers is met with a quizzical look from Rob. "We don't really know what all these roles are, we just kind of do the music, the whole thing, and getting Al in was just to help us get the sound right. He's got a real feel for what we're doing. We did once have a guy who put down this really nice Hammond for us, and the tape machine was up the spout - not at The Workhouse, I hasten to add - but they didn't even check to see if it had recorded properly while we were tracking, and the next day we found out that half the

►► tracks which we thought were groovy Hammond were blank..."

"I hate sloppy engineering," adds Nick, "people erasing stuff and so on. You'll add a trumpet, or something, and go in the next day and find that the guy's recorded over it. That's so basic... It's really important, because you're relying on spontaneity, and to keep spontaneity you've really got to be on the ball. With Al, he's recording stuff even when you don't know it, because he knows that something could happen and he's on the case. He's quick as well; before you know it, he's done the backup, and everything's safe without it being a chore."

Spontaneity is at the heart of the Stereo MC's' music, which stands ultimately as a testament to the triumph of the human touch over the mechanical. In the studio, they wilfully avoid the potential distractions of technical intricacy, and show a healthy disrespect for the blandishments of hi-tech. But spontaneity, as Nick will tell you, is not a matter of cutting corners. "Ironically, you get it through hard work. You reach a point where you've done a lot of the basic work, and you go through days when you don't actually record anything - like when Rob's working out lyrics - and when you know that it's working you try and do things quickly, like doing the vocal right in the first take when it's fresh."

"We'll maybe run the tape for three days while Rob's writing, and once he's got the whole idea we'll try and get it down in one. Usually we end up having most of the music, and doing the vocal last, so that having worked on the backing track while Rob's been psyching himself up for the vocal, once the vocal's down the track is ready to mix. And we'll mix it there and then, we don't record everything and then say OK, we'll mix them all starting next Tuesday. You're honing it all the time, always working towards the final mix. That's why it's hard for us to do remixes, even with a recall on the SSL. While we're doing the album, we're totally immersed in it, and then it's over, and it's really difficult to get the same feel again."

"And," adds Rob, "each track has a different vibe while you're making it, so if you leave it to stand after all that fine-chiselling you'll lose it. You should mix it while you've still got the vibe that the track has created."

Although samples and their creative manipulation are still their stock-in-trade, the Stereo MC's talk and behave as much like a live band as any guitar/bass/drums outfit. Far from being apologists for technology, they simply take it for granted as being at the disposal of the modern musician, and are as comfortable on the stage as anywhere. Nick, for example, is quite clear on the matter. "I don't think we're very studio-oriented at all. We like it rough, and there are ways of doing it well and keeping that roughness. We don't get a computer and say, right, we're going to program this beat, so it does this at that point."

"A lot of the time, things are just running all the way through, and in a way the mix is the performance. We might use the recall for basic things, but often, after six hours of putting this bit here or that bit there, we'll just go, fuck that, totally break it down, and go with someone's vibe on how it should run. Because you can start getting really bored when you're using that machinery. More often than not, either Rob or me will get a vibe on it and we'll just break it all down and do a really rough mix all the way through, and it'll have the spirit preserved."

Suggest to Nick Hallam that this means it'll have all sorts of imperfections preserved, too, and he'll offer a reply with which I, for one, will not argue. "Imperfections are quite often the very things that make a record good," he says.

Now that's a rare attitude, these days. As is an almost complete lack of interest in conventional sequencing, even though the music of the Stereo MC's is, unquestionably, technologically constructed dance music. "We use an Alesis drum machine, just the MIDI notes from that to loop things."



On Record

33-45-78 (4th & Broadway/Island, 1989)
Supernatural (4th & Broadway/Island, 1990)
Connected (4th & Broadway/Island, 1992)

We hate all those things with onscreen editing," Nick admits. Rob is even more disparaging: "A sequencer where you program a whole song from start to finish - that don't make any sense to me. Mixing is doing it with your hands there and then: pre-programming is like thinking about it rather than feeling it."

"We've often been in the studio," continues Nick, "and there's someone with the screen up and everything, and they haven't even put anything down on tape and they're running the whole song, with all the vocals. And it's so boring; before they've even mixed the song, everything's in its own little compartment. To us, putting something down onto tape actually makes it sound better, you can start relating to it more."

"It's like, if you had an idea for a painting in your head, it doesn't really mean anything until you start to put paint on canvas - that, to me, is what recording is all about: sticking something on 2" tape. It sounds good, and you get this organic thing that can grow and grow. Sequencing takes so much longer, as well; every time we've been in a studio, the engineer's tried to bring that one on us. He says, I know how to do this, we'll use C-Lab. And an hour and half later, you're still waiting, and when it is running you find yourself shouting 'there! there! that beat there!' and you see him pulling this little thing over and it's like watching someone playing Nintendo! Our method is more instantaneous - although obviously you've got to fiddle around with all the loops to get them in time and so on."

"We've still got two Bel samplers, so if the Akai's full and you're running loads of stuff, you can just whack a couple of other things up, just experimenting. Basically, we run the Akai off the Alesis, and the 808's connected up through this other box so it'll run from the SMPTE box and the Alesis, and the 808 will trigger the Bels. I guess, with a lot of the really hi-tech equipment, we just got a bad vibe on it from people in studios not being very good with it."

"To be honest, I don't see why it's necessary to use C-Lab ►►

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» with an S1000 – you can just mix it, there’s no need to program parts for it. Often, we’ll put loads of stuff down, and when the vocals are finished we might re-sample something that we’ve sampled before, and just loop it and put it in a different place, or something. Typically, we’ll move, say, a trumpet to fit around the vocal. It changes all the time; it’s horrible making a decision on the drum beat at the outset.”

Rob agrees with Nick’s observation that tape compression is aesthetically beneficial, and points out that committing sounds to tape also preserves an all-important element of performance. “It does change on tape; if you’ve got it going in your headphones straight from the sampler, no matter how much you try it all sounds so precise; then you shove it down on tape and it becomes totally fresh again. You bring it up, back from tape, and it just sounds different, and sparks you off. It’s important to capture the feel of where you put the drops in and everything, and whereas sequencing is like a calculation, tape is an actual recording of an event, and you can do the drops so they just feel good.”

Of course, it should be pointed out at this stage that there is one crucial element in the Stereos’ sound which is as live as you like, and which exerts an ever growing influence as the band move into the realms of bigger studios and wider tape. That element is drummer Owen If, who began as a suitable onstage addendum but whose role has developed. Nick explains: “Owen gets involved as soon as we’re in the studio. Obviously, we lay down the basic stuff here, but he’s part of it even from that point – sometimes he brings his pads down and plays along with the samples, but generally he’s just here.”

“In the studio, his drums are set up all the time, all mic’d up. Or even with just a vocal mic set up in the room, we’d have him coming back through the desk on just a couple of channels, and he just plays along all the time. And we’ll say, let’s have a listen to what Owen’s doing, and just record a bit of it, maybe sample it, or let him run through the whole track. The tracks develop bit by bit, and one of Owen’s drum beats might suggest something else, like a different bassline. It evolves like that.”

“In a way,” Rob interjects, “it’s like a band jamming, but with a different way of doing things. Running the tracks is like playing the songs over and over again, and you start to make slight changes and improvements.” “And they still evolve after we’ve recorded them,” continues Nick. “Sometimes we’ll develop something live and think, well, it

might have been good to have that on the track when we recorded it. We can’t do songs live before we’ve recorded them, because we write them in the studio while we’re recording. Then, on tour, they’ll change: I’ll mix them differently, or Rob does some different vocals, or Owen has something else going on, or the girls do something new. But in general I think it’s better not to tour songs before recording them, because when Rob does his vocals in the studio, the first time they see the light of day is on the record, and you’ve caught it in its basic, pure state. Sometimes things you do live, to excite an audience, don’t work so well in the studio.” “It’s very rare that they do,” concludes Rob. “Constantly thinking, I could have done that better, is really boring; it’s a real muso factor, that concern with precision. It’s better to keep things in their raw state.”

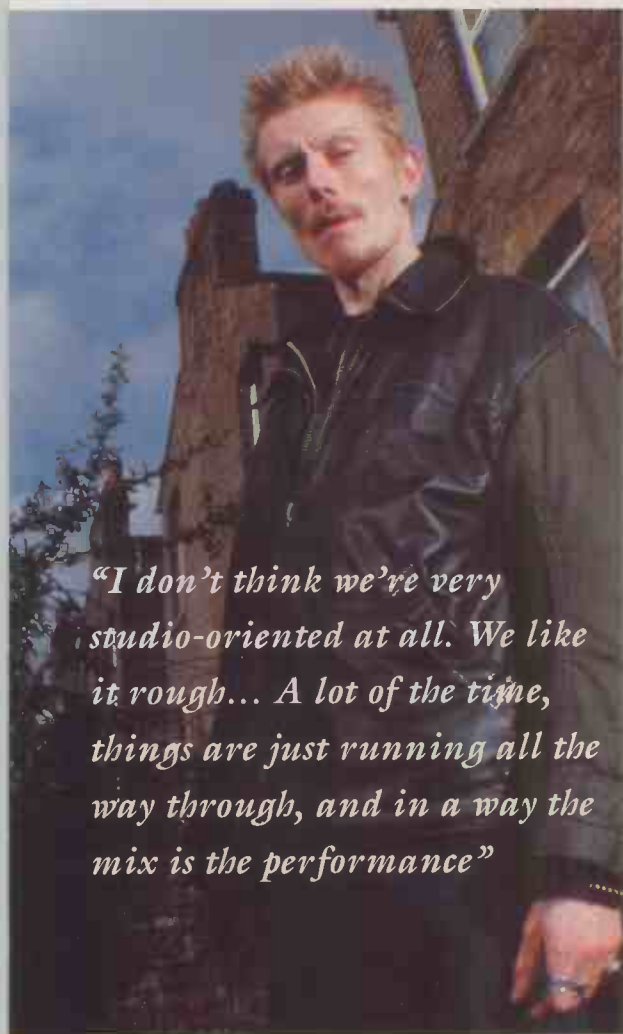
But you still value being able to re-interpret songs live, and not do exactly the same versions every time – which is not the same thing as getting wrapped up in ‘muso precision...’ “Absolutely,” says Nick. “Even from when we start rehearsing, we change the songs for live performance. Basically, when we’re mixing, we have in mind how we’re going to run the samples live, so we do special mixes onto DAT – like all the drum beats, then the basslines, and so on – so I’ve got every song split into eight different loops. It’s taking it down to the basic elements for on stage, and we’ll miss out all the little fiddly bits. I can then have maximum effect over each part, live. I’ve got a 16-channel Mackie, and



two Akai S1000s with hard disks, so I've got 8 channels for one side and 8 channels for the other side, and I can change it all every night."

There's no doubt that *Connected* is a particularly melodic pop/hip-hop crossover, and that this has been largely responsible for the album's success. But Nick is swift to refute any notion that this represents any sort of calculated commercial compromise. "I think we've always thought in terms of songs, it's just that we did it more successfully on this record than before! It's hard to write a good song, but when you do it lasts a long time." "Yeah," says Rob, "I think that's the way we're progressing. It's quite rare to actually get something that works, that has something. Even my dad thought that 'Connected' had something about it..! And when your dad says that, it must have something about it."

"But actually, very little time is spent working out melodies – they're very instantaneous little ideas, and most of the melodic stuff was the original inspiration for the songs. That was the way our music was naturally going. You don't really write melodies, they just kind of flash into your mind as you're listening to the music. Same with lyrics; you can't really do it unless you're feeling the vibe." Nick sums up, and once again it's impossible to disagree. "Our records have always had song structures, never just a breakbeat with a regular rap. I think that's why we sound different." ■



"I don't think we're very studio-oriented at all. We like it rough... A lot of the time, things are just running all the way through, and in a way the mix is the performance"

Equipment

Roland Jupiter 6 synth

Roland SH101 monosynth

Crumar Multiman string machine

(Nick: "We just use what we need. If there's a synth lying around, we'll maybe check it out if we're looking for some sound or other. I'm not keen on FM synthesis; I like the Roland synths, the Jupiters, and the JX3P is good for bass. At one point I thought it would be fun to get a Vocoder in – I like them because they sound so kind of naff. The intro sound on 'Step It Up' is somebody hitting the microphone while holding a chord on the Vocoder. We use weird combinations of sounds, old stuff, new stuff – trying to get sounds with character.")

4 x Alesis HR16B drum machines

(Nick: "We don't use the Alesis sounds up front, like going through every sound and saying, right, let's program a really funky beat. It just doesn't sound funky on those drum machines, so maybe we have the bass drum on its own, or maybe a bit more mixed in with the rest of the beats we end up with. None of them sound really great on their own, in their basic state.")

2 x Roland TR808 drum machines

(Nick: "We've just got another 808 with this really long bass drum in it, with a decay of about 30 seconds. We don't use it as an 808, really – we just have it to get a few one-off sounds that vibe you up." Rob: "It's just a nice instrument – earthy, not too mizzly.")

E-mu SP12 drum machine

(Nick: "Great – because you can sample into it.")

Bel BD320 delay/sampler

Bel BD80S sampler

2 x Akai S1000 8Mb samplers

(Rob: "When we got the Akais, we quickly found out how to do what we were used to doing on the Bels, and then gradually found out a few more things – like taking a little sound and playing it like an instrument – then you get better at achieving the right sounds. It's a matter of just finding out what you want to do on it; when you get too tangled up in the machinery, you actually do things you don't want or need to do. But some of the facilities are incredible..." Nick: "We do hook up a keyboard to it, and play our own lines, to create musical parts just using sampled sounds. So a lot of the time we don't actually need other keyboards.")

2 x 44Mb disk drives

(Nick: "They are a bit prone to damage; I've got loads of old stuff that I can't use on them. I like the sound of the CD-ROMs in the new Akais...")

5 x Technics SL1210 MkII turntables

JVC HAD515 headphones

3 x Phonic MRT60 mixers

Tascam 3500 24-channel desk

Mackie 16-channel desk

(Nick: "The Mackie's brilliant because there's hardly anything on it. It's got nice mute buttons so I can do it quickly in performance, and it's just 16 channels. Too many mixers have all these extras like MIDI muting, pushing the cost up to £600 or so – but what do you need MIDI muting for? Or the EQ has these tiny little buttons that you need tweezers to turn, and they don't sound very good anyway.")

Tascam MSR16 half-inch 16-track

Tascam 388 8-track

Revox B77 2-track

Teac DAP20 DAT machine

XR3000 SMPTE box

Alesis Midiverb II

Yamaha SPX90

Gibson SG guitar

Satellite bass guitar

(Nick: "People are too obsessed with finding out the latest bit of equipment. They spend more time worrying about the equipment than what the actual music sounds like. It's the 'I've got to get this before I can start doing my demos' syndrome. For instance, we bought this Satellite eight years ago for £15, and it sounds better than any other bass we've ever borrowed, hired in or anything. The strings on it are probably about three years old, as well.")

Fender Deluxe 85 guitar amp

Frontline pedals

Novelty miniature Marshall stack

(Nick: "Sounds rubbish")

E-mu

Vintage Keys

Sound Module



**Text by
Peter Forrest**

The sounds may be familiar, but the source is new. Twenty years of classic keyboards in a single box...

What, roughly, weighed 700 kilograms, cost £70,000, dated from around the late '70s/early'80s, and now fits into one small box? The answer – as if you didn't know – is the following list: A Fairlight, Mellotron, Moog Taurus bass pedals, Clavinet, ARP 2600, Wurlitzer piano, Oberheim OBX and Matrix-12, Hammond B3, Rhodes Chroma, DX7, ARP Solina String Ensemble, Farfisa organ, Yamaha CP70, Moog Modular 55, Prophet 5, Minimoog, Micromoog, Memorymoog and Fender Rhodes piano. What E-mu have done with Vintage Keys is to sample a collection of some of the most famous synths and keyboards of all time, and pack them into 8Mb of memory and 1U of rack space.

Given the current level of interest in classic instruments, its arrival might well have been predicted. Certainly, the E-mu badge should come as no surprise to anyone; this is a natural progression from their excellent Proteus range – or, more accurately, from the Proteus XR range, as the standard Proteus only had 4Mb of sounds, as opposed to the XR's eight.

First of all, let's look at the instruments they've chosen to include. Really, this must have been a bit like selecting an all-time great football team; though there may have been a general consensus for some inclusions, no two people are ever going to agree exactly. What would you have included (and excluded) if it had been you making the selection? Personally, I would have opted for the Yamaha CS80, Roland

MKS80 and VCS3, and might have been tempted to leave out the Farfisa, Fairlight and DX7 on the grounds that two of them aren't analogue, and all three are easy to copy with a lot of readily available and cheap equipment.

I think I might also have been tempted to put in more than the single Memorymoog sample and maybe a touch more Chroma. But I'm not complaining about E-mu's choice; the selection of keyboards is excellent and with its internal memory expandable up to 16Mb there's room in Vintage Keys for polysynths such as the CS80 and more of the Memorymoog and Chroma – as well as some of the great monosynths such as the Odyssey, the OB1 and Oscar. These may well be added in due course.

Perhaps the strangest omission is that of any Emulator sounds – or, come to think of it, of anything from the early E-mu modular systems, especially given the slight American bias to the selection. The other rather puzzling thing is the question of copyright and trademarks, etc. For years, no manufacturer dared to call the clavinet imitation on their synth or sampler 'Clavinet' – presumably for fear of litigation. And yet here are E-mu apparently quite happy to name all the products exactly, and even have adverts with photos of the original keyboards plastered all over them. Maybe they agreed a royalty system with the trademark holders, or maybe there's no problem after all – I haven't been able to find out. The only concession to this possibly thorny question comes in the manual, which says "The names of the above-mentioned instruments may be trademarks of third parties".

As you might imagine, setting up Vintage Keys is several million times easier than trying to patch together all the keyboards it is designed to replace. But clearly, for most people, it could never replace the sheer physical pleasure of playing a B3 or a CP70 – or the ease with which you can lunge at a control on a Minimoog to change a sound in an

instant. So how simple does Vintage Keys make the process, and how much control can you retain, even if it's not the kind you get with drawbars, knobs or sliders?

To anyone familiar with the models in the Proteus range, Vintage Keys should be reasonably easy to get to grips with. Though perhaps not quite as elegant as the Proteus range, it's just as practical – if not more so, with its much larger data entry knob and recessed power on/off button. It has the same complement of six assignable/polyphonic outputs (which can double as send-and-returns for effects), the same 16-channel, multitimbral MIDI capability – and the same 32-note polyphony. Not bad, but no less than you need when you think of all those instruments sitting in the machine waiting to be used.

You'll also find that some of the best presets use two samples and this eats into the polyphony. Not only that but linking presets or using chorus halves polyphony again, to the point where you actually end up with a 4-voice instrument. Oops...

The unit has no onboard effects either – apart from chorus – though to my Luddite mind this no bad thing. Inbuilt effects are quite difficult not to use, and can end up giving all the sounds a certain sameness. What you do get are 32 dynamic filters – digital but producing a reasonably smooth and convincing impersonation of the real (analogue) thing.

In fact, these are quite possibly one of Vintage Keys' most outstanding features: with them you can make boring loops interesting again, you can modulate them with virtually any controller, and even switch between 2-pole and 4-pole modes. (Of course, whether this actually means anything in the digital domain is a moot point, but E-mu have certainly produced a good imitation of what real 2-pole and 4-pole filters sound like.)

You also get polyphonic portamento – not authentic on almost all of the instruments Vintage Keys re-creates – but good fun for all that. And there's E-mu's MIDIPatch system, for interesting cross-modulation in the good old style of the Prophet 5, Matrix 12 and modular monsters.

Other functions work in much the same way as the Proteus; as with any modern machine there's a fair amount of wading through menus and button-pushing, but the software is superbly organised, and works as painlessly as any I know – and a good deal more easily than most I can think of.

At the risk of sounding sycophantic, it can almost be taken for granted that a new product from E-mu will be well thought out and the samples well recorded and edited (coming as they do from the Emulator III stable). But are they really representative of the instruments which are their source, and do they give you sufficient variety and control, so that you're not stuck with just one Hammond rock sound, or a single Minimoog lead? Could you take a Vintage Keys module on the road and convince someone in the fortieth row of a large hall that you had some genuine old keyboards hidden away in the wings? Could you use Vintage Keys in a recording situation confident in the knowledge that no one listening will be able to tell the difference?

I listened to each of the 249 samples that are the building blocks for the sound, and the 350-odd presets that were in the review Vintage Keys module. Wherever possible I did an A/B comparison with the real thing – or the closest I've got to the real thing (like, for instance, an L100 instead of a B3, and a Multimoog instead of a Micromoog).

Nearly all of the samples are squeaky-clean, and well up to E-mu's usual standard, but clearly, there have had to be some pretty significant compromises to fit this number of 16-bit samples into even as large a memory as 8Mb. When you think of the size of the hard drive or optical media you need for even a modest sample library, you'll appreciate that there has had to be some pretty drastic restrictions on multi-sampling and some very economical looping to squeeze everything in. >>

Ten O' The Best

Toucher: Magnificent distorted B3 with harsh, touch-sensitive percussion

Jimmi: Great Jimmy Smith B3 drawbar setting

Apples: Fat, wet and slippery ARP sound (...can I say that?)

Wetarp: Too rich to play more than duophonically

Prophetic: Instant *Bladerunner*. Classic cross-mod atmosphere

Killer Bee: Magnificent B3 sound (though only six-note polyphonic!)

Dark Texture: Lose the choir and the cross-mod distorted Moog 55 is vicious

Stereo Tines: Excellent stereo vibrato Dyno-My-Rhodes modification

One of Mini: Great Minimoog sequenced bass sound with ADT

Saccharin: Lush Matrix 12 strings



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Preset Options

Standard VKs are going out in the shops with sixty of the ROM sounds duplicated in RAM, which is a bit disappointing. But MT were blessed with a review machine which instead had sixty or so extra presets courtesy of the famous Dave Bristow – and the word is that these sounds (or variations on them) may well appear on UK VKs soon.

These extra presets are also organised rather better than the factory ones. For some reason, someone at E-mu decided to arrange the factory sounds into a system where all the basses end in 8, all the lead sounds end in 6 – and so on. Not a good idea in my opinion. Much better to do what Dave Bristow has done with his presets and group together, for example, all the Mellotron or Hammond sounds.

By and large this has been done brilliantly – far better than you or I would do(?) – but some samples do suffer. Most of the Mellotron sounds, for example (with the exception of the gorgeous, evocative flute straight from 'Strawberry Fields') are only really effective over a single octave or less, and quite a number of the other samples start superbly but settle into an uninteresting loop rather quickly.

The drums are also pretty ordinary, and certainly not very vintage-sounding (why no CR78 or 909 or even Simmons sounds?). The organ sounds by contrast, are magnificent – particularly the Hammonds. Whilst accepting that no one has yet produced an authentic imitation of a Leslie in a rack, these really are something special. A set of cracking major samples are supplemented with some excellent single-cycle waveforms, to give you the sort of total tonal variation that drawbars give.

The downside is that you can't manipulate them like drawbars, but you have the advantage of being able to create almost any Hammond or other electric organ sound you like and make it instantly available as a preset. As for the Leslie, you can always use the real thing, with a Leslie pre-amp. I tried it and the effect was superb. I'd defy almost anyone to spot the difference in a mix.

The piano sounds, too, are highly usable – especially some of the Rhodes patches – while the classic American polyphonics and monophonics produce some quite amazing presets. Though a lot of the single-cycle and harmonic waveforms are rather boring on their own, they can be combined with other waveforms or proper samples to produce the raw material that the VK modulation and filter systems can turn into great sounds. Inevitably, a number of the presets show only one facet of an instrument – the Micromoog and Arp String Ensemble, for example – but these are, without exception, well chosen.

Overall, one would have to say that Vintage Keys is an absolute must for any studio – possibly the most essential piece of equipment and the best value for money since... well, something like the SPX90, or the first DAT machines – and equally useful for any professional keyboard player, even if only as a high quality back-up for the real thing.

Compactness and portability have to be amongst its most compelling features: 1U of rack space compares favourably with the nine square metres you'd need for the original instruments. And reliability has to enter into it too: there's only the faintest chance of Vintage Keys suddenly giving up

the ghost half an hour before a crucial session or gig. By comparison, a collection of old analogue synths is almost bound to be a source of trouble at one time or another, and getting them repaired isn't the kind of service offered by your average local music store.

Affordability is another factor in the equation; while instruments like the Fairlight or the DX7 have come down significantly in price in recent years, much of the other equipment reproduced in Vintage Keys is actually appreciating in value right now, and I doubt whether you'd be able to buy the whole collection of instruments in full working order for under around £22,000.

There's also the advantage of MIDI control – which, of course, wasn't an option when most of these instruments were developed. Even if a retro-fit were available for each of the keyboards recreated here, the MIDI implementation would, by necessity, be very limited, the costs exorbitant, and the risks (of allowing someone to modify these machines) higher than most people would care to take.

Last, but by no means least, you have the advantage of clean, accurately pitched sound which almost certainly couldn't be guaranteed from any of the original machines without regular expert tuning, very careful siting, cabling, and, often enough, judicious use of noise gates.

There are clues which will tell people who know the real thing that you're playing Vintage Keys rather than vintage keys: some of the samples are rather easier to spot than others, for example. Nor could one argue that it is absolutely indispensable. Even without going to the lengths of tracking down, buying and maintaining a huge collection of original instruments, you could do a similar job with any decent sampler by careful picking and choosing from the best of the analogue sample CDs on the market.

But the big advantage with Vintage Keys is that it's already there for you; it's been done, and it's been done superbly well. All the classic sounds are there – immediately – without having to be searched for, loaded up and configured in your sampler. And the nice thing is you can edit and tweak them to your heart's content. If you're in the market for a new sound module of some kind why not take a trip back with Vintage Keys to a time when filters were expressive and drawbars reigned supreme. You might just rediscover something you thought you'd lost. ■

Vintage Spec

RAM Presets (user): 256
ROM Presets: 128
Polyphony: 32-Note (max)
Outputs: 3 pairs stereo (including 4 mono returns via the ring of a stereo jack)
MIDI: In, Out and Thru ports
Data encoding: 16-bit linear
Frequency Response: 20Hz – 15kHz
Power Supply: 110/240 volts (automatic switching)



Info

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Volume 8 - JJ Jeczalik's Art of Sampling

The Art of Noise virtually invented sampling, this CD gives you access to the sounds that inspired a generation of samplers and placed JJ at the cutting edge of innovative sampling. JJ was also part of the Trevor Horn production team that delivered such masterpieces as ABC's Lexicon of Love and Frankie Goes To Hollywood's Relax and Two Tribes. All the best sounds from JJ's Fairlight libraries are on this CD - over a decade's worth of **PROVEN HIT MATERIAL** and sonic inspiration. Loads of drums, percussion, ethnic instruments, orchestral, brass, synths, basses, and all those amazing quirky sounds that defy description are included. The Art of Noise are one of the most sampled bands ever!



Volume 7 - Neil Conti's Funky Drums from Hell

Prefab Sprout's Neil Conti has provided the groove for such diverse artists as David Bowie, Annie Lennox, Primal Scream, and Thomas Dolby. The combination of funky drummer, top engineer, Daniel Lazerus, and Metropolis' mega-bucks studio has resulted in the most funky, stylised, classy loops ever recorded. *"...the playing is immaculate...a controlled looseness...the playing...the snare drum sound like a snare drum should...Definitely the best live drumming CD."* - *Rolling Stone*, Feb 93. ■ These drums breaks have real attitude and are sure to become classics. ■ The CD also features specially extracted single hits that you can use in perfect context to customise breaks for yourself plus a selection of much sought after hi-hat patterns to inject a human touch into any production.



Volume 4 - Coldcut's Kleptomaniac!

Coldcut can always be found at the cutting edge of dance music. They launched the careers of International Stars Lisa Stansfield and Yaz. This CD has been widely acknowledged as being one of the most original and inspirational of its genre. Get this CD and get ahead of the crowd. *"Coldcut's samples are raw, wicked and packed into the terraces...the quality of the music content is very high...quite brilliant, and definately going into my S770...this CD represents another 'must have' for any serious dance enthusiast."* - *SOS*, May 92 ■ The finest selection of ultra-rare loops ever compiled - over 400 unbelievable loops! ■ Male & Female Spoken & Sung Vocals ■ Coldcut's Exclusive - Hed & HPN Samples ■ Superb range of mega scratches! ■ Media snatches, FX, Robot Vox ■ Full selection of drum & perc samples ■ Hits, Stops, Breaks, Synth & Bass samples ■ BEYOND DESCRIPTION - HIGHLY USABLE! ■ Over 1165 Samples, Over 73 minutes



Volume 5 - Pete Gleadall's Samplography

Few artists have influenced the path of modern pop music more than George Michael and the Pet Shop Boys. Whenever those guys go into the studio they take Pete with them. Why? Because he knows what it takes to make a hit single and he has a sound library built specifically for that purpose. This CD features 1400 of his best samples, 'everything you need except loops'. *"Put simply, the sounds on Samplography are fantastic...leanest and meanest...designed to slot straight into the mix...Their genesis was in the studio itself, and it shows."* - *H&SR*, Dec 92. ■ *"Samplography tells the story of 1980s/90s pop music as seen through the S1100 of Pete Gleadall...this set is one of the cleanest I've heard."* - *SOS* ■ This CD features great synth basses, pads and leads from MKS80's, various Moogs, Prophet V's, etc. but on top of this there are loads of really choice drums and percussion loops, a phenomenal collection of really kicking guitar samples, amazing string sections, hits, gospel choirs, house pianos, Brass, FXs, Sub-basses, and more! There's even a 15 Meg S1000/1100 data section.



Volume 6 - Norman Cook: Skip to my Loops

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C-Lab

Notator Logic

Software for the Apple Macintosh

A new departure in sequencing software or scorewriting for Vulcans? It's Notator, Jim, but not as we know it...

As a muso of the old school (I like to work with the dots) and a Notator user for some years, I long held the view that it was the best sequencer-cum-scorewriter on the market. However, as time progressed and software developed, I found myself harbouring a sneaking admiration for Cubase's Arrange page and wishing Notator had a more flexible method of putting tunes together from individual patterns.

The solution to the problem seemed to lie in Notator Logic – an advanced program which has been 'almost ready' for about two years and well hyped throughout this period. Now it's finally made an appearance on the Apple Mac so I seized my chance to check it out.

OK, so what do you do with a new piece of software? Well, I'm sure nine out of ten users simply boot up and see how far they can get before having to resort to the manual. I'm not usually like that. I reckon a good manual can cut many hours off the learning period and as time is money, I like to get into things as quickly as possible.

Put simply, Notator Logic is not a program with which you will get very far without some recourse to the manual. The main thrust of Logic – its *modus operandi* – is its working environment. This is a radical departure from every other sequencer on the market and, indeed, from most software programs.

Logic has so many features, facilities and methods of working which are not found on other programs, that we'll have to take the basic record/arrange/playback functions as read in order to squeeze in as many new features as possible. Even then I can't promise to be 100% comprehensive. This is a big program!

The software is protected by a dongle which plugs into the Mac's ADB socket. You can connect it between the computer and the keyboard and you won't even know it's there. After dongling, the next thing you must do is wrap your head around the basic principle on which Logic is based. So get out the Perrier, this is not something you should attempt on a couple of cans of Red Stripe.

**Text by
Ian Waugh**

Logic takes an object-oriented approach to music creation and uses a virtual music environment. Let's examine the first part of this more closely. Operation revolves around windows which act like normal Mac application windows. The program retains many features from Notator such as Hyper Edit, the Event List, the Score Editor and the Matrix Editor – each of which have their own window. It also has an Arrange page reminiscent of the Cubase layout, and this is the main window.

Essentially, any number of musical sequences can be assembled so that they become a new object: a folder. Sequencers and folders can be moved, copied, cut, transposed and so on, and any number of objects – folders or sequences – can be packed inside other folders in much the same way as you pack files and folders within other folders on your Mac hard disk (aren't you glad you left the beer in the fridge?).

An example should make things clearer. A sequence is the smallest building block within Logic (not counting the individual events which make it up). When you make a recording, what you create is a sequence. Say you've recorded several sequences in the Arrange window (...think of this window as an open folder you can't close) – select a few sequences and choose Pack Folder from the Structure menu. The sequences will pack into a folder which will appear on a new track. You can pack this folder (plus other sequences if you wish) into another folder and so on, *ad infinitum*.

You can unpack a folder by selecting Unpack Folder from the Structure menu and you can see what's in it by double clicking on it. At this point, a new window will appear showing the sequences (and any folders) inside it. This effectively creates a half-way house between the folder itself and its higher level which (if you've only packed one folder), will be the Arrange window itself.

This form of hierarchical structure enables you to work with blocks of music at any level in their organisation. For example, you could create a rhythm pattern consisting of half a dozen drums – each on their own track – and put them into one folder which could then be handled as a single 'drum track' object. Add a bassline and some chords to this, put them with the drum track in a folder and this would be a 'backing' object.

You can build up complete tunes in this way and even create a single folder which could hold all the songs for an entire set. The system is not totally unlike Performer's 'Chunks' but it goes several steps further. In fact, it offers far greater flexibility than other track/pattern-based sequencers and is probably the most flexible method of music arrangement available on a computer today.

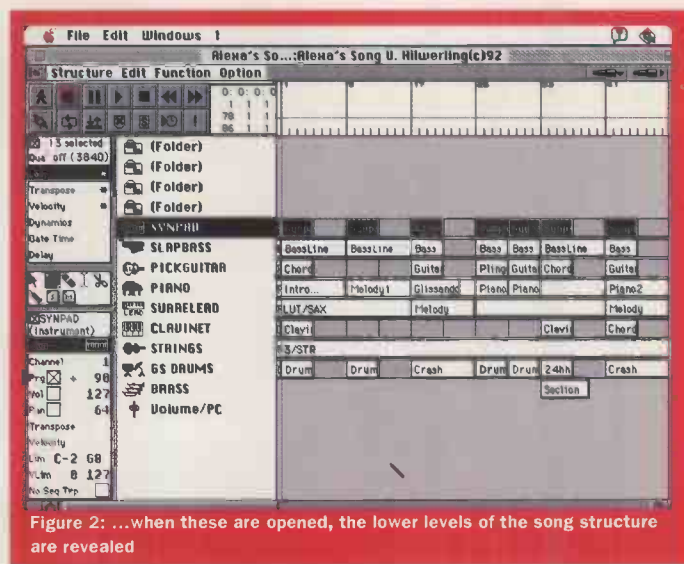
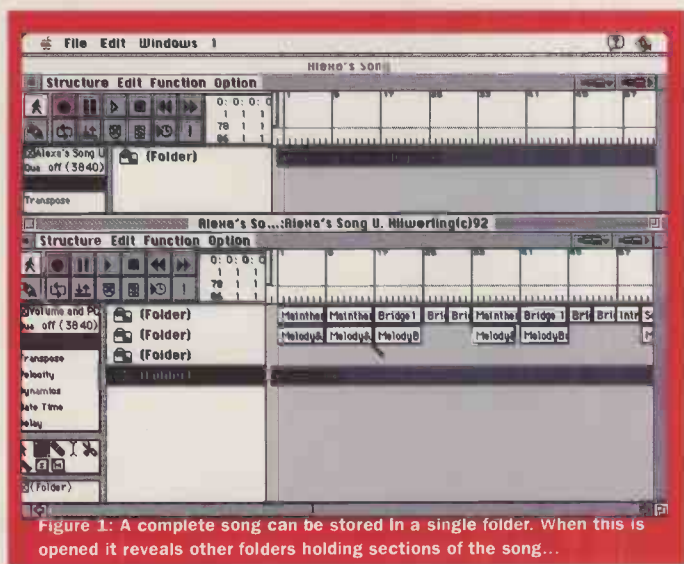


Figure 1: A complete song can be stored in a single folder. When this is opened it reveals other folders holding sections of the song...

Figure 2: ...when these are opened, the lower levels of the song structure are revealed

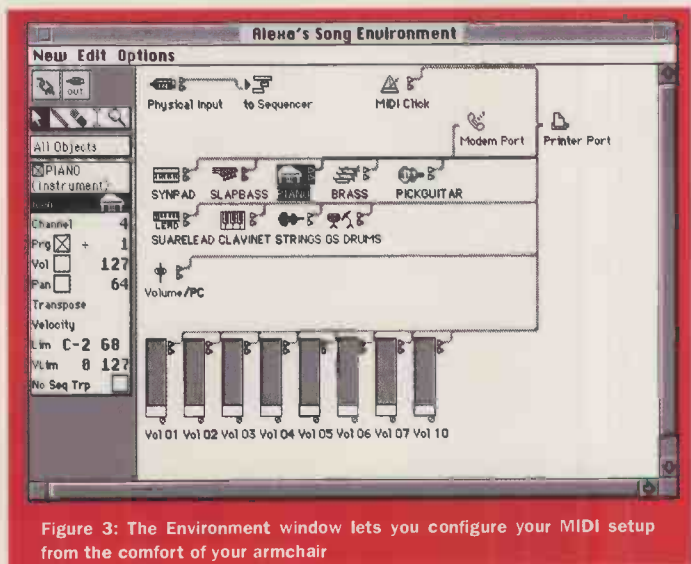


Figure 3: The Environment window lets you configure your MIDI setup from the comfort of your armchair

Objects of Desire

As well as standard and mapped instrument types, the Environment window has many other objects which let you modify MIDI data in a vast number of different ways...

Channel Splitter allows every MIDI channel to be routed to a separate instrument.

Faders let you create or transform MIDI data. Their most obvious use is in creating a MIDI mixer.

Keyboard can be played with the mouse for testing cable routing.

Arpeggiator allows chords to be broken up in many different ways.

Delay Line provides a studio delay line type of effect.

Voice Limiter cuts down the number of notes being played – use it to produce a monophonic line or to manage the limited number of voices reaching a synth.

Chord Memoriser allows an incoming note to play a chord of up to 12 notes, all of which can be on different MIDI devices.

Transformer can transform MIDI data into a different type of MIDI data. It performs certain functions similar to those in Notator's Transform page.

The Physical Input object represents all the inputs of your MIDI interfaces and the Sequencer Input represents the gateway to Logic's sequencer. There are also Modem and Printer Port icons and a MIDI Click. You connect everything together with virtual cables.

Now let's check out this virtual environment thing. A good place to do it is the Environment window. This displays a virtual representation of your MIDI set up using icons linked with (virtual) cables to represent the data flow. It's a bit like a musical CAD program.

You can create icons for objects such as synths, MIDI channels and individual instruments or sounds. An instrument's parameters will contain the MIDI channel and MIDI port assignment plus program change, velocity, transpose parameters – and so on. Once these are set up you can assign sounds to tracks by name without having to worry where in your MIDI setup they are.

Each instrument has an instrument parameter box (which is duplicated in the Arrange window). Here you can name instruments and assign to them an icon from a selection of over 300. As well as these standard instruments, there are mapped instruments which have transpose disabled and which are used in drum setups. This also allows you to map any MIDI note onto a new one.

But what if you have an instrument with more than 128 sounds, if you use several MIDI instruments or if you are

went to load in a new set of sounds before you start a new project? Well, you'll have to create a new setup for each bank of sounds, but once it's done you can limit what you see on screen by creating 'layers' for each instrument, group of sounds, processors, MIDI mixer, etc. This keeps on-screen info to a minimum.

You can have multiple windows open at any time so you can view the same data in different editors. Each window can show various 'levels', part of what the manual refers to as the program's three-dimensional structure. For example, if you double click on a sequence in the Arrange window, you can open the Score Editor. Double clicking on a note can then open the Event List – which is as deep as you can go.

You can backtrack along the levels. Double clicking on the start of the Event List produces a list of the sequences which are in the Arrange window. Each window has a Link button which will make it move through the same levels as any windows it's linked to. This lets you move in and out ➤➤

▶▶ through the structure of your music very easily. There is also a Catch button which ensures that the current playback position is visible.

With so many windows available, it's easy for the screen to become cluttered. You can tidy things up with Tile and Stack functions and also Zoom. On top of this you can store up to 90 Screen Sets (layouts), so you can easily flip from a group of edit windows, for example, to a full arrangement.

Each window has its own menu which restricts your access to functions which can be applied in that particular window. Most windows also have a set of icons or setup parameters on their left. However, in many cases, the only way to see all of these is to open the window to almost the full size of the screen, and this can be both awkward and inconvenient at times.

The time-related windows – Arrange, Matrix, Hyper and Score – have a bar ruler across the top with zoom icons so you can resize the display. Markers are used to indicate the start and end of a musical

section (a sequence, song or even a folder) and you can adjust these, even giving them a negative position to allow for Program Changes, for example.

The main screen has three menus – File, Edit and Windows – which let you access the various windows, file management and general editing functions. All windows are interactive and automatically update when editing takes place in any one window. The Arrange window is where the basic arranging is done, so we'll start there.

Logic supports an unlimited number of tracks at a resolution of 960ppqn and tempos from 0.5 to 9999 beats per minute to two decimal places – talk about extremes! The Arrange window houses the transport controls (although you can also call up two other Transport windows) and displays the current song position in bar and beat format and as SMPTE time in hours, minutes, seconds, frames and bits.

You can assign any SMPTE time to any musical position and the program has direct support for Mark of the Unicorn's MIDI Time Piece.

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You can assign any SMPTE time to any musical position and the program has direct support for Mark of the Unicorn's MIDI Time Piece.

The main area of the window is where your song is arranged, and again, it's a joy to use. You can move the

Host Computers

Many music software developers are moving towards the Mac and the PC and away from the ST which probably makes sense as Macs and PCs are intrinsically more powerful and therefore capable of supporting more powerful applications. The good of ST is getting a little long in tooth – hence the unbridled anticipation as we wait for the Falcon to make it to the shops. However, ST aficionados need not worry as an ST version of Logic is due very soon – and also a PC version – reportedly by the end of April. Unfortunately, Notator itself will not run on the Falcon so Notator users thinking of upgrading their ST will also have to upgrade their sequencer.

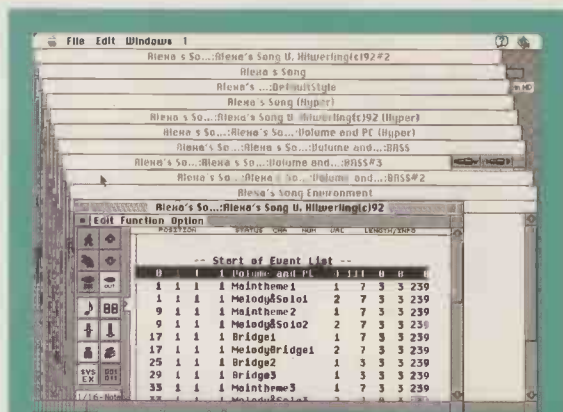


Figure 4: Windows can be stacked...

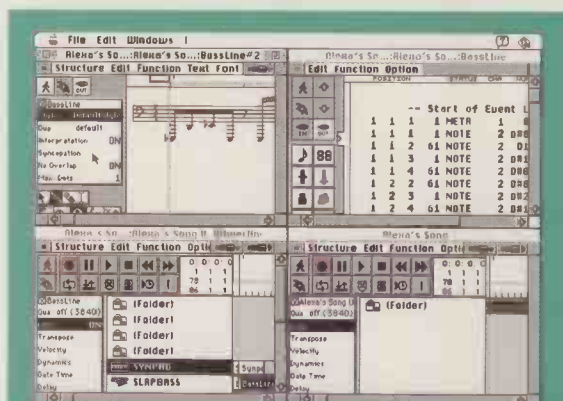


Figure 5: ...or tiled – but you can't comfortably work with too many windows on a 12" monitor

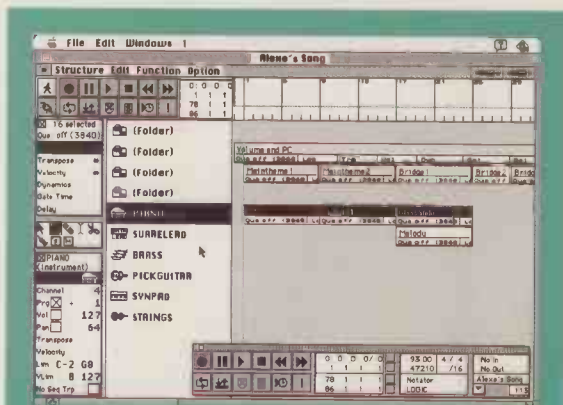


Figure 6: The Arrange window – look familiar? Here you can play fast and loose with the bits which make up your song – and stick them in folders when you get the combination right

sequences around the screen and shift their start and end points. You can layer them onto one track, overlap them and, of course, cut, copy and paste just as you would with any standard Mac application. In fact, combined with the options for selecting sequences and tracks – or parts thereof – there is virtually nothing you can't move, copy, insert, split, join or otherwise mess around with. And to help you with your musical DIY, you'll find a Toolbox with Arrow (the normal cursor), Eraser, Text, Scissors, Glue, Solo and Mute tools.

But a word of warning. I found it very easy to end up moving something twice because I thought the program ▶▶

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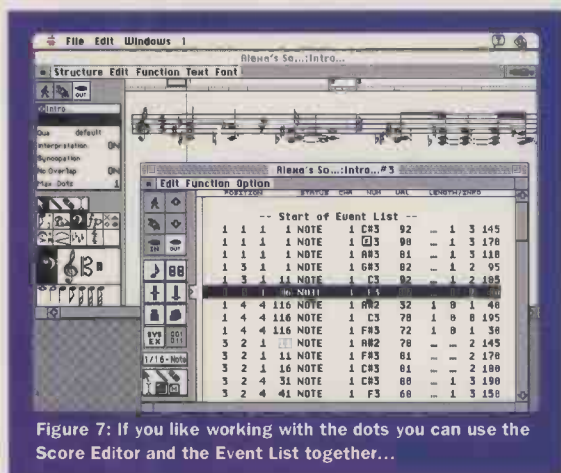


Figure 7: If you like working with the dots you can use the Score Editor and the Event List together...

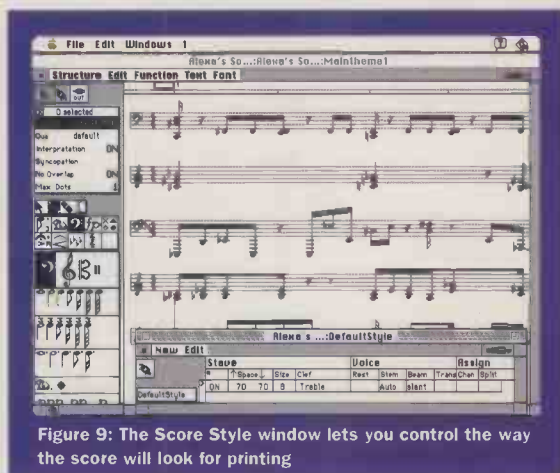


Figure 9: The Score Style window lets you control the way the score will look for printing

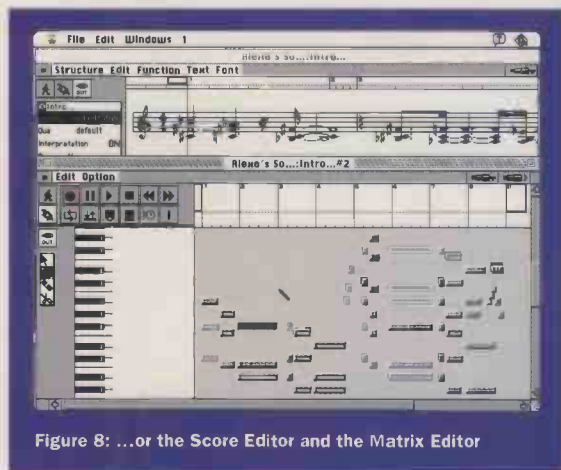


Figure 8: ...or the Score Editor and the Matrix Editor

hadn't responded the first time, when actually it was simply recovering from the last operation. Indeed, when full control is returned, you can find that an action has been repeated several times. Perhaps this is a user fault (my haste in using the program), but I've never had this problem with any other software. Surely when the program is busy it would be better if it

locked you out completely and didn't keep a buffer of any actions. Either that or you could wear mittens. Anyway...

There are four locators which function as two connected pairs – one for Cycle and one for Autodrop. You can loop individual objects and nest loops within each other. Apart from being useful in general song construction, loops can be used to produce polyrhythmic serial-type music.

Quantisation options are many, and cover the same sort of range as Notator – including swing settings. Also similar to Notator is the layout of the Event List window where the lowest level shows notes and MIDI information such as pitchbend and controller data, but it is possible to step up through the levels to see sequences, too. Display filters allow you to work more easily on one type of data such as notes or program changes and there are options to select objects of the same type for global editing. Neat.

The Hyper Edit window is, again, based on the one in Notator. It can be used for creating drum tracks and for drawing in control changes and other MIDI data. The Matrix Editor is a grid or piano roll editor and shows notes as oblong bars on a grid alongside a piano keyboard. I must confess I never use the Matrix editor in Notator, but I know many musicians who virtually live there.

As I pointed out earlier, I'm a muso of the old school and prefer to do most of my work with a score editor, using an event list to check and adjust note values. This is easy in Logic – all you do is open a Score and an Event window.

There's a partbox containing notes and music symbols which you can pick up and place on the score. It supports enharmonic shifting, confirmation accidentals (when an accidental is not strictly necessary but useful as a reminder), manual stem adjustment, beaming and unbeaming.

There's also a very nice Score Style window which lets you select the

stave type, stem direction, beam type, split point and so on. There are options to adjust the stave size and the space between them which makes it very easy to tweak a score so it fits onto a page – I love this – and you can create polyphonic staves by assigning different voices to different MIDI channel numbers as in Notator. These parameters may then be saved as a Score Style for use on other staves.

But good as it is, I must confess to being a little disappointed with the Score Editor. Whilst it is still the editor I would use the most, it doesn't have all the facilities of Notator – at least not yet. Although there are crescendo and slurs, for example, these haven't been implemented in the current version. You can't bracket staves, there is no support for grace notes or tuplets, you've no control over bar spacing and there's no option to print the name of the stave at the beginning of every line – although you can enter text anywhere in the score.

Also, the display quantisation doesn't work in exactly the same way as the one in Notator and some tweaking was necessary to duplicate a score transferred from Notator. No doubt these omissions will be addressed in future updates so that the Score Editor is brought up to Notator's standard – and even beyond. But I hope it's not too long.

By contrast, the printout function, using as it does the Mac drivers, makes the best use of whichever printer you happen to have and involves far less faffing about than printing from Notator.

Logic uses a single file type – the Song – and you can load several Songs at once, making it easy to exchange data between them. It's certainly nice not to be confronted with a dozen different filetype options. Logic can read MIDI files and they don't even need the Mac MIDI filetype attribute (mega advance, this). It can also import files produced by Notator SL on the ST (you'll need a utility such as Access PC to transfer them unless you can put up with Apple File Exchange). Notator's four Arrange tracks, a to d, appear as four Folder tracks.

The manual is quite helpful, although some explanations could be a little clearer and it lacks a tutorial which all programs of this complexity really do need. However, it declares itself a preliminary manual with the official version to follow in due course, so perhaps we'll get a tutorial and more explanations then. Whatever its final form, the manual is essential, make no mistake. You could fuddle through a

lot of the program without it, but I guarantee you'll miss the majority of functions and facilities.

One of the things C-Lab appear to have missed – at least I was unable to find any reference to it – was the ability to enter notes in step-time from a MIDI keyboard. How on earth this could have been overlooked I can't imagine, but unless I'm very much mistaken, that's what seems to have happened.

For a new release (review version 1.1) the program was quite stable. It did throw up a few errors though it does at least try to give you the opportunity to save your material before it quits. I may just have been lucky but it never completely locked up on me. I wasn't happy with the 'delayed reaction' problem but perhaps I should learn to slow down.

Notator Logic certainly takes a different approach to sequencing. Operation is not as immediately intuitive as the pre-release hype would have us believe and it has enough non-standard Mac functions to ensure a significant learning curve. So it's not something you'll pick up in a day. But then, most high-end sequencers take quite a bit of getting to know. And at least Notator users will come to it with some advantage.

Logic's object-oriented approach and virtual environment are the most powerful arguments for computer-based sequencers yet devised, although there will doubtless be

those who remain to be convinced and others for whom it will all be a bit too much. And that's a shame because they'll certainly be missing out on one of the most creative ways of organising a MIDI setup and processing music yet devised. (Of course, we are entering the realms of subjectivity here.)

One must also accept that there will be people who will use the program in the most minimal way – and that too will be a shame. But I suppose most word processors only have a small percentage of their power utilised. And with Logic you can at least grow into its special features as you gain confidence and experience.

I don't think the developers would mind me saying that there is room for improvement – and improvements will no doubt follow soon. But already Notator Logic can be counted up there with the other top-end Mac sequencers. The development team have proved what they can do with Notator and if they apply the same level of commitment and development to Logic, it will soon be one helluva program. Pioneers and power users sign on here. ■

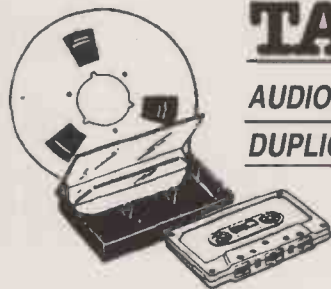
Mac Systems

Mac users working with a 12" monitor may find things rather difficult – particularly if you have a number of windows open simultaneously. Notator Logic cries out for a 17" or 21" screen. Ideally, you also need a Mac with a bit oomph. It will run on a Classic – but at a greatly reduced speed. The review software was run on a Mac IIsi and that's about as slow as I'd care to go.

Incidentally, some of the faster and newer Macs such as the IIfx. Quadra 700, 900 and 950 have problems running MIDI programs due to the faster serial ports. Thankfully, the Logic support software includes a Control Panel document to get around the problem.

Info

Price: Notator Logic
£499 inc. VAT
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Farfisa F1

Keyboard



Are keyboards about to take over from synths at the forefront of electronic musical instrument technology? Farfisa's new F1 keyboard, the result of over five years' research and development, throws down the gauntlet...

In recent years, keyboards have acquired many of the accoutrements of the synth workstation, while of course continuing to offer their own characteristic features, ie. auto-accompaniments and built-in speakers. Just about the only feature of the synthesiser which has yet to find its way onto keyboards is full patch editing; however, this is something which Farfisa intend to add to their new keyboard, the F1, as an upgrade, while apparently Technics' new flagship keyboard, the KN2000 (due in the summer), will provide patch editing from the outset. So what can we expect of this new generation of keyboards? Are we witnessing the final etching away of the differences between keyboards and synths?

With the weight of a multi-million-dollar investment by its parent company Bontempi behind it, Farfisa has spent the past five or six years developing a powerful multisynthesis technology based on chips which they have developed in-house. So it's not altogether surprising that in at least one respect the F1 should mark a first for any hi-tech instrument, whether synth or keyboard: in addition to the usual global effects processing, each of the keyboard's four Poly accompaniment sections and two line/mic audio inputs can be

given their own effects processing – a situation akin to the provision of channel (insert) and global (send/return) processing on a mixing desk.

The mic/line inputs are primarily intended for singers to route their warblings through onboard effects processing. Up till now, effects processing on keyboards has been minimal, but the F1 offers a larger number and variety of effects than some synths. Similarly, the F1's 76-note keyboard, which is responsive to both attack velocity and channel aftertouch, improves on the offerings of many a synth.

In addition to 122 preset Sounds and 60 preset auto-accompaniment Styles, the F1 has 99 Programmes (sets of complete front-panel settings) together with a 16-track onboard sequencer which can store in the region of 50,000 events (25,000 notes). An onboard 3.5" MS-DOS-compatible floppy disk drive lets you save and load all F1 data, and import and export sequences in Standard MIDI Files format – although there doesn't appear to be a GM/GS configuration mode to handle all those commercially available MIDI songfiles.

**Text by
Simon Trask**

Photography: James Cumpsty

With the ever-growing number of parameters provided on keyboards these days, manufacturers have had to start augmenting the traditional button-per-parameter front panel with an LCD and software pages. Farfisa's implementation of this approach is well conceived, the hierarchy of pages clear and logical. Synth players will have no difficulty negotiating this aspect of the F1; keyboard players unused to software pages will find the keyboard provides a user-friendly introduction.

Buttons in the left-hand half of the F1's front panel allow you to select a 'family' of Sounds for each of the Poly1 Lower, Poly2 Lower and Bass parts of the auto-accompaniment Styles, select the auto-accompaniment sections of the current Style (intro, fill-in, variation and so on), and select various features such as Rhythm Variations, Manual drum playing from the keyboard, and Human Touch Accompaniment. This latter feature lets you control the 'busyness' of the auto-accompaniment patterns from the dynamics of your playing; for instance, with the jazz accompaniments the kick and snare drum parts become sparser when you play softly.

The Poly1 Upper and Poly2 Upper sound selection buttons in the right-hand half of the F1's front panel 'mirror' those of the left-hand Poly sections. Other buttons let you turn the mic/line effects on/off, trigger drum and percussion samples and/or effects from dedicated pads, call up Programmes from a dedicated numeric keypad, and play multitrack sequences (with mute/unmute control over individual tracks from dedicated track buttons).

The F1's sequencer is the most powerful and flexible that I've come across on a keyboard; in fact, it matches those typically found on workstation synths. Essentially, you create Patterns of up to 16 tracks, each of which can transmit on a different MIDI channel, then you chain those Patterns together to create a complete song. Replace and Overdub real-time record modes are available, and you can also get at the individual notes and other data using Event Edit mode, while track mixing and demixing functions let you combine and separate different musical parts (MIDI channel settings are preserved).

In familiar keyboard fashion, you can of course also record an auto-accompaniment progression and melody into a track; this is ideal if you don't want to record your own parts – but equally, you have plenty of scope for adding further parts to an auto-accompaniment if you want. Track parameters within a Pattern allow you to set delay, quantise and transposition amounts, together with Initial Program and Initial Volume, MIDI channel (1-16 or All), velocity compression amount and velocity level.

You can also get a particular track to loop within the overall duration of its Pattern; this can save on memory, and also lead to some interesting results if you loop several tracks of differing lengths. You can also get the F1 to repeat a section of an entire Pattern, and jump to a predefined Coda section at any time. And for the vocally minded the F1 even lets you input onscreen song lyrics!

Other sequencer-based features of the F1 include the Jukebox (which lets you chain up to 16 Songs in memory at once – each selectable from one of the 16 track buttons) and the Compilation (a series of Songs on floppy disk which can be loaded and played automatically).

The F1 is a cutting-edge keyboard in many respects. But all the clever design and presentation will come to nought if its Sounds and Styles don't make the grade. Fortunately there's some pretty good stuff here. Let's take the Sounds first. The



The Spec

Keyboard: 76-note semi-weighted, responsive to attack velocity and channel aftertouch

Polyphony: 34 voices

Sounds: 122

Auto-accompaniment Styles: 60

Front-panel Sections: Global Transpose; Poly 1 Lower, Poly 2 Lower and Bass Sound select; Auto-accompaniment control; LCD access; Style select; Poly 1 Upper and Poly 2 Upper Sound select; Master Volume; Farfisa Harmony System on/off; Sound Processor; Programme select; Sound Pads; 16-track Sequencer

LCD Display: 240 x 64 pixels, backlight with adjustable contrast

Performance Controller: combined pitchbend/modulation wheel

Keyboard modes: single, split and/or layer

Sequencer: 16 tracks, approx 50,000-note memory; Songs organised as chained 16-track Patterns; real-time replace and overdub record modes; event editing

Effects processing: eight digital sound processors: four independent, with one for each Poly section; one for master reverb; three for the line/mic inputs (one common, two independent)

Front edge panel: sockets for two pairs of headphones (one cuts out the speakers, the other doesn't); 3.5S DSDD and DSHD, MS-DOS-compatible disk drive; line/mic sockets one and two, each with its own sensitivity controller

Rear panel: mains on/off switch and power socket; Left and Right audio input sockets; Left/mono and Right audio output sockets; MIDI In, Out and Thru sockets; LCD contrast control knob; Ext/Ext+Int monitor switch; sockets for expression pedal, footswitches one and two, and bass pedalboard or multiswitch board

Amplification: 2 x 30 watts RMS

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» bass presets, indeed the instrument's bass end, prove to be impressively full, warm and groovy. Farfisa also deserve credit for including such a wide variety of drum and percussion sounds – and for their punchy quality. Whack up the volume and you've got a powerful 'drum'n'bass' machine – thanks in no small part to the keyboard's stereo 30w speakers, which can pump out a clear, dynamic sound that should appeal to anyone who likes their music loud 'n' lively.

The F1 also provides a reasonable, though by no means startling, variety of piano and organ sounds. However, there's a tendency among the acoustic and electric pianos towards harshness, and in some cases, thinness of tone. I found it very hard to get along with 'Piano 1' (the default sound), which is far too clunky and hard for my liking; 'Piano 2', to my mind, has a much more musical tone. In general, the F1 has a rather sharp top end which I don't find altogether appealing, though its effectiveness varies according to the Sound in use.

As another general observation, the samples which 'underpin' the F1's Sounds are not the best I've heard; background noise together with loops which come in too soon and noticeably thin out the sound suggest that there's room for improvement. Nor are the F1's Sounds, taken as a whole, the best or the most adventurous I've heard coming from a keyboard or synth. But given that further samples and Sounds can be read from plug-in cards, and Sounds can also be loaded off disk into a RAM bank, this isn't nearly so damning as it may first appear.

As I mentioned earlier, a future upgrade will also make possible user programming of Sounds, so clearly there's scope for going beyond the presets. The manual makes passing reference to card Sounds "obtained with the various other types of synthesis that the F1 has been implemented with", but doesn't elaborate. Certainly, the technology underlying the F1 has been designed with multisynthesis in mind.

But it's with the 60 preset Styles that it becomes apparent the F1 has something of an identity problem. Many of these are of the traditional variety, as favoured no doubt by Farfisa's traditional organ and keyboard buyers. The few 'contemporary' styles included (house, soul, techno, rap) don't really convince, and there are none of the 'world' styles which the more adventurous keyboard manufacturers are starting to include on their instruments. It is possible to create your own custom variations of the preset styles, though you're confined to setting 'levels of elaboration' for the existing parts.

The F1, then, is a powerful and well-thought-out keyboard which does indeed mount a strong challenge to the supremacy of the synth. However, its preset samples and Sounds don't place it in a class of its own, as you might expect them to do on an instrument of the F1's price. At the same time, other keyboard manufacturers' style programming is both better and far more adventurous and varied.

Farfisa have a powerful instrument on their hands, but they're going to face stiff competition from Roland's E86 and Technics' KN2000 keyboards – both of which will be cheaper – in the coming months. Furthermore, the F1 risks falling between the cracks of consumer choice – on the one hand it could be too 'racy' for the company's traditional users, on the other hand it perhaps doesn't strike out boldly enough to capture

the hearts and wallets of a younger generation. There again, there's no denying the power and flexibility of Farfisa's new keyboard, nor the possibilities it presents for user customisation. And a powerful onboard sequencer coupled with a well-conceived MIDI implementation make it a good bet as the centrepiece of a MIDI setup. ■

Info

Prices:
 F1 with dedicated keyboard stand: £2499
 F1 B (minus stand): £2199
 Five-way multiswitch board: £73
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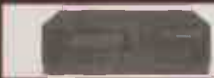
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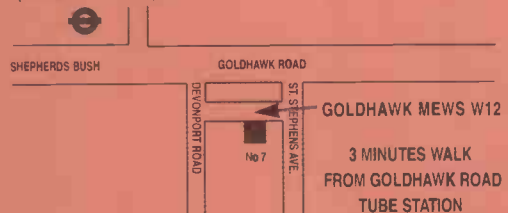
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John Cage

Interview by Geoff Smith
& Nicola Walker-Smith

The final interview in our series on leading 20th Century American composers was to be one of the last given by John Cage before his death in August last year. It's a fitting way to conclude the series: the final pronouncements of the man whose name seems to crop up in all the other interviews. It crops up precisely because Cage had already established a reputation within the avant garde fraternity by the time the others were born, and continued to act as a beacon of radical ideas to them and many others for the rest of his life.

During that life, many of those ideas – at first shocking and confusing – found fruition in unexpected quarters, not least during the explosion of progressive musical endeavour in the 1960s that also launched minimalism, Riley, Reich and Glass upon the world. It was this period that saw pop musicians embrace methods which echoed Cage's own experiments from decades before, with prepared pianos, ambient sounds, backing tapes and chance elements expanding the vocabulary of music in chamber and chart alike. The legacy was not always recognised, but pervades modern music making with increasing relevance.

Right up to his death Cage was pushing back the boundaries, working with choreographer Merce Cunningham on a ballet, the music for which utilised a computer's analysis of sound waves produced by the composer's own voice.

All the interviews in this series – Philip Glass (*MT*, January 1993), Harold Budd (*MT*, February 1993), Terry Riley (*MT*, March 1993) and John Cage – have been taken from *Interviews With American Composers*, an extensive enquiry into contemporary musical thought on the other side of the Atlantic. The book has been compiled by Geoff Smith and Nicola Walker-Smith, and will be published later this year by Faber & Faber. PW

You've held many positions at various universities, most recently a post at Harvard, held by Buckminster Fuller in 1962, the Charles Elliot Norton Professor of Poetry. You once said that universities were on the side of government, so I wondered how and why you sometimes work in that environment?

"Well, my position has always been somewhat aside from the institution itself. I once asked David Tudor how he thought I should behave in going to universities, and he said, 'As a hit and run driver'."

Do you feel your string of university posts has lent your work increased 'credibility' and helped you to be taken more seriously in certain circles?

"I'm afraid I don't think of whether I'm being taken seriously or not. I take myself seriously and I do as well as I can and if other people do or don't take me seriously that's their business, their action, rather than mine. I always had opposition from the beginning, so I'm used to it. I noticed the opposition of people to ideas and actions when I was a child, with my father's experience as an inventor."



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» How have you managed to cope with the amount of opposition that you've experienced?

"Well, you can measure, if you wish, or you can get a kind of description of what you're doing, by the reactions of other people. If there isn't opposition, I have the feeling that I'm not going in a radical enough direction. Not that I want to shock or offend people, but it's very good, it's like a thermometer."

You must have had some high readings. Some people think that you don't 'suffer' enough for your art, that you enjoy it too much...

"Well, there are two ways of looking at the work of an artist, and I think that most music is thought of as some form of talking or some form of communication – or if you wish, the expression of ideas and feelings. I think the path of my work has been such that that's more and more not done. Instead of saying something, I'm doing it so that the sounds, if there's any talking or speaking, are doing it themselves. I'm doing less and less – in my recent work it seems almost absurd that I should even be involved, but then I see that if I weren't involved it wouldn't be done."

Such movements as Dada, Futurism, Surrealism and the theories of Artaud can be seen as precursors of many of your ideas. Could you say to what extent these influenced you?

"The most was Artaud through his book *The Theatre And Its Double*. The idea that I had from reading his book was that all the elements of theatre can be viewed independently, one from the other, with none being subordinate to a narrative thread that goes through everything. I went to a performance recently that involved dancing and music and moving pictures. The unfortunate thing was that there was a narrative that continued through the whole thing, making it all make sense, so to speak, making it understandable, whereas everything else was not doing that. My feeling was that it was spoilt. I really think that it's important to be in a situation, both in art and in life, where you don't understand what's going on."

To be bewildered...

"Yes, where you are bewildered. I think it's absolutely essential. I think this is the nature of the Zen koan. If you're not in such a situation, you find yourself dealing, so to speak, with dust for which you have no use."

How do you view the work of living composers who continue the Western classical tradition?

"I would group most music as talking, saying something, and I for one am not interested in being spoken to by music. I'm not even really willing to be spoken to with words. I want to also be bewildered by words. I still enjoy Joyce and I enjoy non-sense in general and I don't like clear messages – they're too



intentional. The moment you enter the world of non-sense, you don't know what's being said and so you're free to hear whatever you wish."

And to structure it for yourself?

"Yes, or structure yourself differently in relation to it. I don't see any need for theory or laws or government in music or life. I think we can perfectly well get along with intelligence, in the use of materials and in social situations. By 'intelligence' I mean recognising the problems and solving them, and the problems would seem to be such things as having something to eat, some place to live, air to breathe – all of these things, the utilities."

How do you view the presentation of electronic music? You once said that it wasn't enough just to turn out the lights, so do you feel that there should be some live element in electronic music in order to give a sense of theatre?

"I think so. Insofar as we can make things theatrical, I think we should. This is my feeling. Which is to say, that we should involve seeing. If you go to the Museum of Modern Art here and walk slowly through the gallery on the second floor, you come to the Duchamp room. You soon realise that you've come to something that is not like what preceded it – it's entirely different and that

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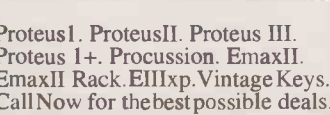
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▶▶ difference changes our way of seeing, so that the things in the room that are not art have become as aesthetically interesting as the artwork.”

You once said, ‘If you want to write music, go study Duchamp’. Yet there appears to be a large contradiction in your ideas. Duchamp said that he wanted to put painting once again at the service of the mind. Whereas you say we should hear a sound suddenly, before our thinking has got in the way of it.

“Yes, I know. They seem almost to be saying the opposite. Morton Feldman was aware of this contradiction and he said that I had nothing to do with Duchamp. Very often people think that the arts are doing the same thing, but I think that music is doing one thing and painting is doing something else. What



Circa 1948-49: at the piano – prepared or not there’s no way of knowing...

On Record

- Music Of Changes (1951)
- Imaginary Landscape No.4 (1951)
- Concerto For Prepared Piano And Orchestra (1968)
- Cartridge Music (1969)
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- John Cage (1979)

was being done in music had to take a different shape to what it was in painting. You can see that the background of painting was, say, a field with horses. It wasn’t a fugue. Whereas the background of music is a fugue. So what had to be done in music was to get the ears to work and what had to be done in painting was to get the mind to work.”

There was a great deal of cross-fertilisation in the arts in New York during the ‘50s. What did you learn from the painters and poets?

“Well, I studied with musicians. But musicians continually refused to accept what I was doing as music. As late as 1941 or ‘42 I applied as a musician to WPA (Works Project Administration) for a job – it was an arm of the government that gave artists jobs for doing their work and didn’t tell them what to do. So I applied to the Music Branch in San Francisco and they said, ‘But you’re not a musician’. I said, ‘But I work with sound, where should I go?’ and they said, ‘Try the Recreation Department’, which I did.”

You’ve always placed great emphasis on making music socially useful. Is it possible to do this without making a point, without ‘saying something’ as perhaps Cardew did?

“Well, he was not averse to politics. Whereas I am opposed to politics. So I have to find some way to do it without telling people.”

So how might you convince the man in the street to drop hierarchical forms and thought patterns?

“The man in the street is not apt to need music, let alone modern music.”

Can’t music help him?

“I don’t know. I think he has to find out whether he needs it. Don’t you think so?”

Do you think that anyone really needs music?

“I need it. I always have loved sound and I continue to love it.”

But then, as there’s sound all around us why bother to make music?

“Well, why not? You know that there are many answers to that but I think one could say ‘Why not?’ to the question ‘Why?’.”

Can you tell us about some of your recent work and ideas?

“I find I have perhaps two ideas. One is multiplicity and the other... I guess the best word is non-intention. I keep this image of traffic sound in mind, and environmental sound, and I want my work to have the same purposelessness and, I was about to say, constant and unpredictable change. But lately I’ve been getting interested in these constant sounds, such as this hum from a fan on the one hand and from this humidifier on the other. I like both sounds, the unpredictable one and the constant one – I’m really in a very pleasant situation. I haven’t yet heard anything that I don’t enjoy. Except when it’s full of intention, and is directed in a way to hurt someone.”

You have to be careful in your work to avoid the creation of fixed objects...

“Yes; a wall, for example, receives so many things, like dust and shadows and so on. Or look at this movement of air, what it’s doing to the plants. In other words, anything that produces change will be useful. So what you want is something that will introduce change in what affects the seeing, and something that would affect the hearing ‘wouldn’t be bad either. I’ve always been attracted to having something very slightly disturbing coming from another room.”

I believe you keep even your earliest serial works. Are you conscious of a development?

“I’m not sure that it’s a development, but it’s a wandering, or an adventure, a series of changes, and I felt obliged to keep those changes, insofar as I can, ‘study-able’ or noticeable.”

Is that for us or for you?

“For other people. It would be better for me, for my reputation, to get rid of some of the bad works.”

Could you tell us something about your use of the I Ching?

“Well, my use of it is in order to open... to free me from likes and dislikes. I was looking for something to open my mind.”

Do you ever use it as an oracle?

“Sometimes. Quite rarely. I began going to an astrologer about twelve years ago. I went to her first because I was becoming so well known and I didn’t know quite how to behave. She made my horoscope then said, ‘Well, it’s going to get worse so you’d just better adapt yourself to it.’”

You’ve said many times that partiality is of the essence. Knowing how things are and accepting that in one’s work and plans.

“That’s true. I had at one time some students, and one of the first things I taught was that you shouldn’t do something that wasn’t going to be performed. Or, if you wanted to, that you should take the consequences and not be glum over the fact that it wasn’t being performed.”

Do you think perhaps that a work is never completed until it is performed?

“Right. I would say so, but at the same time I would like to say that they have nothing to do with one another. That they are really different things.”

Are you still working as much as you always have done?

“I’m almost incredibly active. I don’t know why I do so much, and

» sometimes I don't seem to be doing anything, so I turn to my correspondence and try to get rid of it. But there's always a lot to do and there's always the plants to water and the cooking to be done. My astrologer says that now things are getting really complicated for me, so I must use cooking and taking care of the plants in order to remain unaffected by the complexity, undisturbed."

"I've always been attracted to having something very slightly disturbing coming from another room"

Every few years you seem to be asked for your top ten book list, so I feel a responsibility to ask you for an update.

"Well, you ask me that at a time when I'm, so to speak, changing or leaving the doors open to change about what the books would be. That's why I've been reading Emerson lately. But I'm not convinced that I'm going to take Emerson, so to speak, to heart. And that's my present problem, discovering whether or not Emerson is involved. I've also been reading Wittgenstein, without understanding it, and enjoying it. I find it very mysterious. I also find it elating. If you put me in a corner and have me read Wittgenstein to myself, not understanding it, then get me out of the corner four hours later, then you'll see that I'm quite light-headed."

A kind of drug?

"I think so. Do you think that art in general is a kind of drug? Have you noticed that when sitting at a concert say, and then you go outdoors, that the sounds seem to be outside too? In other words, you've been led to listen in a particular way to whatever you hear."

It's difficult to say 'The piece changed my life', without sounding sickly...

"But if you say 'it changed the way I hear', it might not be so." ■



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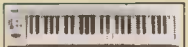
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Still persevering with woolly reverbs, half-hearted delays and overstretched pitchshifts? It could be time to change your environment...

Multi-FX... we all know the score. Euro multi-FX mountain? A plot by ex-members of the KGB? Whatever your theory, there's now an awful lot of those do-it-all 19" black boxes out there, fighting for your attention, and the contents of your wallet. Well, here's another – the 9120 from Japanese multi-FX specialists Zoom, who in the past have at least stood out from their contemporaries because most of their gizmos generally come in anything but 19" black boxes.

Breaking with tradition, the 9120 is packed in a 19" wide box – though it's not black. Well, not entirely. And to break the mould a little bit more, the 9120 is *not* a multi-FX unit... at least not officially. Zoom choose to call it an Advanced Sound Environment Processor, although when you look down the 9120's feature list you quickly realise this is just a way of calling a rose a rosa floribunda. On offer are ten programmable effects types, including reverb, delay, pitchshift, chorus and flange. Apart from a couple of multi-FX algorithms (pitch plus reverb for example), only one effect type is available at once: a point to bear in mind when comparing the 9120 to others which offer strings of effects simultaneously.

Other attributes include 99 programmable memories, a comprehensive MIDI spec (including real-time MIDI control over a number of effect parameters) – oh, and it's stereo too. Price? Around the £450 mark and therefore a league above Zoom's popular budget offerings such as the 9001. Physically there's little about the 9120 to linger over, except to say it's nice to see so many knobs – especially since four of these

are devoted to programming. The rest deal with the setting of input and output levels and the mix between dry and effected signals. Switches are also included to set the basic input and output level gains between +4 and -20dB – clearly the 9120 is designed to be at home in any environment.

Other switches and sockets of significance include MIDI In and Out, Bypass, and a front panel socket for an optional footswitch that can be used to control or trigger certain functions.

So much for the touchy-feely bits. What about the listeny-heary bits? The ten effects types already mentioned are based around 22 algorithms, specifically: reverb (two each of hall, room and plate, plus a gated reverb); early reflection/ambience; delay (five types); chorus (with and without reverb); four different pitchshift algorithms including a MIDI controlled version; flanger; surround sound processor; and finally a setting called karaoke. This is designed to remove vocals from a mix so you can add your two penn'orth on top. Thankfully, as we shall see, it doesn't work all that well.

As with most other FX units, a general impression of the 9120's sonic capabilities is best gained by auditioning the reverbs. And here the 9120 really does stand out from the crowd. In fact, it's probably the best reverb I've heard under £1,000. Smooth, warm, sparkling, shimmering, crisp, clear... the 9120 not only qualifies for all the usual clichés, it deserves to inspire a few more. The plates were particularly impressive, with none of that harsh, brittle quality which often distinguishes (or rather *undistinguishes*) cheaper units. Check out presets like High Snap, Clean Plate and Rich Plate and you'll see what I mean.

All the reverbs have programmable decay times of between 0.3 and ten seconds and predelays of 0-100ms. Not the widest ranging parameters I've encountered, but unless you're into simulating Byzantine cathedrals, it's not a cause for concern. The gated reverb is particularly versatile, due to the various ways you can control the gate. One option is to gate the left input, but control it from the input signal

Text by
Nicholas
Rowland



on the right channel. This allows you to tidy up sloppy bass or rhythm guitar playing with a gate triggered by a drum machine. The gate can also be triggered manually from a button on the front panel, or via the optional footswitch. Alternatively, you can opt for the MIDI route, opening the gate via control change or Note On messages.

For reverse reverb effects, you'll have to turn to the Early Reflection algorithm – a cousin of the reverbs rather than one of the immediate family. This algorithm gives you plenty of early reflections, but very little of the normal reverberant decay. It's designed primarily for simulating different acoustic environments. A Size control adjusts the length of the early reflection to create the impression of different spaces, and there's a Shape parameter which when set to a negative value produces a reverse reverb effect. Among the presets is a useful all-purpose early reflection program which adds a gentle overall presence to a mix, without robbing it of any of its clarity. It also makes a good choice when using the 9120 live to treat a keyboard rig.

Keyboard players will probably go a bundle on the sweep flange and chorus presets. Sweep flange comes in mono and stereo varieties and sweeps up or down or in both directions at once – the choice is yours. Of the choruses, I particularly liked the doomy Basement (which uses the darker end of the chorus' Colour control to great effect) and Laslie Split (sic) which as it (almost) sounds, is good for thickening organs, stringy keyboard pads and analogue bass.

Both the examples mentioned above use the eight-voice stereo chorus algorithm. Also on offer is a chorus combined with reverb and a mono delay. Of delays pure and simple, there are four. The first is a straightforward mono echo while the second provides a ping-pong delay effect which repeats alternately left and right. Three and four are stereo delays, the second of these featuring cross feedback delay.

Feedback (ie. the number of repeats) can be programmed with a positive or negative value, the latter reversing the phase of the echo. Maximum delay time on the first two is 2 seconds, and on the second two it's 1 second. In all cases delay times can be adjusted via the programming controls or they can be input in real time (a bit like the tap tempo feature on drum machines). In cases where delay times have to be locked to track tempo, the 9120 has a rather neat beat calculator which is easily called up via the Utility key. All you do is enter the required BPM, then select from a menu of five note values (eighths, quarter, and half notes,

Programming

The 9120 bucks the multi-FX trend in one important area – it's extremely easy to program. This is due to a very flexible editing system which enables you to edit up to three parameters at a time with user-friendly knobs. The basic effect type is first selected on the main dial. Where there's a choice of algorithm, this is called up using one of the three 'soft controls' under the LCD. Editing of parameters takes place on different levels or 'pages' of the system, again using the rotary controls. As there are no more than three pages of parameters per algorithm, there's much less of the flitting backwards and forwards which you get with other units.

Interestingly, too, Zoom say they have deliberately restricted the number of parameters per effect, to make the system easier to use. It's just a pity that selection of the 99 presets wasn't worth a knob as well. The plasticity increment/decrement buttons just don't work as well. Still, you can, at any time, compare the edited sound to the one you started with; and saving the fruits of your labours is a matter of two button pushes.

plus eight- and quarter-note triplets). Hey presto, the 9120 works out the delay time and will even insert this value into the current delay preset. Incidentally, BPMs can also be picked up from an incoming MIDI clock.

The delay family also includes Hold Delay, which enables you to record and store audio of up to two seconds. On many other units, this functions as a kind of poor man's sampler. On the 9120, it wouldn't even satisfy a derelict beggar. You can only replay the audio as a continuous loop, and you can't trim your 'sample' once it's in there – although you can set up the required record time via a similar tap tempo method to the one mentioned above. Richer musical fare is provided by the 9120's pitchshifting algorithms: a stereo version with two shifts and a simpler version which has just one shift, but is combined with reverb. On the first, both left and right channels can be independently programmed to give up to an octave's worth of leap either up or down. Adjustment is either in whole semitones or microtonal steps so you can create whole chords, or fat cat choruses.

In general, the pitchshifter is fairly quick on its feet, though as is often the case, there's some noticeable glitching when you ask it to jump too many notes in too many directions at once. Things start to get interesting when you turn to the Pedal Shift – which enables you to bend the pitchshifted note, using either an optional footswitch or, via MIDI, from the pitch wheel on your keyboard. Use it on rhythm tracks and you can create pseudo scratching sounds. Switching to 'Minus Infinity' (now there's a concept) results in the pitch dropping so low, it fades out altogether – great for tape-stop type effects.

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►► For one-fingered keyboard players, the 9120 has MIDI Harmonised Pitch Shift - the high tech answer to one finger chords. Programming this first requires you to select a base musical key (ie. C, C#, B, etc.), then to input the desired musical interval (eg. major 7th, minor 3rd, major 4th) separately for the left and right channels. Working to these criteria, the 9120 will then come up trumps with the appropriate chord. It's great fun - and there's more. Under the Utility menu you'll find a facility to create two user scales. Here a different set of intervals can be programmed separately for each note in the scale. In other words, press C and you'll get the third and seventh above, press D and you'll get the second and fourth below.

This brings us to the last two algorithms in the 9120's repertoire. Next to last (and probably least as far as most musicians are concerned) is a surround sound processor, which is useful if you ever want to turn your front room into a Dolby cinema, but not much else. And finally there's Karaoke, which in theory offers you the chance to remove Old Blue Eyes from 'My Way' and sing it your way; there's even a pitchshift facility so you can crank it up to your key. However, 'remove' is an optimistic word here. Diminish might be more appropriate. And since it works by removing the frequencies normally inhabited by the average human voice, it stands to reason that other things will also disappear from the mix too. Of course, this can also be used as a tonal effect in its own right, such as on the Turning Japanese preset which helps to pump up the bass for a Hi-NRG effect.

MIDI Control

We've mentioned a few of the 9120's MIDI features in the course of the text, but there are more tricks up its MIDI cable sleeve. Presets can be called up via program change numbers, and the 9120 has a handy learn facility to help take the aggro out of ensuring synth preset X will always call up effect preset Y. In terms of patch parameters, the 9120 can both dump and be dumped upon - which gets round any problem of what to do when you fill up the 99 user memories with your own effects. You can program the unit and also edit certain parameters in real time via SysEx messages or control change data. However, first you'll need a powerful and flexible MIDI controlling device - a sequencer package like Cubase, for example. Second, you'll need intimate knowledge of the more arcane aspects of MIDI programming to make sense of the 9120's MIDI implementation, which is laid out over a dozen or so pages of the manual. If you need to ask what NRPN, MSB or LSB stand for, I suspect you won't bother. It's a shame, because in all other respects, the 9120 is a joy to use.

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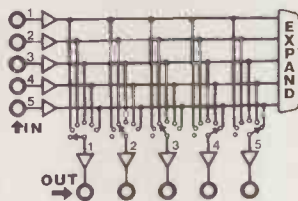
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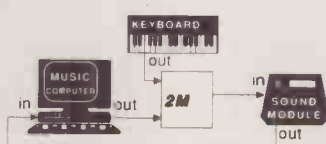
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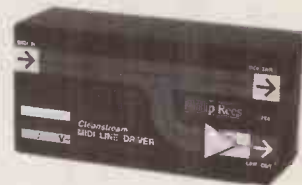


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Touching Bass



Last month we looked at how you can create a bassline for a song by drawing on the notes which define each chord used. For instance, under a C major chord you would use the notes C, E and G, under a D minor chord the notes D, F and A – and so on. The closing example, a boogie woogie bassline, showed how a one-bar bass 'riff' could be extended across a 12-bar blues progression by means of repetition and transposition. In fact, the boogie woogie piano style provides a rich vein of such bass riffs, a vein which is well worth mining – so don your hard hats 'cos we're going to start digging.

Before we come on to this month's musical examples, it's worth taking a brief historical look at boogie woogie. Its origins can be traced back to the late 19th Century and the southern states of America, where it grew out of the blues as a specifically piano-based style. In fact, boogie woogie was primarily a solo piano medium, with the player's left hand providing the bassline while the right hand added chords, melodies, runs and so on.

It was only later, in the '30s and '40s, when the boogie woogie style crossed over into mass popularity (ie. popularity with the white masses), that it was incorporated into the repertoires of singers and big bands.

The first recorded use of the term 'boogie woogie' is credited to 'Pinetop's Boogie Woogie', a composition by one of the giants of the genre, Clarence 'Pinetop' Smith, which he recorded on the Vocalion record label in 1928.

The term is thought to have originated as a description for dancing and parties. In fact, the musical style took shape in the barrelhouses and at the rent parties which were common at the time; these were, after all, the days when music was played live by a pianist rather than on record by a DJ!

Growing as it did out of the blues, boogie woogie adopted the characteristic 12-bar chord scheme of the blues, although the actual chord sequence used would vary – sometimes within a single piece of music. The variations were confined, however, to the second and tenth bars of the sequence as you can see from the following chord schemes:

Text and examples by Simon Trask

Part 3 of our series and Simon Trask blames it on the boogie and plays it on the bass...

Ex.1

Ex.2

Ex.3

Ex.4

Ex.5

Ex.6(a)

Ex.6(b)

Ex.6(c)

Ex.7(a)

Ex.7(b)

IC///IF///IC///IC///I
IF///IF///IC///IC///I
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Unfortunately, on the printed page boogie woogie music can look rather four-square – something it most certainly shouldn't be in practice.

Fortunately, nowadays you can buy inexpensive CD compilations which bring together classic recordings by the old masters of boogie woogie piano, namely Jimmy Yancey, Albert Ammons, Meade Lux Lewis, Pete Johnson and the aforementioned 'Pinetop' Smith. While the recording quality might not be up to much by today's high standards, the musical quality of these players' performances comes across loud and clear. For a contemporary take on boogie woogie, look no further than the inimitable Jools Holland, whose spirited playing really brings the music to life once more – it's about time he recorded a solo piano album.

For the sake of simplicity, I've written all the musical examples in the key of C, but don't infer from this that boogie woogie should only be played in C! To keep you on your toes, some of the examples are to be played as notated while others (those with the figure of eight hanging from the bass clef) are to be played an octave lower than notated.

I haven't given specific or even guide tempos, because boogie woogie can be played at anything from a leisurely, chugging 120bpm up to a full-steam-ahead 200+bpm! The allusions to the world of steam trains are deliberate. Pianists used to travel the freight

trains from timber camp to timber camp, playing for the workers at each camp in the barrelhouses which were set up on site. Boogie woogie pieces were often given train-related names, while the rhythms of the railroad track found their way into the rhythms of the music in the left-hand bass patterns. In fact, when trying to capture the rhythmic feel of boogie woogie it's worth thinking of a train either chugging or racing along, depending on the tempo you're playing at.

So let's look at the first of this month's basslines, **Example 1**. Those of you who followed last month's examples may recognise this as Example 6 with slight modification; the quaver rest within the second beat of each bar helps give more 'snap' to the bassline. As you can see, the riff in bar one is not only repeated throughout the 12-bar progression, but also transposed to fit the chord sequence. The only notes used are the first (root), third and fifth of each chord (eg. C, E and G for C major), plus of course the root an octave higher.

The dotted rhythm is a characteristic feature of the boogie woogie bassline style. You may have gathered from last month's musical examples that a dot next to a note extends its duration by a half – ie. a dotted quaver is three semiquavers in duration compared to two semiquavers for an undotted quaver.

Example 2 introduces another

Before we look in depth at this month's musical examples, a few points need to be made. First, all the examples are meant to be played using an acoustic piano sound, if not actually on an acoustic piano. Second, I've given only the first example in full 12-bar format – for subsequent examples I've provided the riff and left you to extend it into a 12-bar progression yourself (using one or more of the schemes given above).

The third point I'd like to make is that music notation can only give you the skeleton of the music – it's only in performance that flesh can be added to the bones and life breathed into the body! Consequently, there's really no substitute for listening to recordings of the genuine article. From these you can learn not only what the right hand should be doing while the left hand thunders out the bassline, but you can also learn about the subtleties of timing which give well-played boogie woogie its characteristic swing.

▶▶ characteristic feature of boogie woogie basslines, namely the sixth of the chord (in C this is the note A – ie. a sixth up from the root note, C). On the rhythmic front, steady streams of quavers are also characteristic of boogie woogie. Where the dotted quaver/semiquaver rhythm gives the music a bouncy feel, steady quavers impart more of an insistent, chugging quality – wholly appropriate given the music's rhythmic inspiration.

To get to grips with a musical style you need to be able to identify its characteristic elements. **Example 3** brings several of these elements together: the alternating fifth and sixth (the G and A), the dotted quaver rhythm, and the use of an insistent root note (the C). Played in the low octave indicated, this sort of bass figure, with the root reinforced on every note, gives the music its pounding, insistent feel.

Example 4 returns to the stream of quavers, and once again 'outlines' the basic chordal harmony while also adding the sixth (C, E, G and A for C major); the extra element here is the octave leap. Play this riff at a fast tempo and it positively bristles with energy. As well as introducing plenty of pitch movement into the bassline, the octave leaps also add a rhythmic element known as 'syncopation', by emphasising the quaver offbeat within each

crotchet/quarter-note beat. The strength of this syncopation depends on how much you emphasise the upper note of each octave leap in your playing.

Boogie woogie bass riffs are generally one bar long. **Example 5**, however, gives a possible two-bar riff, effectively an extension of Example 4. You would need to use the second 12-bar chord scheme given earlier for this one, though if you wanted to go from G to F in bars nine and ten you could play only the first bar of the two-bar riff in each of these bars.

In **Example 6** I've given three versions of a bass figure. At the heart of this riff is another characteristic element of boogie woogie, namely the minor third moving to the major third. Convention demands that the minor third in this context (moving straight to the major third) is notated as a sharpened second, but conceptually it's really a flattened third, or a 'blue' note. The hash-like symbol in front of the D is called a 'sharp'(#); when it's placed in front of a note, it indicates that the note should be raised in pitch by a semitone.

As the harmony in this example is considered to be C major, the D# represents something we haven't encountered up till now in this series, namely a note which is 'outside' of the harmony – but which, effectively, can be considered an

'embellishment' of it.

Finally for this month I've taken some of the stylistic elements of boogie woogie which we've discussed and come up with a 'new' boogie woogie bassline, presented in two versions – see **Example 7**. The second version is perhaps a bit over the top (or should that be 'under the bottom'?! – but what the hell!

Why not try making up some basslines of your own, drawing on the characteristic elements of the boogie woogie style which we've covered? Try working with dominant seventh harmonies instead of straight triads (adding Bb to a C chord, Eb to an F, and F to a G). Who knows, in trying to recreate an 'old' style you may come up with something fresh and exciting which you can use in your own music.

And why not try mixing 'old-style' basslines with modern rhythms – they might just mesh and produce a whole new style! Yes, it can happen. I was listening to K-Creative's album *QED* (see interview elsewhere in this issue) while trying out some boogie woogie basslines, and quite by chance I hit on a combination of bassline and rhythm which worked brilliantly (and no, I'm not going to say any more!).

Until next month, then, keep your profile low and your knowledge bassic! ■

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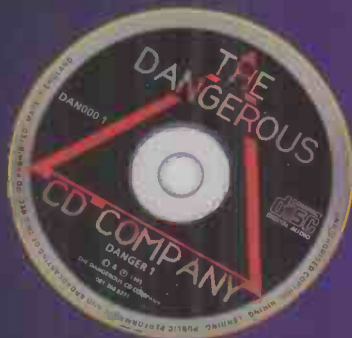
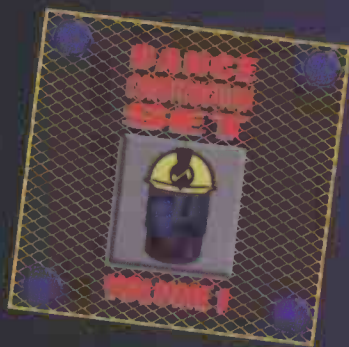
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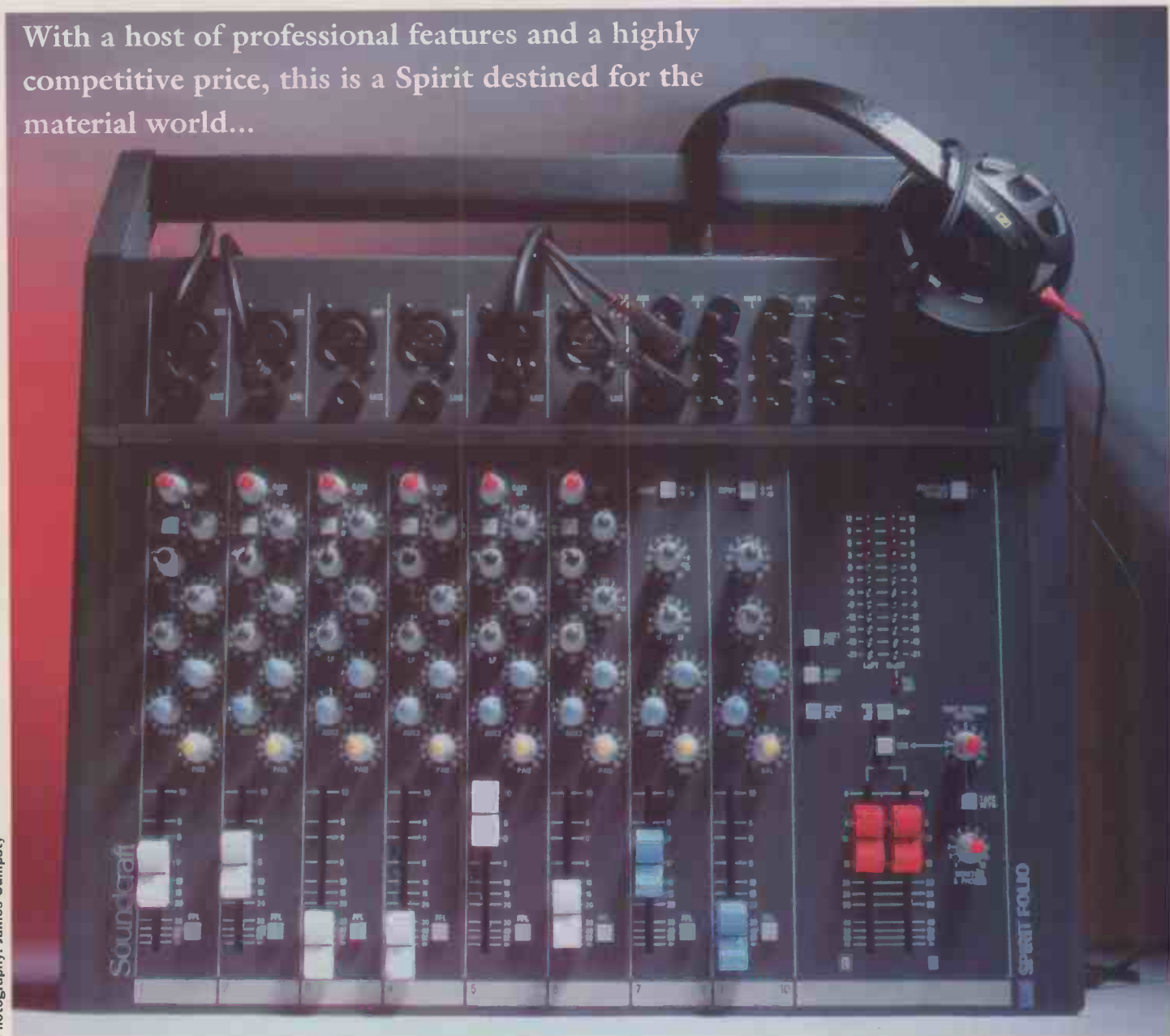
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Soundcraft

Spirit Folio

Mixing Desk

With a host of professional features and a highly competitive price, this is a Spirit destined for the material world...



Photography: James Cumpsty

**Text by
Nicholas
Rowland**

Soundcraft seem to be on something of a roll at the moment with their critically acclaimed Spirit series of live, studio and MIDI mixers. Now here's another visitor from the Spirit world – the Spirit Folio. Measuring just 375mm x 407mm (that's about 16 inches square for all you diehard imperialists) this 10-channel stereo desk is quite literally the new baby of the family. In fact it looks exactly like a bigger mixer that's shrunk in the wash! The Folio is designed for anyone who needs a compact, portable mixer

that's fairly simple to operate yet flexible enough and with enough inputs to handle many different configurations of instruments for both small scale recording or live work. If this doesn't sound like you, then you must be reading the wrong magazine.

The Folio is also aimed at those of us trying to reconcile big musical ambitions with small scale budgets. In fact, purely in pounds per feature terms, its RRP of £349 makes it laughably cheap. At £410, the two other Folio editions (one a 12:2 'desk'

version, the other a 12:2 rackmountable version) are not that much heavier on the wallet either. And you'll find that they too squeeze an awful lot into a very small space. Compact and rather cute they may be, but the Folios are far from being toys. The first thing you notice is how solid they feel. Soundcraft haven't let the need to build to a price compromise their reputation for well-engineered and sturdily constructed products. Neither has low cost meant any sacrifices in terms of aesthetics. While many other budget mixers look like Heath Robinson kit builds, the Folio looks good enough to eat! Some may disagree... "Oh, it's a game of Coppit" said my other half when confronted with this marvel of miniaturisation.) I particularly liked the integral carry handle running along the back of the unit and the neat little touches like the mounting hole on the power supply which enables you to hang it out of the way on the wall. Other manufacturers take note.

Of the ten input channels, numbers one to six are mono while the remaining four are covered by two stereo pairs. The mono channels will accept line or mic inputs and are equipped with both XLR and quarter inch jack sockets. Phantom power on all six mic sockets is an easily switchable option if you happen to be using professional condenser mics. All the mic and line inputs are balanced – a pleasant surprise on a budget mixer, but quite necessary if you want to keep the noise gremlins from surfacing in your mix. Other sockets include two auxiliary sends, left and right monitor outs (for on-stage foldback or monitoring while recording), a stereo tape input, a stereo phones socket and left and right master mix outs. There's also an insert point just before the left and right masters – useful for patching in a compressor or other FX unit before sending the final stereo mix to either tape or the PA amp. All these sockets are mounted on a raised section of the front (top?) panel where they are easily accessible.

Also accessible, but not necessarily in the right position, is the headphone socket; when son of Folio appears (the Quarto edition perhaps?) I'd like to see this moved to a more sensible location at the front edge of the unit. The line jack sockets themselves (which are designed to accept 3-pole TRS jacks) are rather unusual in design, but they do seem to grip the jack plugs more firmly than the PCB sockets you'd normally find on desks at this price. And there are many other features on the Folio which really just shouldn't be on a desk of this price – you'll find several of them by casting your eyes down the mono channel strips, where you should immediately notice not just a 3-band EQ, but a 3-band EQ with a sweepable mid-range – a crucial inclusion, in my humble opinion, on any mixing desk.

The frequency control covers a useful range of between 250Hz and 6kHz – the range of most vocals in fact – and the selected frequency can be cut or boosted by up to a generous 15dB. High and low EQ controls, both shelving types, are also given a +/- 15dB range, though I searched the manual in vain to discover what frequencies they operate at. The Folio is particularly unusual in that it comes equipped with a 100Hz Hi-pass Filter – a useful feature which can help eliminate the rumbles from your rock 'n' roll – especially when playing live. The rest of the mono channel controls comprise variable gain, pan, level fader, and two auxiliary sends. For level setting, each channel features a Pre-Fade Listen function (sometimes called 'solo' on other mixers). Press this (and the signal from that channel and that channel alone) is fed to either the monitor output or headphones as well as to the right hand side of the 12-segment bar stereo output meters. With both aural and visual indication of the signal levels, you can't really go wrong, but a clip LED on each channel might have provided a little added protection. Incidentally, you can also monitor the outputs from either of the two auxiliary sends using similar buttons – this time labelled AFL or After Fade Listen. Controls on the stereo channels are a little more rudimentary, but then again, these are primarily designed for line level instruments (synthesisers,

expanders, samplers etc.) where you don't really need the same kind of tweakability. As you'll see, they may also need to be pressed into service as Aux returns too.

In place of the variable gain control is a button giving you a straight choice between +4dBu or -10dBV. Most of the time you'll have it switched to the former since this is the level most items of professional equipment use for their inputs and outputs. The second setting is really intended for semi-professional tape machines or hi-fi equipment. The stereo channels also see the 3-band EQ replaced by a simple 2-band affair (again, there's no mention of the frequencies involved) and the pan control is replaced by Balance (which to all intents and purposes is the same thing). As before there are two Aux sends: for all channels Auxiliary 1 can be either post-fade (for FX) or pre-fade (for foldback on stage or for setting up monitor mixes in the studio). The transition is achieved via a button above the master faders which switches all the Aux 1 controls at one push. By contrast, Auxiliary 2 is always post-fade.

Both auxiliary outputs are mono, and both lack a complementary aux send control – or even a master – though given the almost universal inclusion of level controls of FX processors most people would not see this last point as a critical omission. More potentially serious is the absence of auxiliary returns, which leaves you faced with the prospect of having to tie up both of those lovely stereo channels with the returns from your FX units...

and you thought you'd bought a 10-channel mixer! But hold on, all is not lost. Remember those two sockets labelled Tape Return? These would normally be used for patching in a tape deck or CD, either for playback of recorded material or for playing soothing pre-gig music over the PA. But they can also act as the re-entry point for one of your FX loops. Indeed there's no reason why they can't also be hijacked as an input for an extra stereo instrument if you're absolutely pushed.

The level of incoming signals can be adjusted by an associated volume control and the signal itself can be routed to either the master mix or the monitor outputs or the phones output if you've got cans plugged in.) There's also a separate volume control for monitor/phones. Returning to the subject of tape decks, the Folio can also output a 1kHz oscillator tone, normally used for system testing and aligning the heads of tape machines. Just don't hit it during the gig or you'll realign the mind sets of your audience.

The Folio proves itself extremely easy to set up and use, and despite the lack of dedicated auxiliary returns, the signal routing options are surprisingly flexible – as is the 3-band EQ. The rotary controls also prove less of a fiddle than might be expected given their small size and the fact that there are a hell of a lot of them crammed onto that front panel. Sonically, the Folio is quiet: too damn quiet, as they say in corny Westerns just before the Indians attack. Seriously, it's easy to understand why Soundcraft have no hesitation in recommending the Folio for recording direct to DAT. For those conscious of their figures, mix noise is quoted as less than -83dBu, crosstalk at less than 100dB and distortion at less than 0.005 per cent. Like I said, too damn quiet.

Verdict? Well, it may be cheap; it may look cute and cuddly; it may, indeed, remind you of a game of Coppit in full swing, but this is no mean Spirit. For anyone who doesn't use a multitrack or who needs a compact mixer for both live and studio work, the Folio is an obvious winner. For anyone who does use a multitrack, its ease of use and lack of noise levels might still outweigh the fact that it only outputs in stereo. Soundcraft have successfully distilled the virtues of the bigger Spirits and managed to come up with a product that's 100 per cent proof. ■

The Spec

Mix Noise: better than -83dBu
Aux Noise: better than -83dBu
Distortion: better than 0.005%
Frequency Response: 20Hz-20kHz (+/- 1dB)
Mic Input Level: +11dBu max
Line Input Level: +30dBu max
Output (All): +22dBu max
Mic Input Impedance: 2kohm
Line Input Impedance: 10kohm
Output (All): 75ohm

Info

Prices: 10/2, £349;
 12/2, £410; 12/2RM,
 £410
 All prices include VAT.
More From: Soundcraft
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 Cranbourne Road
 Potters Bar
 Herts EN6 3JN
 Tel: 0707 665000
 Fax: 0707 660482

**Declaring
Independence - 2**

A Fine Dry

So is there life after a major record deal collapses? Liverpool's cool tunesmiths Thomas Lang say there is – and they can prove it with a successful independent label, some nice office furniture and a compilation album of rich, classic songs...

Photography: James Cunniff

**Interview by
Phil Ward**

Spell

Few singles captured the full romantic wistfulness of the mid-'80s like The Lotus Eaters' 'The First Picture Of You', which scaled the Top 20 in the summer of 1983. On tour, the Liverpool duo were augmented by a band of local musos including a backing singer called Tom Jones. Yep, that's right, Tom Jones – so you can understand why, when they made their own stab at the main chance, their young vocalist changed his name to Thomas Lang, simultaneously christening the whole outfit.

By the time Thomas Lang released their first album *Scallywag Jaz* in 1987, all talk of the New Romantics had, of course, subsided, and they were identifiable with a new, mature wave of songwriting which was warmer, jazzier and, actually, genuinely romantic. That first album and its follow up, *Little Moscow* were the fruits of a major deal with Epic Records – part of the CBS empire which was about to capitulate in an even more major takeover battle with Japanese giant Sony. As so often happens in the midst of machinations of this kind, artists were neglected and Thomas Lang soon found that their best bet was to throw in the towel and strike out on their own.

Dry Communications was duly born, not just their own label but an integrated record and marketing company in which all the various musical and non-musical talents of the band are put to maximum use – not least in refurbishing their own office premises perched under the wooden beams of a Liverpool city centre attic. The marketing company offers promotional services to other acts, including an information database and an attractive plugging policy in which clients need only pay if airplay or other press coverage is actually achieved...

"It's no different from someone who wants to be a musician and who's got a day job," according to keyboardman David A. Hughes. "It's something you have to do to keep on doing music. We did it because we believed it was just the beginning of our careers, rather than the end. It was initially to get *Lost Letter Z* out, which has extended to the new compilation, and now we have to see how that does to assess the feasibility of the next album."

"It was a case of survival, really," adds Tom. "The easiest option, in a way, would have been to go with another label, but then you run the risk of being ignored again. When that happens, you do have to sit down and think why you got involved in the first place, to dig deep and find the motivation to carry on. We were lucky to be able to get Dry started in many ways, but at the same time it took a lot of back-breaking, physical work. The first thing is to try and keep your spending down; we can put in windows, do the plastering, fit carpets, do electrical wiring, so we did, we built our own office."

"And we've always disagreed with the amount of money bands spend on recording, lying around in top studios as if you're on holiday. That's where a lot of pressure comes from – you mount up such a bill before anything is released, the pressure for success is immense. So you do whatever it takes to reduce the pressure."

Drummer Andy Redhead explains how self-promotion expanded into a service for other bands... "Actually, it was other people who began suggesting we put Dry at their disposal when we did OK for ourselves with *Lost Letter Z*, and I think the advantage we have is that we've been on both

sides of the fence: we are musicians, as well as being involved on the business side. We understand why artists get frustrated. We understand that it is, after all, a matter of life and death."

"The process is demystified," states Tom. "You need to eat, so you use all your knowledge and all your skills to make a living wage. We're not saying we're brilliant at everything, but after what we've been through we know as much as anyone sitting in a plush office on 50 grand a year. But you do get to understand the pressures those executives are under. Doing one artist – ourselves – between five of us takes up nearly all our time. So imagine what it's like with a roster of 16 bands. That's why there's a battle between the artists to make sure the product manager, or the A&R executive, is on your side – because if you piss him off you'll go to the bottom of the pile. It's not a matter of life and death to him, it's just another day at work."

A day at work in the Thomas Lang band can clearly include a lot more than singing or playing. And a lot more than PR, as David admits... "We can be tough A&R men on ourselves, too – it's frightening. We were so anxious and deeply involved when we started *Lost Letter*, we found ourselves slipping into that mode, being hyper-critical and not enjoying it. But you can learn to do both – musician and A&R man – which you have to if you're going to take the responsibility of having total control."

"CBS's A&R plan was to sign us in the wake of Sade's success on A&M, and had a route to platinum sales all mapped out. And when it doesn't happen straight away there's problems." Tom's theory on these problems is sound: "You can't trade off somebody else's identity. You have to find what is new and creative about each individual, and create new markets for it. Much as I admire and enjoy Sade's work, I never wanted to follow in those footsteps." Dave's theory, on the other hand, is a little more suspect: "You couldn't get into that boob tube, could you..." he adds.

The most tangible product of Dry's imaginative endeavours so far is two albums from the Thomas Lang group themselves – 1991's excellent *The Lost Letter Z* and a new compilation which brings together new songs, tracks from *Lost Letter* and material which graced the first two releases rescued for posterity from the Epic vaults.

Most of the Lang songs are Hughes/Jones compositions, ie. David and Tom, a classic pianist/singer collaboration elevated to another level by a sensitivity to the moods created by pure sound. "It's just a bit more involved than straight pop," explains David.

"Tom and I can't generate a song from one riff or one sound. We get bored, and we also work quickly. If it loses the momentum to keep us both interested, we'll move on to something else. It's not dependent on one synth sound, or whatever – although I do like the emotive content of sounds. We don't get too technical about it, we'll just think, right, a bit more doomy here, or a bit more 'green' there..."

"I love certain samples, the ones that shouldn't really be in there. Ones which are already chords, for instance, which create movement. Tom stops me from getting carried away and losing that original momentum, but you've got to mess >>>

On Record

Scallywag Jaz (Epic, 1987); *Little Moscow* (Epic, 1990); *The Lost Letter Z* (Dry, 1991); *Outside Ovef There* (Dry, 1993)

» about to get something that you've never heard before. Out of everything we do, that's still the best bit. That's what gives you the energy to get involved and do all the other things to



When you're working on a song, and you've got the basic vocal and piano parts, you've got to exhaust all the options – take it to its full extent of success or failure. If you have an idea, you have to work it through and allow it to fail or succeed, otherwise you'll never know."

OK, you've written the songs, you've made the record, you've hoovered the office. Now you've got to take yourself on the road. Andy knows all about this – he almost literally tour manages from behind his drum kit. And he does the sums. "We did lose money on the last British tour, but we made it up on a Japanese tour – so it's all a matter of balancing it out so you can carry on. There used to be quite a thriving college circuit, but that's changed over the last couple of years; there just isn't the money around to support new acts. There's a bit of a void for venues that cater for acts like us, for audiences who like to sit in relative comfort and actually listen."

"We can be quite successful," David points out, "in a city which has a place like Ronnie Scotts, for example – so that includes London and Birmingham, at least – because it's a service to a particular type of audience, and that service just doesn't exist in most cities. We get the hi-fi generation, if you like, if there's a facility available. Where there isn't, I think that audience has just lost the habit of going out to gigs. Which means they'll lose the habit of buying CDs, because they won't be inspired to go and find one the day after a great gig. So it cuts back into record sales."

"It's a shame there aren't more places like Ronnie Scotts," muses Andy, "because we know the audiences are there. And it would certainly make my job easier!"

Andy Redhead – drums and tour manager. That just about sums up the DIY attitude that has stood the band in such good stead. The hope in Thomas Lang land is that the word at least be allowed to spread, and autonomy survive in artist and audience alike. As Tom says: "I love the fact that we can play in certain places to the people who we know buy the records and so on, but I want to get to new people. And I don't think audiences need be categorised so much: people who like to go out and get off their tits on a Saturday night are just as likely to want to sit down and listen on another night."

"I go to raves, and then I go and watch a band play, or a good singer... We've had people come up to us and say that we weren't what they expected, and who've stuck with us ever since. Any band needs that kind of exposure to pick up their audience. You have to take that chance, go to a new venue, maybe pick up only 10% of them, but it's worth it."

"It's getting harder because of the way music is marketed. It's assumed that people haven't got time to think for themselves, so they're told 'you need this, because you're in this bracket, this will appeal to you', and the decision is made for them. That's why, ironically, marketing is so important, and why we wanted to offer an alternative." "It's like the *Viz* T-shirt," David concludes. "Nirvana Till Tea-Time". That's very accurate – the way what's hip is regulated."

It's also very good marketing in itself – for *Viz* rather than Nirvana, of course. It seems somebody, somewhere, is always trying to sell you something. But as Thomas Lang will tell you, whether you need it or not is entirely up to you. My advice is to beg, borrow or request on the radio any Thomas Lang album and give it a good listen. I guarantee you'll want to buy one. ■

Equipment

On stage

David A Hughes:

Technics PX1 piano – a standalone keyboard monitored via a Roland Jazz Chorus combo, considered David's 'security blanket' while he monitors the rest of the band through standard wedges.

Roland MKB200, triggering Akai S1000 samples. "Akai have been really helpful all along," says Dave. "We know the S900 and S1000 inside out. The S1000 changed everything, for us – it's such an open-ended piece of equipment."

Andy Redhead:

Incorporated into his Yamaha kit, Andy has two Octapads, providing 16-note triggering of another Akai S1000 used for one-shot samples of percussion and short sequences. There is also an MX8 MIDI patch bay to improve the Octapad threshold, and a rather nifty knee-operated pedal to change patches (Andy has very long legs).

John Murphy:

Ibanez Musician fretless bass, through Trace Elliot AH350X stack.

Hofner Verithin guitar, through Roland GP8 processor and Peavey Express 112 combo. Where there is both bass and guitar on a track, the bass is on DAT (see below).

Sony DTC1000ES DAT machine – one channel carries lengthier sequences, strings, the breathy female backing vocals on the song 'Dry', or bass; the other a click track fed to Andy via a SoundLab mini mixer.

In the studio

In addition to the above, the band always take the following into a studio session:

Akai S900 sampler

Roland D110 synth

Prophet VS synth

Tokai Stratocaster guitar

Gibson E50 acoustic guitar

Dave sums up the prevailing attitude towards studio life: "The swimming pools are a distraction, not a perk. It's a marketing ploy to get you to waste more time. We'd rather save money on the studio and then go away on a proper holiday, and not work."

reach that stage."

Tom expands... "We've used sounds, like a choir sound, because they're scary. It actually scared you when it came back out of the speakers. As long as it has some effect, it's all right."

One musician has appeared on albums by all of these stars...

- Elton John
- Kate Bush
- Tina Turner
- George Michael
- Nik Kershaw
- Air Supply
- Matt Bianco
- Go West
- Pete Townshend
- Chris De Burgh
- Phil Lynott
- Gary Moore
- Judie Tzuke
- Beverly Craven
- Tasmin Archer

Charlie Morgan
DRUMMING FOR STARS

Now, while he's out on tour with Elton John, thanks to the wonders of digital technology, you can have Charlie playing in your studio, on the sample CD "Master Drums".



Drawing on his experience from playing many thousands of sessions, for some of the worlds leading recording artists and producers, Charlie has chosen various 'grooves', some of which are the actual patterns he played on the hit songs on his credit list. With the metronomic timing for which he is renowned the grooves have been meticulously recorded using two separate Premier kits, at the Townhouse studios, to the highest possible specification, and are presented in three sections:

- ★ 4 bars of groove
- ★ Start & stop section
- ★ Two fills for each pattern

All recorded at various tempi, allowing the user to build his own personalised drum track.

In all there are around 100 different loops which you can play around with on your sampler to create original rhythms.

Both kits have been sampled extensively (over 60 samples), enabling you to customise the patterns to fit your requirements or program new patterns using Charlie's drum sound. The loops are all recorded with no effects and no cymbals. There are also a number of useful hi-hat & ride cymbal loops.

The loops and samples are logically laid out ready to input into your sampler. This is a serious working tool and a must for anyone who would like Charlie Morgan to play on their recordings!

Charlie Morgan: Master Drums

Sample CD available now from Music Maker Records at £59.99

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Demo Takes

Reviews by Phil Ward

TAPE OF THE MONTH

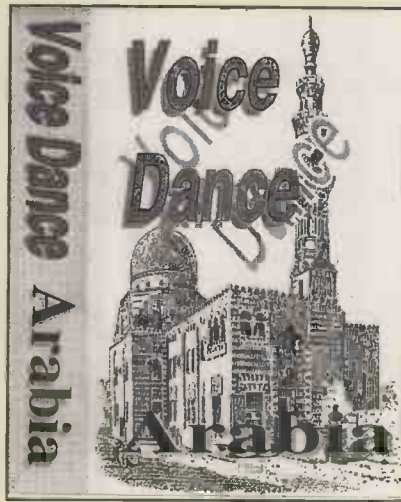
VOICE DANCE

Casio FZ1; Cheetah MS6; Kawai K1; Atari 1040ST running Cubase; Seck 12:2 straight to Sony DAT

Not much kit – but a fine tape of dance instrumentals with a strong grasp of interlocking parts and weighted grooves. The drum loops are especially meaty, and there's a sense of fun with 'cheesy' analogue sounds playing over the surface that you find in the best house music. 'TB92' actually stands for Tubular Bells '92, but unlike Mike Oldfield's own effort last year, Voice Dance manage to convincingly update the original intro piano phrase and weave it into a satisfying contemporary pattern.

One or two of the samples don't quite fit: one attempt to spin in a female vocal is marred by a snatch of orchestral chord from the same source which is out of tune with the backing track – not jarringly so (and sometimes being jarringly out of tune can work just fine) but enough to upset the equilibrium of an otherwise excellent piece of techno.

I'm sure Tony Jewell and Bernard Jauregui must be familiar with the work of Orbital, because they seem to take a similar delight in evenly paced, gradually developing arabesques of analogue sound, especially



on 'Dream'. In fact, both 'Dream' and 'TB92' engage the listener more readily than the opening 'Arabia' (Parts 1 & 2) because they display fewer of the standard house devices of recent years and point to a mellower, more contemplative area of the genre which is right up to the minute.

And here's a much neglected trick: a touch of panning delay on the gravelly, spoken-word samples. Makes it so menacing and other-worldly, I don't know why more people don't try it. You know, I'm seriously thinking of compiling an album of the best techno that *Demo Takes* unearths. This would be on it, for a start.

Contact: Tony Jewell, 0223 415998 (Cambridge)

then, I've lost my hat and I can't remember whether it had 'Production' or 'A&R Dept' sewn into the lining.

Contact: Tony Warren, 081 968 0889 (London)

CONSUMERS

Korg M1 (pre-production); Atari 1040STE running Cubase V3.0; Steinberg SMP24 SMPTE generator and Tascam Midiizer sync.; Tascam MSR24 24-track analogue; Soundtracs Quartz console; Valley Arts M-series guitar, ART SGX2000, Zoom 9030, Roland GR50 guitar synth, E-Bow; Roland MKB, Ensoniq EPS16+, Roland JD800, Korg M1R and Wavestation; Manson Custom bass, Wal 5-string custom, Trace Elliot 4x10 combo; Ludwig Classic drums, Zildjian cymbals, Roland R5; Mac Quadra running Digidesign ProTools for editing and compiling

Phew. This is a serious outfit who've gone to a lot of trouble to create an impressive recording of their shuffling, ethereal songs. Simon Strevens writes and pre-produces on his M1, then Cubase is used to arrange keyboard parts which are sync'd to the guitar, bass, drums and vocals on the 24-track. Finally, ProTools has been used to digitally edit and generally tidy up the whole shebang. What's more, Consumers are planning a CD version of the demo, and have already printed up an eye-catching sleeve. I'm dismayed that, for the video, (yes, they're doing a video, too), they've chosen 'Gucci Girl', which is too drawn out and complicated for a promo item, when they've got a couple of homogeneous beltiers in 'Blues' and 'Neurosis'.

Interestingly, in his letter guitarist Simon Young actually specifies that they would prefer an artistic rather than a technical review of the tape, and I think this reflects the degree to which the band are serious about going for a deal: it's the hobbyists who prefer discussions of reverb. Anyway, A&Rly speaking, Consumers could be developed into a Frazier Sprout/Prefab Chorus sort of outfit, with clever songs and a dynamic interchange between male and female vocals.

'Blues' is a very encouraging start, a moody, glowering slice of melodic funk that would knock socks off all over the place if produced by Gary Katz. Seamlessly, this track slides into 'Neurosis', which sustains the feel nicely. The lead vocal occasionally tends to overstate, stretching for a somewhat histrionic peak when in fact Simon's

ESPRIT

Equipment not supplied

Now, this is produced by Tony Warren, who wrote to *Communiqué* last month with some very constructive comments about *Demo Takes*, so I'm on my best behaviour to make some very constructive comments about this demo. Fortunately, that's not too difficult because this is a recording of great clarity and warmth, featuring what sounds like an immensely competent band, including guitar, keyboards, drums, percussion and saxophone, with a powerful fusion sound.

I say 'what sounds like' because the drums have a programmed feel, and the bass is certainly sequenced, so I'm just wondering how Esprit see themselves – hopefully as a true fusion band happy to blend whatever

technology they feel like blending with their melodic expertise, and no questions asked.

Picking up on what Tony said about listening to tapes as either producer or A&R man, I would volunteer that here's a case which really confuses the issue. Because any producer would admire the dynamic range of this recording, the ratio of ambient to dry instruments, the breadth; but I suspect that an A&R man would be disconcerted by the programmed elements and wonder where he could place a fusion band who sound like they don't have a proper bass player.

In other words, the traditional market for this kind of thing is very 'muso'. While a pop audience wouldn't mind the sequencer, they certainly wouldn't swallow the shifts in time signature, lengthy instrumental workouts, and the all-round cleverness of it. I think it's a bold attempt to ignore such boundaries, but

understated passages are his real forté, and it is a bit of shame about 'Gucci Girl' – like something from a musical, heaven forbid. It would be expensive, but some classy product could ultimately be coaxed from Consumers' wealth of ideas, ability and commitment.

Contact: Consumers, 071 733 9981 (London)

PSYCHOSIS

Roland W30, SH101; Studio Research 12:2 mixer

This is a lawyer's nightmare. Hang on, let me re-phrase that: this is a lawyer's dream. The music exists almost entirely of great chunks of recognisable samples, every one of which would demand clearance and delay the release of the album for six months. But it's ingeniously done, and the averred admiration for Meat Beat Manifesto confirms the overall concern with montage which makes *Psychosis* such a fascinating product of their time. That's the advantage of *Demo Takes* – we don't give a writ for copyright infringements and consequently I can sit in the privacy of my own home and enjoy some of the wickedest steals ever.

On the down side, it's all a bit ragged, with sample clicks abounding and some rather abrupt stops and starts. Also, the reliance

NORTHERN MUSIC SHOW

The Return of Demo Forum...

Following the success of our Demo Forum at the *London Music Show* last November, we've gone and decided to do the whole thing again, this time in Manchester at the *Northern Music Show* on May 15th and 16th. Once more, a panel of sober celebrities will pass comment on a selection of your demos, and just like at the *Eurovision Song Contest* a winner will be chosen who must then move to Sweden and get divorced. Just kidding. What really happens is that a leading manufacturer

on limited samples means that you are always at the mercy of the quality of the original source: instead of graininess being an attractive occasional feature, it comes to dominate the whole sound. But then, that didn't matter with fuzz boxes, did it? I'm sure *Psychosis* are very happy with a certain

will give you a fabulous musical or home recording-type prize, and we give you a year's free subscription to *MT*. Maybe even a t-shirt...

So now's the time to apply the finishing touches and send your tape, marked 'Manchester Demo Forum' to:

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...enclosing the usual biographical and technical background as well as contact details. If selected, you will be informed by **Friday 7th May**, at which point travel details etc. will be discussed in full. There are two forums, one on **Saturday 15th** and the second on **Sunday 16th**; a different selection of tapes is reviewed on each day, so keep both days free just in case. And of course, it being the North, you'll need a stout pair of Wellingtons for the weekend. Bon chance...

NB: Please do not ring *Music Technology* to find out if tapes have been selected. We'll be too busy listening to them to take your call.

rough edge, and if they managed to preserve that, whilst working in the slightly more professional environment that they do need, they'd doubtless make some great records.

Contact: Mark, 0747 54406; Pete, 0747 53198 (Southampton)

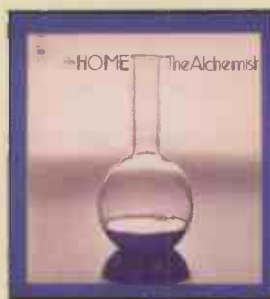
THAT WAS THEN

HOME

The Alchemist (1973)

The '60s effectively came to an end in 1973, with the Arab oil embargo and Lord Longford's Festival Of Light on the march for a return to decent, chaste, and temperate values. But probably the final nail in the coffin of that previous period of feverish innovation and heady optimism was the inexorable rise of the concept album, a troublesome beast at the best of times and one given to spawning copious offspring at the slightest whiff of a gatefold sleeve.

Usually, a plausible rock band would suddenly decide it would be a great idea if their next collection of songs was based around a book that the lead singer had just finished reading on the tour bus. This wouldn't have been so bad were it not for the fact that books read on tour buses were, unerringly, absolute drivel. If it wasn't some mystic parchment in paperback it would be a fairy tale or myth with copious astrological or metaphysical overtones and a good deal of costume drama, providing



plenty of opportunity for trite musical references and sweeping changes of mood.

The problem always lay in dovetailing the music to an existing structure, especially if the spurious literary source was a proper story – like *The Alchemist*. Indeed, Home were a perfectly plausible rock band who found themselves with the task of stretching out a few half decent riffs into a full 'suite' for the new album and tacking together a series of tortuous thematic links in the name of narrative. It didn't help that the arid production seemed to squeeze every last drop of life from the mix, resulting in that dull, air-tight thud of a sound – the very quintessence of early '70s music.

And then, of course, there were the sleeve notes, whose purpose it was to explain the original 'inspiration' for the 'concept' – as if the average flared and spotty punter actually gave the slightest toss. There was a point when buying albums was becoming like homework: deciphering the messages with as furrowed a brow as any quadratic equations could induce. No *wonder* punk happened, no *wonder*. PW

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Technically Speaking

Technical Questions Answered by Vic Lennard

Q In your January issue, Andrew Sleight of Bath asked if anyone had a manual for his PPG 2.3 and Waveterm B. If he, or anyone else, requires a copy of the 120-page manual, the man who wrote it can supply one for the sum of \$25 sent to the following address:

PPG Manual, c/o Dominic Milano, 20085 Stevens Creek Blvd, Cupertino, CA 95014, USA.

This doesn't cover the Waveterm.

By the way, in January's issue there's an unbelievable looking Odyssey in the picture on the first page. What has been done to it?

**Sean Coppinger
London W3**

Q Please could you tell me how to connect my Atari 1040 STE with Virtuoso sequencer to control a Korg M1 synth and Yamaha RY30 rhythm composer at the same time. Do I need a MIDI merge unit or a Thru box? All the books I read seem to skirt around the problem and answer others instead.

If I do need a MIDI merger, which one would you advise?

**P Moselly
Morpeth**

A Good news – no, you don't need a MIDI merge box. Take a look at **Figure 1** for the cabling diagram. The RY30 is essentially a drum machine and the system in the diagram allows you to use it in two different ways: programming the rhythms directly into it (as opposed to programming them on Virtuoso) and simply accessing its internal sounds via the Korg M1. If you choose the former, you'll need to make certain that Virtuoso transmits MIDI Sync and that the RY30 is set to respond to it. For the latter, the MIDI channel of the Virtuoso track you're recording on must be the same as the MIDI receive channel of the RY30.

One point to note: the RY30 is capable of recording pitched information, such as a bassline played in via a keyboard. If you try to transmit this from the RY30 itself – which you'd do if you wanted all of the sequence information to be on Virtuoso – you'll find that the pitched data doesn't play back. All you get is a single, continuous note. This is because the RY30 supports playback parameters which it cannot transmit over MIDI.

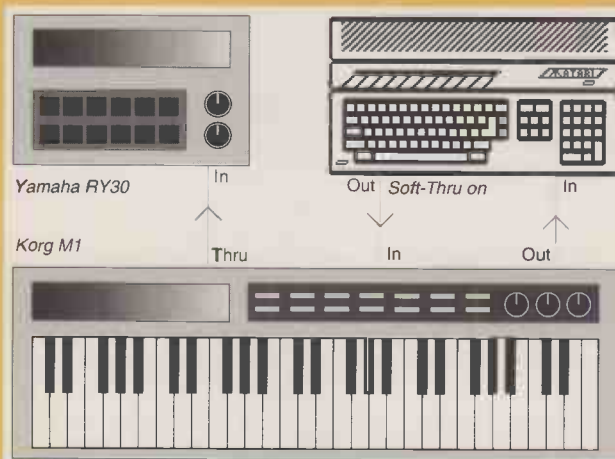


Figure 1: Connecting a synth, drum machine and ST computer

A Thanks go out to Dominic Milano (Editor of Keyboard magazine, USA). One down, one to go – any offers on the Waveterm B manual...?

As for the Odyssey, a chat with Peter Forrest, the author of the article, reveals that this is an early 'white-face' Odyssey – in other words, the panel is pale grey. Rather rare – and certainly less reliable than the later, black Odyssey. It also has at least one vital part encased in resin which is bad news if you buy one and find it doesn't work!

Q One of the mainstays of my studio is an Oberheim Matrix 1000 which I use for most of the analogue sounds. I know that it isn't multitimbral (I wish that it was!) and I may invest in a second unit shortly.

The problem I have is how to change banks. Of the ten banks, eight of them have preset sounds and I use a variety of these in

my compositions. What I've been trying to do is to embed a MIDI message at the start of the song but without success. I've tried the Bank Select box on Cubase but this doesn't have any effect. Can you help me?

**Andrew Trenton
Truro**

A The MIDI Bank Select message was added to the MIDI Specification in 1990/1. As the Matrix 1000 predates this, Bank Select is not a function it supports.

There are a couple of ways you can change banks. If you're using a keyboard, you'll have to use a combination of the modulation wheel and patch change buttons. Make sure that the MIDI transmit channel of your keyboard and MIDI receive channel of the Matrix 1000 coincide, push the mod wheel to its maximum position and select a patch between 0 and 9. You should find that the bank of that number is selected on your Matrix 1000.

If you're working with Cubase, you can either use standard MIDI data for this procedure or alternatively use SysEx. The mod wheel approach requires the following message (all numbers in hexadecimal):

Bn 01 7F Cn NN Bn 01 00 Cn PP

...where 'n' is one less than the MIDI channel, 'NN' is the bank number you want to select and 'PP' is the required patch number within that bank.

I've tried this with a Matrix 1000 and have found that it often requires the message to be sent twice; it doesn't appear to like different messages of this type sent in such close succession. The SysEx method is neater and more reliable:

F0 10 06 0A NN F7 Cn PP

...where, again, 'n' is one less than the MIDI channel, 'NN' is the bank number you want to select and 'PP' is the required patch number within that bank. ■

**Got a problem?
Vic has the answer. Write to: Technically Speaking, Alexander House, Forehill, Ely, Cambs CB7 4AF.**

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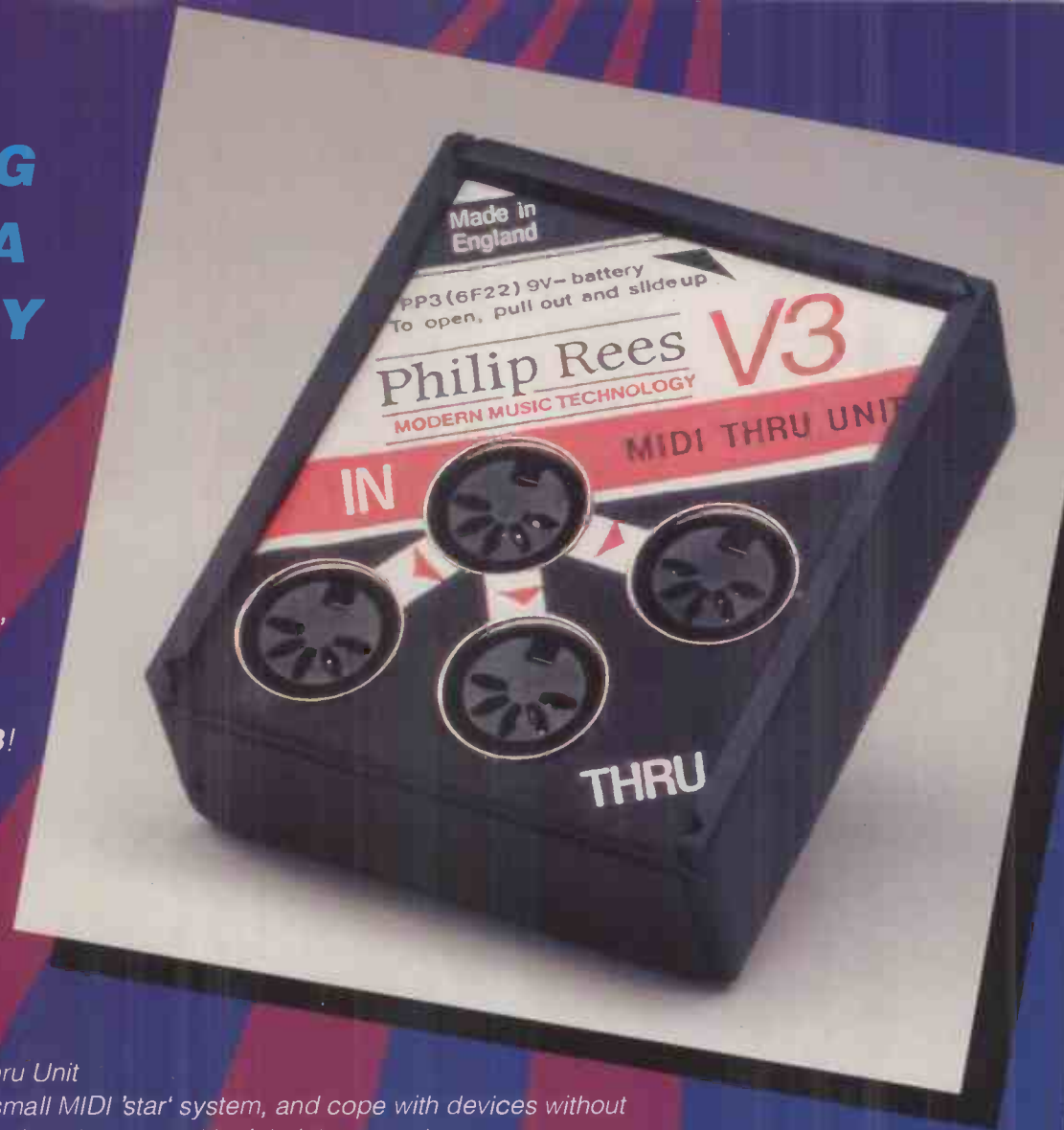
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Out Takes

MOUTH MUSIC

mo-di (Triple Earth)



'Byrne' is a Scottish name, after all... Sorry, I was just wondering what might have happened if the Talking Heads main man had grown up in Scotland, got a job in television and formed a band called Mouth Music. Well, I'll tell you what would have happened, actually – *mo-di*, that's what. But I wouldn't like to insinuate that this gorgeous album is too derivative; merely that Mouth Music's captain and midfield general Martin Swan (who did grow up in Scotland, etc etc...) is clearly visited by the same muse that stops off at the Byrne household from time to time. The combination of ethnic styles, funk and technology is of a similar order to the experiments in exotica and rhythm that graced all those Heads albums produced by Brian Eno, like *Fear Of Music* and *Remain In Light*. What Mouth Music add of their own is a throwback to their earlier output – a romantic, Gaelic strain epitomised in the melodies and lyrics.

At times, this veil of Celtic mistiness undoes the sequenced drive which underpins the strongest numbers. 'Birnam' and 'Hé Mandu' open the album with weighty vigour, only for the mood to subside into the attractive but inconsequential cross-country meanderings of 'Hoireann O'. Thank goodness, though, for 'Milking The Cow', track 4 and one of the finest blends of African and white I've ever heard. There's more than a slice of Eno here, and a pinch or two of the other great mix'n'matcher who we haven't mentioned yet but who does seem to spring to mind when considering Mouth Music, what with their WOMAD connections and all. Right: Peter 'give me a sequenced thumb piano sample and I'll bare my soul' Gabriel himself. In other words, Martin Swan is in some pretty distinguished company, and as long as the

purists are held at bay with some really sharp and threatening MIDI implements, he seems destined to produce some very exciting forays into the genre. On the guest list at forthcoming Real World Recording Weeks, I'll wager.

TUU

One Thousand Years (SDV)

SDV is a Düsseldorf label, and the music of Tuu is a blissed-out, ambient blend of samples, synths, Japanese bowl gongs, Chinese bamboo flutes, Brazilian clay pot drums and Indian ghatam. But it was recorded on a home 8-track in Windsor. Indeed, Tuu is a UK trio of Martin Franklin, Richard Clark and Mykl O'Dempsey, who surprisingly find themselves without a UK deal for their ethereal, haunting instrumental sounds. This is in spite of the fact that *One Thousand Years* is perfect for the current



trends of the new age – meaning anything you want that term to mean, but I'm thinking of anything from club chill-out rooms (for that 6am feeling) to osteopathy clinics.

Originally consisting of an acoustic pairing of percussionist Franklin and flautist Clark, Tuu was augmented by keyboard man O'Dempsey to add a new dimension: the flexibility and sonic richness that technology can provide. The result is hypnotic and

sensuous, the sort of music that actually suits a digital reverb decay parameter of 15 seconds on the high-pitched 'ping' of a pair of finger cymbals. The breathy pads and sustained mantra samples are handled with particular delicacy, often floating over a gently repetitive percussion groove with the distinct flavour of tabla. Elsewhere, disembodied frequencies pierce the fabric of sound like some kind of cosmic feedback. There is exposure for this kind of thing on the Continent and in America; it's only this pin-striped, sodden little island of ours that exiles originality.

JAN HAMMER

Beyond The Mind's Eye (MCA)

There's loads of guitar on this album, and I wouldn't be surprised if it's Jeff Beck. But, of course, it can't be, because it's all Jan Hammer. Well, it may be Jeff Beck, but it's

Jan Hammer playing it. Erm... look, you know what I mean. Sampling, and so on. The point is, on this soundtrack, written note-to-frame for a series of computer animations of the *Tron* variety, you'll find some of the finest keyboard-played and sequencer-triggered lead guitar licks ever performed without actual recourse to the tongue-wagging, crotch-splitting postures of yore. There's a fair amount of pastoral, acoustic-style arpeggiating as

well, along with the full gamut of timbres at your average state-of-the-art keyboard maestro's disposal. Having constructed his own studio retreat in upstate New York – no doubt on the proceeds of *Miami Vice* and other successful soundtrack work – Hammer is the epitome of the self-sufficient electronic composer.

Self-sufficient, *media-friendly* electronic composer, that is. His output is defiantly

Readers' Ads

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ROLAND MKS80 and programmer. Good condition, £1800. Tel: 0726 66715.

ROLAND MKS100 sampler rackmount with disks, vgc, £220. Double keyboard stand, £25. ESQ1 sequencer expansion cartridge, 20,000 notes, £40. Quick disks, boxes of 10 for £10. Tel: 0342 323094.

ROLAND MT100 sequencer and sound module mini workstation. Atari Editor with 100s of sounds plus Quick disks, manuals and box. Excellent condition, £325. Boss DR550 drum machine 16-bit R8 and 808 dance samples. Excellent condition including manuals; £115. Paul. Tel: 0536 761014.

ROLAND RA90 as new, boxed, 128 GS MIDI expander sounds, reverb, chorus, 8 drum kits plus assorted accompaniments, £575. Cubase V.3, key manuals and original disk, £140. MTR mixer 6:4:2. 1 channel needs attention hence price; £50. Geoff. Tel: 0924 240994.

ROLAND S50 sampling keyboard + library + monitor, £450. 2x Roland Juno 106 synths, good condition, £250 each. 16:2 mixing desk, £150. Steve. Tel: 061 998 8671.

ROLAND SH101 classic sound, boxed with manual, excellent condition, £120. Tel: Leeds 0532 627302.

ROLAND SYSTEM 100 mono synth 101 plus expander 102, £80. Moog Opus III, £80. Tel: Walton-on-Thames 0932 231617.

ROLAND U20 excellent condition with case, £595. Tel: Sheffield 0742 667057.

ROLAND U20, boxed, manuals, home use, mint cond, £450. Gary. Tel: 0533 742857.

ROLAND U110, £230. Roland SN U110 cards, electric guitar, orchestral strings, £25 each. Roland Soundbrush, £250. Yamaha YS1000 multitimbral synth, onboard effects, £170. Paul. Tel: 081 390 5672.

ROLAND U220, £395; D110, £275; Juno 6, £145; Korg Mono/Poly, £175; Yamaha QX3, £295. Tel: 0324 27603.

STEINBERG AVALON universal editor for samplers, mint condition, £65. Tel: 0634 582248 after 6pm.

STUDIO CLEAROUT - Yamaha TG33 desktop synth, £250 ono. Roland Alpha Juno, £375 ono. Roland GT16 guitar multi-FX, very powerful, £450. Steven Clarke. Tel: 061 428 6432.

WAVE 2.2 with MIDI, immaculate, £800. Steve. Tel: 071 437 1034.

YAMAHA DX7 MkII inc. DX7 2 Monster ROM package, 2 ROM cartridges + stand, boxed, as new, £300. Mark. Tel: 0375 641526 Essex.

YAMAHA DX100 synth, £100. Yamaha RX17 drum machine, £90. Drew. Tel: 0793 611311.

YAMAHA EMT10 AWM sound expander piano module and EMT1 FM sound expander, £150 the pair. Tel: 0379 676670.

YAMAHA EMT10 sound module. High quality sounds inc. pianos, choirs, basses etc. £80. Robert. Tel: 0453 825837.

YAMAHA PS2000 mother keyboard, excellent action, £700. Also Korg P3 piano module great sounds, £200. Both units owned from new and used in the home only. Steve Wilks. Tel: 0332 668627.

YAMAHA TG33 AWM sound module, 16-bit multitimbral, amazing sounds, new, boxed and unused, bargain at £265. Tel: 081 809 2427.

YAMAHA TG500, £825. Charlie. Tel: 0248 713763.

YAMAHA TX802 8 outputs, multitimbral expander, DX synth module, £550. Tel: 071 386 9361.

YAMAHA TX802 8 outputs, multitimbral, DX synth module, £550. Roland MKS70, JX10 synth module, £600. Tel: 071 386 9361.

YAMAHA VS50, rare analogue, £100; CZ101 digital synth with RAM card, £90; 6-channel mixer, £35. Ross. Tel: 0422 842000.

YAMAHA YS200 100 voices, inbuilt 8-track sequencer, excellent condition, £250 ono. Cliff. Tel: 071 793 8041.

SAMPLING

AKAI S900 sampler, vgc including manuals, £400 ono. Carl Smith. Tel: 0443 755195 (eves), 0222 866555 (day).

AKAI S950 fully expanded, excellent condition, boxed plus manuals, £900. Simon. Tel: 0793 644353.

AKAI S950 fully expanded, £850. Cheetah MS6 module, £120. Yamaha DX100 synth, £80. Studio Research 12:2 mixer, £150. Andrew. Tel: 0734 506445 (day).

AKAI S950 sampler, hardly used, mint. For the price of an S01 - £700. Kawai K4 16-bit digital synth, £350. Kawai R50 drum machine, £75. Casio CZ101, £50. Alesis MIDiverb II, £100. All perfect, manuals. Lowest prices anywhere - so no offers. Private sale. Elliot. Tel: 0323 768221.

AKAI S1000, 8 months old, £1700. Tel: 061 799 4703.

CASIO FZ1 16-bit sampler, disks, good condition, £600. Tel: 0270 764175 after 6pm.

CASIO FZ1 sampler, £600 ono. 35 library disks, manual, boxed. Can deliver. Kevin. Tel: 051 727 5873.

EMAX II rackmount 2Mb, 45Mb removeable hard drive plus 2 cartridges and library. Offers. Adrian Hunt. Tel: 0225 743268.

ENSONIQ EPS sampling workstation 16 plus, digital on-board effects, 16 track sequencer with disk drive. 4000 dance samples on CD. Manuals, excellent condition, £1250. David. Tel: Huddersfield 535024.

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MASTERBEAT CDS Volumes 1-5, £15 each. Various other sampling CDs for sale. DAD resistance mixer, £30. Dave Cooper. Tel: 0527 550485.

ROLAND W30 sampling workstation, 16-track sequencer, separate outputs etc. Mint condition complete with disks and manual, £875. Tel: 0703 220152.

PEAVEY SP/SX sample playback/sampler. Both upgraded to 8/4 Mb. A1 condition, 6 months old, still under warranty, £1000. No offers. Simon. Tel: 0532 423137 (Leeds area).

ROLAND JD70, fully expanded, 3 months old, £1000; Akai S950, fully expanded, £850; Akai S700, £200; Alesis MIDiverb III, £150; MC202, £100; NS10Ms, £100; Boss DR660, £150. Tony. Tel: 0472 812760.

ROLAND S550 sampler with mouse, large library, excellent condition,

£795 ono. Steve. Tel: 0429 222517.

ROLAND S550 with manual and mouse. Huge quality library on 160 disks (taken from many sources) £950. Dave. Tel: 091 488 9502.

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REVOX A77, Studer A62. 18:8 and 16:4 mixers. No left and right outputs, 15 years old, very heavy. Offers. Tel: 0379 676670.

ROLAND NS30 monitors. As new, boxed. Metal shielded for computer applications. Clear, compact and punchy, £55. Sean. Tel: 0454 773611.

REVOX B77 50 ips, excellent condition - any offers considered that are around £250. Jason. Tel: 0525 717557 or Neil 405832.

SANSUI MR6 multi recorder with MX 12:6:2 mixing desk. Also Atari 520 ST with Steinberg Pro 24 and Sequencer 1. All still in excellent condition, boxed, manuals. Would like to exchange for a Teac multi-recorder 488 8-track. Terry. Tel: 091 430 1179.

SIMMONS SPM 8:2 programmable mixer, £200. Boss DE200 digital delay with modulation facility, £100. Dave. Tel: 091 488 9502.

SONY PROFESSIONAL Walkman, £150 ono. Sony Stereo Electret microphone, £20 ono. Or both items for £160 ono. Ian. Tel: Cardiff 0222 619696 after 4.30pm.

TASCAM 244 portastudio, immaculate, hardly used, boxed with

manual, £400 ono. Martin. Tel: 061 308 4723.

TASCAM DA30 top quality professional DAT machine, full function remote, little use, £775. Tel: 0227 781607.

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YAMAHA MT120 4-track, mint condition - only 2 hours use, boxed with manual and tapes, £300 or swop for Roland U220. Paul. Tel: 0253 765904.

YAMAHA R100 FX and reverb unit, £100. David. Tel: 0903 725452 after 6pm.

SEQUENCERS

AKAI ASQ10, £550. Richard. Tel: 0273 732811.

AKAI MG14D 12-track recorder and auto locator, £1500. Derek. Tel: 081 444 6135.

ALESIS MMT8 fine apart from horrible squiddy buttons, £60. Roland MC202 excellent but needs power supply, £65. Alan Waite. Tel: Walton-on-Thames 0932 231617.

DRAWMER LX20 compressor, £175. Charlie. Tel: 0248 713763.

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ROLAND MC50 sequencer, as new, £320. SN110 sound cards, £25 each. David. Tel: 0565 652369.

ROLAND MC202 music composer, good condition with power pack, £60. Chris Lamb. Tel: 0602 404154.

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YAMAHA DMP7 mixer, £1200. Yamaha C1 computer, £1100. Yamaha NT2X 4-track recorder, £250. Carl Stocks. Tel: 0507 606956.

YAMAHA MT120 4-track, mint condition - only 2 hours use, boxed with manual and tapes, £300 or swop for Roland U220. Paul. Tel: 0253 765904.

YAMAHA QX21 sequencer, 8000-note memory, boxed, manuals etc. Mint condition, £85 ono. Rob. Tel: 081 599 7994 eves only.

YAMAHA QY10 6 months old, mint condition, boxed with manuals, £150 ono. Colln. Tel: 0253 894348 after 6pm.

YAMAHA QY10 8 months old; as new, £175. Phil. Tel: 0703 778816.

COMPUTERS

ATARI 1040 STE, 10 months old with mouse, mat and cover, full instructions, £280; Cubase V.3.0 with manuals, £275. Stuart. Tel: 0275 875646.

ATARI 520 STFM with 1Mb and SM124 monitor, 2nd disk drive. C-Lab Creator, Band-in-a-Box and Feeling Partner, £400. JL Cooper PPSII SMPTE synchroniser, £70. Steve. Tel: 0905 616698.

ATARI 520 STFM, upgraded disk drive, £150 inc. software and mouse. Gary. Tel: 0353 723320 Cambridgeshire.

ATARI 520STE, 2 Mb, various s/ware, home use only, mint condition; Alesis SR16 d/machine, as new with PSU. Will swap both for multitrack synth or offers. Andy. Tel: 0703 551582 anytime.

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DRUMS

AKAI XE8 drum module, £90. Roland TR707 drum machine, £100. Roland Octapad II, £15. Boss PCII synth pad, £10. Tel: 0243 586395 or 0243 830697.

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ALESIS D4, £250. Richard. Tel: 0273 732811.

ALESIS HR16 drum machine, £150. Charlie. Tel: 0248 713763.

ALESIS SR16 16-bit stereo, 233

samples, perfect condition, £180 ono. Jason. Tel: 0543 450349 after 6pm.

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ROLAND TR626 vgc with manual. Approx 2 years old, £150 ono. Daniel. Tel: Oxford 0865 717969.

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ROLAND STD8 percussion drum machine, boxed with manuals in excellent condition, £250. Leon. Tel: 0252 312436.

ROLAND TR626 vgc, with manual approximately 2 years old, £150 ono. Daniel. Tel: Oxford 0865 717969.

ROLAND TR707 programmable drum machine, good condition. Chris Lamb. Tel: 0602 404154.

ROLAND TR707. Classic sounds, MIDI, in excellent condition, boxed with manual, £150 ono. Tel: Leeds 0532 627302.

ROLAND TR808 drum machine in immaculate condition, boxed with manuals, £350. Write to: Peter Leasy. 10 Sydney Avenue, Palmers Green, London.

ROLAND TR808 drum machine, boxed with manuals, £300. Gary. Tel: 081 888 9885 (anytime).

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YAMAHA RX5 plus RAM cartridges, boxed with manuals, A1 condition, £300. Trev. Tel: 0842 764038 after 7pm.

YAMAHA RX17 drum machine, excellent condition complete with manual, £80. Andy Rhodes. Tel: 0782 336756.

YAMAHA RX21 drum machine, as new with manuals, £80. Dave. Tel: 0536 201711.

YAMAHA RY30 drum machine, immaculate condition, £275. Paul. Tel: 0438 812330 (Hertfordshire).

AMPS AND PA

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supplies for condenser microphones, £17 each. Mr Clark. Tel: 0923 673955.

ASHLEY FET200 fan-cooled Mosfet stereo power amp, £199. Ashley FET500 as above, £299. Both in vgc. Please call Mr Clarke. Tel: 0923 673955.

BOSE EQUALISER, £50. Tel: 0379 676670.

BOSS DR660 drum machine, brand new, £250. Nearly new Soundmaster power amplifier plus pair of full range cabs, £610. Vocal stage mic, £55. Foldback system, £170. Tel: 0827 58913.

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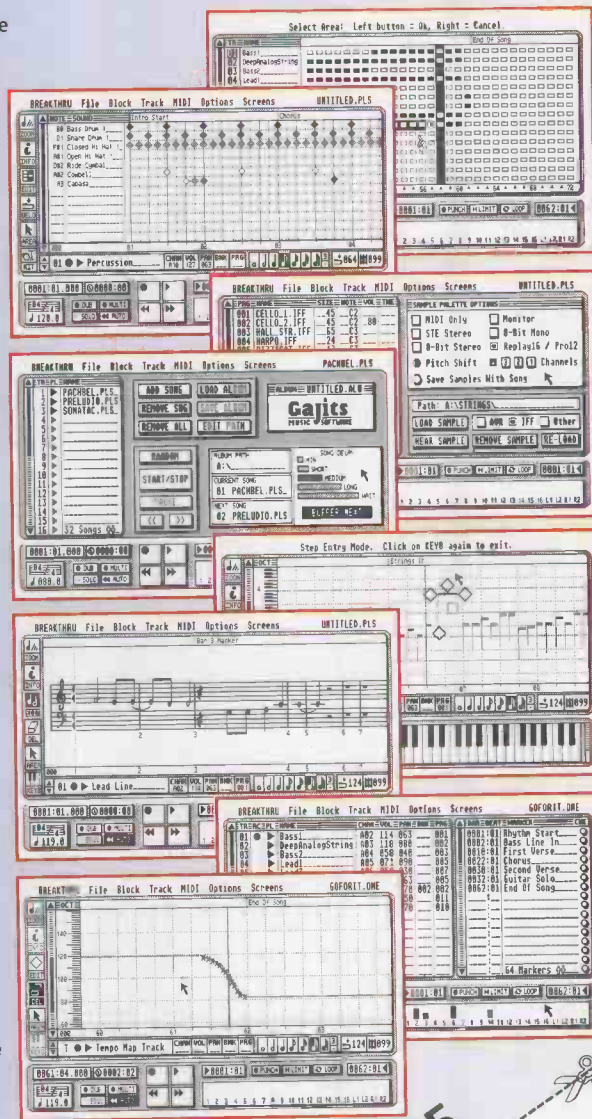
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