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Zero - G Datafile 3 Sample CD

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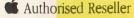
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SYNTHESIZERS

SYNTHESIZERS Matrix 1000 — (Call Waldorf Microwse (Call Roland JD800 — (Call Mid/Moog — (Call Protlogic Proteus board upgrade — (Call Roland JV80 — New

studio s

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# ontents

### COMMENT

Has popular music really become as stale as you think, or have you simply lost your ability to assimilate it? Tim Goodyer looks at the effects of growing volumes of music on limited listening resources.

### COMMUNIQUE

According to your English teacher, there are only 26 letters in the alphabet; so how come the world's leading hitech music mag attracts many more each month? Perhaps it's because - like MT's letters - only a proportion are printable. Keep them coming. . .

### NEWSDESK

Watching the news and not eating your tea/A freezing cold flat and damp on the walls. . . - an entertaining lyric from Paul Weller's Jam days.

### READERS' ADS

Biggest doesn't always mean best but when you're talking about the MT readers' classified ads section, you know you've got the best of both worlds - the secondhand market, as used by the pros.

### Appraisal

### KORG 01/W PRO-X 32

Korg's latest additions to their popular Oseries synth range include the professional flagship 01/W Pro-X keyboard and the more affordable 03/R rackmount. Simon Trask assesses their position in Korg's line and today's keyboard market.

### CONNECTRIX KEYBOARD STANDS 42

Whether you're gigging every night of the week or simply building up a small MIDI studio in your bedroom, you need something to prop everything up. Tim Goodyer inspects a range of keyboard stands whose cost belies their quality.

### FRONTIER X-TRA RAM DELUXE

If the limitations of your Atari are restricting your music, you may have been thinking about trading it in against something more powerful - but there are alternatives. Tim Goodyer rejuvenates the ST with a memory expansion.



LUME 6 NUMBER 7 JUNE 1992

MUSIC TECHNOLOGY JUNE 1992

### **ROLAND JV30**

Not simply a stripped-down JV80, Roland's new JV30 has some surprises to add to its minorbuck price tag. Simon Trask test drives a new Roland which could prove a popular buy amongst cost-conscious synth players.

### QUINSOFT QUADRAVERB TOOLKIT 66

With software synth editors challenging the instruments' own front panels for attention, Quinsoft have brought the popular Alesis Quadraverb an editor of its own. Ian Waugh looks in on the Quaddy.

### Music

### CABARET VOLTAIRE

Having helped establish the direction of British electronic experimental music in the early.'80s and helped guide it through the dance explosion, Cabaret Voltaire have released a new album. Tim Goodyer finds out why the tracks sound strangely familiar.

### **INNER CITY**

Confronting the "difficult third album" syndrome has presented fewer problems for Inner City mentor Kevin Saunderson than the "more of the same" second album syndrome. Simon Trask discusses musical ideologies, pop trends and advancing technology.

### Studio

### MACKIE CR1604

One of the nerve centres of any studio is its mixing desk - but how do you choose a mixer which is both affordable and expandable? Tim Goodyer discovers a desk which is built to last and to grow - and cost very little.

### ART MULTIVERB ALPHA 28

In their efforts to establish their signal processors as strongly in the UK as they have in the States, ART can't seem to bring out enough effects units. Nigel Lord evaluates the ART with aspirations to be number one.

### Technology

### ON THE BEAT

After some 30 months, Nigel Lord's seminal On The Beat series draws to a close. Over the months, it has covered programming skills and a wide range of drumming and percussion styles, and proved popular with amateurs and pros alike - it will be copied but never bettered.

### ALL SYSTEMS STOP 50

What happens when you your sequencer's "stop" button and why does such a simple operation sometimes cause so much trouble? Vic Lennard offers a few troubleshooting tips and reveals that there's probably more to it than you think.

### PATCHWORK

The final disc in the Zero-G Datafile series joins Coldcut's *Kleptomania* in the growing library of sample CDs - Tim Goodyer checks them out, while Andy Neve loads The Sound Foundation's programming efforts into his Roland MKS70 in this month's Patchwork.





r 1 a

THERE'S MORE MUSIC currently making its way onto CDs, LPs and cassettes than at any previous point in history. Fact. Statistically this should mean there's definitely *something*, *somewhere* out there to suit your exacting listening tastes. Maybe. What's not in dispute, however, is that you've got a bigger job finding it than ever before. The funny thing is, that once you leave the education system, chasing down new and exciting records becomes more of a demanding and time-consuming task than it ever was. And you probably never noticed - so Just what the hell has happened to one of the loves of your life?

Try this: most people "discover" music while they're at school, at which point they become part of a resource of keen ears and minds experiencing this particular pleasure for the first time. But more than this, the time and energy invested in procuring and assessing music is pooled during the breaks between lessons; each individual benefits from the efforts of the others. It's a simple, logical and remarkably effective way of getting to know and enjoy music. You don't realise it at the time, but it will never be the same again.

Free of the constraints of school, college or university, our musical disciples embark upon the second stage of their musical evolution. Deprived of this human listening resource, the full magnitude of the task is revealed - the cash, time and energy must be found to buy, play and assimilate the constantlyexpanding catalogue of available music. Looked at this way, it's no surprise that many music fans lose the faith - or at least, the enthusiasm to keep it up to date. The next Dire Straits album will sell in vast quantities simply because there is a generation of rock fans who bought and enjoyed *Dire Straits*, but lacked the energy to search out anything different afterwards. The same can be said of Genesis, Rush, Status Quo. . . What could be better than a series of LPs which offer new material without further challenging the listener? What could be worse for the evolution of popular music?

If you've ever seriously stopped to wonder why all your music sounds the same to your parents and failed to come up with a satisfactory answer, try the one presented above. Now consider this: the moment you stop holding on to the rough ride popular music gives you, you're going to be in exactly the same situation.

If you find yourself wondering where the magic in music has gone - why none of the music you're hearing on the radio or TV manages to raise the hairs on the back of your neck or makes you pine for the nightclub dancefloor - it's probably already happened to you. The odds are that there's music out there that'll do it for you, you just aren't finding it. It's not that music has started to fail you, you're failing it.

It didn't all end with Genesis (Martin Howard Naylor) and it didn't all start with Mr Fingers (Andrew Bleep Hill). It all started with the first buzz music gave you - and it all ends when you stop giving music the time to do it. Tg

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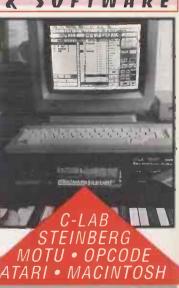
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### <u>com</u>muniqué

### second light

Having seen your brief history of Fairlight and the CMI last month, I thought you might like to know that they are still up and running. The Australian contact is Karl Seglins (International Sales Manager), 30 Bay Street, Broadway, Sydney, Australia 2003, and the British contact is Peter Wielk at Horizontal Productions, 8 Endymion Road, London N4 1EE, telephone 071-700 1852.

We have a Fairlight III and a Fairlight IIx here at Lillie Yard, but the IIx is only used as a door stop.

Dave Smith Lillie Yard Studio London

### window shopping

This letter is all about the apparent lack of serious software for PCs when it comes to music. I read the article you ran on Multimedia Windows, (October '91) but surely there must be some alternative than to wait several years before this new technology becomes available to the general user, or to paying many sheckles for what is currently available. Surely the PC computer format is not so stone age that it can't handle such a program. I am in no way an expert, but I believe that the problem lies in the multitasking ability of DOS. However, the Atari ST has an operating system of similar disabilities, and yet it's used by many professional studios. Is the

only serious alternative a move to the Mac?

I currently run a PS/2 with a 386 CPU and 80Mb hard drive which, for most of my needs, is great and I was thinking of going to a server in order to start networking for my business requirements. Studiowise, this leaves me with an ST for sequencing and a PC in the studio for my networking needs. I was hoping to be able to get rid of the ST altogether and have one integrated system. Never having worked with an Apple Mac, I don't know if they can talk to LAN servers in the same way PCs can. I don't know if you can help or whether I should I be writing to PC World instead. **Andy Bailey** 

Newport Pagnell Bucks

Sounds like you're in a mess, Andy - and PC World aren't likely to be sympathetic to your interest in the ST and the Apple Mac. But let's see if we can help.

First of all, the Mac isn't your only option - although it is currently the computer of choice for many pro musicians and studios. And because of this, it's attracting the attention of many of the software developers and consequently building up a very impressive range of music and music-associated software which, in turn, will consolidate its position within the field. Certainly, the Mac can take advantage of LANs and fileservers and would make an excellent - if pricey - basis of a studio/business computer network

I've always regarded the poor old ST as being a less-thanprofessional computer served by fully professional music software. That situation is changing, however, as Atari have finally recognised the ST's musical importance and produced a selection of more roadworthy machines - but that action itself is robbing it of the affordability which helped establish it. All that said, whichever model of ST you're running, you'll find that it stands up well against the competition - the two major sequencers (Creator/Notator and Cubase) are still being actively supported and the machine itself is friendly and flexible. And if you're running Creator/Notator and SoftLink, you'll find that you can run a number of programs (memory permitting) and have a very healthy degree of information exchange between them.

Which brings us to the PC. If you're insistent on running a network, you should find that Microsoft's Windows (now up to v3.1) will meet your musical needs as well as those of your business. Multimedia Windows, on the other hand, is aimed at managing a fully-integrated range of audio and visual media rather than simply the optimisation of a PC system - and you don't appear to need it. Instead you can opt for Windows v3.1 and the Windows version of Cadenza, for example, have and intercommunication between your sequencer and patch librarian (say) within the computer itself, as you can with the Mac and the ST. Alternatively, the non-Windows version of the same program will still run under windows, but with reduced internal communication with other programs. As far as I can see, this should meet your requirements. Do you really want to abandon the equipment and experience of one system (the PC) in order to learn another (the Mac)? If it's time you're worried about, I certainly wouldn't recommend it. **Tg** 

### euro techno

Please could you tell me where I could get hold of the Stakker videola *Euro Techno*, as I have never seen it for sale, but saw it in an MT back issue.

Hardy Finn Chelmsford Essex

Kiss me, Hardy - I can help.

Just to fill in the picture. Euro Techno was one of a series of four experimental videos released under the generic title "Videola", a couple of years ago. Along with Stakker's work, this included a pioneering piece by Godley and Creme entitled Mondo Video, a piece from Polish composer Zbig Rybczynski called Revolutions, and Tim Simenon's Attack. The feature you're referring to was an interview with the Stakker team (published in March 1990) about the conception and realisation of Euro Techno.

The news is that all these longform videos are still available through retail outlets via MCG/Virgin Vision. If you're having trouble obtaining them through regular channels - as you obviously are - you can either call in your order on a credit card line (on 0985 844729) or contact MCG/Virgin Vision at Forest House, Horningsham, Warminster, Wiltshire. **T**g

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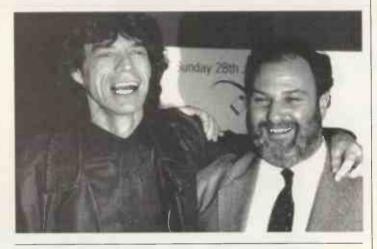
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### **MUSIC FOR THE MASSES**

On Tuesday, 26th May, the first National Music Day Roadshow hits the road. National Music Day, Yamaha and Federal Express have joined forces to promote the huge range of musical activities and events taking place throughout Great Britain on the 28th June, A "mobile music machine" will be visiting ten locations nationwide and specifically targeting schools and colleges. There will, of course, be fun for everyone and those attanding will be treated to live music and workshops from a top quartet of professional musicians, including Trevor Thornton, drummer and percussionist with rock band Asia; Martin Taylor, one of the country's finest jazz guitarists, Simon Bates, saxophonist, and Jeremy Allen, classical pianist. There will be surprise appearances from celebrity guests at each location, and a range of competition prizes and giveaways including a Yamaha synthesiser, electric guitars, free lessons at Yamaha music schools and National Music Day promotional items.

Over 1400 registrations, covering the entire musical spectrum, have been received to date and more are expected. Locations for the National Music Day Roadshow include Plymouth, London, Milton Keynes, Birmingham, Nottingham, Manchester, Leeds, Glasgow, Newcastle and Cardiff.

For more information call the National Music Day Line on 071 491 0044.



### BASS INSTINCTS

Not content with bringing you the Dr Beat killer drum patterns on disk, Heavenly Music are now offering the bassline too - in their new Beat 'n' Bass. Heavenly say that the new disk was created in response to a demand from their customers, who consistently mention the difficulty of creating bass and funk guitar phrasing on a MIDI keyboard. Beat 'n' Bass offers bass slaps, pulls, thumps, muted guitar phrases and so on, as well as another 50 completely new drum and percussion patterns. Patterns are now split across several tracks, making them even easier to use, and extensive documentation on disk is provided. Presented at the recent MIDI Music Show, the new disk met with an "enthusiastic response". Price is £19.95 including postage and packing. Other Heavenly Music announcements include the release of RamJam 2 and 3, with a total of 10 new jams, at a price of £13.95 per disk, and the news that their popular (and very impressive) Megga Tracks MIDI sequences are soon to be available as audio backing tapes in various formats - cassette, open reel and DAT. Mac conversions are also underway for all disks Heavenly Music produce.

More info from Heavenly Music at 39 Garden Road, Jaywick Village, Clacton on Sea, Essex C015 2RT. Tel: (0255) 434217. **Dp** 

### EPS GETS A BREAK

More sampler fodder is on the way, this time from 4D Productions, with their Breakbeat Series 1 for the Ensonig EPS sampler, 50 breakbeats specially selected by 4D to "stand the test of time". Ordering is by the usual 4D method - you pay "by the instrument" at £4.50 per disk, though bulk-buy discounts will be available. Examples of the beats on offer include Boom Loop 1, 2 and 3, Funky Guitar and Funky Hybrid 1 and 2, Garage 1 thru 5, Kraft Loop 1 thru 5. Smooth Funk, Rough Soul, and so on. 4D's documentation includes the size (in EPS blocks) of each

SOUND

**PEOPLE** at the recent Frankfurt Music Fair and

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chaps at 4D would like to thank all

current customers for their support

over the past year - comments

regarding 4D's libraries and

suggestions as to what should be

added to the range will be gratefully

More from 4D productions on

received.

(0392) 876675. Dp

Probably the first third-party sounds on the market for the new Roland JV80 are being distributed by Patchworks. The Metrasound Studio Sounds collection offers 64 Sounds and 16 Combinations for the JV80, including "inspiring" synth sounds, funk basses, pop brass and so on. These German sounds were launched at the recent Frankfurt Music Fair and are available now at a cost of £59 (ROM), £79 (RAM) and £34.95 on ST disk (with universal bankloader included). More information can be obtained from Patchworks at Frederick House, 211 Frederick Road, Hastings, East Sussex TN35 5AU. Tel: (0424) 436674. **Dp** 

### **DOBSONS DICTIONARY**

It's easy to find fault with Richard Dobson's *Dictionary of Electronic and Computer Music Technology*. But that's only because the ideal "MIDI Dictionary" can't be written - not for my money anyway.

That said, a Dictionary of Electronic and Computer Music Technology does fill a gap which has desperately needed filling for some considerable time. I put it to the "Telharmonium Test" and found that the beast in question warranted a fullpage reference giving it full credit for being the unwieldy 19th century, telephone network-based additive synthesiser system that it was. Full marks. Beyond this, the Dictionary of Electronic and Computer Music Technology comprehensively explains MIDI and synthesiser terminology (even straying rather unnecessarily into guitar territory) in a way that makes it both useful to the novice and entertaining for the more knowledgeable.

There is a scattering of informative

diagrams, and the *Dictionary*'s appendices include binary/hex conversion charts, musical scale and frequency tables and a breakdown of MIDI commands. All of which take it beyond being a simple solution to the basic "what's a ring modulator?" and into the realms of being a useful reference book. The trouble is, that being a £25 hardback, the volume isn't going to appeal to everybody. Perhaps it's too rudimentary for the pro or serious amateur and too costly for those lacking the dedication to shell out 25 notes on a book.

For those of you who are serious about breaking into MIDI/synth technology and terminology, it could be a crucial buy, however. And for those looking to substantiate their knowledge in the field, it could offer informative, if not essential reading.

A Dictionary of Electronic & Computer Music Technology is published by the Oxford University Press, ISBN 0-19-311344-9. Price £25. Tg

### DEAL ME IN

Coming soon from Microdeal is Mastersound PC, a new low-cost sound sampler for the IBM PC and compatibles. The sampler cartridge enclosed in the package plugs into any printer port and allows you to sample; once the sample is completed, it may be edited using Mastersound's editing facilities including Cut or Delete selected sample area; Mix sample; increase/decrease volume: Fade In/Out with selectable degree of fade: Paste sample (using buffer); Filter; Echo; Real-time oscilloscope; Trigger Recording; Loop, and so on. Mastersound requires an IBM PC AT 286, 386 or compatible and EGA/VGA display with mouse. A hard drive is recommended, and the program is Adlib and Soundblaster compatible. It will retail for £59.95 including VAT.

Sticking with sampling, Microdeal are also announcing Replay 16, a lowcost sampling system for the Atari ST featuring 16-bit input and output. The system comes complete with a sophisticated sample making/editing program; Drumbeat, a digital drum machine program; and a MIDI keyboard emulation program called MIDIPlay. The sampling unit plugs into the cartridge port of the ST, and audio connections to and from the sampler are on standard Phono connectors. An input volume control is also provided.

The Replay 16 system runs on any ST or STE with 520K, though a minimum of 1Meg is recommended, and will cost £129.95 including VAT. More from Microdeal at PO Box 68, St Austell, Cornwall, England PL25 4YB. Tel: (0726) 68020. Fax: (0726) 69692. **Dp** 

### **CRIMEWATCH MT**

Tea-leaves were about even at the recent MIDI Music Show at the Novotel, Hammersmith. "Lost" from the Yamaha stand was a grey Yamaha 3.5" floppy disk case with the legend "Yamaha SY99" in gold on the front. The box contained three RAM cards (Yamaha MCD64) and a Yamaha Swiss Army knife. The lost ROMs contain SY77 demo data and demo voices and irreplaceable SY77 WX wind controller sounds. They can be identified by the

piece of white masking tape on one, the words "SY77 Dem" in pencil on another and the words "SY WX" on the last, again in pencil.

The missing items do not belong to Yamaha, but to Simon Bates, one of their hi-tech demo bods. He's particularly anxious to see them back, whether they were lost or stolen, and is offering a reward for their safe return. If you can help, contact Simon through Mike Clement at Yamaha-Kemble on (0908) 366700, extension 337. **Dp** 

### TAPE AND BE DAMNED

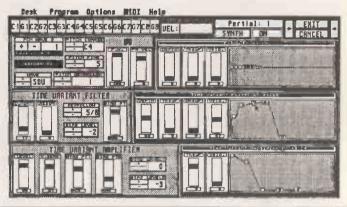
Fierce debate is still raging over European plans to introduce a levy on audio and video tape and recording equipment. Certain parts of the record industry in Europe are bringing pressure to bear for a levy, to compensate them for the losses they claim through home taping of commercial recordings. However, such a levy would not take account of the type of material being recorded: musicians recording their own material would, unfairly, have to pay the copyright levy just like everyone else. The Home Taping Rights Campaign, a UK Group in opposition to the levy plans, are welcoming a recent report which criticises the introduction of the new tax. The report from the Consumers in the European Community (CECG) concludes that levies penalise users irrespective of whether or not copyright is infringed. Marianne Yarwood of the HTRC comments that "Recording industry claims of enormous losses caused by home taping are greatly exaggerated, as the

vast majority of home taping does not cause any loss, and in fact has been shown to stimulate sales of music. Although most EC countries don't have levies, consumers in Germany, France and the Netherlands are already being penalised by this unfair and unwarranted tax. When the new levy recently hit the shops in Holland, all tape users - teachers, students and blind people, as well as consumers - were faced with an unnacceptable price hike. We appeal to the consumers in the other Member states to join with Britain to ensure that the EC stays levy-free."

If any of you out there as musicians, using blank tape and recording equipment for their own music, would like to add your voice to that of the Home Taping Rights Campalgn, they can be contacted at their campaign office, Number One Dean's Yard, Westminster, London SW1P 3NR. Tel: 071-799 9811. HTRC should be able to advise you on the best way to make your views heard. That means you! **Dp** 

### SOFT IN THE ED

Syntec Software now have available the Protone Plus Tone Editor/Librarian, in versions for the Roland D5, 10, 110 and 20 and the Roland GR50. The program runs on any Atari ST computer in mono and offers a "powerful" visual editing system - providing facilities such as Click-n-Drag sliders and graphic envelope, and bias point displays - a comprehensive librarian, easy-to use GEM interface, extensive on-line help, a maskable randomise and a useful manual. The price is certainly right, with the D-series editor retailing at £39.95 and the GR50 version at £49.95. To try before you buy, contact Syntec for the demo version of the program at £3.50, refundable on purchase of the full version of the software. Syntec Systems are at 54, Chelsea Close, Hampton Hill, Middlesex TW12 1RS. Tel: 081-941 4425. **Dp** 



### DAT QUICK OFF THE MARK

Having made its debut (to much interest) at the AES show in Vienna, the new Studer D780 R-DAT recorder is now freely available in the UK. The D780 features the "Quickstart" facility as standard - and is unique in this respect. This feature enables the operator to start audio without delay at 99 startpoints via track/programme numbers essential in on-air broadcast applications where audio is immediate, and also trés useful in studio, video, film and postproduction environments. The new DAT recorder also incorporates a shuttle wheel for accurate cueing (actual tape time) and locating particular segments of pre-recorded audio. Further features include: Auto cueing to modulation, faderstart, RS232, startpoint editing, AES/EBU and SP/Dif formats, varispeed, 64x oversampling, bargraph with peak hold, and phantom-powered mic inputs with sensitivity selection.

This pro machine will cost in the region of £2750 excluding VAT. More details are available from the Studer Division of Studer Revox (UK) Ltd, at 49 Theobald Street, Borehamwood, Herts WD6 4RZ. Tel: 081-953 3533. Fax: 081-207 5103. **Dp** 

### **BRIGHTON ROCKS ON**

Brighton Rock, Europe's largest summer school solely devoted to pop in all its forms is celebrating its fifth anniversary this year. Students at each Brighton Rock summer school enjoy an intense week of performing, instrument and technology tuition, specialist music workshops and indepth business semInars, all from leading musicians and music industry professionals.

Specialist tutors for this year include Deirdre Cartwright (BBC Rockschool) and Alan Limbrick (Art of Noise, Guitar Institute founder) on Guitar; Adrian York (Ronnie Jordan, Definition of Sound) and Mick Parker (Mory Kante, Joan Armatrading) on Technology and Keyboards; Steve Washington (Kim Appleby, Eddy Grant) on Drums; Carol Grimes (leading British blues singer) and Ian Shaw (Boy George, Fairground Attraction) on Vocals; Rob Burns (David Gilmour, Basstech tutor) on Bass. Leading Industry management figures will be present to cover the business seminars, dealing with such topics as negotiating record and publishing contracts.

The price for the week-long course is £298 (residential) or £214 (nonresidential). More details and brochure from Angie Oxley at Brighton Rock, Music Faculty, Arts B, University of Sussex, Falmer, Brighton, East Sussex BN1 9QN. Tel: (0273) 678109. **Dp** 

Part 31

**ON THE** 

e A

WHICH COMES FIRST, THE CHICKEN OR THE EGG; THE BEAT OR THE SONG? THIS MONTH'S RHYTHM PROGRAMMING EXERCISE SEARCHES FOR THE ANSWER. TEXT BY NIGEL LORD.

THE QUESTION I'M most frequently asked by those seeking my "expert" advice on drum programming is whether 'tis better to write a piece of music around an existing rhythm track or whether the rhythm should be tailored to suit the music. As you'd probably expect, my answer is that it depends: either approach has its advantages and is determined to a considerable extent by the kind of music you play and - perhaps more importantly - by the kind of results you expect to achieve.

Far from being a minor aspect of your music, the rhythm itself and the rhythmic aspects of the melodic and harmonic components of your work are critical to your style and, ultimately, to the area in which you end up operating. And this goes well beyond the obvious divisions between dance and non-dance music. Much of the problem centres around the fact that there is a far greater rhythmic component inherent in the performance of melodic



ideas than vice versa. Put simply, it's impossible to play any kind of melody without giving it either a real or subconscious rhythm. The physical act of playing notes is in itself rhythmic. In contrast, rhythm tracks can, and frequently do, have no discernible melodic content whatsoever.

In practical terms, this means that for a melody line to be rhythmically workable after it has been conceived and performed, it has to be played to a structured guide rhythm which, though not necessarily of interest in itself, may be easily replaced by a rhythm pattern. Amongst other things I'm describing the metronome here, or to give it its more recent title - the click-track. A further name we might use, listening to a lot of contemporary music, these days, is the drum machine - since many people still use this wondrous instrument as little more than a glorified metronome.

Which brings me back to the question of

whether rhythm tracks should be programmed before or after the rest of the song has been written. Clearly, you need the metronomic qualities of a rhythm track to assist in writing the rest of the song and the drum machine performs this task admirably. The problem is, having done so, it's all too easy to forget what the drum machine could then go on to provide, rhythmically, and accept the feel of a characterless drum track which has been selected just to get the feel of the song. This, I'm sure, happens on many occasions where drum machines are used: unlike their human counterparts. they make no distinction between interesting and uninteresting rhythm tracks. And as sophisticated as they have become, they still can't swear at you from the corner and demand respect as a fellow musician

Another aspect of the problem is the nature of click-tracks themselves. Because they are utilitarian and usually only very thinly populated, rhythmically, it's all too easy to fill in the spaces left between beats with the other instruments - the most obvious example being the bass. On then attempting to replace the guide track with something a little more stimulating, you'll often find that everything sounds overbearing - as if it's been grafted on top of the rest of the song. Which, indeed, it has.

As far as I'm concerned, discipline is of vital importance when it comes to writing and performing music. My rather blasé attitude towards jazz centres on what I perceive as being too great a freedom to do what you like. When it works it's art, when it doesn't it's a dull ache, and too few contemporary musicians seem to know when they've crossed the line. What I like about composing around an existing drum track - particularly the more complex rhythm - is that it imposes a certain discipline on your approach to the rest of the music. Having to cope with a snare drum note occurring on an unpredictable beat of the bar or a fast hi-hat figure can be very stimulating and is often the springboard for other ideas. And the same is true of sampled breakbeats.

I'm not suggesting we opt for gruesomely complex rhythms to satisfy some masochistic urge in ourselves as musicians - or as a means of showing off. We might still groan under the presence of '70s pomp-rockers, but even they have been reduced to playing harmless ballads for the most part. No, I'm putting forward the notion of writing music around more distinctive rhythm parts, in the belief that we will be encouraged through this to write more distinctive music.

To that end, may I present this month's patterns. Six interesting, and hopefully >

➤ stimulating, rhythms which, if used as a basis for your songwriting, might just move you off the straight and narrow and into fields of musical experimentation where others seldom tread. Make no mistake, these are not rhythms designed to be deliberately off the wall. There's no complex programming involved, no odd time signatures, and a number of them would be extremely danceable given the addition of a few complementary instrument lines. All they are is an attempt on my part to add a little spice and flavouring to the more routine patterns which so regularly crop up in contemporary music.

As usual, choose your instruments with care - try to avoid those which overlap too much in the frequency spectrum and be prepared to adapt and experiment. Watch out for the non-triplet ride cymbal part in Pattern 2 and keep a check on your overall instrument mix. See ya...

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MUSIC TECHNOLOGY JUNE 1992

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### MACKIE DESIGNS

Mixer System

# CR1604 MIXER



If the beauty of a MIDI-based music setup is its ability to meet changing requirements, it's a beauty that's been sadly missing from most affordable mixing desks. Until now. Review by

Tim Goodyer.

HE TREND OF major manufacturers of mixing desks producing "budget" desks to appeal to the growing home/pre-production studio market is now well established. Companies such as DDA, with their Interface, Soundcraft, with their Spirit and Soundtracs, with their Solo, represent "affordable quality" in mixers. Understandably, the desks arising from this marketing direction have attracted considerable attention from musicians and press alike, pushing long-standing affordable desk designs like Studiomaster's Pro-Line and Mixdown out of the limelight somewhat. The arrival of a new manufacturer of budget desks, however, may help redirect our attention.

American company Mackie are the newcomers in question. They're not here to tell you how long their more upmarket desks have been favoured by "name" producers or how the design of their budget desk is derived from the mega-expensive circuitry of one of the upmarket leaders. Instead they're here with a clean slate and a refreshingly realistic attitude to cost-effective mixing desks. And they've come up with some remarkable ideas.

Let's not pretend that the basic Mackie CR1604 is going to be snapped up by any major recording studios - it has the home studio first timer and the MIDI maniac firmly in its sights. But this modest 16into-four desk will allow you to expand it to accommodate some 48 line ins and 16 balanced mic ins with 12 stereo effects returns, 24 direct outs and MIDI muting - without the usual complication and compromise of cascading one submix into another.

### DANCE SAI DOUBLE W

### **BUN** Pascal Gabriel Da

Over 1000 Dance Samples from one of the ducer/Remixe w Order, and mai dmany

Pascal has worked with: Bomb The Bass, S-Express, EMF, Inspiral Carpets "...house gold dust...breaks new ground..." - MT, D "...off beat, quite distinctive, and highly usable...you almost certainly won't hav memorable...a revelation...uniformly excellent...the basis for many This CD is already being used by such big names as Technotronic, eard them k it." - SOS, Jan 92 Shop Boys & Propaganda

### **OR** Coldcut's Kleptomani

1164 Choice Dance Samples from the highly sought after DJ These guys helped launch Lisa Stansfield & Yazz to Internatio Over 400 AMAZING Loops plus Vocals, Scratching, FX, He "Coldcut's samples are raw, wicked and packed into the terraces...the qu brilliant, and definately going into my S770...this CD represents another 'm

Matt Black Matt Black & Jon Mare rdom now it's your turn! ples, and loads more! music content is very high...quite for any serious dance enthusiast." -

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### JJ Jeczalik

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It's nice to know you're buying a piece of gear which isn't destined to appear in MT's Readers' Ads in six months' time.

### SYSTEM BASICS

THE BASIC BUILDING block of the Mackie system is the CR1604 16:4 mixer. This boasts 16 inputs (six mic on XLR sockets, ten line on unbalanced jacks), and two stereo output pairs. Each input channel is equipped with four aux sends, three-band EQ (±15dB/80Hz; ±12dB/2.5kHz; ±15dB/12kHz), a pan pot, solo button, Mute/Alt button (which removes the signal from the main stereo output and redirects it to an alternative stereo output pair) and a 5cm-throw

"Mackie are here with a clean slate and a refreshingly realistic attitude to costeffective mixing desks." channel fader. The master section of the desk hosts four aux return level and pan pots, mono buttons for the aux returns, Aux Solo button, LED ladder level meters, Alt Preview button, Main Output Mute button, Solo to Main button, power LED, solo active LED, headphone jack, and master outs and Solo/Phone

level on 5cm-throw faders. There's also room for a piece of masking tape under the faders for use as a scribble strip. In the top left-hand corner there is a socket for a gooseneck light.

The overall layout is tidy and compact enough to facilitate mounting in a standard 19" rack should it suit your requirements. To this end, all connections to the CR1604 are made via a special section of the design which allows you to have the sockets as a "conventional" rear panel or on the opposite face of the unit from the controls - so that they are accessible from the rear of your rack. Additionally, you can use Mackie's Rotopod to bring the connections onto the same face as the controls, for maximum accessibility when the mixer is used as a flatbed.

Apart from the power lead (to the internal transformer), this panel houses trim pots for each input channel, a quarter-inch jack for each channel, XLRs for each of the first six input channels (with globally-switchable 48V phantom power), insert points for input channels 1-8 (which can also be used as direct outs if the jack is not fully inserted into the socket), six aux sends, four stereo aux returns, insert point for the main mix, two outs from the "Alt" buss, a mono output from the main stereo mix and a monitor output.

The build quality of the entire unit is solid to say the least. It's heavy (18lb) and sturdy, and you won't find a piece of plastic where a piece of metal will do a better job. You'll be seeing this mixer around in years to come.

### HANDS ON

THE FIRST ASPECT of the CR1604's operation to consider is whether or not you want to rack it up. If you do, you'll find the necessary mounting lugs included and you'll be faced with your second decision: whether you want the panel surface flush with the front of the rack or recessed to protect the controls. Before you can actually tighten the bolts, you'll also have to decide whether you want the connections to be accessible from the front of the rack (most likely for studio installation) or the back (better for a pre-wired gigging setup).

Connecting the outputs from your synths, samplers and drum machines to the 1604's line inputs and optimising the input gain shouldn't need explanation. Neither should the connection of your effects units to the mixer's effects sends and returns - except to point out that the Mono buttons in the main section are invaluable if you're using anything with a mono output.

One of the main operational considerations depends on whether you want to run it with or without sub-groups. Although you can't really regard the Mackie as having conventional sub-grouping facilities, it is possible to use the Mute/Alt buttons to create a stereo submix within the main stereo mix. When the Mute/Alt button on a channel is pressed, it sends that signal to the alternative stereo output pair on the rear panel. If this pair is patched back into the mixer (either on two of the main input channels or one of the stereo fx returns) this "alternative" mix can be treated as a stereo sub-group. Of course, using two input channels will give you full control over EQ and effects on the sub-group but it will also reduce the 1604's input capacity by two. You might prefer to use a mono submix, requiring only one input channel to be sacrificed. Using the aux returns will mean that you have no EQ or effects operating globally on the submix, and it will mean you have to mix the submix into the main mix on a pot in the top right-hand corner of the desk, rather than on a fader with the rest of the mix.

The alternative mode of operation is running the 1604 with a multitrack. Here you can route any input channel to any of the four output jacks (these can be split between tape inputs if you're running more than four tracks of tape).

Moving on, we come to the effects routings. Aux Send 1 is pre-fade and can be switched between aux buss 1 and the Monitor buss. Send 2 is post-fade and dedicated to aux buss 2. Sends 3 and 4 are also post-fade and may be switched between aux busses 5 and 6 - that is, Sends 3 and 4 can be routed to busses 3 and 4 or 5 and 6. If Send 3 is routed to buss 5, Send 4 is automatically routed to buss 6. The Aux Solo button (in the master section) solos all the aux busses together on the headphone mix. If you want to audition them over your monitors you have also to press Solo to Main.

Similarly, the Alt mix can be routed to the headphone buss with the Alt Preview button in the main section.

### OPTIONS

MAKING MORE OF the CR1604 than a straightforward 16-into-two (or four) mixer is made easy by virtue of Mackie's "bolt-on" extras. The XLR10, for example, will add ten balanced line mic inputs to the six integral to the basic design. Interestingly, these work



alongside the channel 7-16 line inputs, effectively adding ten mic inputs to the 1604's facilities although the mic and line in on channel 10, say, share the same EQ and effects.

The Mixer Mixer may sound like a mild attack of tautology but is actually Mackie's method of expanding the CR1604. This allows the interconnection of three 1604s to give a 48-input, 12-stereo fx return, mixing facility - which can be rack mounted.

MIDI automation is also included in the Mackie Plan, but rather than bog-standard channel muting or prestigious VCA (dynamic) systems found on other desks, this takes the form of resistive network dynamic automation. Consequently you've got full fader automation (and muting) over the desk's input channels, aux returns and master outputs. The automation circuitry is internally-mounted and comes in CR1604-sized blocks so that it's possible to automate anything from a single 1604 up to a three-1604/Mixer Mixer system. Further, the resistive network approach to dynamic automation precludes the problem of "zipper" noise sometimes encountered with coarsely-stepped VCAs.

### VERDICT

THE CR1604 HAS something of the feel of a Land Rover to it - it was built to be used. The level of attention paid to every aspect of the desk's design and construction is impressive, as is the overall concept of expandability. I'd say that the system is little short of ideal for someone starting small but hoping to develop their setup beyond their current horizons and budget. Although other manufacturers claim that expandability tends to be an option that helps sell desks, yet is rarely taken up by its owners, I can readily imagine adding a second CR1604 if I'd invested in a first. And a third if it suited me.

My main criticism of the design rests on the performance of the EQ, which is adequate if a little

bland. In the context of a traditional studio, I could imagine adding a couple of carefully-chosen parametrics to my outboard gear. In the context of synths and drum machines, however, the level

of control presented by the sound sources themselves tends to leave you either needing very little EQ or bucketloads of it - in which case outboard EQ is almost unavoidable.

If I had reached the point in the development of my MIDI setup at which a mixer had become a necessity, I'd certainly need to see the Mackie before I'd buy anything at all.

**Prices** CR1604 mixer, £799; Rotopod, £47.49; XLR10, £289; Mixer Mixer, £229. All prices include VAT.

More from Key Audio Systems Ltd, Unit C, 37 Robjohn's Road, Chelmsford CM1 3AG. Tel: (0245) 344001. Fax: (0245) 344002.

"The CR1604 has something of the feel of a Land Rover to it it was built to be used."

### non-stop electronic CABARET

From their early electronic

experimentations to their latest album release, Cabaret Voltaire's watchword has been technology - and they've served it as well as it's served them. Interview by Tim Goodyer.

> "WE'VE ALWAYS FELT THAT TAKING technology, using it and juxtaposing it with other things is always the way that music is going to go", says Stephen Mallinder, neatly summing up Cabaret Voltaire's 20-year career in electronic and experimental music. What he's failed to address, however, is just how influential that career has been.

Formed in Sheffield in the early '70s, Cabaret

Voltaire initially inhabited a shady world of tape editing and ring modulators, their live shows assaulting the audience's senses like punk or metal a decade or two later. There were three of them then - Stephen Mallinder sang, whilst Richard Kirk and Chris Watson adapted technology to their own ends. Watson was soon to disappear, however, leaving Mallinder and Kirk to their own devices - literal and figurative.

Their first LP, Mix Up on Rough Trade records, didn't appear until 1979, but it did mark a milestone in the evolution of British experimental music. For Cabaret Voltaire it marked the first of a series of recording "periods" they were to experience. From Rough Trade they moved to Virgin, releasing three popular albums between 1983 and '85 (The Crackdown, Micro-Phonies and The Covenant, The Sword and the Arm of The Lord). Nineteen-eighty-three also saw the release of one of the first ever long-form videos, a procession of disturbing images accompanied by a disturbing soundtrack which was uniquely Cabaret Voltaire. (Recently re-released through BMG Video.)

From Virgin, the Cabs moved to Parlophone for another two LPs - Code (1987) and Groovy Laidback >>

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For further information and a free leaflet contact Roland (UK) Ltd, Atlantic Close, Swansea Enterprise Park Swansea, West Glamorgan, SA7 9FJ Fax: 0792 310248 • Tel: 0792 310247 > and Nasty (1990). But with the move to Virgin had come a growing identification with dance music; melodic considerations were still minimal but their use of repetition and exploration of sound textures were years ahead of their time. The Parlophone period, meanwhile, saw them distilling elements of experimentation and dance (and even borrowing from Stravinsky's The Rite of Spring) in pursuit of a more commercial level of experimentation. Identifying heavily with Brian Eno's definition of "non-musicians", the means to the music had been technology all the way down the line. In the early days it was cheap guitars and drum machines fed through ring

modulators, by the time of *Groovy...* it had escalated to the heights of E-mu's Emax and SSL's automated mixers. But it was all technology.

Since (amicably) parting company with Parlophone, Cabaret Voltaire have released material on the Belgian Crepescule label and have several releases planned for a label of their own. The Northern techno movement which has benefitted from earlier Cabaret Voltaire influences - has also profited by Richard Kirk's direct participation in various tracks released on the Warp label. Tricky Disco's eponymous

by Richard Kirk's direct participation in various tracks released on the Warp label. Tricky Disco's eponymous single for one, and the highly-influential prototype bleep track, 'Testone' by Sweet Exorcist, for another. Perhaps most surprisingly, the Cabs are about to release an album of remixes of the Virgin era material, appropriately entitled *Technology*. If you're familiar with original tracks you'll find listening to it an enlightening experience - tracks such as 'Just Fascination' (from *The Crackdown*) and 'Sleepwalking' (from *The Covenant*, *the Sword and the Arm of The Lord*) have acquired a duplicity which allows them to simultaneously exist in the seedy experimentalism of the early-'80s and the beat-driven '90s. It's recommended listening. And if the Cabs' own remixes aren't enough to recommend the album to the techno fraternity, a single, 'I Want You' (originally from *The Covenant, the Sword and the* 

> 8 for imminent release. "We'd toyed with the idea of doing something like this for a long time", comments Kirk, "and I think sufficient time had elapsed between when we did all that stuff in the early and mid-'80s for us to come back to it.

> Arm of The Lord), has been further remixed by Altern-

"We liked the remix album that Yello did, and it was that and the Kraftwerk remix thing that made us think the time was right. The Virgin material seemed to be quite suited to it, so we got all the tapes and went ahead with it. It was almost like being given someone else's multitrack and thinking 'What shall we take from this?' because we were distanced from it. We tried to take what we thought were the most important elements and, given what's happened in music since then, it was a case of making it very sparse and being ultra selective about which parts we used."

"It got a life of its own as it went along", elaborates Mallinder. "It was initially an idea to be able to repromote our back catalogue by doing this CD of remixes, and that was meant to regenerate interest in it. But Virgin then realised that it was more like a new LP, and from that came the idea to bring it out on vinyl, doing the 12" and the promo..."

"Originally it wasn't going to be released on vinyl", Kirk elaborates, "it was going to be CD only. But they decided they wanted to bring it out on vinyl toowhich is good because it's kinda dance based and mixing people would want it on vinyl rather than CD."

Given their relatively low public profile, it's surprising just how strong is the influence Cabaret Voltaire have exerted through the mid-'80s synth-pop movement and beyond into the UK techno scene. Could this retrospective album be a way of taking credit for some of their past achievements? As their press officer had put it just before the interview, "they're rather backwards in coming forwards".

"It's awkward for us to say what influence we've had, but at the same time it is a way of short-circuiting the past and putting it into a modern context", Mallinder comments. "Hopefully, people will be able to see the relationship between what we've done in the past and its relevance today in terms of it not sounding like old ideas welded onto new sounds."

"I think the main difference is the tempo", ventures Kirk. "A lot of the stuff is slower than what's going on today; everything's sort of speeded up somewhat ridiculously. We thought about it a lot: should we speed our stuff up or should we leave it as it is? In the end we thought it would make a change to hear something a little bit slower. I think it's more for home consumption than an out-and-out club environment."

"What was groovy in 1985 was about 108-112bpm", says Mallinder, "but now it's kind of 128 minimum, so it doesn't mean they're slow tracks. They've got their place and we didn't want to get locked into making them sound too contemporary or vogue-ish. They sounded funky enough at the time so we thought we'd leave 'em like that. There again, although we went into the project with the idea of it being 12" mixes, it was meant to be an album as well. We wanted to give it club elements that we've come to work with but, at the same time, it's got to have some durability."

If their track record is an indication, durability is one quality the remixes should have in spades - all the Virgin back catalogue has been re-released on CD, and when ten copies of the sadly deleted *Code* turned up at Parlophone's press office a while back, they disappeared within a few days.

Another indication of Cabaret Voltaire's durability is the range of artists they can claim to have influenced typically, they're reluctant to claim too much credit.

"Any kind of reference we take as flattering", comments Mallinder. "I don't think anyone's tried to link us with anything we don't feel any part of. I think it's kind of self-evident what we've done because it's all electro based and there are obvious links with what's around. We're quite happy to accept that responsibility.  $\gg$ 

"We liked the remix album that Yello did; that and the Kraftwerk remix thing made us think the time was right - so we got all the tapes and went ahead with it."



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everybody else does - we don't create something and then sit back to see if it's any kind of bombshell." Although I don't think we're particularly responsible for the rave stuff at the moment.

"We will always carry on and do another record, so it doesn't make really anv difference what everybody else does - we don't create something and then sit back to see if it's any kind of bombshell. For us it's a record, a piece of music, that, hopefully, we're proud of and then it's onto the next. We're pretty prolific so we don't sit around examining the results. The early Virgin stuff wasn't what we thought would be happening in five years time, it was

just 'what we did'. We were just using what was available to us, I don't think we were conscious of starting any trends."

### BACK IN THE DAYS WHEN CABARET VOLTAIRE

were a three-piece, it was Watson who bought and built their first synthesiser - a Dewtron kit. Kirk continued the quest, building up an enormous collection of gear over the years. Little, if any of it, is ever disposed of. It sounds like a great way to live but what happens when you decide to remix material that's almost ten years old?

"One of the things we did before we started the remix album", begins Mallinder, "was to have a lot of the older stuff MIDI'd up to give us a bit more scope stuff we'd have used on those original records. That was the link between the two things.

"When we were doing those early things, a lot of it was done with edits. What you heard on record wasn't reflected in the structure that was on 24-track, so the 2" master wasn't that relevant anyway. The finished versions of the originals were very much based on edit sections; the 24-track often didn't make much sense.

"This time we picked out from the multitrack what we needed, but instead of using a half-inch machine, or a quarter-inch machine to piece it together, we used a sampler."

"We've still got the 24-track machine", reveals Kirk, "but all we use that for now is vocals - and we sample them from it anyway. Everything is computer automated now, including the vocals.

"We've been toying with the idea of getting a digital eight-track and getting rid of the 24-track altogether because unless you use it for remixes it's redundant. And it's so big!

"We've got two Revoxes but we hardly ever use them either. We try to do everything in the computer so we don't need to edit. Obviously it would be nice to have a Sound Tools system to edit in, but we're restricted by our budget."

"When we did this remix album, we did actually run the 24-track for a couple of tracks", says Mallinder. "Most of what we did was rewritten and rearranged in the computer, and using the 24-track would have fucked up the original tape. A few bits were flown in from the 24-track, but not very many."

Kirk steps back in: "We just sampled everything that we needed and reconstructed the tracks the way we wanted them. We've also sampled off the old drum machines - we've got loads of poxy old drum machines that we used to use, and every now and again we'll drag one of those out and sample some of the sounds or maybe even a couple of bars of it playing along. We still use the old VCS3 and we went out and bought a second SH09 and had it MIDI'd up especially for this album."

One of the trademarks of Cabaret Voltaire's early material was heavy use of signal processing. Has the advance of technology - not least in the areas of budget signal processors - influenced Kirk and Mallinder's working methods?

"We've got the dodgy old flanger/phasers that we've accumulated over the years", comments Kirk, "but I can't remember the last time we bought any effects. I mean, they've kind of become surplus to requirements if you're sampling a lot of things, because you get that texture from the samples. When you sample something it's probably already got an effect on anyway.

"These days we play everything in off the DX7", he continues, "that's the master keyboard for everything. The D20 we only use sparingly for pads because it's a bit clean. The SP12 is still kicking around but it doesn't get used much. The best thing about it is its hi-hats; as a sampler the sample time is that short that it's been superseded. But if you could get it updated and get the sample time increased, you could do away with everything else - you've got everything in one box."

With such a heavy requirement for samples, I wondered if just one \$1000 was enough to get the job done.

"It is restricting", Kirk agrees, "but that's where the Emax comes in. We keep the Emax just for vocals, really. But because of the way we approach things these days we don't use as many vocals as we did - it's very sparse. Ideally we could do with a couple of \$1000s with big memories but it is nice to work within some constraints. Again, the thing that stops us is finance."

Computers and samplers having replaced mag tape and razor blades, I wondered what considerations the new technology had brought.

"I think the balance of creativity shifts", Kirk opines. "If you've got a computer and sequencer, it frees up your time to concentrate on other things - like your arrangements or the space in the music and getting a good balance. Before, there were a lot of other things to worry about. Mixing is so much easier if you can get everything where you want it inside the computer and the sampler. Sometimes we don't even have to touch the desk as the stuff goes onto the DAT player. It also gives a clarity that I like when it's coming straight out >

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Hartke 115 XL 1x15 Cab Hartke 410 XL 4x10 Cab		
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Trace Elliot AH200 head	£525.	£520
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Trace Elliot 1048 4 x 10 cab		
Trace Elliot 1518 1 x 15 cab	\$475	£470
Fender Twin	£699.	£690
Fender Princeton Chorus	£359.	£350
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Fender Deluxe 85		
Fender Super 60		
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Squier 15 Combo	£69	£59
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Carlsboro Colt 65W Keyboard Combo	£217	£207
Carlsboro Viper 100 Bass Comb		
Carlsboro Colt 65 Bass Combo Carlsboro Colt 65 Lead Combo		
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Marshall PA 400W TCH	\$585	6585
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Carlsbro GRX7 Mixer Amp Carlsbro Cobra 100 P.A.	£217	£207
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Aka XR10 Drum Machine ..

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"In some respects there's no difference between the old days of having 24 tracks of tape and having a computer and 32 channels of music, and the boxes that produce the sound. It's the same idea but in some respects it's more efficient and easier to operate."

"Even though people are still saying that they're not musicians, in many ways computer music is now more 'traditional' than rock music", Mallinder offers. "Beethoven didn't play everything, he wrote it down for other people to play - rather like the way we write music into the computer today.

"The notion is still the ideas and the ability to translate those ideas. It's just the process that differs. The question is whether it sounds different now to the way it did, and obviously it does. But what you play isn't going to be any different, whether you play it into a computer or onto tape and mix it through an SSL desk or whether you edit it on tape. It's the whole structure of things that's changed.

"Our approach to music has always been very rhythmic - even the vocals - so working with the computer enhances that. It doesn't contradict or block what we're trying to do."

"We do use delays and the Groove functions on the

C-Lab", Kirk elaborates. "I think that's why people started sampling breakbeats - they'd got bored of drum machines being so metronomic and they wanted to put some of the feel back - 'We can sample two bars of this and there's funkiness ready-made in there'."

#### MOVING ON FROM TECHNOLOGY,

Cabaret Voltaire are already busy with a number of new projects. Most of their activities have been based around the establishment of their label, Plastex. Having left EMI and secured the release of some material on Crepescule (which was only available on import in the UK), Kirk and Mallinder found themselves without a record deal.

"It was really a case of not having or wanting a deal to walk straight back into", recalls Mallinder. "But at the same time, we had material we wanted to bring out and it became the obvious option - to do it on our own label."

"It gives us the freedom to do things that wouldn't really make any sense coming through a major label", says Kirk. "It's not commercial in any way and it's not aimed at any sort of chart, so it makes sense that it comes out this way.

"There's a sort of 'ambient' Cabaret Voltaire album coming out on it. It's more soundtrack than anything else in so much as it's a collection of tracks, but there's no vocals on it apart from samples. It's ambient house, I guess. That's what I'd call it if I had to put a label on

"The notion was for it to be ambient but it became more thematic than anything else", Mallinder

it."

continues. "It's not exactly floatation tank music - well, some of it is, but the rest of it's pretty rhythmic."

"The label's not just for Cabaret Voltaire material, either", explains Kirk. "So far we've brought two things out that we were involved in as an experiment, and hopefully this year we'll be able to bring out a few things that are completely outside of what we're doing. It's early days really.

"We do get quite a lot of tapes coming our way and some of them are excellent. There's a lot of material, a lot of music, out there that I'd certainly like to bring out, but I'd like to be able to do a good job on it. I mean, we're not in a position to finance things very strongly - obviously, we've got the use of our own studio but the label's a pretty low-budget affair so we have to be careful about what we do."

"Things are gradually moving along at the moment", says Mallinder, summing up. "It's nice having your own label but it does give you the headache of having to do a good job on anything you want to bring out. You do feel a bit edgy at times about pre-sales and things like that because you haven't got a pot of money to fall back on to kick things into gear. As Rich says, we're just feeling our way through it at the moment."

Renowned for the uncompromising live shows of their early years, it's pleasing to learn that there are also live dates in the offing.

"We're going to do some live versions of the ambient album", confirms Mallinder, "but we've no idea of how we're going to do it yet. It's this 'thing' that we're going to have to deal with when we get there. We have been playing live using a DAT with the basic stuff on and a percussionist with an Octapad and a combination of TR727 sounds, Alesis and the internal sounds, and Rich plays keyboards over that. So it's got a backbone and we work around that. We certainly don't trust the computer enough to take it out live.

"The problem - not only with DAT, but with computers as well - is that once it's down there it always comes out the speakers the same. It would be nice to not lose the structure, but to make it a lot more fluid at the same time."

"We're thinking about transferring tracks to a digital multitrack and mixing it live", Kirk offers. "That way a live performance won't just be a reproduction of the CD. We're supposed to be doing a performance of it at the Scala Cinema with some films and stuff where we'll use some of the ambient LP. We'll be providing some of the visuals, but there's also some talk of us picking out a film and providing a live soundtrack to it."

That Cabaret Voltaire have helped shape the development of British electronic music is certain. The reappearance of some of their earlier work in the mainstream of dance music is likely to earn them overdue attention from the present generation of hitech musicians and dance fans alike. Most of all, that Kirk and Mallinder are still active in the front line of this fast developing musical form is greatly ressuring to everyone with its best interests at heart.

"Well", says Kirk as the interview comes to a close, "we can't let people off the hook this early in the game, can we?"

### EQUIPMENT LIST

#### **KEYBOARDS/SEQUENCING**

Akai S1000 Sampler Atari 1040 ST Computer C-Lab Creator V3.1 Sequencing Software C-Lab Unitor Synchroniser C-Lab Export MIDI Port Expander EMS Synthi A Synth EMS VCS3 Synth E-mu Emax Sampler Oberheim Matrix 1000 Expander Roland D20 Synth Roland Juno 60 Synth Roland Juno 106 Synth Roland SH09 Synth (Kenton MIDI Retrofit) Roland TB303 Bassline (Kenton MIDI Retrofit) Roland TR808 Drum Machine (Kenton MIDI Retrofit) Yamaha DX7 Synth

#### RECORDING

Casio DA7 DAT Machine Drawmer Compressers Drawmer Noise Gates Lexicon PCM60 Reverb Lexicon PCM70 Reverb Sony DTC1000ES DAT Machine Soundcraft 24:16 Mixing Desk



### Multi-fx Processor

# MULTIVERB ALPHA

ART



They say you can never have enough reverb units - and to keep your options as wide as ever, ART offer us the Multiverb Alpha. Review by Nigel Lord. ND STILL THEY come. More effects processors than you can shake a MIDI lead at. There was a time when it was easy to keep track of effects unit genealogies; now things are rather more complex. As more and more machines are released (often with the models they're intended to replace still selling well) the punter faces a bewildering variety of prefixes and suffixes to the universal ". . .Verb" common to almost all their names.

Additionally, an increasing number of more specialised units are beginning to emerge, with models directed exclusively at the guitar, vocal and studio user. Before you begin to assess the subjective difference between dark, medium hall reverbs and warm, large room reverbs, you're faced with a considerable amount of decision making which ultimately can only be resolved by the money you have in your pocket and (I suspect), by whatever models they happen to stock at your local music store.

Latest in the plot to confuse the hell out of potential purchasers of effects units is the proclivity towards 20- and 24-bit processing technology, "performance" MIDI, and in the case of the new Multiverb Alpha, the addition of a new acronym - ASIC - or Application Specific Integrated Circuit, as we in the trade have been told. What it all adds up to is a full 20kHz bandwidth, better than 90dB signal to noise ratio, 50 different effects - six of which may be used simultaneously - 200 memory locations (including 110 factory presets), full programmability of all parameters and a price tag which brings it in at under £350, if you don't count the government's bit.

Helping to lift the Alpha above the commonplace is a built-in sampling facility offering just under two seconds of sampling time and a pitch transposer which not only provides an impressive two octaves of shift, but may be programmed simultaneously with other effects - including memory-devouring hall reverb patches. So this competition business might not be such a bad thing after all.

### POWER PLAY

THE FIRST THING you notice about the Multiverb Alpha is its rather large knob (the great British *double entendre* outlives Frankie Howerd). To you and me this is simply a data entry knob; to ART, however, it is the Alpha's multi-function rotary encoder. Whatever you choose to call it, it makes programming easier and is certainly a tremendous improvement over increment/decrement buttons.

The reluctant programmer should also find life made simpler by the inclusion of a two-line LCD and a large LED for numerical patch identification. Other hardware includes MIDI In, Out and Thru ports, four unbalanced standard jacks for stereo input and output of signals and an external 9V dc supply (the Alpha is itself mains powered) for connection of the X15 remote MIDI footswitch unit. Input and output levels are controlled by two front-panel sliders together with three LEDs to indicate signal present (green), normal (yellow) and clipped (red) states. Unlike many comparable machines, the Alpha does not come equipped with a "hard" mlx control, but is instead designed to have its dry/effect levels programmed individually for each preset.

Selecting a preset summons forth a patch number in the LED window and a patch name on the LCD, with a brief outline of the effects included. In addition to the aforementioned reverb and pitch transpose effects, these are: seven-band equalisation, acoustic environment simulation, low-pass filtering, flanging, chorus, panning and delay - all fully programmable and selectable individually or in combination. Though some repositioning of effects is possible, the chains into which they are slotted are preset by the Alpha, and thus it's not as flexible as it might at first appear. But in practice, the chains are quite logical and preclude the need for constant reassembly every time you set up your own patch. A 28-note polyphonic, 30-voice workstation with 8-track sequencer, 26 drum sounds and a full-size key, 2-octave dynamic keyboard for around £400.



### OK, so we had a little help.

The new Novation MM10 master keyboard makes playing and programming Yamaha's brilliant QY10 a breeze. It's also perfect for other home and studio recording setups.

You'll feel instantly comfortable with the MM10's 2-octave keyboard (easily transposable over 8 octaves) plus pitch and modulation wheels. It's battery powered to keep you mobile, and a dual stereo amplifier drives headphones <u>and</u> speakers.

The Novation MM10 costs just £149.99\* and we're pretty sure we've thought of everything.

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As you might expect, the seven-band equaliser comes first in the chain and offers a healthy 15dB of cut or boost at 40Hz, 100Hz, 250Hz, 640Hz, 1.6kHz, 4kHz and 10kHz. Gain adjustment is unfortunately divided into six steps rather than being continuously variable, but this is still a very usable facility which benefits from its essentially analogue design (it is only controlled digitally, it is not digital in operation).

Also offering EQ facilities, though not programmable, is the Acoustic Environment Simulator which provides a range of mid- to high-frequency sound-absorbency simulations intended to recreate the effects of different acoustic environments. Thus, we find such presets as 'Dead Room', 'Heavy Carpet', 'Ceiling Drape' and 'Open Ambience'. Exactly how effective or accurate these are has to be seen in terms of their use alongside other effects (most notably reverberation) - and in relation to cost. Accurate room simulation doesn't come cheap and you'd be lucky to find it on units many times the price of the Alpha.

Like the seven-band EQ, this is essentially an analogue stage; digital processing only begins in earnest with the introduction of the Low Pass Filter which offers some 30 roll-off frequencies to choose from. There are no further parameter adjustments to be made here - surprisingly not even for roll-off amount - but this is, nevertheless, an indispensable link in the chain of Alpha presets and offers quite accurate filtering of the effects side of the signal.

### SHIFT WORK

AS MENTIONED EARLIER, a full octave of pitch shift in either direction is possible using the Alpha's pitch transposer, and there's a choice of three types of transposition also available. Basically, you have to

"This is a confident, assured performer which, no matter how many competitors it may be faced with, will hold its own for some time to come." decide between how clean or smooth you want the transposition to be and how quick. Though Normal offers a pretty usable compromise setting for most applications, you can also opt for Quick, which, as its name suggests, provides a shorter processing delay time (traded against quality) and Smooth, which results in a cleaner, more precise sound (traded against speed).

Obviously rhythmic-based sounds require processing at the faster speed and, being of brief duration, would probably not require transposition at such high quality. Synth or vocal sounds, on the other hand, benefit from the quality of the Smooth setting, and

in many cases are actually improved by the introduction of a slight delay in the onset of the transposed pitch. The choice, as ever, is yours.

Normally, pitch shift is adjusted in half-step increments over the two-octave range, but a Fine facility is also available and offers tuning in six-cent steps over a range of  $\pm 4$  semitones. All processing is strictly mono, I'm afraid, but there is a regeneration function which makes possible incremental pitch shifts when used in conjunction with delay effects. In these days of intelligent pitch shifters, it should also be stressed that what the Alpha offers in this department is likely to be of limited use for vocal applications and so on, but in terms of thickening and adding depth or top end to sounds, it fits the bill rather well.

I could also say this of the flanger and chorus stages but we've come to expect this, given the number of years these have been included in effects processors (not to mention the relatively light demands they make on processors). Nevertheless, the Alpha is equipped with two very worthy examples, and offers control over width, speed and regeneration in the case of the flanger and width, speed and delay in the case of chorus.

Both effects may be programmed to occur either before or after other delay effects in the Alpha's preset chains - much depends on the complexity of the input signal. Obviously, where a relatively pure signal is present, routing this through the reverb and/or delay stages first gives the flanger or chorus rather more to work with. And this can make a considerable difference in terms of the richness of the effect.

One processing effect which really does seem to have come of age recently is that of auto-panning, and reflecting this, the Alpha offers not only control over speed and modulation depth (stereo width), but also makes possible MIDI control over pan position in real time. Tremelo effects are also available here and, like pan, can be adjusted for speed and depth, though I have to say I'm damned if I've ever found a use for tremelo modulation in all the years I've been using signal processors.

Reverb, of course, is an altogether different matter and, despite the tremendous strides made by all the leading manufacturers in recent years, is perhaps the effect which above all determines the fate of multieffect processors such as this. The Alpha divides its reverb patches into two main categories - natural and gated - and within this broad division lie three sets of reverb algorithms which vary in terms of complexity and quality.

Reverb 1 patches represent the most simple and are normally only used in multi-effect setups where quality is not of paramount importance. Reverb 2 patches are more complex (and therefore of higher quality) and tend to use longer delay times to simulate a more natural reverberatory effect. The highest complexity/quality reverbs, however, are found in the Reverb 3 category and are intended to be selected wherever reverb is used in isolation.

Within each of these categories, you'll find plate, room, vocal and hall effects of considerable character and realism - each of them adjustable for decay, damping, position (front to rear), level and (in the case of type three reverbs), diffusion. Maximum decay time is an impressive 25 seconds and, like the flange and chorus effects mentioned earlier, it is possible to place reverbs either before or after any delay effects that may be programmed as part of the same preset.

Gated reverbs are also well represented on the Alpha. Again they're divided into three types and again, these divisions relate to the level of complexity of the reverb. Gate-verb 1 and Gate-verb 2 both feature forward and reverse-gated algorithms which are less complex than Gate-verb 3 settings. But whereas Gate-verb 1 patches are more dense than Gate-verb 2, they also have shorter delay times. In all cases you are limited to control over two parameters (not including level) - decay and diffusion - but there is a further choice to make in terms of the decay envelope, which includes sloped, flat and reverse settings.

And talking of choice, if it's delay you want, you'll find stereo, regenerative and multi-tap options on the menu, each broadly divided into long or short settings. Of course, delay time is fully adjustable within these ranges - up to a maximum of 1100ms for regenerative and multi-tap effects and 1300ms for stereo delays - and you'll find a full complement of control parameters to assist with the accurate setting up of DDL patches.

In case you were wondering, independent settings for each side of the stereo delay are possible and combined with this is a high-frequency filter which allows you to progressively roll off the HF content of delayed signals over successive repeats. In multi-tap mode, repeats can be of progressively lengthened or shortened spacing and may also be programmed to increase or decrease in volume.

### FREE SAMPLE

FINALLY, WE COME to what could be considered the Alpha's ace in the hole - the sampler. With almost two seconds of sampling time available, this is clearly going to be a much-used option for those without samplers or those whose samplers are overburdened by their musical requirements.

But a single line in the instruction manual sums up the Alpha's shortcomings here: "You cannot store an audio sample". It's especially annoying when you learn that using the sampler doesn't preclude the use of reverb: Type 1 and 2 patches are still available and may be combined with samples, providing they're of short duration.

You can edit samples to adjust their start and end points, tune them, set one-shot or repeat modes and fire them manually, using an audio trigger or via MIDI. All it seems you cannot do is save your hard-earned work for later use, either internally or via a MIDI dump. Such is life at the budget end of the market you'll just have to save samples on cassette or DAT and re-sample them each time you switch on. So near and yet so far. . .

I have to confess to being somewhat underwhelmed by performance MIDI systems. Even in a live situation, the prospect of being able to adjust, in real time, a flanger's regeneration level or reverb decay time seems unattractive to me. Whether you consider this a realistic or worthwhile facility or not, this is what the Alpha's MIDI performance facility is all about. Up to eight individual parameters may be controlled in this way, with recognition of MIDI controllers #0-#120.

In conjunction with a soft- or hardware-based sequencer, performance MIDI does perhaps start to

make more sense, but again, apart from real-time control over EQ effects (which is admittedly useful at times), I cannot see this being considered an indispensable part of the Alpha's design. This is particularly true given its reluctance to handle fast MIDI data changes from external controllers - which I would have thought the *sine qua non* of any performance. Under these circumstances you're too frequently confronted with a MIDI Data Error message.

In many ways, I think the creative chapter of performance MIDI has yet to be written. As a real-time MIDI device, the Alpha is well appointed but it still has limitations - perhaps the most important of which is likely to be the user's imagination. We shall see.

### VERDICT

WITH SO MANY effects processors on the market, any new contender is likely to stand or fall on the strength of its onboard presets. If creative naming of effects were any measure of their appeal, the Multiverb Alpha would score highly indeed:

'Summer Ballroom', 'Afterburner', 'Glasscutter', 'Watchtower', 'China Dreams'. . . It's all evocative stuff but inevitably the Alpha falls some way short of providing an accurate sonic representation of this rather emotive language.

Nevertheless, what we have here is a very inventive and usable set of presets, grouped together to provide "areas" of the best effects for percussion, vocal and guitar applications and so on. Certainly, they provide an accurate representation of what the Alpha is capable of and that, clearly, is what any set of factory presets is intended to do. Personal favourites include 'Glistening Plate', 'Trail Mix GTR', 'Jetson' and 'Smokefilled Bass', though if I were

being honest, I'd have to say I used these less than some of the more utilitarian patches such as 'Natural Space' and 'Vocal Booth'.

As regards the Alpha itself, I can't do otherwise than give it the all-round thumbs up. This is a confident, assured performer which, no matter how many competitors it may be faced with, will, I'm sure, hold its own for some time to come. Even my criticism over the lack of a sample save option has to be seen in the light of the price tag, which for a unit of this complexity and sophistication, is almost laughable.

The Alpha is the type of unit which is bought by those in need of a good all-round effects processor and that, clearly, is where its real strength lies. If you're not in a position to afford three or four machines to cover your keyboard, vocal and (perhaps) guitar effects requirements, look no further than the Multiverb Alpha. It will not disappoint.

#### Price £399 including VAT.

More from Harman Audio Ltd, Mill Street, Slough, Berks SL2 5DD. Tel; (0753) 576911. Fax: (0753) 535306.

"The Alpha is the type of unit which is bought by those in need of a good allround effects processor, and that is where its real strength lies."

#### Synthesiser and Module

### KORG

# 01/W PRO X 03R/W SYNTHS



While the 88-note 01/W Pro X keyboard oozes prestige, the 03R/W module - the first Korg instrument to incorporate General MIDI in its spec - espouses popular appeal. Review by Simon Trask.

> OLLOWING THE SUCCESS of the M1, Korg built up a range of instruments based on the same technology and design concept. The M1R was a straightforward rackmount counterpart, even taking the unusual step of retaining the synth's onboard

sequencer. The M3R was a scaled-down module which marked the range's only excursion into the sub-£1000 price bracket. The 61-note T3, 76-note T2 and 88-note T1, meanwhile, were more sophisticated keyboards which took the range progressively upmarket.

Now Korg are following the same route with the M1's successor, the O1/W, bringing out the O1R/W, O3R/W, O1/W Pro and O1/W Pro X - respectively the M1R, M3R, T2 and T1 of the new range. The O1/W FD, which Korg released at the same time as the O1/W, fills the T3 role - sensibly enough, this time around Korg want to appeal simultaneously to musicians using computer-based sequencers (with the O1/W) and musicians preferring the stand-alone workstation approach (with the FD version). In this review we'll look at the two instruments at opposite ends of the range the O1/W Pro X and the O3R/W, and concentrate on how they differ from the O1/W and O1/W FD.



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ASIDE FROM THE obvious physical differences, both the O1/W Pro X and the O1/W Pro differ from the O1/W FD (reviewed MT, November '91) only in their provision of 10Mb of sample ROM (an extra 4Mb which contains a second multisampled acoustic piano and ten more drum and percussion sounds), their ability to import and export sequences as Standard MIDI Files and their inclusion of a Solo function in the sequencer. No doubt FD owners wouldn't mind having the option of these extras as an upgrade to their instrument.

Clearly, Korg's primary intention in bringing out the 76-note Pro and 88-note Pro X - and it's a laudable one - is to cater for performers who feel constricted by the regulation 61 keys of the average synth. The Pro X has the same performer-friendly wooden weighted keyboard as the T1 and the company's

"Korg's primary intention in bringing out the 88-note Pro X is to cater for performers who feel constricted by the 61 keys on the average synth."

SGX1D electronic piano, and matches the T1 in both size and weight - not the sort of instrument you'd want to move often, and then not by yourself. Despite its size, the Pro X has the same concise front-panel user interface as the other O1/W keyboards, which leaves plenty of flat top-panel space on which you can rest other bits of gear or spread out sheets of music or packets of garlic butter. As its keyboard and casing are the only features which distinguish the Pro X from the Pro, all discussion below of the new sounds and software features can be taken to refer to both instruments.

The new multisampled acoustic piano is a grand to the existing piano's upright, a more full-bodied sound with a touch more *gravitas*. But while it's a welcome addition, considering that most of the extra sample memory on the Pro X is dedicated to it, the loops come in surprisingly soon and aren't as timbrally rich as you might expect; the change on held notes is subtle but noticeable if you play close attention, rather than offputting.

Seven of the extra ten drum and percussion sounds - NewTom 1-4, BrsSnrOtap, BrsSnr Tap and BrsSnrSwsh - are jazz kit sounds (tight, bouncy toms, and snare drum played with brushes), while the other three - Guiro S, Guiro L and Quica - are Latin percussion sounds of the rasping and squeaking kind. Surprisingly, none of these extra sounds are included in the four onboard Drum Kits in the Pro X, which leaves you to discover them by accident rather than by design.

The Pro X's inclusion of Standard MIDI Files read/write capability means that sequences can be transferred via disk between its onboard sequencer and any other sequencer, whether computer-based, dedicated or workstation-based, which supports both the MIDI Files file format and the MS.DOS disk format. You must use 3.5" double-sided double density disks, as, unlike the T-series synths, the Pro X doesn't support high-density floppies. Also, when you're formatting a MIDI Files disk on the Pro X, you must do so using the Format function on the synth's Standard MIDI Files Save/Load software page, not the Format function on its 01/W-specific Program/Combi/Sequence Save/Load page. As you might guess, this is because it uses one disk format for 01/W-specific data and another (MS.DOS) for Standard MIDI Files data. You can save as many SMF files to disk as disk space allows. On the Pro X, an SMF file equates with a single 16-track Song. The synth supports both type 0 (one 16-channel track) and type 1 (separate tracks maintained) SMF file formats; most of the time it's the latter you'll want to use.

I was able to transfer sequences, including tempo track, successfully in both directions between the Pro X and Opcode's Mac-based Vision and EZ Vision sequencing packages, using Apple File Exchange software to convert files to and from MS.DOS within the Mac environment, and ResEdit software to change the file type (BINA) and file creator (mdos) of converted Pro X files to "Midi" and "MIDJ" respectively, so that Vision and EZ Vision can identify them as Standard MIDI Files. Although the Standard MIDI Files format is certainly a good thing, it's important to realise that an SMF file can only act as a "lowest common denominator" link between different sequencers. You can't expect an SMF file to transfer one sequencer's way of structuring sequences to another's. For instance, when the Pro X saves a Song as an SMF file it replaces any Pattern calls within the sequence tracks with the actual Pattern data, removing the Pro X-specific structuring but also increasing the size of the sequence in the process - something to bear in mind if you want to transfer Pro X sequences to another sequencer and then back into the Pro X. Equally, you can't transfer a sequence to a sequencer with fewer tracks and a lower timing resolution and expect it to remain unaffected. For instance, a 24-track sequence recorded in Vision becomes a 16-track sequence on the Pro X (tracks on the same MIDI channel are merged) while its 480ppqn timing resolution is scaled to the Pro X's 96ppgn.

The third additional feature on the Pro X, as mentioned earlier, is a Solo function in the onboard sequencer. To solo a track while the sequencer is in Play or Record or is Stopped, you position the cursor on the relevant Play/Mute track field of the Rec/Play software page, hold down whichever of the soft buttons A-H underneath the LCD screen is located below it, and press button 3 on the Pro X's numeric keypad. If you want to switch to another track, you hold down the relevant soft button and press button 3 again. To revert to playing all recorded tracks, you hold down any one of the soft buttons and press button 2 on the numeric keypad.

As on the O1/W and O1/W FD, you can mute and unmute individual tracks by using the Value Inc/Dec

buttons to toggle between Play and Mute settings in the relevant track field. However, the Pro X adds an alternative method of track muting using the numeric keypad approach. In this instance, you hold down the relevant soft button for the track and press button 1 to mute the track, or button 0 to unmute it. Although the manual refers only to keypad buttons 0-3, buttons 4-6 and 7-9 also have mute one, play all, and solo functions. Individual track muting allows you to build up and break down a sequence one track at a time; however, the Pro X doesn't allow you to mute and unmute selected groups of tracks - if you hold down more than one soft button, it takes whichever of the buttons you pressed last.

Because there are 16 tracks but only eight soft buttons, you have to assign either tracks 1-8 or tracks 9-16 to the buttons. This entails using the Cursor Up/Down buttons to move the cursor between the upper and lower rows of tracks in the LCD page, with two button-presses being required in either direction. However, it strikes me that a faster, more reliable and more elegant method would have been to use the soft buttons in conjunction with keypad buttons 0-3 for tracks 1-8 and buttons 4-7 (duplicating the functions of buttons 0-3) for tracks 9-16.

When you mute a track, the Pro X initiates MIDI Note offs for all active notes and then disregards all further notes; this means that active notes will continue to sound for the duration of their envelope release stage. In practice, track muting and track soloing on the Pro X work very smoothly, though you do need to "unsolo" a track just before, rather than on, the beat in order for the muted tracks to come back in on the beat without a glitch in timing; in practice this is something you soon develop a feel for.

One thing you can't get around is the fact that mutes and solos aren't recordable as part of a Pro X Song. It's beyond me why, in this day and age, some manufacturers persist in seeing them only as live performance features, not as an integral part of the composing and recording process.

#### 03R/W

AT THE OPPOSITE end of the new range, the economies made on the O3R/W in the name of affordability are surprisingly few. Aside from the obvious ones, which are in the nature of the instrument (reduced size, reduced front-panel accessibility, and no onboard sequencer, disk drive or footpedal and footswitch inputs), the R/W loses 1Mb of sample ROM compared to the mid-range instruments (5Mb instead of 6Mb), together with one Program Bank, one Combi Bank, and the Waveshaping and Emphasis features found in all the other instruments of the range. But there are no compromises in sound quality, and, with the exception of Waveshaping and Emphasis, the Program and Combi architectures are the same (so, unlike the M3R, the R/W keeps the two oscillators per Program of its more expensive relatives), as is the effects processing and the audio output arrangement. There are also four onboard ROM Drum Kits in addition to two programmable Kits.

Although it's the baby of the 01/W family, the 03R/W does have one feature which the others don't, namely General MIDI compatibility. Korg have included a Bank of Programs which conforms to the GM Sound Set and a Drum Kit which conforms to the GM Percussion Map (Kit One of the four ROM Kits), all held in ROM and accessible via MIDI in a 16-channel Multi mode. I'll discuss this aspect of the R/W in more detail later on.

The 03R/W's front-panel user interface is logical and straightforward, but inevitably it's constricted by the rackmount format and rather fiddly and laborious in use. No doubt editing programs will appear for it, but if you like the more physical hands-on approach and have another £280 to spare, you can buy Korg's RE1 Remote Editor, originally introduced by the company in 1989 to fulfill the same function for the M3R.

Rack-mount units have their advantages, too, of course. One is that the format encourages manufacturers to put any card slots on the front panel, where they're readily accessible. This is exactly what Korg have done with the R/W's PCM and Program card slots. In contrast, the keyboards in the 01/W range have their card slots tucked away on the rear panel, with no legends inscribed on the front panel's rear edge to help you find their location.

Despite having one less megabyte of sample ROM than the 01/W, the 03R/W has the same number of Multisounds, multisamples and waveforms (255) and only five fewer Drum sounds (113 to the 01/W's 118). In fact, the R/W actually loses 46 of the 01/W's sounds (39 from the Multisound list, seven from the Drum Sound list). These are typically

"With the 03R/W Korg have come up with a relatively affordable rack-mount version of the 01/W which manages not to lose out all that much on its sounds."

variations on other sounds which have been retained on the R/W, so the losses don't mean fewer sound categories covered. The expander also gains six new sounds, all of which have been added because they're required by General MIDI; Sitar, Shamisen, Koto and Shakuhachi appear in the R/W's Multisound list, Taiko Drum and Gt Scratch (guitar fret noise) in both the Multisound and Drum Sound lists.

But how can there be 40 fewer actual sounds when there are only five fewer sounds listed? The answer lies in the way the O3R/W (like the O1/W instruments and the M- and T-series before them) controls the assignment of samples to its Drum Kits. Where Roland synths, for instance, typically allow any of the available samples to be incorporated into a Kit, the O3R/W restricts its Drum Kits to the samples contained in the Drum Sound list. You can assign a Drum Kit to any R/W Program by first selecting >>

KORG O3R/W

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> Drums in the Osc Mode edit page, while for other instrumental sounds you select Single or Double and then assign sounds from the Multisounds list. But what if you want to include one or more Multisounds in a Kit, or pitch a Drum sound across the keyboard in a Single- or Double-oscillator Program? Korg provide a solution of sorts by including some of the Multisounds in the Drum Sound list and some of the Drum sounds in the Multisounds list - restricted choice, in other words. The number of Multisounds is made up to 255 by including 28 more sounds from the Drum Sound list (Taiko Drum and Gt Scratch among them) than the O1/W instruments do, and adding non-transposed versions of seven of these sounds (the idea being that you can use, say, HandClpsNT as a fixed-pitch percussive attack for another sound in a two-oscillator Program, the R/W not having an actual fixed-pitch setting among its oscillator parameters).

Although in absolute terms the O3R/W has fewer samples than the O1/W instruments, it also gives you sonic possibilities within the context of Singleand Double-oscillator Programs which the other instruments don't - sort of a swings-and-roundabouts situation. However, it does lose out sonically over the more expensive instruments in its omission of Waveshaping. This isn't a minor omission, as Waveshaping significantly expands the sonic vocabulary of the other instruments in the range, allowing you to create timbres which you couldn't get by playing around with filter settings. In particular, it's effective as a means of increasing not only the range of drum and percussion sounds at your disposal but also, effectively, the number of Drum Kits - because the same Kit used in two or more Programs can be made to sound very different, as Waveshaping settings are Program-specific.

#### 03R/W & GM

THE 03R/W IS one of the first instruments to implement General MIDI. In case you've been hibernating for a while, General MIDI is a spec, agreed between the JMSC and the MMA, which defines a Sound Set of 128 Instruments covering 16 Instrument Groups consisting of eight sounds each, together with a single Percussion Map and performance parameters governing polyphony, multitimbral access and voice allocation.

Although the actual sound source, the method of sound generation, the implementation of effects processing and the choice of effects are up to each individual manufacturer, you are at least assured that, to give a couple of examples, sending MIDI patch change #1 to a GM instrument will always call up a sound which is recognisable as an acoustic grand piano, or that sending patch change 56 will always call up an orchestral hit sound. Similarly, sequenced rhythm patterns will always trigger the same types of sound because all GM instruments use the same drum map. The GM spec also requires 16-channel MIDI multitimbral response, a minimum of 24 voices, dynamic voice allocation across the channels, and one Instrument to be assigned per channel (except for channel 10, which is reserved for the Percussion Map). Additionally, there are a couple of messages for turning GM mode on and off.

On power-up and whenever it receives a GM On message via MIDI, the R/W automatically sets default values on all 16 channels in Multi mode for level, pan position, transpose amount, detune amount, pitchbend range and MIDI patch change filter, and assigns Program GO1 to MIDI channels 1-9 and 11-16 and the GM Percussion Map (referred >>



to by Korg as Program 129) to channel 10. However, this doesn't mean that you're confined to using just GM Programs in Multi mode - GM and non-GM Programs can be freely mixed, or you can use just non-GM Programs if you want.

Equally, GM Programs aren't confined to Multi mode, but can be played individually in Program mode (where, incidentally, they adopt their own individual programmed effects settings rather than the global effects settings of Multi mode) and as part of a split/layer texture in Combi mode. In Prog Play mode, you can quickly switch between the R/W's GM and non-GM Program Banks by pressing the front-panel button labelled, not surprisingly, Bank. Also, although they're stored in ROM, GM Programs can be edited and the results stored in the R/W's RAM Program Bank.

The overall result is a very smooth integration of General MIDI and GM Programs into the broader, 01/W-based environment of the 03R/W. However, there are some problems with Korg's implementation of GM. For one thing, the R/W's sample ROM doesn't provide four of the sounds

"The 03R/W loses out in its omission of Waveshaping - a feature which significantly expands the sonic vocabulary of the other instruments in the range."

> required by the GM Percussion Map, namely short and long guiro and mute and open cuica. Their places in the Map are taken by, respectively, short and long shaker and high and low scratch, sounds which are carried over from the O1/W's sample ROM - suggesting that Korg are more interested in preserving compatibility with the 01/W than with General MIDL It's a small point, perhaps, but in the context of a rhythm pattern these are different sounds which create a different effect - a fact I can attest to, having tried out the same rhythm pattern on the R/W and Roland's JV30, which has the correct sounds. Still, if you wanted to be clever you could argue, with some justification, that, even where two GM instruments both conform to the spec, they're still using different samples, and therefore different sounds, which have a different effect.

> Given the large number of samples which Korgwere able to use for their GM Programs on the O3R/W, it's perhaps not surprising that many of these Programs use two oscillators. After all, it's natural that a manufacturer should want to make their instrument sound as good as possible, and if a combination of two sounds can do the job better than one sound, then two oscillators it will be. At the same time, fewer GM-specific samples will be needed if a GM sound can be created out of two other sounds; for example, Jazz Guitar (G27) on the R/W has been created - very effectively - from an acoustic bass sample and one of the expander's VS

waveforms. All in all, 75 of the R/W's GM Programs use two oscillators.

So what's the problem? Well, here we come to a contentious issue which, in all fairness, goes beyond the O3R/W. The GM spec specifies that there should be a minimum of 24 voices available simultaneously, but doesn't define what it means by "voice". Consequently, whether or not.a GM instrument can use two-oscillator Programs and still be GM-legitimate hinges on whether you interpret voice to mean "oscillator" or "note". Ironically, Korg implicitly rule against themselves by stating the following on page 128 of the R/W's manual: "Tone generator: 32 voices, 32 oscillators (single mode); 16 voices, 32 oscillators (double mode)". To Korg, voice means note.

What it comes down to is that the GM spec as it stands doesn't guarantee that a GM instrument will be able to play at least 24 notes. Consequently, anyone producing MIDI sequences specifically to run on any GM instrument (a market in the making, especially now that multimedia is opening up possibilities for composers) is presented with a problem: how many notes can they use at once in a sequence without running the risk that notes will be dropped out by one or another GM instrument? On the O3R/W it would have to be 16 rather than 24, on another GM instrument it might be more or it might be less. And it's no good thinking that this problem will go away once we have 64-oscillator synths, because manufacturers of GM instruments will then be tempted to provide three-oscillator and four-oscillator GM sounds.

#### VERDICT

THE MAIN REASON for wanting to buy an 01/W Pro X as opposed to one of the cheaper instruments in the 01/W range - indeed, the main reason for its existence - has to be its 88-note wooden weighted keyboard. This and the solid, imposing casing make an already classy synth even classier and are bound to appeal to performers. The software additions are worthwhile, and help to enhance the overall flexibility of the instrument.

With the 03R/W Korg have come up with a relatively affordable rack-mount version of the 01/W, minus sequencer, which manages not to lose out all that much on its sounds. If money's not too tight to mention, and you're trying to decide between an 03R/W and an 01R/W, the choice is essentially between the extra sonic flexibility provided by Waveshaping on the 01R/W and the more general musical advantages of General MIDI on the 03R/W.

Prices 03R/W, £999; 01R/W, £1499; 01/W Pro, £2450; 01/W Pro X, £2999; RE1 Remote Editor for 03R/W, £280; SRC512 RAM card, £89; XSC and USC PCM/Performance card pairs, £145 per pair; XPC and UPC Performance cards, £39 each. All prices include VAT.

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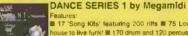
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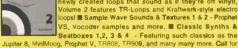
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#### PCM Cards for U-Series from Musitronics

Musitronics have just introduced two new PCM cards for use with the Roland U-Series and compatibles. We are about to get a programmer so we hope that these two cards will be the first of many - we will also be trying to get the prices

Analogue - Call for details - £69 Voices - Call for details - £69

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### CONNECTRIX KEYBOARD STANDS

THERE'S NO GETTING away from it, most keyboard players resent having to pay out for keyboard stands and flightcases. Think about it: both pieces of hardware do nothing to extend the range of sounds you can make, nor how easily you can make them, yet both are almost indispensable. Given a free choice, would you rather lay out two hundred quid on, say, a second-hand TR808 or MT32, or on a three-tier stand? I rest my case.

rie

h

The fact remains, however, whether you're gigging regularly or confined to the studio, you're going to need *something* to support your equipment in such a way as to make operating it convenient and comfortable. Until now the choice seems to have been between the luxury and expense of

something from the fully pro Ultimate Support range, or something more affordable but rather less stylish. CIS may be comparative newcomers to the stand scene, but they've brought with them a healthy combination of thrift and elegance.

Presently, there are a total of four Connectrix stands on which to spend your money. Three of them - the GT1, GT2 and GT3 - are variations on the theme of a "centrepole" stand while the fourth - the GT-H1 - is an H-frame. As their model numbers suggest, the GT1 is a single-tier job which takes one keyboard, the GT2 a twintier and the GT3 a triple-tier stand. Although the supports and other fittings are common to all three models, the centre poles themselves differ in height. The significance of this is that you can't simply add a couple more supports to a GT1 and turn it into a GT3 (although CIS will sell you additional supports) - the main reason for opting for a GT1 or 2 to begin with (apart from the price) would be to avoid having a black metal post projecting in front of your face as you

play. All three models are, however, capable of accommodating the GT-Micboom microphone boom which bolts onto the head of the centre post.

The base of the GT series is formed by three feet and a rear support strut; for carriage the feet fold up against the post and the strut unbolts. The keyboard supports themselves also fold flat against the post for carriage but, when folded down, adopt one of three pre-determined positions, giving a variety of playing angles. The supports lock into these positions by means of a spring-loaded pin locating into one of three drilled holes, and can be relied on not to drop your synth on your feet if you get a little carried away during your performance. Pulling these pins out of the holes was a little tricky on the review model, but seemed to become easier with use. A little grease might have helped but the springs don't actually need to be as strong as they are - perhaps this is a good indication of the overall strength of the unit, however. The centre pole fixings allow the supports to be positioned at any height on the pole.

One limitation of the GT series which should be considered before buying is the depth of the supports. There is a little over 13" (330mm) clearance between the centre pole and the front edge stops - this is quite adequate for most modern instruments, but it's worth checking if you're using something like an OBX. I suggested to CIS that longer support arms could be made available and they seemed happy to investigate the possibilities; it's reassuring to know that people are ready to listen. The keyboard supports

are also suitable for 19" rackmount units as long as the front retainers don't obscure a disk drive or any controls.

If you're planning to lug your gear around from gig to gig (or even home to recording studio), you'll need to know that any of the GT series complete with mic boom can be tucked into a soft carrying case and, whilst not in the same league as Ultimate stands, is quite carriable.

Moving on to the GT-H1, we find an attractive alternative to the more common X-stand. This can be varied in width from 25" to 41" and may be locked at any point in between by a friction bolt. The keyboard supports slope down gently from back to front and may be set to have a mean height of between 27.5" and 32.5", using the same secure system of sprung locking pins as the GT1/2/3 keyboard supports (five stops).

The GT-H1 breaks down for carriage into the two end supports and the horizontal crossbar. It's quick to assemble and disassemble, is very light and would be equally well suited to use in

a domestic setting or onstage at a rave.

The general styling and finish of all these British-made stands is very good, especially for the money. Overall they represent a new and welcome option in keyboard support systems. *Tg* 

**Prices** GT-H1, £49.95; GT1, £59.95; GT2, £69.95; GT3, £84.95; GT-Micboom, £29.95; carrying bags, £14.95, £16.95 & £18.95. Package prices for complete stand/micboom/bag combinations: GT1-PCK, £84.95; GT2-PCK, £94.95; GT3-PCK, £119.95. All prices include VAT.

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A dance artist's musical development

#### and the development of dance music are often in conflict - currently caught in the crossfire are Kevin Saunderson and Inner City. Interview by Simon Trask.

spirit of the moment and conquered pop charts worldwide with a string of sparkling dance gems which left many more established pop acts looking lacklustre in comparison. Successfully mixing the hard-edged sound and bustling rhythms of Detroit techno with snappy chord sequences and infectious melodic hooks, tracks like 'Big Fun', 'Good Life' and 'Do You Love What You Feel' achieved what many had thought (or hoped) to be impossible - a happy marriage of classically catchy songs and credible dance music coming straight from the underground. Whether by accident or design, they also caught the feelgood mood of the time perfectly; unfortunately, that time turned out to be the last gasp of promiscuous consumerism before a few economic chickens came home to roost and the gloom of recession set in.

THERE WAS A TIME WHEN INNER CITY COULD

do no wrong. In '88/'89, the US duo of DJ/musician

Kevin Saunderson and singer Paris Grey captured the

Inner City's fortunes have changed with the times, along with those of many others. While their 1989 debut album, the aptly-named Paradise, emulated the success of the singles (many of which appeared on it), its follow-up in 1990 met with a poor response from critics and public alike. Yet, in truth, while Fire may have lacked its predecessor's verve and sparkle and instant "pop appeal", it was a better album than many people gave it credit for being. Instead of taking the easy route of simply producing "Paradise revisited", Saunderson and Grey moved on, broadening and deepening the Inner City style, giving it more substance. But in the process, they disappointed those who wanted yet another 'Good Life'. Similarly, those who criticised Inner City for losing some of their edge on the dancefloor were missing the point - here was a group aiming for more than instant dancefloor appeal.

The "here today, gone tomorrow" syndrome which is dance music's blessing and its curse makes it difficult >>

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Please note the samples on Danger 1 have not appeared on any other sample CD udio Spares, London • Systems Workshop, Oswestry • Thatched Cottage Audio, Wendy ➢ for dance acts to achieve any longevity. Undaunted, Inner City are back in 1992 with a third album, Praise, which is at once more energetic and more focused than the second. Moreover, it makes even more apparent a connection with the emotional intensity of gospel music first evidenced on Fire in a track like 'Hallelujah' (which has had recent, if belated, chart success and is also on the new album in remixed form). Inner City's music always was uplifting, but increasingly it's taking on a spiritual dimension.

Speaking on the phone from his studio in Detroit, Saunderson puts his viewpoint on the group's second album.

"It didn't have that very energetic, up-tempo sound that people knew us for", he says. "We slowed the music down, it got a little bit more urban, it had more of a black feel. Basically we were burnt out from travelling the world, touring and stuff like that, and we made an album that reflected the mood we were in at the time. We had to get right back into making the album without taking a break first, plus there were pressures from the record company here in America, they wanted something they could play on the radio. But in the end there just wasn't a place for the sound that we put out. It wasn't radio enough for radio and it wasn't dance enough for dance, so we were kind of stuck in the middle somewhere."

Aiming for radio-friendliness hasn't been a priority for Saunderson with the new album, either.

"People in my family, like my brother, say 'I can't hear this being played on the radio', and I say 'Well, that's good, I guess I did the right thing'. I'm trying different stuff, and it's not going to sound like what people expect to hear. If it gets radio play, that's great, but it's not like you can identify it by saying 'Oh, I heard that sound before'. People tend to want to hear something that sounds like what you've already done, but we don't want to do that. We did this album for us, not for anyone else. I was experimenting and having fun, also."

Saunderson's early writing relationship with his Inner City partner took the form of her adding lyrics to tracks he'd already recorded and put on cassette for her, but subsequently their collaboration has matured along with their music.

"It was like we had to accept what each of us had done, it wasn't a real sense of collaboration", he recalls. "But now we work a lot closer. She'll be in the studio with me when the first creation is starting to build, where before it was just 'Come in, sing, see ya'. We take it a little more serious, now, and I think it helps the whole vibe. I might make suggestions about lyrics, or she might sing something and I'll say 'Oh yeah, that's it, that's it', and she'll keep singing it while I get on the keyboard and start playing. It's inspired me to be more creative, I think. It was difficult at first, 'cos I was so used to this other way of working. It was a transition for me, that I realised that working more closely was for the better."

Does Saunderson see Inner City as being first and foremost an album act?

"I think in the beginning, because of the success of the singles, we were thrown into being a singles act, that was how it had to happen", he replies. "Because of that, people did perceive us as being an act that maybe wouldn't get past the second album, but I think we are an album act, and we're going to be making music and staying creative for years to come."

SAUNDERSON'S RECORDING SETUP HAS

changed a great deal since we last spoke (see MT, September '88). Today he has two studios, one for recording vocals and mixing, and the other for MIDIbased production work. Tie lines connect them so that sequenced parts can be brought up on the main mixing console. Multitrack recording in the main studio has been based around an Otari MX80 24-track machine for some time but, ever the enthusiastic advocate of cutting-edge technology, Saunderson has recently centralised his recording setup around an Apple Quadra 900 computer running Digidesign's Pro Tools and Sample Cell, and Opcode's StudioVision. Who said dance musicians were only good for buying cheap secondhand gear? Some people in the hi-tech instrument industry, that's who.

The Otari isn't going to be made redundant just yet, however. Apart from the fact that remix assignments come in on multitrack tape, Saunderson's Pro Tools setup is currently limited to four tracks, although an upgrade to the full 16 tracks is, so to speak, on the cards. At the same time, Saunderson and his technical crew are still familiarising themselves with the new system, and encountering problems in getting it to work fully on the Quadra.

"The editing section doesn't quite work right just yet, but the record section and the playback section are fine", he explains. "They're working on the next software, which I'll probably have in two weeks."

These teething troubles haven't dampened Saunderson's enthusiasm for what he refers to as "a new world of recording, for me". Although it's still early days with Pro Tools, he's already getting excited about new editing possibilities. I'm reminded of a prophetic comment he made in his '88 interview, that "digital recording and mixing is definitely going to change music".

Since investing in Pro Tools, Saunderson has become a popular man.

"I think I must be the only person in Detroit with this unit", he says with a chuckle. "I have all kinds of engineers calling me up wanting to get their hands on it to see what it's like."

On the subject of leading-edge digital recording technology, Saunderson is thinking of augmenting his second studio setup with that long-awaited piece of kit, the Alesis ADAT digital multitrack.

"Actually, I just got a letter today saying it's in, so I'm going to go down and see if it does what they say it can do and if it's worth it."

Saunderson has also embraced automated mixing since our last interview. The main studio is equipped with a Sound Workshop Series 34 40-channel dual inline desk which provides automation of mutes, solos and faders, while the second studio has a Tascam 2524 24-channel dual in-line MIDI-automated mixer ("It's very affordable, they put their board together really good for the price.").

"When I go to a nightclub in Berlin, I feel like I'm in a rock dance club - the music's so fast and hard and industrialsounding."



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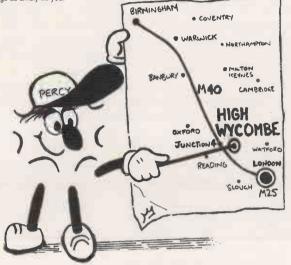
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"Detroit is the worst place for music - maybe that has

something to do



with why it sounds weird, 'cos there's nothing to do but stay in the studio." Monitoring is taken care of by Genelecs ("The ones with the built-in automatic limiter to keep you from blowing them up.") in the bigger, main studio, which get used for mixing, and Tannoys in both studios. Recalling that in our last conversation he maintained it was necessary for him to work with the music turned up loud in order to get a feel for what he was doing, I wondered if he still worked in the same way.

"Not as much, I must admit", he replies. "I mix at a pretty loud volume, but when I'm creating, every now and then I turn it up real loud but then I cut it down. Kind of save my ears so I can hear years later."

Back in '88, Saunderson was using a Commodore 128 running Dr T's Sonus software for sequencing. However, it turns out that this setup didn't last much longer - not because of the software, but because he kept having problems with the computer.

"My brother Ronnie hipped me to that program", he recalls. "He's here in the room and he's laughing about that right now! He's the one that drove me into getting the Quadra. He put the pressure on me, he said 'Kev, you've got to have it, you've got to have the top of the line, go out and get the Quadra.""

In fact, following the Commodore 128, Saunderson used an Akai MPC60 for all his MIDI sequencing until the Quadra came along - *Fire* and *Praise* were both recorded with it.

"I was quite content to use it", he recalls. "It's not as powerful as some of the computer sequencers, but it gets the job done, and it's very quick."

So that he could work on ideas while on the road, he did have a Yamaha C1 at one time, initially using it to run Texture but then switching to Master Tracks Proat which point he started running into problems.

"It didn't see Windows or something like that", he recalls. "It was all kinds of stuff: SMPTE didn't generate, it was unstable. After that I just kind of gave up on computers and stuck with the MPC."

Now, as part of his investment in a Quadra-based recording setup, Saunderson has returned to computerbased sequencing in the form of Opcode's Vision.

"We knew that StudioVision was the one that was designed to work with Pro Tools and Sample Cell", he explains. "I can put all those together and have them working at one time. You have Digital Performer that recently came out, but it's so new that you're going to have problems with it, it's not going to be right the first time. Through reading magazines, I saw that StudioVision was rated very high. It won Sequencer of the Year two years in a row, something like that, so I just knew that it was the right choice. It's very powerful - I'm learning stuff that I had no idea about. Using the MPC you're kind of limited, but with this you can do a lot more."

Saunderson isn't having to deal with all this new technology by himself. As he points out, "I've got plenty of tech guys around, like my brother, that help me out when I run into a problem."

On the instrument front, his Roland \$550 sampler has long been replaced by a couple of Akai \$1000s, while for drum sounds he uses a Roland R8, an Alesis D4 module and the old faithful TR909 ("every now and then") together with sampled sounds on the MPC and the \$1000s. He still prefers to program on the drum machines and sync them up to the sequencer, rather than trigger all his rhythm parts from the sequencer ("It just feels more comfortable programming on the machines - it feels more like I'm playing.").

Synths added to the Saunderson arsenal over the past few years include an Ensoniq VFX, Roland JD800, Korg Wavestation A/D and Yamaha TX81Z, TG55 and TG77; he prefers to get modules where possible, rather than have rows of keyboards taking up space. What does he think of the JD800 and its massed banks of sliders?

"It is pretty easy to program. I've programmed a lot of sounds on it, gone through different waves and changed a lot of stuff around, but I can't get it as analogue as I wanted. I thought it was going to be closer to some of the older stuff. It's a good unit, though, especially for strings sounds. I used it a lot on the album."

On the beginning of 'United', one of the tracks from the new album, there's a lovely string sound which, Saunderson reveals, was created by layering sounds from the JD800 and the TG77. For bass sounds, however, he turns to his TX81Z.

"Sometimes I mix it with the Juno 106, and sometimes I use the Memorymoog, it just depends on what kind of blend I want. The Prophet 5 is a good unit for bass, too, 'cos it's real thick. The bass on 'Faith' is from the TX81Z, 'Till We Meet Again' came from the TX and the Prophet 5."

Having, as he puts it, "thrown a lot of money into" Pro Tools, Saunderson isn't thinking too much about buying more instruments at the moment. However, one instrument he does want to check out is the new Proteus/3 World module.

IN ADDITION TO WORKING WITH PARIS

Grey as Inner City, Saunderson also records under the name Reese Project. 'The Colour of Love', a follow-up single to last year's 'Direct Me', is due soon, with an album to follow in the Autumn, which, he says, will be split half and half between club-oriented vocal tracks and underground, hardcore instrumentals.

"I think I can do a bit of everything, I really believe I can", he says. "I can make an underground record easily, I can make a very hard record, and I can make something that has more of a pop crossover feel, so. . . I can go in all directions."

As well as recording his own tracks, Saunderson also has other acts to nurture through his record label, KMS.

"I stay pretty busy", he says. "I work almost every day in the studio when I'm here. Also I do a lot of DJing; I just toured England for about a month."

In his DJing capacity, Saunderson has had the opportunity to observe the UK rave scene first-hand and to hear our homegrown version of techno in its natural habitat. So what does he think?

"Well, I think the scene is great, 'cos you get these kids that go out, five thousand, ten thousand, fifteen thousand, and they party, they have a great time, with a loud system, good lights. But I think there's just a handful of tracks that I can tolerate listening to. There

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are some very good techno tracks that have come out, but if I buy a hundred records I might be able to use ten of them to play. So, the quality of the music is not very good overall but when you do get a good track, it's pretty damn good."

What of the techno music being produced by our European cousins in Belgium and Germany?

"There's only a few records that I like over there, 'cos it's too industrial-sounding for me", he replies. "It's very close to a rock 'n' roll dance form. When I go to a nightclub in Berlin, I feel like I'm in a rock dance club - the music's so fast and hard and industrial-sounding. Also in Belgium the music's very, very hard - maybe a little bit too hard for me. I like hard music, but I like to have hard music with a little melody, maybe, or a little piano. So, I haven't taken well to some of it - a lot of it, actually."

According to Saunderson, the greatest support for his KMS material has always come from the UK. Now he's set up a UK subsidiary of the label in order to make some of Detroit's musical output more readily available.

"I'm over in the UK so much and I've got family there, it's like my second home. I thought it would be good to start up my label there and bring in acts from Detroit, instead of them coming out on import. I think you come out a lot better as far as development, 'cos we've got some serious acts that we're going to be releasing, and we want to be in the market. Why license to someone else when we can be there ourselves?"

He has a point. While new labels like Underground Resistance and 430 West have sprung up in Detroit to provide an outlet for new talent, their records are not widely available in the UK - let alone promoted. Saunderson himself has been putting together a followup to 1989's *Techno-1* compilation album, featuring the latest generation of Detroit techno talent, for release on KMS - possibly by the time you read this.

"We have a lot of young people wanting to make records, and making some really good ones", he says. But, it seems, there is no real outlet for the music in its home city. The Music Institute, a club which used to act as a focus for the music, is long gone, and according to Saunderson there's been nothing to take its place.

"We tried doing a couple of things, but it just didn't work", he recalls. "The people, they're just not into it. It's very difficult, you get the problems with the city... Crime is pretty bad, so you can't blame people for not wanting to go out, 'cos they're scared. Detroit is the worst place for music - maybe that has something to do with why our music sounds weird, 'cos there's nothing to do but stay in the studio and get off on experimenting around with the new toys."

With his new, Quadra-based setup, Saunderson has some new toys of his own to experiment with. In fact, experimentation and versatility appear to lie at the heart of his approach to making music.

"A lot of people ask me why have I taken Inner City in this different direction, and I tell them I'm an experimental kind of guy. I get pleasure from variety, from doing different stuff, not from doing the same thing over and over. I can be very experimental and do stuff that people maybe wouldn't imagine doing with a track. I don't really care about what the public or the critics think about me not making records that are aimed at the charts. You've just got to make them for yourself and enjoy them, and then hopefully. . . With Inner City we want people to appreciate what we do, we want people to see us as a serious act that is strongly involved with what we do."

I strongly recommend that you listen to them.

#### EQUIPMENT LIST

#### **INSTRUMENTS**

Akai MPC60 Sampling Drum Machine/MIDI Sequencer Akai S1000 Sampler (x2) Alesis D4 Drum Module Digidesign Sample Cell card for the Apple Quadra 900 E-mu Systems Pro/formance Piano Module E-mu Systems Proteus/2 Sample Playback Module w/8Mb ROM Ensoniq VFX Synth Korg Poly 800 Synth Korg Wavestation A/D Synth Module Moog Memorymoog Synth Roland JD800 Synth Roland Juno 106 Synth Roland Jupiter 6 Synth Roland R8 Drum Machine Roland TR909 Drum Machine Sequential Prophet 5 Synth Yamaha DX100 Synth Yamaha TG55 Synth Module Yamaha TG77 Synth Module Yamaha TX81Z Synth Module

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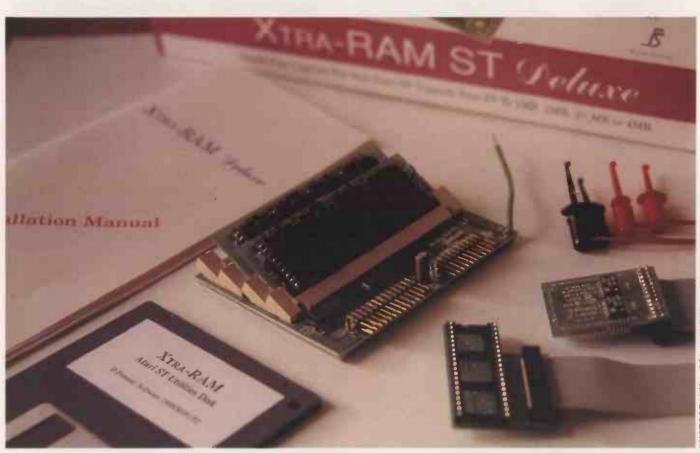
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## FRONTIER XTRA-RAM DELUXE

One problem presented by the phenomenal increase in Atari ST music software is the limitation of the computer's memory - but a RAM expansion could completely revise your MIDI setup. Review by Tim Goodyer.

> OU KNOW HOW it is - the track you're working on is coming together nicely until you realise that the bass patch you can't manage without isn't currently in the Super Jupiter's memory. Instead, it's neatly filed away with a thousand other patches in your patch librarian. And in order to load it, you're

going to have to save off your sequence, quit the sequencer program, load up the librarian, transfer the patch, quit the librarian, and reload the sequencer and the song file before you can continue. You may be lucky, of course and have a patch librarian that runs as a desk accessory, but then it'll be a sample which needs editing, or a synth without a decent user interface. Sooner or later it comes to us all, and there's nothing quite like farting about with computer programs to persuade you that the "anti-computer lobby" might just have a point after all.

Yet it doesn't have to be this way. You may have thought that buying a 2Meg or 4Meg Atari was an unjustifiable extravagance when you opted for your 1040 or 520 - or it might simply have been outside your budget - but while you're waiting for the sequencer to reboot, you may find yourself thinking

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"Fitting the Xtra-RAM Deluxe upgrade isn't difficult - if you've dabbled with electronics at any level, it should be well within your capabilities."

about the possible advantages of being able to run a multi-program environment like C-Lab's Softlink, Steinberg's M.ROS or Dr T's MPE. But they sure won't run in your humble 520/1040. Or will they?

Fitting a memory (RAM) expansion to up your computer's memory to 2Meg or more would enable you to run several programs at once - C-Lab's Creator/Notator and Digidesign's Turbosynth, for example. You needn't even choose to limit yourself to music-orientated programs; you might choose to run Quinsoft's Trax studio management program alongside your sequencer. And I certainly could have finished reviewing Alesis' D4 drum module more efficiently if I'd been able to switch between a sequencer and my word processor - instead of constantly quitting one in order to work with the other. Another, more general, advantage of having plenty of RAM available is when using "D drives" or RAM drives. Of course, you may simply want that extra memory to finish off your latest sequenced opera. . . So what's actually involved in expanding your ST's memory?

If you're the proud owner of one of the newer E-series STs, fitting extra RAM is a relatively straightforward matter of opening the machine up and dropping SIMMs (Single In-line Memory Modules) into the slots provided. The older STs, however, were designed before SIMMs had become available; consequently things aren't quite so simple. If you own one of these machines, you'll actually need to fit a modification to your ST so that it will accept SIMMs. There are various such upgrades available, but only one currently allows you to upgrade to some level under the 4Meg maximum which the ST can accommodate, and then add to the expansion at a later date - Marpet Developments' Frontier Xtra-RAM Deluxe.

#### A FISTFUL OF K

AS YOU HAVE a choice of upgrade options, there is a choice of upgrade kits. You can fit an unpopulated RAM board (with a view to obtaining SIMMs from some other source), or a board with 0.5Meg, 2Meg or 4Meg already fitted. Due to the architecture of the ST, RAM needs to be presented to the central processor in a specific way. In a 1040ST, the 1Meg of onboard memory is presented as two banks of 0.5Meg. Any additional memory you fit must be presented in a similar way - that is, if you add 2Meg to a 1040ST, you will have to disable one of the 0.5Meg banks and substitute the new 2Meg bank, giving a total of 2.5Meg of RAM. Yes, that 0.5Meg you've disconnected lies dead inside the machine; your 2Meg expansion to your 1Meg computer only gives you a total of 2.5Meg. Similarly, if you fit a full 4Meg expansion to your ST, you will have to disable both 0.5Meg banks and subsitute 2Meg of SIMMs for each. And due to the fact that Atari have produced a variety of STs with differing architectures, you may even find that you have to disable both banks of a Mega1 to fit your 2Meg upgrade, in which case you only end up 1Meg better off. I'm afraid that there's no way around it.

Assuming you've decided you want to upgrade and

have decided how much RAM you want to add, Xtra-RAM Deluxe offers you two ways to go about it. The easy option is to send your ST to Peak Electronics (official fitters appointed by Marpet) where trained hands will do the dirty work for you. The other option is to roll up your sleeves and do it yourself. The DIY alternative necessarily involves you interfering with the innards of your computer. This doesn't involve the use of a soldering iron, however, and fitting Xtra-RAM Deluxe may be safely undertaken without the benefit of a large amount of technical experience. In addition to this, the company operate a telephone help-line service should problems arise.

#### EXPANSIONS

I PUT MY faithful Mega1 ST through Marpet's mindexpanding experience. Opting for a 2Meg upgrade, it wasn't until I'd opened the computer up and discovered that it was blessed with a 100109 MMU chip that I found that I was going to have to disconnect both banks of internal memory - but we'll come to that in a moment.

The upgrade comes neatly boxed and contains everything you need except a couple of screwdrivers and a small pair of wire cutters. The modification itself consists of a mother board containing the SIMMs, a "piggy-back" board which fits over the MMU chip, and another board which fits into the socket occupied by the ST video shifter chip and provides alternative accommodation for it. There are also four "flying" leads necessary to disable the onboard RAM, a disk containing a RAM-testing routine and an instruction manual.

You're directed to read the manual before beginning work and it's sound advice. At only 34 pages, it's not an arduous task and you'll discover that, since it covers all the various ST revisions, only part of the directions will actually apply to your siutation.

Marpet reckon the job is about an hour's worth of work and, very helpfully, advise you of the amount of space you'll require as well as easy steps in getting the job done. Possibly the most important directions relate to static precautions, as all integrated circuits are susceptible to damage from static discharges from your body. All that's actually involved is making sure you've safely earthed yourself before beginning and preventing the build-up of static during the operation.

The first stage of the upgrade is identifying which of the instructions you should follow. There are four distinct types of STF/STFM as well as separate categories for the Mega1 and Mega2. Once you know which directions apply to you, you're ready to disassemble your ST. The instructions are clear and concise. Once inside, you're instructed to remove the spring clips securing it and fit the piggy-back board. (Certain STs have surface-mounted MMUs rather than the more usual socketed ones, in which case Marpet supply an alternative adaptor to the piggy-back board.) I found this straightforward, but be warned: the board is a very tight fit. Next you have to remove the video shifter chip. This is accomplished with a small screwdriver and a little care. The adaptor board is then fitted in place of the video shifter, and the video shifter is fitted into the socket on the adaptor. This was considerably easier than fitting the MMU board. In both cases, care must be taken to ensure correct orientation of all components.

Fitting the Xtra-RAM board itself is simply a matter of attaching ribbon cables from the MMU board and the video shifter board; disconnecting the ST's onboard RAM is a little more drastic. Using a table in the manual, you have to identify up to four resistors (two related to each bank) which must be cut at one end and have the flying leads attached. The other end of the leads are then clipped to the 5V supply found on certain capacitors. (The table informed me that I had to disconnect both banks of onboard RAM, leaving me with a total of 2Meg instead of a possible 2.5Meg.) Once this has been done, the modification is complete, and your ST may be reassembled.

#### TROUBLESHOOTING

I KNOW THREE other people who have fitted an Xtra-RAM Deluxe upgrade to their Ataris; none of them had any problems. I did.

When I tried to run the test program, I was met with a blank monitor screen and a silent ST. Turning to the troubleshooting section of the manual, I was directed to first check the fitting and orientation of the MMU board and then to de-install the Xtra-RAM by removing the MMU board and restoring the video shifter chip to its socket. Unfortunately, neither course of action proved helpful. The MMU board was correctly orientated and removing both that and the video shifter board failed to improve things. It was time to put Marpet's help-line to the test.

First problem: disconnecting both banks of onboard RAM had left the Atari with no RAM whatsoever (hence its failure even with the upgrade partially de-installed). Second problem: tucked away at the rear of the manual (behind the troubleshooting guide) was a section entitled Inserting SIMMs. Had I read it, I would have discovered that my particular configuration of computer required me to move the two SIMM boards to the two empty slots on the Xtra-RAM Deluxe board. Armed with this information, I was confident I could finish the upgrade. I was wrong.

Relocating the SIMM boards and re-installing the upgrade left me with a computer that seemed to address any disk inserted in its disk drive, but steadfastly refused to give me a display on the monitor. Calling the help-line again, I was advised to check the MMU socket for damage caused by installing the piggy-back board. On inspection one of the pins did, indeed, appear to be out of line with the others. This was easily corrected by removing the MMU chip and adjusting the offending pin.

Reassembled with the Xtra-RAM re-installed, my ST was then a fully-functional 2Meg machine.

#### VERDICT

I HAVE TO accept that missing the section of the manual which told me to move the SIMM boards on the Xtra-RAM Deluxe was my own fault. In mitigation, I'd say that it could have been better located within the manual, but. . . On the other hand, I'm reluctant

to concede that the damage to the MMU socket was caused by my negligence. That said, I'm not prepared to blame Marpet either. The fact is that the MMU socket was never designed to have another set of pins forced around those it already has - unlike the Atari STE, the ST series was not intended to be readily upgradeable and so any such modification involves inflicting a certain amount of abuse upon it.

Looked at another way, the problems I encountered gave me a chance to put the help-line to the test - and it passed with flying colours.

Fitting the Xtra-RAM Deluxe upgrade really isn't difficult. If you've dabbled with electronics at any level, it should be well within your capabilities. Even if you haven't, a practical mind and the patience to read through the manual before getting started should see you through. If the lure of extra memory is strong, but your confidence is weak, you may prefer to use the fitting service.

Only you can say whether or not

you and your music would benefit from some extra memory. The difference between being limited to running one program at a time and being able to switch freely between two or more programs (GEM compatibility permitting) using C-Lab's Softlink represents a dramatic saving in both time and frustration. The streamlining such a system can bring to the operation of your studio has to be experienced to be fully appreciated. Certainly, I've seen a few pro studios surviving nicely on Mega2 STs, thank you.

Of course, one of the virtues of Xtra-RAM Deluxe over other upgrades is that you can add further SIMM boards (up to the Atari's maximum capacity of 4Meg) at a later date. It's a course of action which I'd thoroughly recommend - but with a couple of words of warning. First off, the Atari version of Digidesign's popular Sound Tools direct-to-hard disk recording and editing system is marketed as requiring a Mega4 ST host machine. Unfortunately it's not enough to upgrade another machine to a capacity of 4Meg, as Sound Tools ST also requires an expansion socket found only on the Mega4. Secondly, if taking an Atari out on the road already represents a risk, adding another circuit board isn't going to improve matters.

But if you're looking to vastly improve the usefulness of a computer-based music setup without either spending a fortune or having to learn a new computer and sequencer, the Xtra-RAM Deluxe option has got to be seriously considered.

Price Xtra-RAM Deluxe unpopulated, £34.99; Xtra-RAM Deluxe 0.5Mb, £64.99; Xtra-RAM Deluxe, 2Mb £109.99; Xtra-RAM Deluxe 4Mb, £179.99. All prices include VAT.

More from Marpet Developments, Meadowfield Farm, Fellbeck, Pateley Bridge, North Yorkshire HG3 5ET. Tel: (0423) 567140/530577.

Fitting £15 (excluding carriage). More from Peak Electronics, Tel: (0429) 860821.

"The difference between running one program at a time and switching between two or more programs represents a dramatic saving in both time and frustration."

## ALL SYSTEMS STOP

WHAT HAPPENS WHEN YOU HIT YOUR SEQUENCER'S STOP BUTTON? MORE THAN YOU'D GUESS, AND SOMETIMES MORE THAN YOU NEED - THIS ANALYSIS MAY HELP CURE SOME OF YOUR PROBLEMS. TEXT BY VIC LENNARD.

> YOU'VE JUST PRESSED the stop button on your sequencer - one of the tracks playing back was recorded using the pitchbend wheel. Chances are that at the precise moment you pressed Stop, the pitchbend

value was something other than zero, which means that notes being affected by the pitchbend will not have been at their root pitch. What happens when you hit Play and continue playback from where you stopped? The pitchbend value is correct for that particular point in the song. But what happens if you move to a different point in the song and hit Play? The notes on the same MIDI channel as the pitchbend information will effectively be out of tune.

TODY

A similar problem arises where you've been using the modulation wheel - again you hit Stop and continue playback from another point in the song. The modulation information is transferred to the new point in the song.

The reason why the above problems occur is down to the fact that a synth



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#### . FPOA

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There are other MIDI performance controls which create similar problems -Sustain Pedal, for example. This ensures that a sound follows its envelope until it reaches the sustain portion, and then stays at the sustain level until the pedal is released. At this point the sound enters its release phase. Consequently, the status of the sustain pedal is buffered and used by the envelope-generating circuitry of the synth. If Sustain Pedal is "on" when the sequence is stopped, it will be remembered by the synth; when you start plaving again, all notes will be sustained until a sustain pedal off command appears in the song, at which point the previous sustain pedal on will be defeated.

A worse possibility still arises when a sound generator receives a note on and the sequencer is stopped before it receives a note off. Sequencer users will know that this isn't (usually) the case this is because the sequencer keeps track of the notes being played at any particular time and sends out the necessary note off commands when the Stop button is pressed.

#### THE ANSWER

SOFTWARE WRITERS HAVE been aware of these problems since the invention of sequencing. After all, there's little point in providing complex sequencer functions if the program collapses every time you stop and start it. What most sequencers do is to transmit certain MIDI commands on each MIDI channel every time you stop the sequencer. The most common of these are:

**Pitch Bend Recentre:** as pitchbend is a 14-bit MIDI command, it can take any value between 0 and 16,383. Consequently, the middle value is 8,192 which corresponds to the pitchbend wheel sitting in its central position. This is transmitted as En 00 40 (where n is the MIDI channel and all numbers are in hexadecimal; this will be true for all examples).

**Sustain Pedal Off:** this is a seven-bit MIDI Controller (#64) which can take any value between 0 and 127. For a switch function, any value of 63 or lower is taken to mean

off, while a value between 64 and 127 means on. However, it is conventional to use 0 for off and 127 for on. The necessary MIDI message to turn this off would be Bn 40 00.

**Modulation Wheel Off:** again this is a seven-bit MIDI Controller (#1), but this time it is not a switch function and, therefore, can take any value between 0 and 127. The value usually corresponds to the depth of the modulation effect, so to ensure that it is turned off entails the transmission of a depth of 0. The necessary message is Bn 01 00.



#### Channel

Aftertouch Off: while this isn't actually a MIDI Controller, it is a channel-specific message upon which most synths will act. It's instigated by putting further pressure on the synthesiser's keys, after initially pressing them and triggering a note. Its original use was as an alternative way of originating modulation effects; however, most of today's synths allow you to re-map Aftertouch to functions including the pitch envelope, voice filter (VCF) or audio level (VCA). It is a seven-bit message, and to ensure that it is non-effective requires the reset message Dn 00.

All Notes Off: this is a function of the transmitting device which, in this case, is the computer. All Notes Off mutes all the currently-sounding voices of a synth. The need for this message dates back to the early days of MIDI, when synths often left notes hanging. While it is a seven-bit MIDI Controller, it is in the area reserved for Mode messages and can only take a 0 value; any other value is undefined. The relevant message is Bn 7B 00. One problem with All Notes Off is that not all synths recognise it as it is an optional MIDI command. Very few Yamaha synths will respond to it, Yamaha's EMT10 sound module being one of the few.

The MIDI Manufacturers Association (MMA) in the USA and the Japanese MIDI Standards Committee (JMSC) became aware of this "reset" problem and created a special MIDI command to make the functions within a synth which are affected by the values of MIDI Controllers (and various other MIDI messages) revert to their default values. The message Reset All Controllers tells a MIDI device to change certain parameters to preprogrammed values, as if the individual MIDI commands for each of these parameters had been received. This command is also in the Mode section of the MIDI Controller messages and Bn 79 00 is the required message.

As most sequencer writers have now implemented Reset All Controllers, are any of the other messages still necessary? Unfortunately the answer is yes, because Reset All Controllers only took its place within the Detailed MIDI 1.0 Specification a few years ago and such functions cannot be made retrospective - if a synth can't recognise it, it can't act on it.

Some sequencer writers have resorted to ingenious methods to counter the problem of synths not recognising the All Notes Off message. For example, C-Lab's Creator/Notator transmits a single Active Sensing byte (\$FE) each time you hit Stop. If you have either a Roland U110 or a U220, you'll see the messages Active Sensing Error and MIDI Off-Line respectively.

The Active Sensing message is intended to tell all slave devices connected to a master that the latter is still there by sending the one-byte message about every 300 milliseconds. This message is optional; if a slave never receives Active Sensing bytes, it doesn't expect to receive them. However, once the message has been received, a slave expects to continue to see such messages. If none appear within the allotted time, the slave assumes that the master has been disconnected and shuts off its voice circuitry. In the words of the MIDI Specification, the receiver "will assume the MIDI cable has been disconnected for some reason and should turn off all voices and return to normal operation". What's meant by "normal operation" is the condition which exists when a device is powered up. The problem here is that this may lead to MIDI Volume (Controller #7) being reset to the maximum value of 127 which was the case with the Korg Wavestation. In this case, all your carefully-created volume levels for various multitimbral parts disappear as soon as you hit the Stop button. A software change to the Wavestation solved this problem.

While the use of a single Active Sensing byte is ingenious, it appears to be contrary to the spirit of the MIDI Specification - but such are the problems of having optional messages. The origin of Active Sensing is similar to that of All Notes Off - the message was essential in the early days of MIDI when the system wasn't as reliable as it could have been. Many manufacturers now feel that it's no longer necessary and so do not implement Active Sensing in their current equipment; moreover, most MIDI processing devices discard Active Sensing at input.

Some sequencers give you the option of not sending out reset messages: Steinberg's Cubase for one. Perhaps the solution, bearing in mind the possible problems caused by optional messages, is to have a menu from which you can select which messages are transmitted. After all, most sequencers give you a menu from which you can choose which MIDI messages are to be filtered as they are input. The Function Junction MIDI patchbay offers this facility for determining the messages sent when switching from one patch to another. Firstly, you have the option for whether reset data should be sent at all. Secondly, you can choose from All Notes Off, Sustain Pedal Off, Centre Pitch Bend, Zero Modulation Wheel, Reset All Controllers, Channel Pressure (Aftertouch) Off and Sostenuto Off. With a MIDI patchbay, this is especially important - if you're switching between two patches and a particular connection exists in both of them, you may wish to keep sustained notes playing over the patch change (as you may with synth patches). Consequently, certain reset data must be suppressed - if Sustain Pedal Off is transmitted, for example, sustained notes will be muted even if you're still holding the sustain pedal down. On the other hand, switching between two patches where a connection is made in the first but not in the second is likely to lead to hung notes.

#### PANIC BUTTONS

THE "PANIC" BUTTON you may have seen implemented on various MIDI devices carries out a similar function to pressing the sequencer's Stop button, except that the sequencer could still be playing while the reset information is transmitted. A panic button, therefore, has to cope with stuck notes where-a note-off-has either not been transmitted from the computer (or keyboard) or else the synth has failed to recognise a note off. Consequently, it has to be more thorough in its cleaning-up procedure and will often transmit every possible note off on each of the 16 MIDI channels - a total of over 6000 bytes. Add to this the other messages mentioned above (for each MIDI channel) and it's possible to have a stream of over 6500 bytes which would take more than 20 seconds to transmit. Admittedly this figure

The problem is that a device cannot keep an account of what MIDI data has passed through it - it won't know precisely which note on has failed to receive a note off in the case of a hanging note. Including such intelligence in a MIDI unit is generally financially prohibitive. Next time you hit the panic button and wonder why those perfectly crafted 16ths on the hi-hat suddenly start fluttering, you'll know why.

A word of warning if you're using a MIDI patchbay with a panic button and a MIDI port expander on the ST: hitting the panic button under these circumstances may cause reset data to be sent to all connected MIDI Ins on the expander. The consequence of this is likely to be a flow of MIDI data beyond that which the MIDI Input routine of the sequencer can handle. Result: computer crash.

From the point of view of synths, there is a newly-implemented MIDI message which can act as a panic button. All Sound Off is MIDI Controller #120 (Bn 78 00) and mutes all currently-sounding notes on the specified MIDI channel. When a synth receives this message, the level of the final amplifier for all voices is set to zero as quickly as possible: any notes currentlysounding are turned off. Consequently, such a MIDI message could be assigned to a button on a keyboard which is capable of having a MIDI message defined for it. All Sound Off is not intended to replace All Notes Off or the correct sequence of notes on and off; rather, it's a bolt-and-braces solution to a problem in a performance situation.

#### CONTROLLERS ONE FURTHER PROBLEM falls within the

CHASING

scope of this article - the Stop button has been hit, the sequencer has sent out the various commands to reset the relevant buffers in your synths. What happens when you re-start the sequencer, whether at the same point or not?

The issue is that the sequencer has somehow to know what the current situation is for the MIDI Controllers, Pitch Bend and Aftertouch. You're in the middle of a song or piece of music - is the Modulation value 0, 25 or 76? What degree of Pitch Bend is there? Is the Sustain Pedal on or off? Without reinstalling the correct values in the synth buffers, performance data of the above types will not be correctly assigned when the sequencer re-starts.

Most sequencers can "chase" the

correct values; that is, they search backwards from the current position for the last value and then transmit this as the sequencer starts up. But not all sequencers chase all aspects of a performance - for example, some only look for the first 32 MIDI Controllers (as Controllers #32 to #63 are only used in conjunction with their parallel partners in #0 to #31 and so are rarely implemented within synths). So the likes of Modulation, MIDI Volume, Pan, Balance and Expression are correctly dealt with, but Sustain Pedal, Sostenuto and all others beyond MIDI Controller #64 aren't. Fortunately, Pitch Bend is usually catered, for as is Aftertouch. You soon get to know what your sequencer chases; just listen for what appears to be wrong.

In my conversations with various manufacturers of software sequencers, it seems that there's concern over the possibility of glitches occurring as the music starts to play, due to the number of bytes required to reset the synth buffers. This may be so but, again, it would be nice to have the option to set a function like this from a menu. Many people prefer not to change default settings, assuming those chosen by the manufacturer are "correct", but having things under your own control would certainly pre-empt one situation likely to arise in the near future. Most of the additions to the MIDI Specification as far as Controllers are concerned have involved Controllers numbered above 64. For example, there are ten Sound Controllers (#70-#79). Let's hope that sequencer software writers keep themselves abreast of these changes and modify their software accordingly.

#### THE BOTTOM LINE

I AM A firm believer in allowing people who use software to configure many of the program aspects to their own taste; anyone who uses an Apple Mac will be aware of the significance of this philosophy. Given hundreds of different options within a sequencer, many people (probably most) will avoid even considering their usefulness. However, if these options have sensible defaults, this lack of interest in technical detail will have no unfavourable side effects. For those who really want to be able to get the best from their MIDI system, the ability to be able to make such choices is important.

Information on the latest additions and changes to the MIDI Specification is free to all members of the European MIDI Association (EMA). For more information about membership, please contact Vic Lennard on 081-368 2245.

GS Synthesiser

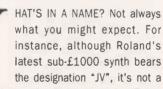
ROLAND

## JV30 SYNTH



PHOTOGRAPHY: JAMES CUMPSTY

Although its tag would have you think it's a stripped-down version of Roland's new JV80, the JV30 is really something else... Review by Simon Trask.



scaled-down JV80 (see review in last month's MT) but a keyboard version of the company's SC55 Sound Canvas module. This means that it implements their GS Format patch-mapping "standard"; the JV80, on the other hand, doesn't. Something which the two synths do have in common is an emphasis on frontpanel clarity and accessibility, although they differ in their approach - the JV30's has more in common with that of the JX1, the JV80's with that of the D70.

#### GS-WHAT'S IT MEAN?

THE JV30'S GS conformity means that it automatically has certain features, such as 16-part multitimbrality, 24-voice polyphony with voices dynamically allocated across all 16 parts, a bank of 128 Tones which provides a predefined selection and arrangement of ROM sounds, at least one predefined ROM Drum Set (in fact, the JV30 has nine ROM preset and nine programmable Drum Sets), and General MIDI compatibility. General MIDI Level 1 is effectively, though not officially, a subset of GS, in that GM's one bank of 128 sounds matches that of bank zero of GS's 128 banks, and GM's one Percussion Map matches GS's Standard Drum Set, which is just one of numerous preset and userprogrammable Drum Sets possible within under GS. You can force the JV30 into GM response (bank zero selected, Standard Drum Set assigned to MIDI channel 10) from any state by transmitting the GM System On command to it. The situation regarding polyphony on GS instruments is similar to that with GM instruments except that, where GM specifies a minimum of 24 voices, GS seemingly specifies a maximum of 24. That's how many voices the JV30 >



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"The JV30 scores with its accessibility and user-friendliness and with the sheer number and variety of sounds it makes available."

has, anyway, which means that if you're using only two-voice Tones you're down to 12-note polyphony.

GS bank zero and GM both provide 16 groups of sounds: Piano, Chromatic (tuned) Percussion, Organ, Guitar, Bass, Strings, Ensemble, Brass, Reed, Pipe, Synth Lead, Synth Pad, Synth Effects, Ethnic, Percussive and Sound Effects. Each group consists of eight sounds which sit within the defining category, so, for instance, the Bass category consists of 'Acoustic Bass', 'Fingered Bass', 'Picked Bass', 'Fretless Bass', 'Slap Bass 1', 'Slap Bass 2', 'Synth Bass 1' and 'Synth Bass 2', while the Brass category consists of 'Trumpet', 'Trombone', 'Tuba', 'Muted Trumpet', 'French Horn', 'Brass Section', 'Synth Brass 1' and 'Synth Brass 2'. The Sound Effects category, you'll be interested to know, consists of 'Guitar Fret Noise', 'Breath Noise', 'Seashore', 'Bird Tweet', 'Telephone Ring', 'Helicopter', 'Applause' and 'Gunshot'

Unlike General MIDI, GS allows a number of variations on the Tones of bank one to be created. In GS-speak, the Tones of bank zero are known as Capital Tones, the Tones in every ninth bank are known as Sub-Capital Tones, and the Tones of all banks are known as Variations. The idea is that Capital Tones and Sub-Capital Tones with the same Tone number can provide a different instrument within the same instrument category, while the "in between" Variation Tones literally provide variations on their Capital or Sub-Capital Tone. For instance, Tone 22 bank zero is a French accordion while Tone 22 bank eight is an Italian accordion.

The only place where the JV30 makes use of "in between" Variations is in the Sound Effects category, and here each Variation is actually a different sound. So, for instance, where with General MIDI Tone 126 would consist simply of a helicopter, with GS it consists of nine different samples: Helicopter, Car Engine, Car Stop, Car Pass, Car Crash, Siren, Train, Jetplane, Starship and Burst Noise. All in all, the JV30 provides 40 sounds in the Sound Effects category, where a GM instrument could only have eight. There are two ways to select these extra sounds associated with each Tone: from the JV30's front panel you simply keep pressing the Variation button and the synth cycles around the Variations, while remote selection of Variations via MIDI involves sending a Bank Select command (MIDI controller #0) for the Variation and a patch change command for the Tone.

Taking into account both the Capital Tones and the Variations, the JV30 provides a total of 189 Preset Tones. A further 128 Tones are available in a special MT32 mode (selectable from the front panel by pressing the Performance and Variation buttons, and via MIDI by sending Bank Select 127) which uses a bank of Tones mapped in accordance with the MT32's Tone organisation, and assigns a CM64/32L Drum Set to channel 10. Roland have also given the JV30 a bank of 128 User Tones into which you can store your own edited versions of the Variations. All you have to do is press the Write button and then press the relevant Number button on the synth's front panel (its built-in LED prompts by winking at you). As on the JX1, you can't store to a Tone location other than the one

you've edited, which means you can only store one edited version of one of the Variations associated with each Preset Tone.

To switch between Preset and User Tones from the front panel, you press the buttons labelled Preset and User. However, via MIDI there's no means of selecting User Tones as opposed to Preset Capital Tones or vice versa - both are addressed as bank zero using the MIDI Bank Select command. It seems there are only two ways to ensure that you select the Tone you want, either Preset or User, on each MIDI channel. One is to ensure that a Tone from the relevant Bank is already selected on each channel; you can do this by creating a Performance (see later) which has the relevant Preset and User assignments. The other is to take advantage of the fact that, in addition to bank select and patch change settings, the JV30 transmits the programmed values for all eight editable sound parameters via MIDI (as non-registered parameter numbers) each time you select a Tone or a Variation. If you record this data into your sequencer, then each time you play the sequence back you're effectively "programming" the sound live. Although this means each patch change entails transmitting an 83-byte chunk of data, in practice I didn't encounter any adverse effects when incorporating such changes into multitrack sequences - though, obviously, too many patch changes happening at once could cause hiccups.

#### PRESENTATION

THE JV30'S 61-NOTE keyboard is sensitive to attack velocity only, though the instrument can respond to both channel and poly aftertouch via MIDI; although the keyboard is a fairly standard synth-style affair, it does have some substance in its feel, unlike some keyboards I could mention. The synth's rear panel provides a bog-standard collection of sockets: MIDI In, Out and Thru, L(Mono) and R audio outs, stereo headphones output, sustain pedal socket, and power input socket for the external AC adaptor, together with, of course, the power on/off switch.

The JV30 is easy to get to grips with, thanks in part to the fact that it's not a very complicated instrument, and in part to the fact that its capabilities are presented on the front panel in a clear, accessible way. Essentially, you step in either direction through the 16 Parts using the dedicated Part Up/Down buttons, and all the other buttons affect whichever Part is currently selected. Each Part can be given its own level, pan, MIDI receive channel, chorus depth, reverb depth, chorus on/off and reverb on/off settings. The latter two are particularly easy to set: once you've selected a Part, all you have to do is press the dedicated buttons labelled Chorus on/off and Reverb on/off (pinpoint LEDs within each button light up to indicate the "on" setting). Equally accessible are two performance features, Solo and Portamento, which can be switched in and out per Part from dedicated buttons. This clear visual correlation between parameters and buttons is typical of an instrument which brings just about everything to the surface. Other parameters programmable per Part are bend range, modulation depth, key shift, velocity sensitivity depth, velocity sensitivity offset and voice reserve (if you have an important musical part which mustn't have notes stolen from it, you can "reserve" a fixed number of voices for it). A useful global parameter allows you to specify whether the JV30 should transmit on a fixed MIDI channel or whether it should transmit on the receive channel of the currentlyselected Part.

Sixteen Bank and eight Number buttons allow you to select a Tone from the bank of Capital Tones, while, as mentioned earlier, successive presses of the Variation button cycle you around the Variations (if there are any, that is) for the selected Tone. The 16 Tone Groups are listed on the front panel to the right of these buttons, so you don't have to struggle to remember which Bank button (Group button would perhaps have been a better label) selects the Guitar sounds or the Synth Lead sounds.

Assigning a Drum Set to a Part is equally straightfoward: press the Drum 1 or Drum 2 button, then either go with the selected Set or use the Preset, User, Number and Variation buttons to choose a different Set. Drum Sets can be assigned to any Part, but no more than two Sets can be active at once. The JV30 also lets you edit the pitch, level, pan and reverb depth settings for individual sounds within the Preset Drum Sets (though you can't change the mapping of sounds) and then Write the results into one of the RAM memories.

Like the JX1, the JV30 makes a limited number of sound parameters available for editing, puts them on a "mini" Edit Palette of three assignable sliders, and lets you select the active parameters by pressing the Vibrato, Filter or Envelope button. So, one moment you can be editing the filter cutoff point and the resonance amount, the next you can be editing the attack, decay and release settings of the filter and amplitude envelopes. Obviously there are a lot more sound parameters which Roland have hidden from view. One of them is presumably filter on/off, because editing cutoff and resonance on some of the Tones has no effect; in particular, many of the Sound Effects Tones don't respond to cutoff and resonance edits, something which I found a bit frustrating. As ever, there's a trade-off between simplicity and immediacy on the one hand and depth and flexibility on the other. The JV30, of course, majors on the former.

As mentioned earlier, you can Write the edited Tone into one, and only one, User Tone location. This can become frustrating when you want to use differentlyedited versions of a Tone at the same time, but there is a workaround for this situation. I mentioned earlier that whenever you select a Tone on the JV30, the synth transmits not only the relevant bank and patch numbers but also the stored parameter settings for the Tone - effectively a Tone dump, except that the values are conveyed as controller data (Non-registered Parameter Numbers and Data Entry values) rather than SysEx data. All you need to do is record this information into your sequencer on the relevant MIDI channel(s) and then edit the Data Entry values for whichever parameters you want to change, using your sequencer's Event List editor. On playback, the same Tone can be given different parameter settings on different MIDI channels - and you have the advantage that the settings can be stored as part of your sequence.

Take things a bit further and you can have dynamic parameter edits recorded within your sequences. What you can't do, sadly, is record dynamic edits into a sequencer from the JV30's front panel, because Palette and Data Entry slider movements aren't translated into MIDI data by the synth. So all that mad slider wiggling may be great for live performance edits (changing the filter cutoff point and resonance amount on 'Synth Bass 1', say), but it won't get you very far when you want to sequence your edits.

#### PLAYING UP

ON THE SUBJECT of performance, the JV30 includes four Key Modes - Fat, Octave, Dual and Split - which can be called up individually from dedicated front-panel buttons located below the central LCD window. As you might guess, Fat and Octave both provide ways of beefing up a sound. To do so, they "take over" the Part below the currently-selected Part - if you were sequencing that Part, it would drop out while one or other of these Modes was selected (an interesting approach to track muting). Dual and Split also require a second Part, only in this instance you can select any one of the other 15 Parts, and its Tone is placed on the keyboard along with that of the current Part. You can change the Tone assignments, and in the case of Split, set the keyboard splitpoint yourself; if the global TX Channel parameter is set to Part, each Part transmits on its own MIDI channel, so you can address up to two MIDI channels from the JV30's keyboard.

I did encounter one rather unfortunate software bug. If you set the keyboard Local on/off parameter to "off" - as you're likely to do if you're using the JV30 with a sequencer - and then select one of the four Key Modes and play on the keyboard, the JV30 immediately seizes up and locks you out completely. This is most definitely not something you'd want to have happen to you in a gig situation, especially if the JV30 was playing back a multitrack sequence at the time. Turning the synth off and back on again (which is all you can do in the circumstances) sets it back on its feet, but doesn't cure the problem. Only Roland can do that - hopefully sooner rather than later.

Effects processing on the JV30 is limited to chorus and reverb, as it is on many Roland synths. You get a choice of eight Chorus types - Chorus 1/2/3/4, Feedback Chorus, Flanger, Short Delay, and Short Delay with Feedback, and eight Reverb types - Room 1/2/3, Hall 1/2, Plate, Delay and Panning Delay. For both Chorus and Reverb, globally programmable parameters are limited to effect type and level, while per Part, as I mentioned earlier, you can set on/off and depth.

Settings for many of the JV30's global and Partspecific parameters can be stored in a Performance, allowing you to call up, say, a completely different set of 16 Tones in an instant. You can program up to eight Performances, and call them up by pressing and holding the Performance button and then pressing one >>

"Even if you're not using the JV30 multitimbrally, Performances can still be useful as a way of grouping together up to 16 Tones at a time." "All in all, the JV30 provides 40 sounds in the Sound Effects category, where a **GM** instrument could only have eight."



> of the eight Number buttons. However, while active notes can overlap Tone changes on an individual Part basis, calling up a new Performance cuts short all active notes, so Performance changes while a sequence is running aren't really feasible, which is a pity.

Even if you're not using the JV30 multitimbrally, Performances can still be useful as a way of grouping together up to 16 Tones at a time. Instead of selecting Tones using Bank and Number buttons, all you need to do is step through the Parts. However, one potential disadvantage of this approach is that active notes are cut dead whenever you step to a different Part.

The JV30 implements SysEx dumping of User Tones, User Drum Sets, all or individual Part settings and Performances, so you can expand beyond the onboard storage capabilities of the synth.

#### VERDICT

WHILE IT'S NOT a synth for anyone who wants to get into some serious programming (or take advantage of others' serious programming), the JV30 scores with its accessibility and user-friendliness, with the sheer number and variety of sounds it makes available, and with an attractively punchy, sharp sonic quality which has plenty of verve and sparkle to it - if it lacks a little in depth and warmth. Overall, Roland's new synth is a well thought out and well balanced instrument which does more than enough to make itself appealing to budget-minded recording musicians and performing musicians alike. 

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#### QUINSOFT

#### Atari ST Software

## QUADRAVERB TOOLKIT



There's only one thing worse than an effects unit with no programs, and that's an effects unit with loads of 'em - happily for Quadraverb users, Quinsoft's Toolkit will help restore order. Review by Ian Waugh.

> UINSOFT WILL BE known to regular MT readers as the software house behind a range of editors and librarians, including the only full editor for the Roland MKS70. If you run even a modest studio you may

already be using Quinsoft's Trax, a complete recording studio manager which combines a Tracksheet, Cue Sheet and Mixdown page with an invoicing and accounting program. Today we're talking about a librarian for the Alesis Quadraverb, the first and only one in existence as of writing. The Quadraverb is so easy to use that devotees may wonder if they actually need a librarian. But if you're like me you hate to delete anything - including FX patches - and once you've filled the Quadraverb's ten free memories it's bulk dump time.

It's worth pointing out that the original Quadraverb has been upgraded to the Quadraverb Plus. But you don't have to ditch your original machine and fork out for a new one 'cos the upgrade is a new chip which those magnanimous people at Sound Technology are flogging for about £12. The upgrade gives you multitap delay, auto panning, tremolo modulation, ring modulation, resonators and a sampling capability. If you haven't already upgraded...

#### TOOLS FOR THE JOB

THE TOOLKIT COMES on a double-sided copyprotected disk, which acts as a key disk. It will run in hi- or medium-res and it will squeeze into a 520ST. It lets you transfer patches between the Quadraverb and disk.

The program isn't GEM-based but uses its own unique interface, which the manual describes as Object Oriented. Instead of using lists of menus to select functions, all actions are accomplished by clicking and dragging one object to another on the screen.

The program can hold four banks of patches in total - four Source Banks and a Destination Bank. The Source Banks are in the top of the screen and are selected by clicking on A, B, C and D selection boxes. The Destination Bank is underneath. It would be difficult to show two sets of 100 patches on screen, so they're divided into sets of 20, which you select with clearly-numbered buttons. However, I wonder if it would have been possible to show, say, half a complete bank. It would have made operation a little bit easier.

Below the banks are two User Buffers which are useful catchment areas for

temporary patch storage, a disk icon, a Quadraverb icon and a MIDI and an Extras box.

#### IT'S A DRAG

THE PROGRAM WORKS as you might expect. To load the contents of the Quadraverb into a bank for saving - the first thing you should do before experimenting you click on the Quadraverb icon and drag the mouse towards one of the banks. An "elastic" line appears during dragging so you know you're about to connect one object to another.

To load a bank from disk you drag the disk icon to the bank. To save a bank to disk you do the reverse and drag the bank to the disk icon. To transfer banks between the program and the Quadraverb you drag one icon to another. To copy a patch from one bank to another, to a User Buffer or send it to the Quadraverb you click on it and drag it to its required destination. What could be more simple?

The manual suggests that you use the Source Banks as sources, and put the patches you want to use in the Destination Bank for transmission *en masse*.

Right clicking on some of the icons brings up a small function window containing load, save, get and send icons. All four options are available from the Bank, Quadraverb and User Buffers but only the send option is available from the single patches. This window lets you rename the patches, which is rather easier than using the Quadraverb's front panel.

The Extras window contains a Help button. When it's On, and you try to perform an illegal function, the program tells you why you can't do it and suggests how it might be accomplished. There seems little point in switching it off and there are few things you might try which you can't do.

This window also has facilities to sort a bank by name and type - very useful for the orderly musos among us - and printout options. The printout

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Source Bank A	: QUINQUAD.BNK	00-19 20-39 4	8-59 68-79 88-99				
0 Oddverb	1 Fazer & Flange	2 Brassverb 1	3 Brass Delay 1 A				
4 Lost in Space	5 Kickdrum Verb	6 Living Room	7 Snare Verb				
8 Piano Verb	9 Free Phase	10 Tight Lezlie	11 Starlite				
12 Man to Vannie	13 Brassverb 2	14 Backwoods Boy	15 Pick 'n' Mix				
16 Orchestral 1	17 Slapback Plate	18 Delayed Vox	19 Massive Hall D				
Destination Block: QUADBULK.BNK 00-19 20-39 40-59 60-79 80-99							
20 LO DIFUZ CHMBR	21 RICH CHAMBER	22 KINGS CHAMBER	23 SML TIGHT GATE				
24 BRITELITE GATE	25 SMOOTH GATE	26 MEAN GATE	27 GATE PLUS VERB				
28 FLANGE/GATE	29 FLANGE/GATE 2	30 MONO FLANGE	31 TRIGGER FLANGE				
32 TWITCH FLANGER	33 MONO CHORUS	34 CHORUS ROOM	35 CHORUS REVERB				
36 CHORUS DELAY	37 STEREO PITCH	38 LOOSE LEZLIE	39 P.BEND LEZLIE				
	Dser Buffers JLTI VOCAL ELOCITY-REVRB	FLANGE/GATE &	MIDI Extras				

includes a space next to each patch in which you can write comments. There's also a hook here to the GEM desktop, from which you can run desk accessories (but not programs).

#### COMING THRU

THE MIDI BUTTON calls up the MIDI Thru/Mixer window. The Thru option lets you rechannelise incoming MIDI data to any MIDI channel. The Mixer gives you control over five Quadraverb parameters -EQ/Direct, Master Effects, Pitch/Lezley, Delay Level and Reverb Level - using sliders. These are the main parameters which are accessed by the Quadraverb's Mix button and it's useful to be able to alter them from the ST.

The presets in the Quadraverb have been set up for live use and mix a proportion of direct signal in with the effect. If you run these through the send and return sockets of a mixer, when you increase the effect level you also increase the proportion of direct signal. For studio work, you need to reduce the direct signal in the Quadraverb settings, which is easy to do from the MIDI window.

The disk includes the original Quadraverb and Quadraverb Plus patches plus a bank of original patches divided into two, identical except that one has been optimised for live use, the other for studio use. Cute.

Clicking the disk icon brings up a Disc Utilities window. It contains a disk formatter with a skewed format option. This staggers the numbering of the disk sectors, which can increase the speed at which the ST accesses data. Interestingly, the formatter formats a disk from the inside out so that the directory track is the last to be formatted. If you suddenly realise you're formatting a valuable disk and stop the formatting, the directory will be the last to go, so giving you the maximum chance of recovering files. There's also a very useful Verify function which the ST really should have as standard, plus a Create Folder option, which you'll find in precious few software programs. Add Erase File and Quick Erase functions and you've got a useful set of tools.

That sums up the Toolkit, but there are a few extra goodies on the disk. There's a Pocket Toolkit, a miniature Toolkit that *does* run as a desk accessory

#### "One of the best features of both the Quadraverb and M1 Toolkits is the user interface - you'll really love it."

but which only handles one bank of patches. This uses 60K of RAM. There are also a couple of ancillary programs - the incredible Bulk Version 2 is a SysEx bulk dump utility. It has a few enhancements over Version 1, including an EOX delay which makes sure that packeted data (common with Roland instruments) is indeed packeted and not contiguous.

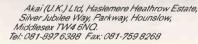
File concatenation lets you store up to eight bulk dumps in one file, which can be transmitted to set up, presumably, eight instruments in one go. There's also a buffer which can hold several files at once. These can be transmitted in one go or saved to disk again as a larger file. The request string can include a System Channel (some instruments such as the Quadraverb and Alpha Juno 1 use them), and there's a System Channel offset for instruments (such as those by Korg and Yamaha) which bury the MIDI channel in the lower four bits of a byte (getting pretty heavy, here). You can see the contents of a buffer and turn MIDI echo on and off. The program works as a stand-alone program and a desk accessory and includes the disk utilities.

To make full use of the Bulk you have to write SysEx request strings which request instruments to send their data. There's also a listen mode which allows data transmission to be triggered from the instrument. A separate Bulk Set Organiser lets you compile a set of dump requests from other sets.

The other program is Auto Bulk, which can run as a stand-alone program or from your Auto folder. It will scan any disk, including hard disks, for up to 40 .BNK bulk dump files which it lists on screen. You select ones for transmission and off it goes to do its stuff. The beauty of Auto Bulk is that it runs, uses the memory it needs, does its stuff and then frees the memory.

You could use it to set up all your equipment before a session. It would also be useful for instruments such as the MT32 which have no battery backup. It can send long files, up to 256K, even on an ST (something The Incredible Bulk can't do). It also searches within folders for the .BNK files so you aren't restricted in the organisation of your files.

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professional

The manual is a mere 16 pages long, although there are Help files for the Bulk programs on disk. There's no index or even a contents page, but I'm inclined to overlook this as the program is so very easy to use. However, a few more words about the Bulks, perhaps some examples, would have been useful for beginners. Rather too much than too little, I say.

Another Quinsoft goody is the Korg M1 Toolkit. This is identical in look and feel to the Quadraverb Toolkit except for an M1 icon instead of a Quadraverb, and it has slightly different functions in the MIDI and Extras boxes. The MIDI box lets you set the Basic and Instrument MIDI channels and there are MIDI echo and rechannelise functions.

The Extras box has sort, print and help functions, too. It can also switch between Programs and Combination mode so you can use the Toolkit for either, but not at the same time. The program ends a Mode select message over MIDI if this is changed and a pop-up dialogue box asks for confirmation.

The disk includes an M1 Pocket Toolkit plus The Incredible Bulk and Auto Bulk.

#### VERDICT

THE QUADRAVERB TOOLKIT is a superb program, although it's a shame Quinsoft didn't go the whole hog and produce a full editor. As with synths, I suspect most users tweak the presets rather than create new patches from scratch, so perhaps Quinsoft reasoned that a full editor would be wasted. But the user interface is a joy to use, and the program contains all the essential features you require to store and organise your Quadraverb patches.

The same comments apply to the M1 Toolkit, although here you need to decide if you just need to shuffle Programs and Combinations around - as the Toolkit allows - or if you really want a more sophisticated editor with the ability to edit individual Combis and perhaps tweak some voice parameters a little. This would have been useful but if that's what you want you'll have to look elsewhere, although tweaking sounds on the M1 isn't terribly difficult. However, with such a vast number of M1 sounds readily available, I suspect Quinsoft have put their money on users simply wanting storage and organisation facilities - and that's what the Toolkit gives you, pure and simple.

One of the best features of both the Quadraverb and M1 Toolkits - I say it again - Is the user Interface. If ease of use is one of your priorities you'll really love them. It'd be very interesting to see how Quinsoft tackle a more sophisticated editor.

**Price** Quadraverb and Korg M1 Toolkits, £34.95 each including VAT.

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#### COLDCUT SAMPLING CD

Kleptomania Volume 1

Although this isn't actually the first CD Coldcut have put out as source material rather than sourced material, it is the first that conforms to the *de facto* sample CD format - that is, a large number of audio samples assembled for maximum ease of use by another sampling artist. Their previous excursion into similar territory took



the rather unorthodox form of the *JazzBrakes/Zen Brakes* CD (reviewed MT, December '91). Here they presented pieces of music which, while complete in themselves, were also offered freely as source material for other samplers. Having been recruited - along with the likes of Pascal Gabriel and Norman Cook - to the Hitsound stable of sample CD artists, they've chosen to fall in line with the 1000+ unrepeated sample format defined by Zero-G's Datafile series, some time back.

Opening with some 22 tracks devoted to assorted loops and fills, Coldcut are quick to demonstrate one of their acknowledged strengths - and one of the reasons a lot of people are going to buy this disc. Listed with associated tempi in bpm, these loops cover everything from the obligatory drum breaks through beatbox and percussion loops to the self-styled hed noise loops. These are defined in Matt Black's absurd glossary as "A stupid noise. . . which grabs your head", and it's about as close as current terminology is likely to take you. It would be a trivial point if it wasn't for the fact that Coldcut's success is so heavily dependent upon their ability to identify the sorts of sound which grab a lot of peoples' heads, fill a lot of dancefloors and sell a lot of records.

If anything, the breaks represent the more typical edge of Kleptomania. But where other sample CDs' bass samples are just basses, Coldcut's often seem to be something more. They run for unnaturally long periods, contain unorthodox loops or are simply atypical bass sounds. Much the same can be said of the Organ, Synth, Atmosphere and Guitar sections.

> Don't get me wrong here, this disc doesn't sound as if it's come from another planet, nor is it an interesting intellectual exercise in finding interesting but ultimately unuseable samples - this library was built to be exploited.

> The selection of spoken vocals is rather more conventional. Five tracks are devoted to the usual "Do it 2 me", "This is wicked" style of drop in. Some of them have been treated with delays, however, and the classic "Say kids, what time is it?" is also included. Here, as well as amongst the breaks and basslines, you'll find material made familiar by Coldcut's past successes it's nice to know they're not being precious but it'll be a resourceful

samplist who can re-use them imaginatively without making them unrecognisable. And if you have to make them unrecognisable, is there any value to you in their chart pedigree?

Amongst the Hed Hits and Hed FX you'll find an amazing assortment of noises which sound disarmingly tame when removed from a musical context. Here, however, you're being allowed into another of Coldcut's sensitive areas. Used properly, these sounds are one of the secrets of modern dance music. The cynics will be quick to dismiss them - along with similar sections of other sample CDs - as one of the diversionary tactics used by musicians with nothing to say. Yet Cage, Stockhausen and Eno would certainly agree that it's all musically valid. And it's here for you to use.

Bringing up the rear are 17 tracks of isolated drum and percussion noises from which you can assemble your own rhythms. Again, the majority of these sound reassuringly familiar but, also again, you have the knowledge that they've been pre-selected for you by four of the best ears in the business. That alone is what many artists pay producers a small fortune for - and for others, it's not quite such a small fortune. **Tg** 

#### Price £49 including VAT.

More from AMG, Hurst Lane, Privett, Nr Alton, Hants GU34 3PL. Tel: 073088 383. Fax: 073088 390.

#### ZERO-G SAMPLING CD

Datafile Three represents the third and final CD in Ed Stratton's classic sampling series. Popularly regarded as having set the pace of this genre of sample material, Stratton set out to release the selected highlights of his personal sample library assembled over the years he has spent working as part of Jack 'n' Chill and more recently Man Machine. With this disc, that task is complete, and Stratton claims to have no plans for extending the library itself, although he is currently making it available in a variety of different formats (such as vinyl sample albums, S1000/1100 files on optical disk and Amiga sound files).

Twenty-one tracks of drum and percussion augment those already on Datafiles One and Two. This disc offers more breaks than either of the preceding CDs and also spreads its coverage of styles further - you'll find some useful go-go and Motown breaks accompanying the everexpanding house and hip hop selection. Almost inevitably, there's a growing element of duplication between sample CDs from different sources, but it's almost impossible to say who had what first and whether it came direct "from source" or whether it's come (slightly less honourably) via another sample CD. The same is true of samples derived from fashionable drum machines - several sample CDs carry the sounds of Roland's TR808, 909 and 727 for example (Prosonics' Megabeats CD contains samples of no less than 30 drum machines including these). For its part, Datafile Three contains samples of Roland's CR78 and TR606 to augment the TR808, 909 and 727 on Datafile One, and the R8 and Alesis HR16B (and human beatbox) on Datafile Two. Here, as on the earlier Datafiles, there is a wide selection of "original" drum and percussion sounds - including a wonderful gong and jews harp - that can be used to get away from the sounds everybody else is using. Worthy

of special mention are the rhythm guitar breaks l've always found that these, along with percussion breaks, are invaluable in reintroducing the feel of live musicians into electronically-based music.

From here we're onto vocal hooks and ad libs. There are some rich harmony parts here as well as the "Read my lips", "It's outta sight" stuff. Things start to get particularly interesting with the selection of oriental and ethnic vocal samples (no translations supplied). Some of these are suitable for looping, some need firing into the appropriate point in a rhythm, but all are beyond the scope of any of the other sample discs I've heard. Neatly dodging potential copyright wrangles, there's a section entitled JB-Style Vocals, which will give you something of the character of the man without the attention of his lawyers.

The Primitive Animals and House SFX sections are excursions into prime Coldcut territory from which Stratton returns with his credibility intact. Unlike breakbeats, this sort of material doesn't suffer from the problem of duplication across various artists sample libraries - the burning question here is how much of it can you handle and still be able to call upon the "right" sound when you need it?

The instrumental considerations of Datafile Three cover a variety of basses which should keep everyone from rappers to ravers demolishing dancefloors, strings that span the



earthy and the ethereal, flutes that have been stolen from dark continental jungles and Shinto temples and a good compliment of Bassline filter variations. Even the cliched ground of stabs seems refreshed after those on this disc.

One of Stratton's particular strengths is his ability to dig out bizarre and beautiful sci-fi effects. And Datafile Three lives up to the reputation of its predecessors in its selection of these. Most are completely obscure, but you'll find one or two that conjure up images of a *Star Trek* away team beaming up or reporting back to the Enterprise.

Over the course of three sample CDs, Stratton has attempted to present an impressive library of sounds and loops in such a way as to make each disc valuable in its own right as well as within the context of the set. He's succeeded, and in doing so provided a reference against which all similar sample CDs must be judged. *Tg* 

### Price £49.95 including VAT.

More from Time + Space, PO Box 306, Herts HP4 3EP. Tel: (0442) 870681.

### THE SOUND FOUNDATION Roland JX10 & MKS70 Sound Disc Vol 1

Own up: how many of you have regretted selling your Jupiters, ARPs and Moogs and are now trying to buy them back again? It's official: there are certain sounds which only come from certain instruments. Sadly (inconveniently, at least) no single instrument can produce every type of sound, whatever the manufacturer claims. That said, long live Roland's old JX10/MKS70.

It may use DCOs instead of VCOs, but it's still very analogue, and the sounds on this disk are definitely more akin to the bygone days of Pre-MIDI analogue synths than those of digital ones.

This first offering from The Sound Foundation is supplied on a simple self-loading disk - it's worth remembering this because you can only transfer SysEx into a JX10 via the cartridge (M64C RAM). The MKS70 fortunately doesn't share this problem. However if you can't get the JX10 to load, you can always send a blank M64C to AMG (The Sound Foundation's distributors) and they'll load the sounds for you. The disk, meanwhile, comes with two A4 printed sheets, showing a Bank and Patch Grid, and a listing of the patches with remarks and tips on each sound. The 64 patches are split into eight banks: Piano, Digital, Moog, Strings, Brass, Wind, Polysynth and Organ. The only outputs you should use are the upper right and lower left.

The first bank is Piano. This contains a mixture of piano and piano-type voices. 'Super Dreamer' is probably the best Wurlitzer EP200 impersonation I have ever heard from an analogue synth, very touch sensitive, very Supertramp. 'Grod's Pianos' 1, 2 and 3 are usable Rhodes-type pianos, and 'Yamaha X-Piano', 'Echo Harp' and 'Harpsichord' largely speak for themselves. The Digital bank contains a mixture of Roland D-Series style sounds. 'Fantasia', 'Glass Voices', and 'Breather' are eminently usable D50 emulations while 'Evocative' and 'New Age' are rather useful pad sounds with intelligent application of aftertouch. Worth mentioning too is 'LA Steel' which is a rather good brassy, steel drum sound.

The "Moog" bank contains good approximations of typical Moog lead sounds, a lot of them inspired by sounds from the Minimoog Patch Book. We all know the Minimoog has three oscillators per voice, but the JX has four. Even so, you're never going to get a JX to sound exactly like a Minimoog, but this isn't a half bad try. Worth particular mention is 'The Moog Sound', which is a '70s timewarp, and 'The Endless Enigma', which is very atmospheric. Other notables are 'Manic Poly-Bass', a gigantic bass sound, and 'Moog Modular', a polite but punchy lead sound. All the sounds in this bank are pretty convincing.

Next comes the Strings bank - although that's a rather loose description because a lot of the sounds are really just synth pad sounds. 'Warm 12 Voice' and 'Most Useful Pad' are ordinary pads but 'L'Apocalypse', 'Ice Warrior' and 'Alaska' (a Prophet 5 emulation) are something a bit more special.

The Brass bank is a bit special too because it includes solo synth brass sounds as well as brass pads. A lot of these patches are inspired by sounds from the ARP Odyssey and ARP2600 Patch Books. Worth mentioning here are 'The Sun' and 'Voluntary' (unnervingly realistic ARP trumpet and horn impersonations) and 'Full Orchestra', a useful synth brass section.

The Wind bank is also taken straight from the ARP Patch Book. The ARP Odyssey flute emulations, 'Odyssey Flutes' and 'ARP2600 Flutes' are cleverly-programmed patches and 'Double Reed' is absolutely spot on. All the sounds in this bank are very usable.

The Polysynth bank is full of big analogue brassy pads inspired by the Memorymoog and the Oberheim OB8. 'The Big Idea' is a gigantic swelling pad sound; '12 Voice Analogue' should need little explanation, as should '12 Voice X-Mod' and '12 Voice Poly'. But the most interesting sound in this bank is 'Formant Pad' which is a kind of nasal brass sound with a very distinctive organic quality.

The Organ bank completes our tour of the banks. 'Slow Rotor' (with Leslie) and 'Spitting Hammond' are good Hammond impersonations, the latter being more "clicky" than the former. 'Diapason' and 'Solo to Choir' are pipe organs which would be OK in a mix but probably not so hot as "featured" sounds, and ''70s Synth Organ' is simply horrible - but I suspect that's the intention. 'Hymn', meanwhile, is an excellent choir voice, and probably one of my favourite sounds on the disk.

If you like the sort of analogue voices that sound as if they've been resurrected from the dead '70s, you can't go wrong with this disk. On top of these, there are some more contemporary sounds too. Overall, many of these voices are pretty good and quite a few of them are genuinely excellent. Never before has such a big slice of history been available for such a small price. . . **Andy Neve** 

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ROLAND D50, Ensoniq ESQ1, Vesta Fire MR10 pro 4-track recorder, Trucker 130W keybd amp, A-frame 3-tier keybd stand, £1400 the lot. M Leeds, Tel: (0424) 732209.

ROLAND D50, exc cond, heavyduty f/case, ROM card, manuals, £495. Christine, Tel: 051-733 2684.

ROLAND D70, full f/case, boxed, manuals etc, all absolutely mint, £1050 ovno. Don, Tel: 031-441 3948, between 6-11pm. ROLAND EP5, MIDI compatible, touch sensitive, great piano sound, exc cond, still boxed, manuals, pedal, h'phones, £220 ono. Lucy or Simon, Tel: (0704) 822306.

ROLAND JD800 super synth, exc cond, £1250; Yamaha DX7S, Mega ROM w/1000 sounds, £350. Tel: (0794) 67731.

ROLAND JUNO 6 synth, Roland MC4 sequencer, Digisound 80 synth incs 7 modules + keybd, Boss RSD10 digital sampler/delay, Evans analogue echo, Roland TR606 drum m/c, w/separate outputs + drum modules, 2-ch 60W amp, 100W cab, £500 the lot. Tel: Worthing (0903) 267112.

ROLAND JX8P, mint, f/case, Yamaha DX7, f/case. Dave, Tel: (0925) 814385.

ROLAND JX8P MIDI/velocity sensitive keybd, £300; Yamaha DX7S, mint, c/w cartridge, £450. Available w/mint f/case if required. Tel: (0977) 649100, before 7pm. ROLAND MT32, Carlsbro 6:2 mixer, swap pair for Roland U110 synth module or sell £300 cash. Andrew, Tel: 021-327 5850 ROLAND MT32, £180; Yamaha EMT10, £125; Alesis SR16 drums, £200; Alesis Microverb, £100; Emu Proformance, £200; Frontline 8-ch mixer, £75; Cubase Synthworks for MT32, D10, D20 + D110, £100. All as new, manuals. Tel: 081-552 3054. ROLAND MT100,

sequencer/sound module, disks, MUSIC TECHNOLOGY JUNE 1992

manuals, application books, mini workstation, boxed, mint, £350. Paul, Tel: (0536) 761014. **ROLAND PG800** programmer for MKS70 or JX8P synth, £195; Roland MKS30 synth, JX3P, exc cond, £275. Tel: 071-485 7324. **ROLAND RD250S**, 76-note digital piano, exc cond, box, manual etc, DP6 sustain pedal, stand, never been gigged, £700. Gary, Tel: (0268) 784585.

ROLAND RD1000 digital piano, 88 wooden weighted keys, full MIDI, 64 programmable voices, double pedal, f/case, stand, home use only by piano teacher, mint, £1250 for quick sale. Tel: Welwyn (0438) 717236.

ROLAND SOUND CANVAS, unwanted gift, absolutely brand new, never used, accept £450. Tel: (0253) 54095.

ROLAND TB303 bassliners x2, £200 each ono. Malcolm, Tel: (0733) 53864.

ROLAND U20, £500; Roland Juno 106, £300; Cheetah MS6, £140. Aaron, Tel: Chelmsford (0245) 490408, anytime. ROLAND U110, £285. Dave, Tel: (0264) 738750.

ROLAND U110 sample player, 1 card, home use only, perfect, boxed, manuals, £300 ono. Tel: Mansfield (0623) 822468. ROLAND VP330 Vocoder Plus keybd, w/manual, the best + still the leader, free ARP Odyssey thrown in, offers. Tel: (0474) 706381, between 9am-8pm. SEQUENTIAL PROPHET 600 analogue synth, classic Prophet sound, full MIDI spec, any offers considered. Jason, Tel: (0202) 519996

SEQUENTIAL PROPHET VS rackmount, cartridges, Atari s/w, £2200. Paul, Tel: 081-964 4872. SWAP my Korg T3 workstation for Roland S550 sampler, w/monitor + mouse, or sell for £1200. Steve, Tel: (0429) 222517.

YAMAHA CS10 module, superb Hammond sound etc, £350. Tel: (0227) 471731.

YAMAHA CS20M programmable memory synth, Sound City SC120R bass lead combo amp, 150W, £250 ono. Paul, Tel: Luton (0582) 20934.

YAMAHA DX5 synth, 76-note keybd, plays like a dream, £799 or will take U20, D110 or similar in p/x. David, Tel: 061-902 0121. YAMAHA DX7 FM synth, AZ1 MIDI controller keybd + QX21 sequencer, swap for Roland TR808 + Cheetah multi-MIDI mother board or similar offers of a drum m/c + keybd combo, or will sell. Tel: (0462) 675329. YAMAHA DX7, perfect, manual, voice tape, leads, £250 ono. Bernie, Tel: (0273) 727537. YAMAHA DX7II FD, vgc, £550 ono. Alan, Tel: (0246) 204291. YAMAHA DX9 digital, programmable synth, near new, £480. Chad, Tel: Blackpool (0253)

54786. YAMAHA DX27, immac, w/brill original sound programs, great sounds, especially the basses, good for house etc, music holder, soft case, manuals + cassette, £230 ono. John, Tel: 021-449 6603.

YAMAHA DX100 synth, exc cond, as in home use only, manuals, £150. Tel: (0375) 850261. YAMAHA EL70 multi-keybd, the latest + best, w/orchestral + organ sounds, only 2 mnths old, cost £5300, accept £4500. Tel: Bournemouth (0202) 734415. YAMAHA EMT10 expander, home use only, £125, will mail if needed. Robert, Tel: Cornwall (0726) 64809.

YAMAHA PF85, Tama A-frame + Alesis Microverb, £700 or exchange for Yamaha KX88 mother keybd. Tel: (0763) 244275. YAMAHA PSR400, boxed, manual, sustain pedal, £300. John, Tel: (0228) 22853.

YAMAHA PSS790 keybd, as new, power supply, £180 or offers. James, Tel: (0403) 700821, after 5pm.

YAMAHA TG55 rackmount synth, £360; Yamaha TX16W sampler, 2U rackmount, s/w, £500; Yamaha TQ5 8-track sequencer expander, £150; Sansui WSX1 6-track recorder, 8-ch mixer, all good cond. Robin, Tel: (0373) 72735. YAMAHA TG55 sample playing expander, immac, boxed, manuals, £325. Phil, Tel: Sunderland 091-548 6124. YAMAHA TX81Z multitimbral module, boxed, manual, exc cond, £100. Neil, Tel: 071-252 0409.

# SAMPLING

AKAI MPC60 sampling drum m/c + sequencer, full SMPTE, 64 MIDI channels, digital drum mixer etc, immac, £1100. John, Tel: (0255) 675748.

AKAI S900, v2, good cond, boxed, £575 ono. Alan, Tel: 081-446 3098. AKAI S950, new, boxed, guaranteed, in pro studio w/S1000 so never used, huge S950/1000 library, access to large selection of keybds, £950 ono. Broadhill Studios, Tel: (0444) 236716. AKAI S1000, complete library on 6 official Akai Syquest cartridges, brand new, never used, cost nearly £1000, £650. Ted, Tel: 051-924 2437.

AKAI X7000, disks, Roland U110 + memory card, offers for both. Neil, Tel: (0925) 30781. CASIO FZ1, full-size sampling keybd, exc cond, as in home use only, disk library, manuals, dust cover, £700. Tel: (0375) 850261. CASIO FZ1, 2 Meg memory expansion, sound library, £750 ono. Tel: (0480) 476067, eves. E-MU EMAX SE hard disk, w/recent hard disk refit, £1000 ono; Cheetah MK5 MIDI keybd, £100; Roland CV sequencer, £30; Roland TR727, £100. Chris, Tel: (0243) 586395.

E-MU EMAX II stereo sampler, 40Meg removable hard disk, small library, sample CD, leads, stand, hardly ever used, boxed, £1695; Roland R8 drum m/c, w/dance, TR909, electronic + TR808 ROM cards, very powerful, mint, boxed, £395. Stu, Tel: 091-536 7491. E-MU PROTEUS 1, £460; Alesis MMT8, £150; Alesis DataDisk SQ, £250. All boxed, as new, tiny home use only, stored last 4 mnths, still under guarantee. Mr Budge, Tel: (0884) 253337. EMULATOR II+, disk library, SMPTE etc, exc cond, £1500 ovno. Carl, Tel: (0772) 424461. ENSONIQ EPS, 16-bit sampler, 16-track sequencer, 4x memory expander, samples 23 seconds at 44kHz, £1150. Kevin, Tel: (0270) 872558

ENSONIQ EPS, 2x memory upgrade, 50 disks, £800 ono. Tel: (0751) 33418.

ENSONIQ EPS16+ sampler, digital sampling, 16-track sequencer, 24-bit fx, f/case, sound disks, £1100. Andy, Tel: 051-733 4964, after 6pm.

ENSONIQ EPS16+ rack sampler workstation, 16-bit m/c, onboard 24-bit fx, sequencer +

performance features, absolutely brand new, never gigged, full sound library, warranty card + packaging, a must for serious musicians, any price considered. Mr Singh, Tel: 021-356 1344. ENSONIQ MIRAGE, stand, library, leads, £400. Alan, Tel: (0782) 560046, after 6pm. I'M THINKING of making some expansion boards for the Dynacord ADS, but if there's not much demand I won't bother. Basically, I want to know how many people are interested. Graham, Tel: Brighton (0273) 414363.

ROLAND S10, disks, Atari s/w, £300 ono. Charlie, Tel: (0603) 760426, days/860024, eves. ROLAND S330, colour monitor/TV, many disks, mouse,

perfect order, £650. Tel: 071-584 5033 X363, days/081-318 9250, eves.

ROLAND W30 sampling, sequencing workstation, boxed, vgc, studio use only, w/manuals, £950. Tel: (0354) 695239. ROLAND W30, 16-track sampler workstation, £900; Peavey 724 Deca power amp, £550; HP400 spks, £550 pair. Tel: (0460) 63021

ROLAND W30 sampler + Yamaha FX100 reverb, keybd stand, vgc, £875. Andy, Tel: (0404) 822608.

# SEQUENCERS

ALESIS MMT8 8-track sequencer, exc cond, boxed, manual, £130. Olly, Tel: Nottingham 482889. ALESIS MMT8, mint, psu, manual, £130. Tel: (0509) 412449. CASIO SZ1 multitrack, step + real-time, mixdown, manual, £75. John, Tel: (0228) 22853. KORG SQD8, mint, 15 disks, £150. Malcolm, Tel: (0733) 53864. ROLAND MC50, brand new, unwanted present, £450 ono. Norm, Tel: (0633) 858904, after 6pm.

ROLAND MC50, Boss DR550 + Roland D5, sell or swap for Roland D70 or D50. Haiden, Tel: (0270) 22323.

ROLAND MC500il, vgc, £360 ono. Alan, Tel: (0246) 204291. ROLAND MC500II, Groove Electronics Stinger x2, M303+, EMS Vocoder 2000 Mkil x2, NAD 6340, Studiomaster Diamond 8:2, Philip Rees TST x2, MCV, boxed, leads, manuals, disks, cards, all nearly brand new, bargain, £2500 ono. Mark, Tel: (0522) 526059. **TECHNICS AX5** 5-track sequencer, good cond, £350. Phil, Tel: (0376) 518440. YAMAHA QX5 8-track sequencer, exc cond, manual, £110 ono. Terry, Tel: Cheshire (0928) 711006.

# DRUMS

AKAI RX10, 16-bit drum m/c, 64 preset rhythm patterns, programmable, manual, £250. Tel: 041-774 5659, after 6pm. AKAI XE8, 16-bit sampled drum module, exc cond, £100. Neil, Tel: 071-252 0409.

ALESIS HR16, mint, hardly used, £160 ono. Joe, Tel: (0255) 434217.

ALESIS SR16 drum m/c, power supply, 233 superb voices, superb sounds, all tuneable, 16 velocity sensitive pads, MIDI + tape sync, fine cond, £220 ono. Hugh, Tel: 081-311 2765.

BOSS DOCTOR PADS 2 + 3, great sounds. £30 each; Fender 30W bass amp, (Mustang), as new, only £85. Tel: Southampton (0703) 768864.

BOSS DR550 drum m/c, immac, box, manual, power supply, £140. Mark, Tel: (0732) 357354. CHEETAH MD16 drum m/c, 16bit, touch sensitive, tuneable sounds, separate outs, human feel, new £299, will sell £190 ono. Duncan, Tel: 081-549 5139. KORG S3 rhythm workstation, full SMPTE, digital fx, 8-track sequencer, dance + jazz cards, boxed, as new, £475. John, Tel: (0255) 675748.

ROLAND OCTAPAD 2, Roland D10, Seck 12:8:2, Kawai K1M, Alesis Midiverb II, pair Peavey 15" cabinets, Washburn Strat guitar, triple-tier A-stand, all 9 mnths old, mint, home use only. Ian, Tel: (0527) 546232, anytime. ROLAND R5, home use only, £300. Tel: (0670) 717883.

ROLAND R8, RAM card, electronic card + jazz brush card, £440; Casio RZ1, £100. Aaron, Tel: Chelmsford (0245) 490408, anytime.

ROLAND R8 human composer, boxed, manual, exc cond, £400; R8 cards: TR808, jazz, contemporary percussion, all exc cond, £30 each. Laurence, Tel:

(0727) 811013. ROLAND R8, manuals, power

supply, exc cond, home use only, quick sale, only £350. Tim, Tel: (0293) 528421.

ROLAND R8, boxed, manual, as new, £365. Tel: Shrewsbury (0743) 365506.

ROLAND SDP8, mint, manuals etc, £225. Tel: (0706) 54756. ROLAND SPD8, percussion pads, case, stand, £295 ono. Tel: Southampton (0703) 861252. **ROLAND TR505** drum m/c, boxed, £75. John, Tel: Dartford (0322) 221545.

ROLAND TR606 drum m/c, great hip hop/house m/c, £75. Simon, Tel: (0209) 714258, after 6pm. ROLAND TR626, boxed, manuals, memory card, as new, £140. Tel: (0877) 30528. ROLAND TR626 rhythm composer, exc cond, as in home

use only, boxed, manuals, £180. Tel: (0375) 850261. ROLAND TR727, MID!

in/out/sync, good cond, £150. Tel: 071-727 2199.

SIMMONS SDS7 + EPB, £200 ono; MTX9, £100 ono; TMI, £100 ono; pads, £10 each ono; bass drum pad, £40 ono. Colin, Tel: (0240) 64351.

SIMMONS SDS9 + EPROM blower, chips, spare SDS9, £360; Audio Architecture Function Junction Plus, (16x16) MIDI patchbay/processor, new, boxed, offers around £450. John, Tel: Oxford (0865) 60222. SWAP Alesis D4 drum module, absolutely mint, boxed, as new, for Yamaha RY30 in similar cond. Cliff, Tel: (0923) 826784. SWAP my mint, still under guarantee, Yamaha RY30, for your Roland R8 or R8M, or sell for £335 ono. Adrian or Chris, Tel: 021-458 6934, after 6pm. YAMAHA RX5 drum m/c, RAM + ROM cards, as new, £225 ono; multicore cable, box, £250 ono; AKG headset, w/mic, boxed, £125 ono. All as new. Tel: (0482) 781469.

YAMAHA RX7, exc cond, £150. Tel: (0794) 67731.

YAMAHA RX8 drums, 42 16-bit samples, MIDI, internal sequencer, FSK input/output, manual, immac, £160 ono. Will, Tel: 071-351 5167, office hrs. YAMAHA RX8 drum m/c, 42 sounds, immac, £160. Charlie, Tel: 071-835 1292.

YAMAHA RX11, exc cond, manuals, very easy to program, £100 ono. Rob, Tel: W London (0895) 270267.

YAMAHA RX21L, mint, manuals, £80 ono. Joe, Tel: (0255) 434217. COMPUTING

AMIGA 1K, Music-X Jnr, genuine copy, still boxed, £280 ono. Tel: (0423) 330057.

ATARI 520STFM, discovery pack, TOS 1.4, still under guarantee, Prodigy v2.0 w/score edit, 12 issues ST Format, £300 ono. Ashley, Tel: (0532) 434541. **ATARI 1040STE**, mono monitor, First Word Plus, £400; Alesis Microverb II, £80; Pro24 v3, new dongle, new disk, manual, £45. Tel: Suffolk (0440) 707610. **ATARI 1040STFM** + SM125 monitor, £400. Tel: (0480) 76067. **ATARI 1040STFM**, no monitor, £275. Derek, Tel: 081-311 8124. **ATARI SM124** monitor, £95. Alan, Tel: (0379) 676670.

ATARI SM124 mono monitor, £75 ono. Charlie, Tel: (0603) 760426, days/860024, eves.

ATARI ST, 2.5Mb RAM, hi-res monitor, large music s/w collection, genuine reason for sale, £350. Paul, Tel: (0772) 39124.

ATARI STACY 2 laptop, 20Mb hard drive, good cond, £925 ono. Tel: (0424) 436674.

C-LAB CREATOR, v3.1, manual, dongle etc, £180 ono. Andy, Tel: Leeds (0532) 430177.

C-LAB NOTATOR, music s/w, v3.0, brand new, £269. Clive, Tel: (0272) 681571.

C-LAB SUPER TRACK,

w/Commodore 128 computer, disk drive + interface, 16 tracks, 63 patterns, MIDI merge, can run Commodore 64 games, system cost £690, selling for £200. Martin, Tel: (0268) 766110.

DIGIDESIGN SOUND TOOLS for Atari Mega 4, latest s/w, unused, £750. Mike, Tel: (0225) 333448. EMR MIDITRACK PERFORMER, w/Commodore 64/128 interface, 8 tracks, track merge, 64 arrangements/patterns, only £45. Martin, Tel: Wickford (0268) 766110.

KAWAI K1 + K4 synth editors, Korg M1 + Wavestation synth editors, Roland D50, D70 + D110 synth editors, Yamaha SY77 + TG77 synth editors, Proteus/1 + XR synth editor, all £45 each, no offers. Tel: 071-511 1120.

STEINBERG CUBASE

sequencer, manual, XR300 sync, £300 or will split. Dave, Tel: (0302) 832420.

STEINBERG CUBASE, manuals, key, £200; Steinberg Cubeat, manuals, key, £80; Commodore 128, disk drive, sequencer, SysEx librarian, games, £120. Swaps considered. Tel: 091-388 0261. STEINBERG PRO24, £50 ono; C-Lab Notator, incorporating Unitor + Creator 3.1, £540 ono. Tel: 081-462 6261.

STEINBERG PRO24 +

MasterScore recording packages, MUSIC TECHNOLOGY JUNE 1992 £150 for both. Mark, Tel: (0274) 670797.

TDM PRODIGY sequencing s/w, Atari ST, works on any ST - mono or colour monitors, I'm upgrading, so £50 ono. Richard, Tel: (0736) 67531.

# RECORDING

ALESIS XT:C digital reverb, £75; Simmons SPM8:2 MIDI mixer, £125; Korg DRV2000 digital reverb/fx, £100. Steve, Tel: (0403) 68292.

ALESIS MICRO LIMITER, as new, boxed, £75. Robert, Tel: Cornwall (0726) 64809.

ALESIS MICROVERB II, exc cond, boxed, manual, £80 ono. Terry, Tel: Cheshire (0928) 711006.

ALESIS MICROVERB III, 16-bit, 19" rackmount digital fx unit, 1 mnth old, £130. Kevin, Tel: (0270) 872558.

AMEK 16:8 mixing desk, 3-bnd EQ, sends + returns, wired for multi-way, £300. Tel: Nottlngham (0602) 504052.

BOSS RCL10 comp/lim/noise gate, half-rack size, boxed, as new, £70 ono. Marcus, Tel: Winchester (0962) 854515.

**CASIO DA**2 DAT recorder, as new, Nicad, manual, £300. Tel: (08012) 4017.

FOSTEX 160 4-track recorder, hardly used, as new, £260; Yamaha R100 dlgital reverb, £100. Tel: 081-954 5275. FOSTEX 280 4-track, exc cond, hardly used, the ultimate 4-track, £500. Tel: (0670) 717883. FOSTEX B16, £1399; Seck 18:8:2 mixer, £699; Casio DA1, £250; Digitech 256XL, £270; Yamaha REX50, £150; AKG C414, £300; Drawmer 201 noise gate, £199. Tel: (0344) 53300.

**FOSTEX MODEL 80**, immac, £775 ono. Tel: (0303)

41636/(0227) 471731.

FOSTEX R8 8-track reel-to-reel, XR300 SMPTE-to-MIDI sync, both few hrs home use, boxed, manuals, £1100. Tel: 081-948 8900/8468.

MXR dual 15-bnd graphic EQ, 2U, exc cond, home use only, will accept £130, no offers, can deliver. Tel: 071-511 1120. PRIVATE studio sale, due to recession. Offers considered on Tascam MS16 16-track, Soundtracs MRX 24:8:16:2 desk, 1 yr old, Emulator II, Roland D70, Yamaha REV7, Midiverb II, aural exciter Type C, RDS digital delays x4, Drawmer DS201 gate,

Drawmer DL221 comp/lim, Korg EX8000 synth module, Evolution Synthesis EVS1 module, E-mu Systems SP1200 drum m/c. Keith, Tel: (0444) 831504.

**REALISTIC** mixing console, vgc, £55. Tel: (0375) 850261. **SONY DTC1000ES** DAT m/c, exc cond, £550. Mike, Tel: (0225) 333448.

STUDER A62, 2-track, 15/7.5ips, heads exc, £400; Revox A77 2track, 15/7.5ips, varispeed, heads exc, XLRs, £275; Tascam MS16 1" 16-track, as new, £2950; 2 Schoeps M221F valve mics, w/psu, good cond, offers; 8 Dolby A361s, good cond, £175 each; 2 AKG C414EBs, remote pattern, control unit + leads, rare, £950; Electrosonic mixer modules, 16-ch + 4 groups, made for EMS Synthi 100, w/Penny & Giles faders, edge connectors, diagrams, £160. Alan, Tel: (0379) 676670.

STUDIOMASTER SERIES I, 16:8:2, customised, good cond, great sound, £625 ono. Mick, Tel: (0332) 776244.

STUDIOMASTER SERIES V 16:8:2 mixing desk, £850; Tannov Little Reds, £250; Tascam 32-2, £375; Tascam 22-2, £200; Fender USA Strat, £400. Offers considered, Tel: (0742) 684518. STUDIOMASTER SESSIONMIX 8:2 mixer, Ampex video mixer, AKG mics, Quad 303 amp + 33 preamp, Rebis rack (comp/gates, psu), empty Rebis rack, w/standalone psu, pair of Fane 2050 compression drivers, 200W stereo power amp, second-hand + new 1" Ampex tape, 3 16-way recording looms, ribbon cable for Fostex etc, Fender Precision fretless bass + f/case, Black Widow 15" spk, flashing phone handset suit studio etc, offers/px/swaps etc. Tel: (0933) 50150.

### STUDIOMASTER SESSIONMIX

12:2R, £330; Alesis Quadraverb, w/update chip, £190; Yamaha A100 amp, £95. Aaron, Tel: Chelmsford (0245) 490408, anytime.

TASCAM 2A 6:2 mixer, meter bridge, £130. Robert, Tel: Cornwall (0726) 64809. TASCAM 80/8 8-track, half-inch tape recorder, £500; Allen & Heath Studio 8 mixer, 16:8:2, 4 auxs, comprehensive EQ, all the business, £850. Ricky, Tel: Brighton (0273) 818074. TASCAM 234, pro rackmount 4track syncassette, remote, manual, £250 ono. Martin, Tel: (0203) 670796.

TASCAM DA30 DAT m/c, full digital I/O, full remote, £900; Studiomaster Sessionmix Gold 16:2, £750. Both little use. Tel: (0344) 488422, answerphone. TASCAM PORTA 02, £300. Gary, Tel: (0689) 874827.

TASCAM PORTA 05 4-track recorder, exc cond, £150. Tel: (0794) 67731.

TASCAM TSR8 + Seck 12:8:2 mixing desk, both boxed, manuals, all connecting leads, £2200 ono. Dave, Tel: Bath (0225) 311462, anytime.

YAMAHA FX500, £210; MV100 mixer, £65; MEP4 MIDI event processor, £235; Kawai K1 rack, card, £230; MAV8 MIDI mlxer, £85. All boxed, Immac. Bill, Tel: close to M25 (04022) 23345. YAMAHA MT1X recorder, £180; Elka MK55 master keybd, case, £290; full aluminium f/case to fit most D-series synths, £50; Akai ME25S MIDI note splitter, £60. Tel: 091-271 6403.

YAMAHA MT2X, double speed, 4-track cassette deck, dbx, hardly used, £250. Len, Tel: Faringdon 240732.

YAMAHA SPX50D, reverbs, delays + compressors, £250. Mike, Tel: (0744) 35567.

## AMPS

CARLSBRO B150 bass combo, 150W, 15" spk, 11-bnd graphic, compressor, immac, never gigged, £275. Richard, Tel: (0736) 67531.

CARLSBRO COBRA 90 keybd combo, 3-ch, reverb, exc cond, home use only, £150. Dave, Tel: (0245) 256790.

HH ELECTRONIC 100W combo amp, £100. Tel: (0273) 463328. MESA BOOGIE MKIII 100W, brand new, offers. L Tallis, Tel: Sheffield area (0226) 370167. PEAVEY MINX 110 30W bass guitar amp, as new cond, home use only, £125 ono. Mick, Tel: Horndean (0705) 591725, eves. RAMSA PA/monitor system, 2x A70 160W monitors, 1x A240 400W sub bass woofer + processor, 2x Omniphonics S100 studio monitor power amps, superb sound, was £2200, will sell for £1500 or split. Tel: (0453) 547002, anytime. ROLAND BOLT 60 valve output

stage, distortion, £175; 1000W power amp, 500+500 per channel, £450. Alan, Tel: (0379) 676670.

SOUNDTECH PL500 power amp, 3 wks old, used twice, guaranteed, cost £500, sell £399. Margaret, Tel: Midlands (0746) 766475

YAMAHA AX350 studio amp, new, boxed, £75 ono. Tel: (0276) 32894.

YAMAHA PD2500 power amp, very powerful up to 1000W, cost £500. Stephen, Tel: (0932) 253693, after 7pm.

## PERSONNEL

COMPOSERS REQUIRED for music production co. Growing client base in advertising/TV/video - all stars needed. CV + demo to: CMPC, 40C Mountfield Road, London N3 3NE.

DO YOU own a sampler? I've got quite a good idea, pls ring me. Keith, Tel: (0444) 831504. FEMALE singer/songwriter, must be committed + versatile, for house, dance + soul productions. Either amateur or pro, but must have drive + good personality. Must be in London area. Car essential. Tel: 071-511 1120, 24 hrs.

HELP! I'm confused about which expander to buy, seriously into dance, own Cubase, Atari + Yamaha synth, pls do you have any advice you can give. Mick, Tel: (0438) 368041.

I MUST WORK in a record company/studio within London area. Exc selling ability + good studio knowledge, due to home MIDI studio. Give me a break + leave the rest to me. Neil, Tel: (0628) 667683/(0573) 537116. **KEYBD SONGWRITER** requires male vocalist, aged 17-25, w/singing experience. Influences: Pet Shop Boys, Erasure, Electribe 101. No time wasters. Simon, Tel: (0332) 572045, after 6pm. MARTIN GORE-STYLE vocalist urgently required for very serious project. Can't get Martin Gore to do it himself, hence advert! No bread heads, because we haven't got any money. Keith, Tel: Falcongate Studios (0444) 831504

MUSICIANS + artists required for musicians collective based in Croydon. Ashley, Tel: 081-668 7505. NEW AGE hi-tech guitarist for

MUSIC TECHNOLOGY JUNE 1992

Reading-based hi-tech rock band. Must be accomplished + have some songwriting ability. Tony, Tel: (0734) 699370. **RAPPER WANTED** for electronic band in Mid Sussex area. Any style considered. No attitudes. Keith, Tel: (0444) 831504. SEMI-PRO Midlands soft-rock band (influences: Marillion, Heart, Bad English, Survivor, Springsteen etc) require experienced + enthusiastic sound engineer, w/some technical knowledge regarding construction + maintenance of 3K PA rig. An ability to mix 5 vocals, 4 keybds, lead guitar/rhythm guitar, bass guitar + miked-up drums, inc occasional mandolln, accordion + quest brass sections also needed! Variable 1-4 nights commitment. Must have own transport. Joy, Tel: 021-440 6327.

20 YR OLD synth player wishes to join or form Depeche-style band w/something to say. I've got loads of ideas + loads of gear. Failing that, can anybody out there slng or talk in Neil Tennantstyle vocals? Age unimportant. Steve, Tel: Stoke-on-Trent (0782) 660969.

WANTED: synth players + vocalist. Experience not essential - determination a must. Write: J Hazard, 57 Huntlngdon Gardens, Halesowen B63 2TT.

# MISC

AKAI ME30P programmable MIDI patchbay, boxed, as new, £95. Laurence, Tel: (0727) 811013. GORDON REID SMITH custom, gold-plated Floyd Rose h/ware, active pickups, originally £1250, £550 ono. Mr Burgess, Tel: (0625) 422580.

PHILIP REES W5 MIDI thru box + Sound Lab MIDI thru box, both £80. Lewis, Tel: 071-609 5750. ROLAND GS6 digital guitar preamp processor, does interesting things to keybd + drum

server where some shifting the

sounds too, immac, offers around £200, or p/x against h/ware sequencer. Nigel, Tel (0437) 762661.

### **BOLAND GS6** guitar

processor/multi-fx unit, £200 ono. Stephen Bennet, Tel: (0603) 56161 X2550, days.

ROLAND W30 sample library, 50 brand name disks, wide range of top-quality samples, offers around £900. Pls phone for details. Rob, Tel: (0734) 862874, after 5pm. STEPP DGX MIDI guitar, the best dedicated controller, no delays, no glitches, cases, footswitches, spares, £650 ono or swap Korg Wavestation. Richard, Tel: (0736) 67531.

VALHALA SOUND CARDS for D5/10/20, Analogue, New Age, International Gold, £30 each or 3 for £75. Terry, Tel: (0732) 885446.

WESTONE THUNDER 1A bass guitar, strap, case, exc cond, home use only, £120 ono. Mick, Tel: Horndean (0705) 591725, eves

XRI 400 MIDI patchbay, perfect, manual, box, £180. Bernie, Tel: (0273) 727537.

YAMAHA NS10M monitor spks, new, boxed, £150 ono. Tel: (0276) 32894.

YAMAHA WX7 MIDI wind controller, £200. Stephen Bennett, Tel: (0603) 56161 X2550, days. ZERO-G DATAFILE ONE sample CD, as new, £25. Tel: (0707) 54771, eves.

## WANTED

AKAI S900, w/v2 s/w, preferably large library, must be exc cond, £500 cash waiting. Jyy, Tel: 051-727 5567.

AKAI X7000 sampling keybd, w/full memory expansions, cash waiting. Glenn, Tel: (0253) 772559, anytime after 6pm. CAN ANYBODY let me have a Pro1 for about £150. Steve, Tel: Stoke-on-Trent (0782) 660969.

CASIO guitar synth, as seen on Erasure's 'Drama' vldeo, I'll pay the right price for the right m/c. Steve, Tel: Stoke-on-Trent (0782) 660969.

CASIO AZ1 or Yamaha KX5 remote controllers, cash waiting. Tim, Tel: (0621) 740497. CASIO VZ1 ROM + RAM cards wanted, also Atari s/w for same.

Saul, Tel: (0582) 490878, days or eves.

CHEAP MIDI-to-CV trigger, ie Bokse US8, Roland SBX10, Groove M2CV or similar, £50 paid. Pete, Tel: 081-367 1720. CHORUS or delay unit wanted, rackmounting, anything considered, as long as decent + cheap; also Signex patchbay, keybd expression pedal, Akal S950 memory/hard disk board. Clive, Tel: 081-692 8129. C-LAB CREATOR. Tel: (0440) 707610.

DISCRETE circuit diagrams for all Moog 900 series modules, 904 ABC filters urgent, also I have some 900 diagrams, swaps? Any other make of module diagram -ARP, EMS, Buchla, Roland etc. Must be discrete parts or obtainable custom parts. Will pay for good photocopies, pls help. Also copy of Through A Glass Darkly - Peter Howell & BBC Radiophonic Workshop. Iain, Tel: 051-630 1068.

DISK DRIVE for Technics K1000 keybd. Alf, Tel: (0902) 896793, anytime.

ELECTRO-HARMONIX, Mutron + any other vintage guitar + bass fx wanted urgently. Tel: 081-529 5193

ENSONIQ EPS sampler wanted, preferably w/4x memory expansion + 8-output expander, £1100. Without output expander, £900. Without memory expansion or out expansion, £750. Cash waiting. Sean, Tel: (0227) 722369

IBANEZ AF9 auto filter, also Electro-Harmonix micro synth, will pay £25-30 + postage. Robert, Tel: (0273) 682131.

KEYBOARD MIXER 8:2 or 12:2, cash waiting. Andy, Tel: Leeds (0532) 430177.

KORG DDD5 ROM cards wanted. Tel: (0253) 500145.

MUSIC TECHNOLOGY March 1990 issue wanted, will pay £10. Tel: 081-689 8372.

ROLAND A80, preferably f/cased. Paul, Tel: (0939) 232489.

ROLAND JUNO 106, TR909, TR808, Korg M3R, all wanted urgently. Adam, Tel: 021-766 7822.

ROLAND JV80 synth, Akai S950, Oberheim Matrix 1000 + Cheetah MS6. Paul, Tel: (0302) 538304. ROLAND S50, w/Director S, poss exchange for SQ80. Rob, Tel: (0273) 452318, eves.

**ROLAND SH SERIES** 

monosynth, SBF323 + cheap working Oscar. Steven, Tel: (0726) 66715.

ROLAND SPD8 percussion pads wanted urgently. Gareth, Tel: (0622) 763333/(0850) 360461. ROLAND SYSTEM 100M rack wanted, either 3 or 5 module system, 190 or 191J. Paul, Tel: 041-423 5485.

ROLAND TR909, some cash sitting here walting. Mark, Tel: (0732) 357354.

ROLAND TR909 In good cond, w/manuals, cash waiting. Craig, Tel: (0472) 79264.

SANSUI MR6 6-track recorder, for around £250 cash or Vestax MR66 6-track recorder, for around £400 cash. Michael, Tel: 081-291 2039, after 6pm.

SANSUI WSX1 or Sansui MR6, cash waiting, also good digital reverb unit. Stuart, Tel: (0533) 671508.

TASCAM AQ65 auto locator for Tascam MS16 tape recorder. Alan, Tel: (0379) 676670. WORKSTATION KEYBD wanted, possibly Roland D10 + sequencer

or Ensoniq, willing to pay £300 cash. Hugh, Tel: 081-311 2765.

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MUSIC TECHNOLOGY JUNE 1992

HE LEADERS FOR D Hot News! The first dance sample library to provide true competition for Zero-G has appeared - an incredible double - CD of over 3000 ultra - cred and EFFECTIVE dance samples from POLESTAR MAGNETICS in Sweden. Now available from Time + Space.

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