Established 1981

Music Technology

THE WORLD'S PREMIER HI-TECH MUSIC MAGAZINE

February 1991
£1.60

9 770957 660008 02

MIDI RETROFITTING
breaking the midi barrier

ENSONIQ EPS 16 PLUS
new sampling workstation

ON TEST

Steinberg Synthworks SY77 Editor

Alesis SR16 Drum Machine

AMPLE Software Albums

Seiko MR1000 Sequencer

Korg S3 Rhythm Workstation

Casio DA7 DAT Recorder

WIN *a cheetah md16 drum machine*

DESKTOP DYNAMITE

With sampled and FM tone generators under vector control, a 16 channel multi mode, 32 note polyphony, on-board drums and 16 digital effects, the TG33 is just what your MIDI setup's been waiting for.

Yamaha's new desktop tone module also has 128 ready-to-play presets, 64 user memory locations and dual assignable stereo outputs.

It makes a big sound.

Your sound, thanks to our innovative vector synthesis - the highly intuitive system through which AWM sampled waveforms and FM sounds can be blended easily to form complex, 4-element voices. Vector movements can even be recorded for automatic replay.

With a comprehensive MIDI implementation that includes bulk dump functions, TG33 will quickly make friends with your system however large or small.

Start a sound explosion.

Light the fuse at your nearest Yamaha dealer.

YAMAHA

THE SPIRIT OF MUSIC

For further information on the TG33 tone module, please complete this coupon and send to: Yamaha-Kemble Music (UK) Ltd., MI & Pro Audio Division, Mount Avenue, Bletchley, Milton Keynes, MK1 1JE.

Name _____

Address _____

_____

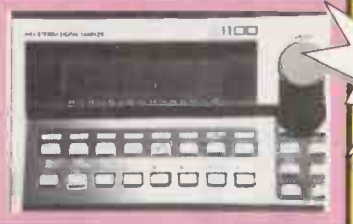
_____ Postcode _____

MT 2.91

IZER COMPANY

Authorised Dealer

AKAI S1100



FREE FREE KEYBOARD STAND WITH EVERY KEYBOARD OVER £1000

THIS QUALITY SAMPLER IS NOW AVAILABLE FROM TSC. 2 TO 32M/8 RAM, SMPTE PLAY LISTING, TIME STRETCH PLUS ALL THE FEATURES OF THE S1000.

WAVESTATION

DESIGNED BY DAVE SMITH OF SEQUENTIAL CIRCUITS FAME, THE WAVESTATION IF JUST ONE OF THE RANGE OF KORG SYNTHESIZERS IN STOCK.

PROTOLOGIC

FREE FREE EDITOR WITH EVERY EMU PROTEUS

THE EMU PROTEUS 1 & 2 SAMPLE REPLAY MODULES OFFER INCREDIBLE SOUNDS FOR LITTLE MONEY. PROTOLOGIC OFFERS DOUBLES MEMORY.

BARGAINS

APPLE MACINTOSH II S/H	£1200
ATARI SOUNDTOOLS S/H	£1295
EMU PROTEUS S/H	£399
AKAI S1000 EX DEMO	£1750
AKAI S1000 S/H	£1495
KORG M1 S/H	£895
ROLAND GS6 GUITAR PROCESSOR	£349
KORG RE1 REMOTE	£69
CASIO DA1 DAT	£299
ROLAND R880	£999
ROLAND E660	£599
YAMAHA DDL3	£499
DIGIDESIGN Q SHEET	£140
RUSSIAN DRAGONS @	£395

MAC LC

THE LOW-COST COLOUR MAC COMBINING THE FLEXIBILITY OF A MODULAR SYSTEM WITH A SLEEK NEW DESIGN. 16MHZ 68020 PROCESSOR.

TSC CHART

1 PROTOLOGIC - EMU PROTEUS SOUND EXPANSION CARD
2 OPCODE STUDIOVISION
3 ZOOM 9010 MULTI EFFECTS
4 SOUNDTOOL
5 AKAI S1100
6 MIDIMOOG 19" RACKMOUNT ANALOGUE
7 MAC II SI
8 TSC 8 - 8 MEG MEMORY FOR S1000/S1100
9 OPCODE VISION

PACKAGES

DISCOUNTS FOR EDUCATION AND JOURNALISTS AVAILABLE

SONGWRITER
APPLE MAC CLASSIC
OPCODE EZ VISION
MIDI TRANSLATOR
ROLAND PC200
ROLAND CM32
FROM UNDER £1000 +VAT

MUSICIAN
APPLE MAC CLASSIC
OPCODE VISION
MIDI TRANSLATOR
PC200 EMU PROTEUS
FROM UNDER £1300 +VAT

DJ
AKAI S1000 PLAYBACK
TSC FUNKY LOOPS DISK
PROSONUS DRUM KIT
ROLAND SPD8
FROM UNDER £2000 +VAT

PRODUCER
APPLE MAC II SI
SOUNDTOOLS COMPLETE
STUDIOVISION
STUDIO 3
WORKSTATION
FROM UNDER £4500 +VAT

BY THE BARROW LOAD

SOUNDTOOLS

DIGIDESIGN SOUNDTOOLS
SOUND ACCELERATOR CARD, SOUNDESIGNER II SOFTWARE, A/D IN ANALOGUE RO DIGITAL CONVERTOR.
AUDIOMEDIA CARD
A LOW COST ALTERNATIVE FROM DIGIDESIGN.
DECK
4 TRACK SOFTWARE FOR SOUNDTOOLS.
SAMPLE CELL
MACPROTEUS
SAMPLE REPLAY CARD FOR THE MAC. AS EMU PROTEUS.

FREE FREE MIDI INTERFACE WITH EVERY MACINTOSH

DAT @ TSC

DAT'S IN STOCK FROM £299: TASCAM, SONY TCD3 DATMAN, CASIO, TECHNICS AND AWAI. WE ARE THE HOME OF DAT.

ZOOM 9010

FORGET OTHER DIGITAL EFFECTS THAT GIVE YOUR FOUR EFFECTS AT ONCE. THIS AMAZING PRODUCT IS FOUR INDEPENDENT DIGITAL EFFECTS IN A BOX!

ANALOGUE

P5 - 19" RACKMOUNT PROPHET V WITH MIDI
MIDIMOOG
OBIERACK - THE ORIGINAL HOUSE SYNTH
MC808 - RACKMOUNT TR808
MC78 - ROLAND CR78 WITH MIDI
WALDORF MICROWAVE -
PPG SOUND IN A RACK
EMS VOCODER
ARP ODYSSEY MONOSYNTH
ARP 2600
YAMAHA CS80 - THE ORIGINAL SYNTH

SELLERS

FREE FREE MIDI INTERFACE WITH EVERY MACINTOSH

THESE ARE THE TSC PRODUCTS OF THE MOMENT:
ROLAND M480/240 RACKMOUNT MIXERS •
SOUNDTOOLS 2.0 •
SAMPLECELL •
MACPROTEUS •
CASIO DA7 DAT •
STEALTH & APEX STANDS • EMU PROTEUS 1 & 2 • PROTOLOGIC • KORG WAVESTATION

THE SYNTHESI

071 258 3454

TSC. 9 HATTON STREET. LONDON. NW8 8PR. FAX 081 262 8215

contents

COMMENT 4
The possession and management of information plays a crucial part in our lives. Tim Goodyer raises the confusing issue of the disinformation surrounding information.

NEWSDESK 6
Another batch of hot news from the world of hi-tech music is yours for the reading in this month's Newsdesk. Keeping your ear to the ground couldn't be easier. . .

COMMUNIQUE 8
The curious saga of a couple of equipment manuals takes centre stage in MT's regular readers' writes - if you've got an opinion to air or a question to ask, this is your soapbox.

COMPETITION 14
It's been a long time a-coming, but Cheetah's new MD16 drum machine is finally with us. And before it's even been reviewed you can win one in this exclusive MT competition.

READERS' ADS 75
If the recession has hit your music budget harder than you'd care to admit, MT's Readers' Ads could guide you to the right gear at the right price: the largest hi-tech classifieds in print.

Appraisal

SEIKO MR1000 10
Sequencing has never been this cheap: can a dedicated sequencer that only costs 40 quid actually work? Debbie Poyser goes sequencing on a shoestring.

AMPLE ALBUMS 12
Music moves in mysterious ways - these LPs for example aren't vinyl or CD, they're floppies for the AMPLE music system. Ian Waugh boots up the boogie.

VOLUME 5 NUMBER 3 FEBRUARY 1991

STEINBERG SY77 SYNTHWORKS 34

When Yamaha launched their latest flagship synth, the SY77, they knew it was only a matter of time before it received software support. Ian Waugh goes editing with Steinberg.

ENSONIQ EPS 16 PLUS 48

After a recent change in UK distribution, Ensoniq look set to increase their popularity with this upgraded version of their EPS sampler. Simon Trask likes what he samples.

ALESIS SR16 58

With more machines appearing every month, there's no denying that it's boom-time for the beatbox. Simon Trask rocks to the rhythm of this latest offering from Alesis.

KORG S3 70

In the final part of this review, Korg's new Rhythm Workstation reveals the secrets of its sequencing and fx-processing. Simon Trask looks at the future of the beatbox.

Music

UNIQUE 3 24

Having helped to create Britain's Northern techno scene, Unique 3 claim it doesn't actually exist. Simon Trask listens to this and other enigmas from one of the country's most creative dance outfits.

STEVE COLEMAN 40

From Charlie Parker to writing his own software, jazz saxophonist and technophile Steve Coleman has a unique insight into music. Simon Trask tunes in.

Studio

CASIO DA7 DAT 30

Casio's DA1 and DA2 Digital Audio Tape machines have helped put DAT into many budget studios. Tim Goodyer suggests that the DA7 will see it in a few more.

Technology

ON THE BEAT 16

Jazz - the final rhythm programming frontier; but if you treat jazz as an attitude (as the jazz greats all have), jazz patterns are just a state of mind away. Nigel Lord thinks cool.

UKMA 46

Now that the UK has its own MIDI association, help and information are but a phone call away. Simon Trask checks out the UKMA and its founder: Vic Lennard.

RETROACTION 54

With analogue technology enjoying a renaissance, there's a growing demand for MIDI updates to old equipment. Vic Lennard talks to Kenton Electronics about the Ins and Outs of retrofitting.

E-MU EMULATOR 64

These days a few hundred pounds will buy you technology that once cost thousands. Gordon Reid looks at an early sampler and discovers there's more to it and its manufacturer than you might have known.

PERCEIVED WISDOM

IT WAS WHILE watching a recent edition of Channel 4's *Equinox* programme that one of the most significant differences between imparting and receiving information became clear to me. More specifically, it was the confusion of reward involved in each role that was clarified. The programme dealt with the use of computers in the classroom and while it left me with no doubt that the advantages could be considerable, there seemed to be a misunderstanding on the part of some of the contributors between the satisfaction they had gained in constructing various programs for students' use, and that which they anticipated the students themselves experiencing in using them.

Someone had constructed a Hyper Card stack around Stravinsky's *Rite of Spring*. "It's not an easy piece to teach", he explained, but argued that a student having access not only to the music, but to the composer's background, fashions of the period and so on, would find the whole topic not only more enjoyable but more educational. And he may well be right. But what was also evident to me was that he was projecting his own satisfaction in having researched and written the program onto its users.

I could be wrong, of course, but the incident bears an uncomfortable similarity to a number of my own experiences - some of which I expect we share. First my own: the course of the average MT interview involves not only stepping out and comparing notes with a talented musician but carefully researching their work, involvement with, and influence over, other musicians, their contemporaries, their successes, their failures. . . In short, there's a lot of work involved aimed at bringing you the most interesting and informative interview we can put in print. Completing such an assignment usually leaves the writer with a rewarding feeling of achievement. Sadly, this is rarely shared by the average reader.

The parallel can be extended to cover a wide variety of activities, but consider this; how much work went into your last demo? If you sent it out on the record company circuit, how much attention do you think it received? How much did it deserve? Will anyone other than yourself ever come to appreciate the subtleties that cost you so much time and effort (not to mention cash)? How many genuinely good pieces of music are overlooked in this way? Maybe some of them are yours.

I suppose the real target of these observations is the society in which we live; the society we've created for ourselves. There are so many people investing so much energy in so many projects that there simply isn't room in our lives to appreciate the efforts of others. We use other people's music as a background to our own activities and expect them to pay attention to our own; we sit in the bar through some band's support slot and demand enthusiastic audiences when we take to the stage; we buy equipment (not only musical), use a handful of the facilities incorporated by the designers and feel unappreciated when the finer points of our own work aren't recognised. Maybe it's just a matter of time before looking and listening come back into fashion. Or maybe we ought to be thinking more carefully about what we put into society and what we take out of it. ***Tg***

MUSIC TECHNOLOGY (ISSN 0957-6606) is published by Music Technology (Publications) Ltd, a subsidiary of Music Maker Publications (Holdings) plc, Alexander House, Forehill, Ely, Cambs CB7 4AF. Tel: (0353) 665577 (all departments). FAX: (0353) 662489 (PAN: Musicmaker)

Colour Reprographics *by CLE, St Ives.* **Printing by** *Worcestershire Web Offset, Droitwich, Worcs.* **Distributed by** *AGB Impress Ltd, London. Tel: 071-253 3456.*

The Roland MC-50 and MRM-500
Some Hard Facts and a Soft Option

The quickness of the hand deceives the eye. *The MC-50 is compact, easy-to-use — and fast. Super-MRC Sequencer and Super-MRP Performance programs in ROM, so no wasted loading time.*

The big screen. *Addicted to your personal computer's large monitor? No problem. The optional MRM-500 Converter accepts standard MIDI files from all standard sequencing hardware and software.*

On your bike. *The rugged and portable MC-50 was designed for the road. And using MRM-500 you can take your home-produced sequences to stage and studio for performance, recording or editing.*

Hard facts, soft options. *Stand alone sequencer or portable extension to a personal computer setup, for writing or for performance, the MC-50 is the right hardware for the job. With the software it adds up to the only option.*

Hard Facts: *Int. Memory — 40,000 events; Disk — 150,000 events; 10 Tracks (mutable in real time); 16 MIDI Channels (effectively 32 when using both MIDI Outs); Tape Sync II for multitrack sync'd drop-ins; Price — MC-50: £575rrp.* ***Soft Options:*** *Super-MRC — 8 Phrase Tracks; Rhythm Track; Tempo Track; Real-Time or Step Recording; 15 macro functions, plus event editing; 8 assignable locate points; 14 song functions; 8 utilities (inc Time Calc). Super-MRP — max 99 songs per disk for performance with optional loops, start/stop points and pauses between songs. MRM-500 — Standard MIDI File Converter enables MC-50 to interface with different computers/sequencers. Price - MRM-500: £75rrp.*
Further info: *Roland (UK) Ltd, Atlantic Close, Swansea Enterprise Pk, Swansea, West Glam SA7 9FJ. Fax: 0792 310248.* ***Tel: 0792 310247.***

KORG IN FULL FX

The forthcoming NAMM show sees the launch of no less than five new effects units from Korg. The units, which cover a price range of £225 to £1375, are aimed at a wide range of users, from entry-level guitar multi-effects through to professional studio engineers.

Starting at the lower end of the price range, the A5 is a foot-controller type of unit, which chains five effects at once in a choice of 30 programmes. It's a 16-bit unit with a 44.1kHz sampling frequency and comes in three models: the A5GR, for guitar effects, the A5B, for bass effects and the A5FX, which offers multi-effects for keyboards, singers and so on.

Next up the price ladder at £850 is the A2, which is a 1U-high rackmounting processor developed from Korg's well-established A3 effects unit. It uses similar displays to the A3 but now offers the use of 97 chains of effects and full stereo use.

Finally, the A1 is a 2U-high stereo processor aimed at the professional market. It has 16-bit AD/DA conversion and a sampling frequency of 48kHz, offers connections on balanced XLRs and allows users to make up their own chains of effects (up to seven at once) in any order, which can then be saved. The list price of the A1 is £1375. Watch out for MT reviews as soon as we can get our hands on review units.

More information from Korg (UK) Ltd, 8-9 The Crystal Centre, Elmgrove Road, Harrow, Middlesex HA1 2YR. Tel: 081-427 3397. ***Dp***

Cut 'n' paste Roland

Roland start the new year with a move from their previous premises in Brentford to purpose-built, shiny new offices in Fleet, Hampshire. The new facilities are within Ancells Business Park, and afford Roland boys and girls the sight of "real fields, real trees, and even the occasional animal - a rare sight in downtown Brentford". We're very happy for them - though we'd like to point out that gazing at the cows out of the window can pall in a surprisingly short time (we know).

The new building will be officially opened on Thursday, 24th January, by Mr Ikutaro Kakehashi, the president of the Roland Corporation of Japan. It is on three levels, the ground floor being devoted to the Roland Digital Group operation, the second floor to Musical Instrument Sales and the third floor to accounting functions.

The latest move follows the relatively recent relocation of Roland's entire warehousing facilities to a new base in Swansea. This now also houses the company's Service Department, Product Specialists' workshops and product Research and Development. Roland UK see these developments as being the first step in their continued company evolution. The Fleet and Swansea buildings represent phase one of a two-stage operation and will both double in size over the next three years. ***Dp***

ARTIFICIAL INTELLIGENTS

BCK Products have sent us news of a new gadget from Quasimidi, the User M400, designed exclusively to augment the Roland "Intelligent" range of keyboards.

The principal function of the User M400 is to increase the user memories of said keyboards - for example, if you use a standard E20, which has one bank of eight user memories, the User M400 will allow you to store 203 of these banks, giving 1624 complete user memories. The User M400 will allow storage of eight banks of 48 sounds for the Roland E30 or Pro-E - 384 user memories - and if you're an owner of the Roland KR500/3000, instead of making do with just five user memory locations, the User M400 will allow you 193 banks of five - a total storage of 965 registrations. Owners of the Roland E20 who have the Quasimidi E20 upgrade fitted to their machine can benefit from the maximum number of user memories available from the User M400 - a total of 1664 memory locations.

To make bank selection easy, each patch can be given a title on the M400's LCD. Further features include MIDI note transposer, MIDI channel converter and MIDI data filter. The unit has a compact, strong brushed aluminium case, and retails for £269.99 including VAT and psu. It's available to and from dealers of the Roland "Intelligent" range.

More information from sole UK distributors BCK Products at 136 Hornchurch Road, Hornchurch, Essex RM11 1DP. Tel: (04024) 48799. ***Dp***

WORKING PARTY

Projects UK, the Newcastle-based arts and media organisation, will be presenting an Electro Music Festival in the city of Newcastle this coming May. The event will be a blend of dance and house music, electro-acoustic compositions, concerts and workshops.

Performers taking part include MIC, a local house band, and S'Express. There will be an opportunity for dance music enthusiasts to experience the work of electro-acoustic composers who also use technology as a basis for their work. Workshops, taking place in Projects UK's fully digital studio, will be run by the performers and will cover a range of studio techniques including mixing and sampling. Projects UK's recently-acquired Akai digital A-DAM system will also be involved in these workshops.

More news from the lads (and lasses) up there in Geordieland includes Projects' continuation of their successful series of weekend technical audio courses. The weekend of February 9th/10th is earmarked for a Studio Maintenance Engineering course, covering connections, testing circuits, lining up desks and tape machines, test tapes, soldering, logical fault-finding and MIDI problems. The second course takes place on the 23rd/24th of February and is devoted to Production and Studio Management - including running sessions, budgeting, psycho-acoustics, preparing masters for cutting, bookings and after-sales service. Both weekend courses are priced at an astonishingly reasonable £24 per weekend, or £12 per weekend unemployed.

More information on any of the above, or on Projects' professional recording facility, can be obtained from Rod Syers on 091-232 2410. ***Dp***

WHAT THATCH DID NEXT

Thatched Cottage have announced the creation of yet another new division - TC MIDI. As implied by the name, it will specialise in all equipment with a MIDI capability, including keyboards, samplers and drum machines. Sequencing and hard disk recording systems will be Mac- and Atari-based, and all relevant hardware and software will be handled. Dig White, sales manager of the new division, commented on the formation of TC MIDI.

"Although we already handle most of the equipment concerned, increased popularity of the tapeless recording concept has meant that a growing percentage of our customers require more specialised help. As well as a wider product range TC MIDI has its own demonstration facilities, expert staff and even a two-day MIDI course taking place in our school."

Nuff said.

More information from TC MIDI at North Road, Wendy, nr Royston, Herts SG8 0AB. Tel: (0223) 207979, Fax: (0223) 207952. ***Dp***

Bob's yer samples

AMG are pleased to announce their appointment as exclusive UK distributor for the Prosamples series of sampling CDs from East West Communications Inc. The first of this series is now available and contains a new set of drum samples recorded by the award-winning producer/engineer, Bob Clearmountain, famous for his work with some of the leading exponents of rock and pop, including David Bowie, Tina Turner, INXS, Bryan Ferry, Tears for Fears and many more.

The CD, which apparently met with rave reviews in the US, features 259 samples of snares, kicks and hi-hats, and some of the samples offer a dry sound on one channel with the room ambience on the other, so you can choose the amount of natural reverb you want to add.

This first volume is available now at the price of £69 including VAT and P&P. Details of two further volumes should be confirmed soon.

More information from AMG, Hurst Farm Barns, Hurst Lane, Privett, nr Alton, Hants GU34 3PL. Credit card orders may be placed on (0730) 88383. ***Dp***

BMF GOES INTERNATIONAL

In keeping with the international spirit of dissolving frontiers (Glasnost, the destruction of the Berlin wall, united Europe, and all that), the British Music Fair wishes to be known as the International Music Show from this year on.

In the words of the press release "The British Music Fair has grown enormously in size and stature, and is visited by thousands of people each year. The scope and direction of the Show has recently widened to embrace any product or service, from anywhere in the world, that is related to music in any way. It is this new outlook and promise for the show's future direction that has prompted the creation of a new, more representative name for the event."

The International Music Show will be held at Olympia, London from the 10th to the 14th July 1991. The 10th and 11th have been set aside as Trade Preview days and only *bona fide* trade visitors will be admitted on those days.

Education day at the 1990 show was apparently a great success, and accordingly, Friday 12th July has been designated Education, Schools and Orchestras Day. Educationalists, music teachers and advisers, pupils and their parents will be able to attend on this day.

The show is open to all members of the public on Saturday the 13th and Sunday the 14th of July. A full entertainment program, including live performances and competitions, is currently being planned for these days. See you there. ***Dp***

CLICK NO MORE

CEDAR (Computer Enhanced Digital Audio Restoration) Audio, in collaboration with Harmonia Mundi Acustica of Germany and Daniel Weiss Engineering of Switzerland, announce (and we quote) "a breakthrough in real-time digital audio signal processing" with the CEDAR/HMA De-clicker module. The De-clicker, which was launched at MIDEM, Cannes on January 20th this year, will be available in two hardware formats and will remove all clicks, scratches and ticks, no matter how generated, from the audio signal. Operating in the digital domain, the CEDAR De-clicker offers both 44.1kHz and 48kHz sample rates. All processing is carried out in real time and the module generates no additional noise whatsoever.

The Harmonia Mundi Acustica BW102 range of modules, installed in over 100 studios worldwide, has been expanded to include the CEDAR/HMA De-clicking module, and a fully automated 19" rackmount version of the same module will shortly be available. This will offer all the facilities of the BW102 version but without the remote control.

Uses for the CEDAR module include CD remastering, film soundtrack restoration and in-line broadcast de-clicking.

More information about CEDAR can be found in MT, November '89. More information about the De-clicking module can be obtained from CEDAR Audio Ltd, 5 Glisson Road Cambridge CB1 2HA. Tel: (0223) 464117. ***Dp***

DOCUMENTARY EVIDENCE

Radio 1 has three special documentaries lined up for March 1991, all of which could be of particular interest for MT readers.

The first, *Can You Steal It?* (broadcast March 2nd at 2pm and repeated March 5th at 9pm), takes a look at the art of sampling. Producer George Ergatoudis traces its background and history with examples of some of the first records to feature sampling, speaks to some of the major exponents of the genre, and looks at the legal implications of "borrowing" bits of other peoples' tunes. So while the show isn't likely to tell the informed reader of MT anything s/he doesn't know, it could be an interesting listen anyway. It's also yet another example of the somewhat belated interest being shown by the more general media in the issue of sampling - the implications of which MT has been carefully considering for over half a decade. We recently had pointed out to us an article on the financial and copyright implications of sampling in the *Wall Street Journal*, of all places.

On to the next program, *Independents Now*, (broadcast March 9th at 2pm, repeated Tuesday March 12th at 9pm) which looks at independent record labels in the '90s - their future, direction, and the changes in their philosophy since the days of the groundbreaking punk labels. Spokespersons from 4AD, One Little Indian, Rough Trade, Acid Jazz and others give their views and advice on how to set up your own label. The final program, *Who Writes the Songs* (broadcast March 16th at 2pm, repeated March 19th at 9pm), focuses on great songs - who writes them, what makes a song great, why some songs still sound classic years after they were written, and so on. Songwriters including Paul Heaton, Paddy McAloon and Simon Climie try to find a few answers. Radio 1 Classic Concerts scheduled for March are as follows: Monday, March 4th at 9pm, Anita Baker; Monday March 11th at 9pm, UB40; Monday March 18th at 9pm, Adeva. ***Dp.***

communiqué

middly widdly

I have recently purchased a Roland GR700 guitar synth which, despite its age, is bloody marvellous. But as it originally came out in 1984, its MIDI specifications are, well, let's say sparse.

As you may or may not know, the guitar hooks up to the synth via a 24-pin connector, which brings me to the point of my query: the synth has a MIDI Out (which, incidentally, is fixed on MIDI channel one), but no MIDI In. This makes it impossible to hook up to a sequencer - in my case, Atari/Pro24. This is a little maddening as I can't tidy up any rough edges to my playing (there are many) or control the synth via a keyboard. Do you, or any of your readers, know of a MIDI upgrade/retrofit that I can add to said synth?

As it's possible to "MIDIize" a Minimoog or Jupiter 8, I'm sure there must be someone, somewhere who can help me out. Or am I wrong?

Colin Trevorrow
Walton
Liverpool

Of course you're not wrong, Colin. On your behalf MT spoke to Kenton Electronics' expert, John Price, who has been specialising in MIDI retrofits for some time now. Coincidentally, he has recently succeeded in endowing an old ARP Avatar with the MIDI In you're looking for.

Although he's not too familiar with the GR700, John tells us that fitting MIDI Ins to guitar units isn't normally a problem, it's MIDI Outs that cause all the trouble. And given that manufacturers with major R&D budgets like Roland and Yamaha still haven't completely cracked the secret of successful guitar synthesis, we're inclined to believe him.

Anyway, with an expectation of "75% success", you can call Kenton Electronics on 081-974 2475. ***Tg***

selective sampling

I am writing with reference to Alan McKinlay's query in the December issue of MT, regarding a device for breaking down a sound. You stated that no device of this sort exists - you are correct in a way, but I thought I'd let you know about a device I know of.

This device removes bands of vocals from a record (that's where EQ comes in) and leaves behind an instrumental track. It seems to be widely used by rappers in the States - I think that's the only place you can get hold of it. If you write to this address they will send you a brochure: LT Sounds, Dept PS-1, 7981 Parkway, Lithonia, GA 30058, USA.

Delash V Patel
Southall
Middlesex

I suspect you're referring to the Thompson Vocal Eliminator. This unit is only available in the US at present, but appears to work on the principles we've already discussed - EQ and filtering.

Thanks for your enthusiasm and the contact address (we're waiting to hear from LT Sounds), but I have to say that I don't hold out a great deal of hope for the performance of such a system over any other filtering system. Firstly, it's impossible to generalise on the requirements of a "vocal eliminator", and so a wide variety of filtering techniques would have to be incorporated into any single unit that professed to be able to do the job across the board. Secondly, the cost of such a comprehensive unit would make it prohibitively expensive for most prospective users. If rap music is the proposed application, the beat is enough to conceal many of the shortcomings of any elimination system - consequently, carefully selected filters and EQs are almost certainly a cheaper option than a commercially-produced compromise unit.

Finally, you will recall that Alan pointed out that cash was at a premium, so I'm personally not convinced that having unproven gear specially imported from America would be his best bet. ***Tg***

manual quest

I recently purchased an Oberheim Matrix 6 keyboard second-hand - with no manual. I did, however, manage to get a copy of the manual for the rackmounting Matrix 6R, which covers all the parameters on the keyboard version except one - parameter 44, which is in the Master page (software version 2.13A).

I have tried contacting various people including the present Oberheim distributors, Sound Technology, without being able to find out what this does.

I was hoping you, or one of the readers of MT, could help me with this. Also, I am searching for anyone supplying sounds for the Matrix 6.

Barry Dillon
Co Clare
Ireland

Sorry Barry, nobody in the MT office owns a Matrix 6 of any description - we all feel duly guilty, of course - so we're unable to help directly. Is there anybody out in readerland who can? Please contact MT at the usual editorial address. ***Tg***

manual rewards

Regarding your November 1989 issue, I have some hopefully useful information to offer Mr Alistair Watt. His letter, entitled "Purely for Prophet", told us he was seeking circuit diagrams for his Rev 3 Prophet 5.

I myself purchased a Rev 3.3 Prophet 5 last year, but this was after I found a source of servicing information and spare parts. For Alistair's benefit (and anybody else requiring help with an SCI instrument), the company in question is in the US, and is called Wine Country Productions. It is run by an ex-SCI employee who is able to supply full technical manuals for the Prophet 5 as well as batteries for the back-up RAM and data cassettes of the original factory programs.

The Prophet 5 technical manual is excellent and fully describes circuit operation of the Prophet. When I bought my Prophet, one of the panel pots wasn't working. However, after a couple of hours with soldering iron, manual and replacement CMOS chip, I had a fully-working instrument once again.

The full address of Wine Country Productions is 1572 Park Crescent Court, Suite 505, San Jose, California 95118, USA. Anyone writing to this address will be sent a free catalogue of the company's range of SCI-related products, manuals, software and hardware upgrades.

I hope I have been of some assistance in this matter.

Paul Rogers
Westhoughton
Lancs

You don't own a Matrix 6, do you Paul? ***Tg***

ZOOM 9010 DSP

4 effects units in one 19" rack!!

Total flexibility

NO FINER STUDIO PROCESSOR AT ANY PRICE

Another Zoom original! This unique new digital effects processor is just what you need to create new and exciting sounds in the studio for your synthesiser, guitar, drums and voice at the same time, because where as some studio processors allow 4 effects simultaneously, the Zoom 9010 IS 4 MIDI controlled studio processors built into one 19" rack mount unit, and all at full bandwidth. That's right! 4 independent effects processors, all with their own individual inputs and outputs.

But that's not all!

Using the Zoom 9010s Routing Parameters you can configure the signal path anyway you wish. - Have 2 mono effects on channels 3 & 4 whilst mixing two stereo effects on channels 1 & 2. Use the on-board mixer to mix one stereo and 3 mono effects then add reverb to the lot. Or even route the signal path through all four of the effects channels to get one fantastic effect - imagine 7 pitch shifters at once!

This incredible product comes to you from the makers of the Zoom 9002 guitar processor and is unbelievable value at just £1199 +vat.

£1199.00 +vat

S/N RATIO >THAN 90db

16Hz to 20kHz BANDWIDTH

60 RAM 60 ROM PATCHES

INCREDIBLE SPECIFICTAION...

THE SIGN OF A FINE PRODUCT
★ MCMXCIX ★
DISTRIBUTED IN THE UK BY

THE MOST FLEXIBLE EFFECTS PROCESSOR EVER

Up to 7 effects at once The Zoom 9010 can be configured to give 7 DIFFERENT digital effects simultaneously - all at full bandwidth.

Rom/Ram card slot Rom and Ram cards will be made available with brand new effects and patches. This machine will never go out of date!

The Zoom 9010 gives you more Pitch Shifting, Reverb types A, B & C, Early Reflection, Echo A & B, Compressor, Phaser, Flanger, Chorus, Limiter, Distortion Auto Wah, Enhancer, Noise Gate and Amp Simulator.

from the makers of..

The guitar effect that fits on a strap!!

THE AMAZING ZOOM 9002

MCM

708A Abbey Rd. Tudor Est.
London NW10 7UW. Tel: 081 963 0663

SEIKO MR1000 SEQUENCER

IN THESE INFLATIONARY times, 40 quid will buy you precious little; a couple of bottles of Moet, perhaps, the merest sniff of *Giorgio* - heady pleasures, but sadly transitory. If you want something more enduring, however, that same 40 quid will buy you a compact, unpretentious MIDI sequencer going under the unlikely banner of 'Seiko'. Don't be deterred by the fact that they've made your wristwatch - Casio started out making calculators.

The MR1000 isn't new by any means - the date in its slim but informative manual explains that 1985 was the year of its birth, but since a particular retail outlet is currently selling a quantity of these sequencers at the jaw-dropping price of £39 including VAT, you ought to know what this baby can do.

PHOTOGRAPHY: JAMES CUMPSTY

Weighing 17oz and finished in smooth black plastic, the MR1000 won't win any prizes for innovative design, but its front panel is refeshingly sparse, presenting only four large-ish plastic buttons; red for record, blue for play, white for stop and pink for pause. To the right of this modest array is a tempo slider with extremes marked Slow and Fast. A small red power LED completes the front-panel. The back panel houses a power switch, socket for the supplied 9V DC psu, Int/Ext switch for sync, MIDI In and Out, and two small sockets for tape save and load. I can see you nodding sagely at the latter - you already know the joys of saving a sequence to tape and loading garbage back in. You can't have everything for 40 quid.

It's best to think of the MR1000 as a MIDI recorder rather than a sequencer - forget step-time recording, punching in and out, quantising and all that sophisticated stuff. The MR1000 will let you play in your tune (on any MIDI channel) and overdub other parts on the same or any other MIDI channel, to a maximum of around 5000 notes in Single Overdub mode or 2500 notes in Multiple Overdub mode. If you make a mistake, you'll be able, using short sequences of key presses, to clear the data and start again. To prepare for recording, simply press Pause, then Record. The relevant LEDs will light and recording starts as soon as you start to play your keyboard or press a sustain pedal. Recording stops when you hit the Stop button. The length of your piece will not necessarily be set by the length of the first sequence you play in; if you've played, say, the bassline for your intro and then pressed Stop, you can go back into record (using the same method as for recording the intro) and record the bassline for your verse, and so on. The MR1000 simply tacks the second bit of bassline on after the first. This would, however, require pretty accurate use of the stop button. You can save memory by looping, but you'll have to loop your whole sequence - you can't loop selected parts.

If your first sequence isn't to your satisfaction, the data can be cleared by simultaneously pressing Rec and Stop, so you can have another bash.

Overdubbing is similarly straightforward; press Pause, Play and Rec in that order, then as soon as you touch your keyboard, the MR1000 will play back your original sequence so you can overdub onto it. It's also possible to set the MR1000 so that you can come in at any point in the main sequence and start overdubbing. If you're in Multiple Overdub mode, you can mix the data from the first two tracks by pressing Stop and Pause together. This means that you can record a third part, which in turn you'll have to mix with the first two in order to record a fourth, and so on. In Multiple mode, there's a theoretical maximum of 2500 notes - in practice, with no looping, this equates to around two minutes of a fairly complex four-part sequence. You'd get more time if your sequence was simpler.

The MR1000 also allows you to record sequences from an external sequencer; connect the two sequencers via MIDI, set the MR1000 as if you were about to record, set the MR1000's clock switch to Ext, and start your other sequencer. Up to its memory limit, the MR1000 recorded a sequence from an Ensoniq VFX-SD's internal sequencer faithfully - apart from the fact that it then played back the sequence an octave higher. Although this went unexplained, transposing the sequence an octave down on the VFX secured the desired result.

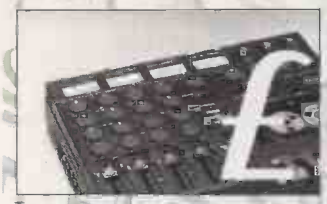
Using the MR1000 with a drum machine is also no problem - it's happy to be clocked by your rhythm generator, but note that if the drum box has no MIDI Thru, you'll need a MIDI merge in order to record with a keyboard whilst hearing a drum pattern.

As mentioned previously, the manual is simple but informative, providing useful diagrams and even a MIDI implementation chart, should you require it.

Enough said: the MR1000 is a satisfyingly simple hardware sequencer which does everything it claims with the minimum of fuss. Criticisms are more than compensated for by its exceptionally low price and extreme user-friendliness, and I would certainly recommend it for use as a musical notepad, or to anyone not yet having ventured into MIDI sequencing. ■ ***Debbie Poyser***

Price *£39 including VAT, psu and MIDI lead.*
More From *The Music Corporation UK Ltd, Link Mall, The Dolphin Centre, Poole, Dorset BH15 1SQ. Tel: (0202) 684560.*

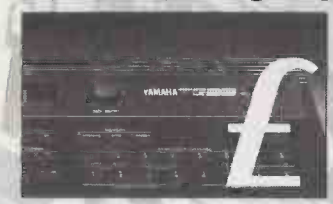
Tascam Porta 1



£299

Tascams Porta One is the original Tascam Ministudio and remains today the proven standard in portastudio performance. In terms of versatility, sound quality of build and reliability the Porta One offers everything needed to produce top quality recordings.
Now ABC Music have slashed the price.!
The Porta One features:
- 4 track recording
- 2 band eq on each
- Switchable dbx
- Tape cue controls
- 4 tape out jacks
- Optional remote punch in/out.

Yamaha TG33



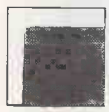
£479

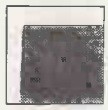
The New TG33 from Yamaha is equipped with both sampled and FM tone generators under vector control. This "SY22 in a box" features:
- 32 note polyphony
- 4 outs
- 16 channel multi mode
- 128 presets
- Unique Vector Control

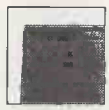
Yamaha MT3x exclusive

ABC Music have just secured and EXCLUSIVE DEAL on the Yamaha MT3X 4 track recorder and are now in a position to offer new and ex demo models at vastly reduced prices. This versatile unit offers 2-speed, 4-track recording with an on-board 6 channel mixer with 2 band eq on each input. In addition there are 2 send/returns, automated punch in/out and separate monitoring section. - Buy One!

NEW £499
EX DEMO £399







Alesis SR16

£299

The new drum machine from the people who make the best. ABC now have these little wonders in stock and on demonstration. You must try one. Features:
- 233 brilliant digital sounds
- Over 100 stereo samples
- True dynamic sounds
- 100 pre-programmed patterns
- 4 outputs

Better Deals

Roland D10	£785 £649
Roland D70	£Call
Roland D50	NOW £799
Roland U20	NOW £799
Roland E5	£699 £399
Roland W30	NEW £1599
Rhodes 660	£Special
Rhodes MK60	£999
Yamaha SY22	£799 £Call
Yamaha SY77	NEW £Call
Yamaha TX16W	£899
Yamaha SY55	£1050 £899
Yamaha TG55	NEW £499
Yamaha TG77	£Special
Kawai K1 Mk2	NOW £499
Kawai K4R	£699 £525
Casio VZ8M	£399 £199
Akai S1000	NOW £2799
Akai S950	NOW £1299
Cheetah MS6	NOW £299
Cheetah Mk5v	NOW £199
Cheetah MkV (MS)	£299
Ensoniq SQ1	NOW £1199
Ensoniq VFX-FD	£Call
Ensoniq EPS+16	£Call
Emu Proteus 1 4meg	£679
Emu Proteus 1 XR	£879
Emu Proteus 2	£1029
Emu Proteus 2 XR	£1229
Emu Emax II HD 4 meg	£2995
Emu Performance piano	£349
Korg M1	IN STOCK
Microverb 2	NOW £159
Microverb 3	£399 £199
Midiverb 3	NOW £245
Alesis SR16	NEW £299
Alesis Quad	NOW £359

Yamaha 100 Series

The Yamaha Personal Recording Equipment series consists of a range of compact components to suite every recording situation. These high performance components are now offered by ABC music at remarkable savings.
Of special note are the A100 50watt stereo amp and the Q100 7 band stereo graphic.

BSP100 bass effects
was £119 NOW £79.95
DP100 dual gate/limiter
was £119 NOW £79.95
S100 100 watt speaker
was £119 NOW £99.95
MV100 4-in/2-out
was £139 NOW £95.00
Q100 7 band graphic
was £119 NOW £79.95
GSP100 guitar effects
was £119 NOW £79.95
A100 50 watt amp
was £199 NOW £179

Korg Wavestation £1499

2 Free Roms
- 32 digital oscillators
- Built In stereo effects
- Multi timbral
- Percussion samples

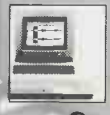
A better deal all round

Music Software

Like most other music shops ABC Music stocks all the latest software from Steinberg and C-Lab. - Unlike most other music shops we know how to use it. For information on the right computer/software package for you call in today.

Steinberg Cubase v2 @£499
Steinberg Cubeat @£275
C-Lab Notator @£499
C-Lab Creator @£249
C-Lab Notator Alpha @£199

Deals available
- Atari H. disk recording
- 2 track CD quality
- Powerful editing features
- DSP functions



DigiDesign SoundTools

Peavey DPM3 £Call
Cheetah Sx16 £799
Roland E5 £399
Kawai K1mk2 £499

Kingston. 56 Surbiton Rd. Tel: 081-546 9877
Oxford. 44 St. Clements Tel: 0865 725221
Slough. 324 Farnham Rd. Tel: 0753 822754
Exeter. 68 Bartholomew St W. Tel: 0392 425125
Bristol. 32 Alma Vale Rd. Tel: 0272 238200
Addlestone. 14-16 High St. Tel: 0932 854877
5mins J11. M25

0372468114

Access VISA

ABC music

AMPLE Albums

MUSIC IS TRULY becoming a multi-media device - it now comes not only on tape, vinyl and CD, but on video, as MIDI data (see review of Digital Music Archives' material, May 90) and on floppy disk. The floppies in question today contain material for the Hybrid Music System, that ingenious, fully-integrated music system which runs on a BBC micro and can do things no MIDI sequencer can do. The HMS is based around a programming language called AMPLE and when you save a piece of music, you not only save the notes but all instrument definitions, mixes, screen illustrations, text, instructions *et al*. You can dig into the pieces, alter them, pinch sounds and examine programming techniques. Friendly, eh?

AMPLE albums have been around for a long time, and there are now 16 in the Hybrid Technology catalogue. Their latest acquisition, *Ashes*, by 16-year old Michael Harbour (£4.95), is a follow-up to the debut *Shivering Again*. While *Shivering* was held together by the theme of cold, *Ashes*, obviously, pursues a heat theme.

It's a more mature album and contains 12 mainly up-tempo pieces, with bass and drum tracks. Many use the same instruments which gives the album a sonic coherence. Examine the pieces and scattered throughout you'll find remnants of a story about cryogenics - it would have been better if the story appeared during "play".

The AMPLE DCT Database at Dudley College has had a thriving AMPLE area for a long time. Panda Discs was formed to make the DCT music available to users without Viewdata facilities. There are currently 13 AMPLE albums in its catalogue plus some for the Music 500 and the Island Logic Music System (all at £5 including p&p).

The two most recent additions are a collection of Jean-Michel Jarre pieces programmed by Bernie Dawson, and *Moments in Time* by The Noige, aka Nigel Scott.

Moments In Time is The Noige's second album, and contains ten tracks. Each piece chains the menu program when finished, which is helpful but it also locks you out of the program while it's running so you can't even monitor it in the Mixing Desk. You can, however, delete the chain word or start the piece manually. Most of the pieces are quite short with the emphasis on drums and pulsing basslines. If you've got a feel for rhythm, check this out.

Bernie Dawson's album includes the complete *Rendezvous* suite plus extracts from *Oxygene*, *Equinoxe* and *Magnetic Fields*. The programming involved is considerable and the pieces are probably as close to the original as it's possible to get on the HMS - there's even a laser harp!

Two programming complaints: some of the programs will, optionally, chain the following one but the routine that handles this uses an area of memory used by the editor modules. Consequently it doesn't always work. Also, the laser harp loads into screen memory and this won't work either unless you switch off the shadow memory. And it doesn't tell you to do so. But that's no big deal, so all JMJ aficionados should buy it.

John Bartlett has released several AMPLE albums on his JB Software label - at a bargain price of £3.50 each. *Jazz Disc Vol 2* is a natural follow-up to *Jazz Disc Vol 1*. On both albums John makes full use of AMPLE to incorporate performance techniques such as delayed vibrato and pitchbend to "humanise" the music. Use of the Wind command adds a swing to the pulse.

How enormously effective it all is: the fast and furious semiquaver "guitar" solos really put the system through its paces. Of the ten pieces, eight are JB originals influenced by styles ranging from Louis Armstrong to Charlie Parker. 'Reverie' is a laid-back four-in-the-bar piece based on an introduction to 'A Little Love A Little Kiss' by Eddie Lang. Every HMS user should have at least one JB Jazz album in their collection.

My favourite new release is *Impressions*, also from John Bartlett. This is a collection of eight music impressions of cities and countries. They are complex pieces, harmonically and melodically, and it's amazing to watch them play from the Mixing Desk - it's never still for a moment with active panning, volume and instrument changes occurring in virtually every bar.

Musically they contain many JB trademarks - flying solos and so on - which is, perhaps, to be expected. The atmospheres are lovingly conjured up through sound effects, music lines and instrument textures. Sea and gulls characterise 'Southern Seas', steam trains journey through 'Holiday Express', bagpipes drift across the water 'On The Loch' and oriental overtones permeate 'Shiba' (a park in Tokyo).

Buy this you must!

Finally, if you're interested in a regular supply of AMPLE material - music, programming techniques, hints and tips, you can join AMPLINEX. Membership is a once-only ludicrously-minute £5 plus a blank disk which ensures you of the latest issue. Subsequent issues are an insignificant £2 (plus disk) or FREE if you send a contribution.■ ***Ian Waugh***

More from *Hybrid Technology Ltd, 273 The Science Park, Cambridge CB4 4WE. Tel: (0334) 420360.*

Panda Discs, Four Seasons, Tinkers Lane, Brewood, Stafford ST19 9DE.

JS Software, 20 Crawley Avenue, Wellingborough, Northants NN8 3YH.

AMPLINEX, 26 Arbor Lane, Winnersh, Berks RG11 5JD.

Sampling's as easy as ABCd

Bob Clearmountain's Drum CD

Only from AMG

This CD, from the man who is famous for his superb work with the likes of David Bowie, Bruce Springsteen, INXS, Tina Turner, Bryan Ferry, Simple Minds, Tears For Fears, Macca and many more of the biggest names in Rock and Pop, is every bit as good as you would expect. The CD featues 259 Drum Samples especially recorded by Mr. C for this CD. As a recent Keyboard Review put it '...top-ranked producer Bob Clearmountain has just removed any excuse you may have had for putting wimpy snare, tom, and kick sounds onto your sequenced demos...This CD is a treasure-house of great drums suitable for a variety of styles...The main thing, is that the miking is superb. These drum hits are extremely crisp and realistic.' If you only buy one drum CD this year this has to be the one. Volume 2 – Bass and Percussion will be with us very soon, uniquely it will feature the new 3D sesation Q-Sound. Volume 3 is also planned but we're going to keep you in suspense for a while on that one. Whilst not the cheapest CD we offer at £69* it still represents superb value. (*£59 + P&P + VAT)

HitSound Sampling CDs

Only from AMG

Hit Music Productions, famous for creating the Valhala International Gold Series ROM Cards, have just released their first sampling CD. The first volume is entitled 'Pure Gold Synth' and features some of the best sounds from the International Gold Series. A range of timbres including superb atmospherics, classic strings, huge analogue sounds and cutting basses from all the latest synths including the Korg WaveStation, M1, T-Series, Yamaha SY-Series, Ensoniq VFX, Roland D70, D50 and more. All captured on one gold CD. Volume 2, 'Old Gold Synth', is already in production and will feature new sounds from Hit Music on a range of classic synths such as the ARP 2600, MiniMoog and Mellotron. Future volumes are set to feature guitar, percussion and drums along with a few big names and unique features. We'll keep you posted on developments. In the meantime Volume 1, and perhaps Volume 2, are available now at the fully inclusive price of £45 each. There are also plans to make these samples available on ready-to-load disk, the choice is yours. Call for more details.

NEWS

Bob Clearmountain's Drum CD - In Stock!
New HitSound CD - OUT NOW!
New MasterBits CDs - In Stock!
Call for the latest Info

MasterBits

Sampling Collection 500
■ M1 ■ D50 ■ K1 ■ K5 ■ K1000 ■ MiniMoog ■ TR808 ■ HR16 ■ Linn 9000 ■ And More!

Sampling Collection 600
■ MicroWave ■ T1 ■ Prelude ■ K4 ■ VFXsd ■ VS ■ Xpander ■ And More!

Sampling Collection 700
■ WaveStation ■ SY77 ■ SY55 ■ SY22 ■ TR909 ■ Prophet V ■ Elka Synthex ■ TR606 ■ Plus!

Sampling Collection 800
■ VFX ■ PX1000+ ■ HX1000 ■ K8 ■ Matrix 1000 ■ MKS70 ■ And More!

Sampling Collection CDs are £29 each. All four for £100.

Climax Collection
Vol 1 – Vocals – 664 Vocal Samples
Vol 2 – Classic – 551 Orchestral Samples
(Recorded with the Gothenburg Symphony Orchestra)
Climax Collection CDs are £45 each. Buy Volumes 1 & 2 for £80.

McGill University (MUMS)

Volume 1 – Solo Strings & Violin
Volume 2 – Winds & Brass
Volume 3 – Piano, Perc & Sax
Volume 4 – Drums & Tympani
Volume 5 – Guitar, Bass & Moog
Volume 6 – Latin Grooves 1 (Solo)
Volume 7 – Latin Grooves 2 (Layers)
Volume 8 – Jazz Sounds
Volume 9 – More of Vols 1-3
Volume 10 – Pipe Organ
Volume 11 – Historical Intstruments

Volumes are £49 each inc. free Manual. £135 for any three or £425 for the full set.

Sonic Images

Volume 1 – Drums, Percussion & Effects
Volume 2 – Percussion Special
Volume 3 – Stack Sounds A
Volume 4 – Stack Sounds B
Volume 5 – Musical Effects
Volume 6 – Grand Pianos
Volume 7 – Symphonic Orch (Soon)
Demo CD – All 7 Volumes featured

Volumes are £35 each. Select any four for £120. Demo CD costs just £10.

Northstar Productions

The World Famous Northstar Library is at last available in the UK through AMG. Samples are available on disk, 45 Meg Removeable or Optical Disc, or even CD-ROM in some cases. Call for lists of the samples available and prices. There are far far too many options to list!! The Library currently supports the ubiquitous ***Akai S1000 (516 Meg)*** as well as the ***S950*** and ***S900 (83 disks)***. In addition to a huge selection for the ***Emu Emulator 3 (1968 Meg!), Emax (215 Disks), Emulator 2 (466 Disks) & SP12/1200 (39 Disks)***. The ***Ensoniq EPS 4X (21 Banks), EPS 16 Plus (10 Banks) & Mirage (56 Disks)*** are also well supported. This library is very high quality call for more details.

All these products are ONLY available direct from AMG

Please send cheques/PO's made out to AMG to our address at the foot of the page. All prices quoted are fully inclusive of VAT at 15% and delivery. All orders are sent out 1st Class recorded delivery and are usually completed well within a week. However please allow up to 28 days for delivery. If any products are out of stock we will not debit your credit card until they are despatched to you. Because of the ability to duplicate most of these products any refunds or exchanges are made at the absolute discretion of AMG. All trade names are the property of their respective holders. Prices and specifications are subject to change.

AMG

The Advanced Media Group
Hurst Farm Barns
Hurst Lane
Privett, Nr. Alton
Hants GU34 3PL
FAX - 073088 390

Synthesizer Sounds from • Valhala
Sampled Sounds from • Northstar
Sampling CDs from • MasterBits • East West • HitSound • McGill • Sonic Images

073088 383

LUCKY STRIKE

PHOTOGRAPHY: JAMES CUMPSTY

NINETEEN-NINETY AND early '91 seem to have been a boom time for the drum machine. During this period we've seen the arrival of such machines as the Roland R8M, Boss DR550, Akai XR10 and the Alesis SR16. Latest on the scene is the long-awaited Cheetah MD16. For once, at least, you can't complain that there's a lack of choice in the market place.

The MD16 has been a while in development (some 18 months, in fact) but Cheetah are adamant that their original spec has seen little modification during that period - so accurate was the preliminary list of its features. Those features include 16-bit sample resolution, 41 onboard sounds (expandable on cartridge to over 200, all simultaneously accessible), eight separate outputs and a host of sound modification facilities - reverse, pitch skew and so on. And while you'll have to wait until next month's edition of your favourite hi-tech music mag for a full review, this should be enough to whet your appetite for this month's competition. Although we've only just got the MS6 synth expander Cheetah gave us for a previous competition out of the office door, the company have generously offered us an MD16 (worth just under £300) to follow it. Now, we know from your phone calls that the MD16 is an eagerly-awaited instrument, and we're anticipating it being every bit as popular as a freebie to the winner of this competition, so get into competition mode and pair up the following drummers with their respective groups or artists.

1. Philly Joe Jones	**A.** Jimi Hendrix Experience
2. Sheila E	**B.** King Crimson
3. Mitch Mitchell	**C.** David Sylvian
4. Bill Bruford	**D.** Miles Davis
5. Steve Jansen	**E.** Prince

There, it's so simple even a drummer could enter...

YOUR ANSWERS SHOULD be called in to the MT Competition Hotline on - **(0898) 100768** - no later than Thursday, February 28th. (Calls cost 33p per minute cheap rate and 44p at all other times.) Please speak clearly and don't forget to leave your name, address and daytime telephone number with your answers.

4 MEGABYTES BECOMES 8 MEGABYTES

128 NEW ROM PRESETS

ALL-NEW!! Protologic

YOU TOO CAN ENJOY MORE SOUNDS

£449 Only

If you've been waiting for new, high quality sounds for your Proteus, your wait is over. The NEW Protologic™ memory expansion for the Proteus DOUBLES the waveform memory of your Proteus/1 or Proteus/1XR giving you 8 megabytes - All with 128 new ROM presets and, in the Proteus XR, another 256 in RAM!

NEVER BE LOST FOR NEW SOUNDS

THE SIGN OF A FINE PRODUCT MCM DISTRIBUTED IN THE UK BY

708A Abbey Rd. Tudor Est.
London NW10 7UW. Tel: 081 963 0663

Brand New!
Attractive Styling!

NEW

Stealth

from ULTIMATE SUPPORT

Avoid the "keyboard wobble"

ONLY £64.95 Including VAT

THE AWARD WINNING APEX COLUMN

Want to avoid the 'Keyboard Wobble?' Then treat yourself to a new Stealth keyboard stand from Ultimate Support Systems. You can buy with confidence in the quality and durability guaranteed by this famous range of stands and accessories.
No wonder keyboard players around the world say "They're just the best stands available!"

THE SIGN OF A FINE PRODUCT MCM DISTRIBUTED IN THE UK BY

ONLY £169.95 Including VAT

708A Abbey Rd. Tudor Est.
London NW10 7UW. Tel: 081 963 0663

---

no other hard disk recording system has the advantages of

Studio Vision

Only £795

NEW

NEW

- ✓ Midi recording
- ✓ Direct to Disk
- ✓ SMPTE
- ✓ Outstanding quality

THE SIGN OF A FINE PRODUCT MCM DISTRIBUTED IN THE UK BY

Top Musicians and Studio Engineers insist on..

OPCODE

VISION!

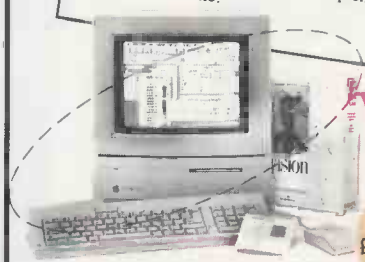
Winner of Keyboard Readers' Poll for "Software Innovation of the Year". Vision is the new leader in sequencing software for the Macintosh. Amazing features like graphic editing, MIDI faders and SMPTE synchronisation.

EZ VISION!

EZ Vision is a simple yet powerful version of Opcodes award winning Vision. Perfect for education and hobbyists. And what's more EZ Vision can be upgradable to Vision!

STUDIO VISION!

Studio Vision brings you all the features of Opcodes award winning Vision sequencing program and that means SMPTE synchronisation, 480 PPQN, 26 sequences with 99 tracks each, simultaneous graphic and list editing and extensive quantise functions. But that's not all. Studio Vision is also a full featured direct-to-disk recording system. That's right you can now record CD quality audio along with your MIDI data with full editing and quantisation of both. No wonder Thomas Dolby says "You've got the best sequencer and best recorder combined into one!"



Vision

Only £395

- ✓ Midi recording
- ✓ SMPTE
- ✓ Graphic editing
- ✓ Loop recording

EZ Vision

Only £99

- ✓ 16 track sequencing
- ✓ Low cost
- ✓ Easy to use
- ✓ Fully upgradable!

If it's ★ it's BEST for Your Computer

Ask for Opcode products at your favourite stores.
"The World's BEST Music Software Manufacturer"

708A Abbey Rd. Tudor Est.
London NW10 7UW. Tel: 081 963 0663

Other GREAT Opcode products

Galaxy
The universal patch librarian acclaimed for it's full features and ease of use.

CUE
The ultimate. All the features that you need when scoreing moving pictures

ON THE BEAT

Part 17

JAZZ: THE ULTIMATELY UNPROGRAMMABLE MUSICAL FORM - OR IS IT? IN THIS MONTH'S RHYTHM PROGRAMMING EXCURSION WE'LL SEE TECHNOLOGY LENDING ITSELF TO THE SPIRIT OF JAZZ. TEXT BY NIGEL LORD

BEFORE WE BEGIN, I'd better just point out that this article is only likely to be of interest to those who see no inherent contradiction in the idea of programming jazz rhythms into a drum machine. This will depend very much on whether you regard jazz as a particular style of music (or collection of styles) or as a state of mind. To me, there's little doubt that what jazz is is defined in the mind of the musician playing it and the person listening. How, and on what instruments it is produced, is of no consequence whatsoever.

Fortunately, those holding this view find themselves in the prestigious company of the likes of Miles Davis and Marcus Miller, who, in their most recent collaborations have refused to be hidebound by "traditional" jazz instruments and opted for an altogether more eclectic approach - which includes the use of electronic instruments and drum machines. On albums like *Tutu* and *Siesta* they have

ILLUSTRATION: CLIVE GOODYER

redirected jazz in a way that has eclipsed all the sharp young sax players with the right names on their CVs.

As an attitude, jazz sidesteps the obdurate and inflexible approach of those who would anchor it down with precise definitions. Of course, in the mix 'n' match world of contemporary music, much of what we hear of jazz takes the form of flavouring sprinkled (to the chagrin of the purists), over more commercial styles. More than one undistinguished pop song has been enlivened by a jazz guitar accompaniment or sax solo. And the recruitment of a seasoned jazz pro to add credibility to what would otherwise be a pedestrian musical performance has been a ploy adopted by pop artistes for years.

Yet seldom, if ever, is jazz allowed to influence life in the rhythm section. Even when confronted with the fluid (and quite danceable) grooves which characterise much jazz music, pop musicians cling tenaciously to the predictable rhythms they believe to be a prerequisite of a successful song. Jazz, as an influence, could provide a much needed drop of oil to the clockwork rhythm which seems to drive most popular music these days.

But I digress. . . The question which confronts us here is whether jazz rhythms - or rhythms which we recognise as jazz - can be reproduced by a machine. I believe they can, and have included seven varied examples in this feature to prove it. Without attempting to ape a human drummer or resorting to exotic time signatures, these patterns could be fairly said to reflect something of the free spirit of jazz whilst remaining open enough for further experimentation. You will be the ultimate judge, but I think you'll find enough ideas here to make the programming worth your while.

It's a reflection of the demands put upon the drum machine by the programming of jazz rhythms that I have finally succumbed to the inclusion of a fourth dynamic level in the patterns. This, as regulars of the series will note, has prompted a re-design of the grids, and more particularly, of the diamonds signifying the programmed beats. I've included a key to explain the design for each level and as you can see they're rather fatter than usual and consequently tend to overlap. This may mean they are a little more difficult to read when closely spaced, but wherever there's likely to be any confusion, you'll find explanations in the text.

We're back to triplet programming this month, and as usual the Beat line at the top of each grid tells you everything you need to know about the number of beats to the bar and the division of those beats into three. The instrumentation is undemanding: the bongos represent the most exotic choice of instrument, though you are free to substitute alternative voices anywhere you wish.

Notwithstanding my earlier remarks about jazz not being defined by the use of any particular instrument, I should point out that if it's your intention to create an instantly recognisable jazz feel, you'll need to choose certain instruments with care. Don't opt for a huge ambient snare sound, for example, with a pattern featuring an intricate snare drum line. Likewise, the monster bass drum voices included on a number of recent machines will be quite out of place in a pattern which relies on fast, repeated bass drum notes.

Choose your instruments sympathetically and don't be afraid to run through three or four (if you have them) before deciding which works best. All this ➤

Call in Confidence

081-769 5681 081-690 8621

KEYBOARDS

Ensoniq ESQ1 Digital Workstation £670
Yamaha SY22 Vector synthesis £770
Yamaha SY55 Workstation £999
Yamaha SY77 AWM 2 Workstation £1795
Kawai K1 Workstation multitimbral keyboard £648
Kawai K4 performance keyboard £729
Yamaha PF1500 Full size piano and stand £1450
Yamaha DS55 Auto accompaniment £350
Korg T3 50,000 note, 200 voice workstaton £2000
Korg M1 Workstation £1200
Korg WS1 Wavestation £1450
Emax II sampler/seq/workstation £2756
Roland D70 76 Key ultimate keyboard £1450
Roland D50 Performance synth £1000
Roland U20 multi timbral keyboard £799
Roland D5 bargain Keyboard £499

MODULES

Korg M3R 100 voice, 100 combinations £799
Roland U220 128 voice mod. with 32 note poliphony £499
Cheetah SX16 16 bit. sampler £779
Cheetah MS6 Analogue module £299
Yamaha TG55 128 tone generation £499

NEW

"Roland MC50" micro composer 8 track 40,000 note £548

KORG WS1

The wavestation can make practically any sound you want. 147 performance sounds, 102 patches, 62 wave sequences, 396 waves, 8 part multi timbral THE BIZ! £1450

KEYBOARDS

Yamaha SY77 AWMZ + AFM workstation, 16 track sequencer, a powerful tool ..... £1750.
Yamaha SY55 16 bit AWMZ workhouse, 8 track sequencer 34 effects £999
Yamaha SY22 Vector synthesis, drums, 8 part multi timbral £770
Kawai K4 The keyboard with the big sound, 8 part multi timbral £729
Kawai K1" Better than a K1 with more drums, better sounds + effects £645
Roland D70 Probably the best performance keyboard in the world, 76 key £1450
Roland D50 The keyboard that has induced more wet dreams than any other £789
Roland D5 Multibonkable to 8 part programmed by the new man John Major/Minor £499
Roland U20 Clean sample player with 32 note poliphony £799
Korg M1 A very long road £1200
Korg T3 One of the most powerful, easy to use workstations ever, 100 combination sounds, 200 programme sounds, 50,000 note sequencer plus 300 free sounds with every purchase £2000
Emax 11 A workstable with a huge memory gland, it sequences and samples £2756

OUR Cheetah RANGE

Cheetah 770 full 88 key Mother keyboard with after touch, MIDI effects 100 performance memory £849
If you cant afford that then you could by a.....
Cheetah 7P Also an 88 key Mother board with effects etc £749
Still to much how about the.....
Cheetah 5V A 61 key Mother keyboard non weighted but with the same functions as the 7P £299
If thats too much then get stuffed!
Cheetah MD16 Drum machine. This machine does it all believe me £299
Cheetah MD16R Rackmount version £349
Cheetah SX16 Sampler. Brilliant. A quality sampler in 16 bits - sorry it is 16 bit expandable to 2MB £799
Cheetah MS6 Amulti timbral analogue sound monster for all your house and acid sounds, get cool hippy £299

KORG WS1 - THE WAVESTATION

Get rid of all your crappy keyboards and put your money towards a WS1, a keyboard that will make virtually any sounds you want. It has 62 wave sequences which makes the music from Miami Vice sound like the play school theme.
A must for any studio £1450

SOFTWARE

We supply all software for Atari, IBM, Macintosh, C-lab creator ver 3 ..... £299
C-lab notator ver 3 ..... £499
Prodigy 32 track software package wich runs on Atari 1040 STE and Atari 50 ST £129
Prodigy + 1040 STE + Monitor £554

NEW

EMU - Proformance 1- piano module 15 presets fantastic sounds £349
EMU Proformance 1 + Piano module with bass vibes - organ 32 presets £399

MORE RACKMOUNT MODULES + DRUM MACHINES

Roland U220 Rack version of keyboard £499
Yamaha TG55 Killer sound module of extreme quality £499
Korg M3R Another classic sound module from Korg £790
Roland R8 Drum machine a must for all pro's £595
Roland R5 For the poorer £385
Roland R8M Rack version of R8 Drum machine £540
Boss DR550 A pocket drum machine that beats in your trousers £199
Alesis HR16 Fantastic sample drum machine £299
New Alesis SR16 All your 808 - 909 sounds and loads more at the stupidly cheap price of £299

BARGAIN EX DEMO STOCK

Yamaha DS55 The keyboard that does your accompaniment for you £349
Ensoniq ESQ1 A starter work garage £660
Korg DDD1 Drum machine with free Pattern cards £300
Mrs M.Thatcher, totally useless with no warranty £0.02p
Akai VX90 Sound module £200
Roland Planet P Piano module shame it isnt on another planet £150

MULTITRACK

Fostex X26 inc. free mic £299.00
Fostex 280 8 channel 4 track £590.00
Fostex R8 ..... in stock
Fostex E16 one only display £3350.00
Fostex G16 The first MTR with intergrated syncronizer capability £4995.00
Fostex 8330 internal smpte sync board £595.00
Yamaha MT100 II 4 track 2 speed £379.00
Yamaha NSIOM studio monitors £279.00
Yamaha NS4OM studio monitors £639.00
Tascam Porta 05HS 4 track £349.00
Tascam Porta 02HS 4 track £599.00
Tascam DA30 Pro DAT £1350.00
Tascam MS16 display 1" 16 track £3999.00
Tascam 644 4 track system £999.00
Tascam 688 8 track system £1999.00
Tascam TSR8 1/2" 8 track £2299.00
Tascam MSR16 1/2" 16 track £4999.00
Tascam MSR24 1" 24 track £8395.00
Tascam MTS1000 midiizer £1495.00

Is your multitrack afraid of your mouse? Not if your a Fostex R8 or G16 user and you link it with cubase and MTC1. Call us now for details.

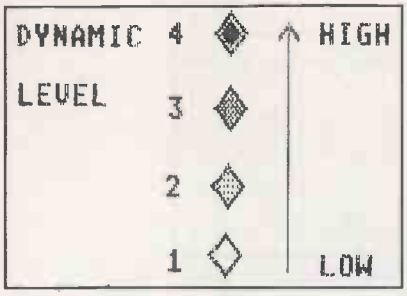
Access VISA LEASE HP

GiG SOUNDS

86/88 MITCHAM LANE LONDON SW16 081 769 5681/6496

20/22 RUSHEY GREEN LONDON SE8 4AB 081 690 8621/8622 FAX: 081 769 9530

TWO NEW MUSIC COMPLEXES IN LONDON



➤ month's examples sound pretty damn good on my machine; whether they will on yours is really a matter of trial and error: your trial and your error.

Pattern 1 is pretty conventional in jazz terms, but it's a pattern which is easy to program and is instantly recognisable as a jazz groove. Like all this month's rhythms, its flow is established by a light, triplet ride cymbal part which here is complemented by a simple open and closed hi-hat at the start of each bar. The side stick provides the main rhythmic pulse throughout the first four bars - the snare drum being used simply to define the end of each two-bar phrase.

In the second half of the rhythm, the regular side stick pulse is removed and we're left with four bass/snare drum figures to punctuate the pattern and provide us with a series of cadences between which a bass instrument could weave its way. Programming the pattern as it stands would, of course, mean that this was repeated every four bars throughout the song, and this may not be appropriate in certain circumstances. If this is the case, restructuring the pattern so that the last four bars occur at a more opportune position in the song should present no problems, and you could also try splitting them up.

Pattern 2 reverts to more conventional use of the snare as the instrument which provides the pattern's rhythmic pulse - for at least three of the four bars. In bar four it misses its usual position on the second beat and crops up again towards the end of the bar. The effect of this is to produce a "hole" in the pattern which gives it a very distinctive feel without sacrificing its obvious adaptability.

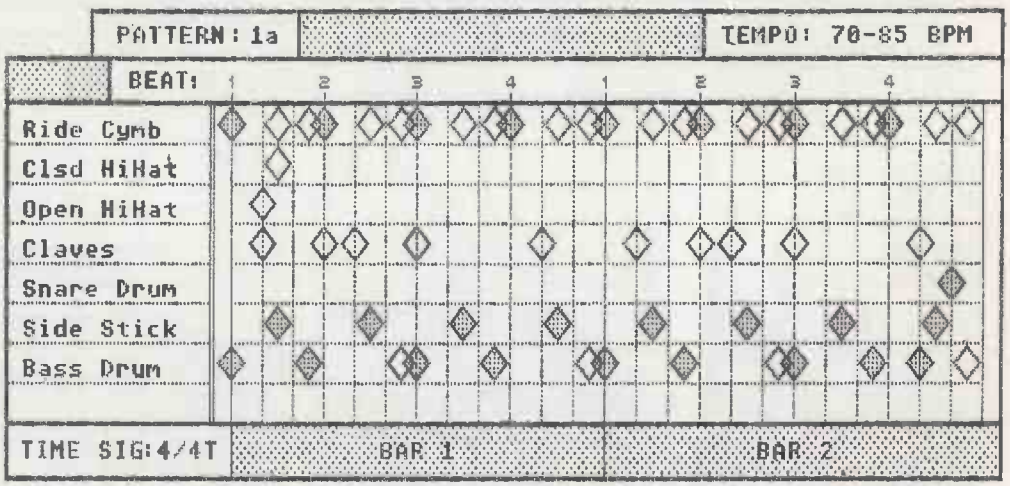
Its heavy reliance on cymbal, hi-hat and shaker sounds does demand a certain amount of care in choosing and pitching the instruments so that their frequencies do not overlap and mask each other.

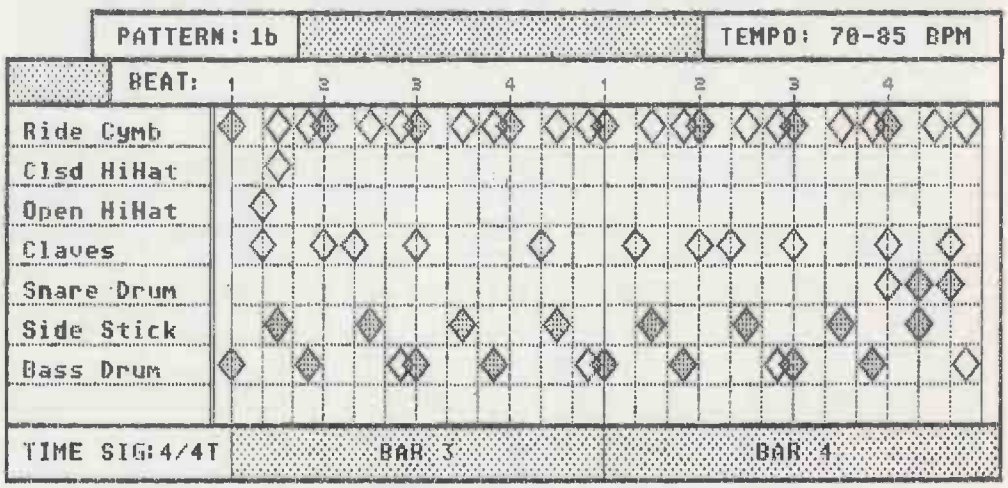
In terms of programming, Pattern 3 is easier than the previous two, but its rather peculiar structure - nine bars of 2/4 - is likely to mean any song it's married to is going to have to be written around it rather than vice versa. I'm not altogether sure how or why it works, but as you'll find for yourself, work it does, and rather effectively too.

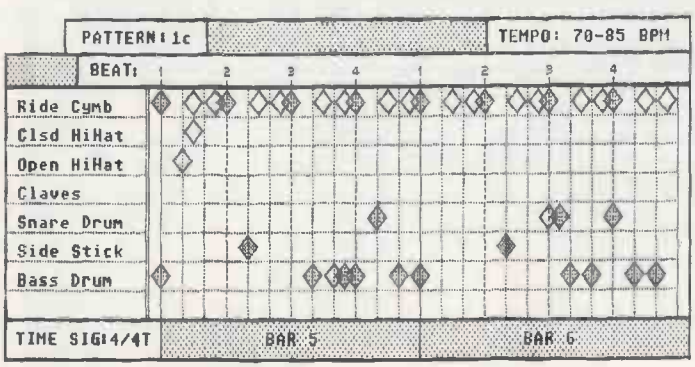
The pattern relies on the use of two different snare voices. Preferably, one short and dry to cope with the fast, intricate strokes, the other long and more "explosive" to finish off the pattern at the end of bar nine. I've also pressed into service my much-favoured foot-closed hi-hat voice which ticks along all the way through the pattern and gives it a jazzy feel. In the absence of this instrument on your machine, you could try using a short shaker or cabasa sound, particularly if it was combined with a light closed hi-hat voice to give it a little more definition.

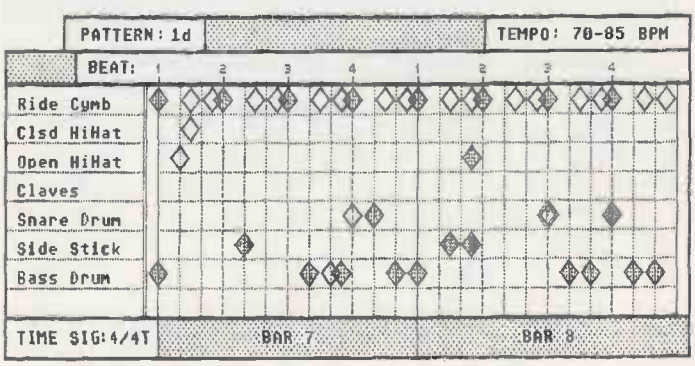
We're back to a straight four-bar pattern for Pattern 4, which sees the introduction of this month's "exotic" instrument: bongos. I've chosen bongos as they're one of the few instruments appropriate in a jazz context which have the necessary edge to lift them above other instruments without sounding intrusive. As you'll hear, they certainly are not restricted to use in Latin American grooves.

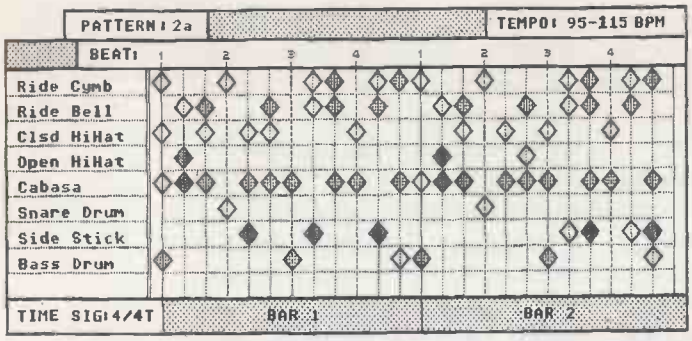
I should point out that the short hi bongo figure within beat one of bar three is composed of three notes, the first two of low dynamic (level 1), the third of ➤

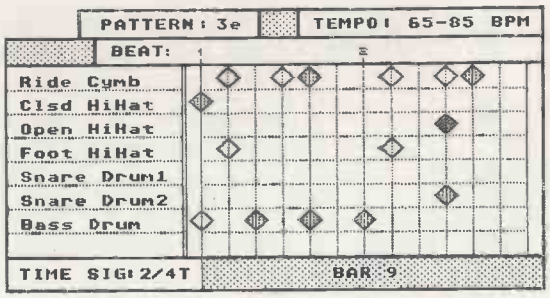


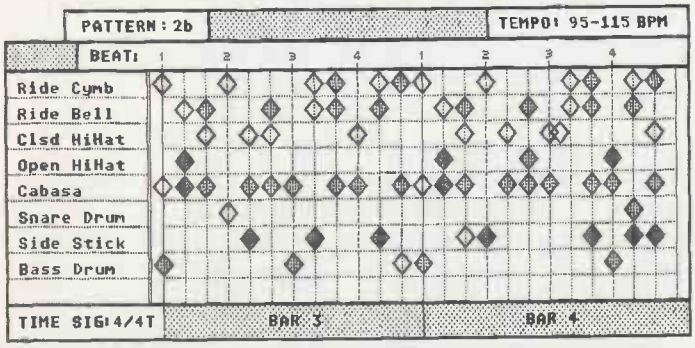


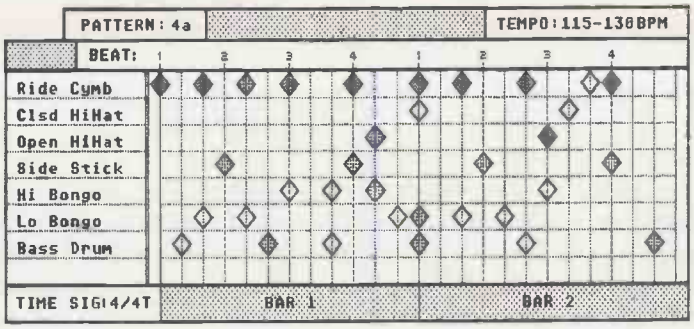


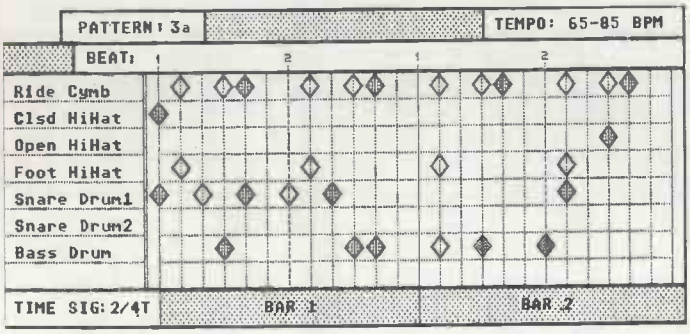


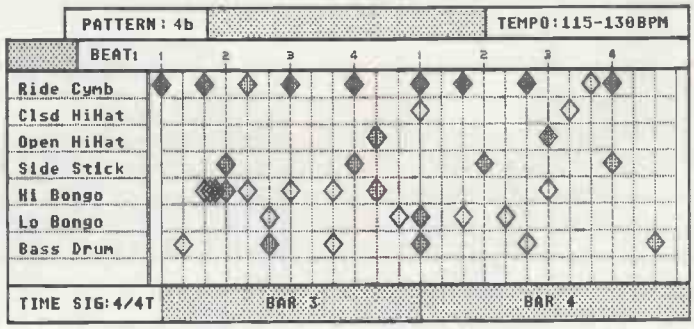

PATTERN: 2a
TEMPO: 95-115 BPM
BEAT: 1 2 3 4 1 2 3 4
Ride Cymb
Ride Bell
Clsd HiHat
Open HiHat
Cabasa
Snare Drum
Side Stick
Bass Drum
TIME SIG: 4/4T
BAR 1
BAR 2

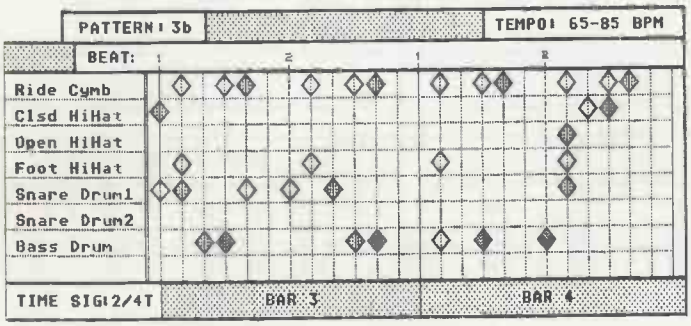

PATTERN: 3e
TEMPO: 65-85 BPM
BEAT: 1 2
Ride Cymb
Clsd HiHat
Open HiHat
Foot HiHat
Snare Drum1
Snare Drum2
Bass Drum
TIME SIG: 2/4T
BAR 9

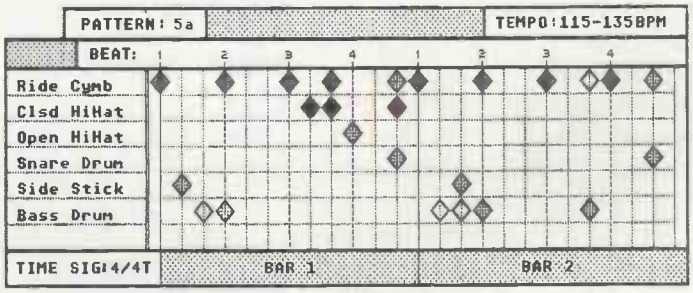

PATTERN: 2b
TEMPO: 95-115 BPM
BEAT: 1 2 3 4 1 2 3 4
Ride Cymb
Ride Bell
Clsd HiHat
Open HiHat
Cabasa
Snare Drum
Side Stick
Bass Drum
TIME SIG: 4/4T
BAR 3
BAR 4

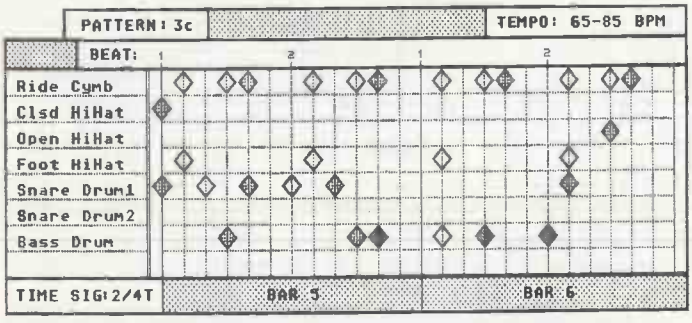

PATTERN: 4a
TEMPO: 115-130BPM
BEAT: 1 2 3 4 1 2 3 4
Ride Cymb
Clsd HiHat
Open HiHat
Side Stick
Hi Bongo
Lo Bongo
Bass Drum
TIME SIG: 4/4T
BAR 1
BAR 2

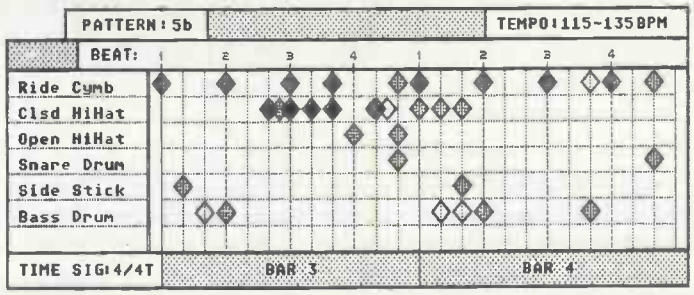

PATTERN: 3a
TEMPO: 65-85 BPM
BEAT: 1 2 1 2
Ride Cymb
Clsd HiHat
Open HiHat
Foot HiHat
Snare Drum1
Snare Drum2
Bass Drum
TIME SIG: 2/4T
BAR 1
BAR 2

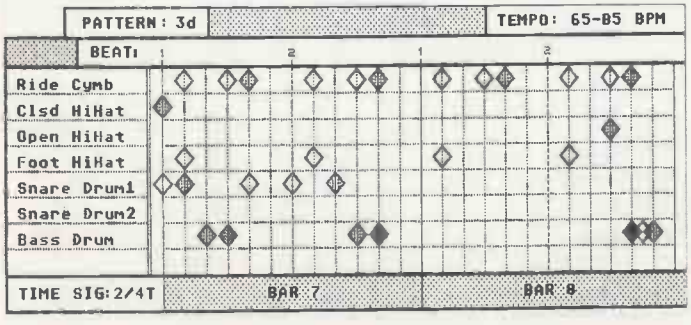

PATTERN: 4b
TEMPO: 115-130BPM
BEAT: 1 2 3 4 1 2 3 4
Ride Cymb
Clsd HiHat
Open HiHat
Side Stick
Hi Bongo
Lo Bongo
Bass Drum
TIME SIG: 4/4T
BAR 3
BAR 4

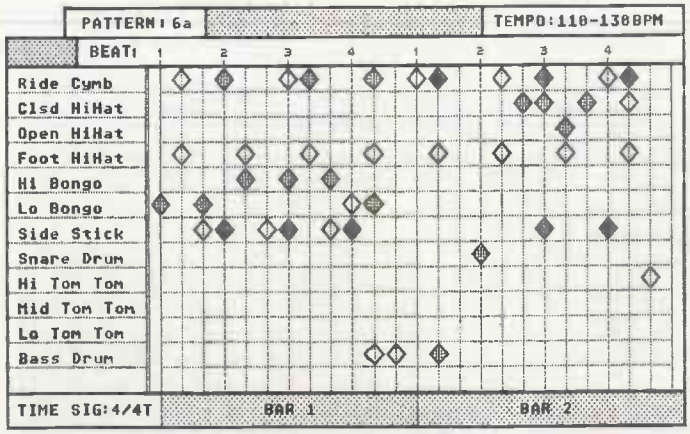

PATTERN: 3b
TEMPO: 65-85 BPM
BEAT: 1 2 1 2
Ride Cymb
Clsd HiHat
Open HiHat
Foot HiHat
Snare Drum1
Snare Drum2
Bass Drum
TIME SIG: 2/4T
BAR 3
BAR 4


PATTERN: 5a
TEMPO: 115-135BPM
BEAT: 1 2 3 4 1 2 3 4
Ride Cymb
Clsd HiHat
Open HiHat
Snare Drum
Side Stick
Bass Drum
TIME SIG: 4/4T
BAR 1
BAR 2


PATTERN: 3c
TEMPO: 65-85 BPM
BEAT: 1 2 1 2
Ride Cymb
Clsd HiHat
Open HiHat
Foot HiHat
Snare Drum1
Snare Drum2
Bass Drum
TIME SIG: 2/4T
BAR 5
BAR 6


PATTERN: 5b
TEMPO: 115-135BPM
BEAT: 1 2 3 4 1 2 3 4
Ride Cymb
Clsd HiHat
Open HiHat
Snare Drum
Side Stick
Bass Drum
TIME SIG: 4/4T
BAR 3
BAR 4


PATTERN: 3d
TEMPO: 65-85 BPM
BEAT: 1 2 1 2
Ride Cymb
Clsd HiHat
Open HiHat
Foot HiHat
Snare Drum1
Snare Drum2
Bass Drum
TIME SIG: 2/4T
BAR 7
BAR 8


PATTERN: 6a
TEMPO: 110-130BPM
BEAT: 1 2 3 4 1 2 3 4
Ride Cymb
Clsd HiHat
Open HiHat
Foot HiHat
Hi Bongo
Lo Bongo
Side Stick
Snare Drum
Hi Tom Tom
Mid Tom Tom
Lo Tom Tom
Bass Drum
TIME SIG: 4/4T
BAR 1
BAR 2

24 Hour Ansafone

0800-52-52-60

FREEFONE HOTLINE

ELGIN STREET, DUNFERMLINE.
FIFE. SCOTLAND. KY12 7SD.
FAX:- 0383-725-733.

SOUND CONTROL

Mail Order Division

FREE DELIVERY in the U.K

THE SOUND CONTROL PACKAGE PROMISE

We will never promise to hold *every* piece of equipment in stock at any given time, or even say that our prices will be the cheapest *every* time. However, our experience of over 10 years in the music-retail business will let us promise the most complete and helpful service anywhere. We can back this up by offering you a Package Promise that is Second-to-None - Take a look at the *Facts!*

1) ALL our prices advertised INCLUDE V.A.T and absolutely NO HIDDEN EXTRAS. This means that ALL goods purchased from us will be delivered FREE-OF-CHARGE ANYWHERE IN THE U.K.

2) ALL goods purchased from us come complete with a NO QUIBBLE GUARANTEE. If a piece of equipment goes faulty within its warranty period it will be repaired or replaced absolutely FREE-OF-CHARGE - We will even pay the carriage charges!

We have installed a FREEFONE HOTLINE (with 24 hour Answer Service) devoted *exclusively* to our MAIL ORDER DIVISION. So give us a call on the number above - NOW! - After all it won't cost you a penny.

24 TRACK SPECIAL OFFER PACKAGE

TASCAM MSR-24 24 TRACK RECORDER
PLUS
STUDIOMASTER TRACK MIX 24-12-24 CONSOLE
£9775 including VAT and DELIVERY

SANSUI WSX-1 6 TRACK RECORDER/WORKSTATION
SPECIAL **£899.00** SPECIAL

STUDIOMASTER MIXER SPECIAL

SERIES -V 16-8-2 MIXING DESK **£1150.00**

FOSTEX G-16 16 TRACK ..... £4999 List
FOSTEX X-26 and FOSTEX 280 ..... In Stock
FOSTEX R-8 8 TRACK COMPLETE WITH FREE MTC-1

TASCAM PORTA-03 (IN STOCK NOW!) £229.00
TASCAM 488 (IN STOCK NOW!) £999.00
TEAC PD-155 mk2 C.D PLAYER £99.00
TEAC AX-400 AMPLIFIER £79.00

MICROPHONE and P.A MEGA DEALS

BOSE - 802 (Pair) £899
E.V - 8200 (Pair) £899

SHURE SM-57 ..... £79.00
SHURE SM-58 ..... £79.00
E.V N/DYM 257 ..... £99.00
E.V N/DYM 357 ..... £129.00

A SPECIAL BULK PURCHASE ALLOWS US TO OFFER 10 PAIRS OF JBL 4628 3-WAY FULL RANGE CABINETS AT A MEGA-PRICE. THESE ARE 800W CABINETS OF UNRIVALLED JBL QUALITY, BUT DO NOT DELAY. CALL - NOW!
APPROX. £1600 R.R.P ..... **£999.00** INC. V.A.T AND DELIVERY

SECOND-HAND AND EX-DEMONSTRATION BARGAINS

YAMAHA DX-9 SYNTH (S/H) £249
YAMAHA DX-7 MARK-1 (S/H) £399
ROLAND JX-3P (S/H) £289
ROLAND JX-10. MINT CONDITION - MEGA (S/H) £799
ROLAND D-50 (S/H). CHECK THIS OUT! £649
ENSONIQ SQ-80 WORKSTATION/20,000 NOTE SEQ./DISK DRIVE £799
KORG DDD-5 DRUM MACHINE. PRESET/PROGRAM/MIDI £199
ROLAND DEP-5 EFFEX. 19" RACK - MEGA! £299
BOSS DR-220A PROGRAM/PRESET DRUM MACHINE £99
STUDIOMASTER SERIES-V 32-4-2 MIXING CONSOLE. MINT. £2000

MEGA, MEGA EMAX/EMU SPECIAL DEALS

EMAX II TURBO STEREO SAMPLING KEYBOARD. 8 MEG RAM 40 MEG HARD DRIVE. INTERNAL SEQUENCER £3695
PROTEUS-1 16 BIT MULTI-TIMBRAL SAMPLE PLAYER £679
PROTEUS-1XR 16 BIT MULTI-TIMBRAL SAMPLE PLAYER £879
PROTEUS-2 8MEG ORCHESTRAL SAMPLES £1029
EMU PROFORMANCE 16 BIT STEREO PIANO MODULE £349
EMU PROFORMANCE PLUS 16 BIT WITH EXTRA SOUNDS .. £399

KORG WAVESTATION - MEGA DEAL

WE HAVE ONE ONLY EX-SHOWROOM KORG WAVESTATION AT THIS MEGA SPECIAL OFFER PRICE. BUT DO NOT DELAY CALL 0800-52-52-60 NOW!!! **£1299.00**

CHEETAH 16-BIT SAMPLER - SHOWROOM CLEARANCE

WE HAVE A FEW CHEETAH SX-16 16-BIT STEREO SAMPLERS AT CRAZY PRICES. THESE SAMPLERS CAN BE USED TO PLAY AKAI SAMPLES!!!
CHEETAH SX-16 0.5 MEG STANDARD £599.00
CHEETAH SX-16 2 MEG EXPANDED - MEGA DEAL £1199.00

BOSS SPECIAL EFFEX! - MEGA DEALS - NEW "PRO" series

BOSS RCL-10 MICRO SERIES (NEW-MEGA DEAL) £89.00
BOSS RCE-10 MICRO SERIES (EX. DEM) £125.00
BOSS RPD-10 MICRO SERIES (EX. DEM) £105.00
BOSS RPH-10 MICRO SERIES (EX. DEM) £99.00
BOSS RSD-10 SAMPLING/DELAY - £245 RRP - MEGA DEAL £149.00
BOSS "PRO" SERIES EFFEX IN STOCK, INCLUDING THE NEW MEGA SE-50 MULTI-EFFEX WITH BUILT-IN-VOCODER!!! ..... £390 RRP ..... £CALL

FOR A FULL RANGE OF SEQUENCING AND EDITING SOFTWARE FROM ALL THE LEADING MANUFACTURERS - CALL FOR INFORMATION. WE STOCK: C-LAB, STEINBERG, DIGIDESIGN, DR. T, PASSPORT etc... etc... SPECIAL PACKAGE DEALS AVAILABLE FOR RECORDING/SEQUENCING SETUPS. CALL FOR MORE INFORMATION - 0800-52-52-60

WE are MAIN AGENTS for the FOLLOWING:

ROLAND, YAMAHA, KORG, KAWAI, AKAI, ENSONIQ, EMU, CASIO, ALESIS, BOSS, DIGITECH, ART, STEINBERG, C-LAB, DIGIDESIGN, ATARI, ZOOM, BOSE, ELECTROVOICE, DYNACORD, PEAVEY, CARLSBRO, MARSHALL, FENDER, TRACE-ELLIOT, BOOGIE, IBANEZ, GIBSON, P.R.S, WASHBURN, CHARVEL, RICKENBACKER, ARIA, OVATION, MARTIN, TAKEMINE, ERNIE BALL, ROTOSOUND, ROBIN, WARWICK, WAL, GALIEN KRUGER.

TEAC, TASCAM, FOSTEX, DENON, STUDIOMASTER, SECK, SANSUI, SOUNDCRAFT, TAC, TANNOY, JBL, DAC, T.C ELECTRONICS, EVENTIDE, SHURE, BEYER, NADY, SAMSON, J.L COOPER, APHEX, TOA, AIWA, PEARL, PREMIER, TAMA, SONOR, MAXX, REMO, ZILDJIAN, PAISTE, SABIAN, VIC FIRTH, PROMARK etc...

AND THERE'S MORE!

All of the Above Deals are Available at any of the Branches Below.
SOUND CONTROL MODERN MUSIC STORES LIMITED.
61 JAMAICA STREET, GLASGOW. tel: 041-204-0322.
17 ST. MARY'S STREET, EDINBURGH. tel: 031-557-3986.
ELGIN STREET, DUNFERMLINE, FIFE. tel: 0383-733353.
63 DUNNIKIER RD. KIRKCALDY, FIFE. tel: 0592-260293.
29-31 CASTLE STREET, DUNDEE. tel: 0382-25619.

CALL 0800-52-52-60 - *NOW!* 24 Hours

ACCESS & VISA ACCEPTED.
MUSICARD ACCEPTED.
Please Phone Hotline for Information.

medium dynamic (level 2). The note on beat two of that bar, as you can see, is also of medium dynamic (level 2).

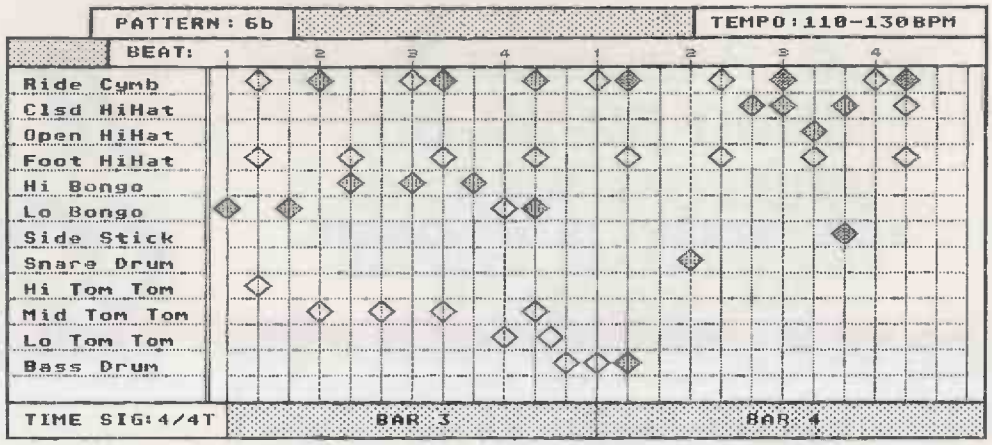
I can't really claim Pattern 5 to have any particular distinguishing features except, perhaps, the neat hi-hat figure which begins in bar five. It is, nevertheless, a surprisingly effective groove which should prove useful wherever a slightly heavier feel is called for. Provided the ride cymbal is kept high enough in the mix, preserving the jazz identity, most bass and snare drum voices could be used in this pattern. This should ensure its usefulness through a variety of contexts.

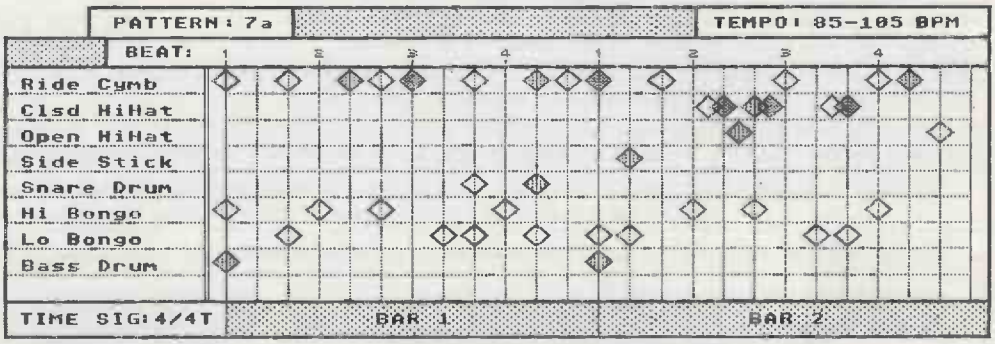
Though it sports a considerably longer instrument list than previous patterns, Pattern 6 is still fairly straightforward in terms of feel. The bongos re-emerge in a simplified version of their part in Pattern 4, and we also find a tom-tom figure in bar three which calls for the use of low, medium and high voices. I found open, more musical, sounds to be most suitable for the instruments in this setting, but whatever you choose, make sure they're kept well down in the mix. The effect should be that of a drummer just tapping the heads with his stick or brush, not of a full-scale assault across the drum kit. So bear this in mind when you're programming.

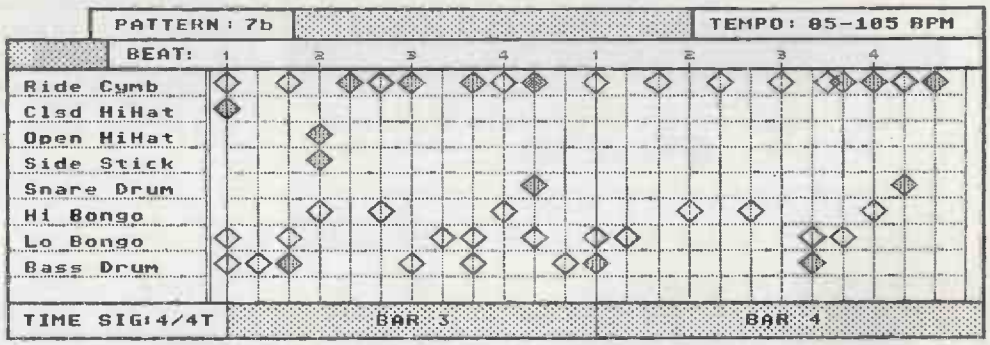
Finally, this month, we move to something rather more unconventional. Despite its 4/4 structure, Pattern 7 begins to explore the possibilities opened up by the concept of the jazz beatbox. It's a pattern composed of several interlocking themes which come together (but only just) over the course of its eight-bar structure.

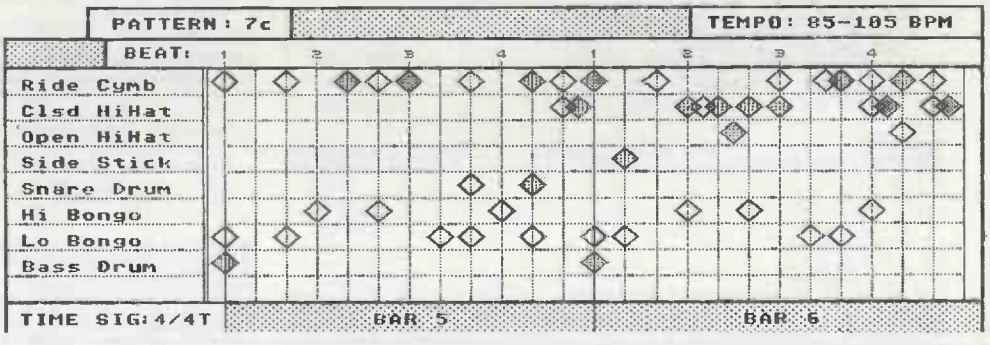
The bass and snare parts are fairly minimalist: it's how they react with the more complex hi-hat and cymbal parts which make the pattern what it is. And it's because of this that particular care should be taken over programming the correct dynamics - especially the hi-hat. Incidentally, don't let the cluster of hi bongo notes at the end of bar eight put you off. It consists simply of eight equally-spaced notes of alternate low and medium dynamics (1, 2, 1, 2) and one final higher dynamic note (level 3) to finish. This produces a short roll which leads nicely back into bar one when the pattern is set to repeat.

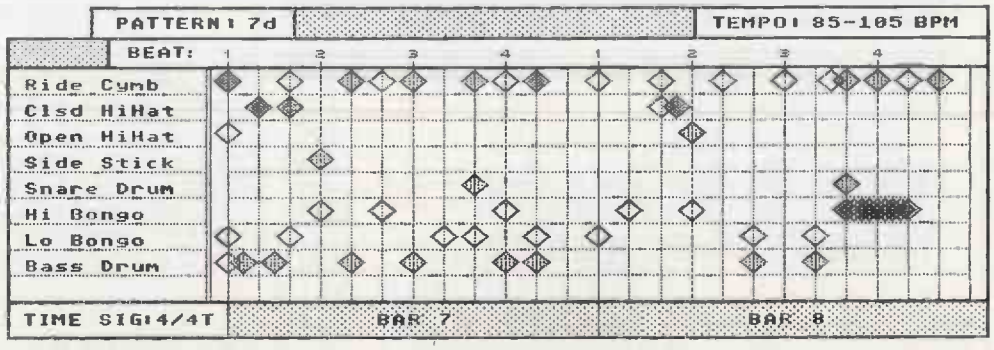
I constantly encourage experimentation, and if it's your intention to use any of this month's patterns within a jazz setting, you have to regard them simply as a starting point. You should be looking to come up with as many variations of each pattern as you can, and then finding a coherent structure into which they may be slotted. So few people have bothered to investigate the possibilities presented by jazz programming that it's still an open book. Even including the patterns I've had to hold over until next month, we have hardly begun to scratch the surface of what is possible. This is just the beginning. . . ■











ADD SOME CREATIVE POWER

If you want a synthesiser that can handle today's dance sound as well as exciting new sounds for future trends, the EVS-1 is the answer. The EVS-1 can give you rich analogue style bass and string voices, electric pianos, punchy digital sounds, plus those 'classic' drum and percussion samples currently in vogue. There are 28 different synthesis algorithms available, enabling the EVS-1 to cope with almost any style of music you choose. The EVS-1 comes packaged with its own free Atari editor/librarian software, so you can choose your favourite types of synthesis and create a whole range of new sounds. The program also runs as a desktop accessory so you need never quit your sequencing program to edit or load voices.

The EVS-1 is so versatile that just using your mother keyboard and a sequencer, you can create a finished song with up to eight different synthesiser parts including CD quality sampled drums and percussion in full 16 note polyphony, all at the same time, all from one EVS-1!

If you already have a MIDI set-up the EVS-1 is an ideal addition, giving you those extra voices for a full sounding track and the inspiration you need in the form of new and exciting sounds.

Specifications: 16 note polyphony; 8 voice multi-timbral; 16 Bit; 44.1 kHz audio system; 24 Bit internal audio system; Sampled drums (44.1 kHz), including kick drums, snare drums, toms, cowbells, hi-hats, agogos, congas, tambourine, claps, woodblocks, etc. All tunable via pitch wheel; Signal/Noise >80dB; 10 Hz–20 kHz frequency response; 28 synthesis algorithms; free Atari or IBM editing software. Best of all the price £299 inc VAT.

SOUND TECHNOLOGY plc

Sound Technology plc
Letchworth Point,
Letchworth,
Hertfordshire, SG6 1ND
Tel: 0462 480000
Fax: 0462 480800

DIAL 0274 FOR BASS

PHOTOGRAPHY: EDDIE HARRY

Unique 3's recent singles have put them on the dance "map", but their recent debut album shows they're more interested in musical experimentation than commercial success.

Interview by Simon Trask.

"WHAT'S IT LIKE IN BRADFORD? IT'S KIND of dead, really. I wish we could say it wasn't, but there just isn't much going on."

So says Edzy of Unique 3, dispelling the notion that there's anything interesting happening in his home town. After last year's media blitz on Manchester, it's probably a wise move. Southerners have a romanticised view of their Northern brethren, treating them as either fated or feted. When the Conservative government tore the heart out of Britain's industrial manufacturing base during the first half of the '80s, the North was decidedly fated. Now it's slowly regenerating, with culture playing a significant role in the process, and the southern-dominated music press has gone into feting mode, stung by criticisms of London bias and afraid of missing out on a "happening scene".

Undoubtedly there's been an upsurge of musical talent north of the border during the past two years - much of it wholeheartedly embracing musical technology. Whether it arose from a "Northern Scene" is another matter, but the media with its urge to ➢

the steinberg system

Cubeat

We're that fast.....

.....we don't even stop to edit.

Steinberg

Steinberg sequencers, Cubase and Cubeat, are the fastest and easiest MIDI recording programs to use. Why? because you never have to hit STOP to make any changes. And making those changes is simplicity itself thanks to ViSP -Steinberg's Visual Song Processing technology. ViSP animates the screen, making it an essential visual reference for any compositional process.

Now that Cubase 2.0 is here Steinberg offer full WYSIWYG score printing, and for those who don't need such score facilities Cubeat is now available at virtually half the price. Both programs support MTC, so you can interface directly to MIDI controlled multitracks (eg. Fostex R8/G16/ MTC1) and can be used with large screens for particularly demanding applications.

The Steinberg system is completed by MIDEX and MIDEX+ which offer up to 5 separate MIDI outs (ie 80 channels), 3 MIDI Ins, 4 key expansion slots and full SMPTE Synchronization.

With an open architecture for expansion and updates, Steinberg's products are designed for the future, and are here now.

Cubase
VERSION 2.0

Evenlode Soundworks Ltd.
The Studio. Church Street. Stonesfield.
Oxford OX7 2PS
Tel: 0993 898484 Fax: 0993 898419

impose order on the chaos of life, decided there must be one. Cue "Northern techno", linking groups like Unique 3, Forgemasters, Nightmares on Wax and LFO.

Unique 3 see things differently. Their early influences come from reggae as well as Kraftwerk and electro. Edzy used to play bass in a reggae band, and everyone in the group has been "heavily into reggae and bass" since the early '80s when, as four schoolfriends, they began DJing together in Bradford's community centres and youth clubs. It was there they acquired the names which they still use - Edzy, Deadly D, JMP and DJ Cool Cutz.

"We were in a sound system: Unique 3 and Black Scorpio", recalls Deadly D. "Edzy and Cool Cutz were DJing, JMP was on the mic and I was EQing the sound and working the echo machine. We had a Korg SDD1000 sampler/delay. Actually, it was my brother's sound and his echo machine; we couldn't afford stuff like that - but he had it, and we'd just go and mess about with all this equipment. We used to put records through the echo machine and have the direct outs and the effected outs going through the mixing desk along with the decks, then we'd crossfade between a deck and the echo channel. We used to do things like loop bits off record live."

"We use a lot of preset sounds on the M1, but I think that's kind of funny when you put them in the context of our music - if a preset sounds good to us then we'll use it."

When JMP (who used to play drums in the Boys Brigade) traded in his kit for a TR909, the group began using it alongside the decks and the SDD1000, manually syncing it to a record on headphones before mixing it in. From there it was a natural progression to making their own music at home - and playing tapes in the club where they DJ'd. By this time, house and techno were making their influence felt in the North. When the group produced a techno-inspired track, 'The Theme', in 1988, they decided it was good enough to release. The record companies didn't agree, so the band formed Chill Records with £500 and released the track themselves as a limited-edition. It now changes hands for upwards of £20. The following year they signed to 10 Records, who released 'The Theme' in original and remixed versions during Autumn '89 - as 808 State were breaking big with 'Pacific State' and Forgemasters were creating a stir with 'Track With No Name'. Perfect timing for the rising tide of interest in Northern techno.

Unique 3 don't want to be labelled as techno, however, as they feel the term is too narrow for the music they want to make.

"We don't want to find ourselves in a position where we bring a soul track out and people don't take it seriously", says Edzy. "We're doing a new hip hop track which might become the next single, and we'll definitely do a soul track in the future. We're freestylers; whatever we feel, we'll put out."

The front room of Deadly D's house provides the location for Unique 3's studio. Here they've recorded much of their music, using a collection of hi-tech equipment which includes two Akai S950s, a Korg M1, Roland Jupiter 8 and an Atari 1040ST running C-Lab's Creator software. And it's here that I catch up with them, having been impressed by the debut album *Jus' Unique* and the two singles which preceded it.

Setting up the interview, the word was that the group weren't keen to reveal their musical secrets. After reassurance that an MT interview is an honour, however, the date was set and a train ticket booked.

THE MEMBERS OF UNIQUE 3 ALL LIVE IN the same area: Bradford 8. In fact, Cool Cutz and Deadly D live next door to one another (a neat way to avoid disturbing the neighbours when the bass is booming and the bleeps are bleeping). The group are fond of virtually subsonic basslines, and they were partial to "bleeps" until everyone else picked up on the idea. 'The Theme' was the prototype bleep record for the dance generation (though Kraftwerk were happily bleeping away in '81 on 'Pocket Calculator'), but now Unique 3 feel that the bleeps have been used and abused.

"Bleeps are something we started nearly two years ago and something we're getting out of now", says Edsy. "We like to be as original as possible, but there's so many people stealing ideas. It's easy to use somebody else's idea, but the end result is that you get all these tracks that sound the same. I did a tape the other day, mixing four tracks together and it sounded like one 20-minute record. It's partly down to equipment; everybody's got access to the same equipment now. That's why it's hard for us to talk about the equipment we use."

Unique 3 don't take issue with sampling so much as with the lack of creativity it can mask and the lack of originality it can promote. But then technology has always held up a mirror to the human condition, giving us a picture of ourselves as individuals and as a society by forcing us to make moral choices about how - or, in some cases, whether or not - we use it.

With two Akai S950s, a Roland W30 and several boxes of sample disks sitting in their studio, it's clear that Unique 3 have a large sample library and they're willing to use it.

"We sample a lot of stuff ourselves", says Edzy. "Drum sounds, weird little sounds. . . We sample a lot off quite old records and overdub other stuff to make it sound different. Also we sample a lot from old analogue keyboards. Our Jupiter 8 isn't MIDI'd, so we sample bass sounds off it."

Most of their drum sounds these days are S950 samples - including the faithful TR808 sounds which figure prominently on the electro-inspired 'Code 0274' from the group's album. The combination of general-purpose sampler and sequencer has all but replaced the drum machine, although the trusty TR909 still gets a look-in, and they like to use their other drum machine, a Yamaha RX5, as a rhythm controller, triggering sampled sounds and breakbeats via MIDI, if not so much for its own sounds.

"We were one of the first to use the RX5", Edzy claims, "but everybody's using it now - especially a lot

SOHO soundhouse

turnkey

HOT TECH NOV/DEC

JVC PRO DAT

16-bit 44.1/48kHz digital I/O
EXCLUSIVE SCOOP PRICE £439

SONY DTC-55 - £499 AIWA- £550
DA-7 - £495 DENON - £599

NEW CASIO DA7, DENON DTR

FOSTEX G16

E16 replacement takes 16 track into the MIDI Age • Control transport & track select your Atari • New cam action transport • Spot erase • Extensive memory auotlocate on removable front panel • We are central London's exlusive G16 dealer.

£2,500 FOR YOUR USED E16 AGAINST A BRAND NEW "G"

Exclusive to Turnkey, the Gold Seal E16 is a top quality pre-owned machine, checked (primarily for head wear) by us at purchase. Then factory reconditioned & quality controlled by Fostex. It carries a warrantee identical to that on a new machine and our extended warrantee is very cheap.

FOSTEX Turnkey GOLD SEAL E16

PRICE ? - £2,500 Limited Monthly Availabilty

AKAI DD1000

4 track direct to optical disk recorder/editor • Reads & writes SMPTE (LTC/VITC) • State of the art audio editing • a new standard • Lower price than originally announced. Alongside the complete AKAI DIGITAL RANGE including ADAM, A/V patch bays plus the NEW S1100 from Akai's largest U.K. dealer

YAMAHA TG-77

3U rackmount retains the SY-77's AFM and AWM2 synths, each is16 note poly, but has 10 polyphonic separate outputs for its 16 parts. Huge screen, 4 FX at once, 2 card slots, 4 Meg of samples including drums. £1216 ! ! !

ALSO NEW EVS1 / KORG WS

TASCAM 488

Amazing price breakthrough; 8-Track Portastudio including FULL MIXER SECTION - £868 ! ! !

ENSONIQ SQ-1r

Acoustic samples, analog & transwaves with 24-bit effects in a multi-timbral expander for £779

114-116 CHARING CROSS RD.,
LONDON. WC2 0DT
(Oppostie Foyles Bookshop and 100 yards from Tottenham Court Rd. Tube)
Tel. 01-434-1365/01-240-2041
Fax. 01-379-0093

Roland | AKAI | Soundcraft | Fostex | YAMAHA | TASCAM
Steinberg C LAB | apple | DMO | TANNOY JBL | Beyer Dynamic AKG SHURE | APHEX ART dbx lexicon
MU | KORG | ensoniq | ALESIS | SONY | ZETA

3 GOOD REASONS

Unlike our competitors we carry every product from all the major manufacturers on PERMANENT DEMONSTRATION. Comparing the bass drum from 11 different drum machines – through t5 different reverbs is routine. Our air-conditioned demo-booths are integrally wired for MIDI-purpose built to enable the rapid set-up and demonstration of complex systems by our highly trained specialists.

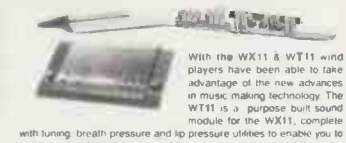
Despite what you may read elsewhere, Soho Soundhouse, over the last 6 years have consistently offered the lowest prices WORLDWIDE. We operate our legendary PRICE SMASH policy In-store and from credit card telephone callers. Our breadth of product coverage and experience from MIDI hardware and software to recording equipment makes us the No. 1 PACKAGE specialist.

We offer demonstrations outside normal hours, equipment installation, studio design consultancy, various trial/rental purchase options. INSTANT 0% CREDIT/FINANCE*
We Routinely Ship Worldwide • VAT FREE EXPORTS a speciality. We welcome Musicard holders. Home credit scheme. No visit to us required.

* 0% interest free credit is available on selected items, (interest bearing credit is available on all items) both subjected to status. Soho Soundhouse is a licensed Credit Broker under the Consumer Credit Act 1974.

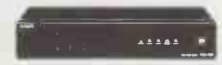
SPECIAL OFFERS

YAMAHA WX11 / WT11 Midi wind controller & synthesizer



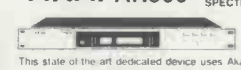
With the WX11 & WT11 wind players have been able to take advantage of the new advances in music making technology. The WT11 is a purpose built sound module for the WX11, complete with tuning, breath pressure and lip pressure utilities to enable you to quickly setup & customise the WX11 to your style of playing. It also has 96 performances (32 user definable) • 4 operator/ 8 algorithm FM synthesizer • 8 note polyphony • 10 digital effects • Back lit display • Midi In, Out & Thru. The WX11 has tight action keys using standard Boehm fingering • Lip pressure on the reed enables vibrato & pitch control from the mouth piece • 7 octave range • Key hold feature.
One off, unrepeatable, scoop purchase on the only Midi Wind System available. Limited stock
RRP £620 EXCLUSIVE FINAL OFFER £299 PLUS VAT Add £6 carriage
NEW BOXED

CASIO CSM-10P Grand-Piano Sound-Module



A clear and natural acoustic piano will always be the most highly sought-after sound, and yet by far the most difficult to produce - Synthesizers generally have an unrealistic piano sound, if they have one at all. The Casio CSM 10P has 5 PCM multi sampled sounds - Grand Piano, Electric Piano, Harpsicord, Pipe Organ and Vibes. (not to be confused with poor quality low sample rate sounds of the non touch sensitive CSM-1 Organ expander) Its rich and resonant acoutic piano sample responds to even the minutest change in MIDI velocity. Unlike similar models, the CSM-10P has the full 16 note polyphony necessary to avoid glitching when a MIDI sustain pedal is used. Master tuning, mains or battery powered.
R.R.P. £199 £86 plus VAT & P+P
NEW BOXED

AKAI AR900 REVERB, GRAPHIC & SPECTRUM ANALYZER

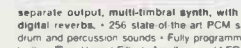


Searching in vain for high quality reverb to transform your mix? This state of the art dedicated device uses Akai's legendary sampling technology to recreate the natural ambience of the famous studio units, smooth, transparent and bright but rich in density. 16-bit, 41 kHz sampling rate, 16sec maximum reverb time. Programmable 7 band stereo graphic E.Q. 100 memories. Real-time spectrum analyzer. Separate ins & outs for Reverb and E.Q. MIDI and footswitch program change. Infra-red remote control included. We are offering Akai's top of the range AR900 for less than the price of most budget reverbs. R.R.P. £899 £243 plus VAT Inc P+P
NEW BOXED

J. L. COOPER PPS-100 SMPTE/MIDI syncroniser

ALL SMPTE FORMATS • MIDI TIME CODE & SP POINTERS • PROGRAM CUES, PROGRAMMABLE TEMPO CHANGES • UNIQUE RECORDER PUNCH IN/OUT CONTROL
Although this unit lists at over £500 it is probably the most comprehensive & up to date unit at any less than £2,000. At our price it costs less than most basic FSK devices, making it cheap enough even for 4 track RRP £525
SCOOP PRICE £129 ex VAT Add £6 carriage
NEW BOXED

ROLAND D-110 The Original LA/PCM 8 Output synthesizer



Still the synth expandar of first choice. 32 voice, 8 separate output, multi-timbral synth, with 63 drum sounds & digital reverbs. • 256 state-of-the art PCM samples, including 63 drum and percussion sounds • Fully programmable synthesizer with built in Time Variant Filters, Amplifiers and LFO functions • Mix PCM samples with fat, analog waveforms to create rich and accurate sounds. • 128 Presets/64 user memories, using any combination of PCM and synthesized sound partials. • 8 on board digital reverb algorithms with decay and level parameters for each patch • Any of the eight separate timbres can be assigned, with dynamic voice allocation, to any 16 Midi channels and 8 separate audio outputs, while maintaining individual control of velocity, pitch bend, modulation or program change, to make it an ideal partner for your sequencer. • You can have up to eight areas on a single keyboard, even if it doesn't have a split-key function, making it a perfect live performance instrument. Huge sound library on cards or FREE on disk (approx 300 sounds) for Atari owners. Still the sweetest sounding synth at any price and the only one under £1,000 with the separate outputs essential for flexible mixdown of multi-part synth/drum arrangements RRP£615
WE HAVE THE LAST FEW UNITS ex. VAT £347 Add £6 carriage
NEW BOXED

CLASSIFIED

40% OFF • SECOND HAND & EX DEMO • END OF LINE CLEARENCE • FREE ACCESSORIES & SOFTWARE • INSTANT CREDIT/FINANCE * • CASH REBATE • UP TO 40% OFF • SECOND HAND & EX DEMO • END OF LINE CLEARENCE • FREE ACCESSORIES & SOFTWARE • INSTANT CREDIT/FINANCE * • CASH REBATE • UP TO

SYNTHESIZERS			
Yamaha TX802	£899	Yamaha SPX900	£413
Yamaha SY55 s/h	£599	Yamaha SPX1000	£599
Yamaha SY22 s/h	£499	Yamaha FX500 s/h	£216
Korg M1 demo	£825	Nomad Axeman s/h	£139
Roland D5 s/h	£313	Art Multiverb II new	£234
Roland D110 s/h	£325	Art Multiverb LT new	£149
		Lexicon PCM70	£950

Yamaha TG-55 NEW £389

Roland D50	£599	Lexicon LXP1	£299
Roland D10 demo	£495	Roland R880 s/h	£1550
Ensoniq VFX s/h		Boss BE5	£173
Casio VZ8M	£169	Symmetrix 511	£299
Ensoniq ESQ1	£499	Korg A3	£520
Korg M3R demo	£499	Valley Attenuator	£69
Cheetah MS6	POA	Valley Booster	£69
Kawai K1MkII		Valley Comp	£79
		Valley Noise Gate	£79
SAMPLERS/PLAYERS		Valley Noise Red.	£79
Akai S900 s/h	£795	Zoom In Stock NOW!	
Akai S950 ex hire	£955		

NEW KORG M3R £517

S950 750k card	£119		
S1000 2 meg card	£169	MICROPHONES	
S1000 8 meg card	£839	Shure SM58s s/h	£49
EMU Proteus	£550	Shure SM57 new	POA
EMU Prot XR s/h	£749	Electrovoice PL80	£75
Emax SE rack	£899		
Roland W30 demo	£999	PORTA STUDIOS	
Ob. DPXoutput kits	£60	Tascam 488 8 tk NEW	
Roland S330 used	£778	Fostex X26 s/h	£191
Roland U20 demo	£564	Fostex X15	£155

Sansui WSX-1 Scoop New £868

Roland U220 used	£345	TASCAM Portastudios &	
Roland U110 s/h	£339	Midistudios Best UK price	
MOTHER KBDS		Sansui MR6	£399
Roland PC200	£129	Vestax MR10	£152
Akai MX76	£869	Yamaha MT3X	£399
Roland A80 NEW	£955	Yamaha MT100 II	£273
KX88	£913		
Cheetah Best UK Prices		8/16/24 TRACK	
		All Packages NEW	
PIANO KBD MODS		Tascam 488 8 tk NEW	
Rhodes MK80	POA		
E-mu Proformance	POA		
DRUM MACHINES			

TEAC 3-head master cassette NEW £120

New Boss DR550 inc int		Fost R8 Seck1882	£1849
Roland R8 ex hire	£434	Fost R8 Seck1282	£1575
Roland R5	£321	Fos.R8/PLine1648	£1775
Alesis HR16	£188	Fos R8/PLine1681	£1899
Alesis HR16B	£219	Fos R8/M.D.1648	£2099
Akai MPC60 dem	£1477	TSR8/MD1648	£2549
Akai XE8 new,pack	£156	TSR8 Seck1282	£2245
Simmons Tmxer	£520	TSR8 Seck1882	£2470
Ob. DX expander	£60	TSR8/Studiomaster Proline 16/4/8	£2420
SEQUENCERS		MSR24 s/h/Studiomaster	
Alesis MMT8	£149	Trackmix	£5999/£3299
Roland MC50 IN STOCK		Studiomaster Mixdown	
Kawai Q80	£390	16/4/8	£1150
Brother DD Seq	£199		

SECK 24/2 RRP £1295 OFFER £699

COMPUTERS & SOFTWARE (M) mac		Proline 24/8/16	£1399
Atari 1040+Creator	£625	Seck 12/8/2 minty	£599
Atari 1040+Notator	£799	Seck 18/8/2 NEW	£850
Atari 1040+Pro 12	£399	DAT RECORDERS	
Atari 1040 & Mon with Cubase	£775	Sony DTC1000s/h	£856
1040 & Mon dem.	£399	Sony DTC55	£499
All C-LAB now VERSION 3.0 Updates for our C-LAB customers		Sony TCD10 Port	£1149
		Tascam DA30	

Casio VZ8M 8 Part Synth £169

Roland CM32P dem	£303		POA
Roland CM32L dem	£260	Aiwa HDS1/HDA1	£550
Atari Trackball	£20	Casio DA7	£495
Apple Mac From	£799	Casio DA1 used	£450
Pro 24 v3 new	£86	Denon DTR2000	£690
Chameleon univ. ed	£79		
Cubase	£343	OTHER MIXERS	
Avalon	£174	Tascam MM1 20/2	POA
C-LAB Creator	£199	Fostex 2016 16/2	POA
C-LAB Notator	£330	Fostex 454	£399
Opcode Vision	£344	Alesis 16/2/2	£450
Opcode Cue! (M)	£430	Soundcraft 200B	
Opc. MIDI pack	£185	16/4/8 mint	£999
Opc. DS0/DX editor	£99	Sansui 12/6	£399
Opc. Timecode	£132	Seck 6/2 & 12/2	POA
H Arts ed-track	£104	Seck242 Megadeal	£699

ART M.Verbll 20k True pitch-shift £234

H Arts Genpatch	£99		
COMPUTERS & SOFTWARE Cont		SYNCHRONIZERS	
St.bg DMP7 ed	£65	XRI 300	£160
St.bg DX/TX ed	£77	JLC PPS 100 SMPTE/ MTC	£129
St.bg EMAX ed	£65	Yamaha MSS1 new	£195
St.bg Mstr Score	£89	Tascam Midizer	POA
MOTU Composer (M)	£170	FULL Fostex 4000	
Digidesign Soft synt	£202	RANGE-MTR/MTR &	
Dig Snd Des Emax	£202	MTR/VIDEO	
DigiD PCM70 ed	£80	Ask for Martin Daley - ex-	
DigiDesign Q sheet	£183	Fostex and one of the	
DigiD Turbosynth	£232	UK's leading authorities	
Metrasound P Gorges			

New Atari Packages - See Computers

H Maas & Stockhausen D50 ROMS	£35	on this subject	
EFFECTS		MONITORS	
Art fEQ Midi EQ	£249	Yamaha NS10M pr	£149
Alesis Enhancer	£75	JBL Control 1 s/h	£129
Alesis Quad verb	£250	Yamaha A100 amp	£165
Alesis Gate	£86	JBL Control 5	£213
Alesis Limiter	£86	JBL Control 10 e.d.	£519
Alesis 2/31 EQ new	£169	Carlsbro 45 comb	£149
Alesis Midi Verb III	£173	AUTOMATION	
Alesi Microverb NEW	£99	Megamix 24 ch dbx	£695
Aphex type C s/h	£149	WIND	
Aphex Compellor	POA	Akai EVI & synth	£413
Aphex Dominator	POA		
BBE 822A NEW	£425	MIDI GUITARS	
BBE 422A NEW	£249	Roland GR50/GK2	£608
BBE 322A NEW	£199	Casio MG510	£260
Yamaha FX500 new	£234	Yamaha G10/10C	£799

ALL PRICES EXCLUDE VAT
FREE 24 Carriage on ITEMS BELOW 25kilos

ALL PRICES EXCLUDE VAT

SPECIAL OFFERS

AKAI XE8 16 BIT DRUM SAMPLE PLAYER

The Akai S1000 and MPC 60 are by a long way the most common source of drum sounds in professional live/recording environments. In these situations price is often of little concern: We can now offer every writer/player these sounds at around one tenth of the cost. The Akai X-E8 • 1 meg int memory of 16 16bit samples • 2 FREE 1 meg Roms (16 sounds each • kits, percussion, orchestral blasts etc • use two cards simultaneously (two slots) • Store any 16 samples in one of 32 programs • assignable key note 0-127: play melodies, cymbals become gongs etc • tailor sounds to your requirements: variable hold and decay times (e.g. gates), reverse , variable sweep Bright, punchy drum sounds are the foundation of any mix and time and again the average drum machine just doesn't cut it in the studio. The XE-8 gives you customizable 16 bit drum samples to turn up to 32 tracks of your Atari/C-Lab/sequencer set up into a super flexible, state of the art drum machine. Alternatively use it to expand your drum machine or trigger from drum pads Octapad/velocity sensitive keyboard etc etc
Hurry. We have a small quantity
Package includes FREE 2 1meg roms & C-Lab drum pattern disk Great package price with C-Lab sequencers RRP £499
PACKAGE PRICE £159 plus VAT Add £6 carriage
NEW BOXED

ART PROVERB 200 16 BIT STEREO REVERB/ MULTI-EFFECTS PROCESSOR

From the best selling range of U.S made effects and the unit of 1st choice for the high quality natural sounding reverbs associated with American studio processors costing thousands rather than hundreds (algorithms uniquely structured to eliminate the harshness and brittleness of the other budget units)
• 200 programs including 120 REVERBS from Early Reflections, Plates, Studio and Live Vocals, huge Halls (up to 25 second decays) and Rooms, all in a wide range from warm to bright, to Reverse and 20 various Gated/Companded Gated. Stereo FLANGE and CHORUS, ECHOS and MULTI-TAP DELAYS, STEREO IMAGING, PAN and SPECIAL EFFECTS. • COMBINE multiple effects • 16 bit, full bandwidth processing, 80dB dynamic range (extremely quiet) • Great MIDI spec. MIDI PROG numbers assignable to any program, 16 MIDI channels or OMNI compile your own patches etc. Control from kbd or seq or use footswitch-MFCOS for live program advance/live random selection respectively • 19" rack mounting
This EXCLUSIVE offer represents an unrepeatable opportunity to purchase a beautifully natural sounding commercial quality reverb at a fraction of the cost
We expect to sell out very quickly RRP £345
£155 plus VAT Add £6 carriage
NEW BOXED

Korg Z3 & ZD3 Midi Guitar System: Multi-Timberal Synthesizer

• 16 bit processing & custom LSI with pitch extraction algorithm • 16 bit onboard digital reverb • Digital Tuner • 128 Preset Sounds with 4 Digital Oscillators per Voice • 6 part Multi-Timbral • The time lag problem associated with Midi guitar systems is eliminated in the Z3 by having dual CPU's to cope with both pitch extraction & sound generation. A high speed D to A convertor from the ZD3 pickup and fast processing coupled with the custom LSI to give instant convertion to MIDI. The internal sound module is fully multi-timberal and so can be hooked up to any Midi sequencer for instant song arrangements. As it has full Midi connections it can be integrated into an existing Midi system without any fuss or allow you to play your synthesizer though the Z3. Super fast tracking, unequalled playability, & the legendary Korg Sound. RRP £980
SCOOP PRICE £429 plus VAT Add £6 carriage
NEW BOXED

JBL GS115 STUDIO REFERENCE MONITOR.

After more than 10 years supplying small studio installations we were acutely aware of the lack of an affordable unit properly suited to recording. The GS115's have been developed by JBL exclusivley for Turnkey to cater for the smaller studio
The most common complaint is the lack of low end response particularly at low volume. With this in mind we selected the U.S. made JBL 115 bass driver. The voice coil diameter and magnet mass are exceptionally large for a unit of this size. They are resonance matched to a very high density ported enclosure, which results in an accurate, punchy bass at high levels AND low volume, which we feel is absolutely unique. The JBL 044 Titanium tweeter is also U.S. made & was developed for digital. It reproduces the most complicated high frequency signals with accuracy and even after processing with todays full bandwidth effects, highs remain clear, well defined and easy on the ear. We also paid special attention to dispersal & stereo imaging.
The GS115's represent a purpose built studio monitor constructed around U.S. made, JBL Professional drivers, and due to our direct bulk purchasing are less than half the price of anything with equivalent performance. Work with them & if you're not convinced return the units to us within 14 days for a prompt and courteus refund.
EXCLUSIVE OFFER Plus £6 p&p £229
NEW BOXED

STUDIO RESEARCH KEYBOARD/LIVE RECORDING MIXERS

0% Interest Free Credit

Remarkable range of professional, stereo (into 2) consoles. Available in 6, 12 or 16 channel versions. Very quiet, great sounding E.Q., rugged steel construction for good shielding etc • Each channel has: 1/4" line & balanced XLR input,gain, high, mid & low E.Q., 2 auxiliaries, pan & long throw fader • Auxiliary master gain. E.Q. & pan, Bar graph metering, headphone monitoring etc etc
The range of applications for stereo mixers is growing fast e.g. Multitimbral synth/sampler/drum machine mixing • Live main/sub mixing (12 channel 700W P.A. systems complete for under £900) • Mix your Atari/synth arrangements direct to DAT for C.D. quality demos.
Available at a fraction of the list price. Exclusive, Ltd stocks. Includes FREE monitoring headphones and 24 hour carriage.

PACKAGE PRICES	
6:2	£169 plus VAT
12:2	£259 plus VAT
16:2	£319 plus VAT

NEW BOXED

MAIL ORDER DEPARTMENT

Our long established mail order department documents your order from receipt to despatch. Send cheques, postal orders, Access or Visa orders, Bankers draft, Building Society cheques. Cash in reg. envl to SOHO SOUNDHOUSE FREEPOST 38 LONDON W1 6OZ. NO STAMP REQUIRED. (10 day clearance for personal cheques). All other forms of payments – 24 hr despatch. Telephone Orders Welcome

NAME & ADDRESS

GOODS REQUIRED

CREDIT CARD NO. | | | | | | | | | | | | | | | | TOTAL £

MT. 2. 91

➢ of the reggae stuff. So we might come off that a bit. There's the shakers and stuff like that, but the basic sounds are a bit crap. We got it 'cos we were impressed that it could reverse sounds - it's one of those things that naive guys with a bit of money for a drum machine do."

A more recent acquisition on the rhythmic side is a Roland SPD8, which gives the group one more means of creating their rhythm parts - they don't favour any particular approach.

"It's whatever it takes", says Edzy. "If we're messing about on the drum pads with the sticks and something sounds good, we'll record it like that. Sometimes we'll sit down in front of a drum machine, sometimes it'll be samples played from a keyboard. . . Whatever feels right at the time."

Breakbeats don't figure prominently in Unique 3's music, but as Edzy reveals, this isn't a reflection of what they get up to in the studio:

"We put in a lot of work at home on breakbeats, but it just seems we hardly ever press it up. We mess about with breaks on top of the more techno tracks, but we haven't used anything like that yet."

Unique 3 have a strong independent streak in them, and at a time when everyone else was saying how wonderful old analogue synth technology was, they subtly introduced the cold, ethereal sound of the M1 into dance music with 'The Theme'.

"We never listen to anyone else", says Edzy. "I like old analogue sounds - they've got more beef in them than digital sounds - but there's good digital sounds as well. The week we got the M1, I don't think I ever came off it. There's some really good sounds in there. It's great for all the airy voices and choirs and stuff, even if some of them have been used and abused. We use a lot of presets on the M1, but I think that's kind of funny when you put them in the context of our music. If a preset sounds good to us, we'll use it."

When Unique 3 started making their own music, they bypassed the "Portastudio stage" and went straight into MIDI sequencing with a Yamaha QX21.

"We never really mastered it, though", admits Edzy, "and since we bought Creator and the Atari, it's been an antique collecting dust. Creator's really straightforward and easy to use. If you get a problem with it and you think about it logically, how you would have solved it if you'd put the program together, you can sort it out. It's the program that we started on and that we learnt - probably if we'd learnt Pro24 or something else, we'd have the same arguments for that."

"Creator's always done what I've wanted it to do", confirms Deadly D. "It can do what it takes to make house and hip hop music. When we first started using it we used to work on just one pattern and use the track muting within Creator instead of the desk mutes. The only problem with muting like that is that you can't bring a sound like a break in partway, but still it's a good way of working. We always have arguments about whether or not there's too much in tracks we do, so muting is useful."

Edzy describes the Unique 3 approach to creating music: "We just jam. No-one has a specific role in the group. Cutz tends to do a lot of the drum programming, but everybody's programmed different sounds and stuff, and everybody can play keys. Me and JMP might sit at the keyboard together and I'll come up with a bassline while he'll do a top section. We're just messing about, really, seeing what we can come out with. We do work interactively like that a lot."

"We always tape it when we're messing around", adds Deadly D, "because the computer does stuff that it shouldn't do but the result can sound good. The tapes sound better than the finished product because they're live - our goal is to make our music sound more live. One thing we've been doing up to now is recording in short sections, so we're planning to record in longer sections and go for more of a live feel."

The group's live performing debut last November at Prestatyn, which was partly televised on *The Word*, wasn't without its problems.

"The power went shortly before we were due to play", recalls Deadly D, "so we had to reload all the samples and sequences. Before this happened I'd taken the volume down on one of the samples, but I didn't save the new volume so when I reloaded it was set too loud again. And it came in like that when we were playing live."

So how much of the group's set was performed live and how much was sequenced?

"The only things that weren't live were the hi-hats and bass drum", Edzy replies. "We had the complete sequence running in the computer but we muted everything except for the bass-drum and hi-hat. We want to play all the parts live; it's a good feeling to know that you've got total control on your instrument."

LAST YEAR, UNIQUE 3'S SECOND SINGLE, the double A-sided 'Weight for the Bass'/'Musical Melody', climbed to No. 29 in the national charts - despite making no concessions to popular taste - and saw the group on *Top Of The Pops*. However, they found their commercial success to be something of a mixed blessing.

"We've been DJing for years", says Edzy, "but now we're doing well, hardcore people don't like it. It pisses them off to see us on telly because they think we've got loads of money. But that's the mentality of the British people in general; it's different in the States, there people expect you to get on.

"Chart success is something a lot of people strive for, but once it happens it's kind of damaging. It takes street credibility away from the record. If you go Top Ten, it's a different thing again - you've made it, and people respect you because of that. But there's a dead zone in the chart below that. If the dance chart got as much attention as *Top Of The Pops* it would be a different story."

One of the criticisms sometimes levelled against remixing is that it can dilute the musical identity of a group - or even prevent it from being established. As a group with firm ideas about how they want their music to sound and progress, Unique 3's solution is simple:

EQUIPMENT LIST

INSTRUMENTS/SEQUENCING
Atari 1040ST Computer
C-Lab Creator Software
Akai S950 Sampler (2)
Korg M1 Synth
Roland Jupiter 8 Synth
Roland TR909 Drum Machine
Roland W30 Sampler
Technics SL1200 Turntable (2)
Yamaha RX5 Drum Machine
Roland SPD8
Percussion Controller/Expander
Yamaha QX21 Sequencer

RECORDING
Deltalab Effectron Digital Delay
Korg SDD1000 Sampler/Delay
HW International MX2 Mixer
Monitors (home-made)
Seck 1880 Mk2 18:2 Mixer
Team 6070E and JVC SEA Graphics
Technics Cassette Deck

they remix it themselves. It seems only logical (Captain). After all, the purpose of remixing is to enable people who understood what was required to move a crowd on the dancefloor - DJs - to give dancefloor credibility to records made by people who didn't. With their background, Unique 3 don't need any interpreters to tell them how their music should be.

"It would be hard turning our stuff over to somebody else", says Edzy. "We could probably get somebody else on the case, but by the time it was done and if it wasn't exactly what we wanted, it would be out of date."

Deadly D feels that remixes work to the detriment of the track. A case of too many remixers spoiling the vibe?

"It's a marketing ploy. Majors put so much money into a track that they'll use any means necessary to get it back, even if it means putting out five remixes."

Do Unique 3 see themselves becoming remixers of other people's music as well as of their own?

"We've remixed a Redhead Kingpin track and I think we're going to be remixing Sindecut's next track", Edzy replies. "If people are interested in you remixing their stuff, obviously there's a lot more than just financial gain in doing it. It's interesting to see what you can do with somebody else's music."

Isn't there a danger of the group giving away something of themselves to other artists through remixes?

"It depends how much you give away", he replies. "I don't think any remixer gives 100% on a remix, whatever they say. If you come up with a good idea, you want to save it for yourself - but as long as you do a good job. . .

"When we remix or we think about remixing, we always study the music that we're remixing and try and keep it in that style. That's how I prefer to work."

The group still keep their hand in as DJs by running their own club night, *Phase III*, in Bradford. For Edzy it's an important part of their activities.

"We need to DJ", he asserts. "For a time we didn't do any DJing and I felt lost. It's like you don't know what's happening so much."

Edzy also does his bit to enliven the city's airwaves by putting together a weekly show for local pirate station *Emergency FM*. Unique 3 are firmly rooted in Bradford, and plan to encourage local talent by reactivating Chill Records and setting up their own 24-track recording studio.

"We're finalising a deal for a three-storey building", reports Edzy. "Hopefully, the top floor will be a private 24-track studio that we use, the middle floor will be a commercially-run 24-track studio to generate funds, and the rest of the space will be offices."

As for Unique 3's music, Edzy and Deadly D are clear about where their priorities lie.

"Getting respect is more important than having massive commercial success", says Deadly D. "Experimenting, being as original as we can, and getting respect."

"We just try and stay original", Edzy concurs. ■

DA7

There's no disputing that DAT has played its part in changing modern recording studios - and Casio's new DA7 looks set to spread the changes yet further afield. Review by Tim Goodyer.

ONCE IT WAS part of some vision of the future, where technology had finally delivered much that it currently only promises. Then it was an expensive reality - one that may or may not find favour with enough professionals to create the demand necessary to ensure its acceptance as a valid recording medium within the recording industry. Now it is a practical reality; a cost-effective means of producing high-quality recordings, finding itself in use in more recording studios with every day that passes. It is DAT: Digital Audio Tape.

While the Sony DTC1000ES quickly established itself as the industry-standard DAT machine at the professional end of the market (a position for which it is being challenged by Tascam's DA30), the budget/portable end of the market is still being fought over. One of the early favourites was Casio's DA1 - a relatively cheap portable which, inevitably, incorporated a number of shortcomings. Fifteen-bit, instead of full 16-bit, sample resolution, the lack of digital inputs and outputs, and the ability to record only at 48kHz marked the DA1 as a budget machine. However, it represented affordable access to DAT recording, and so sold well into the amateur and semi-professional markets.

When the DA1 gave way to the DA2, it too sold well, though - curiously - neither machine was handled by Casio themselves in Britain. The DA2 represented certain improvements over the DA1 but the main shortcomings remained - it still lacked digital ins and outs, recorded only at 48kHz and employed 15-bit sample resolution. The recent release of the DA7 brings the story up to date. The mastering-standard 44.1kHz sample rate is now available when recording from the digital inputs, and full 16-bit resolution is now standard. And, as if to confirm the DA-series' coming of age, Casio themselves are now handling its distribution.

This official endorsement appears to have been precipitated by the inclusion of a copy protection system in the DA7. Previously, the DA1 and DA2 had been able to copy from any source and allow unlimited copies of recordings - although all recording and reproduction could only be made via the machines' analogue interface. Such has been the threat of litigation in the US, Casio UK appear to have chosen to dissociate themselves from any possible trouble. Now, with the inclusion of the Serial Copy Management System (SCMS) in the DA7, Casio UK appear more at ease with the situation.

CALL THE DA

BRIEFLY, THEN, THE Casio DA7 is a fully-fledged, 16-bit resolution portable DAT recorder featuring digital inputs and outputs, sub-coding, and SCMS copy prevention. Recording is possible at 48kHz via the analogue inputs and 44.1kHz via the digital ins; playback of both formats is obviously also supported.

The machines "portable" status is fully supported by its carrying case, which should be quite adequate to protect it in the field - an additional bonus to the dedicated sample hunter. Power for portable applications is derived from a NiCad pack (supplied) which will support the unit for two hours continuous use on an eight-hour charge. Alternatively, the (supplied) AC adaptor can be used in the recording studio.

Connections to the DA7 are made using a panel on the right-hand side of the unit. Here you'll find analogue audio inputs and outputs on phono connectors, left and right mic inputs on quarter-inch jacks, and digital ins and outs on gold-plated phono connections (one for input, one for output).

The input selector, DAT cassette mechanism and eject button are on the upper panel (making rack installation difficult), leaving most of the action taking place on the front panel. Here, from left to right, you'll find a (3.5mm) headphone socket and volume control; LCD window governing most of the DA7's operation; time, counter reset and mode buttons; tape transport controls; record level control and power on/off switch. This switch is non-locking and the unit will automatically power down if it's not used for six minutes - potentially useful in the field, but this can be disabled (by holding down the tape stop button on power up) for studio applications.

The tape transport controls generally follow those of a conventional reel-to-reel or cassette machine. The Play, Stop, Pause, Rew and FF functions should all be self-explanatory, leaving only the Rec/Mute and Skip buttons outstanding. Skip follows the function of the same name found on a CD player - specifically allowing you to skip forwards and backwards between the *start* of the recorded tracks. Pressing Rec/Mute will take you into Record Standby mode. Immediately after pressing this button, the DA7 will record a five-second blank onto the tape which contains the relevant Start ID and Program Number sub-codes

PHOTOGRAPHY: JAMES CUMPSTY

(more about this later). Once this is complete, the unit is ready to record - press Play to begin recording. While in Record Pause mode (after the recording of sub-code data), the record levels may be set using the ganged pots on the front panel - remember that even slighty overloading a digital recording produces unpleasant distortion rather than the tape compression characteristic of analogue systems.

To record using the digital input, you must first set the input selector to Digital. The message "Digital In" then appears on the LCD. The method of entering Record mode is similar to that for analogue signals except that no input level needs to be set. It's at this point that protected source material will make itself known by forcing the DA7 to leave Record mode and enter Record Pause mode, and show "Prohib" in the LCD (see below for full details of copying restrictions).

ON DISPLAY

THE LCD WINDOW is the communication centre of the DA7. Here you will find signal "ladders" for setting the record level, an indication of when the unit is switched to the digital input, the Program Number, and time displays. The time displays are cycled through by successive presses of the Time button and consist of the following: absolute time elapsed (ABS), program run time (PRG), remaining time (REM) tape counter and a table of contents (TOC). The TOC gives you a breakdown of what's on the DAT cassette currently loaded into the DA7, and includes the total number of audio programs and the total program time. All useful stuff.

Use of the LCD in conjunction with the Mode button also facilitates erasure of Start IDs, recording of Program Numbers and renumbering of programs.

IN CODE

ONE OF THE significant operational differences between using an analogue tape machine and a DAT recorder revolves around DAT's ability to incorporate sub-codes in a recording. These vary slightly between different manufacturers' and different machines' implementation; here's a run down of the DA7's sub-codes.

The codes take four forms: Abs Time, Start ID, Program Number and End Data. Taking these in sequence, the Abs(olute) code registers the elapsed tape running time from the start of the cassette. This is recorded by the machine automatically, but it's important to initialise tapes from the beginning and not to accidentally erase areas of this code when making subsequent recordings. The Start ID of a recording designates the start of that particular recorded program. These can be recorded with each recording as it is made (see above) or added after the recording is complete. The Program Number is recorded with the Start ID and designates a number to each program. In this way each recording can be given a number similar to those allocated to tracks on ➢

➢ a Compact Disc. Unsurprisingly, End Data marks the end of a recorded program. This must always be registered manually (at least the machine isn't telling you how long your songs should be).

The DA7's manual points out that the availability of sub-codes gives rise to two types of blank areas on tape - those with sub-code but no audio (which it calls recorded blanks), and those without either (non-recorded blanks). It advises avoiding non-recorded blanks by allowing the DA7 to run on after an audio program has finished being recorded, and to begin a subsequent recording from within this area. Adopting this procedure ensures that the DA7 will always accurately display elapsed and remaining tape times.

DO YOU COPY?

ONE OF THE MOST significant aspects of the DA7 is the inclusion of the SCMS copy prevention circuitry.

"Maybe the inclusion of a copy-prevention system won't bother you - or maybe it will. Either way you're having a copyright restriction placed on your own material while SCMS' effectiveness against bootleggers remains questionable."

Let me make it quite clear that this circuitry is permanently operative; there is no way to switch it in or out.

There are two situations in which the SCMS plays no visible part in the use of the DA7. The first is when originating recordings from the DA7's mic inputs, the second is when recording and replaying via the analogue interface. Presumably, the designers have assumed that any recording originated via a microphone is certain to be the recordist's copyright, while anything likely to be subjected to successive analogue-to-digital and digital-to-analogue conversions is going to suffer intolerable signal degradation. In practice, however, neither is necessarily true.

Where the SCMS system comes into play is in conjunction with the digital interface. Should you make a digital recording from a CD with copy protection, for example, the SCMS will prevent any further digital copies being made. Meanwhile, recording a CD via the DA7's analogue inputs and then attempting to make digital copies of this will give you one copy-protected generation.

While all this has been arranged in the (debatable) interests of protecting record companies' copyrights, it also interferes with your use of the DA7 to make your own music - to which you obviously own the copyright. If you connect the DA7 to your mixing desk and make masters from your multitrack (or "live" from a sequencer), you'll almost certainly be going into it via the analogue inputs. In this case, you'll find that your DAT master will allow only one further generation of copies. Maybe this won't bother you - or maybe it will. Either way you're having a copyright restriction placed on your own material while SCMS' effectiveness against bootleggers remains questionable.

VERDICT

IN USE, THE DA7 performed well and produced the sort of quality that's made DAT famous. And while it's not the most compact DAT machine available (check out the Aiwa HDS1), the DA7 represents a compromise between portability and comfortable prolonged studio use - when small controls can become frustrating. And if your main use for a DAT machine is in the studio, it may be a compromise well worth making.

To my mind, the main advantage of using a portable DAT machine is that it gives you a mobile, high-quality recording system which is ideal for sampling "in the field" or even just transferring samples into your studio - after all, how many of us have a hi-fi and video setup in our studio for lifting the odd line of dialogue or a drum break?

The other likely application for a budget machine like the DA7 is for making master backups from another DAT machine or from a system like Digidesign's Sound Tools. When tested with recordings made on a DTC1000ES, the DA7 showed no signs of incompatibility and should perform quite satisfactorily - just remember SCMS.

Looking at the use of the SCMS system another way to that described above, the inclusion of copy protection is potentially limiting to your use of a DAT machine you've paid out your hard-earned cash for. It may not make us happy, but SCMS is likely to be here for the foreseeable future. We may have to learn to live with it.

On the subject of cash, it's encouraging to realise that alongside the improvements over the DA2, the DA7 actually represents a reduction in cost over the older machine. How often do you get to read a closing line like that? ■

Price *£649.95 including VAT.*
More from *Casio Electronics Ltd, Unit 6, 1000 North Circular Road, London NW2 7JD. Tel: 081-450 9131.*

axe mail

INSTANT DESPATCH FOR CREDIT CARD HOLDERS

Access VISA AMERICAN EXPRESS Switch WELCOME HERE

HOTLINE·0206·765652

PHONE US WITH YOUR CREDIT CARD NUMBER FOR IMMEDIATE DESPATCH. OR SPREAD THE PAYMENTS OVER TWO YEARS YOU'LL BE AMAZED HOW LITTLE IT COSTS

KEYBOARDS AND MODULES	MONTHLY	PRICE
Yamaha SY77 New Mega Synth	£63	£1750
Yamaha SY55	£35	£950
Yamaha SY22	£27	£750
Yamaha TG77		£POA
Yamaha TG55	£18	£489
Roland D70 Super LA Synth NEW PRODUCT	£53	£1450
Roland U220 Sample Playing Module	£18	£499
Roland U20 Sample Playing Keyboard	£29	£795
Roland W30 Workstation	£54	£1499
Roland A80 Weighted Mother Keyboard	£47	£1299
Roland E5	£14	£390
Roland D5 Multi Timbral Linear Synth	£17	£449
Roland D10 Multi Timbral Linear Synth	£22	£599
Roland D20 Multi Timbral Linear Synth	£36	£995
Roland D50 Multi Timbral Linear Synth	£29	£795
Roland D110 Multi Timbral Linear Module	£18	£499
Roland RD250S Electronic Piano	£40	£1095
Roland RD300S Electronic Piano	£54	£1499
Roland GR 50/GK2 Guitar Synth	£33	£899
Korg WS1 Wavestation	£53	£1449
Korg M1 Workstation	£47	£1299
Korg T3 Total Workstation	£87	£2399
Korg T2 Total Workstation 76 Key	£108	£2999
Korg T1 Workstation 88 Key	£133	£3700
Korg M1 R Rack M1	£47	£1299
Korg M3 R Soundstation	£29	£799
Korg W1 Wavestation	£50	£1400

SOFTWARE

ROLAND R8/R8M Library Cards

01 Contemporary Percussion	£40.00
02 Jazz Brush	£40.00
03 Sound Effects	£40.00
04 Electronic	£40.00
05 Jazz	£40.00
06 Ethnic Percussion	£40.00
07 Mallet	£40.00
08 Dry	£40.00
09 Power Drums USA	£40.00

ROLAND U220/ U20/ D70 Library Cards

01 Pipe Organ & Harpsichord	£40.00
02 Latin & Effects Perc.	£40.00
03 Ethnic Instruments	£40.00
04 Electric Grand & Clavi	£40.00
05 Orchestral Strings	£40.00
06 Orchestral Wind	£40.00
07 Electric Guitar	£40.00
08 Synthesiser	£40.00
09 Guitar & Keyboards	£40.00
10 Rock Drums	£40.00
11 Sound Effects	£40.00
12 Trombone & Sax	£40.00

YAMAHA SY77

CARDS Sax, Drums, Strings, House + Latin	£99 each
DISKS Best of DX, One man band Recording 77	£30 Each

YAMAHA SY55

CARDS: Sax, Drums, House, Latin, Rock Pop	£79 Each

SY22

RAMS: Vector project, Pop House, Dance Band	£95
ROMS	£69 each

EFFECTS

Axe Distortion	£29.50
Axe Phaser	£29.50
Axe Ultra Metal	£29.50
Axe Flanger	£39.50
Axe Delay	£49
Axe Overdrive	£29.50
Yamaha FX500	£13 £349
Boss RV1000 Digital reverb/new product	£8 £199

	MONTHLY	PRICE
Boss RE1000 Digital Multi echo/new product	£9	£229
Roland GS6 Digital Guitar Soundsystem	£17	£449
Roland GP 16 Guitar Effects processor	£22	£599
Alesis Quadraverb	£13	£359
Alesis Midiverb 3	£9	£239
Alesis Microverb II	£6	£149
Alesis Microverb III	£8	£199
Boss SE50 Multi FX unit	£13	£349
Boss BE5 Multi Effects	£8	£199
Boss ME5 Multi Effects	£17	£449
Boss CH1 Chorus		£59
Boss PS2 Pitch Shifter	£6	£135
Boss HM2 Heavy Metal		£49
Boss RV2 Reverb	£6	£118
Boss MZ2 Metalizer		£84
Boss SD1 Super Overdrive		£41
Boss DF2 Distortion Feedbacker		£72
Boss BF2 Flanger		£79
Boss CE2 Chorus		£51
Boss CE2B Bass Chorus		£60
Boss CES3 Compressor		£69
Boss DC3 Dimension "D"	£6	£112
Boss DD3 Digital Delay	£6	£109
Boss DS2 Turbo Distortion		£59
Boss DSD3 Digital Sampler	£6	£129
Boss GE7 Graphic Equalizer		£76
Boss HF2 High Band Flanger		£77
Boss NS2 Noise Suppressor		£69
Boss OD2 Turbo Overdrive		£63
Boss PH2 Phaser		£97
JLCooper NMXB Midi Patch Bay	£8	£200

GUITAR SYNTHS

Roland GR50/GK2	£33	£899
Korg Z3ZD3	£31	£849

DRUM MACHINES AND SEQUENCERS

Boss DR550	£7	£189
Roland R5 Drum Machine	£14	£369
Roland R8 Drum Machine	£21	£579
Roland R8M Drum machine Rack Module	£18	£499
Roland Pad 5	£6	£139
Roland Pad 80	£17	£465
Roland SPD8 Total Percussion Pad	£15	£399
Alesis SR16 Drum Machine	£11	£299
Alesis HR 16 Drum Machine	£10	£259
Alesis MMT8 Sequencer	£9	£239
Roland MC50	£18	£499
Kawai Q80 Sequencer	£18	£499

RECORDING

Tascam 488 8 Track portastudio	£36	£995
Tascam 424	£17	£459
Tascam 688 8 Track Midi Studio	£69	£1899
Tascam Porta 2 Hi Speed Porta Studio	£20	£549
Tascam Porta 1 Porta Studio	£15	£399
Tascam Porta 05 Hi Speed Porta Studio	£11	£299
Tascam Porta 03 New 4 Track	£9	£225
Tascam MM1 Mixer	£26	£699
Fostex R8		£POA
Fostex X26 Multi Tracker	£11	£289
Fostex 280 Porta Studio 8 Ch 4 Track	£22	£599
Yamaha MT100 II 4 Track Recorder	£33	£349
Yamaha MT3X 4 Track Recorder	£20	£549
Alesis 1622 Mixer	£26	£699

COMPUTER MUSIC NEW PRODUCTS

Roland CM64 LA/PMC Sound Module	£29	£789
Roland CM32 P PCM Sound Module	£13	£359
Roland CM32 L LA Sound Module	£11	£299
(Compatable with Atari, Amiga, etc Computers)		

SPECIAL PRICES ON DEMO GEAR. PHONE FOR QUOTE.APR 34.4 % WRITTEN DETAILS ON REQUEST

£1,000 INSTANT CREDIT AVAILABLE SUBJECT TO STATUS. *MONTHLY PAYMENTS ARE APPROXIMATE & ARE INTENDED ONLY AS A GUIDE, YOU CAN VARY THEM IF YOU WISH

FAST CREDIT SERVICE
INSTANT APPROVAL

To Get Your Goods Quickly Just Fill In the Application And Return It to Us. We Will Process It Immediately. In Strictest Confidence And Get Straight Back To You.

Goods Required .....
Forename(s) .....
Surname .....
Address .....
.....
.....Postcode.....
Phone No .....
How long at this address.....Yrs.....Mths
Owner ❑ Tenant ❑ With Parents ❑
Furnished rooms ❑ Flat ❑ Forces ❑ Other.....
If less If than 3yrs at this address, previous address
.....
How Long there.....Yrs.....Mths
Married ❑ Single ❑ Widowed ❑ Divorced ❑
Separated ❑
Date of birth .....
No. of children not working .....
Employer.....
Address.....
.....
.....Phone No..
Occupation.....
How long employed there.....Yrs.....Mths
Full time ❑ Part time ❑ Weekly pay ❑
Monthly pay ❑
Spouse's occupation.....
Bankers.....
Address.....
.....
.....Postcode.....
Current account ❑ Deposit account ❑
How long held.....Yrs
Do you have: Cheque Card ❑ Am.Ex ❑ Access
❑ Visa ❑ Diners ❑
Any other credit cards/Agreements? Yes ❑ No ❑

Post This Coupon To Secure Any Goods Advertised Here

Send Me Immediately.....
Name.....
Address.....
.....
Phone .....
I Enclose Cheque Payable To Axe For £.....
Please Debit My Access/ Visa/ AMEX NO

❑❑❑❑❑❑❑❑❑❑❑❑❑❑❑❑

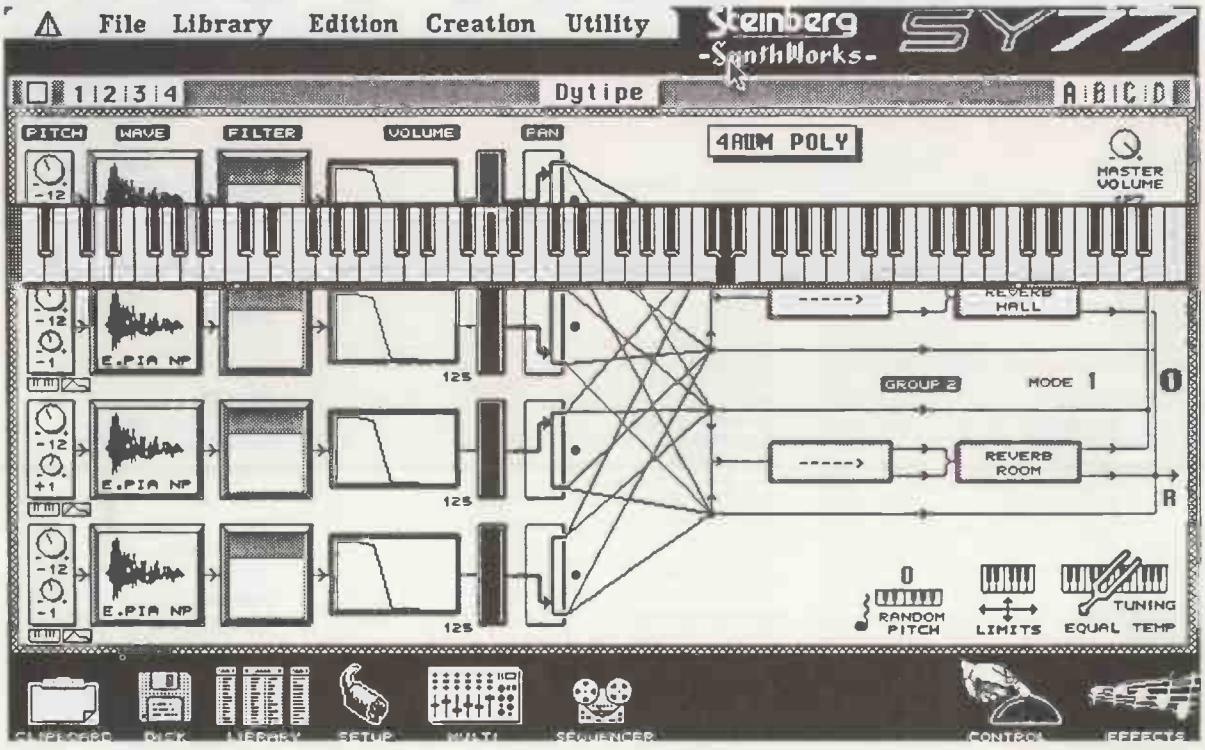
Please Reply To:-

Axe Mail Dept 3
96 High Street
Colchester
Essex
CO1 1TH
0206 765652

OR

Axe Mail Dept 4
27 St. Johns Street
Bury St. Edmunds
Suffolk
IP33 1SN
0284 705571

SY77 SYNTHWORKS



With Yamaha's flagship SY77 finding increasing favour with musicians, the demand for editing software is being met by more programs - such as this from Steinberg. Review by Ian Waugh

FOLLOWING MT'S RECENT excursion into the delights of SY77 editing with Geerdes Softworkstation (see MT, January '91), we'll take a look at the Steinberg approach. The SY77 Editor is one of Steinberg's range of Synthworks editors. It's M.ROS compatible and you can't help but notice the Mac-like front end now appearing on Steinberg programs. Personally, I like it. Steinberg also seem to be putting effort into the user interface which is becoming more graphically-oriented. During this review, a disk update appeared (v1.1) to enable the program to support the TG77. The review, however, was conducted with an SY77.

The program needs at least 1Meg of RAM and hi-res monitor, and uses a dongle for protection (personal hate). We got off to a bit of a bad start because, on first running, the program helpfully asked if I wanted to save the contents of the synth's memory. Before doing so it insisted on sending a pan flute definition to D6. This is a default voice which appears on the screen after loading. Ignoring it seemed to do no ill, but I thought I'd better try again - at which point I discovered that I couldn't quit from the program cleanly - it either locked up or bombed out. How can a company release an update with such an obvious flaw? Further experiments revealed that the quit problem only occurred when running from hard disk.

Having saved my first bank, the program didn't ask on subsequent runs, presumably assuming I wouldn't even think of editing my SY77 again unless it was hooked into Synthworks.

At first glance, the screens look like hieroglyphics. On closer inspection, however, there is a logic to their layout and appearance - all the bits which make up a

voice have their own icons. There are four voice buffers which you can use to work on four voices (almost simultaneously) or as back-up stores in order to compare edited voices with originals.

ENVELOPES

BEFORE RUNNING THROUGH a typical layout, a word about envelopes. Envelopes can be shown in two ways - Classical and True. The Classical representation shows the segment length proportional to the parameter value. True shows the envelope as it really is, and should give you a better idea of what's happening. However, it can appear more crowded than the Classical representation and is a little more difficult to edit.

In True mode, the scale factor represents actual time and is especially useful for long envelopes. I never had trouble with Classical representations before, although True does offer a new way of looking at envelopes.

VOICES A LA MODE

THERE ARE 11 voice modes in the SY77 - 1 AFM mono, 2 AWM Poly and so on. These are selected from a menu on the voice page and the screen adjusts accordingly. Each of the elements can be toggled on and off and again; the screen reflects this.

Running from left to right across the screen are the main voice building blocks - pitch, wave, filter, volume, pan position, routing, effects and output. The pitch controls are a couple of dials - coarse and fine. To alter these you click and hold on one of the dials and slide the mouse around. As you do so, an indicator moves around the dial and the current value is shown below it. Neat.

Beneath the pitch control are keyboard and envelope icons. Click on the keyboard to select the current micro tuning table. Click on the envelope icon to get to the Pitch Envelope editor. Next is the Wave box. If this is AFM, clicking on it takes you to the AFM page. If it's AWM it takes you to the Wave page which shows a list of available PCM waveforms.

The filter icon follows, containing a low-pass or band-pass filter, depending on the selected configuration. This takes you to the Filter page. Each element has two filters and editing is done in three basic modes.

Selecting 12dB lets you edit the two filters independently. When you edit one the other is shown as a dotted line. Click on 24dB and both filters become low-pass filters and effectively act as one. In Band mode, one filter is low pass and the other is high pass, together producing a band-pass filter. The modulation depth of the filter LFO, however, is set in the LFO/Modulation sub-page of the Algorithm page (coming up).

The method of selecting the cutoff scaling point is superb. You can drag four nodes (above a keyboard) around the screen or use two "slope" icons which pivot the envelope down to the left or the right. When editing starts to become fun, the program must be doing something right.

After the filter comes the amplifier. If the element is AWM, the icon contains a representation of the current envelope. On the AWM page you toggle between amplitude and pitch envelopes. You can adjust amplitude and velocity sensitivity and determine how the volume varies across the keyboard.

PAGE AFM

THE AFM EDITOR is the most complex part of RCM (the SY77's form of synthesis) and is split into seven sub-pages. This isn't the place to wax lyrical about the delights of AFM synthesis, mainly because I can find little there to delight in - other than the sounds it can produce. It has even more parameters than traditional FM - 45 algorithms for starters - and I'd venture that serious AFM sound creation is for the dedicated programmer rather than the musician.

However, a good editor shows voice architecture more clearly than any synth's LCD can ever do, and it lets you tweak and twiddle the parameters quite nonchalantly. So while editing may not be the ultimate joy the Yamaha R&D team doubtless think it is, Synthworks at least makes it a more inviting alternative than an evening with Des O'Connor.

"SY77 Synthworks is M.ROS compatible and you can't help but notice the Mac-like front end now appearing on Steinberg programs - I like it."

The seven pages show different parameters for the operators within the algorithms. They are: Algorithm & Levels, Frequency, Pitch Envelope, Waveform, Amplitude Envelope, Key Scaling and LFO/modulation. There are macro commands on some of the pages which affect all operators simultaneously. These control aspects of the sound such as volume, timbre and envelope phases.

On the Algorithm & Levels sub-page you can set feedback loops and external noise and AWM sources using a "jack plug" to connect leads from one operator to another. Use scissors to snip unwanted leads. This is brilliant.

One feature programmers will love is the ability to create new algorithms. You can do this via MIDI but not on the SY77 itself apparently. Using the same jack and scissors principle you can connect the ins and outs of the operators to each other (although an operator can only modulate another operator with a lower number).

The Wave sub-page lets you assign a waveform to the operators. There's a sync switch and a phase parameter so you can specify the point at which the wave will start on each note. In the Amplitude Envelope sub-page, each operator displays a miniature of its envelope. Clicking on one puts it in the larger envelope window for precision editing. A back button shows the envelope of one operator in the background so you can match or "detune" it to another.

The Keyboard Scaling sub-page has macro commands for high, medium and low keyboard points. The LFO/modulation sub-page handles the pitch and amplitude LFO sensitivity settings. ➢

Back on the main Voice page and past the amplitude icon is a bar graph used to set the element's output level. This is followed by the Pan icon. Fixed pan positions (the first 13 presets) are indicated by an arrow sited at a corresponding position in the pan box. The other pan options use a sine wave to symbolise movement from one side to the other, although you have to access the Pan Job window in order to see exactly what these represent.

To the right of the pan settings are the routes to the effects. This looks like a cat's cradle, but it does show you exactly what each element is connected to. Clicking automatically cycles through the permitted connection routes.

Moving right again we have the effects. Click on the mode number to select one of the four effects modes. Click on the Group 1 and Group 2 buttons to switch the direct signals (stereo mix) on and off. Individual effects can easily be selected and altered and the sum total of your work can be output to two or four output sockets.

Drum voices are handled in a different way. The program displays part of a keyboard with the current drum assignment (wave, tuning and so on) next to the keys. Very easy to edit.

A QUICKIE

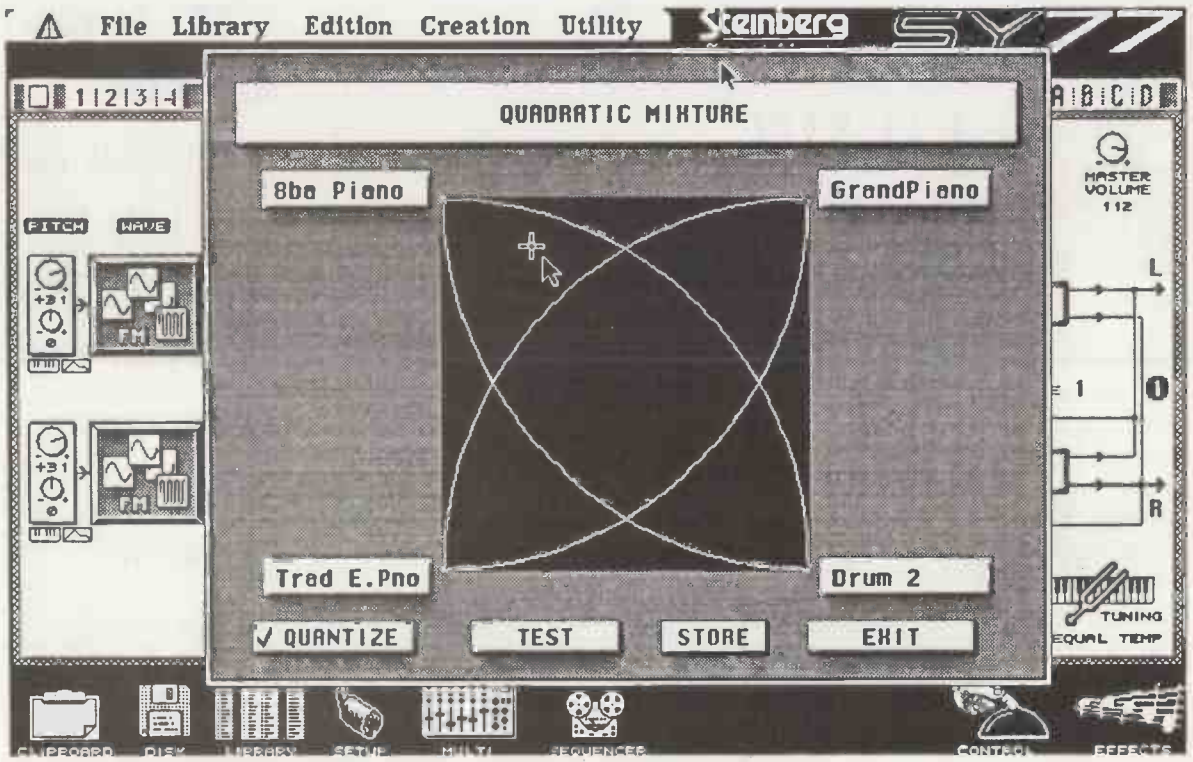
THE QUICK EDITOR window is indispensable. It contains eight sliders - attack, decay, sustain, release, filter, resonance, AFM modulation and velocity. Even if you know nothing about editing you can tweak these, although, of course, the results are far more limited than using the full editor.

Voice editing is only one aspect of a comprehensive editor. You'll also want to create performance setups, or Multis as they are called on the SY77. The main Multi page lists the 16 instruments (voices in Yamaha speak) which occupy the 16 Multi slots. These can be shown by name or bank number. Clicking on the name produces a list of the voices in the machine and you can easily populate a Multi with sounds of your choice.

Transpose, fine tuning, volume and pan can be shown in graphic form (as dials) or numerically (no room for both) and are altered by sliding the mouse. Dials look fine but numerals are more accurate.

Routing shows how the Multis connect to the effects. Normally only the routing for the currently selected instrument is shown but you can display all routes at once. This *is* a cat's cradle - you've no chance of deciphering it.

If you're into alternative tunings, you'll like the Micro Tuning editor. It has several powerful Macros - such as incrementing the pitch by a given number of cents, stretch tuning and random key pitch (to add warmth). If you have more than 1Meg of RAM and Cubase and run the system under M.ROS, you can create a Multi while music is playing. If you don't, you can use the program's simple one-track sequencer for testing sounds with music lines.



LIBRARY VISIT

ONE OF THE major functions of an editor is the ability to organise the voices into useful groups. So let's look at the Library. It has three columns. On the left is the Bank window. You can toggle the display between Voices, Multis, Pan Jobs and Tuning Tables. The list can show 16 voices at once. You can scroll through them or click on the magnifying glass to show all 64.

The middle column - the Library window - is the heart of the system and, again, arranged in list form but it can hold Voices, Multis, Pan Jobs, Tuning Tables, Banks, Setups, Sequences and PCM cards. It introduces concepts such as a directory to allow the searching of items by name, date and comment, and

Are You a Recording Musician?

Then you simply can't afford to miss out on...

HOME & STUDIO Recording

THE MAGAZINE FOR THE RECORDING MUSICIAN

It doesn't matter if you are just setting out in four-track recording or are the owner of a state-of-the art private recording studio, *Home and Studio Recording* plays a vital role in keeping you informed of the latest recording equipment, trends and techniques. What's more, it does so in plain English.

Every month, there are in-depth product reviews, practical features on all aspects of recording including MIDI sequencing and studio construction, and revealing interviews with internationally respected studio engineers and producers. On top of that, there are regular competitions, occasional features on readers' studios and constructive criticism of your demo tapes.

Whether you want to make professional sounding demos at home or you want to make recording your career, the information in each issue of *H&SR* gives you very real advantages; be the first to find out about future product releases, buy and sell your used equipment via our readers' ads page, and discover how those elusive sounds you hear on records are actually created. Once you've read *H&SR*, you'll wonder how you ever managed without it!

PLUG 'N' PLAY.

FILL IN AND POST OFF !

STUDIOSAMPLES

*The **STUDIOSAMPLES** series I, II and III are an exclusive assortment of 92 different disks filled with musically innovative and technically perfect sample sounds. The three series contain Acoustic-Samples (Grand Piano, Ultimate Brass, Natural Strings), Electronic-Samples (SY-77, MicroWave, Fairlight-III, T-1, Matrix-12), Drums & Percussions (Natural Drums, Linn-9000, TR-808), Special-Effects (Video Games, Office, Sports) and Performance-Disks (Bebop-Jazz with brushes, House Mix, Minneapolis, Asian). Our StudioSamples are available for all popular sampling systems.*
***Get our incredible demo tapes:** (60 min. each / £ 3.00 each)* ☐ 1 ☐ 2 ☐ 3 NEW

SOUNDCARDS

StudioSounds from Top-Programmers		*RAM rewriteable*	*ROM read only*
Korg WaveStation	*SoundCard 1 "Modern Times" (50 C/35 S/20 WS)*	☐ £ 79.95	☐ £ 39.95 NEW
	SoundCard 2 "Up-to-Date" (50 C/35 S/24 WS)	☐ £ 79.95	☐ £ 39.95 NEW
Korg M1, M1R, T1/2/3	*SoundCard 1 "Standards" (100 S/100 C)*	☐ £ 79.95	☐ £ 39.95
	SoundCard 2 "Modern Times" (100 S/100 C)	☐ £ 79.95	☐ £ 39.95
Korg M3R	*SoundCard 1 "Standards" (100 S/100 C)*	☐ £ 79.95	☐ £ 39.95
	SoundCard 2 "Modern Times" (100 S/100 C)	☐ £ 79.95	☐ £ 39.95
Waldorf MicroWave	*SoundCard 1 "Wave Trends" (64 S/64 C)*	☐ £ 79.95	☐ £ 39.95
	SoundCard 2 "Traditionals" (64 S/64 C/12 WT)	☐ £ 79.95	☐ £ 39.95 NEW
Yamaha SY-77 / TG-77	*SoundCard 1 "Hit Bits" (64 S/16 C)*	☐ £ 119.95	
Yamaha SY-22 / TG-33	*SoundCard 1 "Pop Mix" (64 S/16 C)*	☐ £ 79.95	
	SoundCard 2 "Dance Mix" (64 S/64 C)	☐ £ 79.95	NEW
Kawai K4	*SoundCard 1 "Pop Mix" (64 S/64 C)*	☐ £ 75.95	
Roland D-50/550	*SoundCard 1 "Traditionals" (64 S/128 T)*		☐ £ 49.95
	SoundCard 2 "Experimental" (64 S/128 T)		☐ £ 49.95
	SoundCard 3 "Up-to-Date" (64 S/128 T)		☐ £ 49.95
Ensoniq VFX	*SoundCard 1 "Traditionals" (60 S/20 C)*		☐ £ 49.95
	SoundCard 2 "Modern Times" (60 S/20 C)		☐ £ 49.95

SOUNDDISKS

KORG T1/2/3	*Set 1 "Standards" + 2 "Modern Times" (200 S/200 C) T-Format*	☐ £ 29.95
Yamaha SY-77	*Set 1 "Hit Bits" (64 S/16 C/1 D) SY-Format*	☐ £ 29.95
Ensoniq VFX-SD	*Set 1 "Traditionals" + 2 "Modern Times" (120 S/40 C) SD-Format*	☐ £ 29.95
Yamaha DX7 II	*"Mega-Collection" (1024 Single Sounds) FD-Format*	☐ £ 29.95
Yamaha DX7 II	*Set 1 "Best of DX7 II" (64 S/32 C) FD-Format*	☐ £ 19.95
	Set 1 "Best of DX7 II" (64 S/32 C) ST-Format	☐ £ 19.95
Yamaha TX802	*Set 1 "Best of TX802" (64 S/32 C) ST-Format*	☐ £ 19.95

Sounddisks in the Atari-ST Format contain a free bankloader.
S = Sounds C = Combinations T = Tones D = Demo-Song WT = WaveTables WS = WaveSequences

PCM-CARDS

Yamaha RX-5/PTX-8 WaveRoms
WR-1 "Pop-Rock-Electro" (28 new samples) ☐ £ 99.95
WR-2 "Jazz-Funk Acoustic" (28 new samples) ☐ £ 99.95
***Korg DDD/DRM** Our 12 PCM-Cards have up to 8 different sounds on each card.*
Each £ 45.95. Ask for the PCM soundlist: ☐ Info

SAMPLING CDs

Natural Sound Sampler Series			
CD-1	*Natural Drums & Percussions*	*559 Sounds*	☐ £ 35.95
CD-2	*Natural Strings*	*339 Sounds*	☐ £ 35.95
CD-3	*Natural Sound Effects*	*523 Sounds*	☐ £ 35.95 NEW

ATARI-ST Software

***SoftThru-ST** Midi-Thru for Atari's Midi-Out*	☐ £ 4.95
***SoftRam-DX** 1024 DX StudioSounds + Manager-Accessory*	☐ £ 29.95
***LXP-1 Supervisor** Editor, Manager, Accessory, 128 new Register*	☐ £ 49.95

Please add name, address and signature.
Please allow 28 days for delivery.
Postage and packing is free.

Please also send me free of charge:
☐ *METRA-SOUND Catalogue*
☐ *Soundlists for*

METRA-SOUND Dealers:

MUSICAL EXCHANGES	*Birmingham*
FUTURE MUSIC	*Brighton*
MUSICLAND	*Cardiff*
FUTURE MUSIC	*Chelmsford*
PROJECT MUSIC	*Hounslow*
ARGENTS	*London*
HOLIDAY MUSIC	*London*
KEYBOARD SHOP	*London*
ROSE MORRIS	*London*
A1 MUSIC	*Manchester*
DOUGIES	*Northwich*
FUTURE MUSIC	*Southampton*
MIDI MUSIC	*Swindon*

AND MANY MORE ALL OVER THE BRITISH ISLES.

Dealer enquiries are welcome.
Contact MUSIMEX (081) 881 6060

METRA SOUND

METRA SOUND MARKETING UK
46 A MARLBOROUGH ROAD
LONDON N22 4NN
FAX (081) 888 6034
PHONE (081) 888 4272

☎ (081) 888 4272

➢ Neuronic capability, which is the way in which items are linked together. Then there are parent and child relationships which exist between Banks and Multis, Multis and Voices, and Voices and Pan Jobs, for example. This section of the program also introduces mouse and computer keyboard operations for renaming, display and selection procedures - surely, if you have a mouse you should be able to use it for everything bar entering names.

Another minor niggle: most items which can be named - Voices, Multis and so on - have an Auto Name button. Each click produces a random name but there's no cancel option so after randomising you can't go back to the original name.

"The program has some brilliant extras which make it pleasurable to work with - although there were times when I felt I wasn't 100% in control."

As storage of all these library items consumes memory, the program uses a system it calls ARM (Automated Rotating Memory) which involves swapping data between a library file on disk and the computer's memory. The program uses a Steinberg algorithm to compress MIDI data by up to 50%.

The column on the right of the screen is the Attribute window which holds lists of words used to describe library items. There are eight categories (a total of 247 attributes) and while this can't be increased - thank God, do they think we're masochists? - they can be renamed. You assign an attribute to an item by dragging it. Once you've done that (it could take a while if you've several banks of voices, associated Multis and so on), extraction is by a series of search options. You can assign a sequence to a Voice or Multi, too, useful for illustrating particular features of a sound.

SOUND CREATIONS

THERE ARE TWO voice generation functions. The Quadratic Mixture window uses the voices in the four buffers, sited at the corners of a square. The position of a cross within the square determines how much of each voice is used to create the new one.

Mosaic Creation picks a random selection of Voices from the Library and assembles parts of them to produce a new voice - your own Dr Frankenstein. Make 16 repeats the process 16 times and fills the bank with the results.

While the sounds aren't completely random (with so many parameters, the opportunities for producing garbage are legion) you do tend to get out what you put in. But it's certainly more fun than masking dozens - hundreds - of parameters and yes, lots of the voices are very useable even if they aren't all strikingly original. Exploring this could be a full-time job.

ON FILE

A BANK CAN be saved in two formats. Self-Send saves it as a normal Atari file and clicking on it from the desk top will send it to the SY77. Using Yamaha's All Synth format will write a file to an SY77-formatted disk which can be read directly by the SY77. Excellent utilities. A Voice or Multi can be saved in MIDI File format for loading directly into a sequencer or as a self-send file. This option can also save the pan and tuning parameters so everything is stored together.

The program can load SysEx voice data. It can also load DX7/TX7 and DX7II voices and convert them to SY77 format. It will also attempt to learn the format of other types of file - clever stuff, eh? It even read a commercial TX81Z voice disk although it didn't go over quite perfectly.

However, the program can load data direct from DX and TX synths. The manual suggests a 95% success rate for DX voices and a lower rate for TX voices. Many TX voices did lose something in the translation but you wouldn't want to transfer *all* your voices: time to clear out the dross.

MANUAL DEXTERITY

THE MANUAL IS extremely well produced, containing helpful diagrams and only the odd bit of Deutschlish. There are, however, none of the worked examples which can be so helpful. Perhaps Steinberg reason that the prospective purchaser will have a nodding acquaintance with the operation of their synth. I wouldn't be quite so confident; well-arranged tutorials never go amiss.

And you do need a good working knowledge of the SY/TG77's architecture to make sense of the screen layout. Many boxes and icons are not described in the manual at all, and although you may be able to work out what most of them are, this really isn't good. And it's yet another manual without an index.

While it's by no means the worst manual I've seen, I'm afraid I'm running out of excuses to pardon such productions. Anyone buying a piece of software at this price is entitled to explicit documentation. Steinberg of all companies really should know better.

VERDICT

APART FROM THE quit bug and the manual, SY77 Synthworks certainly proved enjoyable - even fun - to use. It has some brilliant little extras which make the program pleasurable to work with - although there were times when I felt I wasn't 100% in control (I have these moments of insecurity). This must be blamed partly on the complexity of the program and partly on the lack of information in the manual.

At times the program, its icons and all its interconnectivity try to be too clever for their own good. Or perhaps after looking at so many music programs, this one gave me a case of future shock. Some of the concepts, excellent though they may be, will require a little time to take onboard. Don't forget to budget for the £11.50 User Registration Fee (I don't know why they don't put this on the price) - you may need it.

All in all, an essential piece of kit for anyone serious about getting the most out of their SY77. ■

Price *£165 including VAT*
More from *Evenlode Soundworks, The Studio, Church Street, Stonesfield, Oxford OX7 2PS. Tel: (0993) 898484.*

We Sell Keyboards

Yamaha, Korg, Roland, E-mu, Akai, Ensoniq, Waldorf, Casio - need we say more?

And not just keyboards either! Drum machines, samplers, sequencers, expanders and all manner of computer and computer software all form part of the largest display of pro-audio equipment in Britain (after all, we are the largest pro-audio retailer in Europe!)

Over the last few years MIDI based equipment has assumed prime importance in the creative process of the music industry. Since music is our business, we find it relatively simple to adapt our organisation as this new technology evolved; bring in and train more expert staff members, expand our already large complex still further building more demonstration and training areas, and enlarge our training facilities to take on board extra MIDI based courses. Unfortunately, the only thing we haven't been able to change is the size of the ads! We finally decided that there was so much going on in our MIDI division that there was not enough space in the main ad to do it justice. So here we are!

This is ... COMPUTER HOUSEWARE!

Mac Classic + Midi Interface + Performer	£950 +VAT
Mac Classic 2 + Interface + Performer	£1250 +VAT
Mac Classic 2	£875 +VAT
Mac Classic	£575 +VAT
Atari 1040 + monitor + Creator	£650 +VAT
Atari 1040 + monitor + Notator	£750 +VAT
Hard Drive (200 meg) inc SCSI + DMA interface	£750 +VAT
Hard Drive (44 meg) inc SCSI + DMA interface	£599 +VAT
Aphex Studio clock - SMPTE + tap facility	£175 +VAT
Atari 1040 + monitor + Steinberg Cubase	£750 +VAT
Atari Mega 4/sound tools/20 meg hard disk	£3150 +VAT

SECONDHAND AND EX-DEMONSTRATION LIST

Yamaha SY22	£550 +VAT	Waldorf Microwave	£599 +VAT
Yamaha RX5 eight output drum machine	£299 +VAT	Atari 1040 STE	£349 +VAT
Yamaha SY77	£1199 +VAT	Korg DDI 1 drum machine	£99 +VAT
Emu Proteus 1	£475 +VAT	Yamaha DMP11 automater mixer (ich)	£599 +VAT
Roland D50	£499 +VAT	Korg DSM1 sampler (plays Akai)	£599 +VAT
XRI 300 SMPTE generator	£159 +VAT	Alesis HR16	£175 +VAT
Akai XR10 drum machine	£199 +VAT	Alesis MMT8	£175 +VAT
Akai S1000 Kb (includes full mother keyboard)	£2250 +VAT	Akai S950	£950 +VAT
Roland TR707/727 (pair of drum machines)	£299 +VAT	Akai S1000HD (hard disk)	£2499 +VAT
Roland S770	£2750 +VAT	Korg M1	£899 +VAT
		Steinberg Cubase (latest version - Ver.2)	£299 +VAT

This list represents only a fraction of our current secondhand and demonstration stock. Call us for a full listing - all prices exclude VAT.

MUSIC & TECHNOLOGY SCHOOL

We have expanded our prospectus to include two new MIDI courses. Each course is held on site, in our purpose built teaching studios with a maximum class of eight. Basic accommodation is usually available.

Course 1. (one week) during a small studio (8.16. 24 track) practical plus business **£175 + VAT (accommodation £25 + VAT)**

Course 2. (one day) MIDI-basic **£55 + VAT**

Course 3. (one day) MIDI-advances **£55 + VAT**

(both MIDI courses are on consecutive days andmay be taken as a single unit for **£100 + VAT**) for full details on any of these courses drop us a line or give us a call.

SPECIAL OFFERS (ALL NEW)

Akai S1000 2 meg expansion boards .... **£149 +VAT**
Akai S950 3/4 meg expansion boards ... **£125 +VAT**
Korg wavestation + £180 worth of free software ..... **£999 +VAT**
Roland U220 ..... **£434 +VAT**
Akai S1000 8 meg expansion boards .... **£550 +VAT**
Fostex 4020 event controller (inc SMPTE)..... **£299 +VAT**
Orla weighted, flight cased, full spec mother keyboards ..... **£499 +VAT**
Yamaha TG55..... **£375 +VAT**

LEARN ANOTHER LANGUAGE - TODAY!

Can you honestly say that you understand what is being talked about in the new generation of computer ads? Exactly what is a Dat I/O? Just how many different Mac computers are there and which is the best one to buy? What is a DIKI device, and if I connect it to a Winchester drive will it make my MIDI timepiece run faster?

For anyone who has not yet succeded in ploughing their way through this incomprehensible jargon try sending for our MIDI faxpak - one of a range of six (PA, Portastudios, 8 track, Financial advice, and information on our recording school), all designed to help you through the recording maze. All the packs are free - just give us a call!

SPECIAL OFFERS - (ALL NEW)

Alesis Microverb II	£99 + VAT	Sansui MX12 12-6 mixer	£299 + VAT
Sony OTC55ES	£470 + VAT	Art Multiberb LT - 186 program reverb	£149 + VAT
Alesis Quadraverb	£250 + VAT	Roland MV30 Micro monitors (pair)	
Aphex type C exciter	£150 + VAT	(RRP £199)	£59 +VAT
Casio DA7 Dat	£450 + VAT	Alesis MEQ230 - 2 x 31 band eq	£169 +VAT
Atari MG14D 14 track recorder	£1699 + VAT		

SECONDHAND

Aiwa HDS1 r-dat	£325 +VAT	RSD 24:8:16 mixdown	£1599 + VAT
Sansui MR6	£350 + VAT	Tascam 32 - 2 track (demo)	£599 +VAT
Fostex TB16	£1999 +VAT	Tannoy little red monitors	£350 +VAT
Yamaha MT3X	£350 + VAT	Tannoy little gold monitors	£399 +VAT
Casio DA2	£350 + VAT	Studiomaster Trackmix 24:12:24	£2750 +VAT
Azden 2 x 10 band eq inc spectrum display	£99 + VAT	Soundtracs 16:8:16	£1099 + VAT
Yamaha R1000 reverb (digital)	£50 + VAT	Fostex R8	£999 +VAT
Vestafire dual reverb	£25 + VAT	Tascam MSR24	£4999 +VAT

MULTITRACK DEALS

Sansui MR6 plus Fostex 812 mixer	£1099 + VAT
Fostex R8 + Seck 12:8:2	£1575 + VAT
Fostex R8 + RSD Pro-line 16:4:8 Gold	£1750 + VAT
Fostex R8 + Seck 18:8:2	£1839 + VAT
Fostex R8 + RSD Proline 16*8*16 Gold ...	£1875 VAT
Fostex R8 + Mixdown 16:4:8 Gold	£2089 + VAT
Tascam TSR8 + Seck 12:8:2	£2399 + VAT
Tascam TSR8 + RSD Proline 16*4*8 Gold	£2399 + VAT
Tascam TSR8 + Seck 18:8:2	£2460 + VAT
Tascam TSR8 + RSD Mixdown 16:4:8 Gold	£2530 + VAT
Tascam MSR16 plus RSD Mixdown 16 8 16	£4275 + VAT
Tascam MSR16 plus Seck 18 8 2	£3950 + VAT
Tascam MSR 24 plus Studiomaster trackmix 24 12 24	£8750 + VAT
Tascam MSR 24 plus Allen & Heath Saber 24:16:24	£12,500 + VAT
Tascam MSR16 plus Saber 16:16	£6499 + VAT
MSR16 + Spectrum 16:8:16	£5699 + VAT
MG14D + Spectrum 16:8:16	£4250 + VAT
Fostex R8 + Mixdown 16:8:16 (original)	£2399 + VAT
Tascam TSR8 + Mixdown 16:8:16	£2899 + VAT
Tascam MSR24 + Spectrum	£7250 + VAT
Tascam MSR16 + Spectrum	£5250 + VAT

When it comes to new equipment you may have noticed that we don't say 'phone for the best deal, POA, or "lowest price gurantee" (Ha! Ha! if the prices are so great why don't they just print them and amaze us all). Our bulk buying policy can usually guarantee that a telephone call to us will not be wasted and in any case we can throw in those "hidden" extras - cables with multitracks, patchbays with desks, (By the way, next time a dealer "guarantees" the lowest price and then can't deliver, try reporting them to the local Office of Fair Trading - it will teach them not to waste your time!)To be honest though, if you spend all afternoon on the telephone, the chances are you might find someone somewhere who will undercut us by a pound or two. The difference at THATCHED COTTAGE is if your multitrack breaks down on a Sunday morning or your Drum Machine blows up on a Bank Holiday Monday you CAN ring us, we'll be here and we WILL do something about it – 365 days a year. Have you ever needed help and advice outside shop hours? If you are serious about your music you will know that it is quality of service that makes the difference and at THATCHED COTTAGE it's only a phone call away!

STOP PRESS – TCA TRAVEL!

In case you didn't know, our fully equipped, ABTA/IATA Thatched Cottage Travel Agency has been up & running for some time expanding our high standards of service and great value into the travel industry. Whether you are organising a tour, visiting a trade show or simply booking a holiday, just give us a call – what have you got to lose? Contact Gill Scott or Nicki Brazier on 0223 314577 or 0860 450499 - mobile - (ABTA no. 89156)

★ ★ ★ THATCHED COTTAGE DIGITAL (T.C.D) ★ ★ ★

In order to cater for the increased demand for advanced multitrack systems we have a seperate division – Thatched Cottage Digital. Housed in a brand new purpose designed building, it handles 24-track analogue (including the new Tascam MSR24, Saber, Magnum, + Quartz desks) and all digital and leading edge installations (such as the new Yamaha digital Multitrack)

If you are considering any kind of professional set-up and feel that the legendary T.C.A. service and value are of interest, contact us on (0223) 208110 or ring the normal T.C.A. number for full details.

ALLEN + HEATH SPECTRUM - £2899 + VAT

Ever fancied a Saber but felt your budget didn't quite stretch ?Now you don't have to wait any longer ! The brand new Spectrum 16: 8:16 (32 inputs, all with E.Q and MIDI muting) is crammed with nearly every Saber feature (And a few more besides) including the full on board MIDI computer in a slightly smaller package ! This stunning new console produced exclusively for Thatched Cottage in the U.K. looks like a Saber but in addition is expandable in units of eight inputs simply by bolting on a module. The most amazing thing about this desk ? -The price - £2999 + VAT !!! In addition we are packaging it with the Tascam MSR16 for only - £5250+ VAT and the Tascam MSR24 for the stunning price of £7250 + VAT. or the Akai MG14D for only - £ 4250 + VAT. We have full details , just give us a call .

WOW! SANSUI MR6 SIX TRACK RECORDER – £399 PLUS VAT!!

Yes - it's true! Due to a special bulk purchase, the amazing Sansui MR6 rackmount 6 track recorder is now available at less than the price of most portastudios! If you already own a mixer, it's ideal (why buy a portastudio and pay extra for a mixer you don't need?) If you do need a mixer we can supply the full feature Sansui 12/6 console for less than the recorder - £299 + VAT! Another £99 + VAT buys you a synchroniser which locks 2 machines together, interfaces with a computer or sequencer and acts as a full remote control. Amazed? You should be!

NEW STOCK

Whilst we do not pretend to carry EVERY item from EVERY manufacturer, (*as some shops seem to - ever tried putting it to the test?*), all new equipment is tested in one of our three working studios, and if we like it, our buying power can usually ensure that we have it in stock at all times (even when your local dealer might have run dry!). In addition, if we recommend an item, we will REFUND YOUR MONEY if you do not agree with us.

In fact we are the largest pro audio dealers in Britain for Alesis, Korg, Drawmer, Casio, Fostex, Seck, Yamaha, TOA, Tascam, Studiomaster, Allen & Heath, C-Lab and a good many morel (Last year we sold nearly 700 new 8 & 16 track packages and around 300 s/h machines !!). It's always worth ringing us for a quote on new equipment and if you're still unconvinced, ask yourself why we became the biggest in such a short time (or better still ask the rest!)

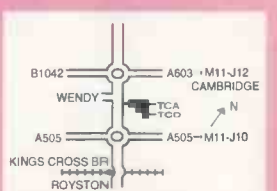
The third issue of FOLDBACK, our free magazine is now available. Write or telephone for your copy.

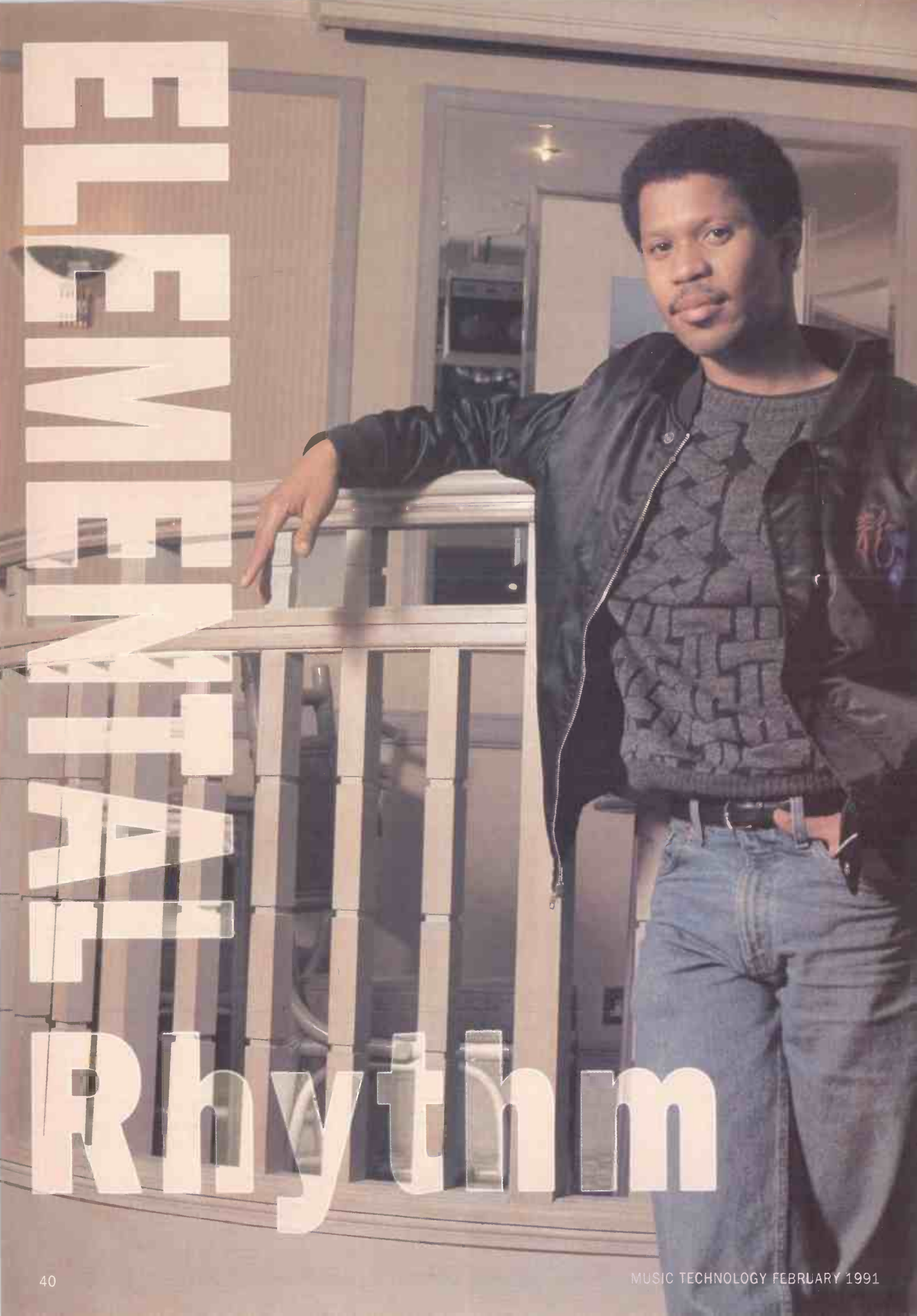
A division of Thatched Cottage

We got to be biggest - by being the best !

Telephone
(0223) 208080
(0223) 207979

Fax
(0223) 207952




FEATURE
Rhythm

PHOTOGRAPHY: JAMES CUMPSTY

New York-based alto saxophonist and composer Steve Coleman is not only creating a musical language for the '90s, he's literally programming the computer musician of the future. Interview by Simon Trask.

"IT'S A COMPLETELY DIFFERENT APPROACH - and I know it's different because a lot of musicians have trouble with it when they try to play in my band or to play my type of music."

Speaker Steve Coleman is in the UK with four musicians who obviously don't have any trouble with his approach to making music: the current line-up of his band Five Elements. It's November of last year, and Coleman has flown in from New York with keyboard player James Weidman, guitarist David Gilmore, bassist Reggie Washington and drummer Tommy Campbell for three dates to coincide with the release of their fifth album, *Rhythm People (The Resurrection of Creative Black Civilisation)*. Hopefully it won't be too long before they return: their performance at London's Hackney Empire is a revelation, conveying a rawness and cataclysmic energy which lifts the music beyond even the excitement level of the album. This is what live performance is about: musicians stretching themselves and the music, playing around with it rather than just playing it.

Two days earlier at Coleman's hotel, the 34-year-old saxophonist is keen to get one thing straight: "A lot of people have said that what we're playing is a kind of fusion music, which I take as an insult. For us, it's much more closely related to African music in the sense that everybody has a space, a certain place where his part fits with somebody else's. I don't care if you don't know where one is, all you have to do is know the relationship of your part to this guy and to that guy and to that guy, and of their parts to one another, know these different relationships and know how to explore and manipulate them. A large percentage of the music is improvisation, but I try to structure it so that there are different levels. We call them 'rates of change', which is a concept I got from African music."

Coleman uses our interview as an analogy to explain 'rates of change'. It goes like this: when he's answering a question, he's improvising at a fast rate of change, whereas I'm improvising at a slow rate of change because I'm listening to him and perhaps making comments and interjections. When I put a question to him and he's listening to me, I'm improvising at a fast rate of change and he's improvising at a slow rate of change. Simple - or is it? How do Coleman's musicians develop the 'knowing' which he referred to earlier?

"To begin with, I give everybody parts, and if everybody plays exactly what I wrote then they'll get the style of the piece without me explaining it. If they play their parts and it all hooks up in a certain way, the different melodies and rhythms are contrapuntal in such a way that they create the total sound that I want, and if we keep playing it and keep playing it then they'll hear that sound. Once they hear that sound, if they're the right kind of musicians, they'll be able to understand how they can improvise and still keep those relationships.

"With a lot of musicians, if they jam they have to play some tune from the '40s. What I'm trying to develop is a common language for today, using the elements of today, based on a balance of improvisation and structure - highly-structured improvisations, in fact, dealing with a lot of structure as opposed to what the free jazz guys in the '60s were doing."

The two most extreme forms of music in the 20th century, free jazz and total serialism, both succeeded in atomising the elements of music, one through an excess of freedom in improvisation, the other through an excess of rules in composition. During the past 20 years, jazz has lost its radicalism, as jazz musicians first of all fled into the populism of fusion, jazz-funk and the music's own past, and then, with the exception of all but the most adventurous musicians, ignored the radical and exciting developments which took place in popular music during the '80s. Perhaps because the '80s were above all the decade of computers, sequencers, drum machines and the 'non-musician', jazz musicians, with their emphasis on technique and 'real' musicianship, seemingly didn't feel that hip hop, house and techno with their explorations of rhythm, sound, texture, space and noise had anything to do with them. Yet no music was more radical in the '80s than Public Enemy's.

Through his record and production company, C & M Music Productions, Coleman has been producing hip hop alongside his own music. His inclination is not only to deal with the music but also to try stretching the form of it, bringing his own ideas on rhythm and structure to bear. He's quick to point out that in the past the development of jazz was not isolated from the popular music around it, and puts himself in that tradition.

"Soul music, funk and rap are to me what blues and rhythm 'n' blues were to Charlie Parker", he maintains. "I base the feeling of my music on that. Then I grab the formal elements from music all over the world, ➢

from classical music just like Bird and all those guys did, but also from pop music and African music, Bulgarian music, whatever, and then I build an improvisational language and a sophisticated kind of structure based on that. In that sense I feel I'm doing exactly the same thing as Charlie Parker did, though whether I'm doing it as good as he did is another matter - that's something only time can judge."

Coleman grew up listening to soul, funk and rhythm 'n' blues in his native Chicago. When he took up the alto sax at the age of 14 it was to model himself on James Brown's alto saxman Maceo Parker. He gained his initial performing experience playing James Brown songs with a local funk band, and used to copy Maceo's recorded solos note-for-note.

It was his father, a confirmed *Charlie* Parker fan, who made sure that he heard jazz as well as funk and soul. When Coleman went on to study music at university and tried to join the jazz band there, he was told that he would have to learn to improvise first. This he did by learning Charlie Parker solos off record - a daunting task - and by sitting in on jam sessions in Chicago with local jazz musicians.

In 1978 Coleman headed for The Big Apple, where he played on the streets and lodged at the YMCA until a place in the Thad Jones/Mel Lewis big band took him to Europe. Subsequent work in the big bands of Slide Hampton, Cecil Taylor and Sam Rivers gained him more playing experience but didn't give him an outlet for his own musical ideas, so he founded the M-BASE collective with a group of like-minded musicians based in Brooklyn.

"The original people - me, Cassandra Wilson, Greg Osby and Geri Allen - grew up in the same way, in the same period, listening to the same kind of music", he explains. "We didn't have exactly the same goals, but we wanted to do similar things in creative music. What was important for us was the common base that we had."

M-BASE apparently stands for Macro-Basic Array of Structured Extemporisations, which Coleman not surprisingly admits is "a heady thing, but it best describes what we're trying to achieve."

Along with the Five Elements albums, Coleman has also written two film scores, produced albums by such artists as Geri Allen, Cassandra Wilson, Strata Institute and Steve Williamson, and recorded with the likes of Abbey Lincoln, Branford Marsalis and Dave Holland, appearing on three albums by Holland - including the recently-released *Extensions* on ECM Records.

LISTENING TO THE MUSIC

on *Rhythm People*, it's clear that Coleman's music is based around a contrapuntal interplay of melodic and rhythmic motifs.

"I don't call them motifs, I call them cells, but yeah, I'll take a cell and I'll develop it, whether it's a rhythmic cell or a melodic cell or both", Coleman says. "I'm conscious of the interplay between different melodies, and as a result of that interplay a sound develops. You could say that that sound is harmony, but I'm not thinking explicity of harmony, I'm really thinking melodically and rhythmically. So I have a sort of pre-harmony way of thinking."

Coleman's music has a strong rhythmic base coming from the drums, but the constantly shifting bass and snare hits have little to do with the constant reinforcement of the beat common in the unrelenting 4/4 of Western popular music.

"I don't believe in 4/4, and in that sense I don't believe in metre", he says. "Four-four isn't the natural rhythm of things, it's a very contrived thing. I'm talking to you in a certain rhythm, in a certain phraseology, but what time am I talking to you in? Is it 4/4, 3/4? In Europe they had this march thing going, and that's what became dominant. For me, 4/4 time is part of the European influence on music.

"Rhythm was as developed in Africa as harmony was in Europe, but many people haven't realised that because Western culture dominates the world now, and as a result Western values are dominating the world also. But that's logical. Any culture that conquers another culture imposes its own values on that culture, just like Rome did with Greece. As a result, the things that were dominant in the other culture become less significant in the new

culture. In Western culture, things like 4/4 time and harmony are really dominant. For me, it's rhythm first, then melody, then harmony if it exists at all, but the way it's taught in school is exactly the reverse. To tell you the truth, I don't even believe in harmony."

Coleman takes issue with the jazz teaching orthodoxy which says that the main contribution of Dizzy Gillespie and Charlie Parker was harmony.

"If you really listen to the music, it's a melodic and a rhythmic music, but the way that it's analysed in school is the same way that they analyse Western classical music. They've taken those methods and applied them to music schools like Berklee, and that's how a lot of these young guys are thinking now.

"I'm not saying that guys like Charlie Parker knew nothing about chords, but what is harmony? At one point polyphony got so complicated in Europe that people decided to come up with names and rules and generalisations for some of the instances of what was happening. So they had names like tonic and dominant for what was really in the beginning complicated polyphonic moves. They just codified them into a harmonic language.

"Harmony as a theory was really only developed in Europe. All the music in the rest of the world is basically contrapuntal if it has more than one line, though of course there aren't the same rules as there were in the music of Europe during the Renaissance. Africans aren't concerned with the same rules that you would apply if you were analysing a Bach piece - they have their own rules, their own logic to their music."

TO STEVE COLEMAN THE MUSICIAN, composer and producer can be added Steve Coleman the computer programmer. Coleman has enthusiastically embraced computers ever since a friend suggested back in '85 that he buy a computer and a sequencing package instead of a cassette multitracker. After investigating what was available, he opted for a Commodore 64 and Dr T's Keyboard Controlled Sequencer software, and also joined a Commodore users' club to discover more about programming. He was interested in the golden-mean ratio 1:1.618 - otherwise known as the golden section - which has been regarded as an aesthetically pleasing proportion since the time of the ancient Greeks, who derived the relative proportions of their architecture from it.

"I figured if you could use the golden section with numbers then you could use it with notes, because everything's numbers to the computer anyway", Coleman says.

Before long he was writing a program in 6502 assembler on the Commodore 64 which was able to expand or contract a melody according to golden-section proportions. From there he developed the program to improvise a melody in the golden-section style and another style which he'd developed himself and called Symmetry.

"The Symmetry style came from watching the flight patterns of certain animals like bees and hummingbirds, which had this jagged flight pattern to them", he elaborates. "I came up with this musical style which imitated these jagged shapes through music. I was originally an artist, and I still see music visually.

"Basically, Symmetry is a technique that, instead of dealing with tonal areas, deals with what I call focuses, areas that you can expand into and contract out of evenly on both sides - hence Symmetry. I first developed this about ten years back, way before I started using computers, but I thought I'd try implementing it on the computer to see what would come out. In fact, the computer started doing things that I didn't understand at first. I printed out the figures and it took me about an hour of analysing them before I could follow the logic it was using. This is hard to explain without going into an explanation of the theory, but basically the computer showed me how to nest focuses. It actually taught me how to realise something that I made up in the first place and programmed into it - it's like being influenced by a guy who doesn't exist!"

"Rhythm was as developed in Africa as harmony was in Europe, but many people haven't realised that because Western culture dominates the world now."

Coleman's next programming step was to get the computer to mix his golden section and Symmetry styles according to a user-specified percentage; to get the program to improvise in real time. He had to progress to an Atari ST and begin programming in FORTH and 68000 assembler. From there he developed the program to improvise over any series of chords played into it from a MIDI keyboard.

"It could play complicated songs like 'Giant Steps'. It would be playing the changes just like a musician would, but it wouldn't be playing any cliches because it was playing in these two styles, Golden Section and Symmetry, or a mixture of both.

"The point I'm at now is that I've made this chord thing real time. If you start playing chords on the keyboard, the program will follow you instantly, whereas before it had to go away and work out what to do. You can play as many chords as you want, and the chords can be as complicated as you want, the program will follow you, you can't outrun it. I've tried to stump it, 'cos jazz musicians will say 'let's see if it can follow *this*'.

"What it's really doing is it's relating to what you're doing in terms of sound, not chords. It improvises more the way I improvise - I've just used myself as the model. I don't use a scale-over-chord approach like a lot of musicians do, I just look at it in terms of sounds. By a sound I mean a pitch or a group of pitches. I play in relation to which sounds have the least tension or the most tension against certain other sounds."

Coleman's program now also contains software which improvises rhythms in various styles and time signatures, constantly changing the rhythm in the way that a drummer would:

"It's interesting for me to say 'play a funk beat in what most people think of as 4/4, now play the same ➢

EQUIPMENT LIST

Atari 1040ST Computer
Atari STacy Computer
C-Lab Notator
Sequencing/Notation Software
Dr T's KCS Sequencing Software
(& all Dr T's computer music items)
Own Software
Roland R8M Percussion Expander
Roland S550 Sample Module
Softwind Instruments Synthophone
MIDI Sax Controller
Yamaha DX7IIFD FM Synth
Yamaha FB01 FM Expander
Yamaha TX81Z FM Expander

➢ type of thing in five or in 12/8 or in seven. . .'. The average musician can play a funk beat in 4/4, but if you ask him to do it in 12/8 he can't do it. For me, all these times are the same, so you should be able to do that.

"I did the program as a demonstration. I've always wanted a drum machine that could improvise, and I know from programming that it's not that hard, but these companies like Roland and Yamaha probably think 'where's the market in that?'. They could be a lot hipper, but they aren't because they tend to make things that appeal to the average musician. I think all drum machines should improvise and have algorithmic thinking-type things in them. Roland are just starting to get there with human feel, but. . ."

Coleman acknowledges the pioneering work of fellow jazz musician and computer programer George Lewis in the field of intelligent interactive improvising software, and says that Lewis showed him his specific technique for simulating intelligence within a computer using a random number generator.

"I took that basic idea and ran with it", he says. "It opened up a whole new world for me in terms of the computer-seeming-like-it-thinks thing."

According to Coleman, one interesting consequence of having a computer which seems like it thinks (which thinks that it thinks?) is that it has the capacity to surprise even the person who programmed it.

"Although I programmed certain rhythmic tendencies into the program, once in a while it'll come up with rhythms that I wouldn't have thought of or that drummers wouldn't play. Those things have found their way into my albums."

Coleman uses his program to provide raw material for him to work on. He has a version of the software which can be loaded up into Dr T's Multi Program Environment, where it can run alongside KCS and write its improvisations directly into KCS's tracks.

Today he uses two sequencing packages: KCS and C-Lab's Notator.

"Between them I think that's all you need", he opines. "When I'm doing rap things, SMPTE-intensive things in studios, I use Notator because it's faster. I don't like the way Notator is controlled with the key, though. I ended up getting two Notators just because I didn't want to switch one key back and forth between my ST and my STacy.

"Notator's so easy to use that a lot of people feel it's the best way to go, but for my own music, I use KCS most of the time. I write in a lot of weird forms with all kinds of different time relationships, and the Open mode in KCS gives me the structural flexibility I need because it allows me to play sequences from the keyboard and to have sequences call other sequences. You have to be into the number thing to get the most out of it, 'cos the program's kind of computer-oriented, but numbers never bothered me."

Coleman sees his software as playing a different role to that of a sequencer.

"A sequencer is just a straight tool like a hammer and I'm building a house with it", he says, "whereas my program is more like a creative tool, I can get ideas from it, I can put other ideas in and get feedback from it, things like that. It gives me different ways of looking at things. I can leave it running for an hour and it will just keep coming up with all kinds of ideas which I can print out, write out, whatever. It's almost like you have to get away from it after a while because it comes up with so many ideas that you can't absorb them all.

"I use my program at home to work on ideas, but I'm still not at the stage where I'm bringing computers on stage and playing with them, because I'm still playing with people and I still like that kind of thing."

However, all that might change if one particular project comes to fruition. Coleman is working with Martin Hurni, inventor of the Synthophone MIDI sax controller, on implementing his software on a chip inside the body of the Synthophone.

"I have these dreams about this future kind of music", he says, "and for me an instrument like the Synthophone is moving in that direction, with what we have in mind. I'm not interested in playing an instrument that's just going to make a synthesiser track my sound. That's boring to me. I want it to have some kind of intelligence. I'm interested in playing something and having an instrument play something else as a result of what I've played, something that's coherent, structural and musical, not just random notes. If we can get it to work then I'll start playing the Synthophone on stage."

Coleman sees the musician of the future as "someone more like a George Lewis type of guy, a guy who's very versed in music, very versed in technology and very versed in computer programming."

There again, there's a limit to how much time any one person has. Most of Coleman's time is taken up with playing, composing and producing, and as a consequence he feels that he could develop his software more quickly by bringing someone else in to work on the details of the programming.

"So if there's anybody out there who's interested, maybe they could contact me through the magazine", he suggests. "I realise there are people out there who are only interested for their own gains, but my ideas are. . . I feel they're unique because they're musical ideas first. I have a lot of musical ideas about relationships and I can translate them into computer language. I know a lot of MIT-type guys who think in a very computer fashion, in a very algorithmic way about how to change melodies and things like that, but it's not musical first. I program from a musician's point of view: I don't think about the processes first, I think about what I want to do as a person, and then I think about ways of approaching that with the computer, and ways that the computer could do it differently."

If life mirrors art, there can be no better instance than Steve Coleman. His life seems to be every bit as multi-layered and multi-directional as his music - and to develop every bit as quickly.

"I've come pretty far in the past five years", he reflects, "and I hope in five years' time I'll be equally as far on from where I am now. I don't want to be one of those musicians that just stays on the same spot."

Somehow this writer can't see that happening. ■

Next time your memory lets you down,

Don't forget Valhala

Only from AMG

If you own a synthesizer then VALHALA is a name that you simply cannot afford to forget. Whether you need new sounds or simply more room for your own, remembering VALHALA will probably not only save you time and heartache, but definately save you money. As well as arming you with the most widely respected sounds that money can buy. Remembering VALHALA could be your unfair advantage over every other M1 owner you know. Whether you're playing Wembley or East Tisted Town Hall, selling a million LPs or being asked to turn down that 'awful racket' by your next door neighbours, VALHALA will help you make better music without costing the earth. If you own a sampler why not check out our sampling CDs and disks, see our other advert elsewhere in this issue. Our policy at AMG is bring you the very highest quality peripherals at reasonable prices. Select any product from our range and discover what has made AMG the market leader in less than a year.

Valhala ROMs

Korg
M1/M1R – 7 Cards Available – £45 each
WaveStation – 2 Cards Available – £50 each
T1/2/3 – 6 Disks Available – £45 each
M3R – 6 Cards Available – £45 each

Roland
D50 – 10 Cards Available – £40 each
D5/10/20/110 – 9 Cards Available – £40 each
D70 – 2 Cards Soon! – £TBC

Yamaha
SY77 – 2 Disks Available – £45 each
SY/TG77 – 3 Cards Available – £65 each
SY55/TG55 – 3 Cards Available – £60 each
SY22 – 2 Cards Available – £60 each

Kawai
K4/K4r – 3 Cards Available – £55 each
K1/K1 Mk.2 – 4 Cards Available – £45 each

Ensoniq
VFX – Double Bank Cartridge – £90
VFXsd – 2 Disks Available – £40 each

Peavey
DPM-3 ROM Cards – 4 Available – £50 each

Valhala International Gold Series
Programmed in the UK by Hit Music Productions there's simply nothing to touch these sounds for pure quality. The M1 cards are in particular are unbeatable, three now completed.

Valhala Studio Series
This highly respected range is available for nearly all the above keyboards in categories including Top 40, New Age, Rock, Orch, Analog, Digital, PCM & Effects.

RAM Cards

Korg
MCR-03 – M1/M1R/M3R/WS/A3/etc. – £65 each

Roland
M256 – D50/D70/R8/D5/10/20/110/etc. – £55 each

Yamaha
MCD32/MCD64 – £POA

Kawai
K1 RAM Cards – £35 each
K4 RAM Cards – £45 each

Peavey
DPM-3 Cache Card – £65 each

What the press say

"The last time you heard sounds of this quality emanating from a single keyboard you were probably listening to an Emulator or a Fairlight...these sounds will tempt you to make an M1 the major keyboard in your rig. If they don't I honestly don't know what will."

M1 Review, Music Technology, August 90.

"...there is no company currently making a better name for itself than Valhala...I admit it I'm impressed...a number of absolute gems – the overall impression is one that firmly lives up to Valhala's excellent reputation for quality...quality plus value – what more do you want?"

D50 Review, Music Technology, November 1990.

"...some of the patches in Valhala's International Gold series are wonderful...most of them are both useful and a refreshing change of pace, and many of them are simply terrific."

D50 Review, Keyboard USA, November 1990.

"A Killer batch of sounds...knock the parameters off the standard library cards."

M1 Review, International Musician, March 90

All these products are ONLY available direct from AMG

Please send cheques/PO's made out to AMG to our address at the foot of the page. All prices quoted are fully inclusive of VAT at 15% and delivery. All orders are sent out 1st Class recorded delivery and are usually completed well within a week. However please allow up to 28 days for delivery. If any products are out of stock we will not debit your credit card until they are despatched to you. Because of the ability to duplicate most of these products any refunds or exchanges are made at the absolute discretion of AMG. All trade names are the property of their respective holders.

NEWS

M1 International Gold Card 3! – Is it out yet?
SY77, SY55 & SY22 – 6 Cards for each
International Gold WaveStation No.2 – Soon!
Call for the latest Info

AMG: Synth Sounds, Samples & More

AMG is most well known for being the leading purveyors of high quality sound software in the UK, however there are a number of businesses in the group involved in a range of activities. Here's a brief rundown on some of the other services available.

Advanced Recording Concepts

If you require any item of music making hardware that runs on electricity and has a MIDI port, then it is worth giving ARC a call on 073088 300. ARC is a main agent for Roland, Korg, Akai, Tascam, Emu, etc. Because we have no real overheads our prices are always competitive however any of AMG's customers can be sure of extra special deals. Because of our other activities you can be sure we're far more interested in the sounds than the boxes. When you call ARC you'll get our honest opinions and we're totally hard sell free.

Hit Music Productions

Hit Music are best known for programming the Valhala International Gold Series ROM cards and the HitSound sampling CDs however they do much more. During the last year they have worked on remixes, tour programming and music-to-picture amongst other things. This year they're 'doing an LP' to launch their management and promotions division so they are on the look out for talented singers in particular. So if you are involved in a project that needs that special touch why not try Hit Music. A load of talent and a little hype.

DubMaster

DubMaster offer a high quality yet affordable recording facility ideal for a wide range of clients, from the solo songwriter to the TV producer requiring dubbing, post production and bespoke music all in-house. Facilities include 24 track recording, Mac Sound Tools digital editing and extensive MIDI facilities. Please call for the full SP.

You can contact any of these divisions of AMG by calling or writing care of our usual address.

Special Offers

Finally here are a few special one-off items some at very competitive prices, Call for full details:

Roland MKS70 Super JX Rack (inc. 4 RAMs)	– £799
Kawai K4r Rack Synthesizer	– £475
Oberheim Matrix 6R Rack	– £599
Korg WaveStation (ex-demo)	– £1199
Roland R8m Drum Expander	– £449
JL Cooper 8 into 8 MIDI Patchbay	– £85
Roland S770 Mega Sampler	– £Call
Atari Mega 4ST Complete Laser DTP System	– £Call
Roland P330 SAS Piano Module	– £299

ST Music Software at special prices, Call for details.

AMG

The Advanced Media Group
Hurst Farm Barns
Hurst Lane
Privett, Nr. Alton
Hants GU34 3PL
FAX - 073088 390

Synthesizer Sounds from • Valhala
Sampled Sounds from • Northstar
Sampling CDs from • MasterBits • East West
• HitSound • McGill • Sonic Images

073088 383

MIDI in

GOT A MIDI-RELATED PROBLEM? SEEKING INFORMATION ON MIDI DEVELOPMENTS? YEARNING TO HAVE A SAY IN THE FUTURE OF MIDI? IF YOUR ANSWER TO ANY OF THESE QUESTIONS IS YES, HOW ABOUT JOINING THE UK MIDI ASSOCIATION? TEXT BY SIMON TRASK.

IT MAY SEEM hard to believe at times, but MIDI is a standard. As such it is presided over by an official body - in fact, by two of them: the MIDI Manufacturers Association and the Japanese MIDI Standards Committee. The MMA and JMSC are jointly responsible for instigating and co-ordinating developments in the MIDI specification. I mention this because you could be forgiven for never having heard of them. Both are "behind closed doors" operations which have no contact with the ordinary musician.

For the past seven years the public face of MIDI officialdom has been the International MIDI Association which, among other things, publishes a monthly newsletter (the IMA Bulletin), acts as the official disseminator of information on MIDI and provides a technical hotline service for anyone with MIDI problems. Anyone can become a member of the IMA, but if you happen to live in Europe the fact that the IMA is located several timezones and several thousand miles away in Los Angeles puts you at a certain disadvantage - not least financially.

When you realise that the MMA is also based in Los Angeles, and that the IMA and the MMA even have offices in the same building, the whole setup begins to take on the aura of an exclusive club - what's more, it's one which leaves you out on the pavement. The problem has its roots in MIDI history. MIDI was developed by a fairly small group of musical instrument companies based in California and Japan, so it's not really surprising that this parochial geographical orientation should have been adopted by the official bodies which were set up to look after MIDI.

The reality today is that MIDI is used by musicians around the world, while there are companies providing MIDI products in, say, Europe, which may not be available in the States. Inevitably the IMA, despite being international in name, cannot be as responsive to the needs of MIDI musicians in Britain or Germany as it can to the needs of those in the US.

Perhaps the ideal solution would be an international network of officially-sanctioned MIDI Associations which could act as focal points for MIDI problems and issues at a local level, liase with one another, and act as intermediaries between musicians and the MMA. Such a network could only develop through individuals in different countries taking on the responsibility of running an independent Association dedicated to MIDI matters. These Associations would require the co-operation of manufacturers and distributors at the local level in making MIDI and related information available. And they could only survive if they were supported by musicians, because in order to be truly independent they would need to be funded purely by membership.

Whether or not such a network ever emerges, MIDI musicians in the UK at least can now turn to their very own MIDI Association, known logically enough as the UKMA - the United Kingdom MIDI Association. Set up with the approval of the IMA, the UKMA has been up and running since April 1990. But who would be prepared to take on the responsibility and the sheer hard work entailed in running such an Association? We at MT weren't at all surprised when we learnt that it was none other than a long-time and much-respected contributor to this very magazine, Vic Lennard, a man whose enthusiasm for MIDI is matched only by his indefatigable pursuit of truth and justice when confronted with a problem or with a situation which he considers to be "just not on".

Starting up an organisation like the UKMA is not something that you do on a whim on your day off. Lennard became convinced of the need for a UK-based MIDI Association through the experience of running his own MIDIhelp consultancy service (which today exists only as a data recovery and call-out troubleshooting service). The next step was to convince the IMA to officially sanction the setting up of such a body - the only way in which it could have any legitimacy. He's the first to admit that it took a fair bit of persuasion.

"The main thing was proving that what we were going to do was in MIDI's best interests, and that we were not associated with any particular manufacturer", he says. "The IMA wanted someone who would be independent, they wanted UKMA to be run as an independent association, and they obviously wanted us to be very careful about the factual side of MIDI."

The UKMA is funded purely by membership in order to ensure independence. It operates a three-tiered membership scheme modelled on that of the IMA. Individual membership (£34.50 per annum) entitles members to a copy of the UKMA's monthly newsletter, *MIDI Monitor*, and free advice and support on all matters relating to MIDI. Group membership (£69 per annum) is open to retailers, colleges, publications and recording studios, and entitles members to five copies of *MIDI Monitor* per month and advice on MIDI matters, together with coverage of seminars, courses, roadshows, launches and special events in the newsletter. Finally, Manufacturer/Distributor membership (£138 per annum) entitles members to receive five copies of the newsletter per month, one free copy of both the MIDI 1.0 Detailed Spec and the Standard MIDI Files Spec, newsletter coverage of new equipment, and a copy of the UKMA mailing list with six-monthly updates.

All UKMA members qualify for free membership of The Music Network, the computer bulletin board service aimed at musicians, while both members and non-members can purchase the MIDI 1.0 Detailed Spec and the Standard MIDI Files Spec, which were previously only available from the IMA. Also available from the UKMA is the Hal Leonard range of books on MIDI and musical technology (with a 10% discount for members).

MIDI Monitor offers solutions to MIDI-related problems, acts as a forum for discussion on MIDI matters, and provides useful hints and tips as well as

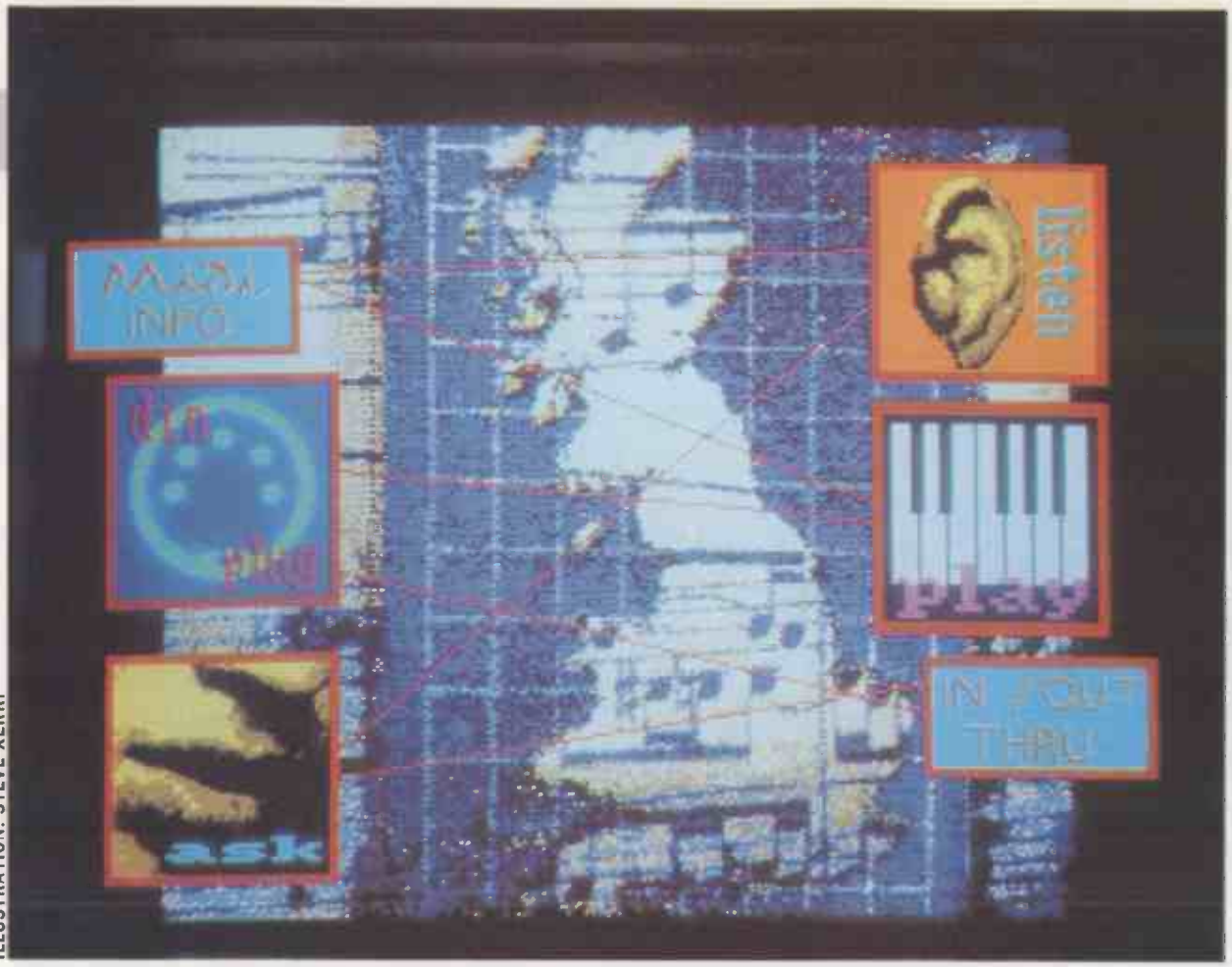


ILLUSTRATION: STEVE XERRI

information on updates to the MIDI specification as and when they occur. Issue six - the latest at the time of writing - includes explanations of how to transfer samples from an S1000 to an S950 and how to turn effects on and off via MIDI on a Yamaha FX500, discusses a (now cured) problem which occurs when using a Roland Octapad with Hollis Research's Trackman sequencer, and questions manufacturers' use of SysEx commands for real-time parameter editing via MIDI. UKMA members with a computer and modem can also access a database of MIDI problems (currently being established) and discuss MIDI topics with other members on certain bulletin boards (see below).

Members can also phone, fax or E-mail the UKMA for individual advice on MIDI problems. If unit "x" isn't working as it should do with unit "y" in your MIDI setup, a call to the UKMA will either produce a quick solution to the problem or else set the Association's resident bloodhound on the trail of a solution. If a solution can't be obtained from the UKMA's own information resources, they will contact the relevant manufacturers and distributors on their members' behalf.

Of course, manufacturers and distributors don't keep information on products for which they aren't responsible, yet many MIDI problems involve equipment from more than one manufacturer, so the existence of a body which draws together all the relevant information can only be welcomed - not only by musicians struggling to find a solution to a MIDI problem plaguing their setup, but also by the manufacturers and distributors. In fact, the majority of UK manufacturers and distributors have responded positively to the UKMA, not only by providing it with comprehensive MIDI documentation on their equipment but also by becoming UKMA members themselves. Of the Japanese companies, Akai, Korg, Roland and Yamaha have all joined. Support has also come from a less obvious quarter, the high-end mixing console manufacturer SSL, who have joined despite not having a great deal of involvement with MIDI themselves. And in case you're wondering, Music Technology is also a member.

The UKMA also has another role to play, that of intermediary between UK musicians and companies and the MMA. Currently in the process of applying for MMA membership itself at the time of writing, the UKMA intends to help UK companies involved with MIDI to get System Exclusive ID numbers and membership of the MMA. Lennard also feels that anyone with an interest in MIDI should be able to contribute to the debate on its future, and consequently intends that the UKMA should provide an open forum for discussion on MIDI developments which the MMA itself is considering. As an MMA member, the UKMA could then feed any resulting comments and suggestions into the MMA's discussions. It's a healthy scenario, and hopefully one which can be brought about. Some opening up of the MMA's deliberations is long overdue.

The benefits of UKMA membership should be clear. And because the UKMA relies on membership for funding, it will only survive if it's supported by the musicians who use MIDI - and as you're reading this magazine it's a safe bet that that includes you.

However, the last word goes to the man who has made the UKMA possible:

"I think it's important for people to appreciate that the UKMA is not Vic Lennard, though effectively I run it. Nor is it just one person's ideals or one person earning a living - quite the opposite: it owes me money at the moment. In a way it's one person's crusade. Yes!" ■

The UKMA can be contacted at 26 Brunswick Park Gardens, New Southgate, London N11 1EJ. Telephone and fax 081-368 7918 (follow prompts by Fax Switch). E-mail UKMA, MIDIHELP on CIX (topic under "Route 66/UKMA"), UKMA. SUPPORT on TMN, UKMA conference area on TMS.

EPS16 PLUS

PHOTOGRAPHY: JAMES CUMPSTY

As its name implies, the EPS16 Plus is a 16-bit version of Ensoniq's EPS sampler - but is the 16 Plus different enough from its predecessor to establish its own identity? Review by Simon Trask.

WHY CHANGE A winning formula? This question must have been running through the collective Ensoniq mind as the company set about designing a 16-bit successor to their EPS sampler. After all, in many respects the EPS still hasn't been bettered in its sub-£2000 price range. Sophisticated sample looping facilities and sample split/layer keyboard textures, maximum 52.1kHz sampling rate, fixed-frequency sample playback, 24-bit internal processing, maximum 20-voice polyphony, full-blown synthesis capabilities, the ability to load samples off disk without interrupting a performance, a flexible and easy-to-use onboard sequencer and a polyphonic aftertouch keyboard aren't the signs of an instrument on its last legs.

Ensoniq could have left the EPS alone and gone for a no-holds-barred - and much more expensive - stereo 16-bit machine, but clearly they felt it was more important to keep within the £1000-2000 price range which has served them so well up till now. At £1795, the EPS16 Plus is around £200 more expensive than its predecessor, but still a reasonable price when you consider that, in addition to the above features of the EPS, you're getting true 16-bit-linear mono sampling, double the EPS' onboard memory, and - perhaps most significantly of all - 24-bit effect processing. The only other sampler to include digital effects at present is Akai's S1100, which is considerably more expensive than the 16 Plus.

Another feature new to Ensoniq's latest sampler is the Flashbank memory option, available in FB1 (512Kb) or FB2 (1Mb) versions. Sample data which has been saved to the Flashbank memory will be retained onboard the 16 Plus through power-down, making it readily available whenever the sampler is powered up. Unfortunately, Flashbank memory wasn't available on the review model, so I can't really say any more about it, but in theory it seems like a neat idea.

The EPS16 Plus comes fitted with 1Mb of RAM - upgradable to 2Mb with the optional ME16 Plus Memory Expander cartridge - which is shared dynamically between sample and sequence data. The standard memory is enough for 11.43 seconds of sampling at the maximum 44.6kHz sample rate, or about 160,000 notes of sequencer data.

Other add-on options are the SP2 SCSI kit, which allows the 16 Plus to communicate with hard disk and CD ROM units (and which requires the ME16 memory expansion to be fitted) and the OEX6 Output

Expander, which plugs into a socket on the sampler's rear panel and provides six dry audio outputs, grouped as three stereo pairs, in addition to the standard L/R stereo outputs. On the subject of audio outs, Ensoniq have included a stereo headphone output on the 16 Plus - something which was omitted from its predecessor.

The rack-mount version of the EPS16 Plus, known logically enough as the EPS16R Plus, comes with the full 2Mb of memory and four stereo output pairs fitted as standard, and so doesn't require either the ME16 or OEX6 upgrades.

SAMPLING

THE EPS16 PLUS provides a choice of seven sample rates ranging from 11.2kHz-44.6kHz. That's a range of 46.25-11.42 seconds sample time with the standard 1Mb of memory. You'll probably want to mix 'n' match sample rates and reserve some memory for sequences, so in practice the total sample time will fall somewhere between. The inclusion of a Convert Sample Rate function (6.25kHz-48kHz) makes it possible to sample at a higher rate initially and then convert to a lower rate if necessary - and acceptable - later on, in order to conserve memory. An audition facility lets you play the resulting sample before deciding whether or not to keep it.

Sampling is a straightforward process on the 16 Plus, as it is on the EPS. You press the Sample button, select an Instrument in response to the prompt (the 16 Plus automatically selects a new sample location), press the Enter/Yes button and you're in Level Detect mode with a peak-reading VU meter in the fluorescent display. At this stage the incoming sound is automatically routed via the 16 Plus' stereo outs for easy monitoring. The Amp indicator flashes in the display if the signal is clipping, and you can set a Threshold level (indicated by an asterisk in the display) with the Up and Down buttons. With the Left and Right buttons you can scroll to other screens which allow you to select the sample rate and a pre-trigger sample duration (10-20ms) together with either mic or line input level, view the remaining sample time for the selected sample rate, and adjust the cutoff point of the anti-aliasing filter. The 16 Plus automatically adjusts the latter to its optimum value whenever you change the sample rate, but if you sometimes want less than perfect samples then being able to change it yourself is useful.

Pressing the Enter/Yes button while on the Level Detect screen activates sample mode, at which point the 16 Plus waits until the threshold is exceeded before starting to sample. It only stops sampling when the memory is full or when you press the Cancel/No button, whichever occurs first. Once the sample data has been processed, the 16 Plus asks you to play a Root Key for the sample (the note at which it'll be replayed at original pitch). At this point the sample is spread across the keyboard.

To build up multisamples, you keep going through the above process, assigning each sample to the appropriate Root Key. The 16 Plus automatically sets the splitpoint between two adjacent samples to be midway between their Root Keys, but you can adjust the range of each sample at any time. To redo a sample you go through the above process again, only selecting the sample you've just sampled into rather than a new sample.

Once you have a sample in memory you can set its playback mode (forward no loop, backward no loop, loop forward, loop bidirection or loop and release) and adjust its Sample Start and End points and Loop Start and End points. These adjustments can be made while you play the sample, so it's easy to hear when they're wrong. A combination of coarse and fine adjust parameters and Up/Down and data slider controls allow you to move quickly or slowly through the sample data, while if Auto Loop Finding is enabled, the 16 Plus will automatically seek out zero crossing points for the loop start and end parameters as you scroll through the sample.

Like the EPS, the 16 Plus offers a wealth of looping options should zero crossing points not be enough. As well as standard crossfade looping, you get Reverse Crossfade, Ensemble Crossfade, Bowtie Crossfade, Bidirectional Crossfade, Make Loop Longer and Synthesised Loop. You still have to locate what seem like decent loop points, but these options do their level best to create smooth loops for you.

You can copy, delete, truncate, mix, merge and splice samples, and get the 16 Plus to create a square-wave sample for you. Loop Position allows you to adjust the Loop Start point while retaining the loop size, a function which is well suited to trying out a loop on different parts of a sampled break.

Dynamic modulation of Sample Start, Loop Start and Loop End points can be programmed on an individual sample basis. Any one of 15 modulation sources - including mod wheel, velocity, aftertouch, keyboard tracking and random noise generator - can be used to dynamically control either Loop Position, Sample Start, Sample Start and Loop Position, Loop Start, Loop End, Loop Start-X or Transwave, with programmable modulation amount and range. Again, this can work well with sampled breaks, as a means of spontaneously expanding or contracting a loop or moving it around within a break which lasts several bars.

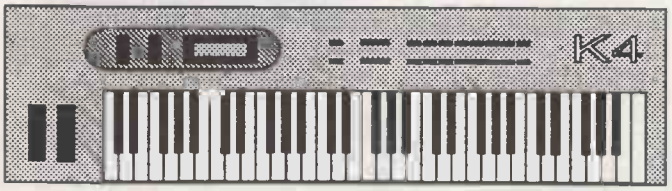
VOICING

LIKE THE EPS, the EPS16 Plus can route each of its samples through an all-digital Voice configuration which consists of an oscillator, two multi-mode filters, an LFO, three six-stage envelope generators "hard-wired" to pitch, filter- ➢

THE MUSIC CORPORATION

THE MUSIC CORPORATION SELECT ONLY THOSE PRODUCTS WHICH REPRESENT OUTSTANDING VERSITILITY & VALUE FOR MONEY. OUR BULK PURCHASING POWER ENABLES US TO THEN OFFER THESE PRODUCTS AT VASTLY REDUCED PRICES - WE MEAN BUSINESS!

KAWAI K4



DIGITAL SYNTHESISER

- 61 NOTE VELOCITY & PRESSURE SENSITIVE KEYBOARD
- 256 16 BIT PCM & DIGITAL CYCLIC WAVEFORMS
- 16 DIGITAL EFFECTS
- 61 PCM DRUM SOUNDS
- 64 SINGLE PATCHES/64 MULTI-PATCHES/32 EFFECTS PATCHES
- 16 NOTE POLYPHONIC
- 8 CHANNEL MULTI-TIMBRAL

THE MUSIC CORPORATION (UK) LTD. ORIG. RRP £895 **£625**

KAWAI K1R

DIGITAL SYNTHESISER

- RACKMOUNT K1 SYNTHESIZER
- 8 CHANNEL/16 NOTE POLY VIA MIDI

THE MUSIC CORPORATION (UK) LTD. ORIG. RRP £449 **£299**

SEIKO MR1000

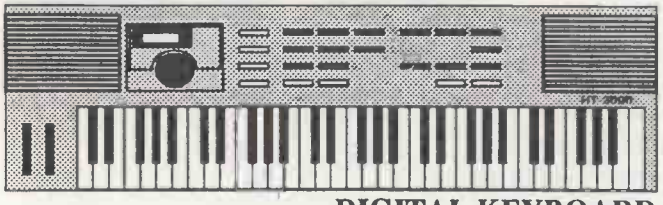
MIDI

DIGITAL SEQUENCER

- 5000 NOTE CAPACITY
- OVERDUB UP TO 16 MIDI CHANNELS
- RECORDS VELOCITY & AFTERTOUCH
- TAPE DUMP FACILITY
- COMPLETE WITH MIDI LEAD & PSU

THE MUSIC CORPORATION (UK) LTD. ORIG. RRP £129 **£39**

CASIO HT-3000

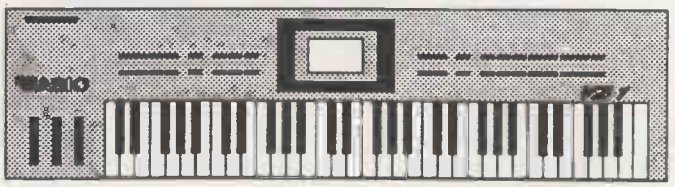


DIGITAL KEYBOARD

- 5 OCTAVE FULL-SIZE KEYBOARD
- PROGRAMMABLE DIGITAL DRUMS
- PROGRAMMABLE BASS/CHORDS
- 20 PRESET/20 PROGRAMMABLE SYNTHESIZER SOUNDS
- MIDI IN/OUT/THRU
- MULTI-TIMBRAL 3 VOICES PLUS RHYTHM

THE MUSIC CORPORATION (UK) LTD. ORIG. RRP £429 **£189**

CASIO VZ-1

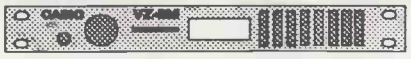


DIGITAL SYNTHESIZER

- 5 OCTAVE KEYBOARD 16 NOTE POLY
- 8 NOTE MULTI-TIMBRAL VIA MIDI
- TOUCH SENSITIVE & AFTER TOUCH
- VELOCITY SPLIT & CROSS FADE
- COMBINATION VOICE LAYERING
- 256 SOUNDS/256 OPERATION MEMORIES
- PITCH BEND & 2 USER DEFINED WHEELS

THE MUSIC CORPORATION (UK) LTD. ORIG. RRP £999 **£379**

CASIO VZ-8M



DIGITAL EXPANDER

- RACKMOUNT VZ-SYNTHESIZER
- 8 CHANNEL/16 NOTE POLY VIA MIDI

THE MUSIC CORPORATION (UK) LTD. ORIG. RRP £399 **£189**

SANSUI MR-6

SIX TRACK RECORDER

- MIDI SYNC CAPABILITY
- DOLBY C NOISE REDUCTION
- PUNCH IN/PUNCH OUT FACILITY
- FREQ RESPONSE 40HZ-15KHZ
- REHEARSAL LOOP FUNCTION

THE MUSIC CORPORATION (UK) LTD. **£349** EXC. V.A.T.

CASIO MG-510

MIDI GUITAR

- SUPERB QUALITY GUITAR
- INTEGRAL MIDI INTERFACE
- HIGH-SPEED TRACKING

THE MUSIC CORPORATION (UK) LTD. ORIG. RRP £449 **£279**

CASIO PG-380

GUITAR SYNTHESIZER

- BUILT-IN SYNTHESIZER MODULE 64 SOUNDS/ACCEPTS VZ ROMS
- SUPERFAST TRACKING
- LOCKING TREM ● BUILT IN TUNER

THE MUSIC CORPORATION (UK) LTD. ORIG. RRP £999 **£599**

SPECIAL DEAL - JUST IN!!! CASIO DH-800

DIGITAL HORN / WIND MIDI CONTROLLER

Real recorder style fingering - MIDI interface - 6 Preset Tones - Portamento - Built in speaker - Headphone socket - Demo Tunes **£69**

FAST DELIVERY SERVICE : 24 HOUR ANSWER SERVICE : PHONE THROUGH YOUR ORDER NOW

ACCESS THE MUSIC CORPORATION : LINK MALL : DOLPHIN CENTRE : POOLE : DORSET **(0202) 684560** VISA

cutoff and amplitude, and a sophisticated matrix modulation setup which allows oscillator pitch, LFO depth and speed, filter cutoff frequency, volume and pan position to be dynamically controlled from a range of 15 modulation sources which include the LFO, a random noise generator, velocity, aftertouch, envelopes one and two, the pitchbend and mod wheels and an external MIDI controller. The 16 Plus's polyphonic aftertouch keyboard comes into its own as a modulation source, allowing each note to provide its own degree of modulation. For instance, using polyphonic aftertouch to modulate pan position gives each active Voice independent movement within the stereo image.

The two filters within each Voice can be configured in any one of four ways: 3-pole low-pass + 1-pole low-pass, 2-pole low-pass + 2-pole low-pass (the classic 24dB/octave "analogue" filter response), 3-pole low-pass + 1-pole high-pass, and 2-pole low-pass + 2-pole high-pass. Disappointingly, Ensoniq haven't taken the opportunity to upgrade their filters with resonance control, but in other respects the Voice configuration offers abundant programming detail - for instance, separate envelope levels for soft and hard velocities (with the 16 Plus dynamically interpolating between the two according to the received velocity), random modulation of pitch, velocity control of envelope attack time, keyboard scaling of envelope times, envelope second-release time and level, an envelope mode (normal, cycle or repeat), LFO "humanise" mode (randomly fluctuating LFO speed) and glide and legato performance modes. There's also plenty of modulation flexibility: for instance, you could use polyphonic aftertouch to modulate filter cutoff frequency and LFO speed while the LFO is modulating oscillator pitch and Voice pan position.

TUNING

THE EPS16 PLUS allows you to create up to eight pitch tables for each of its eight Instruments, and give each one a 12-character name. Each Layer within an Instrument (see Get Organised) can be played with either standard equal-temperament tuning, a fixed pitch across the entire note-range (middle C), or any one of the pitch tables assigned to that Instrument.

Within a pitch table, every note from A0-C8 can be given its own coarse (semitone) and fine (cent) tunings. Fine tuning spans 0-99 cents (there are 100 cents to a semitone), and can be programmed to one-cent resolution. Although cent tuning is only positive-going, you can flatten a note by tuning it down a semitone and then sharpening it by the appropriate number of cents.

The Extrapolate Pitch Table function allows you to quickly copy one interval or a series of intervals over the entire A0-C8 span, providing a quick means of creating, say, quarter-tone or reversed semitone scales. Finally, Pitch tables can be copied from one Instrument to another and Deleted.

GET ORGANISED

THE EPS16 PLUS can hold up to eight Instruments in its internal memory, each of which can consist of up to 127 Wavesamples (a Wavesample being a sample plus associated looping and synthesis parameters) spread across eight Layers. A Wavesample can be assigned to any range of notes, but only one Wavesample can be assigned to any one note within a Layer. To crossfade between Wavesamples over a note range, velocity-switch and velocity-crossfade between them or layer and overlap them, you need to assign them to different Layers. The 16 Plus gives you all the flexibility and versatility you could want when it comes to creating keyboard textures.

Complete Instruments can be layered by double-clicking on the relevant Instrument/Track buttons, while split textures can be created by giving the Instruments appropriate note ranges.

Further versatility is provided by the four Patches which can be programmed for each Instrument and selected using the front-panel Patch Select buttons, an Ensoniq SW5 Dual Footswitch or MIDI controller code 70. Each Patch can be programmed to play any selection of the eight Layers, so for instance you could set up one Patch to provide solo piano (Layer one) and another to provide layered piano and strings (Layers one and two). That's an obvious use, but in practice the Patches can be put to a wide range of uses.

With all this textural sophistication, the inclusion of eight Performance Presets is welcome - these allow you to store and instantly recall selected internal and MIDI textures.

EFFECTS

THE EPS16 PLUS' onboard digital effects processing is the most substantial advance over its predecessor. Effects processing is provided by the Ensoniq Signal Processor (ESP) chip working in conjunction with a third-generation version of the company's Digital Oscillator Chip (DOC III), with a 16-bit DAC at the output stage. Of the four stereo busses on the 16 Plus, three are routed into the effects processor while the fourth (Aux) is routed to the rear-panel Output Expander socket and the OEX6, bypassing the effects. Each Voice can be assigned to one of these four busses. In most cases Buss 3 is reserved as a "dry" path to the main stereo outs.

The EPS16 Plus offers a choice of 13 programmable Effects: Hall, 44kHz and Room Stereo Reverbs; Dual and 44kHz Delays; Chorus + Reverb; Phaser + Reverb; Flanger + Reverb; Rotary Speaker + Reverb; Chorus + Reverb + DDL; Compression + Distortion + Reverb; Distortion + Chorus + Reverb; and Wah + Distortion + Reverb. These provide all the quality and programming flexibility we've come to expect on Ensoniq's synthesisers since the advent of the VFX, including dynamic control of selected effect parameters (reverb wet/dry mix, flanger feedback amount and rotary speaker fast/slow switch) from a range of ten modulation sources which include mod wheel, channel aftertouch, velocity, incoming MIDI controller and the Patch Select buttons. Incidentally, the 44kHz effects reduce the standard 20-voice polyphony of the 16 Plus to a more modest 13 voices.

With three busses into the effects processor you get quite considerable routing flexibility. For instance,

"The EPS16 Plus takes onboard effects processing into a new realm by allowing you to digitally resample an effected Wavesample within the instrument."

➢ with the Chorus + Reverb effect, you can use Buss 1 for Chorus and Reverb, Buss 2 for Reverb only, and Buss 3 as a dry output. Additionally, you can determine a reverb dry/wet mix for the chorussed signal and a reverb dry/wet mix for Buss 2. Chorus + Reverb + DDl gives you Chorus and Reverb on Buss 1, Reverb only on Buss 2, and DDL only on Buss 3, with a wet/dry mix on each buss.

Selecting Rotate as the output buss assignment for a Voice causes the routing to cycle around Busses 1-3, so that each successive note played for that Voice is routed via a different buss. An interesting if rather mechanical feature; you could perhaps route every third note of a guitar part through distortion, or every third snare beat through digital delay.

Running a looped break through a potentially extreme effect like Wah + Distortion + Reverb and editing effect parameters on the fly is something that's well worth investigating if you're into using breaks. Playing around with such parameters as reverb damping, compressor threshold, distortion gain, wah centre and range and the seriously dangerous system feedback can take you into the wilder realms of dub and industrial noise.

The EPS16 Plus takes onboard effects processing into a new realm by allowing you to resample an effected Wavesample. This is done internally, so the process remains entirely digital. You can set the destination Wavesample, the key at which the Wavesample will be resampled, the sample time and the output channel (Left or Right) that the 16 Plus will resample from. Once you've done this, pressing the Enter/Yes button activates the resampling process and you hear the Wavesample with effect being played by the 16 Plus. Once the process is finished, you can audition the new and resampled Wavesamples and discard the new one if it hasn't turned out right. If you keep the new Wavesample, it's automatically routed to Buss 3, presumably because this is often dry.

Of course, there are practical limitations as soon as an effect becomes part of a sample. For one thing, it becomes fixed, unchanging - so you lose the sort of dynamic effect changes you can get by whacking up the feedback level on the phaser or dynamically modulating an effect parameter from, say, aftertouch. What's more, unless the sample is a one-shot you'll have to reloop it, which isn't always easy - and can make the effect sound more artificial. And the effect will change as you play a sample up and down the keyboard - DDL rate will become faster or slower, for instance. There again, resampling allows you to experiment with reversed effects, with or without reversing the actual sound (if you reverse the sound, resample it with the effect and then reverse the result, you get the effect but not the original sound reversed - and with reverb and DDL you get the effect before the sound). Another virtue of resampling with effect is that you can effect an effected sound, and so create sounds that you couldn't get by running a Wavesample "live" through the 16 Plus's effects processing. And you can resample as many times as you want without loss of quality, because the process is entirely within the digital domain.

Resampling with effect is best for creating special effects (you can use effects processing to create weird sounds that you couldn't possibly get by standard synthesis means), giving individual sounds within a drumkit their own effect processing, and effecting a looped break (anything from a subtle touch of flanging or DDL to some wild tonal changes using the Wah + Distortion + Reverb effect).

"If you don't use the onboard sequencer, the 16 Plus is worth considering purely as a multitimbral sampler - you won't find a better instrument for under £2000."

SEQUENCING

THE SEQUENCER ON the EPS16 Plus adopts the same format as that on the EPS: 80 eight-track sequences which can be chained together to form one Song in memory, with a further eight Song tracks which run parallel to the Sequence tracks and allow you to record for the entire length of the Song chain. Each Sequence can be up to 999 bars long, while a Song can consist of up to 99 steps, each of which can have up to 99 repetitions. Song tracks can only be recorded once you've set up a Song chain, while Sequence tracks can't be recorded in the context of Song tracks.

Although literally speaking there are 16 tracks, the Sequence and Song tracks aren't wholly independent of one another. For one thing, Instruments 1-8 are allocated both to Sequence tracks 1-8 and Song tracks 1-8. This means in turn that controller data such as pitchbend and sustain pedal recorded into a Song track will also affect the corresponding Sequence track, and vice versa - as will track mix and track pan data. Another practical limitation is that internal/MIDI status is defined per Instrument rather than per track, as are MIDI transmit and receive channels.

More often than not, then, you'll want to record into either a Sequence track or the equivalent Song track, in which case you've effectively got an eight-track sequencer with the balance of Sequence and Song tracks decided by you.

Each Sequence can be given its own time signature and tempo. The length of the first track to be recorded within a Sequence defines the length of the Sequence, but you can subsequently lengthen or shorten a Sequence. Track record mode can be set to Replace, Add or Looped (the latter providing drum machine-style recording). You can Goto any bar within a Sequence once the initial track has been recorded, and start recording from that point; it's also possible to manually drop in at any point in a track. You can record a track from the 16 Plus' keyboard and/or an external MIDI source. Apparently the next version software will offer multitrack recording via incoming MIDI, together with the ability to load Instruments while a Sequence or Song is playing.

In traditional Ensoniq fashion, the 16 Plus allows you to audition old and new versions of a track before deciding which to keep. As well as providing a quick means of erasing an unsuccessful take, this allows you to recall a previous take. Track mix (volume) and pan data can be recorded dynamically into a track by selecting the appropriate parameter field and then adjusting the value using the data slider and the Up/Down buttons. Patch changes can be recorded

into a track by holding down the appropriate Instrument/Track button, tapping in the patch number on the numeric keypad and then releasing the Instrument/Track button at the appropriate point in the Sequence or Song.

Track editing functions include quantising, copying, erasing, merging, transposition, time-shifting, event-scaling, and erasing and copying of specific types of event. There's also detailed and precise event editing to clock resolution (the EPS16 Plus has 96ppqn resolution to the EPS' 48ppqn).

In addition to selecting a Sequence and a number of repeats for each step in the Song chain, you can define the status of each Sequence track as Muted, Playing or Transposed, and program a single transposition amount (± one octave in semitone steps) which applies to all Transposed tracks within the step. Although the Song tracks are provided for extended recording, you can Goto any Song step and begin recording from that point, so it's possible to record on a step-by-step basis.

Real-time muting of Sequence and Song tracks during playback is possible from dedicated screens. You select a Track by pressing the relevant Instrument/Track button, then use the Up and Down buttons to set the track to M(ute) or P(lay). Being able to mute and unmute tracks simply by successive presses of the Instrument buttons would have been preferable. Also, it's a shame that the 16 Plus can't record real-time track mutes - surely no more difficult a task than recording track mix and pan data.

VERDICT

THE EPS16 PLUS is a powerful, sophisticated, versatile, well-thought-out sampler with a great deal of depth to it - which is no more than we've come to expect from Ensoniq. Sample quality is excellent, while the fixed-rate sample playback ensures that samples transposed down over several octaves remain undistorted. The usual musician-friendly onboard sequencer does no harm to Ensoniq's workstation credentials, though to my mind the company should have taken the opportunity to upgrade the 16 Plus to 16 Instruments and truly independent Sequence and Song tracks.

Even if you don't want to use the onboard sequencer, the 16 Plus is well worth considering purely as a multitimbral sampler - you won't find a better instrument for under £2000. Above all it's the 16 Plus's onboard effects processing and its Resample-with-effect function which puts it in a class of its own - and most decidedly distinguishes it from its predecessor.

Ensoniq show yet again that they're a company to be taken very seriously - not least by their Japanese competitors. ■

Prices *EPS16 Plus, £1795; EPS16R Plus, £1825. Both prices include VAT.*
More from *Sound Technology plc, 15 Letchworth Point, Letchworth, Hertfordshire SG6 1ND. Tel: (0462) 480000. Fax: (0462) 480800.*

Retro action

WITH ANALOGUE SYNTHS ENJOYING A MUSICAL RENAISSANCE, EQUIPPING THEM WITH THE ABILITY TO "TALK MIDI" HAS BECOME A MUCH SOUGHT-AFTER SERVICE. BUT WHAT IS INVOLVED AND WHO TAKES CARE OF IT? TEXT BY VIC LENNARD.

TODAY, WE'RE USED to regarding many pre-MIDI, analogue synthesisers as "classic" instruments. Monophonic synths such as the ARP Odyssey and the evergreen Minimoog certainly deserve such a tag, and some of the later polyphonic synths like Roland's Jupiter 8 and Sequential Circuit's Prophet 5 are often viewed in the same way.

Sadly, classic qualities have rarely stood in the way of progress, and the appearance of MIDI sounded the death knell for many an analogue synth's development. Some manufacturers incorporated MIDI in existing synths, but even this failed to insure them against the arrival of FM synthesis. These days, wonderful but outdated instruments often change hands for a small fraction of their original asking price. Yet they remain firm favourites with musicians working in all areas of music - as demonstrated by the popularity of MT's own retrospective features on instruments like the Yamaha CS80, Sequential Circuits Pro One and the Roland Bassline.

Happily, there are methods of admitting non-MIDI synths to the world of MIDI. The first is to use a MIDI/CV interface; this sits between the MIDI controller and the synth, and converts incoming MIDI information into Control Voltage (CV) and Gate signals which the synth can understand. This has various disadvantages but the principal ones are that MIDI note information is all that can usually be interpreted; no velocity, pitchbend or patch changes. Neither will a MIDI/CV unit provide a MIDI Out from a non-MIDI synth.

The second option is to delve into the workings of the synth and incorporate a MIDI interface within the synth's circuitry.

GET TECH

THE HEART OF a MIDI instrument is usually a software program held in ROM. This controls the operation of the device, and to alter it means rewriting the software. This is usually either impractical due to lack of information, or likely to lead to response delays due to the extra software routines. The alternative is to create a circuit which operates between the instrument's software and the outside world. This circuit will also contain software, and can alter most aspects of performance. It also has the advantage of being easily updated if necessary. The inclusion of another processor will mean that the extra facilities that MIDI is adding will not slow down the working of the synth.

Modifications to mono synths generally provide MIDI In and Thru ports, and response to MIDI information for notes and velocity, modulation wheel (MIDI controller #1), foot controller (#4), sustain pedal (#64), pitchbend and channel aftertouch. Most polyphonic synth retrofits also recognise program changes and incorporate a MIDI Out capable of transmitting notes and program changes. Drum machine modifications give MIDI In, Out and Thru sockets, MIDI clock and start/stop/continue commands and receive/transmit notes. Most drum machine modifications also respond to note velocity.

Each company which handles retrofitting does so in a different way - we're dealing with a computer program running from a ROM and the commands within that program are proprietary. Getting specific, let's look at what Kenton Electronics' line of retrofits offer.

Kenton Electronics are one of the companies currently specialising in MIDI retrofits. Kenton's John Price ventured into retrofitting when he wanted to bring MIDI to his Oberheim OB-X. The only company prepared to carry out such a modification at the time wanted £500 for an interface incorporating only notes and running in Omni On mode. Having previously designed his own interface for the Oberheim and a Hammond organ, Price chose to do the job himself. After many months spent designing circuitry and writing software, he decided to offer this service to others, and officially opened Kenton Electronics in 1986.

The main point of a Kenton conversion is to offer the relevant MIDI sockets on a non-MIDI synth. Incoming MIDI data arrives at the retrofit board which converts it into a form that can be handled by the synth. Physically, the computer-designed circuit boards plug in between the keyboard and the sound source of the synth.

Consider an incoming MIDI note on. It arrives at a Universal Asynchronous Receiver Transmitter (UART) which immediately informs a Z80 microprocessor that there's data to be processed. This is termed "under interrupt" because momentarily the processor deals with this particular piece of information, stopping all other activities. The lack of buffering ensures the fastest possible response time and is helped by the fact that all instructions for the Z80 processor are written in machine code with very few sub-

routines. In the case of an analogue synth, the note value will be converted into a CV and will enter the synth's circuits at a relevant point. For a digital synth, the note value will be held in a latch system and then read by the synth as though it had come from its own keyboard.

A second circuit board is dedicated to the analogue side: pitchbend, modulation, aftertouch and note velocity are converted into a form which can be used by the synth via a Digital to Analogue converter (DAC). A sample and hold circuit then converts this into a control voltage which will either be sent directly to the synth or via a voltage controlled amplifier (VCA). For example, pitchbend information might be summed with the master tune; modulation information would take a similar path as both this and pitchbend affect the pitch of the oscillators. MIDI note velocity will also be output as a voltage which will either be sent to the VCA, to change the level of the note, or to the filter, to change the timbre.

MIDI aftertouch can be treated in various ways. By default, it will be summed into the MIDI modulation but can also be sent along the path to the synth's VCA or VCF. The routing of aftertouch on some synths can be rather special - for instance the Memorymoog has rear sockets for two foot controllers which can be wired into the analogue board. In this way aftertouch can be assigned to pitchbend, VCA for volume, LFO for modulation, VCF for filter or the pitch of oscillator 2.

USE ME

A MIDI RETROFIT has to be easy and intuitive to use but must also offer enough facilities to make its cost worthwhile. Additionally, you don't want a treasured instrument turned into something that looks like a botched brain operation. A Kenton Electronics retrofit looks as though it's part of the original synth design with only the MIDI sockets being visible along with a small red push button.

Pressing this button twice accesses Program mode. From here you can alter many of the retrofit facilities; changes are saved in memory. Once Program mode has been entered, each key on the keyboard has a specific purpose - for instance, pressing a key in the range between C1 (note #36) and D#2 (note #51) will select the receive MIDI channel (1-16 respectively). Other facilities include the MIDI transmit channel for polyphonic synths and in transmit mode you can set the fixed velocity for key on and key off independently. You can set up the synth to receive or ignore MIDI patch changes, mod wheel, pitchbend and aftertouch. The information which is to be sent to the amplifier and filter of the synth can also be chosen from MIDI note velocity, MIDI controller #4 (foot controller), aftertouch (instead of modulation) or nothing. When all settings are complete, C6 (note #96) acts as an "enter" key; the synth then returns to normal mode.

Pressing the red button once puts you into Patch Change mode. Each key then selects a program change after which you're returned to normal mode to carry on playing. If you press once and hold for a moment you enter Transpose mode where middle C plays continuously until you press another key on the keyboard which will then become the new middle C. Again, you are immediately returned to play mode.

The red button is on the rear of the synth which could make it difficult to access under certain circumstances. To alleviate this problem the button can be operated remotely by using MIDI controller #95 for Program mode and controller #94 for Transpose mode. This was important on the older Kenton boards which were in ➢

ILLUSTRATION: TOBY GOODYER

➢ Omni On mode when first turned on and had to have the MIDI receive channel reset each time. In fact, there was a desk accessory on the Atari ST which let you set this channel. Now EEPROMs (Electrically Eraseable PROMs) are used to store all settings - no batteries to run out.

PROBLEM SPECIFICS

IN MUCH THE same way as every picture tells a different story, so does each synth. The main differences are sorting out where to patch the information created by the retrofit.

The OB-X went through at least eight ROM revisions, several of which are incompatible with each other. Pitchbend has to be injected at a point where it can be summed with other like information and this is where the master tune and pitchbend wheel meet. Modulation has to be found a similar place to enter the synth, and in this case mod information via the analogue board VCA is mixed with the wiper of the mod wheel.

Yamaha synths like the PF15, a DX7-sounding piano with an 88-note weighted keyboard, use a system where the synth information is encoded digitally. For instance, an eight-bit code is used for velocity as opposed to the seven bits used by MIDI. The output of this chip has to be read, converted into MIDI and any additional MIDI data incorporated.

On the PPG Wave, the internal and MIDI pitchbend data has to be summed, which necessitates restricting the range, otherwise the sum of the two elements can go beyond the top of the range acceptable by the PPG and cause the synth to crash. To be able to access glide on the Minimoog you can't use the control voltage input, while the Minimoog's gate has around a 30 millisecond delay due to the presence of a large capacitor. Korg's Poly 6/61 has its own micro-controller which means that the signal lines are being used for control information as well as notes.

A lot of the quirks are found through painstakingly monitoring various points on the circuit. Retrofitting is certainly a job that requires patience.

CURRENT MODS

THE KENTON MODIFICATION is available for all the classic synths made by Roland, Sequential Circuits, Moog, ARP, Oberheim, Korg and Yamaha as well as the Rhodes Chroma and Linn drum machines. Recent additions include many organs such as tonewheel Hammonds, Yamaha B-, C-, D- and E-series, also FE, FS and FX ranges and Technics G7. In fact, Kenton will give a quote on modifying any non-MIDI device. Costs are around £150-£180 with certain obscure instruments being a little more expensive to modify.

How well do they work? I had the good fortune to play a Minimoog from a DX7II keyboard and it was an unexpected delight. The experience of having MIDI note velocity controlling the level of the volume via the VCA and the aftertouch operating the filter, while using the glide facility on the Minimoog via the Yamaha keyboard exceeds the vocabulary of the digitally-dominated hi-tech musician.

Finally, it's worth mentioning that, while Kenton are happy to work for you and I, they've also been of service to a wide variety of pro acts: did you read the MT story on Marillion's Steve Hogarth and his MIDI gloves? Notes, pitchbend, modulation, aftertouch, program changes and sustain information all generated from a pair of gloves - and all designed and built by Kenton Electronics. ■

Kenton Electronics can be contacted at: Rear of 137-165 Hook Road, Surbiton, Surrey KT1 2TH. Tel: 081-974 2475, fax 081-974 2485.

KAWAI

Bargains!

K4 KEYBOARDS ~~rrp £895~~ £695
K4 RACK ~~£695~~ £495
K1 II ~~£695~~ £495
NEW!! SPECTRA ~~£480~~ ..... £449!!
New rack mixer MX16 £499!!
New MM16 MIDI MIXER £POA
XD5 Percussion Synth ..... £POA

EMU

Emu make the highest sound quality products and are now at new low prices!!

PROTEUS £679
PROTEUS XR £879

Incredible Orchestral Sounds!! £999 PROTEUS 2 £1199 PROTEUS 2XR

Best piano sounds available, at silly low prices

PROFORMANCE £349
PROFORMANCE + ... £399
convert your proteus to a Pro 2!!
£349 PRO2 Boarrd

FOSTEX

R8 8 TRACK RECORDER

£1X26 £199

280 multitracker £599
812 8 Track desk £999
NEW Line Mixer £299
R8/8/12 Mixer Special with free

Sound Modules		**Saxophones**	
Roland U220	£499	Yamaha YAS32 Ten	£799
Roland D110	£399	Yamaha YTS23 Ten	£799
Roland MT100	£499	Champion Ten	£549
Yamaha TG77	£1299	S/H Selmer PENNSL	£399
Yamaha TG55	£499	**Pianos**	
Yamaha TG33	£449	Ex Demo Roland KR33	£599
Emu Proteus	£649	Ex Demo RolandKR55	£899
Emu Proteus XR	£799	Ex Demo Roland KR500	£1199
Emu Proteus 2	£949	Ex Demo Roland HP3500	£1299
Emu Proteus 2XR	£1100	New Roland HP6000	£1799
Emu Proformance	£349	Ex Demo Roland RD300	£1299
Emu Proformance +	£399	Ex Demo Rhodes MK80	£1299
Kawai K1r	£399	Ex Demo Korg C7000	£1499
Evolution EVS1	£299	Ex Demo Yamaha PF10	£179
Korg M1R EX	£1199	Ex Demo Yamaha PF2000	£799
Synths		Yamaha Clavinova	in stock
Roland D5	£499	**Piano Modules**	
Roland D10	£699	Emu Proformance	£349
Roland D20	£899	Emu Proformance +	£449
Roland D50	£699	**MIDI Remote Keyboards**	
Roland D70	£1299	Roland A50	£1025

SALE

FUTURE MUSIC

Chelmsford

10 BADDOW ROAD
CHELMSFORD, ESSEX
(0245) 352490
(0245) 353878
FAX 0245 490250

SALE

Fantastic New Mixer Bargains!!

SECK 12/8/2 ~~£1249~~ £699
SECK 18/8/2 ~~£1599~~ £999

Special Bulk Buys!!

SECK 24/2 ~~£1149~~ ..... £899!!
ROLAND 12E ~~£599~~ £399
Rack mount 12 input mixers!
Kawai MX 8R rack £369
Kawai MX 16 ..... £499

HOME RECORDING BARGAINS!!

TASCAM 38 rrp ~~£2499~~ ..... £999!!
ONE ONLY 8 Track 1/2"

ART rackmount Multieffects 3 effects at once, 128 memories, MIDI rrp ~~£399~~ ..... £175!
SECK 12/8/2 FOSTEX 8 PACKAGE rrp ~~£2499~~ £1799
ALESIS MICROVERB £129
ALESIS MIDIVERB £239
QUADRAVERB £349

DAT

SPECIAL OFFER!! LIMITED STOCK!!

AIWA HDS1 DAT Walkman!!
~~£699~~ £499

LOOK AT THESE FEATURES!!
DIGITAL AND ANALOGUE IN 44K USE AS DAT WALKMAN FOR SAMPLING, PLAYBACK!

ALSO IN STOCK

CASIO DA7 ..... £699
SONY DT55 ..... £699

SONY DT1000ES ..... £999 EXDEM
DENON ..... £POA

Roland U20	£799	Roland A80	£1249
Roland E5	£399	Roland PC200	£175
S/H Roland SH2000	£99	**Samplers**	
Yamaha SY77	£1599	Roland S770	~~£3699~~
Yamaha SY55	£749	Roland W30	£1499
Yamaha SY22	£699	Akai S950	£1299
Korg M1	£999	Akai S1000	£2799
Korg T3	£1799	Akai 2 Meg Mem	£179
Korg T2	£2199	Ensoniq EPS 16+	£1695
Korg T1	£2799	Ensoniq EPS 16r+	£1695
Kawai K1 II	£495	Korg DSM1	£1999
Kawai K4	£695	**Sequencers**	
Ensoniq SQ1	£1195	Roland MMC500 mkII	£749
Ensoniq VFX-SD	£1799	Roland MC50	£499
S/H Yamaha DX21	£299	Roland MT100	£499
S/H Yamaha DSR2000	£499	Ex Demo Raolnd PR100	£299
S/H Casio CZ 5000	£399	Kawai Q80	£499
S/H Orla OP6	£125	Alesis MMT8	£219
S/H Ensoniq ESQ1	£599	Ex Demo Korg Concerto	£175
DAT		S/H Yamaha QX21	£149
Aiwa HDS1	£499	**Drum Machines**	
Casio DA7	£599	Roland R5	£399
Sony DT55	£599	Roland R8	£575
Sony DT1000E	£1199	Roland R8M	£525
Ex Demo DT1000ES	£999	Boss DR550	£179
Denon DRT2000	£799	Roland CR1000	£199
Tascam DAT	£Call	Roland CR8000	£175
DAT Hire from £25 per day		Alesls HR16	£249
Recorders		Alesis HR16B	£299
Fostex X26	£299	Alesis SR16	£275
Fostex 280	£599	Yamaha RX8	£275
Fosetx R8	£1499	S/H Yamaha RX15	£175
R8 + Seck 12/8/2	£1999	**Electronic Percussion**	
R8 + Seck 18/8/2	£2349	Roland SPD8	£399
Tascam Porta 2	£549	Roland PAD5	£225
Tascam Porta 05	£325	Boss DRP II	£49
Tascam 644	£799	Boss DRP III	£49
Tascam 688	£1799	S/H Simmons	£399
Revox B77	£Call	**Mixers**	
S/H Tascam 38 as new	£999	Roland M12E	£399
Fostex 4050 Autolocator	£499	Seck 12/8/2	£749
Nakamichi NR200	£149	Seck 18/8/2	£949
Effects		Seck 24/2	£899
Alesis Microverb	£125	Tascam MM1	£599
Alesis Midiverb III	£239	Fostex 2016	£299
Alesis Quadraverb	£349	Yamaha MC1602	£699
Art LT	£185	Yamaha EM1600 powered	£399
Lexicon LXP1 Reverb	£399	Roland CPM120 powered	£399
Lexicon LXP5 Delay	£399	Studiomaster range	in stock
Lexicon MRC	£299	Complete Boss range	in stock
Electrosound Time Matrix	£499	Kawai MX16	£499
S/H Roland RE501	£199	Yamaha MLA7 line mixer	£199
S/H Roland MXR Flanger/Doubler	£199	**Hi-Fi**	
Roland RV1000	£199	S/H Complete Aiwa	£199
Roland RE1000	£199	S/H Complete Technics	£799
Boss RSD10	£125	S/H Realistic EQ12*2	£99
Saxophones		S/H ADC EQ12*2	£149
Yamaha YSS62	£1499	Ex Demo Roland SEQ 331	£199
S/H Berkley Sop	£449	**Guitar Synths**	
S/H John Grey Sop	£399	Roland GR50/GK2	£799
Yamaha YAS23	£699	Ex Demo Roland GR50	£699
S/H Buffet C Melody	£299	Roland GS6	£399
S/H Buescher Alto	£599	Boss ME5	£399
S/H Sonora Alto	£449	Ex Demo Boss ME5	£299
S/H Martin Silver Alto	£399	Boss BE5	£199
S/H Kingstar Alto	£399	Boss BE5B	£199

SALE!! ROLAND SALE!!

ROLAND E5

HALF PRICE!!
~~£799~~ **£399!**

FANTASTIC BULK PURCHASE OFFER! 1

YES FUTURE MUSIC HAVE NEGOTIATED A FANTASTIC DEAL ON ROLANDS BRAND NEW E5 CONTEMPORARY KEYBOARD!! THE E5 FEATURES ROLAND'S TERRIFIC LA SOUND PRODUCTION, WITH BUILT IN INTELLIGENT ARRANGER AND DRUM MACHINE. ALL IN FULL SIZE 69 KEY KEYBOARD WITH BUILT IN AMP SPEAKERS PLUS REVERB AND EFFECTS. FANTASTIC QUALITY! HALF PRICE WHILE STOCKS AVAILABLE, CALL NOW !!!

ROLAND REMOTE MIDI KEYBOARD SPECIALS

A50 EX DEMO ~~£1399~~ ..... £799!! A80 NEW ~~£1650~~ £1075

ROLAND 'D' SYNTH SPECALS

D5 ..... ~~£599~~ £479
D10 ..... ~~£899~~ £599
D50 ... ~~£1499~~ £699
D110 ..... £399

ROLAND PIANOS

FUTURE MUSIC HAS THE WHOLE RANGE OF ROLANDS PIANOS

NEW!!

EP3
EP5
EP7
HP900
HP1700
HP2700
HP3700

SPECIAL OFFER, ALL NEW HP6000 ~~£3100~~ £1799

SPECIAL PRICES ON EX DEMO MODELS ALL WITH NEW WARRANTY !!

FANTASTIC SAVINGS!!

	RRP	FMP
KR33	~~£849~~	£599
KR55	~~£1250~~	£899
KR500	~~£1699~~	£1299
KR3000	~~£2499~~	£1799
HP1000	~~£1499~~	£999
HP2700	~~£1895~~	£1399
HP3500	~~£1999~~	£1449
HP3700	~~£2285~~	£1799
MK80	~~£1699~~	£1199

ROLAND DRUM MACHINE SPECIALS

R5 ..... ~~£499~~ £399
R8 ..... ~~£690~~ £575
R8M ..... ~~£599~~ £499
Dr550 ..... ~~£199~~ £169
SPD80 ..... ~~£399~~ £389
HANDY PAD EX DEMO ~~£166~~ £125

HURRY WHILE STOCKS LAST

BOSS

Fantastic new Boss products!!

NEW MICRO STUDIO PRO
SE50 Effects Processor • CL50 Comp/Limiter GE21 Graphic • NS 50 Noise Suppresor

NEW 5 YEAR WARRANTY ON ALL BOSS PEDALS!!
NEW!! Tremolo/ Pan Pedal in stock!!

CH1 ...£59
DD3 ...£98
HM2 ...£45
LM2 ...£55
MZ2 ...£75
PN2....£45
OS2 ...£39
PS2..£120

FREE BCB3 WITH EVERY TWO BOSS PEDALS PURCHASED!!

EX DEMO BOSS PEDALS (NO BOXES)

CS2....£39
RV2....£99
NS2....£49
MZ2 ....£59
VB2....£39
LM2 ...£39

HUNDREDS OF BOSS PEDALS ALWAYS IN STOCK!! AND AT GREAT PRICES!!

INCREDIBLE NEW ROLAND SEQUENCERS

New!! Roland MV30 Studio M

A 16 track sequencer with a U220 built in!! also built in, mixer tape sync and digital effects!! all for **£1499!!**

New Roland MC50 sequencer

An 8 track sequencer with built in 3.5" drive and super MRC system and performance software!! also all the features of the other Roland MC series sequencers with built in MIDI bulk dump storage!! All for **£548!!**

MAIL ORDER WE ACCEPT CHEQUES, POSTAL ORDERS, BANKERS DRAFT, BUILDING SOCIETY CHEQUES. ACCESS & VISA AND CASH IN REGISTERED ENVELOPES.

INSTANT CREDIT

NAME .....
ADDRESS .....
.....
.....
EQUIPMENT .....
.....
.....
.....
.....

CREDIT CARD No. [ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]

SR16

PHOTOGRAPHY: JAMES CUMPSTY

The compact dimensions of Alesis' latest drum machine belie the power lurking within - 233 16-bit drum and percussion sounds and innovative programming features make the SR16 a serious beatbox. Review by Simon Trask.

WHEN EF SCHUMACHER wrote his influential best-seller *Small is Beautiful* he undoubtedly didn't have Alesis' new drum machine in mind. Nonetheless, the SR16 is the latest in a long line of instruments from the company which have illustrated that small can indeed be beautiful - and powerful. Measuring 9" x 6.5" x 1-1.75" and weighing just 1.5lbs, the SR16 is what you could call a laptop drum machine. On appearance alone, you might be inclined to dismiss the SR16 as a toy, but plug it in and you soon realise this is far from the case. Alesis made a promising start with the HR16 and HR16B; could the SR16 be about to sweep the rug from under Japanese feet and take over the budget market?

OPERATION

FIRST, SOME BAD news: the SR16's LCD screen isn't backlit, and consequently in less than well-lit conditions it's difficult if not impossible to read. More positively, however, Alesis' new drum machine has a straightforward, intuitive user interface. The various Modes and Functions of the drum machine are clearly marked and readily accessible via dedicated front-panel buttons, while parameter organisation is clear and logical. I was able to get to grips with most aspects of the SR16 without recourse to the manual (which, incidentally, is friendly, helpful, concise and clear).

Running across the lower section of the SR16's front panel are 12 small rubber playing pads. They're a comfortable fingerpad size, while their proximity has performance advantages. The pads have a

limited degree of velocity sensitivity (eight levels), which is better than none but doesn't exactly allow for the finer nuances of touch. In fact, the SR16 only records eight levels of velocity, whether from the pads or via MIDI input - no doubt as a means of economising on memory. Pad response can be set to Soft, Medium or Loud weighting, or to one of eight fixed response levels.

The SR16's rear panel contains the 9V AC power input (the SR16 uses an external AC adaptor, provided with the machine), power on/off button, Main L/R and Aux L/R stereo outputs, MIDI In and Out/Thru sockets, Tape In/Out mini-jack socket (for data storage only), and Start/Stop and Count/A/B/Fill footswitch inputs.

SOUNDS

THESE DAYS, IT'S not uncommon to be able to expand the range of sounds on a drum machine using ROM sample cards. The SR16 has no provision for such expansion, but makes up for it in one sense by having an exceedingly generous 233 onboard sounds. That's more than many drum machines make available even with the addition of sample cards. Even so, what you get upfront on the SR16 is *all* you're going to get - there's no chance of further sounds being made available on cards at a later date.

It might be reasonable to expect, therefore, that the SR16 crams in just about every type of drum and percussion sound you could want, but that isn't quite how Alesis have played it. What they've done is provide you with just about all the bass and snare drums you could want - 49 kicks and 59 snares, to be precise. They've also been very generous with the toms (51), although, given that you get hi, mid and lo versions, the actual variety is less (though still plenty, methinks). Hi-hats do well with 19 samples, and cymbals (ride and crash) not badly with 12. That leaves a not unreasonable 42 percussion sounds, though again, because there are hi and lo versions of some sounds, the actual variety is less.

The generous provision of kicks, snares and toms puts Alesis' latest drum machine in a league of its own. The SR16 also stands out among drum machines in including 94 stereo samples among its 233 sounds. Around half the kicks, snares and toms are in stereo, as are a small number of the hi-hats and percussion instruments. Alesis have also provided a mixture of dry and reverbed sounds, with the proportion being along the lines of the mono and stereo sounds (in fact, many of the stereo sounds are also the reverbed sounds).

The SR16 also introduces what Alesis refer to as "advanced dynamic articulation techniques". These appear to be the drum machine version of "how to speak more proper", in that they're intended to reproduce the varying timbral response you get from acoustic drums when they're hit with different degrees of force (so if you use fixed velocity response you won't notice any dynamic changes). Beyond this, the SR16's manual is decidely vague - not least about which sounds use dynamic articulation. The effect is only clearly discernable on a small proportion of the 233 sounds (a few kicks, snares, congas and toms), where it does introduce a realistic responsiveness.

The SR16's samples are well-detailed, dynamic, upfront and punchy, with plenty of presence. As you might expect from the sheer number of kicks and snares provided, Alesis have included an extremely versatile selection of acoustic and electronic, effected and non-effected sounds (including the now inevitable 808 kick and snare) well suited to the sonic versatility expected in today's music. In fact, this is a very modern-sounding drum machine which works well for modern dance rhythms - which is clearly the intention. The variety of the kick and snare sounds is also very effective for tailoring your own sounds - assign a tight kick to one pad, an ambient kick to another and then record the same rhythm on each pad. Obviously this uses two voices, but the SR16's generous (for a drum machine) 16-voice polyphony means you can get away with it if the rhythm isn't overly busy.

The toms are also a versatile bunch, from deep, booming, reverberant acoustic sounds to hard, tight electronic sounds, while the hi-hats and ride and crash cymbals vary from the harsh to the delicate, and have all the top-end clarity and detail which made the HR16 such a distinctive drum machine. The SR16's percussion sounds include tambourine, shaker, congas (including slapped), timbales, agogos, claves, woodblocks, cowbells (including three differently-pitched versions of the 808 cowbell), fingersnaps, claps, cabasa, Impact (a kind of heavy industrial sound) and Sample & Hold. This last sound isn't actually a sound but several sounds which have been grouped in a software-implemented special effect. When you assign Sample & Hold to one of the SR16's pads, successive pad hits randomly play any one of four sounds (two tunings of the 808 cowbell, a woodblock and an agogo bell). This works particularly well with a steady stream of 16th notes, where the effect is of constantly-changing cross-rhythms produced by the random interaction of the different sounds - so your pattern is never quite the same each time it's played. If you assign Sample & Hold to more than one pad, record different rhythms on each pad, and tune and pan each pad differently, you can produce even more random weirdness. Intriguing stuff - which could have been made even more intriguing if Alesis had included two or more Sample & Holds and allowed you to determine which sounds were used in each one. The more creative electronic wildness the better.

> "The SR16 effectively becomes a MIDI drum expander, yet at the same time you can be using it as a drum machine."

PATTERNS

THE SR16 HOLDS 50 Preset Patterns and 50 User-programmable Patterns. Presets encompass rock, hard rock, R&B, funk, blues, rap, techno, reggae, jazz rock, fusion, new age, country, jazz, Latin and ballad styles - or at least, that's what the names say. I'm not convinced by the supposedly funk, rap and techno rhythms (with the exception of Rap 3, a lively ➢

➢ swingbeat rhythm). It's not only Alesis who are at fault here, however. Now that manufacturers of drum machines and home keyboards have finally woken up to more contemporary rhythms, they need to find people who can program them convincingly.

Each Preset consists of four patterns: Main A, Main B, Fill A and Fill B. These can be selected from the front-panel buttons mentioned earlier, while Fill patterns can also be selected using a footswitch plugged into the Count/A/B/Fill socket. A Fill can be selected from any position in a pattern apart from the initial downbeat (the first step of the pattern), and plays once to its end. If you release the Fill button or the footswitch before the end of the Fill, the SR16 goes on to play the alternative pattern (from A to B or from B to A), but if you hold the button or footswitch down past the end of the Fill, the drum machine goes on to play the same pattern that you dropped the Fill in on. If you're sharp with the data ± buttons or the numeric keypad, you can go from a Fill into a different Preset.

Flip the drum machine over and you'll find a list of its preset patterns printed on the bottom panel, together with the basic instructions for playing and recording a pattern and editing some of the SR16's Functions. This is one set of instructions you can't lose.

Unlike Akai's XR10 drum machine (reviewed MT, June '90), which featured a similar setup for its Preset Patterns, the SR16 carries its A/B/Fill capabilities over into its User-programmable Patterns. So for each User Pattern you can in fact program four patterns: A, B, Fill A and Fill B, and select them in the way detailed above. This gives you in effect not 50 but 200 User Patterns - though not necessarily enough memory to use them all. Each Fill pattern shares the same length, Drum Set (collection of sounds assigned to the SR16's 12 pads - see below) and eight-character name as its associated Main pattern, but otherwise Main and Fill patterns are independent. How you use them is up to you. At one extreme they could be completely different rhythms, at the other extreme they could be subtle variations of one another.

"The SR16 is a very modern-sounding drum machine which works well for modern dance rhythms - which is clearly Alesis' intention."

As usual on drum machines, SR16 patterns continue looping in record until you Stop them. However, Alesis' drum machine also allows you to move straight from one pattern into an associated pattern - if you press the B and Fill buttons at any time while recording A, the SR16 moves smoothly into Fill B when A next reaches the end of its length.

Just because Alesis have used the description Fill doesn't mean you have to program the traditional drummer's concept of a fill into these patterns. You can just as readily use Fill patterns to drop out selected instruments - perhaps drop out the bass and snare for a few beats or bars. All you need to do is Copy the Main pattern into its Fill pattern and erase the relevant parts in the latter. It's not quite as simple as that, though (are things ever?). Remember that Fills can't start on their first step. If you press the Fill button on the first step, the SR16 plays that first step but then carries on playing the Main pattern. This can actually be advantageous: if you program the first step of the Fill to be the same as that of its Main pattern but add in a crash cymbal, you can then effectively "drop in" the crash cymbal on the first beat of the Main pattern at any time you want.

Similarly, when you drop in a Fill after the first step so that it plays through to its end, the first step of the next Main pattern is replaced by the first step of the Fill. The idea here is that you can have, say, a crash cymbal effectively on the first beat of the Main pattern each time you come out of the Fill, but not when the Main pattern itself repeats. Again, a neat idea from this point of view, but it does mean you have to think about what you're doing if your Fill rhythm is very different from your Main rhythm, or if you erase whole instrument parts from a Fill as a means of dropping them out.

Having patterns which are slight variations of one another is all very well, but of course it's going to eat into the SR16's memory. Alesis claim their drum machine can "typically store over 15,000 events", which turns out to be the case, but how much over seems to vary greatly. As a rough guide, I filled a minimum of 96 patterns with a rhythm of 192 pad hits until the cosmic message "Outa Mem Dude!" appeared in the LCD. But another rhythm with the same number of pad hits allowed up to 136 patterns. Unfortunately I didn't have time to pursue this any further.

One of the best features of the SR16 is the ease with which you can switch between Perform and Compose modes while a pattern is playing. If you've recorded a couple of parts while in Compose mode and you want to try out another part before recording it, just press the Perform/Compose button and you're out of record without interrupting the flow. Press the button again and you're back in record. What's more, you can edit the SR16's pad assignments, pattern-record parameters and MIDI parameters while the drum machine is running. Nicely interactive stuff. Also nice to see is the fact that the SR16 can be synced up as slave to a sequencer or drum machine while it's in Pattern mode - not something which can be said for every drum machine.

Patterns can be up to 128 beats long (32 bars of 4/4), though you don't actually set a time signature (and therefore the metronome is only accentuated on the very first beat of the pattern). Maximum record resolution is 96ppqn, but you can quantise during record to any resolution from a quarter note to 64th notes. You can also select Swing (54%, 58% or 62%), which affects the timing of pairs of equal-value notes and can be applied to specific instruments/pads within your rhythm. This works very well for all those jazz swing, go-go and swingbeat rhythms if you want a spot-on, tight feel.

A quick way of entering repeated notes is to hold down the relevant drum pad and then hold down the Fill button. Notes will be repeated at the current quantisation value for as long as the pad and button are held down. You can use this for anything from

streams of 16th-note hi-hats to rapid-fire snare bursts.

Other pattern parameters allow you to slide a whole pattern or individual drum-pad parts forward or backward in time in individual 96ppqn steps, up to 99 steps either way; add and remove beats from the beginning and/or end of a pattern; copy, append and double patterns; and copy one drum pad's part to another drum pad in the same pattern or to any pad in another pattern, or merge the two parts. You can also erase complete individual parts while the SR16 is Stopped, and erase individual pad hits in traditional fashion while the drum machine is running in record (hold down the Erase button and press the relevant pad at the relevant time).

Last but not least, the SR16 provides step-time recording of patterns. You select your resolution (alterable at any time), use the Page Up/Down buttons to step through the pattern in either direction, and hit the relevant pads on the relevant steps. Helpfully, the SR16 plays the hits on each step as you move forward and backward through a pattern. Pad hits can be added to and erased from a step at any time, while pad-hit volumes can be changed by replaying the pad using a different velocity or by manually entering a different number (1-8).

DRUM SETS

WITH SO MANY sounds onboard the SR16, some means of organising them and making them readily available is highly desirable. Consequently, Alesis' drum machine has 50 Preset and 50 User-programmable Drum Sets. A Drum Set stores the sound assignment for each of the SR16's 12 drum pads, together with such parameters as pad volume, pan and tuning. Each Main pattern within each User Pattern can be assigned any one of these Drum Sets.

The volume of each pad can be set to a value from 0-99. Zero turns the pad off internally but doesn't prevent it from transmitting its assigned MIDI note if Drum Out is enabled. MIDI note assignments for each pad (0-127) are the same for MIDI transmit and receive and are set globally rather than per Drum Set, so you can't play different basslines via MIDI off the same pads within different patterns. The SR16 doesn't allow you to define MIDI Note On durations - whether as gate times or by holding down the pads - so it's not ideal for playing external instrumental parts anyway.

Other Drum Set parameters are pad stereo position (L3-centre-R3), pad tuning (+3/-4), pad triggering mode (single, multi, group 1, group 2 - the groups allowing any combination of instruments/pads to cut one another off as for open and closed hi-hats) and pad output assignment (each pad can be routed to either the Main or Aux stereo output pair).

With MIDI patch change reception enabled, Preset and User Drum Sets can be remotely selected via MIDI on the chosen receive channel (1-16 or Omni). Setting the SR16's Set mode parameter to Manual rather than to Pattern allows Drum Set changes to be ➢

➢ controlled from a remote MIDI device rather than the drum machine's pattern-changes.

On the subject of Drum Sets and MIDI, if you set the Note Map parameter in the MIDI Setup to D40-49, Drum Sets 1-39 are no longer accessible via MIDI, nor can you record into the SR16 via MIDI. What you can do is play Drum Sets 40-49 via MIDI as a spread of 120 sounds preassigned to consecutive MIDI notes from note 0 to note 119 - what's more, sounds played in this way respond to all 127 MIDI volume levels. The SR16 effectively becomes a MIDI drum expander ideally suited to keyboard performance, yet *at the same time* you can be using it as a drum machine.

SONGS

YOU CAN CREATE up to 100 songs on the SR16, each of which can consist of up to 254 steps - a step consisting of either a Main or a Fill pattern. You can piece together a Song by scrolling through the steps and manually tapping in which pattern you want for each step, and in the case of a Fill specify the exact position (to 96ppqn resolution) that you want it to come in at. Individual Song steps can be added, inserted, replaced and deleted, and you can copy a Song to itself (doubling its length), make a copy of a Song or add a Song on to the end of another Song. Each Song can be given its own tempo (20-255bpm), but you can't have any tempo changes within a Song - not that this need be a problem if you're slaving the SR16 off a sequencer with a tempo track.

Nothing too unusual so far. But where the SR16 strikes out ahead of the pack and wins many Mars bars is in its inclusion of real-time Song recording. Select your initial pattern, set the SR16 to Compose mode, press Play and off you go: the drum machine starts playing in real-time and automatically records all pattern selections you make, compiling them into a Song chain for you. Needless to say, this is not only more fun than manually compiling Song steps, it also allows you to be more spontaneous about selecting patterns - and in particular is a far more desirable way of selecting Fills. Songs can be recorded in this way when the SR16 is slaved to a sequencer or another drum machine, so you can record your Song chain interactively with whatever someone else is recording into the sequencer. Full marks, Alesis.

> "Alesis have provided you with just about all the bass and snare drums you could want - 49 kicks and 59 snares, to be precise."

Another example of how to be spontaneous with programmed rhythms comes in Song Play mode. Hold down the Count/A/B/Fill footswitch during a Song step and the SR16 will repeatedly play the pattern at that step until you release the footswitch - allowing you to spontaneously 'stretch out' a particular pattern for an instrumental soloist or a vocalist/rapper.

DATA TRANSFER

THE SR16 ALLOWS you to store its Pattern, Song and Drum Set data to tape or to a remote MIDI SysEx storage device (such as Alesis' own DataDisk) or another SR16. Tape transfer allows you to save and load all data, one Pattern or one Song, plus of course there's the inevitable Verify function. SysEx transfer additionally allows you to save and load individual Drum Sets and even a single drum pad's part from within a Pattern.

VERDICT

THE SR16 GETS full marks for its thoughtful and flexible implementation, user-friendly operation, innovative features and generous complement of quality sounds. The fact that you get all this for £299 makes the SR16 excellent value for money.

In particular, Alesis are to be congratulated for giving the musician on a tight budget access to the sort of kick, snare and tom library normally only available with a sampler, and access to a large number of sounds without the need to spend further money on sample cards. Not that the SR16 can substitute for a sampler, nor can its 233 onboard sounds make up for the flexibility provided (potentially) by sample cards. One consequence of slanting the SR16 so heavily towards kicks, snares and toms is that you don't get the range of drum and percussion sounds available via, say, the Roland R-series card library. If Alesis were to augment the SR16 with an SR16B offering a similar number of sounds but this time covering all manner of world percussion sounds and off-beat percussive effects, they'd have an impressively versatile - and still reasonably priced - double act on their hands.

A wider tuning range for the SR16's sounds wouldn't have gone amiss, while a hardware update offering LCD backlighting would be welcome. However, there's precious little to find fault with on Alesis' new drum machine, while the company deserve praise for trying to be a little original. By majoring in spontaneity with its A/B/Fill pattern selections, interactive programming and real-time Song chaining, the SR16 shows that there's life yet in the dedicated drum machine. To continue in this spirit, I'd like to suggest that any software update for the SR16 - and Alesis have already shown themselves willing in this area with the Quadraverb Plus and Datadisk SQ - include Solo and Mute modes which allow you to solo any instrument or to mute any combination of instruments within a rhythm by pressing the relevant pad(s) during Pattern and Song play. Not only would this be useful creatively, it would also be helpful for transcription purposes.

Update or not, the SR16 looks set to rule the budget drum machine market with its particular combination of sounds and features. Whether or not it ends up doing so is going to depend on Cheetah's MD16 drum machine, finally available and retailing for the same price as the SR16 - and scheduled for review in next month's MT. ■

Price *£299 including VAT.*
More from *Sound Technology plc, 15 Letchworth Point, Letchworth, Herts SG6 1ND. Tel: (0462) 480000.*

F I R S T

PHOTOGRAPHY: JAMES CUMPSTY

WHILE THE HONOUR OF BEING THE FIRST KEYBOARD SAMPLER MUST GO TO THE TAPE-BASED MELLOTRON, THE IMPACT ON SAMPLING OF THE EMULATOR I AND E-MU THEMSELVES SHOULD NOT BE UNDERESTIMATED. TEXT BY GORDON REID.

SAMPLING IS NOW one of the most important tools in our musical armoury. With multitimbral, 16-bit samplers available for under £1000, and secondhand 12-bit units changing hands for as little as £500, it's hardly surprising that, for some musical styles, sampling has replaced synthesis as the predominant form of electronic sound creation.

Yet the sampling technology we now take for granted was just a dream in early 1979 - a dream of an electronic Mellotron. The Mellotron was as important in its day as the Prophet 5 and DX7 were in theirs. Some people would say more so. . . The idea of a digital Mellotron had existed almost since the launch of the Minimoog and the almost simultaneous development of the world's first microprocessor family - the Intel 4000-series. Yet, when (in '79) Australian innovators Fairlight launched the CMI (Computer Musical Instrument) which combined sampling, sequencing, and production capabilities, it's unlikely that even they were aware exactly how significant a revolution they had unleashed. The launch of the Fairlight spurred E-mu and many others into action. Two years later E-mu's Emulator I emerged. Neatly packaged in a single

B O R N

keyboard case (unlike the Fairlight with its four separate units including processing module, "piano" and QWERTY keyboards, and monitor), and despite weighing in at 30kg, the Emulator was the first of its kind: the portable keyboard sampler.

The Emulator was the first genuinely portable keyboard that could sample a sound, store it in memory or on disk, and play it back from a conventional keyboard. Priced at £4750 for the eight-voice version, and £2450 or £3650 for the two- and four- voice versions respectively (compared to the Fairlight's entry level of £17,500) the EI gained rapid acceptance and for almost the first time a sampler was taken out of the studio and into the live arena.

THE STORY

Today, E-mu Systems are recognised as one of the world's innovators, and a leader in the development of hi-tech musical equipment, yet few people realise just how long their pedigree actually is. For example, who produced the first polyphonic keyboard? What about the first of the so-called keyboard workstations? Sequential, Moog. . . The devices are, respectively, the E-mu Polyphonic Keyboard and the E-mu 4060.

As far back as '71, E-mu's co-founder and Senior Engineer, Dave Rossum, started developing modular synthesisers and their attendant controller keyboards as a hobby. The first R&D lab was in an apartment - a far cry from the 30,000sq foot buildings that they now occupy. Despite these inauspicious beginnings, a number of technical innovations were born, many of which remain unrecognised by those of us who have benefited from their expertise. The initial dabblings eventually became the E-mu Modular Synthesiser, and were supplied primarily to Universities and recording studios, although a few found their way into the hands of performers. These enormous synths were organised into functional modules and the sound was defined by the interconnection of the various devices available. This "building block" approach allowed systems to be tailored to specific needs and budgets, yet still be capable of an enormous range of sounds that were being discovered at the time.

In 1975 E-mu launched the Digital Polyphonic Keyboard and although the Prophet 5 stole the polyphonic limelight two years later, the importance of E-mu's contribution cannot be overstated. Indeed, Dave Rossum was instrumental in the design and construction of the SSL filter/oscillator chips that became the building blocks for the Prophets, as well as some Korg synths. And when E-mu licensed the polyphonic keyboard to both Oberheim and Sequencial Circuits, they were paid royalties on every Prophet 5 up to Rev3, after which time the design was changed. Not bad for a company founded in an apartment.

Within two years of offering polyphony to an uncomprehending world (and at about the time that Moog were launching the ill-fated Polymoog), E-mu raced ahead and incorporated a microprocessor within a commercial musical instrument. The 4060 Keyboard and Sequencer maintained the modular approach. Centred around a 16-channel keyboard controller, the 4060 also required a minimum of four units of rack-space in a separate system cabinet to house the mass of jack plugs that comprised the output panel. A QWERTY keyboard and screen were required for full operation, and sequencer memory and mass storage could then be added as required. The music power of the system would still be acceptable today - 16 polyphonic outputs (producing CV and gates; five years before MIDI) and a maximum of a little over 8000-note capacity.

The Audity was E-mu's last analogue adventure before moving into the world of digital sampling. The result was virtually a mainframe in its own right: computer controlled, with dual floppy disks, 16-channel polyphonic keyboard and sequencer (with its own disk for sequence storage) and 16 separate analogue voice generation cards. The Audity weighed in with a price tag of $69,200 and was never a serious commercial possibility. Only E-mu know how many (or how few) were ever built. Only one is known of for certain, and that was supplied (almost inevitably) to Tangerine Dream.

THE TECHNOLOGY

WHEN THE EMULATOR I appeared in 1981 it was clad in gunmetal grey steel and built like nothing quite so much as a pocket battleship. It was certainly built to last and, at nearly 50kg in its flightcase, it's pretty certain that an Emulator will survive longer than your back over the course of a gruelling tour. Yet the Emulator is extremely neat and well designed, and quite small by modern standards. A four-octave keyboard is flanked by a 6"-wide control panel (including sequencer controls, pitchbend and mod wheels, and the 5.25" disk drive), and the 3"-high control panel sitting behind the keyboard sports a meagre 19 buttons, knobs, and sliders. The back panel is equally sparse: Upper and Lower outputs are provided in both quarter-inch jack and XLR formats as is a Mix (Combination) output. Sample ➢

➢ input is obtained from a single quarter-inch jack input (also duplicated on XLR), and three performance controls are provided; vibrato pedal, release switch, and Access switch. You may also find a 25-way, D-type RS232 connector on the back panel - but the chances are you'll never find a use for it. Finally, the mains cable, on/off switch, external fuse (thanks E-mu) and 240v/110v voltage selector also appear on the rear. Internal construction is robust with solidly-mounted Z80 processor and I/O cards, 128Kb or RAM (made up of 64 16-kilobit RAM chips), and two four-voice sound generation cards.

Sampling is limited to one frequency; 30kHz (this gives a theoretical bandwidth of just under 15kHz, but in practice E-mu decided to limit the bandwidth to 10kHz) and 120Kb of RAM is available for holding samples (8K is used by the operating system) giving four seconds of eight-bit storage. Although eight-bit sampling would imply a signal to noise ratio of only 42dB, E-mu have companded the signal, and quote a more respectable 72dB. An extra touch, unique in 1981, is a tracking filter which further reduces high-frequency noise at the Emulator's outputs by closing down a low-pass VCF as the pitch played on the keyboard descends.

The four-octave keyboard is split into two two-octave sections. This is a hardware split and cannot be modified by the user. In fact, E-mu might just as well have provided separate keyboards - like a dual-manual Mellotron. Sample time is split equally between the Upper and Lower sections giving two seconds of sampling per split, but voice allocation is not - curiously, Lower boasts five voices, while Upper has only three.

Sounds are stored on 5.25" floppy disks - ten of which were originally supplied with the instrument. By the time the EI was discontinued there were about 120 disks in E-mu's official library, and untold thousands floating around from private and professional sources. Each disk stores two sounds - one for the Upper two octaves of the keyboard, and one for the Lower. Using the Swap button you can reverse the positions of the sounds, but to lay a single sound across the whole four octaves you have to sample it twice, one sample two octaves higher than the other.

The sample/playback control panel is devided into seven basic parts. Scanning, somewhat unconventionally, from right to left, these are as follows: The input panel contains three controls - an input gain selector with 0dB, 20dB and 40dB positions, an attenuation knob, and a button marked Sample, which both enables a sampling threshold to be set and the sample to be taken. Moving left we come to the master tune knobs, one each for Upper and Lower sections. Third in line is the Sustain/Filter section which contains three buttons, marked Lower Set, Upper Set, and Truncate/Filter, and two sliders - Start Point/Truncate and Loop Length/Filter Cutoff. The sliders have dual functions - you can set the start point and duration of a loop (no screen, guesswork only please), you can truncate a sample (and if you reverse the sample, chop the beginning off as well), and set the cut-off point of a simple low-pass filter. And that's all. Next comes the Vibrato panel - a rate knob and Upper and Lower Enable buttons. Then comes the Keyboard Dynamic Allocation panel (one button - see below), and the Output panel which controls the output level of the Mix output (but not the Upper and Lower outputs which are always set to maximum). Finally, the Sound Storage section offers four buttons - Get Upper, Get Lower (each of which takes about seven seconds using direct memory access - DMA), Save (20 seconds to store both Upper and Lower

sounds), and Swap (which reverses the positions of the Upper and Lower samples on the keyboard). What could be easier?

Despite being simple to use, the Emulator *was* a £5000 keyboard with an excellent reputation, so to enable you to get some surprising results out of so few facilities the Emulator has a few jokers up its sleeves.

Since there are no envelopes on the instrument, two release modes are provided; short release stops the sound the moment that you take your finger off a key, while natural release completes the sample no matter when you stop playing. Admittedly this only gives you two release options, 0 and 2 seconds, but it's surprising what you can do with this. Used in conjunction with the Truncate function, you can tailor a sample to different release requirements and, in addition, the Release footpedal switches the Emulator between modes, allowing you to play with some expression.

A further helping of real-time control is provided by a doubling mode (tread on a pedal plugged into the Access socket on the back) which causes all notes played on the Lower octaves to be doubled on the Upper. This gives some stunning chorus effects, further enhanced by the individual tuning options - no digital access control to worry about here. There is also a Solo mode for more traditional synth playing techniques, although all this does is limit the Emulator to a single voice at a time - this is not a Unison mode. The reassuring Moog-style wheels provide pitchbend (two semitones) and modulation, the depth of which can also be played via a footpedal, freeing both hands for actually note-playing. Vibrato can be individually assigned to the Upper and Lower sections.

Next there's the Dynamic Allocation function, which, when used in conjunction with the Upper and Lower outputs, creates some excellent spatial sounds. With this mode on, the Emulator forgets its usual five-note Lower/three-note Upper split and grabs voices from wherever it pleases. Using related sounds in the Upper and Lower memories gives wide stereo effects as the voices are randomly placed either left or right in the mix. In addition, you're no longer limited to five or three voices per sound, and can now play all eight voices from either side of the keyboard, voices being allocated on a last-note basis. The PPG and OB8 synths have a similar facility, and it's one well worth investigating.

Multisampling is also possible, although this was originally only implemented as a software upgrade. The technique provided allows 2-12 samples to be recorded over the width of the four-octave keyboard, limiting pitch stretching to a very acceptable two or three semitones per sample. Each sample can be of a different length, and can have its own loop and filter settings. It can also be tuned to make virtually seamless transitions across the whole keyboard. Alternatively, up to 12 entirely different samples can be taken - as on a modern instrument. Used in conjunction with the onboard sequencer, this probably makes the Emulator the earliest known example of a sampling drum machine.

Someone say sequencer? Although not originally launched with this facility, most Emulators boast an eight-voice, 900-note, two-channel sequencer. In addition to real-time recording, this fledgling device allows notes to be added at the beginning and end of a sequence, permits sequence truncation, and even overdubbing. This was heady stuff in 1980, and even though sequences are limited to the eight-note polyphony of the instrument, some of the factory supplied examples are impressive in a primitive sort of way.

How does the EI sound? Well, E-mu's original ideas regarding a digital Mellotron weren't far wide of the mark. On sustained sounds, such as strings and vocals, the Emulator has a haunting quality not at all unlike a Mellotron. Percussive samples lack the bite of more modern samplers but nevertheless, as on the much more advanced Emulator II, the Emulator I has a quality that makes you want to use the instrument. Don't knock eight-bit sampling; the resulting sound may not accurately duplicate the real world, but with the Emulators I and II you gain something in exchange. (Electric guitarists revel in distortion, and distortion is, after all, the outcome of limited sample resolution.) In addition, detuning and doubling yield some enormous sounds - the kind of thing you might expect for £5,000. And isn't that what it's all about? Technical facilities impress, but sound quality is the final arbiter of an instrument's value.

THE TIMES

THE EMULATOR I was in production for nearly four years ('81-'84). During this time, a number of hardware upgrades were provided in addition to the software multisample and user-formatting options. An RS232 interface was introduced which, together with the E-mu Personal Computer Interface, enabled a computer to be connected to the EI. But E-mu's sales pitch ("it should be noted that this interface is intended primarily for those Emulator owners with some programming experience. . . Although the software implements a communications syntax the actual programs must be written by the user") was enough to put off all but the most ardent Emulator enthusiasts. Other esoterica included a Sequencer Sync Interface, which recorded a clock onto tape via the RS232 interface, allowing multiple sequences to be recorded, or multiple Emulators to be sync'd. An Analogue Interface existed in the form of software and an external computer, and also used the RS232 interface. This provided eight CV & Gate inputs and eight channel selectors, and allowed the Emulator to be controlled by an external CV & Gate device such as the Oberheim DSX or Roland MC4.

"WHEN FAIRLIGHT LAUNCHED THE COMPUTER MUSICAL INSTRUMENT, IT'S UNLIKELY THEY WERE AWARE EXACTLY HOW SIGNIFICANT A REVOLUTION THEY HAD UNLEASHED."

Needless to say, none of these devices were great successes. Even without the advent of MIDI it's hard to see how enough people would have spent the time, money, and effort learning about and using these enhancements to make it all worth E-mu's while.

Rapid advances in computer technology led to the development of the Emulator II, with more memory, greater analogue control of sound, a velocity-sensitive keyboard and better sound reproduction. The EII also boasted RS422, MIDI, and SMPTE. These facilities doomed the EI to a sharply truncated life-span. Further developments, such as the Emulator II+ with its hard disk capability, and the state of the art Emulator III finally pushed the Emulator I into the role of "enthusiasts' curio".

Consequently, picking up an Emulator I is now less a matter of money, and more of luck. The chances of finding one on the open market is small, but those that appear change hands cheaply. Close your ears to pleas that it cost £5,000 new, today it's (next to) worthless. With the Akai S700 and Ensoniq Mirage often selling for less than £400, you should walk away with an Emulator I and change from £250. Make sure that you get the ➢

➢ disks: no operating system. . . no sampler. . . no fun.

What should you look out for if you're tempted by an Emulator I? Firstly, make sure that you find one that comes with the Diskette Initialisation disk. The Emulator was originally supplied without formatting capabilities, so to save your own samples you had to buy pre-formatted E-mu disks. Needless to say, these are no longer available, and without the formatter you're sunk. Also missing from the original software spec was the multi-sampling option (later priced at £250). The need for a multi-sample disk (identified by an M suffix to the serial number) is less imperative than the formatter, but you won't get convincing voices without one. On the hardware side, check the reliability of the disk drive very thoroughly. These drives were only expected to last for about five years, so an early Emulator is well into its dotage. On the other hand, if the sampler's been lying in someone's bedroom for most of the last eight years you should be safe. Finally, check the voices themselves - if possible using a multi-sampled disk. Play every key on the keyboard and listen closely to the output for glitches or excess noise. Glitches often indicate RAM failure (a relatively simple fault to fix) but excess noise points to darker problems. As always, if in doubt, call in the experts. Companies such as the Synthesiser Service Centre in London, or Panic Music Services in Cambridge will often make the difference between a bargain and a dog.

THE PROPHECY

IT'S EASY TO believe that the Emulator I was simply the first of a breed that would evolve naturally, but by bringing straightforward sampling to the attention of the masses, it showed us what could be achieved. Happily, the history of E-mu is one of the success stories in music technology, despite nearly going out of business in the mid-80's. It would have seemed impossible in 1980, but E-mu Systems are now a mainstream company with substantial public respect - whilst their earstwhile world beating contemporaries, Fairlight, long ago bit the commercial dust.

E-mu's equipment line today includes the extremely successful Proteus series of modules, the Emax series, and the top of the range EIII samplers, with the latest additions - the Proformance piano modules - looking destined for commercial success. This range of samplers and sample replay modules form what is probably the most coherent and successful range of sample-based instruments ever released, and have achieved acceptance at the highest levels. Look closely at videos of the big-name bands and you'll usually see the Emulator logo displayed in their keyboard rigs.

What of the future? E-mu clearly don't see their current success as an end in itself. In 1989 they entered into a licensing agreement with Japanese giant Matsushita, which gives the Japanese company access to E-mu's sample library and a number of their patents. What the fruits of this agreement may eventually be is anybody's guess, but it may well enable E-mu to make the leap to the Yamaha class of corporation without the associated growing pains that normally accompany such expansion.

As for the Emulator I, Music Technology went so far as to say that it was *the* keyboard of '82. But let's give the last word to Dave Rossum and Marco Alpert, the authors of the original 1981 operator's manual. They wrote: "Most of all, use your imagination and don't be afraid to experiment. The Emulator can be a very powerful tool for the creative artist. If enough people take advantage of its capabilities we are going to make one hell of a lot of money". They weren't wrong. ■

THIS AD SHOULD DRUM UP SOME ORDERS

Born in Trinidad, Richard Bailey's inimitable playing style has established him as one of Britain's most respected drummers and percussionists. He has worked with a wide variety of artists, from Bob Marley to Billy Ocean, and is well known on the jazz scene for his involvement with The Breakfast Band.

Firedance, his eagerly awaited debut album, is certain to attract major interest from all drummers, yet it's range, combining rock, funk, jazz and Afro/Indian rhythms with '80s drum patterns ensures it will reach a far wider audience.

An album for those who appreciate great music, available *exclusively* from Music Maker Records.

To listen to tracks from *Firedance* (album: £6.99, CD: £11.99 inc. p&p) just dial 0898666169.

To order, telephone

0353 665577

and quote your credit card number

JUST TELEPHONE FOR TELECASTING

An outstanding virtuoso of the electric guitar, Jerry Donahue created a buzz amongst British guitarists after his memorable appearance on Channel 4's *Equinox* programme. From the legendary Fairport Convention, he's joined the likes of Gerry Rafferty and Chris Rea on record and on tour. This solo album 'Telecasting' is a showcase for his highly developed technique, and is now available *exclusively* from Music Maker Records, priced £6.99 for the album or £11.99 for the CD (inc. p&p).

To listen to tracks from *Telecasting* dial 0898 666120.

To order, telephone 0353 665577 (office hours) or the Music Maker Hotline 0898 666199 (24 hours) and quote your credit card number.

SAMPLE THE RHYTHM WITH MEGA BEATS

BEATS COLLECTION C.D.

AT LAST Prosonics U.K. Present 30 classic drum machines covering over a decade in rhythm now superbly digitally mastered onto one compact disc featuring:

ROLAND :CR78, TR505, TR606, TR626, TR707, TR727, TR808 (MULTI SAMPLES), TR909(MULTI SAMPLES), R8.

YAMAHA: RX5, RX11, RX21L.

KORG: DDD1, KPR77, DDM110, DDM220.

BOSS: DR550, DR.55 (DR.BEAT).

PLUS:

SIMMONS KIT, **LINN** 9000, 2, **SEQUENTIAL** TOM, **ALESIS** HR16,HR16B,**CASIO** RZ1, **EMU** DRUMULATOR, **AKAI** XR10,XE8, **OBERHEIM** DMX, **DR.BOHM** DIGITAL DRUMS.

OVER 700 ORIGINAL DRUM MACHINE SOUNDS

AND AVAILABLE FOR THE EXCLUSIVE PRICE OF JUST

£29.95 (INCLUSIVE).

To order your compact disc simply telephone **0424 436674** for details and credit card purchase, or fill in the coupon below and send it to;

Patchworks, Frederick house, 211 Frederick Rd, Hastings, E .Sussex, TN35 5AU

WITH CHEQUES AND POSTAL ORDERS MADE PAYABLE TO 'PATCHWORKS'.

Please send me a 'mega beats' compact disc. I enclose a cheque / postal order for £ 29.95 made payable to 'Patchworks'.

Name.....

Address.....

.....

.....Post code.....

Tel No.....

S3

PHOTOGRAPHY: JAMES CUMPSTY

Korg's M1 Music Workstation helped redefine what a modern keyboard could be; can their S3 Rhythm Workstation do the same for the humble beatbox? Review by Simon Trask.

IT WOULD PROBABLY be fair to say that Korg's M1 Music Workstation represented the popular (commercial?) acceptance of the workstation. And while it would also be true to point out that the M1 had its shortcomings, it would certainly be true to say that the instrument represented a huge success for Korg and a popular choice for many musicians.

What, then, of the company's new S3 Rhythm Workstation - a combined drum machine, sequencer and effects processor? Last month, in the first of this two-part review, we looked at the architecture and sounds of the S3; this month we turn our attention to sequencing and effects - and try to come to some conclusions about the instrument.

PATTERNS

THE S3 CAN store up to 100 Patterns, each of which can be anything from 1-99 bars long. Each S3 Pattern consists of four tracks (Pattern tracks 1-4), each of which can be assigned its own Kit and can transmit and receive on its own MIDI channel. Individual Patterns can also be assigned their own Effect program.

As already mentioned, a track needn't only play internal sounds and needn't be confined to playing drum parts - you can just as easily loop a bassline or a sequence of piano chords played on an external instrument via MIDI, so depending on how many parts you want to record it's possible to build up a piece of music using only the four Pattern tracks and the Arrange Pattern chain in Song mode.

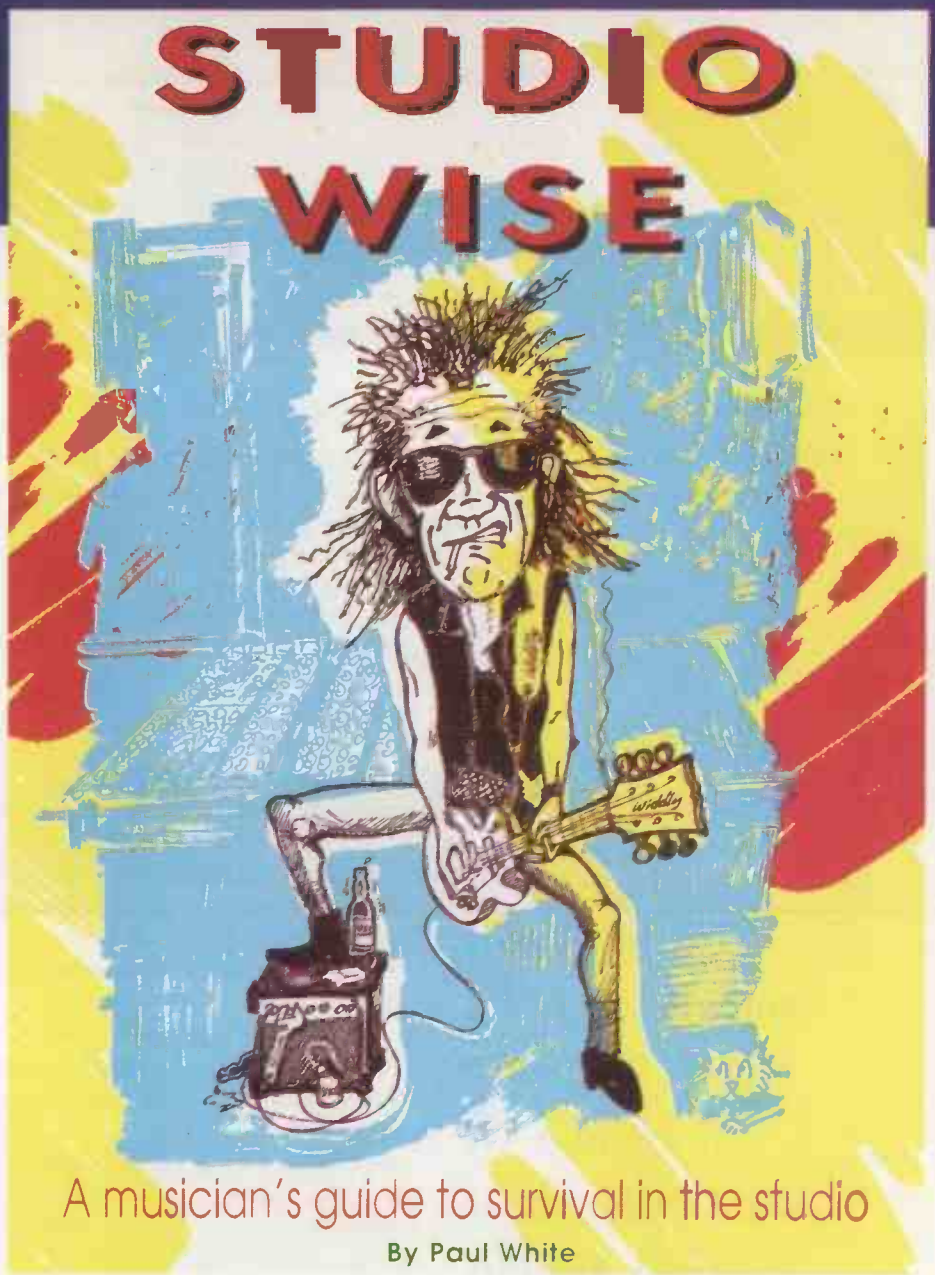
The S3 allows you to record into one Pattern track at a time. Pattern recording follows the typical drum-machine model, in that the S3 loops in overdub record mode and allows you to delete the input from particular pad(s) in real time by holding down the S1 soft function button together with the relevant pad(s). Less typically, you can specify an initial count-in, a welcome feature (though the maximum eight bars seems a little over-generous).

You can introduce rolls and flams into your patterns by holding down the S2 and S3 buttons respectively and playing the relevant pads. The parameters governing these effects are set globally in System mode.

A time signature (1-8 numerator and 4, 8, 16 or 32 denominator) can be specified for each Pattern together with a record quantise amount (1/4 - 1/32 triplet or High/no quantise). The S3's maximum record resolution is 192ppqn.

Pattern editing functions include track transposition (±24 semitones), velocity edit (shift, compress, expand), track swing, track erase (specific types of MIDI data, including single or all notes), pattern clear, post quantise (including percentage scaling - degree of quantise), pattern copy, and track copy/merge (within a pattern, but sadly not between patterns). A range function allows you to specify a particular section of a Pattern track for recording, playback and editing. As an example, you can copy a section of a Pattern (tracks 1-4 or individual tracks) to itself, which effectively allows

STUDIO WISE . . .



The Musicians' Guide to the studio Jungle.
If your'e thinking of booking time in a recording studio, then read this book before going any further. Paul White has been a recording engineer for over 15 years and in that time has seen musicians make just about every mistake in the book. Studio Wise is a concise guide to avoiding these pitfalls and takes you step by step through a typical recording session, including rehearsals, pointing out all the important do's and don'ts.

There's valuable information on copyright, equipment and instrument maintenance, getting cassettes, records and CDs made, and even a couple of useful dodges for getting past those tough record company secretaries! As the editor of Guitarist had to say - "For around the price of a set of guitar strings, this book could save you an absolute fortune in studio time and you'll almost certainly end up with a better recording at the end of it all!" And for studio owners, we're doing a special offer price on packs of ten or more copies which you can sell or lend to your prospective clients to ensure that they don't waste their time or yours. Your session will run more smoothly, and the happier your clients, the more likely they are to become regulars and to recommend your studio to their friends!

STUDIO WISE is available directly from Music Maker Books for only £6.45 including post and packing. Please call for quantity prices.

Please send me:-

☐ copy(ies) of STUDIO WISE at £6.45 each

I enclose a cheque/postal order for £..... made payable to Music Maker Books or please debit my Access/Visa account number:

_ _ _ _ / _ _ _ _ / _ _ _ _ / _ _ _ _ expiry date.....

Name.....

Address.....

.....

.....Postcode.....

Please include your full postcode and allow 28 days for delivery

Send To: Music Maker Books, Mail Order Dept., Alexander House, Forehill, Ely, Cambs CB7 4AF

➢ you to keep part of a pattern which you like and get rid of the rest.

If you press the Pause button during real-time pattern record, the S3 switches into step-time record. You can now enter chords and individual notes off the drum pads, automatically advancing to the next step when the last note is released. The S3 offers a choice of nine step sizes, ranging from a quarter note to an individual 1/192 tick for precision timing. Additionally each step can be given a gate time of 50, 80 or 100% of the step length.

SONGS

BEFORE YOU CAN record the continuous tracks 5-8 within a Song you must first create an Arrange Pattern chain. This effectively creates tracks 1-4 running in parallel with the Song tracks. The chain can consist of up to 250 steps, with each step being either a Pattern, a Pattern Repeat command (2-99) or a Kit change. There's a practical limit of 999 bars per Song. It's also possible to chain Songs together, but there's no means of inserting a Pause between them.

There are two forms of Song track recording: Normal and Punch in/out. Normal recording can only begin from bar one, so to record from any other position in the Song you first need to preset your punch in/out points for an automatic drop-in and drop-out. This can become tedious if you want to record sectionally, or just go back over a mistake. However, the six user-definable Locate points which the S3 allows you to set up can make life easier - once you work out how to set up and utilise them.

> "The S3 has the potential to play a much wider range of sounds - via ROM PCM sample cards, than its 'drum machine' tag might suggest."

Individual Song tracks can be delayed (up to a quarter note, in 1/192 tick increments), while other functions, such as track quantise, transpose, velocity-edit and erase, provide the same edit facilities as are available for the Pattern tracks, complete with edit range specified by the Song Range page. Additionally, you can insert, copy or merge a section of one Song track into the same or another Song track. Step-time recording isn't available for the Song tracks, but then any step-time recording you want to do can be quite reasonably confined to the Pattern tracks.

At this point it's worth considering what you can practically do within the constraints of the S3's memory. The drum machine allocates 33,600 bytes of internal RAM for recording Patterns and Songs. The Free Memory page in System mode tells you how many bytes of memory you've used at any given moment, and also allows you to gain some idea of how memory is used up. For instance, the S3 requires a certain number of bytes just to create each Pattern. A one-bar 4/4 blank Pattern uses up 74 bytes, a two-bar 4/4 blank Pattern uses up 106 bytes, and a 16-bar 4/4 blank Pattern uses up 554 bytes. Consequently, 100 4/4 blank Patterns require 7400 bytes, leaving 26,200 bytes for the notes - or 262 bytes per Pattern. A pad hit within a Pattern uses up four bytes, which means that for 100 Patterns you have an even distribution of 65 pad hits per Pattern (across all four Pattern tracks), with 200 bytes left over in total.

Of course, that's without recording any other MIDI data or getting into Song mode. Just Making a Song uses up 147 bytes. Each step in an Arrange Pattern chain uses up two bytes (so it saves on memory to use a Repeat step wherever possible). It's not so easy to follow memory usage in the Song tracks themselves, but as an example a 128-bar Song consisting of a simple four-bar bass 'n' snare pattern chained 32 times and all four Song tracks recorded continuously with bassline, sustained and arpeggiated chordal accompaniment and melody line parts took up around 14K.

Due to its lack of a disk drive the S3 has non-volatile RAM, so there's no need to remember to save your precious Songs and Patterns before switching off. However, as the memory begins to fill up you begin to wish that the S3 did have a disk drive. A RAM card (never the cheapest storage medium) can store at most 2K less than the S3's internal sequencing RAM (that's if you don't store any Timbres or Kits to the card). Fortunately, remote data storage via MIDI SysEx is possible for all the S3's data, so an Alesis Datafiler looks like being a sound investment sooner or later (probably sooner).

EFFECTS

NOT SURPRISINGLY, THE quality and versatility of the S3's effects processing is on a par with that found on Korg's synths, though the number and range of effects is not so large. The 14 stereo effects consist of three hall reverbs (up to 9.9 secs), three room reverbs (up to 5 secs), three early reflections, delay, chorus, flange, phaser and tremolo. In addition to dual equaliser and dual exciter, the 14 compound effects variously offer combinations of equalisation or mono delay with reverb, chorus, flanger, phase and tremolo.

Each of the S3's 16 Effect programs can be assigned one or two of these effects, whose parameters can be edited per Effect. As on Korg's synths, the S3 provides a choice of two effect configurations. Placement 1 puts both effect slot one and effect slot two in the stereo output chain, while Timbres routed to effect send one or two are panned into the stereo path after effect slot one. Thus, for instance, you could route selected Timbres through a stereo delay and then a stereo reverb, while other Timbres are routed only to the reverb via effect sends one and two.

Placement 2 puts only effect slot two in the stereo output chain, while Timbres sent to effect sends one and two are routed through effect slot one and then panned into the stereo path before effect slot two. Using a compound effect in slot one, you could route, say, a bass drum to effect send one and through equalisation to boost its bass end, while at the same time routing a snare drum to effect send two and through flanging. These two sounds will then be

panned across to effect slot two, which could be a stereo reverb. For further separate processing, sounds can always be routed via the four Multi outs.

VERDICT

WITH THE WORKSTATION synth and its dedicated drumkit section on the one hand and sophisticated computer-based sequencing/sampling on the other, drum machines are having a hard time. The response of most manufacturers has been to keep drum machine prices down and their facilities fairly straightforward in order to appeal to the budget market. Consequently, Korg are going against the grain with the S3. The Rhythm Workstation is an intriguing combination of drum machine and MIDI sequencer. The pattern-based sequencing aspect of the S3 is the most sophisticated you can expect to find but when it comes to recording extended instrumental tracks, its sequencing capabilities don't matchup to the sophistication and flexibility of a dedicated sequencer like Roland's new MC50. Ultimately the S3 is probably best suited to recording rhythm patterns, pattern-based instrumental parts and extended rhythm parts. For a MIDI sequencer it doesn't have a great deal of memory, so the lack of an onboard disk drive for data storage is a problem - a MIDI data storage device could be a quick follow-on purchase.

Sonically the S3 is an intriguing and versatile machine - especially with its combination of head and shell samples which allow you to create a wide variety of bass and snare drum sounds - and packs quite a punch. The inclusion of digital effects processing provides another dimension to sound creation on the S3, and another reason - along with its SMPTE read/write capability - why the Rhythm Workstation's asking price is more reasonable than it might seem at first.

However, the range of samples in the internal memory needs to be considerably expanded, which is where the ROM sample card library comes in. On the evidence of the card library which Korg built up for their DDD drum machines, they should do the S3 proud in this department.

However, despite its overall flexibility there are one or two areas in which it shows its long development time. For instance, it would have been useful if the sound editing could have included filtering with resonance (as on Kawai's new XD5 drum module and Roland's D70 synth), not least because the S3 has the potential to incorporate a variety of instrumental sounds along with the drum and percussion sounds.

So is the S3 going to do for drum machines what the M1 did for synths? I'm not convinced, but for anyone who prefers working with dedicated units and reserves a prominent place for rhythm in their music, the S3 offers plenty of enticing possibilities to explore. ■

"It is possible to build up a piece of music using only the S3's four Pattern tracks and the Arrange Pattern chain in Song mode."

Price *£899 including VAT*
More from *Korg UK, 8-9 The Crystal Centre, Elmgrove Road, Harrow HA1 2YR. Tel. 081-427 3397.*

Become a privileged MT subscriber

Become a Subscriber and here's what you can get - as well as your 12 issues of MT:

20% OFF Books
such as Julian Colbeck's Keyfax 3, Rockschool and Paul White's Creative Recording Books 1 & 2.

50% OFF Binders
Keep your mags in tip-top condition, for half price!

15% OFF all Music Maker records and CDs

15% OFF Guitarist Magazine Concerts

25% OFF 'T' Shirts
The new MT T-shirts are on their way! As a member of our Discount Club you save a massive 25%.

£3 OFF Music Maker Videos

£1 OFF Music Maker Shows

It costs no more to have MT delivered to your home. To start you off, how about a binder to keep your 12 issues in perfect condition for only £2.25 Normal cost £4.50.

Subscribe TODAY!

*I wish to subscribe to **MT** I will receive 12 issues of the magazine and automatically become eligible for any offers from the Music Maker Subscriptions Club.*
Uk £19.20 . Europe and over seas surface £25 Airmail £35 Overseas Airmail £45.
*Please send me the next 12 issues of **MT** commencing with the .....issue.*
I enclose Cheque/Postal Order to the value of £.....
Cheques and postal orders to be made payable to Musidc Technology Publications Limited, Alexander House, Fore Hill, Ely, Cambs CB7 4AF.
For payment by credit card or for further details, call (0898) 100703.
Calls cost 33p per minute cheap rate and 44p at other times.

PLEASE PRINT

Name.....
Address .....
.....Post code.....
** it is essential that you include your correct postcode.*

readers ads

MUSIC TECHNOLOGY's free classified section is the biggest of its kind in the business. Every month, we carry more ads for synthesisers, samplers, computers, signal processing gear and assorted other goodies than any other monthly magazine. So when musicians and studio engineers are on the lookout for some extra gear to update their line-up, they turn to these pages *first*.

If you're a private seller, advertising in the back of MUSIC TECHNOLOGY really couldn't be simpler. And if you're searching for a specific piece of equipment or looking for other musicians to fill a gap in your band, we can help out there, too.

Just pick up the phone and dial (0898) 100767. At the other end of the line, you'll be able to select a category in which to place your ad and let us know exactly what it is you're selling or seeking.

The service operates 24 hours a day, so there's no need to hunt for stamps, envelopes or Biros. Pick up the phone and we'll do the rest. If you buy and sell musical equipment as part of a business, you'll have to use the regular classified section on the last page. And we regret we can't answer any queries regarding free classifieds published in MUSIC TECHNOLOGY.

Calls cost 33p per minute cheap rate and 44p per minute at all other times

KEYBOARDS

CASIO CZ101, manuals, psu, £90; Roland TR505, separate outputs, manual, £99. Rob, Tel: (0742) 473538.

CASIO CZ101, plus 4 RAM cards, hundreds of sounds on disk, £110. Tel: (0232) 328417.

CASIO CZ230S, plus psu, £90; Roland SH101, £85 ono. Tel: (04023) 70981, after 6pm.

CASIO CZ1000, box, manuals, £170 ono. Reg, Tel: (0484) 539236.

CASIO CZ1000, with stand, £135. Mark, Tel: (0527) 575096.

CASIO CZ1000, vgc, with flightcase, manuals and voicing software, £110 ono. David, Tel: (0795) 531526.

CASIO CZ23000, phase distortion synth, many professional sounds, immac cond, boxed, £280. Tel: 081-856 5306.

CASIO CZ5000, flightcased, vgc, £280 or swap Juno 106/D110 plus £100 cash differential. Nick, Tel: (0603) 713754, days.

CASIO CZ5000, £290; Yamaha DX11, £320, both excellent cond, flightcased, volume pedals, X-stand, manuals, leads. Tel: 021-350 0695, eves.

CASIO CZ5000 synth, never gigged, needs slight attention to on/off switch, hence £200. Tel: Halifax 883025.

CASIO HT3000 MIDI keyboard/synth, with manual, box, RAM card, £225. Tel: 081-989 1480.

CHEETAH 7P master keyboard, hardly used, boxed, pristine cond, £590. Ian, Tel: (0753) 692442 X15, days.

CHEETAH MK7VA master keyboard, £150; Cheetah MS6 multi-sound module, £175. Richard, Tel: 081-560 4715.

HOHNER PIANET T, the poor man's Fender Rhodes, excellent cond, £75. Gordon, Tel: (0223) 464117, days; (0638) 720090, eves.

KAWAI K1, Alesis MMT8, both boxed, £550 pair. Henry, Tel: (03954) 2620, after 4pm.

KAWAI K1, MkII, boxed, manuals, mint cond, £450 ono. Paul Allen, Tel: (0846) 662060, days.

KAWAI K1, plus pro sound disks, £365; Kawai PT50, £150; Alesis MMT8 sequencer, £175; Yamaha R100 effects, £100, all boxed, immac, home use only. Tel: Stoke-on-Trent (0782) 410071.

KAWAI K1, multitimbral, splits, layers, home use only, immac cond, £350. Tel: (0992) 892317, eves and weekends.

KAWAI K1, £320; TR505, £80; Soundbits K1 editor (plus sounds), £20; Steinberg Pro12 sequencer, £40. Tel: (0803) 294807.

KAWAI K1, good cond, £320; Casio VZ10M module, £180. Tel: 081-574 0650, after 6pm.

KAWAI K1M, excellent module, excellent cond, bargain at £175. Harry, Tel: (0799) 40622, eves.

KORG mono/poly synth, £75; Marshall 12W keyboard amp, £35. Alan Pearson, Tel: (0332) 381209, eves.

KORG DW8000, immac, £195. Tel: 061-766 6840.

KORG DW8000, Juno 106, SielCruise, TR505 drums, Ibanez digital delay, large 4-tier stand, Yamaha MT44D, 6-track mixer, lots of other bits, £1500 the lot. Tel: (0249) 891216.

KORG KD6000, £280. Tel: (0273) 726219.

KORG M1, excellent cond, mint, plus Steinberg Cubase for Atari ST, comes complete with manuals and tutorial program, fantastic pro package, £1195. Tel: 071-622 2673.

KORG M1, £850 ono; Cheetah MQ8 sequencer, £150 ono. Ian, Tel: (0803) 864602, after 5pm.

KORG M1, excellent cond, £850 ono. Tel: (0603) 401746.

KORG M1, 'nuff said, with all the bits, 2 months old. Paul, Tel: 041-639 2221 or 041-221 2009.

KORG M1R for sale or swap, swap for Proteus module or U220 plus cash. Tel: (0309) 76008.

KORG M3R, plus Atari librarian with 800 sounds, vgc, price £525. Tel: Merseyside (07048) 74903.

KORG POLYSIX analogue polysynth, with case and manuals, home use only, excellent cond, £220. Paul, Tel: Leeds (0532) 865197.

KORG POLY800, soft case, manuals, data tape, £150. Si or Andy, Tel: (0494) 675176.

MEMORYMOOG, £550; Jupiter 8, with MIDI, £875; CS80, £675; Akai S900, £775; Roland A50, £899; D550, £750; PG1000, £200; Yamaha TX7, £230. Tel: (0392) 876675, eves.

MINIMOOG, vvvgc, £595 ono. Gordon, Tel: (0223) 464117, days; (0638) 720090, eves.

PPG WAVE 2.2, vgc, with manual and original patch tape, £800 ono, or will consider p/x with Waldorf Microwave. Gordon, Tel: (0223) 464117, days; (0638) 720090, eves.

ROLAND CR78 plus WS1 programmer, excellent cond, ex-BBC, £200 ono. Carl, Tel: (0243) 551839.

ROLAND D5, 6 months old, £360 ono; Roland Juno 60, good cond, £210 ono. Tel: (0942) 37095.

ROLAND D5 for sale, £350 ono; Casio AZ1 or Yamaha KX5/KX1 urgently wanted, cash waiting. John Gardner, Tel: (0225) 423294, 8.30-10pm.

ROLAND D10, mint cond, boxed, manuals, £475. Tel: (0782) 563088.

ROLAND D10, multitimbral synth, on-board drums and effects, £395. Garry, Tel: (0323) 641676.

ROLAND D10, multitimbral keyboard, as new, boxed, ungigged, with manuals, £550 ono. Tel: 081-699 8985.

ROLAND D10, 3 sound cards, hardcase and stand, £575 ono. Richard, Tel: (0784) 245441.

ROLAND D110, £300 ono; Cheetah MK7VA 88-note master keyboard, £130 ono; Kawai

K5M wanted, cash or exchange. Tel: (0442) 216982.

ROLAND D50, home and studio use only, in box, with card, £750. James, Tel: (0733) 64954, after 7pm.

ROLAND D70, home use only, boxed, manual, full guarantee, £1195 ono. Tel: Merseyside (07048) 74903.

ROLAND D110, boxed, £325. Tel: (0926) 886654.

ROLAND E20, £550; Roland Juno 106, £325; Roland MC202, £90; Akai S700, £400, all items in excellent cond, home use only, offers considered. Wayne, Tel: 081-348 7569.

ROLAND JUNO 6, excellent cond, classic analogue synth, unlimited possibilities, plus manual, £200, no offers. Clive, Tel: Plymouth (0752) 366549.

ROLAND JUNO 106, boxed, £350 ono. Richard, Tel: 091-514 5212, after 6.30pm.

ROLAND JUNO 106, flightcase, plus patch tape, good cond, £265. Tel: (0296) 631405.

ROLAND JUPITER 6, new, 16-bit Boss Dr Rhythm and Yamaha YS100, all excellent cond, with stand, £1000 ono, may split. Andrew, Tel: (0633) 895922.

ROLAND JUPITER 6, mint cond, plus flightcase, £500; Korg DW8000, plus case, £150; Cheetah MK7VA, £250. Tony, Tel: Portsmouth 293524.

ROLAND JUPITER 6, plus flightcase and X-stand, £400 ono. Ashley, Tel: (0532) 434541 or (08444) 6032.

ROLAND JX3P synth, plus PG200 programmer, instructions, flightcase, little used, immac cond, £350. Tel: (0438) 351127.

ROLAND JX3P, plus programmer, £250; Korg EX800, £85, boxes, manuals. Rod, Tel: Watford (0923) 677922.

ROLAND JX8P, flightcase, manuals etc, immac, £425 ono. Gordon, Tel: (0223) 464117, days; (0638) 720090, eves.

ROLAND MKS70, £500; Casio CZ5000, £240; Roland TR707, £120. Brad, Tel: (0602) 873896.

ROLAND MT32, £200; Atari ST, 1Meg, external drive, mouse, £180; Cheetah MK5, £80; Yamaha MCS2, £100; Hybrid Arts' EditTrackII v5, £120; Steinberg Synthworks D10/20/110/MT32, £50. Offers. Andy, Tel: 061-969 8714.

ROLAND MT32, boxed, £220. Fran, Tel: (0753) 853060.

ROLAND MT32, complete with Atari editor, £220; Cheetah MS6, £200. Tel: 061-224 8147, after 7pm.

ROLAND PG1000 programmer for D50/550, £80 ono. Gordon, Tel: (0223) 464117, days; (0638) 720090, eves.

ROLAND SH101 monosynth, with modulation grip and original strap, fairly good cond, needs a couple of repairs, £90 ono. Geraldine, Tel: (0392) 81384.

SEQUENTIAL PROPHET VS digital vector synth, immac cond, £900 ono. Don, Tel: 031-441 3948, after 6pm.

YAMAHA Centenery DX7, only 100 ever made, gold buttons, 6-octave, disk drive, excellent cond, inc flightcase, don't be square - be rare, £1100 ono. Steve, Tel: (0782) 660969.

YAMAHA CS80, classic polysynth, £700 ono; Roland MC500 sequencer, £500. Tel: 081-699 8787.

YAMAHA DX5, flightcase, vgc, manuals etc, a rare and wonderful beastie, £795 ono. Gordon, Tel: (0223) 464117, days; (0638) 720090, eves.

YAMAHA DX7, ROMs, controller, immac cond, home use only, £399. Tel: Bath (0225) 319662.

YAMAHA DX7, with ROMs and hard case, this classic synth in immac cond, £500. Marcel, Tel: (0635) 32646 X316, days; (0635) 27681, eves.

YAMAHA DX7, home use only, £450 ono. Ian, Tel: 081-556 7888.

YAMAHA DX27, Seiko sequencer, data cassette recorder, hundreds of voices, only £250. Tel: 081-654 7577.

YAMAHA MCS2, £100; Hybrid Arts' EditTrack II, v5, £100; Commodore MPS1230 dot matrix printer, £80, offers considered. Andy, Tel Timperley/Altrincham 061-969 8714.

YAMAHA PF70 electronic piano, inc stand, ideal master keyboard, home use only, £600 ono, must sell. Tel: 091-529 4788, anytime.

YAMAHA PF70 electronic piano, EMT10 piano module, plus flightcase, £600. Tel: 081-360 4981, after 7pm.

YAMAHA PF80 digital piano, perfect, never gigged, good mother keyboard, £475. Tel: Halifax 883025.

YAMAHA TG55, £450; Creator v2.2, £180; mono monitor, £80, all boxed, as new. Andy, Tel: 061-257 3824.

YAMAHA YS100 professional synth, many features, inc 200 sounds, brand new, £325 ono. Tel: 081-690 9369.

SAMPLING

AKAI S950, industry-standard sampler, mint cond, plus access to large library, plus Steinberg Cubase for Atari ST, comes complete with manuals and tutorial program, £1195. Tel: 071-622 2673.

CASIO FZ1, DX7, EX800, CX5, X15, 6:2, loads of extras, £1800 the lot, will split, offers. Chris, Tel: (0202) 786862.

CASIO FZ1 library, 80 disks for £100, will split. Colin, Tel: 061-905 1045.

DREAM RIG? S900, Prophet VS, TX802, plus RAMs, cases, sounds, Atari programs, deliver, £2000. Lance, Tel: Paris 010.33.1.3995.1064.

EMAX rack sampler, plus disks, immac, £950; Tascam/TEAC 3 mixer 8:2, perfect, £350. Tel: (0602) 620131.

EMAX SE plus keyboard, as new, boxed, £1100. Tel: Bath (0225) 319662.

E-MU PROTEUS, perfect, boxed, £550; Roland PG800 programmer, £50. Graham, Tel: (0698) 358408, after 7pm.

ENSONIQ EPS sampler, with 4x memory, large library, offers. Simon, Tel: (0274) 545473.

ENSONIQ MIRAGE, 30 disks, MASOS, £550; Kawai K1M, exchange for MT32 or £230. Vito, Tel: (0638) 533071.

ENSONIQ MIRAGE, rack version, MASOS, version 2.0, inc disks, £295. Tel: (0708) 744447.

FAIRLIGHT MKII, with library, £3950; Clavinet funk machine, £175; Roland P330 piano module, £499; Yamaha MT2X portastudio, £339. John, Tel: (03985) 521, eves.

FREE Oscar synth when you buy my Emax II, as new, over 60 disks, £2500. Tel: (04698) 559.

PPG 2.3 and Waveterm B, inc large library, immac, classic machine, £1999. Tel: Bath (0225) 319662.

ROLAND S10, disks, carry case, immac, £375, no offers. Tel: (0702) 204906.

ROLAND S10 sampler, 40 disks, £380; Roland TR626 drum machine, £150; Yamaha DX27 keyboard, £200. Tel: (0427) 615865.

ROLAND S50 sampling keyboard, home use only, 50-disk library, monitor, £795. Tel: Merseyside (07048) 74903.

ROLAND S550 sampler, 16-bit sampling, Director S sequencing package, 8 separate outputs, monitor and mouse, boxed, manual, 40 disks of sounds, £1000 ono. Neville, Tel: 081-686 2096, days; 071-738 3466, eves.

ROLAND U110, mint cond, £350; Waldorf Microwave and Ensoniq VFX-SD wanted. Tel: (0909) 566695.

ROLAND W30, many disks, brand new, £1250. Alex, Tel: Bournemouth (0202) 391557, days only.

ROLAND W30, unused, absolutely immac, boxed, manuals, disks - virtually untouched, huge library Roland/personal disks, £1150 ono, or consider p/x with Roland S550, f/case available. Gordon, Tel: (0223) 464117, days; (0638) 720090, eves.

SEQUENCERS

ALESIS MMT8, boxed, manuals, psu, vgc, £160. Tel: 021-552 1049.

KORG SQ8, 8-track, £90. Tel: 081-440 6006.

ROLAND MC202 microcomposer, with power supply, immac, £120 ono. Douglas, Tel: 061-228 1771, days; 061-969 8263, eves.

ROLAND MC300, with manuals, plus Super-MRC software, around £300. Joe, Tel: East Midlands (0777) 871650.

ROLAND MC500, plus flightcase, manual, £300. Paul Robinson, Tel: (0422) 883408.

ROLAND MSQ700, MIDI and din sync, can run all essential gear, TR808, TR909, MC202 etc, boxed, manual, buyer arranges

delivery, £140. Tel: (0325) 466319.

ROLAND PR100, quick-disk, 4-track, MIDI, £180. Richard, Tel: 081-560 4715.

ROLAND TB303, the number one acid bassline machine, excellent bass sounds, ideal for house, techno fanatics, good cond, £200. Tel: (0604) 843536.

YAMAHA QX3, including case and manual, £325 ono. Julian, Tel: Cambridge (0223) 870375.

YAMAHA QX5 digital sequencer, £150. Mark King, Tel: (0209) 718149.

YAMAHA QX21, manual, £60. Tel: Lemington Spa (0926) 450407, Mon-Fri 9am-5pm.

DRUMS

AKAI XE8 MIDI drum expander, mint cond, inc two ROM cards, £110. James, Tel: 081-954 5275.

BOSS DR220E digital drum machine, fully programmable, with manual, £75 ono. Simon, Tel: (0474) 323835, eves and weekends.

ROLAND R5, £250; Roland CR8000, tatty, £60. Tel: 031-554 4836.

ROLAND TR505, £125 ono; Yamaha RX21, £75 ono. Leif, Tel: Cardiff (0222) 481967.

ROLAND TR808, £300; D110, £325; Bassline, £100; E-mu II, £1500 ono; Burman combo 120W (heavy), offers; Juno 106, £300. Tel: 031-556 3761.

YAMAHA RX5, 3 ROMs, studio use only, £350. Tel: (0344) 25900, eves.

YAMAHA RX5, separate outs, perfect working order, £250. Andy, Tel: (0933) 50491.

YAMAHA RX8 drum machine, excellent cond, £190 ono. Tel: (0622) 755839.

COMPUTING

AMIGA 500, Music X, MIDI interface, sampler, memory upgrade, Korg DDM220, Yamaha PSS780, Yamaha PSS480, games, all boxed, £700 ono. Paul, Tel: (0929) 424097.

ATARI 520STM, with external disk drive, plus hi-res SM124 mono monitor, £240. Darryl, Tel: (0782) 410071.

ATARI 1040STE and hi-res mono monitor, Korg Poly800 with Chameleon universal patch librarian, and Steinberg Pro12, all £500. Mark, Tel: (0860) 674441.

ATARI MEGA 2ST, with hi-res mono monitor, mouse, manuals, music, business software and games, £595. Paul, Tel: (0706) 50897.

HITACHI CD-ROM player, plus interface card, plus connectors, version 2 software, manuals and installation guide, offers please. Neil, Tel: (0532) 400375 or (0532) 374039.

HOLLIS TRACKMAN 32-track sequencer, current version 2.2, boxed, with dongle, manual, footswitch, £100, p/x Atari SM124. Tel: 081-965 9075.

HYBRID ARTS' EditTrack II, genuine copy, with manual, not yet registered! £100 ono. Gordon, Tel: (0223) 464117, days; (0638) 720090, eves.

HYBRID ARTS' EZ-Track+, genuine copy, with manual, £30 ono. Gordon, Tel: (0223) 464117, days; (0638) 720090, eves.

JORETH Music System for Commodore 64, MIDI interface plus Composer, Linker, CZ and System 7 editors, cost over £400, sell for £80 ono, must sell. Tel: 091-529 4788, anytime.

PG SOFTWARE, Band In A Box MIDI accompaniment software for the Atari ST, plus two MIDI books, £40. Stephen, Tel: 081-594 3704.

STEINBERG CUBEAT, £220; Atari 520ST, £200. Francis, Tel: (0753) 853060.

RECORDING

ALESIS MIDIVERB III, 19" effects unit, rackmount, hardly used, £250, no offers. Tel: 071-511 1120.

ALESIS QUADRAVERB fx unit and Yamaha SPX90 fx unit, offers invited. Mark, Tel: (0860) 454672.

APHEX Aural Exciter Type E, excellent cond, with kit for 19" rackmounting, £80 ono. Peter, Tel: Middlesex (0932) 772004.

BOSS RCL10 compressor/limiter, with power supply, as new, £60. Tel: (0367) 240732.

CASIO DA2 DAT recorder, 90 minutes use, £500; Fostex 812 mixer, 3 months old, home studio use only, guaranteed, £975, price includes delivery. Tel: (0324) 612990.

EFFECTRON JR DDL, £125; Accessit exciter, compressor, gate, racked, £75, all perfect. Tel: Halifax 883025.

ITAM/STUDER 8-track machine, vgc, with meters, £550 ono. Tel: 061-483 8551, anytime.

KORG KMX8, stereo 8-channel mixing unit, inc flightcase, £100. Tel: Liverpool 051-260 6675.

MADRACK D7 multitap modulation fx, superb, £195; Micromoog, vgc, £100; MIDI-to-CV interface, £48. Tel: (0532) 680331.

MM 12:2 MIXER. Needs 2 new faders, otherwise good working order. Offers. Tel: (0353) 665577 X162.

PAICE 16:8:2 desk, vgc, £650; Itam/Studer 8-track, vgc, £600, or £1000 for both. Tel: 061-483 8551, anytime.

SIMMONS SPM8:2 MIDI mixer, immac, £175 ono. Ian, Tel: 081-556 7888.

SMPTE-TO-MIDI song pointer synchronisation, syncs to multitrack recorders to sequencers; XRI300, £159. Tel: (04873) 266.

SONY TCDD10, portable DAT machine, immac cond, hardly used, inc two battery packs and case, low price, no time wasters, £650. Mr Harris, Tel: 071-262 1812.

STEINBERG SMP24 professional rackmount sync, for use with Cubase or Pro24, can have up to 80 MIDI channels with Atari, SMPTE, MTC supported, cost over £1000, will sell £550, software included. Tel: 071-511 1120.

STUDIOMASTER PROLINE 16:4:8:2 mixer, mint cond, boxed, manual, 18mths old, £950. Tel: (03543) 5239.

32-WAY patchbay, plus wires, £25; Korg KPR77 drum box, £40. Tel: Halifax 883025.

TAC SCORPION mixing desk, 34:8:2, with 16-channel monitoring, 2 months old, 8 auxs, £7500. Tel: 081-556 7888.

TASCAM 688 Midistudio, brand new, never used, £1700. Debbie Rawlings, Tel: 071-221 1722.

TASCAM PORTA ONE, £275 ono; Boss RSD10 micro rack digital delay, £80. Richard, Tel: (0784) 245441.

TEAC A3440, 4-track reel to reel recorder with leads, super machine, as new, £395 ono, must sell. Tel: 091-529 4788, anytime.

YAMAHA DMP7, with manual, £1500; Barcus-Berry 802 psychoacoustic enhancer, with manual, £250; 2" 4-track test tape, £250. Ray, Tel: (0752) 894457.

YAMAHA MT3X 4-track portable studio, perfect cond, ideal for home demos, £450 ono. Tel: (0705) 256441.

YAMAHA EM200 mixer amp, 8:2, with 200W Carlsbro loudspeakers, flightcase, £400; Simmons SPM8:2 programmable mixer, £200. Paul Robinson, Tel: (0422) 883408.

YAMAHA SPX90, good cond, boxed, manual, £275. Tel: Cambridge (0223) 276311.

AMPS

CARLSBRO MARLIN 4-channel, 130 watt PA amp, built-in reverb, fx send/return. HH Pro 150 cabinet, 15" bass river, hf bullet. Excellent live keyboard rig, £300 ono the pair. Tel: (0353) 665577 X162.

CARLSBRO keyboard combo, never gigged, pristine cond, £200 ono. Tel: Halifax 883025.

CARLSBRO SHERWOOD 90W guitar amp, 2 input, parametric, reverb, £225 ono. Julian, Tel: 061-224 1325.

PERSONNEL

DRUMMER wanted by ambitious and original band. Management, sound engineer, big gigs and studio time waiting. Dance/rock. Ashley, Tel: (0223) 334900, days; 246096, eves.

EX-STUDIO owner and music graduate seeks studio work. Keen, fast learner. Louis, Tel: (0302) 788013.

TECHNO synth players wanted to produce serious dance music. Trev, Tel: (0992) 468294.

MISC

CASIO CZ1 cartridges, two ROM, (RC-20, RC-30), two RAM,

£40 the lot. Tel: (0603) 486861.

COMPLETE SETS: E&MM, MT, H&SR, offers. Tel: Bath (0225) 319662.

ROLAND S10 disks, brass and wind, volumes I and II, originally cost £95 each, offers. Tom, Tel: (0727) 56527.

QUASI-MIDI QME2 style card, the best one in the range! Three weeks old, boxed, only £95 inc registered delivery. Tel: (0532) 873536, anytime.

ROLAND SBX10 MIDI/DIN sync/tape box, mint, boxed, £100 ono. Tel: (03543) 5239.

VESTA FIRE MIDI-to-CV gate converter, let your MIDI drum machine control your bassline keyboard, £110 ono. Sean, Tel: 051-521 5213.

WANTED

A REMOTE keyboard, price negotiable, no toys please! Mark, Tel: (0604) 37280.

ABBA albums on CD (please sell them to me), also singles where B-side was not included on an album - in good or reasonable condition please. Andy, Tel: Timperley/Altrincham 061-969 8714.

AMIGA ISF or Sonics samples, for use with Music X. Trev, Tel: (0992) 468294.

ARP 2600, Minimoog and vocoder, good price offered. Write: Jukka Kaariainen, Vehkasilta, 50600 Mikkeli, Finland.

ATARI 1040STF and SM124 Atari colour monitor, with C-Lab Creator software. Tel: (0902) 602898.

BEATMASTERS: searching for a copy of interviews in MT March '88 and July '89. Free copy of own demotape waiting! Write: Mike Schabinger, Allmendstr.11, 7591 Sasbach, Germany. Tel: (07841) 21645.

JAMES BROWN/JB'S LPs or cassettes, good prices paid, will also exchange tapes. Tel: Northampton (0604) 843536.

CASIO FZ1 sampling keyboard, with 2Meg upgrade, plus sound library if possible. Tel: 081-459 0078.

ENSONIQ ESQM, rack version of ESQ1, willing to trade my ESQ1 plus something. Mark, Tel: 081-947 9565.

ENSONIQ SQ80 for £650, must be good cond. Tel: Torquay (0803) 311678.

ENSONIQ SQ80, will pay £500. Steve, Tel: Crawley (0293) 510946.

GENPATCH for Atari ST wanted. Steve, Tel: (0602) 847330.

HELP! can anyone repair my Apple II Greengate DS3, must be cheap. Tel: (0252) 733399.

KORG 700S monosynth. Gordon, Tel: (0223) 464117, days; (0638) 720090, eves.

KORG SIGMA, touch sensitive monosynth. Gordon, Tel: (0223) 464117, days; (0638) 720090, eves.

MIDIMOUSE Notewizard, Chord Magic and Scalemaster software for STE. Paul, Tel: (0831) 260956.

19" FLIGHTCASES, anything from 2U to 8U considered. Gordon, Tel: (0223) 464117, days; (0638) 720090, eves.

REECE & SANTONIOS The Sound 12" and Model 500 Techno Music 12", right price paid for good condition. Al, Tel: 081-942 3063.

ROLAND D550, PG800, Dimension D, cash waiting. Tel: (0734) 580764.

ROLAND EQUIPMENT: TR707, JX3P, SH101, any Roland gear. Tel: (0234) 353746, 24 hrs answerphone.

ROLAND M64C cartridges, cash waiting. Andy, Tel: (0926) 882913.

ROLAND OCTAPAD MkII, Pad80 wanted for £250, must be in vgc. Tel: 071-435 7598.

ROLAND SBX10 or Korg KMS30 wanted, will pay around £30. Tel: (0604) 843536.

ROLAND TR808 operating manual, photocopy acceptable. Tel: (0332) 513145.

ROLAND TR808 rhythm composer wanted for £250. Tel: 071-435 7598.

ROLAND TR909, will pay £200. Steve, Tel: Crawley (0293) 510946.

ROLAND TR909 rhythm composer wanted for £300. Tel: 071-435 7598.

ROM CARDS and sampling board for Korg DD1. Greg Watts, Tel: Coventry 675747.

WANTED: two 15" speaker cabinets, Marshall 6151s preferred, others considered. Peter, Tel: Middlesex (0932) 772004.

MICHAEL WRIGHT: please contact David Richards, re: C1. Have lost your number. Tel: 010-353-21-500-404.

STUDIO MIXER 32/8/16/2 or 32-40/16/24/2, Allen and Heath, Studiomaster or else, cash waiting, reasonable price. Stanley, Tel: Finland +358-28-14 992 or +358-28-13 148.

TECHNICS SL1200/1210s, will pay £160 each if in good cond, BPM counter also wanited. Tel: Northampton (0604) 843536.

WANTED: Boss MA15 or MA12 monitor speakers, will pay £60 (damaged units considered). Tel: (0604) 843536.

WANTED: Korg M3R module and Roland D110 module, cash waiting. Philip, Tel: Bradford (0274) 606205.

YAMAHA EMM15 RAM board for TX16W urgently required, cash waiting. Jason, Tel: (0252) 725272.

YAMAHA RX11 cartridge wanted. Tel: 051-355 1593.

YAMAHA SY77 or Ensoniq VFX-SD, Roland R8. Wilson, Tel: (0909) 566695.

ad index

ABC Music.....11
Audio Media Group.....13,45
Axe Music 33

Babel Systems 66

Digital Music 29

Eddie Moors Music 42
Elmgrove Studios 61
Evenlode Soundworks 25

Future Music 57
Future Music (Chelsea).....57

Gigsounds.....18

K.C Video.....68
Kenton Electronics.....56
Korg U.K. .....O.B.C.

MCMXCIX 9,15
Metra Sound 37
Midi Music 63

Newtronic.....68

Patchworks.....69

Roland U.K. 5

Soho Soundhouse.....27
Sound Control 21
Sound Technology 23,IBC

Thatched Cottage Audio.....39
The Music Corporation 50
The Synthesiser Company.....1

Unisound 49

Yamaha Pulse.....53
Yamaha UK .....I.F.C.

CLASSIFIED

FOR HIRE

ADVANCED SOUNDS HIRE
Keyboards, DAT Machines, Samplers, Valve Equipment, Drum Machines, Microphones, Sequencers, EQ/Compressors/Gates, Computers, Reverbs/Delays, Software, Multitracks, Guitars/Backline, Mixers
★ Delivery/Collection ★ Account Facilities ★
Tel: 081 462 6261 Mobile: 0860 310618

Audiohire
Hire of ; Synths / Samplers / FX / Drum Machines / Tape Machines / Mics. etc
Tel : 081 - 960 4466 or 0836 710 281

16 TRACK HIRE
*FOSTEX B16
*SECK 18/8/2 MIXER
£129 PER WEEK
*E16-G16 Available *All outboard equipment
Tel: ASCOT (0344)) 22113 / (0860) 220800

Kurzweil 250 Model 6
NEW with warranty
Latest Model
£5999
Cranes Music
5A High Street,
Cardiff, CF1 2AW
Tel. 0222 398 215

YOUR SONG ON CD FOR ONLY £175

For only £175, copies of your song, on CD, will be sent to over 500 A & R depts, Publishers and Radio Stations. Copies will also be sent to you for additional promotion. If you want your music taken seriously, give it the professional touch !
For full details send a SAE and a Demo tape if possible, to the address below.
Please do not send any money at this stage

MIDRUM MUSIC
86 Gaynesford, Basildon Essex SS16 5SG.
Attn :T.G.Prinn.

PROFESSIONAL DEMOS!
HAVE YOUR DEMO BACKING TRACKS RECORDED BY A PROFESSIONAL STUDIO.SEND A CASSETTE AND £45 per SONG TO 'REAL TIME MUSIC, 11 SCHOOL LANE, HAGLEY, WORCESTERSHIRE, DY9 9LD TEL.0562-885198

SOFTWARE,HARDWARE AND SAMPLES

SAMPLE LIBRARIES
for the Akai S1100/S1000/S950/S900, and for Roland S300/S550/W30/S50
We have a large library of professionally recorded high quality sampled sounds on disk for the above samplers. Please phone or write for our free catalogue, specifying sampler type, or send a blank disc and S.A.E. and we will send you a sample disk free of charge. Choose from 150 double density disks for the S900/S950 for just £4 each or from 110 high density disks for just £6.50 each. or from 150 disks for roland samplers for just £7.50 each (all prices inc. P & P).
MISSISSIPPI SOFTWARE SYNTH EDITORS U110/JUNO 1 & 2/MKS50/ESQ/S6/R8M
FREEBASE 950 The only sampler database/organiser for your Atari ST.
WOMBAT DX7 The desktop DX7 librarian organiser PRICE £34.99
Please phone or write for further details to:
FOUR MINUTE WARNING, NORTHERN SALES OFFICE, DEPARTMENT 2,
298 HORBURY ROAD, WAKEFIELD, WEST YORKSHIRE. WF2 8QX TEL. 0924 386527

S900/950 SAMPLES
High Quality,professional collection
Full range choice - over 300 disks available
Pre set Volumes, 25 disks £79.95
Individual disks £4.00 each
All prices inclusive of VAT and UK postage
Access and Barclaycard welcome
Send or Phone for full listing
VALLEY STUDIOS
Pant Byrlip Farm, New Quay, Dyfed, SA45 9TU
(TEL: 0545 560164)

Digital Music Archives
Classical MIDI -Sequences- Winter Catalogue

J.S.Bach	Brandenburg Concerto no.5 BWV1050
	Concerto for harpsichord and strings BWV1050
	5 concertos for solo organ,BWV592- 596
	Concertos for 2 harpsichords and strings in C Major
Beethoven	Concerto for violin in D Major,Opus 61
	Symphony no 8 in F Major,Opus 93
	Symphony No 3 in E Flat Eroica'
Handel	2 Concertos for Organ,Strings and Winds, Opus 7/3 &4
Mozart	Piano Concerto no 24 in C minor K491
	Serenade 'Eine Kleine Nachtmusik' In G Major,K525
	Symphony No 29 in A Major

All titles £19.95 each incl. postage
Available for: Atari:Creator/Notator,Cubase,Pro 24 III,MIDI-files Amiga:Music ,MIDI-files IBM: Voyetra,MIDI- files Mac:MIDI- files
How to order: Call 071- 624 8774 or send a cheque to: DMA,46b Gascony Avenue,London NW6 4NA

- DISKS -
3.5"
100 %ERROR FREE DSDD
£12.50 .....for 25
£24.00.....for 55
Cheques /P.O.s to
BIDBROOK SYSTEMS
11 Sutherland Ave,London W9 2HE
(0831) 311782

STUDIOS COURSES AND TUITION

DEALERS BUSINESS A BIT SLOW?
Why not perk things up a bit with a 'Music Technology' classified? How much does it cost? Well around £30.00 per month, 10 minutes of your time and a 22p stamp
Ring Rob on 0353 665577 for more info

HURRICANE STUDIOS
SOUTH LONDON BASED
2 INCH 24 TRACK
DIGITAL MASTERING. LIVE ROOM. FULL MIDI
CAPABILITY EXCELLENT WORKING ENVIRONMENT
Tel.081 - 699 - 6945
Fax.081 - 699 - 5845
We are the U.K.Centre for City and Guilds qualification courses in Sound engineering and Music Technology. Phone for details and a free prospectus.

U.K.M.A
United Kingdom MIDI Association
Members receive:
* Free advice on MIDI equipment
* Free answers to MIDI problems
* free monthly newsletter with MIDI articles, problem solutions, book reviews and general MIDI info.

Annual individual subscription - £34.50

MIDI WORKSHOPS
Flexible, six hour MIDI courses with content tailored to suit individual classes. From writing a MIDI system, basic sequencing and MIDI principles through to syncing to tape, system exclusive and advanced MIDI applications
Cost - £40 per person (4 maximum)
Contact VIC LENNARD on:
081 - 368 7918 (fax / telephone)

EPS, S950, FZ1, MIRAGE SAMPLE LIBRARIES
We are Europes largest sample library with over 100,000 sounds ranging from Orchestral to House,with sounds taken digitally from 'State of the Art systems'.Our EPS library is THE LARGEST in the world,and our other libraries are catching up fast.ALL DISKS ONLY £8.50 EACH INC P&P.,OR 5 DISKS FOR £40.00 OR 10 DISKS FOR £70.00 DEMO TAPE 90p PHONE NOW FOR A FREE CATALOGUE.(specify which library)

SAMPLE TAPES. Our sample tape collection currently features 11 high quality chrome cassettes . Each cassette is jam-packed with multi sampled sounds .

VOL 1 "CLASSICS 1", VOL 2 "DRUMS & PERCUSSION", VOL 3 "CLASSICS 2", VOL 4"ORCHESTRA 1", VOL 5 "CLASSICS", VOL 6 "SOUND FX 1", VOL 7 "HOUSE ATTACK" VOL 8 "CLASSICS 4", VOL 9 "WORLD MUSIC", VOL10 "DRUMS & PERCUSSION 2" features Drum sounds from the latest generation of Drum machines and Samplers.

NEW VOL II ANALOGUE 1, Which features sounds from Prophet 5, Oberh OB1, Matrix 1000, Mini moog, Wasp, Oscar, SH101, TB303, SH5, Yamaha CS80, and much more.
ALL TAPES £6.50 EACH OR ANY 5 FOR £28.00, OR ANY10 FOR £54.00
WRITE/PHONE NOW FOR FREE TAPE TAPE CATALOGUE.

SOFTWARE AND HARDWARE
STEINBERG CUBASE £495. AVALON £290. PRO 24 £150. DR T'S TIGER CUB £99. XOR £224. DIGITAL MODE PRODIGY £99. INTELLIGENT MUSICS REAL TIME £224. INTELLIGENT MUSICS 'M' £135. EZE EPS EDITOR £140.
FULL LISTINGS WRITE-PHONE
MAKE CHEQUES/PO PAYABLE TO:DESERT ISLAND,20 EDDINGTON ROAD,MILTON OF CULCABOCK, INVERNESS IV2 3DB. Tel. 0463 221488
ACCESS AND VISA WELCOME

ADVANCED SOUND RECORDING & PRODUCTION

24 Track studio w. automation & Digital Programming suite
Digital Audio Concepts DASH and PD Formats Analogue / Digital Recording Processing Mixing and Editing Automation and synchronisation MIDI and SMPTE Time Code. Computerised Sound Mixing Consoles.Analogue/Digital Sound Synthesis and Sampling Working with Various Bands and individual Artists.Music writing . Song and orchestral arrangements,radio jingles and commercials TV/Film,sounds,local radio operation,Introduction to Pop promo production business practice in music industry.
Three-Month Intensive or Six Month Part-Time CERTIFICATE Courses In ANALOGUE SOUND RECORDING AND PRODUCTION
Modern 24 track sound recording and production Introduction to Digital audio Analogue/Digital Sound Synthesisers and Sampling Keyboards,studio work with bands and individual artists,music for TV and film, song arrangements for Record release.
DIGITAL SOUND RECORDING AND PRODUCTION TECHNOLOGY
Digital sound recording DASH and PD formats,digital multi-track operation.Mitsubish i X-850 Rotary Heads,Digital Recording,tapeless recording,Digital Synthesis/Sampling,Digital audio processing mixing,electronic and manual editing,computerised sound mixing console automation and assignable consoles MIDI and SMPTE Time Code,their practical application in creative music production,MIDI controlling networking.
Triggering and sequencing ATR/VTR Synchronisation.
CREATIVE MUSIC RECORDING AND PRODUCTION TECHNIQUES
Creative application of multitrack recording & MIDI programming techniques:Working with bands & solo artists: TV/Film &radio sound production & post-production,SSL & Amak Mozart console automation systems: Music composition & arrangement in a variety of styles, Recording & Mixing tricks-of-the-trade.
Many Former Students are now employed In TV/Video and Audio Industries
MEDIA PRODUCTION SERVICES
BON MARCHE BUILDING, 444 BRIXTON ROAD LONDON, SW9 8EJ
Tel: 071-737 7152. 071-274 4000,Ext. 328,323

FZ1 • 10M USERS

PUMP UP THE JAM

JAM MARKETING OFFERS THE BEST LIBRARY CURRENTLY AVAILABLE TO THE FZ USER RING NOW FOR YOUR FREE CATALOGUE
08012 - 4017

BIGGER DISCOUNTS NOW ON BULK PURCHASE CALL FOR DETAILS
GO GO GO

THE ULTIMATE STUDIO ACCESSORY?

VOLUME 2

DESPITE THE RAPIDLY falling cost of high quality equipment, the pressure on both professionals and enthusiasts to keep up with the very latest in technology can still mean that budgets get stretched to the limit.

And when each new acquisition seems to expose as many problems in your recording system as it solves, it becomes increasingly necessary to choose equipment which is precisely suited to your needs and to get the very best out of it on a day to day basis.

Of course, the instruction manual is always there to show you exactly how a piece of equipment works. What it seldom does is explain when it is needed, why it is necessary and where it should be used...

Building to a complete series, CREATIVE RECORDING is being written to provide all those with an active involvement in sound recording with a comprehensive overview of modern recording practice. Whether you're an absolute beginner, a serious amateur or a professional studio owner, you'll find CREATIVE RECORDING a mine of invaluable information.

Written by Paul White of Home and Studio Recording, the CREATIVE RECORDING series is rapidly being accepted as the standard work for home recordists and studio technicians alike. Further additions to the series are planned and will be announced as soon as they become available.

CREATIVE RECORDING: VOLUME 1

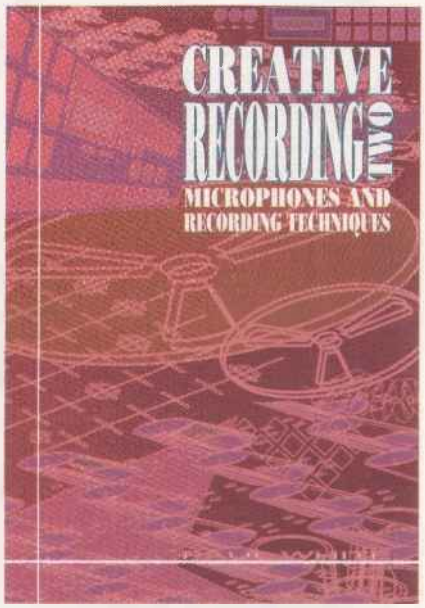
EFFECTS AND PROCESSORS

Volume 1 is a modern sourcebook of information on all the different types of effects and processors currently found in the studio.

With chapters covering Compressors and Limiters, Reverberation, Gates and Expanders, Delay, Pitch Shifters, Patch Bays, Enhancers, Equalisers and Panners as well as related areas such as Mixing, Production and MIDI techniques, Effects and Processors provides the most comprehensive coverage of this aspect of recording process to date

CREATIVE RECORDING : VOLUME 2

MICROPHONE AND RECORDING TECHNIQUES



This, the second volume in the CREATIVE RECORDING series, takes the mystery out of choosing and using microphones in a recording environment. The microphone is the first step in any recording chain, and mistakes made here are impossible to remedy later. Volume 2 is designed to help you avoid making those mistakes, and starts out by explaining how studio microphones work, what are the strengths and weaknesses of the different types available and, most importantly, how to choose the correct one for the job in hand.

It then goes on to cover specific techniques for vocal and speech recording, classical stereo recording and various methods of recording both rock and classical instruments from the drum kit to the grand piano! Extensive use of illustrations and photographs make even the more advanced aspects clear and easy to understand.

Volume 2 concludes with a roundup of the world's most widely used studio mics along with their characteristics and popular applications.

CREATIVE RECORDING Volumes 1 & 2 are available direct from Music Maker Books at £9.95 each (plus £1.50 p&p) or at the special offer price of £21.00 for both (inc. p&p). Simply complete and return the coupon below, or you can order by telephoning 0353 665577 and quoting your credit card number.

Nu ook verkrijgbaar in de nederlandse taal. Bel 020-6683906 Octogon Uitgevers BV, De Flinesstraat 2, 1078 GB AMSTERDAM

AVOID DISAPPOINTMENT – ORDER TODAY!

Please send me the following (indicate number of copies in box):

Creative Recording Volume 1: Effects and Processors at £9.95 + £1.50 p&p ☐ copies

Creative Recording Volume 2: Microphones and Recording Techniques at £9.95 + £1.50 p&p ☐ copies

Creative Recording Volumes 1 and 2 at the special price of £21.00 including p&p ☐ sets

I enclose my cheque for £..... made payable to Music Maker Books or charge my Access/Visa credit card number:

_ _ _ _ / _ _ _ _ / _ _ _ _ / _ _ _ _

Expiry Date..... Signature .....

Name.....

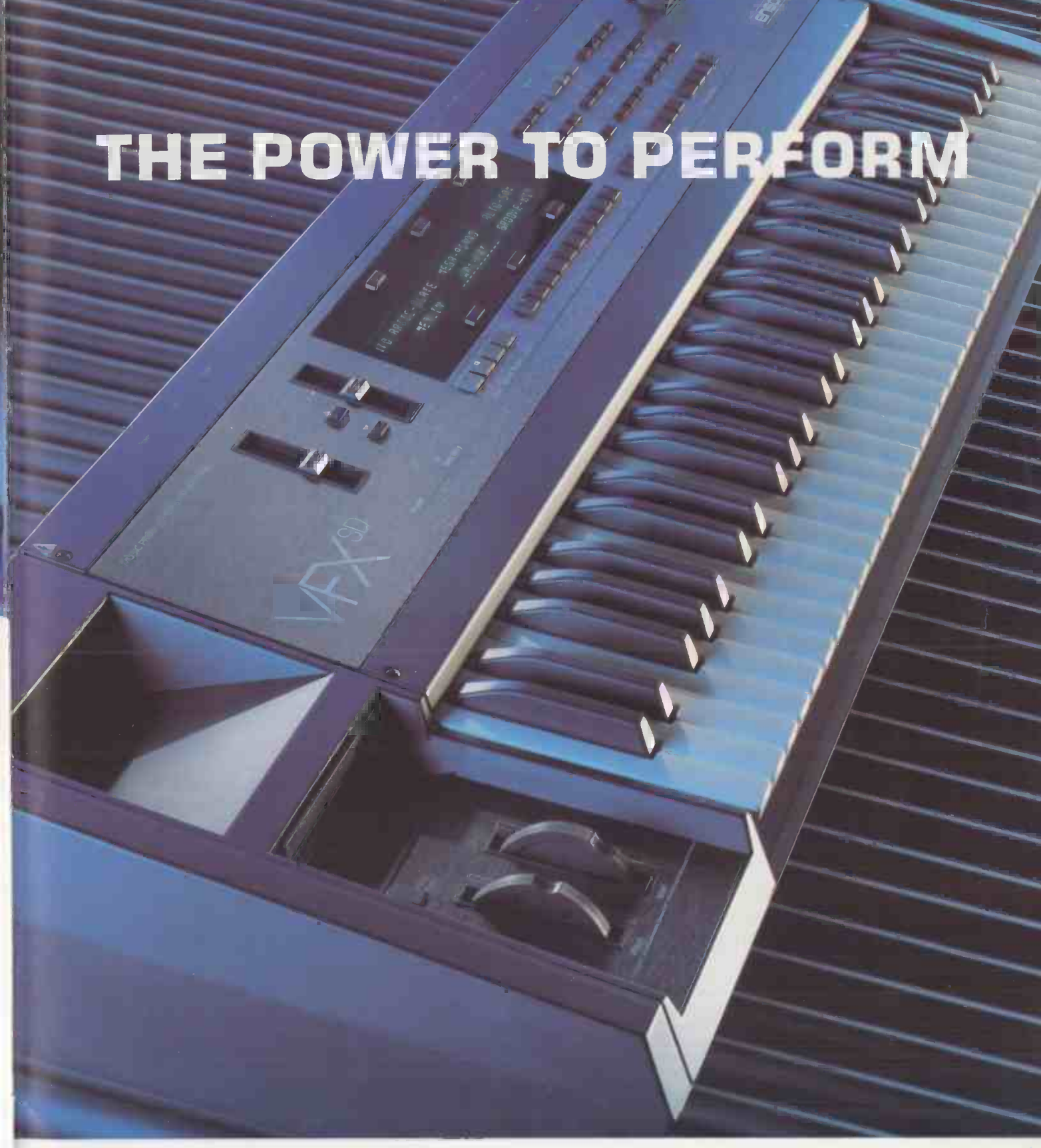
Address.....

.....

.....Postcode.....

Send to: Mail Order Department, Music Maker Publications, Alexander House, Forehill, Ely, Cambs CB7 4AF.

Please allow 28 days for delivery



The entire range of ENSONIQ synthesizers and samplers is dedicated to the concept of musical expression.

The fact that these instruments are intuitive and such a pleasure to use means that they are a very powerful stimulus to creativity.

Of course the most important feature of any instrument is the sound it can produce and ENSONIQ have gone to immense lengths to design instruments capable of producing outstanding results.

The EPS 16 Plus digital sampler, available both in keyboard and rack versions, applies a musical approach to sampling; expressive performance controllers such as Poly-Key™ pressure and 24 bit dynamic effects processing transform this 20 voice CD quality sampler into the ultimate personal music studio.

The VFX SDII is probably the most impressive sounding synthesizer available today. The multi-sampled waveforms can be modulated to give over 2000 possible wave selections – and in common with the EPS 16 Plus and the SQ-1 synthesizer the VFX SDII has a built-in sequencer and digital effects processor of such high quality that each could be best sellers in their own right.

Whichever Ensoniq instrument you choose, you can be sure that the inherent quality, versatility and individuality provided will allow you as a performer, the creative freedom and inspiration for making great music.

Sample the possibilities at your nearest Sound Technology dealer.

SOUND TECHNOLOGY plc

Sound Technology plc, Letchworth Point, Letchworth, Hertfordshire SG6 1ND Tel 0462 480000 Fax 0462 480800

£180 OF FREE SOFTWARE.
ASK FOR DETAILS

WAVESTATION.

The Korg Wavestation is the first synth that lets you control the essential building blocks of sound waveforms.

This 32 voice synth has 365 waveforms, Multi-Samples, Attack Transients, Digital Waveforms, fat Analogue Sounds, Time Slices and PCM Loops.

It's extraordinary power comes from three unique technologies: Wave Sequencing, Advanced Vector Synthesis and Digital Dynamic Multi Effects.

One Wave Sequence can contain up to 256 elements linked in succession, powerful Advanced Vector Synthesis mixes four combinations of Waveforms or Wave Sequences and the 46 dramatic Digital Multi-Effects allow stunning real time control as you play.

Make sounds that change the shape of music with the synthesiser that makes waves.

- **Wave Sequencing**
- **Advanced Vector Synthesis**
- **Flexible Modulation Matrix**
- **46 Stereo Digital Multi-Effects**
- **32 Voice/16 Channel Multi-Timbral**
- **24 Bit Processing/19 Bit DAC**

KORG
MUSIC POWER

For further information and colour brochure contact:

Korg UK Ltd
8-9 The Crystal Centre, Elmgrove Road,
Harrow, Middlesex HA1 2YR
Telephone: 081-427 3397 Fax: 081-861 3595