

Established 1981

Music Technology

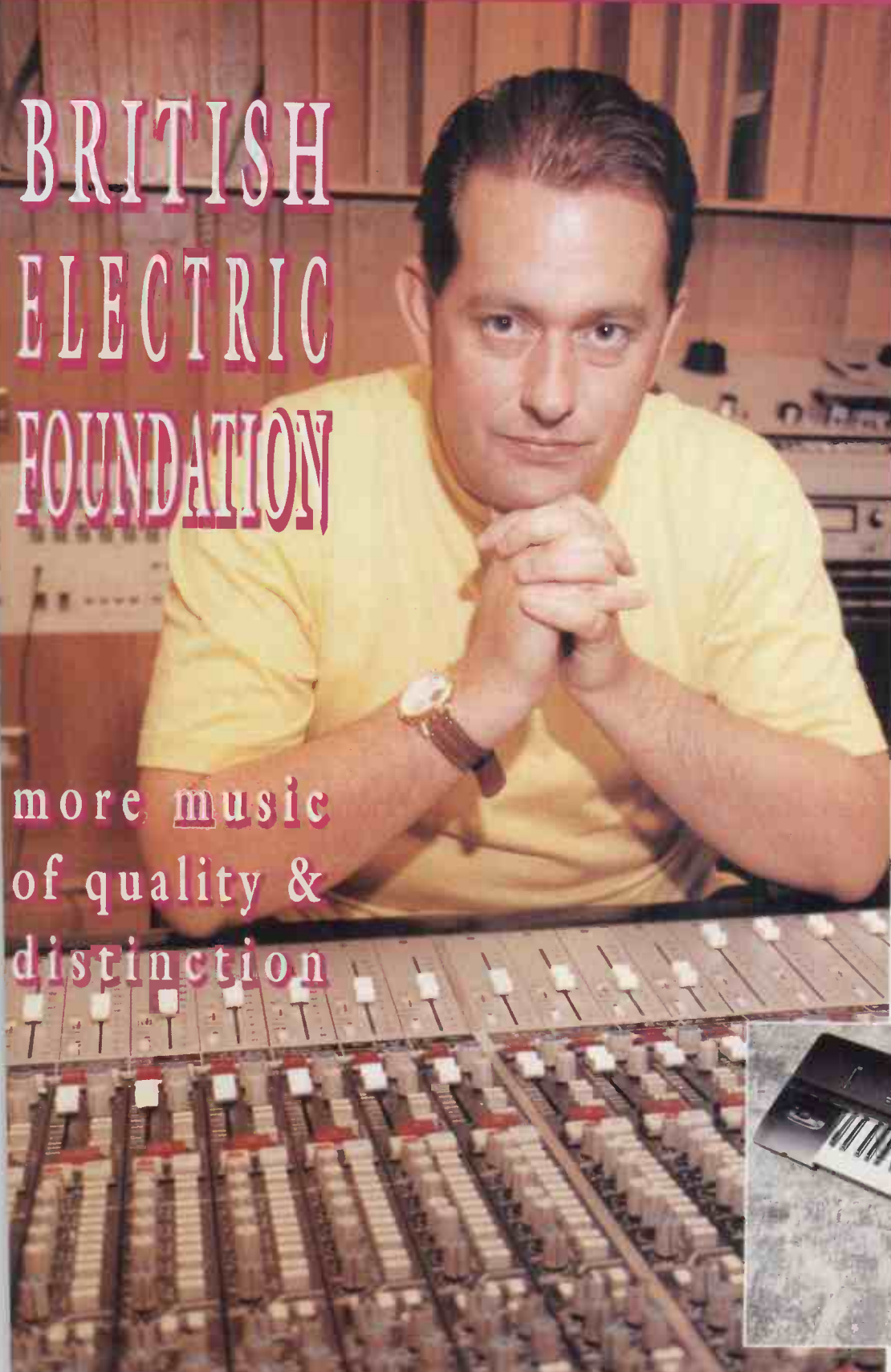
THE WORLD'S PREMIER HI-TECH MUSIC MAGAZINE

NOVEMBER 1991
£1.60



BRITISH ELECTRIC FOUNDATION

more music
of quality &
distinction



ON TEST

*Valhala
DI10 Sound Cards*

*Oberheim Strummer
MIDI Performance Effect*

*Quinsoft Kawai K4
ST Editor*

*MOTU 7s
MIDI-Controlled Mixer*

PLASMEC ADAS
*digital recording
on the atari st*

KORG 01/W
WORKSTATION
the new korg MI?



MONEY OFF MUSIC RECORDING & TECHNOLOGY SHOW - INSIDE!

THE MUSIC WALKSTATION

YAMAHA
▷ THE SPIRIT OF MUSIC ◁

Now **this** is hip. Yamaha's QY10 – a music workstation the size of a video tape.

It's a multitrack sequencer, it's a synthesizer and it's a drum machine – in fact it's everything you need to program complete compositions or musical accompaniments.

Just add headphones and you're making music. Add a cassette deck and you're recording it. Add a good idea and you could be famous.

Check the spec:

- 8-song memory with 8 tracks each
- 30 PCM voices plus 26 drum instruments
- 32-note sequencer polyphony
- 28-note synth polyphony
- Real or step time programming via on-board "micro-keyboard" or external MIDI instrument
- 76 preset and 24 user patterns

Feel inspired? Then stroll down to your nearest Yamaha dealer. For £259* you could walk out with a walkstation. The Yamaha QY10.

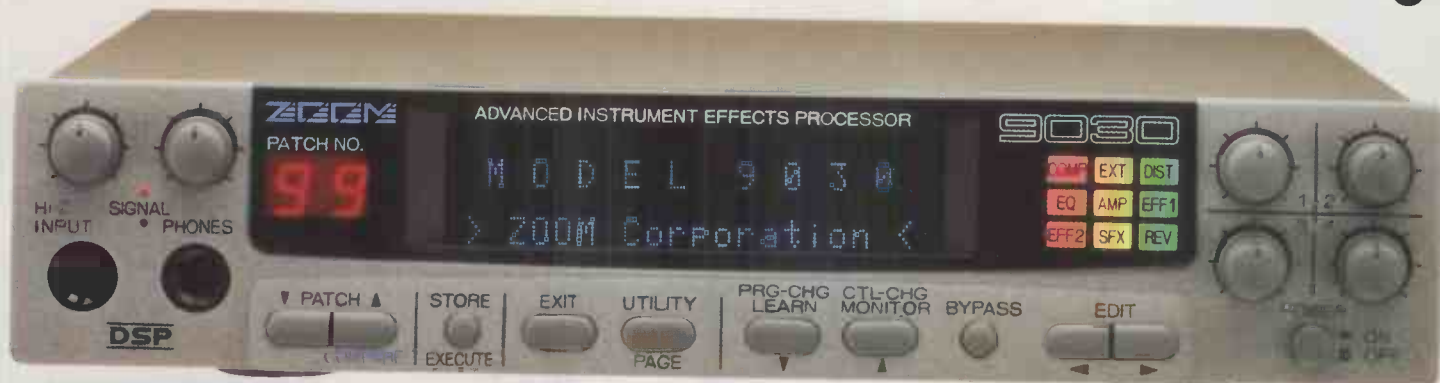
* Manufacturer's suggested selling price.

24 HR ACTION LINE
CALL
081-419 5419
FOR FREE PACK
BROCHURE

Yamaha-Kemble Music (U.K.) Limited
Professional Music Division



it's new. it's clever. it's exciting. it's stunning.



ZOOM 9030

Housed in the most exquisite half-rack unit ever seen and equipped with innovative, strengthened analogue and digital structures the new Zoom 9030 Advanced instrument Effects Processor delivers a sound of such stunning quality it's hard to believe it comes from a unit so small and costing so little.

Analogue takes care of Distortion, Overdrive and the Compressor/Limiter while the 16bit, 44.1kHz digital offers 47 superb quality effects including everything from Reverb, Pitch Shifting, Auto Wah, Tremolo, Chorus and Harmonizer to the coolest of Flangers and Phasers.

7 of these explosive effects are available simultaneously and your favourite combinations can be easily stored in one of the 99 user memories using a combination of the sure feel buttons and rolling fluorescent display. Zoom have done it again.



ZOOM 8050

The Zoom 8050 Advanced Foot Controller features 5 Patch pedals, 4 Bank/Function pedals and 99 programs to provide easy, versatile control over Zoom signal processors and other MIDI devices.

The positive feel pedals are housed in a sleek, tour-tough casing and combine with unique facilities such as two expression pedal inputs, self powering from the 9030, multiple chaining and MIDI learn.

The Zoom 8050 is without doubt the most advanced MIDI foot controller available on the market today.

Step on it at your local dealer.



ZOOM 9010

Hailed as a breakthrough in signal technology, the Zoom 9010 Advanced Sound Processor has quickly established itself as the indispensable signal processor.

Top studios and musicians all over the world marvel at its purity of sound and wealth of facilities. But which of these features above all others, win it such acclaim?

Is it the four completely discrete processors? Could it be the flexible, innovative design of the internal architecture, that allows an unlimited amount of complex effect combinations.

Or maybe it's the 16bit 44.1kHz sampling frequency throughout the signal path which makes it the unit by which all others are judged.

We're not sure.

All we do know is that the Zoom 9010 has the features, design and sound which make it the undisputed leader in its class.



ZOOM 9002

The hottest guitar product in the world just keeps on growing in popularity. More and more musicians are discovering that the 12 digital and analogue effects housed in the 'fit-on-a-strap' Zoom 9002 are more than a match for units costing, (and weighing), twice and three times as much.

Analogue Compression and Distortion, Chorus, Flanger, Harmonizer, Stereo DDL, Digital Reverb, Touch Wah and more have made the 9002 the biggest selling guitar processor in history.

it's

ZOOM

DISTRIBUTED IN THE UK BY: MCMXCIX . 708A ABBEY ROAD . TUDOR ESTATE . LONDON . NW10 7UW . TEL: 081 963 0663 . FAX: 081 963 0624

Contents

COMMENT

4

If Led Zeppelin were active today, they'd be forgiven for recording 'The Songs All Remain The Same'. Tim Goodyer looks at technology and the singer.

NEWSDESK

6

Information Technology they call it; it deals with everything from the weather to the payroll. Meet Music (Information) Technology, MT's monthly roundup of news and events in hi-tech music.

COMMUNIQUE

11

As one reader's plea for Moog spares is answered, another cry for help is received from Down Under - "Where's Warren?". This and more in this month's readers' writes.

M-RAT SHOW

65

Sponsored by MT and sister magazine *Home & Studio Recording*, the Music Recording & Technology Show is not to be missed - find out how to get your hands on the latest hi-tech gear here.

READERS' ADS

75

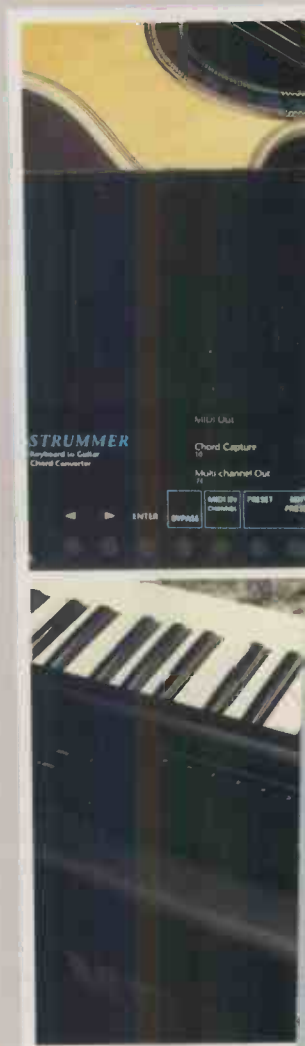
If you didn't turn straight to the Readers' Ads when you first picked MT up, do it now - the bargains go quickly in the most popular hi-tech classifieds in print.

Appraisal

QUINSOFT KAWAI K4 EDITOR

22

Few players get the best out of their synths these days without the help of a software editor. Gordon Reid boots up his ST and goes to work on his Kawai K4.



OBERHEIM STRUMMER

42

Latest in Oberheim's Perf/X series is a unit designed to bridge the gap between keyboard and guitar. Simon Trask perfects his Jimi Hendrix impression.

KORG 01/W

60

The problem with building the most popular keyboard in years is having to follow it. Simon Trask test drives the successor to the Korg M1 and likes what he finds.

Music

MICHAEL HEDGES

26

In the desert of new age there are oases of music. Scott Wilkinson talks to an American guitarist with a story to tell and the technology to tell it.

BEF

50

Putting Heaven 17 in the past, Martyn Ware has masterminded a definitive meeting of classic singers, classic soul songs and state-of-the-art technology. Tim Goodyer listens to Words of Quality and Distinction.

Studio

MARK OF THE UNICORN 7S MIXER

30

MIDI has been slowly creeping into mixing desks for some time now, but this American mixer goes all the way. Vic Lennard mixes with MIDI.

PLASMEC SYSTEMS ADAS

66

Direct-to-disk digital recording comes of age on the Atari ST computer. Vic Lennard checks out the system which may change your life.

Technology

ON THE BEAT

12

Leaving convenient music labels behind, Nigel Lord approaches his beatbox in a fresh way in this month's drum programming column. Off the Beaten track?

PATCHWORK

38

If you're a Roland D110 user and you're looking for fresh inspiration from your synth, you could try Valhala's D110 voice cards. Gordon Reid practices his card tricks.

MULTITIMBRALITY MADE SIMPLE

72

One persistent area of hi-tech confusion surrounds multitimbrality. Vic Lennard explains what it is, what it's for and what's wrong with it.





SING OUT

HEARD ANY GOOD songs lately? It's hardly a new complaint but - quite apart from music that doesn't actually conform to the "song" format - good songs are pretty thin on the ground. As I say, it's not a new complaint, and songwriting hasn't got any easier since someone last made it, but I'd like to look at the issue from a slightly different perspective.

Let's take a look at the accepted case of the technology "victim" - that of the lone musician who has either embraced technology to make the sort of music you make with technology, or traded in all the logistical and personal problems of running a band for a room full of equipment. Technology allows this kind of musician to play at being many other kinds of musician (drummer, guitarist, even an orchestra), but there's one kind it's having a lot of trouble with: the singer. Maybe that lone musician *can* sing and technology simply offers the very best in being able to do everything without assistance or interference. Then again, maybe he, she or you can't.

In this case, your options are few. You might like simply to sing badly, you might seek a solution through the same technology that solved many of your other problems, or you might even tailor your music to evade the problem altogether. Taking these options in turn, bad singing is likely to achieve many things (from pissing off your family to pissing off the A&R man); none of them are particularly positive. Technology, meanwhile, offers us such possibilities as the vocoder (an instrument in its own right rather than a "replacement" for a singer) and Digitech's new voice processor, the Vocalist (which requires a reasonable singing ability to work well). Neither really represent a solution to the problem. The only

remaining option is to avoid the issue by making instrumental music.

That's not such a bad thing, is it? Instrumental music encompasses achievements as diverse as Mussorgsky's *Pictures at an Exhibition*, Philip Glass' *Koyaanisqatsi* and The Orb's *Adventures Beyond the Ultraworld*. It's not so bad. . .

What you've actually lost along with your vocal, though, is the prospect of writing what is traditionally regarded as a "song", the sort of thing which has a catchy melody and a few good words - the sort of thing people sing in the shower. This, I'm afraid, is the bottom line. Technology has failed you; without a voice you're never going to be Al Jolson, Sting or anybody in between.

But that's not the end of the story. Talking about his instrumental jazz outfit Earthworks, Bill Bruford once told me that the most expressive instrument after the human voice was the saxophone. Ian Ballamy, therefore, was charged with "singing with his sax". On another occasion David Sylvian explained how he regarded his voice to be the weakest aspect of his musical ability. The "songs" on his solo album *Brilliant Trees*, he told me, served to entice his audience to listen to his instrumental work.

OK, you can't sing - neither can I. Without help from someone who can, our music is always going to lack the instant appeal of a lyric and the friendliness of a human voice. But we can still endow our music with "song appeal" if our melodies are particularly emotive and we choose our instrumental voices with ruthless humanity. If we could do this, nobody would notice when there weren't any good songs around, would they? **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)

Printing by Cooper Clegg Ltd, Tewkesbury, Gloucestershire. Distributed by SM Distribution, London. Tel: 081-677 8111.

All material is subject to worldwide copy protection, and reproduction or imitation in whole or in part is expressly forbidden without written consent from the publishers. All reasonable care is taken to ensure accuracy in the preparation of the magazine, but Music Technology (Publications) Ltd cannot be held legally responsible for its contents. The publishers cannot assume responsibility for the return of unsolicited manuscripts, photographs or artwork.

Copyright 1991 Music Technology (Publications) Limited. Cover Photography Goodyer & Cumpsty, The Double Take Twins

EDITORIAL

EDITOR

Tim 'Minder' Goodyer

ASSISTANT EDITOR

Simon 'Stop Press' Trask

PRODUCTION EDITOR

Debbie 'Spike' Poyser

EDITORIAL ASSISTANT

Italia 'Diz' De Santis

ART STUDIO

DIRECTOR

Stuart Catterson

DEPUTY DIRECTOR

Sam Masters

Darryl Tooth, Hilary Reed,

Chris Brennand

PHOTOGRAPHY

James 'Brownie' Cumpsty, Bim Goodyer

ADVERTISING

GROUP ADVERTISEMENT

MANAGER

Colin 'Legless' McKee

CLASSIFIEDS

Alex Day

AD PRODUCTION

CO-ORDINATORS

Alex Willers

Sarah Short

ADMINISTRATION

CIRCULATION MANAGER

Cheryl Oates

MAIL ORDER

Jenny Howard

GROUP PRODUCTION MANAGER

Mike Stapleton

EXECUTIVE DIRECTORS

Alan Goodes (Marketing)

MANAGING DIRECTOR

Dennis Hill

CHAIRMAN

Terry Day

Looks sharp in any flat, but feels perfectly natural...



Okay, so it's red (or suede grey, or pearl white) instead of black, but since when was it hip to be boring? But we won't

mention the colour again – promise! We would, however, like to draw your attention to:

- **the touch** – you won't be able to keep your hands off the FP-8. Its new hammer key mechanism more closely mirrors the action of an acoustic piano than any other digital keyboard.
- **the sounds** – using the same Advanced SA sound source as the acclaimed HP-series, the FP-8 has 16 tones in four groups, a choice of five piano sounds, electric piano, mallet and strings.
- **the built-in speakers** – the stereo FP-8 has two 4" and two 2" speakers powered by separate 10W amps. When you really want to knock somebody's socks off, try it through your home hi-fi.
- **the fashionably curved lines** – the FP-8 is a sleek addition to the modern home. It's also rather nice on the modern stage.
- **the polyphony** – 28-voice polyphony is plenty for ten fingers hand (should you grow one).
- **the portability** – the FP-8 tucks neatly under one arm, leaving the other hand (or two?) free to carry the lightweight and elegant optional stand.
- Oh, and it comes in a choice of three stylish colours: suede grey, pearl white and metallic red. Or have we mentioned that already?

Roland

For further information and a leaflet contact: Roland (UK) Ltd
 Atlantic Close, Swansea Enterprise Park, Swansea, West Glamorgan SA7 9FJ
 FAX: 0792 310248 • Telephone: 0792 310247

UNDER COVER

Devon-based company Jenart Design have been manufacturing top quality dust covers for the past six years, and as well as being the only official suppliers of dust covers to Acorn Computers, Research machines, the DTI and many other prestige bodies, were last year also appointed Preferred Supplier to HMSO and this year chosen as sole supplier to the MoD. Now you can

have Jenart cover your studio gear, since they're offering a comprehensive range of protective covers for electronic keyboards, amps, and so on. Every cover is tailored to fit each system and gives complete protection against dust and foreign matter. Manufactured in grey nylon material sewn throughout, the covers are fully bound and come with a two-

year, no-quibble guarantee. Prices start from as little as £6.74 including VAT and postage and packing. In addition, if Jenart don't have your particular equipment on their list, they'll design and quote you bespoke covers at no extra cost.

All enquiries to Jenart Design at Pathfields Industrial Estate, South Molton, Devon EX36 3LH. Tel: (0769) 574127, Fax: (0769) 574487. **Dp**

BRIGHTON ROCKS

Newly-formed Brighton record label Immortal Storm are on the lookout for new talent. They're looking to specialise in hard-core, technology-based dance, but are open to persuasion on anything original and are interested in musicians who are flexible and willing to experiment. Demo tapes should contain at least

two original tracks, and should be accompanied by an equipment list and relevant info on your background. DAT or cassette demos are acceptable, and DAT tapes will be returned if an SAE is enclosed.

The chaps at Immortal Storm guarantee to listen to every tape and, pretty heroically in my opinion,

guarantee a reply within 10 days. Any deals offered will, they say, "favour the artist". If production is not your strong point, they also offer in-house production skills.

And in the true spirit of international co-operation, they welcome tapes from overseas.

Tapes should be sent to Immortal Storm Communications Ltd, 95 Ditchling Road, Brighton, Sussex BN1 4SB. **Dp**

DIRECT TO MAC

The frantic pace of modern technology, eh? No sooner have we got over Digidesign's Sound Tools, hard-disk recording for the (relatively) impoverished, and finished gasping in disbelief over the ADAS system, hard disk

recording for the (even more) impoverished, than we get news of Audio Trax, a two-track digital audio recorder and 64-track Apple Mac MIDI sequencer for a price expected to be not unadjacent to £200.

But hold your horses - there are a few "requirements", the main ones being a Mac II or SE30 and a 20Meg hard drive. Owners of Mac IIs and LCs will be able to run Audio Trax with no further hardware

(except of course, a MIDI interface); other Mac users will need MacRecorder with sound input driver, which costs around £150. However, if it's any good, Audio Trax still adds up to a very attractive package for the price. Watch these pages for a review in the near future.

More info from MCM at 708a Abbey Road, Tudor Estate, London NW10 7UW. Tel: 081-963 0663.

Dp

CARD TRICKS

AMG are announcing new additions to the Musitronics range from Germany, as well as enhancements and price reductions for existing products.

First up is the Musitronics Sample Card Programmer, which plugs into the DMA (hard disk) port on an Atari ST and allows you, with the assistance of the proprietary software, to create your own

custom PCM cards for the Roland U-series synths, and later for the Roland D70 and R8. Cards will be available in 1 and 2 MegaBit sizes. The SCP will cost £279, with card prices to be announced.

AMG also have available a new PCM expansion for the D50, the PCM.EX. It expands the PCM memory of the D50 with 50 new PCM waveforms including three complete

drum kits, piano, choir, and so on. It also features 64 new patches incorporating these new waveforms. Additionally the D50's card slot is modified so that the SCP can be used to create your own PCM cards.

In these hard-nosed, cut-throat times, it's unusual (and very nice) to see a price reduction - the M.EX eight-part multitimbral expansion for the D50 and D550, which also enhances the machine's MIDI spec, now costs £199. A second version of this expansion, adding 128

DON'T FORGET...

...our Music, Recording and Technology Show, happening over the weekend of the 2nd and 3rd November at the Hammersmith Novotel International Centre, London. The staff of MT and sister mag *Home & Studio Recording* will all be there - don't miss it, come and say hello! Details of the indispensable seminar programme can be found on page 65 of this issue, as well as our special offer to you - a voucher which gives you £1 off admission to the show. **Dp**

FOSTEX FREEBIE

As a little bonus to those entering the world of multitrack recording, Fostex UK are currently giving away a Sideman Comp-1 compressor, usual cost around £50, free with every X26 personal multitracker purchased.

This offer is available from all participating Fostex dealers and will continue as long as stocks of the specially-marked promotional boxes last.

The Comp-1 is a "compact, versatile unit" for use in recording or live sessions. It can be battery or mains powered and can accommodate a variety of sources via a switchable hi/lo gain input. A belt clip/strap is also provided (in case you want to walk around with it?).

More info from Fostex UK Ltd, 1 Jackson Way, Great Western Industrial Park, Southall Middx UB2 4SA. Tel: 081-893 5111. **Dp**

patches of RAM memory, is available for £245. The response time of your D50/550 can now also be improved by more than 40% with an optional extra to the M.EX, the Speed System, which costs £45 or £55 with an M.EX Operating System update if necessary.

If you'd like more information or to order, AMG will be pleased to hear from you at Hurst Lane, Privett, nr Alton, Hants GU34 3PL. Tel: (0730 88) 383, Fax: (0730 88) 390. **Dp**

'57 Stratocaster

'59 Les Paul

ALESIS

QUADRAVERB GT

PROGRAM 99
GREAT TONE

20K BANDWIDTH SIMULTANEOUS GUITAR EFFECTS PROCESSOR

CLIP
-6 dB
-12 dB
-18 dB

INPUT

OUTPUT



REVERB DELAY PITCH EQ MIDI
STORE CONFIG MIX NAME/MOD PRE-AMP BYPASS

POWER

'91 Quadraverb GT

Introducing the new classic in guitar technology, the Alesis Quadraverb GT. Like the two classic guitars of all time, the Quadraverb GT cuts straight to the heart of why you play guitar.

Build your tone from the ground up using the GT's warm Analog Pre-Amp section. There's distortion, compression, overdrive and tons of EQ options from preset curves to 5 band parametric. Plus, selectable bass boost and cabinet simulators let you easily target the tone of your favorite amp.

For precise control of overtones, a powerful resonator section lets you manipulate the basic harmonic structure of your guitar. You'll get a great tone in the studio or on stage, direct or through an amp.



And because the GT is built on the award winning Quadraverb, the world's most popular digital signal processor, you get superb reverb, chorus, delays and a lot more. You can even load your Quadraverb programs into the GT.

Leave your amp with your roadie. Throw your pedals in the closet. Pick up a Quadraverb GT at your Alesis dealer today.

Then run home and change your strings... it's time to play a classic.

Remember. GT means Great Tone.

Stratocaster® is a registered trademark of Fender Musical Instruments, Inc.
Les Paul® is a registered trademark of Gibson U.S.A. Fender Musical Instruments, Inc.
and Gibson U.S.A. are not affiliated with Alesis.

ALESIS
STUDIO ELECTRONICS

LOS ANGELES: Alesis Corporation, 3630 Holdrege Avenue, Los Angeles, CA 90016

LONDON: 17 Letchworth Point, Letchworth, Hertfordshire SG6 1ND
TEL: 0462 480500 FAX: 0462 480600

Recently-formed company Zone Distribution, despite having been on the scene for a relatively short time, have rapidly established a reputation for introducing new and often unusual products into the musical marketplace. They're now building on the considerable success of the Band-In-A-Box package for Atari ST, PC-compatibles and Apple Mac (reviewed MT July '91) by taking on the UK distribution of Dr T's software. Zone are keen to emphasise the considerable enhancements in the range of software from the long-established Dr T's, in particular a move away from the company's previously well-known numerical bias towards a more graphic, user-friendly approach. Zone are priding themselves on offering dealers, customers and distributors "a level of support previously unavailable to them" in respect of all the software they handle, and this commitment to support is demonstrated in their free independent technical support line for Dr T's software users. All users must be UK-registered and must have their disk serial number ready to

ZONE LOOKING AFTER THE DR

hand, as well as a full description of the problem and their system setup. The support line number is 081-699 8074. The very good news for Dr T's users is that Zone are offering them the opportunity to register with them free of charge upon proof that they have a legitimate copy. Can't say fairer than that.

Zone's intentions are by no means confined to the Atari ST, though - Dr T's software alone (more than 65 music and MIDI-related products) is offered in formats for Atari ST, Commodore Amiga, PC-compatibles and Apple Mac, reflecting Zone's own determination to provide wide-ranging software options for those machines less often used in musical circles.

On the Amiga front, Zone can offer Amiga users over 20 programs from Dr T's, including X-Or, the generic editor/librarian (also available for PC and Atari). The programme supports "a huge range

of popular MIDI devices - at the time of writing, over 90 - and new instrument profiles are constantly being added to the list. Features offered include patch audition from mouse or keyboard, MIDI File player to play sequences while editing, and powerful patch randomization, including blend and mingle. At £219, it's a very cost-effective way to take care of all your editing needs. Zone are also announcing availability of Dr T's KCS v3.5 for the Amiga. Featuring a completely-redesigned front panel and buttons, according to Zone, the new version is "the most powerful yet", offering "features that compare with the best Atari sequencers", including 384ppqn resolution, multi-program environment for realtime data exchange, 16-stave notation transcription and printing through Amiga preferences, 32 colour-coded graphic faders for automated mixdowns, and much more. The company are also offering a very

special deal to users of other Amiga sequencers who'd like to make the move to KCS. Users of Music X, MIDI Recording Studio, Tiger Cub, Master Tracks Pro, Sequencer One or Bars and Pipes can send in their original program disk and first five pages of their manual to gain substantial reductions on KCS 3.5's usual price of £279. Owners of Music X, Master Tracks Pro and Bars and Pipes will be able to get KCS 3.5 for £149, saving £130, while owners of Tiger Cub, MRS or Sequencer One will save £100.

We don't have room this month to go further into Zone's extensive range of software, nor their complementary hardware range, but watch this space for more info on what's available in coming months. In the meantime, watch out for MT's review of KCS Omega for the ST, coming to you next month.

More information on any of the above from Zone Distribution at 5 Abbeville Road, London SW4. Tel: 081-766 6564, Fax: 081-766 6656. **Dp**

STUDIOMASTER BUYOUT

Following trading difficulties, Studiomaster UK plc was taken into receivership on 20th September of this year, but it now appears that the company will continue following a successful management buyout by key senior personnel. Nevertheless, the inevitable upheaval to manufacturing will mean shortage of supply on some models for an estimated three months, but sales and service will continue through Studiomaster Diamond Ltd who are operating from the original Studiomaster address. They can be contacted by phone on (0582) 494341 or fax on (0582) 494343.

The directors report a continuing healthy demand for the existing product line and plan to introduce new models as soon as is practical. We're expecting to see a leaner, meaner Studiomaster following these changes and wish them all the best of luck. **Hr**

VIDEO VOCALIST

If you're interested in the Digitech Vocalist harmony processor, launched to an enthusiastic reception at this year's IMS, you needn't commit yourself to laying out the readies quite yet. First you can take a leisurely look at distributors John Hornby Skewes' informational video, priced at a very

reasonable £7.50, before you make a decision. Furthermore, if you subsequently buy a Vocalist (retail price £899), JHS will reimburse the £7.50 on receipt of the shop till receipt and the unit's serial number. Damned decent, I call it.

More information and video ordering from John Hornby Skewes, Salem House, Garforth, Leeds LS25 1PX. Tel: (0532) 865381, Fax: (0532) 868515. **Dp**

QUINSOFT ORGANISE QUADRAVERB

The Quinsoft series of programs has made a modest niche for itself in the music market with well-thought out software at friendly prices. The latest in the line is the Quadverb Patch Organiser, an effects organiser for the Alesis Quadverb. Included in the package is a Toolkit Accessory loader and

complimentary bank of effects.

The Quadverb Patch Organiser is available exclusively from Patchworks, and has a retail price of just £34.95.

More info and ordering from Patchworks, Frederick House, 211 Frederick Road, Hastings, East Sussex TN35 5AU. Tel: (0424) 436674. **Dp**

ERRATA

Another small oops got past us last month - they do seem to occur in multiples - when we printed the telephone number of Datamusic Ltd, the people behind the intriguing Fractal Music program for the Atari ST, incorrectly. The number we gave you was 081-446 9699; this is in fact their fax number. If you actually want to *talk* to someone at Datamusic, you'll need to dial 081-445 3935. Treble whiskies and apologies all round, really! **Dp**

COMPUTER LOVE

Dateline for musicians? No, this service doesn't aim to find lonely musicians a like-minded mate of the opposite sex; what it does aim to do is provide a comprehensive contact service for musicians and bands. The computerised search service, Mail Order Musicians, was set up earlier this year to solve communication difficulties in the North West between bands looking for musicians with specific talents and musicians looking for bands to complement their style.

The response so far from musicians in the North of England has shown that there's a demand for a cost-effective service and has prompted a move to go national. Since MOM realise that this will require an increase in the size of their database, they're providing an extra incentive to musicians to join them by offering a reduced membership rate for a limited period.

For more information on the MOM service, contact Mail Order Musicians on 061-973 0224 or write to Box 75, Sale, Cheshire M33 2DN. **Dp**

Presenting the new SD ▼ 1 from ENSONIQ. The best way to blend sound, performance and composition since the baton.

▼ Great music is an artful balance of these three elements. And it's never been easier to achieve than with the new ENSONIQ SD-1—the next generation in integrated music production synthesizers.

▼ Great sound? The SD-1's sampled waveforms cover the gamut

of instrument sounds: from orchestral to pop, solo instruments to imaginative synthesis. Then add our unique Transwaves™ for a dynamic sound that brings synthesis to life—all



Our new 16-bit piano waveforms deliver the clarity and richness of a great grand piano.

played back through new 16-bit state-of-the-art output circuitry that gives unsurpassed fidelity to your music (the same circuitry we use in our EPS-16 PLUS sampler!).

▼ Performance flexibility? With the SD-1 you can combine acoustic, analog synth and exotic digital textures at the push of a button—no MIDI cables needed! And 24-bit dynamic effects, expressive Patch Select buttons, and

The SD-1 already has a large library of sounds, thanks to compatibility with our VFX and VFX^{SD} synthesizers.

a third generation Poly-Key™ Pressure keyboard add to performance possibilities that no other synthesizer offers.



▼ Intuitive composition?

The SD-1 features an incredibly easy-to-use 24-track sequencer that recording, editing, mixing features that you to shape your with precision and only ENSONIQ allow you to every edit to which version

▼ Great unequalled control 24-track ize your board

offers and allow music care. And sequencers audition decide to keep. sounds, performance and a powerful sequencer to real-musical inspirations into a single key—that gives you the immediacy of a synthesizer, with the capabilities of a MIDI studio.

▼ The SD-1 Music Production Synthesizer, from ENSONIQ—the performance is happening now.



The EPS-16 PLUS Digital Sampling Workstation—16-bit sampling with onboard 24-bit effects, sequencing, and performance features, available as a rack-mount or keyboard. The industry leader in sound and support.



The SQ-R Synthesizer Module—The great sound of the SQ-1 in a single-space rackmount module.



The SQ-1 PLUS Personal Music Studio—Advanced synthesis (including new 16-bit piano waves!), 24-bit dynamic effects, and a 16-track sequencer with mix-down capabilities. The low-cost MIDI studio with the high quality sound.



The SQ-2 Personal Music Studio—A 76-key synthesizer with great sounds (including new 16-bit piano waves!), 24-bit dynamic effects, 16-track sequencing, and performance features. The perfect choice when 61 keys just aren't enough.



Letchworth Point, Letchworth, Herts, SG6 1ND
Tel 0462 480000 Fax 0462 480800

ensoniq®

THE TECHNOLOGY THAT PERFORMS

EXCLUSIVE!

Cadenza[™] The Graphic Sequencer

£169

Cadenza is the professional PC sequencer that is uncommonly powerful, yet fun and easy to use. With all of Cadenza's advanced features you can get your music the way you want, quickly and intuitively.

SIMPLICITY

Cadenza is easy to learn, thanks to its modern graphic design and carefully crafted help system. Cadenza doesn't trade power for convenience. Cadenza's thoughtful design gives you both!

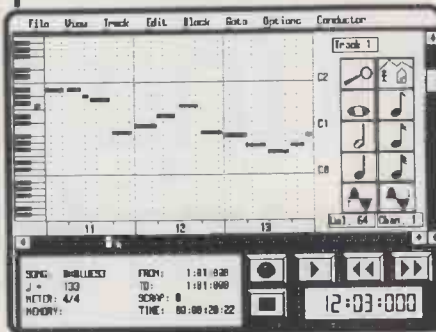
POWER

Cadenza is one of the most powerful sequencers available. Cadenza's graphic editing gives you precise control over all of your music, from notes to MIDI controllers and tempos.

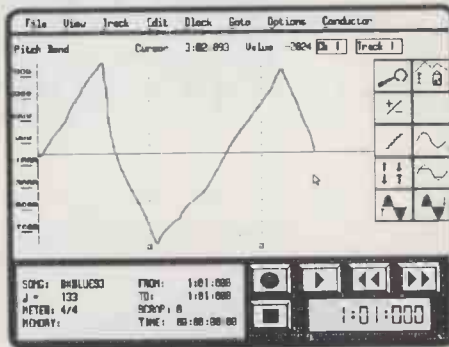
FEATURES

Cadenza gives you everything you expect in a PC based sequencer, and more! Graphic Editing is just a start - Cadenza is packed with everything you need to get your music right.

The full-featured sequencer with professional power and an intuitive graphic design.



Cadenza's Graphic Note Editor



Cadenza's Pitch Bend Editor

Cadenza has the following features...

- 64 Multi-Channel Tracks
- All displays follow playback
- Multiple MIDI ports supported
- Record filter
- Step Record
- Sysex Librarian
- Tempo resolution to the tick
- TAP Tempo
- SMPTE, Chase Lock & FSK tape sync
- Link mode for pattern sequencing
- Reads & Writes SMF
- Completely adjustable quantising
- Humanising
- Each track has independent settings for MIDI channel, transpose, mute, solo, volume & pan
- Independent Track looping
- Tape deck style transport buttons
- Selectable count in
- Punch in-out at any point
- Full metronome control
- Position displayed in both Measure;Beat;Tick; and Hour;Minute;Second;Frame
- Live performance facility

Graphic Editing -

- Song Editor
 - Piano Roll Note Editing
 - Event List editor
 - Conductor track for tempos
 - Controller Editing with both faders and Graphs
 - Pitch bend graphs
 - Aftertouch Graphs
 - Graphic velocity editing
 - Zoom in/out for detail
 - Edit with the mouse
- And Many More...

FREE Band in a Box Pro

Buy Cadenza for £169 & get a FREE copy of Band in a Box Pro worth £58

HURRY offer extended due to demand!

Call us for a copy of the PC TODAY "rave" review. "A dream of a sequencer" they said, and much more!

MIDI Interface Excellence

Four Reasons to Choose Music Quest

Focus

Music Quest's primary aim is the design and manufacture of MIDI interface cards for IBM & Compatible's. This focus has enabled them to keep abreast of your changing needs in a MIDI interface.

Software

With a Music Quest MPU-401 compatible interface you have over 100 programmes to choose from. Plus, users of the more elaborate cards will get advanced features supported by all professional sequencers for IBMs.

Innovation

Music Quest are proud to be able to say that they have been responsible for having pioneered every significant innovation in intelligent interfaces. Amongst these are:

Multi Port operation; Chase Lock & SMPTE tape sync; MIDI Time Code support; Channel Remapping; MIDI metronome; Channel splitting; User selectable interrupt & address.

Choice

Whether you're a beginner, a serious amateur or a seasoned professional, there's a Music Quest card to meet your requirements. Choose from four different models - starting with the budget priced PC MIDI Card, the MQX-16 & MQX-16S adds sophisticated synchronisation for serious multi-track tape work, finally the MQX-32M offers multi-port operation (32 MIDI Ch) along with tape sync, SMPTE & MIDI Time Code.

PC MIDI Card £99. MQX-16 £152. MQX16S £195. MQX-32M £255

Did you know - Music Quest ship more MIDI interfaces than any other company (including Roland), & we are the EXCLUSIVE distributor.

In London? Pop into Soho Soundhouse & see our products there.

For further information about our exclusive product range and services why not call for a free catalogue? Access & Visa accepted, please add £3 to your order for P&P. All prices excl VAT.

Digital Music

Note: Band in a Box offer is subject to availability.

27 Leven Close, Chandlers Ford, Hants, SO5 3SH, England.

0703 252131
Fax: 0703 270405

UK & Overseas Dealers - Why not cash in on the boom in PC MIDI Music by calling us NOW!

THE Musicator[™]

The ONLY notation-based sequencer for the PC

A concept the competition are ^{still} dreaming about!

NEW v2.5 with the following features:-

- 32 Staves / 32 Tracks
- Over 64,000 notes
- Real-Time and smart step-entry from MIDI or PC keyboard
- Each staff transmits on 2 ports/channels
- 32 MIDI channels when used with Music Quest MQX32M
- SMPTE & MTC sync with time indication on any objects pointed to
- Chase Lock tape sync
- MIDI note triggering while editing
- MIDI file import/export
- Overview screen with graphic bar-level editing
- Smart multi-resolution MIDI quantise
- Shuffle/Groove adjust
- Powerful MIDI-controller processing & editing
- 32-parts per score
- Total transcription control of note resolution, voices & rests
- Automatically transpose all clefs and octaves
- Adjustable splitpoint between staves on double staff
- Beam group control
- Adjustable note spacing
- Transposing of MIDI data, notation and chord symbols
- ALL printer types supported
- Print complete Score or parts
- Variable symbol sizes
- Print to PCX files for desktop publishing
- No longer copy protected

£314

NEW LOW PRICE

Prism £50

MAGNETIC MUSIC



See SOS July 90 for an excellent review of Prism

EXCLUSIVE!

beam me up

I would like to make a point to the author of the *Techno Pop* article which appeared in the September (10th Anniversary) issue of MT. He asked the question "Can you name a successful guitar synthesiser?" but failed to carry out the necessary research to back up his argument that no-one could.

There are a number of successful guitar synthesisers, including those made by Roland, Casio, Zeta, Quantar and Parsec. There is also a magazine called - wait for it - *MIDI Guitarist*, which is available through subscription only from Digital Arts and Sciences in the United States.

Another point I'd like to make is that we MIDI guitarists are highly intelligent and can be found all over the world - I'm one of many and my present rig makes the average keyboard rig look like an old Federation Freighter! We MIDI guitarists are not widdly-widdly merchants, instead we play many different styles of music from rock to Latin, from blues to new age, and from new jazz to musics beyond. We do not wear spandex tights or adopt other stereotypical guitarist guises (I wear an IBM-type suit on stage).

We are just as intellectual as you keyboard players are claiming to be - if you're so smart, why do you need to make childish insults? Please sort yourselves out as we do not intend coming back every five years like a police force to do it for you. Live long and prosper.

Martin Howard
Captain, USS Sorcerer, Constellation Class Mk 2
(Wembley)

OK, so I had a few vodkas last night, but I thought I'd woken up on earth. Obviously I was mistaken.

Let me get this straight, you reckon that Dan Goldstein (for it was he who penned Techno Pop) has

given the MIDI guitar a hard time, and that MT readers in general are a bunch of arrogant pseudo-intellectuals using state-of-the-ark technology while completely underestimating the musical versatility and dress sense of the average MIDI guitar player. And you're the captain of a space ship who wears an "IBM-type" suit. Right?

Where's that vodka bottle?

No, no, let's try to deal with this properly. While there's no doubt that a MIDI guitar such as Roland's GR50 allows the guitarist to move into whole new areas of sound, the variety and subtlety of guitar playing techniques have meant that every MIDI guitar not only requires a different technique to a conventional guitar, but also a different technique to every other MIDI guitar.

While synths and samplers have readily allowed themselves to be controlled by a keyboard, the same cannot be said of guitar controllers. Where a keyboard is used to generate note ons and offs, and velocities (and little else) the complication of converting the interaction of strings, frets and fingers into digital control information has given rise to such wonderful ideas as using two sets of strings. Consequently, it's generally agreed that such controllers are far from intuitive and have remained unattractive to the majority of guitarists. And it was this point that Dan made in his article.

Moving on to the question of your collective musical prowess, I can't recall any occasion on which an MT author has prejudged the musical applications to which guitar synths are generally put. Nor should we. And why are you convinced that the rest of the world believes MIDI guitarists do it in spandex? I can't really see the need for such a belief if the truth is that you all do it in IBM suits.

So, "police" the rest of the musical world if it soothes your paranoia, Captain. The rest of us can use the entertainment. By the way, were you ever a space cadet? Tg

missing persons

Would anyone on the staff of MT know what has become of the brilliant one-time Ultravox drummer Warren Cann? We heard he left the band some time ago (reasons unknown) but heard more recently the horrific rumour that he had suicided!

Hopefully the above is not true, so does anyone know what he's doing now - what band he's with and of any post-Ultravox albums featuring his talents?

Torsten Meyer, Jacqueline Frajer
Saratoga, NSW
Australia



Spookily enough, we had a call from the uniquely-talented Warren here at MTHQ only days before your letter arrived.

Unless it was Jonh Sessions field-testing another impression, Warren is very much alive and was interested in discussing picking up his old sideline of penning a few words for your favourite hi-tech music mag in his down time. Apart from that, he was able to tell us that there were "other projects" underway at the moment.

Watch this space for further developments. In the meantime, here's a pic of Warren with the boys from Ultravox to revive a few old memories. "This means nothing to me... oh, Vienna..." Tg

we have the technology...

In response to Chris da Silva's (August '91) plea for Moog spare parts, I can recommend a gentleman in the Cambridge area for the job - Mike Swain of the appropriately-named Panic Music Services. Panic are an accredited Roland (amongst others) service centre but more than this, they are capable of tackling the trickiest jobs on older and more obscure equipment. To date they have lovingly restored a Roland SH2000,

an ARP Quadra and an ARP Odyssey of mine and are currently ferreting around inside my ailing Polymoog. You can contact Panic Music Services on (0954) 30348.

By the way, Chris, you don't have a System 55 or a 3C you want to part with do you?

Gordon Reid
Cambridge

Thanks Gordon, now get on with the articles you're writing for next ish. Tg

ON THE

BEATBOX

Part 25

DIVORCING A RHYTHM FROM THE MUSIC THAT USUALLY ACCOMPANIES IT RAISES INTERESTING ISSUES - SOME OF WHICH ARE DISCUSSED IN THIS MONTH'S BEATBOX PROGRAMMING COLUMN. TEXT BY NIGEL LORD.



LOOKING BACK OVER this series, one of the most interesting things I've realised is just how contextualised most rhythms are. Outside the broader divisions which separate jazz, latin and most triplet patterns, and so on, you would normally have to look at the description of a particular rhythm to be sure of the style of music with which it was intended to be used. Though there are rhythmic differences separating house patterns from hip hop and techno from rap, all

these rhythms (and most others in contemporary pop) are defined for the most part by the choice of instrumentation, the feel of the song and the complexion of the band playing it. The very fact that you use a drum machine in preference to a real drummer, for example, has as much importance in defining your music as the rhythm it is programmed to play.

For the more enlightened musician this rhythmic interchangeability is of

MUSIC TECHNOLOGY NOVEMBER 1991



PHOTOGRAPHY: TIM GOODYER

considerable creative advantage; you can experiment with a range of patterns of widely differing feels without being seen to be moving away from the particular style of music you've chosen to be identified with. Rarely has anyone been accused of losing touch with their roots or selling out because of their use of a particular rhythm track.

In the field of dance music, categorisation becomes particularly problematic; notwithstanding the fact

that I made full use of the various pigeonholes which exist to divide the series up into monthly chunks, I would, I'm sure, be hard pressed to sift through a random selection of dance patterns and place them in precise groupings. To some extent this is because rhythms simply aren't memorable in the way that melodies are (how many drum tracks can you tap out note for note?). But more importantly it's because they lose many of their

identifying features when taken out of context - even if that context is simply the page heading of an instalment of *On the Beat*.

It is perhaps symptomatic of just how contextualised rhythms have become that a choice of one of two (out of production) drum machines can be instrumental in determining your chosen area of operation. Outside dance music, the divisions are equally blurred; pop seemingly becomes rock when the toms are lowered in pitch and the drummer grimaces each time he whacks his snare. Metal becomes thrash when the tempo is doubled and the drummer strips down to his DMS and bleeds from the knuckles. Rhythmically, there is little change.

To this extent, I have felt much more comfortable with the patterns presented over the last two or three months. Making no greater claim for a rhythm than the fact that it is (or isn't) danceable, or that it perhaps has a jazzy feel to it, is, I believe, an altogether more honest approach and much more in the spirit of experimentation - which was, after all, what this series was intended to foster. I defy anyone to fix firm labels to any of this month's patterns.

Stylistically, the only dividing line one could confidently make would be between the straight 4/4 signature in Patterns 1-3 and the triplet programming of Patterns 4 and 5. Yet in terms of feel, you'd be hard pressed to find five more disparate rhythmic structures. You can't even use the advised tempo settings as a guide to their likely effectiveness on the dancefloor. Pattern 2 ticks along nicely with a very effective groove despite its fairly moderate tempo. Pattern 3 on the other hand, is right on the button in terms of preferred dance tempi, yet would have to run well outside the stated range to be considered anything like danceable.

Pattern 1 would definitely take the award for heavy of the month, but the assurance of the snare drum coming down on beats two and four of each bar give the pattern a much wider range of applications, and it would be particularly effective in a live situation. The tom figure which occurs in bars seven and >

eight can, of course, be programmed to occur at any part of the rhythmic track, or left out altogether, if you prefer something a little more "straight ahead".

And the same is true of the accented bass drum/open hi-hat beats in bars four and eight of Pattern 3 - although here you might find yourself having to restructure other parts of the pattern to preserve its flow. Pattern 3 is probably the most complex of the patterns from the programming point of view - though anyone who has followed this series will be familiar with the small figures placed in the notes on the side stick line.

These represent the dynamic range which instruments on your machine may be programmed across (one being the lowest level, nine being the highest) and should be divided equally to provide a decaying effect over the course of two bars of the pattern. Notice, however, the first pair of beats comprises notes programmed at dynamic level nine (or its equivalent on your machine) and dynamic level eight. This is important as the first beat of the bar needs to be accented above the level of the subsequent note.

As you can see, two bass drums are featured in this pattern - the precise sound of each is not so important as the fact that they both sound sufficiently different. Experiment.

Finally we come to Patterns 4 and 5 - both of which, because of the placement of some of the notes in the bar, have had to be notated on expanded grids with some 12 divisions (we're programming in triplets here) between beats. Beyond this, however, programming is quite straightforward and should reward you with two rather tasty patterns, the second of which is, I believe one of the most insistent grooves I've come up with to date. ■

PATTERN: 1a		TEMPO: 100-115BPM	
BEAT:		1	2
Clsd HiHat		◆	◆
Open HiHat			
Foot HiHat			◆
Ride Bell	◆	◆	◆
Claves		◆	◆
Cowbell		◆	◆
Side Stick	◆	◆	◆
Snare Drum 1			◆
Snare Drum 2			◆
Bass Drum	◆	◆	◆
TIME SIG: 4/4		BAR 1	

PATTERN: 1b		TEMPO: 100-115BPM	
BEAT:		1	2
Clsd HiHat		◆	◆
Open HiHat			◆
Foot HiHat			◆
Ride Bell	◆	◆	◆
Claves		◆	◆
Cowbell		◆	◆
Side Stick	◆	◆	◆
Snare Drum 1			◆
Snare Drum 2			◆
Bass Drum	◆	◆	◆
TIME SIG: 4/4		BAR 2	

PATTERN: 1c		TEMPO: 100-115BPM	
BEAT:		1	2
Clsd HiHat		◆	◆
Open HiHat			◆
Foot HiHat			◆
Ride Bell	◆	◆	◆
Claves		◆	◆
Cowbell		◆	◆
Side Stick	◆	◆	◆
Snare Drum 1			◆
Snare Drum 2			◆
Bass Drum	◆	◆	◆
TIME SIG: 4/4		BAR 3	

PATTERN: 1d		TEMPO: 100-115BPM	
BEAT:		1	2
Clsd HiHat		◆	◆
Open HiHat			◆
Foot HiHat			◆
Ride Bell	◆	◆	◆
Claves		◆	◆
Cowbell		◆	◆
Side Stick	◆	◆	◆
Snare Drum 1			◆
Snare Drum 2			◆
Bass Drum	◆	◆	◆
TIME SIG: 4/4		BAR 4	

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

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

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

PATTERN: 2d		TEMPO: 115-135BPM	
BEAT:		1	2
Ride Bell		◆	◆
Clsd HiHat		◆	◆
Open HiHat			◆
Side Stick	◆	◆	◆
Snare Drum			◆
Bass Drum 1			◆
Bass Drum 2	◆	◆	◆
TIME SIG: 4/4T		BAR 4	

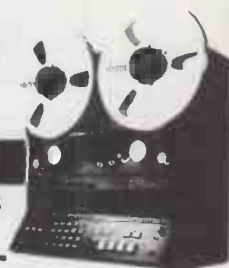
PATTERN: 3a		TEMPO: 120-140BPM	
BEAT:		1	2
Foot HiHat		◆	◆
Ride Cymb			◆
Ride Bell	◆	◆	◆
Claves		◆	◆
Side Stick	◆	◆	◆
Hi Bongo			◆
Lo Bongo			◆
Snare Drum 1			◆
Snare Drum 2			◆
Hi Tom			◆
Mid Tom			◆
Bass Drum	◆	◆	◆
TIME SIG: 4/4		BAR 1	

SC SOUND CONTROL

M A I L O R D E R

WHERE ELSE CAN YOU GET SUCH A GREAT DEAL
(Calling our Freephone Hotline won't cost you a penny)

Freephone 0800 52 52 60



ROLAND

ALL ROLAND IN STOCK

JX-1	£	Special
JD 800	£	Special
MV-30	£	Special
GP-16 Effex Processor	£	Special
GR50 / GK-2	£	799.00
R-8 Rhythm Composer	£	Special
SPD-8	£	Special
All Roland W-30, SC-55, SB-55, MC-50 Supplied from Stock.		



YAMAHA

YAMAHA SPECIAL DEALS

EMP100 Multi Efex	£	In Stock
FX 500	£	In Stock
SY Series Synths in stock.	£	In Stock
YAMAHA TG-33/55/77	£	In Stock
QY10 (Back in Stock.)	£	In Stock

Freephone for a Great Yamaha Deal.

FOSTEX

THE NEW X28 IN STOCK

FOSTEX X-26	£	UK's Best
FOSTEX X-28	£	UK's Best
FOSTEX 280	£	In Stock
FOSTEX R-8	£	In Stock

ROLAND GS-6

AUTUMN SPECIAL

If you missed it the first time round - here is your **last** chance to buy the mega GS-6 FX unit. Distortion, E.Q., Noise and Compression, Midi, Reverb, Balanced Outs... etc. and for live work the **FC-50 Midi Pedal** for use with GS-6 at a Mega Price!
Roland GS-6 £ 199.00
FC-50 Pedal £ CALL!



BOSS

BEST UK PRICE

SE 50 "Pro" Series Multi FX with Built in Vocoder £ UK's Best
BOSS WS20 / WS20M £ MEGA
BE 5M Multi FX / Memory £ MEGA
FC 50 Midi Foot Switch £ In Stock
Full Range of Efex Pedals In Stock.

ENSONIQ

ALL PRODUCTS IN STOCK

Full range of ENSONIQ,s in stock.
Call free for a Mega Deal today!

ALESIS

SAME DAY DISPATCH

Microverb / Midverb - 3	£	Call Free
Quadverb Plus / GT	£	Call Free
Datadisk SQ	£	Call Free
MEQ-230	£	Call Free
3630 Compressor/Limiter	£	Call Free
SR-16	£	Call Free
RA-100 Power Amp.	£	Call Free

ATARI

SEQUENCING SPECIALS

ATARI (1 Meg) - CUBEAT	£	Special
ATARI (1 Meg) - CUBASE	£	Special
ATARI (1 Meg) - CREATOR	£	Special
ATARI (1 Meg) - NOTATOR	£	Special
All Mac - Atari - PC Software	£	In Stock

D.A.C.

MEMORY EXPANSION

Full range of Memory expansions and hard drives available. £ Call Free

AKAI

AKAI SPECIAL OFFERS

AKAI S - 950	£	In Stock
AKAI S - 1000 Series	£	In Stock
AKAI S - 1100	£	In Stock

KORG

A5 EFFEX ALL IN STOCK

KORG M1	£	Special
KORG 01-W / 01WFD	£	Special

The new KORG synth range now in stock!

PA/STUDIO DEALS

Call Free for a Mega Deal.

Soundcraft Spirit Desks	£	In Stock
Full Range of Live/Studios	£	CALL!
SHURE SM 57 Microphone	£	79.00
SHURE SM 58 Microphone	£	89.00
NDYM 257	£	89.00
BEYER M300	£	69.00

Full Range of P.A. equipment from TOA, AKG, BOSE, E.V., JBL, Peavey, Carlsbro, E.V., Dynacord, etc.

TASCAM

BEST UK PRICE

PORTA 03 /05	£	Special
PORTA 2 (HS).	£	399.00
TASCAM - 424	£	Special
TASCAM - 488	£	Special
TASCAM - 688	£	Special
TSR8	£	Special
M2516 Desk	£	Special
All new desks in stock	£	Call Now

ZOOM

NO QUESTION BEST PRICE

ZOOM 9002 Multi - FX.	£	Special
ZOOM 9030.	£	Special
ZOOM 8050 (NEW).	£	Special

DEALS ON DAT

AIWA MEGA DEALS

AIWA HDS1 £ 399.00
In stock - Casio, Tascam, Sony, Yamaha.
So call our freephone number today and save yourself £'s on a Great DAT Deal.

SC SOUND CONTROL

MAIL ORDER DIVISION

73 Elgin St, Dunfermline, Fife. KY12 7SD
Freephone: 0800 52 52 60

Fax: 0383 725733

All of the above deals are available from the following branches of Sound Control.

DUNFERMLINE. 73 Elgin St, Fife.	Tel: 0383 733353
GLASGOW. 61 Jamaica St.	Tel: 041 204 0322
EDINBURGH. 17 Saint Mary's St.	Tel: 031 557 3986
NEWCASTLE. 10 Mosley St.	Tel: 091 232 4175
DUNDEE. 29 - 31 Castle Street.	Tel: 0382 25619
KIRKCALDY. 63 Dunniker Rd, Fife.	Tel: 0592 260293

FAX No. 0383 725733

THE SOUND CONTROL 3 POINT PROMISE

- 1) ALL OUR PRICES ADVERTISED INCLUDE V.A.T. & DELIVERY AND WE GUARANTEE NO HIDDEN EXTRA CHARGES. ON URGENT ITEMS A SMALL SURCHARGE INSURES NEXT DAY DELIVERY ANY WHERE IN THE U.K.
- 2) ALL GOODS PURCHASED FROM US COME COMPLETE WITH A NO QUIBBLE GUARANTEE. IF A PIECE OF EQUIPMENT DEVELOPS A FAULT (THROUGH NO MISUSE BY THE USER) WITHIN ITS WARRANTY PERIOD, IT WILL BE REPAIRED OR REPLACED ABSOLUTELY FREE OF CHARGE. WE WILL EVEN PAY THE CARRIAGE CHARGES.
- 3) ALL CALLS TO SOUND CONTROL MAIL ORDER ARE FREE OF CHARGE. IT DOES NOT COST YOU A PENNY TO GIVE US A CALL FOR A QUOTE, AND DO NOT WORRY IF YOU CAN'T CALL DURING OFFICE HOURS, WE HAVE AN AFTER HOURS ANSWERING SERVICE AND ARE ABLE TO CALL YOU BACK A.S.A.P.

PATTERN: 3b		TEMPO: 120-140BPM			
BEAT:		1	2	3	4
Foot HiHat	◇	◇	◇	◇	◇
Ride Cymb					
Ride Bell		◇	◇	◇	◇
Claves		◇		◇	
Side Stick		◇		◇	
Hi Bongo	◇◇◇		◇		◇
Lo Bongo		◇			
Snare Drum 1					◇
Snare Drum 2	◇			◇	
Hi Tom		◇		◇	
Mid Tom			◇		◇
Bass Drum	◇			◇	◇
TIME SIG: 4/4		BAR: 2			

PATTERN: 3f		TEMPO: 120-140BPM			
BEAT:		1	2	3	4
Foot HiHat	◇		◇	◇	◇
Ride Cymb					
Ride Bell		◇		◇	◇
Claves		◇		◇	
Side Stick			◇		◇
Hi Bongo	◇◇◇	◇			◇
Lo Bongo			◇	◇	◇
Snare Drum 1					◇
Snare Drum 2	◇			◇	
Hi Tom		◇		◇	
Mid Tom			◇		◇
Bass Drum	◇			◇	◇
TIME SIG: 4/4		BAR: 6			

PATTERN: 3c		TEMPO: 120-140BPM			
BEAT:		1	2	3	4
Foot HiHat	◇	◇	◇	◇	◇
Ride Cymb		◇		◇	◇
Ride Bell			◇		
Claves		◇		◇	
Side Stick			◇		◇
Hi Bongo					
Lo Bongo					
Snare Drum 1					
Snare Drum 2	◇			◇	
Hi Tom		◇		◇	
Mid Tom			◇		◇
Bass Drum	◇	◇	◇	◇	◇
TIME SIG: 4/4		BAR: 3			

PATTERN: 3g		TEMPO: 120-140BPM			
BEAT:		1	2	3	4
Foot HiHat	◇	◇	◇	◇	◇
Ride Cymb		◇		◇	◇
Ride Bell			◇		
Claves		◇		◇	
Side Stick			◇		◇
Hi Bongo					
Lo Bongo					
Snare Drum 1					
Snare Drum 2	◇			◇	
Hi Tom		◇		◇	
Mid Tom			◇		◇
Bass Drum	◇	◇	◇	◇	◇
TIME SIG: 4/4		BAR: 7			

PATTERN: 3d		TEMPO: 120-140BPM			
BEAT:		1	2	3	4
Foot HiHat	◇	◇	◇	◇	◇
Ride Cymb		◇		◇	◇
Ride Bell			◇		
Claves		◇		◇	
Side Stick			◇		◇
Hi Bongo					
Lo Bongo					
Snare Drum 1					
Snare Drum 2	◇			◇	
Hi Tom		◇		◇	
Mid Tom			◇		◇
Bass Drum	◇	◇	◇	◇	◇
TIME SIG: 4/4		BAR: 4			

PATTERN: 3h		TEMPO: 120-140BPM			
BEAT:		1	2	3	4
Foot HiHat	◇	◇	◇	◇	◇
Ride Cymb		◇		◇	◇
Ride Bell			◇		
Claves		◇		◇	
Side Stick			◇		◇
Hi Bongo					
Lo Bongo					
Snare Drum 1					
Snare Drum 2	◇			◇	
Hi Tom		◇		◇	
Mid Tom			◇		◇
Bass Drum	◇	◇	◇	◇	◇
TIME SIG: 4/4		BAR: 8			

PATTERN: 3e		TEMPO: 120-140BPM			
BEAT:		1	2	3	4
Foot HiHat	◇	◇	◇	◇	◇
Ride Cymb					
Ride Bell		◇		◇	◇
Claves		◇		◇	
Side Stick			◇		◇
Hi Bongo		◇		◇	
Lo Bongo					◇
Snare Drum 1					
Snare Drum 2	◇			◇	
Hi Tom		◇		◇	
Mid Tom			◇		◇
Bass Drum	◇			◇	◇
TIME SIG: 4/4		BAR: 5			

PATTERN: 4a		TEMPO: 115-140BPM			
BEAT:		1	2	3	4
Ride Bell	◇	◇	◇	◇	◇
Triangle			◇		◇
Side Stick	◇		◇		◇
Hi Bongo	◇				
Lo Bongo					◇
Hi Conga	◇				
Lo Conga		◇			◇
Snare Drum 1					◇
Snare Drum 2		◇		◇	
Hi Tom	◇		◇		◇
Mid Tom			◇		◇
Lo Tom					◇
Bass Drum	◇		◇		
TIME SIG: 4/4		BAR: 1			

MS6

Analogue Multi-timbral Synthesizer Module

More and more serious musicians are realising that Digital synthesizers just cannot produce the powerful and warm Analogue sound with any great degree of realism.

But you DON'T have to search for an old Analogue synth to retro-fit with MIDI or pay vast sums for a modified monster in order to get that classic fat sound.

The Cheetah MS6 has the original filter circuitry of the 'old greats' from the USA incorporated in a modern British design which brings the Analogue synth into the 90's without compromising on performance.

It's Multi-timbral and Programmable from the front panel. It's Velocity and Aftertouch sensitive too. It has over 400 superb sounds, which you can customise in 96 Programmable Memories, and 64 Programmable Performance Memories. It even supports MIDI overflow for extra polyphony.

No wonder the MS6 is used by the elite of professional musicians for bass lines, sync leads, filter sweeps and warm pads, because the MS6 offers fat, powerful, real Analogue sounds for the most discerning of users in a compact 1U high case which doesn't use up all your rack space.

Combining professional performance at a very affordable price, the MS6 is a real modern 'classic'.

CHEETAH IS SETTING THE STANDARD

FEATURES

- 320 editable ROM sounds
- 96 Programmable RAM sounds
- 64 Programmable Performance Memories
- Multi-timbral
- Programmable from the front panel
- Velocity Sensitive
- Aftertouch Sensitive
- Real Analogue USA Filter circuitry
- 2 Oscillators per voice
- 2 Envelopes per voice
- 6 Independent Voices
- MIDI overflow
- MIDI IN/OUT/THRU
- 1U 19" Rackmount case

£349.99 inc. VAT

Affordable Excellence

CHEETAH

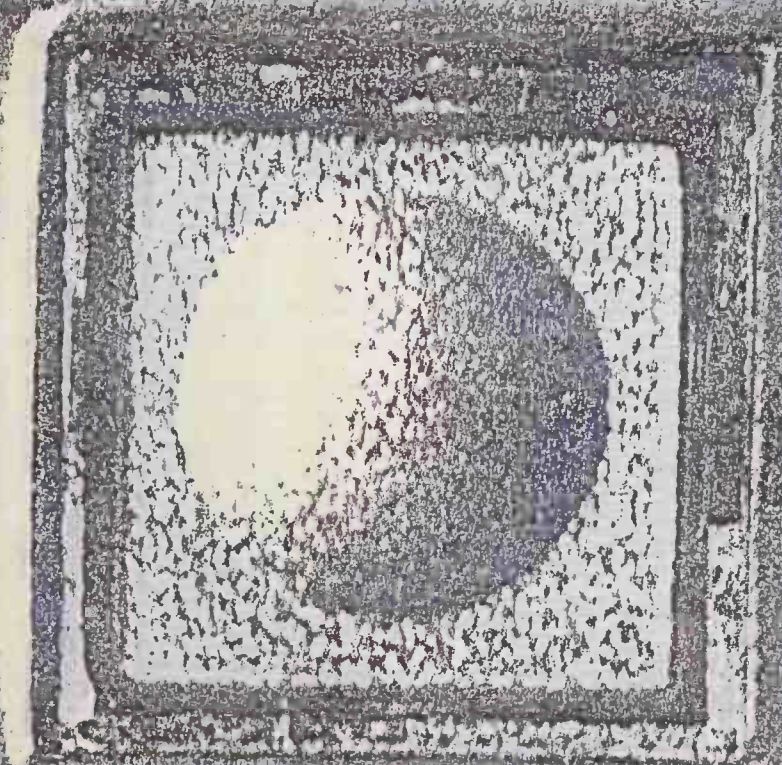


CHEETAH INTERNATIONAL LTD

Cheetah House
Bedwas Business Park
Bedwas
Gwent NP1 8DW
Tel: 0222-867777
Fax: 0222-865575

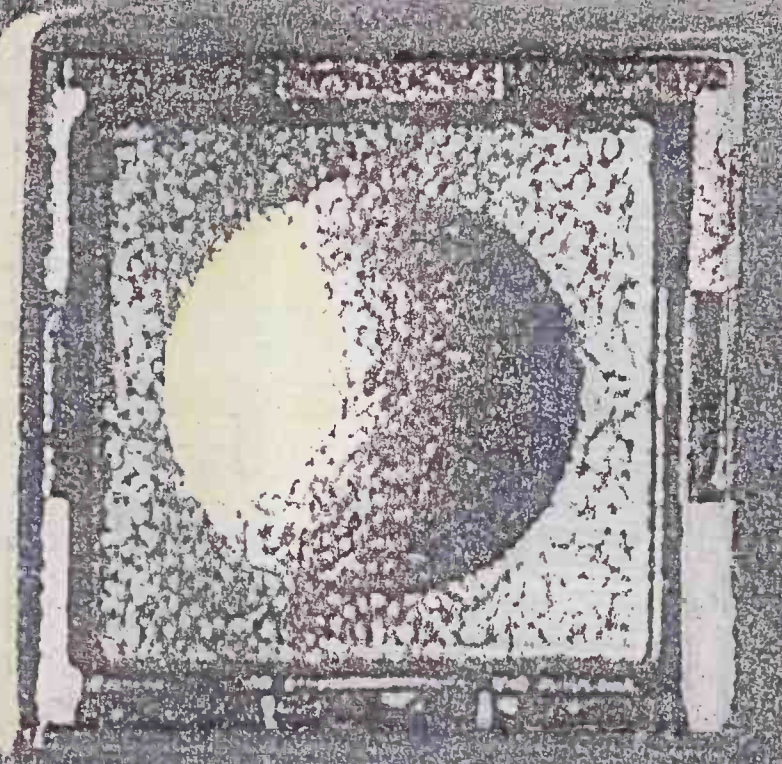
All specifications and prices subject to change without notice.

EDIT



PLAY

WRITE



BANK

PATTERN: 4b **TEMPO: 115-140BPM**

BEAT: 1 2 3 4

Ride Bell	◆	◆	◆	◆
Triangle	◆	◆	◆	◆
Side Stick	◆	◆	◆	◆
Hi Bongo	◆	◆	◆	◆
Lo Bongo	◆	◆	◆	◆
Hi Conga	◆	◆	◆	◆
Lo Conga	◆	◆	◆	◆
Snare Drum 1	◆	◆	◆	◆
Snare Drum 2	◆	◆	◆	◆
Hi Tom	◆	◆	◆	◆
Mid Tom	◆	◆	◆	◆
Lo Tom	◆	◆	◆	◆
Bass Drum	◆	◆	◆	◆

TIME SIG: 4/4 **BAR: 2**

PATTERN: 5b **TEMPO: 120-145BPM**

BEAT: 1 2 3 4

Clsd HiHat	◆	◆	◆	◆
Open HiHat	◆	◆	◆	◆
Foot HiHat	◆	◆	◆	◆
Claves	◆	◆	◆	◆
Side Stick	◆	◆	◆	◆
Snare Drum 1	◆	◆	◆	◆
Snare Drum 2	◆	◆	◆	◆
Hi Tom	◆	◆	◆	◆
Mid Tom	◆	◆	◆	◆
Lo Tom	◆	◆	◆	◆
Bass Drum 1	◆	◆	◆	◆
Bass Drum 2	◆	◆	◆	◆

TIME SIG: 4/4 **BAR: 2**

PATTERN: 4c **TEMPO: 115-140BPM**

BEAT: 1 2 3 4

Ride Bell	◆	◆	◆	◆
Triangle	◆	◆	◆	◆
Side Stick	◆	◆	◆	◆
Hi Bongo	◆	◆	◆	◆
Lo Bongo	◆	◆	◆	◆
Hi Conga	◆	◆	◆	◆
Lo Conga	◆	◆	◆	◆
Snare Drum 1	◆	◆	◆	◆
Snare Drum 2	◆	◆	◆	◆
Hi Tom	◆	◆	◆	◆
Mid Tom	◆	◆	◆	◆
Lo Tom	◆	◆	◆	◆
Bass Drum	◆	◆	◆	◆

TIME SIG: 4/4 **BAR: 3**

PATTERN: 5c **TEMPO: 120-145BPM**

BEAT: 1 2 3 4

Clsd HiHat	◆	◆	◆	◆
Open HiHat	◆	◆	◆	◆
Foot HiHat	◆	◆	◆	◆
Claves	◆	◆	◆	◆
Side Stick	◆	◆	◆	◆
Snare Drum 1	◆	◆	◆	◆
Snare Drum 2	◆	◆	◆	◆
Hi Tom	◆	◆	◆	◆
Mid Tom	◆	◆	◆	◆
Lo Tom	◆	◆	◆	◆
Bass Drum 1	◆	◆	◆	◆
Bass Drum 2	◆	◆	◆	◆

TIME SIG: 4/4 **BAR: 3**

PATTERN: 4d **TEMPO: 115-140BPM**

BEAT: 1 2 3 4

Ride Bell	◆	◆	◆	◆
Triangle	◆	◆	◆	◆
Side Stick	◆	◆	◆	◆
Hi Bongo	◆	◆	◆	◆
Lo Bongo	◆	◆	◆	◆
Hi Conga	◆	◆	◆	◆
Lo Conga	◆	◆	◆	◆
Snare Drum 1	◆	◆	◆	◆
Snare Drum 2	◆	◆	◆	◆
Hi Tom	◆	◆	◆	◆
Mid Tom	◆	◆	◆	◆
Lo Tom	◆	◆	◆	◆
Bass Drum	◆	◆	◆	◆

TIME SIG: 4/4 **BAR: 4**

PATTERN: 5d **TEMPO: 120-145BPM**

BEAT: 1 2 3 4

Clsd HiHat	◆	◆	◆	◆
Open HiHat	◆	◆	◆	◆
Foot HiHat	◆	◆	◆	◆
Claves	◆	◆	◆	◆
Side Stick	◆	◆	◆	◆
Snare Drum 1	◆	◆	◆	◆
Snare Drum 2	◆	◆	◆	◆
Hi Tom	◆	◆	◆	◆
Mid Tom	◆	◆	◆	◆
Lo Tom	◆	◆	◆	◆
Bass Drum 1	◆	◆	◆	◆
Bass Drum 2	◆	◆	◆	◆

TIME SIG: 4/4 **BAR: 4**

PATTERN: 5a **TEMPO: 120-145BPM**

BEAT: 1 2 3 4

Clsd HiHat	◆	◆	◆	◆
Open HiHat	◆	◆	◆	◆
Foot HiHat	◆	◆	◆	◆
Claves	◆	◆	◆	◆
Side Stick	◆	◆	◆	◆
Snare Drum 1	◆	◆	◆	◆
Snare Drum 2	◆	◆	◆	◆
Hi Tom	◆	◆	◆	◆
Lo Tom	◆	◆	◆	◆
Bass Drum 1	◆	◆	◆	◆
Bass Drum 2	◆	◆	◆	◆

TIME SIG: 4/4 **BAR: 1**

PATTERN: 6a **TEMPO: 170-195BPM**

BEAT: 1 2 3 4

Clsd HiHat	◆	◆	◆	◆
Open HiHat	◆	◆	◆	◆
Foot HiHat	◆	◆	◆	◆
Ride Cymb	◆	◆	◆	◆
Snare Drum 1	◆	◆	◆	◆
Snare Drum 2	◆	◆	◆	◆
Hi Tom	◆	◆	◆	◆
Lo Tom	◆	◆	◆	◆
Mid Tom	◆	◆	◆	◆
Bass Drum 1	◆	◆	◆	◆
Bass Drum 2	◆	◆	◆	◆
Bass Drum 3	◆	◆	◆	◆

TIME SIG: 4/4 **BAR: 1**

PATCHWORKS

FREDERICK HOUSE 211 FREDERICK RD HASTINGS E. SUSSEX TN35 5AU PHONE 0424 436674

NOW AVAILABLE !!!!

- All programs will run on any Atari ST from a 520 upwards in colour or monochrome.
- All programs include the incredible Bulk generic MIDI utility.
- All editors include at least one bank of Free sounds.
- Brochures and demo discs are available for all products.

QUINSOFT

TRAX Studio Manager
£99.95

TRAX is a set of programs specifically designed for the day to day management of a professional recording studio, from initial recording to invoicing. The package consists of a Tracksheet / Utilities program, A Disc File Indexer, the Invoix Accounts program and a powerful new Database program. Version 1.5 has around 50 new features including MIDI timing, a reciprocal metronome, SMPTE calculations and a new Tracksheet Accessory.

MKS70 Editor
£79.95

At last ! A fully featured Editor + Librarian for this classic synth. This is an easy to use graphic editor with both tone and patch editing, dual librarians and many utilities. The package also includes a loader accessory.

K4 Magician
£49.95

This is a fully featured Editor + Librarian for the Kawai K4 / K4r. The editor uses graphic sliders for fast editing. Editors are provided for Singles, Multis, Drums and Effects. The package also includes a loader accessory.

VZ-ED Editor
£49.95

This Editor + Librarian enables you to unleash the hidden power of the Casio VZ series synths and Hohner clones. The fully featured voice editor provides access to all parameters, with additional editing utilities.

JUNO 1 / 2 Editor
£34.95

This is an easy to use graphic Editor + Librarian for the best Juno synth ever made. The package also includes a loader accessory.

TX8 1Z / DX11 Manager
£34.95

The Advanced 4 Op Librarian / Manager includes a comprehensive collection of 512 original velocity sensitive sounds. The program will also handle performances. Version 1.6 is compatible with the Yamaha DS 55, TQ 5, B 200 YS 100/200 and V 50 synths as well.

FB01 Librarian.
£34.95

The Yamaha FB 01 is one powerful little workhorse, Really. Give it the right sounds and it can hold its own in any MIDI setup. The package includes a Librarian / manager and 480 superb velocity sensitive sounds.

Quadraverb Organiser
£34.95

A fully featured easy to use graphic organiser for this best selling effects unit. This package is supplied with a selection of new effects and a toolkit accessory loader.

SAMPLE THE RHYTHM MEGA 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.

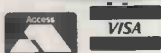
BOSS: DR550, DR.55 (DR.BEAT).

PLUS: SIMMONS KIT, LINN 9000, 2, SEQUENTIAL TOM, ALESIS HR16, HR16B, CASIO RZ1, EMU DRUMULATOR, AKAI XR10, XE8, OBERHEIM DBX, DR. BOHM DIGITAL DRUMS.

OVER 700 ORIGINAL DRUM MACHINE SOUNDS
AND AVAILABLE FOR THE EXCLUSIVE PRICE OF JUST

£29.95

ALL TRADE NAMES ARE THE PROPERTY OF THEIR RESPECTIVE HOLDERS DUE TO THE NATURE OF OUR PRODUCTS, REFUNDS OR EXCHANGES ARE AT THE SOLE DISCRETION OF 'PATCHWORKS'.



Please complete in block capitals making cheques / postal orders payable to "Patchworks" at the above address. Overseas:- Please add £5.00 for express despatch and carriage.

Please send mecopy (ies)
of (tick as appropriate)

- MEGA BEATS.....
- TRAX STUDIO MANAGER.....
- K4 MAGICIAN.....
- JUNO 1/2 EDITOR.....
- FB 01 LIBRARIAN.....
- MKS70 EDITOR.....
- VZ-ED EDITOR.....
- TX8 1Z / DX11 MANAGER.....
- QUADRAVERB ORGANISER.....

NAME

ADDRESS

POST CODE.....

TEL. NO.....



QUINSOFT

PATTERN: 6b **TEMPO: 170-195 BPM**

BEAT:	1	2	3	4
Clsd HiHat	◇	◇	◇	◇
Open HiHat				
Foot HiHat		◇	◇	◇
Ride Cymb	◇		◇	◇
Snare Drum 1				◇
Snare Drum 2		◇		
Hi Tom				
Lo Tom				
Mid Tom				
Bass Drum 1	◇	◇	◇	◇
Bass Drum 2	◇	◇	◇	◇
Bass Drum 3	◇	◇	◇	◇

TIME SIG: 4/4 **BAR: 2**

PATTERN: 6f **TEMPO: 170-195 BPM**

BEAT:	1	2	3	4
Clsd HiHat	◇	◇	◇	◇
Open HiHat				
Foot HiHat		◇	◇	◇
Ride Cymb	◇		◇	◇
Snare Drum 1				◇
Snare Drum 2		◇		
Hi Tom				
Lo Tom				
Mid Tom				
Bass Drum 1	◇	◇	◇	◇
Bass Drum 2	◇	◇	◇	◇
Bass Drum 3	◇	◇	◇	◇

TIME SIG: 4/4 **BAR: 6**

PATTERN: 6c **TEMPO: 170-195 BPM**

BEAT:	1	2	3	4
Clsd HiHat	◇	◇	◇	◇
Open HiHat				
Foot HiHat		◇	◇	◇
Ride Cymb	◇		◇	◇
Snare Drum 1				◇
Snare Drum 2		◇		
Hi Tom				
Lo Tom				
Mid Tom				
Bass Drum 1	◇	◇	◇	◇
Bass Drum 2	◇	◇	◇	◇
Bass Drum 3	◇	◇	◇	◇

TIME SIG: 4/4 **BAR: 3**

PATTERN: 6g **TEMPO: 170-195 BPM**

BEAT:	1	2	3	4
Clsd HiHat	◇	◇	◇	◇
Open HiHat				
Foot HiHat		◇	◇	◇
Ride Cymb	◇		◇	◇
Snare Drum 1				◇
Snare Drum 2		◇		
Hi Tom				
Lo Tom				
Mid Tom				
Bass Drum 1	◇	◇	◇	◇
Bass Drum 2	◇	◇	◇	◇
Bass Drum 3	◇	◇	◇	◇

TIME SIG: 4/4 **BAR: 7**

PATTERN: 6d **TEMPO: 170-195 BPM**

BEAT:	1	2	3	4
Clsd HiHat	◇	◇	◇	◇
Open HiHat				
Foot HiHat		◇	◇	◇
Ride Cymb	◇		◇	◇
Snare Drum 1				◇
Snare Drum 2		◇		
Hi Tom	◇	◇		
Lo Tom				◇
Mid Tom				
Bass Drum 1	◇	◇	◇	◇
Bass Drum 2	◇	◇	◇	◇
Bass Drum 3	◇	◇	◇	◇

TIME SIG: 4/4 **BAR: 4**

PATTERN: 6h **TEMPO: 170-195 BPM**

BEAT:	1	2	3	4
Clsd HiHat	◇	◇	◇	◇
Open HiHat				
Foot HiHat		◇	◇	◇
Ride Cymb	◇		◇	◇
Snare Drum 1				◇
Snare Drum 2		◇		
Hi Tom	◇	◇		
Lo Tom				◇
Mid Tom				
Bass Drum 1	◇	◇	◇	◇
Bass Drum 2	◇	◇	◇	◇
Bass Drum 3	◇	◇	◇	◇

TIME SIG: 4/4 **BAR: 8**

PATTERN: 6e **TEMPO: 170-195 BPM**

BEAT:	1	2	3	4
Clsd HiHat	◇	◇	◇	◇
Open HiHat				
Foot HiHat		◇	◇	◇
Ride Cymb	◇		◇	◇
Snare Drum 1				◇
Snare Drum 2		◇		
Hi Tom				
Lo Tom				
Mid Tom				
Bass Drum 1	◇	◇	◇	◇
Bass Drum 2	◇	◇	◇	◇
Bass Drum 3	◇	◇	◇	◇

TIME SIG: 4/4 **BAR: 5**



THE NEW CREATOR & NOTATOR VERSION 3.1



THE UNIVERSAL MIDI SEQUENCING & NOTATION SYSTEM FOR THE ATARI

Since the introduction of Creator in 1986 and Notator in 1988, C-LAB have been dedicated to the development of the Universal MIDI Music System. Powerful, flexible, expandable, reliable and yet simple to use. A system that evolves with you. A system that allows you the freedom to realise your full creative potential.

The C-LAB development philosophy continues with the release of Version 3.1 which amongst its many new features includes two vitally important innovations.

Firstly GRAPHIC ARRANGE. This radical new concept in music control allows the arrangement of musical events by combining

visual access with audio control, thus giving far greater flexibility in the manipulation of complex compositions than ever before.

Secondly in recognition of the importance of complete integration with analogue tape based set-ups, comprehensive MIDI control of the FOSTEX R-8 is now available.

If you are a registered C-LAB user you will have automatically received full information on these and the many other new features in V 3.1. If however you have not yet registered or are new to the C-LAB Creator & Notator systems, please contact us for inclusion on the mailing list.



K4 MAGICIAN



PHOTOGRAPHY: JAMES CUMPSTY

Got a Kawai K4?
 Got a software
 editor for it?
 Thought not, so
 you might like to
 check out this one
 from Quinsoft.
 Text by
 Gordon Reid.

THE KAWAI K4 is one of the world's best kept secrets. If it had been called the Roland D60, or the Korg M2 (it closely resembles the M1 in many ways), it might have been one of the success stories of the early 90's. Unfortunately, despite the success of the K1, the Kawai name hardly carries an air of top-notch professionalism about it, so despite excellent synthesis capabilities, good MIDI implementation, an easy to use and intuitive operating system, and great sounds, the K4 has become a high-quality also-ran. And one of the problems with second-division synths is a lack of third party support; you know the kind of thing - voice cards, editors, and librarians - so I was pleasantly surprised when I recently learned of two Editor/Librarians that have just become available for the K4. One of these is the Quinsoft K4 Magician which, at £49.95, has to be worth a look.

SINGLES EDITOR

THE K4 MAGICIAN works with any Atari ST, from the basic 520 up to the latest Mega machines. It is not guaranteed to work with non-Atari operating systems, but seems foolproof under TOS - which is, of course, how most of you will be using it. Loading the program takes you straight into the Singles editor (a Kawai Single is equivalent to a Korg Program) so this is where we'll start.

As soon as you load the program you realise that Quinsoft have eschewed conventional wisdom, dropping the "as many parameters on the page as possible" approach, in favour of an entirely new editing process. Quinsoft call this their Magician Editor. The basic principle of the Magician is to assign every editing parameter to an on-screen fader. But, since there are only 16 faders per screen (severely limiting the amount of editing that can be performed at a given time) there are 12 editor pages: Common A & B; Sources 1, 2, 3 & 4; Filters 1 & 2; and Envelopes 1, 2, 3 & 4. This division of pages mimics the K4's onboard operating system very closely. Each fader is named in the space directly above it, but the labels (plus their associated values) are usually wider than the space allowed, so it's sometimes difficult to see which name (or its abbreviation) applies to which fader. This is a fundamental limitation of the Magician approach but, in fairness, is not one that takes long to get used to. It's very simple to use the Magician - pick up a fader with the mouse, and move it to a new position. For minor adjustments where mouse control is dangerously coarse, a fader can be also clicked up or down by one quantum. (If any masochists out there in MT-land still think that digital parameter access is a good thing, the Magician will also cater for your needs - the numeric value of each parameter is updated as you move the corresponding fader.)

A small graphic screen in the lower left-hand

corner shows three envelope curves. These refer to either; Source 1, Source 2, and Filter 1; or Source 3, Source 4, and Filter 2; depending upon which of the editor pages you are currently updating. Again, this parallels the K4 architecture precisely and is the correct configuration to be of most use to the programmer. Unfortunately, key-scaling and velocity curves are not displayed, nor can they be modified within the editor. These ought to be available, if only as an option. Increasing the number of pages comprising the editor from 12 to 14 wouldn't make any difference to the general feel of the package, and would make it much more useful for the serious programmer.

A waveform selector is permanently displayed throughout all 12 Singles editor pages, and this provides both wave selection and muting facilities for all four partials. Wave names are shown in addition to waveform numbers, and the selection may be accessed and updated whenever desired. Clicking on a wave name brings up a shortlist of the K4's waveforms, but you can quickly scroll through all 255 if necessary. This is fairly quick and simple in use, although a better method would be to list as many waves as possible on screen simultaneously - with a monochrome monitor this would be all 255.

The remaining controls in the Singles Editor are the file-handling commands (Load, Save. . .) and buttons to take you to the Multi-, Effects-, and Drum- Editors.

The Magician approach has strengths and weaknesses: Editing is quick and simple and, for anyone brought up on the ARP Odyssey (or, for that matter, on the JD800), the sound of a partial can be visualised by looking at the fader positions. But, because of the 12-page approach, programmers lose the ability to see "at a glance" the overall composition of their patches. Other editors present a complete K4 voice on one screen (although you need a monochrome monitor or mono emulator and good eyesight to use them) and I suspect that serious K4 programmers prefer this approach.

SINGLES LIBRARIAN

AS WITH ALL Quinsoft Librarians, this one is easy to use. Throw away the manual and have some fun. Five banks of 64 Singles are catered for, and library compilation couldn't be simpler: load up a few banks of sounds, select the voice you want from a source bank and drag it to the desired slot in a destination bank. Load and Save perform the expected operations to and from disk, while Get and Send do the same to and from the K4 itself. (The Magician can also Get or Send directly to a RAM card plugged into the K4; bravo.) It's quick, it's simple, and it works like magic. Unfortunately, it isn't possible to view whole banks simultaneously. Sixteen Singles constitute a block, and only two blocks are shown onscreen at any time - one from any of the four source files, and one from the destination file. It should be possible (using small graphic fonts) to display entire banks on screen, but Quinsoft have obviously opted for clarity against versatility.

VOICES

A FULL BANK of 64 Singles is supplied on disk two. These were programmed by the guy who wrote the editor itself (Quentin Rice, take a bow) and, although talented computer programmers don't necessarily make the grade as synth programmers, some of these voices are rather good. My favourites include: 'Dark Choir' (an M1 rip-off if ever there was one); 'Dark EP' (the sound a Fender Rhodes might have made had the tines been wood rather than metal); 'Rapido' (a sort of picked guitar); and 'Honkey' (which perfectly captures the spirit of Keith Emerson's 'The Sheriff'). Don't take this library too seriously - it's obviously intended as an educational tool as much as anything else - but, since K4 libraries are rather thin on the ground, you can justify some of the cost of the editor against the voices supplied with it.

MULTI EDITOR

A KAWAI MULTI is almost identical to a Korg Combination. Eight Singles may be combined into multitimbral performances, or into layered and stacked cacophony. Very few parameters are needed to perform these functions, so they are all presented in a single Multi Editor page. This offers options to select the Singles (which can be individually muted); allocate note ranges, MIDI channels and volumes; define output assignments, individual transpositions and tunings; and choose the Kawai equivalent of local On/Off - known as Keyboard/MIDI/Mix mode selection. No graphics are used in the Multi Editor and, frankly, they aren't missed. Although it would be a luxury to be able to select note ranges graphically, I'm not complaining. Am I? Three additional parameters enable you to name your Multi, set an overall MIDI volume, and define which effect patch is to be used within the Multi.

The K4 offers the same number of Multis as it does Singles (64) and when the synth is used as multitimbral expander (of course, the K4r is never used any other way) the Multis become more important than the Singles. Consequently, a Multi Librarian is as important as a Singles Librarian. So why doesn't this editor provide one? Perhaps the answer lies in memory limitations (see below) but, since much of the same computer code could have been used for both Librarians, I don't really understand why Quinsoft failed to include the second. Minus several million Brownie points, I'm afraid.

EFFECTS EDITOR

DOWN IN THE depths of the bottom right-hand side of the Singles editor screen lurks a button named Extras. Click on this and an overlay screen offers nine further options. These are: Print Library A & B, Print Multis, GEM Desktop (superfluous), Effect Edit, Drum Edit, Print Patch, Initialise Editor, and Quit Program. A tenth button - Done - returns you to the Singles Editor.

The Effects Editor uses four windows. The first lists the 16 effect types stored within the synth. A second >

"Every section of the editor is simple to use and contains most of the features you need to get the best out of your K4 or K4r."

NEWSFLASH!

AMR 36 × 24 production console
now installed in the new
24-Track digital Project
Studio (Hounslow)
Tel: 081-570 4444

WE FIXED THE MIX.



PEAVEY™
AUDIO MEDIA RESEARCH™

A DIVISION OF PEAVEY ELECTRONICS
CORPORATION

711 A Street/Meridian, MS 39302-2898
(601) 483-5372/Telex: 504115/Fax: 484-4278

Distributed in the U.K. by: Peavey Electronics (UK) Ltd., Hunters Road, Corby NN17 1JE

PLEASE RUSH ME MORE DETAILS ON THE AMR 36 X 24 PRODUCTION CONSOLE

NAME

ADDRESS

PEAVEY ELECTRONICS (UK) LTD., HUNTERS ROAD, CORBY NN17 1JE

> contains pan and Send controls (which enable you to set the level of effect independently for each multitimbral channel). A third window contains the three variable parameters for each effect type chosen and the fourth allows you to select which of the 32 effect patches is to be edited. Unfortunately, the editor doesn't know whether an effect is in use within any of the Singles or Multis currently loaded into the editor banks. So you could be happily creating a devastating patch using stunning effects, and simultaneously be destroying a selection of your most important sounds. Clearly, you need to keep track of what's going on because the program doesn't.

Like other parts of the Magician, the Effects Editor is simple to use, and perhaps that's just as well. Both the Quinsoft and the Kawai manuals are next to useless at explaining the K4's effect section, so you're going to have to feel your way. Sensibly, there's a safety net: if you foul things up, the factory default effect patches are stored on disk two and can be recalled using the Load command. That reminds me - the Effects Editor has its own Load, Save, Get, and Send buttons.

DRUM EDITOR

THE DRUM EDITOR is the final menu item in the K4 Magician and, like the others, is a piece of cake. Each of the two drum sources per key (plus their associated parameters) are presented against a graphic representation of a single octave of the keyboard. You can change octave by clicking on a set of five on-screen buttons giving the full five octave range of the K4 - and all the drum parameters can be selected and modified using the mouse or cursor keys. There is very little else to say about the drum editor; it's clear, it's simple, and it works. If there is a criticism (and there is) it's that you can only see one octave of the keyboard at a time, making it necessary to use pen and paper to lay out a complete drum section over five octaves.

ALL TOGETHER

SOME SYNTHS CRY out for computer-based editors: in particular the Casio VZ-series, the Roland D5/10/20, and anything made by Yamaha. Unfortunately for Quinsoft, the K4 doesn't fall into this category. Its top panel controls are well laid-out, positive in action, and accompanied by large, friendly letters. The menu structure is comprehensive and intuitive, and for anyone acquainted with a D50, is simple to understand and use. Nevertheless, the sheer power of the K4, with its multi-patches, effects, and drums, may daunt the novice synthesist, and this is where an editor/librarian should score; it should be simpler to use and quicker than the onboard operating system, and should make the relationship between the various sections of the synth much clearer. Perhaps with this specification in mind, the Magician Editor flies in the face of conventional editor wisdom. The screen layouts (particularly in the Singles Editor) do not conform to the usual "let's make all these digital parameters look like a Jupiter-

8" approach, nor to the "lots of little boxes with numbers in" philosophy. So how have Quinsoft done in creating a new, and simpler, "standard"?

Firstly, criticisms. One: the manual could do with a serious re-write. For the first few pages there's nothing wrong with it that a decent proof-reader couldn't sort out, but as it progresses it begins to assume too much knowledge on the part of the reader. Since many musicians will buy the editor precisely because they don't understand their K4 (or K4r) more care should have been taken. Two: omissions: Keyboard and velocity scaling should have been included, and a few more features (such as parameter copying between patches and a Randomiser) would have been welcome. Three: The inability to format disks in the program is an absolute pain in the arm, and you're going to end up killing something if you can't find a formatted disk after hours of patch programming. Four: there's no Multi Librarian.

Now the good points. One: every section of the editor is simple to use, very quick to operate, and contains most of the features you need to get the best out of your K4 or K4r. Two: Quinsoft have attempted to create (and to some degree have succeeded in creating) the most user-friendly editor available, and one that can be used on any Atari ST. This has meant using large friendly letters and simple graphics within a program that runs in rather limited memory and is compatible with colour as well as monochrome systems. Unfortunately, you don't get owt for nowt, and something had to give. In this case the casualties were full waveform and librarian lists (they couldn't be read on a colour monitor), advanced editing functions (not enough program memory), and some of the K4's less often used parameters (not enough data memory).

VERDICT

IS THE QUINSOFT Magician Editor the one for you? If you have a 520Mb Atari or a lo-res colour monitor I suspect you have no other options - it's the Quinsoft editor or nothing. However, if you're a relative novice starting out on the synthesis trail, you might still be advised to give the Magician a close look even if you have a monochrome ST1040 or better. An entry-level package should have an entry-level price, and £49.95 just about fits the bill. An entry-level package should be very simple to use, but shouldn't restrict your creative programming as you become more adept. Again, with one or two reservations, the Magician fits the bill. Finally, an entry-level package should be absolutely water-tight in operation since, by definition, it's going to be used by novices who won't be able to track down MIDI errors or SysEx problems. During this review, no problems. So now all you have to do is ask yourself, "am I an entry level K4 programmer?". ■

Price £49.95 including VAT.

More From Patchworks Ltd, Frederick House, 211 Frederick Road, Hastings, East Sussex TN35 5AU. Tel: (0424) 436674.

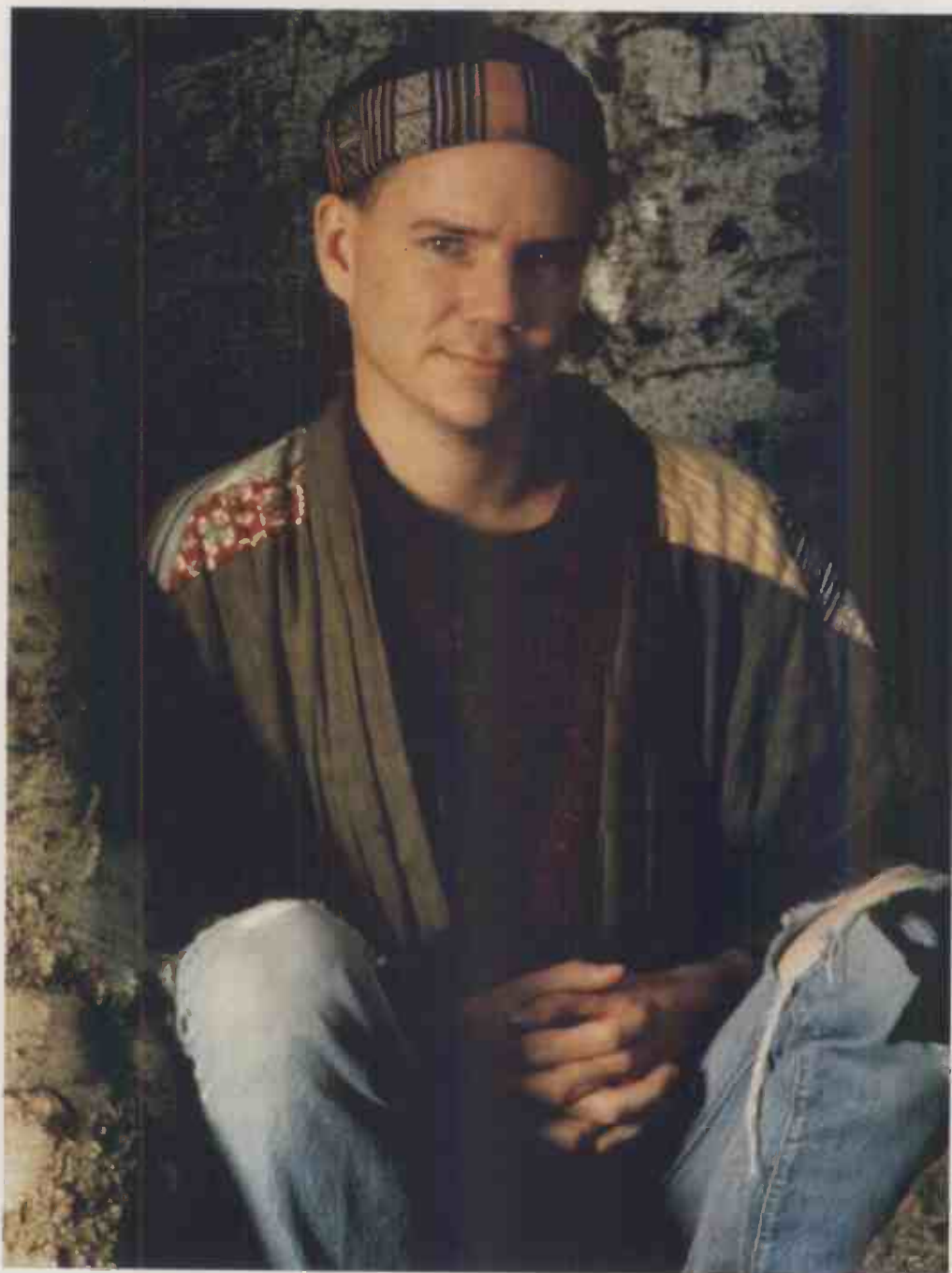
“Some synths cry out for computer-based editors - unfortunately for Quinsoft, the K4 doesn't fall into this category.”

rooting
for the
**NEW
AGE**

***If you've
written all new
age music off
as uninspired
and uninspiring,
you might
consider the***

***work of Michael
Hedges - an
American
musician with
an unusual
story to tell.***

***Interview by
Scott
Wilkinson.***



PHOTOGRAPHY: CARL STUDNA

A TAPROOT WANDERS THROUGH THE garden, above ground and below, and comes upon many strange and wonderful places: Point A, Point B, Nomad Land. He encounters many strange and wonderful beings: Chava the Jade Stalk, the First Cutting, Shrub 2, the Rootwitch, the Spirit Farmer. He has many strange and wonderful adventures: Scenes (on the road to Shrub 2), Ritual Dance. And throughout his journey, he carries the heart of his love in his heart.

So goes the tale of *Taproot*, a myth created by Michael Hedges to symbolise his life and told with virtually no words on his fifth album for Windham Hill.

"I have troubles like everyone else does. I needed something to put me in balance, so I wrote a story that had the symbols of my life in it. I finished the story and solved all the problems", he laughs. "I lived in a myth for a while.

"Then I took the names of the characters who represent real people in my life, and the events, which

are fictional but symbolic, and made them into song titles. That's why you have titles like the Jade Stalk. It's a character in the myth. The Rootwitch is a character. You also have geographies where different characters are from: Point A, Point B, Nomad Land. And then you have events that these people do. The ritual dance is something that Taproot does in a story, and scenes on the road to Shrub 2 are visions that Taproot has as he is tunnelling underground. So in these tunes, I'm expressing what it's like to be at this place, or hanging out with this character, or what it feels like to be doing this activity. That's how the myth is told in music rather than in words."

Well, it beats your average "yeah, the album's doin' great, the tour's sold out", account of a musician's lot. But then Michael Hedges, American musician and exponent of the new age, isn't exactly your average musician. For a start Hedges is a guitarist, and like fellow guitarist and Windham Hill stablemate David Torn, he has found synthesisers and samplers a valuable addition to the sounds of his guitar. As a result,

The Top 500



Play the D4 with its onboard trigger inputs.

Alesis drum machines are famous for their sounds. The HR-16's natural acoustic drums are still the standard for transparent rhythm tracks. The punchy aggressive samples of the HR16:B redefine how to make rhythm tracks burn. The SR-16 is an instant hit with its sampled reverb and ambience techniques.

Now you can have all this and more with the new Alesis D4 Drum Sound Module. There's an incredible 500 sounds in all. Right at your fingertips.

The D4's sounds are unparalleled for their realism. For example, when you hit a D4 sound harder, the tone and pitch change just like a real drum, thanks to the D4's Enhanced Dynamic Articulation.™ Plus, stereo reverb and ambience are built into many of

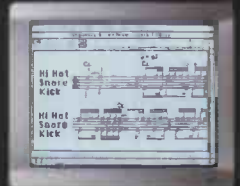
the samples so you can keep your mind on the beat.

Using the D4 is a breeze with its large data entry knob and dedicated buttons for all major functions. There's even a touch-sensitive preview button and headphone output for instant gratification... and latenight drumset programming.

The D4's 21 user definable drumsets are accessible via MIDI or through the 12 onboard audio trigger inputs.

You can even replace a wimpy drum sound on tape. Which you'll want to do if it didn't come from a D4. No rocket science here. Just pure honest incredible sound. The only reason to buy a drum sound module.

Everybody wants a hit. The D4 has 500 of them right now. At your Alesis dealer.



Play the D4 with MIDI software or hardware.

12 audio trigger-to-MIDI inputs are built in for drum triggers, pads, or tape.



ALESIS THE TOP 500 DRUM SOUNDS

THIS WEEK	LAST WEEK	WKS ON CHART	TITLE ARTIST	DRUM PRODUCTION	THIS WEEK	LAST WEEK	WKS ON CHART	TITLE ARTIST
1	2	208	HONEST SNARE HR-16	ALL WOOD-BRASS RIM	302	NEW	▶	RAW HIDE BRAND NEW D4
2	NEW	▶	STUDIO TOM BRAND NEW D4	16" MAPLE TOM w/VERB	303	450	52	HI ROOM TOM SR-16
3	NEW	▶	BIG "O" BRAND NEW D4	DOUBLE HEAD KICK w/VERB	304	NEW	▶	WET HALF BRAND NEW D4
4	5	52	RIM SHOT ROOM SR-16	BRASS PICCOLO w/VERB	305	327	52	RIM 2 CENTER SR-16
5	10	156	BIG FOOT HR-16:B	SINGLE HEAD 26" MAPLE	306	123	208	DOUBLE HEAD
6	NEW	▶	SLAM BRAND NEW D4	POWER TOM w/VERB	307	223	151	ARTICULATED HI HAT
7	23	156	COMBO SNARE HR-16:B	PICCOLO PLUS WOOD	308	401	51	DOUBLE HEAD KICK
8	NEW	▶	BIG BALLAD BRAND NEW D4	WOOD SNARE w/BIG VERB	309	NEW		
9	NEW	▶	FAT CITY BRAND NEW D4	SUPER FAT SNARE	310	175	1	
10	NEW	▶	CLOSE TO OPEN BRAND NEW D4	ARTICULATED HI HAT	311	NEW		
			TRQ WRENCH	TORQUE WRENCH/FAST	312	171		
				14" THICK SPUN	313	332		



LOS ANGELES:
Alesis Corporation 3630 Holdrege Avenue
Los Angeles, California 90016

LONDON:
Alesis Corporation 17 Letchworth Point
Letchworth, Hertfordshire SG6 1ND
TEL: 0462 480500 FAX: 0462 480600

“Music is communication between human beings, so try not to get too much garbage in between.”

➤ Hedges' music is a rich and pleasing collage of exotic sounds, well above the usual new age fare. But back to the story - although the story, despite the fact that it's the central element of the album, is missing from the sleeve notes.

“I didn't want the public to feel like they had to know the story to appreciate the music”, he explains. “That's the reason I didn't print it, not because I don't want people to know what's going on with me. In fact, I need to let people know what's going on with me - that's why I'm writing music. But I didn't think it needed to be represented in detail in order for people to enjoy the music. I didn't want people to feel it was programmatic, even though it is. I used the story for a structure. Also the music does not coincide chronologically with the story, which could be confusing to somebody who would read the story while listening to the music. The story told in the music makes better sense when you listen to it than if you read it.”

Hedges' myth-making was inspired by American sociologist-cum-philosopher Joseph Campbell. Campbell was responsible for an American Public Broadcast Service TV series *The Power of Myth* (shown on BBC TV earlier this year). Another influence was American poet Robert Bly, leader of the burgeoning “mens' movement” (Bly's book *Iron John* has recently been published in the UK). Both writers encourage the use of personal myths and non-literal images to define and deepen identity.

“*Taproot* is my statement of masculinity in an educational vein”, Hedges relates. “The Taproot is the main part of the plant that goes underground and gathers nutrients, so I'm giving a different sort of male symbology here than macho. It's a more holistic approach to becoming a man.”

Radical stuff - particularly from a musician who started out on a fairly traditional path.

“For three years I attended a small school in Oklahoma”, he recounts. “I had kind of a one-man university there, EJ Ulrich, who was very nurturing and willing to expose me to many things. He taught me ear-training, sight-singing, theory, harmonic analysis, counterpoint, form, composition and piano. In fact I was a flute major, and I quit the music department so I could just study with this one guy. Then I decided it would be a good idea to study classical guitar. There were no teachers in Oklahoma, at least not in the conservatory or in a major program, so I moved to Baltimore and studied composition and classical guitar at the Peabody Conservatory.

“It was there that I started becoming quite interested in electronic music. At that time, it wasn't anything new but it still wasn't enjoying the popularity it has today. This was 1977 and none of the digital stuff had come out yet. We had a big Moog synthesiser, two-track tape recorders and a lot of signal-processing gear. That was just perfect. I learned the basic roots of it. You had to make your own patches, literally, with patchcords from the oscillator into a filter then into a VCA and so on. You could only play one note at a time, recording onto the tape recorder. You would then play it back and mix it onto another tape while you played something else. It was very primitive

but very educational.

“After I left Peabody, I moved to California and got my deal with Windham Hill. Even though my first two recordings were made pretty much direct to two-track. I still had a real electronic and studio-oriented mind because of the work I'd done at Peabody. This comes through on my second album, *Breakfast in the Field*. I did a tune called ‘Spare Change’ at the Peabody studio while the students were on vacation. I arranged with the facility to have access to the studio for a week. I worked 110 hours that week, slept in the studio and made a tune. It's a lot of backward stuff - basically I just used two tape recorders, very simple.”

Even though he had fairly easy access to the Peabody studio, Hedges knew that he wanted to establish his own studio in California.

“I arranged for the record company to buy me a Sony one-inch eight-track in lieu of a studio rental budget for my third record, *Watching My Life Go By*. They also bought me a mixer and some microphones. I took the money I'd been making from my concerts, bought a few other things and rented a garage in Palo Alto. This became my first studio.

“After that record was released, I moved up to Mendocino and built a control room underneath an old water tank on my property. We reinforced all the walls, made them real thick. We didn't do double-wall construction, because it's a control room - you need it to be quiet but the recording isn't done in there. Adjacent to that building, we built the recording studio from the ground up. I designed it with five walls and a slanting roof to avoid parallel surfaces. We made it quite live, because you can always make a live room dead, and used double-wall construction in this room - two floors, two ceilings, two sets of walls with air space in between, separate heating system. That's where I made *Taproot*. Now, every time I make a record, I upgrade the studio. That's the idea.”

BETWEEN HIS THIRD ALBUM AND TAPROOT, Hedges recorded a live album, *Live on the Double Planet*. In new age, as in any other musical area, there are significant differences in the two processes.

“We didn't hire a truck. We used a Beta hi-fi VCR and a Sony 701 A/D converter and we recorded all the shows direct to two-track digital plus two tracks of Beta hi-fi, so we had four tracks in all. We put the high-end guitar pick-up and the vocal on the digital tracks while the audience was recorded on one of the Beta hi-fi tracks and the magnetic guitar pick-up on the other. The digital and analogue tracks are a few milliseconds apart but it wasn't a problem. We had a time-correction machine, but we didn't need it, didn't even use it. The only things I needed to buy were a couple more reverbs and a mastering machine, the Otari MTR20. So then I had the makings of a pretty good studio.”

This sounds like a good way to steadily enhance the studio and save the record company some money into the bargain. So far, so good, but what about the next project? Again Hedges has an unorthodox answer.

“For the next record, I'm going to buy time. With that time, I'm going to learn the manuals of all the

synthesisers I've been collecting, so it's back to the studio for me. *Taproot* was pretty much an acoustic record. I didn't have to mess too much with machines. Now since I've got time, I'm going to learn how to use all of my drum machines, synthesisers, software and Macintosh computer. I'll use one track to run the sequencer with time-code, along with six or seven tracks of acoustic material."

With the opportunity to upgrade his studio with each new album, I wondered why Hedges hasn't moved up to 16 or even 24 tape tracks. Doesn't he feel restricted by just eight?

"No. I think I would feel more restricted by 16 or 24, because there's more to think about - more EQ, more signal processing. I want to take a simpler approach, because it's just going to be me, you know? Besides, I don't have only eight tracks. I've got as many as I want with the sequencer.

"If I was just a producer and not recording everything and writing everything myself, I might go for a little more investment. But I've been working with this equipment - I know it. Why get a whole new studio full of stuff and spend all my money when I've already done a pretty textural record? *Taproot's* fairly textural, which was the reason I did it first before doing a vocal record. Even though I had enough tunes to make a vocal record or a rock record I thought it would be best to learn the ropes of the equipment and do something not quite as complex as a studio vocal album."

Hedges must have developed some interesting studio techniques during his eclectic career, particularly within the context of his home studio.

"I like to go for feel over anything else. If it's time to get something down, I'd rather record it straight and EQ it later. It's a lot easier to EQ a track to the feel than it is to try to put the feel into something that's perfectly recorded, but not quite happening. I tend to be a little bit lax in terms of levels so I may not be the best technical engineer. But I think when to get it down.

"I can spend all evening goofing around in my studio getting the right sound. Then, the next day, I go in and nail it. If you're of that mind, if you want to do it yourself, I think it's a good idea to have your own studio. If you start renting studio time for a hundred bucks an hour, you're going to want to get it done as soon as possible because another band is coming in the next day and you'll have to set up all over again after that. I like to leave everything put."

Being partly acoustic in its creation, mics and pickups play an important part in the recording process - although accuracy isn't necessarily what it's all about.

"I mostly use one microphone", says Hedges. "It's a big fat Neumann M249B tube mic. I also have two smaller Neumann M154 tube mics which I use when I'm doing stereo guitar and I want an image. I use them on the piano too but for a full range, like vocals, I use the M249B. When I use that, I usually don't have to EQ it at all.

"On the guitar I often use one mic because I have two pickups that I always record as well. One of them is called a FRAP, which stands for Flat Response Audio

Pickup, made by Arnie Lazarus in San Francisco. He also built me some wonderful preamps for the FRAP, which is a very high-impedance, low-level device, so the preamp needs to be especially quiet. I use a magnetic pickup for the low end.

"I use the FRAP mainly to get the sound of the acoustic guitar. An ordinary mic won't get it all; it'll get the high-frequency band but only at a distance of three or four inches. I can't put a mic right under the string or under the top because I move too much when I play. I have to put it back three or four inches, then it doesn't get that bitey, high-end sound which the FRAP does.

"Then I take the signal from the magnetic pickup and process it - that's how I get the killer low end, not through the mic. The mic is just for ambience, for a nice clean semi-reflective sound and a little bit of mid-range warmth. Then I mix these three signals together. I usually expand the magnetic pickup into a stereo signal and digitally delay either the mic or the FRAP. That's how I get my stereo image.

"I'm not looking for faithful reproduction of what my instrument sounds like acoustically because I want it to sound different on each tune. I don't have any one formula in the studio. I'm willing to try anything but, of course, that's a little bit more difficult when you're doing everything yourself. If you're playing the instrument it's harder to listen to what's coming out of the speakers because you're hearing the instrument as well."

It would seem that Hedges might be an ideal candidate for the MIDI guitar.

"MIDI doesn't really transmit what I do on guitar", he comments. "I'm just as comfortable with keyboards - especially synthesisers. Besides, the keyboard always has the same structure. I'd just as soon develop a voice on the synthesiser keyboard because I'm certainly not glued to guitar technique - I'm glued to my mental technique. There seems to be more of a universal control available at the keyboard than at a guitar fingerboard, but I might eat those words in six months."

Aside from his studio work, Hedges spends quite a lot of time playing live. Being one of a comparatively elite group doing this, how does he view the relationship between the studio and the stage?

"They're so different, that's how they benefit each other. You don't want to be so sloppy when you're playing live that it doesn't transmit well but, on the other hand, you don't want it to sound too technical when you're in the studio. You know you can't separate your body from your mind. Metaphorically, I associate the mind with technique - the technical studio - and the body with the audience - live performance. You can't really separate them.

"I think you always have to keep that live connection going because that's what music is all about - it's communication between human beings, so try not to get too much garbage in between. Music goes from human soul to human soul; if you want to patch it through a machine, make sure that the machine represents your soul and that it's a full representation, or at least an accurate expression, of what you want to communicate." ■

EQUIPMENT LIST

INSTRUMENTS

Akai S900 Sampler
Apple Mac Plus Computer/Opcode
Studio Plus Software
Casio CZ101 Synth
Digidesign Sound Designer Software
E-mu Systems SP12 Drum
Machine MOTU Performer Sequencing
Software Oberheim Xpander
Roland D50 Synth
Yamaha DX7 Synth

RECORDING

AMEK BC02 12:4 Mixer (Stereo ins for
fx mixing)
Audio & Design Scamp Rack Effects
Calrec M-series 12:2 Mixer
Klark Teknik DN780 Reverb
Lexicon PCM60 Reverb (2)
Lexicon PCM42 Delay
MCI/Sony JH110 1" eight-track
Recorder (Dolby SR N/R)
Orange County Comp/Lim/Exp (2)
Orban 672 Parametric EQs
Otari MTR20 ½" Stereo Tape Deck
Otari MX5050 ¼" Stereo Tape Deck
Rane Graphic EQs
Roland 240 Mixer (for fx mixing)
Sony PCM501 Digital Recorder
Sony TCD D10 Pro DAT Machine
Soundcraft Series 2 Mixer (main
mixing desk)
Sundholm Graphic EQs
TC Electronic 1140 4-Band
Parametric EQ
TC Electronic 1210 Spatial Expander
TC Electronic 2290 Delay
Yamaha REV7 Reverb

7S



PHOTOGRAPHY: JAMES CUMPSTY

The power of MIDI allows an unassuming rackmount from the US to be a fully-automated mixing desk - strange but true.

Review by Vic Lennard.

WHERE MIDI AUTOMATION of mixing desks is concerned, MIDI is normally used simply to mute individual channels, and sometimes effects sends on the desk. Of course, much more sophisticated automation is possible. SSL desks, for example, have "total recall", a facility by which all settings on the mixing desk can be recalled at the press of a button - but not via MIDI.

MIDI doesn't (yet) fully accommodate mixing considerations - there are no dedicated controllers for EQ, for example. Even where MIDI controllers do exist, there are often problems with real-time control. MIDI Controllers #7 and #10 control MIDI Volume and Pan respectively but often result in "zipper" noise (audible steps in volume) when altered quickly. Although changes to the MIDI spec are currently being considered by the relevant MIDI authorities, currently the only way to change many parameters is via system exclusive - but bear in mind that you can't intersperse SysEx with other MIDI information except MIDI Clock and other System Real Time commands.

So, how do you get a full MIDI control of your mix? Mark of the Unicorn (renowned for their Performer Mac sequencer) have presented us with one option: the 7s MIDI Mixer.

MAGNIFICENT 7

THE 7S CONSISTS of seven stereo audio inputs, each with trim pot, noise gate, bass and treble EQ, volume and pan. With the exception of the gate threshold and trim, all controls can be configured via MIDI. There are also a pair of mono inputs with MIDI control, although their output is not summed with the stereo outputs but emerges via individual outs. Furthermore, there are two effects sends and returns and a Chain in/out for additional 7s units.

The mixer is a typical 1U-high rackmount with the front panel headings in bright orange, as are the larger rotary controls and logo - it certainly stands out amidst other rackmount equipment. The front panel houses the trim pots, the four effects sends/returns and an LED to show the state of the noise gate for each channel. Gate Threshold, Master Output Level

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 it was about time it got its own ad. So here we are!

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-advanced £55 + VAT

(both MIDI courses are on consecutive days and may 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.

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 DIK device, and if I connect it to a Winchester drive will it make my MIDI timepiece run faster?

For anyone who has not yet succeeded 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!

SECONDHAND AND EX-DEMONSTRATION MIDI LIST

Yamaha SY22	£449 +VAT	Akai PEQ6 Automated EQ.....	£215 +VAT
Atari 1040 STE (no monitor).....	£299 +VAT	D50 multi expansion	£189 +VAT
Roland RBM Drum machine Expander.....	£326 +VAT	Akai ME35T Drum triggers	£199 +VAT
Yamaha SY55	£550 +VAT	Phillips colour monitors	£175 +VAT
Yamaha RX8 Drum machine	£135 +VAT	Yamaha RX5 8 Output drum machine inc. cartridges	£299 +VAT
XRI XR300 Sync box	£185 +VAT	Aphex Studio Clock SMPTE Controller.....	£199 +VAT
Ensoniq S1	£699 +VAT	Korg M1	£875 +VAT
Proteus II XR	£750 +VAT	Roland W30	£599 +VAT
Korg Wavestation.....	£699 +VAT	Yamaha RX21L Latin Drums	£50 +VAT
XRI XR400	£140 +VAT	Korg S3 Drum machine	£499 +VAT
Alesis SR16 Drum Machine.....	£195 +VAT	Ensoniq VFX - SD2	£999 +VAT
Yamaha TG33	£299 +VAT	Roland D5	£325 +VAT
Akai S1000	£1850 +VAT	Ensoniq SQ1+	£799 +VAT
Akai S900	£599 +VAT	Yamaha RV30 Drum machine	£299 +VAT
Roland D10	£425 +VAT	Waldorf microwave	£599 +VAT
Alesis Datadisk	£250 +VAT	Atari 520 FM (new)	£199 +VAT
Ensoniq EPS 16 +	£1099 +VAT	Ensoniq SD	£1299 +VAT

Akai S1000 £1899 +VAT

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

THE COMPUTER BOX

Atari 1040 + monitor + Notator	£725 +VAT	Atari 1040 + monitor + Steinberg Cubase	£699 +VAT
Hard Drive (200 meg) inc SCSI + DMA interface	£999 +VAT	Atari 1040 + monitor + Creator	£625 +VAT
Hard Drive (44 meg removable) inc SCSI + DMA interface			

SPECIAL OFFERS - (ALL NEW)

Soundtech stereo compressor limiter	£135 +VAT	Studiomaster Proline 16:4:8 + MIDI Muting.....	£949 +VAT
Sony DTC55ES DAT	£439 +VAT	Allen & Heath Spectrum	£2850 +VAT
Alesis Quadriver plus.....	£260 +VAT	Rack stands (12 u).....	£25 +VAT
Aphex type C exciter	£165 +VAT	Sony DTC 750	£399 +VAT
Casio DA7 Dat	£420 +VAT	Yamaha EM100 Multi processor.....	£159 +VAT
Alesis MEQ230 - 2 x 31 band eq	£139 +VAT		

SPECIAL MIDI OFFERS (ALL NEW)

Steinberg Cu-base.....	£285 +VAT	Akai S1000 8 meg expansion boards.....	£350 +VAT
Akai S1000 2 meg expansion boards.....	£125 +VAT	DAT 1/0 for S1000 - S1100 (IB104).....	£149 +VAT
Akai S950 3/4 meg expansion boards	£115 +VAT	TCD Stripper (removes DAT copy code).....	£149 +VAT
Fostex 4020 event controller (inc SMPTE).....			

MULTITRACK DEALS

Fostex R8 + Soundcraft Spirit 16:8:16	£2899 +VAT
Fostex R8 + Sansul 12 into 6 mixer	£1299 +VAT
Fostex R8 + RSD Pro-line 16:4:8 with MIDI muting	£1999 +VAT
Fostex R8 + RSD Proline 16:8:16	£2199 +VAT
Fostex R8 + Mixdown 16:4:8	£2499 +VAT
Fostex R8 + S2	£2849 +VAT
Fostex G16 + Spectrum	£6499 +VAT
Tascam 288 + Sansul MX12	£3950 +VAT
Tascam TSR8 + RSD Proline 16:4:8 with MIDI muting	£2599 +VAT
Tascam TSR8 + RSD Mixdown 16:4:8	£2799 +VAT
Tascam TSR8 + Soundcraft Spirit 16:8:16	£3100 +VAT
Tascam TSR8 + S2	£3049 +VAT
Tascam MSR16 + S2	£4699 +VAT
Tascam MSR24 + Allen & Heath Saber 24:16:24	£11,500 +VAT
Tascam MSR16 + Spectrum.....	£5999 +VAT

SECONDHAND + EX - DEMO

Casio DAI R Dat	£325 +VAT	Yamaha MT100 (secondhand) portastudio	£199 +VAT
Fostex R8	£999 +VAT	Fostex 454 848 mixer	£399 +VAT
Tascam MSR24	£4500 +VAT	Allen & Heath Spectrum	£2599 +VAT
Yamaha FX500 Multi Processor	£250 +VAT	Seck 1282	£499 +VAT
Symmetrix 511 single ended noisereduction	£249 +VAT	Boss Flanger pedal	£39 +VAT
Alesis 16:2:2 desk	£465 +VAT	Quadriver GT	£349 +VAT
Tascam DA 30 Dat	£850 +VAT	Alesis 4 way headphone amp	£49 +VAT
Alesis Midverb III	£169 +VAT	Tascam 22/2 2 track	£475 +VAT
Akai EX75N Stereo noise reduction.....	£99 +VAT	Lexicon LXP5 Multi Processor	£299
Fostex X26 portastudio.....	£199 +VAT	Yamaha GSP Guitar Processor	£99

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, Tascam, Studiomaster, Allen & Heath, C-Lab and a good many more! (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!) Nearly 700 new 8, 16 & 24 Track packages.

THE AMAZING S2 RECORDING CONSOLE £1699 + VAT

Take a brand new mixing console. Give it every feature of the stunning Soundcraft Spirit (i.e., full EQ on every channel including monitors) plus a few for good measure (connections for 2 sets of speakers and 2 tape decks.) Add the build quality of T.A.C., the innovation of Studiomaster (fully expandable on inputs plus an optional meter bridge.) and the stylish design of Soundcrafts. Finally, add a full MIDI mute processor of the legendary Allen & Heath Saber (Internal sequencing plus MIDI mute on absolutely everything.) And the price? - £1699 + VAT! THE AMAZING S2 - WOW!

EDUCATION!

If you represent a school, college or other educational establishment you may be eligible for our special discount scheme. Call 0223 208110 for details

We got to be biggest - by being the best!

A division of
Thatched
Cottage



Thatched Cottage Audio, North Road, Wendy, Near Royston, Herts

Telephone
(0223) 207979
(0223) 208080
Fax
(0223) 207952



TCA SERVICE

Our fully equipped service department can offer fast turnaround (sometimes while - u - wait!) and very competitive prices on Fostex, Tascam + Revox tape machines, most portastudios, desks (most makes), Atari computers, Akai samplers and many other products. If you have a problem give us a call before its too late!



When it comes to new equipment you may have noticed that we don't say 'phone for the best deal, POA, or "lowest price guarantee" (Hal Hal 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 multitacks, 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 multitack 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!

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

In order to cater for the increased demand for advanced multitack systems we have a separate 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 + DDA desks) and all digital and leading edge installations (such as the new Yamaha digital Multitack)

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.

“With Creator recording, you can switch to the 7s Console, move controls and then switch back to the sequencer with the movements recorded.”

and Headphones Level are controlled by three, larger rotary controls. On/Off - nice to see this on the front panel, not the rear -, headphone socket and a pushbutton for setting the MIDI channel of the 7s complete the panel.

The rear panel is socketland. Sixteen mono jacks for seven stereo channels and the main outputs, 16 phono sockets for the effects send/returns, chain in/out and channel 8, and MIDI In and Thru. Admittedly, it's more cost-effective to have the sockets poking through the rear panel rather than bolted to it, but the phono sockets float in a quarter-inch hole and continuous use may result in fractures to the solder connections to the PCB.

Finally there's an 18V DC power in socket - MOTU have had the sense to keep the power supply external to prevent the heat and hum problems associated with internal supplies.

The spec quotes figures of 78dB without noise gate and 90dB with noise gate, which are reasonable, although figures of this nature without any reference information are pretty meaningless. Audio inputs are given as being at line level but this can be anywhere between -20dB and +6dB. If the signal-to-noise figures are measured using a high input level then any system running at a lower level, say the semi-pro level of -10dB, will be much noisier - manufacturers should provide reference figures. Inputs are high impedance (20kOhms) suggesting that the 7s is primarily intended for mixing MIDI instruments.

IN THE MIX

THE 7S' STEREO inputs suit the current trend of synths sporting stereo outputs. It also allows the 7s to hide a multitude of sins in not having to match the input levels of a pair of mono inputs to create the stereo image - a situation which requires far better resolution than the eight-bit VCAs controlled with MIDI's seven data bytes using interpolation techniques found here. Incoming audio first passes through a pre-amp stage where the trimpot on the front panel lets you set the gain, although in a bit of a haphazard manner. Instead of having a dedicated LED showing the onset of clipping, you have to use the noise gate LED by setting the gate threshold control to three o'clock and rotating the trim control until the gate LED flickers. Unfortunately, there's then no way of knowing whether you're approaching distortion when audio is passing through and the noise gate is being used normally.

The input then passes through the noise gate with the attack and release being controlled only over MIDI. The threshold is the same for all inputs using the gate, and the ability to turn the gate on or off for various inputs is, again, controlled over MIDI only.

Each stereo pair then passes through the EQ stage. No information is given on this, but I'd guess at 100Hz for the bass and 12kHz for the treble - reasonable for mixing MIDI synths. EQ is only available for the stereo pair as a pair - you can't have different tone settings for each side of a stereo pair. Finally, the signal passes through volume (VCA) and

pan controls after which the signals are summed for the right- and left-hand main stereo outputs.

It is crucial to have control over EQ, and most budget mixers give a mid-frequency sweep and cut/boost or (preferably) controls for low and high mid. With only two EQ controls, the 7s is best suited to sounds which need little tonal treatment. While limiting, this arrangement should readily lend itself to synths, though perhaps less so to drum machines. The fact that the 7s is MIDI-controlled should not restrict its use to MIDI applications, but a mid-band EQ of some description would have opened up many more doors for the unit.

Channel 8 is odd in that it is made up of a pair of mono inputs with the same controls as for a normal stereo pair, but the output is not summed to the stereo buss. Instead, it's sent out from a pair of dedicated outputs. So you can look at it as being a pair of independent ins/outs.

There are two Effects Send/Return lines, with front panel, non-MIDI controllable trims for each. Finally, Chain In and Out allow the use of two or more units. This is effectively a send/return circuit without any controls but it could be used as an extra pair of inputs.

There are a total of 20 inputs going to the stereo buss, two inputs going to an independent buss, and a total of eight outputs.

MIDI MANIA

CONTROL OF THE various MIDI-programmable aspects of the 7s is accomplished via MIDI controllers. This method has advantages over SysEx in that it's easier to work with and gives fewer timing problems through shorter messages (three bytes maximum).

However, operating level, pan and EQ for all inputs, effects and so on involves the use of a lot of MIDI controllers. It's possible to achieve this without using Controllers already assigned for other duties, but there is always the possibility of using a currently undefined Controller, which then takes on a duty under a proposal from one of the two MIDI authorities in the USA and Japan. MOTU have used the eight General-Purpose MIDI Controllers, 22 undefined Controllers and the Least Significant Bytes of 16 Continuous Controllers to achieve the 46 Controllers that the 7s needs.

The use of MIDI Controllers means that software can be easily written or adapted to control the 7s. For instance, C-Lab's Realtime MIDI Generator page, Steinberg's MIDI Manager in Cubase and Hollis Research's MIDIman can all be used to control the 7s in real time with their respective sequencers on the Atari ST, and a similar situation occurs with MOTU's Performer. MOTU also supply a program for the Mac and a desk accessory/program for the ST called 7s Console. Hardware devices such as JL Cooper's Fadermaster can also be used, although this only has eight faders available at any one time.

Use of most of the features is obvious, with the possible exception of Smoothing. This controls the speed at which the 7s responds to MIDI data for volume commands, including mute and solo which

MMT-8 MULTI TRACK MIDI RECORDER

Simple

ALESIS



As in easy to use. As in no restrictions to your creative flow. As in the Alesis MMT-8[®] MIDI Recorder, the world's most popular hardware sequencer three years running.

If you're like most songwriters we talk to, a powerful software sequencer can sometimes be intimidating to work with, and can actually get in the way of your music. Songwriting is hard enough. Your sequencer should make it easier.

We designed the MMT-8 so just a hit on the record and play buttons puts you in songland. Intuitive, quick and easy.

The MMT-8 is the hardware sequencer

for everybody. Whether you're a beginner or an advanced power user with a 400 meg hard drive.

Use the MMT-8 as a powerful notebook sequencer. It's got all the features and editing you need for your music. And now with our new MMT-8 Music Link Software[™], power users can Sysex their work over to their software sequencer for full screen editing. Stand alone or in conjunction with a computer system, the options are inspiring.

Still the best. Buy an MMT-8 at your Alesis dealer today. It's that simple.

Now in basic black.



LOS ANGELES: Alesis Corporation • 3630 Holdrege Avenue • Los Angeles, CA 90016

LONDON: 17 Letchworth Point • Letchworth, Hertfordshire SG6 1ND
TEL: 0462 480500 FAX: 0462 480600

➤ can be achieved by sending the relevant 0 settings of MIDI Controllers 16 to 23. The higher the Smoothing setting, the smoother the change, but the longer the time necessary to achieve that change. Lower values give a faster response but may mean you can hear the stepping action as a parameter moves between two values.

7S CONSOLE

TO LET YOU take control of the mixer's MIDI functions, "7s Console" is provided. For the Mac, this can either be run as a stand-alone program or in conjunction with a sequencer via the use of Apple's MIDI Manager multitasking environment.

The on-screen image takes the shape of a miniature mixing desk measuring about 75mm by 100mm with 5mm diameter knobs. Apart from the obvious point of having an immediate representation of an item you can recognise, it's difficult to appreciate why it should be in this way - it's too small, you have to make do with very short throw (25mm) faders and also have to move along an imaginary horizontal line to rotate the knobs.

All the MIDI features are here, along with a few extras. "M" mutes the specific channel and is carried out by disabling the Smoothing on all channels, setting the volume for the specific channel to zero and then re-enabling the Smoothing as appropriate. If the Smoothing isn't disabled, the time taken for mutes to occur depends on the current Smoothing value. In a similar fashion, "S" solos the specific channel. This is carried out by again disabling all Smoothing, setting all volumes except the current channel to zero, and then re-enabling Smoothing. This means a total of 30 bytes must be sent (excluding the Smoothing re-enabling) which takes about 10mS. It's a shame that MOTU haven't implemented Running Status for the transmission of MIDI data, as this would have saved nine bytes and so reduced the transmission-time to 7mS. As all Controllers operate over the same MIDI channel, there's little excuse for this.

Having set up the various controls, you can then save them as a Scene to be recalled another time. Recall can be achieved by a menu selection, sending a MIDI Program Change to the 7s, or by using the command key and one of the numeric keys for the first nine scenes. One point to note is that a value of zero for MIDI Controller 0 is sent out as the first and last MIDI command for a scene. If this is intentional, it runs the risk of interfering with any MIDI device which responds to MIDI Bank Select (Controller 0) and happens to be on the same MIDI channel as the 7s. This might seem unlikely, but bearing in mind that the Controllers used by the 7s are unlikely to overlap with those used by a synth, it's certainly conceivable.

The Atari ST version differs in several ways. It's provided both as a desk accessory and a program. The DA is large - 107K - which means that you're unlikely to be able to run it with any of the major sequencers on a 1Meg Atari. There's more bad news: if you try running the DA with Cubase, it seems to

work the first time you open the accessory, but crashes the second time. However, it appears to work fine with Creator apart from some breakthrough from the bar/beat counter on the Creator screen. The "desk" is slightly bigger - and the knobs can be controlled by moving outwards along the radius of a circle centred at the knob; you aren't restricted to moving horizontally. Why didn't MOTU do this on the Mac version?

With Softlink you can have the 7s Console and Creator/Notator in memory at the same time by using the program version of Console. With the sequencer recording, you can switch to 7s Console, move controls and then switch back to the sequencer with the movements recorded. With Steinberg's Switcher equivalent, Cubase/Cubase and the program version of 7s Console can be resident in memory together, but movements on the Console while the sequencer is in record mode are not recorded.

There are another couple of interesting features. The settings for a scene can be saved to a Standard MIDI File (appears to be format 0), and loaded into a sequencer to re-create that scene. It appears to load at bar 1, beat 1 but can always be moved to where the scene change is needed. Again this feature doesn't appear on the Mac version. Also, you can set a SMPTE time for a scene change to take place, but I couldn't get this to work - I suspect that MIDI Time Code is needed, which wasn't available for the ST I was working with. More to the point, the only program supporting MTC is Cubase, which won't work with the DA. Unfortunately, there was no manual for this DA, or Read Me file on disk. A shame.

ON LINE

THE BIG QUESTION: how well can the 7s perform in a practical situation?

First of all, noise. Without the noise gate in the unit is noisy - certainly more so than other rackmount mixers or budget desks, but you're unlikely to use it without the noise gate in operation. More to the point, most MIDI synths are noisy with a capital N and, for these, the usefulness of the gate cannot be underestimated. It's the equivalent of having a number of single-ended noise reduction units to hand. It would have been nice to have had individual control over the gates for each channel, and I was rather concerned that setting the gate for the noisiest synth would cause transients on a less noisy synth to be lost, but in practice this problem didn't arise.

Using the volume and pan controls isn't difficult with the Console program or via Cubase's MIDI Manager or other sequencer equivalent. You can't program the solo and mute facilities in Cubase, because you can only allocate one MIDI Controller to each control on screen, but you can still set up the volume, pan, EQ, effects and smoothing controls with ease. This certainly would not be so if MOTU had used SysEx for data transfer.

In use, the smoothing control is necessary if levels change rapidly when a signal is being processed as the level changes. That said, you can use a low value ➤

“Try a rapid pan and it feels wrong - it's not that it 'steps' across the stereo spectrum; it simply doesn't move in the way a stereo image would.”

BRISTOL MUSIC FAIR

The South West's Largest Music Exhibition

- **Get your hands on** all the latest equipment demonstrated by the major manufacturers including- Akai, Casio, Fender, Marshall, Roland, Sound Technology, Tascam, Washburn and many more.
- **Live music** demonstrated by top musicians.
- **GWR FM** broadcasting live from the show.

The Place

Bristol Exhibition Centre, Cannons Road, Bristol

The Time

Saturday 10.00am - 6.00pm
16th November 1991

Sunday 10.00am - 5pm
17th November 1991

The Price

One day £3.00 or £5.00 for a two day ticket

ABC
music

GWR FM

VENUE

MUSIC
MAKER
EXHIBITIONS

For more information contact:

Music Maker Exhibitions, Alexander House, Forehill Ely, Cambs, CB7 4AF

VERDICT

➤ for smoothing (4 or 5), giving fast response and little or no extraneous noise. There's always going to be a trade-off between speed of parameter change and the audible effect of those changes taking place, but as long as the changes are not too drastic the audible effect can usually be ignored.

Using scene changes on the 7s Console is a different matter. You need a fair bit of space in a song to send the relevant changes for a scene; it's difficult to estimate but it's probably the best part of half a second. This can't be down to the transfer of MIDI data, so you have to assume that the 7s mixer has to "digest" the data. The changes are certainly noticeable if audio is being processed; a case of mild indigestion, perhaps?

Using the MIDI Manager page on Cubase, it was possible to completely automate a MIDI mixdown for a radio advert I was working on. This included using changes to the smoothing to give a slow(ish) attack feel on a synth I hate programming, and various subtle changes to the EQ. Even without a mid-band EQ control, you can still achieve a degree of subtlety in tone change by using the treble and bass conservatively. Similarly with the pan control - try a rapid pan and it feels wrong. It's not that it "steps" across the stereo spectrum; it simply doesn't move in the way a stereo image would if you controlled it with a rotary knob. You can route the main outputs through channel 8, however, and then have control of the overall level via the MIDI Controllers. It certainly beats trying to do a smooth fade-out of all the audio by turning the front-panel knob.

THE 7s MIDI Mixer uses MIDI technology in a way that's most interesting. By using stereo controls, MOTU have removed the problems of trying to use mono controls through eight-bit VCAs (insufficient resolution for precise control). It offers 22 inputs and 10 outputs, including effects sends and returns, and minimal EQ - certainly on a par with many rackmount mixers of this price. However, the lack of clipping LEDs and the manner of fixing for the phono sockets show some of the hardware corners which have been cut.

It's sometimes interesting to assess equipment along the lines of "if the manufacturer had increased the price by £100, what extra could have been added?". Mid-band EQ? Probably, although there's then a real problem of being able to allocate sufficient MIDI Controllers to run this over MIDI.

Mono inputs? I doubt it. Overcoming the problems in this area would be likely to cost substantially more than a ton.

All in all the 7s is worth considering if you're eager to automate your system beyond basic channel muting. I wouldn't recommend it to anyone as a replacement for a fully-specified mixing desk but I'd be happy to have it patched into my audio patchbay to deal with those noisy synths. ■

Price £590 including VAT.

More from Sound Technology plc, 15 Letchworth Point, Letchworth, Herts SG6 1ND. Tel: (0462) 480000. Fax: (0462) 480800.

... THE MUSIC CORPORATION ... THE MUSIC CORPORATION ... THE MUSIC CORPORATION ... THE MUSIC CORPORATION ...



K4R

KAWAI K4

RACK MOUNTED VERSION WITH SEPERATE OUTPUTS £339

- 8 CHANNEL MULTITIMBRAL • 128 16 BIT VOICES
- DIGITAL FX • 61 DRUM PROGS • SAMPLED WAVEFORMS
- 32 MULTI-PATCHES • 64 PROGRAMMES

Never before has such a versatile synthesizer been available at such an incredibly low price. A fabulous combination of rich analogue and authentic sampled sounds (including 61 drum samples), enhanced by stereo digital effects.



MULTIVERB LT

At this price the multiverb provides professional processing power to the most modest of set-ups, without compromising the quality. Its combinations of chorus, delays, reverbs, flanges, tap delays, gated reverbs, reverse reverbs & panning effects make it the most versatile unit at such an incredible price.

£135

KAWAI K1R WAS £390 NOW £219

19" RACKMOUNT SYNTH MODULE 64 PROGRAMMES
32 MULTI-PATCHES SAMPLED WAVEFORMS
61 DRUM SAMPLES 8 CHANNEL MULTI-TIMBRAL
THE BEST LOW COST MODULE CURRENTLY AVAILABLE

SANSUI SPECIAL OFFERS



WSX-1

8 CHANNEL MIXER
6 TRACK MULTI-TRACK
2 TRACK MASTERING
DIGITAL FX



AKAI S1100	£2299
AKAI S1000 HD	£19498
AKAI S1000 KEYBOARD	£1625
AKAI S950	£879
AKAI MX73 MOTHER KEYBOARD	£275
AKAI MPC 60 DRUM COMPUTER	£1099
YAMAHA SY22	£439
YAMAHA SY55	£499
YAMAHA SY77	£1049
YAMAHA TG77	£799
YAMAHA TG55	£339
YAMAHA QX10	£189
YAMAHA TQ5 SEQ/EXPANDER	£259
YAMAHA QX5	£149
YAMAHA FX500	£179

New And Used Equipment

YAMAHA OXII (USED)	£169	JD800	£1099
YAMAHA PF85 PIANO	£625	KORG M1	£799
YAMAHA MT100 MKII 4 TRACK	£269	KORG WAVESTATION A/O	£1100
ROLAND W30 SAMPLER	£999	KORG SGX 10	£1299
ROLAND JUPITER 6	£339	KORG M3R	£449
ROLAND ALPHA JUNO 2	£259	KORG 01/W FO	IN STOCK
ROLAND MV30	£849	EMU EMAX II	£1199
ROLAND U220	£375	EMU PROTEUS I	£469
ROLAND U20	£575	EMU PROTEUS II	£699
ROLAND SC55 SOUND CANVAS	£419	EMU PROTEUS IIXR	£799
ROLAND RV1000	£119	EMU PROCUSSION	£475
ROLAND JX 1	£299	ENSONIQ VFX 50	£999
ROLAND MC50	£399	ENSONIQ EPS 164 (US60)	£1099
		FOSTEX X8 8-TRACK	£9075
		SONY DTC 750 ES	£399

THE MUSIC CORPORATION

LINK MALL DOLPHIN CENTRE POOLE DORSET TEL: (0202) 684560 (0425) 480569 (0425) 470007

OVERNIGHT DELIVERY

90 MINS FROM LONDON



(ALL PRICES ARE EX-VAT)

THE MUSIC CORPORATION ... THE MUSIC CORPORATION ... THE MUSIC CORPORATION ... THE MUSIC CORPORATION ...

THE MUSIC CORPORATION ... THE MUSIC CORPORATION ... THE MUSIC CORPORATION ... THE MUSIC CORPORATION ...

Andertons
MUSIC CO.
making you sound great!

It's here the **KORG 01/W + 01/W FD.**



Limited quantities available. So advanced you've got to hear it.

Available now on interest free credit.

EXTENDED WARRANTIES NOW AVAILABLE

PICK'N'MIX

Alesis 1622 Desk	£599	Ensoniq EPS 16 Rack	£phone
Alesis Microverb III's	£165	Kawai Rico Rhythm s/h	£149
Alesis HR16 Rhythm s/h	£159	Kawai MM16 Midi Mixer	£259
Alesis 3630 Compressor	£219	Korg S3 Drum Module	£559
Art Multiverb LT	£169	Korg T3 EX (1 only)	£1799
Akal EX 75N Noise Rd	£48	Korg MIR Demo	£795
Boss FC 50 Midi Foot	£129	Korg M3R	£550
Boss GE231 31 band Eq.	£249	Roland RD 300 Piano	£919
Boss GE 215 15 band Eq.	£155	Roland GR50 / GK2 Demo	£595
Cheetah MD 16R Module	£289	Roland Pro E Demo	£385
Cheetah MS6 Module	£269	Roland Sound Canvas	£phone
Cheetah 3 Drum Pads	£99	Yamaha QY10	£phone
Emu Percussion (1 only)	£519	Yamaha EMT10 Module s/h	£99
Emu Proteus 1	£679	Yamaha TX 81Z Module s/h	£199
Ensoniq SD1 Demo	£1499	Yamaha FX 900	£549
Ensoniq Mirage s/h	£399	Yamaha SY 22's	£579

ALL PRICES INCLUDE VAT

The **ALESIS D4 Drum Module**



- OVER 500 SOUNDS
- 12 TRIGGER INPUTS
- 16 BIT
- 21 PROGRAMMABLE DRUM SETS

Another first from **ALESIS**

Available now on interest free credit.



ANDERTONS MUSIC CO
HAYDON PLACE · GUILDFORD
SURREY GU1 4LR
TEL: (0483) 38212
FAX: (0483) 38211

1964
27
YEARS
1991

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 (office hours) or the Music Maker Hotline 0898 666199 (24 hours) and quote your credit card number.

Calls cost 36p per minute (cheap rate) and 48p per minute (at all other times)

ZERO-G

THE SAMPLE-CD SERIES FOR DANCE PRODUCERS + ARTISTS DJ'S / PROGRAMMERS / REMIXERS

OVER 1000 SAMPLES
DIGITALLY FILTERED ON EACH COMPACT DISC
Sounds Level-Matched for Fast Sampling * 99 Tracks * Detailed Indexes

Man Machine Stratton

Already in Huge Demand...
>>> DATAFILE ONE >>>>

* Over 60 Breakbeats * 100's of Vocal hooks/Vocal FX * Biting synth, dub and sub basses * Tons of dance-orientated percussion including: * Classic TR808/TR90/TR727 drum kits * 120 Killer snares + bass drums * Techno and electro beats * Stabs * Scratches/FX * Over 100 original Drop-ins * Sci-fi FX / Alien + robot speech * Oriental vocals + FX * Ethnic flutes and other instruments * Spacey and ambient FX * Stabs - techno / orchestral / horn / guitar types * Many more unique one-offs

"Unreservedly excellent... an unbelievably valuable addition to your sample library... the definitive dance sample CD" - MUSIC TECHNOLOGY. AUG 91
"An exceptional and extremely useful product... an invaluable tool for the professional sound technician" - DJ MAGAZINE. JULY 91. "Stratton knows his business... if the quality of Datafile One's sounds is anything to go by Volume 2 & 3 should be unmissable" - INTERNATIONAL MUSICIAN. AUG 91

And now just released, an even deadlier selection...
>>>> DATAFILE TWO >>>>

* Over 100 Breakbeats * Another arsenal of over 150 soulful Vocal hooks & ad-libs/FX * Kraftwerk-style electro percussion * 40 killer basses incl. an essential selection from Roland Juno 106 and SH 101 synths * Guitar FX + guitar rhythm breaks * Tons more Sci-fi/Techno FX/robots * Roland R8 & Alesis HR16B drum kits * Complete human beatbox * Stabs * Ambient FX includes whalesongs/birds + film atmospherics * Industrial percussion/FX * Italo-house piano * Automotive FX / horn blasts * Drop-ins * One-offs

"The vocals & FX are even more powerful... I saved plenty of my best stuff for Two and Three..." - Man Machine

Coming soon... The final chapter...
>>>> DATAFILE THREE >>>>

* More sounds to blow the b***s off a Rhino at 100 paces... All Existing Customers Will Be Sent Info/Order - Form Ahead Of Release)

ZERO-G: The result of years of sample collecting and creation for house/rap/soul production, never before have so many jealously-guarded sounds been made available on disc. At £49.95 inclusive, each **ZERO-G** CD retails at only around four times the price of a CD Album, while you could spend forty times that amount on breakbeat and sound FX Albums (And 100% of hours) to get 1000 samples as effective.

If you're in to house/rap or related styles, you know how important good samples can be. Owning these CD's will make a big difference to your creative output - ask anyone who's used them, or read the reviews.

Call: 0442 870681 for Visa/Mastercard orders, or post or fax details:

To: Time And Space, P.O.Box 306, Berkhamsted, Herts. HP4 3EP England
Please send: _____ copies of **ZERO-G** DATAFILE ONE at £49.95 each inclusive
_____ copies of **ZERO-G** DATAFILE TWO at £49.95 each inclusive
(International orders: Add £5.00 for express air-mail/handling.)
I enclose a cheque/postal order to the value of £ _____ made payable to "TIME AND SPACE" or:
Please debit my ACCESS _____ VISA _____ MASTERCARD _____
Number: _____ / _____ / _____ Expiry Date: _____ / _____
Name (Capitals): Initials: _____ Surname: _____
Address (Capitals): _____
_____ postcode _____
Telephone orders: (0442) 870681 or Fax This To: (0442) 877266

VALHALA INTERNATIONAL GOLD CARDS D131 & D132 for the Roland D110



At heart, I'm really a fat person. Give me a MemoryMoog, an OB8, or an MKS80 and I'm happy. Why, then, do I often end up with a bunch of Roland D5/10/20/110 sounds on my recordings? The sad truth is that, no matter how much I love fat sounds, there's a limited harmonic spectrum available through them, and if I stick too much sound into a tune, I get a horrible noise out. Hence the baby Rolands. Simple souls, with thin (some say pure), unobtrusive characters, they're sometimes perfect for those delicate fills and pads.

It follows, therefore, that this and my experience of Valhala's Gold Cards for both the M1 and the D50 (some of the voices on which gave a new meaning to the word "fat" as applied to digital synths) left me intrigued by the prospect of Valhala's heavyweight programming applied to a D110.

Valhala cards have a sturdy, quality feel to them. Equally satisfying, they work with nary a glitch. Totally unsatisfying is the patch listing that comes with them. The sounds are listed under three headings - Tones, Multitimbral, and Performance. If you own a D110 (why else would you be reading this?) you'll know that its voices are built from Partials, Tones, Timbres, Parts, and Patches. Since Valhala's idea of a Tone is Roland's idea of a Timbre, and since the D110 has one of the most unpleasant voice structures in the universe, it took some time to work out what was what. As it turns out, Valhala's terminology is lifted

from Roland's D20 workstation which, while based on the same sound generator as the D110, is not fully patch-compatible with it. Since the D131 and D132 cards are for use with the D110 only, it's a cock-up.

Tones are the building blocks of the D110, and it is to these that we first turn. D131 is the synthier of the two cards, and its Tones concentrate on synth and acoustic basses, analogue style (aceeed) percussion, D50-ish pads, sound effects, and some surprisingly warm analogue-y pads. D132 is more acoustic, with over 30 drum tones, basses, guitars, and wind instruments, but only a nod in the direction of strings and pads. Many of these are of high quality, and it is here that Valhala's programmers have had the greatest success.

The next stage up in the Roland hierarchy is the Part, of which there are 128 per card. Unfortunately, many of these are a bit of a cop-out since about half of them draw on the internal Tones (banks a and b) of the D110. While this may be necessary to create a balanced set of Parts from which to build the Patches (the highest level of D110 structure), it seems a shame to leave the Valhala Tones relatively unexplored, and offer as sub-stitutes variations on the Roland presets.

Equally unfortunately, the Performances (Patches) are rather disappointing. Given the number of interesting Tones on the cards, and given Valhala's emphasis on two-part

voices rather than multitimbral band-in-a-box configurations, I expected a more imaginative set of patches than the cards provide. Having said that, polyphony always seems to become a problem when I program an LA module, and perhaps Valhala have reached an acceptable compromise between sonic richness and polyphonic flexibility. Nevertheless, to create the richer voices, Valhala have frequently used four-partial tones and, unlike the Roland presets, assigned two parts per patch to the same MIDI channel - making eight partials per voice. To put it another way, to get the results they wanted they had to reduce the synth to four-note polyphony. My advice to owners of these cards is to use the Valhala Tones but experiment with creating your own Patches. It's not that much work, and the results will be worth it.

Ultimately then, both cards are somewhat disappointing - although it's hard to blame Valhala entirely for this. The D110 is a workhorse, not a thoroughbred, and it produces workmanlike sounds no matter how adept the programming. All the voices must be created from the onboard partials, and certain classes of sound have never been the D110's strong point. These classes include solo and ensemble strings, solo brass, pianos, and human voices. Valhala's programmers are clearly restricted by the performance of the synth itself, and there is a limit to the quality of voice that can be obtained by even the most

accomplished amongst them.

So, unlike their offerings for the D50 and the M1, Valhala's D110 sounds do not break new ground. Don't misunderstand me - the Valhala cards are as good as any (and indeed, some of the Tones and Multitimbral offerings are very good) but, unlike other International Gold cards (which often stand head and shoulders above the opposition) D131 and D132 merely offer you a wider choice in your selection of D-series ROM cards. On the more positive side, programming the D110 is a well known pain in the art, and very few users have the patience to decipher its manual or the stubbornness to delve deep into its operating system. Therefore, the availability of a wide selection of well-programmed voices is probably more important for owners of this synth than for, say, users of a D50.

To conclude, not even a Valhala card will make your D110 sound like a D50. But these cards are as good as any I've heard, and cheaper than many, so offering good value for money. I'd say that they deserve to be another (if somewhat minor) Valhala success story. **Gordon Reid**

Price £45 each including VAT
More From AMG, Hurst Lane, Privett, nr Alton, Hants GU34 3PL. Tel: (0730 88) 383. Fax: (0730 88) 390.

Thanks to Chris Simpson at Roland UK for the loan of the D110 for this review.



**THE POWER BEHIND
THE PROFESSIONALS**

IMAGINE

an extremely easy to use software that can give you **GRAPHIC ON-SCREEN EDITING** for most keyboards and effects (including Roland, Ensoniq, AKAI, Yamaha, Korg, Oberheim, Casio, Emu, Alesis, Lexicon and more); 64 independent MIDI channels, built in True SMPTE reader and generator, with front panel displays indicating MIDI data flow, SMPTE format and MIDI in data indicators; real time tempo changes, free hand plotting of controllers and velocity; the most comprehensive Graphic screen, fast, powerful, loaded with features and more.

Imagine.....a fast reliable service, free training seminars (not that you will need them!) and the best professional friendly staff around. And the best coffee in London.

Well...stop imagining and give us a call. We will make your dreams come true. (Sorry...we lied about the coffee).

SMPTRACK GOLD: Powerful Graphic editing, reliable, very easy to use sequencing software package. Generates SMPTE FSK and other standards. The choice of the professionals £396

EDITTRACK GOLD: Same as above minus SMPTE facilities. Enormous value for money. Limited offer only £99

MIDIPLER: 2 MIDI in 64 Independent MIDI channels (4 MIDI out) Full visual display of data flow £279

GENEDIT: Hard pushed to get better value than Genedit for a Generic editor. Very easy to use, interacts with most sequencers, very limited period offer £127

Atlantic Audio UK Ltd.

2nd Floor	9 Wharf Road
St Mark's Building	Gillingham
16 Chillingworth Road	Kent ME7 1NX
London N7 8QJ	Tel: 0634 571695
Tel: 071 607 9036	FAX: 0634 570272
FAX: 071 609 6944	

ABC MUSIC THE SIX BEST STORES WITH ALL THE BEST DEALS!!
BY BUYING BIG AND KEEPING OVERHEADS LOW WE CAN OFFER THE VERY BEST PRICES ON HI-TECH, RECORDING, GUITARS, AMPS AND DRUMS. WHATEVER YOU WANT, WE'VE GOT - AT A PRICE YOU CAN AFFORD!



Sansui WSX-1 6 channel recording & 12 channel mixer £699
 Amazing value and saving £500 on list price the WSX-1 is a self contained studio with everything you need to produce quality recordings. 6 channel deck, mixdown deck, 8 ch mixer with 3 band EQ, built in digital reverb and Dolby C. Amazing ABC Limited deal!



Roland Octopad II £349
 The classic Octopad from Roland in ideal for Drummers & extrovert keyboard players. Comprehensive triggering!



Yamaha PF85 ONLY £799
 88 weighted-action keys, grand & upright piano voices + harpischord. Superb sound + built in speakers and MIDI!



Roland W30 Sampler/Sequencer Save £700!! £1199
 61-key velocity and aftertouch keyboard, 108 split points, 16 track sequencer, high quality digital sampling, 8 separate outputs and 3.5" floppy disk drive. This ultra-high quality instrument offers the very best sampling/sequencing value and is now over £700 off at ABC.



ART SGE Mach II £449
 With up to 12 simultaneous effects chosen from the 70 on-board the ART SGE Mach II represents great ABC value!



Korg O1/WFD NEW
 Mew Korg O1/WFD now in stock at ABC Music. Sound on Sound said "its to synths what Carlsberg is to lager".



Zoom 9030 £545
 The excellent new Zoom 9030 offers 7 simultaneous digital and great analogue effects in a 1/2 unit rack of rare beauty.



Yamaha SY22, SY77, SY99
 All in stock. SY77 only £1499!!

Korg M3R Save £300!! Now only £399
 Superb expander with drums, reverb etc.

Ensoniq SD-1, SQ-2, EPS16
 All the product at the very best prices!

Emu ProCussion
 Fantastic sounds from EII library.

Vestax Pocket Studio only £74⁹⁵
 Record music anywhere. 4 track control!

FREE 24 PAGE CATALOGUE



**GET YOURS NOW BY PHONING
0372 468114**

Six happening Music Stores

Addlestone	Tel: 0932 854877
14-16 High Street Addlestone, Surrey	
Kingston	Tel: 081 546 9877
56 Surbiton Road, Kingston, Surrey	
Oxford	Tel: 0865 725221
44 St. Clements, Oxford, Oxon	
Exeter	Tel: 0392 425125
68 Bartholomew St West, Exeter	
Slough	Tel: 0753 822754
324 Farnham Road, Slough, Bucks	
Bristol	Tel: 0272 238200
32 Alma Vale Road, Clifton, Avon	

Mail Order HOTLINE

0372 468114
FAX 0372 469833 FAX

ABC music




HitSound Producer Series

PASCAL GABRIEL

DANCE SAMPLES CD
OVER 1000 DANCE SAMPLES ON ONE CD!!

Pascal Gabriel is one of the leading lights on the current dance scene. He has worked with such well-known names as Bomb The Bass, S-Express, Coldcut, Jimmy Somerville, Erasure, EMF, and many more. This CD is different to any other available. It is NOT A COMPILATION of sounds from last year's records, but a resource of new sounds to help you make the HIT RECORDS OF NEXT YEAR. People are describing it as 'fabulous', 'fresh', and 'superb value'. In the past a library like this would take years to build-up and a huge amount of work and skill to achieve. Now it can be yours in days for only £49! - Why wait!

*Featuring 3D
RSS Samples!*

NEW! The Dancing DAVID RUFFY

DRUM SAMPLES CD
OVER 350 Hits plus more than 150 Red Hot Loops C

We are proud to announce the imminent release of another of the HitSound Producer Series - Volume 3! Volume 2 will be out next month! This is another superb volume, the result of exhaustive recording sessions with top session drummer David Ruffy. Dave's worked with some of the best in the biz - Sinead O'Connor, Prefab Sprout, Aztec Camera, and World Party to name but a few. Not only does this CD feature what we believe to be the finest and most modern set of drum samples - but also some brand new loops that are really far too good to make so widely available. If you've a sampler and you ever use drums - you need this CD!

FEATURING
 Loads of Drum & Percussion
 Loops & Breaks
 Guitar Hooks and FX
 Vocal Riffs & Effects
 Hits, Scratches & Drop-Ins
 Countless Snares and Kicks
 Synth FX & Bases
 Brass & String Hits, FX and Runs!
 Film & Media Snatches
 Orchestral Effects
 And Much, Much, Much More!



Happy Sampling!

FEATURING
 Snares, Kick
 Toms, and C
 Performance
 or more!
 Micing Vari
 RSS Samples
 Data Section
 PLUS over 1
 hot drums lo
 good to sell!
 Live & Sequ
 And Much M
 Superb valu

HitSound CDs

**"Subjectively, the sounds are
fabulous."** - Sound On Sound, Sept. '91.



Volume One - Pure Gold Synth

"...assorted pad and atmosphere sounds include some stunning textures, and these are complemented by a superb range of bass sounds, and some quite surprising, quirky sounds dotted around...All in all, a good mix of high-class bread and butter sounds with a hefty dose of sonic icing on top." - SOS, Sept 1991.

490 of the best samples in Valhala's International Gold Series from WaveStation, T-Series, D70, M1, VFX, SY77, SY55, D50 and More!

Volume Two - Old Gold Synth

"This volume is a (Gold)mine of glorious sounds that, whilst certainly biased towards dance music, should be useful to anyone with a sampler and a little imagination." - SOS, Sept 1991.

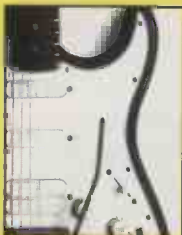
A huge collection of classic synths - ARP2600, Moogs, MC202, Octave Cat, MKS70, Xpander and many more! Superb synths, superb sounds all on one £35 CD ready to sample! 721 Samples, 63:44 minutes

Volume Three - Guitar

"...instantly useable...perfect for creating a basic 'instant rock guitarist' on your sampler...Things get even better...It's really just like having a good selection of records from which to sample useful snatches of guitar, but without all the other music happening on top." - SOS, Sept 1991. "...devastating results...Handle with care: highly recommended." - Music Technology, Oct 1991.

Chords, Bends, Solos, Licks and Effects from Electric, Wah Wah, Acoustic and 12 String Guitars - Clean and dirty versions! 605+ Samples, 63:18 minutes - Just £35.

"Altogether or individually, the HitSound CDs offer good value for money...an excellent start in bringing a great selection of expensive-sounding and highly usable instrument sounds to anyone with access to a sampler." - SOS, Sept 1991.



Each volume costs £35, or select all three for just £90.



Valhala Review

"The last time you heard sound, probably listening to an Emulator the major keyboard in your rig. Review, MT Aug 1990.

"...there's no company currently impressed...a number of absolute Valhala's excellent reputation for Card Review, MT Nov 1990.

Korg M1 - 3 International Gold
 Korg M3R - 2 International Gold
 Korg WaveStation - Just an Int
 Korg T-Series - Five disks (100
 Roland D50 - 2 International G
 Roland D10/20/5 - 2 Internation
 Roland D110 - 2 International
 The Valhala STUDIO SERIES in
 PCM, Digital, Analog and Effe
 Yamaha SY77 - 1 International
 Yamaha SY55 - 2 International
 Yamaha SY22 - 1 International
 Kawai K4 - 2 International Go
 Kawai K1 - 2 International Go

RAM Cards

M256 - For all Roland equipme
 MCR-03 - For all Korg equipme
 Yamaha MCD32 RAM Cards j
 Kawai DC8 RAMs for K1, etc.

SPECIAL OFFER

To take advantage of our special £5 OFF promotion on all Valhala ROM cards, order as normal but however you order you must mention the 'magic words' - "You lot must be mad to discount such fantabulous sounds." Offer only valid until 30/11/91.

NEWS

EMC JX1 Interactive Editor - Available Now!

EMC SY22/TG33 and D70 Editors - Coming Very Soon!

MasterBits Climax Collection Volume 3 - Guitar - Available Now - £45

WATCH MUSIC TECHNOL

Please send cheques or postal order by phone using:

All trademarks are the property of their respective holders. No our products will be pursued to the fullest extent of the law. No

OS

AMG

Cool Sounds

ONE CD!!

ats,
bals
ocities - 4

ns
us Digital

rand new
- too

d Loops!
!
Just £49!

Plus - Don't Forget!
McGill University
Master Samples
11 Acoustic Sampling CDs of
the highest quality.
Sonic Images
6 Superb Cds
Call for full details!

Valhala
The Best Synth Sounds
Ask anyone with ears!

facts!

quality emanating from a single keyboard you were
Fairlight...these sounds will tempt you to make an M1
don't I honestly don't know what will." - M1 Card

ing a better name for itself than Valhala...I admit it, I'm
s - the overall impression is one that firmly lives up to
ity...quality plus value - what more do you want?" - D50

plus Top 40, Rock, Orch and New Age - £50 each
s plus Top 40, Rock, Orch and New Age - £50 each
al Gold Card at present - more coming soon - £50 each
- IG, Top 40, Rock, New Age and Orch - £45 each
es, Studio Series and 4 Organ Cards - £45 each
Cards, Studio Series and an Organ Card - £45 each
rds and full Studio Series - £45 each
ites the following 7 categories - Top 40, Orch, New Age,

rd plus Top 40 and Orch Cards - £65 each
rds plus Top 40 and Orch Cards - £60 each
rd plus Top 40 and Orch Cards - £60 each
plus Top 40 and Orch Cards - £55 (ROM), £60 (RAM)
plus Top 40 and Orch Cards - £45 (ROM), £50 (RAM)

nd's price is £95 - Valhala's price is just £55
g's price is £89 - Valhala's price is just £65
MCD64 RAM Cards just £79
16 RAMs for K4, etc. - £45

S FOR MORE REVIEWS IN THEIR DECEMBER ISSUES

ough orders are usually completed within 7 days, allow 28 days for delivery. Or

ble nature of most of our products all refunds/exchanges are at the discretion of AMG. Any person found using pirated versions of any of
e of AMG. All prices and specifications are subject to change without prior notification. © AMG 1991.



MASTERBITS

THE FACTS

We'd like to set the record straight on the subject
of Dance Sample CDs. Here are a few interesting
facts about Pascal Gabriel and his CD.

1. Pascal Gabriel makes **HIT RECORDS** - Do you know any of whatshisname's?
2. Pascal's whole library has been compressed onto one CD, not stretched over three. No fillers - **VALUE**.
3. Acknowledged by fellow pros as the best - "fXXXing unbelievable. I've bought some sample CDs but this one knocks them all. I can't wait for part 2." - Someone very famous.
4. This CD is **NOT A COMPILATION** of bits from last year's records.
5. The world's first sampling CD to feature **RSS 3D** samples.
6. Samples you **CAN USE** without copyright problems.
7. Pascal's CD contains **FRESH** samples, get them now and stay ahead.
8. **FULL** Documentation including BPM's for loops.
9. Not a toy - a **PROFESSIONAL** Product.
10. Samples that set the **TRENDS** for **NEXT YEAR** - Not document the past.
11. We know you're not daft enough to buy a CD because it's described as 'Brutal, Killer, or something'. **Examine the facts.**

There are the facts, are you in any doubt that The
Pascal Gabriel Dance Samples CD IS THE
DEFINITIVE Dance Samples CD?

EDIT!
with Einstein

The most up-to-date range of synth editors on the market today, also offering superb value for money. Synths supported include - SY55, U20/220, D10 Series, K4, M1, M3R, Proteus 1/2, D50, K1, VFX, OB8, LXP5, PCM70, etc. with programs being added all the time!

"Impressive...it's a competent, comprehensive program which can be highly recommended to anyone...it could well be selling for two to three times the amount - it really represents excellent value for money. Buy it before they read this and put the price up." - Music Technology SY/TG55 Review, May 91.

SY/TG55 Editor/Manager - £55
U20/220 Editor/Manager - £55
Proteus 1/2 Editor/Manager - £75
Please call for full details and prices!

All programs run under M.ROS and SoftLink and require a hi-res mono monitors and at least 1 Meg (except the K1 Manager) of RAM.

EXPAND!
your Roland Gear

D50 Power Pack Upgrade - PCM
Card Blowing - Plus Special Offers -
Call for the facts!

SEQUENCE!
with TranTracks

Call for a list of all the titles
currently available!

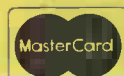
SPECIAL
£5 OFF ANY ROM Card
See Foot of page for details!

AMG

The Advanced Media Group

073088 383

0 Samples 0 Synth Sounds 0 Software 0 Hardware
Hurst Lane Privett Nr. Alton
Hants GU34 3PL
Fax 073088 390



STRUMMER



PHOTOGRAPHY: JAMES CUMPSTY

Oberheim's latest Perf/X MIDI processor helps you create realistic guitar parts - but it can also give you interesting "out of instrument" experiences.

Review by
Simon Trask.

FOR CENTURIES, A musical instrument's physical dimensions, the materials used in its construction, and the means of getting a sound out of it (such as plucking or bowing a string or blowing into a tube) have determined not only its physical identity but also its sonic identity (its overall sonic character and the variations in sound a skilled performer can get from it) and its performance identity (its pitch range, the number of notes that can be played simultaneously, the combinations of notes which are possible, and the ways in which notes can be articulated). Collectively, these identities have always defined the essential nature of each type of instrument - the "guitar-ness" of a guitar, for example.

Once we enter the electronic realm, however, things are rather different. A digital sampler allows us to capture the sounds of any acoustic instrument we want, but it doesn't allow us to capture the instrument's complete sonic identity, because a sampled sound is no longer rooted in the physical characteristics and physical constraints of the instrument from which it was sampled. However, physical modelling software currently being developed in academic centres like Stanford University's Centre

for Computer Research in Music and Acoustics could allow an instrument's sonic identity to be captured much more accurately. If sampling merely gives us snapshots of an acoustic instrument's sonic identity, software which models the physical characteristics of an instrument could eventually give us the movie.

Modelling the *performance* identity of an acoustic instrument in the electronic realm is something we can all do for ourselves, however - in fact, you could say the solution is in our hands (or under them). Anything you play on an acoustic instrument is automatically legitimate for that instrument, but if you've called up, say, a multisampled guitar sound on your sampler or sample-based synth in order to add a guitar part to your latest track, chances are you're going to be playing the part not on six strings but on a keyboard - in which case it's all too easy to play parts which aren't legitimate for the real thing.

Not that there's anything wrong with doing that, but if you want to create guitar parts which sound realistic, the best way to do it is to play guitar parts which are legitimate - which means you need to emulate the guitar's performance identity on the keyboard by, for instance, keeping within the note range of the guitar, playing no more than six notes at once, playing guitar-legitimate chord voicings and



Soloist

Only
£4.95 each

Midi song files on disk for Cubase, Creator, Pro 24, Cubate, MC500 and standard midi song file format - only £4.95 each (min. 4 per disk). Great for vocalists / live performance or simply for rehearsing instrumental parts.

Wind of Change	The Scorpions
Salt Water	Julian Lennon
Everything I do	Bryan Adams
Promise Me	Beverly Craven
Holiday	Madonna
Real Gone Kid	Deacon Blue
Girls Just Wanna Have Fun	Cyndi Lauper
Smooth Operator	Sade
Addicted To Love	Robert Palmer
Walk Of Life	Dire Straits
Lets Hear It For The Boys	Deniece Williams
Love Is A Battlefield	Pat Benatar
The Heat Is On	Glen Frey
Vogue	Madonna
Careless Whisper	George Michael
What about	Love Heart
West End Girls	Pet Shop Boys
Maneater	Hall & Oates
Take My Breath Away	Berlin
Saving All My Love	Whitney Houston
Lady In Red	Chris De Burgh
Material Girl	Madonna
Every Breath You Take	Police
Broken Wings	Mr Mister
You Give Love A Bad Name	Bon Jovi

Please telephone for full list of songs and news of latest releases.

Songwriter

Superb Synth Sounds on Atari St self loading disk.



Breathe new life into your PROTEUS 1 / 1XR with 64 brand new presets from Pro Music for just £25

Proteus 1/1XR Vol 1	£25
Proteus 1/1XR Vol 2	£25
Roland D50 (7 Vols)	£15
Roland D110/20/10 (4 Vols)	£15
Roland MT32 (2 Vols)	£15
Roland Juno106 (1 Cassette)	£15
Korg M1 (3 Vols)	£20
Korg DW8000 (2 Vols)	£10
Korg Poly 800 (2 Vols)	£10
Yamaha DX7 (5 Vols)	£10
Yamaha DX7 II (2 Vols)	£10
Yamaha DX100/27/21 (2 Vols)	£15
Yamaha TX81Z (2 Vols)	£15
Yamaha CX5 (1 Cassette)	£10
Yamaha FB01 (2 Vols)	£10
Ensoniq ESQ1 (2 Vols)	£15
Kawai K1 (4 Vols)	£15
Casio CZ (1 Vol)	£10
Oberheim Matrix 6/1000 (1 Vol)	£10

Voice Crystal

RAM cards

Top 40 sounds from the U.S. used by Jan Hammer, Kevin Gilbert (Madonna), Rick Wakeman, Keith Emerson etc.

Roland JD800 (1 card)	£60
Roland D70 (3 cards)	£60
Roland R8 (1 card)	£60
Roland U20 (1 card)	£60
Roland D50 (6 cards)	£55
Roland D10/20/110 (3 cards)	£55
Roland Blank Ram	£49
Yamaha SY77 (2 disks)	£39
Yamaha SY55/TG55 (2 disks)	£25
Yamaha SY22/TG33 (2 disks)	£25
Yamaha Blank 64K Ram	£79
Korg Wavestation (4 cards)	£70
Korg T1, T2, T3, (2 disks)	£39
Korg M1 (5 cards)	£65
Korg Blank Ram	£65
Ensoniq SQ1 (2 cards)	£65
Ensoniq VFX SD1 (3 roms)	£45
Ensoniq VFX, SD1 Blank Ram	£70
Kawai K1 (5 cards)	£45
Kawai K4 (3 cards)	£59
Peavey DPM3 (1 disk)	£45
Peavey DPM3 Blank Ram	£49
Waldorf Microwave (1 rom)	£55

PRO MUSIC
80 MEETING HOUSE LANE
LONDON SE15 2TX



Call 071 252 8573 for further details or brochure

Prices fully inclusive of postage & packing Same day service for Access and Visa, Postal Orders and Cash. Allow five days for cheques to clear. Visitors by appointment only!

At **KENTON ELECTRONICS**, we install **MIDI** into pre-MIDI instruments using our own range of custom circuit boards - designed and built by us in "sunny" Surbiton!

OUR CUSTOMERS INCLUDE:
MARILLION - BEATS INTERNATIONAL - N'JOI - 808 STATE - PLUS MANY RECORDING STUDIOS, HIRE COMPANIES AND PROFESSIONAL PROGRAMMERS

OUR RANGE CURRENTLY INCLUDES THE FOLLOWING INSTRUMENTS (please phone if yours isn't listed)

POLYPHONIC SYNTHS (In/Out/Thru)	MONOPHONIC SYNTHS (In/Thru)
OBERHEIM OB-X / OB-Xa / OB-8	MINIMOOG
PROPHET 5 rev 2 & rev 3 (all)	MOOG PRODIGY
PPG WAVE	MOOG SOURCE
KORG POLYSIX	OBERHEIM OB-1
KORG TRIDENT (In/Thru only)	SEQUENTIAL PRO-ONE
KORG CX3 / BX3 (In/Thru only) **	ROLAND SH-5
MEMORYMOOG	ROLAND SH-101
ROLAND JUPITER 8	ARP ODYSSEY Mk 1&2
ROLAND JUNO 60 / 6	ARP 2600
ROLAND VOCODER VP-330 (In/Thru only)	YAMAHA CS-15
RHODES CHROMA	ROLAND TB-303 (bassline)
YAMAHA PF15/10/YP40 (Out only)	
YAMAHA CS80/CS70M (In/Thru only) **	
** = Recent addition to range	
DRUM MACHINES (In/Out/Thru)	ORGANS (Out only)
LINNDROM 1 / 2 / 3	YAMAHA FS / FX / FE series
LINN 9000 CLOCK CONVERSION	YAMAHA D80 / E70
OBERHEIM DMX	YAMAHA B405/C605/C35/D65/D85
ROLAND TR-808	TECHNICS G7 & series
ROLAND TR-608 (In/Thru only)	JVC 350 / 250
ROLAND CR-78 (In/Thru only)	HOHNER D98 & series
SIMMONS SDS 5 (In/Thru only)	HAMMOND tonewheel

A few examples are listed below - please phone or fax for other prices & details

YAMAHA PF15 / 10 / YP40 (MIDI Out)

MIDI Out on any channel for notes / velocity / program change / sustain pedal
Price including fitting: £125 plus VAT - Kit price: £105 plus VAT

PROPHET 5 all rev 2&3 models (MIDI In/Out/Thru)

MIDI Out (any channel) for notes and program change
MIDI In (any channel) for notes (5 octaves, notes 36 - 96) - program change / pitch bend / mod wheel / aftertouch / velocity / MIDI volume / any controller / sustain / active sensing / all notes off / omni on-off / auto tune request / reset all controllers.
Aftertouch can control: modulation, filter, pitch bend and resonance; Velocity can control: filter and VCA (volume); MIDI Volume can control: VCA (volume).
2 Assignable Controllers can each control: filter and resonance; All setups are stored in non-volatile RAM.
Price including fitting: £210 plus VAT - Kit price: £165 plus VAT

MINIMOOG (MIDI In/Thru)

MIDI In (any channel) for notes (5 octaves, notes 36 - 96) - pitch bend / mod wheel / aftertouch / velocity / MIDI volume / any controller / sustain / active sensing / all notes off / omni on-off
Aftertouch can control: modulation, filter and pitch bend; Velocity can control: filter and loudness (volume); MIDI Volume can control: loudness (volume).
Any Controller can control: filter; Glide function is available via MIDI; All setups are stored in non-volatile RAM.
Price including fitting: £170 plus VAT - Kit price: £135 plus VAT

ROLAND TR808 (MIDI In/Out/Thru)

MIDI In & Out on any MIDI channel (selectable and stored) for the eleven drum sounds each of which can be assigned to any MIDI note (0-127) and stored; output at two velocity levels - Normal at 64 and Accent at 127 - input can be on the same basis or switched to velocity response.
MIDI Clock / Stop / Start sent & received; MIDI Continues received may be ignored or treated as Start; Program change used to assign MIDI notes to sounds; omni on/off; MIDI Controller 16 selects whether receiving in accent or velocity mode; DIN sync available from TR808 sync socket when MIDI Clock is being received; All setups and note assignments are stored in non-volatile RAM. Price including fitting: £170 plus VAT - Kit price: £135 plus VAT

YAMAHA FS / FX series organs (MIDI Out)

MIDI Out on separate selectable MIDI channels for each manual and pedals for: notes / velocity / aftertouch / program change / multiple program changes from pistons / sustain pedal (from knee/tick switches or external pedal); Sustain pedal assignable to any manual or combination of manuals; MIDI off switch; Rhythm unit clock & stop-start; Expression (volume) pedal; Melody On Chord / single note chord & custom voices are sent; if MDR is fitted, MIDI is sent when the MDR plays the organ; All setups are stored in non-volatile RAM. Price on application - fitting by arrangement.

WE ARE NOW ABLE TO SUPPLY MOST OF THE ABOVE MIDI SYSTEMS AS KITS FOR THE EXPORT MARKET - PLEASE PHONE OR FAX FOR DETAILS AND PRICES

ALL PRICES QUOTED EXCLUDE VAT. PLEASE ADD 17.5% TO ALL UK ORDERS. CARRIAGE EXTRA WHERE REQUIRED

ALL MIDI KITS FIT INSIDE INSTRUMENT (except Drumatrix & Bassline)

KENTON electronics

REAR OF 137 - 165 HOOK ROAD, SURBITON, SURREY KT6 5AR
TEL: 081-974 2475. FAX: 081 974 2485

➤ mimicking performance techniques characteristic of the guitar, such as chord strumming.

All of which is easier said than done, of course. Cue the aptly-named Strummer, a MIDI processor from Oberheim which aims to take some of the strain out of creating realistic guitar parts.

HEARING VOICINGS

STRUMMER TURNS YOUR keyboard chord voicings into guitar-legitimate chord voicings. It also adds simulated chord strums to the latter by reading the MIDI output of your keyboard as you play, manipulating the MIDI note and velocity data of your performance in real time and transmitting the altered performance to your MIDI sound source. It's this altered performance, not your keyboard performance, that you want to hear. Consequently, if you're using a synth or a sampler as both keyboard and MIDI sound source, it needs to have a Local On/off facility so

that you can silence your keyboard performance but not the "Strummer-assisted" performance - DX7 owners take note. Strummer responds to MIDI note and velocity data on a single, user-selectable MIDI In Channel, and transmits the manipulated performances on the same channel; any incoming data on the remaining 15 MIDI channels is passed straight to Strummer's MIDI Out port unprocessed. To bypass Strummer's processing altogether, you can either press the dedicated Bypass button on the front panel or else set the MIDI In Channel parameter to "off".

The results of Strummer's manipulations can be impressive. For instance, if you call up Preset 01 on Strummer and play a root-position E minor triad on the keyboard, Strummer turns your triad into a strummed six-note E minor chord which, if you've got a multisampled acoustic guitar selected on your MIDI sound source, sounds extremely realistic. Strummer uses the guitar voicing EBEGBE - the classic beginner's chord, requiring only the fourth and fifth strings of the guitar to be fretted. However, the sense of realism comes not only from the legitimate chord voicing but also from Strummer's very convincing simulation of guitar strings being strummed. Play a few more root-position triads and some first, second and third inversions and Strummer produces the open chord voicings of a thousand and one folk songs.

However, if you don't want to do Bob Dylan impersonations all day long or find yourself playing the chords to 'Streets of London', select a distorted electric guitar sound, call up Preset 02 and play a few fifths on the keyboard and you can pretend you're a heavy metal guitarist, barred power chords and all. If this doesn't take your fancy, stick with the acoustic guitar sound, call up Preset 06 and you can discover another feature of Strummer: arpeggiation. Play a note on the keyboard and Strummer generates a minor 7th arpeggio which uses your note as its root; play another note and you get another minor 7th arpeggio, this time based on the new note. Strummer provides you with a choice of four arpeggios (minor 7th, octaves, up/down octave and 5ths) and three scales (chromatic, whole-tone up and whole-tone down), but doesn't allow you to create your own note sequences, which is a shame.

Play two notes a fourth apart and you get two simultaneous minor 7th arpeggios a fourth apart. Not exactly something you could play on the guitar, but, what the hell, you could be two guitarists - or, bearing in mind that we're in the latter part of the 20th century, you could be routing your guitar through a harmoniser.

Talking of effects, Strummer provides mono echo/delay processing - of the MIDI rather than the audio kind. So if you run out of spare effects processors you can always press Strummer into service as an echo unit for MIDI instrument parts - and because its echoes are actually MIDI notes you can record them as part of a sequence, and therefore free up Strummer for use on other parts. Another advantage of MIDI-created echo is that you can do odd things with it. As well being able to have up to 99 ➤



Roland JD-800

Programmable
Synthesizer



Out of this world



The Roland JD-800 puts technology at your fingertips – no more fumbling with multi-menu parameter and increment buttons. Designed for the musician who cannot live within the boundaries of factory presets or the inflexibilities of software-controlled musical instruments, it combines the high quality of digital sound with the freedom of analogue control. Technology *and* music? You want the best of both worlds. You want the JD-800.

For a list of authorised dealers and a free leaflet contact:

Roland UK Ltd, Atlantic Close, Swansea Enterprise Park, Swansea, West Glamorgan, SA7 9FJ.
Fax: 0792 310248 • Tel: 0792 310247

“Strum Mute is presumably meant to mimic the effect of damping guitar strings with the right hand - in use it's extremely effective.”

repeats and an echo repeat rate of anywhere from 1-99 MIDI clocks (allowing the echoes to be synced to tempo), you can set a transposition interval for the echoes anywhere within a \pm one octave range, and create echo fade-outs. The repeat rate is referenced to either an internal programmable tempo or an external tempo. The repeat number and repeat rate settings also apply to Strummer's arpeggios and scales when they're enabled, and so by extension the arpeggios and scales are also referenced to internal or external tempo.

Another feature, Chord Capture, is in effect a monophonic performance mode which allows you to trigger chords instead of individual notes. With Chord Capture enabled for a Preset, any chord you play on the keyboard is automatically “captured” in Strummer's memory and can immediately be triggered from single notes. In response to different trigger notes, Strummer can either transpose the captured chord, treating the trigger note as the lowest note of the chord, or else create an inversion of it and transpose the inversion into the octave of the trigger note.

To change the chord, all you have to do is play the relevant chord on the keyboard and then revert to playing single notes again - spontaneous stuff.

And talking of spontaneity, Chord Capture can be switched in and out at any time, providing it's enabled for the active Preset, by clicking on a footswitch connected to footswitch input three on Strummer's rear panel. So one moment you can be triggering a captured chord, the next moment you can be playing a succession of single notes, then the next moment you can be triggering chords again. It's a simple but thoughtful touch which greatly enhances the flexibility of Chord Capture by ensuring you're not locked into it when playing.

To an extent, transposing a chord shape up and down a keyboard by playing it from different keys produces the same result as shifting a chord shape up and down a guitar neck by moving your left hand to different frets. I say “to an extent” because these are different physical activities requiring different degrees of physical movement, co-ordination and exertion, and the differences have a bearing on the end result. The physical act of performing makes its mark on the performance. Consequently, creating realistic guitar parts isn't only a matter of getting the chord voicings right. You also need to be sensitive to the physical circumstances which help shape a guitar performance - and that's not something a MIDI box can help you with.

At the same time, Chord Capture can be used in ways which don't conform to any instrument but the virtual one in your head, so why not make the most of it? There's more to life than confining yourself to a box labelled “authenticity” - there's creativity, for instance. Being original. Being deliberately inauthentic in order to discover your own authentic voice.

Strummer's Riff feature, accessible via the front-panel Record/Stop button, allows you to record a series of monophonic or polyphonic note sequences (the manual suggests around 25 ten-note Riffs with

the default 8K of RAM fitted - this can be upgraded to 32K, though) and trigger each one from a MIDI note - shades of Zyklus and, more recently, the Realtime Phrase Sequencer on Roland's MV30. Riffs can be either one-shot or looping, and their tempo is defined by either the internal programmable tempo or an external tempo. A Riff can be erased at any time by pressing Record, playing the Riff's trigger note and then pressing Record again.

Only one Riff can play at a time, and if you trigger a second Riff while a first is playing, Strummer jumps straight to the second one. Also, if one Riff contains the trigger note of a second, Strummer moves straight to the second Riff on encountering it. I suppose you could use this feature to chain Riffs together, with some careful pre-planning, but it strikes me as being more trouble than it's worth. What it means in practice is that you have to keep your trigger notes out of the range of your Riffs. You also need to keep them outside of your playing range, because, once selected, a trigger note is always active and, well, accidents can happen.

Some accidents can be fortuitous, though: for instance, a Riff recorded with one Preset selected can yield altogether different results when you select other Presets, which each process the Riff's notes according to their own parameter settings.

Riffs are extremely easy to set up and extremely easy to delete, so you can use Riff recording and triggering as a kind of scratchpad feature, programming in a short looping riff and playing over it one moment, and doing the same with a chord sequence the next moment. However, it's a shame you can't give the Riffs their own MIDI transmit channel, as then they could use a different sound from the one assigned to the main channel.

OFF THE CASE

STRUMMER HAS THE same casing as Drummer (reviewed MT, September '91) and all the other Perf/X units, which means it has the same practical shortcomings as well: the front-panel ventilation slots which expose its circuit board to the elements and stray pints of beer, the worryingly delicate power on/off switch, the limited information display capabilities of a two-digit LED, a restricting user interface and a general lack of robustness.

In one important way it comes off worse than the other Perf/X units, however. Unlike them, it doesn't provide a parameter listing on its front panel. In fact, its 33 parameters are referred to only by number in the LED. You have to consult a parameter list printed in the accompanying manual to find out not only what the parameters are but also which number selects which parameter. Manuals can be misplaced, however; Oberheim could at least have done what they did on another Perf/X unit, Systemizer, namely include a non-detachable laminated card, listing all the parameters, which could be pulled out from a slot in the casing and slid back in when you didn't need it. Strummer's lack of approachability does it no favours, and will no doubt put some people off getting to grips with it.

VOICING CHORDS

Strummer's rear panel contains the power on/off switch and power input socket (the unit comes supplied with an external AC adaptor), a MIDI In socket, a MIDI Out socket and four footswitch jack sockets. The third one I've already mentioned; sockets two and four double the functions of the front-panel Bypass and Record/Stop buttons respectively, while the function of the first is software-switchable between outputting a metronome click or switching off active echoes and arpeggios.

Like Drummer, Strummer can sense the polarity of each footswitch connected to it when you switch it on, and adjusts its response accordingly, so you can mix 'n' match different types of footswitch.

PRESETS

PRESETS, IN CASE you hadn't already guessed, are Strummer's patches, containing settings for its parameters. Strummer has 96 of them, 64 of which are factory presets stored in ROM, leaving you with 32 RAM locations for your own settings. Sixty-four ROM Presets might sound a lot, but in a sense there are only 20, as Presets 21-64 basically take Presets 1-20 and stick them either above or below a keyboard split-point which is fixed at middle C.

Preset data can be transmitted and received via MIDI SysEx, but only one Preset at a time - unfortunately, there's no bulk dump option. Strummer transmits whichever Preset is in the edit buffer, and similarly an incoming Preset is received into the edit buffer, and from there has to be Stored into a RAM location.

DETECTING CHORDS

BEFORE IT CAN translate your keyboard chords into guitar chords, Strummer has to work out which notes arriving at its MIDI In are part of a chord and which aren't. It does this by referencing them to a "time window": if a succession of notes fall within and are sustained through this window, Strummer considers them to be a chord.

Parameter 31, Chord Detect, allows you to set the window time yourself (from 1-40). According to the manual, the default time is 20 milliseconds - so, logically, it's set by a value of, er, 18 in the LED window. Obviously it's best to get the detect time down to as short a time as possible, because that way you can minimise the delay that Strummer introduces while it waits to see if it has a chord on its hands or not. Too short a time and Strummer won't always register the chords you play, simply because the notes won't all get to it within the timing window. You can do your bit, though, by playing chords with as tight a timing as possible in the first place - which is ironic, given that the notes are subsequently going to be separated out in time by Strummer's strum function. I found that a Chord Detect setting of 10 was comfortable, while around 6 or 7 was possible but pushing it. Also, it makes sense not to play unnecessarily thick chord voicings on the keyboard - just play the minimum number of notes that are needed to describe the chord.

PRESET PARAMETER 8, Chord Transposition Type, provides the heart of Strummer's chord voicing feature. If you select a value of 1 for it, Strummer plays open chords where possible, and keeps within the first five frets of the guitar. This is the setting which is used by Preset 01 to create all those folksy strums. If you select a value of 2, on the other hand, Strummer plays barre-chord voicings as they would be played up and down the guitar neck, with the lowest note of your chord effectively placed on the 6th string. Finally, if you select a value of 3, Strummer produces spread chords, transposing notes so that there's a minimum of a perfect fifth interval between adjacent strings.

A number of other parameters also have a say in the chord revoicings which Strummer produces. Most obviously, Chord Low String (12) and Chord High String (13) together allow you to limit the number of strings (and therefore the number of notes) Strummer can use for its chords. Two further parameters, Note Low String (16) and Note High String (17) limit single notes to certain strings. However, a rather unfortunate discrepancy with the real world crops up here: Strummer seems to think that guitar strings are numbered 1-6 from the lowest to the highest pitched, whereas in the real world they are numbered 1-6 from the highest to the lowest.

If Parameter 15, Note Transposition, is set to "on", Strummer transposes all notes into the note range of the guitar. However, it has a strange conception of what that note range is - as you soon discover if you try to play single notes above G# on the first (highest) string. Further investigation and analysis reveals that Strummer is being very logical in what it's doing but it's following spurious logic which says that the note limit of each string is a semitone below the open pitch of the next string up (the G# being a semitone below an "imaginary" string tuned a fourth up from the high E). However, you don't get this problem with barred and spread chord voicings, though with open chord voicings Strummer does treat G# rather than A as its top note.

Another parameter which hasn't quite got its act together is parameter 3, Lead Enhancement. When set to "on", it's supposed to accent the first note of each chord, but this it does not do. In fact, it doesn't seem to do anything at all.

But ultimately these are peripheral shortcomings. I for one can live without Lead Enhancement, while Note Transposition isn't essential - with a little care it's not too difficult to stay within the note range of the guitar. What really matters is the legitimacy of Strummer's chord (re)voicings, and here it acquits itself very well. Firstly, are its voicings playable? Well, there were some chord voicings I came across which you'd need double-jointed second and third fingers to be able to play, and yes, I did come across the occasional chord voicing which *no-one* would be able to play, but basically Strummer is pretty solid here.

Secondly, do its chord voicings make musical sense? And are they the sort of voicings a guitarist would actually play? Again, Strummer is pretty solid here without being perfect. You need to give it firm

"You could perhaps liken Strummer to a guitarist who's moderately competent but not particularly adventurous or original."

MUSIC CONNECTIONS

Now we have changed our name from Future Music Chelsea to Music Connections Chelsea.

We are the same great store with all the best gear.

Now with our new store in Chelmsford our buying power is even greater. So you can be sure of getting what you want, when you want it and at the price you want.

071 731 5993

Chelmsford

GREAT NEW STORE!

LATE NIGHT SHOPPING THURSDAY

10 mins from M25! 15 mins from M11! 30 mins from A1M!
LOADS OF FREE PARKING 30 mins by train-Liverpool St.
Massive hi-tech selection. Treat yourself to a new experience - visit music Connections at Chelmsford. So easy to get to!

0245 354777

RECORDING PACKAGES

Fostex R8 + 812.....£1697	Tascam TSR8 + Tascam 2516.....£2995
Fostex R8 + RSD Proline 16-4-8 gold.....£1898	Fostex R8 ex-demo.....£989
Fostex R8 + RSD Proline 16-8-16 gold.....£2059	Tascam TSR8.....£1649
Fostex R8 + Tascam 2516.....£2320	Tascam MSR16 + Mixdown 16-8-16.....£4754
Fostex R8 + RSD Proline 8-4R.....£1659	Tascam MSR16 + Proline 16-8-16 gold.....£4315
Fostex R8 + RSD Mixdown 16-8-16 Gold.....£2548	Tascam MSR16 + Tascam 2516.....£4576.51
Tascam TSR8 + RSD Proline 16-4-8.....£2499	Tascam MSR16 + RSD series 2 16-16-2.....£5880
Tascam TSR8 + Fostex 812.....£2395	Fostex G16S EITHER ON ITS OWN OR IN A PACKAGE, GREAT DEALS AVAILABLE!!!!
Tascam TSR8 + RSD Proline 16-8-16 Gold.....£2747	

Chelsea

MUSIC CONNECTIONS

202 NEW KING'S ROAD LONDON SW6 4NF

TEL: 071 731 5993/071 736 4771

FAX: 071 731 2600

SCOOP!

Rhodes 660 keyboard equivalent of Roland U20
RRP £995 Our Scoop price £510 + VAT

SMPTE GENERATORS

Steinberg Midex plus.....£Good	
C-Lab L-ator 2.....£FA	
XRI300.....£165	
JL Cooper sync link.....EPOA	

* STOP PRESS *

NEW KORG 01/W ON SHOW
YOU MUST HEAR IT
* STOP PRESS *

NEW FROM YAMAHA

In stock on show. The fabulous SY99 keyboard all SY series keyboards in stock. New QY10 sequencer in stock + the fabulous New RY30 drum machine on show, you must hear it!! Want to try a YAMAHA sound effects unit, well just come in they're here and waiting for you.

NEW PRODUCTS NOW IN

Roland S750 Sampler, New Korg 01W Synth, Roland FP8 Piano
Alesis 3630 Compressor

SEQUENCERS

Alesis Datadisk.....EPOA	Alesis MMT8.....EPOA
Roland MC50.....£399	Yamaha QY10.....EPhone

COMPUTERS & SOFTWARE

1040 + MON + MOUSE + C-LAB NOTATOR V3.1.....Ephone	NOTATOR 3.1.....£299
1040 + MON + MOUSE + C-LAB CREATOR V3.1.....Ephone	MOTU PERFORMER.....£283
1040 + MON + MOUSE + STEINBERG CUBASE V2.....£715	MOTU COMPOSER.....£283
1040 + MON + MOUSE + STEINBERG CUBASE MRP £898.....our price £695	MOTU MIDI TIME PIECE.....EPOA
CUBASE.....£160	MOTU VIDEO TIME PIECE.....EPOA
CUBASE.....£299	OPCODE VISION.....EPHONE
PRO 24.....£60	

These are just some of the fantastic computer deals available. Everything from Apple...Ateri...Opcode...C Lab...Steinberg...MOTU...Digidesign

DRUM MACHINES

Boss DR550.....£126	EMU Proccusion.....£449
Alesis SR16.....EPhone	Roland R8 used.....£299
Roland RM8.....£325	SPD8.....£289

SIGNAL PROCESSORS

Boss CL50.....£84.25	Multiverb 3.....£254
Yamaha FX500.....£199	EMP100.....£189
ART LT.....£125	SPX900.....£399
Microverb 3.....£150	XRI 300 SMPTE.....£159
Quadraverb Plus.....£Best	Alesis MEQ 230 Graphic.....£149

KORG A1 ON DEMO YOU MUST HEAR IT

THIS IS JUST A SELECTION OF THE EFFECTS WE HAVE IN STOCK

ALL PRICES EXCLUDE VAT

24 HOUR DELIVERY

MON-SAT 10-6PM

EASY FINANCE SUBJECT TO STATUS



MOTHER KEYBOARDS

Roland PC200.....£112
Roland A80.....£995
Yamaha KX88.....EPOA

PIANOS

EMU Proformance.....£263
Korg SG1X.....EGreat
Roland FP8.....EPhone
Rhodes MK80.....EPhone

PORTASTUDIOS

Porta 03.....£199	Tascam 424.....£369
Ex-demo MT1X.....£211	Tascam 488.....EPOA
Fostex X26.....£219	Tascam 644.....£729
Fostex X28.....EPhone	Tascam 688.....EPhone
Fostex 280.....£399	Yamaha MT100 Mk 2.....£275

SAMPLERS

Akai S950.....£899	Ensoniq EPS16+.....EGreat
Akai S1000 Keyboard.....£1697.87	Ensoniq EPS Keyboard.....EPhone
Akai S1000.....EPOA	Akai S900 used.....£595
Akai S1100.....EPhone]	

Accessories & boards in stock for most machines

KEYBOARDS & RACKS

EMU Proteus 1.....Ebest	Yamaha TG33.....EPhone
EMU Proteus 2.....Ebest	TG77.....EPOA
Roland U220.....£424	Matrix 1000.....£349
Roland SC55.....£424	Ensoniq SQ1 + SQ2.....Ephone
Korg M3R.....EPOA	Ensoniq SD1.....Ephone
Korg M1.....£799	Ensoniq EPS 16 +.....EPhone
Korg WS1 Ex.....£995	
Roland D110.....£339	ALL YAMAHA SY SERIES KEYBOARDS IN STOCK AND ON SHOW
Roland D10.....£449	

USED & EX-DEMO BARGAINS

Roland MU30 Immaculate.....£895
Akai S900 VGC.....£995
Prophet 2000 with library.....£495
Roland D20 as new.....£695
Ensoniq Mirage Inc library.....£495
Alesis Quadraverb VGC.....£285
Ensoniq SQ1 + VGC.....£995
Roland MC 300 sequencer.....£299
Yamaha DD10 drum box.....£30
Microverb 3 Good condition.....£149
Korg DDD5 Drums.....£500
Roland D50.....£299
Korg M1.....£799
WS 1.....£799
Emulator 2.....EPOA
FB01.....£125
Roland JX8P.....£595
Steinberg GM Trans Trem.....EPOA

All 2nd hand prices include VAT

Chelmsford

MUSIC CONNECTIONS

CHELFORD COURT, 37c ROBJOHN'S ROAD,

CHELMSFORD CM1 3AG

TEL. 0245 354 777 FAX 0245 355 007

Computer MUSIC Systems Ltd

MUSIC APPLICATIONS FOR IBM PCs

Call our sales hotline on 071-482 5224 or Fax us on 071-485 9302 !

Voyetra Sequencer Plus Version 4

Are you fed up with PC Starter Packs ?
Do you want a 'professional' sequencer ?

Voyetra Sequencer Plus is arguably the industry standard sequencer for IBM machines. First developed in 1984, it is used in commercial recording studios worldwide by many professional musicians. Sequencer Plus has full SMPTE/MTC sync options - direct to the new V24s multiple-port interface supporting up to 64 MIDI channels. A full upgrade path for Sequencer Plus software and interfaces is available.

'an extraordinary sequencer...maintaining an admirable balance between editing power and straightforward operation.'

PC Magazine

'One of the best American sequencing programs...is Sequencer Plus...it hasn't crashed once. How many other programs can you say that about ?'

Sound on Sound

Voyetra Sequencer Plus Packages

SPClassic & V22 : 32 channel MIDI interface	£229.00
SPClassic & V4000 : MPU compatible MIDI interface	£279.00
SPClassic & V24s : 64 channel SMPTE/MIDI interface	£399.00

SPGold & V22 : 32 channel MIDI interface	£359.00
SPGold & V4000 : MPU compatible MIDI interface	£409.00
SPGold & V24s : 64 channel SMPTE/MIDI interface	£529.00

Computer MUSIC Systems Ltd

No-one knows PC music better !

5-7 Buck Street,
London NW1 8NJ.
Tel 071-482 5224

NEW THIS MONTH !

Hard Disk Recording ON AN IBM AT ?

We are proud to announce The CardD - a breakthrough in IBM-based hard disk recording. The CardD interface is designed to be used with the IBM PC/AT and compatibles. As a system, The CardD and The EdDitor allow quick and effective real-time digital editing and mastering. A menu driven interface makes using the system both intuitive and easily mastered. This power is now within reach of everyone.

16 bit, 32/44.1/48kHz Sampling Rates (user selectable).
20Hz-20kHz Frequency response & 92dB Signal to Noise ratio - CD quality.

Transfers audio data to/from hard disk in real time.
Supports S/PDIF Digital inputs/outputs (with the optional I/O CardD)

Stereo multiple waveform editing program available (The EdDitor)

DAL 'The CardD' : Hard Disk Recording board	575.00
DAL 'The EdDitor' : soundfile editing software	184.00
DAL 'The I/O CardD' : Digital i/o for The CardD	395.00
DAL Developer's Toolkit for The CardD	475.00

MIDI Fader Automation Special !

We have a few RECITAL 16-channel MIDI Fader Automation systems left to clear. Formerly on sale at £939 inc VAT, we are now offering them at £799 inc VAT. For more information please contact us.

If you want to make music with your PC, talk to us. We have been in the field of computer music for six years, and our staff are fully able to advise you on your music requirements. We have products to suit all tastes at prices to match. Give us a call today !

> guidance in your keyboard chord voicings, give it the proper raw material to work with. For instance, if you want notes to be in the final chord, they need to be in your keyboard chord. Don't go heavy on the jazzy colourings at the expense of the foundation notes, and don't miss out the root, because Strummer won't know to put it in.

STRUMMING ALONG

STRUMMER SIMULATES GUITAR strumming by giving all the notes of a revoiced chord the same velocity value (arrived at by averaging the velocities of the input notes), separating them out in time by inserting delays between them, and transmitting them via MIDI in ascending pitch order. Preset parameter 0, Strum Rate, determines the delay time between the notes, and can be set to "off" or a value from 1-99 - from a fast, almost "incidental" strum to a relatively slow, deliberate strum. With parameter 1, Strum Velocity, set to "on" you can vary the strum rate subtly from chord to chord by varying how hard you hit the keys.

Parameter 4, Strum Direction, lets you use downward strums as well. In conjunction with parameter 26, Keyboard Split, and parameter 27, Keyboard Split Direction, you can set this parameter so that chords above the selected splitpoint are strummed down. Alternatively, chords above a selected velocity split-point (parameter 5) can be strummed down - though, despite what the manual says, chords which are *below* the velocity splitpoint can't be strummed down (a bug, perhaps?). In fact, I came across a number of discrepancies between what the manual's parameter list said should happen with certain parameter values and what actually happened - perhaps because the relevant pages in the manual were headed "version 2.7" while MT's review model was running version 3.1 software.

Parameter 6, Strum Mute, is presumably meant to mimic the effect of damping guitar strings with the right hand, or perhaps choking them with the left, while playing. Whatever, Strum Muting involves sending a matching note off command very shortly after each note on. You need to experiment with different sounds and amplitude envelopes, however, to find the right sort of result. Strummer can Mute notes above or below the programmed velocity threshold, in every other chord, or above the programmed keyboard splitpoint (but not below as the manual says).

Strum Muting is not so much a strum parameter as a parameter which can work well with strumming. The same can be said of Chord Velocity Effect (14). With this set to "on", chord velocity values lower than the programmed velocity threshold cause notes to be removed from the chord - the more softly the chord is played, the more notes are removed (down to a minimum of two). In use, it's extremely effective.

MULTI-CHANNEL OUT

TWO PRESET PARAMETERS, Next Channel Assignment (24) and Number of Next (25), allow you to create some interesting "animated" textures in conjunction with a multitimbral synth or sampler. The

Next channel is defined as the next consecutive channel up from the MIDI In Channel. Strummer can be set to transmit either its chords, its notes, its echoes/arpeggios or inverted velocity out on the Next channel. Inverted velocity allows you to create dynamic velocity crossfades between the sounds assigned to the MIDI In and Next channels; Strummer transmits the same notes on both channels, but gives notes on the Next channel velocity values which are the inverse of those on the MIDI In channel.

If you set the Number of Next parameter to a value greater than one, Strummer rotates note assignments round the appropriate number of channels. For instance, you could have the first note of an arpeggio on the MIDI In Channel playing a piano sound, then rotate subsequent notes around strings and atmospheric sounds on two consecutive Next channels, so creating a sort of internally-sequenced multitimbral patch. I got some very effective results by triggering the Combis on Korg's 01/W FD synth in this way.

VERDICT

STRUMMER'S CHORD REVOICING and strumming features represent its foundations, and pretty solid they are, too. But Oberheim have also built a lot on top of those foundations, and produced a pretty interesting building in the process, one with plenty of interesting nooks and crannies to explore. It's a shame that it presents such an unfriendly and uninviting face to the world, and it has to be said that it does look rather tacky, but once you get inside it and learn to find your way around it, the unfriendliness begins to fall away.

You could perhaps liken Strummer to a guitarist who's moderately competent but not particularly adventurous or original, a guitarist who can play the uncomplicated open chords and barre chords, and maybe throw in the odd 9th and 13th chords while being wary of all the clever jazzy stuff with the chord substitutions and the missing roots. Don't demand too much of it, don't expect it to be Joe Pass when it's Joe Doe, don't expect it to be John Scofield when it's John Smith.

For me, the recreative guitaristic stuff makes Strummer interesting, but it's the creative "what the hell instrument is that?" stuff that makes it exciting. I have to say, however, that its general unfriendliness and unapproachability mean that you're not going to get very far with it on only a casual acquaintance. Perseverance and patience are needed, plus a feeling that the effort is going to be worth it - and that's something you have to make up your own mind about. ■

Price £186.83 including VAT.

More from MCM, 708A Abbey Road, Tudor Estate, London NW10 7UW. Tel: 081-963 0663. Fax: 081-963 0624.

"The recreative guitaristic stuff makes Strummer interesting, but the 'what the hell instrument is that?' stuff makes it exciting."



second foundation

Martyn and Ian's excellent adventure - record a sequel to their '82 Music of Quality and Distinction album, mixing vintage songs with '90s technology.

Interview by Tim Goodyer.

TRADITIONALLY, WANNABE PRODUCERS HAD TO WANNABE engineers first. And to become engineers they had to wannabe tape ops. And to become tape ops they had to wannabe tea boys (or girls) before that. In those days - 15 or more years ago - it wasn't easy to become a producer, but it was a relatively straightforward career to pursue. That, of course, was before the hi-tech revolution tore up the rule book. Advancing technology made the previously exclusive power of the producer available to almost anyone who was prepared to take the recording of their music into their own hands rather than leaving it to established talents. Today there are almost as many routes to becoming a producer as there are producers themselves. Few, however, can be more unorthodox than that of Martyn Ware.

Breaking into the world of popular music in 1977 as part of the

PHOTOGRAPHY: TIM GOODYER

original Human League lineup, he and fellow Leaguer Ian Craig Marsh subsequently broke away to form Heaven 17 with singer Glenn Gregory. Peripheral to their work as Heaven 17, Ware and Craig Marsh also operated a production project they called the British Electric Foundation and in 1982 released an unprecedented LP entitled *Music of Quality and Distinction Volume One*. An oddity at the time, the album consisted entirely of (largely soul) cover versions sung by a variety of "featured artists" - from Gary Glitter and Sandie Shaw to Bernie Nolan and Paula Yates. It wasn't a great seller but pre-empted a major change of direction pop music was about to take.

Heaven 17 slipped quietly into pop history around two years ago. Dropped by Virgin records they began work on demos for EMI and ZTT but felt they were lacking in direction. The split was an amicable one; "We always said it would end with a phone call", says Ware, "and that's the way it was".

"I was in a studio in Germany and a friend who was distraught that we'd been dropped by Virgin said 'You know what you should do? You should do *BEF 2*'. I said 'Don't be ridiculous', because it was incredibly hard work last time and the business has become even more cynical since then. Then it occurred to me that I knew a lot more people so I'd got a larger pool of people to approach. Also my production work had been quite successful so that would make it easier to get people to do things. That was the theory, anyway. So I decided that was what I wanted to do."

It was a comparatively easy decision to make after dissolving the partnership which saw Ware through eight years and four LPs. The objective of the first BEF album, however, is more curious. Ware himself seems unsure of his motivation.

"It was just a wild idea", he says vaguely. "From what I remember, I was so excited at learning I could work with other people. The nearest analogy is learning to ride a bike, you just want to ride it everywhere, don't you?"

"It was the idea of just ringing people up and asking them to do things. You could invite them into the studio and they'd sing for you. Although the first album didn't sell too many copies, it's amazing how many people have since told me they really liked it. Where the bloody hell were they when I needed them? At that time it was 'What are these guys doing, are they mad?'."

"It was a way of establishing myself as a producer", he continues with more certainty, "although I didn't know what the hell I was doing in the studio. I wasn't arrogant, it was just uncharted territory. Actually when I listened to the first album recently, it wasn't as bad as I thought."

Music of Quality and Distinction Volume 2 comes over in an entirely different light to its forebear, however. Using a variety of vocalists is now commonplace and where the earlier choice of people and artists seemed arbitrary, *Volume 2* reads more like a list of great artists performing great songs. Two vocalists link *Music of Quality and Distinction Volume 2* to *Volume One* - Billy Mackenzie and Tina Turner.

"I recorded 'A Change is Gonna Come' with Tina about four years ago for her *Break Every Rule* album but it never got released", reveals Ware. "I really liked it and I know Tina really liked it because she used the same arrangement in her live show, so I rang her manager and said 'I'm planning to do another BEF album and this would be a nice link between the two albums, do you mind if it's on it?'. Also having Tina's name on it, it would complete a circle in that it gave her a bit of a leg-up at that time and this would give me a bit of a leg-up this time. And to their credit, they said yes."

"As soon as I'd got the rights to that track it all became a lot easier. I mean, it's good for her to be seen as a diverse artist and the soul side of her career has sort of atrophied slightly in the last few years because she become so directly obsessed with the pop market. People have asked me which of the tracks on the album I like the best and I genuinely think that Tina's got the best soul voice of all of them. The irony of it is that she doesn't even particularly like soul music,

it's just natural to her. She prefers white rock music. You always want what you haven't got."

Although getting Tina Turner's consent to use her cover of the Sam Cooke classic was an important point in the evolution of *Volume 2*, she wasn't the first artist Ware approached.

"The first person was John Lydon, strangely enough, because he'd always wanted to work with me. He's a big Heaven 17 fan - find it hard to believe? Well, it's true. He thinks 'Let Me Go' is one of the greatest songs ever recorded, which I constantly find hard to believe. I asked John what his favourite songs were and if there was anything he'd really like to do. He picked a couple of reggae tunes which subsequently didn't fit in with the rest of the stuff and consequently aren't on the album. They're extraordinary - can you imagine him singing reggae - electronic reggae at that? That's still in the can unmixed, but that's how it started."

"From there we drew up a list of all the people we'd like to work with - a wish list; a dream list. There were about 20 people on it, of which we ended up with three."

Although the success rate was low, the consenting artists came from near the top of the list.

"Chaka Khan was so near the top she wasn't even on the original list because I didn't think she'd do it. It just so happened that the week the idea occurred to us, my lawyer started representing her in this country. He put it to her and she agreed immediately, she loved the idea. For me it was a dream come true. She's a star in all senses of

the word. If I could read a true biography of just one of these people she'd be the one because she's been to hell and back and then back again. Now her singing is completely free from inhibitions. We did 14 live takes with her - completely live with the band playing and 'Someday We'll All be Free' is compiled from those takes. What astounded me was that each time she did it, it was different. She could do an endless number of interpretations of any lyric, I believe. When you're that free of inhibitions, it's an incredible talent."

When pushed for details of the Wish List, Ware resorts to his electronic Personal Organiser, protesting "God almighty, there's a lot of information associated with this project!"

From there he recites the names of David Bowie, Bryan Ferry, Isaac Hayes, Barry White, Kate Bush, Mick Jagger, Chrissie Hynde, Maxi Priest ("booked into the studio but he never turned up"), Luther Vandross, Dr John, Aaron Neville, Jimmy Ruffin, Ali Campbell, Sidney Youngblood and Neneh Cherry. Of these Kate Bush came closest to accepting.

"We selected a song by a band called Spirit called 'Nature's Way'", recalls Ware. "I've always had an inkling that she could cover things in a soul style because it's there in her work. She probably doesn't even recognise it herself. For my own pleasure I thought it would be nice to see how she works because she always works in her own studio and sometimes that means you can't see the wood for the trees. Also she's a very shy person and I don't think she likes putting herself into a different environment at random. She was the only one of these I managed to talk to directly, and she went away and thought about it and then politely came back and said 'I wish you the best of luck with the rest of the album but I don't think it's right for me'. You can't really argue with that."

Ware continues the story: "We started off with the people who were available. Billy Mackenzie was in town. Then we got Richard Darbyshire, who I've always admired; he's an incredibly underrated singer. I don't think Living in a Box exist any more because he's about to sign a solo deal."

"Then we went over to see Curtis Mayfield in Rotterdam and he agreed instantly to do it. And then a week before we were due to record with him he had an accident. That knocked the stuffing out of us quite a lot. When things like that happen you think maybe the project's just not meant to happen."

"Mavis Staples was on tour with Prince so I contacted her management and >

"Nobody can accuse me of being cynical about this project - the fact that I wasn't working for other people means that I was, and am, probably £50,000 down on what I could have earned last year."

➤ they were very happy for her to do it. The funny thing is that I've now got this strange contact with Prince because I also did something with Jill Jones, who was in *Graffiti Bridge* - I did some tracks for that and they never got released because Paisley Park was in financial trouble at the time and weren't releasing anything. I heard from Jill and also from Mavis that Prince really likes what I've done a lot. But I've never met him.

"Green was somebody I'd wanted to work with for a long time. Having worked with him on the two singles he's just done and the BEF cover of Stevie Wonder's 'I Don't Know Why I Love You', I think he's as close to a musical genius as anybody I've ever worked with. But he's very self deprecating in terms of how low he keeps his voice in a mix and I thought it would be a good thing to get him to sing a song that demanded some performance instead of something that ambled along at one pace. He's got a beautiful voice, an incredible voice. He's a genuine lover of music and he's given me help on other tracks on the album without demanding payment or even thanks. He's got so many brilliant ideas. The man is a pop Mozart, really. I'd love to do an album with him but it would probably take two years of my life, and I don't think I've got time. We did three versions of 'I Don't Know Why I Love You' and it was the slowest stuff we did. We calculated it took 28 studio days to do the one track for the single, the others took seven or eight - and he said it was about four times faster than he's ever worked before.

"One particular problem he's got is that he spends so much money on recording that he's got to sell *vast* quantities of records to recoup the money it cost to record the bloody things. But what an honour to work with him."

CHOOSING THE ARTISTS WAS ONLY HALF OF CONSTRUCTING
Music of Quality and Distinction Volume 2 - each of the artists needed a song to sing...

"Again, we had a list of songs that we'd made from our private record collections", Ware explains. "There were about 50 songs - and I think we ended up using about three of those as well."

"I selected 'I Want You' for Tashan, but he agreed with that anyway. I also chose 'A Change is Gonna Come' for Tina and she loves Sam Cook because he was an early influence on her. Billy Mackenzie selected 'Free' and I said 'What? Do you know what key this is in?' but he sang it beautifully. It's probably the best soul performance he's ever given. I selected the track for Richard (the Gap Band's 'Early in the Morning') because I felt he should be singing stuff that was heavier funk than Living in a Box. The Chaka Khan one was my suggestion because I was obsessed with Donny Hathaway at the time. He'd always been in the back of my mind but I'd bought this Donny Hathaway compilation and it was a revelation to me. We ended up using 'Someday We'll All Be Free' for Chaka Khan and 'A Song For You', which is a Leon Russell song but Donny Hathaway's is my favourite version, for Mavis Staples.

"Halfway through the album we realised that there were certain advantages to asking the artists what they would like to record. A lot of artists have constrictions according to marketing necessity, or they don't like to put cover versions on their albums or even that there might be a private song that they'd love to do. That's the way it worked with Billy Preston. Obviously he'd worked with the Beatles for some time so I asked him what his favourite Beatles song was and he said 'In My Life' and we did a tremendous version of that that will probably be on the b-side of one of the singles."

Only one major problem appears to have arisen throughout the process of pairing songs and artists. Having decided to include a version of Sly Stone's 'Family Affair', the BEF couldn't find a suitable artist to sing it.

"I saw her album on a desk at Virgin records", recalls Ware of Lalah Hathaway. "I thought 'we've got two Donny Hathaway tracks, Lalah's Donny's daughter and she's got a great voice...' But we were really riding on our shirt tails there because I'd never met her and she'd never even heard of me. We paid for her to come over. She'd got no idea of how to perform the song at all - which worried me because we'd only got two days to record it in. She came over, took a copy of the backing track away and did the vocal arrangement. Then we did the entire vocal in about four hours.

"I asked her what she listens to at home because I couldn't understand where ➤

The Incredible **NEW** **brother** **PDC 100** **MIDI SEQUENCER**



For the price of a modest Datafiler you can now own a powerful, fast and reliable sequencer with these fabulous features:

- 21,000-note internal RAM (128K)
- 32-character backlit display
- Extensive bar and event editing
- Quantization and transposition
- 96bpc tempo resolution
- Save and load songs and sysex simultaneously
- 32 tracks - 16 channels per track
- Realtime or step recording
- Cut and paste song "Units"
- Variable tempo in same song
- Multiple song Programming
- 3.5 disc drive

**OUTSTANDING
VALUE FOR MONEY AT
£299
+VAT.**

from **MUSIC VILLAGE**

230 High Street, Barnet, Herts EN5 6TD. Tel: 081-440-3449
86 Mill Road, Cambridge CB1 2AS. Tel: 0223 324536
10 High Road, Chadwell Heath, Romford, Essex RM6 6PR. Tel: 081-598-9506

OR FROM
**BLUEBRIDGE MUSIC'S
CREDIT CARD
HOTLINE
0787 475325**



Or send coupon to: **BLUEBRIDGE MUSIC LTD.** 3/5 Fourth Avenue, Halstead CO9 2SY (cheques, postal orders, bankers drafts, Building Society cheques, Access and Visa orders and cash in registered envelopes accepted)

Name:..... Credit Card Number:.....
Address:.....
..... Expiry Date:.....
..... Postcode



**MIDITECH
OF LEEDS**

THE COMPUTER MUSIC PEOPLE

MAIN DEALERS FOR:

ENSONIQ, YAMAHA, EVOLUTION, CHEETAH, ROLAND
COMPUTER MUSIC PRODUCTS, KEYBOARDS, SYNTHS &
EXPANDERS / MODULES & RELATED SOFTWARE BY EVERYONE.

PLUS!

ATARI ST, APPLE MAC, COMMODORE AMIGA & PC COMPUTERS
SYSTEMS. DRIVES, PRINTERS, MEMORY EXPANSIONS, VIDEO,
D.T.P & BUSINESS SYSTEMS AND A LOT LOT MORE.

**CALL US FOR ALL YOUR COMPUTER REQUIREMENTS, BETTER
STILL, VISIT OUR SHOP AND FIND OUT WHY MUSICIANS AGREE
WHEN IT COMES TO MIDI IT'S GOT TO BE MIDITECH.**

(INSTANT CREDIT SUBJECT TO STATUS)

**54A (THE BALCONY)
THE MERRION CENTRE
LEEDS LS2 8NG
TEL: 0532-446520**



ATTENTION ALL

**CLAB
USERS**

Version 3.1 of Notator & Creator is now available.

Registered users should have received full information on the update already.

If however you have not been notified by post or if you have not yet registered please contact Sound Technology immediately.

Sound Technology plc
Letchworth Point, Letchworth,
Hertfordshire SG6 1ND.

Tel. 0462 480000 Fax. 0462 480800



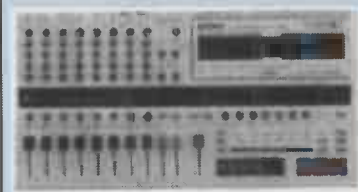
COME AND GET IT!

FOR SERIOUS DEALS PHONE :
0202 395135 EXT. 125

SYNTHESISERS / KEYBOARDS.

YAMAHA SY77	ONE ONLY	£1199
YAMAHA SY55	NEW LOW PRICE	£675
YAMAHA SY22		£549
YAMAHA TG77	EXPANDER	£999
YAMAHA TG55	EXPANDER (USED)	£399
YAMAHA PF85	DIGITAL PIANO	£749
YAMAHA TG33	IN STOCK	P.O.A.
ROLAND D10 DEMO		£449
ROLAND JD800, JX1		P.O.A.
ROLAND D70		P.O.A.
ROLAND D5		£429
ROLAND E15 E35 E70	IN STOCK	£449
ROLAND U20	IN STOCK	£749
CASIO VZ8M	EXPANDER (USED)	£149
KORG M1	USED	£849
ROLAND SC55	EXPANDER	P.O.A.
ROLAND MV30	IN STOCK	P.O.A.
ROLAND FP8	DIGITAL PIANO	P.O.A.
KAWAI K1 MK11		£479
KAWAI K4R	EXPANDER	£369
KAWAI SPECTRA		£325
KORG DW8000	USED	£325
KORG T1, T2, T3		P.O.A.
KORG EX8000	USED	£325
ENSONIQ SQ2		P.O.A.
ENSONIQ SQ1 +		P.O.A.
ENSONIQ SD1		P.O.A.
PEAVEY DPM3	EX HIRE	£1100
EMU PROTEUS 11	SHOP SOILED	£725
EMU PROTEUS 1	SHOP SOILED	£525
EMU PROTEUS II XR		£899
RHODES MODEL 660	EX DEMO	£625

SANSUI WS-X1



COMPLETE 6-TRACK RECORDING STUDIO

- 6-CHANNEL MULTI TRACK RECORDER
 - 8-CHANNEL STEREO MIXER
 - 2-CHANNEL MASTER STEREO RECORDER
 - BUILT-IN DIGITAL REVERB
- ORIG. RRP £1199
£699

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
- ORIG. RRP £895
£469

KAWAI K1R



DIGITAL SYNTHESISER

- RACKMOUNT K1 SYNTHESIZER
 - 8 CHANNEL/16 NOTE POLY VIA MIDI
 - 64 INTERNAL PATCHES
 - 32 MULTIPATCHES
 - RAM AND ROM CARD FACILITY
- ORIG. RRP £449
£259

RHODES MK 60



DIGITAL PIANO

- 64 NOTE KEYBOARD AND OCTAVE SHIFT
 - FULLY WEIGHTED ACTION
 - 8 HIGH QUALITY DIGITAL SOUNDS INCLUDING - VIBRAPHONE, CLAVICHORD, ELECTRIC PIANO, ACCOUSTIC PIANO.
 - BUILT IN FX
 - BUILT IN EQ
- ORIG. RRP £1299
£499

EXCLUSIVE OFFERS

- ALL ITEMS ARE NEW, USED OR EX-DEMONSTRATION
- | | |
|-------------------------------|-------|
| KORG M1 WORKSTATION | £899 |
| ROLAND PAD80 MK II MIDI PADS | £349 |
| YAMAHA TQ5 SEQUENCER/EXPANDER | £225 |
| YAMAHA TG55 EXPANDER | £399 |
| ROLAND U220 EXPANDER | £439 |
| YAMAHA SY77 WORKSTATION | £1199 |

ALL PRICES ARE INCLUSIVE OF V.A.T.



(0202) 395135 EXT. 125

EDDIE MOORS MUSIC LTD.

THE SOUND INVESTMENT

**679 Christchurch Road, Bournemouth BH7 6AE
THE LARGEST MUSIC SHOP ON THE SOUTH COAST**



➤ she was coming from and she said 'Oh, 'Trane, Bird. . .' She's just come out of Berklee Jazz College and she's still only 21. She's also a wonderful Rhodes player - I've got one of the new electronic Rhodes and she was coming out with all this incredible stuff on it and saying 'Oh, ignore this, it's just something I'm working on' and I'm going 'Oh, my God'. I said 'Have you got a Rhodes at home?' and she said 'Well I've got my dad's Rhodes but nobody knows how to repair them any more'. That's Donny Hathaway's Rhodes - I'd pay thousands for that! Anyway, she's incredibly talented and almost unknown but she's *got* to be huge."

With the song that was to reintroduce the public to the BEF in the can, the project was almost complete. Three aspects of an album of cover versions with major artists in a major London studio remain undiscussed, however: finance, commerciality and technology. Leaving the technology until later, let's talk cash. Surely the major record companies would be falling over themselves to have such a project on their release schedules. . .

"I actually had to finance the recording of this myself" reveals the producer. "It took 12 months and over the first nine I'd invested £60,000 of my own money in it. I can categorically say that nobody can accuse me of being cynical about this project. I mean, the fact that I wasn't working for other people during that period means that I was - and still am - probably £50,000 down on

***"Are you going to sit and watch
the sequencer screen or are you
going to put it on tape and know
that the part is there? To me it
makes no sense to sequence
things live unless you have to."***

what I could have earned last year. I hope it will reap rewards in terms of future work, of course. I suppose it's like a 'special offer' because it gives these people the opportunity to be on the album and to see how we work - and I'd love to do an album with Chaka Khan or Mavis Staples or any of these people. We had a great time - expensive, but great."

Then what of the prospect of launching a LP of covers into a market already drowning in

them?

"Unfortunately there was a glut of cover versions last year", Ware agrees, "and it looks like a bit of bandwagon jumping. I'd like to think that what we've done doesn't relate directly to other peoples' covers. It's not like we're a band who usually do our own material and then 'Oh dear, we're not in the charts so we'll do a cover version'. This is a repetition of a specific formula that we established ten years ago as a gathering of unique talents. If I'd have been cynical about it I'd have written songs for everybody and pocketed the publishing royalties. But that wasn't the concept. It's also a daunting prospect to write for someone like Chaka Khan. She was saying 'Write some songs for me, Martin', but where would I start? But then I've heard the demos for her next album and I think I could knock out some stuff that's better than that.

"I'd say the large part of the blame for the present lack of original material lies with the lack of imagination of the creative staff at the record companies. It's ➤

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 & Studio Recording plays a vital role in keeping you informed of the latest recording equipment, trends and techniques. What's more, it does it 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!

NEWTRONIC

SOUND DESIGN & MIDI SOFTWARE LTD

International
Mail Order Service

Visa/Access
Welcome



POP/ROCK - TOP FORTY - JAZZ/SWING - CLASSIC
 DRUM PATTERNS - SOUNDTRACKS - GUITAR LICKS

LATEST RELEASES

#1242 Calling Elvis - Dire Straits #1160 I Do It for You - Brian Adams
 #932 Wind of change - Scorpions #688 Not Fade away - Buddy Holly
 #958 Blue Hotel - Chris Isaak #961 Last Train to Transcentral - KLF
 #981 Inside out - Phil Collins #687 Crocodile Rock - Elton John
 #1019 Friends - Chick Corea #1199 Perfidia - Julio Iglesias #1216
 Mighty Quinn - Manfred Man's E.B #1244 You could be mine - Guns
 N' Roses #1248 Morning Dance - Spyra Gyra #1272 Get Off - Prince

We have a large selection of ready-to-play song arrangements available. Give us a ring today for our free song list 081 691 1087

EUROPE'S MIDI SONG PRODUCERS No. 1

★ ★ ★

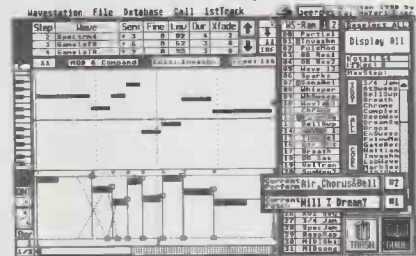
OVER 10,000 PLEASSED CUSTOMERS IN EUROPE

Geardes

SOFTWORKSTATIONS

(1 Mbyte ATARI ST & Hi-res Monitor)

We are proud to offer you a range of the most sophisticated software packages from Germany. We supply demo disks for all programs.



Softworkstations are powerful Editor/Librarian packages with integrated sequencer for multitasking on a 1 Mbyte ST. Demo disks are available for only £5
 Microwave ★ Wavestation ★ MKS80 ★ SY/TG77 ★ V50 ★ D5/10/110 ★ D70 ★ D50 ★
 K1(II)r ★ K4/r ★ U20/110/220 ★ Prophet VS ★ VZ1/10m M1/R/EX ★ M3/r ★ TX802 ★
 YS100/200 ★ Dx1/5/7/11/9/21/27/100TX81z ★ DS55 ★ MT32

Editors & Managers for:

Matrix 6/R/1000 ★ FB01 ★ SQ80 ★ ESQ 1 ★ R50 ★ LXP5

C-LAB *Notator* **V.3.1**

Buy a Notator or Creator and get 3 Sequences & 1 German Salami for free. All C-Lab products at best prices!

Free expert advice line

NOW ALSO STUDIO EQUIPMENT

ALESIS APHEX DIGIDESIGN J L COOPER SYMETRIX
 BRITAIN'S SOFTWARE HOUSE NO.1

C-LAB **Geardes** **Steinberg**

SEE US ON STAND
NUMBER 30 AT THE



ON
NOVEMBER
2nd & 3rd

NEWTRONIC

SOUND DESIGN & MIDI SOFTWARE LTD

62b MANOR AVENUE,
LONDON SE4 1TE

TEL/FAX 081 691 1087



➤ a much more cut-throat business now than when we started. The Human League had two albums out which sold bugger all. Nowadays if you have one album that sells bugger all you're dropped. So whatever talent we had wouldn't emerge today. The record companies are out for the quick kill, I'm afraid. Unless you have a hit single, they will regard an album as a dead duck in the water before it's even released.

"Ironically it's nothing to do with profit, because the record companies lose money on singles, but as a way of bringing attention to the artists. There's not a great premium placed on original-sounding material. It's just a particularly conservative time in music at the moment."

TIME TO TALK TECH. ALONGSIDE THE PRODUCTION AND programming efforts of Ware and Craig Marsh, the British Electric Foundation has drawn on the talents of a collective of musicians and technicians to realise its aims. The names of guitarists Phil Spalding and Tim Cansfield crop up regularly in the credits as does that of programmer and bass player Randy Hope-Taylor. There's also a modicum of real drumming from Chuck Sabo, keyboards from Nick Plytas, piano from Adrian Read and various percussion and brass credits. So how much of the music is made by hand and how much of it the machines?

"It's a complete synthesis of the two technologies", claims Marsh from behind the expansive SSL desk at Red Bus Studios. "Which, when Fairlights first came out, is how I envisaged they should be used. But technology's turned out a giant mutant child of samplers, sequencers and what have you. It's OK because it means more people can be creative, but it's diluted the original concept a bit."

"I think there are very few people who use sampling technology and programming as a tool rather than something to give music a modern edge. The music is more important than that to me. There are certain things you can't do with technology no matter what equipment you've got. No, it's probably possible to do just about anything, but I think you really have to marry the two techniques together and get something that doesn't sound either synthetic or man-made."

"Some of the tracks, like 'A Song For You' and 'Free', for example, were all electronic. I wanted specifically for them to sound electronic because the originals were all live and I wanted them to be heard from a different angle."

"Most of the tracks were started off with a live backing track and overlaid with any sequences afterwards. They were all recorded to a click for that reason. One of the tracks is specifically sample-and-loop orientated, that's the Lalah Hathaway one, but that's also got a live drummer playing on it. That was quite interesting because we had to use a MIDI-controlled gate to make sure that there were no flams between the loop and the drums. The interesting thing was that we actually moved the loop to the drums so it sounds like a real drummer playing but it's still got a synthetic feel. It's quite difficult to explain."

Getting more specific, it's reassuring to discover that Ware's early intimacy with music technology hasn't been undermined by his metamorphosis into sought-after producer. It has, however, ensured a musical sensibility keeps it in perspective.

"We've opted to use what we thought is the most elegant and intuitive sequencer around, which is Master Tracks Pro4. There's no doubt that there are some great sequencers around but provided there's no technical restriction - and they've ironed out 99.9% of the bugs in this program - it's all you need. Pro4 hasn't got a cluttered screen like Performer, it doesn't have thousands of dialogue boxes coming up all the time, it's just a simple recording medium. And that's all I require. You can teach anyone to use it in 20 minutes, which means you can get musicians to look at it without getting fazed by the technological aspects of it. They can then participate in the sequencing."

"I regard it as a major mistake to run things live off a sequencer, though, so we put everything to tape. It's too fraught with inconceivable problems - imagine you've got 48 tracks of stuff running and you've got something that's going 'tick... tick' every ten seconds at the back of the mix. It's not a very significant part of the mix but it's an essential part of the song. Are you going to sit and watch the sequencer screen or solo it all the time to make sure it's there? Or are you going to put it on tape and *know* it's there? It makes no sense to sequence things live unless you have to."

"Also, you're dealing in microseconds of feel, especially for rhythm tracks."

Say the sequencer approximates a slight error in the timing - say every four bars it moves 1mS. It's happened to us and it took us ages to find out why something was feeling just slightly odd every so often. It was a very tiny bug that normally you would never spot. I'd just prefer to have something down on tape where I *know* it's going to play in time every time. Then it's something you don't have to worry about and you can get on with the rest of the song."

"We do run the sequencer live with the multitrack though, so that we can use it for visual cues and so that if we want to change anything we can change it on the sequencer and then put it onto tape. That way you've got the best of both worlds. We use the sequencer display as a scrolling manuscript of the music."

As the visual display of the SSL beneath Ware's elbows suggests, the final mix is heavily assisted by the desk's automation system.

"Mixing is not an approximate science as far as I'm concerned", he announces. "The more you know about it, the bigger pain in the arse it becomes because you know how you want it to sound and you know how to achieve it, it just takes longer. That's the way it is. By the end of a three-day mix you hate the track but you know it's going to be good when you listen to it in a week's time."

Ware's presence at Red Bus is explained partly by Music Technology's request to photograph him in the natural habitat of the record producer and partly by his current involvement in Tashan's forthcoming LP. But not all his recent work has involved fresh recordings of old material - some of it's involved *old* recordings of old material.

"We've done a new version of 'Ball of Confusion' using the recording from the last album", he explains. "What happened was that no-one could find the multitrack so, because the recording was so bright and brittle, there's all this room at the bottom of the mix, so we laid a new bassline and rhythm loop under it, Deee-Lite style. It sounds as contemporary as all the shit that's going on now, I can tell you that. And that's done from a piece of Ampex quarter-inch tape with the oxide falling off each time we played it. We're hoping to get permission from Tina to release that."

"The story behind this is that in the early '80s Ampex had this major problem where they were experimenting with a new binding. Now they say that if you have any master tapes you want to use you have to send them back and they have to bake them. Then you can play them once to put them onto DAT and that's it - they're fucked. Can you believe that?"

"I have to confess to a certain amount of worry about DAT because that is a thin, delicate piece of tape and if they haven't got the formulation right... I don't give a shit if they think it's a throw-away medium - because that's obviously the way they're going to market it in future, in much the same way as they market Walkmans now. You don't expect a Walkman to work much after nine months, do you? Even my Sony Professional Walkman packed up after a year. If they're regarding DAT as that sort of medium, it makes you wonder. Who's going to answer for these things five years, ten years down the line?"

If, as is the case with much pop music, five to ten years is enough to see it happily forgotten, there will be no case to answer. It will come as a relief to many, though, that *Music of Quality and Distinction Volume 2* is more safely archived on Sony PCM masters. That way it should continue to live up to both halves of the promise in its title. ■

EQUIPMENT LIST

Akai S100 Sampler
BSS DPR9101 Dynamic EQ
E-mu Emulator III
(with optical disk)
E-mu Emulator II
GML 8200 Parametric EQ
Korg M1R Synth Module
Macintosh II Computer
Passport Master Tracks 4
Sequencing Software

Roland Rhodes Piano
Roland Juno (unidentified) Synth
Roland Super Jupiter Module
Roland R8M
Human Rhythm Composer
Yamaha REV7 Reverb

RED BUS STUDIO

SSL SL6000E Mixing Desk
Neil Grant Boxer II Monitors
Yamaha NS10 Monitors
Hired outboard

NEW

Create professional backing tracks and more with

Freestyle

F E A T U R E S

- Each style has 5 parts, drums, bass, 3 accompaniments
- Chord progressions entered through mouse/MIDI
- Create and edit your own styles
- 8 variations per style (intro, fill fade etc)
- Full realtime control of all parameters
- 10 song memory for instant recall
- On board MIDI mixer for volume etc
- 32 Unique styles included with up to 8 in any song
- Softlink™ and MROS™ compatible
- Optional style library available
- 10 Songs per Freestyle SET
- MIDI Thru (Octave shift/double)
- Save Song as Midi File
- Load Playlist as Midi file (type 0)
- Edit style as Midi File in your sequencer
- Direct control of all functions thru midi

only £149

The great thing about this programme (Freestyle), is its ease of use and there is absolutely no doubt that its flexible, robust, works well as a stand alone programme and makes a wonderful addition to a sequencer.

PAUL OVERRAA
INDEPENDANT REVIEWER

Oldies styles £29
(8 new styles)
Pop styles £29
(8 new styles)

Want to improve your Blues, Jazz and Rock Piano & keyboard skills ?

No matter what age, level or ability you can quickly master the techniques of contemporary popular piano ! These unique courses, using original compositions, focus on the essential concepts needed to play in the many popular styles of today.

The series consists of 2 volumes, Beginners - Intermediate and Intermediate to Advanced. Each comes complete with the following;

BOOK: contains full music notation and chord symbols of pieces

CASSETTE: All pieces professionally recorded for aural analysis

MIDI FILE: All pieces in Type 1 MIDI File for further editing etc

£17/volume or £30 both volumes

please state computer type (ST, AMIGA, MAC, IBM) when ordering

SOUND SOURCE
Unlimited, Inc.

SOUND SOURCE are arguably the worlds leading developer of sounds for a huge range of popular synthesizers and samplers past and present. Their massive catalogue includes sounds tailored for all musical tastes including Rock, Pop, Jazz, Orchestral, SFX and Film Scoring on ROM and many disc formats.

All SOUND SOURCE banks use the full memory of the instrument (computer disks come with self loading routines so no additional software is needed) For the best sounds for Yamaha, Roland, Korg, Emu, Kawai, Ensoniq, Casio and Peavey look no further !

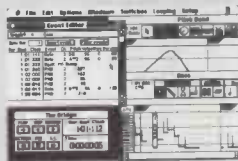
Coming SOON

Roland JD 800 - 7 Banks
Yamaha SY99 - 4 Banks
Yamaha SY99 - PCM disks
Korg T Series - 5 Banks
Korg T-Series - PCM disks
Star Trek Sounds - Macintosh

Special purchase bank of D50(ST disk) or TX81Z(tape) sounds **ONLY ONLY £7**

Dr T's
Music Software

The BEST software FOR PC MAC ST AMIGA



COPYIST

AMIGA KCS

OMEGA

REALTIME



PRISM
IBM

MACINTOSH BEYOND

TIGERCUB

ATARI X-OR



Shown are just a few examples of Dr T's titles. If you would like to know more about how Dr T's can help you make sweet music with your computer simply CALL and we will send you a full info pack.

BAND-IN-A-BOX

Type in the chords to any song, choose the style you'd like and Band in a Box does the rest

AUTOMATICALLY GENERATING PROFESSIONAL QUALITY BASS, DRUM AND PIANO PARTS IN A WIDE VARIETY OF STYLES

"I cant imagine a better way to spend £45"

Electronic Musician Oct 1990

One of the neatest programs I've seen .

Start Magazine

Every studio, teacher and songwriter needs

to own Band in a Box

Music Paper Magazine Aug 1990

Still ONLY

£45

Pro version includes further 52 styles

£69

TRYCHO TUNES

From £4/song

PERFORMANCE SEQUENCES™

How Much Time Do You Spend Sequencing Backing Tracks ?

For the best in professionally arranged MIDI SONGS, look no further than

TRYCHO PERFORMANCE SEQUENCES.

Recent hits available NOW

- Over 1300 songs available
- Current chart back to the 50's
- Programmed by Professionals
- Ideal for live, studio applications
- Full MIDI map with each song
- Wide range of formats supported
- from MIDI files to most popular hardware sequencers
- Songs available in pre-configured 3 or 10 packs
- saving money

Baby Baby
A Better Love
Every Heartbeat
Everything I Do
From A Distance
I Touch myself
I wanna See You Up
It Ain't Over Till Its Over
Love Is A Wonderful Thing
Rush Rush
Sensitivity
Time Love Tenderness

Amy Grant
Londonbeat
Amy Grant
Bryan Adams
Bette Midler
Divinyls
Colour Me Badd
Lenny Kravitz
Michael Bolton
Paula Abdul
Ralph Tresvant
Michael Bolton

All artists names are for reference purposes only and are in no way associated with Trycho or ZONE

Please contact us for a full catalogue and details. Demo Disks/tapes are £5, refundable of first purchase.

DEMO DISK for ST, AMIGA, MAC & IBM available

Songs also available on audio cassette or DAT !!

To order simply call with card details or send cheque plus £4 p & p. Dealer and European enquiries Welcome. ZONE are exclusive UK Distributor for Dr T's, Freestyle, Band in a Box, Trycho, Sound Source and all its product range. Please ask for full details.



ZONE Distribution 5, Abbeville Rd London SW4 Tel 081 766 6564



O1/W FD WORKSTATION



PHOTOGRAPHY: JAMES CUMPSTY

Korg have updated the concept and technology behind their best-selling workstation synth to produce its successor - but has the O1/W FD got what it takes to become another M1? Review by Simon Trask.

HOW DO YOU follow an act like the M1? The phenomenal success enjoyed by Korg's sample-based synth workstation since its release in 1988 has set the company a tricky task. Like the Minimoog, Prophet 5 and DX7 before it, the M1 captured the instrument-buying public's imagination by providing the right sound and the right concept at the right time and for the right price. Essentially it's the combination of these factors, giving a synth its particular identity and locating it at a particular moment in history, which determines its fate - which determines whether it's a Prophet 5 or a Prophet 10, a DX7 or a DX9, an M1 or a T3. Ultimately, however, no manufacturer can be sure that a new instrument is going to capture the public's imagination - or that, if it does, it isn't going to be eclipsed by another manufacturer's instrument before it has a chance to take root and flower.

Presumably, Korg didn't expect the M1 to capture the public's imagination to the extent that it did, otherwise initial demand wouldn't have outstripped availability so drastically. However, with their latest synth workstation they appear to be more on the ball, with a September public launch synchronised worldwide ensuring that the instrument was in the shops from a specific date. Korg have also learnt from their experience with the M1 by bringing out two versions of the new synth: the O1/W and the O1/W

FD, priced at £1645 and £1795 respectively. The two are the same in almost every respect, but there are a few key differences. While the O1/W has no onboard disk drive and only a modest 7000-note sequencer memory, the O1/W FD adds an onboard 3.5" 2DD disk drive (hence the FD tag) and a no-frills MIDI Data Filer mode which allows it to store multiple SysEx data dumps from other MIDI instruments up to a maximum of 64K per File, and has a much more generous 58,000-note sequencer memory. The FD version loses out over its cheaper companion in one respect, however: the contents of its sequencer memory are wiped whenever you switch it off, whereas the O1/W's battery-backed sequencer RAM allows its sequence data to be retained through power-down.

The O1/W, then, is better suited to musicians who use computer-based sequencing and SysEx librarian software or a stand-alone sequencer, the O1/W FD to musicians who prefer the keyboard workstation approach to sequencing. However, with the M1 selling (and it is still selling) for around a grand while the T-series synths sell for upwards of two grand (recession-inspired price-slashing notwithstanding), both versions of Korg's new synth help to plug a considerable price gap for the company.

As such, they should answer the prayers of any musician who has wanted a more sophisticated version of the M1 but hasn't been able to afford a

T-series synth. In some respects the T-series synths offer more than the O1. There's the 88-note and 76-note keyboards of the T1 and T2 respectively (the O1 has a 61-note velocity and channel-aftertouch sensitive keyboard), while all three T-series synths provide 32-channel MIDI output via two pairs of MIDI Outs (the O1 provides 16 channels via a single Out), 1Mb sample RAM (the O1 has none), 20 Songs/200 Patterns (the O1 has 10/100) and a 50,000-note sequencer memory (a marginal improvement over the O1/W FD). However, it could be said that these advantages pale into insignificance when balanced against the advantages that the O1 has over the T-series, let alone the M1.

CONTINUITY

IF YOU'RE FAMILIAR with either the M1 or one of the T-series synths, you'll soon feel at home with the O1. Its architecture, terminology, front-panel layout and user interface have all been kept as similar as possible, the consequence of a deliberate policy on Korg's part to emphasise continuity over novelty - gradual evolution rather than sudden revolution, you could say. The danger in this approach is that the similarities between a new instrument and its predecessor(s) can be more apparent than the differences.

The O1 is certainly descended from the M1 via the T-series, but it moves significantly beyond them in a number of ways, both quantitative and qualitative. Polyphony has been doubled from 16 notes to 32, the number of sequencer tracks has been doubled from eight to 16, and the maximum sequencer resolution has been doubled from 48ppqn to 96ppqn. The O1 keeps to the Program and Combination format of the M- and T-series instruments, but has 200 Programs and 200 Combinations onboard (organised in each case as Banks A and B) compared to 100 of each on the M1 and a 200/100 split on the T-series. It can also read a further 200 of each on a 512Kbit SRC512 RAM card (Banks C and D).

Newly-developed PCM ROM sample cards can hold 1Mword of sample data (Multisounds); these cards come paired as XSC two-card sets with ROM data cards which provide 100 Programs and 100 Combinations. Additionally, XPC Series ROM cards provide 100 Programs and 100 Combinations programmed by the likes of Sound Source Unlimited and Voice Crystal using the onboard PCM sample data. The O1 can't read M- or T-series sample cards or Program/Combi data, which is rather unfortunate and not at all in the spirit of continuity, but the first XSC card set to be made available will be a "Best of M & T" - providing, apparently, various popular Multisounds, Programs and Combinations from the O1's predecessors. Hopefully, one sound which will find its way onto the "Best of M & T" card is the M1's acoustic piano. The O1's acoustic piano sound is richer and more full-bodied than the M1's, but I'd hesitate to say that it's better. In absolute terms maybe, but although you can sit down and pick faults with the M1's piano sound, in real-world usage it's a remarkably usable sound.

Other card sets already scheduled are *Orchestral*, *Piano/Keyboard*, *Dance*, *Synth Design* and *Ethnic*. You won't have to wait until the Program/Combination cards come out to get a decent set of patches, though. The programmers have come up with a solid and remarkably consistent set of Programs and Combinations, enough to keep you busy for quite a while - it takes long enough just to play through them all. This quality and consistency is a vindication of Korg's policy of continuity: instead of having to grapple with a completely new programming system, the programmers have been able to work from a familiar base, making it easier for them to get to grips with the new samples and the new Program parameters on the O1.

On a practical note, I'd have preferred to see the O1's card slots on the front panel rather than the rear - not only would they have been more accessible, but any inserted cards would have been less prone to damage.

The O1 adopts a similar minimalist front-panel layout to that of the M1 and T-series synths, with the same basic structure of a small number of modes selected by dedicated buttons to the left of the central LCD, software pages within each edit mode selected by page up/down buttons and numeric keypad buttons, individual parameters within a software page selected by eight function buttons and cursor up/down buttons, and parameter values selected by a data slider and data increment/decrement buttons. The onboard sequencer is controlled from Start/Stop, Record and Reset buttons, but there are no dedicated fast-forward and reverse buttons as on Yamaha's SY77 and SY99 synths. Nor do you get dedicated track buttons as on the Yamaha synths, which is a shame as their omission means that you can't drop combinations of tracks in and out while a Song is playing.

Like the T-series synths, the O1 has a 64 x 240-dot backlit LCD rather than the M1's more constricted 2 x 40-character backlit display; in turn, it has also adopted T-series graphic features such as the optional listing of Programs and Combinations in groups of ten and the VDF and VDA envelope displays.

One excellent editing feature carried through from the M1 and the T-series synths is the ability to select edit pages directly using the numeric keypad buttons, which allows each page to be no more than a single button-press away. It doesn't take long to learn which page is called up by which button; the fact that button eight calls up the Effects page in the Program, Combination and Sequencer modes helps. The flip side to this immediacy is that individual page layouts can appear rather dense, and consequently there's only room to identify a parameter by its full name when it's selected.

The O1 also implements another valued editing feature of the M1, namely the ability to access eight Program parameters at the Play level via the function buttons, allowing quick and easy editing of, for instance, filter cutoff point, volume level, attack and release envelope times and dry/effect balance. ➤

"The M1 brought a new vibrancy, clarity and sparkle to synthesis - the O1 goes a step further with what can only be described as a new sense of realism."

➤ Similarly, you can select a new Program for, and edit the volume level of, each Timbre in a Combination from the Play level. It's a shame the O1 doesn't take this immediacy a step further by including eight sliders for interactive editing of Play-level parameters - particularly as you can interactively edit the levels of the eight Timbres in a Combination on the much humbler (and much cheaper) M3R rack-mount using the sliders on its RE1 remote editor. Let's have more interactive real-time editing on digital synths.

Let's also have an end to active voices being cut dead whenever you select a new patch or go in and out of edit mode. The O1 doesn't improve on its predecessors in this respect either. I don't know about you, but I find this sort of thing very irritating and unmusical - you can't, for instance, switch from a bass/piano split to a piano/sax split and hold a piano chord over the change, or switch from a



swirling atmospheric sound to a harp sound but have the harp part overlap a slowly-fading atmospheric part, or try out a sustaining sound with a variety of different effects by holding a note down on the keyboard and switching through different patches, or sustain your swirling atmospheric sound and go into edit mode to do some live edits (admittedly the O1's Play-level editing helps you out here). . . Need I say more?

THE SOUNDS

AS WITH THE M- and T-series instruments, samples lie at the heart of Korg's new synth. Only the O1 has even more of them than its predecessors: 255 Multisounds consisting of 220 one-shot and looped single samples and multisamples and 35 waveforms, and 119 Drum Sounds consisting of drum, percussion and effect sounds (a number of which are actually drawn from the Multisound list, as you can only select sounds assigned to the Drum Sound list in an O1 Drum Kit), all contained in 6Mb of ROM. Korg have put a lot of effort into enhancing the quality of the samples, but basically in their range the O1's Multisounds give you what you're already familiar with from the M- and T-series synths, with the usual combination of acoustic and electric pianos,

basses and guitars, various organs, wind and brass instruments, strings, choirs, tuned and untuned percussion, and various metallic and atmospheric sounds - only more of them, and therefore more variety. Also noticeable are more loops, intended to be used in combination with other sounds. There's a slight reference to the Wavestation in the inclusion of some VS waveforms alongside the traditional synth waveforms and a (reduced) number of DWGS waveforms (from the old DW6000 and DW8000 days); although the O1 has more waveforms than the M1 they actually represent a smaller percentage of the total number of Multisounds.

The O1's enhanced collection of samples is one part of what Korg refer to as their AI² Synthesis System, a development of the AI system which the company developed for the M1 and all its derivatives. AI² synthesis also improves the quality of the filtering (though there's still no resonance parameter) and adopts the Wavestation's effects processing in place of the M1's, adding a Symphonic Ensemble effect to give a total of 47 effects and effect combinations (compared to 33 on the M1 and T-series) which can be assigned individually to each of the two effects processors (with quite a few limitations on the effects that Symphonic Ensemble can be used with, due to its heavy processing requirements). In addition to the familiar serial and parallel configurations of the two effects processors, Korg have provided an alternative parallel configuration employed on their S3 drum machine which is well suited to use with drum tracks, where you might want to effect one sound and then send it to direct out C or D but effect another sound and then pan it across to effect one and the stereo outs. The inclusion of the Wavestation's effects also means that you have dynamic modulation of selected effect parameters for the first time within an M1/T-series instrument. Typically this involves modulation of a single, preset parameter - usually dry/wet balance, but also sometimes more interesting parameters such as the Mid Frequency of the Parametric Equaliser, the speed of dynamic modulation on the Rotary Speaker and the Hot Spot (centre frequency for the wah filter) on the Distortion or Overdrive. For an example of how effective dynamic modulation of the Hot Spot can be, look no further than the excellent Program A64: JStick Wah, which allows you to add a live wah wah effect to a distorted electric guitar sound by flicking the joystick controller in its +Y direction. Truly cosmic, man.

The synthesis architecture of the O1 is essentially the same as that of its predecessors, but there's the odd small change: the addition of a random waveform for the pitch modulation generator and, more significantly, the introduction of independent panning for each oscillator within a Program. You can also route each oscillator through its own Emphasis by setting an Emphasis Intensity parameter, and control the amount of Emphasis from velocity by setting velocity sensitivity amount and polarity.

But the most significant addition to the O1's synthesis capabilities is undoubtedly Wave Shaping. One of the problems presented by sample-based

synthesis is how to transcend the "PCM realism" of the sampled sounds. Filtering isn't enough because it only removes harmonics from what's already there. Wave Shaping, on the other hand, changes the PCM sample in more fundamental ways by adding harmonics - quite often non-integer ones - that aren't present in the source sample. Each oscillator within a Program can be routed through its own Waveshaper; all you have to do is select one of 60 "waveshapes" or "effects" and define how the intensity of the effect changes through time by programming Start Level, Decay Time and Sustain Level parameters to create a simple envelope. Each of these "waveshapes" is actually a mathematical transform function, but Korg have sensibly given them all descriptive or evocative names which have a musical rather than a mathematical relevance - Resonant 1, Zinger, Reptile (honestly), Soft Curve, Boww Bass and Booster. Not every effect produces a good result, and you can find yourself getting very similar results from a number of different effects. Nonetheless, while Waveshaping appears to be to an extent a "suck it and see" process, there's a much higher degree of predictability in it than there is in Roland's Differential Loop Modulation system as employed on their D70 synth - another modulation process which sets out to make a new sound from a PCM sample before it reaches the filter stage.

The O1's Waveshaper has a wide variety of uses, and I can only touch on them here. For instance, it can be used to "rough up" the O1's drum and percussion sounds in a quite spectacular way, to add a decidedly FM-y clangorousness to piano sounds, to add body to bass sounds, to add resonance to all manner of sounds, to add breathiness to wind and brass instrument sounds. . . in fact, to make changes which range from the subtle to the extreme. There's a lot of exploring to be done here.

COMBINATIONS

AS ON THE T-series synths, the O1's Combis are of a single, eight-part multitimbral type. Each part is known as a Timbre, and can have the following parameters programmed for it: transmit/receive mode (Int, Ext, Off), MIDI transmit/receive channel, a Program number, a volume level, transpose and detune amounts, pan position, note and velocity windows, and reception filtering of patch change, control change, sustain pedal and aftertouch data. If a Timbre with a Combination is set to Ext, the Program number and volume level set for it are transmitted via MIDI when you select the Combination, so not only can you incorporate specific MIDI'd sounds at specific volumes within a Combination, but you could also reserve specific Timbres for calling up effects patches on external processors (which could be hooked up to the O1's C and D direct outs, for instance).

Each Combination can be given its own effects processing, which is common to all eight Programs being used. As well as Write and Rename functions, there are a couple of very handy functions which allow you to Copy an effect from any Combination,

Program or Song into the currently-selected Combination, and Copy or Swap effect settings between effects processors one and two within a Combination.

SEQUENCING

THE MOST SIGNIFICANT developments on the sequencing front are the doubling of tracks from eight to 16 and the doubling of the resolution from 48 to 96ppqn. In fact, before you record a Song you can specify whether you want the higher or the lower resolution as your maximum resolution. Each of the 16 tracks in a Song can be assigned its own MIDI channel, Program number (you can also insert Program changes at any point in a track), pan position, play/mute status, MIDI status (off/int/ext/both), transpose and detune values, protect on/off status and note and velocity windows, and each Song can have its own effects processing which is applied to all the tracks. You can Copy Combis into either tracks 1-8 or tracks 9-16, with successive Timbres spread across the tracks (a feature introduced in v2 software for the T-series synths). In this way it's easy to play and record anything from a bass/piano split to a complex atmospheric texture within a Song - something you can't do on the M1. Still, if you want to use more than two Combis at the same time within a Song you have to combine two Combis within tracks 1-8, say, by Copying them as tracks, so freeing up tracks 9-16 to Copy the next Combi into.

The O1 also introduces a dedicated Tempo track which allows you to program tempo changes in bpm values - a big improvement over the T-series, on which tempo changes have to be programmed as MIDI controller 107, with the result that controller values bear no relationship to the actual bpm value they represent. A similarly convoluted feature of the T-series is the representation of pan data by SysEx data. On the O1 there's a very useful feature called Create Control Data which, as well as allowing you to create and edit the Tempo track, allows you to add bend, aftertouch or any controller data (0-102) to or delete it from any of tracks 1-16. You do this by specifying start and end locations and an end value, following which the O1 interpolates a gradual change from the start to the end value.

The O1 follows the tape-machine model of sequencing, in which you can start and stop recording at any location in your Song (up to 999 bars). The sequencer gives you a two-bar count-in before it starts recording. There's a choice of five ways to record in real time: Overwrite, Overdub, Auto Punch In/Out, Manual Punch In/Out and Loop (drum machine-style overdubbing). You can also step record, entering notes in step time from the keyboard. Event-list editing is included, and is clearly organised and very easy to use, not least because you're given the option to remove various types of continuous controller data from the display so that you can see note data clearly.

Erase, Bounce and Copy Track functions provide "coarse" level operations, but there are also plenty of editing functions which operate at the bar level, >

"Owners of Korg's M1 and T-series synths should be able to get a lot out of the new synth without having to go through much of a learning curve."

**SEND
NOW
FOR
YOUR
FREE
T-SHIRT!**



Simply by
subscribing to
**Music
Technology**
magazine, you
will receive
a free t-shirt
with your
first issue!

Please send me my FREE T-shirt
size M L XL XXL Tick relevant Box

Subscribe TODAY!

I wish to subscribe to Music Technology Magazine, to receive 12 issues of the magazine and to automatically become eligible for any offers from the Music Maker Subscriptions Club.

To start off, how about a binder to keep your 12 issues in perfect condition, for only £2.25. Normal cost £4.50. To take advantage of this offer now, please tick box .

UK £20.00, Europe and Overseas surface £25, Europe Airmail £35, Overseas Airmail £45.

Please send me the next 12 issues of MT commencing

with the issue.

I enclose Cheque/Postal Orders to the value of

£..... made payable to Music Technology Publications Ltd.

For payment by credit card or for further details telephone: 0898 100703 *Calls cost 36p per minute cheap rate and 48p at other times.*

PLEASE PRINT

Name

Address.....

.....

.....

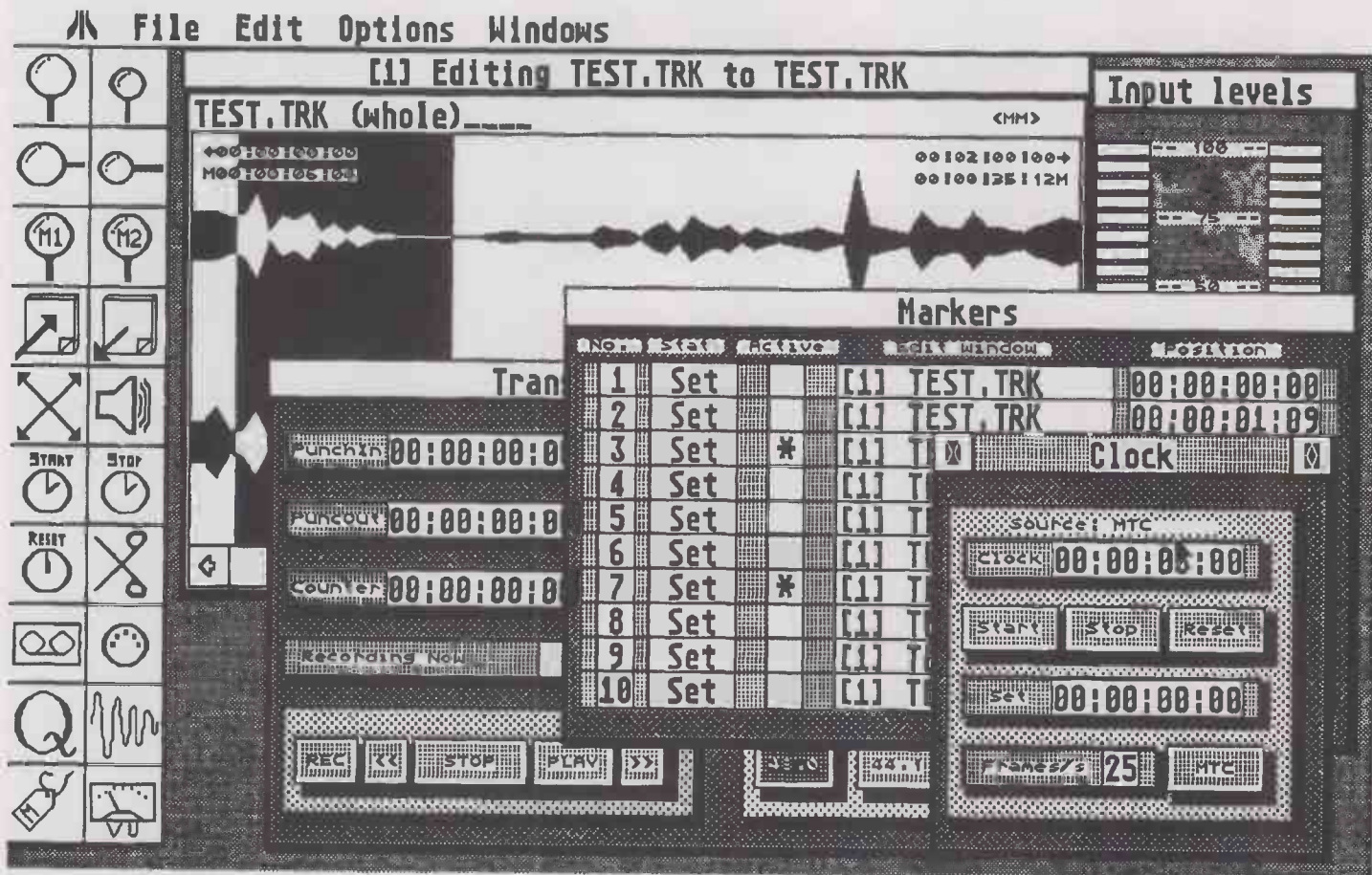
.....Post code*.....

* it is essential that you include your correct postcode.



Send to: Mail Order Department, MT, Alexander House, Forehill, Ely, Cambs CB7 4AF.

ADAS



Like synthesis and sampling before it, direct-to-hard disk recording is coming out of professionals' studios and into those of lesser musos. Review by Vic Lennard.

FROM SOUND EFFECTS to pop music, sampling has become an indispensable part of the '90s recording studio. Yet in spite of its revolutionary nature, the sampler is not without its shortcomings. With hardware samplers, long sampling times equate to large amounts of memory (RAM) which is relatively expensive - relative to running directly to a computer hard drive, that is. A megabyte of RAM costs around £40, depending on the computer, while a megabyte of hard drive space is less than a quarter of this cost.

Memory cost is not the only reason to consider a direct-to-hard-drive sampling system. As anyone who has switched to a computer sequencer from one of the hardware variety is aware, you should never underestimate the power of having a monitor to see clearly what you are doing. Post-production work with cue sheets and the like profits from this visual approach, and this is the very area in which direct-to-disk recording provides most benefit. Add to this the fact that many hard drives allow back-up to tape streamer or DAT and the reasons to invest in such a system are obvious.

The only problem is a financial one. Direct-to-disk systems such as Digidesign's Sound Tools on the Atari and Mac, and Hybrid Arts' ADAP on the Atari are expensive to buy and generally require a separate computer additional to the one running your sequencer. Plasmec have decided that such a unit can be manufactured at an affordable price and ADAS, designed by Mike Lynch of D2D, is the result of their research.

DRIVE ON

ADAS IS A stereo, 16-bit, direct-to-disk recording system running on the Atari ST. It's capable of digitising analogue audio and transferring it directly to hard drive; the ST's RAM isn't used for recording purposes, so the same computer may be used to run a sequencing program concurrently. All you need is an Atari ST, a hard drive and the ADAS hardware. What makes this interesting is that the ADAS package retails at £849 inclusive of VAT.

ADAS software comes in two forms; the main ADAS program, which allows you to record, edit and work with a cue list, and the ADAS desk accessory for

recording and playing back samples while using the same Atari for a sequencer program.

ADAS itself is a plastic box measuring about 9" square. The front panel has four LEDs; Power (red), Disk active (green), Recording (red), and Digital board in use (yellow). The rear panel offers four sets of connections; a short lead connects ADAS to the hard drive (DMA) port on the Atari while a separate lead then continues the signal path to the hard drive itself. Power is via an external PSU and a six-pin DIN socket. A pair of stereo quarter-inch jacks for the audio in/out and a pair of phono sockets for the SPDIF digital in/out complete the guided tour. It's fair to say that you couldn't fit anything else on the rear panel.

Which make of hard drive you use is up to you, but the time taken to read/write to the drive needs to be reasonably short. For example, trying an Atari Megafile 60 was unsuccessful until the DMA lead connecting it to the ADAS hardware was significantly shortened. On the other hand, the DAC 44Meg removable media system worked fine. Whichever drive you use, each 10Meg gives you about one minute of stereo recording time.

As ADAS sits in-line between the Atari and the hard drive, you can use your main ST hard drive for recording but this can lead to problems. If the same disk space is being used for writing to and reading from on a daily basis, the data on the disk will become fragmented - data cannot be saved on continuous disk sectors and so are written at different places on the disk. Writing to such a disk entails movement of the read/write heads which slows down the access time, causing a situation in which ADAS will refuse to work. If the same hard drive is going to be used, it would be better to have a separate partition specifically for ADAS.

The other problem which may occur is incompatibility between the program and some STs. Atari have gone through at least five different operating systems in their computers and some are flakier than others. Plasmec have spoken with Atari and are compiling a list of problem serial numbers and possible solutions.

RECORDING

ON LOADING THE program (review v1.3 - v1.4 current at time of publication) you are presented with a vertical strip of icons on the left-hand side of the screen and the usual Atari menu bar along the top. Some of the icons duplicate menu selections, and various functions have keyboard equivalents to make life easier.

To make a recording, open the Transport Control window (the cassette-style icon). This has the usual transport commands as well as the sampling rate selector (48kHz, 44.1kHz and 32kHz), start time and length of sample. A MIDI Time Code stamp is recorded with a sample as standard so that the correct position within a sample can be chased when playing back synchronised to MTC. A click on the File box brings up the standard Atari file selector, at which point you type in a new file name, set the recording

length and monitor the incoming audio, which passes through the A/D and D/A converters. If you hear distortion, then the incoming signal has to be reduced - there's no setting of gain option within ADAS. Also, there are no "meters" on-screen to show the approximate input level, which means that you could go into distortion part way through a recording and have to retake. Once the settings are satisfactory, click on the record button. The main Counter ticks over as the recording takes place and, at the end of the recording, the punch in and out counter shows the start and end points, ready for you to retake if necessary.

You can immediately play back the sample from its start, or from a particular point by fast forwarding or rewinding to that specific time on the main counter. Punch in and out are available; the punch times are set and then recording takes place as usual. The only problem here is that you can't hear the material before and after the punch points without recording first and then playing back - there isn't the equivalent of changing the monitoring from tape to input as on a tape recorder. That said, punching in and out is achieved very smoothly - without glitches or clicks.

WAVEFORMS

IF YOU ENTER the Edit window and load the recording from disk, the waveform appears in a new window on screen. The stereo source is displayed as a pair of mono, block waveforms, one above the other, with the start and end times of the waveform displayed. To hear the entire sample, click on the loudspeaker icon; to stop at any time, press both shift keys on the keyboard.

Zooming in and out by a factor of two can take place in both horizontal (X-axis) and vertical (Y-axis) directions by using the "lollipop"-style icons. Taking the latter first, the only reason to want to zoom vertically is to see the waveform more clearly when its amplitude is small. However, if its amplitude is that small, it would be better to re-record to get a better signal-to-noise ratio, especially as ADAS doesn't have the ability to normalise a sample - this is where the sample's greatest amplitude is found, increased to the highest amplitude possible and the rest of the waveform scaled accordingly. It would have been better for this window to be resizeable to display the vertical aspect of the waveform more clearly, because although there are inches of spare space around the waveform window, you can't make use of it.

Horizontal zooming is essential for finding zero-crossing points (where the waveform cuts through X axis). These are used to ensure that splicing together different samples doesn't give audible glitches. To zoom in on an area of a sample, click on the start or end point and drag out the area you want to hear. If you were editing on a tape-based system, you could hear the audio source being edited as it passed the playback head. With a digital system, you have the option of "scrubbing" the sample. This lets you hear a rough representation of the digital data with an >

“When you're looking at a direct-to-disk system which operates with the ST and costs under 900 quid, what do you compare it with?”

➤ option of either hearing a single shot of each bit as you drag across, or continuously repeating about half a dozen times a second while the mouse button is being held down. On the review version playback involved hacking backwards and forwards to the loudspeaker icon, but v1.4 facilitates playback from the Atari's Help key - a significant improvement.

The dragged-out area is shown by reversed graphics; the left-hand end of the area is the Start marker and the right-hand end the End marker. If you now zoom in, the inverted area on screen stays in the same place on screen as opposed to time-wise, which is a bit pointless - even the times attributed to the start and end markers on-screen change. On top of this, there are no vertical and horizontal scales, leaving you uncertain of where you are within the sample.

What you can do is to drag out an area and then click on either the "M1" or "M2" icons to zoom in on the start or end markers respectively, which then appear in the centre of the edit window. Continued clicking on either of these zooms in by a factor of two, and the inverted area then stays static time-wise. Let's say that we want to fine-tune the start point. Zoom in on M1 until we can see where the start point should be, hold down the shift key and drag the start marker to that point. What happens if the point you want to go to is beyond the edge of the screen - highly possible if you have zoomed in

screen, and such a file only takes up 120 bytes as long as a different file name from the original recording is used. If the same name is used, the area outside the markers is permanently erased. Fortunately, you're given a prompt warning of this.

Currently no editing facilities, such as reversing of regions, maximising of waveform, fade ins and outs, are available. It's also not possible to treat the left and right sides of the stereo image separately and there are no cut, copy and paste options or the ability to splice samples together, although this latter facility can effectively take place in the cue list.

The lack of processing power in an Atari ST is self-evident when it comes to rapidly re-drawing and scrolling screens. Consequently, ADAS offers you the option to view the waveform as a horizontal piece of tape, so speeding up re-draws dramatically.

ON CUE

A CUE SHEET is a list of events triggered (or "cued") at specific times. In the case of ADAS, the cue sheet is the playing back of recordings, or segments of recordings, at allocated times.

The Cue screen is divided into three parts. The bulk of the screen displays the cue number, name, L/R levels, start and end times. Above this are five boxes giving the file name, start time for cue list, main clock counter, clock source (internal or MTC) and start mode. The latter lets you choose whether the cue list starts at the cue list start time (Absolute), so leaving a gap of silence before the first entry, or starts immediately with the first entry (File). Because the start time for a segment is unlikely to be at 00.00.00.00, testing a cue list takes place in File mode, while working with the final product, perhaps locked to a sequencer, would take place in Absolute mode because the gap before the first cue would correctly position that first cue. Finally, the right-hand side of the screen lets you add, delete, edit and play the entries in the cue sheet and load/save to disk.

Creating a cue list is simple. A click on the Add box brings up the usual Atari file selector from which you select the first cue. The information box which then appears tells you the length of this file and the start time, which can be altered if you wish. The left and right levels can be altered, and the Insert mode set, for which there are three options. Delete places the entry in the cue list at its start time, and deletes any existing cues whose start times fall before the end time of the entry. Shift again places the entry at its start time, but then shifts all successive cues which would otherwise be written over. Close up sets the start time of the entry as that of the nearest end time of an existing cue and then moves successive cues back to close any gaps. If an existing cue is highlighted in the cue list, then the next entry you make automatically has the start time set to the end time of this cue. Editing cues again brings up the same information box so you get a second bite at the cherry. Deleting a cue gives you the choice of simply leaving a space where that cue was, or closing up the gap by moving successive cues back. It would be



many times? We can use the Remember Markers and Recall Markers icons; if the markers can be shown within the current zoom factor, they are; alternatively, if we've zoomed in beyond the point where this is possible, the start and end markers are at either end of the edit window, in which case the current resolution of the waveform on screen may not be high enough to see the point that you want to set for the start or end. Either way, we have to scroll with the horizontal scroll bar beneath the window, because the waveform doesn't automatically scroll when you drag to the edge of it. It would be better if it did. Having selected a part of the recording, the markers can be saved as a Segment to a disk file for use on the Cue List

**READERS
SPECIAL OFFER**

Have you got MIDI problems?

Solve your MIDI problems with Music Technology Special readers offer, the MA36 36 function MIDI analyser.

The MA36 is a neat battery powered MIDI analyser which uses 36 red LEDs to tell you everything from the number of MIDI channels in use to what kind of information is going down it.

**only
£29.99
inc VAT
and P&P**

You can check for:

- Active Sensing
- System Reset
- Errors and Interrupts
- Note On/Off
- All Notes Off
- Poly Pressure
- Control Change
- Program Change

- Channel Pressure
- Pitch Wheel
- System Exclusive
- Song Position Pointer
- Song Select
- Tune Request
- End Exclusive
- Midi Clock
- Start/Continue/Stop



The MA 36, previously sold elsewhere for £49.95, is available exclusively to Music Technology readers at a special price of only £29.99 inc VAT and P&P.

To order your MA 36, phone our 24 hour credit card hotline on 0898 100749* or clip the coupon below.

Please send me MA 36 (s). Name

I enclose a cheque/PO for £..... made out to: Address.....

Music Technology, MA 36 Offer, Alexander House,
Forehill, Ely, Cambs CB7 4AF.

Please include your full postcode and allow 28 days for delivery.
*Calls cost 34p per minute cheap rate and 45p per minute at all other times.

Postcode Tel:

MT 9

useful to be able to operate the Add and Delete functions via the Insert and Delete keys on the ST, to be able to choose to edit an entry by double clicking on it or to move up and down the cue list by using the cursor keys. Obviously, key equivalents of this nature save the time taken to move monotonously back and forth across the screen.

The ability to change the levels of recordings is limited, due to the fact that you have to leave a gap of a few frames between the end of one cue and the start of the next. This is because ADAS changes the digital data as opposed to using a VCA. Consequently, level changes can be used with, say, discrete sound effects but can't be used in the context of slicing up a song and reconstructing it.

To move several cues by the same, relative, time, you can edit the start time of the first cue and then use the Shift option to make the rest follow suit. Unfortunately, you can't do multiple deletes, as you can only select one cue sheet entry at a time. Why would you want to do this? Well, let's say that you've set the markers for a segment at 04.00 and 08.00 seconds and want this to repeat four times. Save the segment, go to the cue sheet and enter it four times. Fine. Now let's say that on playback you decide that the segment is slightly too long. Back to the edit screen, change the end marker to 07.24 (assuming that 25 frames per second is being used) and save the segment with the same name. On entering the cue sheet, the end marker times

entry in the cue sheet to start playing upon receipt of MTC, which makes it very difficult to start at a specific position. Also, 24, 25 and 30fps formats are supported, but what happened to 30 Drop Frame? It's true that this format is rarely used, but it should still be there.

Another feature that should be included in a cue list is the ability to crossfade from one cue to another. This is where the level of an outgoing cue is reduced as that cue finishes and the level of the incoming cue increases at the same time, giving a smooth changeover of cues. While it is possible to achieve glitch-free changeovers without this function, zero-crossing points invariably have to be used when the segments are saved and this takes a lot more effort to accomplish.

ADAS DA

AS PREVIOUSLY NOTED, you can run ADAS and a sequencer on the same ST. To help in this area, there is a desk accessory which lets you access the ADAS tracks recorded to hard drive and even to record and play back while working with the sequencer.

Both Steinberg and C-Lab have collaborated with Plasmec to establish an internal MIDI link between digital recorder and sequencer. This means that you can trigger samples from MIDI data saved within any of these manufacturer's sequencers. With C-Lab, you assign note information to Port D, while with Steinberg you use the ADAS driver which they have created. But this is running before we can walk. . .

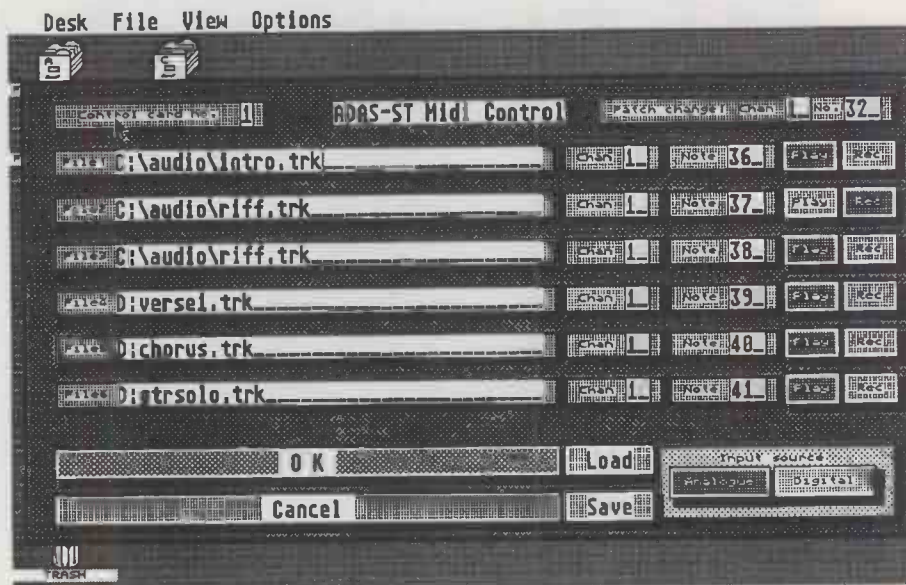
Taking a look at the accessory, you're initially presented with the first of six Control Cards, each of which have six slots for samples. Unfortunately, you have to type in the path of each sample, something like this:

C:\AUDIO\TRYITOUT.TRK.

First you have to remember the partition, folder and file name. Secondly, if you select a segment, you're told that the file isn't sample data. It would be better to be able to click on the file space and be presented with the usual ST file selector from which you could select your file, although this would make it awkward to access samples in different partitions. Also, segment and sample files should have different names if you can't access the main file information by selecting the segment file.

For each slot, you can set a MIDI channel, MIDI note number and whether ADAS is to play back a sample or to record one. As there are six Control Cards available, each can be allocated a MIDI Program Change number, on different MIDI channels.

Assuming you're using either C-Lab or Steinberg software, the simplest way to use the accessory is to play back existing samples - set the path, assign the MIDI channel and note number, enter the note into the sequencer editing grid and that's it. The sample will play back when the MIDI note is reached. However, this only touches on the possibilities, because you can also use the desk accessory to



haven't changed, which means that you have to delete the four cues and re-enter them. This is a definite failing of the cue screen and makes it a little user-unfriendly.

If you're running ADAS on a separate computer from your sequencer, you can lock the cue sheet to your sequencer using MTC, as long as the software you are using supports this - Steinberg and Passport software does on the ST. When you record a sample, the timing is "stamped" onto the sample along its length which means that you can begin playback at a place other than the start of the sample - similar to using MIDI Song Position Pointer within a sequencer. Unfortunately, it takes around two seconds for an

trigger the recording of a sample, which is marvellous if you're sync'd to a tape machine and wish to sample multi-layered backing vocals which are then to be replayed at different places in the song. To do this, you set the slot up to record but immediately hit a problem - you can only use file names which relate to existing sample files, which means that you have to record a sample that you don't want via the ADAS program and then use that name.

If you're recording via the desk accessory, there are two ways to proceed: set the accessory up to record, record what you want to with your system in sync and then go to the accessory and change from record to play. The recording should then play back at the same time in the song that it was recorded. Alternatively, you can use two different MIDI note numbers for record and playback respectively and adjust the trigger note in the sequencer from one to the other.

A common situation in which ADAS might be used is the setting up of an audio loop over which MIDI equipment is played. The intention is that the accessory is used for the recording of the audio in situ but you can take a pre-recorded sample from the program, which you could do if you need to trim the start and end points precisely. However, there appear to be problems when you do this. A recorded piece of exactly eight seconds was placed into a slot on a Control Card. At a tempo of 120bpm on Cubase (each bar is two seconds long), the trigger note was written to a part of four bars in length and then copied a number of times.

Taking into consideration the fact that there is a time lapse between calling up the sample from hard drive and the audio actually starting (which Plasmec estimate at being around 200 milliseconds), this delay should be constant - the first sample plays late, and so do all others. Consequently you can set a negative track delay to compensate for this. In the situation I tried, there was an additional gap of around 200 milliseconds between the end of one sample and the start of the next. This makes it impossible to loop a continuous sample which has been taken from the ADAS program. Also, a second sample cannot start until the first has finished - surely it should be the other way round, with a second sample cutting off the first? The way things are currently, you have to be spot-on with the track delays; there's a fine dividing line between getting a gap and no second sample at all.

There are also problems in attempting to use the desk accessory to the same end. Using Cubase and the method of switching the Control Card entry from record to playback, the last 200ms or so that you hear being recorded is missing on playback, giving the same kind of gap. I can't see how this system can currently be used to provide seamless playback of a loop unless you use a cue sheet which cannot be triggered via the sequencer. One final problem is that of Cubase slowing down when handling a fair amount of MIDI data and then sending out a patch change to the Control Card; I'm talking about audible slowing down here. Apparently, this is the only situation where ADAS uses the ST's processor for playback.

Perhaps the compromises necessary to run ADAS and a sequencer are too great. Bearing in mind that the desk accessory requires over 330 Kbytes of RAM to run, you can't operate either Cubase or Notator with ADAS on a 1Meg ST.

In the imminent software update (v1.4) one significant improvement is the provision of ten markers instead of two. This will mean that you can accurately slice up an audio piece, and in conjunction with a space bar playback/loop playback feature, ensure that playback from the cue sheet is a lot more accurate. Other features include real-time input level meters (monitoring only), DAT back-up software, and provision for saving personal configuration preferences (see sidebar for update list).

Plasmec intend to sort out the problem with the cue sheet edit updates, and the gap for level changes in the cue sheet (by using a small crossfade to get rid of the audible click). More interestingly, they're working with Steinberg to have ADAS included as a module within Avalon, which could then handle all of the editing which ADAS can't.

VERDICT

WHEN YOU'RE LOOKING at a direct-to-disk system which operates with the ST and costs under 900 quid, what do you compare it with? The obvious comparison is with Digidesign's Sound Tools (for the Mac), which costs over £2000 and has been down the difficult path of testing, bug-fixing and feature-adding for a couple of years, but the reality is that there's no competition. Even the Atari version of Sound Tools required a Mega4 ST (a lesser ST with a memory upgrade wouldn't do).

Plasmec have sorted out most of the hardware problems; ADAS records to and plays back from hard drive and the audio quality is very good, if a little noisy. The current problems are with the software, and program development takes time - a lot of time.

Some of the main problems will have been sorted by the time you read this with the release of v1.4, but there are others which are of a high priority, especially the updating of cue-sheet edits which makes the cue sheet very awkward to use, and the addition of key equivalents wherever possible. I've no doubt that these will be attended to and other worthwhile features added.

Personally, I'm not convinced that a direct-to-disk system running on an Atari ST can be regarded as a fully-professional system. That said, the instances of professionals using less-than-professional gear and liking it are too many to count. Beyond (or beneath) the professionals there are plenty of other ST users who really owe it to their music to check out ADAS. The bottom line is that ADAS may well represent access to technology which would otherwise remain out of your financial reach. You might say that technology has just broken the sound barrier once again. ■

Price £849 with psu

More From Plasmec Systems Ltd, Weydon Lane, Farnham, Surrey GU9 8QL. Tel: (0252) 721236.

ADAS SOFTWARE v1.4 UPDATES

- Atari keyboard playback function (Help key)
- Repeat playback function (Control key)
- Real-time input level metering
- Real-time volume changes in Cuesheet
- Recording in sync with timecode
- Marker window listing times for editing
- Number of markers increased to 10
- Marker setting "on the fly" (space bar)
- Playback of initial section of selected area (Left Shift)
- Playback of final section of selected area (Right Shift)
- DAT back-up using digital I/O
- Save preferred configuration

All existing ADAS owners updated free of charge

MULTITIMBRALITY

made simple



AS THE GENERAL UNDERSTANDING OF MIDI HAS INCREASED, THERE HAVE EMERGED A FEW AREAS OF PERSISTENT CONFUSION - IF MULTITIMBRALITY IS GIVING YOU PROBLEMS, READ ON. TEXT BY VIC LENNARD.

THE TERM "MULTITIMBRAL" is used extensively when describing modern musical instruments, and yet its precise definition is far from clear. If you ever want to appear on *Mastermind* - specialist subject, MIDI - all you'd need to do would be to digest the facts contained in the Detailed MIDI Specification. This is the MIDI "bible", which may contain certain anomalies and ambiguities but at least provides the necessary information for anyone interested in MIDI (apart from the Standard MIDI File specification) in a single 64-page book. All necessary information, that is, with the exception of a definition for the expression "multitimbral".

In fact, multitimbrality appears to have preceded MIDI by some five years or so. It was patented by an obscure gentleman, who defined it along the lines of independent digital control for multiple sound sources. I attempted to trace this person about a year ago, but without success. It seems that he crops up every now and then, when he threatens to sue various manufacturers for infringing his copyright! Still, anyone who could envisage such technology over 15 years ago must have been rather forward thinking.

POLYPHONY

IF A SYNTH is termed "polyphonic", it has the ability to play many different notes simultaneously. So the polyphony of an instrument is the total number of notes which it allows you to play at the same time. The number of voices within a synth is usually the same as the polyphony for that synth, as one voice is normally responsible for the sound being created by one key. A little care has to be taken, however - some manufacturers use the word "voice" in place of "note" while others use it in place of "sound". Personally, I prefer the former and will use that convention throughout this article. Many synths allow you to double up voices, or to work in a "dual" mode where the pressing of a key effectively plays two voices. In this situation, the polyphony would be halved, and such synths are often referred to as being "bitimbral". Again, there is no specific definition for this - a bitimbral synth may simply allow you to overlay two sounds, or may let you split two sounds so that the keys above the split-point play one sound while those below the split-point play a different sound. No mention of MIDI - the sounds either side of the split may or may not be on different MIDI channels.

The polyphony of an instrument used to

be indicated within the model name - the Roland Jupiter 8 offers eight voices while the Sequential Circuits Prophet 10 has ten voices. That convention has changed - otherwise what are we supposed to make of the Oberheim Matrix 1000? Roland's D50 gives you access to 32 partials (or part-sounds), but as up to four partials are combined together to make a single voice, it's impossible to calculate the precise polyphony of this instrument unless you specify its setup at any given-moment.

What's the point of having a polyphony value greater than the number of fingers on your hand? You can't play more than ten notes solely from your fingers (unless you're into jazz) but don't forget the sustain pedal. It's quite common for 16 notes to be taken up by a pianist, which is why eight-note polyphonic piano modules are sometimes of limited use. If you exceed the polyphony of a synth, a system called note-stealing comes into effect, whereby either the first or last note played will be reassigned - some synths allow you to choose which of these you would prefer. Alternatively, most modern synths have an "overflow" mode where notes exceeding the polyphony are re-transmitted from the MIDI Out socket to another synth. Also, some synths let you work in pairs with even-numbered notes on one synth and

odd-numbered notes on the other - Yamaha's EMT10 is one such beast.

Now, what happens if you're using less notes than the polyphony of a synth but want to use different sounds at the same time?

MULTITIMBRAL SYNTHS

A MULTITIMBRAL SYNTH can be thought of as several independent synths within one unit, constrained by the total polyphony of the unit and various other factors which we'll discuss later. The first multitimbral synth to be marketed as such was Roland's MT32, launched in January 1987. The MT32 has the same kind of voice structure as the D50 - 32 partials with between one and four partials being used per voice. However, it is also nine-part multitimbral, with the first eight parts choosing from the 64 internal sounds, and the ninth part being a dedicated rhythm section containing a selection of 30 percussion instruments. But this certainly wasn't the first multitimbral synth. That honour goes to Sequential Circuits' SixTrak, released in December 1983. This is a six-voice synth with a built-in digital recorder onto which you can record six different instruments, each using one voice. In fact, the word "multitimbral" was actually used in the publicity brochure.

Irrespective of the manufacturer, each part on a multitimbral synth will generally have its own MIDI channel, sound (or tone/timbre), MIDI key range and Output level. This idea of a multitimbral synth seems to be the answer to a musician's dreams; only one device needed to provide for all-his/her synth-needs, meaning no bird's nest of audio, mains and MIDI cables. However, it's not that simple - there are several restrictions. The first of these is in the hardware department; synths often provide only a stereo pair of output sockets through which all sounds emanate. While you'll usually have the option of selecting the position of each instrument in the stereo field, or pan, you are not able to individually EQ or effect each instrument. It's also quite a bind to have to balance the relative levels by using push buttons on the front panel of such a synth.

The second problem is that there is often only a global effect offered - you can't use one kind of reverb on, say, the drums and another type on the brass. There may be more than one type of effect offered, and you may have the option of using the different effects on different instruments

within the synth, but again these are usually output from the same pair of stereo outs. All in all, it's a compromise which results in a lack of flexibility.

No matter how great your synth's polyphony, you're going to run out of voices sooner or later. You then have the awkward situation of losing notes without being able to control where from. To avoid this, most multitimbral synths let you set a reserve for each of the sounds so that, should the polyphony be exceeded, you will be able to control from which sounds notes are stolen.

There is a further problem which many of you will have encountered but possibly won't be aware of the cause. Take a multitimbral synth and feed multiple MIDI channels of information through it. Now start moving around the screens on the liquid crystal display. You should notice two things: the screens are sluggish to respond and the MIDI information passing through the synth starts to glitch. This is because the same micro-processor generally handles the MIDI input/output, screen refreshes and data processing. The more strain it is under, the less it can achieve within a clock cycle. Consequently, for the best possible timing of the MIDI information, never manipulate the screens while a synth is in use. It's true to say that some multitimbral synths are under-powered microprocessor-wise, resulting in an inaccuracy in timing which is proportional to the amount of data being processed at any moment. Consequently, the delays in handling MIDI information are variable.

When many MIDI channels of data need to be processed, all synths will have an order of priority which might be expected to be in ascending order of part number. However, it ain't necessarily so. For example, the M1 gives part eight priority, followed by seven, six, and so on down to channel one. Similarly, Roland's D110 in its earlier versions gave the Rhythm part lowest priority. Typically, this information is never given in the manual.

The "definition" of independence of MIDI channel per part means that many samplers are not, strictly speaking, multitimbral. For instance, Korg's DSS1 can have various keyboard splits, but they all share the same MIDI channel. Korg call this "multisound" but perhaps MIDI devices of this nature should be referred to as being "multi-zoned". Of course, there's also the (still) industry-standard 12-bit sampler, the Akai S900/950, which can have a different MIDI channel set per zone, or keygroup, as Akai call them. What, then, do we call this? A multitimbral, multi-zoned, multisound? Isn't life complicated? ■

PROGRAM CHANGES

WHEN YOU WORK with a multitimbral synth, you have the option of changing either the whole group of sounds you're using, or just one of them. Most MIDI units have a Global or Control MIDI channel, which is often one less than the lowest MIDI channel being used. Receiving a MIDI Program Change on this channel will select the patch of that number, something you might want to do at the start of a song. However, doing this in the middle of a song would cause all sounds that were playing at that moment to glitch. To get around this, it is usual to send a MIDI Program Change on the MIDI channel of a specific part to change the sound for that part.

MIDI MODE 4

NO ARTICLE ON multitimbrality would be complete without mention of MIDI mode 4, commonly called Mono Mode. Each voice of a synth operates on consecutively-numbered MIDI channels, starting from a base channel, but not all of the available voices have to be used. What use is MIDI mode 4? Take the example of a guitar synth using pitch-to-voltage technology. Strings are bent to alter the pitch but the pitch change varies with the gauge of the string. So multiple-string bends are impossible when working with one MIDI channel - the pitchbend data transmitted is different for each string and summing pitchbend is not to be recommended. However, if each string is transmitting on a different MIDI channel, this problem doesn't occur, although an incredible amount of MIDI data is generated. If the synth being used has eight voices, operating in Mono mode, then two of the voices will be redundant in this situation.

There's little doubt that multitimbral synths have changed the way most of us work with MIDI. There are many synths whose polyphony exceeds 20 voices and which have four or six outputs, giving them the ability to play back an entire song from just one module. That said, don't forget that MIDI is a serial protocol - only one note can be transmitted at a time. The more data you send to a multitimbral synth, the more you clog up its input buffer, and the delays will increase up to a point at which they become audible - though you can improve the situation by filtering out unwanted MIDI data (like Aftertouch) and thinning out pitchbend and continuous MIDI controllers (like MIDI Volume - Controller 7) if your sequencer allows you to. ■

MUSIC RECORDING & TECHNOLOGY SHOW '91



Possibly the only essential date for the MIDI musicians' diary this year is the MUSIC RECORDING & TECHNOLOGY SHOW on *Saturday 2nd* and *Sunday 3rd November* at the Hammersmith Novotel International Centre in London.

Sponsored by *MUSIC TECHNOLOGY* and sister mag *HOME & STUDIO RECORDING*, the show offers you an ideal opportunity to see the latest in hi-tech instruments and recording gear, talk to the people behind it and even pick up a few "show bargains" - yes, you'll actually be able to buy anything which takes your fancy at special show rates in many cases. And when you visit the show, your entrance fee of £5 (£4 with your money off voucher) will also allow you to visit the London Guitarist Show taking place elsewhere in the same venue.

Throughout the two days of the show there will be free seminars covering everything from MIDI to recording techniques. Each day will close with an "open" question and answer session - the ideal opportunity to seek advice on your own problems.

Exhibitors will include such prestigious names as Akai, TEAC, Thatched Cottage, Roland, AMG, UKMA and Digisound. MT and H&SR staff will be in attendance throughout the show, so don't be afraid to come and meet the staff who bring you the best mags in their field.

SEMINARS

SATURDAY 2nd NOVEMBER

- Basic 4-track recording - Dave Ward.
- Basic Mixing: how to bring a dull 8-track to life - with degree students from Kingston Poly School of Music.
- Production lecture by producer Nicky Graham, 1988 Music Week Most Successful Producer of UK singles and 3rd most successful album producer.
- Extended Q&A session with a panel of experts.

SUNDAY 3rd NOVEMBER

- Using Microphones - Dave Ward
- Recording Electric and Acoustic Guitars - Paul White, Dave Ward and John Harris. Vic Lennard on MIDI.
- Extended Q&A session with the above mentioned experts.

USE THIS VOUCHER TO SAVE £1 ON ENTRANCE FEE!

Entrance to the M-RAT show includes
free admission to the Guitarist show taking place
elsewhere in the Novotel
ONLY ONE VOUCHER PER PERSON

MUSIC TECHNOLOGY's Readers' 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 Readers' classifieds published in MUSIC TECHNOLOGY.

Calls cost 34p per minute cheap rate and 45p per minute at all other times

KEYBOARDS

ALESIS DATADISK, £170; MMT8, £150;

Korg P3, inc card, £170, all boxed, manuals; Korg MS10, analogue, £40; Ibanez guitar, £100; 15" cab, £25; Copicat, £30. Alan, Tel: 051-487 3463/428 9349.

ANALOGUE SYNTHS for sale: Roland SH09, Roland SH2, Multimoog, Micromoog, Korg MS10, Korg VC10 vocoder, ARP Axse, Wasp DeLuxe and Spider sequencer, Sequential Pro1. Andy, Tel: 081-868 9651, work/(0923) 670566, home.

CASIO CZ1000, £125; Greengate DS3 and Apple II computer, £75. Tel: (0206) 823930.

CASIO CZ1000, w/adaptor, manuals, RAM cartridge. Chris, Tel: (0243) 586395.

CASIO CZ1000, manuals, patch books, Atari editor, librarian disks, £150 ono. Terry, Tel: (0928) 711006.

CASIO CZ3000, 5-octave programmable digital MIDI synth, manual, vgc, £220. Phil, Tel: 081-894 9817.

CASIO CZ5000, polyphonic synth, £300 or offers. Tel: (0525) 717557 or Sean, Tel: 717976.

CASIO HT3000, programmable MIDI synth, w/drums, percussion and auto-chord, immac, £195. Paul, Tel: (0225) 319662.

CASIO VZ1 synth and Korg P3 piano module plus orchestra card, £400 the pair. Andy, Tel: (0273) 455692.

DIGISOUND MODULES, most built, some kits, 40 VCO/VCLFO, 14 VCF, numerous others eg. ADSR, VCA, VCM, RM, processor, noise/S&H, waveform multipliers etc, 49-note keybd and Alpha-DAC w/61-note poly keybd and 3-voice synth built-in, cost about £2000 new, offers around £695. Tel: 021-458 3969.

E-MU PROFORMANCE piano module, as new, swap for Roland R5 drums or £240. Gary, Tel: (0257) 791181.

EMULATOR II, w/case, manual, 156 disks, £1500; Korg M1, £850; Prophet 600, £300; Yamaha DX7, £400; Alesis HR16, £160; Yamaha RX11, £125; Yamaha RX17, £125. Kevin, Tel: 041-339 3457.

ENSONIQ ESQ1, w/RAM cartridge, £450; JX3P, PG200 programmer, £280; Alpha Juno 1, £250; Roland TR707, £120. Tim, Tel: (0229) 53746.

ENSONIQ SQ80, sequencer/keybd, disk drive, plus cartridge, 2000 sounds, 70-100 full songs per disk, "I've recorded all my best stuff with it" - Adamski, MT August 91, £720. Stu, Tel: (0403) 752647.

ENSONIQ VFX, v2.0 s/w, 3 ROM cartridges, will swap for Waldorf Microwave or Korg Wavestation. Sean, Tel: (0602) 414212.

ENSONIQ VFX, £850 ono; E-mu Proteus 1, £525 ono; E-mu Proformance, £250 ono. Tel: 081-462 6261.

ENSONIQ VFX-SD, MkII, 4 months old, £1100; Ensoniq EPS keybd, 4x memory expansion, great library, £950; Proteus 2 orchestral expander, brand new, £750. Adrian, Tel: 081-947 9770.

FENDER RHODES MKII electric piano, active tone controls, never giggered, £175 or swap for mother keybd. Gareth, Tel: 051-525 2620.

KAWAI K1, original presets, as new, £350 ono. Pete, Tel: (0254) 201592.

KAWAI K1, MkII, multitimbral, drum section, 64 single sounds, 32 multi combinations, built-in fx, boxed, manual, brand new, hardly used, absolutely mint, bargain at £365 ono. Tel: 081-809 2427.

KAWAI K4, boxed, as new, £450 ono. Tel: (0202) 535150.

KAWAI K5 digital synth, 16-voice, great sounds, 4 output multitimbral, sound cards, immac, f/cased, £500. Toby, Tel: 071-491 0411.

KORG BX3, 2-manual Hammond soundalike, w/stand and pedal, best offers. Tel: (0273) 301643.

KORG DS8, card, cased, w/A-frame, £400. Steve, Tel: (0279) 430466.

KORG DW8000 digital wave synth, 5 octaves, velocity sensitive, aftertouch, built-in arpeggiator, full MIDI, an option to dump to and from tape, sounds range from fat analogue to sparkling digital, £300 or will swap for MIDI mother keybd. Tel: 081-743 6600.

KORG EX800 expander, w/rackmounts, perfect cond, £120 ono. Steve, Tel: 051-722 9093.

KORG M1, home use only, 6 months old, inc f/c, £850. Tel: (0482) 872073.

KORG M1 synth, 2 months old, 2 Valhala ROM cards, £850. Roy, Tel: (0203) 316869.

KORG M1 music workstation, w/2500 sounds on Amiga or Atari disk, brilliant on-board sounds, good cond, £800 or p/x for Ensoniq EPS sampler, no offers; Yamaha TG55 sound module, 6 wks old, barely used, built-in fx and drums, £425 ono. Tel: (0324) 31513.

KORG M1R, cards, boxed, manuals, little home use, as new, plus Yamaha Data Filer, w/disks, £925 ono. Tel: (0801) 24502.

KORG POLY800, £110; Digisound 80 Series modular synth, over 40 modules, similar Roland System 100, today's cost £3000+, accept £1000. Alan, Tel: (0379) 676670, eves.

KORG T3, bought last year, sale due to financial difficulties, £1200 ono. Howard, Tel: (0225) 460948.

KORG T3 workstation, exc cond, over 1000 new sounds, £1650 ono. Steve, Tel: (0429) 222517.

KORG T3 multitimbral synth, home use only, £1300. Tel: 071-289 2540.

KORG WAVESTATION, s/w, £769; Roland R8, plus electronic ROM card, £369; C-Lab Notator v3, w/key, £269; Rees 5x5 MIDI patchbay, £59. Mint cond. Colin, Tel: (0482) 796674.

MOOG MINIMOOG, Model D, immac, ultrastable, possibly the best available, £750 p/x Microwave or what-have-you.

Andy, Tel: (0923) 670566.

MOOG ROGUE, £110; Oberheim DX drum m/c, £110 or £200 the pair. Tel: (0904) 612236.

MOOG SOURCE, 2 osc keybd, good working order, manual, ideal for house and techno-type music, £200. Tel: (0604) 843536.

OSCAR, exc cond, MIDI, manual, £320 ono; Korg MS20, £140 ono; Korg EX800, 400+ sounds on disk, manual, £160 ono. Tel: (0225) 776841.

ROLAND ALPHA JUNO 2, £500 ono or swap. Daniel, Tel: (0276) 682075.

ROLAND D5, as new, boxed, manuals, £320. Tel: 061-483 8551, anytime.

ROLAND D10, multitimbral synth, good cond, £495 ono or will consider exchange for decent keybd sampler. Tel: (0282) 416451.

ROLAND D10, w/keybd stand, £495; Yamaha TG55, £395; Atari 1040STE, w/SM124 mono monitor, £370; C-Lab Notator, v3, £325; C-Lab Explorer 32 ed/lib, £50. Philip, Tel: (0274) 606205, anytime.

ROLAND D10 synth, exc cond, for quick sale £325. Tel: 041-647 7950.

ROLAND D110, multitimbral sound module, exc cond, £275. Russell, Tel: 071-388 7024.

ROLAND D110, as new, boxed, £280. Tel: 051-426 5495.

ROLAND D110, boxed, manuals, as new, PN.10.03 original Roland sound card, asking price £350; Yamaha KM602 6-ch mixer, w/built-in chorus fx, mic inputs, 1 aux return, boxed, manuals, as new. Tel: (0705) 650916.

ROLAND D110, LA synth, 8-part, 8 outputs, £350 ono. Tel: (0324) 612990.

ROLAND D110, boxed, A1 cond, £300. David, Tel: (0293) 521648.

ROLAND D110, boxed, £350 or swap for U110 or U220. Tel: 051-645 0682.

ROLAND D110, multitimbral sound module, £280; Roland-P330 digital piano module, £350. Home use only,

perfect cond. Andrew, Tel: 071-722 0325.

ROLAND D110, I must absolutely definitely sell this piece of equipment, please make me any sensible offer - nothing refused. Neil, Tel: (0536) 711260.

ROLAND D110 synth module, loads of extra sounds, £350. Martin, Tel: 081-691 1087.

ROLAND D550, 600 sounds, programmer, £600. Steve, Tel: 021-472 6378.

ROLAND E20, w/extra rhythm card, only £450 or exchange good expander. Wanted: £30. Tel: (0703) 636885.

ROLAND EP3 digital piano, 5 tones, vibes, pipe organ and strings, unwanted prize - proof available, genuine reason for sale, worth £299 new, yours in unboxed brand new cond, £249. Robert, Tel: 081-864 3154.

ROLAND JUNO 106, exc cond, full f/case, 128 extra sound source sounds on tape, £400; Roland SH101, as new, w/modulation grip, soft case, £150. Both w/manuals. Pasky, Tel: (0733) 66232, between 9am-6pm.

ROLAND JUPITER 8, case, £525; Roland D110, £300; Roland U220, £400; Roland R5 drum m/c, £250; Yamaha QY10, £200. All vgc. Martin, Tel: (0729) 822415, days/(0524) 241619, eves.

ROLAND JX3P, exc cond, manual, £250 ovno. Angie, Tel: (0705) 594822 or 253388, eves.

ROLAND JXP, w/cartridges, £400. Tel: (0226) 242307.

ROLAND MKS70, plus programmer, £800. Tel: 071-352 6025.

ROLAND MKS70, rackmount JX10, exc cond, box, manual, £700 ono. John, Tel: (0253) 873716.

ROLAND MT32, multitimbral expander, £150. John, Tel: (0932) 868468.

ROLAND MT100, multitimbral sound module plus sequencer, as new, boxed, manuals, £400; TR505 drum m/c, £100. Tel: (0277) 215421.

ROLAND PG1000 D50 programmer, £95. Toby, Tel: 071-491 0411.

ROLAND SH101, a most excellent squelch box dudes, £90 ono. Pete, Tel: (0254) 201592.

ROLAND SYSTEM 100 keybd 101, expander 102, sequencer 104, exc cond, £300, p/x welcome. Andy, Tel: (0923) 670566.

ROLAND U20, RS-PCM multitimbral keybd, exc cond, £600. Russell, Tel: 071-388 7024.

ROLAND U20, I absolutely must sell this keyboard, please make me a sensible offer - nothing refused. Neil, Tel: (0536) 711260.

ROLAND U110 PCM multitimbral sound

module, exc cond, £275. Russell, Tel: 071-388 7024.

ROLAND U220, £395; Casio FZ1, £300; Alesis Quadverb, £250. Tel: 051-339 1167.

PPG WAVE 2.2, (upgraded to 2.3), £1200. Joey, Tel: (0373) 472977.

SEQUENTIAL CIRCUITS MULTITRAK 6-part analogue synth, immac, boxed, £250; Kawai K1R, immac, boxed, £225 ono; Simmons SPM8:2 mixer, immac, boxed, £225 ono. Tel: 081-518 7062.

SEQUENTIAL PRO1 monosynth, fantastic for fat analogue sounds and weird fx, £115 ono; FB01, loads of sounds and editor, £95. Gary, Tel: (0536) 203198.

TEISCO 1107 analogue synth, vgc, collectors item, £100 ono. Mark, Tel: 021-449 7938.

YAMAHA CLAVINOVA CVP3 digital piano, 76 keys, 16 rhythms, £600 ono. Tel: 081-575 8185.

YAMAHA CS15 monosynth, features 2 VCO, 2 VCF, 2 VCA, external input. Tim, Tel: (0229) 53746.

YAMAHA CS15, classic analogue synth, 2 osc, good working order, will sell for £100 or swap for anything interesting. Tel: (0604) 843536.

YAMAHA CS80, classic synth, fully overhauled, £550; CS80 f/case, w/large wheels, big and very adaptable, £100; Yamaha QX1 sequencer, £450. Roger, Tel: (0494) 721077.

YAMAHA DX7 with a difference, multitimbral, on-board sequencer, as new, RAM cartridge and case inc, £700. Tel: (0702) 587984.

YAMAHA DX7, ROMs, manual, immac, £399 ono. Andrew, Tel: (0203) 317186.

YAMAHA DX7IID, exc cond, boxed, manual, £750 ono. Tel: 081-645 9912.

YAMAHA DX9, data tapes, manuals, £199; Casio HT3000, RAM card, £199. Tel: (0452) 526951, after 4.30pm.

YAMAHA DX27, QX21 and RX21, all vgc, boxed, manuals, stand, leads, £200 ono; Alesis SR16 drum m/c, boxed, as new, £180 ono; Casio CT625 full-size keybd, non-MIDI, hence £50. Tel: (0908) 669648.

YAMAHA DX27, £200 ono; Yamaha PSS780, £85 ono; Casio CZ230S, £75 ono; Roland TR505, £95 ono; Tascam Porta 02, £300 ono. Pete, Tel: (0295) 254116, after 6pm.

YAMAHA DX100, w/psu, immac, boxed, manuals, £100. Tel: 021-453 3606.

YAMAHA EMT10, w/great pianos, strings, guitar, vocal, basses etc, immac, £120; Kawai R50 drum m/c, manual, immac, £120. Tel: (0475) 30181.

YAMAHA PSR4500 keybd, full size keys, 100 voices, rhythms, programmable, superb arrangement, full

MIDI, RAM pack, bargain, half price, £425. Tel: (0705) 376700.

YAMAHA PSR6300 keybd, w/modified MIDI chip, inc stand, footswitch and volume pedal, good cond, £500. Martin, Tel: (0865) 863718, after 5pm.

YAMAHA QY10 walkstation, brand new, w/power supply, £210 ono. Andy, Tel: (0734) 506445, weekdays only.

YAMAHA SY22, vector synth, 2 ROMs, boxed, as new, £500 ono, will pay delivery. Tel: (0469) 8559.

YAMAHA SY22, f/cased, £550; Alesis HR16B, £175; Cheetah MS6 module, £200. All exc cond. Morgan, Tel: (0978) 810135, days/(0244) 379515, eves.

YAMAHA SY77 megasynth, manual, demo s/w, boxed, exc cond, £1200. Allan, Tel: (0325) 351433.

YAMAHA TX802, £550; DX7, plus ROMs, £400. Chris, Tel: (0625) 526449.

YAMAHA TX802 and ADT1 adaptor, boxed, exc cond, manuals, loads of sounds and editing s/w for Atari, £550. Tel: 081-578 0063, eves.

YAMAHA TX816 tone rack, 8 DX7s, £1150; Korg M1, f/case, never gigged, immac, £900. Paul, Tel: 051-726 0554.

YAMAHA V50 workstation, superb sounds - both digital and analogue, absolutely mint, w/box, quick sale wanted, need cash, buyer collects, £600 ono. Terry, Tel: 071-388 2206, leave your number.

YAMAHA WX7 MIDI wind controller, used twice since new, w/case, spare mouth piece, cables, as new, £200. Tel: 081-679 1777 X313, days/(0202) 604291, eves.

YAMAHA WX7 wind synth, offers. Tel: (0801) 24502.

SAMPLING

AKAI S700 sampler, w/16-voice expansion, output splitter lead, library, blank quick disks, £350 the lot. Alf, Tel: (0723) 372229.

AKAI S900, mint, £700. Tel: (0702) 587984.

AKAI S950, as new, £850. Tel: (0229) 65324.

AKAI S950 sampler, boxed, as new, £875 ono. Tel: (0202) 535150.

AKAI S950 sampler, disks, hardly used, boxed, absolute bargain, £875 ono. Tel: 081-809 2427.

AKAI X7000 keybd sampler, many disks, built-in extra memory, £350. Tel: (0273) 301643.

AKAI X7000 sampling keybd, expanded memory, hard case, stand, disks, manual, £450 or offers. Dave, Tel: 051-647 6978.

AKAI X7000, velocity sensitive sampler, inc memory expansion and disks, exc

cond, original boxes, bargain, £380. Tel: 081-679 1777 X313, days/(0202) 604291, eves.

AKAI X7000, hardly used, £400; Cheetah MQ8 sequencer, £150. Adrian, Tel: (0928) 560047.

CHEETAH SX16 sampler, boxed, as new, £495 ono. Tel: (0202) 535150.

E-MU EMAX sampler, extensive library, exc cond, £900 ono. Graham, Tel: (0505) 873435.

E-MU EMAX HD, ex-Depeche Mode, analogue filters, 16-track sequencer, fully overhauled, exc cond, £1150 ono. Gareth, Tel: 061-485 1872.

E-MU EMAX SE keybd sampler, 120-disk library, manuals, case, stand, £1100 or swap for Microwave/Wavestation/T3/D70. Chris, Tel: (0563) 33965.

ENSONIQ EPS sampling keybd, expanded memory, home use only, £750. Graham, Tel: (0273) 870560.

ENSONIQ EPS16+, rackmount, 2 months old, perfect cond, w/library, £1400. Steve, Tel: (0429) 222517.

ENSONIQ EPS16+ keybd, boxed, unopened, £1450. Tel: (0903) 715341, 24 hrs.

ENSONIQ MIRAGE, plus 20 disks, £400 ono. Adrian, Tel: (0742) 555460.

ENSONIQ MIRAGE, disk drive, exc cond, £425; Casio CZ101 synth, £110; Casio FZ1 sequencer, £50. Paul, Tel: (0273) 729339.

ENSONIQ MIRAGE, exc cond, £450 ono. Paul, Tel: (0273) 729339.

ROLAND S10 sampler, £350. Greg, Tel: (0203) 675747.

ROLAND S10, c/w disks, f/cased, home use only, good cond, £425 ono. Ian, Tel: (0272) 716176.

ROLAND S550, rackmount sampler sequencer package, complete sound library, CC121RGB monitor, £1000 for quick sale. Russell, Tel: 071-388 7024.

ROLAND W30, as new, £1000 ovno. Neil, Tel: (0533) 663216.

SEQUENTIAL PROPHET 2000 sampler, plus disks, £400; Akai S612 sampler, plus disk drive, £200; MSQ700 sequencer, syncs everything, £125. All exc cond, manuals. Glynn, Tel: (0532) 558661.

SEQUENCERS

ALESIS MMT8, boxed, manual, power supply, £130. Paul, Tel: 081-653 3389, eves only.

ALESIS MMT8, £140. Tel: (0708) 742097.

CHEETAH MQ8, exc cond, £135 ono. Mark, Tel: (0656) 650820.

ROLAND PR100, exc cond, application books. Andy, Tel: (0482) 503228.

ROLAND PR100, mint, still guaranteed,

psu, leads, loads of disks, manuals.
Dave, Tel: (0925) 814385.

YAMAHA QX1, swap for Ensoniq Mirage
keybd w/MASOS operating s/w, QX1
384ppqn resolution, 8 MIDI outs,
80,000-note capacity. Paul, Tel: (0344)
429163.

YAMAHA QX3 mega sequencer, serious
alternative to Atari ST, 3.5" disk drive,
immac, £375. Tel: (0903) 715341, 24hrs.

DRUMS

ALESIS HR16, few hrs use from new,
£150. Alan, Tel: (0379) 676670, eves.

BOSS DR550 drum m/c, as new cond,
48 sounds, manuals, £130. Tel: (0934)
515443.

KAWAI R50 drum machine, good cond,
boxed, manual and extra sound chip,
bargain at £110. Tel: (0782) 336574.

LINN CARTRIDGE for RX5 drum m/c,
offers welcome. Tel: 091-285 0484,
anytime.

ROLAND R5, pls make me an offer.
Neil, Tel: (0536) 711260.

ROLAND R8 drum m/c, exc cond, inc
card w/extra sounds, £350; TX81Z,
extra sounds, £120. Tel: (0532)
712581.

ROLAND TR505, good cond, manual,
footswitch, £95 ono. Paul, Tel: 081-979
3259.

ROLAND TR505 rhythm composer, as
new, must sell, £115 ono. Tel: 091-529
4788, anytime.

ROLAND TR606 drum m/c, will
exchange for Steinberg Pro24 v3. Alan,
Tel: (0706) 57692.

SIMMONS SDS9 brain and rack,
w/black pads, still best pad-to-MIDI
converter available, £550 for quick
sale. Adam, Tel: (0920) 438370.

SIMMONS SDS9 pads/brain, MTX9
(latin brain), £295. Tel: (0273) 301643.

THE KIT, early British electronic mini
drum kit, boxed, w/instructions, hardly
used, £65, no offers; Roland Compu-
Music CMU800R, their first computer
sequencer for Commodore 64 or
Spectrum, needs Roland s/w, unused
gift, c/w hard-bound manual, boxed,
£75, no offers. Buyer collects for both
items if possible. Rob, Tel: (0462)
459218.

YAMAHA DD5, 4 pads, MIDI, £40. Tel:
(0273) 301643.

YAMAHA RX5 drum m/c, 3 cards,
cased, £350. Steve, Tel: (0279)
430466.

YAMAHA RX7 drum m/c, exc cond,
manual, £225; 3 RAM cartridges for
RX7, £30 or £75 the three. Martin, Tel:
(0229) 581532, after 6pm.

YAMAHA RX7, plays bassline, brass
etc, 6 RAM cartridges, £275. Tel:
(0706) 843430.

YAMAHA RX11, manual, plus memory
expander, individual outputs, £120 ono.
Simon, Tel: (0926) 423822.

YAMAHA RX17, 26 voices, as new,
£120; Alesis Midiverb II signal
processor, £120. Both for £200. Paul,
Tel: (0273) 463328.

COMPUTING

AMIGA A500, w/2.5Meg upgrade,
sampler, optical mouse, infra-red
joysticks, Dr T's music s/w,
Soundtrackèr w/over 500 samples, plus
£200-worth of other s/w, worth £1300,
will sell £600. Ian, Tel: (0438) 351608.

APPLE MACINTOSH, SMPTE
reader/MIDI interface, £145; Digidesign
sample editing s/w for Emax and S900,
£75 each; Opcode ed/libs for D50, DX7
family and Super Jupiter, £60 each.
Paul, Tel: (0225) 319662.

ATARI 1MEG ST, w/hi-res mono
monitor, I absolutely must sell this
computer, pls make me any sensible
offer - nothing refused, I may throw in
Pro24 if you're lucky. Neil, Tel: (0536)
711260.

ATARI 1040ST plus SM125 monitor,
£400. Alan, Tel: (0379) 676670, eves.

ATARI 1040ST and SM124 monitor,
Steinberg Pro24, £400 ono. Paul, Tel:
(0609) 770090.

ATARI 1040STE, SM124, Cubeat,
Synthworks K1 and other s/w, £550
ono; SH101, £130; TB303, £120;
TR606, £40 or £220 all three. Alan, Tel:
(0920) 487169.

ATARI STACY, laptop portable, 2Meg
RAM, 40Meg hard disk, hi-res screen,
£1200; C-Lab Notator v3 sequencing
s/w, £285; C-Lab Unitor 2 SMPTE
controller, £250 - all three £1650. Tel:
071-289 2540.

BAND IN A BOX for the Atari ST, plus 2
MIDI fake books, £40 ono. Steve, Tel:
081-594 3704.

BBC B, plus double Opus disk drive,
Zenith monitor, Acorn Music 500 synth,
£295. Tel: 021-426 1998.

IF YOU'VE GOT AN ST but need some
MIDI gear to make music, then a
Yamaha FB01 multitimbral sound unit
and Cheeta MK5 MIDI keybd might
make you very happy at £165 for both;
PD.FB01 editor and Accompanist
sequence s/w thrown in free. Martin,
Tel: 081-398 7349.

JORETH MUSIC SYSTEM for
Commodore 64, MIDI interface,
Composer, Linker, System 7 editor, cost
over £400, must sell, £80 ono. Tel:
091-529 4788, anytime.

STEINBERG CUBASE, pro system, Atari
Mega4 computer, SM124 mono
monitor, Supra 30Meg hard disk drive,
Steinberg SMP24 MIDI processor -

giving 64 MIDI channels, Yamaha MJC8
MIDI patcher, Steinberg Cubase v2,
w/dongle and manual, all exc cond,
home use only, cost £3500 new, £2000
ono. Andrew, Tel: 071-722 0325.

STEINBERG ROLAND D10 ed/lib, inc
2000 sounds, £50. Paddy, Tel: 051-263
6936.

STEINBERG SYNTHWORKS D50 editor,
£35; Steinberg Twelve, £30. Martin,
Tel: (0729) 822415, days/(0524)
241619, eves.

YAMAHA CX5M, w/SFG05, YK20, FD05
and YRM501, £175 ono. Brad, Tel:
(0602) 873896.

RECORDING

ALESIS 1622 mixer, £420; Teac A3440,
4-track reel-to-reel, remote, and RX9 dbx
unit, £420; Tannoy Stratford studio
monitors, £110. All exc cond. Tel:
(06333) 65758.

AMSTRAD STUDIO 100, 4-track
recorder, w/in-built basic hi-fi and
Memorex 204 spks, mint, £200. Ian,
Tel: (0438) 351608.

ART DRX fx unit, as new, £450 ono;
ART SGE MkII, as new, boxed cond,
£375 ono. Tel: (0469) 8559.

ART SGE multi-fx, £375; Simmons
Portakit, £300; TX1P piano module,
£195; Kawai K1R, Steinberg s/w,
£275; Aces 30-bnd graphic, £100; Akai
XE8 drum expander, £95; Atari 1040
turbo, music s/w, £325; Yamaha TX7,
£150 or swap all for good sampler. Tel:
(0274) 488356.

BOSS ME5, vgc, w/extra bank,
footswitch and extra patches on disk,
£300 ono. Tel: 041-639 2092.

BOSS ME5, digital multi-fx, mint, as
new, boxed, manuals, never gigged,
possible delivery, £245. Anthony, Tel:
(0274) 615824.

BOSS PS2 pitch shifter and 2-sec delay,
£80. Tel: 041-639 2092.

CASIO DA1 DAT m/c, as new, £299.
Paul, Tel: (0225) 319662.

CASIO DA7 DAT m/c, 3 months old,
£440. Kevin, Tel: (0270) 872558.

ELECTROSONIC pro recording mixer, 16
channels plus 4 groups in frame,
expandable, suit enthusiast, offers.
Alan, Tel: (0379) 676670, eves.

FOSTEX 280 multitracker, £400; Boss
BX16 16-channel mixer, £200; Roland
D5 synth, £300; Boss DR550 drum
m/c, £100. Steve, Tel: 051-228 0988,
days/051-427 0622, eves.

FOSTEX A8, well looked after, boxed,
manuals etc, £495; Scintillator aural
exciter, £95; Ibanez DM1000 digital
delay, £115; 2 x 32-way patchbays, £25
each. Tel: (0206) 823930.

FOSTEX M80, 8-track, £750; Seck
12:8:2 mixer, £550; Fostex 3070

comp/lim, £100. Paul, Tel: (0273)
729339.

FOSTEX MODEL 280, 8-channel, 4-track
portastudio, exc cond, £450 ono. Tel:
(0254) 54839.

GREAT BRITISH SPRING reverb, offers.
Tel: (0273) 301643.

JL COPPER PPS100 SMPTE MIDI
clocks, event generation, latest s/w
update, £110 ono. Steve, Tel: 051-722
9093.

JL COOPER PPS100 sync unit, £110.
Martin, Tel: 081-691 1087.

PHILIP REES MIDI Thru box, 2-in, 2-out,
2-thru, £40. Tel: (0354) 695239.

PHILIP REES MIDI Thru box, £40 ono.
Steve, Tel: 051-722 9093.

REVOX A77, half-track, built-in amps,
£220; Beyer M69 mics, pair, stands,
£100. Andy, Tel: (0273) 455692.

REVOX A77 HS, flat deck conversion,
£220; Tascam 80-8, £550; 8-channel -
10dB/+4dB in and out level converter,
£65; AKG BX10 reverb, £35; ADC SS3
graphic EQ, £35; Otari MX5050B stereo
tape recorder, £400. Tel: 021-449
2461.

REVOX A77 tape recorder, remote
control, immac, cased, £250 ono. Dave,
Tel: 051-647 6978.

REVOX PR99, MkII, w/auto locator,
half-track, hi-speed, alignment tapes,
vgc, £895. Tel: (0272) 514035.

STUDIOMASTER PROLINE 16:4:8 Gold,
superb recording/live mixer, boxed,
never used, £950. Phil, Tel: (0908)
564130, eves.

STUDIOMASTER SESSIONMIX 8:2
mixer, cannon/jack inputs, 4 auxs, 3-
bnd EQ, rackmount or free-standing,
immac, never been used, £350 ono.
Martin, Tel: (0353) 666758.

STUDIOMASTER PROLINE 8:4:8R, Gold
spec, 10U, 19" rackmount, 18 mixdown
inputs, great for compact
studio/keyboards/MIDI. Brand new, still
in box, £650. Dave, Tel: (0908)
263500, office hours.

TANNOY SRM10B studio monitors, vgc,
£300 or swap for Oberheim XK remote
keybd or Oberheim DPX1 sample player.
Tim, Tel: (0222) 390943.

TASCAM 32-2B professional quarter-
inch mastering reel-to-reel, 7.5/15ips,
mint, £265 ono. Tel: 081-809 2427.

TASCAM 35-2, stereo reel-to-reel, dbx
n/r and 4-track playback head, £550
ovno. David, Tel: (0267) 253301.

TASCAM 144 portastudio, £145; Sony
TCDD10 portable DAT, £600; 2 AKG
414EB remote control patterns,
w/S42E1 control unit, £1000, no
offers. Alan, Tel: (0379) 676670, eves.

TASCAM 234 Syncassette, high quality
4-track, dual speed, dbx, boxed,
manuals, immac, £400. Chris, Tel: 061-
256 3692.

TASCAM 246, £375 ono; Roland PR100 sequencer, £175 ono; REX50 multi-fx unit, £150 ono; Alesis Micro Limiter, £100 ono. All home use only, manuals, all history available, must sell due to emigration. Philip, Tel: (0705) 520429, after 6pm.

TASCAM DA30 DAT m/c, £920 ono; Tascam 58, 8-track half-inch, just serviced, immac, £1590 ono; Teac 2A mixer, plus meter bridge, £150 ono. Tel: 081-462 6261.

TASCAM MTS30 MIDI sync box, boxed, as new, £75. Mike, Tel: (0744) 35567.

YAMAHA FX500, as new, boxed, £210. Bill, Tel: (04022) 23345.

YAMAHA MT2X, multitrack cassette recorder, 4-track, 6 inputs, dbx, twin speed, c/w YMC2 MIDI sync unit, boxed, manual, £299. Rob, Tel: 031-667 1041 X4095, days.

YAMAHA SPX900 fx processor, immac, manual, £400 ono. Tel: 071-625 5187.

AMPS

CARLSBRO COBRA 90 keybd combo, 3 channels, 6 inputs, fx loop, internal reverb, pedal, cover, home use only, perfect cond, £150. Tel: (0251) 82003.

PEARCE G2R combo, 2U rackmountable amp head, stereo 65/100W a side or 200W mono, on-board Alesis reverb, 2 channels, amazing sound, £725; Pearce B2P bass amp, 2U rackmount, 2-channel limiter, 300W stereo, fan cooled, bullet-proof, amazing sounds, 60W mono. Tel: 061-799 6154.

ROLAND JAZZ CHORUS 120 combo amp, great amp for live keybds, 2 channels, stereo chorus and reverb, exc cond, never gigged, 18 months old, possible delivery, £395. Anthony, Tel: (0274) 615824.

VOX AC30, original, good cond, plus f/case, £320. Stu, Tel: (0403) 752647.

PERSONNEL

COMPUTER/KEYBOARD PLAYER wanted by guitarist to make funky/clubby sounds to move 'n' groove to. Andy, Tel: 071-371 8172.

EIGHT BIT TRIP require manager to

break act. Matt, Tel: (0533) 870698.
KEYBOARD PLAYER AVAILABLE for gigs in Southampton or East Hampshire area. Looking for a jazz- or blues-orientated band. I have my own piano and genuine Hammond organ. Mike, Tel: (0489) 877018.

NEW HOUSE BAND require vocalist. Male/female. I've got home MIDI studio, but some songs need vocals. Steve, Tel: 081-594 3704.

WANTED: funky female guitarist to collaborate with female songwriter/programmer. Excellent opportunities for the committed. Tel: 081-743 6600.

MISC

ACOUSTIC ELECTRIC (MARLIN), Strat-shaped body w/sound hole, (very Craig McLachlan, I'm afraid), great amplified sound, £90. Martin, Tel: (0353) 666758.

COPIES OF MT and Sound On Sound, from June 87-Nov 89. Janet, Tel: 081-854 0610.

ELECTRONIC MUSIC NETWORK tapes, pls send SAE. Write: Penga, 85 Silver Street, Kings Heath, Birmingham B14 7QT.
EXPLORER ELECTRIC GUITAR by Chris Eccleshall, hand-built and customised to highest standards, w/Seymour Duncans, Kahler, and much much more, must be heard, £550 ono. Steve, Tel: 051-722 9093.

GIBSON SG standard, circa 1974, colour faded to walnut, recently fret-profiled, hard case, soap bar-style pickups, £200 ono. Martin, Tel: (0353) 666758.

LOWDEN S5, fabulous acoustic guitar, made of spruce and ash, hard case, perfect cond, bargain, £550 ono. Steve, Tel: 051-722 9093.

ROLAND CHORUS ECHO, f/cased, good cond, £180. Tel: (0543) 685614.

ROLAND D50 ROMs, £15 each or all three for £40. Tel: (0454) 772237.

ROLAND GR50 plus GK2 guitar synth, as new, inc leads and manual, £650. Martin, Tel: (0229) 581532, after 6pm.

600 12" DANCE RECORDS, sensible offers accepted. Mr Palmer. Tel: (0904) 612236, days.

TWO KAWAI K1 ROM cards, J101 and A101 versions, 96 sounds on each cartridge, £40 the pair; Roland M64C memory cartridge for Super-JX synth, £10. Phil, Tel: (0902) 750368.

TWO PROFESSIONAL mixer f/cases, 28" x 10" x 40", £70 each. Alan, Tel: (0379) 676670, eves.

WANTED

CASIO FZ1 DISKS, especially drums, swaps, exchange or dosh. Andy, Tel: (0532) 430177.

ELECTRO-HARMONIX guitar micro synth, Hohner International electric piano, tape echo unit in good cond. Tel: (0784) 254889.

ENSONIQ EPS sampler, exchange for Korg M1. Tel: (0324) 31513.

FOSTEX B16 or E16 wanted, good cond, cash waiting. Tel: 061-483 8551, anytime.

GALES 401 loudspeakers, complete or incomplete, for spares. Alan, Tel: (0379) 676670, eves.

MIDI-TO-CV CONVERTER, eg Philip Rees or Groove, cash waiting, will collect. Tel: (0628) 37891.

OBERHEIM OB8 or Oberheim expander, cash waiting. Also interested in other analogues. Tel: (0469) 8559.

ROLAND D550, MKS30, PG200, A110, RE3, SBF325, cash waiting. Tel: (0734) 580764.

ROLAND SH101 modulation grip and strap. Gary, Tel: (0536) 203198.

ROLAND TB303 bassline, w/manual, cash waiting. Leroy, Tel: (0904) 612236.

TWO TECHNICS SL1200 or 1210 turntables, will pay good money, depending on quality. James, Tel: (0634) 726270.

WANTED: Wasp analogue synth in good working cond for musician w/hand disability. Keith, Tel: 071-387 0694.

WANTED: Studiomaster or Seck 16:8:16. Tel: (0787) 78106.

WANTED: QX1 sequence disks. Paul, Tel: (0344) 429163.

YAMAHA DX100, rackmount comp/lim, Neumann U87 mic. Keith, Tel: (0854) 612554, days.

ad index

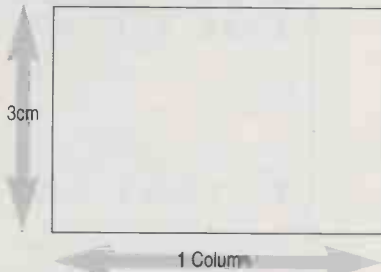
ABC Music	39
AMG	40,41
Andertons	37
Atlantic Audio	39
Axe Music	51
Bluebridge	54
Cheetah	17
Computer Music Systems.....	48
Digital Music	10
Eddie Moors Music	55
Intrinsic Tech	53
Kenton Electronics	43
Korg U.K.	O.B.C.
Miditech.....	55
Music Connections	48
Music Corporation.....	36
Newtronic.....	57
Patchworks.....	19
Peavey U.K.....	24
Pro Music.....	43
Roland U.K.	5,45
Soho Soundhouse.....	53
Sound Control	15
Sound Technology	7,9,21,27,33,55
Stix.....	64
Thatched Cottage Audio..	31
Time & Space	37
Yamaha	IFC
Zone Distribution	59
Zoom.....	1

**CALL IN YOUR READERS' AD ON
(0898) 100767**

CLASSIFIED

CLASSIFIED ADVERTS

A classified advertisement can cost you as little as £30 per month*. You choose how long you want to advertise, for one month, three months, six months or 12 months, the following is an example:



One month £20 per column cm
£60 + VAT per insertion
Three months £18 per column cm
£54 + VAT per insertion
Six months £17 per column cm
£51+ VAT per insertion
12 months £15 per column cm
£45 + VAT per insertion

To advertise please send your copy & cheque (including VAT) for the first advertisement to:
Music Technology, Classified Department, Alexander House, Forehill, Ely, Cambridge, CB7 4AF

* Based on a minimum size 2cm x 1 column advert booked for 12 months

FOR SALE

ForeFront TECHNOLOGY

FT3 PATCH COMMANDER PLUS
Hand-held MIDI Remote controller

as reviewed in Music Technology Sept 91
Now with Bank Select for Roland E35/70 & Program Increment as standard features.
ONLY £49.95 + P&P
(Soft carry case £5 extra)

Enquiries, cheques/P.O.'s, Visa/Access to ForeFront Technology,
2 Rebecca Gardens, Silver End, Witham, Essex. CM8 3SR.
Tel: (0376) 83920 (Dealer enquiries welcome)

COMPACT DISCS

COMPACT DISCS

95p (LP) 80p (SINGLES)
Plus Mastering Min. 1,000
SELECTA SOUND
TEL. 04024 - 53424



FOR HIRE

Audiohire

Hire of ; Synths / Samplers / FX / Drum
Machines / Tape Machines / Mics. etc
Tel : 081 - 960 4466 or
0836 710 281

ADVANCED SOUNDS HIRE

Musical Equipment • Studio Equipment

• Home Recording Packages • Del/Coll

VISA + ACCESS Low Rates. Good Service

TEL: 081 462 6261 or 0860 310618

ROW AUDIO HIRE

Very cheap rates on 8+16 track packages,
DAT F-X, Keys, etc.

NATIONWIDE DELIVERY

061 483 8551

7 Days 24 Hours

FAX YOUR ADVERT

to Alex Day
on

0353 662489

Reach today's Hi-Tech

musicians through
MT's display
classified ads

To book your advert

call

ALEX DAY on

0353 665577

PROTECTIVE DUST COVERS

Ashes to Ashes



Dust to Dust

IF YOU VALUE IT - COVER IT
Jenart Design the only manufacturers of Protective Dust Covers to MoD and "Preferred Supplier" to HMSO offer a wide range of covers for electronic keyboards and numerous other musical applications.

For further information and prices Tel: 0769 574127.
Fax :0769 574487 or write to:

JENART DESIGN

'The Great Cover Up'
Painfield's Trading Estate
South Molton
Devon EX36 3LH



Copyright © 1990 JENART DESIGN. ALL RIGHTS RESERVED.

STUDIOS, COURSES AND TUITION

C-LAB TUITION

From beginners to advanced notation users.

Call Peter Dudley for your appointment now.

081 539 9729

COMPETITIVE HOURLY RATES

CASSETTE DUPLICATION

PLUS ONE TAPES

For the best in cassette duplication Real Time or High Speed-Ferric or Chrome. Also custom wound blanks -any length C5-C100 Nobody does it better

FOR FURTHER DETAILS:

telephone (0327 843092) or write to

Plus One Tapes, 26 High St. Long Buckby Northants NN6 7RD

MIRROR CASSETTES

CASSETTE DUPLICATION
ON NEW SONY MACHINES
FROM DAT ¼", F1, CASSETTE.
DAT TO DAT, EQ'ING AS
NECESSARY

071 385 1751

SOFTWARE, HARDWARE AND SAMPLES

STAGE ONE - MIDI SONG LIBRARY / USER GROUPS

USER GROUPS for D110, MC300/500/50 (mrc / smrc), giving information, tutorial manuals, newsletters, consultancy, free sounds and 5 songs plus discount on further choices D110 / SMRC membership £49 MC300 only £35

SONG LIBRARY Huge list of titles, charts and standards in MC300 / 500, W30, Atari PRO 24, Cubase MIDfiles, Korg T1/2/3, Ensoniq VFXsd, SO80
From under £5 per song **DEMO SET** £9.95

*** NEW *** RHYTHM LIBRARY 500 + drum patterns grouped by style including: Rock, Jazz, Disco, Afro/Ethnic, Formats Roland MC, W30, MV30, Alan, MIDfiles, Pro 24 Cubase Only £19.95

For Further details Tel: (0256) 50259 10 am or S.A.E.
STAGE ONE, TRACKINGS, DAUNTLEY LANE, WEYHILL, ANDOVER, HANTS SP11 8EB

MIDI DRUMMER 2

Rhythm Pattern Sequencer for the ST only £40

Egan Composition Tool only £15

Both available now from

BIT BY BIT SOFTWARE

P.O. Box 70, Lincoln, LN1 1SS

Telephone 0522 533461

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.

Ask about our short Christmas courses

WORLDS FINEST DISKS FROM KAO & TDK

	KAO	TDK
3.5" MF2DD	£8.00	£9.00
3.5" MF2HD	£15.00	£16.00
5.25" MD2DD	£5.00	£8.00
5.25" MD2HD	£8.00	£10.00
KAO BULK DISKS CHOICE OF 8 COLOURS		
SUPERB QUALITY		
	£50	£100
1 MEGABYTE MF2DD	£24.00	£45.00
2 MEGABYTE MF2HD	£35.00	£68.00

(FREE MOUSE WAT OR DRIVE CLEANER WITH ORDERS OF 100 DISKS)
POSSO DISK BOXES £14.00 each prices include VAT

Free P&P on orders over £50.00, under please add £3.00

TDK DAT TAPES		K.C. Video,
DA-R-60	£6.00	688 Doncaster Rd.,
DA-R-90	£7.00	South Elmsall, Pontefract,
DA-R-120	£8.00	West Yorks WF9 2HZ
Weekdays 9.30 - 7pm		
Saturdays 9.30 - 7pm		
Sunday 10 - 3pm		
Tel: 0977 649100		
FAX: 0977 643312		

OVERNIGHT = £8.00 EXTRA

SOFTWARE, HARDWARE AND SAMPLES

MIDI SEQUENCES

Get your "Hands On" to *the most accurate* sequence data available from the U.K.'s premier commercial sequence data company. Our comprehensive range of songs are ideal for pro's and hobbyists alike. Great to rehearse to and easily adapted to suit your own requirements. Each song contains *ALL* parts and includes Lyric and Info files as standard. Individual Drum Tracks. Bulk Discounts available. Phone or Write for Catalogue.

4 Chart Hits for only £20.95 (+£1 P&P)

"HANDS ON" MIDI SOFTWARE LTD.,
14 LODGE ROAD, BEDHAMPTON HAVANT,
HANTS PO9 3LL
TEL/FAX (0705) 452628

A New and Exciting Product

The Drum Vault for the Korg MI/MIR
100 Drum Kits all pre-programmed with Dual FX and variable amounts of Pitch Bend, Modulation and filter sweeps, using the Joystick.
Give your Drum Tracks a totally new feel with the Ultimate Drum Kit Library on Atari Disc with full instructions or Synthsworks format for all Korg M and T Series Synths.

Send Cheque or PO for £24.95 inc.

The Voice Vault,
138 Boyce Road,
Stanford Le Hope,
Essex
SS17 8RJ

four minute warning samples & software

S330 / W30 HIGH QUALITY
S1000/S900 SOUNDS ON
S700 / S612 DISK FOR ALL
AKAI AND
ROLAND
SAMPLERS

Please phone or write for a full listing, specifying type of sampler used

memory expansions

for S1000, S1100, S950, EPS, FZ1, TX16W, MPC60
S900, S700, S10 ST Editors

Features waveform drawing, sample import and editing.
VERSIONS AVAILABLE FOR AKAI S900, S950, S700,
X7000, S612, AND ROLAND S10, S220, S330, W30, S550

XE8, U220, GS6 Editors

Desk accessory editors for Atari ST (1 Meg, Mono, Mon.

Please phone or write for further details to:

FOUR MINUTE WARNING

DEPT. M11, 298 HORNBURY 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 Byrlp Farm, New Quay, Dyfed, SA45 9TU

TEL: 0545 560164 FAX: 0545 560885

S900/950 SAMPLE LIBRARY

Over 300 disks available

£3.50 per disk

Please phone / write for catalogue
Also 3.5" Blank DS/dd Disks available
Prices starting from £7.50 for 10

MIRROR IMAGE

AUDIO Cassette Duplication

474 Manchester Road, Heaton Chapel,
Stockport SK4 5DL Tel: 061 442 9045

DR BEAT

For The ST

Over 140 Drum &
Percussion Patterns

Already described as the definitive
drum & percussion pattern
collection in *Middle File* Format

Still Only £10.00 inc. p&p

Dr BEAT Vol II coming soon!

Dear Patient, are you tired of playing with yourself
cause the band didn't turn up? Then you need

JAMJAM

JUST £12.95 inc p&p

A collection of 'KILLER' Jams programmed by 'Professionals'
and saved in *MIDDLE FILE* Format.

No matter what instrument you play, these jams are the biz.

To order, send cheque or postal order to:

Heavenly Music Ltd., 39 Garden Road,
Jaywick, Clacton, Essex CO15 2RT
For more info - Phone Clacton (0255) 434217
We don't cut corners on quality - why should you!

SAMPLE LIBRARIES

EPS/ FZ1/ S950/ S1000/S700/X7000/S550/S330/W30 EMAX/EMAX
2/DPX-1/S770/S750/PEAVEY DPM SP/DPM-3 SE/MIRAGE/ ATARI
SD/AVALON/GENWAVE FORMATS

We are Europe's largest sound library with over 2 hundred thousand samples. Taken from "State of the art" systems. Ranging from Fairlight 3 Orchestral sounds to the latest House sounds, we've got them all

Most disks only £4.99 each. Write/phone now for our free catalogue (Specify machine)

SAMPLE TAPES. We now have 20 volumes of our famous sample tapes on Chrome cassette, including "House
Attack"/Analogue No.1/M1/ Orchestral 1 + 2/World Music. Each tape is £7.50. Our new tapes are The dance collection and
"Digital textures", each series contains over 4 hours of hi quality samples and comes on 3 Hi grade Metal C-90 cassettes.

Both collections come with full track listings, and are priced at £53.00 each inc. p&p. Write/phone for free Tape Listing.

SAMPLES ON R-DAT. 1500 SOUNDS ONLY £80.00

JD 800 SOUNDS - NOW IN STOCK

We also sell..... Synth patches for most Synths and FX units on Rom/Ram/Atari ST disk, Sample CD's
from Pro-Sonus/Sonic Images/Korg, Software from Dr.T/Steinberg/Opcode and memory upgrades for
EPS/EPS-16+/FZ1/S1000/S950/TX16W. All at **LOW LOW PRICES.**

DESERT ISLAND

TEL: 0463 - 221488

DESERT ISLAND (DEPT. M)

20 EDINGTON RD. INVERNESS, SCOTLAND, IV2 3DB



BIDBROOK SYSTEMS

100% ERROR FREE DSDD DISKS

25.....	£11.25
50.....	£22.00
100.....	£43.00
TDK R90 DAT Tapes.....	£6.95
Maxell R46 DAT Tapes.....	£5.75

Orders under £50, P & P £2.50

Cheques /P.O.s to BIDBROOK SYSTEMS Ltd.

11 Sutherland Ave, London W9 2HE

Calls strictly by appointment only

TEL: (0831) 311782

FZ1 - FZ10 DISKS - £7.99
EPS - EPS16 DISKS - £7.99
S1000 - S950 - S900 DISKS £7.99
MIRAGE DISKS - £7.99

FULL TBIT
DATA TRANSFER
ACOUSTIC
ENHANCEMENT FOR
OPTIMUM CLARITY

- 100% OF DISKS & 1000% OF SAMPLES !! *
- THE LATEST SYNTHS - SAMPLED !
- HAPPENING DANCE FLOOR SOUNDS !
- AUTHENTIC REAL INSTRUMENTS - SAMPLED ! *
- REAL SOUND FX & ATMOSPHERES - SAMPLED ! *

WE ALREADY SUPPLY MANY STUDIOS, PRODUCERS & SOUND ENGINEERS - WHY NOT YOU ?
SATISFACTION & QUALITY GUARANTEED - YOU CAN BUY WITH CONFIDENCE
TEL / WRITE FOR NEW FREE CATALOGUE - SPECIFY YOUR SAMPLER
SEND BLANK DISK & SAE AND WE'LL SEND A QUALITY SAMPLE DISK & CATALOGUE - FREE !!

DIGITAL REALITY INC.
THE HOMESTEAD, JOHN ST., BIDDULPH, STAFFS S78 6BB

BIG DISCOUNTS FOR BIG ORDERS !!

WE CAN ALSO SUPPLY SAMPLE TAPES TO YOUR REQUIREMENTS & SOUNDS FOR MOST SYNTHS

WHY BUY CHEAP SAMPLES ?
- OURS COST MORE & SOUND BETTER !

KEYFAX 3, by Julian Colbeck

Keyfax 3 is the latest edition of Julian Colbeck's indispensable keyboard guide, and contains over 300 assessments of synthesisers, samplers, sequencers, pianos and more.

As well as the established reviews, there's an Appendix containing, among other things, a layman's guide to MIDI, profiles of the leading instrument manufacturers and a glossary of terms.

Previously priced at £10.95, Keyfax 3 is now on sale for a limited period at just £7.95 incl. p&p, while stocks last.

Yes, today is my lucky day, and I would like to take advantage of my good fortune by ordering the following books:

Keyfax 3copies at £7.95 incl. p&p

Rockschoolcopies at £6.95 incl. p&p

I enclose a cheque/PO for £..... made payable to Music Maker Books, or please debit my Access/Visa card number:

..... / / for the same amount.

ROCKSCHOOL II

The second series of the BBC's *Rockschool* focussed its attention on new technology and its implications for today's musicians. Written by the four presenters (Dierdre Cartwright, Alistair Gavin, Geoff Nicholls and Henry Thomas) with well-known technology scribe Julian Colbeck and edited by series producer Chris Lent, *Rockschool* the book is an indispensable guide to the techniques, technology and musical vocabulary needed to play in a band.

Even more tempting is the news that *Rockschool* has now been reduced from the previous asking price of £9.95 to a ridiculously silly £6.95 incl. p&p. Act now before stocks run out.

Name

Address

.....

.....

..... Postcode

Please include your full postcode and allow 28 days for delivery.

Send coupon to: Music Maker Books, Alexander House, Forehill, Ely, Cambs, CB7 4AF.

YAMAHA'S NEW EMP100 EFFECTS PROCESSOR - TAKE A GOOD LOOK AT ITS BACKGROUND

YAMAHA
▷ THE SPIRIT OF MUSIC ◁

Ever since the pioneering days of the legendary SPX90 and REV-1, Yamaha has been committed to nothing less than total excellence in the field of digital signal processing.

That's why Yamaha effects processors are to be found in more studio and live sound applications than those of any other manufacturer.

That's also why the new EMP100 is destined to follow in the footsteps of its predecessors and become another industry standard.

With 8 individual 16-bit effects including reverb, early reflection, delay, chorus and pitch shift, and a further 6 combinations—where selected treatments are paired for maximum creativity—the EMP100 offers studio quality sound in a compact 1/2 rack package.

But perhaps the most remarkable feature of the Yamaha EMP100 is to be found outside its case.

And that's the price tag, which reads under £260!

24 HR ACTION LINE
CALL
081-419 5419
FOR FREE PACK
BROCHURE

Yamaha-Kemble Music (U.K.) Limited
Professional Music Division



FOLLOW THE LEADER...



... AGAIN.

Korg does it again! The new 01/W and 01/W FD (disk drive). The flexibility of a music workstation with the sound shaping capability of an advanced synthesizer. Incredible PCM sounds and Korg's exclusive AI² Non-Linear Synthesis, which adds ultra-realism to acoustic sounds and lets you make new sounds no other instrument can. 32 voices, 200 programs and 200 combinations. Up to 800 sounds with Korg's new PCM and program cards. A 16-track sequencer. Two Stereo Digital Multi-Effect Processors, 47 effects, real time control. Run the 01/W demo at your Korg dealer and send for our free colour brochure. The 01/W is here. It's time for everyone to catch up with Korg... again.

01/W

MUSIC WORKSTATION

01/W FD

MUSIC WORKSTATION

✂

Please send me my free 01/W colour brochure.

NAME _____

ADDRESS _____

Please send to : KORG UK,
8-9 The Crystal Centre, Elmgrove Road,
Harrow, Middx HA1 2YK Tel: 081-427 3397

KORG
MUSIC POWER