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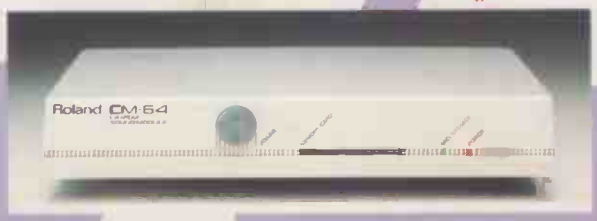
ROLAND'S DESK-TOP COMPUTER MUSIC RANGE

CM-64 LA/PCM

The CM-64 LA/PCM Sound Module gives a maximum 63-voice polyphony, is 15-part multi-timbral (including rhythm part) for full orchestral reproductions and provides 64 PCM preset tones and, from the wonderful world of LA synthesis, 128 synthesizer presets, 30 percussion sounds plus 33 sound effects for the rhythm part. The CM-64 also accepts U-110 sound sample library cards and incorporates an on-board digital reverb.



CM-32L CM-32P

The CM-32 LA Sound Module provides all the LA capabilities of the CM-64, is 32-voice polyphonic and 9-part multi-timbral and likewise has built-in digital reverb. The CM-32P PCM Sound Module contains the CM-64's PCM section with its 64 presets, is 31-voice polyphonic and 6-part multi-timbral, has the same digital reverb, and is U-110 sound-card compatible.

CF-10

Next in the range comes the CF-10 Digital Fader. This is an easy-to-use mixing controller with the feel of an analogue audio mixer and featuring 10 multiple MIDI channels, designed to mix song data for sequences created on a PC or MIDI sequencer, it also enables control change messages for volume and panning to be transmitted to external MIDI devices.

CN-20

The CN-20 Music Entry Pad facilitates the programming of basic song data on a PC. It offers, for instance, easy editing of data pre-recorded from an external keyboard in real time. Its multi-purpose fader can be assigned to control a variety of MIDI information such as Control Change Bender and Aftertouch over any of the 16 MIDI channels.

CA-30

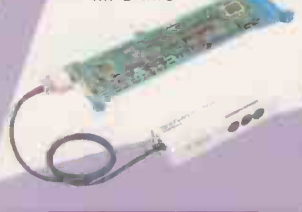
Last of the modules is the CA-30 Intelligent Arranger. Designed to be linked with the CM-64 or CM-32L, the CA-30 is a sophisticated auto arranger with similar intelligent arranging functions as found on Roland's best-selling E-20 Intelligent Synthesizer. With the CA-30, even complete beginners can create interesting and convincing song data.

CM SUPPORT

Supporting the CM modules themselves are three peripheral components. The LAPC-1 LA Sound Card fits into the expansion slot of an IBM-PC for instant access to the great sounds of Roland's MT-32 Multi-Timbre module. The MCB-1 is an optional MIDI connector box for the LAPC-1, allowing the LAPC-1 to be used as an interface with external MIDI devices. And the MPU-IMC is a MIDI interface compatible with Micro Channel Architecture, the new IBM bus format used on the PS/2 PC.

LAPC-1

MPU-IMC



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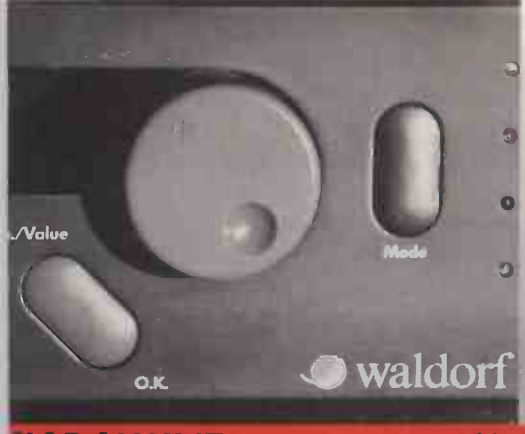

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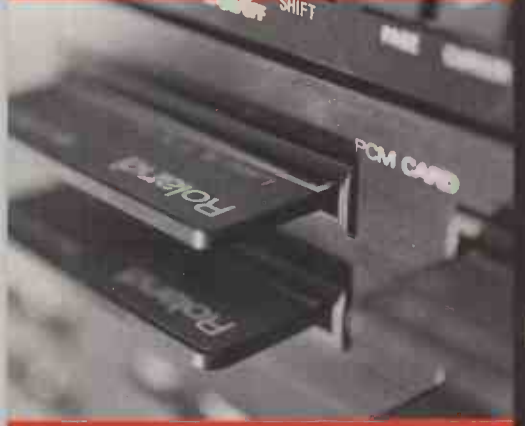

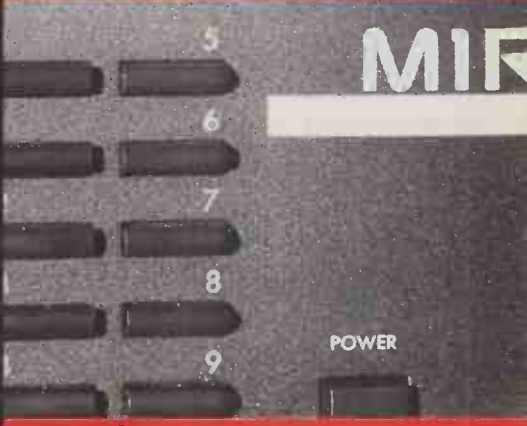

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UNCHARTED GROUND

IT'S LAUGHABLY EASY - in fact it could be the single most popular musicians' pastime. I'm referring to the casual slating of music in the pop charts. How many "happy" moments must have been spent dissecting the elements that constitute a chart hit or the reasons something that should never have been written or recorded is "shipping gold"? The blame for the state of the charts is almost invariably laid at the feet of forces behind the faces - record company moguls or power-crazed production teams. But what I've never heard discussed is the modern music scene that might exist in the absence of the charts we all accept as a fact of musical life.

Consider a world with no Gallup chart - or any other chart, for that matter. The first, and most significant, difference this would make to the popular music scene would be to deprive it of its main vehicle of communication. Without the charts, the existing channels of marketing would disappear. Without the charts the huge profits enjoyed by the major record companies would simply not be there for the taking. Without the charts there would be no *Top of the Pops*, no Radio 1 playlist, no "Top 100 Album" displays in record shops. . . It would be quite a different world, but what would be likely to take the place of the chart system?

Let's assume we're in this chartless society - what used to be the main channel of communication is now missing. The only difference that now exists between the singles market and the album market is that singles contain less music and are cheaper to buy. There's nothing to be gained by panicking teenagers into buying singles as there's no chart placing to aim for. Singles do, however, still offer one form of promotion for albums. And here lies the real difference between the old regime and the new: assuming musicians still want to make records and the public want to buy them, some alternative method of promotion has to be established.

What we've found in this "alternative reality" is a youth culture free from the high-pressure selling of "commercial" music, one that's free to choose what it listens to. And, far from being the fast-moving, multi-million pound business it is in the real world, the record industry here exists to bridge the gap between musician and public - but it exists on a smaller profit margin, if it can survive at all.

Obviously people still need to know records exist before they can buy them (and so support the musicians); this now takes place through more diverse TV shows, radio shows and magazines, and by word of mouth. Live music has regained some of its former importance in the absence of promo videos and personal appearances on children's TV shows. Now it's an opportunity for artists to win new followers, as well as being a musical event in its own right - rather like it used to be before the record industry became too profitable for big business to leave alone.

The musicians' lot has changed too. There's now no reason to churn out disposable, formularised, four-minute wonders. There's more room to experiment. And there isn't a quick buck to be made by getting the right haircut, only by getting the right chords.

The music biz certainly isn't the glamorous, star-studded affair the media would have us believe in the real world; it has a more sedate feel - perhaps more along the lines of the worlds of painting or literature, but with the additional contact between artist and audience brought about by live performance.

And why? Simply because the marketing machine has disappeared for a few abstracted moments. ***Tg***

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Simple to use but with the power to run up to 96 different MIDI channels on up to 6 separate outputs, you will never be limited by the C-Lab System and, with the high recording resolution of 1/1536th notes, Creator and Notator will always faithfully reproduce your performance.

Notator provides all the features of Creator plus realtime notation editing and professional score writing – all in one program.

C-Lab's famous Priority Multitasking now extends to include Softlink, an environment which can allow up to 8 other programs of virtually any make to run interactively with Creator or Notator.

Unitor is a SMPTE box with a difference. Designed specifically for locking Creator and Notator to tape, Unitor locks the internal computer clock direct to SMPTE, making for great accuracy and instantaneous lock up. An almost unlimited number of tempo changes and other important information can be automatically stored along with song data. With two extra MIDI Ins and two extra MIDI Outs, each with its own independently addressable 16 channels, Unitor is the only choice.

Human Touch is an audio trigger module for Unitor, allowing control of tempo from up to four different audio sources, with C-Lab you can even synchronise to old recordings without timecode.

C-Lab evolves with you, exciting new versions are regularly produced and with the additional facilities of the other superb hardware peripherals such as Export and Combiner, C-Lab offer a music production system which is simply the best.

Sound Technology plc
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contents

VOLUME 4 NUMBER 4 MARCH 1990

newsdesk

CUBASE UPDATE

Steinberg's comprehensive professional sequencing package, Cubase, now sees its version 1.5 updates, with some 39 new features added.

These features include: Dynamic MIDI manager window for MIDI mixing and realtime editing; support for large monitors; Auto Save (automatically saves work after a given time - immensely useful in my 'umble opinion); new Multi-Record Mode; Improved data entry; new Undos; new "24" Song Conversion, enabling Cubase to convert Master Tracks from a Pro24 song so that it can sync to old tapes done using Pro24 and the SMP24 or Timelock; Mouse Accelerator; Fostex R8 driver, enabling all main R8 functions to be driven directly from Cubase's controls; Realtime Thru Mod, and many many more, as they say.

Anyone who is on the Steinberg upgrade scheme should have received the updates by now, and a further batch of new features is expected early this year. More info from Evenlode Soundworks, The Studio, Stonesfield, Oxford OX7 2PS. Tel: (099 389) 8484. ***Dp***

CLUB THATCH

Thatched Cottage Audio are selling full 2Meg expansion boards for the Akai S1000 at £260 plus VAT per board (which is a quarter of the price of Akai boards), and three-quarter Meg boards for the S950 at £125 plus VAT. Each S950 can take an extra two boards, making two-and-a-quarter Meg of memory in total. Sounds like a good deal.

By the time you read this, the first phase of Thatched Cottage's half-million pound world domination plan should be almost complete. The expansion adds another 3000 square feet of offices, demonstration rooms and a teaching facility. Phase two will add an indoor swimming pool, snooker room and indoor cinema and video screening facility. More info from Thatched Cottage at North Road, Wendy, near Royston, Herts SG8 0AB. Tel: (0223) 207979. ***Dp***

AS EASY AS ABC

ABC Music of Esher are offering some pretty unmissable Casio cut-price deals for the impecunious (most of us, these days).

First off, Casio's VZ1 synth is being sold by ABC for £399 (original retail price £899). So for under £400, you can now get 61-key touch response, aftertouch and 16-note multitimbrality.

The VZ1's rack-mount brother, the VZ8M, is being sold by ABC for £229, and features the same iPD sound source as the VZ1, plus a unique keyboard, guitar or wind mode to match the idiosyncrasies of the instrument being played.

ABC are also offering the FZ1 16-bit sampler (originally retailing for £1600) for £899, making it the cheapest sampler you can buy new at this time.

Finally, if you're interested in guitar controllers, ABC have available the PG380 MIDI Guitar, with 64 built-in presets, expandable on ROM, and a full MIDI spec for connection to any MIDI device. The price? A mere £699.

More info on any of the above from ABC Music, 85 High Street, Esher, Surrey KT10 9QA. Tel: (0372) 68114. ***Dp***

FRIENDS OF THE FOREST

As part of the Tropical Rainforest Festival, running this year from May 20th to June 4th, Friends of the Earth have organised a Composition Competition on the theme of the Tropical Rainforest.

Entries are invited from composers aged 18 to 35 inclusive, on January 1st, 1990. They should be submitted as a score or in cassette format, using chrome tape and Dolby B or C, and compositions of six minutes or less are preferred, though the maximum permitted duration is ten minutes. Scores should be legible and well-marked with rehearsal letters/numbers and instruction to players, and two copies of scores or tapes are required (not originals). The entry fee for each submission is £5, to cover administration and postage, and a prize of £750 is available for the winner in each category. Judging will be by a panel of Jane Manning, Robert Maycock, Nigel Osborne and Alejandro Vinao.

The competition categories are as follows:

(a) Music for up to three instrumentalists. Note that there is a fairly strict list from which instruments must be selected, available from the organisers. A selection of entries from this category will be given informal performances at the Barbican Centre, London on Monday June 4th, 1990. The winning entry will be included in a concert the same evening at the Barbican Concert Hall.

(b) Electronically-produced music, and/or music concrete, in any style, on tape. The winning tape will receive its performance during the Aural Cinema Weekend organised by the Electro-Acoustic Music Association of Great Britain at the Purcell Room, London, on May 11th-12th, 1990. A short cassette of sounds recorded in a rainforest is available from the organisers, The Arts for the Earth, on request; it should be returned by the closing date if possible.

(c) Children's choir. Entries in this category should be for a class of school children aged between six and ten. A selection of entries from this category will be performed by groups of children at the Barbican Centre during the festival.

If you plan to enter the Composition Competition, you should write to the organisers for a full list of competition rules and a fuller explanation of the categories; you'll also have to get your skates on - the closing date for entries is Friday, March 16th, 1990. The address to write to: The Arts for the Earth, c/o Friends of the Earth Trust, 26/28 Underwood Street, London N1 7JQ. Tel: 01-490 4734. ***Dp***

FOSTEX FOSTER NEW PRODUCTS

Fostex have recently announced several new products of interest to the recording musician, all scheduled for either January or February release.

The Fostex 280 four-track ministudio is billed as "the most important rethink in ministudio design for years" and "the most user-friendly ministudio available". What's more, it's apparently "the summation of every advantage there has ever been in portable four-track" - just so you know you're not dealing with any old multitracker here. Unfortunately the, er, ebullient press release doesn't offer much in the way of factual information to back up these claims, so we'll have to wait for further news. However, the 280 has eight inputs and two auxiliaries, runs at 9.5cm/sec, utilises Dolby C noise reduction, offers powerful EQing, features location control, and provides MIDI facilities with the MTC1 interface. All for a VAT-inclusive retail price of £599. One to watch out for, it would seem.

The Fostex 812 mixing console has been designed for eight-track recording, in particular to complement the company's R8 eight-track reel-to-reel machine. It features 12 inputs with three-band sweepable EQ in low/mid and hi/mid bands, two mono effects sends and one stereo auxiliary send for each input channel, three stereo effect returns with pan pot for stereo panning, eight fluorescent bargraph meters with a switchable peak hold facility, a Mute function which operates on all inputs and is controllable via MIDI with the addition of an operational insertion card Mod 8200, Solo on all input and output channels, eight group outs to the recorder and each of six group outs able to be routed to the stereo master out. Retail price on the 812 will be £999 including VAT.

Coming down the price scale we find the 454 eight-channel mixer, which apparently is an improved variation on the company's successful 450 mixer, offering, for instance, quarter-inch jacks for Aux 1 and 2 and the monitor out for easy connection to external effects, PFL for the monitoring of individual channels via LEDs, bargraph meters with a switchable peak hold facility, and LED indication of signal overload at the EQ as well as the pre-amp stage. £599 will buy you a 454.

Cheaper still is the 2016 rack-mounting mixing console, which has been designed as a flexible sub-mix unit which can be used as a 16:2 configuration or as two 8:2 stereo mixers. Features include gain and pan controls and two aux sends for each channel, four bargraph meters and front-panel input access. The quarter-inch jacks on the front panel override the equivalent phono connections on the rear of the mixer. VAT-inclusive retail on the 2016 will be £299.

Fostex expect the 4020 Event Controller to find a wide range of applications in a growing number of environments which require automation facilities, such as multi-media studios, AV presentations and theatres. This 1U 19" rack-mount unit has a built-in SMPTE timecode generator and SMPTE-to-MTC converter, built-in wide-band reader to read SMPTE timecode in fast forward and rewind modes, two RS422 serial ports (one of which can be switched to RS232), and eight relay, five pulse and three communication outputs, programmable up to 999 events per output. There are four output types: relay contacts, pulse outputs (open collector type), MIDI messages and Transport Control. Retail price on the 4020 will be £899 including VAT. ***St***

MUSICIANS' GUIDE TO THE GALAXY

If you've ever seen the annual APRS handbook, you'll know what a useful reference guide it is to those involved in the music industry. It includes comprehensive infor-mation on 113 professional recording facilities throughout the UK, plus sections for post-production facilities, mobile studios, producer biographies and useful introductory articles.

The 1990 edition of the APRS Guide to Recording in the UK (in a compact A5 size and in full colour) is now available at a cost of £6 plus £1 postage, from the APRS at 163A High Street, Rickmansworth, Herts WD3 1AY. Tel: (0923) 772907. ***Dp***

IVORY POWER

Talking of cheap gear (well, we were if you've read ABC's Casio cuts), Music Village have procured a limited supply of Orla's Stage 76 Digital Piano that they're knocking out at £499 (around half their original list price). Launched last September, the Stage 76 comes in its own flightcase, has a weighted keyboard action; 16 onboard sounds including acoustic and electric pianos, vibes and harpsicord; detune, tremolo, brightness and sensitivity controls, and a bass section. It will also allow you to transmit the bass and upper sounds over separate MIDI channels.

If you're in the market, and a bit short of ackers, it sounds as if the Stage 76 (as we've come to know it) could be a cost-effective compromise between a digital piano and a master keyboard. The people to talk to are Music Village at any of their branches, or call the Romford shop on 01-598 9506. ***Tg***

COMPANIONSHIP FROM GAJITS

Back in November '89 we ran a news item on Gajits Music Software's Sequencer One, a budget sequencing package for the ST, and this month you'll find a review of it elsewhere in the magazine. Originally available via mail order only, Sequencer One is now available from music and computer shops nationwide, courtesy of Hugh Symons Distribution, and now retails at £89. So now you have a chance to check it out before you part with any cash.

Gajits have also announced a new range of "sound development programs" which have been designed to multitask with Sequencer One. Currently they run on the ST either as desk accessories or as regular programs, but Amiga versions will also be available soon. The first two programs cover most of Roland's current range of L/A synths and expanders, including the new computer music modules. CMpanion (very witty, guys) is for the MT32, CM32L, CM32P and CM64, while 4D Companion works with the D5, D10, D20 and D110. The programs, which allow ready editing of all instrument sound parameters over MIDI and include random patch creation and librarian facilities, will retail at £99.

For more information contact Gajits Music Software on (061) 434 2768 or (061) 446 2304. ***St***

communiqué

cookie killer

Please find enclosed a cheque for a copy of your virus killer program, Vkiller. Thanks for making available such a useful tool.

I used to write music for computer games until one game that was sent to me was infected with the "Cookie Monster" virus. I've since wondered if any of my other disks have become infected but have been unable to check.

Walton Manor
North Oxford

Glad to be of service. Speaking of which, we've spotted an opportunity to extend the use of the Vkiller service. Check out the Software page in this issue for full details. ***Tg***

write & reed

I am the owner of a Wurlitzer EP200a electric piano but, unfortunately, two of the reeds have broken. I understand that the Wurlitzer company have now ceased trading and have no idea of where I can obtain spare parts. Can you help?

Tony Flynn
Kingsbury
London

The old Wurly, eh, used to have one meself. I'm afraid I don't know anyone who can help you but I can't believe that there isn't someone out there with some spare reeds or who knows a man who does. If anyone with any useful information could get in touch with MT, we'll gladly pass the information on. ***Tg***

dead or just resting?

Surveying my "studio" yesterday I was reminded of the amount of old synthesisers that must exist in the world by now. But where are they? Are they really all accounted for by collectors, hire companies and the bin men, or is there some other place of rest (natural or otherwise) to which ageing electronic instruments are attracted?

I really can't imagine all those old synths taking up space in peoples' houses when they're no longer used. So are they sold - can the secondhand market really be that good? Or are they trashed - somehow I couldn't do that to a load of gear that I've become so attached to. It's one of those questions I know I'll never have answered - unless you know something I don't. Any suggestions?

Jeffrey Archer (another one)
Leicester

I've never heard of a machine afterlife, but I'd give a good home to an old synth if it needed one. Do we have any clairvoyant readers out there? ***Tg***

LETTER OF THE MONTH

men machines

I've recently been experimenting with a variety of drum machines, and have come to a couple of disturbing conclusions I think the world should know about.

Up until I started work a little while ago, my MIDI setup read rather more like a clearance sale at a junk shop. But bringing home my first wage packet gave me the chance to change all that. Having survived with an old Roland TR606 Drumatix - a dog of a drum box, if ever there was one - and a MIDI/Sync24 converter, a new drum machine was quite high on my list of priorities. What was it to be - an R5, R50, HR16? Mouth watering with anticipation, I managed to bully a local dealer into letting me try a number of machines before deciding - but not without first parting with my cash, I might add. Several weeks later I was much wiser, but not completely in the areas I had expected.

I had thought that I was assessing sounds and facilities (which to some extent I was) but I found myself asking an awful lot of questions about my music along the way. The old Drumatix, for all its sins, did little to alter my writing style - I just got used to thinking of it as a temporary measure, to be replaced at the earliest opportunity. Its successor, however, was meant to be treated with the respect due a "professional" piece of equipment.

First on the test bench was the Alesis HR16. I'd read excellent reviews and heard it mentioned favourably in MT's DemoTakes. My hopes were high. What I actually found was a friendly machine full of suitable impressive sounds that worked in only half the songs I'd written. Back to the shop it went, to be replaced by Kawai's R50. Again the sounds were impressive, the machine itself easy to use - and again it only sat comfortably in certain of the songs I'd written. The story continues, but I'm sure you've got the picture.

Where one drum machine suited one song, a different machine suited another. More accurately, the *sounds* either suited or did not. Now, I'm not naive enough to think that any sound will do any job. It was more a matter of the treatment of the sounds meaning that certain of them simply wouldn't fit in the spaces I'd written for them. For example, an HR16 snare complete with reverb sounded much too big for a song running at 118bpm, but one of the snares off the R50 slotted in just fine. Alternatively, slowing the tempo of the same song down to around 92bpm left enough room for the HR16 snare to die away before it obscured half the next bar. It was too "big" otherwise.

You may still be saying "get the right sound for the song", but I think it goes deeper than that, what you're actually saying is that you need the right drum machine for the job - not because of its basic sounds or facilities, or even its price, but because of the reverb on the sounds. Taking this argument one step further, buying one particular drum machine is going to influence your songwriting to the same extent as working with another musician. Is it the intention of the manufacturers of these machines to give them a "character" in this way? Or are they inadvertently making instruments that restrict our creativity?

I realise that the answer to my dilemma is to buy a sampler and load it with the sounds appropriate to each song, but that is beyond my budget at present. In the meantime I'm still making the sorts of compromise with my music that I thought I'd disposed of along with the TR606.

Paul Deane
Manchester

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Q.
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QUINSOFT ADVANCED 4-OP LIBRARIAN

DECISIONS, DECISIONS! DOES this belong in Patchwork or is it a piece of software in its own right? You see, the Advanced 4-Op Librarian (review version 1.01) is a librarian program – of course – but it comes complete with 512 voices. At just under 5p per voice – that's ignoring the cost of the program – it's well and truly in the Sounds category. What the heck, let's plumb for program and begin by looking at just that.

"Advanced" refers to the new generation of Yamaha FM synths (well, they were a few years ago) which give you the choice of eight waveforms instead of just sine waves. The program and voices should be compatible with the DX11, TX81Z, YS100, YS200, TQ5 and V50. They can be loaded into the DX21, DX27 and DX100, too, but the "advanced" features will be missing.

So keen to explore these sounds was I that I plunged in without reading the manual. Fortunately, operation is dead easy and I escaped unhurt having missed only a couple of features.

There's only one screen and it shows two blocks of voices labelled A and B. Each block can hold four banks of 32 voices and you flip from bank to bank by clicking on boxes numbered one to four alongside the bank name. The program can also hold and show a Performance and a Setup but only one of each. The Performance names are shown on-screen but not the voices or data they contain. The only information given about the Setup is a name.

Performances and Setups are saved to and loaded from disk and sent to and got from the synth individually, while Voices are handled in banks of 32.

You can listen to individual voices by Clicking on them (this sends them to the synth's buffer) and then moving the mouse around the screen. There's also a MIDI Echo function to let you play them from an external keyboard if you're using the program with an expander.

There's one more voice option and that's Clear Bank. You can copy voices by clicking and dragging but only between banks which are on the screen. You can also swap voices but this option must be selected from the Functions menu. You can print a voice list, too, and this contains room for comments.

After constructing a new bank you can sort it into alphabetical order. You can lock a bank so you can't alter its contents – a feature introduced after a series of accidents, says the manual. You can also invert the screen colours.

I can think of a few other features which would be helpful to have. For example, the ability to rename a voice – "Bell 1' to "Bell H' isn't particularly descriptive and the naming function on the TX and DX synths is a pain. Also a lock on the Swap function so you could perform several swaps without having to reselect the option each time. The screen updates are a little slow, too, after changing banks and swapping voices.

Having used librarians with the ability to create libraries containing large numbers of voices (limited only by memory or program restrictions) I must confess I personally found the 32-voice per bank restriction a limitation. But for the price I don't think there'll be any complaints. And the good news for 520ST owners is, Advanced 4-Op Librarian only requires 512K of RAM and will work with a colour or mono monitor.

The program is relatively basic but it does the job it sets out to do – and quite economically at that.

Which brings us to the sounds. There are 16 banks of them, all Quinsoft originals. They are: Basses, BellPlus, Brass, Clavplunk, Effects, Electric Organs, Electric Pianos, Guitars, Percussion, Pianos, Pipe Organs, Reeds, Strings, Synths, Tuned Percussion and Woodwind.

Many voices respond to velocity and modulation changes and they have been designed not to distort even at full velocity.

It must be difficult to create 512 original sounds and many of them are variations on a theme – as the library names suggest. For example, there are 24 basses, 16 bells plus another 16 bell instruments ("BellFlute' and so on), 56 organs and 64 (at least) piano variations. But if you're not a programmer and don't even want to tweak your sounds, there is plenty of light and shade here to choose from although personally I would have preferred variety to subtlety.

And there are some great sounds here – lush brasses, fine bells, atmospheric pads, delicate and raunchy pianos and organs a-plenty. There are some lovely solo string sounds, too, and some of the vibes have built-in tremolo. "Flute 6' produces an overblown sound if you play it hard – very nice – although some of the panpipes were, er, oddly unpan-like.

Finally, the disk contains a bulk-load desk accessory which will load and transmit Voice, Performance and Setup files. The disk isn't protected (ten out of ten Quinsoft) so you can copy this to your master boot disk. It's a shame that there's an error in the very first word of the manual(!) – and others elsewhere, too – and the punctuation is, well, not the way I'd choose to punctuate (sorry, but I notice these things) but the manual is due to be reprinted, hopefully with corrections. But I nitpick, indeed I do. You'll probably only need to read it once anyway, if that.

Nitpicking aside, I can't do anything but recommend this package to anyone on a budget wanting just basic, easy-to-use 4-Op librarian facilities. Whether you look upon it as a librarian with free voices or voices with a free librarian is up to you.

Watch out for more Quinsoft programs in the new year.

Ian Waugh

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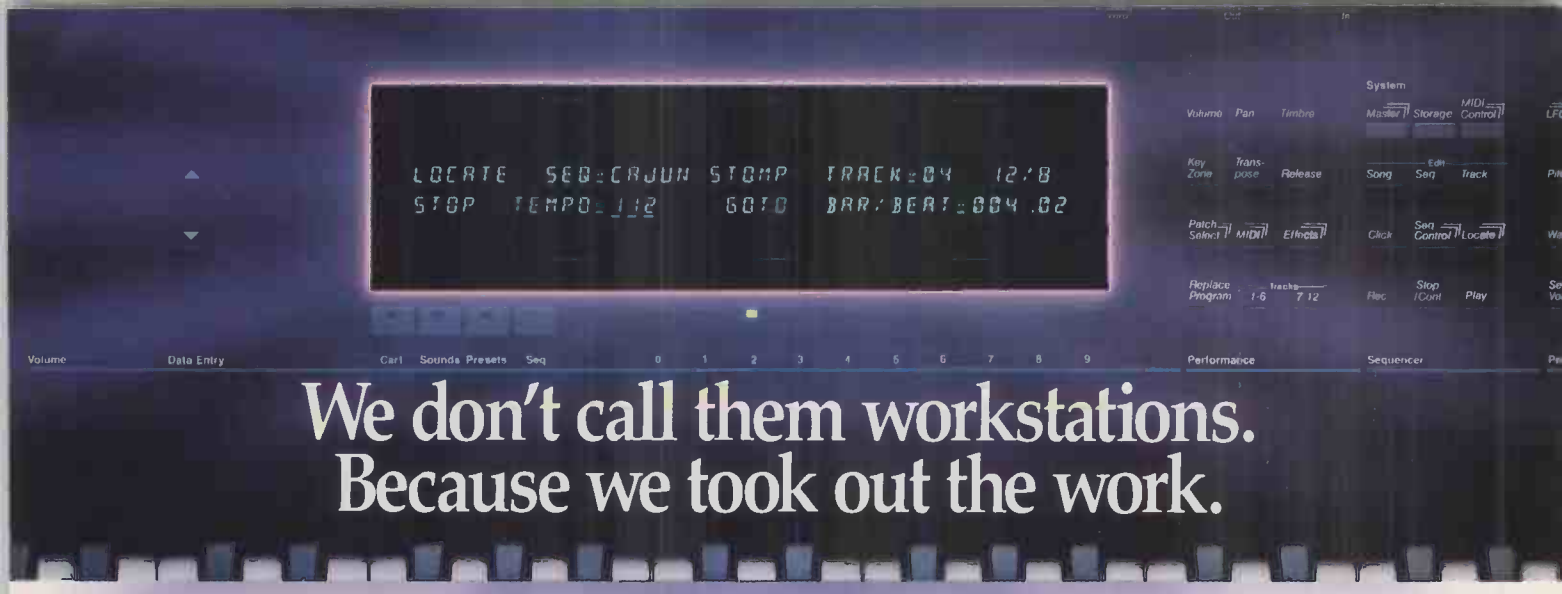

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ILLUSTRATION: CLIVE GOODYER

TWO MONTHS AGO Music Technology joined the Good Guys in the fight against computer viruses. After considerable discussion with musicians whose experiences with computer viruses ranged from frightening to disastrous, we decided that it was time someone actively sought to increase the general level of awareness in musical circles. As a result, we are able to offer MT readers a virus detector and killer for the Atari ST for the modest sum of £3.50. That was the news two months ago.

The response to our original offer has been more than encouraging - we can now be sure that a good many musicians are able to detect and destroy viruses that might find their way into general circulation. Not only that, but they will not unknowingly pass on a virus to anyone else. Between us we can be happy that we're doing ourselves and the hi-tech music industry a considerable service.

Those of you who are ST users but have not yet invested in a virus killer should find Vkiller friendly, effective and cheap (MT is *not* profiting from this service). You'll find an order form at the bottom of the page. You know it makes sense. . .

AS WE'RE NOW in a position to send out disks to readers, we thought we'd try to make the most of it. Not being memory intensive, a program like Vkiller doesn't take up too much of the space on a floppy disk - couldn't some use be made of the empty space? Of course it could - it could be used to carry demonstration versions of other programs. So it was that we set about phoning the manufacturers and distributors of ST software. Would they be interested in giving us demo programs that we could send to our readers? Of course they would. As a result we will be including a selection of these demos on future copies of Vkiller. Will it cost you any more money? Not a penny.

At the time of writing, the list of available demo programs is a little sketchy, but already includes **The Digital Muse's Prodigy** sequencer, **Bit by Bit's MIDIdrummer** drum composer, Gajits' **Sequencer One** and a selection of programs from **Steinberg, Hybrid Arts** and **Dr T's**. To begin with, these programs will simply be "mixed 'n' matched" with Vkiller depending on the available disk space, but we're keeping our options open and waiting to see what the response from you, the readership, is. If you've any preferences or suggestions regarding how you'd like to see these demos distributed, let us know. Please?

In the meantime, keep killing those viruses, boys.

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TESTING, 1, 2. . .

HOW MANY TIMES has the same MIDI system that, at other times, is your pride and joy, been the cause of a near-terminal nervous breakdown? If the collective experiences of the MT staff are anything to go by, it happens more often than you'd like to admit. But you're amongst friends here. . .

And as we're always happy to help a friend, wouldn't life in that MIDI hell you call a studio (or even a bedroom) be just a little easier if you had a little box that you could plug anywhere into your setup to tell you exactly what which MIDI information was going where (or wasn't) - something remarkably like a Studiomaster MA36 MIDI Analyser, in fact?

Of course it would. And of course you've guessed what this month's competition prize is - though we've actually got five of them to give away, so you're actually more likely to win one.

Now then, on to the serious business of the competition. Your mission this month, should you decide to accept it, is to sort out the fact from the fiction in the following questions, and answer the tie breaker.

1. Which of the following forms of analysis can't you perform?

(a) Syco Analysis
(b) Spectrum Analysis
(c) Fourier Analysis

2. Which of the following bands has not released a record?

(a) Analysis
(b) Jung Analysts
(c) Ann Alysis and the Analysts

3. Which of the following songs has yet to be written?

(a) Psycho Killer
(b) Psycho Therapy
(c) Psycho Sis

Tie breaker: if you had to give the MA36 a name, what would it be?

ALL ANSWERS TO be sent on postcards only please, to arrive no later than second post on **Tuesday, 1st May.** Entries should be addressed to **"Testing, 1, 2. . .", Music Technology, Alexander House, Forehill, Ely, Cambs CB7 4AF.** Please include your name, address and a daytime phone number on which you can be contacted should you win.

On the thorny subject of multiple entries, we've recently discovered that Deefers, the office goat, is quite partial to them. Unfortunately, once digested, entries are un-suitable for adjudication, and are, therefore, certain not to be chosen as winners.

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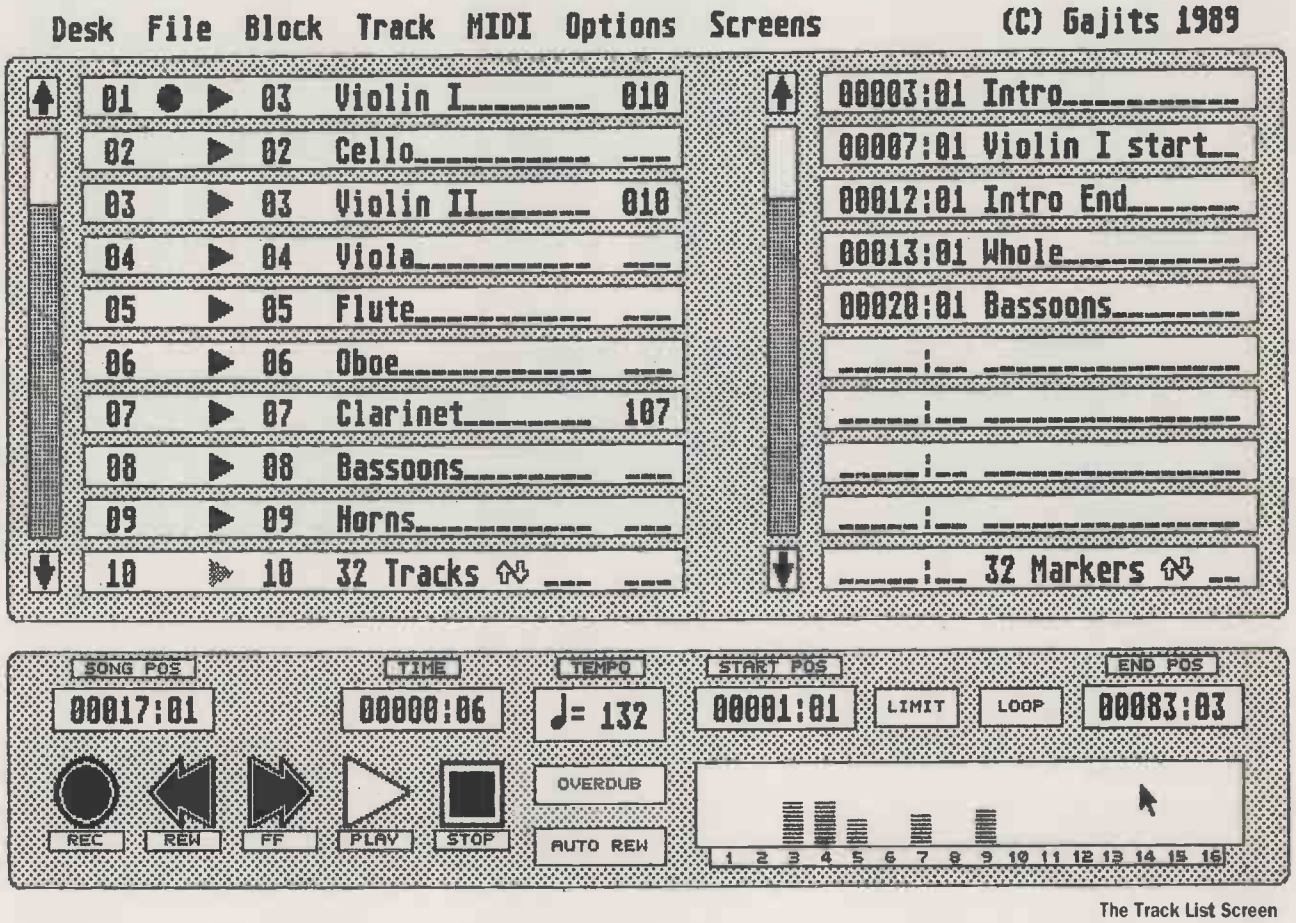


The Track List Screen

The name speaks for itself: somehow Gajits want their ST sequencer to be No. 1 - though they're talking ideal first rather than ultimate. But have they succeeded? Review by Ian Waugh.

I DON'T WANT you moaning, shaking your head or turning the page. Yes, I know, it's difficult to get excited about *another* ST sequencer, but if you haven't yet taken the plunge and your budget is strictly limited, I think you'll find this one interesting.

Let's see what we've got here. Sequencer One (review version 1.0) works with a mono or colour monitor and can store around 40,000 events on a humble 520ST. Sequencer Info in the Desk menu tells you how much memory you have used and how many events are free. There are 32 tracks and the clock resolution is 192ppqn (pulses per quarter note). There are no arrange functions and the 32 tracks are your song.

TRACK LIST

OPERATION IS BASED around tape transport controls which are common to the three main screens - the Track List, Step Editor and Bar Editor. The Track List shows ten tracks at once; you can give each a 16-character name plus an associated program change number which is sent whenever the song is played from the beginning and when it is loaded.

On this screen you can change a track's MIDI transmission channel, select it for recording or mute it. To the right of the tracks you can create a list of user-definable song positions, also with a 16-character name, which are used as cue points.

The transport controls include a bar and beat counter and an elapsed time counter - very useful. Clicking on Stop when Auto Rewind is selected will rewind to zero; if it isn't selected, Stop acts as a pause button. You can set the counter to the position of any entry in the song position list by double-clicking on the required song position and then on the counter. Using a similar method you can copy the counter to the song position list so it's fairly easy to set up cue points.

You can record in normal or overdub mode. Normal wipes out existing track data while overdub merges it with the new data. Start and end position counters are used to create a loop for recording or playback

(useful for building drum tracks) and to set a limit on block operations such as cut, copy and quantise.

MIDI Thru sends incoming messages out on the channel of the track currently selected for recording. This is probably the most useful arrangement when using multitimbral instruments, as changing track will route your master keyboard to the associated sound. A set of MIDI LED activity meters let you see which MIDI channels are in use.

Track Info (selected from the Track menu or by double-clicking on the track name) tells you where the first and last MIDI events are, how many Note On and Note Off messages it contains (let's hope they're the same!) and whether other data such as key pressure and pitchbend is present. It also lets you set a volume level and pan setting which are transmitted when the song plays from the beginning.

STEP EDITOR

THE STEP EDITOR screen displays note data in the now-familiar and popular grid format. Notes are shown as bars - the longer the bar, the longer the note and the higher the bar on the grid, the higher the pitch. A keyboard on the left of the grid helps you line up the notes.

The resolution (or zoom factor) can be selected from a 16th note to a whole note. As the piece plays, a scroll bar moves through the song so you can see where you are. You can move quickly through the track using the tape transport controls and by clicking on the bottom of the grid.

There are three modes of editing - Info (for editing events), Delete (yes, you guessed - for deleting them) and Step Entry mode. In Info mode, clicking on a note produces a dialogue box containing the note name, velocity, on time and length. These can be altered by typing in new values. I must confess I missed the convenience of using the mouse to alter the values and if you've much editing to do the process may become a little laborious.

The Step Editor substitutes the transport controls at the bottom of the screen for a keyboard. Notes are entered by clicking on the keyboard and the editor moves on ready for the next note.

If you click on a note icon, up pops a box which lets you select a different note duration, gate time (also called on time) and velocity. You can enter notes and chords from your MIDI keyboard although notes entered this way take their velocity and gate time from the current setting, not from what you play.

You can extend the length of a note by up to four times the current duration by pressing the space bar. But why not have a list of note durations on the screen so you can click on a duration, enter a note, click on a duration, enter a note and so on? This would save two clicks per duration change.

Editing operations can be found under the Block menu and include cut, copy, paste and delete. Cut and copied events are stored in a clipboard and an info box tells you where it came from in case you forget. Blocks can be saved and loaded, too, which is useful if you want to copy tracks from one piece to another.

BAR EDITOR

THE BAR EDITOR will be familiar to anyone who has seen Passport's Mastertracks. It shows MIDI data in one-bar sections and allows you to check song arrangements across the tracks.

One of the main uses of the Bar Editor is to let you define blocks by pointing and clicking. This is far easier than entering numbers in locator or cue boxes although, of course, operations can only be performed on complete bars. The start and end positions are reflected in the boxes in the transport control area; individual tracks can be selected or all 32.

When defining a block you need to ensure that you don't capture a Note On event without its corresponding Note Off. The Tidy function helps by moving a note either into or out of the block depending on where most of it already is.

You can quantise a track (or section thereof) from a quarter note down to a 64th-note triplet. You can also enter your own quantise setting in clock ticks (up to 1/192). If the result is too severe it'll teach you to save your work before performing a potentially destructive edit - but then there's always the incredibly useful Undo which puts things back the way they were before you messed up.

There are three Alter functions. Alter Notes lets you transpose a track (or part of it) and scale note velocities by multiplying by a constant (the range runs from 0.01 to 99.98). You can also shift the velocity by adding or subtracting a fixed value.

You can perform similar functions on the timing of a track to shift it forwards or backwards. A scale time function ("included for your amusement", says the manual) has the effect of shortening or lengthening the notes.

The third Alter function is applied to continuous controller data - such as pitchbend and aftertouch - which can be scaled and shifted in the same way.

Strip/Thin has nothing to do with playing poker with Kylie. It is used to remove a variety of MIDI events and controller information. You can specify a range of parameters the stripping is to work within. In the case of note data, for example, you can selectively remove notes falling between two pitches and with velocities in a predefined range. If you select Thin instead of Strip only every other occurrence of the data is removed.

You might use this function to remove large amounts of controller data if you find you're running short of memory. It can be used constructively too, to separate left- and right-hand parts of a track (although you'd have more jiggling to do if their note ranges overlap). It also allows you to remove unpaired Note Ons and Note Offs (some software takes care of things like this for you automatically).

Set Filter allows you to remove unwanted MIDI data arriving at the ST's MIDI In. It can also be used to remap channel aftertouch onto any controller and to map any (other) controller onto any other controller (with me?). For example, you could map the mod wheel onto volume and use the wheel to control the volume of a part. If you have a wind controller, you ➤

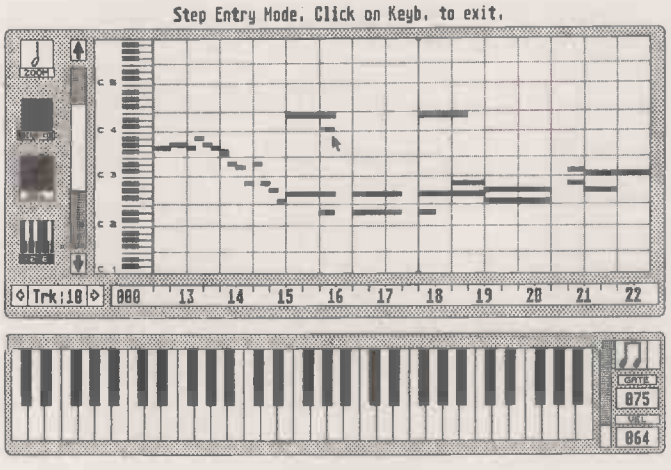
"The Step Editor substitutes the transport controls at the bottom of the screen for a keyboard; notes are entered by clicking on the keyboard"

➤ could map aftertouch to the expression pedal.

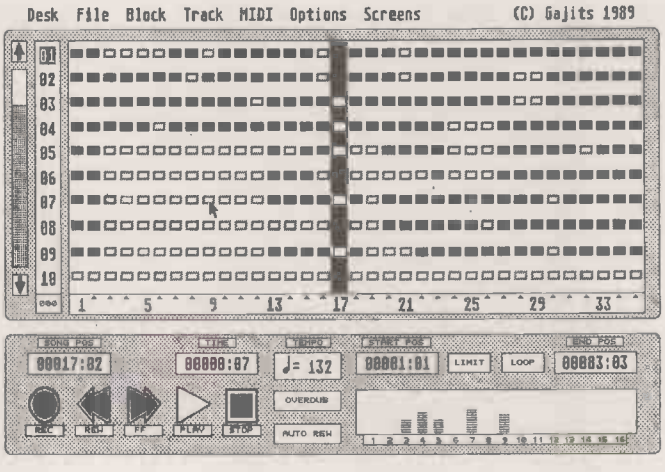
There are internal and external sync options, of course, allowing the sequencer to control or be controlled by another sequencer or drum machine.

Finally you can select a message to be sent whenever you press the Stop button. This basically involves selecting Omni Off/Poly or Omni Off/Mono mode for each of the 16 channels (this is particularly useful with some older synths).

The metronome click can be sent to the computer monitor or via MIDI. You can select a time signature from 2/8 to 16/4 which determines the downbeat for the metronome. The tempo can be set by reading how fast you click the mouse. To complement the 16-character track names, you can store notes about the piece in a notepad area. Settings such as sync, mode and MIDI Thru can be saved as a Setup file which is automatically loaded upon booting.



The Step Entry Screen



The Bar Editor Screen

INSPECT YOUR GAJITS

SEQUENCER ONE IS GEM-based and supports desk accessories which, says the manual, can be used while the sequencer is playing - cue Gajits' new range of DA voice editors. Trying to mix MIDI data in this way (especially with unknown programs) seems rather ambitious. Keynote's Chameleon librarian, for example, stops the music (sensibly, as it intends to do) but on leaving the editor, it leaves behind bits of its screen - but only when it is accessed when Sequencer One is playing. Gajits uses its own screen drawing routines, however, and screen updates are fast.

File handling permits loading and saving of the song plus import and export of MIDI files (formats 0 and 1 for the technically-inclined).

The manual contains a beginners' introduction to MIDI and the rest is more a reference guide than a tutorial. Although the program is one of the easiest to use that I've seen, a tutorial would still be helpful, especially for newcomers to software sequencing.

VERDICT

WISHES AND WANTS? Sure, you can always find something extra you'd like, even in pro sequencers. The editing of notes in the Bar Editor is very precise but I kept wanting to click and drag them. Step-time entry is easy but a little laborious and could be improved. More flexible quantise settings would be nice, too (but I confess I've been spoiled by Notator), along with scale tempo and velocity functions which would allow you to program crescendos, diminuendos, rallentandos and accelerandos (that's the Italian lesson over for this week, class).

I was a little miffed at having to type in some of the numeric data from the ST's keyboard (OK, so I'm lazy) - I find it much easier, quicker and more convenient to scroll through values with the mouse. For those of a less pernickety disposition, you can control the recording operations from the computer keyboard.

Another niggle is the lack of a MIDI event editor which is useful for tweaking various bits of MIDI data, inserting program changes and the like.

It's easy to see what Gajits have done - they've looked at the facilities on other sequencers, selected the best and brought them together in one package. It's not overburdened with esoteric functions yet it contains all the basic features you need to put together a song and a few more besides. While there may be little that is strikingly original in the package, it does offer an excellent range of facilities for the money - value is the keynote. It's an excellent sequencer for the first-time buyer and if you do get stuck it's reassuring to know Gajits run a MIDI Helpline service.

The main competition for Sequencer One comes from other budget-priced sequencers and cut-down versions of pro programs. I know of only one cheaper program, Super Conductor, and Sequencer One beats it soundly into second place (although Ladbroke's MidiStudio (reviewed MT, May '89) has just been reduced to £49.99 and an updated version increased to £149.95 but they aren't GEM-based). If you do an overall comparison with the competition I think you'll find Sequencer One comes out very well indeed.

Intriguingly, the manual begins by welcoming you to Sequencer One which it says is the first in Gajits' series of MIDI sequencers. What next, I wonder. ■

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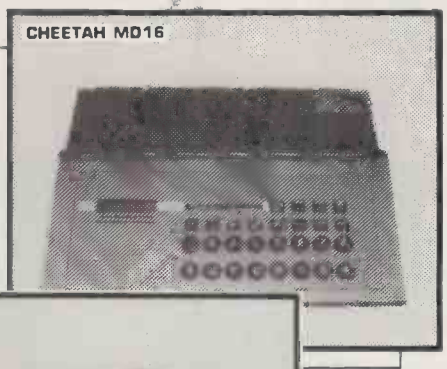

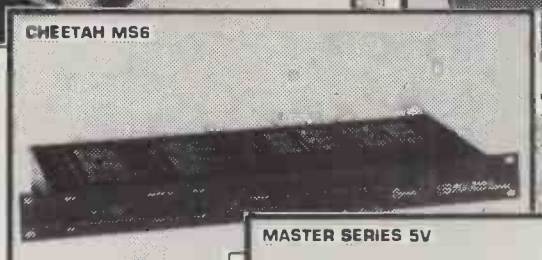

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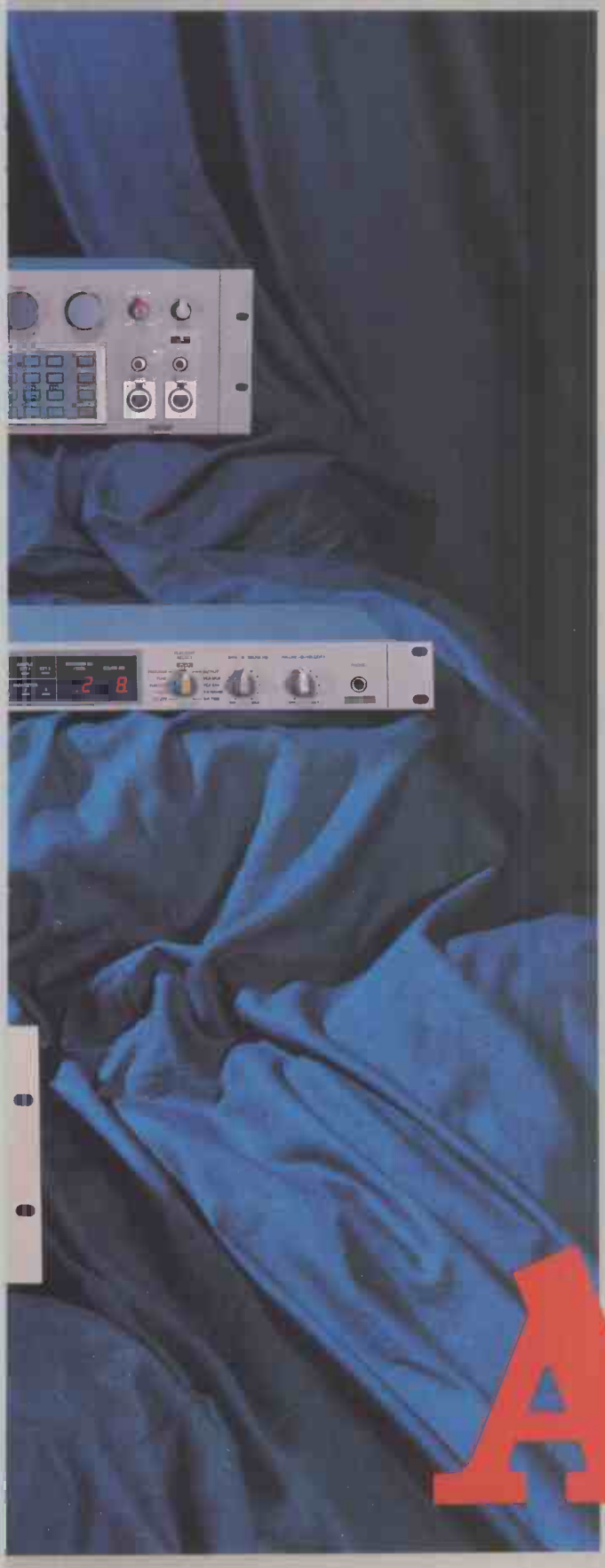

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THE PERFORMING ART

PART 2

ILLUSTRATION: RUSSELL WEBB

IN THE SECOND PART OF THIS SERIES ON USING MIDI TO RECORD MUSICIANS' LIVE PERFORMANCES, THE SPOTLIGHT FALLS ON THE HEART OF THE SYSTEM: THE SEQUENCER. TEXT BY OLLIE CROOKE AND SIMON THOMAS.

ONCE ON THE subject of software sequencers, it's not long before you run into some of the discussions about the ergonomics of screen layouts, musicality, user-friendliness, intuitive approaches, artificially intelligent software and such like. And, of course, these are important factors when it comes to choosing the software best suited to your needs. Yet although all these factors are important, the most important thing to remember is that getting to know a sequencer takes time - and unless you're lucky enough to be able to spend a week with every sequencer on the market, you're not really going to be able to make a fully informed choice. Even shop demos are not a great basis for decision making, as they don't really give an accurate idea of anything but how flashy someone who's spent some time on the system can be.

Another factor in the assessment of a sequencer is its editing facilities. Having a computer monitor makes all the difference. We know of people having serious romantic encounters with machines such as the Roland MC500, but being able to pick up a note with a little hand, controlled from your Trak Ball or mouse and put it exactly where you want it on a grid, is much too civilised a facility to forego.

From the point of view of recording "live" sequence data, both C-Lab's Notator/Creator and Steinberg's Cubase are powerful systems; Steinberg's Pro24, however, suffers from only having a resolution of 96ppqn (pulses per quarter note), which can present timing problems when you're dealing with complex merged signals involving lots of control data - for example, someone playing an SDX kit live. In our MIDI recording studio we use Notator and we love it, but that isn't to say that we couldn't love anything else. . . You can do most things with most sequencers if you're prepared to give it some thought and read the manual carefully. If you have resolution problems then try running the machine at double speed. If you find you've got too much controller information, try thinning it out - a laborious process but it could be worthwhile if it keeps the MIDI Buffer Full messages at bay.

As far as quantisation is concerned, we've all become so used to hearing impossibly tight rhythm sections that it's

very difficult to avoid having to use it. Groove and Swing parameters help an awful lot in adding a little life to such a rhythm section, but you should also try to leave lead lines as unquantised as possible. Notator has windows with capture ranges so you can quantise just the notes on the beat and leave the "feel" of any notes in between untouched. It also allows you to use played sequences as templates for your Groove quantisation, so you can quantise everything to the swinging hi-hat part your drummer tapped in on your drum machine pad (you don't need fancy expensive machines like a Simmons SDX, but they do help).

Another way to bring feel to your sequences but retain their tightness is to humanise the MIDI clock pulse that you use to drive your sequencer. There are several machines that let you tap in your own tempo - Roland's SBX80, C-Lab's Human Touch and the Kahler Human Clock, to name but a few. These allow you to "play" a tempo track with all the human variation you require (or all the accuracy you can muster), and then use this varying tempo to bring new life to your rigidly quantised sequence.

As far as editing is concerned, the more global parameters there are on a sequencer, the better - it may be daunting to see a menu as long as your arm open up when you want to fine tune your not-quite impeccable performance, but it's a lot more fun than going through the whole of a 120-bar sequence changing all the C#2s into D2s one by one. Logical editing systems just aren't powerful or artificially intelligent enough as yet.

There are so many people swearing by so many different sequencers that you'd think that choosing one would be as difficult as choosing a Christmas present for your Uncle Frank. A more likely reason than ergonomics for people sticking doggedly to their particular brand of sequencer, is that musicians find it so difficult to get to grips with computer architecture that once they've mastered one they're jiggered if they're going to spend another three months learning how to use another. To a certain extent this is perfectly justifiable logic, but it also means that you should try to choose a sequencer with a solid future - another good thing about a software-based sequencer is that it can be updated easily and you only have to learn the system changes, not a whole new system. There's no real way of knowing for sure that any sequencer is going to last, but certain ones look like safer bets than others, and in any case there's always a way round a compatibility problem even if it does mean spending three hours trying to decipher someone else's MIDI song dump file - was that G# the cowbell or the woodblock?

PRACTICALITIES

ON A RECENT session at our studio, Roland Kerridge, a great drummer noted for his disgusting intimacy with the Simmons SDX, and our own Ollie Crooke, "Master of the MIDI Bass" played a track live into Notator. A short discussion of the practical problems involved in that session should prove illuminating for anyone contemplating any complex live sequencing.

Firstly the instruments: the Wal MB4 MIDI Bass transmits only on MIDI channels 1-4 (one for each string to drive four synth or sample voices in Mono Mode 4). Using it with any sequencer that doesn't have the facility of a MIDI channel de-mix is going to involve you in an awful lot of painstaking editing to separate the drums from the bass. Luckily, Notator has just such a facility. In order to separate the drums in the computer we get the SDX to send them grouped on different MIDI channels; with the bass on channels 1-4 we put the bass drum on channel 5, the snare and rim on 6, the hi-hat on 7, the tom toms on 8, the crash cymbal on 9 and the ride on 10. Keeping the snare and rim on the same channel and grouping the toms is done to make any visual editing a bit easier - another way would be to use your sequencer's drum edit facility if it has one. Pro24 has a very useful drum edit screen for just this kind of thing. Visually it makes sense for us to merge the bass tracks back into a single track after the MIDI Channel demix, as they'll usually be edited as a single instrument.

There are two extra MIDI Ins on Notator's Unitor SMPTE unit, and so merging is not a problem for us. We used to use the Philip Rees 2M MIDI Merge unit which was fine 90% of the time but had a tendency to misbehave at the end of the day when it had heated up. This could be a mite frustrating when someone played a great five-minute rhythm track into the computer only to find that the merge unit had omitted all the Note Offs or given all the notes negative lengths. Mentioning this brings another golden rule to mind: *save everything every time you do anything.*

So here we are, with our record and playback patches set up on the Sycologic M16 MIDI patchbay - the MIDI bass patched to the Atari and to a Yamaha TX802 and the SDX straight into the Atari. The soft MIDI Thru is off on the Atari (because the SDX doesn't like it) and all the relevant MIDI channels are set up on the bass and drums. What next?

There are some keyboard lines programmed in the computer for the chaps to play along to, and we decide to add some percussion. We opt for a repeated percussion pattern rather than a strict (and boring) metronomic cow bell because it's more conducive to the creation of that elusive element, feel, so we use a cabasa and cow bell pattern that fit in well with the rest of the track and quantise it to be rigidly on the beat. Playing to a click track is a skill that needs to be worked on, and this is especially true for drummers who, in most cases, are used to setting the tempo. Luckily for us Roland is well versed in the art of being a "Slave to the Rhythm' and copes well with the percussion line.

"A LOT OF GLITCHES THAT LOOK APPALLING WHEN YOU SEE THEM SPRAWLING ACROSS YOUR SEQUENCER EDIT SCREEN DON'T ACTUALLY PLAY, SO THERE'S NO NEED TO GET RID OF THEM."

Although the session is taking place entirely in the studio control room and we've got a great (and very loud) mix coming back over the monitors, we put Roland in a pair of cans. This is because drummers are so used to feeling the sound coming up at them when they hit a drum that listening to their playing coming from a pair of monitors behind them is very disconcerting. Some drummers think that they can hear a delay on the SDX (it's something like two milliseconds so this is fairly unlikely) when they listen over speakers. The other good thing about cans is that they block out the clatter of the stick and pedal noise of the pads so the mix doesn't have to be quite as loud for the rest of us mere mortals. So off we go: men and machines in perfect harmony.

We save three takes to disk and decide (typically) that the first one is the best. The next step is to de-mix all MIDI channels (so we now have ten separate tracks) and then stick channels 1-4 back together again to give us the bass part on one track. Next we must decide on a strategy for editing. Unfortunately most of the parts are a bit too rhythmically varied for any comprehensive quantisation - 16th triplets mixed in with straight 16ths on the hi-hat, fast double stroke rolls on the snare and toms. The song breaks down quite neatly into verse, bridge, chorus and middle sections, and the most sensible strategy seems to be to get a good single basic pattern for each section, arrange them into a song and then graft a ➤

➤ selection of fills, rolls and variations that we've extracted from the live recording. It sounds long and laborious but a lot of the fills are usable as they were played - no, they were brilliant as they were played.

The MIDI bass tracks beautifully but it also glitches a fair amount - some of the glitching is the instrument's failing but some just reflects the difference between electronic and accoustic intruments; a lot of passing notes and bumped strings that don't come out very audibly on an acoustic instrument are treated a lot less sympathetically by MIDI - although it does depend on how well the patch has been programmed as to how "naturally" it responds (a matter we'll be considering in the next part of this series). A lot of glitches that look appalling when you see them sprawling across your sequencer edit page don't actually play, so there's no need to get rid of them (unless you can't bear to see them ruining the visual effect of your classic performance). Notator has a handy function called Delete Short Notes which can help a lot with double triggers caused by imperfect left and right hand co-ordination. Unfortunately slides on the MB4 (and other MIDI guitar controllers) come out as lots of short notes and so there are no cut and dried solutions for editing.

Back to the job in hand. Roland selects a 16th-note pattern on the hi-hat that he likes, and we use that as the Groove quantise template. The next problem is how to use it. The hi-hat track is liberally splattered with triplet fills which seem to preclude any easy quantisation. Simon comes to the rescue with a bit of lateral thinking. He copies the hi-hat track and then uses the Forced Legato function (which extends the length of each note to the beginning of the next note) on both tracks. Then from one track he deletes all the notes over 38 clicks long (16th triplets are 32 clicks long so this allowed some playing feel) and on the other track he deletes all the notes under 38 clicks long. This way he has all the notes a 16th or longer on one track and all the 16th triplets on the other. With two different groove quantisations the hi-hat is happening (as they say in the biz) - well nearly. For some strange reason the open and closed hi-hat pedal control on the SDX is MIDI Controller number 17 and, quite sensibly, Notator doesn't quantise Controller information along with Note Ons. Our solutions to this depend on how the drummer plays - if he or she is consistently ahead of or behind the beat, then separating out the controller information and using a positive or negative delay usually sorts the problem out. If the drummer is all over the place, then repairs have to be done by hand (or the track played again or the pedal overdubbed using a Mod Wheel or some other "trick" solution). Luckily Roland is very accurate and so the delay trick works most of the time. We use the same quantisation tricks on everything else, and the drum track is rocking like it's in line for the Poll Tax. Bass next.

"GETTING TO KNOW A SEQUENCER TAKES TIME - UNLESS YOU'RE GOING TO SPEND A WEEK WITH EVERY SEQUENCER ON THE MARKET, YOU'RE NOT GOING TO BE ABLE TO MAKE A FULLY INFORMED CHOICE."

Unfortunately, changing the lengths of the bass notes doesn't really sound very good, so we have to experiment. We use a few different tricks in different places and generally do things more sectionally than with the drums. Using a Capture Window just to pull notes on the beat into place, and leaving things in between unquantised works well, but we have to seek out a few isolated places where it throws the relative timing out of place. Generally, when quantising melodic and harmonic instruments, it's much more difficult to keep a natural feel and cope with things like controller and pitchbend information than it is with pitchless percussion tracks.

Overall there isn't a huge amount to do to either the bass or drums considering how much information there is in the track, and most of what we have to do is just making certain beats particularly tight. One difficulty for the person doing the programming in sessions like this is that it does take a relatively long time to do the editing once the track has been played. This is no reflection on anyone's musicianship, it's just a fact that the impossible does take a while and getting something impossibly tight is no exception. Good judgement comes in when choosing the take that's easiest to edit. It can also be a good idea to do the playing in one session and the editing in another - this gives you a little time to listen to all the different takes and decide what to use.

If you're going to mix sections from different takes together then you should watch out for variations in velocity as well as any differences in the feel. This can be fixed with MIDI compression or by simply adding or subtracting a fixed amount using a logical editor on the imported pattern. Doing the two jobs at different times also means that the programmer can get on with the editing without having a load of bored musicians playing with all the toys in the studio and pouring coffee into the mixing desk.

A couple of tips on MIDI controller data: when you're recording a MIDI controller that also makes acoustic noises and putting the signal to tape whilst the MIDI goes to the sequencer, you have two basic options. The first is to get a near-perfect take on tape, edit the glitches in the MIDI data, but keep the overall timing relatively unquantised - this is fine for lead work but if it's a bassline or a rhythm guitar then you may have to use the rhythm unquantised as your groove template to quantise everything else. When this works it can sound absolutely brilliant, but remember that you can do drop-ins with MIDI as well as onto tape and so it's quite possible to repair "untight" sections. The alternative comes into its own when dealing with basslines: use loops. Look through your sequence for a really tight section, work out where it is on tape, sample it and then create a pattern in the sequence that triggers it off your sampler. You can then get an impossibly tight rhythm section with an enormous synth bass *plus* a fantastic slap sound.

Another problem is "machine gunning" on fast drum rolls. This is caused by the second trigger of a sound cutting off the first one before it's completed its envelope. With the SDX we can cure this by assigning another voice to the sample and the brain will deal with all the voicing logic. With drum machines or samplers where this isn't possible there is another way around it: make a copy of the sound in question and assign it an adjacent MIDI note number and a different output. The hard part is to then go through the roll in your sequence and change every other note to the second note number. As long as there aren't a huge number of very fast rolls then it shouldn't be too laborious and it does make them sound much more realistic.

A lot of editing of live MIDI performances can be tedious and time consuming, but the logical editors on sequencers are getting more and more sophisticated and offer some help. The best way to minimise the amount of time you spend editing is to maximise the performance of the musicians playing into the computer. The musical possibilities being opened up by this kind of technology are only just beginning to be realised, and at the moment the sound-producing modules seem to be lagging behind the controllers in their adaptability to real-time control. But soon, they'll catch up and we musicians will be doing some more manual reading. All you have to remember is that the machines will never catch up with our ability to conceive music. Will they? ■

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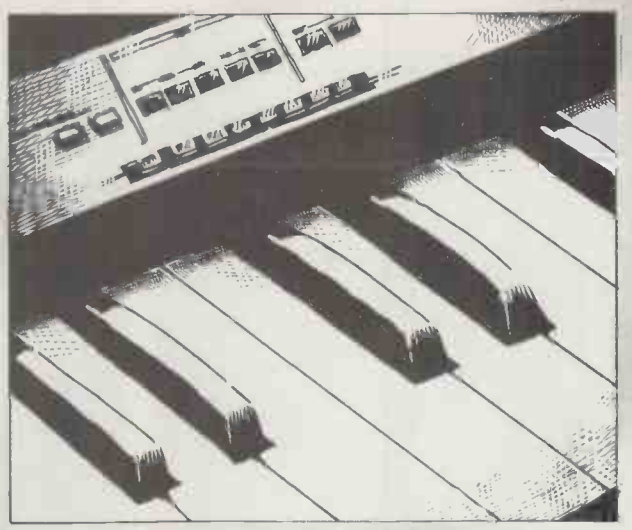

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100 SERIES

PHOTOGRAPHY: JAMES CUMPSTY

If you're looking for a cost-effective studio system that you can expand as your budget and requirements dictate, Yamaha's 100 Series could have been designed just for you. Review by Simon Trask.

DURING THE PAST couple of years Yamaha have been steadily piecing together the components of a flexible yet integrated budget-priced recording system. Starting with the MT100 four-track personal multitracker and R100 reverb processor, they've now added the A100 power amp, S100 monitor speakers, MV100 mic/line mixer, DR100 reverb, Q100 stereo graphic equaliser, GSP100 guitar sound processor, BSP100 bass sound processor and DP100 stereo limiter/noise gate. All these units taken together would set you back just over £1700, but the point is that you can build up a system to your own requirements as and when you can afford it. Many of the 100 Series units cost £139, and, with the exception of the MT100, none cost more than £200. But what sort of quality and flexibility do you get for your money? I decided to try out a system comprising an MT100, MV100, DR100, Q100, A100 and S100 (total cost: £1104).

Compactness is a hallmark of the 100 Series, which is a blessing if you're tight on space. The MV100, R100, DR100, Q100, GSP100, BSP100 and DP100 are all 1U-high half-rack size, while the A100 is 2U half-rack (and weighs a modest 10lbs 2oz). If you want to rack-mount them, Yamaha also sell 1U and 2U 19" rack units (RK100 and RK200, at £20 and £32 respectively) and a kit for joining two racks together (£7). The MT100 four-track personal multitracker and S100 speakers have also been kept to compact dimensions (15" x 2½"x 8" and 6½" x 8¼" x 7½" respectively).

But the 100 Series components have been designed in more than one way to fit together. For instance, you can link up several MV100 4:2 mixers in such a way as to give you a larger combined mixer (8:2 or 12:2, say) with, if you want, effects mixes on all the MV100s routed through the effects loop of the master MV100. And, with the exception of the R100, the 1U rack-mount units can either be run off individual adaptors (the Yamaha KPA3 costs £7.99) or cascaded from a single adaptor (a Yamaha PW100

can power up to five such units as well as the MT100 - but then it does cost £85).

MT100 MULTITRACKER

THE MT100 HAS four inputs (two mic/line and two line-only) and the ability to record from all four inputs at once. Four quarter-inch jack audio mixer inputs, a stereo headphone jack and a punch in/out footswitch jack are located on the front panel of the MT100. On the rear panel are the power switch, psu input, mono aux send and (sadly) mono aux return jacks, L/R stereo audio out jacks and four individual tape out phonos (with each tape track routed directly to its corresponding output).

The MT100 has a sleek, compact appearance, with low-profile controls which blend in with the control panel (their only distinguishing marks being the orange line on each control which helps to indicate its current position). The panel is busy but not cluttered, with four channel faders (channels one and two with associated mic/line trim sliders), above each of which is a Rec Select switch, Aux Send fader and Pan dial. To the right of these, and following a similar organisation, are the master volume fader, phones level slider, phones signal switch and Aux Return slider. What you'll have to learn to do without if you buy an MT100 is EQ per channel.

The centre of the control panel is taken up with the LED peak meter display, which can be switched to either four-track or stereo operation (the latter, of course, giving you the summed signal level at the stereo output stage). To the right of this is the cassette compartment, below which are Record, Play, Rew, FF, Stop and Pause light-touch electronic tape transport controls. Rec, Play and Pause each have associated pinpoint LEDs to indicate their on/off status.

Above the cassette compartment are a mechanical three-digit counter, together with reset button and Zero Stop on/off switch, a dbx noise reduction on/off switch, a tape pitch slider (±10%), tape speed selector switch (4.75cm/sec or 9.5cm/sec) and four Monitor dials. The MT100 delivers an impressively clear, dynamic recorded signal at its faster tape speed with dbx switched in (the claimed frequency response at this speed is 40Hz to 18kHz, as opposed to 40Hz to 12.5kHz at the slower speed, while the s/n ratio is 85dB with dbx switched in). Yamaha recommend that you use chrome tapes for optimum signal quality.

The MT100 offers three headphone monitoring options: monitor, stereo and mix. These allow you to monitor the output from the four tape tracks only (routed via the Monitor dials so that you can create a separate headphone mix), from the mixer section, from the four tape tracks and the mixer section combined.

There are two ways of recording on the MT100: direct channel-to-track or panned channel-to-track. Each mixer channel's Rec Select switch can be set to Off, to its associated track number, or to Left (in the case of channels 1 and 3) or Right (channels 2 and 4). If you set all four Rec Select switches to their associated track numbers then you can record onto all four tracks at once, with each input being routed directly to its associated track (you can record tracks individually using this method, too).

Panned channel-to-track recording offers greater flexibility, as you can route more than one input to a single track if you wish. For example, if you set Rec Select for channel one to Left, and then turn Pan dials 2-4 fully left, inputs 2-4 will be routed to track one; if you want to avoid routing an input to this track, you just rotate its Pan dial fully right. You can also "ping-pong" recorded tracks using the panned channel-to-track method, and add a new part live each time if you want. The Pan dials also come into their own, of course, for positioning recorded tracks in the stereo mix when it comes to mixdown.

Incidentally, the MT100 allows you to use the Rec Select switches as an alternative to the footswitch for punching in and out of record mode. With the MT100 rolling in record mode, all you have to do is flick the relevant Rec Select switch from Off to the appropriate setting (number or L/R) to punch in, and back to Off to punch out.

Finally, the manual is a definite bonus for the newcomer to recording: well laid out with concise, clearly-written step-by-step instructions and handy recording hints which do their best not to take anything for granted.

MV100 MIC LINE MIXER

THE PURPOSE OF the MV100 Mic Line Mixer is to expand on the number of inputs provided by the MT100. It offers four inputs, organised like the MT100's as two line and two mic/line. Also like the MT100, each channel has individual level and pan controls (here implemented on dual concentric knobs) ➤

"You can run sequenced parts live in the mix and reserve the MT100 for non-sequenceable parts such as vocals and guitar."

➤ and aux send level control, with of course a common aux return level control. But the MV100 scores over the MT100 with a master aux send level control which determines the overall effect send level of the four channels (the reason for this should become clear soon), stereo aux returns as opposed to the MT100's mono return, and lo and hi EQ on the two mic/line channels (providing a ±15dB cut and boost on fixed frequencies of 100Hz and 12kHz respectively).

Additionally the MV100 has a front-panel headphone output, complete with output level knob, which provides a stereo mix of all the input signals, and separate L/R master stereo level controls above which are located associated LED indicators.

"The MT100, MV100, DR100, Q100, A100 and S100 are high-quality units where it matters most - namely sound quality."

You can connect up a second MV100, for a total of eight channels, by routing the stereo L/R and Aux Send outputs of the second MV100 into the Sub-input L/R and Sub-input Aux jacks on the rear panel of the first MV100. Having the separate Aux connection allows you to set up effects mixes on both MV100s and route them both through the effects loop of the first MV100; in this way you only need a single effects processor even if you're using two (or more) MV100s. Very thoughtful on Yamaha's part.

But the company haven't stopped there. They've also provided L/R Line In phonos on the MV100's rear panel, which allow you to route the stereo output of, say, the MT100 into the MV100. The input is then mixed with the other MV100 input signals before being output from the Mic Line Mixer's stereo and record L/R outs. Unlike the MV100's Sub-input, the Line In facility doesn't allow you to take a separate Aux feed, so you'll need separate effects processors for the MV100 and MT100 if you choose the Line In option. Alternatively you could route the MT100 through the MV100's Sub-inputs, which would allow you to take advantage of the separate Aux feed; if you want to use two MV100s you could always route the MT100 via the second MV100's Sub-inputs. DJs who want to integrate their mixing setup of two decks and a disco mixer with hi-tech gear such as drum machines and samplers could route the former through the MV100's Line In sockets.

The advantage of both the Line In and the Sub-input facilities is that you can combine an MT100 and two or more MV100s without losing any of the channel inputs on each unit, so that such a combination would give you 12 or more channels. If you also ping-pong tracks on the MT100 you can effectively increase this number. Routing the MT100 through the MV100 also allows you to take advantage of the latter's combination of separate L/R stereo and L/R Rec out sockets, whereas the MT100 only has L/R Stereo outs.

Basically, you can decide between two approaches to recording. Routing the MV100(s) to channel inputs on the MT100 ensures that all parts can be recorded to four-track tape. Alternatively, if you route the MT100's stereo mix output through the MV100 then the channel inputs to the latter can't be recorded to four-track tape, but in today's world of MIDI sequencers and multitimbral instruments you can run sequenced parts live in the mix and reserve the MT100 for non-sequenceable parts such as vocals and guitar. Obviously you'll need to sync up the MT100 and your sequencer, which will entail giving up a tape track to the sync code, and if your sequencer can't read and write its own sync code then you'll need an appropriate sync box. During this review I was using a Korg KMS30 to sync Roland TR808 and R5 drum machines and a Roland W30 sampler to the MT100.

Whether or not you'll be able to run all your sequenced parts live depends on how your MIDI instruments match up to the demands you make on them with regard to multitimbrality, polyphony and number of audio outputs. Obviously if a synth is monotimbral and eight-note polyphonic then you can't expect it to play two different parts at the same time which use two different sounds and more than eight notes. In such a situation, tape recording still has its advantages even if you're using all-electronic instrumentation.

DR100 DIGITAL REVERB

THE DR100 DIGITAL Reverb follows in the footsteps of Yamaha's original (and still available) 100 Series reverb unit, the R100 Reverb Processor, and is somewhat scaled down in relation to that unit in terms of effects, but does provide a few features which aren't on the R100. Basically, the DR100 forgoes flexibility and programmability in favour of immediacy and simplicity. Where the R100 has 60 programmable effects patches offering a healthy variety of reverb, delay and reverb, delay plus reverb, E/R, feedback E/R 1 and 2, stereo echo and delay L/R effects, with four parameters per patch, the DR100 offers only four preset reverb effects: Room, Live House, Hall and Stadium. And while the R100 allows effect changes to be automated via MIDI patch-change commands, the DR100 forgoes MIDI altogether - but then it hardly seems worth including for four effects which can be readily switched from the front panel, even assuming you'd want to switch

them during a track.

On the plus side is the DR100's inclusion of lo, mid and hi EQ (providing ±15dB on 100Hz, 2kHz and 10kHz centre frequencies), which has been implemented with an eye for immediacy on dedicated front-panel knobs. Boosting the EQ variously provides a more boomy reverb, gives the effect more "presence", or adds a "shimmer" to the sound.

Another indicator of the difference in approach between the DR100 and the R100 is that, whereas the latter allows you to program a dry/wet Balance value for each effect but doesn't have a master dry/wet control, the DR100 has the latter (in the form of a dedicated front-panel knob) but not the former. What's more, a quarter-inch jack input on the DR100's front panel, together with a mic/line switch on the rear panel, means you can quickly plug in a synth, guitar or mic. The levels of this input and the rear-panel inputs can be balanced by adjusting the front-panel line and mic/line input knobs, while the Reverb button allows you to switch out the reverb effect for the rear-panel input signal only; pressing the front-panel Bypass button, on the other hand, switches out the reverb effect for both inputs.

The rear panel has L/R inputs and outputs on both quarter-inch jacks and RCA phonos, together with 20/-10db selector switch for each stage, making it well suited for both studio and live use with a variety of possible inputs. You can't run signals into both pairs of sockets at the same time, however; if both types are connected, the quarter-inch jacks have priority. However, both sets of outputs can be used.

With so few effects to choose from on the DR100, Yamaha have kept them straightforward and widely applicable (no reversed, gated or outer space reverbs here), ranging from tight, bright reverb 1 to a more "baggy" 3-4 second reverb (just a small stadium, perhaps), and ensured that they are of good quality. Used in conjunction with the effects mixes which you can set up on the MT100 and/or MV100(s), the DR100's reverb effects are perfectly adequate for adding reverb to the complete mix, which is really what the DR100 is best suited to. If you want a second reverb unit for applying more versatile reverb and delay treatments to individual sounds, then you should consider the R100.

Q100 GRAPHIC EQUALISER

THE Q100 IS a seven-band stereo graphic equaliser which allows you to adjust, separately for each ➤

➤ channel, frequency bands centred on 125Hz, 250Hz, 500Hz, 1kHz, 2kHz, 4kHz and 8kHz by ±12dB within an overall frequency spectrum of 20Hz-20kHz. Each frequency's slider has a red pinpoint LED on its tip, making it easy to read the frequency "profile" and to adjust the sliders even in subdued lighting. A front-panel Bypass switch provides a quick way of switching the EQ in and out, so you can compare EQ'd and non-EQ'd signals (logically enough, the pinpoint LEDs switch off when you select Bypass, so you also get a handy visual indication of the unit's state). You can also reduce the overall volume level of the EQ'd signal from the front panel. The rear panel offers both phono and quarter-inch jack stereo inputs and outputs, with switchable input and output levels (-10/-20dB); the phono inputs take priority over the jack inputs, but the signal is sent from both types of output. Recording isn't the only possible application for the Q100, but within our recording context you could use it to fine-tune the overall sound of your stereo mix by placing it between the MT100/MV100 and A100.

"It's good to see a big corporation like Yamaha catering for the budget end of the recording market so convincingly."

The slender bilingual manual (English and Japanese, no less) doesn't say anything about the processing going on inside the unit, but what matters is that there's no apparent degradation or colouration of the input signal, and the EQ alters the sound in a "musically" convincing and satisfying way.

A100 AMP AND S100 MONITORS

FINALLY, THE A100 power amp and S100 speakers. If you've decided it's time to progress from using your hi-fi for monitoring, this combination is well worth investigating. The S100 monitor speakers have a bandwidth of 100Hz-20kHz and a flat response, and are rated at 100W peak and 50W continuous output. They each utilise a 10cm woofer and a horn-loaded ceramic tweeter together with a bass reflex enclosure design. Whatever, the combination of A100 and S100 produces a clean, bright, punchy, well-detailed, and above all well-balanced sound with plenty of vitality and minimal distortion (though, as you might expect from their compact dimensions, if you boost the bass end too much the speaker cabinets start to rattle around). It's an impressive sound from such compact speakers, and a sound you can trust.

The A100 amp provides 50w + 50w of power in stereo mode, and can also be used in a mono configuration (switchable from the rear panel) to give a 100w output signal. However, you shouldn't use mono mode with the S100 speakers - they're only rated at eight ohms, whereas mono output from the A100 requires speakers rated at 16-32 ohms.

The A100 has Left and Right channel VU meters which are lit by lamps situated below the display window. These meters are calibrated to display both the output wattage (at eight ohms impedance) and the output level in decibels (0dB shows 25W into eight ohms). Each channel has its own output level knob and associated clipping LED indicator. The front panel also contains the power on/off switch and associated LED indicator together with stereo headphones socket for monitoring of the amplifier's output (plugging headphones into this jack automatically cuts off the output to the speakers). The rear panel contains the Channel A and Channel B speaker terminals together with both phono and quarter-inch jack audio inputs for both channels. Importantly, inbuilt protection circuitry prevents the speakers from sounding immediately the amp is turned on.

VERDICT

IN THE 100 Series Yamaha have a set of units which are easy to use and relatively cheap, making them accessible to the recording beginner in more ways than one. At the same time there's nothing cheap (as in tacky) about their construction, and these are high-quality units where it matters most, namely sound quality. You could feel confident of producing good-quality demos with these units (as for the music, well, only you know about that). The experienced and/or ambitious home recordist might feel constrained by the straightforwardness of these units, but they've been well thought-out, particularly where the mix of tape and sequencing and the ability to "add on" extra mixer channels are concerned.

A setup of MT100, DR100, A100 and S100 would cost you £846, but if you're sequencing everything and have no need of tape (or you already own a multitracker), you might decide to substitute two MV100s for the MT100, in which case your chosen setup would cost you £755. If you subsequently need to add more mixer channels, the MV100 represents a cheap upgrade path.

It's good to see a big corporation like Yamaha catering for the budget end of the recording market so convincingly. ■

Prices *MT100, £369; MV100, £139; DR100, £149; Q100, £119; A100, £189; S100, £139 (pair); all prices include VAT.*

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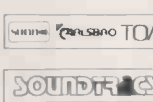

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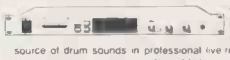

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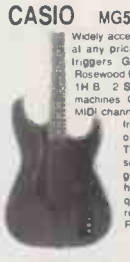

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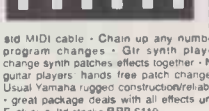

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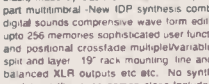

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SOUND AND VISION

The worlds of music and visuals are closing fast - the equipment and techniques overlap, and each medium often needs the other to survive in a commercial world. Nowhere is the gap narrower than with the latest AV art form, videola. Interview by T-Cut K. Text by T-Cut K and Tim Goodyer.

FOR THOSE OF YOU WHO MISSED MT'S REVIEWS and competition, let me re-introduce Videola - a new form of video entertainment where sound and vision are created simultaneously to be part of the same piece of work. What videola is *not* is another form of video to promote music, or music as a background to images.

To date, artists that have contributed work to the cause are many and varied, and include Godley and Creme, Bomb the Bass' Tim Simenon, Polish composer Zbig Rybczynski, Renegade Soundwave, Holger Hiller and Stakker. And their work has been as varied as their backgrounds would seem to suggest.

Videola represents new ground - not only for the the likes of you and me but for The Videolabel, the company putting their cash on the line to promote this "new art form". At present, the target audience seems to be a little ill defined, but then could you really call it a *new* art form if you could confidently predict its future?

One of the foremost artists of the new video age is Stakker. Their initial videola release is entitled *Euro Techno*, a piece of work probably best described as acid trip on video: computer-generated images constantly evolve and devolve in an on-screen assault on the eyes, while strains of the new Detroit techno sound counterpoint the visual mayhem. *Eurotechno* could be dismissed as nightclub entertainment if it wasn't for the fact that the soundtrack won't let you dance to it - frequent pauses, changes of tempo and injections of arhythmic electronic noise.

The original Stakker team included Mark Maclean, but he has been replaced by Marek Pytel who teamed up with the other half of the Stakker team, Colin Scott, a little over a year ago. I met up with Scott and Pytel to find out more about what goes into such a hi-tech extravaganza as *Eurotechno*. It seems the duo started out as video artists, but soon found out that they could not gain access to the medium through which they sought to realise their ambitions. As Pytel puts it: "There seemed to be no opportunities for the broadcasting of other people's art. Then the moment you try to broadcast your own art you find that the departments don't really exist."

In effect The Videolabel has come along to fill this gap in the market. Even so, the £56,000 needed to produce *Eurotechno* sounds like a lot of cash for the company to put up. Stakker feel that it's cheap for a 30-minute video. "It's more of a case of 'Give us some money and we'll show you what we can do'", comments Scott. Pytel agrees, "It's not the traditional means of raising finance. . . Here's an idea and it's going to go something like this!".

Stakker felt that MTV were sold on the idea of their project, but didn't really know if what they were likely to end up with would suit their needs. So the pair put together a portfolio and were able to present it asking for more money to develop the idea further.

They approached The Videolabel with a 30-minute video and with the budget the company provided, Stakker re-edited the whole thing. And stunning it is too. But what is actually going on that makes these images appear and disappear seemingly at random on the screen? This is no scratch video, where you're chasing the same sources as everyone else and running into all the same copyright problems. Instead, all the material was shot or designed specifically for the project and then transferred to computer where the movement trajectories could be programmed. All the colourisation was done on the Fairlight CVI (Computer Video Instrument) - the video successor to the infamous CMI - that processes in 2D and costs around £5,000. This they had access to early on in the project and with it they built up vast banks of material. They then went into various production houses where they were able to transform the image configuration - for example into 3D. The real-time processing equipment to do this can cost up to £600 per hour to hire, or about £800,000 (according to Scott) to buy - and that's not including interest rates.

What I couldn't understand was how, with objects moving about so fast and randomly, they were coloured so accurately. Was it done frame by frame? Scott straightened me out, explaining, "The computer

takes the colour information - the red, green and blue - from the video signal and it's saying 'well, that's red I'm going to change it to something else', so wherever that colour appears it is transformed, and by how much is controlled by faders."

In order to change the shapes from two dimensions into three, the Quantel Mirage is used. And for moving three-dimensional images in a three-dimensional space, the Quantel Encore comes into its own. Pytel feels that the Encore has become the standard broadcast transition device. Formats which Stakker took the video through ranged from low-band U-matic on to high-band broadcast.

For the shapes which had been created in the facility houses (the main one being Complete Studios), they used one-inch digital recording. The digital Abacus A64 recorder enabled them to bump a lot of material across tracks without losing quality.

SO WHERE IS THE MARKET FOR SUCH A COMPLEX art form? Stakker feel their job is to create the product, not market it, but say that until now the audio and visual markets have each been used to promote the other - as ably demonstrated in the cliched world of pop videos.

"The Videolabel are trying to create a market for fully integrated music and visuals", explains Pytel, "so it's a retail item in itself as opposed to a promotional tool for another format. It advertises nothing with total intensity."

But where are the artists for this new genre to come from? Are visual artists expected to be competent on the music side or will musicians readily branch out into visuals? Scott says he asked some DJs to submit mixes so Stakker could edit visuals and sync them together, but found the general response disappointing because DJs tend to concentrate on the mood on the dance floor and feel that pre-prepared mixes might not be in sync with the night's atmosphere. Pytel believes DJs tend to concentrate on 12" singles for mixing and

though not in their final edited form. Instead, the visuals were edited onto the soundtrack, which in turn is completely re-edited on request from The Videolabel. Sounds a bit chicken and egg to me.

How was the sound fitted to the music? The short answer is with SMPTE, but as it doesn't relate directly to tempo, C-Lab's Unitor is used to lock onto the timecode transmitted via the audio channel on the VHS tape. For the music Scott received some help from house DJ Simon Monday, using an Emulator II as the master keyboard, a Yamaha RX5 drum machine and an Akai S1000 sampler. This was sequenced using C-Lab's Creator and sent through a Yamaha DMP7 mixer onto a Fostex D20 stereo tape deck. They had no access to a multitrack so editing was done using another Fostex.

Scott and Pytel claim to have similar skills and agree with what the other was doing to their joint creation - an economical arrangement, especially as they have to pay out a fortune to hire equipment. It also enables them to work their tools 24 hours a day.

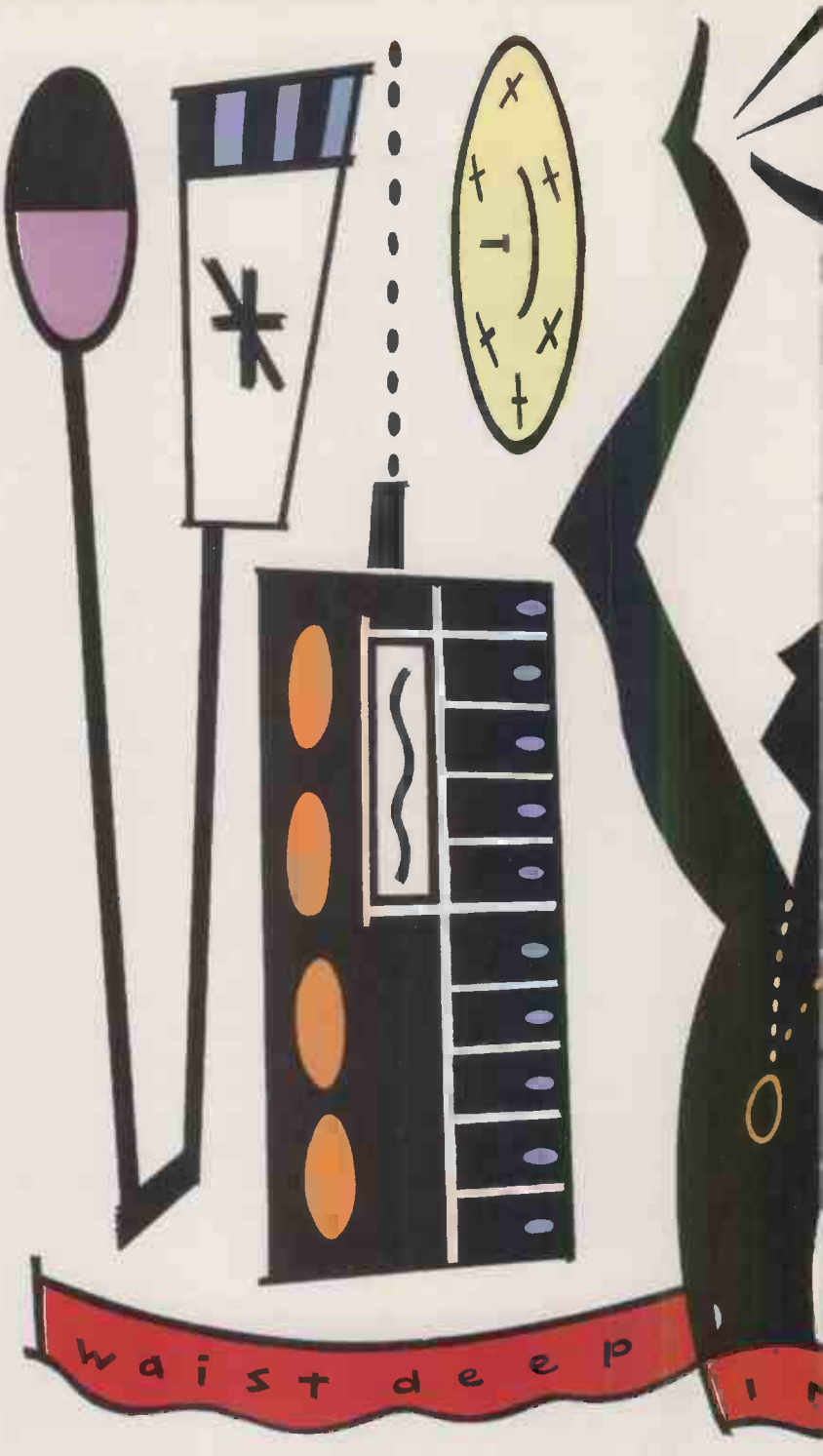
There seems to be no readily recognisable structure to *Eurotechno*. There are points where both music and video make synchronised changes, but the images and music develop unpredictably. If there is an audio-visual *avant-garde*, this is it. Scott says there is a fairly random editing structure, while Pytel argues it to be a formalist work - which I suppose like pop art and advertising makes it very disposable.

You don't have to spend a fortune to make audio-visual art though, and one of the cheapest formats is Super 8 cine film. It's been used by amateurs for everything from home movies to animation, and it has been exploited by record and production companies as an alternative to video and larger film formats. So much so, according to Pytel, that it's "brought down the price of promos ridiculously - by about 50%". The result is that those same record and production companies are now caught in the trap where the price of a video has stabilised, yet the techniques have

are loath to use other sources, such as analogue or video tape. . . "especially VHS, because they don't want to compromise on sound quallty". And because of general club economics, investment isn't made in these type of facilities. Clearly, there's potential here for new artists to appear and make the medium their own.

Returning to the working methods adopted by the Stakker team, which comes first, the visuals or the music? Scott claims the visuals pre-date the sounds, been all but exhausted. Now they have to come up with new ideas or formats yet still remain in the same sort of price bracket. I guess the moral of this story is "if you want effects like those found in *Eurotechno*, you have to pay the price". But until the production companies decide on their strategy, these stunning visuals are going to remain the province of artists like Stakker. They also offer videola an important opportunity for development. Let's hope it's not ignored. ■

ON THE BEAT



PART 8

IF YOU'RE GOING TO BE DENIED THAT EXOTIC SOUTH AMERICAN HOLIDAY AGAIN THIS YEAR, A GUIDED TOUR OF THE CONTINENT'S RHYTHMS MAY BE THE BEST SUBSTITUTE YOU (AND YOUR MUSIC) WILL GET. TEXT BY NIGEL LORD.

AS A CLASSIC example of the melting-pot syndrome - which so often expresses itself when people of disparate cultures are brought together under conditions of relative hardship - there can be little to compare with the development of the style of music we have come to know as Latin-American. Any study of the diverse musical elements which came together and suffused the South American sub-continent over a century ago reveals a breadth of influence quite unparalleled in Western music terms.

As is often the case, however, trying to establish a coherent structure to this melange becomes something of a nightmare. The cross-fertilisation of cultures that can occur in an area containing some 30 separate countries each using variations of two different European languages as well as having well-established relations with continents as diverse as Africa and the United States, becomes quite overwhelming in its complexity.

And the situation is further complicated by the fact that much of the evolution of Latin music has taken place during the 20th century, when continuously improving systems of communication have left virtually no corner of the globe unaffected by the cultures that surround it. This has

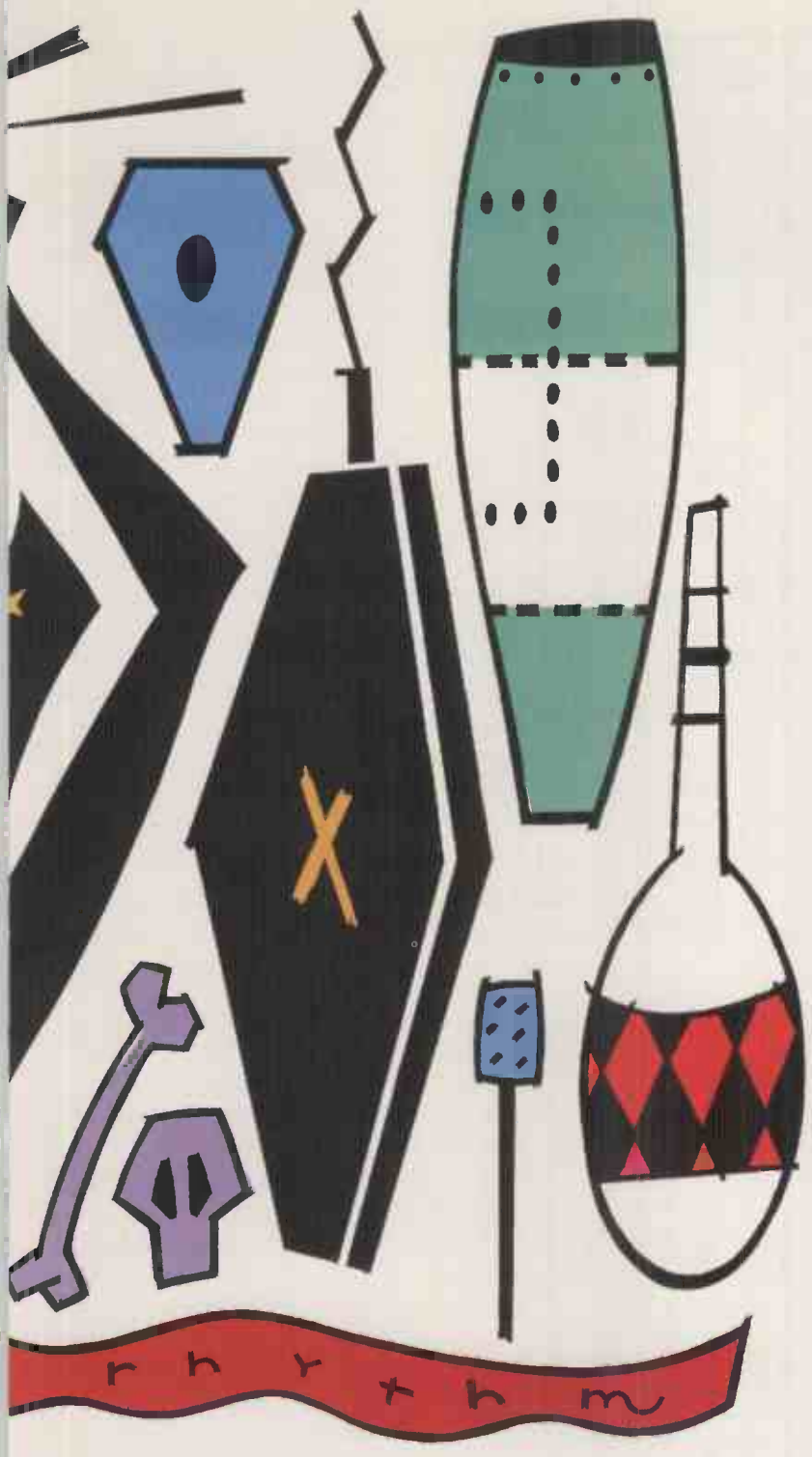


ILLUSTRATION: CLIVE GOODYER

resulted in styles of music which themselves have absorbed strong Latin influences being "fed back" into the melting pot of South America to complete a cycle, the beginning of which it is impossible to fathom.

As if things weren't difficult enough, we must also take account of the public perception of Latin American music - particularly in Britain. This, to a large extent, has been shaped by the kind of black and white B-movies made during the '30s and '40s which featured big bands playing their own, rather sanitised version of Latin music. You know the kind of thing: against a background of muted trumpets and a slow, loping rhythm, some dusky chanteuse would slide her way though an audience of perspiring, overweight males sat at candlelit tables with their rather embarrassed wives.

The rhythms, of course, could be found on any self-respecting home organ. The intention, no doubt, was to give the instruments a more exotic feel, but with sambas, rumbas and tangos in amongst the quicksteps and foxtrots, it was difficult to know whether to play them or use them to call the police.

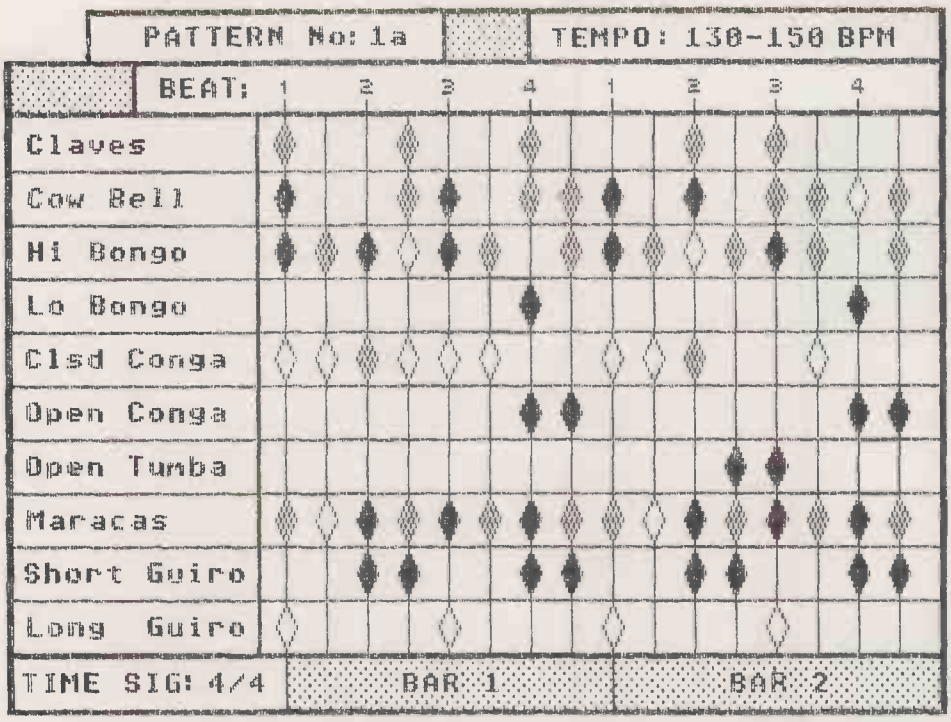
In recent years, things have improved somewhat; TV coverage of the carnivals (particularly in Brazil) has begun to raise public awareness of the intensity of Latin rhythm and its grip over everyday life in South America. And of course, with the rising interest in world music over the past decade, many musicians are at last beginning to look to Latin America as a "source" in their unselfconsciously plagiaristic approach to music - check out David Byrne's compilation *Brazil Classics 1; Beleza Tropical.*

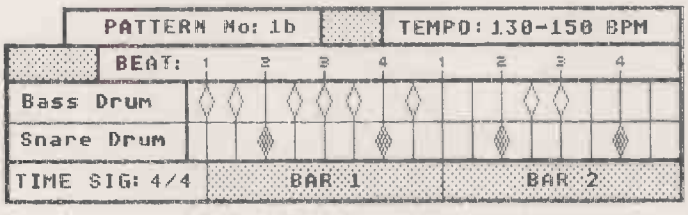
In the States it has always been different. Over the last 50 or 60 years, the US has acted as a huge watershed for Latin music, becoming one of its principal markets and absorbing it into its own indigenous music styles. Primarily, of course, this was due to the huge influx of Latino immigrants to the US over a century or so, but it also has much to do with the ready adaptability of the rhythms which go to make up the broad range of Latin music.

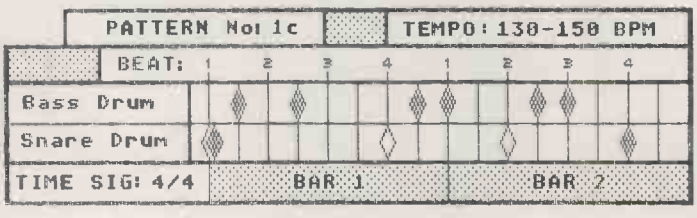
It is by restricting ourselves to an examination of these rhythms that we are able to simplify our study of Latin music to a practicable level. This is due in no small part to the historical association (through the slave trade) of Africa with the countries of Cuba and Brazil. However, whereas Cuba drew the major part of its European influence from Spain (as did the majority of Latin America), Brazil was historically aligned with Portugal. As we shall see over the next couple of months, this factor was largely responsible for the emergence of a more fluid, laid-back style in Brazil, whilst Cuban rhythm is characterised by a driving beat and an altogether harder edge.

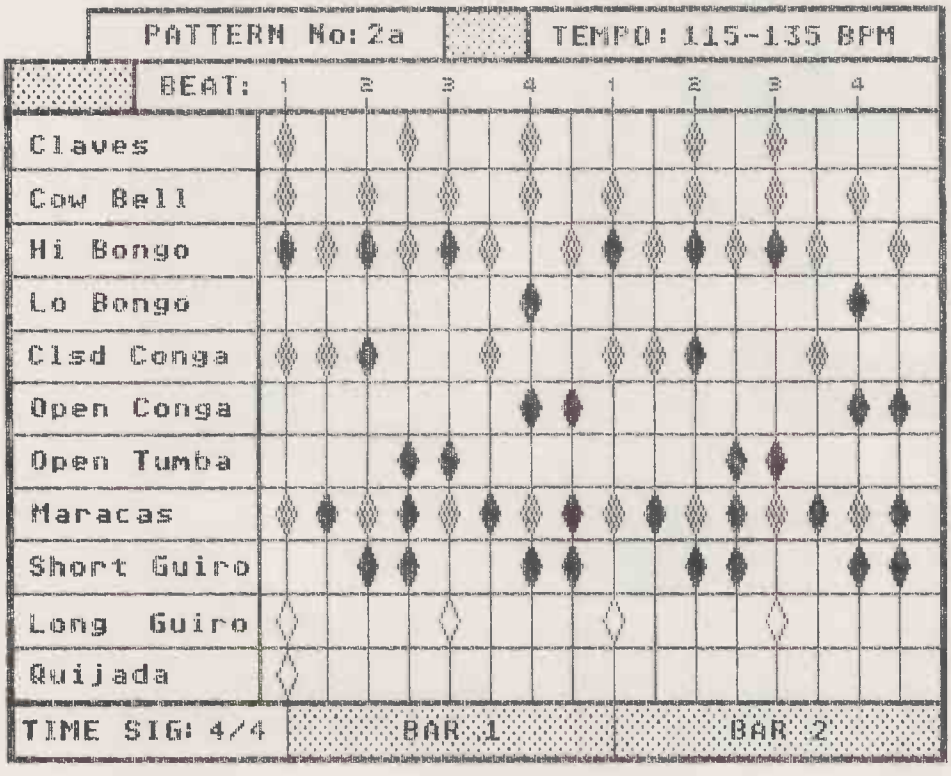
But Spanish or Portugese, the single spark that could be said to have lit the flame of Latin American music actually came about by the wonderfully off-chance meeting of African polyrhythms with traditional European folk music. That the two were able to combine successfully was due to a large extent to Spain and Portugal's Moorish heritage which made it possible for their music to fuse with many African rhythms without crushing them under the weight of a strict four-beat structure - as was the case with most Afro-American fusions.

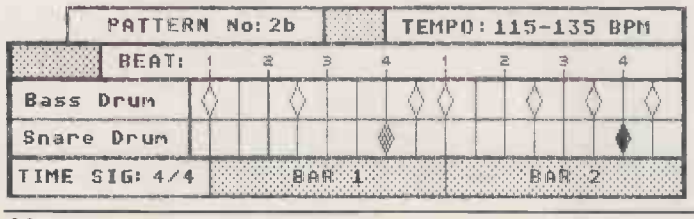
But of all the South American countries, it is probably fair to say that the black heart of Africa beats more insistently in Cuban music than in any other Latin style. Indeed the fundamental structure of Cuban music, the 2-3 or 3-2 rhythm ➤

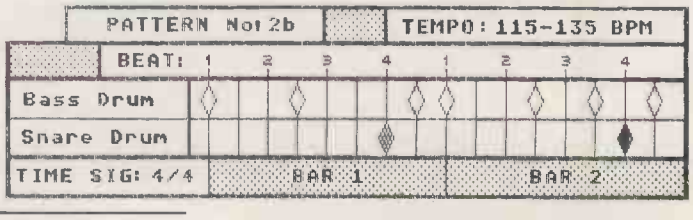












provided by the claves, can be shown to have evolved from the call and response structure of much African music.

Likewise, many of the instruments which have evolved in Cuban music over the years have their origins in African culture - the guiro and the quijada for example, and, of course the claves. In addition, it was Cuban musicians such as Arsenio Rodriguez who were responsible for popularising African rhythms such as the Congolese "mamba" during the '40s.

Though there is considerable freedom for expression and improvisation - particularly on the drum instruments such as the congas, bongos and timbales/cowbell - the rhythms themselves are disciplined and highly structured. And it's because of this that adapting them for drum machines becomes a realistic proposition. Indeed, given the human feel parameters which are now being introduced on all but the most basic machines, it is possible to produce some quite impressive results.

The only real problem (for those without access to a sampler) would be the availability of the right instruments, and, where these do exist, having a sufficiently wide variation of sounds for each of them to produce an authentic part. The two conga drums, for example, need a minimum of six different sounds if they are to be really convincing. And whilst many machines these days have a tuning facility which makes it possible to achieve the effect of two differently pitched drums, few offer the choice of closed, open and slap sounds used in traditional Cuban rhythm.

Fortunately, it is possible to program machines in such a way that even without a full complement of sounds, we can achieve the basic feel of a rhythm, and a number of these techniques have been employed in this month's examples. Of course, even with these concessions, there is a minimum standard of machine on which it will be possible to program these rhythms, but even those without the necessary instruments might like to try experimenting with the sounds they do have at their diposal - substituting tom-toms for congas and hi-hats for maracas for example.

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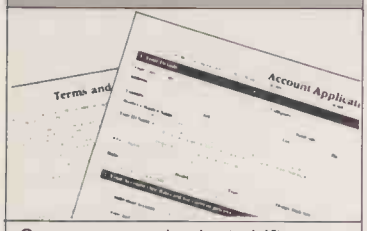

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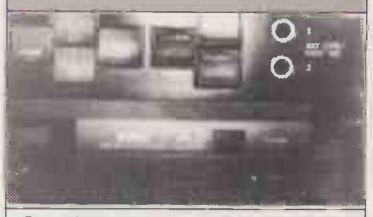

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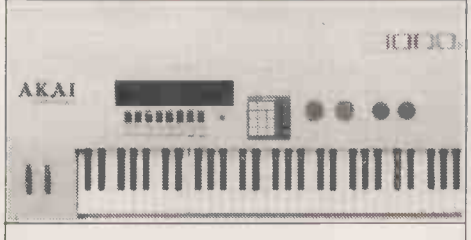

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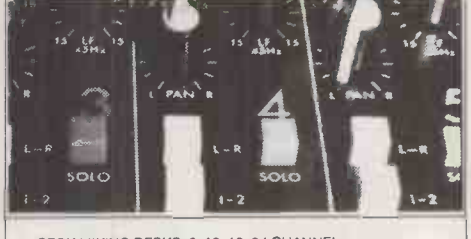

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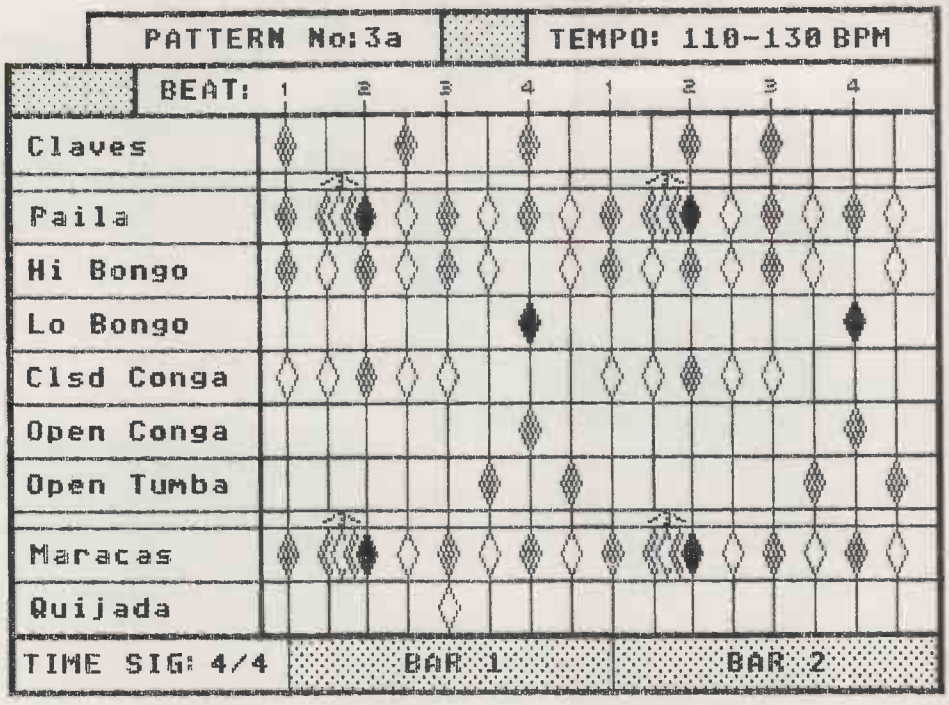
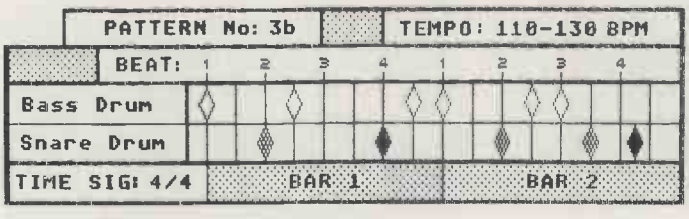
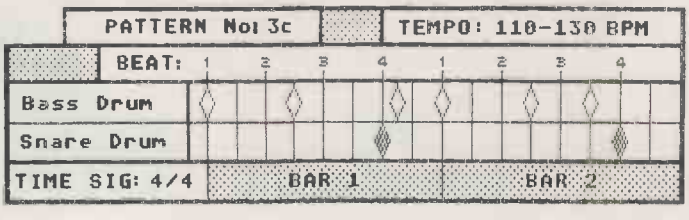


One of the most striking aspects of all Latin rhythm lies in its cumulative effect on the listener. Most patterns are fairly unspectacular in themselves and rely on repetition and a slight raising of intensity over a period of time. In this respect, Cuban rhythms are no different. So, after each one of the patterns has been programmed, let it run for quite a while before deciding if you like it. I think you'll find that you will.

If, on the other hand, you find you've no use for a rhythm which doesn't have the bass and snare drums hammering away at the front, you might like to try adding either of the two extra patterns I've included with each of this month's examples. They're all fairly basic in structure, but this is intended to prevent the main rhythm being masked out. Alternatively, of course, you could write your own parts, perhaps using other instruments.

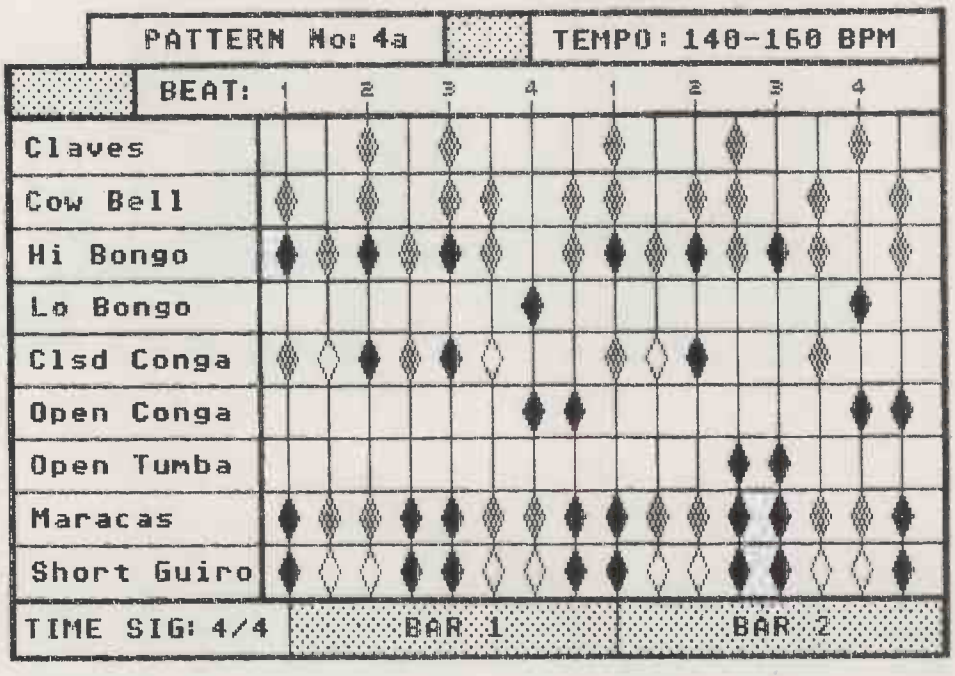
The first of this month's examples, Son Montuno, is one of the earliest Cuban rhythms

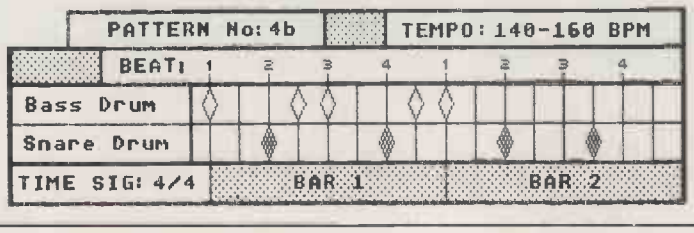


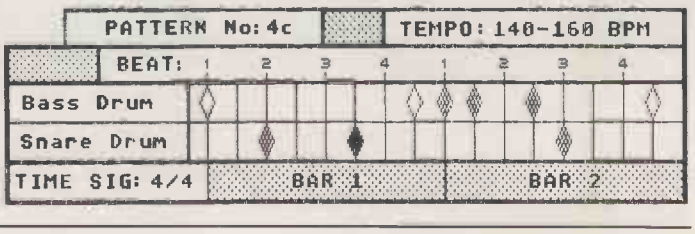


and originated in the mountainous area on the eastern side of the island (*monte* means mountain). A medium-to-fast rhythm, its principal instruments are the bongos and maracas, with the congas and cowbell next in importance. The high bongo part, though not traditionally played with alternately accented strokes, is programmed in this way in order to simulate the effect of playing the drum with two hands (and the same is true of the maracas in later examples).

The conga/tumba parts (the tumba is the lower pitched of the two drums) represent a distillation of the open/closed strokes of the traditional instruments. I have also replaced the slap strokes with simple, accented beats, but of course if a slap conga sound is available, by all means use it. If tuning is also an option on your machine, you can pitch these instruments anywhere within the range avaiable, but remember, in Cuban music the tumbadoras (as they are called) are intended to be the bass instruments and so should be kept fairly low. This also prevents them from overlapping with the bongos which can easily be lost in the mix.







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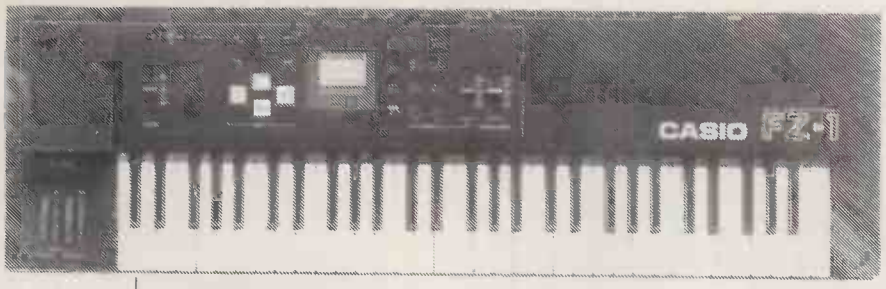

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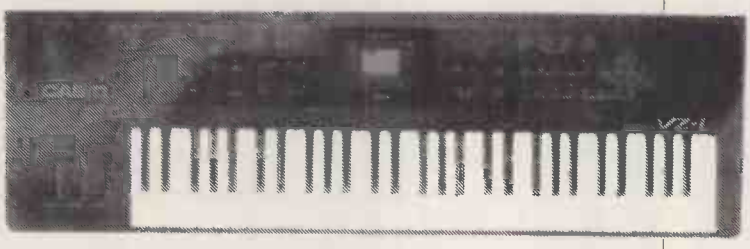

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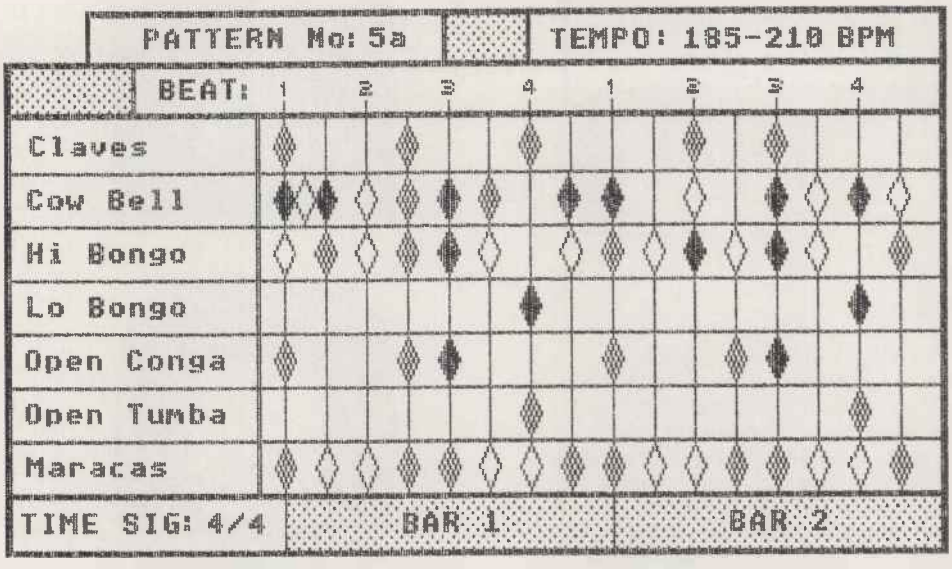
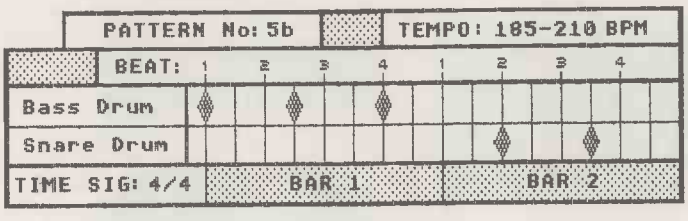


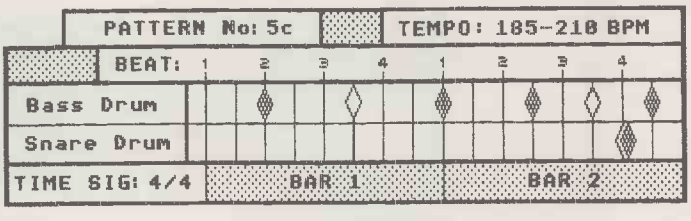
as the sound isn't too heavy.

Pattern 4 is one of a number of Mambo rhythms used in Cuban music, but this one is characterised by its (relatively) fast tempo and reversed clave feel - 2-3 instead of 3-2. Reversing the clave part also means reversing the cowbell, so if it is decided to revert to the 3-2 feel, remember to change both parts round.

The congas/tumba again take the lead instrument role with the cowbell next in line alongside the maracas. Being a fairly fast rhythm, the guiro part is made up entirely of short strokes (. . . I'll resist the temptation), and this may make it easier to replace with another instrument.

Finally we come to a rhythm which has been the mainstay of Cuban music and one which





The guiro - a long hollow instrument with grooves along its sides - is traditionally played with a small stick which is scraped along its side to produce a very characterstic "zipping" sound of either long or short duration. Unfortunately, none of the drum machines I've ever come across has featured a guiro sound of any duration, and this could well pose a problem for most programmers. Sampling is the obvious answer, of course, but where a sampler is not available, you'll have to try some alternative instrument. Unlike shakers/maracas and so on, there is unfortunately no near equivalent.

Pattern 2, the Cha-Cha-Cha, is blessed with one of those names which most people associate with the sequinned Zimmer frames and pre-stressed cummerbunds of *Come Dancing*. Needless to say, this is a great shame, since although it is, unequivocally a dance rhythm, its subtlety and even flow give it a pleasantly insistent feel. Not only that, but its simple 4-beat rhythm makes it very suitable for combining with a whole range of contemporary pop styles - and even rock (Santana used Cha-Cha-Chas as the rhythmic base for a number of their songs).

A slower rhythm than the Son Montuno, this one should run at around the 125bpm mark, but most of the programming notes for Pattern 1 apply here also. The only real instrument difficulty (apart from the aforementioned guiro), is likely to be the quijada or vibraslap, but this can be omitted without serious effect on the pattern.

Thanks to Torvill and Dean (and, of course, Ravel), the name Bolero has more than its fair share of mental associations too. But if you could just put these to one side long enough to get this rhythm into your machine, I think you'll find it worth the trouble.

Principally used for ballads back in Cuba, this is one of the slowest of the traditional rhythms, but is quite compelling nevertheless. The "lead" instruments are the maracas and/or the timbales with the bongos and conga/tumba taking second place. But wait - there's no timbale part, I hear you murmur, so how can it be the lead instrument? The answer is that in Cuban music, the timbale player also plays the cowbell (mounted on a stand) and quite often uses the other hand to tap out a rhythm on the side of the drum which is known as *Paila*. And, if you look at the third line down the rhythm you'll see that there indeed, is the Paila part.

What you'll also see is that just above it are a couple of triplet signs relating to two sets of three notes at the beginning of each bar and corresponding signs above the notes in the maracas line. How you program these will depend on your machine: obviously if you can set individual quantisation for each instrument, this will be much easier. But you could program the whole rhythm in triplet time with the other parts resolved as non-triplets. Either way, the results should justify the effort involved.

I don't believe for a moment there's a drum machine out there with the sound of a timbale being struck on the side as part of its sonic arsenal, but the conventional side-stick or rim shot should prove adequate substitutes, as long takes on a role somewhat akin to that of Samba in Brazil - Rumba.

In fact Rumba is not really a rhythm at all, but a combination of rhythms along with the dancing and singing which go with them. There are many examples of rumba played at widely differing tempos and dating from various periods in the development of Cuban music - the *Yambu*, the *Guaguanco* and the *Rumba Abierta* to name but a few. By and large, however, the instrumentation remains more or less the same for most rhythms with the bongos, çongas and tumba taking the lead.

The example here is a fairly modern variation which borrows freely from Mambo rhythms and runs at a pretty sprightly 200bpm. Beyond that, there isn't much I can say except load the pattern in and listen to how they get the feet moving, Havana style.

All the accompanying bass/snare drum patterns are quite straightforward as you can see, and a considerable amount of interchangeability is possible if you feel like experimenting. Watch out for the 64th note flams in Pattern 1 (Son Montuno) and Pattern 5 (Rumba), and remember to keep levels down to a point where the Cuban patterns can be properly heard.

And that's it for this month. In the next article we're going to be looking a Brazilian rhythm and there'll be another handful of patterns for your collections. In the meantime it might be worth trying to locate a machine equipped with the irresistible sound of the cuica, the reco-reco, the chocalho and the pandeiro. . . ■

It's a pity that more retailers don't copy our ideas (instead of just our ads), free courses with packages, faulty goods replaced and money refunded are all part of a service to which customers are entitled. It is a shame that more retailers do not realise this.
By the way, have you noticed how some shops are incapable of giving you a price on the telephone? (Frustrating, huh?) Next time a shop respond with "How much have you been quoted already?" say "Why - are you too thick to think of a price yourself?" They'll soon learn!

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 usally ensure that we have it in stock at all times (even when your local dealer might have run dry!). In addition, if we recommend an item, we will REFUND YOUR MONEY if you do not agree with us.
In fact we are the largest pro audio dealers in Britain for Alesis, Korg, Drawmer, Casio, Fostex, Seck, Yamaha, TOA, Tascam, Studiomaster, Allen & Heath, C-Labs and a good many more! (Last year we sold nearly 600 new 8 & 16 track packages and around 200 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!)

If you are bewildered by the vast amount of multitrack recording products currently on offer, Thatched Cottage fax packs should make the job of choosing the right equipment that much easier. There are 5 in the series; P.A. – Portastudios – 8 Track – Financial advice and MIDI. To obtain any of our fax packs just phone or write.

SANSUI 6 TRACK PLUS NOMAD REDDIMIX £630 + VAT

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If you are considering an upmarket 4 track, why not buy an upmarket 6 track for the same money. Great Value!

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" (Ha! Ha! if the prices are so great why don't they just print them and amaze us all). Our bulk buying policy can usually guarantee that a telephone call to us will not be wasted and in any case we can throw in those "hidden" extras – cables with multitracks, patchbays with desks. (By the way, next time a dealer "guarantees" the lowest price and then can't deliver, try reporting them to the local Office of Fair Trading - it will teach them not to waste your time!)

To be honest though, if you spend all afternoon on the telephone the chances are you might find someone somewhere who will undercut us by a pound or two. The difference at THATCHED COTTAGE is if your E16 breaks down on a Sunday morning or your Drum Machne 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!

8-TRACK DEALS

Fostex R8 plus RSD mixdown 16:4:8	£2199 + VAT
Tascam TSR8 plus RSD mixdown 16:4:8	£2599 + VAT
Fostex R8 plus RSD pro-line 16:4:8	£1975 + VAT
Tascam 238 8-track + RSD pro-line 16:4:8	£1675 + VAT
Tascam 238 8-track plus Nomad Reddimix 8:2 mixer	£960 + VAT

THATCHED COTTAGE RECORDING SCHOOL

In response to popular demand we now run a one-week recording course, designed specifically for those of you who feel they can make a go of running a professional 8, 16 or 24 Track Studio. The emphasis will be largely on the practical side and topics covered are finance, premises, running a recording session and hints and tips on every aspect of recording. Class sizes are limited to eight at a time and guest speakers will cover relevant areas. The price is just £200 for the week, including accommodation. Interested? Telephone or write and we'll tell you more. We also run "arranging courses", useful for samplers, call for details.

DEALS OF THE DECADE!

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For the last two years the best, highest quality, most versatile budget reverb has been the award-winning Alesis Midiverb II, 99 echo + reverb programmes, full band width plus comprehensive MIDI spec. All this for only £173 + VAT? All you have to do is give us a call!
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In order to cater for the increased demand for advanced multitrack systems we have just opened a new division – Thatched Cottage Digital. Housed in a brand new purpose designed building, it handles 24-track analogue (including the new Tascam MSR24) and all digital and leading edge installations (such as the new Yamaha digital Multitrack).
If you are considering any kind of professional set-up and feel that the legendary T.C.A. service value is of interest, contact Rob or Andy on (0223) 208110 or ring the normal T.C.A. number for full details of what we can offer (including our second-hand and ex-demo list) What have you got to lose?

THE THATCHED COTTAGE CHALLENGE

This suggestion for a wet afternoo n takes about 10 minutes, but results are usually worth the effort!
First of all you flick through the pages of this magazine and take phone numbers of every dealer who "guarantees the lowest price" or operates any kind of unique "Best Price" policy. (There are usually around 10!)
Then, pick any item (It helps if you make it difficult – say a Korg P3 or a Midiverb II, although any popular item will do) pick up the phone and start dialing!!
Points are scored as follows;
1. "That's no longer available Sir" ..... 1 point
2. "No – what you really want is a ..... 2 points
3. "Whoever quoted you that, is lying Sir" ..... 5 points
4. "We can't quote on the phone, but if you come in with cash" ... 15 points
5. "Give us a credit card number and we will quote you" ..... 25 points
6. "Who quoted you that price?" (Just name one of the others) .... 30 points

Anyone who can score over seventy-five points and furnish us with the names of the shops and their answers contained in a vaguely humorous letter will get a free microphone.
Microphones will also be awarded to anyone who encounters a good answer, fob off or excuse we haven't thought of! Good Luck!

SOME SECONDHAND AND EX-DEMO BARGAINS

Tascam TSR-8 ½" 8 track (S/H mint)	£1499
Tascam MSR16 inc. noise reduction & autolocate	£4999
Peavey MV2B 16:2 desk	£499
Akai ASQ10 Sequencer	£599
Yamaha SPX90 2	£299
Sony DTC1000 ES	£999
Alesis Micro Enhancer	£75
Yamaha FX500 multi effects processor	£250
Slapback Scintillator	£99
Aphex Type C	£199
Yamaha DX27	£299
Yamaha DS55 MIDI Keyboard	£299
Seck 12-8-2 Mixer, Mint	£750
Seck 18-8-2 Mixer (black)	£899
Tascam 22 2-track mastering	£399
Fostex R8 8-tract (demo)	£999
XR1 X300 SMPTE Generator	£199
Aphex Type C Exciter	£199
Tascam MSR16¼" 16 Track	£2999
Yamaha TX16W 16 voice sampler inc library	£699
Yamaha TX626	£899
Korg M1R	£699
Nomad P2M MIDI trigger	£75
Fostex E16 demonstrator mint with full guarantee	£2850
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Atari 1040 plus Steinberg Pro 12	£299
Casio DA2 - R-DAT	£540
Fostex M80 Mint	£899
Akai S900	£799
Alesis Quadraverb	£299
Tascam 3340 Reel to Reel 4-track	£450
Seck meter bridge for 18:8:2	£99
Sound shaper 2x10 graphic equalizer	£50
Digitec DSP128 multiprocessor (5 things at once)	£299
Ashley SG33 stereo noise gates	£199

We usually have large stocks of used + demonstration equipment, call us for our comprehensive list.

SPECIAL OFFERS (ALL NEW)

NOMAD AXXEMAN - the Ultimate Guitar Processor	**CRAZY PRICE £199 + VAT**
NOMAD BASSMAN - the Ultimate Bass Processor	**CRAZY PRICE £199 + VAT**
SECK 18-2 desk (exclusive to us)	£649 + VAT
TANNOY DC100 monitors (per pair)	£150 + VAT
MEMORY EXPANSION boards for AKAI S1000 (2 meg)	£260 + VAT
All NEW ART Multiverb II (Includes harmonising)	£345 + VAT
ART SGE Ultimate guitar processor	£429 + VAT
AKAI S950 ¾ meg memory expansion boards	£125 + VAT
CASIO FZ1 sampling keyboard	£260 + VAT
BEL 8-TRACK DBX noise reduction	£345 + VAT
KORG P3 Combo kit card (sax, bass & drums etc)	£25 + VAT
JL COOPER PPS100 SMPTE MIDI controller	£195 + VAT
TASCAM MSR24 plus Allen & Heath Saber 24:16:24	£1,400 + VAT

THATCHED COTTAGE SERVICE

At our fully equipped in-house service centre we can service all types of equipment (esp. 8-16 tracks) Every reputable dealer should have one on site (don't let anyone tell you any different) Believe it or not, some retailers actually sell complex electronic equipment from their front room or garage (nothing wrong with that of course - we all had to start somewhere - when you are successful though, you outgrow it pretty quickly!) It does though tend to suggest a lack of back up facilities. So if your multitrack needs a service or the heads looking at, give us a call before it's too late.

For those of you who are seriously considering starting a commercial studio we've come up with three packages, each containing everything you will need for your first paying session, from the Multi-track Machine right through to DI Boxes and Cables. The price of the 8 Track System is £4,300 + VAT, the 16 Track is £7,800 + VAT and the 24 Track is £15,750 + VAT. At Thatched Cottage we proved it *could* be done, and we have helped many new studios to open and start making money – our experience could help you. Give me a ring and have a chat – what have you got to lose? Plus: FREE Thatched Cottage Recording School Course to package buyers!!

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Remember we have our own Thatched Cottage credit card. It works the same as Access and allows you to spend up to £1000 at any one time. If you want to apply just give us a call.

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ACCESS VISA TCA

FZ20M

When Casio's FZ1 appeared it was the cheapest 16-bit sampler on the market. Nearly three years on we're looking at the modular FZ20M; how does it fare? Review by Vic Lennard.

CASIO TOOK A giant leap forward in the estimation of many people when they claimed to have the first affordable 16-bit sampler in their FZ1. Doubts concerning its quality remained, but Casio had created an instrument that the market wanted at a price it was prepared to pay. Consequently the FZ1 and its modular counterpart, the FZ10M, have sold particularly well. Now we have the successor to the module, the FZ20M.

OVERVIEW

THE FZ20M IS a 16-bit sampler with two megabytes of RAM, which can record at three different sampling frequencies - 36kHz, 18kHz and 9kHz. The audio bandwidths are approximately 16kHz, 8kHz and 4kHz respectively, which means that the highest rate is likely to find quite a lot of use, while the lowest is unlikely to see much use at all - but it's reassuring to know it's there. The 36kHz rate gives 29.12 seconds of sampling time while the lower rates will give double and quadruple this figure.

Subject to the size of the samples, up to 64 "voices" can be stored in memory. Eight programs, called Banks, can each have up to 64 Areas assigned to them, an Area being a voice and its associated parameters. There are two main modes; Play, and Modify, where Voices and Banks can be edited in various ways.

DESCRIPTION

THE FRONT PANEL is roughly divided into three parts. The centre has the visual display (6 x 4cm approx.) with the screen menu selector buttons directly beneath it. To the left are the keys for moving around the screen and from page to page, while the right-hand side has the numeric keypad, input and headphone sockets and value/sampling level sliders.

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Korg DW6000 Special deal see below	
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Roland A80 Mother Keyboard	£1650
Roland KW30, SCSI for W30	£139
Roland HD-5-IF, Hard disk interface kit for S550 (SCSI)	£200
Roland W30 Workstation	£1650
Roland U20 RS PCM Multi timbral keyboard	£1050
Roland D20 LA Workstation	£1275
Roland D10 as D20 less sequencer	£1275
Roland D50 SPECIAL DEAL SEE BELOW	
Roland D5 multi timbral keyboard	£599
Roland FC100 Mk II foot controller	£199
Roland Jupiter 6	£599
Roland Juno 6	£275
Roland Juno 2	£399
Roland PG1000 D50 programmer (SPECIAL DEAL SEE BELOW)	£299
Roland PG300 JUNO 2 programmer	£ 95
Roland RC100 Remote editor for S330/550	£250
Roland PG10 programmer for D110	£248

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Keyboards

Books

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Chick Corea - Light Years	£11.95
The Yamaha DX7 IID/IIFD	£ 8.95

Ferro Music Technology

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The Secrets of Analogue and Digital Synthesis (inc. 120 minute VHS video)	£ 54
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Korg M3R The Affordable M1!	£899
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Alesis HR16B	£399

The above products comprise of a selection of new, ex-demo and secondhand equipment

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HI-TECH EQUIPMENT

come into their own. Similarly, the eight-point DCA and DCF envelopes allow you to shape the sound into any form you wish. This takes sampling a significant step further. Vibrato is usually added via the LFO and most samplers simply give you a sine wave which is too regular to be convincing. The choice from six options means that this is not the case here.

There are certain areas in which the FZ20M is lacking, however. Looping is the most important technique in sampling, and the FZ's facilities leave much to be desired. The other frustrating aspect of its operation is that you spend half of your time motoring through pages on the FZ screen. Here Casio could learn from the example set by Akai and Roland with their samplers. Roland make it possible to use a computer monitor and mouse for expediency, while Akai have the most user-friendly screens currently known to (this) man.

The FZ20M's biggest drawback is its eight-note polyphony and eight monophonic audio outputs. This arrangement is fine for drums, but it makes a mockery of the memory size - which is big enough to hold a bank of strings and brass, but the only way to play them back is through the "mix" output.

While I'm griping, it would be useful to have an indication of how full the memory is, and also whether there is any room left on a disk. Talking of disks, the FZ20M will only accept High Density (HD) ones, which are far more expensive than the usual Double Density variety although they do hold twice as much data. I also found it very off-putting to find the disk drive continuously spinning even when not in use. I don't know whether this is standard or if there was a problem with the review machine but it seems to me that this shouldn't be happening.

VERDICT

THE FZ20M IS an enigma. On the one hand it has a large memory and programming functions usually restricted to a synth; the graphic screen means that most of you will get by without having to spend hundreds of pounds on a piece of computer editing software. But this has to be measured against the monophonic outputs, less-than-friendly operating system and the fact that the sound quality is good but not brilliant.

There is far more competition now than in mid-'87 when the FZ1 appeared including offerings from Roland, Ensoniq and Cheetah (all of which are cheaper than the FZ20M). Perhaps the real problem is that the FZ10M retailed at £1299 meaning that the hard disk interface is costing £400 - the machines are otherwise identical. Even more farcical is the fact that most shops are selling off the end of the FZ10M series for around £799. The FZ20M's price is going to have to drop significantly if Casio intend to continue to compete in the market. ■

Price *£1699 including VAT.*
More from *Casio Electronics Ltd, Unit 6, 1000 North Circular Road, London NW2 7JD. Tel: 01-450 9131.*

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ADRIFT ON AN MTC

ILLUSTRATION: TOBY GOODYER

ADEQUATE SYNCHRONISATION IS ESSENTIAL TO MODERN MUSIC STUDIOS BOTH LARGE AND SMALL. MIDI TIME CODE OFFERS TO HELP SIMPLIFY SYNCHRONISATION BUT WILL IT RECEIVE THE SUPPORT IT REQUIRES? TEXT BY VIC LENNARD.

FACT: ANY MUSICAL system requiring both a sequencer or drum machine and a tape recorder to be run simultaneously cannot afford to have any significant degree of synchronisation inaccuracy. Fact: while systems for sync'ing these pieces of gear are used every day in studios the world over, they are not without their problems. This article is intended to look at the methods most commonly used for synchronisation involving MIDI, including advantages and disadvantages, followed by the latest timing technology - MIDI Time Code or MTC.

The easiest way to ensure that a system stays synchronised is to have a constant pulse which one piece of equipment (the master) can send out continuously. Any connected device (a slave) will increment its own internal clock by one unit each time a pulse is received, so enabling the two machines to stay in step with each other.

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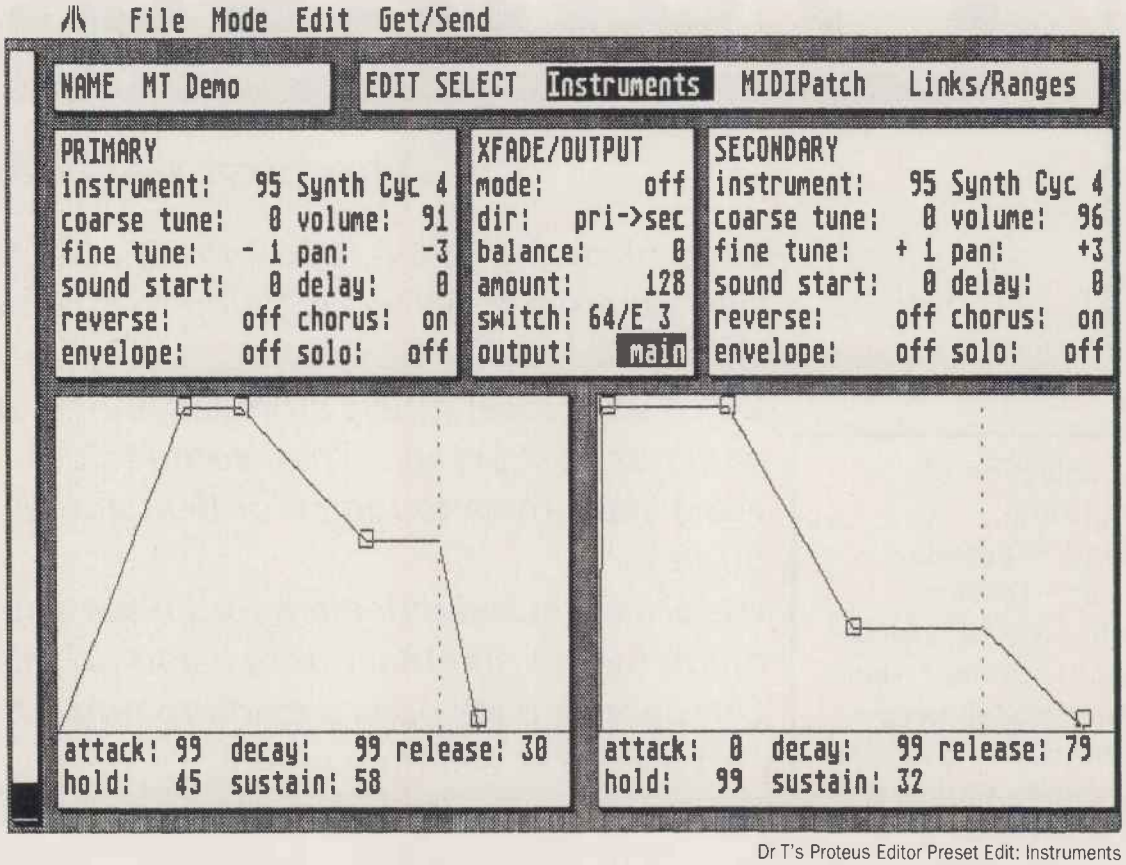


Dr T's Proteus Editor Preset Edit: Instruments

Another instrument, another batch of software – so it seems to go. And with E-mu's Proteus making friends very quickly, Proteus editing software is very much in demand. Review by Vic Lennard.

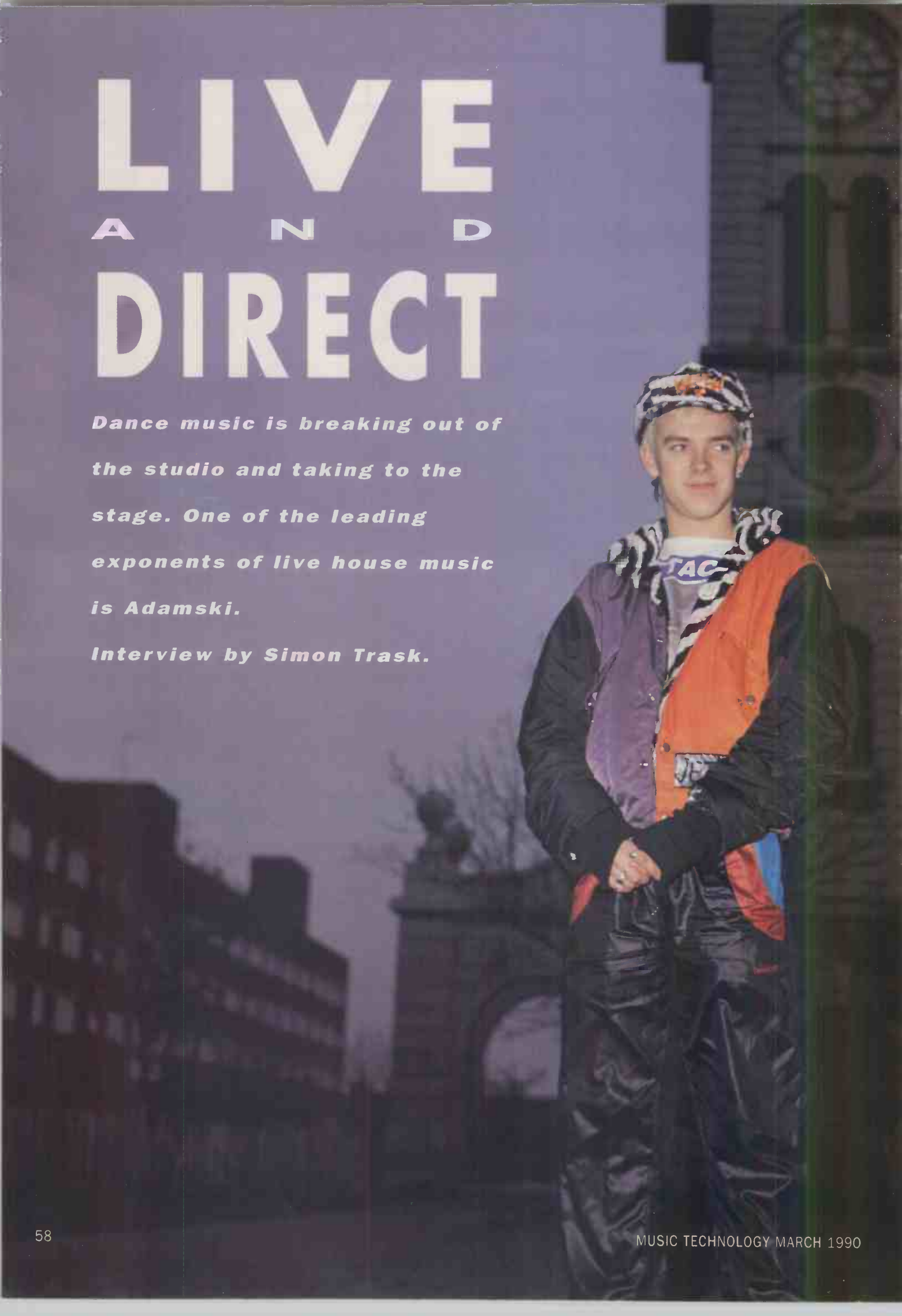
BACK IN NOVEMBER we looked at the E-mu Systems' Proteus sample reader. Good as the machine is, it suffers from a problem shared with almost every other rack-mount expander – that of clumsy front-panel editing procedures. Also like other expanders, there is software available from various third-party manufacturers intended to ease the situation. Let's have a look, then, at the visual editors available for the Atari ST.

First of all let's have a brief recap of Proteus itself: the memory is organised into presets which each have two Tones, primary and secondary, selected from 125 onboard Tones. There are a total of 192 presets – of which 64 can be front-panel programmed in terms of features such as envelope and delay – and up to four presets can be linked to effectively give you eight overlaying Tones. Proteus also boasts 32-note polyphony and 16-bit sound quality. The module's modulation facilities are particularly comprehensive, with various real-time and MIDI controller features, two LFO's and an auxiliary envelope being available. These features, along with tuning tables, patch map and multitimbral settings, justified the existence of visual editors.

LIVE AND DIRECT

Dance music is breaking out of the studio and taking to the stage. One of the leading exponents of live house music is Adamski.

Interview by Simon Trask.



PHOTOGRAPHY: JAMESKI

"I THINK IT'S OUTRAGEOUS THAT GROUPS like Big Fun should exist. What is it they do? They're just another Stock, Aitken and Waterman act. It's frightening that they can get where they have. I don't know why little girls scream at them, why they're so stupid. I think I deserve whatever money I make, because I actually do something and I've got where I have with no hype, the music speaks for itself."

I can see the story now in tomorrow's gutter press: "Loopy acid house musician Adamski, a veteran of last summer's drug-crazed acid sex parties, yesterday lashed out at cuddly trio Big Fun, claiming 'It's outrageous. . .' Or maybe not. In person, Adamski is a mild-mannered, soft-spoken person who dislikes pubs, prefers orange juice to a pint of best bitter, and, despite the fact that it's packed away for a gig in the evening, obligingly sets up his synth and drum machine in his small north-London flat and gives me an impromptu live performance.

Adamski (real name Adam Tinley) first came to prominence last summer when he took his Ensoniq SQ80 synth, Roland TR909 drum machine and Casio FZ10M sampler onstage at outdoor raves like *Sunrise*, *Energy* and *World Dance*, playing his individual brand of techno/house music to thousands of people. Sometimes this would mean going on at 3.30am and playing till sunrise. Before long, he found his name appearing on flyers for events he hadn't been booked to play, a sure sign that he'd become a star attraction.

But in the beginning nobody had asked him to play live. As he recalls: "Four of us just turned up uninvited with all the equipment, walked past the bouncers, went upstairs to the stage, set the equipment up next to the DJ, and no-one said anything! Then we looked across the stage and there was this other guy all set up with his gear. But they didn't mind us playing at all."

Were there ever any times when he wasn't able to play because of power supply or equipment problems?

"No, we've always managed to sort something out. When I played at *Energy II* they had generators which were fluctuating between 180 and 200 volts, and when I plugged in the SQ80 it just went mad, the screen was talking shit. They had to stop the music, turn half the lights out, take a generator out, and then I could do the show.

"The SQ80 and the 909 have both been with me to Ibiza three times and they've never gone wrong, though sometimes I've needed to reinitialise the SQ80. I remember I got to Ibiza one time and it needed to be reinitialised but I'd forgotten how to do it, so I had to phone my flatmate and get her to kick my door down and find the piece of yellow paper under a pile of other things which tells you how to reinitialise it. But that's the only problem I've had with the SQ80. The 909 packed in just the other day at a soundcheck. The club was really hot and humid and I was sweating a lot so I was dripping into it. I had to hire in another one, but the cartridge I thought I'd saved all my patterns on wasn't formatted so I had to spend a few hours programming in the patterns from scratch, and I just got it together in time."

Adamski has been steadily consolidating his live reputation by playing support to Big Audio Dynamite on their UK tour and subsequently embarking on his own 20-date nationwide club tour which has taken him as far north as Aberdeen. Expecting no-one to have heard of him north of Watford, he was surprised to find that people already knew of him wherever he played - he was even mobbed in Aberdeen. Which just goes to show that playing to thousands of people in a field in the middle of nowhere is a good way to get yourself known.

Having built up a following and a reputation through his live work, he attracted the interest of the majors. As a consequence, his debut album, which is appropriately titled *Live and Direct*, was released on MCA Records in December and straightaway entered the charts at No. 65 with minimal publicity.At the time of writing, his debut single, 'N–R–G'has gone straight in at No.27. The album consists of 13 tracks, run together continuously as in his live sets, recorded live at the outdoor raves, at *Amnesia* in Ibiza and in a restaurant in Kentish Town(!). All of which may come as a surprise to anyone who thinks the description "live house music" is a contradiction in terms. The fact is that the past year has seen an upsurge in people taking synths, samplers and drum machines onstage in clubs, either playing their own sets or adding live parts to the records being played by the DJ. And it's a trend which will continue as dance musicians increasingly escape the confines of the studio and find a new rapport with their natural audience. But it's not only electronic musicians who are making their mark in the clubs: for some while trumpeter Gordon Mathewman, for instance, has been adding live trumpet lines to the records being spun by the DJs at clubs like *Confusion* in London. The more adventurous clubs, like *Confusion* and *Land Of Oz*, have established their own identity with in-house rappers and musicians.

Adamski's flatmate Chester, who has been chatting on reggae sound systems since he was a kid, is a member of the 13-piece band Culture Clash Dance Party, performs regularly in his own right at *Confusion*, and appears live with Adamski, rapping over a couple of tracks and adding visual interest with his dancing. Adamski is conscious that one man, a synth and a drum machine isn't the most riveting of spectacles, but then he's used to people dancing to his music - except when they're a rock audience, as in the case of the BAD tour, in which case they stand and watch him. There again, he's been variously described as house music's answer to Jean Michel Jarre, Vangelis and Howard Jones (not to mention "the '90s' answer to Lee Perry"), so perhaps he should emulate them and go on stage with racks full of keyboards.

ADAMSKI MADE HIS RECORDING DEBUT IN 1979 when, at the tender age of 11, he formed a group called The Stupid Babies with his five-year-old ➤

"For the bassline of 'N-R-G' I just put the synth into record, closed my eyes and played the keyboard at random for one bar; what you hear is what came out."

brother Mark on vocals and an instrumental line-up of Palitoy guitar and kazoo - a far cry from his current hi-tech toys. Together they released a couple of tracks, 'Baby Blues' and 'The Babysitters', which did well in the independent charts.

"The music was sort of punk", he recalls with some amusement. "I did think I was a punk when I was nine or ten. I was brought up on Radio 2, though; my parents didn't like me listening to punk."

He was, however, a fan of Madness and The Specials, and started to teach himself piano when he was nine years old because he wanted to play ska. In 1985 he moved to London to form Diskord Datkord with his older brother, and gained his first exposure to house music via the occasional tracks played on pirate radio at the time.

"I was the singer in Diskord Datkord and wrote some of the music", he says. "We used to use hip hop beats and some house stuff with samples, but by the end it was just stupid electronic music. One of the things which used to really piss me off with the group was that we'd start the day with loads of wicked ideas but it'd end up 'well, we'll have three bars of that, then one bar of that, eight bars of that. . . '. You can't *think* music, it's not maths. I just do it by feel."

Eventually becoming bored with Diskord Datkord, Adamski started working with Chicago-born house musician Jimi Polo, who had been a resident in London since April '88 and had moved into the house where Adamski was living.

"He was using an ESQ1, and I learnt to program it through working with him", Adamski explains. "Then I got the SQ80 and 909 and started recording my own tracks in the studio. I'd thought about going out and singing live to backing tracks, but Jimi had already been playing live at clubs like *RIP*, and once I had about 20 tracks he kept saying 'go out and do it live', so I did - just by fluke, really. Then when I'd done it once, people kept asking me to play again, and I couldn't stop."

Now he's with a major record company and they've sent him a box full of gear which they think might be useful to him. But did they ask him first? For instance, is he going to find Yamaha's RX120 preset drum machine useful? Can we expect the techno mambo and the house cha cha cha from him in the not too distant future? Perhaps not.

"On one of my tracks I have the bassline set to the ➤

The creation of an original

Early in the 1980s, a brilliant young engineer named Wolfgang Palm developed a legendary synthesizer and called it the PPG Wave. Its characteristic sounds provided the "icing on the mix" of many of the most notable hit records of the decade, quickly establishing the instrument as a familiar sight in the major recording studios of the world.

10 YEARS LATER

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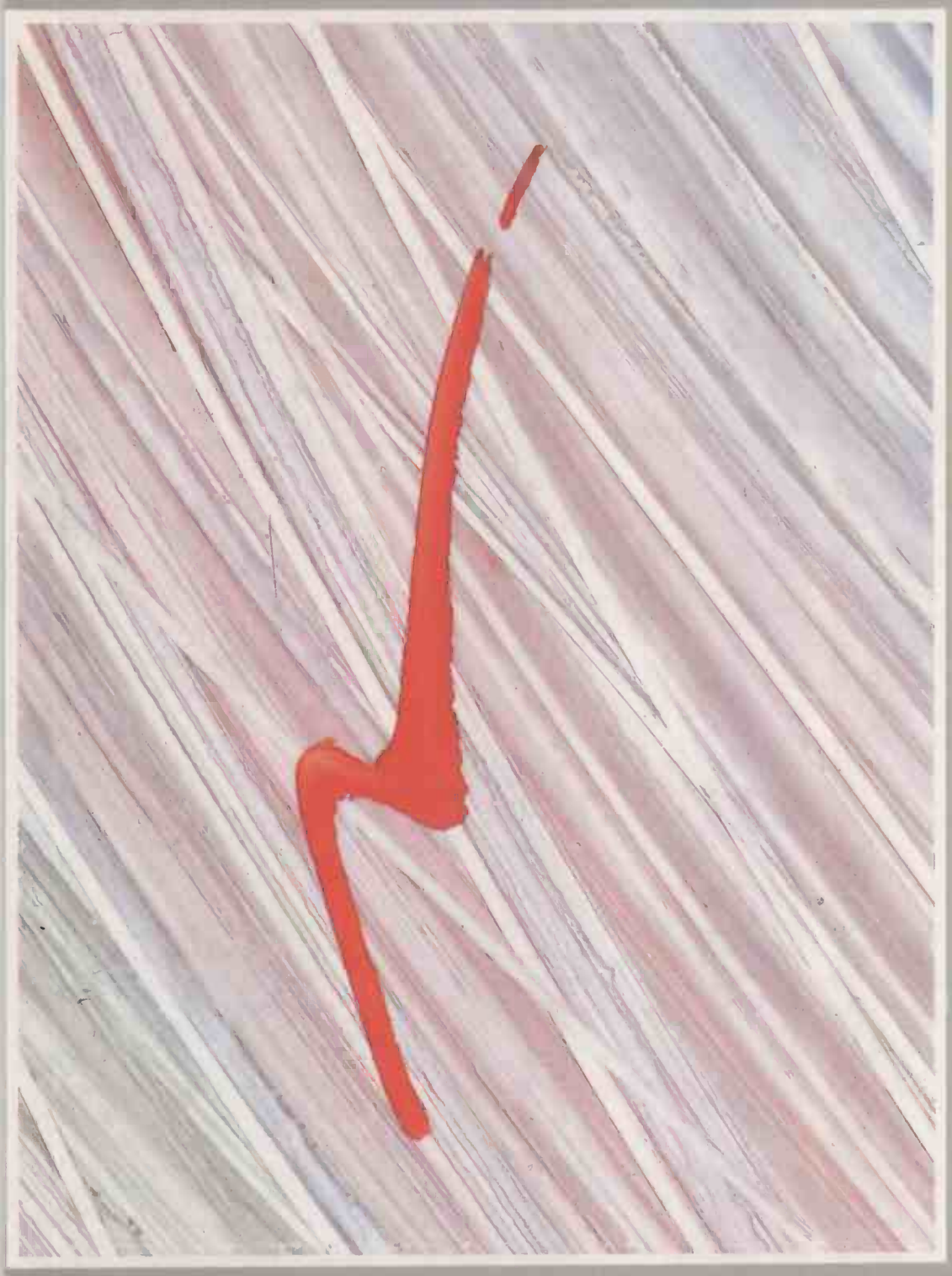

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➤ same MIDI channel as the RX, and the drum sounds that correspond to the bass notes happen to sound really good - just by accident."

Along with the RX120, MCA have sent Adamski a Yamaha MT100 four-track, R100 reverb and GSP100 guitar signal processor, and a Roland M160 16:2 rack-mount mixer which provides him with more than enough inputs. Massed racks of gear aren't really his style. On the album all the drum sounds come from the 909 and all the instrumental sounds come from the SQ80, and these two instruments remain as his preferred live setup. Although he has a Casio FZ10M sampler (his younger brother, incidentally, used to run the FZ1 owners' club), he doesn't always use it, and when he does he uses it sparingly (an "I love technology" sample and some percussion samples from bhangra music - but no rhythm loops).

"Next time I go into the studio I'm going to hire another seven SQ80s so I can do everything live! It's either that or record everything separately."

"It's extra things that I have to do. I can't make the music so fluid if I'm worried about where the sampler's coming in and out", he maintains.

The piano and strings sounds on the SQ80 are factory presets, but otherwise he programs all his own sounds. It pays off in giving his music an identifiable "Adamski sound". For instance, the powerful and distinctive bass sound of the album's opening track, 'N-R-G', came about through some tweaking of the filter cutoff and resonance on a brass sound.

The bassline is often the starting point for an Adamski track. As he reveals, they sometimes have unusual origins:

"Sometimes I just stumble across things. For the bassline of 'N-R-G' I just put the synth into record, closed my eyes and played the keyboard at random for one bar; what you hear is what came out. When I was living in my old place there was this drunk guy living next door, and one day when I was programming a bassline he came in and knocked one of the keys at the top end of the keyboard. I left it in 'cos it sounded OK.

"Sometimes I can make a track in about half an hour if it's something quite basic, but that's usually the sort of track I play live a few times and then forget. The bassline and the piano chords of 'N-R-G', which are the main core of the track, only took about ten minutes, but the way I mix it now, with little solos and things, developed over a couple of months."

He records all his keyboard parts in real time into the SQ80's onboard sequencer, working in short sequences:

"The most energetic tracks are built over two-bar units. In general I use four bars, but I also like to append sequences so that I can have, for instance, an eight-bar strings sequence over a repeating bassline. The most I ever do is 16 bars."

The familiar complaint about taking drum machines and sequencers onstage is that there's no interaction with the audience. A sequencer can't respond to how an audience is feeling. Where's the spontaneity in it? Spontaneity is all-important to Adamski, and thus you won't find him hitting the Play button and sitting back while chained sequences and patterns tick through from beginning to end.

"I watch the audience and I feel the mood of the dancefloor at every moment, and that tells me when to change the music by changing to a different tune or by altering the one I'm playing. I do about ten songs live, but I've got double that number in the SQ80's memory and loads of stuff on disk."

Ready access to the front panels of his instruments is essential to Adamski. It's for this reason that he likes to keep his setup compact, with the 909 perched above the SQ80 on a two-tier X-stand. In order to have spontaneity while working with a sequencer and a drum machine he's developed his own vocabulary of button-pushing and knob-twiddling which allows him to punch individual sequencer tracks in and out in real time, adjust volume levels, select new sequences and songs (he plays without any break between songs, like a DJ cutting from one record to another), select new drum patterns, cut the drum machine in and out (using the 909's main volume knob) and adjust individual drum parameters, select drum-machine patterns "on the fly", stop and start sequences mid-song and use the start/stop buttons to create rhythmic stuttering effects. He'll also add a part live on the keyboard, or drop the sequence out altogether and play solo for a short while, then bring the same or another sequence in again, with or without the drums. All of which requires a great deal of concentration and manual dexterity. For Adamski his music only really takes shape when he performs it live, but he goes a step beyond traditional conceptions of what live performance is all about, drawing more on the way a DJ works the crowd.

"I'm doing the DJ's job with all my own songs", he confirms, "but I can remix them in a way that a DJ can't do with records."

Probably this isn't what Ensoniq had in mind when they referred to the SQ80 as 'The first studio synthesiser designed for live performance', but such flexibility can only be a point in its favour - not to mention a convincing argument in favour of onboard sequencers. Perhaps the company should go a step further and provide a mute button and volume slider for each track - it would certainly save all that double-clicking.

The TR909's front panel is perfect for Adamski: being able to adjust the volume level, tuning and decay of individual sounds from dedicated controls means that he can quickly create new settings during a song while the drum machine is dropped out, while instead of pre-programming one pattern with only a bass drum, another which brings in the snare drum ➤

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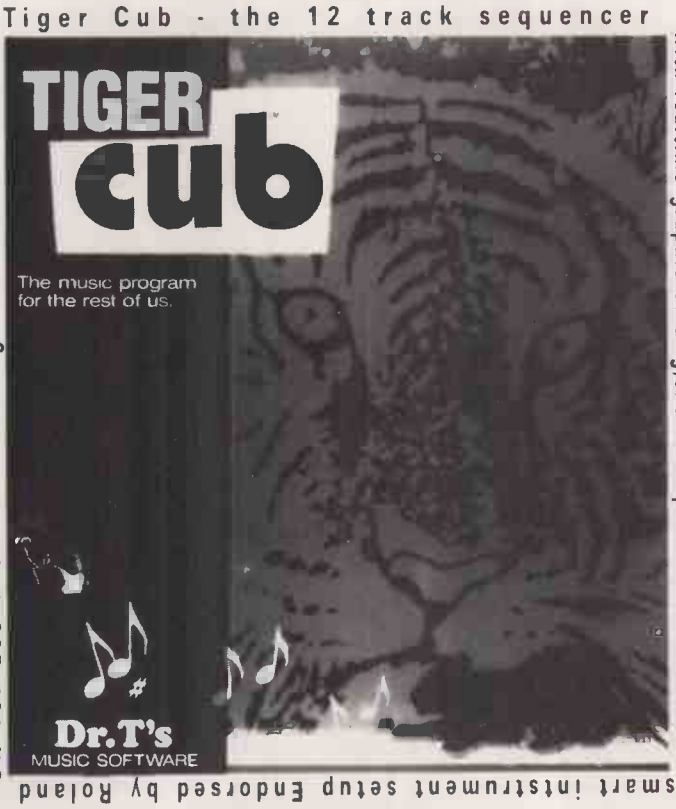

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➤ and yet another which brings in the hi-hat, he can have one pattern with all the parts programmed into it and then cut them in and out from the front panel. It's a very physical interface with the equipment which sadly has been lost on more recent digital technology.

One area in which Adamski would definitely like to see an improvement is the provision of individual outs on synthesisers.

"I used to use a shitty old phaser pedal, and when I broke the music down to the bassline I'd kick in the phaser and get this massive bass sound. I'm going to get a row of effects footpedals, but I can only use that sort of thing when I break the music down to one sound, 'cos the SQ80 only has stereo outs and everything's coming out of those outputs. Next time I go into the studio I'm going to hire another seven SQ80s so I can do everything live! It's either that or record everything separately.

"On the one hand my shows will be interactive video, which'll be the spectacle, and then on the other hand there'll be videos which you can buy."

"There's other things that are a problem for me, like if I want to use the individual outs on the 909 then I can't use the master volume knob because it only controls the stereo output level, so I've got to have something done about that.

"For the new single I just used the keyboard stereo outs and the drum machine stereo outs, recorded everything in one go into an AMS Audiofile and edited it digitally. There's things I couldn't do to that which I wanted to be able to do, simple things like turn the piano up. But that's the way it is: if it sounded right at the time, that's the way it stays."

He's already written all the tracks for his next album, and has begun recording them.

"Altogether I've got about 100 songs now, and I'm confident of about 60 as far as recording them and letting people hear them goes. I just save them for when peoples' tastes change. But I don't copy. My music changes faster than the music the DJs play. I'm not trying to compete with the other musicians who're making house music, either, I'm just competing with myself."

His interest in pursuing a visual dimension to his live work has led to an interesting callabration with K-OS Productions, the video company who produced the video for his first single.

"We're working on a MIDI-controlled video display which uses computer-generated fractal images", he reveals. "I'll be able to do things like control the display from an octave of my keyboard, so that it will move in and out of the fractal images as I play up and down the keyboard. And there'll be things like certain bass notes controlling different colours of the display. Also, they've got eight simultaneous tracks of video and audio running on a normal VHS cassette, and with this thing that you'll need to use with your video recorder you'll be able to decide what you want to do with the video. For instance you could break the music down to the bassline by going through a doorway in the image on the screen, and I'm sat in this room with a bass guitar playing the bassline. So you'll be able to move around this environment in your own TV.

"It's hard for me to explain, because technically I don't really know anything about it, but they've been working on this for seven years. They're involved in videola, too, the Godley and Creme stuff, and one of the guys worked with the Eurythmics on their first stage shows. The company are just setting up a studio now, and I'm going to go there for three weeks so that, while I'm working on my music, we can work on the interactive video for the stage show at the same time. Also, they're going to film me at the Hacienda using five wide-angle stationary-lens video cameras so that they film everything that's happening in the club. That'll all be put on different tracks on the video, and using this controller you'll be able to select the different tracks. So on the one hand my shows will be interactive video, which'll be the spectacle, and then on the other hand there'll be videos which you can buy."

Now that dance music has finally broken through into the commercial mainstream, record companies are falling over themselves to sign up acts with little or no track record, and sometimes little or no talent. Without an established following, many of these acts will fall by the wayside if they aren't nurtured by their record company - it's an old story, right? Adamski has already built up a sizeable following through good old-fashioned legwork, travelling the length and breadth of the country playing his music live and entertaining the crowds, and now he's able to sell his album off the back of that.

With a few adventurous clubs trailblazing a mix of recorded and live music, bringing DJs together with singers and electronic and acoustic musicians, hopefully we'll see live technology become more common, and with it a new musical adventurousness and spontaneity. Many of the artists and production teams coming up now in dance music also work as DJs, spinning records to hundreds or even thousands of people each week. Today's young dance musicians have grown up through the clubs rather than the more traditional live venues, consequently they've developed a different perspective on what playing live means. Taking sequencers and drum machines onstage is nothing new, of course, but musicians like Adamski are developing new ways of playing live with technology, which owe more to DJing and remixing than to the traditional band approach.

Adamski may have started the '80s as a Stupid Baby with only a Palitoy guitar and a kazoo to his name, but his more recent adventures in the realms of technology mean that he's well placed to meet the demands of the '90s ■

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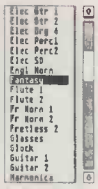

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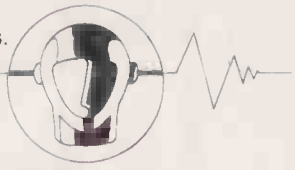

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TG55

Although it's Yamaha's SY77 synth that's got everybody talking about "industry standards" and "flagships" again, the company's new TG55 expander is sure to make a lot of friends. Review by Ian Waugh.

THE TG55 WAS launched at the same time as Yamaha's new mega synth, the SY77 (see review MT, Jan '90), but surprise, surprise, it's not an SY77 in a box - a quick look at the price will tell you that.

Instead, housed in the 1U-high, 19" rack-mount casing is a near-equivalent of the SY77's AWM2 section. AWM2 is an acronym for Yamaha's second generation 16-bit Advanced Wave Memory, a digital waveform storage and reproduction system. For the technically-minded, the waveforms have been sampled at 32 or 48kHz with 24-bit internal processing and 22-bit digital-to-analogue converters. The result is sonic clarity *par excellence*.

The TG55 contains two megabytes of sampled waveforms in ROM (the SY77 has 4Meg of wave memory) giving a total of 74 built-in waveforms (the SY77 has 112 waveforms). Additional waveforms will become available on cards which can be inserted in the waveform slot on the front of the unit and Yamaha promise to keep users well-supplied, so increasing the potential and sonic variety of the unit.

Although the TG55 could technically be called a sample playback module, in practice it's actually rather more than that.

THE OUTSIDE

LET'S LOOK AT the switches 'n' stuff before delving deeper into the TG55's internal architecture. The front panel sports a two-line LCD and a set of clearly-labelled buttons. Actually, they're mini rocker switches and you have to press the bottom half to make them click.

To the left of the LCD are switches to select Voice, Multi (for multitimbral use - more about this in a moment), Utility and Demo modes. Might as well say now that the demo tunes are superb. You'll be impressed.

The switches to the right of the LCD are used for selecting Voices and editing parameters. Voices and Multi settings are stepped through using +/yes and -/no buttons. You can also scroll quickly through them by holding the Enter button and turning the Data Entry knob. If you play keyboards, you'll soon learn how to do this with one hand.

The TG55 has 64 preset Voices, 64 programmable internal Voices (these are initialiy duplicates of the presets - shame) plus the ability to access 64 or 128 Voices on an optional memory card. There are 16 preset Multis and 16 internal ones and they can be stored on memory cards the same way as Voices.

THE INSIDE

AND SO TO play. The TG55 has two modes of operation - Voice and Multi. It's interesting to note that there is no Configuration setup (as on the FB01) or Performance mode (as on the TX81Z). Multi mode was designed to exploit the TG55's multitimbral

facilities and that's exactly what it does.

In Multi mode, Voices are assigned to a MIDI channel, not the other way around (as in Performances on the TX81Z, for example). This really does make use with a sequencer very simple to use, and it resolves the continual problem of deciding which channel to stick which sound on - there are your 16 channels, assign them sounds as you see fit.

As a consequence of this, however, only one Voice can be assigned to each channel. To play the same line with two sounds using a sequencer is no problem - simply use a ghost track or copy the track and assign the second track to a different channel. For live use, however, it means that you won't be able to play two sounds from one keyboard unless it's capable of transmitting on two MIDI channels at the same time (as can some master keyboards).

A Multi Play setup includes Voice/channel assignments, individual Voice volume, note shift, tuning, panning, effects settings and output assignments.

The TG55 is 16-note polyphonic and Voices are assigned dynamically during play in order to maximise the polyphony. For example, if all 16 channels are playing a note simultaneously, each Voice will only be able to play one note. But if four channels stop playing, another channel could then use those extra four notes.

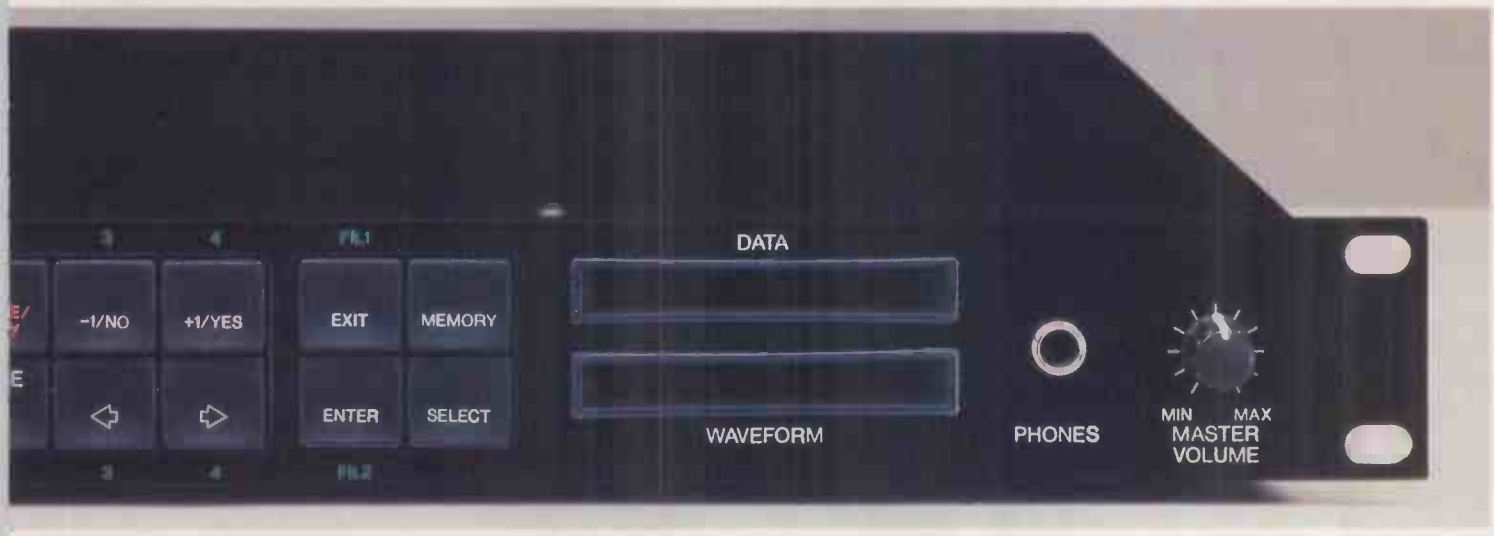
The assignments are handled automatically by the unit, a far superior - and more transparent - arrangement to that found in some other synths in which you must specify how many notes are required for each sound. You can, however, also reserve a minimum number of notes for any channel to ensure important lines don't drop out when the polyphony gets heavy.

EDITING

EDITING IN ALL modes is conducted through a series of pages. In Multi mode, for example, the first page shows the Voice/channel assignments, the second shows the volumes, the third the note shift offset and so on. All functions are clearly labelled in the LCD. The pan position is shown numerically and by a little graph - cute. New Multi setups and Voices can be given a ten-character name.

There are several copy functions to make editing easier. For example, you can copy the assignments from a channel in a Multi setup to any other channel, you can also copy the effects setting from one channel to another. In Voice mode you can copy envelopes and effects from one Element to another (Elements coming right up).

The creation of new Multi setups is very easy, largely due to the informative LCD and the logical division of the editing functions into pages.



ELEMENTARY

OK, TIME TO see what makes the TG55 tick - and produce all sorts of other sounds, too.

A single Voice is composed of one, two or four Elements, each of which can be assigned one of the 74 waveforms. A one-Element Voice will have full 16-note polyphony, a two-Element Voice will have eight-note polyphony and a four-Element Voice will reduce the polyphony to four notes. Most of the presets use one or two Elements but a dozen use four.

Element parameters include individual volume level, note shift, detune, low and high note limits (for creating zones on a keyboard), low and high velocity limits (to determine what velocity range they will respond to), pan setting, output assignment and effect balance (between dry and processed signal).

Each Element has its own five-stage amplitude envelope and pitch envelope plus two filter cutoff envelopes. Associated envelope parameters include rate scaling, which allows the overall decay rate to be varied across the pitch range; level scale breakpoints and offsets, which allow variations in levels to be sited at four points across the pitch range; velocity, pitch and amplitude modulation sensitivity and depth; seven LFO waveforms; and LFO speed, delay and phase (talk about subtlety). Each Element can play in normal or fixed pitch mode. In fixed pitch mode all notes produce the same pitch.

And then there are the filters. Each Element has two filters. One is switchable between high-pass and low-pass and the other is low-pass only. The cutoff slopes are 12dB/octave. If both are low pass they work as a 24dB/octave filter. In high pass/low pass ➤

"Sounds are decidedly varied - I'm tempted to call them idiosyncratic, although perhaps adventurous would be more appropriate."

➤ combination they produce a band-pass filter.

Both filters have resonance controls (in low-pass mode) which can boost them into self-oscillation. As well as control by their own envelopes, the filters can be patched into the Element's LFO. Filter parameters include rate scaling and level scaling; resonance, velocity and modulation sensitivity. I'm sure you get the idea - let's say editing on the TG55 is comprehensive.

Voice Edit mode is also where you control the controllers. This includes setting the pitchbend range, aftertouch bias, random pitch range (produces random pitch changes to simulate instruments in which each note is rarely in perfect tune with the others - the clavichord and string ensembles, for example); and amplitude, pitch and cutoff modulation. In addition, you can assign any MIDI controller to amplitude or pitch modulation, filter cutoff and so on.

Editing and movement through the parameters is on similar lines to Multi mode, although there are more pages to flip through and more buttons to press. Individual Elements can be selected and switched off by holding the Select button and pressing one of the buttons to the left (almost the only appearance of the multi-function button syndrome).

Each Element has nigh on 100 associated parameters (more if you include the effects and controller settings) and the selection procedures make these as easy to access as possible although inevitably there are a lot of pages to get lost in. If in trouble, however, the Exit button returns you to the previous edit page or function so while you may lose your way you'll never get lost.

No doubt voice editor software is already being written. This will make the job of editing that much easier, especially if it also allows access to the waveforms on plug-in cards. The advantages of being able to see all parameters on a VDU - especially in graphic form - is not to be underestimated. Thank **** for computers, I say.

THE SOUNDS

NOW THAT WE know how it works, what does it sound like?

The sounds are a decidedly varied and assorted bunch. In fact, I'm tempted to call them idiosyncratic although perhaps adventurous would be a more appropriate description.

Gone are the lists of piano, organ, guitar, bass, choir and brass presets which you might expect to find on a sampler (although there are many sampled waveforms of all these). Instead Yamaha's programmers have tried to create sounds which are a little different. For example, there is no straight choir - 'St. Michael' produces bells when you release a note, 'Voyager' has a lot of breath (chords with "sizzle", as the manual describes it). The closest to a straight choir is 'Mystichoir' in which the voices swell up and shift in tone. But nice, really nice.

'Zarathrusta' is a big orchestra sound complete with swell (yep, just like the record of almost the same name). The brass volume is patched to the modulation wheel.

The 'Distorted Guitar' is absolutely superb. If you hold a note it degenerates into feedback (this sound was produced using violin and triangle waves with help from the distortion effect).

'Oriental' is an oriental orchestra. It is made up of only two Elements - strings and shamisen - but put together (detuned and so on) beautifully. Anyone with an oriental bent will also enjoy 'Gamma Band', a percussion ensemble made from piano, flute, shamisen and glocken.

If it's sweeps you like, check out 'Spirit VCF', an analogue sound with a long slow filter sweep.

There are six pianos, some acoustic, some electronic. One of my favourites is 'Piano Mist', a piano with bell overtones. The acoustic pianos are similar to those in Yamaha's EMT10 and TX1P although just a touch more percussive, perhaps, and brighter although they don't use so many multisamples.

Play 'Thumb Bass' hard and you get a slap bass sound. And there's a racy wood bass in the left-hand section of 'WdBass Duo', too.

It's interesting and informative to see how the sounds have been produced: the combination of Elements used and how they've been processed. Some, which sound like instrument samples, have in fact been created with analogue-type waves. Many Voices use the modulation wheel to add modulation (of course), change the tone or fade Elements in and out.

DRUMS

A FEATURE OF most current synths is the inclusion of a separate drum section. The TG55 has one, too - or rather it has two, too. Voices 63 and 64 are composed of 61 Elements each corresponding to the keys from C1 to C6. A different drum sample (or any of the 74 waves) can be assigned to each key. There are actually only about 16 dedicated drum samples but each can be detuned and transposed to produce a wide range of drum sounds.

You can specify drum Elements which will not sound at the same time - open and closed hi-hats, for example. The drum sounds reduce the total polyphony of the instrument so the dynamic voice assignment is particularly useful when playing drum tracks.

Other editing controls are similar to those available for Voices and include volume, pan, effect balance and output assignment. As in the other edit modes, there are several copy functions to let you transfer parameters from one drum Element to another.

The drum samples are all usable and mainly based around a traditional kit. But check out 'Vocal Ga', for example, which sounds like the attack phase of someone being sick (any punks out there?).

SOUND FX

MANUFACTURERS HAVE WELL and truly realised that a smattering of reverb can make just about any

sound twice as appealing and few instruments are now released without a digital effects section. The TG55 is no exception. It has 34 effects in a slightly simpler arrangement to those on the SY77 (although they are broadly similar). They can either be applied to a Voice or not (although the balance between wet and dry signals can be adjusted, as mentioned earlier).

In Multi mode, independent effect parameters can be selected for each Multi setup. Alternatively, the effect assigned to any one of the 16 channels can be used.

Effect types include reverb, delay, pan, feedback, tone control, distortion and various combinations of these. You can alter three parameters per effect (such as delay time, filter, gain, delay and brilliance) which varies according to the effect.

They're no substitute for an SPX90, Multiverb or Quadraverb, but for built-in effects they do an excellent job. I won't gripe at all.

Utility offers a subset of the Utility functions on the SY77. These include master tune, transpose, velocity curves (choose one from eight), MIDI receive channel, MIDI device number, bulk dump protect (to prevent the accidental wiping of the memory) and several memory card options such as format, load and save. Bulk dumps via MIDI can handle Multi, Voice, System and All data.

MIDI

MIDI CAN ONLY handle 128 program change numbers and if an instrument has more than 128 sounds manufacturers have to decide how to access them all using just 128 messages. A common method is to employ a program change table which lets you assign any incoming message to any internal sound. But that still only lets you select 128 sounds at any one time.

With the TG55 (and the SY77) Yamaha has adopted a different method. Program changes from 0 to 63 select the voice number, 64 to 79 select Multi setups and those between 119 and 127 allow 'selection of the various TG55 modes'. The manual could be a bit more informative here, but basically these messages let you select the preset, internal or card bank.

It's easier than a program change table in many ways as you don't have to preselect a voice list first, although some voice changes will require two program change instructions.

JACK IT OUT

THERE ARE MIDI In, Out and Thru sockets, of course, while Left and Right stereo Outputs cater for the audio signals. There are also two Individual Outputs and voices can be assigned to either or both of these. In Multi-play mode, therefore, voices can be split across four outputs.

As more and more semi-pro and home musicians are producing stereo recordings this arrangement is very useful, as voices can be assigned a position in the stereo field before leaving the TG55. If you want greater control for additional processing you use the Individual Outs.

The manual is quite long at 140 pages, but it is clearly-written and well laid-out. A tutorial section shows you how to select Voices and create Multi Play setups and do some simple editing. The reference section contains the meaty programming bits. Functions are described comprehensively under four headings: Summary, Settings, Procedure and Details. Cross references are also included.

VERDICT

YAMAHA DESCRIBE THE TG55 as a Tone Generator, not a sample playback module. In essence, it uses sampled AWM2 waveforms as the basis for its synthesis so they're not telling any fibs. The presets, too, indicate that the programmers want to show its potential as a "tone generator' and not (just?) a machine capable of regurgitating piano, brass, string and choir samples. And they've done their job well.

However, because of that very fact, if you're after a playback sampler first and foremost, you may initially be disappointed by the range and number of presets of an imitative nature (although those that are imitative are generally good and some are truly excellent). But before you dismiss the TG55 as a sampler, remember that you can create your own sounds (ten of the supplied waveforms aren't even used in the presets) and don't forget the plug-in waveform cards which can add up to 99 new waveforms to the machine (these were not, alas, available at the time of the review so I can't comment on their contribution to the performance of the instrument).

If you're looking for other reasons not to buy a TG55; it has no alternate tunings (anyone use these? Write to Communique. . .) and its 16-note polyphony, while quite respectable, is not quite as inviting as the 32-note polyphony of some other machines. But then it has built-in digital effects and a separate drum section.

But samplers aside, as an expander and an extra/alternative source of sounds the TG55 scores highly. At the end of the day, it's whether or not you like the sounds the machine produces which determines whether or not you can live with it and use it. And I like what I heard on the TG55, in fact I spent most of the review just playing the sounds and creating new ones by swapping Elements. I'll be really sorry to see it go.

If you like what you've read so far but fancy a keyboard as well, thank your eagle-eyed reviewer for spotting a reference in the manual to an SY55 (page 109). The manual was stamped "Preliminary", so this may just be a twinkle in an R&D boffin's eye but it looks like a keyboard version of the TG55 could be on its way.

Meanwhile, the TG55 will be appearing in a music shop near you anytime now. ■

Price *£749 including VAT.*

More from *Yamaha-Kemble Music (UK) Ltd, Mount Avenue, Bletchley, Milton Keynes MK1 1JE. Tel: (0908) 371771.*

"A feature of most current synths is the inclusion of a separate drum section. The TG55 has one, too - or rather it has two, too."

AN OBERHEIM IN TIME

PHOTOGRAPHY: PETER FORREST

WHEN THE ANALOGUE POLYSYNTH FIRST CAME OF AGE IT CHANGED THE COURSE OF MUSICAL DEVELOPMENT. AMONGST THOSE REVOLUTIONARY INSTRUMENTS WERE THE CS80, PROPHET 5, JUPITER 8 - AND THE OBERHEIM OBXA. TEXT BY PETER FORREST.

IT SEEMS AMAZING to be taking a retrospective look at something that was the state of the art a mere nine years ago - but that seems to be the way of the world of hi-tech music technology. The bad news is that something that you might once have paid a cool four grand for should be worth about a tenth of that now. The good news is if you didn't have that sort of money then, you can pick up an amazing instrument really cheaply now.

And that's the pattern for classic instruments like the Minimoog, Prophet 5 or even the Fairlight: bound to belong to the luxury league in their first few years of manufacture, and only later to become available to the more ordinary punter when a new wave of technology has tarnished the appeal of the old classic.

In the case of Oberheim's OB family of synths (OB1, OBX, OBXa, OB8 and OBSX) they're pretty rare in the UK - not just because of their initial price, but also because Oberheim didn't have a really powerful distribution network here in their heyday.

Cast your mind back to the late '70s. If that brings back memories of tacky uniforms and sweaty changing rooms, then let me cast mine back for you. If you were talking synthesisers, then you were usually talking monophonic. Almost the only real polyphonics (discounting string synths) were the Oberheim 4-voice, 6-voice and eventual 8-voice machines.

At the time I used to gaze longingly at a four-voice in the London Synthesiser Centre, and wonder if I'd ever find the £3000 needed to acquire it; but on reflection, it's amazing how anyone managed to play the thing in public. Imagine a Korg MonoPoly with chronic tuning problems and a worse keyboard and performance controls, and you're getting close. And apart from the sheer difficulty of making it sound good, the limitations of the technology of the time meant that its revolutionary and much-vaunted programmability was arduous and only partially effective. Today you'd be forgiven for laughing, but at the time it was all there was.

Then the Prophet 5 crashed onto the

scene, capturing the imagination of musos and the ears of the public. It must have given the likes of Moog, Arp and Oberheim a collective heart attack. By the simple expedient of using a micro-processor to scan the keyboard - and using spare processing power to organise 40 programmable memories - Dave Smith dealt a blow to Moog and Arp from which they never really recovered.

It took Oberheim about 18 months to voice their reply, and that gave Sequential Circuits a huge market lead that even Oberheim's classy reputation was going to find it difficult to claw back.

One of the worst features of early Prophets was their unreliability, both in terms of tuning and in storing patches - if only Oberheim's machine could score in those areas, then they were in with a chance. The trouble was that when the new Oberheim, the OBX, did appear, people quickly realised that there wasn't much improvement at all. The machine looked like an updated version of their earlier machines, with dark knobs on cream background and, although it was a vast improvement on them in programmability and consistency of sound, it wasn't that much better than the Prophet. Two of its better points were its polyphonic portamento and the option of going up to eight voices - against the Prophet's five. But in terms of reliability it didn't seem much better. You didn't know whether it was good or bad that Oberheim had made it so easy to get into the machine to disable malfunctioning voices or perform other repairs. . . Similarly, it was a mixed blessing that they announced a "roadie kit" for on-the-road repairs.

It's pretty obvious that Tom Oberheim decided very early on that the OBX wasn't going to crack SCI's domination of the market, and started work on an upgraded version which would incorporate several minor mods to improve reliability, and also go for one more big new feature that would make the pro keyboard player an offer he simply couldn't refuse if he wanted to be in command of the latest technology.

That big new feature (don't snigger) was a splittable keyboard. At the time, that was pretty big news. As far as I can remember, Yamaha's monster CS80 was the only other synth to have this feature then, and the Oberheim sound, programmability, and relative portability were sufficient to make that no contest.

Oberheim (sensibly) also re-vamped the whole exterior design, introducing the smart blue pin-stripes on black that determined the "Oberheim look" for the years to come. The shame was that they didn't do so well on a new name. You'd have thought they could have come up with something more meaty and less small-time than changing from the OBX to the OBXa. Still, there it was. A lousy name, but potentially the most powerful synth in the world at the time. Portable, powerful, and with a split keyboard that was going to appeal to ex-Hammond organ players who were used to having separate sounds under their left and right hands and the Wakeman generation to whom banks of keyboards each producing two or three sounds had become a way of life.

The split facility, despite being one of the first ever, wasn't bad either. For a start, it was programmable. (There were only eight locations available, but that was still the world record at the time.) Secondly, you could transpose one of the halves of the split up or down - and although this was only a temporary edit, not something you could write permanently to memory, it was, again, an unprecedented feature. Selecting a new split point was simplicity itself - just hold down Split and press the key you wanted to be the start of the upper split.

As well as splits, of course, you could layer sounds, which would leave you with a maximum of four-note polyphony but also with the potential for some great composite sounds. Again, this was something only the CS80 could do at the time. The doubles had to share the few memories available with the splits, but at least you could allocate them as you liked.

Polysynths' patch memories of the time were pretty limited by today's standards. They started out at around 32, and it was only towards the end of the OBXa's production run that the number rose to a much more impressive 120 (on the OBXa and Prophet 5). But was so much easier to program a synth that had dedicated hardware (knobs and switches), and musicians' imaginations had yet to come to terms with the numbers of sounds we expect today, the lack of memory locations on earlier machines wasn't regarded as being that critical.

Like most of its competitors, the OBXa's programming system is simplicity itself. You want to make the sound a little brighter? Just move the VCF frequency knob a fraction clockwise, and listen to the effect. Each control is permanently "live", so any parameter you need to tweak, you can access immediately. The knob won't necessarily show the right setting - it'll be at the position it was moved to the last time it was touched - but again that doesn't matter so much when you've got such ready access to each parameter. In a way, having "proper" controls on a synthesiser is the equivalent, in computer terms, of having parallel rather than serial communication. On a modern synthesiser (without an expensive computer and complicated software editing program) you have to address each parameter one after the other - serially. On the OBXa, you can address parameters in parallel - virtually simultaneously. This becomes very important as soon as you start playing around with two parameters which have interrelated effects.

"WHEN THE SEQUENTIAL CIRCUITS PROPHET 5 CRASHED ONTO THE SCENE IT MUST HAVE GIVEN THE LIKES OF MOOG, ARP AND OBERHEIM A COLLECTIVE HEART ATTACK."

But it's not just in ease of use and human feel that "traditional" synthesiser design scores. I've sometimes asked myself why I spent almost exactly the same money buying an OBXa when I could have bought myself a natty Matrix 1000 and saved a lot of valuable studio space. The answer could have something to do with snob value; the Matrix 1000 is, after all, a preset synth - the sort of thing that players of my age used to almost regard as not being real synthesisers at all. But you can always get into them with a software editor, and with 1000 sounds to choose from you're extremely unlikely to be using exactly the same set of sounds as anyone else even if you stick to presets. No, it has more to do with the fact that there's something more characterful in an instrument like the OBXa than in any rackmount, even of Roland MKS80 calibre. There might be a character analogy here with guitars - would you rather have a Japanese or American Fender?

The most attractive aspect of the OBXa over the Matrix 1000 is the availability of all of the instrument's controls as real-time performance controls. Quite a few expanders don't really allow you to do this even with an add-on programmer or software editor - you often get digital clicks as you alter parameters or the control doesn't come into effect until after you hit the next note. It's a shame, because ➤

➤ there's a lot of expression you can get by judicious use of controls such as filter cut-off, sustain level, and attack. It's analogous to a guitarist "playing" the volume control with the little finger of his or her right hand to produce different attack characteristics. Primitive, but effective.

"WHY BUY AN OBXA WHEN YOU COULD BUY A MATRIX 1000 AND SAVE A LOT OF VALUABLE STUDIO SPACE? WOULD YOU RATHER HAVE A JAPANESE OR AMERICAN FENDER?"

Using the controls in real time is something you can do with most of the old classic synths; but there are one or two refinements in the OBXa's dedicated performance controls which give it an edge. The one I really like is very simple: there's a push-button underneath the pitchbend control whose name (Osc 2 Only) explains it all. What that means is that when you use the bend wheel (or lever in Oberheim's idiosyncratic system) you can choose to have just oscillator two affected by pitchbend. There are similar performance refinements on Roland's Jupiter 8.

On some sounds, bending one oscillator against another works a treat. Now, I know you can do that any day with MIDI and a couple of expanders, one of which you set to receive pitchbend messages and one not. But it's certainly simpler on the OBXa and it seems to come out better. Maybe it's the limitations of the machine that make this so - the fact that the two oscillators are subtly different but from the same source, while if you're using two expanders you're somehow unlikely to have them both set up to the same sound. Quite possibly, the effect sounds better because it's immediately accessible without having to stop, alter parameters on a couple of expanders, and then pick up the thread of inspiration again. Whatever the reason, there are some electric guitar-like effects which the OBXa gives you that I've found hard to beat with a collection of much more recent synthesisers and expanders.

There was one more major feature, however, that really made the OBXa stand out from the '70s polysynth crowd, although it's only really of historical interest now. Always an innovative company, Oberheim designed the OBXa as part of the Oberheim Performance System. Connecting up different manufacturers' synthesisers, sequencers and drum machines had always been at best difficult and at worst impossible, and so Oberheim set out to design a complete system interface. I think the OBXa actually came out first, with an enigmatic 37-pin connector socket on its back panel, entitled Computer Interface. That was followed by the DSX sequencer (a superb machine for its time - nine tracks and the ability to drive eight CV/gate synths as well as the OBXa); the DMX drum machine; and also the OBSX synth (which presented Oberheim sounds as presets for people who weren't into programming). One of the synths combined with the drum machine and the sequencer made a really powerful system, which could produce very acceptable instrumentals or demos of arrangements.

We've come to be very blasé about sequencing nowadays, but this was the forerunner of today's computer-based sequencing system, and at the time it was as much of a breakthrough - as the Atari/Pro24 combination was only a few years later. So much so, in fact, that huge

Japan's Richard Barbieri and OBX (Prophet 10 in background)

numbers of influential musicians splashed out on the OBXa and members of its family: Miles Davis, New Order, Japan, Eurythmics, Thompson Twins, Lenny White and Sting all used them extensively, and Prince bought a couple of OBXas and a couple of OBSXs to tour with.

There was just one fly in Oberheim's Performance System ointment: there were still going to be times when you wanted to introduce equipment from a different manufacturer; that was OK if they used CV/gate, but that left most of the best synths like the Prophet right out of it.

To Oberheim's credit, they did embrace the new MIDI standard when it appeared in 1983, despite having technical reservations about its long-term viability. They had been working on a replacement for the OBXa called the OB8 and, although they didn't put MIDI in from the start, they soon sanctioned a retrofit, and included MIDI on all future instruments.

You can get OBXas retrofitted for MIDI these days, and that's going to be pretty essential if you rely wholly on a sequencer or a master keyboard system. But for recording, if you've got enough tape tracks to spare, and you can play well enough not to have to use quantising or note correction, it's often worth putting something like an OBXa onto tape. It helps to keep the individuality of the instrument intact, and means that you're much more likely to use its own special features, like the Osc 2 Only pitchbend and polyphonic portamento, to good effect. And as well as features like these, the OBXa has dedicated sockets for a hold footswitch and foot pedals to control vibrato and filter - something that I could never understand a lot of synths being without.

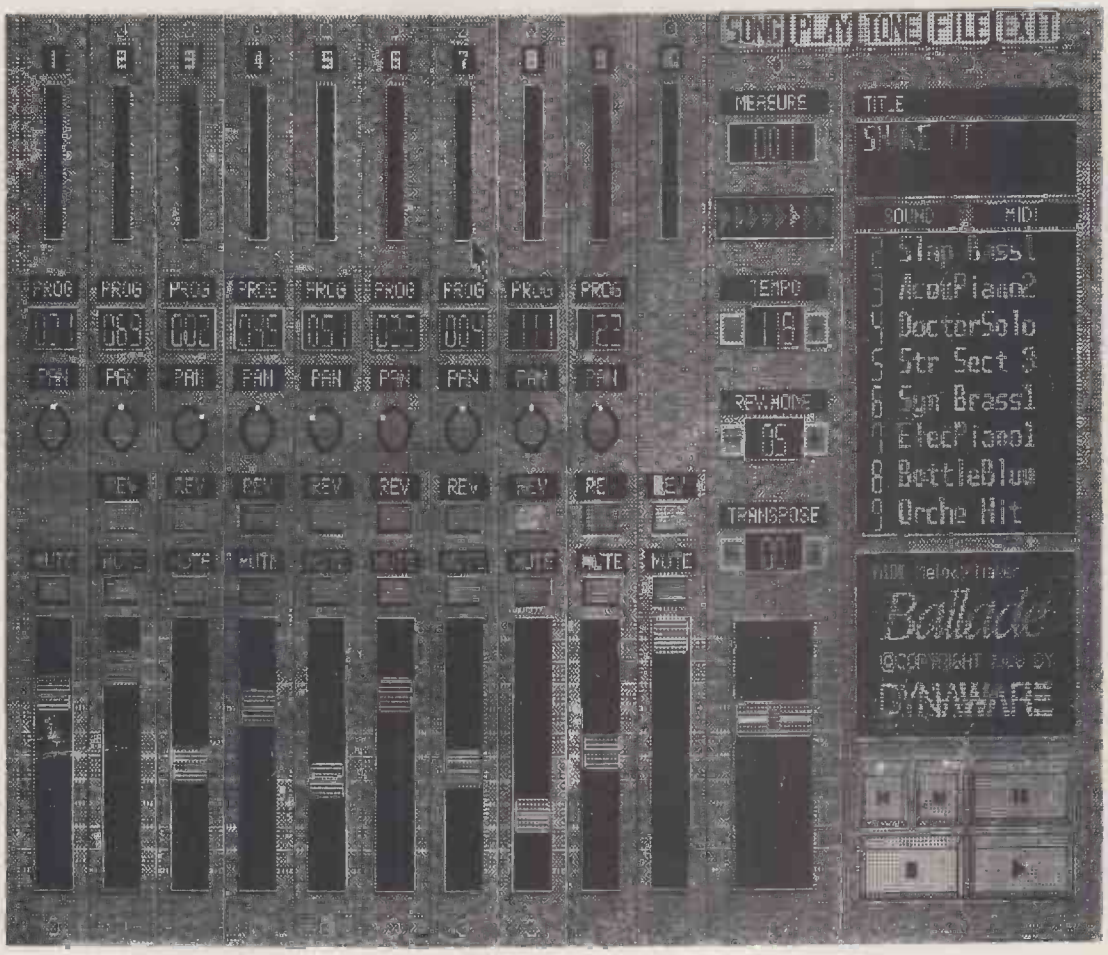
There are omissions in the OBXa too, of course. In addition to its lack of MIDI and touch sensitivity, one of the worst is the lack of decent mixing facilities for the two VCO's and the noise generator. For the noise, it's either all or nothing, and for VCO2 it's all, nothing or half - not very versatile. And it's annoying that with the rest of the instrument so easy to program, something as simple as this should have been neglected. It also loses out to something like the Prophet 5 or Oberheim's own later Xpander in the flexibility and complexity of its cross-modulation facilities.

Even so, I'll never sell mine if I can help it. Sure, it takes up a lot of space, but it's a source of inspiration and a pleasure to program and use. Its sounds vary from raunchy fuzz guitar to fat brass, lush pads to meaty clashes, and in all of them there are the advantages of analogue - relative warmth, and ease of real-time alterations. There's no way something like the OBXa can seriously rival a D50 or M1 in what they do, but what the OBXa does, it does far better than their imitations of it.

I've never heard the Matrix 1000 and OBXa together, so I can't really comment on which sounds better. I suspect a well-programmed OBXa would be some way ahead, but I can't prove it. As for the OB8, Oberheim claimed that they had been able to reduce the component count hugely, which may be good for price but doesn't necessarily make the sound as rich. Don Snow, who owned both models, says he liked the OBXa's sound more - and he didn't have an axe to grind, as he was selling me his OB8 at the time.

Hold on, if I've got both versions, why can't I do a quick comparison? Ah, there's the rub. I bought the OB8 knowing it needed a service to coax some sounds from it, and haven't been able to afford that yet. In the meantime, if you like analogue, enjoy programming and playing in real-time, and see an OBXa in good nick for under four hundred quid, snap it up. You won't regret it. ■

BALLADE



If you own an IBM PC and an MT32 and feel left behind by the current glut of Atari software, take heart - Ballade is a MIDI Sequencer and Tone Editor just for you. Review by Ian Waugh.

BALLADE IS A combined sequencer and tone editor for Roland's MT32 sound module - nothing too earth-shattering there. But Ballade runs on an IBM PC or compatible - now there's a novelty. Software for the PC isn't exactly thick on the ground, but then there aren't too many people trying to make music from it. But for those of you who are, here's Ballade.

As Roland's LAPC1 sound card is an MT32 equivalent, Ballade will work with it too (see last month's issue for details of the LAPC1 and Roland's other CM sound modules). In fact, Ballade was being shown at this year's BMF and PC Show running with the LAPC1. And very impressive the pair sounded, too.

As with most PC software, a certain amount of setting up needs to be done before you actually get to run the program. Dedicated PC-ers will be used to it - some even thrive on it - but if you simply use your PC as a tool you'll have to read the small print carefully.

Minimum system requirements are 640K RAM and EGA or VGA graphics. You need an MT32, of course, plus a suitable MIDI interface or an LAPC1 (plus a MIDI interface if you want to record from an external MIDI device). Ideally you should have a hard disk, too (as with most things PC). The manual explains how to format disks, make back-up copies, create new directories and copy the program to hard disk. You may also need to change your config.sys file (hope you've a word processor handy).

Now if you're sitting comfortably, I'll begin. The first surprise is the fact that Ballade uses a graphic environment and is mouse driven. There are keyboard equivalents for many options although not enough, perhaps, to satisfy die-hard PC enthusiasts.

PLAY

THE PLAY SCREEN is laid out like a ten-channel mixer. Channels two to nine map onto the MT32's eight voice channels and have faders, level meters, program number indicators, pan pots and reverb and

mute on/off switches. Channel ten is used for the rhythm section.

Channel one is unused as far as the MT32 goes but it could be used to play an external synth or expander. Sync can be set to internal, external or tape (MIDI clock) so channel one could be useful here.

To the right of the faders is a bar (measure) counter, tempo indicator, reverb mode indicator, a transpose control and a master volume fader. To the right of these is the orchestration section which lists the names of the instruments which are playing on each channel and below these are tape transport controls.

The first thing you'll want to do is play the demo files - and they are absolutely excellent. They include Bach's 'Air On A G String' (no tittering at the back, Smythe), 'Promenade' from Mussorgsky's *Pictures at an Exhibition*, one of Brahms' Hungarian Dances and four modern pop/rock/funk pieces.

A neat feature of Ballade is its ability to chain-play the tunes in a directory, sequentially or randomly, or repeat a tune or directory *ad nauseam*.

When a tune is playing the faders fade, the pan pots pan and the program change indicators indicate the current instruments. You can make alterations on the fly by clicking and dragging the sliders and pan pots. You can change instruments, too. When you do, the music stops and up pops a list of available instruments which you can page through to select the one you want.

SONG

MUSIC ENTRY IS performed in the Song screen which shows a treble and bass stave (the Grand Stave) divided into vertical sections representing note durations. You can select quarter, eighth, 16th or 32nd note divisions plus triplets.

There are three ways to enter music into Ballade. You can click notes onto the stave with the mouse and record in real or step-time from a MIDI keyboard.

Under the Palette (yep, it's American) menu you can choose which of six palettes will appear on screen - Note, Play, Forte (loudness), Slur (articulation), Ride (note offset) and Rhythm (this can only be selected for the rhythm track). The palettes can be situated anywhere on the Song screen.

To enter a line in step-time from a MIDI keyboard you click on step-record in the Play palette, select a note duration from the Note palette and play a note or chord. And it appears on the stave - brill (to coin a quaint Brummy expression). The process is not what anyone would call instantaneous, and the screen (or bits of it) redraws quite laboriously after each note, but it has a fair sized buffer and it gets there in the end.

Alternatively, you can select note durations from the Note palette and click them onto the stave.

RECORD

TO RECORD IN real-time, click on the real-time record icon in the Play palette. This lets you select the range of bars you want to record (like a punch-in) and the tracks you want to playback during recording. You can filter out control, pitchbend, program changes and "other effects". The manual is not very forthcoming about what "other" actually encompasses although it doesn't include velocity information which is recorded during real-time input.

After real-time recording you are given the opportunity to hear what you have played and record it again if you don't like it. Alternatively you can quantise it (up to 64th note triplet resolution) after which it appears on the stave. The notes are grouped and beamed automatically - you have no say in the process.

A major niggle here is the fact that you are only allowed one go at quantisation - post recording - and you can't see the music on the stave before you quantise. It can't handle real-time triplets, either.

Other options include count-in, metronome click and loop on playback. The manual says it will loop during recording but it doesn't - a shame, particularly when creating rhythm tracks.

There is a Tracking function in the form of a green vertical line which moves through the score as it plays. Although it's a good way of pinpointing a section of music, the screen can take a while to update (especially on an XT) and it redraws rather than scrolls.

SHEETS

THE FORTE PALETTE is used to set the volume of the notes. There are eight preset options ranging from *ppp* to *fff* and a slider below these lets you select any value from 1-127.

But better than this, the Volume Setting Sheet lets you insert scaled volume changes into a track. These can range across a couple of beats or through the entire piece. The volume is reflected in the fader movements in the Play screen. There are also three velocity curves - one linear and two curved.

There are other Setting Sheets for tempo, master volume, pitchbend and modulation. They offer some of the easiest scaling operations I have seen in a sequencer.

The Slur palette determines the articulation of the notes and works in a similar way to the Forte palette. There are six preset levels of articulation ranging from short staccato to slur plus a slider for finer control. The manual reads as if selecting the slur will automatically tie notes of the same pitch but it doesn't. Instead you have to enter the notes, click on the first to be tied and then click on the slur icon (it took a while to figure this out).

The Ride palette lets you push or pull the attack time of a note from 1/48 to 3/48 of a quarter note.

RHYTHM

TRACK TEN IS laid out like a drum grid with 12 rows. All 34 drum sounds can be accessed by selecting one of three pages (of 12 rows) although it's a shame you can't scroll the grid up and down.

You can't alter the order of the drums or select a different set of sounds. (Incidentally, while you can ➤

"The Setting Sheets for tempo, master volume, pitchbend and modulation are some of the easiest scaling operations I've seen in a sequencer."

➤ record the extra LAPC1 sounds into the rhythm track in real-time from a MIDI keyboard, they don't appear on the grid and you can't edit them. Ballade was designed for the MT32 although a suitable upgrade should be a simple matter.)

You can enter a rhythm pattern in real or step-time exactly as you would a music track. The Rhythm palette offers a choice of six levels of note velocity plus a slider for finer adjustment.

SIGN

THE SIGN MENU is used to select time and key signatures which can be changed at any point in the music. The Setting Sheets are selected, here, too, and the last three selected appear at the bottom of the screen. Program Changes can be inserted at any point as can pedal symbols (as used in piano music) which switch sustain on and off. You can set pan positions and you can choose a treble or bass clef instead of the Grand Stave.

Editing is fairly comprehensive. You can highlight a section of music by clicking and dragging the mouse across it and perform block cut, paste and erase operations on it. You can Write a section of music onto another section of music, effectively a merge operation allowing you to construct melody and harmony lines on separate tracks and merge them when correct.

Whole tracks can be copied one to another and you can insert notes, transpose sections of a track and save a section of it to disk as a Pattern.

TONE

THE MAIN SCREEN of the Tone Editor shows the four partials which make up a tone. Selecting one of them displays the information associated with that partial on the rest of the screen.

Parameters are altered by clicking and dragging sliders and by clicking on increment and decrement buttons. Clicking on one of the three envelopes - Pitch, TVF and TVA - draws another screen which lets you move the nodes of the envelope by clicking and dragging. The values of the parameters change as you do so.

The Tone editor is well-designed and on a par with some dedicated voice editors although there is no random voice generation function (is that a miss?).

You can hear the tone by clicking on a blank area with the mouse or by playing your MIDI keyboard. You can also play a Phrase saved from the Song screen.

New Tones can be saved into six pages which can each hold 64 Tones. These are stored on disk and movement between pages can take several seconds although it seems to be the processing which takes the time, not the loading.

FILE

FILE HANDLING IS comprehensive and allows you to create new directories, rename, copy and delete files. However, in an effort, presumably, to protect the user from the intricacies of MS DOS file handling, it uses its own hierarchichal directory and file system and stores a contents list on disk. If you want to give your latest masterpiece to a mate you'll probably have to do the copying through the program rather than copy the files with MS DOS.

The files on the factory disk are not the same as the ones shown in the manual so don't flip through too many directories looking for them (pity, I would like to have heard 'Spring' from Vivaldi's *Four Seasons* played on the MT32).

MANUAL

THE MANUAL IS also comprehensive, with screen dumps and illustrations on virtually every page. Some may argue that it is a little too basic as the first lesson in the Training Guide shows you how to load Ballade and quit it - and it takes a full seven pages. But better too many explanations than too few.

The Training Guide shows how to enter the first few bars of the Theme from *A Summer Place* but the dears have managed to get some of the note durations in the melody line wrong. Still, the manual deserves pretty high marks. It even has a comprehensive index, how about that?

VERDICT

PC USERS TO whom the often-numeric screen displays and stilted graphics of many PC programs are the norm will find novelty and freshness in Ballade's screens and WIMP environment (to ST, Amiga and Mac users, however, this will be nothing new).

For a program which deals (I'm almost tempted to to say revels) in stave notation, it's a shame there is no printout option. I find this difficult to understand, although if I tell you that a companion program called Dyna Duet has printout facilities, a little commercial light may begin to dawn.

One final comment - Ballade works best with the extra processing power of an AT. With an XT it may become a little hesitant particularly at the start of a piece. However, XT owners can run Ballade in XT mode which disables the level meters and faders in the play screen in order to improve timekeeping. Perhaps it's time to upgrade to an AT.

I like this program. It took a while to win me over but win me over it did. I had a few disagreements with it and there are a few areas in which I think it could be improved, but it's powerful and easy-to-use and I'm a sucker for traditional notation.

For the PC user with an MT32 (or LAPC1) or who is contemplating such a purchase, who likes to work with stave notation and who would like the convenience of a self-contained, integrated system, Ballade is absolutely excellent. It may not be as intrinsically flexible as a dedicated sequencer, but if the MT32's your expander and the PC's your computer, Ballade is your program. ■

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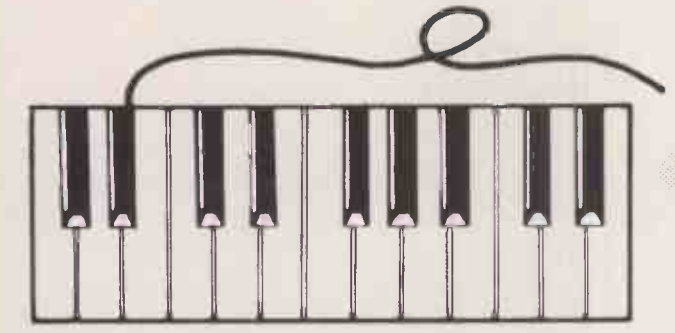

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ENCORE

Encore™ V1.0.7

Passport's Encore scorewriter aims to give the Apple Mac the best combination of on-screen composition, score printing and playback. Is it a winning compromise? Review by Mike Collins.

THERE ARE NOW a number of programs on the market intended to allow either music composition, or music notation on a computer. Playback of the score is usually available either via the computer itself or on other instruments over MIDI. Alternatively, you might simply want to use the program for music page layout and printing. Most programs allow a combination of these functions, but are actually optimised for one or two functions, with the others offered as a bonus. Encore is an Apple Mac program which allows a combination of all these functions, although for serious publishing and printing, other Mac programs such as HB Music Engraver (reviewed MT, July '89), or Finale (reviewed MT, December '88) offer greater flexibility. Encore is a mid- to high-priced program and should provide most of the functions you need unless you are primarily involved in publishing and printing. Where Encore scores is in its ease of use when it comes to note entry and page layout - as compared with programs such as Finale, which have many layers of dialogue boxes which you have to negotiate before you achieve what you want.

PRINTING

ENCORE USES THE Sonata music font from Adobe Systems Inc. The screen fonts are provided with the Encore program and if you are using the Imagewriter printer, these screen fonts are what you use to draw onto paper. If you are using a Laserwriter, you have to buy the Sonata printer fonts separately from Adobe (through your local Apple dealer, or by mail order). If you do not have these fonts you can still print out on a Laserwriter, but the printing will not be as clean as if you used the correct Laserwriter fonts.

When you're working in Encore's edit window, you can view a representation of a sheet of 8.5" x 11" paper when you choose Preview from the Windows Menu. On my Apple 13S monitor this preview is still quite small and difficult to read, so I would like to see some kind of feature which allows you to use a bigger screen area to display this preview, or a zoom feature, or whatever. Normally, using the default font size three, you are limited to 12 three- to four-measure staves per page. This is OK for standard piano music, lead sheets and the like, but for larger scores you may need more staves, or, alternatively, bigger note sizes on the page. It's very easy to change the number of bars or measures on a line using the Measures Per System option in the Change Menu - you just click in the margin of a staff to select it, and then go to the Measures option and enter a new number, say five. Every staff in every "system" will now have five measures. It's equally easy to insert or delete a "system". In case you were wondering, a system in this context is a group of staves arranged one above the other, joined by a vertical bracket at the left, and containing barlines going across the page to the right margin. If you use more bars per line, or "measures per system" as Passport's terminology would have it, you may need to reduce the font size, which again, is easy to do, using the Staff Sheet dialogue box from the Windows menu. You can set font sizes differently for different staves, which is a useful feature for some types of score. Finally, there is a Reduce option in the Page Setup dialogue box which you can access from the File menu before you do your printing. Using an Imagewriter II, you can print at either 100% or 50% of normal size, but a Laserwriter allows you to print anywhere from 25% to 400% normal size.

If you wish to print parts out separately, you just copy a stave to the Mac's clipboard, close your file and open a new one, paste in the stave you want and print it out. These options are reasonably comprehensive, but not really as good as the options provided in Coda software's new Music Prose program, which also allows you to create PostScript

files which can offer more advanced printer control, and Encapsulated PostScript (EPS) files which can be imported and exported to and from applications that support EPS. You'll find this type of file compatibility highly desirable if you need to do professional publishing and printing work.

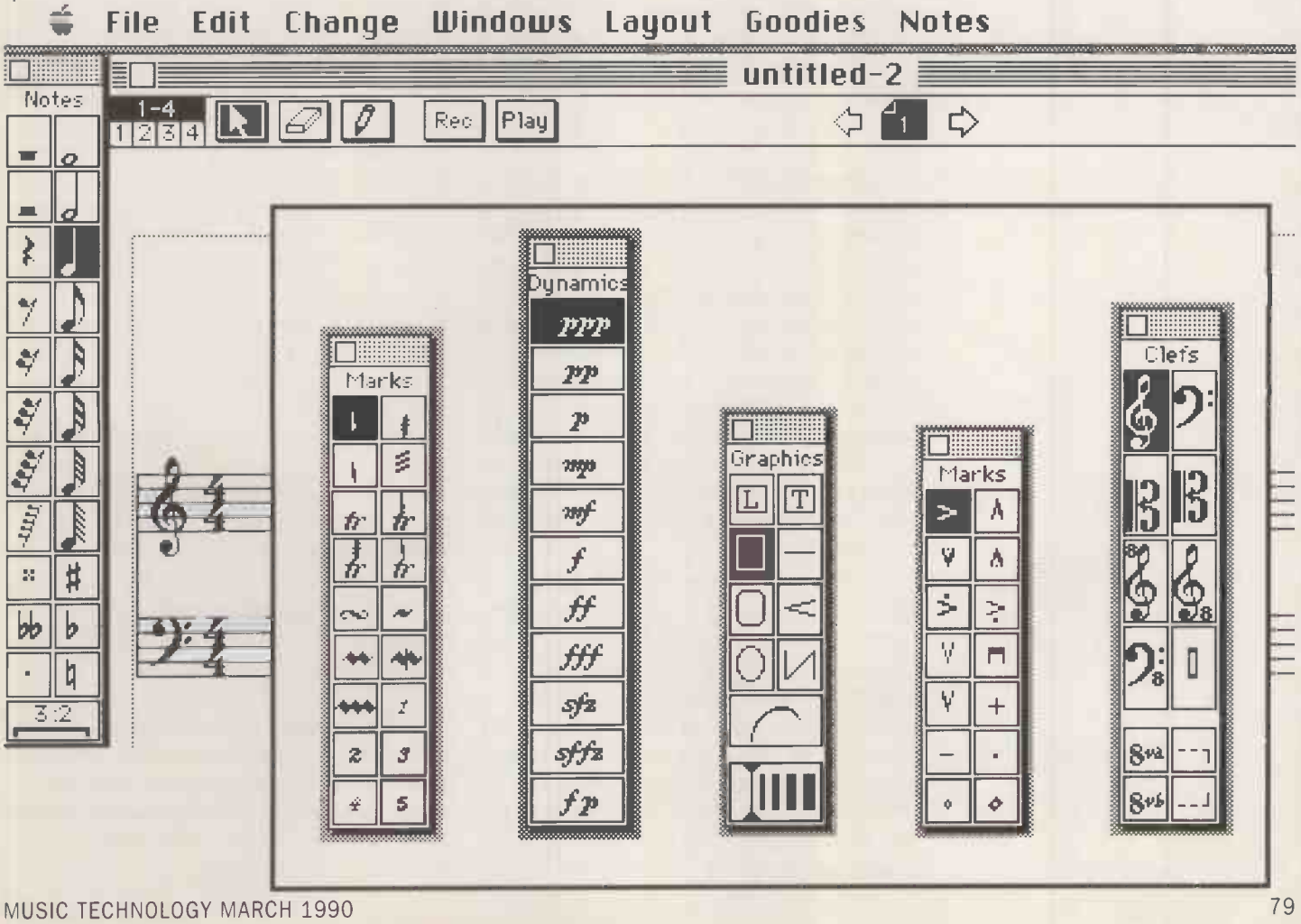
MIDI FILES

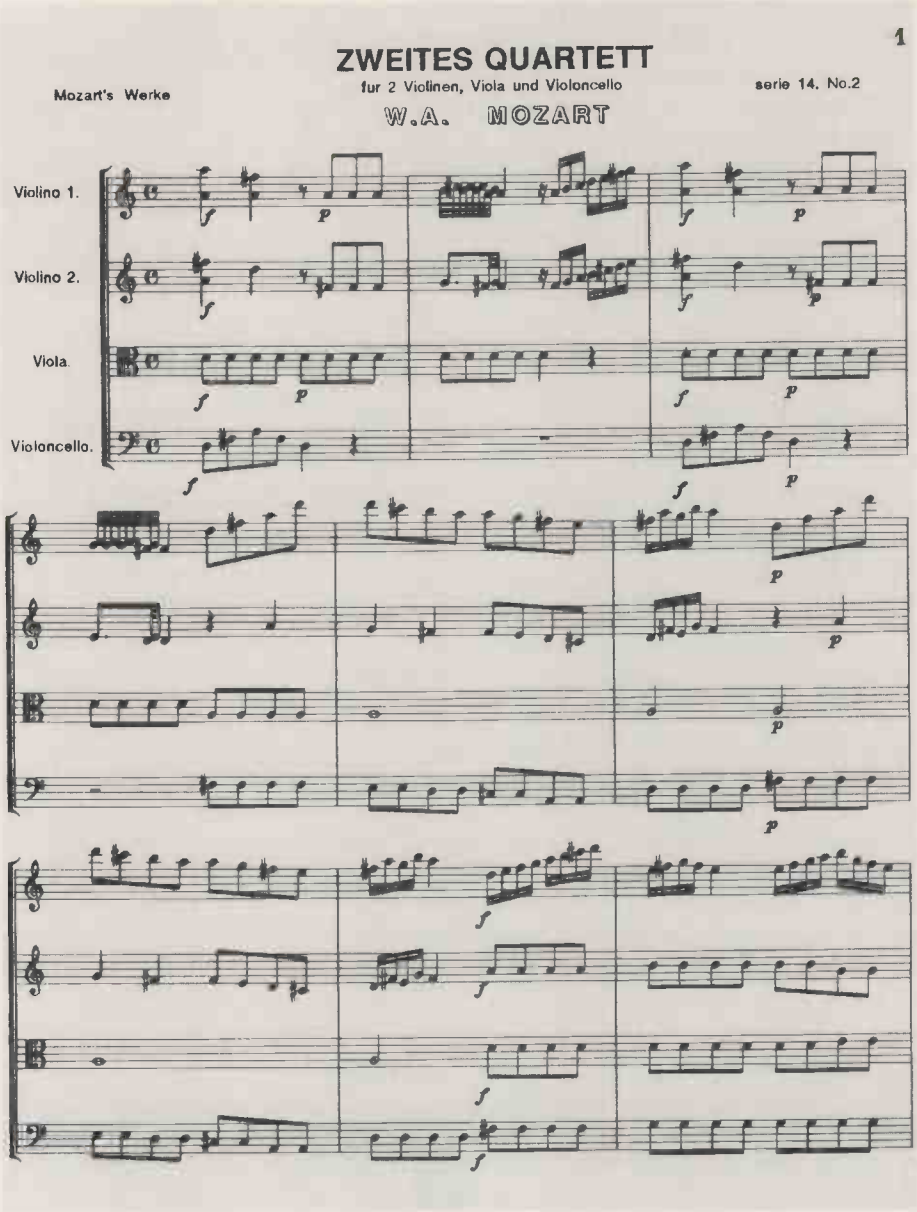
MOST MUSIC PROGRAMS make use of MIDI File formats which can be used to exchange data between themselves and any other music programs on any computer which supports MIDI Files. To transfer between different computers you will either need suitable connecting cables, or a modem connection between the computers. Unfortunately, you lose a lot of the page formatting information if you attempt to transfer an Encore file into, say, Finale to take advantage of its superior page layout facilities, for instance. Consequently it's a pity that Encore does not support PostScript and Encapsulated PostScript file formats which would allow you to transfer formatted pages to other programs for further work to be done.

When you import a standard MIDI File into Encore, or sequences created in one of Passport's other programs (such as Master Tracks Pro, Jr, or Pro 4), Encore has to analyse the file's MIDI data to determine the durations, locations, and beaming of the notes it imports. The data is initially displayed as raw data with dots on the stave to represent the pitches of the incoming notes in their correct bars. You then have to select the bars individually, or in groups, or all at once, and use the Guess Durations command from the Notes menu. This will automatically get most of the durations correct, and the idea is that you then "spot edit" the score to get the tricky bits right (such as glissandos). I quite liked this approach, having had terrible experiences when using MOTU Composer in the past with pages which needed prohibitive amounts of editing before they could be used. Encore will "guess" most things right first time, leaving you with just a few awkward parts to get right using other methods.

"Real-time entry is one of Encore's features which may persuade you to fork out £450 for this program instead of £250 or less for other programs."

You still need to quantise your sequencer files sensibly, and possibly extend note durations in your sequence files to occupy complete note values in order to get readable music in any notation program. This is really a limitation of conventional music notation, which demands that you make educated decisions as to the best way to notate any music, even hand-written copy. If you wish to notate note lengths extremely accurately, for instance, this can ➤





"Encore's number one features have to be the real-time MIDI note entry facility and the fact that the program is intuitive to use, and consequently easy to learn."

Mozart Quartet

➤ lead to decreased legibility when it comes to reading the music. Also, for many purposes it is not possible to notate the actual sound which comes out of your instrument. This could be due to the nature of the instrument - such as a piano whose notes ring on - or due to reverberation in the room or in the recording which keeps the note sounding after you've finished playing it. When you create your MIDI sequences, you will probably take these factors into account subconsciously, by playing the note durations which sound best on the instrument you're using for the part, but you do have to be aware that these may not represent the wisest choice of durations as far as the notation is concerned.

It certainly helps if you have previously had a lot of experience in notating music by conventional methods before you try using a computer program like Encore. Beginners will be able to use the program, and will probably find that they start to learn a lot about notation by using the program. But it's unlikely that anyone with no experience of using conventional music notation will ever get the best out of notation programs. This is not a criticism of this program, just a general comment about computer-based notation software.

NOTE ENTRY

APART FROM IMPORTING sequences or MIDI Files, there are three main ways to enter music into Encore: step-time entry using the mouse, step-time entry using a MIDI Controller (such as a synthesiser keyboard), and real-time entry using a MIDI Controller. You can mix all these methods freely. There is just one palette of notation "tools" available, which may be switched between a Clefs palette, Notes palette, Graphics palette, Dynamics palette, or two separate Marks palettes. To use the palettes is a breeze - just click on any icon within a palette and the cursor will turn into that icon. Clicking on the staff with this cursor places that object where you click.

It is very easy to shift bar-lines to make more or less space available between individual bars by clicking on a bar-line and dragging. Used in conjunction with the Measures Per System command this allows plenty of flexibility while laying out your score. There are also rulers available to help you line things up. You can also change the vertical and horizontal size of a staff by changing the size of the font in which the staff is displayed. For instance, you could change your staff sizes temporarily while you are working on your score, or just for the final printout.

Once you have your notes entered, you can change the distance between the note heads and beams, or change the angle of the beams simply by clicking and dragging, and you can change the distance between staves in a similar way. No need to enter complex dialogue boxes as with some other programs. You can move notes or even whole chords in the same way, but I did find it difficult to place sharps, flats, and naturals properly because there didn't seem to be any very effective individual control over the positioning of these on the stave. I found step-time editing to be fairly speedy and relatively painless, either using the mouse or a MIDI keyboard. Using MIDI, you first click on the point in the score at which

you want to enter a note, then choose the note or rest duration you want using the palette, or from the Mac keyboard, and then play your notes in one at a time. Chord entry is also easy - just press and hold the first note you want, then play the rest of the notes, releasing them as you please. When you release the first key you hit, the notes will all be entered as a single chord. This system has the added bonus of allowing you to enter chords which you would normally find it difficult to play.

REAL-TIME ENTRY

THIS IS ONE of Encore's more advanced features, the one which may persuade you to fork out £450 for this program instead of £250 or less for other programs such as Music Prose or DeLuxe Music Construction set. Again, it is very simple to set up and use this feature. You choose either an internal Mac click (which wouldn't work on my review software) or an external MIDI click, and set your keyboard to transmit on MIDI channel one. Then you press the Record button at the top of the edit window and start playing. The notes appear on the screen as you play, without stems or beams. There is an option to split notes into different staves, such as right-hand and left-hand piano parts, which is very useful. You can also record Program Changes, Pitchbends, Channel Pressure, Controllers, and Modulation data, but this will not appear in the score, although these will play back via MIDI. The display scrolls as the music plays, and a marker appears at the start of each new bar to help indicate where you are. This is useful when you are playing back to check where to make your edits. You then have to guess the durations and beam the beats as with other forms of entry.

VOICES & CHANNELS

THERE ARE TWO reasons to "voice" notes in Encore. You may wish to have a staff with more than one independent line of music, say for four-part choral music, or whatever. Another reason would be to allow you to assign separate voices to a staff so that you can use a different sound for each voice or part. Each staff can be assigned to one of 32 MIDI channels (using both modem and printer ports) and you can also divide the music on each staff into as many as four voices each assigned to a different MIDI channel. You can then highlight these parts separately if you want to edit them, such that everything but the selected part on the stave is greyed out. This is very useful when composing your music and making alterations. The Notes menu contains a Flip Stems command to allow you to have stems on different parts going in different directions on the same stave - very useful. Using the Staff Sheet window you can enter a MIDI program change number for any staff or voice you want. Unlike some of the better sequencer programs which offer fancy customisation options for program changes, you are limited to using the numbers 1-128, which may not be the way your synthesiser numbers its patches, although it is not too difficult to make the translation - just tedious. The Staff Sheet dialogue box also allows you to enable or disable a staff from playback, or to solo one or more tracks.

OTHER FEATURES

AMONGST ENCORE'S OTHER features there are reasonably flexible text entry and lyric entry options, X in the time of Y tuplet options, various clef types, and a useful selection of the most common notation markings such as trills and accents. These markings do not affect the MIDI data that Encore uses to play the music, however, which seems a shame. The dynamics palette contains eleven markings from *ppp* to *fp*, which should suffice for most applications. Staves may be quickly transposed using the Key function in the Staff Sheet dialogue box, and intervals are identified both by name and by interval number. You can also mix (merge) the data from staves by copying one staff into the clipboard and then using the Mix Data command from the Edit menu. There are also Nudge commands to move notes up, down, left, or right, although rests can only be moved either left or right. You can also set measure numbers to appear either above or below the staves.

VERDICT

MOANS FIRST: THERE are several areas in which I think Encore could be improved: I'd like to be able to click on a note and hear it play over MIDI while I'm editing the score, and I'd like to see EPS files available along with more flexible printing options. It would be useful if some of the MIDI data (modulation and pitchbend) could be notated in some way, although I realise that there are practical problems with this - such as what exactly is the modulation modulating, and how much is the pitch bending. I would like to see something like a standard Notation File format, like the MIDI File format, so that you could swop files between various notation programs, just as you can swop files between sequencer programs, without losing all the formatting information. The manual is OK, but only just OK - certainly not as good as Music Prose's excellent manual.

So what do I like? Well, the number one features have to be the real-time MIDI note entry facility and the fact that the program is intuitive to use, and consequently easy to learn - both important points for people who may not use this program every day of the week. The program is optimised for music composition more than for publishing and printing, which is not a bad thing, just something you should be aware of when deciding if Encore is the program for you. And finally, Encore is not copy-protected, which is a brave move on the part of Passport, for which they should earn the praise of all serious users of their music software. I look forward to the day when software copy-protection is completely discarded, as it causes more problems for the users than it prevents piracy. Nice one Passport. ■

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VINYL TAKES

The Zawinul Syndicate
Black Water
CBS LP

The sleeve notes for *Black Water* (by executive producer Dr George Butler) speak of Joe Zawinul's music as drawing on a Whole Earth Catalogue of Music, and of the great man himself as "one who administers to the problem-plagued on a daily basis, pulling people together with laughter and song", a medicine man who heals people through the power of his music; they also reveal that Zawinul conceived of the nine tracks on *Black Water* as a book which tells a story, and that he sees the album's title as referring to "the vast sea of black humanity surrounding the ruling white minority in South Africa". So now you know.

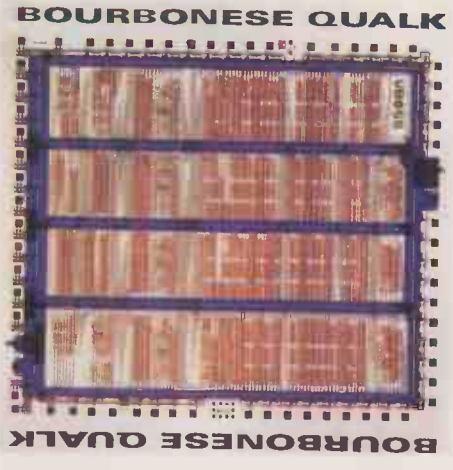
This is the second album from The Zawinul Syndicate, the band which Zawinul formed after Weather Report split. A syndicate, of course, is an association of people organised to promote a common interest; in this case the common interest would appear to be Zawinul's music, as this is very much a *Zawinul* album rather than a group album.

Black Water is a less varied record than its predecessor, 1988's *The Immigrants*. The sophisticated harmonic side of Zawinul's music as exemplified by the dreamy, floating ballads he excels at (check out 'You Understand' and 'From Venice to Vienna' on *The Immigrants*) have been squeezed out in favour of his earthy, organic compositional style complete with trademark snaking synth lines, weaving their way through and above an undergrowth of bustling percussion and droning bass notes. The exception is provided by two Thelonius Monk tracks, 'Monk's Mood' and 'Little Rootie Tootie', which, ironically, given Zawinul's authentic jazz background with the likes of Ben Webster, Coleman Hawkins and Cannonball Adderley, have an overridingly synthetic quality which simply doesn't convince. The (synthesised) arrangements and the playing are just bland.

Other tracks like 'In The Same Boat', 'They Had a Dream', 'Carnavalito' (a spirited live version of a track off Zawinul's 1985 solo album *Dialects*), 'Familial' and 'Medicine Man' confirm Zawinul's main preoccupations. If you're a long-time fan then you'll know there's nothing new in all this. Truth to tell, there's nothing particularly new in the music, either. Unlike veteran be bop drummmer Max Roach and Zawinul's one-time mentor Miles Davis, both of whom are open musically to new influences from younger musicians (Roach is currently working with hip hop musicians), Zawinul wants to do everything himself. Unfortunately, the musicians he uses seem to be too much in awe of him to do anything more than slot into the roles he's pre-defined for them, and consequently his music is becoming absorbed in its own reflection. The album's sleeve notes point out that, as a touring jazz musician, Zawinul has had the opportunity to "absorb and synthesise much of the rich musical traditions of various cultures throughout the world". While it's to his credit that he has avoided simplistic pick 'n' mix solutions to the definition of a multicultural music, traditions are about more than timelessness: they are constantly being (re)invented. Zawinul, on the other hand, is like a retired traveller reliving memories of times long past while the present unfolds itself in front of younger eyes.

Black Water isn't a bad album, and I for one will always buy a new Zawinul record, but he isn't about to spring any surprises and I find that a shame. ***St***

Bourbonese Qualk
My Government Is My Soul
Funfundvierzig LP



Subverting the bass drum pattern from Ultravox' classic 'Vienna' and laying it bare at the opening of an album in 1990 is a calculated risk. Whether or not it's a risk worth taking depends on whether you have somewhere constructive to take it. Bourbonese Qualk took the risk but only succeeded in dragging it over 5'20" of varisped vocals and guitar fx. It was *meant* to be atmospheric (that's why they called it 'Guilt'); it *is* painful.

Having exorcised their guilt, the Qualk raise the tempo and add ethnic percussion and vaguely oriental sounds to the formula of heavy bass and atmosphere. There's still nowhere to go, but the journey's lightened up; now it can either be enjoyed for what it is, or relegated to a more comfortable place in the background - most of it. 'Eist' is one exception: we're back to big drums and a lone (male) voice screaming "listen". Why? This sort of thing works well for the likes of Front 242, but serves no purpose on the Qualk landscape. How much more interesting was the Sylvian-esque 'Know Your Enemy' that preceded it. And the following 'Knock' with its whining (synthetic) bass, and ethnic pipes and percussion. Curiously it reminded me of Mick Karn in various solo moments.

There's half an LP here. If you're looking for Front 242 or The Young Gods, then you'll find something here - but probably not as much of it as you'd like. If you're sensitive to some of the other areas that have been touched, you're going to see it as an album of missed opportunity. I'll pass. ***Tg***

As my best mucker Tim "Gene Simmonds" Goodyer has oft been heard to say, the pop charts of this fair nation have a lot to answer for. Why do we get so many demos in for review sounding exactly, and I mean *exactly* the same? Because the boys (and girls, no sexism in the Skum column, especially since the Great MT Sexism Debate) who send them in have all been listening to the same trite teenybop pop off Radio 1 and think that must be the way to do it. Well, be warned, it's not the way to get a good review outta me.

OK, **Tim Donovan**. So you got your patch published in MT a while back, and emboldened by this success, you put song to tape, stuffed it in a Jiffy bag and sent it off (with every part of your anatomy crossed) for the informed opinion of a discerning MT critic. Well, you've got me.

Tim Donovan

With the aid of only a Roland D50, Kawai K1M, Ensoniq EPS, a fair bit of trendy analogue from what I can see, a Tascam 244 Portastudio and Alesis Midiverb II, Mr Donovan has performed a feat of almost breathtaking mediocrity. Now don't get me wrong, this is by no means the worst tape I've ever heard: the arrangements, if cliched, are competent and smoothly executed, voicings are appropriate, recording quality is very good for a Portastudio demo. But there's so much missing - like originality, depth, decent lyrics, any emotion genuinely conveyed and not simply synthesised and laid on with a trowel. Bland, gobsmackingly predictable, like Curiosity, Billy Ocean and Alexander O'Neal chucked into a Ronco Krap-O-Matic, finely minced, disgorged and tinted palest peach.

There are three tracks on Tim's tape, namely 'Love So Good', a laid-back, mid-tempo, early '80s disco smoochy wriggler (oh, take me back to my youth...); 'People', a tragic ballad with a message, I think, with slightly drippy guest vocals from Jo Clifton; and 'Now You're Gone', which I can't even think of anything to say about, except that you can sing the 'hook' (?) of the first track over the top and it fits perfectly.

It's a shame to hear obvious playing and arranging talents squandered on this kind of undistinctive, uninspired pap. My advice to Tim is to throw out his entire record collection (I know what's in there) and resist the temptation to lapse into mushy musical and lyrical sentimentality. Alternatively, he could get himself a recording contract and become very big in Yugoslavia.

Right! Next. 'My name is Jesse and I'm from Chelmsford in Essex'. (And I want to work with children and animals). No seriously, Jesse Wilson's three-track demo came perilously close to dissipating the cloud that usually descends on me when it's Demotakes Time. Though this young man (a mere sprog of 20) made the classic mistake of kicking off with the worst track on the tape, 'Release Yourself' a fairly tedious funky workout which almost had me prematurely ejecting, a distinct improvement occurred in the vicinity of the second track 'Snowball'. This track was acceptable in the extreme, a wash of moody, glittering chords pinned down with a tight, effective rhythm track - no heaviness, somehow more a feel than an overt presence, and a warm, mellow bassline. To this immensely uplifting track, Jesse's added tasteful licks from his Aria Pro II guitar and then allowed the music to speak for itself. Gently funky in the nicest possible way, unhurried and beautifully orchestrated, this track stands by itself and should certainly have been first on the tape. Incidentally, Jesse admits to having been a drummer for some considerable time; this probably explains the excellence of his rhythm programming (and out of politeness, I won't tell the one about the drummer and the bishop). A quick word on the last track, 'Blaze'; this starts out unpromisingly with a stocky, unimaginative funk bassline and a dodgy sax solo patch, but has spots of potential, like the bits in the chorus where the EMT10 piano sample supplies a jazzy counterpoint to the bass. To my ears, the first and third tracks, though competent and with some potential, sit uneasily with the distinction of 'Snowball', which is in an altogether different class and style. You can't ride two horses with one bum, Jesse, as a northern clod I know once told me, and if I were you I'd choose to develop that side of your musical persona demonstrated in 'Snowball'.

As you the reader are doubtless slavering to know the details of Jesse's kit, they are as follows: Korg Poly 800, Juno 60, Yamaha EMT10, Alesis HR16, Hohner bass, Aria Pro II guitar, a selection of effects and a Tascam 244 multitrack. All Jesse's songs are constructed with a singer in mind, and he's at present looking for one, who must be, and I quote "Extremely powerful and versatile". He adds that he's willing to travel so you needn't be based in his area. Interested parties should contact the MT office (whose beleaguered staff will no doubt love me for that one).

As the man in the Kit-Kat commercial said, "You look awful, you sound terrible, you can't sing: you'll go a long way". That pearl of wisdom might have been written for our next guests, **If It Fits**, a six-piece band from Port Talbot in West Glamorgan. They play what they call Hi-tension Rock/Pop. The line-up comprises vocals, guitars, bass, saxophones, keyboards and drums/backing vocals, and the band's three-song demo, *Struck*, was studio recorded at Reel Sound in Cardiff. Let me give you a sample of the general tenor of the enclosed biog: "Vocals: Kevin Christopher, Age 21. Kevin's first band, he had no previous singing experience. Kevin uses a Peavey Microphone and Yamaha effects. Kevin works in Retail". (Read shelf-stacking in Tesco?) Now let me give you a sample of the enclosed letter to MT's demo reviewer: "I understand your (sic) primarily interested in mega/multi synth sequencer bands producing either Bananarama backing tracks or new age filmscores for *Blade Runner*". Well, if the band had ever cast a jaded eye over the contents of MT, they'd be familiar with the type of musics MT covers, and would know that it's neither of the above. So much for a congenial friend-making letter, I hate them already. Anyway, I put the tape on and I'm not disappointed - it's as bad as it deserves to be, weak, flabby pop from a group of people who sound as though they're simply going through the motions the way they've heard it on countless records from the likes of It Bites (spot the similarity in the name). The singer croons in the time-honoured fashion of Bros or Brother Beyond, only worse, and the bass player would like to play in the time-honoured fashion of Mark King, only he's unfortunately unable to do it in time to the music. In short, it's the same old same old.

Having duly slagged off the music, I'm reminded of the comparative success of It Bites and the universal wisdom of the Kit-Kat man. Draw your own conclusions. Apparently, If It Fits are a much sought-after live band in South Wales and the South West (though I can't see the songs improving much in a live context). As long as they stay there, I'm a Happy Camper. ***Skum***

MIDIVERB III

Having already enjoyed its second coming, the Midiverb is now on its third - so what have Alesis added to their already successful formula for 1990? Review by Nigel Lord.

IN OUR RUSH to condemn the system by which we are constantly entreated to upgrade in favour of "this year's model", few of us, I suspect, ever spare a thought for the hapless designer whose job it is to see that we surrender to our acquisitiveness and reach for the cheque-book or credit card. But consider the lot of the designers at a company like Alesis: not only have they been lumbered with their own reputation for releasing gear which has consistently broken all barriers in terms of cost/performance, they also have rivals like Applied Research and Technology (ART) breathing down their necks, fighting for every inch of ground they gain.

I refer here, of course, to the battle of the budget reverbs, which, since the release of the original Midiverb in all its plastic-cased, controlless glory, has raged in R&D departments across the world - well, America and Japan, anyway. Following the emergence of Yamaha's hugely popular SPX90, a few years ago, it quickly became clear that the way forward was the area of multi-effects, where a single unit was capable of providing reverb, chorus, ADT, flanging and delay in various combinations - and, of course, under the control of MIDI.

The manufacturers would, I'm sure, argue that this simply represented the next logical step in reverb unit design, but I have a suspicion it had something to do with musicians and studio engineers soon realising that having 30 or 40 different reverb patches to play with sounded great, but trying to discern more than about a dozen of them within the context of the average mix was damn near impossible.

Whatever the reason, the user (as is so often the case with mass-market equipment), has come out on top, and with the current crop of machines offering three or four simultaneous 16-bit stereo effects at about the same price you'd have paid for a unit with three or four different 8-bit reverb patches a few years ago, there seems little for us to complain about. Certainly, this new level of sophistication has made them a viable (and cost-effective) alternative for guitarists and other instrumentalists - the days of dead 9V batteries and flangers taking the short way off the front of the stage may soon be over. There's no doubt that the specifications of the Midiverb III - the latest in Alesis' range of budget reverbs - would put your average double bucking, tube screaming, electric cry-baby effects pedal to shame: 16-bit, 16Hz-15kHz ±1db, 0.1% distortion and a dynamic range of 85dB - it features four fully-programmable effects, 100 factory and 100 user programmed patches, stereo operation and extensive MIDI control. Of course, it *is* finished in a rather conservative shade of black as opposed to the electric puce more familiar to our guitarist friends, but I'm sure even they could learn to live with it.

THE FAMILY

IN THE ALESIS scheme of things, the Midiverb III slots in just above the Midiverb II (which, I understand, is still available) and the altogether more sophisticated Quadraverb. It achieves this status by virtue of being programmable - which the Midiverb II is not - but having fewer effects and a slightly less impressive spec than the Quadraverb. Actually, given the multiple effects of which each of these units is capable, it is perhaps a little odd that Alesis should have stuck with the *verb* suffix in the naming of their products. I'd have thought they might be tempted to move away from the kind of name which suggests these are simply reverb units. But then, I don't suppose Alesis need any marketing lessons from me. All the same, people with no prior knowledge of this kind of unit (our guitarist friends, for example) might well undervalue the Midiverb III - and that would be a shame.

The three other effects of which the Midiverb III is capable are delay, chorus (including flanging) and EQ. The last of these, EQ, though not, perhaps, an effect *per se*, is nevertheless highly useful on a unit such as this, as it can be applied individually to the input signal and to any of the other three effects, making it possible to determine the 'colour' of the reverb, for example. More on this later.

Being designed primarily for use in studio racks, the Midiverb III is a 1U-high, 19" rack unit with all controls situated on the front panel. These comprise: three rotary controls for audio Input, Output and Mix levels, a three-digit LED display, a pair of increment/decrement Value buttons, Program and Store buttons, Edit and Bypass buttons, selectors for the four main effects groups, three MIDI function buttons plus Mix, Configure and Modulation buttons. All audio inputs are high impedance for optimum signal matching to external gear, and this may include a directly connected microphone if you're prepared to put up with a little extra noise.

In common with most reverb/effects units these days, the Midiverb can be fed from a mono or stereo source - a stereo output being the result in either case - and when used in conjunction with a mixer, the Mix control makes it possible to separate dry and effected signals for connection through a send and return loop. Incidentally, though overall output level is not programmable, it is possible to program the dry/effected levels of reverb and delay using the Mix button. The chorus/flanging level, however, is fixed. Finally, there are Signal present and Clip LEDs to provide visual indication of input levels and the onset of distortion.

I won't insult you with a description of the Value, Edit, Bypass, Store or Program number buttons, but Configure and Modulation require a few words of explanation. In edit mode, Configure (in conjunction with the Value increment/decrement buttons) is used to determine the signal flow options available within the Midiverb. For example, in some configurations the chorus effect is connected directly to the output whilst in others it is applied to the input of the reverb or delay effects. There are 15 configurations in all, consisting of various effects combinations - though in all cases, the input filter of the EQ section comes first in the chain.

"In some configurations the chorus effect is connected directly to the output, whilst in others it is applied to the input of the reverb or delay effects."

In a number of configurations, the Delay section is used to provide a pre-delay for the reverb to simulate the effect of very large rooms, whilst in others it is used as a conventional digital delay. Rather disappointingly, delay time is limited to 100ms in all but two configurations, and even here a figure of 490ms represents the upper limit. So if, like me, you enjoy writing percussion tracks which use delay as an implicit part of the rhythm, you're likely to find the Midiverb somewhat restricted, particularly on slower tracks. On a more positive note, the manual contains individual block diagrams for each of the 15 configurations, and lists the various effects possibilities available from each.

MIDI MATTERS

THE MOD (MODULATION) button provides you with the option of MIDI control over various parameters on the Midiverb using keyboard pitch wheels, modulation wheels, aftertouch, velocity, note numbers, sustain or volume pedals and breath controllers. The six parameters available for control are reverb decay time, reverb level, delay time, delay level, delay regeneration (feedback) and chorus speed - giving a total of 48 routing options together with control of modulation amplitude by either a positive or negative amount. This kind of facility, as you might imagine, makes the Midiverb highly useful in live situations, where a player may find it difficult to move away from his or her instrument - another indication, perhaps, ➤

➤ that Alesis were looking to extend the appeal of this unit beyond that of the home and semi-professional studio user.

MIDI control proper is established using the MIDI button and MIDI Mapping Program and Internal Program buttons situated on the bottom right of the front panel. MIDI mapping is less complicated than it sounds and is simply a means of setting up the unit so that program change numbers sent via MIDI may be directed to any of the Midiverb's 200 programs. As the manual points out, without MIDI mapping, selecting MIDI program number 23 would always select Midiverb program number 23 - which would defeat the object of MIDI patch changing somewhat.

Setting up a MIDI map is quite straightforward: once in edit mode, the MIDI Program button is used to set the number of the external controller whilst the Int Program button is used to set the program number of the patch you wish to access with it. Incidentally, all mapping functions are global and cannot be stored with individual programs.

IN EFFECT

IN KEEPING WITH its status below that of the Quadraverb, programming is restricted to two parameters for each of the four effects. These are accessed by first selecting the relevant effects button and then pressing the Edit button once for the first parameter, and again for the second. The first of the two reverb parameters, Reverb Algorithm, offers you a choice of 20 different reverb types from a list which includes halls, chambers, rooms, plates, reverse and gated effects.

The overall decay of each of these effects can be adjusted using the second of the two available parameters, Decay Time. This is quite straightforward in operation apart from its use with gated reverb effects where it is used to determine the length of the gated sound, and on reverse reverb where, for obvious reasons, it has no effect at all.

"Beyond a certain point, you can do little to a reverb program which will benefit the music - the Midiverb III keeps you on the right side of that line."

Combined, these two parameters provide a surprisingly wide range of reverb effects, and unlike some units I've used, the range is fairly consistent, so there is less chance of defaulting to one or two tried and trusted settings each time you switch on. And don't forget, the judicious application of a little high frequency roll-off (courtesy of the EQ section) can provide extra interest in terms of sound colouration should it be required.

When describing the Midiverb III as being stereo (as I did earlier), I may have given the impression that this applied to the delay section too, which it doesn't. Of course, in practice, being restricted to mono delays means little more than not being able to set up those intensely irritating 'ping-pong' effects which seem to crop up on most units these days (if you think you've just unearthed an underlying prejudice of mine, you'd be right).

Control over delay consists of two straightforward parameters for adjusting Delay Time and Regeneration (feedback) - which, when you think about it, is really all you need. As explained earlier, the maximum 490ms delay is available only in the last two configurations (14 and 15), which do not include any reverb effect. In all other configurations a delay time of 100ms is the most you have to work with.

To be fair, I really think you need to look at the delay section as being included primarily to provide pre-delay for the reverb programs rather than as a fully-fledged effects section in its own right. And this being the case, actually having a half-second delay at your disposal in any form can only be regarded as a bonus.

As with reverb, the first edit parameter in the chorus section allows you to choose the algorithm which forms the basis of each program. A total of 24 algorithms are available, divided equally between chorus and flanging effects. These two groups are then sub-divided to each provide six mono and six stereo effects, varying in intensity - from small to big depth, as the manual so quaintly puts it. The second parameter, Chorus Speed, gives you control over the modulation rate of the effects - pitch in the case of chorus and time in the case of flanging.

Switching between edit parameters in the EQ section is effectively to switch between input signal EQ and effect EQ. As explained earlier, the high-cut filters which form the basis of the Midiverb's EQ section may be applied individually to either. Roll-off is at a fairly sedate 6db/octave so it's not possible to produce extreme effects, but with a working range of 13kHz down to 160Hz in 30 steps the filters are quite effective, particularly when simulating the natural high-frequency roll-off which occurs in any reverberative environment.

Once again, we're looking at a facility which has been included primarily as a means of producing more convincing reverb effects, but it does have its place in tailoring the overall sound of the unit, which for those without individual EQ controls on the effects loops on their mixing desks and so on, should prove quite useful.

I should point out that in addition to the increment/decrement Value buttons, programming may also be carried out using the main bank of buttons on the right of the unit as a keypad. This is achieved simply by pressing Program and inputting a value directly using the ten buttons sub-labelled 0-9. Whether you decide to do it this way depends very much on what it is you need to input, but I found myself using the keypad more and more after getting impatient waiting for the increment button to step from program 6 to program 53.

On the rear panel of the Midiverb, there are no real surprises: standard jacks are used for left and right inputs and outputs and also for the bypass socket,

which is simply a footswitch-controlled version of the front panel button. MIDI connections take the form of a single MIDI In and a MIDI Out *or* MIDI Thru socket, depending on whether the MIDI Echo function is enabled via the front panel MIDI button.

Finally, there's the simple but all-important 9V socket through which the Midiverb draws its power. As with all Alesis units, the Midiverb III uses an external adaptor, which, it should be noted, provides an AC output as opposed to the DC supplied by almost every other make of equipment - so you can't interchange adaptors. Actually, this is tied in with the fact that Alesis used to fit miniature 3.5mm jack sockets for the power supplies on their equipment. Though they prevented you from using any other make of adaptor, they had a tendency to short and produce a nasty spark if the plug was withdrawn with the supply still connected to the mains. All things considered, I think using the new sockets and sticking to the right power adaptor is the best approach.

VERDICT

AS MOST DEALERS will tell you, whatever its level of programmability, most equipment stands or falls by the presets it arrives with after leaving the factory - and effects units are no exception. The 100 ROM programs included on the Midiverb III, (despite not being described in the accompanying manual) are in all ways representative of the sort of results it is capable of producing. And for a unit retailing at just over £350, those results are pretty impressive. Without ever getting too bizarre, the programs are imaginative and cleverly conceived. In fact I'd go so far as to say, I don't think it would be possible to achieve much more with what's available. Obviously each program is likely to be tailored to suit individual applications, and parameters will be tweaked and adjusted, but it really isn't possible to stray too far from what's already provided.

I think it's fair to say that on most multi-effects units, reverb quality provides the best yardstick by which it may be judged. And the Midiverb III, sounding a lot like the Midiverb II, really can't be faulted for basic sound quality. Smooth, with none of the tendency toward "ringiness" which mars a lot of reverb programs, it moves from small, live rooms to huge empty halls with consummate ease.

And despite its inherent limitations the delay section acquits itself too - even below the 100ms mark, you can coax enough slapback echo and ADT effects out of it to make it earn its keep. The chorus and flanging effects, though not the most convincing I've ever heard, are certainly very usable, especially at the more subtle end of the range. But you do need to optimise your signal levels if noise isn't to become a problem, particularly with flanging.

On the negative side, I have to say I was somewhat underwhelmed by the three-digit LED display. Even with its restricted programming options, the Midiverb soon exhausts the range of conventional characters and starts to rely on cryptic combinations of upper and lower case letters which often defy recognition without the instruction manual in your hand. I realise that cost is a consideration here, but this kind of display should have died out years ago.

Beyond that, however, I can think of little to criticise. In releasing the Midiverb III, Alesis have effectively created a market within a market. I've no doubt that competitors will soon appear, but right now there's nothing to compare it with at the price. To my mind it offers just the right amount of programmability for an effects unit - and if that seems to imply I think some units offer too much, I won't attempt to deny it. Reverb programming is a law of diminishing returns, and beyond a certain point you can do little to a program which will ultimately benefit the music. The Midiverb III keeps you on the right side of that line and for that reason alone I'd recommend it wholeheartedly. ■

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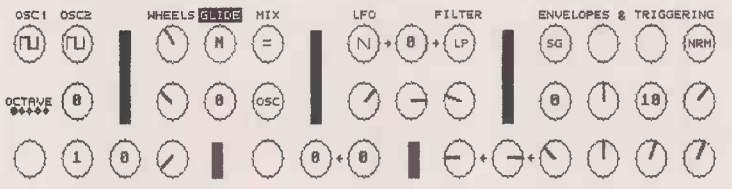
patchwork



OSC OSCAR WASHING MACHINE BASS

Michael Simmons, Bolton

This patch is intended to capture the "Washing Machine" bass feel of Dr Fingers' track of the same name. Its soft and fluid sound makes it suitable for music as varied as house (its inspiration) to new age

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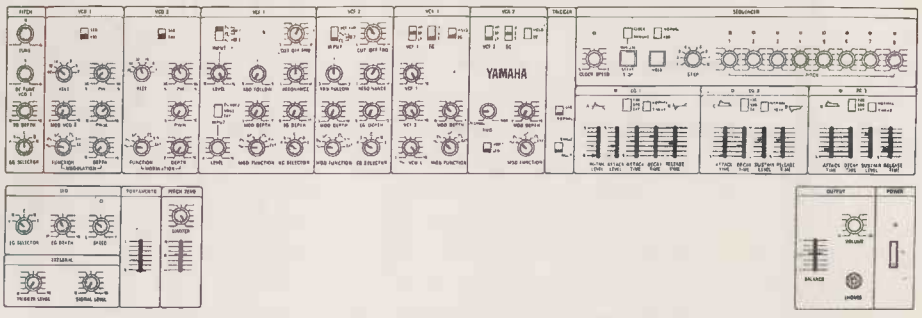

A good, solid old-fashioned analogue bass, this one, used by its creator for a wide variety of styles, but not confined only to the lower registers: it also has potential as a cutting lead sound.

STILETTO Roland D110 Pro-Sounds

Another batch of D110 sounds under the stethoscope, this time from programming house Stiletto. They are all original and programmed in-house.

All Stiletto sounds are arranged in a bank template so as you move through the bank you come across the following categories: pianos, harpsichords, plucked strings, bells, ethnic/oriental instruments, polysynth textures, crosswave sounds, chiffy breathy sounds, vocal sounds, brasses, strings, woodwind, organs, lead lines, percussive sequencer sounds, basses and an oddball sound.

This batch of sounds consists of one bank of 64 sounds with at least one in each of the categories described above. To give you an idea of what they're worth, here's a selection.

Pianos are well represented and begin with 'Yamaha EP', a bright acoustic sound with a hint of hammer against string. There are several tine pianos and a selection of electric ones.

Harpsichords includes the spicy 'TechnoKlav' and the subdued 'Baroq Soup'. Plucked strings are represented by 'Warm Nylon' (!) and '12Str.Chrs' which, while very useable, don't quite rise to the heights of the 'NylonGuit' preset (C01) on the TX81Z.

Ethnic/oriental instruments includes 'Tinkletime' which sounds as if it's being struck with a mallet (some relation to the marimba family, perhaps) but the sound doesn't die away immediately. Nice.

'Departures' seems to come under the polysynth banner, although it's mainly a vocal sound with a short rise up to the main note. This is one of my favourite sounds in the collection.

Chiffy breathy sounds include the hard-edged, panflute strains of 'Razor Pipe' and the not-so-hard-edged '87% Claret'. Lots more breathy chiffs to choose from here. Some, like 'Phhaaahh..', take us into the realms of vocal sounds which are well-represented in their own right by 'CelesteVox', 'Goilz' and 'Guyz' although the latter two are more string/brass than larynx.

Some lovely brasses here. 'Rich Bitch' is rich indeed, while 'QuiteHorny' is rather more muted.

Strings include the rather piercing 'Perfection' (in the higher registers, anyway) and 'Meta-Cello' which hinges on the percussive. 'PrettySaxy' is pretty good in the woodwind section.

There are several lead lines, the very name of which makes me think of Rick Wakeman playing a Moog - take it or leave it in 1990.

Percussive sequencer sounds include another of my favourites, 'Vel.Bounce', which is simply a hollow-sounding bass but it sounds great in the middle register playing semiquavers.

There are six basses of varying tones including 'Tight Acid' and its compliment 'Alkaliners' which has plenty of boing.

There are two oddball sounds. 'DirePetang' is a panflute which scoops up a semitone, hangs there for a second or two, gives a chiff and disappears. The other is 'RV Tinkle' which I don't propose to discuss in a family magazine (this is the *People's Friend*, isn't it?).

The voices are available on voice sheets, Dr T's-compatible files, or a free sound injector written by Caged Artists. This reads caged Artist synth files and loads them into the synthesiser and runs as an ST desktop accessory.

Stiletto produce sounds for a variety of synths and samplers. Send for their list; at the bottom you'll see the tag line, "Now there's no excuse for ho-hum sounds!". How right it is. And check out the price below - no, it's not a misprint. It's cheaper than many music PD demo programs. Buy it D110 owners, buy it! ***Ian Waugh***

STILETTO
Casio CZ Pro-Sounds

In spite of being called the "poor man's DX" on occasions, Casio's CZ synths have retained the popularity they quickly attained on the launch of the CZ101 in nineteen-hundred-and-frozen-to-death. Interest in new CZ sounds continues as the stream submitted to our Patchwork column bears witness.

These voices from Stiletto come in ten banks of 16 and are available in Genpatch and CZ-Android format, on voice sheets (let your fingers do the typing), QX5 datacassette or with a free PD Librarian/Patch editor for the ST. Unfortunately, the internal voices of the CZ101, for example, can't be named, so unless you have an editor like CZ-Android you are deprived of experiencing the wit of the Stiletto programming team. For the benefit of CZ101 owners everywhere we'll refer to sounds here by both name and number.

As with the Stiletto's D110 sounds, the patches here are original and programmed in-house. Again, these sounds are arranged in a bank template, and fall into similar categories as those for the D110: pianos, harpsichords, plucked strings, bells, ethnic/oriental instruments, polysynth textures, crosswave sounds, chiffy breathy sounds, vocal sounds, brasses, strings, woodwind, organs, lead lines, percussive sequencer sounds, basses and an oddball sound.

The sounds are organised in banks of two (1A and 1B, 2A and 2B and so on) and each pair roughly follows the above layout.

Bank 1A begins with several electronic pianos. Stiletto reckon the CZ is not capable of a convincing acoustic piano sound (there's a challenge to all you programmers out there) so none are included.

'Invert FilterENV' (1A9) is a fat string-like sound with lots of sustain in the release phase, followed by a soft whoosh. 'Metal Bass 1' (1B13) is rather tasty, too.

Can't resist mentioning the oddball sound in 1B, 'Biddleyzang!', which plays a triple attack on a note which sustains while a higher-pitched whine/drone appears and slowly falls in pitch. Very atmospheric.

More electric pianos in Bank 2A. Of note is 'EPNO 08 Digiring' (2A4), a sort of rich, electric harpsichord with lots of string and sustain. Nice.

'Filter Cres 1' (3A10) produces a filter-sweeping crescendo - well named, Stiletto. The oddball sound, 'SEQ plink + echo' (3B16), produces a sustained plink followed by three echoes when you release the key.

More pianos reside in Bank 4A including 'EPNO 16 Hard' (4A4) which is verging towards a harpsichord. There are more filter sweeps with 'Filter Plux 3' (4A9) and a heavy fretless bass in 'Fretless 2' (4B15).

Bank 5B contains the rich 'Axo Para Brass' (5B1) and 'Reedy/Hissy Org' (5B6) which sounds to me as much like a bassoon as an organ. There are also some useful analogue bass sounds in 5B14 and 5B15.

The collection contains many short sounds suitable for sequencer riffs, a selection of bells and lead sounds. I suppose if I wanted to be picky I could complain that there were too many pianos and percussive sequencer sounds and too few instruments (harmonicas, guitars and organs, for example, although there are a number of organs). Though this, of course, is based on personal preference. I did like the analogue-type sounds and the sweeps in particular.

As a package these sounds represent tremendous value for money and are well worth the readies. Wholeheartedly recommended to CZ owners everywhere. Now, where did I put my acoustic piano patch. . . ***Ian Waugh***

Prices: *D110 Pro-Sounds £5; Casio CZ Pro-Sounds £10. Both prices include VAT. (Overseas add £2 p&p).*
More from *Stiletto Sound Systems, 14 Nelson Street, Dumfries DG2 9AY. Tel: (0387) 65276..*

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COMPLETE SYSTEM: CX5M, large keyboard, Drumtraks, Prommer, EX800, mixer, leads, £500 ono. Steve, Tel: (0387) 720133.

ENSONIQ ESQ1 with up to the minute software, brilliant cond, £750. Tel: Cambridge (0223) 351489, eves.

ENSONIQ ESQ1 with sequencer expansion, cased, £575. Wanted: Mirage and X7000 samplers, 1040ST. Tel: (0742) 589282.

ENSONIQ ESQ1 keyboard, expanded sequencer and cartridge, £599 ono; Casio CZ230S, £75; Realistic/Moog synth, £50. Tel: 061-928 3112, days; 061-980 6237, eves.

ENSONIQ SQ80, £850 or swap analogue synth module, plus cash. 1" Ampex tapes, Tanrak. Tel: 01-367 1720.

ENSONIQ SQ80, immac cond, hardly used, £750. Tel: (0788) 812555 X382, days; (0327) 42256, eves.

ENSONIQ VFX, £1200; SQ80, £800 ono. Both as new, home use only. Tel: 061-366 5081.

HAMMOND X5, Leslie 760. Old friend, sadly missed, £650 ono. Tel: (0533) 555576, work, or (0533) 545114, home.

HOHNER PIANET T electric piano, good cond, £90. Tel: (0252) 510403.

KAWAI K1, £350; keyboard combos, Toa KD1, £185; Carlsbro Cobra 90, £195. Or offers. Mike, Tel: Leeds 499985.

KAWAI K1M, boxed, RAM card, £285; Kawai R100 plus latin sound chip, £250. Andy, Tel: (0223) 237397, eves.

KAWAI K5M, £399 ono; Azden graphic EQ, £50. Wanted: D550 and DX7/TX7 editor. Tel: (0672) 870473.

KORG DELTA analogue polysynth, excellent strings, great for "Acid', £150. Swap for TR626 or TR707. Tel: (0924) 824967.

KORG DW6000 and flightcase, excellent cond, £250. Tel: (03552) 25217.

KORG DW8000, plus flightcase, boxed, £490. Tel: Worthing (0903) 200669.

KORG M1, as new, boxed, manuals, £1200 ono. Tel: 01-800 9785.

KORG M1, as new, £1150; Roland D50, as new, £900 ono. Together £2000. Dave, Tel: (0249) 713396.

KORG M1, new, with box and leads, £1100. Andy Miller, Tel: 01-940 8070, office hours.

KORG M1, only 3 wks old, home use only, £1250. Tel: Wigan 212472, days or Standish 425790, eves.

KORG M3R rack, £690; Juno 2, £390; Casio CPS700 piano, £270. Tel: (0686) 627648, after 6pm.

KORG MONO POLY, 4 VCOs, vgc, £180 ono; Siel mono synth, £50 ono. Tel: (0332) 700707.

KORG POLYSIX analogue programmable polysynth, including CP flightcase, £300. Andy, Tel: Cambridge (0223) 412201.

KORG POLY 61 programmable analogue synth, digital control, arpeggiator, excellent cond, boxed, manuals, £280. Tel: (0276) 71673.

KORG POLY 800, hard case, good cond, £160 ono. Tel: (0392) 214518.

KORG POLY 800, £130 ono. Tel: (0326) 315027.

MINIMOOG classic synth, fat sounds, manual, good cond. Offers. Tel: (0202) 536657.

MOOG PRODIGY, boxed, manual, vgc, £100; Roland SH101 with adaptor, vgc, £90. Gavin, Tel: (0494) 440903, eves.

MOOG ROGUE dual-oscillator monosynth, boxed, manual, good cond, £120, wonderful acid machine. Tel: (03543) 5239.

ROLAND A80, superb MIDI keyboard controller, new, £1100; Roland S330 sampler, monitor, 30 disks, new, £850. Tel: 01-361 0421.

ROLAND ALPHA JUNO 1 with PG300 programmer, £250; Yamaha TX7, £180. Dave, Tel: 01-743 3055.

ROLAND CMU810 (SH101 in compact module), mint, with psu and manual, £110. Tel: (03543) 5239.

ROLAND D10, boxed, manuals, vgc, £600. Wanted: Ensoniq VFX. Nik, Tel: (0353) 699586, after 6pm.

ROLAND D10, boxed, manuals, £600; Trace 715 bass combo, brand new, £400. Tel: (0942) 492300.

ROLAND D10, flightcase, editor, £595; Akai XE8, £200. Wanted: D110 and TX7. Tel: South Wales (06333) 65758, eves.

ROLAND D10 with ROM card, excellent cond, £530 ono. Brian, Tel: Bradford (0274) 630000.

ROLAND D10, P330 piano module, Roland MT32, PR100, £1200. Darren, Tel: (0276) 25373.

ROLAND D10, boxed, manuals, immac cond, £600; Alesis Microverb/Microenhancer, £50 each; Boss micro compressor, £50. Tel: Manchester (0942) 492300.

ROLAND D10, boxed, as new, £575 ono or part exchange Korg M1/M1R, (mint). Tel: Cardiff (0222) 693298.

ROLAND D10, mint cond, Dr T's editor, voices, £550. Or swap Korg M1, cash your way. Tel: (0793) 531635.

ROLAND D20 workstation disk sequencer, £700; Yamaha FS30, fabulous organ, digital memories, £2250. Tel: Waterlooville (0705) 253275.

ROLAND D20, £750; RX5, £300; Roland S10, £300 and disks; Peavey PA system, £550. Tel:

(0324) 665149.

ROLAND D20 with PG10 programmer and all library disks, still in box. Bargain at £850. Martin, Tel: 01-773 4568.

ROLAND D50, boxed, never gigged, immac cond, £900. Tel: (0279) 37500.

ROLAND D110, mint cond, will accept £440; also Juno 106, good cond, £330. Tel: (0254) 32646.

ROLAND D110, 8-way multitimbral, 32 partial poly, 63 drum sounds, £450 ono. Crispin, Tel: 01-927 8601, work; 01-607 6598, home.

ROLAND JUNO 6 polysynth, with stand, manual, £250 ono. Tel: Hoddesdon, Herts (0992) 442060.

ROLAND JUNO 60, mint cond, boxed, stand, manuals, £300. Tel: (0274) 495411.

ROLAND JUNO 106 polysynth, excellent cond, £300. Charlie, Tel: (0482) 564182.

ROLAND JUPITER 6 plus flightcase, great sounds, MIDI, manuals, excellent cond, home use, £550 ono. Tel: 041-887 9249.

ROLAND JUPITER 6, perfect cond, £400 ono. Tel: Burton-on-Trent (0283) 31700.

ROLAND JX10, flightcase, ROMs and RAMs, immac, manual, etc, £925 ono; Roland D50, flightcase, ROMs and RAMs, £850 ono. PG1000 programmer, £60. Richard, Tel: 01-349 3448.

ROLAND JX3P, vgc, £185. Michael, Tel: (06333) 2267.

ROLAND JX3P, £250; MC500, £400; TR909, £200; Yamaha FB01, £110; Teac A3440S, £350. Tel: (0462) 421485.

ROLAND JX3P MIDI sequencer, Yamaha RX17, boxed, as new, £450 complete or £350 and £150 separate. Rory, Tel: (080423) 527.

ROLAND MKS7 Super Quartet, multitimbral, £100; Kawai K1, £300; Atari 1040 + Pro24, £450; Juno 106 with stereo drums, £125 ono. Tel: Hawick, South Scotland (0450) 75081.

ROLAND MKS70, JX10 module, plus PG800 programmer, four ROM cartridges, perfect cond, guaranteed, £550. Tel: 01-788 5687.

ROLAND MT32, inc case, Cheetah MK5 keyboard, £300; Atari colour monitor, new! £210. Tel: (0742) 738675.

ROLAND MT32, home use only, all leads, £275; Casio CZ101 with software for the Atari ST, £120. Tel: (0482) 571088.

ROLAND MT32, mint cond, £229; Yamaha QX1, (80,000 notes), 8 MIDI outs plus 10 disks, £375. Tel: 091-565 4334.

ROLAND PG100 programmer for D50, £140; Kawai K1, £380; K1/Atari voices, £16. Tel: (0475) 30181, after 6pm.

ROLAND RD300, MT100, custom sound Cub 60W, mint cond, £1900. Will split. Tel: York (0347) 21174.

ROLAND SH101 with sequencer, excellent cond, £100 ono. Acid House rools! Martin, Tel: (0272) 720302.

ROLAND W30 workstation, £1350 ono; Fostex 160, 4-track, £300. Tony, Tel: Oxford (0865) 726767, after 7pm.

SCI MULTITRAK, Roland D110, Korg KMS30, Korg D110, Korg D220, Fostex X15, Fostex MN15, Desctech 16:2. All manuals, leads, £1500. May split. Tel: (0323) 37612.

SIEL DK600, touch sensitive, 5 octave MIDI synth, £295; Korg 707 multitimbral synth, £295. Tel: 01-997 2179.

TECHNICS PR40 piano, six and a quarter octave, weighted keys, velocity sensitive, digital, ensemble, accomps, £995. Tel: (0256) 881179.

TECHNICS SXK500, mint cond, nice sounds, stand, boxed, manuals, £550 ono. Tel: Scunthorpe 856904, after 6pm.

TECHNICS SXK700, year old, home use, full MIDI, £550. Guy, Tel: Suffolk (0842) 766273 or (0284) 750942.

VOX CONTINENTAL II, two manual organ, stand, pedals, vgc, £195. Tel: Cambridge (0223) 262255.

YAMAHA CP80, flightcase, £799; Hammond C3 + Leslie, £799; Yamaha KX1, £299; Yamaha DX7, £449; Casio FZ1, £649. Tel: (0782) 723101.

YAMAHA CS40M monster duophonic, dual-oscillator synth, 20 memories, high knobbage ratio, excellent cond with manual, £200. Tel: (03543) 5239.

YAMAHA DX7 with flightcase, £600; Drumtraks, SQ64 sequencer, £250. Nick, Tel: Folkestone (0303) 276281.

YAMAHA DX7, 2 ROM cartridges, hard case, excellent cond, well looked after, £525 ono. Tel: (0276) 32249.

YAMAHA DX7, boxed, £500 ono. Tel: (0602) 410475.

YAMAHA DX11, TX81Z with an aftertouch and velocity-sensitive keyboard, perfect cond with RAM card and manual, £380; Hard case for same, £35. Tel: (03543) 5239.

YAMAHA DX21, all manuals, excellent cond, £300. Piers, Tel: (0753) 652332.

YAMAHA DX21 keyboard, absolutely mint cond, great sounds, acid bass, a real bargain, £225. Tel: 01-485 6441.

YAMAHA DX21, good working order, split/layer stereo output, low mileage, bargain at £200. Tel: (0978) 365809.

YAMAHA DX21, perfect cond, manuals, tapes, hard case, £300. Tel: 01-455 1224.

YAMAHA DX21, good cond, £250. Richard, Tel: 021-472 3396.

YAMAHA DX21, mint cond, case, extra voices, manuals, excellent sounds, bargain at £250. Tel: (0388) 730512, after 4pm.

YAMAHA DX21, extra voices, manuals, sustain pedal, music stand, good cond. Quick sale, hence £280. Tel: (0202) 303051.

YAMAHA DX27, good cond, £250; Korg EX800, £80; Roland TR505, £100. Simon, Tel: 01-504 3260.

YAMAHA DX100, as new, flightcase, manual, power supply, bargain at £150. Tel: Norwich (0603) 56781.

YAMAHA DX100 synth, perfect working order, and tape, £120. Peter, Tel: 01-958 8017. Edgware.

YAMAHA EMT10 piano module, great sounds, £200. Write: Mark McLaren, Emmanuel College, Cambridge CB2 3AP.

YAMAHA FE50 (organ), perfect cond, will demo, £995 ovno. Tel: (0440) 85 721, eves.

YAMAHA PS6100, all manuals, excellent cond, £600. Piers, Tel: (0753) 652332.

YAMAHA PSR80, full-size keyboard with MIDI, home use only, £270 ono. Tel: (02576) 4183, eves.

YAMAHA PSR6300 keyboard, 32 rhythms, 48 voices, programmable, touch sensitive keys, plus RAM pack, £370. Peter, Tel: Edgware 01-958 8017.

YAMAHA TQ5 sound module/sequencer, £230; Boss DR220A drumbox, £75. Both new, boxed. Tel: (0273) 493659.

YAMAHA TX81Z, mint cond, £190. Michael, Tel: (06333) 2267.

YAMAHA TX81Z, (4-op), 8 voice, multitimbral module, 260+ voices, excellent features, boxed, guaranteed, new, £280. Tel: (0273) 594197.

YAMAHA TX802, £575 ono; Akai MX73 mother keyboard, with case, £250. Tel: 031-554 4836.

YAMAHA YPR6 portable keyboard, excellent cond, £175. Tel: Swindon (0793) 729256.

SAMPLERS

AKAI S900, V2.0 software, loadsa disks, perfect cond, £850 ono. Ian, Tel: (0207) 592211, eves.

AKAI S1000 stereo sampler, 100 hard-disk sample library; Steinberg Cubase. Both home use only, offers. Tel: (0772) 27560.

AKAI X7000 sampler, dynamic keyboard, sample editors, samples, £530; Atari 520STFM, sequencer, etc, £260. Steve, Tel: 051-526 0235.

AKAI X7000, immac cond, separate outs, 70+ disks, home use only, £540. Tel: 01-878 0512.

CASIO FZ1, 2Meg, mint cond, £650. Michael, Tel: (06333) 2267.

CASIO FZ1, immac, dd/hd, inc 20 disk library of pro sounds, £700. Tel: (0734) 668709.

ENSONIQ MIRAGE DSK, plus MASOS, large library, £450 ono; Atari 1040 STFM, new, £400. Tel: (024 027) 310, anytime.

ENSONIQ MIRAGE with brilliant library and 50K sampling board fitted. Bargain at £400, in box. Martin, Tel: 01-773 4568.

HOHNER HSI, 16-bit keyboard sampler, FZ1 clone plus hard case, £700. John, Tel: (0322) 221545.

KORG DSS1, flightcased, plus library, £650; Kawai K5m, £475; Rhodes Stage 73, mint cond, £250 ono. Tel: (0253) 861425 or (03917) 2937.

MICROVOX sampler, screen editing, MIDI, large library, needs CBM64 and disk drive, £150. Tel: 01-471 9501.

ROLAND S50 sampler, monitor, disk library, stand, home use only, immac cond, £750. Tel: 091-272 4732.

ROLAND S330 rack sampler with 50 disks, mint cond, boxed, £795 or offers. Tel: (0709) 815644.

SEQUENTIAL PROPHET 2002 sampler, rack mount, £500; Roland 201 space echo, £125. Tel: 01-249 3727.

SEQUENCERS

ALESIS MMT8, boxed, sale due to Atari, £110. Dave, Tel: (0293) 21648.

KORG SQD1 with disks, home use, £180. Michael, Tel: (06333) 2267.

KORG SQD1, £230; Alesis MMT8, £170; Korg DDD1, £250; Yamaha TX81Z, £250. Tel: 01-533 3207,

eves.

ROLAND MC300, unused, boxed, etc, totally as new, £200 ono. Tel: 01-643 8530, eves.

ROLAND MC500 MK II (more memory than the Mk I), plus MRP software, mint cond, £700. Pete, Tel: (0273) 739335.

YAMAHA QX1 8-track sequencer, saves to disk, £400 ono. Tel: 061-432 9924.

YAMAHA QX3, 16-track, disk drive, DX7 syco retrofit, Roland JP6, £399 each ono. Tel: 01-446 3098.

YAMAHA QX21, excellent cond, £120. Piers, Tel: (0753) 652332.

YAMAHA QX21 sequencer and Casio CZ1000 synth, great multitracker package, only £250. Or split. Tel: (0353) 721523.

DRUMS

AKAI XE8, 16-bit drum sample player, £200 or swap for TX7. Tel: South Wales (06333) 65758, eves.

ALESIS HR16:B, 1 month old, buy or swap, offers. Yamaha PSS570, £120; Casio HT3000, offers. Michael, Tel: 01-923 1463, 7pm-11pm.

ALESIS HR16, as new, £250 ono. Pete, Tel: 061-835 2041, days; (0204) 44834, eves.

BOSS DR220A drum machine, mint with box and manuals, £90. Tel: (03543) 5239.

CASIO RZ1 sampling drum machine, boxed, manuals, large library sounds, patterns, £150. Mike, Tel: (0420) 541172.

EXCHANGE RX17 for Yamaha EMT10 expander. Tel: D'ton 286618.

KAWAI R50E, nearly new, manual, boxed, could deliver in South West, £210. Tel: (0395) 278830.

KORG DDD1 drum machine, plus 6 voice cards, £550 ono. Tel: (0602) 410475.

ROLAND OCTAPAD, in good cond, £150. Neil, Tel: (0773) 540234, after 5.30pm.

ROLAND R5, new, boxed, immac, £325; Roland MPD4 MIDI pads with holders, £125. Tel: 091-537 4817.

ROLAND TR505 £130 ono. Tel: (0784) 244670, after 7.30pm.

ROLAND TR505 drum machine, boxed, manuals, excellent cond, £120. Tel: (0438) 832 408.

ROLAND TR505, separate outs fitted, perfect cond, bargain at £109. Sean, Tel: (05242) 62258. Now!

ROLAND TR505 rhythm composer, boxed, manuals, £130. Brian, Tel: Notts (0602) 224922.

ROLAND TR606, MC202, new Ibanez modulation delay II, £95 each. Write: Biz, 33 Woodville Road, Cathays, Cardiff CF2 4DW.

ROLAND TR707, classic drum programmer, MIDI, sync, PSU, boxed, immac cond, £200. John, Tel: 061-973 7162. Manchester.

SIMMONS SDS1000, 5 pads and rack, as new, £450 ono. Tel: 061 998 3494.

YAMAHA RX5, top of the range drums plus three cartridges, (95 programmable sounds), £399. Tel: (0353) 721523.

YAMAHA RX7, 100 12-bit samples, (kit, percussion, DX7 etc), individually tunable over MIDI. Loads of features, PSU, manual. Az, Tel: (080423) 554.

YAMAHA RX11, manuals, flightcased, £200; Dynamix 6:2 mixer, flightcased, £160. Kevin, Tel: (0773) 606545.

YAMAHA RX15 drum machine, £180; CZ101, £150; Studio 100 4-track, £240. Dominic, Tel: (0732) 451909.

COMPUTING

AMSTRAD PCW MIDI interface plus 12-track sequencer software, £30. Tel: (0592) 774966.

ATARI 520STFM, lots of software, £275; Roland D10, £530 ono. Brian, Tel: Bradford (0274) 630000.

ATARI 520STM, 1Meg, disk drive, software, joy sticks, £350; DX21, £250. Dominic, Tel: Sevenoaks (0732) 451909.

ATARI 520STFM plus SM125 mono monitor, as new, £315 ono. Tel: Pontypridd (0443) 400559.

ATARI 1040STFM + Pro12, with MIDI extras, six months of careful use, £330. Chris, Tel: (0232) 328269, days.

ATARI 1040STFM with Pro24 V3 and updates, 6 months old, £425 ono. Derek, Tel: Scotland (0450) 75081.

ATARI SC1224, colour monitor, £100. Was £250, boxed, as new. Kevin Aspinall, Tel: 01-725 4181/2/3.

C-LAB Creator, Export (64 MIDI Chanels), C-lab Briefcase, brand new, "trade", £350. Tel: (0392) 876675, eves.

C-LAB, adaptor, new, multitasking, version 2.2, manual, dongle, £300. Piers, Tel: Hatfield (0707) 271641.

C-LAB Creator, V2.2, registered, £200; Steinberg synthworks, K1 editor, £50. Mike, Tel: 01-735 7094.

C-LAB Creator, sequencer, V2.1, £120. Trevor, Tel: (0787) 223450, eves.

C-LAB Notator for sale, offers? Or swap monosynth or drum machine, effects. Tel: (0745) 338094.

COMMODORE AMIGA 500, complete system, costing £1500+ for £700. Andy Miller, Tel: 01-940 8070, office hours.

COMMODORE CBM64, disk drive, 700+ disks, brand new Sony MSX, worth £2000+ together. Both £500 ono. Andy, Tel: (0703) 872117.

DIGIDESIGN Sound Designer, £150; Softsynth, £120; registered, Pro16 V2.3, MIDI interface, and tape sync, £80. Tel: (0773) 602601.

DR T'S KCS 1.5 for Atari, £100. Mark, Tel: (0566) 85 645, after 5pm.

KAWAI K1 voice editor librarian, (Soundbits), bargain at £35; Atari ST inc banks of voices. Dave, Tel: (0742) 368709.

STEINBERG CART 32 (Pro16) for Commodore, £100; CBM64, drive, cassette, offers? Tel: 01-491 9484 X275 or 01-328 0244.

STEINBERG PRO24 V2, V3, both with manuals, plus dongle, £180. Nick, Tel: 01-534 5064.

STEINBERG PRO24 V3, with latest manual, lots of free PD music software, only £175. Tel: Derby (0332) 810933.

WEEK OLD Amiga 520 + 1Mb. Swap for Atari ST 1040 monitor extdrive sampler, music, software. Tel: (0246) 822379.

YAMAHA CX5 MkII, £270 ono; disk drive, mouse, DMS, YRM501, FM arrancer, 1000+ voices, etc. Rndi, Tel: (0227) 272455.

RECORDING

ALESIS MIDIVERB + MXR 01A, fully programmable, digital stereo reverb, £210 ono. Will split. Tel: (0255) 434217.

ALESIS MIDIVERB 2, boxed, £185; Roland RE301 chorus echo, £175. Tel: (0272) 714232.

BIAS ELECTRONICS, 4-track, half-inch pro machine, £550; half-inch tape, £5 each; 1" tape, £12 each. Alan, Tel: (0603) 592453.

BOSS BF2 flanger, mint cond, £30. Mark, Tel: (0656) 650820.

BOSS BX16, 16-channel mixer, EQ, etc, manual, £250! Richard, Tel: (0273) 732811.

BOSS RSD10 sampler-delay, mini rack series, £90 or swap FB01. Tel: Glasgow 041-332 8427.

FOSTEX A4 4-track open reel recorder, little use since recent service, good heads, nice machine, £375. Tel: (03543) 5239.

FOSTEX X15, needs attention, £150 ono. Tel: Norwich (0603) 760426, 9-5; (0603) 860024, eves.

SIMMONS SPM 8:2 MIDI programmable mixer, 1U, £175. No offers. Tel: 01-675 0651.

SONY PCM701 with Sony C9 Betamax for digital mastering, £660. Dave, Tel: 01-743 3055.

TANNOY STRATFORD speakers/monitors, £89 the pair; 10-band stereo graphic EQ, £40. Both perfect cond. Tel: (0353) 721523.

TASCAM 246 portastudio, as new, vgc, reluctant sale, £450 ono. Sam, Tel: 01-897 0928.

TASCAM PORTA 2, 6 months old, never used, £400. Tel: (0922) 611046, eves only.

TOA MR8T, 8-track recorder, XRI 300 SMPTE sync, only 3 months old, excellent cond, £900 for both. Tel: (0606) 883689.

YAMAHA MT2X portastudio, very latest, 6:4 channel mixer, sync facility, upgrading, £350. John, Tel: Manchester 061-973 7162.

YAMAHA R100 stereo multi-effects rack unit, MIDI, PSU, £90. John, Tel: Manchester 061-973 7162.

AMPS

AMCRON DC300A power amp, £300. No offers. Tel: 01-675 0651.

CITRONIC PPX450 PA amp, completely unused, 0.5k power, £550. David, Tel: Suffolk (0449) 766373.

CUSTOM SOUND Colt 115B, 100W combo amp, never used, cost £380. Offers or swap WHY. Andy, Tel: (0742) 645123.

HH 100W PA amp with 150W cabs, £250; Roland MR64C cartridge, £25. Tel: (0462) 421485.

PERSONNEL

DRUMMER to program loads of 70s fusion/'Progressive Rock' style, MC 500II rhythm sequences. Nick, Tel: (0243) 512257.

KEYBOARD PLAYER seeks female singer/songwriter. Influences: Act, PSB's, Cold Cut. Leicester area. Adam, Tel: (0533) 673815.

KEYBOARDS required for four piece, good songs, need good player and gear. Basingstoke based. Tel: (0734) 811449.

MALE VOCALIST wanted, for Magnum/Journey type music. Good strong voice essential. Mark, Tel:

(0766) 85368, eves.
NEW AGE electro-hypnotic house fanatic wants someone to join him in underground scene. Jason, Tel: (0472) 341773.
VOCALIST REQUIRED for progressive rock/pop band. Looks and stage presence essential. John, Tel: 01-570 2837, eves.
VOICE, ELECTRONICS etc, 19, seeks similar and/or guitarist for ideas and gigging. Depeche, Almond, Sylvian, Tangerine Dream. Jason, Tel: 01-958 3491.
WANTED: dance music orientated singer/songwriter, talented, attractive (M/F). Dedicated with a desire for fame, fortune and a good laugh. Exeter/Plymouth area. Az, Tel: (080423) 554. Now!
WANTED: male vocalist, age 17/21 for synth band in Bradford area. Neil, Tel: (0274) 573960 or (0274) 600166.

MISC

ATTENTION all Acid House fanatics - 11 CD box set - street sounds, history of House music. Tel: (0255) 434217.
COMPOSITE monitor to suit Roland S330, S550 or CX5 computer, £40. Steve, Tel: (0652) 52854, after 6pm.
GROOVE MIDI for Juno 6/60, with fitting instructions. Needs sockets + PCB connectors, £50. Mark, Tel: Tyneside 2514672.
MEICO Patch Commander pedal (controls multiple patch changes), £150. Richard, Tel: (0273) 732811.
NOMAD Axxeman guitar effects rack, (chorus, overdrive, filter etc), £150. Tel: (0606) 883689.
ROLAND D10/20 ROM cards, 256 excellent sounds, £100. Write: Mark McLaren, Emmanuel College, Cambridge CB2 3AP.
TAKAMINE EF340S electro-acoustic guitar, with lockable hard case, good cond, EQ and volume control, £250. Tel: (03543) 5239.

WANTED

ALL EFFECTS required, also VZ1 and any studio gear. Cash waiting, will collect. Tel: 061-678 8088.
ARP AXXE wanted. Swap yours for a DR110 drum machine. Tel: (0394) 450545, after 5pm.
ARP 2600, any cond, cash ready. Also Minimoog, Prophet, EMS, Oberheim. Anything considered. Tel: 051-630 1068.
BACK ISSUES of MT wanted. E&MM November 1981, January 1987, November 1987 or photocopy of article. Chris, Tel: (04747) 6381.
CASIO CZ3000 and/or CZ Android. Must be mint cond. Tel: 061-881 9170, after 5pm.
CELESTION SR1 speakers and controller wanted, £500 waiting. Tel: 041-332 8427.
CHEETAH MK5V, Alesis MMT8, MTS30 sync. Swap/haggle Epiphone semi + OM40, perfect. Why? Steve, Tel: (0733) 241516.
DIGITAL PIANO or fully weighted MIDI keyboard for under £800 for use by charity. Tel: 01-669 0717.
EMS Synthi AKS. Brian, Tel: 01-735 7816.
ENSONIQ MIRAGE, good cond, £375-400. Alan, Tel: (0524) 65201 X2285, ask for Room B229.
ENSONIQ VFX wanted, swap for Roland D10 and cash. Nik, Tel: (0353) 699586, after 6pm.
EPS samples wanted to swap, to help establish library. Cal, Tel: Glasgow 041-357 1207.
KORG POLY 800 swap for my Korg Delta polysynth. MIDI 2CV convertor wanted. Kevin, Tel: 01-785 6323.
MOOG SOURCE or Oberheim OB1 wanted urgently. Yves, Tel: Manchester 061-721 4516 or 203 4865.
PG1000 for (D550, D50) in exchange for RK100 remote keyboard, black, mint cond, boxed. Tel: (0642) 470680.
ROLAND D550 synth module wanted. Cash waiting. Brian or Reg, Tel: (0384) 395067/892308.
ROLAND JUNO 106 wanted for £250; TR727, £80; MC202, £50. Must be vgc. Bobby, Tel: 01-485 0131.
ROLAND TR808 or TR909, in good cond, £300 for any. Tel: (0532) 680956, after 6pm.
ROLAND TR909, any cond, very ill, dead or even OK. Kevin, Tel: 01-785 6323.
ROLAND TR909 wanted for cash or swap my nearly new Kawai R50e. Tel: (0395) 278830.
ROLAND TR909, TB303 and Pro 1 wanted, in good cond. Jimi, Tel: Leicester (0533) 547132.
TECHNICS SL1200 or SL1210's decks wanted. Cash waiting. Graham, Tel: (0604) 843536.
WANTED: D50 voices - Eye, Crystal, Leister. Also JX10 voices. RAM/Atari format. Robin, Tel: Lincoln 752458.
WANTED: "M" for Atari. Tel: Derby (0332) 766167.
WANTED: Roland MT100, MT32, or MKS7. Will collect within 50 miles of Cambridge. Tel: (0223) 262255.
WANTED: TX7, TX81Z, K1R or K1M, and MIDI software. Steve, Tel: (0652) 52854, after 6pm.
WANTED URGENTLY! Roland MT32 in good cond. Cash ready and waiting. Mike, Tel: 01-455 6479.
YAMAHA FB01 editor for Commodore C64. Desperately wanted. Please ring me. Andy, Tel: 041-332 8427.
WANTED: Yamaha TX81Z, manual, good cond, around £200. Will collect in NW area. Roger, Tel: Cardiff (0253) 883858, after 6.15pm.

ad index

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Fill in the form to a maximum of 15 words (one in each box), and send it to: ***MUSIC TECHNOLOGY Free Ads, Music Maker Publications, Alexander House, Forehill, Ely, Cambs CB7 4AF.*** Please print clearly in BLOCK CAPITALS. The ad must reach us on or before **Monday, 19th February** for inclusion in the April 1990 issue of MUSIC TECHNOLOGY – late arrivals will be printed in the next available issue.

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