MUSIC AND THE MICRO

The musical micro has come a long way since the days of the silent ZX81. Since the first noisy home machine, the Vic 20, was introduced, the potential for music making has grown and grown. Now many people use their computers as controllers for musical instruments, or as instruments in themselves, exploiting the fast data handling and powerful editing facilities which are second nature to the computer.

But remember, although a computer can polish your performance, it's the musician who must come up with the ideas. Although we'll be looking in this supplement at sound creating software, composition programs, MIDI software to control synthesisers, sound sampling and digital drum machines, it would all be meaningless without the creative input from the programmer. Whatever micro you own, you should be able to get more out of your music with the right software and hardware. ◀

Atari arrangements

WHILE THE ST'S ARE BECOMING POPULAR, THE EIGHT-BIT MACHINES ARE STILL MAKING MUSIC AS MARK JENKINS DISCOVERS

Although the Atari 520 and 1040 models are fitted with a MIDI interface, the music business has been slow to adopt either machine for serious use.

One early MIDI package is the Treesoft MIDIRecorder from Mopro, sold in the UK by SECS. The package simulates an eight-track, sixteen MIDI channel tape machine complete with a picture of a tape recorder with spools turning during play mode. Recording is real-time and there's a variable count-in before starting. Seven replay speeds are available and the Timing display which is pulled down using the Atari's Mouse allows you to offset the start of each

pattern by a variable amount. The MIDI display allows you to set a MIDI channel for each track and enter a note of what synthesizer was connected.

Each track can hold up to twelve hours (!) of music and information can be copied from one track to another. "Ghost Tracks" can be created with the same notes but different delay and other settings without using up any extra memory, and sections of music can be labelled with a name (such as "intro") which allows you to locate them immediately. You can sync to drum machines and other MIDI devices and Mopro plan a MIDI scoring package, a Music Programming Language and a Yamaha DX7 synth editor. ◀

Mopro, Mittevrouwensingel 93, 3514 AL Utrecht, Holland. Tel: 030-714897: SECS, 514 Alum Rock Road, Alum Rock, Birmingham B8 3HX. Tel: 021 328 3585.

Coming up for the 520ST is the Steinberg 24-channel MIDI composer.

Steinberg are thinking of adding a hardware interface to provide footswitch and other functions denied to packages which just use the Atari's built-in MIDI socket. They point out that the MIDI Out on the 520 is also wired to give MIDI Thru on the unused pins 1&3 (see Owner's Manual p.75), so it's possible to obtain MIDI Thru functions using a divided cable. However, their package will eventually have its own dedicated MIDI Thru socket.

Steinburg, 68 Wilsdon Way, Kidlington, Oxfordshire OX5 1TX, 08675 5277.

Recently launched for the 520ST was a version of Activision's The Music Studio. This is similar to the existing Commodore 64 version except that it is largely mouse-driven and has improved MIDI facilities.

Notes can be entered from the computer keyboard or from a music keyboard in step time and are displayed on a musical stave or a colour block chart. The computer can play up to three voices and MIDI instruments can sound up to a total of 15 voices simultaneously.

Music can be edited with the cursor and blocks can be copied, deleted and inserted. Note values can be changed and notes can be tied, divided by bar lines, sharpened and flattened.

Songs can be saved to disc and recalled very quickly, and a special MIDI assignment
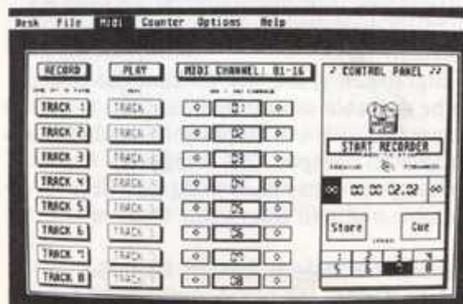
page allows you to set the MIDI channel of each sound programmed and an appropriate synthesizer patch. The program is ideally suited to the Casio CZ-101 synthesizer but will work with any MIDI equipment. ◄

For the eight-bit Atari micros, Digicom and marketing a MIDI interface with IN, OUT and THROUGH sockets, which plugs into the 1050 disk drive, and compositional software. Again, the package is ideal for the Casio CZ-101 but is suitable for any MIDI equipment.

The 400, 800, XL and XE computers can be used and Digicom can supply interface, cables, software and a MIDI tutor, as well as a CZ-101 if desired. The 16-track MIDI recorder software is organised like a tape machine, with RECORD, PLAY and STOP commands, real time recording with velocity and pitchbend response, step time recording, MIDI channel switching, track merge and copy, punch in/out, transpose, delay, mute, autocoreect, tempo change, track loop, clocking options and much more. £169 for interface and software. ◄

The Two-Bit Replay sampling system works on any 8-bit Atari with 48k memory. Software is on tape or disc and the unit consists of a small cartridge with a minijack lead for sound input. Sound output is via the monitor.

The Replay cartridge is not needed for the playing process, so its sampled sounds can be incorporated into a BASIC or machine code program with routines supplied. Samples can be saved onto the Atari data recorder or disc and it's possible to reload, mix, repeat and merge samples. There are two basic expansion packages – Digidrum comes with eight sampled drum sounds including bass, snare and clap, and allows you to playback up to two sounds at a time. You can program 16-beat patterns and hold up to 30 patterns in memory; patterns can be linked together into a song, and songs can be saved to disc or cassette.

Digisynth allows you to sample sounds and play them back from the computer's keyboard. Two electric guitar sounds and a selection of other effects are provided to get you started.

The Replay system is tremendous value for money and the sampled sounds (with a maximum sampling rate of 21kHz) are of reasonably good quality. Of course, the system is limited by the lack of a separate audio output and synchronisation facilities, but for less than £40 it's a bargain. The Replay sampler and basic software costs £39.95 while the Digidrum/Digisynth software on tape or disc is £4.95.

MSX melodies

MARK JENKINS COMPARES THE YAMAHA AND TOSHIBA MUSIC SYSTEMS

Toshiba's MX-10 computer (£99) and HX-MU901 Keyboard and FM synth Module represent one of the most inexpensive ways into micro music hardware, but current stocks of the system are being sold off as we speak.

The HX-10 is a conventional MSX machine with a single cartridge port. Into this fits the FM cartridge with connected keyboard, a full-sized four-octave design with three touch panels (Enter, Stop and a long Multi-purpose sensor). The Toshiba synth uses two sine wave "operators" and so doesn't have the power of the better-known Yamaha CX-5M music computer, although it has much of its basic sound quality.

Phono audio outputs on the cartridge provide an alternative to the monitor's sound; the music software loads automatically and opens with a graphic display of a keyboard and drum kit which play along with three demo tunes. The synth module is nine-note polyphonic divided between bass, chord, polyphonic and drum sounds if desired.

The main screen has ten main sections. POLY lists the sound number from 1 to 65 and controls vibrato and sustain, BASS duplicates these functions for the left hand side of the keyboard if you decide to split it

(bass parts are monophonic and the split point is at the second F#), and CHORD gives the same options and is active if the accompaniment is running.

A sequencer section records realtime performances several minutes long but there are few editing facilities beyond the possibility of replacing backing chords by pressing Stop, a new chord, and Enter on the music keyboard.

The FM sounds cover brass, piano, string, bass, metallic and abstract effects, providing much of the power and clarity of Yamaha's DX9 despite the use of only two sine wave operators. ◄

Much more powerful is Yamaha's CX5M MSX micro, which has recently received a hardware and software update. The sound synthesising module of the CX5 fits underneath the computer, and it's now possible to replace this with a new SGF-05 module costing around £100. The SCF-05 has several advantages – its format is compatible with the newer DX100, DX21 and DX27 synthesizers and it has MIDI IN facilities which allow you to use the CX5 as a multitimbral MIDI expander synth capable of playing eight different monophonic sounds simultaneously.

The software which allows you to compose on the CX5 itself has also been updated. In cartridge form, this consists of a new FM Composer package and seveal educational packages. All the new packages support the updated MIDI facilities and there is an entertaining "auto-composer" package which for the first time introduces realtime as opposed to step time programming. This is a step in the right direction for Yamaha, although there is already one real-time composer package for the CX5 marketed by the independent company DMS.

Significantly, the SGF-05 Tone Module is to be available separately from the computer, so it will be possible to add it on to an even cheaper MSX computer, although you may have to figure out a suitable multipin connecting lead. ◄

Amstrad arrangements

DAVE MAHON ON THE ELECTRIC STUDIO'S AMSTRAD
MUSIC BOX, AND CHEETAH'S FORTHCOMING MIDI,
SAMPLING AND DRUMSYNTH HARDWARE
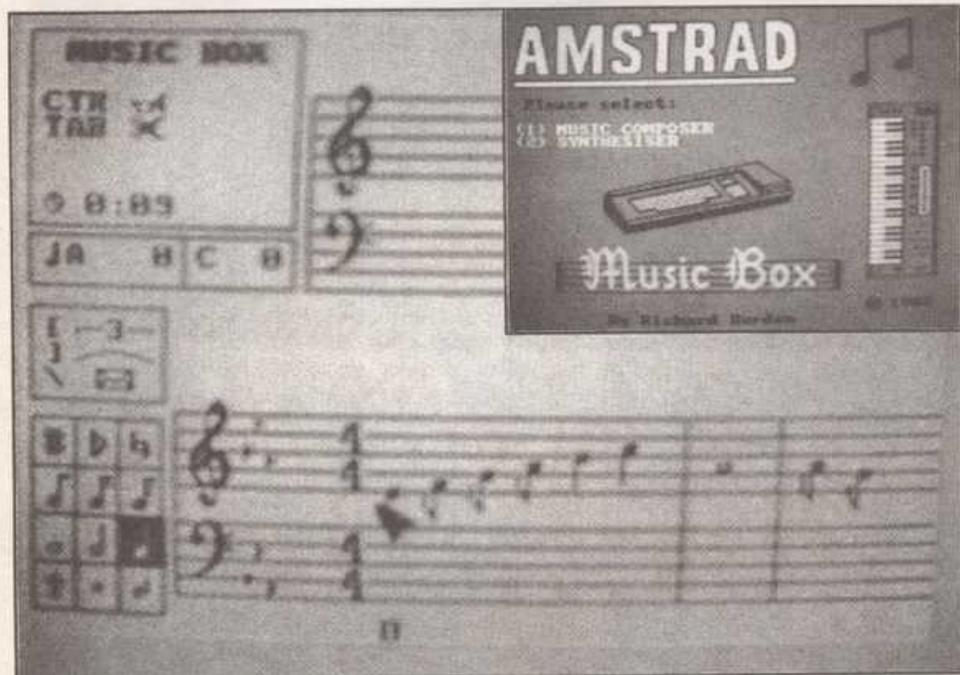
Music Box is an uninspired attempt to produce a complete synthesis and composition package for the Amstrad. To much time has been spent on the presentation, and too little on the real musical necessities; it looks like it was designed by a programmer rather than a musician.

That said, there's little left out; the disk contains two main routines, Music Composer and Synthesiser, a number of music demos and some sound presets. To kick off, you select which program you wish to run, then (after absorbing the four-page explanation of music theory) you are ready to create.

Icons

The Editor screen is a bit messy, based around the "if it's too obvious, design an incomprehensible icon" principle. The right hand side displays the treble and bass staves, the key and time signature are shown to the left, two icons give access to the editing and playback routines, a digital clock shows elapsed time (!??), and two panels show the major commands available from the keyboard.

The 0 key toggles between rests and notes, which can be placed on the staff using either the keyboard, a joystick or a light pen. Envelopes are chosen from the seven available, and you can move through the music either a note at a time or a bar at a time.

There are eight tempos settings available, and full transposition facilities, as well as

repeat commands which allow you to build more complex tunes without having to repeat whole bars of writing. There are no bar copy, block copy or more complex chaining facilities, and the printout module

is unimplemented at the moment, due to technical problems. The review copy crashed if you try to load a non-existent file.

The Synthesiser section, which has to be entered separately, allows you to define sets of seven instrument sounds, which can then be filed and used in your compositions. The main display allows you to select the envelope on which you want to work, 1-7, then define a five-stage amplitude shape using the cursor keys or lightpen. You can then define the waveshape ("tone envelope") which allows such effects as vibrato to be incorporated.

There are several demonstration pieces provided on the disk, ranging from classical pieces to the Eastenders theme. Despite the three-part harmonies, the lack of a music scroll routine makes it fairly impossible to learn anything from these, so I can't really find anything in the Music Box to recommend it to either serious music students or amateurs who just want a quick and easy composition system. ◄

Program: The Music Box
Micro: Amstrad
Price: £16.95 disk, £9.95
Supplier: The Electric Studio, PO Box 96, Luton, Beds, 0582 595222
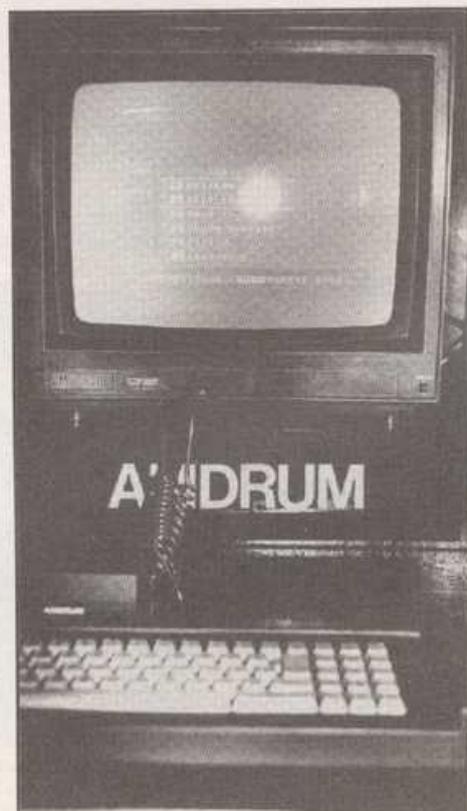
Cheetah's entire range of music products – the Spectrum, MIDI interface, and sampler, is to be converted to the Amstrad machines. The AmDrum will be first off the production line; it has already attracted large orders from chains such as Boots, which played such a big part in the success of the SpecDrum.

Like the original version, the AmDrum uses digitised samples of real sounds, which can then be arranged in real time or in step time to create realistic percussion patterns. Up to three voices can sound simultaneously, and there will be alternative sound sets made available so that you can build up your own favourite kits.

For more details of the Cheetah Amdrum, the Sound Sampler and the MIDI interface, see the Spectrum section in this supplement. Specifications will be very similar, and launch dates are around the middle of June for the AmDrum, with the Sampler and MIDI interface following in due course. ◄

Cheetah, 1 Willowbrook Science Park, Crickhowell Road, St Mellons, Cardiff, Wales, 0222 777337

CBM compositions

YOUR CHANCE TO SAVE MONEY ON THE TRON DIGIDRUM AND WIN EXECLUSIVE MIKE OLDFIELD PRIZES, AS MARK JENKINS LOOKS AT CBM 64 MUSIC PRODUCTS

SAVE £30!

Now *Popular Computing Weekly* can offer you £30 off the Digidrum's recommended retail price of £79.99. Yes, the Digidrum can be yours for just £49.99, including postage and packing. Fill in the details on the order form and send it to arrive by the first of July, and you could soon be enjoying that Top of the Pops sound at bargain prices! Ask about the add-on sound sets too! Please send me .... Digidrum 3 systems at the special offer price of £49.99 each. I enclose/cheque PO/money order/banker's order for £ .... payable to SYNDROMIC MUSIC.

NAME ....

ADDRESS ....

POSTCODE ....

Send your order form and payment to Syndromic Music, 35A Grove Avenue, London N10 2AS. Closing date, July 1st 1986.

The Tron Digidrum III is a massively impressive hardware add-on for the CBM64 which allows it to become a digital drum machine. The initial updates to the system added some outstanding new sounds, but now the digidrum is also fully MIDI-compatible via a standard interface such as those from SIEL or Jellinghaus.
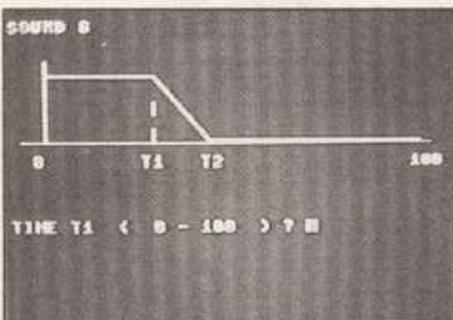
The Digidrum edge connector slots into the 64's User Port and a phono socket gives an audio output to a hi-fi. The improved software has a clearer and more informative screen display which allows you to use demo rhythm patterns or program your own. An Editor routine allows you to load drum sounds from different files and combine them into one custom file, mix sounds, change the envelope, and set output volumes. song capacity is very large indeed, around 375,000 steps, and the sound quality is now better than ever. Drum sounds include standard kit, Latin percussion, glass instruments (very Depeche Mode) and electronic drums (very Simmons). MIDI synchronisation will allow the new Digidrum to lock up to sequencers and other drum machines, and indirectly to lock to tape and even video. ◀

Syndromic Music, 35A Grove Avenue, Muswell Hill, London N10. Tel: 01-883 1335.

Supersoft's Microvox Digital Sound Editor has recently been updated but retains the same basic form. It's a hardware MIDI sampling effects unit for the C64 and costs around £230. It's monophonic and offers 0.8 second sampling at an excellent 20kHz frequency response or 17.28 seconds at 1kHz response (or anything in between).

The Microvox casing is half the size of the C64 and software is on ROM in the case of the pro system, or on disc. Audio In and Out jack sockets, MIDI In/Out ports, a ribbon cable connector to the 64's cartridges port, and fron panel controls for Gain, Mix, Output Level and Repeat complete the lineup.

The basic page display allows you to sample using an input gain bar display with adjustable threshold level, sampling rate and compander/filter. The Waveform Editor page displays the sampled sound diagramatically and allows you to to edit, loop, invert or fade it in or out. You can multi-sample until all the available memory is used, so it's possible to sample a complete drum kit of sounds to be played from the computer's keys, from a MIDI synth or from the software drum sequencer.

Sounds and sequences can be saved to disk and the software also has powerful echo and harmoniser (pitch shift) effects to alter the voice or any other sound via a microphone input. Microvox is the nearest you will get to a Fairlight on the Commodore 64! ◀

Supersoft, Winchester House, Canning Road, Wealdstone, Harrow, Middlesex, 01-690 1166.

C-Lab's Supertrack is undoubtedly the most powerful Commodore 64 MIDI compositional system yet launched. It owes a lot to the Steinberg Pro 16 system which we have reviewed, but crams more onto its single main display and runs on a wider variety of MIDI interfaces. Cost is around £115 for the disc, while the cheapest MIDI interface without drum machine sync sockets will cost only £30 or so.

Sixteen tracks of real or step-time recording assignable to any MIDI channel are laid out horizontally with channel number, on/off status, MIDI channel, velocity level, transpose value, quantise value and loop langth labelled. Tempo can be altered as the patterns play, tracks can loop around any portion of their total length quite independently, and maximum pattern length is 256 quarter notes in any time signature. 63 patterns can be held before disc dumping and used to create 8,500 note compositions comprising up to 255 patterns.

Playing can be auto-corrected for timing and patterns can be repeated in different keys or with different sections muted. Any of the 16 tracks of a pattern can be edited using a display of every single MIDI event which goes to make up the pattern, including note, velocity and patch change information.

Completed tracks can be transposed, delayed for echo effects, doubled or halved in speed, copied or "ghosted" to experiment with new velocity or transpose values, merged or "punched in" for overdubbing and saved to disc, via the MIDI interface you can link in drum machines and other MIDI equipment. ◀
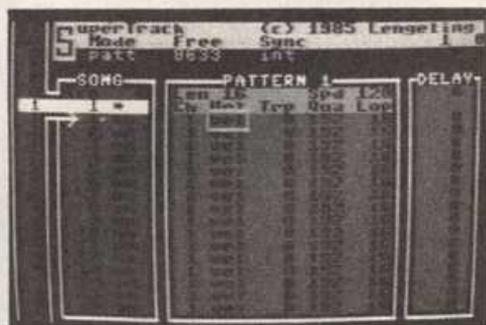
Sound Technology, 6 Letchworth Business Centre, Avenue One, Letchworth, Herts SG6 2HR. Tel: 0462 675675.

Launched at the 7th Commodore Show, the latest digital drum-machine add-on

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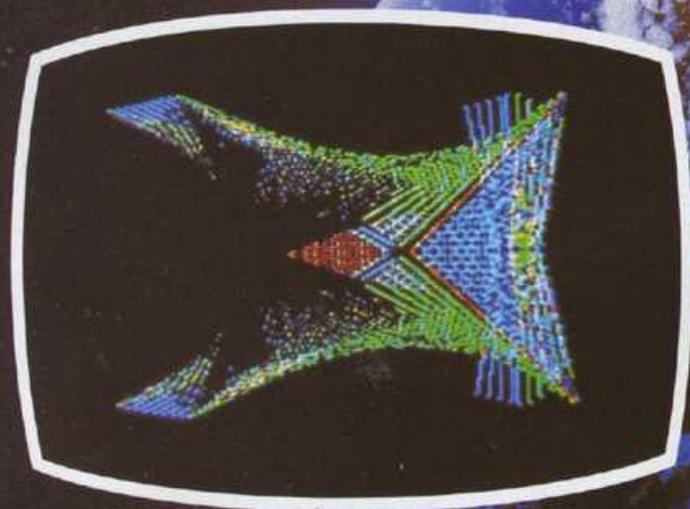
CBM 64/128

☎ Hot Line: 01-533 2918

Steinberg have a selection of new music packages aimed at MIDI systems and specific keyboards. We have already reviewed their Pro 16 sequencer which is now well establisehd, and the matching TNS Note Editor will convert its files to musical notation.

Steinberg also have a Casio CZ-101 Editor similar to the Joreth System, and an Ensoniq Mirage editor. Systems are also available for the Atari 520ST and Apple micros and we'll be reviewing the new releases as soon as they are available. ◄


OSC, 68 Wilsdon Way, Lyne Paddock, Kidlington, Oxon, Tel: 06285 5277.

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is the Rhythm King from Supersoft, a natural follow-up to their powerful Microvox sampler. As usual, the emphasis is on good programming rather than fancy hardware, and the plug-in cartridge is featureless apart from a phono plug audio output.

The initial software release is on cassette, with disk to follow immediately after. The software supports 6 samples per drum kit, with two kits available in the initial software package. Three voices can be played simultaneously, and patterns can be composed or edited either in steptime using a grid system, or in real time simply by tapping the appropriate keys. An added bonus is a selection of sampled speech sounds which allow the Rhythm King to be used as a limited voice synthesiser.

The capacity is quite amazing 255 32-step patterns which can be chained into songs with up to 255 steps of 255 repetitions. That's a lot of percussion!

Later versions of the Rhythm King will be able to incorporate samples made with the Microvox Pro sampler.

Onwers of the Datel or Tron Digidrum systems may be interested to know that Supersoft intend to make the Rhythm King software available for those products too. The hardware for all three is essentially the same digital-to-analogue convertor circuit.

Rhythm King sounds great and costs only £39.95. An excellent choice for budding Keith Moons. ◄

Supersoft, Winchester House, Canning Road, Wealdstone, Harrow, Middlesex, 01-

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New Joreth Music packages running on the company's AL25 MIDI interface include a casio CZ-101 editor which can run from within their MCS compositional program. In a stand-alone form it gives graphic displays of all the popular synthesizer's functions which can be edited from the computer.

16 sounds can be stored in the computer's memory and dumped to disc or to the synth, and you can move sounds around within the computer's memory to create sets of sounds for particular songs. Cost is £44.85 plus the interface. ◄

Joreth Music, PO Box 20, Evesham, Worcs WR11 EG. Tel: 0386 831615.

Created by Mupados for WH Smith, Datahits combines a C64 with digital drum machines and effects units to perform music from best-selling games. Included are Rambo, Never-Ending Story, Ghostbusters, Cray Comets and Hypersports (Chariots of Fire). On the B-side you'll find SoftWhere?, a simple database with comprehensive reference and index systems for compiling lists of game, record or cassette collection. The music is fun, the software is handy, the price is £4.99. ◄

Mupados, Unit 11, Llambed Industrial Estate, Tregaron Road, Lampeter, Dyfed SA46 6LT. Tel: 0570 422677.
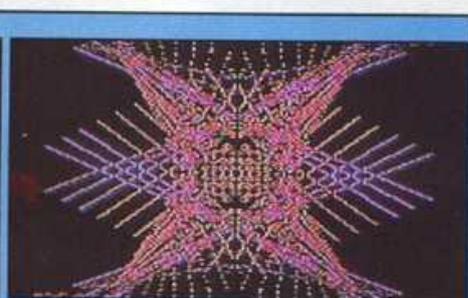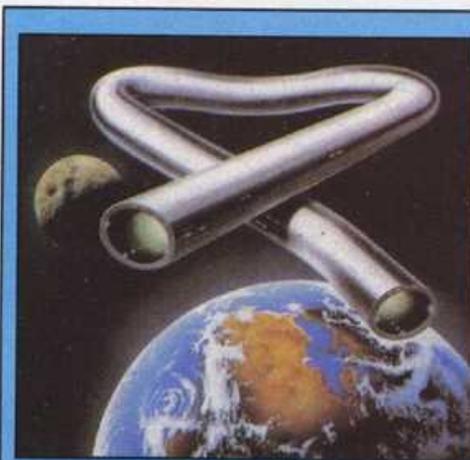
OLDFIELD SIGNED LP's, SINGLES, & SOFTWARE TO WIN

The most unusual music program yet for the Commodore 64 is Nu Wave's Tubular Bells. As the name implies, it's a complete transcription of Mike Oldfield's world-wide bestselling Seventies rock symphony, played entirely on the 64's SID chip!

The music has been entirely orchestrated by a professional musician, and manages to cram the 24 tracks of Oldfield's original into the SID chip's three voices. 23 different instrument sounds are used.

To give you something to watch as you listen, the program is accompanied by a simultaneous light synthesiser display. You can control the speed, colouration, drawing mode and symmetry of the light patterns using the 64's function keys, and there's also an auto-performance mode if you jsut want to relax and listen.

Tubular Bells costs £7.95 on cassette or disk, but we have THIRTY copies to give away in out exclusive competition – and some more unique prizes too.

THIRTY lucky winners will get a copy of the Tubular Bells software. In addition, the three first prize winners will get AUTOGRAPHED copies of the original Mike Oldfield Tubular Bells LP. PLUS a copy of the latest Mike Oldfield single. The first prize winner also gets five LP's-worth of record tokens.

All you have to do to be in with a chance of winning is to answer these simple questions.

1: What was the title of Mike Oldfield's SECOND album?
A Ommadawn B Hergest Ridge C Incantations

2: What is the last section of Tubular Bells called?
A Captain Pugwash B Sailor's Hornpipe C Drunken Sailor

3: Who introduces the last section of Tubular Bells Side 1?
A Dennis Norden B Michael Horden C Vivian Stanshall

If you think the answer to question 1 is Ommadawn, then put 1:A, and so on. Put all your answers with your name and address on a POSTCARD or the back of a sealed envelope, send your entry to Tubular Bells Contest, Popular Computing Weekly, 12/13 Little Newport Street, London WC2H 7PP, to arrive no later than July 4th. The winners will be drawn from the Editor's extra-large hat, and will be announced in the 17 July issue. ◄

Spectrum symphonies

ONE OF THE BEST-SERVED MUSICAL MICROS,
THE SPECTRUM CAN SUPPORT MIDI, COMPOSITION
AND SAMPLING FACILITIES. TED LAVITZ CONDUCTS

One of the best series of MIDI products for the Spectrum comes from XRI Systems. The MIDI interface costs around £99, and features one input and two outputs. There is also a sync socket for Roland-type drum machines.

The software provided with the interface allows you to record in step time or real time. Eight lines of polyphonic music (up to 26,000 notes) can be assigned to any MIDI channel, edited, displayed in standard musical notation, then played in sync with your drum machine.

Equally significantly, XRI plan to cater for the "small synth" market with a series of "patch editing" packages. These include editors for the Yamaha DX7, smaller 4-operator synths such as the DX100, a Juno 106 Toolkit program, sound library sets, and various MIDI-to-tape synchronisation products. ◄

XRI Systems, 10 Sunnybank Road, Wylde Green, Sutton Coldfield, West Midlands, B73 5RE, 021-382 6084.

If you want to get into MIDI cheaply, the Cheetah interface may be your best bet at only £49.95. Part of a series which includes the sublime SpecDrum and the forthcoming Sampler, the MIDI interface comes complete with software which allows you to store several thousand notes, play

sequences backwards or forwards, record in real or step time and create unusual effects by delaying MIDI sequences.

Owners or the 128K Spectrum will be interested to know that Cheetah will also be producing a Telecom-DIN Cable which will connect the 128's RS-232/MIDI socket to other MIDI equipment. Note that since the 128 has no MIDI IN facility, you will probably need to buy the MIDI interface proper to make real use of the 128. ◄

One of the most successful music add-ons is the Cheetah SpecDrum, a digital drum machine using sampled percussion sounds which can be arranged in step time or real time to create amazingly realistic drum patterns.

The SpecDrum comes with eight sampled

sounds, plus a couple of bonus sounds on the other side of the tape. Cheetah are also releasing extra kits at the rate of one every couple of months. The first is a Latin set, including various woodblock, shaker, tuned percussion and exotic sounds. More unusual is the Electro Kit, based on the trend-setting Simmons electronic drum sounds, which can be loosely represented as DOOOOM! PWEE, PWEE! CHUCK CHUCK CHUCK DOOOOM! Depeche Mode, eat your hearts out. Using the Kit Editor you can

combine sounds from different sets, and very long and complex patterns can be created, edited and saved to tape.

The SpecDrum is a must for every musical Spectrum owner, the only drawback being that it doesn't support MIDI or Roland DIN sync, but has its own tape-synchronisation system. The closest most of us will ever get to a Linndrum.

Cheetah are also working on a sound sampler for the Spectrum, if you have seen the Datel Digital Sound Sampler for the Spectrum. If you have seen the Datel Digital Sound Sampler, you will have some idea what these units can do; record a sound
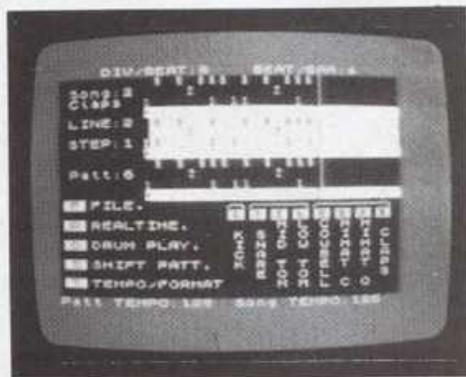
through the microphone provided, play it back at different pitches, and add various echo and repeat effects. At £44.95 the Cheetah sampler is in fact much more sophisticated than this, offering, a respectable 17.5 KHz sampling bandwidth, reverse sampling, editing, mixing, graphs, harmonising, echo and reverb, and all with the magic MIDI compatibility. Using the keyboard of any MIDI synth, you should now be able to produce those N-N-N-N-Nineteen effects in the privacy of your own home studio. ◄

Cheetah Marketing, 1 Willowbrook Science Park, Crickhowell Road, St Mellons, Cardiff, 0222-777337

Romantic Robot's Music Typewriter assumes a good knowledge of music writing, but comes with a keyboard overlay which helps you to pick things up more quickly.

The program uses conventional musical notation, and can store 16 pieces of up to 254 bars total. Three bars can be displayed at a time, and the graphics can be printed out to create your own sheet music.

Pitch range is six octaves, tempo can be varied from 23 to 255, and you have full control over time signature and note value.

Sharps, flat, naturals, and transposition are all catered for. The Music Typewriter is perhaps best suited to the serious music student, or teacher. ◄

Romantic Robot, 77 Dyne Road, London NW6 7DS, 01-625 9463

M idisoft's RAP software is designed for owners of MIDI drum machines such as the Drumtraks, Roland TR series, or the Casio sampling drum machine. RAP uses a grid system to represent rhythm patterns, and allows you to create songs using sixteen rhythm tracks of up to 1000 measures chosen from 200 patterns. You can also use the package to control MIDI synths, so the more percussive presets of, say, the DX7 become useful as drum sounds. ◄

Midisoft, PO Box 43, Romford, RM1 4EG, 01-32 1861

M elbourne House's WHAM! – The Music Box has now been converted for the 128 machine, and the 48 and 128 programs are being sold in one package (minus the Wham! tag – musical differences?).

The software version is dreadfully clever. It uses a system of interrupts to create the
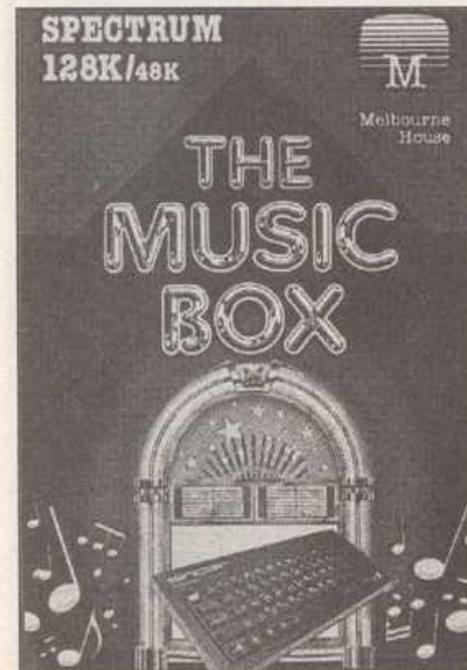
illusion of two "voices", plus percussion sounds which can be inserted into gaps between the musical notes, and can be edited to your taste. Music can be compiled into a machine code file and saved for later use in your own programs. The screen presentation is very sophisticated, with full musical stave display, on-screen editing of tunes, full control over tempo and so on. But more advanced musicians should note that all the compositions are in the scale of C Major, and there is only one note length available.

The 128 version is basically similar, but adds a synthesiser section in which you can define the envelope of the sound produced by the new music chip. Composition is very fast and easy, and despite including huge

T he absurdly-named Oliver's Music Box from Cosmic Pop (?!?) is a sophisticated music transcription program which can cope with ties, triplets, transpositions, accidentals, tempo changes and so on. Music can be displayed either a page at a time, or scrolling as the music plays. Machine code files can be saved for use in your own programs. ◄

Cosmic Pop, PO Box 475, London E4 9UD

T he Electro-Music Research MIDI interface is compatible with five programs; The Performer, which records eight polyphonic parts in real time; The Composer, a step-time sequencer; The Notator, which prints out music from the composer program; The Music Editor, which allows you to edit Performer and Composer tracks; and The Voice Editor, which allows you to build up patch libraries for a wide range of MIDI synths.

EMR, 14 Mount Close, Wickford, Essex SS11 8HG

Echo 1 music keyboard from MCCS

chunks of Basic the software works very smoothly. A recommended purchase for 128 owners. ◄

Melbourne House, 60 High Street, Hampton Wick, Kingston-upon-Thames, Surrey, KT1 4DB, 01-943 3911

S peaking of keyboards, if you have a Spectrum 128 and are wondering what to do with the sound chip; here are some suggestions; 1) try programming Terry Riley's semi-improvisatory epic "In C" in Basic and making the Spectrum perform it endlessly; or 2) look out for the MCCS Echo 1 music keyboard.

The Echo 1, a full-size three octave mechanical keyboard add-on, is already available for the BBC and CBM 64 micros. The keyboard comes complete with a simplified version of the Organ Master software which allows you to play on the 128's sound chip, using preset sounds, and to create your own settings.

MCCS also manufacture the Echosound music amplifier, a 5 watt 6" speaker unit which will enhance the sound of your Spectrum 128. ◄

MCCS, 28 Hitchin Street, Biggleswade, Beds, 0767-318844

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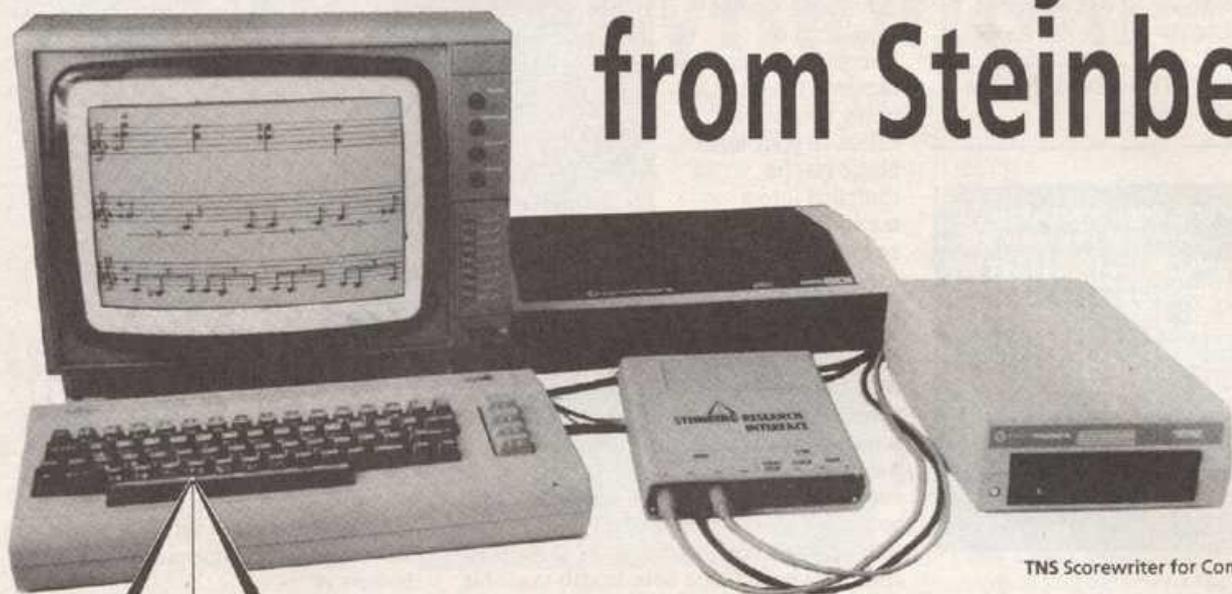
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PD915A

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The excellent MUSIC PRINTER, probably better than that of any other music software, gives a fully justified and aligned music score print-out.

A UTILITIES upgrade, available soon on disc or tape, will contain a Keyboard Module, a music file Linker, Enhanced Editing (with the option to use a Mouse) and many other useful facilities.

Send £28.75 for 16K MUSICPEN chip and 60-page instruction manual to: Dinosaur Software, 41 Cheney Way, Chesterton, CAMBRIDGE CB4 1UE or telephone Cambridge 322244 for further information.

PD912A

B.B.C. B Ballads

KEN MAYHEW DISCOVERS THE SECRET HARMONIES
LURKING WITHIN THE BBC B, USING DINOSAUR'S MUSICPEN
AND THE MUSIC 500 SYSTEM

Frequent users of the BBC's musical potential might be attracted by the convenience of a ROM program. When this is coupled with the potential for light pen control, the result is a very powerful and user-friendly package.

Dinosaur Software's Musicpen is a full synthesiser, arranger and editor package for the BBC B, designed with the benefit of music teaching experience by Sahlan Diver, with assistance from programmer Dave Chalmers. The program comes on a 16K ROM chip and uses disk or tape storage.

Musicpen's principles of operation are intended to be like that of a world processor, enabling you to handle chunks of musical data as you would text. Though it's not as flashy as, say, the Island Logic Music System – none of your windown/icons nonsense – it is in some ways more

powerful, notably in the handling of three-part harmony, where all the voices can be displayed at once.

From the main menu, you can select a demo mode, lightpen/joystick setup (a mouse option is forthcoming), the synthesiser section, printing, disk utilities, or the editor page.

The Editor allows you to select a key signature and time value from the menu, after which you can begin to place notes on the music staves. The note lengths available are shown in the lower section of the screen, with the rests below them.

The full range of notes available stretches from the C below the bass stave to the C above the treble stave. The cursor keys are used to select the note pitch, and a faster move can be carried out by using SHIFT at the same time. You can backspace to delete

notes if you make a mistake, and jump either a bar at a time, or back to the start of the piece for playback.

One drawback to Musicpen is that the tempo range is limited to six possible settings, corresponding to metronome markings of 42, 50, 60, 75, 100 and 150 bpm.

Four music parts and one percussion line can be shown simultaneously, and of course can be filed to disk or tape, under any name you require up to 6 characters long. The synthesiser section is laid out in a "graphic equaliser" style rather than the more usual "synthesiser panel" format. It consists of a number of vertical "sliders" which can be controlled using the function keys. There is a function key strip included with the package which helps you to remember the controls for this and the editor section.

Envelopes

Sound settings ("envelopes") can be stored to disk or tape in the same way as music files, but are assigned a different prefix.

The last major function of Musicpen is printout, which at the moment can only be done on Epson or Epson code-compatible machines. Dinosaur Software is working on a printer utility disk which will make other printers available, and also in the pipeline is a file linker, transposition and copying routine, and other enhancements. Musicpen, whether you go to the effort of using it with lightpen or not, is a well-designed and uncomplicated program with some very useful features. Music students especially will find it a worthwhile investment. ◄
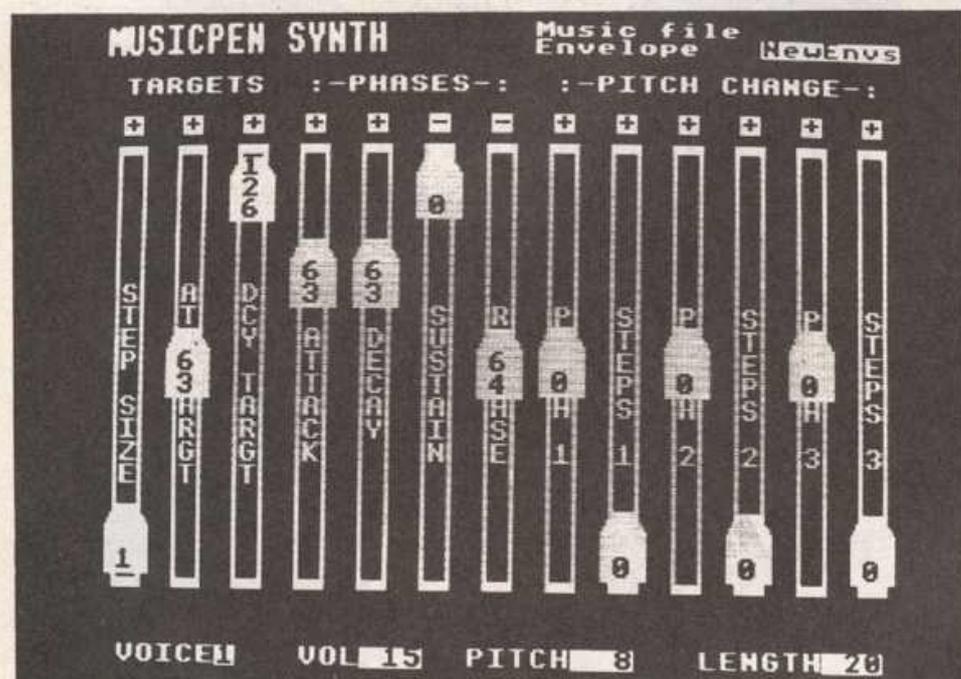
The Acorn Music 500 system has now been expanded by the addition of new hardware and software which, among other function, permits MIDI interfacing and much more sophisticated composition techniques.

Music 500 is a digital synthesiser, which can be controlled by a special music composition language, AMPLE. The language not only enables you to define complex sounds, but also to compose tunes of great complexity. The Music 500 has stereo sound outputs and comes as a free-standing unit.

The latest additions to the system are the Music 400 keyboard and the Music 200

upgrade unit. The keyboard is a full-size four octave device which can be used in all music writing functions, while the Music 200 interface contains an upgraded NUCLEUS operating system on a 16K ROM. The ROM software offers several improvements to the original operating system, including such feature as instrument libraries. ◄