Software News

INNOVATIVE TRS 80-GENIE SOFTWARE

from the professionals

NEWS FLASH!

NOW!!

Molimerx and Logical Systems of Milwaukee, U.S.A., have joined forces to bring their customers a lower costing product and faster and more efficient service.

From January 1984 all LDOS 5.1.× Logical Systems products, together with some of the LDOS (TRSDOS) 6.× products, will be available from Molimerx at the pound equivalent of the U.S. Dollar retail price. In other words, for the first time the considerable range of products of Logical Systems Incorporated will be available to the end user in the United Kingdom at the price at which the American customer can buy it in the U.S.A. All support for these products is being shifted to England, so that as from 1st January, U.K. customers can have the benefit of this important line, exactly as if it had been written and produced over here.

Adjustments for the exchange rate will be made every six months or so. We are starting with the present exchange rate of 1.48. After VAT is added this scheme results in the price schedule (plus P&P) that follows:

Name	Brief Description	Previous Selling Price	Present Selling Price
DISK/DISK	Convert a disk file to another "disk drive"!	£n/a	£ 76.94
FED II 5.1	All purpose disk file editor	£ 27.60	£ 27.60
FILE MANAGER 5.1	Utility for mass manipulation of files	£ 33.40	£ 30.30
FILE MANAGER 6.0	Utility for mass manipulation of files	£ 33.40	£ 30.30
FILTER PACKAGE 1	Filters to enhance LDOS	£ 22.71	£ 22.54
FILTER PACKAGE 2	Filters to enhance LDOS	£ 22.71	£ 22.54
FIX DISK	A collection of patches for LDOS	£ 13.80	£ 7.76
HELP 5.1	LDOS and LBASIC help	£ 17.25	£ 14.78
HELP GENERATOR 5.1	Create your own HELP files	£ 33.35	£ 33.35
HELP TEXT SOURCE	Source files for creating main HELP files	£ 17.25	£ 14.78
INVENTORY	An aid to inventory tracking	£ 82.50	£ 76.94
I/O MONITOR	Disk I/O error intercept utility for LDOS	£ 22.43	£ 14.78
LDOS 5.1.×	New generation disk operating system	£105.80	£100.28
LDOS TECH. HELP	Technical help for LDOS	£ 20.70	£ 20.70
LED	Screen orientated text editor	£ 21.85	£ 21.85
MAIL/FILE II	A mailing list database manager	£ 82.50	£ 76.94
MEMDISK	Additional disk type storage	£ 28.69	£ 22.54
QUIZ MASTER	Questions and Answers — Master includes general	£ 33.40	£ 30.30
QM GEOGRAPHY	Questions and Answers — Geography Requires Quiz Master	£ 17.25	£ 14.78
QM MATH	Questions and Answers — Maths Requires Quiz Master	£ 17.25	£ 14.78
Smal-LDOS	Miniature of the original LDOS	£ 43.70	£ 43.70
T.B.A. 5.1	Basic text processing utility	£ 51.75	£ 51.75
T.B.A. 6.0	Basic text processing utility	£ 57.50	£ 57.50
ULTRA TREK	Space Wargame	£n/a	£ 11.87
UTILITY DISK I	LDOS enhancement package	£ 33.46	£ 30.30

TEL: [0424] 220391/223636

MOLIMERX™ LTD

TELEX 86736 SOTEX G

A J HARDING (MOLIMERX)

1 BUCKHURST ROAD, TOWN HALL SQUARE, BEXHILL-ON-SEA, EAST SUSSEX.

C P / M VERSION 2.2

Enclosed herewith you will see our initial sales sheet on CP/M. A number of customers have asked for additional information, particularly as to how the actual package arrives and is configured. At the time we dictated the enclosed we had not actually seen the product.

First of all, this version of CP/M is CP/M 2.2. It has been enlarged with a number of utilities unique to the Model 4. Physically it is delivered to you in a large grey, high quality binder. This contains the 5" disk, which is double density, 40 track, plus a provisional manual which is restricted to the actual version that you have received, and finally a rather nice 550 page permanent manual called "Inside CP/M A Guide for Users and Programmers". This is in fact a book previously published by CBS College Publishing and it is written by David E Cortessi. This book is an extremely full tutorial for users and programmers of many versions of CP/M. It is specifically entitled "Addressed to those using CP/M-86 and MP/M-2". We have not had time to go through this book page by page. Without a doubt there will be some parts not applicable to CP/M 2.2, on the other hand, there is equally little doubt it will cover all of the features of the normal version of CP/M 2.2.

The intent of the added utilities is to a large extent to make CP/M more user friendly. As operators of the straight version will know, it could certainly do with it! The utilities, which are very nicely displayed automatically on the screen when you fire up are as follows:

ASM.COM	CONFIG.COM	DDT.COM	DUMP.ASM
DUMP.COM	ED.COM	FORMAT.COM	INTERCHG.COM
LOAD.COM	MEMLINK.COM	MODEM.COM	MODEM.DOC
MODEM7T4.ASM	PIP.COM	REPORT.BUG	STAT.COM
SUBMIT.COM	SYSGEN.COM	XSUB.COM	

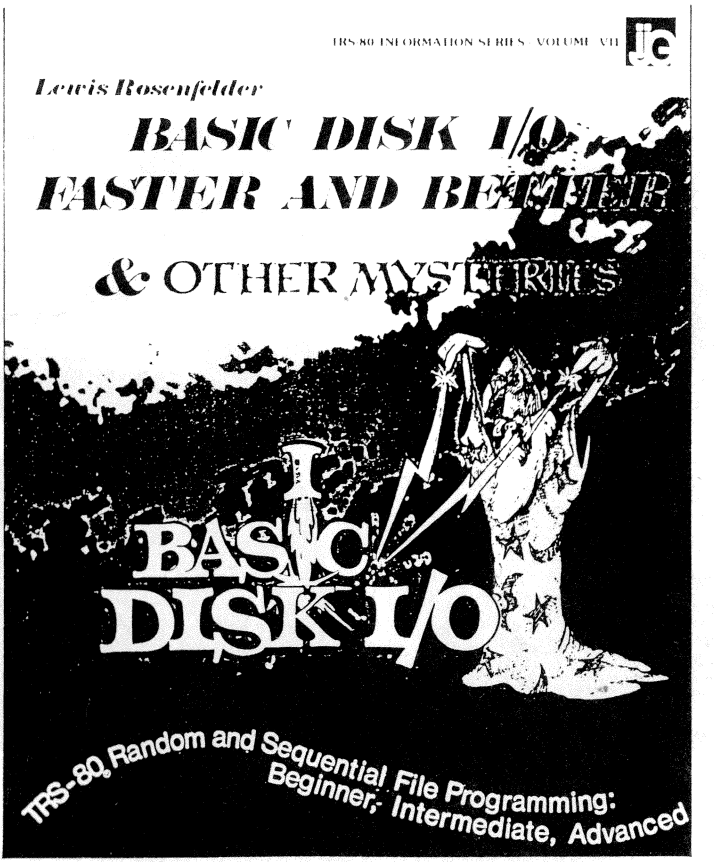
If you have any experience with CP/M some of these files will be familiar whilst others will not. For instance, obviously you will know PIP, SYSGEN and STAT.

Unfortunately, it is beyond the scope of these notes to describe each utility in detail but we will see if we can go through a few of them.

Obviously the first thing you wish to do is to make a backup. This, unlike the original CP/M, can be done very easily. One merely calls the FORMAT file and you will find that Backup is one of the options included in the menu. The procedure is to format and then backup. All the disk parameters come up automatically on the screen. In other words, you are told the configuration of the disk that you are backing up and in the formatting part of the utility you are given the option of changing either, sides, number of sectors, density and so on before formatting. In other words, you have a very nice and versatile Format and Backup utility. There is, incidentally, no restriction on backups.

We need not spend very much time on CONFIG as this is normally in CP/M 2.2. It is used to modify the CP/M software interfaces to fit your own hardware. In this way you can customise your disk drive configuration and set the RS232 serial port. This is, of course, extremely important when you wish to read CP/M disks which were written on another machine, as you can configure to pretty well any disk format that you want. Most importantly, you can configure in single or double density and for that matter for single or double sided. The RS232 parameters capable of being changed are normal, that is to say, baud rate, parity or length and stop bits.

SYSGEN, as we have said, is more or less the standard file.



Some people have said that we were rather unkind to the last Mysteries book, which was "How to Do it on the TRS-80". We can now make up for it by being very complimentary about this new one. It is called "Basic Disk I/O Faster and Better and Other Mysteries" and is written by Lewis Rosenfelder, who wrote a previous book in the series named "Basic Faster and Better and Other Mysteries" and, as one might gather, this latest offering is essentially a follow-on from the former.

It is a very big book. The books in this series are all of the same size, about A4, but the number of pages in I/O Faster and Better is 430. It weighs a kilogram! Despite its size, there is not an awful lot to say about it because one can summarise it very easily by saying that it describes every nook and cranny of input/output to disks from TRS-80 Basic that one can think of. We have never seen such a complete treatise on the subject. One is taken into the subject nicely and easily, mostly through a thorough description of the various I/O commands. Naturally, the book covers sequential files as well as random, and most importantly gives a very large quantity of tips on highspeed access. Not only are Indexed Sequential Accessing Methods (ISAM) described, but also the author's own version of that technique, which he calls TREESAM. Although most of the book is concerned with Basic, one chapter is dedicated to a technique which Mr Rosenfelder calls KEYACCES, a machine language subroutine, which a Basic program can call for high performance keyed accessing of a disk file.

The book will be a sure fire winner for those customers who enjoyed the original book, but one defies anybody reading the book not to learn something from it. And what a Christmas present!

Basic Disk I/O Faster and Better and Other Mysteries £19.90
VAT inclusive. P&P £1.30 Receipted Parcel

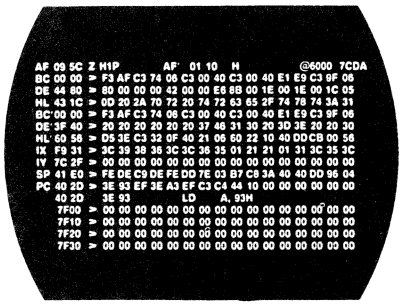
MOLIMERX LTD

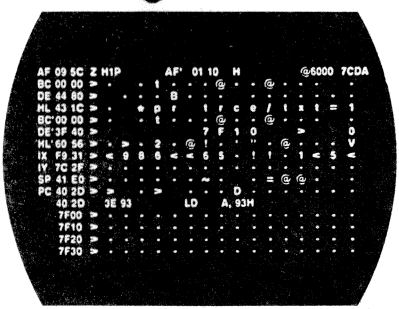
1 BUCKHURST ROAD, TOWN HALL SQUARE, BEXHILL-ON-SEA, EAST SUSSEX

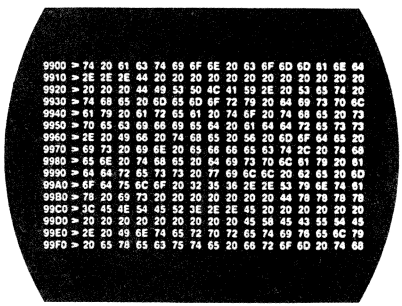
TEL (0424) 220391 223636

TELEX 86736 SOTEX G

MACRO-MON







We do not offer specials or other reduced prices unless (as in the case of Cyberchess) we have a vast overstock - due to a vast miscalculation - or as in the case of Macro-Mon, we have been able to make an extremely advantageous purchase and can pass the savings on to our customers. Macro-Mon is the best machine code Monitor/Debugging program ever written for the TRS-80. It was published by Advance Operating Systens in the United States, which is a division of the well known technical publishing house Howard W Sams and Co. Sams, believe it or not, is in turn owned by ITT.

As happens occasionally, in these multi-national monolithic companies, someone decided that something should be reorganised. The result of which is that Sams have divested themselves of their TRS-80 micro-computer software. In company with another software house in the United States, we have been able to purchase their surplus inventory of Macro-Mon. Let us make it very clear that these are in all respects exactly the same product as was sold up until the end of last year in the U.S. at $69.95 for the Model III disk, $59.95 for the Model I disk and $54.95 for Model I tape.

The illustrations show, first of all the binder that you will receive. You will note that this has an indentation just under halfway up. The reason for this is that this part of the binder can be bent back and it therefore becomes a sort of stand so that the manual itself, that is to say the pages, can be very easily flipped over and read. The other three illustrations show, first of all the Register page of Macro-Mon in hexadecimal, secondly the same page but in ASCII and finally a full page of memory display. Disk users will note a similarity between the Register Display page and DEBUG. Note also that the last four lines of the display show the contents of memory from 7F00 to 7F3F.

There are a number of display modes in Macro-Mon. The Register Display page is perhaps the one that is most frequently used. It will be seen that the contents of all of the registers are displayed and following that, the hexadecimal or ASCII contents of the memory, to which the register contents point. Thus, in the illustration, the Program Counter Register (PC) contains the address 402D. This address contains 3E93 and so on. Underneath the PC Register you will see a disassembled listing of the contents of 402D. Another point to be noted is that the prime and alternate AF registers are displayed in hexadecimal format at the top of the screen. Alongside each AF Register, the Flags Register is spelt out so that the status of each individual flag bit may be seen at a glance.

In Video Display mode a 256 byte block of memory is displayed on the video without either registers or the disassembly. This page, like the Register Display mode, may be shown in either hexadecimal or ASCII.

Macro-Mon may be used either as a monitor or as a machine code debugging tool, or both. In the former mode it is a first quality Monitor, in the other two it is a quite outstanding debugging utility. Sometimes the boundaries between a monitor and a debugging tool get a little hazy so the best course for us is to list all of the commands available in Macro-Mon as follows:

Set display mode to ASCII
Display memory block
Goto specified address
Setup user defined jump
Modify memory or register
Punch table entry/display/clear
Symbolic dump
Video page-display mode
Set user-fixed breakpoint
Skip opcode
Disable interrupts
No registers to be traced
Scroll memory display back

Set execution boundaries
Execute interpretively
Set display mode to hex
Copy memory to new location
Checksum memory block
Self relocate monitor
Trace interpretively
Write port/tape/disk
Zap memory block
Screen display
Enable interrupts
Printer DCB driver
Scroll memory display forward

Call instruction in PC
Find string in memory
Execute instruction in PC
Line print memory/set option
Object code relocate
Read port/tape/disk
Update display dynamically
Exchange memory blocks
Binary math and logic
Continue interrupts
Local print driver
Registers to be traced

The above should give you a pretty good indication of the scope of Macro-Mon. Space does not permit us to go through each individual command but the following comments on some of the more outstanding may be of assistance.

Probably the biggest advantage of using Macro-Mon is its ability to trace the execution of a machine language program. You can do this in a number of ways, but there are two broad categories of methods, namely that the object program can be executed under its own command but with breakpoints to return it to Macro-Mon, secondly, or under the command of Macro-Mon itself. In the latter case one stays in the Register Display mode and thus the effect of the program on all of the registers can be instantly seen, which is, of course, extremely useful to anybody debugging a program. In the normal case, breakpoints are inserted into the object program, command is then given to that program and the screen and any other peripherals are directed by the object program. When a breakpoint is hit, Macro-Mon regains command and the condition of the registers may be inspected.

Another very useful function of the debugging side of Macro-Mon is that a single Call may be executed in full, with a return to Macro-Mon. More often than not problems arise with Calls in programs and Macro-Mon can execute an Object Call at full speed whilst still retaining control. Another debugging tool of great interest is the ability of Macro-Mon to execute an object program interpretively. This means that Macro-Mon single steps through a program at around 1200 instructions per second. The Program Counter Register is maintained as a psuedo register by Macro-Mon, so that the monitor maintains control at all times.

There are two methods of entering breakpoints. First of all by physically entering a breakpoint and secondly by entering a logical breakpoint. In addition to the above, and as a sort of quasi breakpoint feature, Macro-Mon can be instructed not to execute any instructions outside of stipulated memory boundaries.

When a physical breakpoint is inserted, then three bytes of code are inserted in the object program, comprising a Call to the entry point of Macro-Mon. Hence the program will run normally until it hits this breakpoint and then revert back to Macro-Mon. Logical breakpoints allow much greater power and flexibility. Nothing is changed in memory to cause the jump back to the monitor because the monitor never releases control. It is therefore able to make logical checks to see if certain conditions have or have not been met. Thus, for instance, Macro-Mon will execute a break in the program whenever any memory location or register reaches a predetermined value. Of particular note is the fact that the registers employed may be any of the Z80 registers, including the alternates.

The Single Step Instruction mode may be used repetitively. The actual command for this is the key I. If this is just depressed then one step in the object program will take place. If it is kept depressed, then execution will continue at a rate of around three instructions per second.

There are a number of instructions pertaining to a line printer, particularly the screen dump at any time and a dump of any section of memory. A very nice feature is the ability of Macro-Mon to print not only through the normal ROM routines, but via the DCB driver itself. This is of particular interest to Genie owners because it means that once this parameter is set by the user, a Genie can access the printer.

A command of interest is the ability of Macro-Mon to carry out a checksum of a user specified block of memory. This can be very useful at times.

Another command which is not included in many monitors is the ability to exchange blocks of memory. In other words, the first memory block is copied over the second, whilst the second is copied over the first.

Extended binary arithmetic and logic may be carried out on two user stipulated hexadecimal numbers. Not only addition, subtraction, multiplication and division are included, but also logical AND and logical inclusive OR.

Yet another rather nice feature is the ability to skip a current opcode. This simply ignores the instruction pointed to by the PC Register. Interrupts may either be abled or disabled.

Finally we would repeat that we have only covered a few of the commands in this enormous program. You must take it as read that Macro-Mon contains all of the more "normal" monitor/debugger commands.

Macro-Mon Model I Tape.....£19.95 + £2.99 VAT = £22.94
Macro-Mon Model I Disk.....£21.95 + £3.29 VAT = £25.24
Macro-Mon Model III Disk ...£21.95 + £3.29 VAT = £25.24

P&P £1.50 1st Class & £2.50 Registered 1st Class

N.B. The Model III disk is also compatible with tape. For the nominal charge of £1.50 inc. we can put the disk version on to tape for you. The manuals are the same.

FANTASTIC XMAS SALE!!

A fantastic opportunity for Christmas! John Wiley's are going out of Sargon and we have bought all of their current stock. You can save almost **£6** for Christmas! Tape only; for TRS-80 or Genie. Strictly while they last! VAT on **£16.50** is **£2.48**. Postage and packing included.

£16.50
plus VAT

Normally £22.10!!

CP/M requires some keys which the Model 4 does not have. Provision is made in CP/M 2.2 to re-configure to those keys.

Probably one of the most important files on this version of CP/M is INTERCHG. This is the mnemonic for the word "Interchange", and as that word implies it enables this version of CP/M to interface with a large number of others. The full list is as follows:

Montezuma Micro (DD,SS)
IBM PC CP/M-86 (DD,SS)
XEROX 820-2 (DD,SS)
Osborne Executive (DD,SS)
Zenith H89 (SD,SS)
NEC PC-8001A (DD,SS)
Cromemco Z-2 (DD,SS)
Lobo MAX-80 (DD,SS)
MM ShuffleBoard (DD,SS)
Omikron Mapper I (SD,SS)
Access Matrix (DD,SS)
Hurricane Compactor I & II (DD,SS)
Xerox 820-1 (SD,SS)
Osborne-1 (SD,SS)
Kaypro 2 (DD,SS)
Zenith Z100 (DD,SS)
Cromemco Z-2 (SD,SS)
Eagle 80 trk. (DD,SS)
LNW Computers LNW80 (DD,SS)
Holmes VID-80 (DD,SS)
Morrow Micro Decision (DD,SS)
Radio Shack Model 4 CP/M Plus (DD,SS)

One of the great myths of CP/M is that, as the industry standard, it can move software around at will. In fact, the normal CP/M often does not do this. This INTERCHG file, however, will get you about as close as you can achieve. Note however, that it permits transportability, not necessarily compatibility.

MEMLINK is very similar to MEMDISK, which is a utility published by LSI and sold by Molimerx. You will find it described in the catalogue. Essentially it sets up a RAM resident pseudo disk drive.

The MODEM files enable CP/M to be used in communications mode. Your Model 4 must of course have an RS232 in it.

ASM is, of course, an assembler. Again we have not had time to go through this in detail, but the normal CP/M assembler supports Macros so we assume that this one does as well.

ED is the normal editor that one receives with CP/M.

CP/M 2.2... £149.00 plus VAT=£171.35

plus shipping £3.00

MOLIMERX LTD.

1 BUCKHURST ROAD, TOWN HALL SQUARE, BEXHILL-ON-SEA, E. SUSSEX.

Tel: (0424) 220391/223636 TELEX 86736 SOTEX G