MEMOTECHNIQUES

HAPPY   CHRISTMAS
FROM MOC

We three kings of Orient are,
Bearing gifts we traverse a far,
Field and Fountain, Moor and Mountain,
Following yonder star,
O star of wonder, star of night,
Star of royal beauty bright,
Westward leading, Still proceeding,
Guide us to thy perfect light.

FEATURES :

ASSEMBLER CLOCK PROGRAM

ADVENTURE PROGRAM

DISC ARTICLE PART II

3.5" DISC REVIEW

NEW SOFTWARE AVAILABLE

CIRCA ...242

M.O.C.

VOLUME 3   ISSUE NUMBER 3

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If anyone has any good graphics designs for a front cover then we would love to see them!!!

EDITORIAL (Dec 1986)

Phil Eyres
23 Denmead Road
Harefield
Southampton
SO2 5GS

Well, Christmas is here yet again, I hope everyones got plenty of computing planned to keep them occupied. There's nothing better than a plate (or two!) of mince tarts, a drink and a couple of hours in front of the box (with the computer connected of course!!). Everyone here (me and me mum!) wish you all :

The Very Best for Christmas and the New Year

Clive Taylor has so far had 14 replies from MOC members for his proposed Memotech w/e some time in the future. An advert will be going out with the next Genpat magazine and hopefully this may raise the number to 50. More details as they are available.

Our club software, notably being SMGII and REVEAL is now available, both programs are only available for the MTX 512, I hope that does not prove to restrictive and sorry to 500 owners for having to miss out on these two fantastic programs.

This month we have a review of the 3.5" disc system. From the couple of days I have spent playing with it, I must say that it behaved faultlessly and with great style, this could well prove to be a winner for Memotech, lets hope they market it well and that it is a success.

Three club enhancements planned this issue :
i. A program listing facility for those with no printer. Just send in your program on tape (or 5.25" disc) with a pre-paid envelope addressed to yourselves and the club will do the listing for you.

ii. It has been proposed to hold a library of previously published articles about the MTX, the only problem I foresee is one of copyright, although it was pointed out that most of the National magazines from which the articles come are now no longer published, any advice on the legality of this would be appreciated, as the idea is a very good one.

iii. The formation of a list of Hotline numbers for members to ring with specific problems. Numbers have been offered before, but only printed on a one off basis, if anyone with something to offer and prepared to take the odd incoming call would get in touch I'll form a list for regular publication.

The club is 'toying' with the idea of buying an electronic stencil maker, this should allow the inclusion of pictures and schematic type diagrams in the magazine, and also allow us to make up separate booklets for the Program library and CP/M software.

This month we have awarded the prize of 'a program of his choice' to Alan Dobson for the program Journey Into Danger which he has contributed to the program library.

Thanks to everyone who has used our Hotline on Monday evenings between 6 & 7pm, the number to phone now is (0703) 466106, ask for Phil. If we keep Mondays as Hotline night then I can be sure of being in. However, feel free to phone any evening after 6pm, if I'm not in the my Mum (good old Mum!!) will take any calls.

If anyone would like back issues they are available for the small remittance of 80p each. At present there are 21 back issues, 10 for volume 1, 10 for volume 2 and 2 for volume 3.

It should be noted that all articles are the copyright of the sender and M.O.C., anyone wishing to have articles published elsewhere should inform us first.

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ENIGMA CYPHER
By
Mike Frymyer

Enigma Cypher is based on the board game matermind. It is fairly long and will take some time to type in, but the end end result is worth it. It can be sent out on tape if anyone struggles to get it typed in correctly

```
11 REM ‡‡‡‡         ENIGMA     CYPHER      ‡‡‡‡
   ‡‡‡‡        ACKNOWLEDGMENTS         ‡‡‡‡
   ‡‡‡‡             TO                 ‡‡‡‡
   ‡‡‡‡       OWEN AND AUDREY BISHOP   ‡‡‡‡
20 REM POKE 64862,13
30 DIM C(6,3): DIM P(6,4)
50 GENPAT 1,129,0,126,126,126,126,126,126,0
 : GENPAT 1,130,0,60,126,102,102,126,60,0
60 GENPAT 1,131,0,64,96,112,120,124,126,0
 : GENPAT 1,132,0,24,24,126,126,24,24,0
 : GENPAT 1,133,0,24,60,126,24,24,24,0
70 GENPAT 1,140,255,255,255,255,255,255,255,255
80 GOSUB 5000
90 CRVS 1,1,2,2,20,18,32: COLOUR 0,6: COLOUR 1,1: COLOUR
2,6: COLOUR 3,1: COLOUR 4,6: VS 5: PAPER 4: INK 14: CLS
100 CSR 3,3: INPUT "HOW MANY PIECES ?...(3-6)      ";NP$
110 LET NP=VAL(NP$): IF NP<3 OR NP>6 THEN  GOTO 100
120 CSR 3,5: INPUT "HOW MANY SHAPES ?...(1-4)      ";NS$
130 LET NS=VAL(NS$): IF NS<1 OR NS>4 THEN  GOTO 120
140 CSR 3,7: INPUT "HOW MANY COLOURS ?...(3-8)      ";NC$
150 LET NC=VAL(NC$): IF NC<3 OR NC>8 THEN  GOTO 140
160 VS 4: COLOUR 0,6: COLOUR 2,6: COLOUR 4,6: CLS
162 COLOUR 0,1: COLOUR 2,1: FOR X=0 TO 31: CSR X,1: PRINT
" "; : CSR X,20: PRINT " ";: NEXT : FOR X=23 TO 31: CSR
X,12: PRINT " ";: CSR X,13: PRINT " ": NEXT
164 FOR Y=1 TO 20: CSR 0,Y: PRINT " ": CSR 1,Y: PRINT " "
;: CSR 23,Y: PRINT " ";: CSR 31,Y: PRINT " ";: NEXT
168 COLOUR 0,14: COLOUR 2,14: PRINT CHR$(27);"X1": FOR
X=24 TO 30: FOR Y=2 TO 11: CSR X,Y: PRINT " ": NEXT : NEXT
170 VS 4: FOR J=0 TO NC-1
180 COLOUR 0,14: CSR 25,3+J: COLOUR 1,1
190 PRINT J+1;: COLOUR 1,1+J*2: PRINT " ";CHR$(140)
   ;CHR$(26)
200 NEXT
210 COLOUR 0,13: COLOUR 2,13: COLOUR 1,10: FOR X=24 TO 30:
FOR Y=14 TO 19: CSR X,Y: PRINT " ";: NEXT : NEXT : FOR J=1
TO NS
220 CSR 24,14+J: PRINT J;" = ";CHR$(128+J)
230 NEXT
240 FOR J=1 TO NP
250 LET C(J,1)=INT(RND*NC)*2+1
260 LET C(J,2)=INT(RND*NS)+1
270 LET P(J,3)=0: LET P(J,4)=0
280 NEXT
290 VS 1: CLS : VS 4: LET J=0
300 COLOUR 0,6: COLOUR 2,6: COLOUR 1,15: CSR 2,0: PRINT "
Number of turns to go=";16-J;"    "
310 VS 4: FOR K=1 TO NP
320 PAUSE 100: CSR 3,22: COLOUR 1,15: PRINT "Choose a
Colour"
330 LET A=ASC(INKEY$): IF 127<A AND A<128+NC OR  A=72 OR
A=104 THEN  GOTO 340 ELSE  GOTO 330
340 IF A=72 OR A=104 THEN  GOTO 5100
350 LET P(K,1)=(A-127)*2-1
360 CSR 22,22: GOSUB 1000: IF NS=1 THEN  GOTO 420
370 CSR 3,22: COLOUR 1,15: PRINT "Choose a Shape? "
380 LET A=ASC(INKEY$): IF 127<A AND A<128+NS OR  A=72 OR
A=104 THEN  GOTO 390 ELSE  GOTO 380
390 IF A=104 OR A=72 THEN  GOTO 5160
400 LET P(K,2)=A-127
410 CSR 22,22: GOSUB 1000
420 NEXT
430 CSR 3,22: COLOUR 1,15: PRINT "OK?........Y/N"
440 LET A=ASC(INKEY$): IF A=89 OR A=121 OR A=110 OR  A=78
THEN  GOTO 450 ELSE  GOTO 440
450 CSR 22,22: PRINT "          ";
460 IF A=89 OR A=121 THEN  GOTO 480
470 FOR K=1 TO NP: LET P(K,2)=0: GOTO 310
480 VS 1: CSR 6,i+J: LET K=NP: GOSUB 1000: VS 4
490 FOR K=1 TO NP
500 IF P(K,1)=C(K,1) THEN  LET P(K,3)=1: LET P(K,4)=5: LET
   C(K,3)=1
510 IF P(K,2)=C(K,2) THEN  LET P(K,3)=1: LET C(K,3)=1: LET
   P(K,4)=P(K,4)+3: IF P(K,4)=8 THEN  LET P(K,4)=11
520 NEXT
530 FOR K=1 TO NP
540 IF P(K,3)=1 THEN  GOTO 600
550 LET PC=P(K,1): LET PS=P(K,2)
560 LET M=1
570 IF C(M,3)=1 THEN  GOTO 590
580 IF  PC=C(M,1) AND PS=C(M,2) THEN  LET P(K,3)=1: LET
   P(K,4)=7: LET C(M,3)=1: GOTO 600
590 LET M=M+1: IF M<NP+1 THEN  GOTO 570
600 NEXT
610 FOR K=1 TO NP
620 IF P(K,3)=1 THEN  GOTO 690
630 LET PC=P(K,1): LET PS=P(K,2)
640 LET M=1
650 IF C(M,3)=1 THEN  GOTO 680
```

```
660 IF  PC=C(M,1) THEN  LET P(K,3)=1: LET  P(K,4)=9: LET
    C(M,3)=1: GOTO 690
670 IF PS=C(M,2) THEN  LET P(K,3)=1: LET  P(K,4)=13: LET
    C(M,3)=1: GOTO 690
680 LET M=M+1: IF M<NP+1 THEN   GOTO 650
690 NEXT
700 LET X=0: LET FW=0: FOR K=13 TO 3 STEP -2
710 FOR M=1 TO NP
720 IF  K=P(M,4) THEN  CSR 15+X,3+J: COLOUR 1,K: PRINT
    CHR$(133): LET X=X+1: LET FW=FW+K
730 NEXT : NEXT
740 LET FF=11: IF NS=1 THEN  LET FF=5
750 IF FW=FF*NP THEN  COLOUR 1,15: CSR 3,19: GOSUB 3000:
    PRINT "YOU WIN!!!": LET Q=Q+1: LET QQ=0: GOTO 790
760 GOSUB 2000
770 LET J=J+1: LET Q=J: IF J<16 THEN   GOTO 300
780 COLOUR 1,15: CSR 3,19: PRINT "I WIN....       ": GOSUB
    3050: LET QQ=1
790 CSR 2,0: IF QQ=1 THEN  PRINT "Here is the code       ";
    ELSE  PRINT "You took ";Q;" turns.         ";
800 FOR M=1 TO NP
810 COLOUR 1,C(M,1): PRINT CHR$(C(M,2)+128);
820 NEXT
840 GOSUB 2000
850 FOR K=1 TO NP: LET C(K,2)=0: NEXT
860 COLOUR 1,1: CSR 1,22: PRINT "Again at the same  level?
    Y/N";
862 LET A=ASC(INKEY$): IF A=110 OR A=121 OR A=89 OR  A=78
    THEN  GOTO 863 ELSE GOTO 862
863 CSR 1,22: PRINT "                              "
864 IF A=89 OR A=121 THEN  GOTO 240
865 GOTO 90
1000 FOR M=1 TO K
1010 COLOUR 1,P(M,1): IF NS=1 THEN  GOTO 1030 ELSE LET
     V$=CHR$(P(M,2)+128): IF V$=CHR$(128) THEN LET
     V$=CHR$(140) ELSE  LET V$=CHR$(P(M,2)+128)
1020 PRINT V$;: GOTO 1040
1030 PRINT CHR$(129);
1040 NEXT : RETURN
2000 FOR K=1 TO NP
2010 FOR M=1 TO 4
2020 LET P(K,M)=0
2030 NEXT
2040 LET C(K,3)=0
2050 NEXT
2060 RETURN
3000 SOUND  0,1000,15: PAUSE 350: SOUND  0,500,15:  PAUSE
     350: SOUND 0,250,15: PAUSE 350
3010 SOUND  0,1000,15: SOUND  1,500,15:  SOUND  2,250,15:
     PAUSE 150: SOUND 0,0,0: SOUND 1,0,0: SOUND 2,0,0:
     PAUSE 30
3020 SOUND  0,1000,15: SOUND  1,500,15:  SOUND  2,250,15:
     PAUSE 1000: SOUND 0,0,0: SOUND 1,0,0: SOUND 2,0,0
3030 RETURN
```

```
3050 SOUND 0,10,15,16,64,128,1: RETURN
5000  VS  5:  PAPER 14: INK 13: CSR  3,0:  PRINT
     "************************************": CSR  3,2:  PRINT
     "******   ENIGMA  CYPHER  ******": CSR 3,4
5010 PRINT "************************************": CSR  3,1:
     PRINT "******,             ******": CSR 3,3:  PRINT
     "******            ******"
5015 CSR 8,8: PRINT "Compiled by M.C.Frymyer": CSR  12,13:
     PRINT "Acknowledgments": CSR 19,15: PRINT "to": CSR 12,17:
     PRINT "Owen and Audrey"
5020 CSR 17,18: PRINT "Bishop"
5025 CSR 3,22: PRINT "Instructions?...............Y/N";
5030 LET I$=INKEY$: IF I$="" THEN  GOTO 5030
5035  IF I$="y" OR I$="Y" OR I$="N" OR I$="n" THEN   GOTO
     5040 ELSE  GOTO 5030
5040 IF I$="Y" OR I$="y" THEN  GOTO 5050 ELSE  RETURN
5050 VS 7: PAPER 13: INK 1: VS 5: PAPER 13: INK  1: PLOD
     "START": RETURN
5100 IF NS=1 THEN  GOSUB 5120 ELSE  GOSUB 5140
5110 GOTO 330
5120 VS 5: PAPER 14: INK 12: VS 7: PAPER 14: INK 12:  PLOD
     "HELP1"
5130 VS 4: RETURN
5140 VS 7: PAPER 1: INK 6: VS 5: PAPER 1:  INK  6: PLOD
     "HELP2"
5150 VS 4: RETURN
5160 IF NS=1 THEN  GOSUB 5120 ELSE  GOSUB 5140
5170 GOTO 380
```

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INTEFACING PROJECTS

Why not make your new years resolution one which will lead
you into the exciting world of micro electronics. Infact
what better way to start than with an MOC D.I.Y. kit.
Everything you need is supplied, except a soldering iron,
wire cutters and of course a few hours of your time!!. So
why not order now.

Interface price list
A full set of components and instructions for the LED kit
                                                  -->£6.95
A full set of components and instructions for the Speech
Synthasiser kit   -->£18.00

Connecting cable for the internal port (needed for
projects)   -->£4.50

All prices are fully inclusive. Please allow 14 days for
delivery and make cheques payable to MOC.

ASSEMBLER CLOCK
BY
JON GOUGH

This program displays the time in the top right corner of the screen. This version allows you to switch off the clock display by holding down the CTRL key and the F4 key. To get the time back you use the F1. I believe it is quite safe, I have been using it whilst creating letters using Brunword.

```
11 CLS : CSR 5,1: INPUT "INPUT THE HOUR ";H$
20 CSR 5,2: INPUT "INPUT THE MINUTES ";M$
30 CSR 5,3: INPUT "INPUT THE SECONDS ";S$
40 CLOCK H$+M$+S$: CLS
50 CODE
```

```
407C START:   LD HL,EXIT      ;Get end address of routine
407F          LD DE,ROUTINE   ;Get start address of routine
4082          PUSH DE         ;Save address
4083          SBC HL,DE       ;Subtract start from end
4085          INC HL          ;Add two to length
4086          INC HL
4087          PUSH HL         ; Transfer length to BC
4088          POP BC
4089          POP HL          ;Get start address again
408A          LD DE,£F000     ;Load DE with new start add.
408D          LDIR            ;Move routine to high store
408F          LD HL,£FA9A     ;Load HL with USERINT address
4092          LD DE,£F000     ;Load DE with st. add. of rout
4095          LD (HL),D       ;Put address of routine in
4096          DEC HL          ;USERINT
4097          LD (HL),E
4098          DEC HL
4099          LD A,£C3        ;Put jump code in USERINT
409B          LD (HL),A
409C          LD HL,£FD5E     ;Load HL with INTFFF address
409F          SET 4,(HL)      ;Set user interupt
40A1          RET;End
40A2 ROUTINE:DI               ;Disable Interupts
40A3          PUSH AF         ;Save all registers
40A4          PUSH BC
40A5          PUSH DE
40A6          PUSH HL
40A7          PUSH IX
40A9          PUSH IY
40AB          LD A,(£FF58)    ;Load A with Sprite Int Flag
40AE          OR A            ;Is it zero
40AF          JR NZ,END       ;No go to END
40B1          LD A,(£FD7D)    ;Get last character entered
40B4          CP 3            ;Is it CTRL F4
40B6          JR NZ,NCF4      ;No jump
40B8          LD A,1          ;Yes, load A with 1
40BA          LD (£F071),A    ;Put A in Flag
40BD          JR ENDKEY       ;Jump to end of key routine
```

```
40BF  NCF4:    CP 0              ;Is it CTRL F1
40C1           JR NZ,ENDKEY      ;No jump end of key routine
40C3           LD A,0            ;Load A with 0
40C5           LD (£F071),A      ;Load flag with A
40C8  ENDKEY:  XOR A             ;Clear A
40C9           LD A,(£F071)      ;Load A with cont's of flag
40CC           BIT 0,A           ;Is bit 0 set?
40CE           JR NZ,END         ;Yes jump to end
40D0           LD A,£1F          ;Yes load A with add of TR
40D2           OUT (2),A         ;of screen and send to VDP
40D4           LD A,£1C
40D6           OUT (2),A
40D8           LD HL,£FD57       ;Load HL with add of MTX clock
40DB           XOR A             ;Clear flags
40DC           LD A,(HL)         ;Load A with first digit
40DD           INC HL            ;Point to second digit
40DE           CP "2"            ;Compare it with 2
40E0           JR NZ,CONT        ;If not 2 then jump
40E2           LD A,(HL)         ; Load A with next digit
40E3           CP "4"            ;Compare it with 4
40E5           JR NZ,CONT        ;Is time 24:00:00
40E7           LD A,"0"          ;Yes reset clock
40E9           LD (HL),A         ;Load 1st two digits with "00"
40EA           DEC HL
40EB           LD (HL),A
40EC  CONT:    LD HL,£FD57       ;Load HL with address of clock
40EF           LD B,3            ;Load B with loop count
40F1  LOOP:    LD A,(HL)         ;Load A with number from clock
40F2           INC HL            ;Point to next number
40F3           OUT (1),A         ;Put out to screen
40F5           LD A,(HL)         ;Load A with next number
40F6           INC HL
40F7           OUT (1),A         ;Write number to screen
40F9           LD A,1            ;Load A with 1 for test
40FB           CP B              ;Is B=1?
40FC           JR Z,END          ;Yes go to END
40FE           LD A,£3A          ;£3A=":"
4100           OUT (1),A         ;Put out to screen
4102           DJNZ LOOP         ;Loop back for next chars
4104  END:     LD A,(£FD7E)      ;Get last keyboard drive line
4107           OUT (5),A         ;Put out to keyboard
4109           POP IY            ;Restore registers
410B           POP IX
410D           POP HL
410E           POP DE
410F           POP BC
4110           POP AF
4111           EI                ;Enable interrupts
4112           RET
4113  FLAG:    DB 0
4114  EXIT:    RET
```

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HARDWARE AND SOFTWARE
PRICE LIST

This month you will notice a slight increase in the prices of the 3.5" systems, this represents about a 10% increase and took effect from November 1st.

System One
1 Mgbyte 3 1/2" Drive + I/F   £166.00

System Two

1 Mgbyte 3 1/2" Drive + I/F
512K Silicon Disc, 80 Col.   REVIEWED THIS MONTH !!!!!!!
+ CP/M + Neword   £264.00

80 Col Upgrade for System One
+ CP/M + Silicon Disc   £129.00

32K Memory Expansion   £40.00
64K Memory Expansion   £50.00
128K Memory Expansion   £80.00

500K SDX + I/F (5 1/2" drive) £250.00
1Meg SDX + I/F (5 1/2" drive) £300.00

All prices + P & P.

The PRINTER offer will continue 'till February and to date has been supported very well, remember, new DMX 80 printers for an all-in price of only:-

£150.00

This price includes a connecting cable and postage and packing. They are only sold with a limited warranty. We are also able to supply MTX512's with RS232 board and switchable 80 column board for only £120.00, again remember these only carry a limited warranty.

We can offer DMX 80 printer ribbons for only £7.00 each, so why not order one today and be prepared for the day your ribbon finally 'bites the dust'!!!!

The MTX FIG-FORTH requires an MTX512 or expanded 500, the dictionary associated with Forth is held as part of the Ram-Disc which can be saved separately, fairly quickly. The Ram-Disc allows for 24 'edit' screens to be created and in memory simultaneously. A tutorial will be necessary for the beginner, for this the club has obtained a quantity of the publication Fundamental Forth(This may vary according to availability).

Fig-Forth Program £6.00
Tech Data Sheets   £2.00
Tutorial Book   £7.50 (240 pages)

Cheques payable to MOC please, orders from stock normally despatched by return, else, please allow 2 working weeks.

All 'SUPER CHEAPIES' will be despatched by return of post.

!!! SUPER CHEAPIES !!!
(ONLY FROM STOCK)

DESC	QTY	PRICE (Each)	DESC	QTY	PRICE (Each)
RETURN TO EDEN	1	£7.00	THE ZOO	3	£4.50
EMERALD ISLE	1	£7.00	COBRA	1	£4.50
BLOBBO	5	£4.50	ALICE	2	£3.50
KILOPEDE	3	£4.50	MINER DICK	1	£4.50
REVERSI	1	£4.50			
MINEFIELD	3	£4.50	HELI-MATHS	2	£4.00
BACKGAMMON	1	£4.50	SPELLI-COPTER	1	£4.00
TOADO	4	£3.50	FIRE HOUSE FREDDIE	2	£4.00
NEMO	1	£4.50	PONTOON &B'JACK	3	£4.50
SNAPPO	3	£4.50			
PAYROLL	1	£10.00			
PURCHASE LEDGER	1	£7.00	KNUCKLES	1	£4.50
PHYSICS 1	3	£5.50			
MATHS 1	2	£5.50	TAPEWORM	1	£4.50

Software prices for the best and most popular software:-

Zarkos	£7.00	Chamberoids	£7.00
Qogo2	£7.00	Quazzia	£7.00
Karate King	£7.00	Son Of Pete	£7.00
S.M.G	£7.00	T.Snooker	£8.00
Doodlebugs	£6.00		
J.J.Flash	£6.00		
Cee-5	£7.00		
Star Command	£6.00		
Downstream Danger	£7.00		
Memosketch	£7.95		
Mission Alphatron	£6.00		

We now have a dealer agreement with Syntax so we can supply anything. Sorry for confusion over T.Snooker last month we can supply at above price and have them in stock.

NEW This month **** REVEAL & SMGII ****, for MTX 512, order your copy now, ready for immediate dispatch. The incredible A.KEY does it again !!!!

Reveal £6.00
SMGII   £6.00
PUC-MAN £5.00

Order a copy today!!!!!!

Remember PRINTER RIBBONS are only £7.00
Don't forget to order your copy of Fruit Machine from Graysoft today!!!!

** Games High Scores Table **

Game	Score	Player		Game	Score	Player
AGROVATOR	89615	A.DOBSON		MINER DICK	22520	R.SIDDALL
ASTROMILON	36660	C.WHITELOCK		MISS ALPHA	53320	P.CRIGHTON
ASTROPAC	69390	A.DOBSON		M OMEGA	4400	T.NEAL
BLOBBO	71233	T.PICKSTONE		NEMO	14650	P.CRIGHTON
B.BILL	219610	A.DOBSON LEVEL 1		O.ZONE	847740	*A.DOBSON
B.BILL	158334	A.DOBSON LEVEL 9		OBLOIDS	80110	P.CRIGHTON
CAVES OF ORB	496/500	*V.STEPNEY		PHAID	5285	M.FIDLER
C-5	9918	V.STEPNEY		P PETE	41190	A.DOBSON
CHAMBEROIDS	19 MINS	P.ERIKSSON		QUASI	6200	*G.CAMPBELL
COBRA	5634	A.DOBSON		QUAZZIA	41020	V.STEPNEY
CONT RAID	10810	M.GILL		QOGO	11440	M.FIDLER
CRYSTAL	35507	A.LYNCH		QOGO 2	255000	R.SIDDALL
DR FRANKY	14925	N.CRIGHTON		ROLLA BEAR	27741	V.STEPNEY
D.DANGER	8627	A.DOBSON		SEPULCRI	6175	V.STEPNEY
D.DESTROYER	3380	T.NEAL		S.M.G.Rt	26280	V.STEPNEY
EMERALD ISLE	1000	*G.CLAY		S.M.G.Lt	11830	V.STEPNEY
E. ZARKOS	90 OBJ	R.SIDDALL		S.M.G.Up	77000	*V.STEPNEY
F. DEEP	3720	A.DOBSON		SNAPPO	84060	A.DOBSON
FELIX	20600	P.COUGHLAN		SNOWBALL	1000	P.COUGHLAN
F.FREDDIE	15560	M.FIDLER		S OF PETE	16153	A.PAGE
FLUMMOX	25700	T.NEAL		STAR COMM	131690	P.CRIGHTON
GOLDMINE	6308	M.FIDLER		SUPERBIKE	20.7KM	A.FIDLER
HAWKWARS	15850	P.CRIGHTON		S M/FIELD	829	M.GELDER
H. ENCOUNTER	28990	*A.LYNCH		S SCANNER	11970	G.CLAY
HI-LO	£700	*G.CAMPBELL		T FIGHTER	3260	V.STEPNEY
HUNCHY	5681	T.NEAL		TAPEWORM	168515	A.DOBSON LEVEL 1
ICEBURG	17431	A.DOBSON		TAPEWORM	150500	A.DOBSON LEVEL 9
JUMP' J FLASH	2970	T.NEAL		T ZONE	22925	*N.DUNCAN
KARATE KING	2400	A.PAGE		TOADO	107549	N.GOODING
KILOPEDE	70000	N.CAMPBELL		TURBO	23030	M.GELDER
KNUCKLES	488650	P.CRIGHTON		THE WALL	2310	P.ERIKSSON
L OF TIME	950	R.SIDDALL				
MAXIMA	501250	R.SIDDALL				

* Denotes new high score

Questions

1. Does anyone know how the sum (|)function works in the 26 * 26 Spreadsheet program. Any help would be much appreciated.

Phil->An example of this working and/or some other functions explained would be helpful.

2.Two questions on much the same line.
i. The first from Barry Smith in Australia is :
How can I get some of my discs to auto boot on startup (twin disc system). It would be great if I could place a disc in the drive and have it run programs automatically, rather than having to call them up via the keyboard... I have tried playing around with STARTUP.COM and INITIATE.COM without success. The best I can do is use Submit files, which is less than optimum.

ii. Clive Taylors question is :
How can I make my disc system auto start in Basic?, I have two young children and it would be great if they could use the machine without being confronted with CP/M.

Phil-> It would be a good idea, if it were possible, to come up with some front end menu system that would auto start on coldboot, allowing programs to be selected at the press of a key. The function key definer program allows you to select a series of per programmed key strokes at the press of a key, so I think that it is perhaps not too imaginative to ask for this to be extended to a screen driven option. Any offers? .... The club throwing the gauntlet down to all members, boldly offers a tenner for the best solution to this problem!!!! (So long as it is usable!!!).

3.Ian Midwinter from Romford Essex.

I've been finally forced into writing, following your article on disc drives in which you mentioned reading MSDOS files - my first and most important question is, do you have a utility to write data files in that format (I am primarily interested in Newword files, and the possibility of loading them into DISPLAYWRITE 3, which I use at work)?

Phil-)The utility I have is:

COMPAT V3.0 - Compatibility Utility - 84/08/09
Copyright (c) 1984, Mycroft Labs Inc.
(Sorry no address!!!)

This allows me to read MSDOS files, which basically have to be Ascii as most others are of no use, Newword will quite happily allow me to edit these files if I wish. Going the other way works just as well, if I create a Newword file and then print it with the PRVIEW printer option, this creates me an Ascii file, I then save it on to a MSDOS disc using the utility program. DisplayWrite 3 will then allow you to directly read this file in and edit it, thus allowing two way movement of data files between machines. (This worked on an IBM AT using DOS 3.2, any other may or may not work??).

Brain Waves & Heart Rendering Moments
1. Ian Midwinter
"Let me tell you a story"

I bought my MTX 512 in Feb 84, and have since added the HISOFT Pascal ROM, DMX 80, SDX 250K, Speculator & RS232 board (also 1200/75 modem and Tandy printer/plotter - Hardware freak I'm afraid!!). Coming home from holiday this year the family (with a little persuasion) broke the journey in Witney ("this seems like a nice place to stop") and having just got the October issue of ELECTRONICS TODAY with EMI's advert in (sorry about the bad language!), I thought I would see if a deal could be struck. I came away with a twin FDX 500K etc for only £300 (and, per another of your articles, no guarantee - not too many problems yet, touch aluminium!). Having got it home, "Err.., where do you plug in the tele....?" - Well, I'm not quite that stupid, but I still did not fancy forking out for a monitor!.

And then, a thought! - route the composite video signal into a UHF modulator like what all those home computers use (not the MTX's - I'm not that brave!). Where to find a modulator? (sounds of searching through electronic scrapyard) - the answer - a ZX81 (remember them ?). Remove the bulk of the chips, cut up the lead supplied with the FDX, solder the composite video (inner wire) to the video input on the 81 board, the ground sheaf to the 81's 0v

bus, plug the standard lead from the 81 mod. to the tele, power the 81 and FDX up, and there before my eyes is the CP/M sign on. Bearing in mind that you might be able to pick up an 81 for a fiver, this would seem somewhat cheaper than a monitor!!.

Swops and Things
1.Gordon Campbell has the following software to swop :-

Alice, Felix, Star Command & Reversi ....for

Adventure Quest, Colossal Adventure, Dungeon Adventure, Lords of Time.

Please send all correspondence to him at :-
Marldene, Church Street, Halkirk, Caithness.

2.Bill Lawrence of 8 Marshall Square, Criceters Way, Andover, Hants. SP10 5DU. would like a second hand printer, a rough specification is:-

Centronics, Epson Compatible & Capable of Graphics Dumps.

For Sale
Wilf Ireland, 113 Bradfield Road, Urmston, Manchester, M31 1PF has the following for sale:-

Newword ROM board......£20.00
Pascal ROM board......£20.00

All in excellent condition.

Help Lines

Following the release of the new 3.5" disc systems for the MEMOTECH range, it has become apparent that a method of transferring software from the original 5.25" format to the new 3.5" format, may be required by some people. I am therefore, writing to inform you that I now have the facility to perform such exchanges, I have a system that will cope with all sizes of Memotech disc's (250K, 500K and 1Meg), transferring to or t\from the latter 3.5" system. A small transferring fee will be charged on top of P&P, good quality media can also be supplied if required.

Mr Paul Wood, 12 Bishops Avenue, Worcester, Worcs. WR3 8XA

Phil-) The club has sent the two discs of the program library programs to Paul, if you require these discs in 3.5" format, Paul should be able to fit all the programs on 1 - 1Meg disc, for the usual copying fee of £2.50. Over Christmas I hope to find the time to send him the CP/M disc's we have as well, in order that they can all be obtained in this new format.

Disaster Recovery
By
Phil Eyres

The Second in a series of three articles.

What is Disaster Recovery?
Why does everyone need it?

In the 'good old days' all data was physical, it was kept on some form of paper or the likes, losing the data was difficult, fire usually being the only way of causing a disaster. Now-a-days we can store the equivalent of 200 A4 sheets on a 'floppy', this data is very vulnerable, infact you could loose it accidentally in less than a couple of seconds, and this loss could happen in any number of ways, from accidentally reformatting the disc (I know someone who accidentally reformatted a 10Meg hard disc and had no backups ...she was none to happy!!!) to a machine fault or power failure!.

To digress a little on the point of power failure, a member actually had his computer (including disc system) blow-up when it was hit by ligthening, all boards were apparently lost and he was well and truly 'French Fried', so the moral is if at all possible do not use your computer (or any other appliance!!) in a storm, the best place is definitely under the table!!.

So, how do you guard against data loss?

Well, you need a Disaster Recovery plan!!. A means by which you keep a safe copy of all your programs and data. There are several ways and means available, from keeping duplicate copies of your disc's to making tape copy of your files.

It is interesting at this point to bring up the question "Why do I need 2 disc drives?? One disc drive is all I need in order to save and load files!!".

Well, as anyone who has 1 drive will know, making a copy of a disc is so labourious that more often than not it does not get done. A quick description of the procedure needed to copy a disc would be :-

1. Invoke the copy command.
2. Load Source diskette.
3. Read 32K or so into memory.
4. Load Target diskette.
5. Write 32K or so to disc.
6. Go to 2 and repeat until copy complete.

It takes ages!!! Now on a twin disc system, you just tell it to copy from one drive to the other and it gets on and does it.

Basically, thats the main reason for twin discs.

Now, back to Disaster Recovery, my personal plan is as follows:-

The disc's I have are split into two catagories :-
  i.   User Disc's
  ii. Secure Backups

I have about 20 'user' disc's and I split their usage as follows:-

   i.   A system disc with all the usual files and utilities.
  ii.   Program disc's.
        Newword
        Supercalc
        Pascal
        etc.
 iii.   Data files.

My use of Newword is the most complex, as the data files I have spread over several disc's and vary in their nature. I tend to keep one temporary file on the program disc, this I use for all general letters which once written and printed, do not need to be kept, this prevents a build-up of this type of useless file. Then I have a disk with useful letters on. I also have a couple of document discs (I try and ensure all files have a .DOC extension, as it helps keep things looking tidy!!). Finally, I have a magazine disc on which I keep the pages of the current magazine and the previous couple.

The program discs I completely re-backup every 6 months, this ensures any modifications are kept safe. Also, a disc will not hold it's data for ever, if it is not used it will slowly loose its magnetism!!.

The well used, but not often changed document discs are backed up every magazine.

On the remaining user disc's where files change constantly (mag disc) I backup files as I change them. (I think if I lost a mag disc and hadn't backed it up, I'd jump off the nearest bridge!).

Copying files like this may seem labourious and time wasting, but it is very necessary and should ensure that at worst you should only loose a couple of files.

There is also a hidden advantage in making copies of your disc's now and then, on a nice clean newly formatted disc all the free 'blocks' follow nicely one after the other, so any programs you save are saved as one 'contiguous block'. After a couple of month's use, you've saved and erased, extended and shortened lots of files, your 'free blocks' are now probably split 'all over the place', saving a file now will mean it is saved in several 'non-contiguous' blocks, this will mean slow access times as your drive has to spend more and more time searching for the many bits of your file.

Next month ....File types, Naming and Copying.

!!! REMEMBER - IF YOU WANT TO KEEP IT, BACK IT UP !!!

Two Reviews By Phil Eyres

Title: REVEAL
Machine: MTX 512
From: MOC
Price: £6.00

This is another first class game written by Andy Key, the game
involves 'gliding' your man over a 3D maze of squares gaining
points as you go. ...of course it's not that simple! You are
shown the maze for a couple of seconds, then it disappears!!!
The meanie or meanies know the way but you have to feel your way
revealing the squares as you go. When you have found them the key
square flashes providing you reach this before your time runs out
or a meanie grabs you, you proceed to the next level.

Conclusion
A full list of options for set up, including selection of joy
stick and volume control. THe brilliance of the graphics really
does have to be seen to be believed, they are the best you will
see on an MTX. This should be in every MTX owners Christmas
stocking.

Graphics, Sound and Playability 10/10

                    oooOOOooo

Title: SMGII
Machine: MTX 512
From: MOC
Price: £6.00

This is the second of Andy's new games, it is again written to
the highest standards and is worthy of being at the top of your
software collection. This game is very similar to SMG, you have
to work your way around the underground labyrinth of tunnels,
searching for sacks of gold (90 in all) as you go.

Conclusion

This sequel to SMG should be an all time favourite, providing
hours of fun, all the usual features again show up here.

Graphics Sound and Playability 10 / 10

                    oooOOOooo

As there have been many requests for more reviews in the
magazine, after playing with all the new ones you get for
Christmas why not send us a review for the next mag!!!!!!!

1Meg/512K Silicon Disc Drives and CP/M Review

I'll attempt in this review to give you all the information I have about the new 3 1/2" disc systems.

On receiving the parcel, my first impressions were that there was a distinct lack of components, the previous 5 1/4" system had the disc drives separate from the controller, with this system, after some looking around, I found the 1Meg disc drive in the disc controller box, this box is rectangular and fits onto the left hand edge connector, and I must say it looks very neat and tidy, for a permanent setup a plate and 4 screws were supplied with the intention that the two units should be physically screwed together, thus preventing accidental machine failure by the parting of the two boxes. This box had a power supply plugged into the back of it, so I'm afraid you do still have two power supplies. Incidentally, I think the 512K silicon disc is in here as well!!. I thought that this may lead to overheating problems, so I ran the system all day in a hot room, I'm glad to say that it all behaved perfectly. The only other board is the 80 column board which fits inside the MTX case, this is a double width board and will use up both internal slots, so any other boards you have will be redundant. Note that this also prevents MTX500 owners from buying this system as there is nowhere for the extra 32K of RAM to be plugged in. When this system is setup, you will have no 60 way bus edge connector left free, I do not know the technical reason for making the system like this, but from my point of view, I have a few home built boards which I like to plug in now and then, the system would need to be dismantled to enable me to do this. I suppose the answer is to buy another MTX for that purpose, since they are so cheap.

Anyway, from the hardware point of view the system looks neat and is very easy to fit together. If you intend to bolt the two boxes together you will need to drill a couple of holes, to be safe this will really require dismantling the circuit boards from the case, making the job of installation quite a bit longer, but non-the-less enjoyable.

You are supplied with two discs, the first is a system disc containing your CP/M operating system and a series of other programs generally used at this operating system level. The second disc contains both Newword and Supercalc, and all the associated files that go with these programs.

At this point I think it is fair to point out the 'extras'

you will need to have when you buy the system!. Firstly, and most importantly you will need a monitor, else you will not see anything when you start up, a T.V. will not work, but you will still need it for when you are working MTX mode. A green screen monitor will cost you anything from £70 new, this is a solution, but not a very good one I feel, as at times you will require to have both a T.V. and monitor connected. It is possible to buy a T.V./monitor combination which does the job very well and give you a colour monitor although be prepared to pay £200+. Also you will need some blank discs, I would suggest 5 to be a minimum, this will cost you a further £15 or so.

On startup the disc drive light came on and the screen prompted me to load my system disc, the system then loading correctly, showing that I had a 1Meg disc and 512K of silicon connected. The disc drive was remarkably quiet in operation, infact the total lack of noise was eerie, I am more used to hearing the cooling fan of my FDX unit whirring in the background. File copying seemed reliable and fast, and once Newword and Supercalc are loaded on the silicon discs they run like lightening.

The documentation is as for that of the 5 1/4" system and as such is ok but totally lacking on the silicon disc front. As with all the previous manuals, the operating system section is to say the least frightening to the beginner, so remember to copy your system disc before you start playing!. The Newword and Supercalc are very well explained and should be part of the family in no time at all.

To sum up, the system is very good value for money at £249.00 and seems to function in every way that it was set up to do. I would be very interested to hear the comments of members that have the system. I think a printer is also necessary to make the system complete. Some user support for the beginner is absolutely necessary, the club will endeavour to run a few articles in future on the CP/M front (any contributions will be gratefully received). The lack of being able to connect anything else to the system will prevent me from buying one as I must have somewhere to connect my little circuits.

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P R O G R A M   L I B R A R Y
£1.20 Per Cassette, 2 Programs per Cassette

This month we can announce that the programs are available on 3.5" disc's, for details see this month is editorial. Remember that if you would like a full list of the titles that we have and the reviews that go with them, just send in a SAE. I have started to include the programs printed in the magazine on the library discs as well, this will fill the disc's up a bit more quickly but I do not feel that that is too much of a problem.

1.Basic & Assembler Programs
All programs available on cassette, 2 programs per cassette, £1.20 per cassette. Or on disc, £2.50 per disc, please enclose a disc, stating capacity.(Some programs are only available on cassette!!).

Reviews of all programs are available, please send a large SAE. All Swiss User Group programs are prefixed with 'Sw'.

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          --- The Second Disc Starts Here ---
33.Texted      Word-pro
34.SwMice      Swiss Arcade game Written in Basic
35.TNTTIM      Assembler arcade game.
36.Sw3D-FUNC.1      First of two. Saturn!!!
37.Sw3D-FUNC.2      Second of Above. Sinpr?.
38.SwSpr-Ed        YASG.
39.SwZ-Wandl       Number Base Convertion Prog.
40.OXO             Noughts & Crosses.
41.Solitaire       Strategy Game.
42.Cross-Num       Excellent strategy game!!
43.Avoid Seven     Dice Game
44.Numerology      Analyse your name!!
45.Chemin          Another Dice Game!
46.Dice            Another, Another Dice Game!!
47.SwMathe         Arithmetic Tester.
48.Reversi2        Assembler of no. 30. Great!!
49.ISOT            A really good maze game.
50.DBaseI          Simple Data Base
51.DBaseII         Requires MTX Util Tape
52.Money 2.1       An update of no 28
53.Ram Disc        Better than sliced bread
54.RDisc Source    Source of above.
55.Diary           Diary & Address program
56.Terminal Em.    Comm's via Rs232 & Modem.
57.Skittles        Keeps league tables
58.Card-Ind        Produces Card Index's
59.Chemements      Applications (Chemistry)
60.2 * H&W         Large char. printing
61.Hangman         A classic
          ---- Diskette Three ----
62.Account         The Third Money Manager
63.Mastermind      Another Good Game
64.Connect4        Two Player Game
65.Journey Into Danger  NEW Adventure Game
66.Connect4 Version 2   As for 64
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3.Articles From Previous Magazines
(Available as listings, please provide sufficient postage to cover club costs. TA!)
1.PANEL2 Utility. An updated version of PANEL1, which includes a second feature.
2.Undocumented Neword dot commands.(Vol1 Iss.7)
3.Hisoft Pascal Review (vol1 Iss.8)
4.Neword Rom Review (Vol1 Iss.5)
5.RST10 Codes Explained (Vol1 Iss.3)
6.VDP Explained Using assembler (vol1 Iss4,5,6)
7.System Variables (Not Previously Published!!)
8.SDX Disc Review.

5.Program Reviews
65 Journey Into Danger - Alan Dobson
Alan is emerging as the clubs most prolific games writer. his latest offering, Journey Into Danger, an adventure game, is much in the same mould as Alice. I must say that so far I have only had about an hour to play with it, which does not do it justice. Although I must say that I have already started drawing my map. The object of the game is wander around the maze collecting treasures, trying not to get caught by the many pitfalls you will encounter.

This is to adventure games, what Quasi is to the arcade game ....Brilliant. I shall be playing with this one a lot over Christmas.

Many Thanks For Another Brilliant Program Alan !!!

66 CONNECT4 Version 2 - By M.Thomas
Last month M.Thomas sent in the first version of Connect 4, this month we have version two, this version is capable of acting as opponent as well as compere, although it's playing ability is not brilliant, it would be well suited to children in the 6-10 year old age group. It may also provide a useful program if you feel like modifying it to make it play stronger.

This is a pleasing game for two players with the computer acting as compere. The graphics are simple and uncluttered, and should be easily followed by younger children. Worth having in your collection and a lot cheaper than buying it in the shops.