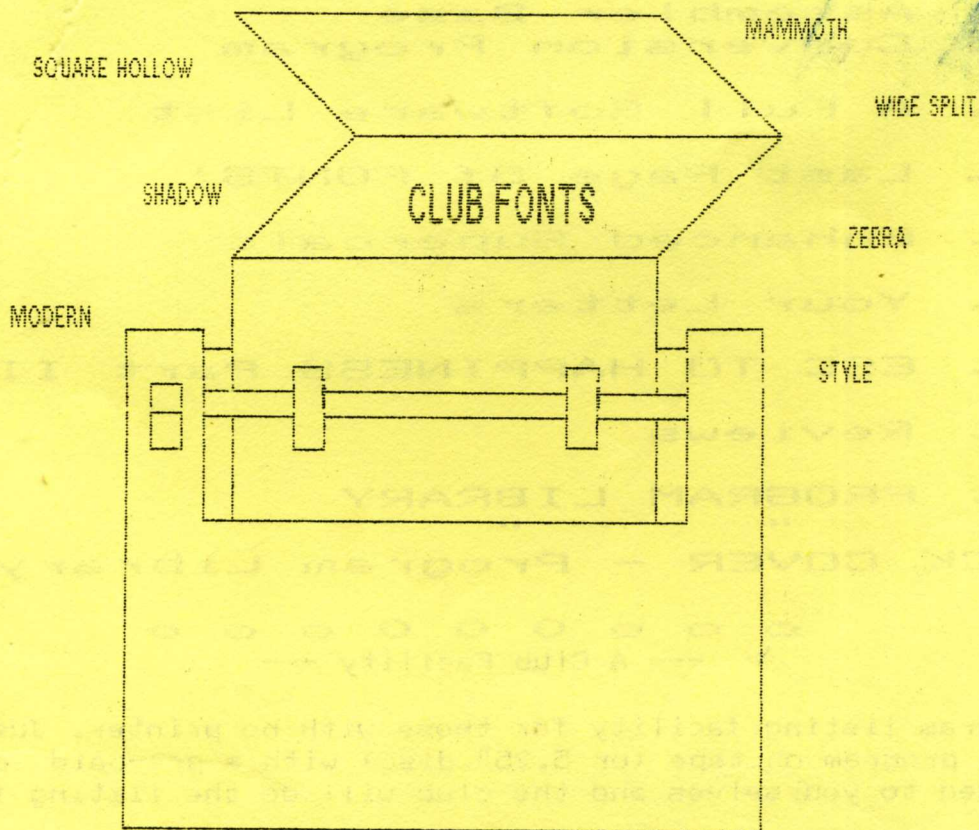


THE
MEMOTECH OWNERS CLUB
MAGAZINE
MEMOTECHNIQUES



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M.O.C.

VOLUME 4 ISSUE NUMBER 6

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--- A Club Facility ---

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.

--- Names and Telephone Numbers. ---

i. Paul Wood for 3.5" disc copying, general info and Comms specific info.

Tel 0905 24260

ii. Alan Dobson for help with the following adventures:

Alice, The ZOO and Man From Granny

Tel 061-980-6288

E D I T O R I A L (June 1988)
Phil & Hazel Eyres
13 Copse Road
Townhill Park
Southampton

Firstly, sorry for this month's magazine being a couple of weeks late. There are two main reasons:-

1. Wallpapering the hall!!
2. News from Genpat/Memopad/Orion (call them what you will?) that they are 'shuting up shop'.

As item number 2 is of great importance, I thought it best to take action on it as soon as possible. So far Alan and I have:-

- a. Contacted Orion about whats happening to existing members, and also what about the software.
- b. Contacted MCL. They did not know anything about it!. Although they have promised to contact Genpat and get back to us.
- c. Written to several national magazines, highlighting the situation, in the hope that it will draw Memopad subscribers attentions to our existance.
- d. Sent off a 100 person mail shot just to see if it does any good?

From the last Memopad which has just been sent out, it would appear that subscribers to Genpat will not get any money back, but they will be offered extra discounts on remaining software. Orion do not seem prepared to sell/give/do anything with the existing software titles. Our only hope on this one is that MCL will be able to help us contact the people who wrote the software in the first place, or that they will come forward and offer it to us.

Over the phone MCL has offered to support us by sending out club leaflets with their mail, which will obviously help us - Thanks Very Much!!! (Thats because we send Mrs Boyd a mag!!!).

Anyway if anyone has any ideas offers, we are ready to try them out. Hopefully if more news becomes available, I'll put the next magazine together early, just to keep everyone in the picture.

I have had to hold over the Mouse interface this month as I did not have the space or ability to print the diagrams.

I should now be in most evenings, except for the odd game of squash, so I think that it would be best to revert to having the Club Hotline between 7 and 8 pm any evening. Please where at all possible refrain from phoning after 9pm. I hope this is ok for everyone. The number to phone now is (0703) 585106, ask for Phil.

If anyone would like back issues they are available for the small remittance of 80p each. At present there are 35 back issues, 10 for volume 1, 10 for volume 2, 10 for volume 3 and 5 for volume 4.

Finally, could however called about the 8255 PIO board call again, I've got the board and info, but I've lost your address!!
Phil (0703) 585106.

MTX CLUB FONTS

By Paul Trainer

Part II

This is the second and final part of the 'Club Fonts', it contains the remaining programming for menu options:-

- 2 - Choose & Print Underscore.
- 3 - Choose/Change Font
- 4 - Font Printing.

Also printed are the DATA lines for the remaining FONTS. If you have trouble typing the program in, or would just find the whole process easier from a cassette; Club Fonts is available from the Program Library!

The second part of the Club Fonts is listed below. Please refer to last months mag. for the first part of the program.

The Listing...

```
400 INK 11: CLS : PRINT " FONT MENU.... Enter 0 for
main menu.": SOUND 3,300,15: SOUND 3,500,15:
SOUND 3,0,0
405 PRINT "=====
410 PRINT : PRINT " Font 1 = Style."
412 PRINT : PRINT " Font 2 = Wide split."
414 PRINT : PRINT " Font 3 = Big stuff."
416 PRINT : PRINT " Font 4 = Square hollow."
418 PRINT : PRINT " Font 5 = Solid."
420 PRINT : PRINT " Font 6 = Modern 1."
422 PRINT : PRINT " Font 7 = Modern 2."
424 PRINT : PRINT " Font 8 = Shadow."
426 PRINT : PRINT " Font 9 = Zebra."
428 PRINT : PRINT " Font 10= Back slant."
429 SOUND 2,0,0: PAUSE 1000
430 CSR 1,23: INPUT "Enter your choice, <0 to 10> ";FD$:
LET FD=VAL(FD$): IF FD=0 THEN GOTO 140
431 IF FD>10 THEN SOUND 2,1000,15: INK 9: CLS : CSR 10,
10: PRINT "ENTER 0 TO 10 PLEASE": PAUSE 2000: GOTO 400
435 SOUND 2,350,15: INK 9: CLS : CSR 8,10:
PRINT "Are you sure ?. Y or N": SOUND 2,0,0
440 IF INKEY$="N" OR INKEY$="n" THEN GOTO 400
450 IF INKEY$="Y" OR INKEY$="y" THEN GOTO 470
455 GOTO 435
470 CLS : PRINT " Please wait."
480 RESTORE 1140: LET SU=420: REM === read dummy data ==
490 IF FD=1 THEN FOR T=1 TO SU: READ DU: NEXT
500 IF FD=2 THEN FOR T=1 TO SU+290: READ DU: NEXT
510 IF FD=3 THEN FOR T=1 TO SU+580: READ DU: NEXT
520 IF FD=4 THEN FOR T=1 TO SU+770: READ DU: NEXT
530 IF FD=5 THEN FOR T=1 TO SU+960: READ DU: NEXT
540 IF FD=6 THEN FOR T=1 TO SU+1150: READ DU: NEXT
550 IF FD=7 THEN FOR T=1 TO SU+1340: READ DU: NEXT
560 IF FD=8 THEN FOR T=1 TO SU+1530: READ DU: NEXT
```

```
570 IF FD=9 THEN FOR T=1 TO SU+1720: READ DU: NEXT
580 IF FD=10 THEN FOR T=1 TO SU+1910: READ DU: NEXT
590 IF FD=0 THEN CLS : SOUND 2,50,15: CSR 3,10:
PRINT "You have not chosen a font yet !":
PAUSE 5000: SOUND 2,0,0: GOTO 140
592 CLS : INK 5: PRINT " If the computer does not read
a '/' at the front of your heading it will give you
the option to centre your text !"
593 SOUND 2,200,15: PAUSE 1000: SOUND 2,0,0: GOSUB 1260
595 LET C=0: LET CI=0: CLS : SOUND 2,500,15: PRINT " Do
you want single or double density ? Press 1 or
2.....0 = Main menu ": SOUND 2,00,0
600 IF INKEY$="1" OR INKEY$="2" THEN GOTO 610
605 IF INKEY$="0" THEN GOTO 140
608 GOTO 600
610 LET DE=VAL(INKEY$): GOSUB 1600
615 CLS : IF DE=1 THEN CSR 12,6: PRINT "^" ELSE
CSR 21,7: PRINT "^"
620 INK 5: CSR 0,0: PRINT " Use the / key to indent your
heading or use it just once for a blank line !"
622 PRINT : INPUT " Your heading
is
:--;H$
625 IF FD=5 AND H$="/" THEN GOSUB 1630: GOTO 1045
630 IF LEN (H$)>96 AND DE=2 OR LEN (H$)>48 AND DE=1
THEN GOTO 650
640 GOTO 660
650 SOUND 2,300,15: PRINT : PRINT : PRINT "Your heading
has too many characters ! MAX 96 for double density
or 48 for single with spaces !": GOSUB 1260
655 SOUND 2,0,0: GOTO 615
660 LET L=LEN (H$): FOR X=1 TO L: LET B$=MID$(H$,X,1):
LET A$=CHR$(65): LET Z$=CHR$(90)
670 IF B$=" " OR B$="." OR B$="!" OR B$="/" OR B$>A$ AND
B$<=Z$ THEN GOTO 690
680 IF B$<A$ OR B$>Z$ THEN GOTO 1640
690 NEXT
700 IF LEFT$(H$,1)="/" THEN GOTO 704
701 CSR 0,9: PRINT " Do you want your heading centred
?
Y or N"
702 IF INKEY$="y" OR INKEY$="Y" THEN LET C=1: GOTO 704
703 IF INKEY$<>"N" AND INKEY$<>"n" THEN CSR 16,10:
PRINT " ": GOTO 701
704 GOSUB 1300: GOSUB 1290: IF C=0 AND CI=0 THEN GOTO 720
705 IF DE=1 THEN LET CE=23 ELSE LET CE=47
706 FOR P=1 TO INT(CE-INT(L/2)): GOSUB 1900: GOSUB 1550:
FOR T=1 TO 10: READ R: LPRINT CHR$(R): NEXT :
NEXT : LET C=0: LET CI=1
720 FOR X=1 TO L: GOSUB 1900: LET B$=MID$(H$,X,1)
730 IF B$=" " OR B$="/" THEN LET D=0: GOTO 1030
1010 IF B$="." THEN LET D=270: GOTO 1030
1020 IF B$="!" THEN LET D=280: GOTO 1030
1025 LET S=ASC(B$)-64: LET D=S*10
```

Please turn to next page

```

1030 GOSUB 1550
1040 FOR Q=0 TO D: READ F: NEXT : FOR T=1 TO 10: READ R:
  LPRINT CHR$(R);: NEXT : NEXT : LPRINT
1045 PRINT : PRINT " Do you want ANOTHER line in this
  font or then SAME line on another sheet ?"
1047 CSR 12,22: PRINT "=" : CSR 13,22:
  PRINT "A or S..M=Menu"
1050 IF INKEY$="A" THEN GOTO 595
1055 IF INKEY$="S" THEN CLS : GOTO 704
1057 IF INKEY$="M" THEN GOTO 140
1060 IF INKEY$("<"A" OR INKEY$("<"S" OR INKEY$("<"M" THEN
  GOTO 1047
1325 REM ***** underscore print *****
1330 CLS : INK 6: PRINT "Please choose your
  underscore..0 = MENU"
1340 CSR 1,2: INPUT "Choices < 1 to 11 > ";CH#:
  LET CH=VAL(CH#): IF CH=0 THEN GOTO 140
1350 IF CH>11 THEN CLS : SOUND 2,1000,15: INK 2:
  PRINT " Type 0 to 11 please": PAUSE 2000:
  SOUND 2,0,0: GOTO 1330
1360 SOUND 3,200,15: PRINT : PRINT " NOTE": PRINT " Sing
  le density = max 48 u/score blocks Double density
  = max 96 u/score blocks per line.": SOUND 3,0,0
1370 CSR 0,9: PRINT " Which density < 1 or 2 > ": CSR 17,
  9: PRINT " : IF INKEY$="0" THEN GOTO 140
1380 IF INKEY$("<"1" AND INKEY$("<"2" THEN GOTO 1370
1385 LET DE=VAL(INKEY$)
1390 GOTO 1410
1400 GOSUB 1590
1410 SOUND 2,0,0: CLS : INK 15:
  PRINT "TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT"
1420 PRINT "0 max 48 single density 480
  max 96 double density 96": PAUSE 2000
1430 IF DE=1 THEN PRINT : INPUT "Which starting
  column ? < 0 to 48 > ";SC: IF SC>48 THEN PRINT :
  PRINT " Too large !": SOUND 2,300,15:
  PAUSE 1000: GOTO 1410
1440 IF DE=2 THEN PRINT : INPUT "Which starting
  column ? < 0 to 96 > ";SC: IF SC>96 THEN PRINT :
  PRINT " Too large !": SOUND 2,500,15:
  PAUSE 1000: GOTO 1410
1450 PRINT : INPUT "How many u/score blocks do you
  want-";HM
1455 IF DE=1 AND SC+HM>48 THEN CLS : INK 10: CSR 0,10:
  SOUND 2,300,15: PRINT "Too many ! MAX left ";48-SC:
  PAUSE 5000: GOTO 1410
1460 IF DE=2 AND SC+HM>96 THEN CLS : INK 10: CSR 0,10:
  SOUND 2,300,15: PRINT "Too many ! MAX left ";96-SC:
  PAUSE 5000: GOTO 1410
1470 RESTORE 1140: FOR D=1 TO 330: READ F: NEXT :
  GOTO 1490
1480 FOR D=1 TO 331: READ F: NEXT
1490 GOSUB 1300: GOSUB 1290: GOSUB 1570
1500 IF SC=0 THEN GOTO 1530
1510 FOR SP=1 TO SC: RESTORE 1220: GOSUB 1550
1520 FOR T=1 TO 10: READ R: LPRINT CHR$(R);: NEXT T:
  NEXT SP
1530 FOR H=1 TO HM: RESTORE 1220: FOR Q=1 TO CH#10:
  READ F: NEXT : GOSUB 1550
1540 FOR T=1 TO 10: READ R: LPRINT CHR$(R);: NEXT :
  NEXT : LPRINT : GOSUB 1570: GOSUB 140
1900 REM===== RESTORE =====
1910 IF FO=1 THEN RESTORE 2010: RETURN
1920 IF FO=2 THEN RESTORE 3010: RETURN
1930 IF FO=3 THEN RESTORE 4010: RETURN
1940 IF FO=4 THEN RESTORE 5010: RETURN
1950 IF FO=5 THEN RESTORE 6010: RETURN
1960 IF FO=6 THEN RESTORE 7010: RETURN
1970 IF FO=7 THEN RESTORE 8010: RETURN
1980 IF FO=8 THEN RESTORE 9010: RETURN
1990 IF FO=9 THEN RESTORE 10010: RETURN
1995 IF FO=10 THEN RESTORE 11010: RETURN
6000 REM===== SOLID..... =====
6010 DATA 0,0,0,0,0,0,0,0,0,0,0,255,129,183,183,183,183,
  183,183,129,255,255,129,173,173,173,173,173,165,
  137,255
6015 DATA 255,129,189,189,189,189,189,189,189,255
6020 DATA 255,129,189,189,189,189,189,189,195,255,255,
  129,173,173,173,173,173,189,189,255,255,129,175,175,
  175,175,175,191,191,255
6025 DATA 255,129,189,189,189,189,181,181,177,255
6030 DATA 255,129,239,239,239,239,239,239,129,255,255,
  255,255,189,189,129,189,189,255,255,255,251,189,189,
  189,189,129,191,191,255
6035 DATA 255,129,239,239,231,227,203,153,189,255
6040 DATA 255,129,253,253,253,253,253,253,253,255,255,
  129,191,159,207,207,159,191,129,255,255,129,191,191,
  191,191,191,191,129,255
6045 DATA 255,129,189,189,189,189,189,189,129,255
6050 DATA 255,129,183,183,183,183,183,135,255,255,
  129,189,189,189,189,189,185,128,255,255,129,175,
  175,167,163,161,169,141,255
6055 DATA 255,141,173,173,173,173,173,161,255
6060 DATA 255,191,191,191,129,129,191,191,191,255,255,
  129,253,253,253,253,253,253,129,255,255,135,243,
  249,253,253,249,243,135,255
6065 DATA 255,131,249,253,249,249,253,249,131,255
6070 DATA 255,189,157,235,247,247,235,157,189,255,255,
  255,63,159,207,224,207,159,63,255,255,189,189,
  185,177,165,141,157,189,255
6075 DATA 255,255,253,253,253,255,255,255,255,255
6080 DATA 255,255,255,133,133,133,255,255,255,255

```

More Fonts On Page 7!!

BASE 10 & 16 CONVERSIONS

BY

John Hodgson

While writing a program, I had need for an input/output routine that would work in base 10 and base 16. I wrote myself a little test program and as it uses ROM routines I thought that it may be of interest to others. This program seems to work ok with the FDXB basic.

You can input numbers in the format 12345 or £ABCD in the range 0 to 65535 or £0000 to £FFFF. The only error checking that is done is in the ROM routines and it is very limited. The number 12AB will be taken as 12, the number £ABCDEF will be taken as £CDEF. The program is a little limited as I have not added full error checking, the main point is to show the use of the ROM routines.

Anyway what do the routines do?

£1B85 - This will take any input from the keyboard and put it into the keyboard buffer. The start address of the keyboard buffer can be found in the system variable (£FAB3). There is no check that the characters input are numeric so it is up to the user to write their own check routines.

£1AB1 - This takes the character string pointed to by the register pair DE and converts it into a value held in the register BC.

£0CAB - Most users know this one. It prints out the character held in the A register,

£1B50 - This takes the value held in the register BC and prints it out as a HEX character.

£0DD0 - The number held in the register BC is converted to an ASCII string in the system variable area, register DE will contain the start address of the ASCII string.

£1907 - This routine will print out the ASCII string pointed to by the register HL. One slight problem is that it leaves a cursor character after the last numeric character printed. To get over this I have included a BACKSPACE and DELETE after the call to this routine.

--- The Listing ---

```
10 CODE
4007 CALL NUMIN
400A CALL CRLF
400D CALL PRINTH
4010 CALL PRINTD
4013 RET
4014 NOP
4015 NOP ; *****
4016 NOP ; ***** READ IN A NUMBER *****
4017 NOP ; *****
4018 NOP
```

Please turn to Page 5.

```

4019      NOP
401A NUMIN: RST 10
401B      DB £8F,"ENTER NUMBER = "
402B      CALL £1B85      ;Call ROM routine to read number
402E      LD DE,("FAB3)  ;into keyboard buffer. Load DE to
4032      CALL £1AB1      ;point to the start of the key-
4035      JR Z,GOODNUM    ;board buffer. ROM routine to
4037      RST 10          ;convert number string to value
4038      DB £92,10,13,"INVALID NUMBER",10,1"
404B      JR NUMIN       ;in BC. Limited test for valid no.
404D GOODNUM:LD (STORNUM),BC ;Let's store number in memory.
4051      RET
4052      NOP
4053      NOP      ; *****
4054      NOP      ; ** ROUTINE TO PRINT STORED NUMBER IN HEX **
4055      NOP      ; *****
4056      NOP
4057 PRINTH: RST 10
4058      DB £8F,"HEX NUMBER = "
4067      LD A,"£"      ;Print out the £ character.
4069      CALL £CAB
406C      LD BC,(STORNUM) ;Reload BC with the stored num.
4070      CALL £1B50      ;ROM routine to print the value
4073      CALL CRLF      ;in BC register.
4076      RET
4077      NOP
4078      NOP      ; *****
4079      NOP      ; ** ROUTINE TO PRINT OUT STORED NO IN DEC **
407A      NOP      ; *****
407B      NOP
407C PRINTD: RST 10
407D      DB £8F,"DEC NUMBER = "
408C      LD BC,(STORNUM) ;Reload BC with stored number
4090      CALL £0DD0      ;ROM routine to convert value in
4093      PUSH DE         ;BC to ASCII string. Pointer to
4094      POP HL          ;string in DE. Move pointer to HL
4095      CALL £1907      ;ROM routine to print ASCII string
4098      RST 10        ;This removes cursor left behind
4099      DB £82,8,22    ;by routine £1907.
409C      CALL CRLF
409F      RET
40A0      NOP
40A1      NOP      ; *****
40A2      NOP      ; ***** CARRIAGE RETURN / LINE FEED *****
40A3      NOP      ; *****
40A4      NOP
40A5 CRLF:  RST 10
40A6      DB £83,31,10,13
40AA      RET
40AB STORNUM:DB "XXXXXX"
40B1      RET

```

Symbols:

```

CRLF      40A5 PRINTH      4057
PRINTD    407C NUMIN      401A
GOODNUM   404D STORNUM    40AB

```

--- The End ---

HARDWARE AND SOFTWARE PRICE LIST

June 1988

MOC
Phil Eyres
13 COPSE ROAD, TOWNHILL PARK, SOUTHAMPTON. Tel 0703 585106

Below is the list of available software for the MTX series, titles held in stock will be dispatched by return, all other titles ordered immediately and sent by return when received. All MOC titles always in stock and sent by return. Please make cheques payable to Memotech Owners Club.

Title	Price	Title	Price	Title	Price
3D TACHYON FIGHTER	*7.70	GRAPHICS	6.60	RUTHLESS B.	4.00
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" " " TECH DATA	2.00
" " " TUTORIAL	7.00

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With either of these disc's or any of the software marked with an "*"; 1 free MOC 1988 Diary per order!!!

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STAR COMMANDER	3D TACH FIGHTER
PACMAN	MISSILE COMMAND
MINEFIELD	TIME BANDITS
POTHOLE PETE	BACKGAMMON
PHAID	ARCAZIONS
CHAMBERIDS	

Printer ribbons only £7.00 each.

Please turn to page 2 for full details

```
7000 REM ===== MODERN 1... =====
7010 DATA 0,0,0,0,0,0,0,0,0,0,0,255,159,144,144,144,144,
      255,15,0,0,255,137,137,137,137,137,255,15,0,0,255,
      159,129,129,129,129,129,129,0
7020 DATA 0,255,159,129,129,129,129,129,127,0,0,255,151,
      145,145,145,145,129,129,0,0,255,151,144,144,144,144,
      128,128,0,0,255,159,129,129,129,137,137,143,0
7030 DATA 0,255,223,16,16,16,16,16,255,0,0,0,0,129,255,
      159,129,0,0,0,0,7,129,129,255,159,128,128,0,0,0,
      255,47,44,102,66,194,131,129,0
7035 DATA 0,255,31,1,1,1,1,1,1,0
7040 DATA 0,255,159,192,112,112,192,128,255,0,0,255,
      159,128,128,128,128,128,255,0,0,255,159,129,129,
      129,129,129,255,0,0,255,175,160,160,160,160,160,
      224,0
7045 DATA 0,255,159,129,129,129,129,131,255,0
7050 DATA 0,255,175,160,160,184,168,175,231,0,0,247,
      147,145,145,145,145,159,143,0,0,128,128,128,255,
      159,128,128,128,0,0,255,31,1,1,1,1,1,255,0
7055 DATA 0,254,30,1,1,1,1,1,254,0
7060 DATA 0,254,31,1,2,6,3,1,255,0,0,131,198,108,56,56,
      108,198,131,0,0,128,64,32,31,23,32,64,128,0,0,131,
      131,135,143,157,185,241,225,0
7065 DATA 0,0,7,7,7,7,3,0,0,0,0,0,0,253,253,29,0,0,0,0
8000 REM ===== MODERN 2... =====
8010 DATA 0,0,0,0,0,0,0,0,0,0,0,127,248,232,200,200,
      232,248,127,0,0,255,145,145,145,147,151,223,126,0,
      0,255,249,241,225,193,129,129,129,0
8020 DATA 0,255,159,143,135,131,129,129,126,0,0,255,
      249,249,233,201,137,137,129,0,0,255,248,248,232,200,
      136,136,128,0,0,255,249,241,225,193,133,133,247,0
8030 DATA 0,255,60,24,16,16,24,60,255,0,0,0,1,3,199,
      255,3,1,0,0,0,7,129,129,143,255,131,128,0,0,0,255,
      16,16,56,56,108,198,131,0,0,255,31,15,7,3,1,1,1,0
8040 DATA 0,255,192,224,240,240,224,192,255,0,0,255,
      128,128,128,192,224,240,255,0,0,255,159,143,135,131,
      129,129,255,0,0,255,156,152,144,144,144,144,240,0
8050 DATA 0,255,129,129,131,135,143,159,255,1,0,255,144,
      159,159,159,151,147,241,0,0,249,249,185,153,137,
      137,137,143,0,0,128,192,224,240,255,128,128,128,0
8060 DATA 0,255,1,1,1,3,7,15,255,0,0,255,15,7,1,1,7,15,
      255,0,0,255,1,3,7,7,3,1,255,0,0,131,198,108,56,56,
      108,198,131,0
8070 DATA 0,240,240,112,63,31,16,16,240,0,0,129,131,135,
      141,153,177,225,193,0,0,0,1,3,7,7,3,1,0,0,0,0,0,
      128,192,253,253,0,0,0

9000 REM ===== SHADOW.... =====
9010 DATA 0,0,0,0,0,0,0,0,0,0,0,1,1,27,18,146,65,33,
      31,0,0,0,109,73,73,1,129,73,54,0,0,1,125,65,1,
      129,65,34,4,0,0,1,1,125,33,1,131,70,56,0
9015 DATA 0,1,109,73,73,73,73,219,0,0,1,1,111,
      104,104,104,120,192,0
9020 DATA 0,1,125,65,1,129,73,41,22,0,0,1,1,239,8,
      8,1,1,255,0,0,0,65,65,1,125,65,195,0,0,0,0,5,
      69,65,2,124,64,192,0,0,0,0,247,4,16,32,65,131,0
9025 DATA 0,0,253,1,1,1,1,1,3,0,0,1,1,63,0,32,65,1,255,0
9030 DATA 0,1,1,63,32,32,1,1,255,0,0,0,1,61,33,33,
      129,67,60,0,0,1,15,104,72,8,136,72,56,0,0,2,1,
      61,33,33,131,70,57,0,0,1,97,65,73,13,139,75,56,0
9035 DATA 0,1,17,9,41,41,33,51,236,0,0,32,32,1,1,
      63,32,32,224,0
9040 DATA 0,0,1,253,1,1,1,2,252,0,0,0,248,5,1,1,2,4,
      248,0,0,0,241,1,2,4,18,1,255,0,0,129,65,34,4,16,
      41,69,131,0,0,0,64,32,16,1,23,32,192,0
9045 DATA 0,1,65,65,69,73,17,33,195,0,0,0,1,1,1,
      7,0,0,0,0,0,0,0,1,1,253,0,0,0,0
10000 REM ===== ZEBRA..... =====
10010 DATA 0,0,0,0,0,0,0,0,0,0,0,5,21,85,68,68,85,
      21,5,0,0,85,85,85,85,85,69,37,2,0,0,20,85,85,
      65,65,65,65,34,0,0,85,85,85,65,65,65,34,20,0
10015 DATA 0,85,85,85,69,69,69,69,69,0
10020 DATA 0,85,85,85,68,68,64,64,64,0,0,20,85,85,
      65,65,65,69,37,0,0,85,85,85,4,4,85,85,85,0,0,
      0,0,17,85,85,85,1,1,0,0,5,65,65,85,85,85,65,64,0
10025 DATA 0,85,85,4,4,20,85,83,65,0
10030 DATA 0,85,85,85,1,1,1,1,1,0,0,85,85,64,32,32,
      64,85,85,0,0,85,85,85,64,64,85,85,85,0,0,20,85,
      65,65,65,65,85,20,0,0,85,85,69,68,68,68,84,16,0
10035 DATA 0,20,85,65,65,65,65,85,21,1
10040 DATA 0,85,85,69,68,68,70,87,17,0,0,49,21,85,84,
      84,84,80,88,0,0,64,64,85,85,85,85,64,64,0,0,84,
      85,85,1,1,85,85,84,0,0,80,84,84,1,1,84,84,80,0
10045 DATA 0,84,85,1,5,5,1,85,84,0
10050 DATA 0,65,85,85,8,8,85,85,65,0,0,80,80,85,5,5,
      85,80,80,0,0,65,65,69,69,85,85,81,81,0,0,0,5,5,
      5,5,0,0,0,0,0,0,0,84,85,85,0,0,0,0

... The End ...
```

A little space filling program from Mr E Hughes of Ledbury.

```
10 VS 4: CLS : GOSUB 160
20 PRINT "MEMOTECH"
30 LET A=100: LET B=101 : GOSUB 90
40 PRINT "OWNERS"
50 LET A=73: LET B=74: GOSUB 90
60 PRINT " CLUB "

70 LET A=46: LET B=47 : GOSUB 90
80 GOTO 80
90 INK 15
100 FOR X=30 TO 94: FOR Y=8 TO 16
110 LET DOT%=GR$(X,Y,1)
120 IF DOT%=CHR$(1) THEN GOTO 150

130 PLOT 2*X,3*Y+A
140 PLOT 2*X,3*Y+B
150 NEXT Y: NEXT X
160 INK 0: CSR 4,22
170 RETURN
```

Enhanced Supercalc

By

Neil Rigiani

A snippet of information concerning Supercalc. I presume everybody that has a Memotech disc system and CP/M had the same Supercalc version as myself, ie installed with no special attributes for the cursor cell or protected cells. A bit lax on Memotech's part if you ask me. Well, whilst playing about with Supercalc's installation program INSTALL.COM I found an unlisted installation command - X - on the main menu screen. After playing around for a lot longer I managed to figure out how to change the 80 column board attribute byte and some other odds and ends. The following sequence of keys (before the ;) will provide a reverse video cursor cell, dull protected cells and bright unprotected cells.

Before running the install program you should copy SC.COM to for instance SC.SAV. The following uses SC.COM, so if anything goes wrong you can always recover by copying SC.SAV back to SC.COM.

```
INSTALL <RET> ;Run install program 3 ;Menu choice 3
Y ;Yes! you do want to continue Y ;Yes, Change data
<RET> ;Use SC.COM from default disc 1 <RET> ;1 byte to follow
X ;Special secret command 12 <RET> ;Hex 12 = ASCII 18. Dull foreground
N ;No don't erase everything 4 ;Menu choice 4
B ;Menu choice B Y ;Yes, Change Data
1 ;Menu choice 1 1 ;1 byte to follow
Y ;Yes, Change data 14 <RET> ;Hex 14 = ASCII 20. Bright foreground
2 <RET> ;2 bytes to follow X ;Exit last menu
4 <RET> ;Hex 4 = ASCII 4. See SDX CP/M E ;Menu choice E
;technical manual page 18.3 control code B ;Menu choice B
;set. This sets D3..D5 in attribute byte. 3 <RET> ;3 attributes.Why 3? No idea but it works
6 <RET> ;Hex 6 sets D4 & D5 in attribute byte N ;No guard characters
2 ;Menu choice 2 X ;Exit last menu
Y ;Yes, Change data X ;Exit last menu
2 <RET> ;2 bytes to follow A ;Save changes to disc
4 <RET> ;as above Y ;Yes, we are finished
0 <RET> ;sets D3
3 ;Menu choice 3
Y ;Yes, Change data
1 <RET> ;1 byte to follow
```

You should now have a revitalised Supercalc program. When reading the above explanation you should follow the story in the SDX CP/M technical manual to make any sense out of it. This is part of the ring bound volume provided with the SDX system. Anything else you wish to change eg. choice F, my version still signed on with MEMOTECH FDX instead of SDX, is up to you. Good Luck.

Your Letters

Services

My name is Alan Wilson and I run AFW Software, some of you have seen my adverts in MOC and even the review of the Tape to Disc Booklet in issue 4 Vol 4. However I am a bit disappointed with the overall response to the booklet. It is reasonably priced at £4.00, and rather than dot matrix print, I have had it laser printed.

Considering it is one of the few books on the Memotech and probably the only one which deals with the Z80, the operating system and their interaction with the Basic Interpreter. It includes an excellent Panel utility, information on how to disable copy protection in order to convert games to disc, and much more. you only need to turn to issue 5 Vol 4, "MTX Print Screen", to see the quality and detail I provide when I write articles. No problems understanding how the program was written. As it is structured and concise.

The object of this letter is to emphasise why the Memotech was never well supported considering its technical superiority. This is because its users were not willing to pay for the service. Level 9, withdrew support for the MTX after only 6 people were willing to part with a few pounds for there Red MOON title, a few years ago. I see that John Grayson of Graysoft has come across this problem as well, see issue 8 Vol 3.

Finally, those of you who typed in MTX print screen, will have realised that there is a bug in the listing. The bug only appears when in Noddy or Ready mode (ie interrupt mode). The interpreter, thinks that CTRL P is an invalid command produces the SE.C error. This will lose a whole Noddy page. I will offer a copy of the Tape to Disc Book to the best (or in case of a tie, the first out of the hat) routine which allows CTRL P to be used to select print screen.

A.F.Wilson 20 Cambridge Road, Whitehaven, Cumbria.

I am at present looking into and starting to provide ROMs for the MTX that are modified to a customers spec, typically adding a well used utility etc, should you or anyone else be interested please let me know, i can also offer an Eprom copying service that covers all but the most unusual types, costs are very low, dependant on the type of Eprom whether I supply the Eprom etc, inquiries to me at the address below.

Paul Wood 12 Bishops Ave, Worcester.WR3 8XA

Problems

1. Alan Barrett would like to know how to use 'INT' and 'NMI' via hardware switching, to run software interrupt routines. Please contact him on Whaley Bridge 4429.

2. Are Orion still interested in Memotech users?. Their magazine seems to be provided more as a chore than as a desire to provide a service to the subscribers.

Ed->As you will have seen from the Editorial, it appears that Orion are throwing in the towel!

As a devout filcher of other peoples programs, and being useless at developing my own programs or applications, might I ask if any readers of the MOC magazine, have any Mbasic or DbaseII programs. If so, are they available through the library.

Ed-> We have a growing number of CP/M disc's in the library, thanks to Alan. I don't think we have a lot to offer on the two above subjects however. Perhaps if anybody has something useful they could pass it on to Alan.

Are you in touch with oversear Groups? I am trying to join either the Dutch or German as they seem to be doing all sorts of things for the MTX.

Ed-> We had a contact with the Swiss user Group for a while, but it would appear that it no longer exists. We would gladly contact either of the above groups if anyone has an address?

J.Metcalf 122 Tennyson Ave,Harrogate,N.Yorks.HG1 3LF.

Help Lines

I work at a fairly large library and have access to a lot of computer books and some magazines. If anyone is interested I can supply photocopies of articles from magazines that may well be out of print now. I would have to charge 10p a copy + postage. I would also need full details ie Mag title, Year, Volume, as I do not have much time to find "Something about..." type articles. Also copyright has to be adhered to, so no whole magazines or chapters or books that are over 10% of the book.

J.Metcalf (Address as above)

Chit Chat

A few issues ago you reviewed the Assembly Language Course. I have got a copy of it - and it is a near miracle. The only thing I knew one day was the fact that Assembly used numbers at the start of the line which had something to do with memory locations - the next week I was converting programs I wrote when I first had my computer - and they worked!. The documentation is a good fat size which contains a basic to assembly "phrase book" showing a direct assembly equivalent to a Basic command. One slight niggle it does not work with the SDX 1 Meg controller fitted - at least not with mine anyway!. Fantastic all in all, a genuine good buy.

David Rollinson. Acomb, York.

Escape To Happiness Part II

By
Geoffrey Gardiner

Dot matrix printers have moved on since Newword was written and we now have 24 pin machines such as the Epson LQ series, and the Star NB 24's. Newword contains drivers for the Epson MX and FX printers and these will drive the new printers but not so as to make use of the printers best features. Nor are these two printers fully "Epson compatible", unless the blame for problems rests with programming mistakes.

One particular difficulty is with microjustification. The Star NB 24 will print a newword file that has been formatted for microjustification, but it does it very slowly in Pica and far slower still in Elite, and it prints at 5 lines to the inch, not six, which throws the programs calculation of the page length out. The Star has a facility to print out the Hex code it is receiving from the printer - as a help to diagnosing problems - and from this it is not difficult to see what is going wrong. Microjustification is achieved in Newword through an Epson compatible printer by adding to the ordinary space (ASCII code 20h), in 60ths of an inch. The printer can print graphics in 60ths (the NB 24 can actually work to 240ths) and by instructing the printer to print one or more vertical graphics lines that are blank, the required extension of the space is achieved. The printer therefore has to change to graphics font after each space character and this may contribute to the delays because the printer can print only unidirectionally in graphics mode.

Newword does not, when printing with the Epson driver, give a simple line feed command. Instead it tells the printer to advance a number of 60ths. In fact it specifies 12 because it thinks the printer advance moves in 72nds of an inch. It is probably a programming mistake as IBM characters are calculated in 72nds. The Star has the IBM character set but it has no solution to the problem to tell the printer to use the IBM set because it would require an additional code (Esc 2) to bring about the advance. One can fool Newword into giving the correct number of 60ths by altering the line height from 8 to 7, but that throws out the page length calculation and the printer will overrun the end of the page.

It is nice to be able to italicise one word but if one sets italics when in justification mode the whole line is italicised, and not always the right line. In order to change typefaces in midstream a rewritten print driver is required. As an extra aggravation if you set elite pitch on the printer manually, Newword will change it into condensed elite for it sends out a code at the

end of every line (0Fh) which causes the Star to switch to condensed type. I do not know what is the intended purpose of this code. Presumably it was needed for some reason with MX and FX printers.

If an escape code (1Bh) is sent to the printer the next character received is interpreted as a code to activate a feature of the printer. It is recommended by the makers of printers that people with Newword or Wordstar should set ^PE, one of the four custom ^P codes, to send 1Bh and then follow it up with the additional character necessary to activate some particular capability of the printer. In this way one can make use of all features of the printer that are activated by escape codes but were not thought of when the wordprocessing program was written. This system does not work with Newword files printed with the Epson driver because that driver inserts between the 1Bh and the next character two control codes known as DC2 and DC4, codes 12 and 14 in hex. I do not know why the driver program does this. To overcome this problem one would have to install the custom print codes to give the full code, for instance 1B 78 to set letter quality print. Unfortunately there are only four print codes that one can customise. The advantage of ^PE to send only 1B is that one can follow it up with the appropriate character to access one of any number of Escape code controlled features.

The only way to make use of the escape code controlled features is to use the draft print driver, not the Epson driver, unless someone knows where we can patch the Newword program to delete the offending codes in the Epson driver. The draft driver does not support microjustification but it does not muck up escape codes. With it there is no problem, for instance, in using escape codes to set italics for whatever words one fancies.

An escape code can be used to tell the printer to microjustify but if one uses it one must feed the printer with text which has not been word wrapped or justified. So send it a non-document, not a document, with carriage returns only at the end of paragraphs. Of course you will not see on screen what will be printed, and that may not suit you. It could cause all sorts of problems in complex documents, but short letters certainly could easily be done this way and look very nice. Think how nice it would be to produce a letter in letter quality characters, microjustified and proportionally spaced, with emphasised, not double printed, bold face headings.

Use NWKEY.COM to customise the function keys and shift+function keys to give the codes for the commonly used functions of the printer.

If one inserts ^PE followed by a letter that the printer will interpret as a code it will fox Newword's ability to count the number of letters in a line. When printed the line will be a character short. The probable answer to this small difficulty is to fool Newword by putting a .rm command at the beginning of the line.

The new printers are marvellous but they have outrun the capability of the computers to display on screen what

the printer will format on the paper. There are limits to 'WYSIWYG'. Even a new program like First Word Plus used on the Atari cannot display all the type pitches that the Star will perform.

Would some kind soul who has the time on his or her hands like to go through all the thousands of bytes of the NWPRINT.OVR file and find where that incorrect "12" (0Ch) is located so that we can replace it with "10" in order to give the correct line feed instruction to Epson compatible printers?

REVIEWS... REVIEWS... REVIEWS... REVIEWS... REVIEWS...

Ghostly Castle

Available From:- Memotech Owners Club

Price:- £3.80

Reviewed By:- Andy Owen

The idea of this game is to go around Ghostly Castle collecting as much treasure as possible while avoiding the ghosts and other meanies.

This game (as I'm sure you will have guessed) is an adventure and, while these are not my favourite games, I am usually able to get a fair way into a game before I get stuck. But with this game I was, unfortunately, hardly able to get anywhere before either getting stuck or killed. Thinking my logic was at fault I called in a friend who is normally good at adventures, but he could do no better.

What I managed to see of the game did not impress me much as there was the occasional spelling mistake and often it would not go in the direction I told it to even though that direction was said to be a visible exit. Also the location descriptions were very short (a max. of two lines) and it used uncommon vocabulary. It would not accept GET or TAKE and only PICK-UP when it felt like it. Other annoying factors included its slow response; due to being written in basic, the 'sudden death' syndrome, and a HELP with inane comments like "You got into this mess".

Among the few things I can say in favour are that it had instructions and also it had a save option (essential as all adventurers know!).

On the whole I would not waste my money on it, but if you are desperate for a 'new' adventure get it; I think you would get more from Journey Into Danger, available from the program library.

Graphics \ Sound \ Instructions 6 Vocab 6
Addicivness 4 VFM 5
Overall 5

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PUBLIC DOMAIN SOFTWARE LIBRARY

12 Roebank Road

Beith.

Ayrshire

KA15 2DX

Tel: 05055 2491

All cheques payable to Memotech Owners Club please

Let me start this month with an apology: In the last month or so the library has been blighted with several problems. The printer I had was replaced and the first one to arrive didn't work. Next, the ribbon which came with the printer didn't last quite as long as I had expected and I have been waiting on new ribbons. Finally, I have been in the middle of Computing Science exams and have been unable to devote much time to the club. The turn around time for orders has in one extreme case been over a month, and I must apologise for the delay. The library is now back to normal and all outstanding mail is being dealt with.

Also, due to duplicating problems, I have had to withdraw LL07 - Assembler Course from the Library Listings. I haven't replaced it with anything as yet, any suggestions gratefully accepted.

This month you'll notice several alterations to the format of the library. Firstly, we have altered the name very slightly to bring us into line with other Public Domain libraries for other machines. Secondly, the Library Listings are now called the Library Documents due to confusion over the exact format of the said listings. Thirdly, due to rising costs of duplication, we have had to impose the modest fee of £0.50 per document. This price includes postage and packing - there's no need to send an A4 envelope now, but the rule about only two documents per order has to remain I'm afraid. Fourthly, we have had to increase the prices on software due to a rise in the cost of cassettes. The copying prices are now: £1.50 for two programs on tape and £2.75 for 20 programs on disc. If you wish the disc too, the price is £3.75. 3.5" discs have gone up in price too, so the price for copies of the library from Paul is now £4.75, £3.75 without the disc. I hope everyone finds this satisfactory.

New this month:

CPM13 Adventure

One of the first adventures (well actually it is the first) I have ever seen for the CP/M operating system.

It's based along the lines of the famous Colossal Adventure. It calls each location from the disc very quickly with the main data file taking up a staggering 105K on disc...you've got to see this 'un.

CPM14- 8080/Z80 Translator

This disc contains a translator which turns 8080 macro files into Z80 macros for use with Microsoft's M80 (or CPM1 - Z80 Assembler). Also on this disc comes a comprehensive 8080 disassembler which is a very handy piece of coding. Full instructions on how to use the programs are also supplied as .DOC files. Thanks to John Hodgson for this one!

CA14 - DBase IV

This is the latest update to the program written by Phil a long time ago and updated by me. This one is by Stan Crook and he has managed to iron out most of the annoying little bugs in the program and added a substantial help option.

69 - Stock

This program was written on 80 column BASIC but can be easily converted to 40 column. It keeps control over any sort of stock you might hold. If you can't see an immediate use for the program but are new to BASIC, then this is an excellent program for getting to grips with how to write well structured and documented programs.

70 - Fonts

This is the excellent program written by Paul Trainer which was listed in last month's magazine. It allows anyone with an Epson compatible printer to have all sorts of different character sets on paper.

For 3.5" disc copies of the library: Paul Wood, 12 Bishops Avenue, Worcester, Worcs. WR3 8XA

Alan Hamilton

A last point: Does anyone have an 8080 processor macro assembler? If so, could they get in touch with me please?

Memotech Owners Club
 Public Domain Software Library
 12 Roebank Road
 Beith.
 Ayrshire
 KA15 2DX
 Tel:05055 2491

This is the shortened list of programs and documents available from the MOCPSL at the above address. The copying fees for software are: £1.50 for two programs on cassette (we supply the tape) and £2.75 on disc for 20 programs (or £3.75 if you want us to supply the disc). 3.5" disc copies are available also at £4.75 including disc, £3.75 excluding. When ordering discs please state exactly the system you have: Disc capacity, operating system & disc size.

- | | | |
|----------------------|-------------------|--------------------|
| Disc 1 | Disc 2 | Disc 3 |
| 01. Hex/Dec/Bin | 21. Composer | 41. Reversi Vers 2 |
| 02. CGEN | 22. Anova | 42. ISOT |
| 03. 3D-Draw | 23. Cashflow | 43. DBase |
| 04. Whist | 24. Reversi | 44. Diary |
| 05. Mem-Save | 25. Full Time | 45. Terminal |
| 06. MTX-Draw | 26. Panel 3 | 46. Skittles |
| 07. LOGO-Draw | 27. Word Pro | 47. Card-Ind |
| 08. Simplex Tableau | 28. SwMice | 48. 2 * H & W |
| 09. Breakeven | 29. TNT TIM | 49. Hangman |
| 10. Statistics | 30. Sw3D Funct1 | 50. Account |
| 11. Unsolved Problem | 31. Sw3D Funct2 | 51. Mastermind |
| 12. Radio Routines | 32. SwSpEd | 52. Connect 4 |
| 13. Light Cycles | 33. SwMathe | 53. Jrny Into Dngr |
| 14. Hex/Dec/Bin | 34. OXO | 54. Connect 4 V2 |
| 15. Character Ed. | 35. Solitaire | 55. Patience |
| 16. Quasimodo | 36. Cross Numbers | 56. Life |
| 17. Planner | 37. Avoid Seven | 57. Enigma |
| 18. Hanoi | 38. Numerology | 58. FKEY |
| 19. Noble | 39. Chemin | 59. SkyDiver |
| 20. Hi-Lo | 40. Dice | 60. Dice |

- Disc 4 (incomplete)
- 61. MPG
 - 62. Spooler
 - 63. Labels
 - 64. Ski Version 2
 - 65. PNT/BJCK
 - 66. Biorythms
 - 67. Perpetual Calender
 - 68. Flitter
 - 69. Stock
 - 70. Fonts

- Cassette ONLY Software
- CA01. Renum III
 - CA02. Merge
 - CA03. Money Manager
 - CA04. FKEY
 - CA05. DBase III
 - CA06. Filetech
 - CA07. Flight
 - CA08. RAMDisc
 - CA09. TextEd
 - CA10. Deci_Clock
 - CA11. Elements
 - CA12. MkBook
 - CA13. Optics
 - CA14. DBase IV

CP/M Software

CPM1	Z80 assembler	CPM2	EBASIC programs
CPM3	Mail label	CPM4	Turbo programs
CPM5	Comms disc	CPM6	Small C compiler
CPM7	Utilities 1	CPM8	Prolog/Valgol
CPM9	Utilities 2	CPM10	Utilities 3
CPM11	Extended CP/M	CPM12	Forth
CPM13	Adventure	CPM14	8080/Z80 Translator

Library Documents

Available at 50p per document, this includes post and packing.

LL01	System Vars	LL02	VDP Chip
LL03	NewWord ROM	LL04	RST10 Explained
LL05	Undoc.NewWord	LL06	CP/M Programming Course
LL07		LL08	Pascal Course
LL09	CP/M Intro	LL10	Flitter

Miscellaneous

- Compilation disc - All disc systems - £1
- Commercial software reviews booklet - £2

3.5" copies of library from: Paul Wood, 12 Bishops Ave, Worcester, Worcs. WR3 8XA.

List updated at 12th June 1988

40.	Dice	40.	Hi-Lo
39.	Eremin	39.	Noble
38.	Numerology	38.	Hanoi
37.	Avoid Even	37.	Planner
36.	Cross Numbers	36.	Guassiodo
35.	Solitair	35.	Character Ed.
34.	DXD	34.	Hex/Dec/Bin
33.	Swastine	33.	Light Cycles
32.	Swaped	32.	Radio Routines
31.	Sw3D Funct2	31.	Unsolved Problem
30.	Sw3D Funct1	30.	Statistics
29.	TNT TIM	29.	Breakeven
28.	Handman	28.	Staplex Table
27.	Mastering	27.	LOGO-Draw
26.	Connect 4	26.	MTX-Draw
25.	Jury Info Dngr	25.	White
24.	Connect 4 V2	24.	3D-Draw
23.	Patience	23.	CBEN
22.	Lite	22.	Hex/Dec/Bin
21.	Enigma	21.	Composer
20.	FKY	20.	Disc 1
19.	SKYDiv	19.	01.
18.	Dice	18.	02.
17.		17.	03.
16.		16.	04.
15.		15.	05.
14.		14.	06.
13.		13.	07.
12.		12.	08.
11.		11.	09.
10.		10.	10.
9.		9.	11.
8.		8.	12.
7.		7.	13.
6.		6.	14.
5.		5.	15.
4.		4.	16.
3.		3.	17.
2.		2.	18.
1.		1.	19.
			20.