The MEMOTECH OWNERS CLUB Magazine
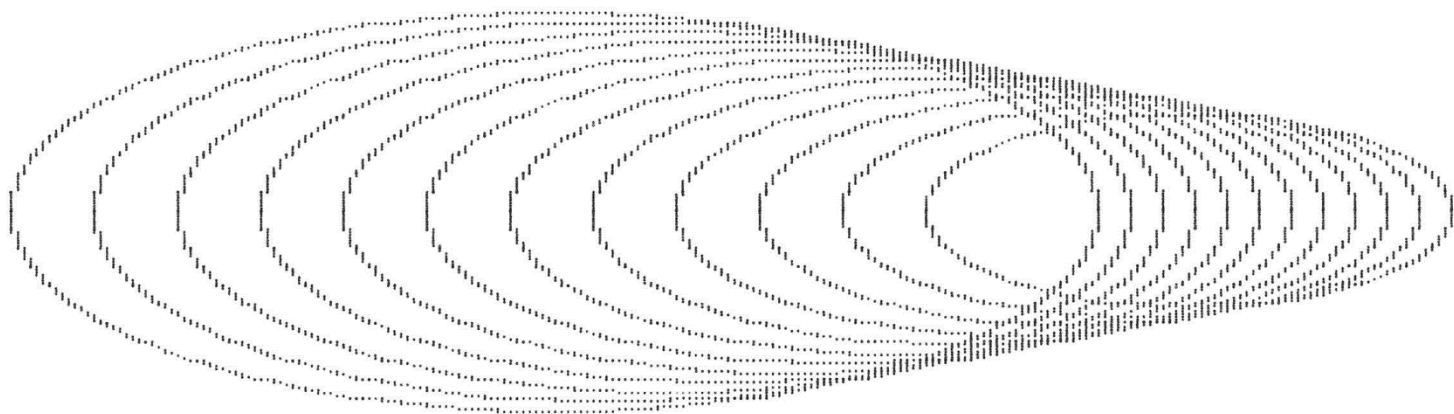
FEATURES:-

RST 10 COMMANDS EXPLAINED

GRAPHICS DEMONSTRATION PART II

OBTAIN DISCOUNT THROUGH THE CLUB

EDITORIAL

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When last months magazine was in the late stages of production we went on a trip to Memtech, whilst there they suggested that if we like we could sell there software & hardware, well we accepted of course and managed to print a small advert on the last page of issue 2. This month we have included a software list with all the software that we know is available to the Memotech (we would be very grateful for any additions!). See software list for further details.

We also suggested that we would be starting a software library, well at the moment we only have a few programs, mainly these are programs that have been to long to print in the magazine. We intend the software library to work like this:- Anyone how would like a program just sends in a 1/3rd A4 S.A.E. stating which program they would like, it seems a bit silly to me to ask for 30p a program so we thought that since we get through lots of stamps it would be best to just include a couple of stamps to cover administration. Anyone who has a program or two which they feel others would like to see, (especially games or applications) please send them in, if possible include a noddy page to clarify any complicated parts of the program. At the moment we have 4 programs, they are:-
1. Hex-Dec-Bin Program
2. As above with Binary conversion in Assembler.
3. Keyboard Sound Generator. Turns keyboard into sound generator and displays sound produced
4. Sprite Pattern Generator. This program is a must for anyone who has trouble with the Genpat command, but be warned the program is 10 pages (17K) long!.

Thanks to everyone that has used our Hotline on Monday evenings between 6 & 7pm, remember we still look forward to hearing from you, the number to phone is Bursledon (042121) 5489.

If anyone would like back issues they are obtainable from us for the small remittance of 80p.

It should be noted that all articles are the copyright of the sender and M.O.C.,anyone wishing to try and get national magazines to publish our articles should inform us first.

                    Phil Eyres,   Rich Adams

CLOCK PROGRAM

This months program is from Chris Bailey.

```
5 GOSUB 5000
10 VS 4: LET C=2*PI/360: LET X=128:LE
   T Y=91: LET D=77: LET D1=52: PAPER
   15: INK 1:COLOUR 4,15: CLS
20 ATTR 2,0: FOR DH=0 TO 360 STEP 30:
   LET PH=DH*C: LET XX=80*COS(PH)+X:
   LET YY=80*SIN(PH)+Y:PLOT XX,YY: CI
   RCLE XX,YY,1: CIRCLE XX,YY,2: NEXT
   DH: PLOT X,Y
30 GOSUB 1000
40 LET STO=VAL(RIGHT$(TIME$,2))
50 LET MTO=VAL(MID$(TIME$,3,2))
60 LET HTO=VAL(LEFT$(TIME$,2))
70 LET ST1=VAL(RIGHT$(TIME$,2))
80 LET MT1=VAL(MID$(TIME$,3,2))
90 LET HT1=VAL(LEFT$(TIME$,2))
95 GOSUB 6000
96 IF HT1<>HTO AND MT1<>MTO AND ST1<>
   STO THEN GOSUB 2000: GOSUB 3000: G
   OSUB 4000: GOTO 30
97 IF MT1<>MTO AND STO<>ST1 THEN GOSU
   B 2000: GOSUB 3000: GOSUB 4000: GO
   TO 30
98 IF ST1<>STO THEN GOSUB 2000: GOTO
   30
130 GOTO 70
1000  ATTR 2,0
1020 LET ST=VAL(RIGHT$(TIME$,2))
1030 LET MT=VAL(MID$(TIME$,3,2))
1040 LET HT=VAL(LEFT$(TIME$,2))
1050 PLOT X,Y: ANGLE (450-6*MT)*C: DR
     AW D
1060 PLOT X,Y: ANGLE (450-30*HT-MT*0.
     5)*C: DRAW D1
1070 RETURN
2000 ATTR 2,1: PLOT X,Y: ANGLE (450-6
     *STO)*C: DRAW D
2020 ATTR 2,0: PLOT X,Y: ANGLE (450-6
     *ST1)*C: DRAW D
2030 RETURN
3000 ATTR 2,1: PLOT X,Y: ANGLE (450-6
     *MTO)*C: DRAW D
3020 ATTR 2,0: PLOT X,Y: ANGLE (450-6
     *MT1)*C: DRAW D
3030 RETURN
4000 ATTR 2,1: PLOT X,Y: ANGLE (450-3
     0*HTO-MTO*0.5)*C: DRAW D1
4020 ATTR 2,0: PLOT X,Y: ANGLE (450-3
     0*HT1-MT1*0.5*C: DRAW D1
4030 RETURN
```

```
5000 CLS
5010 INPUT "INPUT TIME (HHMMSS)"
     ;TIM$
5020 CLOCK TIM$
5030 CLS: RETURN
6000 IF TIME$="130000" THEN CLOC
     K "010000"
6010 IF LEFT$(TIME$,2)<>"00" THE
     N CSR 12,1: PRINT LEFT$(TIM
     E$,2);" ";MID$(TIME$,3,2);"
      ";RIGHT$(TIME$,2): RETURN
6020 IF LEFT$(TIME$,2)="00" THEN
     CSR 12,1: PRINT "12";" ";MI
     D$(TIME$,3,2);" ";RIGHT$(TI
     ME$,2)
6030 RETURN
```

Subroutine 1000
Draws the hour and minute hands
for the time input in 5000

Subroutine 2000   {Sec. Hand}
Updates the position of the sec.
hand when STO<>ST1. The old sec.
hand is erased (ATTR 2,1) & the
new one drawn. Care must be
taken that when the second hand
passes over the hour or minute
hand that these are re-plotted.
The simplest way to do this is
with Subroutine 1000

Subroutine 3000 & 4000
Similar to above.

subroutine 5000
Accepts input of the real time

Subroutine 6000
Print the time above the clock.

Many thanks for a very interesting program!

Assembler Programming Part III

Since i have some very interesting information on RST 10 i will miss Arithmetic Ops. for a while.

Screen Output Using RST 10

Sending Messages To The Screen

```
    RST 10
    DB £8D,"MEMOTECH LTD"
    RET
```

The byte following the RST 10 is made up in the following way:
   RST 10 Control byte - Bit Format

```
    7  6  5  4  3  2  1  0
    1  0  C  <--------n-------->
```

Where bit 5 indicates that the routine should continue to interpret data after this instruction. n is the number of bytes in the string.

Control Codes and RST 10

In the ASCII character set there are 32 invisible characters before the first printable character (space). These invisible characters are called control characters. These codes are extremely powerful in the MTX when used with RST 10.

The following is a list of commands available through RST 10:-

ASCII

CODE	FUNCTION
1	PLOT x,y
2	LINE x1,y1,x2,y2
3	CURSER x,y
7	BELL
10	LINE FEED,CURSER DOWN
11	VERTICAL TAB
12	CLS & HOME (FF)
13	CARRIAGE RETURN
14	CTLSPR p,x
15	GENPAT p,n,d0,d1,d2,d3,d4,d5,d6,d7
16	COLOUR p,n
17	ADJSPR p,n,v
18	SPRITE n,p,xp,yp,xs,ys,col
19	MOVSPR p,n,d
20	VIEW dir,dis
21	INSERT KEY
22	DELETE KEY
23	BACK TAB
25	TAB KEY
26	HOME KEY <Cont'd Overleaf>

```
27,65      ATTR p,state
27,89      CRVS n,t,x,y,w,h,s
27,90      VS n
27,67      GR$ x,y,b
```

The following program demostrates the use of Control codes:-

```
LOOP:    RST 10
         DB £8B,15,0,"*",£10,£10,£38
         DB £54,£10,£10,£10,£38
         CALL PAUSE
         RST 10
         DB £8B,15,0,"*",0,0,£10,£54
         DB £38,£10,£7C,£44
         CALL PAUSE
         JP LOOP 1
         RET
PAUSE:   LD B,50
PAUSE1:  HALT
         DJNZ PAUSE1
         RET
```

This program is demonstrating the use of GENPAT in mode 1 (Re-define an ASCII character).

Output BC Register to the screen

The RST 10 call also allows the transfer of the BC Reg. to the screen:-
  It's format is:-

    RST 10 Control Byte - Bit Format
    ----

         7 6 5 4 3 2 1 0
         1 1 c * * * * *

Where c is the continuation bit
* = don't matter

The following is an example of RST 10 and CALL £79, Keyboard input:-

```
START:   CALL £79
         JR Z,START       (The principle of this program is that it
         LD C,A            reads the keyboard (with de-bounce) and
         LD B,0            returns a value in the Accumulator)
         RST 10
         DB 192           (Rem:- To get into Assembler to type this
         CP 13             program in type ASSEM 10 <RET>,<RET> &
         JR NZ,START       don't forget the label 'START:'.)
         RET
```
This routine reads the keyboard & echo's it to the screen.

GRAPHIC DEMONSTRATIONS

Continued from last month we'll have a look at Mark Cytera's last graphics demo.

Sateloids is the last but by no means the least of these graphic demonstrations. It introduces sprites, and with them four of the commands that are associated with them. At the start of the program you enter the general speed: 1=warp; 15=watch out Spectrum. The sprites (all 32 of them) emerge from the centre of the screen, and shoot off at varying speeds in all directions. When they have gone off the edge of the screen their co-ordinates are reset again to the centre. This gives the impression of objects flying past continuously. the journey is terminated by pressing the SPACE bar (what else?).

The Memotech experiences no difficulties with expressions for moving and co-ordinating the sprites using the CTLSPR & SPRITE commands. GENPAT defines the shape of the sprites with numbers, although a graphic definer is useful for this. However, difficulties arise from not having a function or command for finding out the position of a sprite (i.e. whether it is on or off of the screen). The secret lies in the fact that the machine holds information about each sprite in a sprite table (SPRTBL in Memotech language) at addresses 65109-65364 decimal or FE55-FF54 hex. Eight bytes are held for each sprite, the format for which is in Table 1.

Note that the y co-ordinates are stored in the American way i.e. 0 corresponds to the top of the screen. Note also that the co-ordinates are all held in terms of sixteenths of a pixel.
Line 410 looks at bytes 1 & 4 for each sprite by peeking (Ugh!- if ever a BASIC programmer gets his or her hands dirty, it's by peeking and poking) the appropriate address. If it is found that a sprite is off the screen, then it's co-ordinates are reset to the centre.

If you look very closely at the objects, you will see that they are spinning. This is because their pattern is being regularly updated to the next of the three defined earlier on in the program, thus the spinning effect. This technique of pattern switching is often employed in games, e.g. TOADO where the snakes appear to wriggle is simply the programmer switching between different patterns defined earlier on in the program, and similarly in BLOBBO where the BLOBBO eaters (oh! for a better name!) look left and right. It's easy when you know how isn't it?

Over the page is the Sateloids program and two tables, one showing SPRTBL format, the other is a general run-down of the program lines.

BEWARE! Peeking & Poking can have dangerous consequences, it is therefore advisable to save your program on tape (or disc!) before running or 'mucking about' with it.

```
2 SAVE "SATELOIDS"
5 VS 5: CLS                          ;Table 1 - SPRTBL Format
7 PAPER 6                            ;byte  0   y Speed
10 CSR 0,0: INPUT "SPEED (1 TO 15)";S ;      1   y Co-ord(High)
15 IF S<1 OR S>15 THEN GOTO 10       ;      2   y Co-ord(Low)
20 VS 4                              ;      3   x Speed
25 PAPER 1                           ;      4   x Co-ord(High)
27 CLS                               ;      5   x Co-ord(Low)
30 CTLSPR 0,S:   REM SPEED           ;      6   Pattern
50 CTLSPR 2,32:  REM NOSPR           ;      7   Colour 4 LSB's
60 CTLSPR 3,32:  REM NOCSPR          ;   (MSB early clock bit)
70 CTLSPR 5,32:  REM NOMSPR
80 CTLSPR 6,2:   REM SMBYTE
90 REM FIRST PATTERN
100 GENPAT 4,0,0,0,7,27,37,37,73,73
110 GENPAT 5,0,73,73,73,37,37,27,7,0
120 GENPAT 6,0,0,0,192,176,72,72,36,36
130 GENPAT 7,0,36,36,36,72,72,176,192,0
140 REM SECOND PATTERN
150 GENPAT 4,1,0,0,7,31,42,42,82,82
160 GENPAT 5,1,82,82,82,42,42,31,7,0
170 GENPAT 6,1,0,0,192,240,152,88,76,76
180 GENPAT 7,1,76,76,76,88,152,240,192,0
190 REM THIRD PATTERN
200 GENPAT 4,2,0,0,7,31,50,52,100,100
210 GENPAT 5,2,100,100,100,52,50,31,7,0
220 GENPAT 6,2,0,0,192,240,168,168,148,148
230 GENPAT 7,2,148,148,148,168,168,240,192,0
250 FOR S=1 TO 96
260 PLOT RND*255,RND*191
270 NEXT
290 FOR SP=1 TO 32
300 SPRITE SP,0,128,96,RND*255,RND*255,RND*14+2
310 NEXT                             ;       (If you would like some
350 LET P=0                          ;       random sound type the
400 FOR SP=1 TO 32                   ;       following lines)
405 ADJSPR 0,SP,P                    ;435 SOUND 0,RND*1000,900,3,8,9,1
410 IF PEEK(65113-8+SP*8)>17 OR      ;436 SOUND 1,RND*1000,900,3,8,9,1
    PEEK(65110-8+SP*8)>13   THEN     ;437 SOUND 2,RND*1000,900,3,8,9,1
    ADJSPR 2,SP,128:ADJSPR 3,SP,96
420 NEXT
430 LET P=MOD(P+1,3)
440 IF INKEY$=" " THEN GOTO 5
450 GOTO 400
```

Table 2 - Program Lines

2	Auto-run on loading	350	First Pattern No.
5-27	Initialization	400-420	Change Pattern &
30-80	See page 118 of Manual		Check Co-ordinates
90-230	Pattern Definitions	430	Next Pattern
250-270	Plot Stars	440	Space Bar?
290-310	Set up Sprite Speeds etc	450	Repeat

Hints & Tips 1:- I offer a cure to Mr Walley's key bounce, i found that the problem in my case was interference between the Video board and keyboard, the cure was to insulate them from each other with LASSO tape.   From Mr Houghton

2:- Further to last months method of finding how long a program was, Alan Dobson has sent in this alternative, PRINT PEEK(64204)+256*PEEK(64205), this gives relatively the same answer.

3. For those of you that would like to speed up your typing Arthur Wingrove has supplied this list of abbreviations:-

C.	CLS	D.	DATA	E.	EDIT	F.	FOR
G.	GOTO	L.	LIST	N.	NEXT	P.	PRINT
R.	REM	T.	THEN	V.	VS		
AD.	ADJSPR	COL.	COLOUR	CS.	CSR	CT.	CTLSPR
GE.	GENPAT	IN.	INK	PA.	PAPER	PAN.	PANEL
RES.	RESTORE	SO.	SOUND	SP.	SPRITE		

Or using the function keys:-

F1	REM	SHIFT F1	CRVS	F2	CLS	SHIFT F2	CLEAR
F3	ASSEM	SHIFT F3	CLOCK	F4	AUTO	SHIFT F4	ATTR
F5	BAUD	SHIFT F5	COLOUR	F6	VS	SHIFT F6	INK
F7	CONT	SHIFT F7	CSR	F8	USER	SHIFT F8	DATA

When using an abbreviated command, followed by a full stop, it is not necessary to insert a space between the full stop and instruction. This is automatically inserted by the MTX when it calls up the full format.
NOTE! For DATA it is better to use DA.; again with no space following the full stop. This particularly applies with strings, so avoiding the first item being shifted right by one space if the data is printed in a tabulated column. This is pertinent when editing data strings as an additional space appears to be inserted each time the information is recalled.

Interest:- For anyone interested in making 'buggies' this months Electronics & Computing monthly has an article which which may be of interest. It was apparently written for the Memotech, the accompanying program with the article certainly looks as though it will run on a Memotech. It seems a shame that they used the Centronics port (i suppose they did it to ensure compatability with most machines). I am considering trying to use the ROM Connection on the side to 'get out', has anyone already done this?. There is also an article on Pascal in this magazine which i found interesting. Phil.

Answers To Last Months Letters:- Mark Cytera has provided a small program to solve the problem of Decimal Point Tabulation.

```
 1000 LET A=RND*10000 : REM CHOOSE ANY NUMBER
 1010 LET B=INT(A)
 1020 LET C=INT(100*(A-B))
 1030 CSR 0,23
```

```
1040 IF B<10 THEN PRINT" ";
1050 IF B<100 THEN PRINT" ";
1060 IF B<1000 THEN PRINT" ";
1070 PRINT B;".";
1090 IF C<10 THEN CSR 7,23:PRINT C;:CSR 6,23:PRINT 0 ELSE PRINT C
1990 PAUSE 1000
2000 GOTO 1000:REM RESELECT NO.
```

The principle behind this is to split up our number into two variables, one of which is the integer part and the other is the decimal, which is all very well but the Memotech has a characteristically totalization tendancy to put spaces where there is a semi-colon in a PRINT statement. This problem is solved in line 1090.

Your Letters 1:- Can anyone help me with the level 9 adventure 'Dungeon Adventure'. In the central dungeon i am meant to gather 9 gems but i can only find 8 (i.e. Agate,Diamond,Emerald,Pearl Ruby,Sapphire,Amethyst,Opal.). Where is the nineth gem?, Paul Coughlan.

2:- Arthur Wingrove has a very interesting query about the cassettes baud rate, He says:-
In the October "Which Micro" J.Wills states that he loads at 4800 baud by using Poke 64864 and saves at 4800 baud with Poke 64863,32. This latter is the system variable FD5F (CASBAUD) and i assume 32 is the rate. I tried Peek 64863 on my machine and received the answer 64. Does anyone know the correlation between the binary powers and the baud rate?. I can only guess it may go as follows:-

	BAUD	BIN
75	1200	?
110	2400	64?
150	4800	32
300	9600	16?
600	19200	8?

B O O K   R E V I E W

MEMOTECH COMPUTING
Auth. :-Ian Sinclair
Pub. :-Granada Publishing
Price :-£6.95

For one who, like many, find the Memotech manual somewhat incomprehensible in places, this is a must, especially if you want to do more than just type in other peoples programs. The arcane mysteries of SPK$ and GR$ are explained amongst others, with more than adequate supporting programs to demonstrate the applications of the many special MTX features. Ian Sinclair's style is always clear and precise without being condescending. He takes nothing for granted and each concept and procedure is carefully explained. A most useful feature is the very comprehensive index, an absolute boon to me, this book is without doubt well worth it's price.

FELIX IN THE FACTORY   Rating System
Publisher   Micro Power Ltd   Excellent = 5
Price   £6.95   Average   = 3
Outlets   Mail Order and Dealers   Poor   = 1

The object of this game is to collect an oil can to keep the
generator in the factory topped up before your time limit is up.
To do this, Felix must be guided down a ladder, along a conveyor
belt jumping over packages without hitting them. Avoiding the
Gremlins, collect the oil can and return to the generator to top
it up. A pitchfork can be picked up to defend yourself against
the Gremlins but beware of the Giant Rat.

Conclusion
Felix is an addictive game once you get the hang of jumping over
the packages. The game gets faster the more times you fill up the
generator. The only problem is that the generator runs out of oil
rather quickly.

RATING
Playability   = 4   Many thanks to Tom Hatton for this
Graphics   = 4   review.
Value For Money   = 3
Lasting Interest = 3   See Software List For Details.

Lords Of Time

After playing Lords Of Time for the past couple of weeks, we have
been very impressed with its presentation. It took us quite some
time to be able to jump between the different time zones but once
you discover how to do this you start to think you are getting
somewhere. The idea is to collect objects in different periods of
time to defeat the evil Time Lords without getting killed
yourself.

The program comes very well presented in a wallet, along with a
booklet explaining the game and also an enquiry form and
envelope. You can send this off to Level 9 should you become
totally baffled at any point. Beware, you only get one clue sheet
so don't send it away too soon!!!

Lords Of Time must be one of the best adventure games available.
It doesn't just understand single words but whole phrases. You
can save your state of play on to tape at any time, so you don't
have to stay up all night to save the world if you don't want to.

Level 9 have a whole series of adventure programs available (see
software list).Also, we have heard that graphic adventure
programs will be available soon. We will review these as soon as
possible.

Level 9 Computing, 229 Hughenden Road, High Wycombe, Bucks

These are all the software items that we know are available:-

TITLES	RRP	MOC PRICE	SOFTWARE HOUSE
TOADO	6.95	6.50	M
NEMO	6.95	6.50	M
KILOPEDE	6.95	6.50	M
SUPER MINEFIELD	6.95	6.50	M
KNUCKLES	8.95	8.50	M
BLOBBO	6.95	6.50	M
BLOBBO SPECTRUM	6.95	6.50	M
GOLDMINE	7.95	7.50	M
CONT' RAIDERS	6.95	6.50	M
M ALPHATRON	6.95	6.50	M
PHAID	6.95	6.50	M
ASTROMILON	6.95	6.50	M
OBLOIDS	6.95	6.50	M
STAR COMMAND	7.95	7.50	M
CHESS	9.95	9.00	M
BACKGAMMON	8.95	8.50	M
REVERSI	8.95	8.50	M
DRAUGHTS	7.95	7.50	M
A IN W'LAND	9.95	9.00	M
FIRST LETTERS	9.95	9.00	M
BASIC BUSINESS	4.95	4.50	M
PAYROLL	25.00	23.00	M
PHYSICS	9.95	9.00	M
MATHS	9.95	9.00	M
TAPEWORM	6.95	6.50	M
SNOWBALL	9.90	9.00	L
AD. QUEST	9.90	9.00	L
LORDS OF TIME	9.90	9.00	L
DUNG. ADVENT.	9.90	9.00	L
COL. CAVERN	9.90	9.00	L
MAXIMA	6.95	6.50	P
COBRA	6.95	6.50	X
UTILITIES	4.95	4.50	M
JOHNNY REB	?	?	LO
POT HOLE PETE	?	?	?
DATA FILE	?	?	?

INDEX
M~MEMOTECH
L~LEVEL 9
P~P.S.S.
X~XAVIERSINE
LO~LOTHLORIEN

ADDRESSES OF THE
ABOVE SOFTWARE
HOUSES

MEMOTECH
STATION LANE IND. EST
WITNEY
OXON
OX8 6BX

LEVEL 9
229 HUGHENDEN RD
HIGH WYCOMBE
BUCKS

P.S.S.
482 STONEY STANTON RD
COVENTRY
CV6 5AG

XAVIERSINE
48 HIGH ST
MIDSOMER NORTON
BATH

LOTHLORIEN
56a PARK LANE
POYNTON, CHESHIRE

BRUNWORD is also available for Brunning software who's address is 34 Helston road Chelmsford, Essex. CM1 5JF. Cost £16.57.
Also available from us are the Neword and Pascal ROM's, the prices of these are £72.00 and £58.00 respectively.
For the information on the programs from Elstree Computer Centre see The Editorial page of issue 2.
The most recently available game appears to be FELIX IN THE FACTORY from micro power it's RRP is £6.95, although we have managed to obtain a deal from Micro Power for Felix the discount to us is only small so we can only offer it to you for the RRP of £6.95 incl. of p&p.

C O M P E T I T I O N

Firstly i would like to thank all of you that returned your Survey forms, we will be sending them off shortly.

The winner of last month's prize is Mr S Drakeford of Rubery Birmingham who wanted Cobra.

I have had some difficulty thinking up this months competition but i have come up with this idea:-
Somewhere on the Editorial page there has purposely been printed a spelling mistake (which we noticed just after printing!!), all you have to do is find it and let us know. Everyone returning a correct entry before 12th December will be included in the draw for Continental Raiders.

— — — — — — — — — — — — — — — — — — — —

Utilities Review

(1) FORTY COLUMN TEXT AND GRAPHICS
Yes, it does produce forty column text and graphics and also provides an easier way to change the boarder colour.

(2) DATA TAPE SAVE AND LOAD
Probably, this is the best utility on the tape. The biggest downfall on the Memotech is no built-in data storage. The machine will save variables to tape, along with the program, which sometimes is very useful but means you cannot alter the program. With this program, raw data can be manipulated very easily.

(3) HEX/DEC/BIN
This should prove very useful for machine code programming. It's a pity that they didn't make it a USER function, as you must load the program to convert and then wipe clean the memory to reprogram the computer.

(4) RENUMBER
This is the full implementation of renumber. By that, I mean that it handles all goto's, gosub's, etc. To use the routine, you type in Renum, New start line num, Increment, Old start line num. This certainly improves the appearance of any listing (especially a printer listing) and, of course, is invaluble if you run out of space between your program line numbers.

All in all, the tape is good value for money. Three of the progs save themselves on tape, along with the program, which is handy. The documentation leaves a bit to be desired, especially on the renum, as the instructions come up on the screen once and are then lost. So if your memory isn't too good, use pen and paper.

OVERALL RATING 7/10

If anyone has completely wrecked there copy of Toado or Draughts and would like a spare copy, we have one spare copy of each.