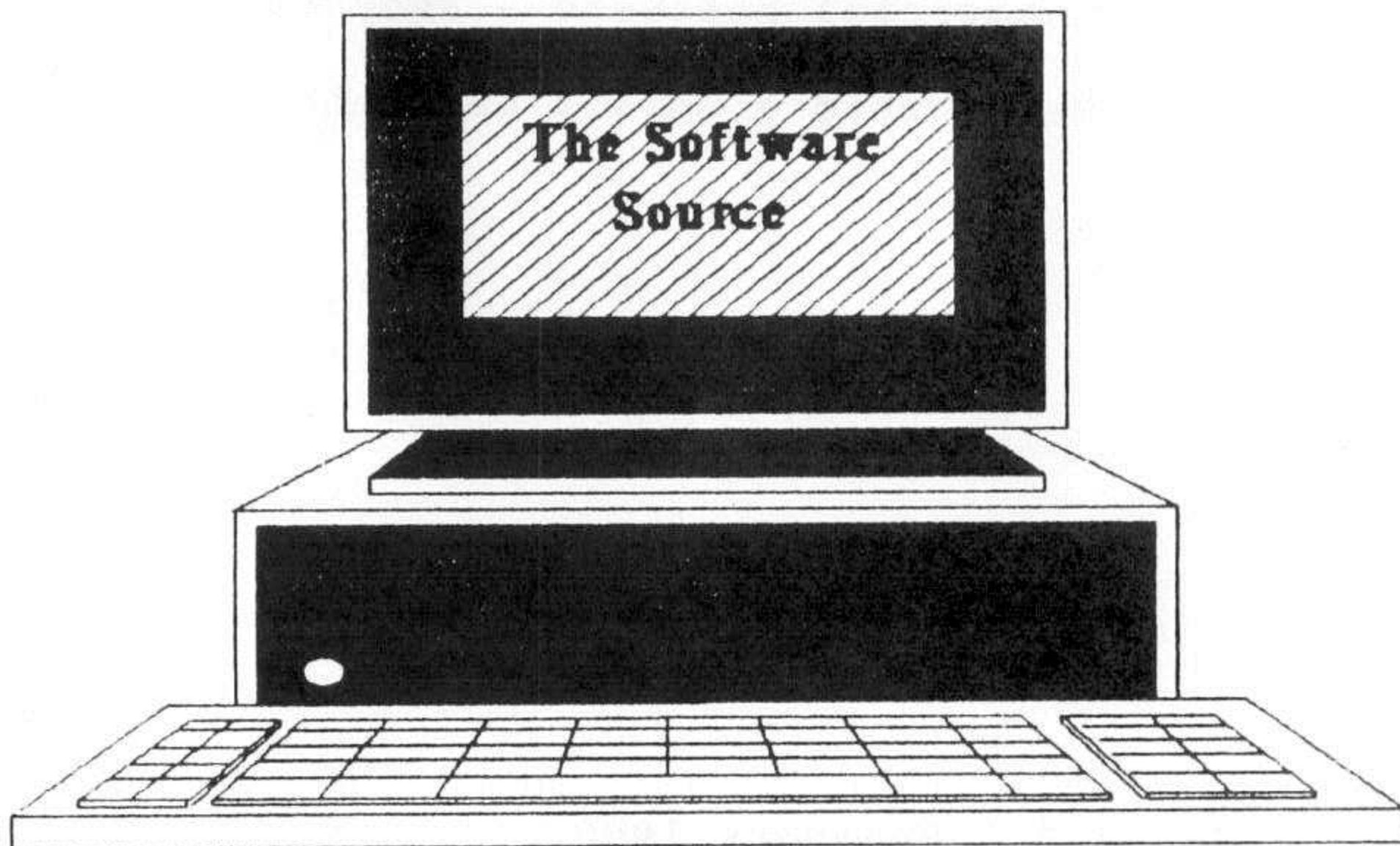


Memotech

MTX

World



Issue Number Five

Published by:

The Software Source

56 Rochester Street

Bradford

West Yorkshire

BD3 8ED

United Kingdom

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Issue 5 - February 1990

"Memotech World"

The Journal of The Software Source

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Editorial

OK, so what has happened to your favourite mag? The pride of the Memotech world has been altered, and it doesn't look as good as it did. Where has the Desk Top Publisher got to? Well, for reasons which I will explain in a moment, we have had to scrap it altogether.

The DTP we were using was Timeworks DTP on the ST. I was slaving away with a 520ST doing one page at a time with the DTP due to a lack of memory. The DTP itself is about 300K in length and I was left with approximately 26K left for the page after everything got sorted out. 26K may sound like a lot, but it is nothing, honestly. Not only that, but the vast amounts of time taken to produce each magazine, was totalling somewhere between 120 and 140 hours work and when you've got a very busy schedule like I have, it was more than a trial to try to fit it all in. The logical answer to this was to hand the Desk Top Publishing over to someone else. That someone else came in the form of Gordon Clay who, as luck would have it, also had an ST, but this time a 1040, with 1Meg RAM on board which meant he could do a great deal more with the DTP. Sadly though, as is our luck of late, his machine broke down on him and we have been unable to get it fixed sufficiently quick enough to be able to put this journal together with it.

You will have noticed that the front page

was DTP'ed. That is because the time taken to do a front page is about fifteen minutes and I have and will continue to do it in this manner. The rest of the journals will be put together on this word-processor, Protex or back on the Memotech with Newword, which are more than capable of handling a large volume of text like this.

There are several advantages associated with the downgrading of the journal to this. Firstly, we are able to put the entire journal together into one file, thus avoiding the hundreds of DTP files I had to generate. Secondly, we are now able to spell-check the entire journal at one go and avoid the stupid mistakes which kept appearing in past journals. Thirdly, tables and diagrams will actually line up when we want them to this way. Fourthly, back issues become very simply done. And finally, the amount of time taken for the production of the journal is cut by approximately one quarter.

I hope you agree with the old adage that you should never judge a book by its cover and that although the quality of presentation has dropped, the quality and quantity of the articles and information contained within these pages has remained the same, if not improved.

The census is also contained, as promised in issue 4, within the envelope that this journal came in (thanks to Stewart Harvey for laboriously folding them and sticking them in) along with the constitution which, you will remember, I mentioned we

are required by law to distribute.

Penultimately, after a gracious move from Paul Wood, we have enclosed two keyboard overlays in the envelope for your use - Now we're giving away freebies!!!

Journal number six will be on your doorstep (God willing) by the end of April and so the deadline for all submissions has to be the end of March. Please send all submissions to Andy, not me and please give your article or program a title and please ensure you credit yourself with the article.

Finally, finally...may I draw your attention to the second and last "Alan's Page" towards the back.

Alan Hamilton

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The Software Source
would like to apologise to
all its members for
the number of pages
in this journal.

This is due to the loss
due to the postal service of
several vital articles which
were to be included in the
journal.

May we express our profound
apologies - a normal service
will be resumed for the next
issue.

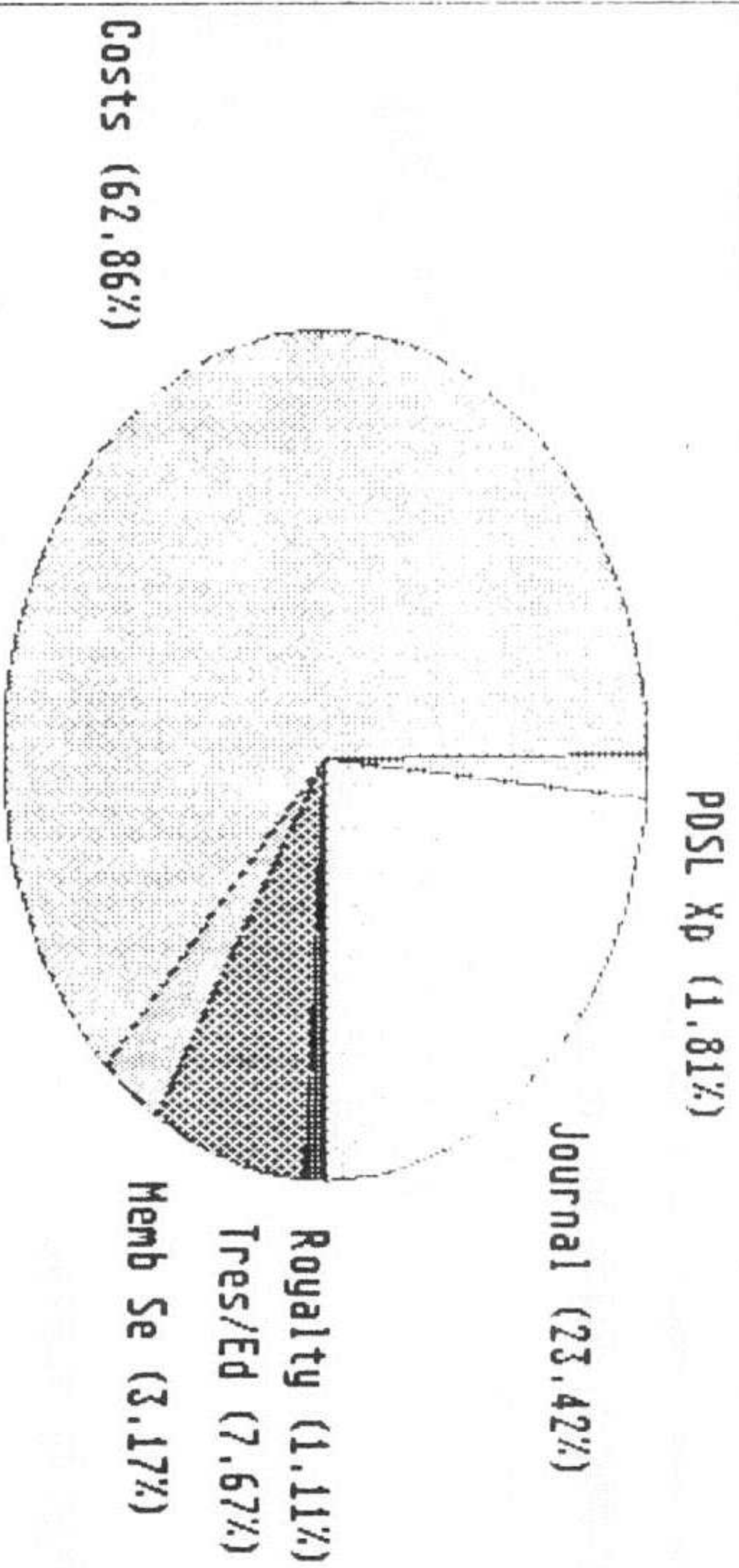
Receipts and Payments account
for the term 1st may 1989 to
31st January 1990

| Receipts | # | Payments | # |
|-----------------|---------|------------------|--------|
| Opening Balance | 0.00 | Journal Prodn | 208.35 |
| Subscriptions | 752.53 | PDSL Xpenses | 16.00 |
| Orders In | 429.69 | Running Costs | 559.33 |
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| | | Treas/Editor | 68.20 |
| | | Royalties | 10.00 |
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| | 1211.22 | | 889.98 |
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Notes:

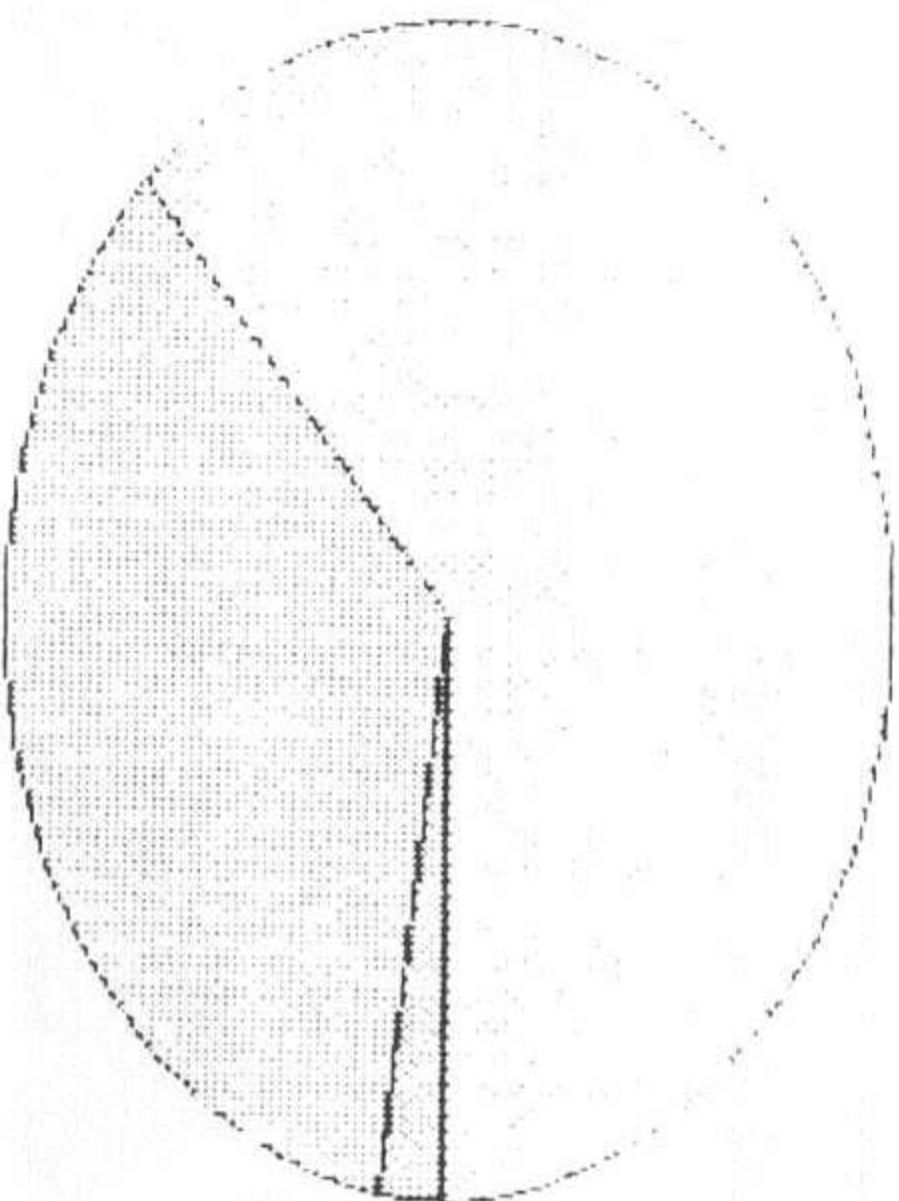
- (i) Running costs include the purchase of paper, ribbons and discs necessary to the duplication of literature, subsequent wear and tear on printer ribbons and discs to enable secure back up copies to be held of all software. Running costs also includes cheques paid out in order to purchase stock on a demand basis from members.
- (ii) Treasurer/Editor expenses relate to the cost of running both the treasury and the editorial office of responsibility and to the cost of four mailshots in early May.
- (iii) Royalties paid out are for those items of software officially licensed to The Software Source.
- (iv) The surplus at 31.01.90 will be subject to an average of #85.55 for the cost of production of issue 4, 5 & 6 along with expenses claims lodged after this date.



Percentage of Total Payments

Expenses of The Software Source

Members (62.14%)



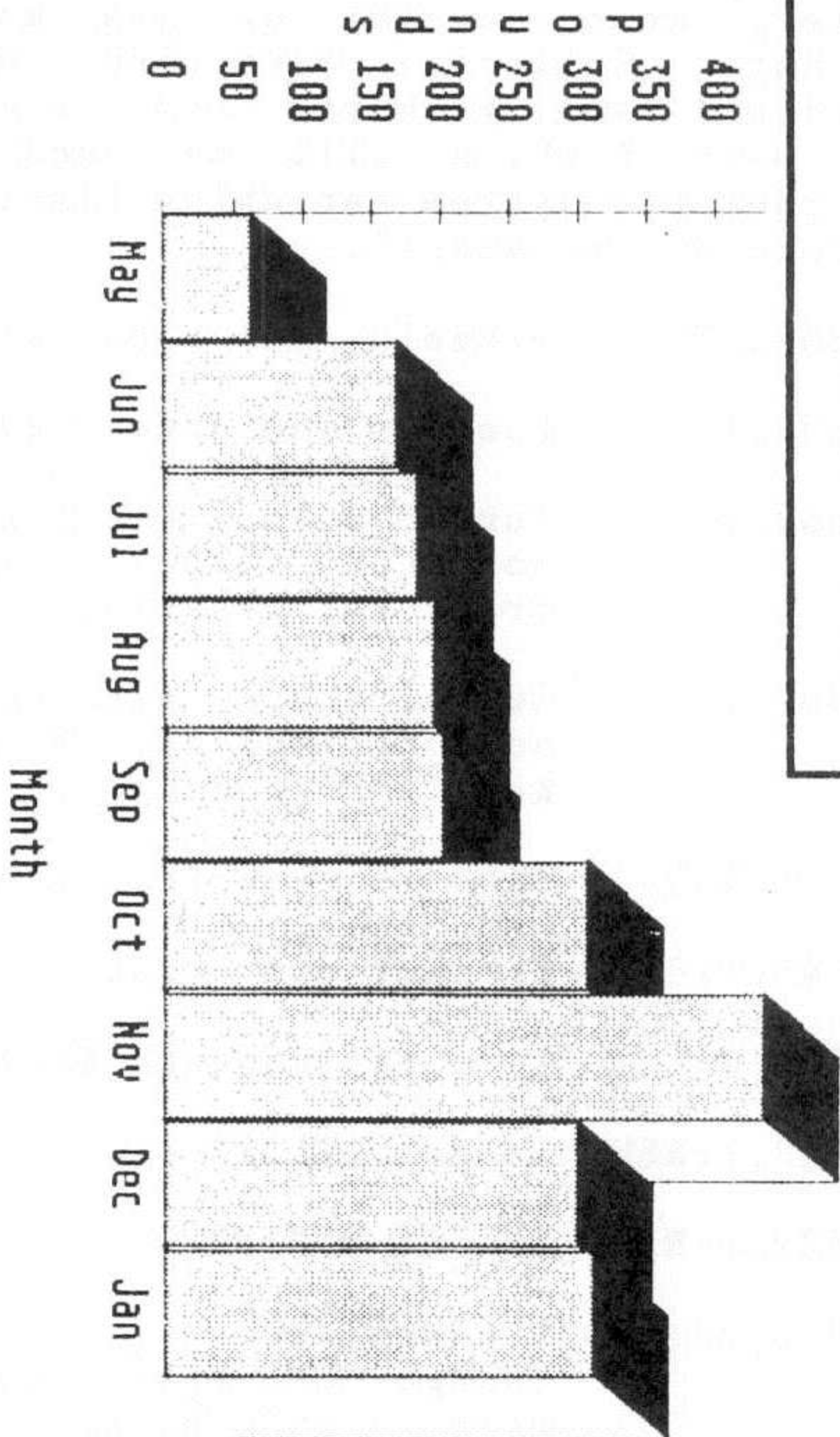
Adverts (2.39%)

Percentage of Total Income

Orders (35.47%)

Income of The Software Source

Bank Balance of The Software Source



Balance taken on last day of each month

For Your Information

One of the things I am continually looking for at length whilst writing programs on the Memotech is a list of the handy "trade-secret" pokes which can be utilised on the MTX to make programs a bit better, more unusual or just more interesting. Collected here are some pokes which I have gathered from various sources, most of which will be found if you decipher the system variables listing in the back of the manual.

POKE 64862,13 Disables the Break Key.

POKE 64862,15 Enables the Break Key.

POKE 64862,4 Cursor stops flashing,
no auto repeat and
Break Key disabled.

POKE 64862,0 Cursor stops flashing,
no auto repeat, Break
Key left unchanged.

POKE 64145,255 Turn on numeric Keypad

POKE 64145,128 Forces upper case

POKE 64145,0 Turn off numeric Keypad

POKE 64122,1:NEW Select MTX512

POKE 64122,0:NEW Select MTX500

POKE 64863,32: POKE 64864,216
Change cassette baud
rate to 4800 baud.

Other locations worth looking at through
the PANEL or through typing PRINT PEEK

(x) (where x is the memory location) are:

| | |
|-------|---|
| 64873 | Continue flag. This location determines whether or not you may type CONT after having pressed Break while a program is running. |
| 64874 | Contains the memory location (address) of the next BASIC line to be executed after Break has been pressed. |
| 64887 | Contains the increment value for the AUTO command. |
| 65107 | Cursor flash speed |

Crucial Competition

Since in the next issue the majority of members will be renewing their membership, we thought we'd present you with a little challenge to earn yourself free membership for a year. What we want is a sound demonstration program which must be written in BASIC. The winner will be the author of the program which shows the most versatility of the sound chip which might range from sound effects to music - the choice is yours. All entries to be in by the end of March 1990 and the winner will be announced in issue 6. Please send all entries to Andy Fox.

Alignment With Pro-Word

Unbeknown to a lot of MTX users (it seems) there is a very useful tape-based word processor called Pro-Word. If you bother to get into the use of it you'll find it has one distinct advantage over Newword...64 columns (an extra 24 characters per line).

A friend of mine was whining at me the other day because he said that you could not use Pro-Word to generate a run of tractor-fed sticky labels. Rubbish. Here's how to do it:

Line number

1

2

3

4

5 Mrs Ethel Scroke,

6 15, Ironside Crescent,

7 Donninfields,

8 Filthe Regis,

9 Staffs.

Provided the last line of your label finishes at line nine it may be safely repeated over and over. In the above example you would line up your first label and print it from line five. You would then print the subsequent run from line one using the "Number of copies" prompt to select the number of labels. Alternatively, you could save a list of labels to tape and space them out so that the last line of each occurred on a multiple of nine.

Nigel Cooper

Disc Systems Part 2

In the last issue I wittered on about how much better the MTX disc system is compared to others, the most notable of which being the DEC/VAX Prime system. In this issue I would like to go into parallel disc access which is generally of much more use than serial access which we discussed also in the last issue.

Before that though, I would like to discuss a couple of the disc systems of the other computers which you can lay your hands on. The first of these is the BBC DFS or Disc Filing System which was hailed as being fast, friendly and fiendish as long ago as 1984. It is quite good in the respect that having typed *DISC to tell the BBC that all further input and output is via disc, you might as well forget altogether the fact that you can also add a tape deck to the BBC. DFS has all the normal facilities but differs greatly from the more "standard" setups like MS-DOS and CP/M. Firstly, no extensions like .DAT are allowed, and there is a fairly restrictive maximum number of files which each disc is allowed to have. In addition to this, in a similar manner to CP/M 2.2, the disc directory does not automatically tell you how much space you have left on the disc - something which to me is a ludicrous mistake. The other complaint I have about BBC DFS, and I believe this is still true on the BBC Master MOS (Master Operating System) is that if I was to write a program and save

it under a name, say, "FRED", if I was to reload, expand and resave this program under the same name, I would be unable to load it again at a later date if the program had extended sufficiently to breach into another sector on the disc. This is a major bug, and something Acorn should have sorted out a long time ago. Where the BBC system scores is that it is a fast disc system - nothing takes particularly long to load or save.

Next on the hit list is the Commodore 64, which, when you look at it objectively has a disaster of a system since the disc drive is so slow. To say that is technically wrong. The disc drive is not slow, the computer is at input and output. Commodore originally had designs to release their VIC 20 1540 disc drive for the 64. However, they had enormous problems with it since it turned out that the disc drive was throwing data at the computer many times faster than the computer could sort it out. So, the 1541 disc drive was born - and a lot slower it was too. So much slower in fact that nowadays, with some fancy software, NovaLoad cassettes load faster than the disc!! Accessing the disc system from BASIC follows the same rules as using the printer, which might sound a bit strange. For example, to load a program from a Commodore 64 disc drive:

```
LOAD "FILENAME",8,1
```

Where the "8" refers to the device number. With reference to the last issue, the MTX equivalent of


```
PRINT #1,A$ is
```

```
PRINT #1,A$,8,1
```

Anyway, enough of the slagging, what I mean to do in this issue is to get to grips with parallel disc access. The best analogy I can think of was thought up a week or so ago whilst sitting in the pub. This is not a fact that should be forgotten since in the particular pub there was one of these rather swanky CD jukeboxes with "100 of your favourite albums". The process of selecting the particular song/tune/noise that you want that the jukebox goes through is along the following lines:

Find the CD which corresponds to the number of the album which the entertaineer has requested.

Go systematically through the tracks on the particular CD until the song/tune/noise has been found.

Play the track.

Get next album number and repeat the process.

The same sort of procedure is followed when utilising parallel files. You select the particular record, as it is called, and the disc operating system (MTXDOS) jumps to the particular section. You can then quite simply pick up whatever information appears there, or move sequentially through the stack of information which is there - in a similar way to the CD jukebox moving across the

particular chosen CD looking for the song/tune/noise.

That's all very well in theory, but how does it work in practise? Well, the same USER OPEN command is used, but with a couple of subtle changes.

In serial files, when you opened the file, you had to state whether the particular access was for reading (input), or writing (output). However, just to be difficult, parallel files simply require that you tell MTXDOS that it is a parallel file and thus allows reading and writing at will. Here's an example:

To open a serial output file (to write something into the file):

```
USER OPEN #1,"FILENAME.EXT","O"
```

To open a serial input file (to read something from the file):

```
USER OPEN #1,"FILENAME.EXT","I"
```

However, to open a parallel file, we change the I or O to an R:

```
USER OPEN #1,"FILENAME.EXT","R"
```

But that's only part of the story. A parallel file also requires that a limit be placed, whilst opening the file, on the maximum length of any string variables will be read or written. To be honest, I don't know why this is required, but, "...which sets the record length for random (parallel) files. Any values generated by this expression are truncated to produce an integer", is what the SDX non-CP/M manual has to say about it, which means very little to me. So what do you do about it? Well, my

experience has lead me to believe that you pick a maximum value well in excess of what you will need, so that there's never any problem. The best way to explain this is for you to try it yourselves and see what happens because, obviously, each case will be different. So, to open a parallel file, the complete command is:

```
USER OPEN #1,"FILENAME.EXT","R",LENGTH
```

Before launching into an example, I have still to explain what means there are for actually getting to the particular record (or in our analogy, the particular album). The following command is used:

```
USER REC#1,NUMBER
```

Where NUMBER is the record number. Right. Here comes an example:

```
10 REM *** PARALLEL DISC ACCESS EXAMPLE ***
20 REM *** BY ALAN HAMILTON DECEMBER 89 ***
30 REM
40 USER OPEN #1,"TEST.DAT","R",50
50 USER OPEN #2,"TEST.DAT","R",12
60 REM The above two lines have opened two out of
the possible four channels available under the
filename TEST.DAT.
70 FOR PERSON=1 TO 10
80 CLS
90 INPUT "Please enter someone you know's name
:";NAME$
100 INPUT "Please enter their phone number
:";NUMBER
110 PRINT"Thank you. Please wait...accessing the
disc."
120 USER REC #1,PERSON
130 USER PRINT #1,NAME$
140 USER REC #2,PERSON
150 USER PRINT #2,NUMBER
160 NEXT PERSON
170 INPUT "Please enter someone you know's name
:";FIND$
180 PRINT "Please wait...searching..."
190 FOR PERSON=1 TO 10
200 USER REC #1,PERSON
210 USER INPUT #1,TRY$
220 IF FIND$(LEN(FIND$))=TRY$(LEN(TRY$)) THEN GOTO
280
230 NEXT PERSON
240 PRINT FIND$;"'s phone number is not in the
database."
250 PRINT "Please re-try...."
260 GOTO 170
270 REM
280 USER REC #2,PERSON
290 USER INPUT #2,NUMBER
300 PRINT FIND$;"'s phone number is ";NUMBER
310 GOTO 170
```


Before closing up shop, a note on what was included in this example. You will notice on line 220 that I have included `LEN(FIND$)` within the variable declaration which makes the variable look as if it is an array. This is an oddity of MTX BASIC in that it seems incapable at times of comparing two strings of unequal lengths. What I have done to get round this is to tell the MTX to take the length of `FIND$` (found by `LEN(FIND$)`), call it "N" and compare the first N characters of `FIND$` with the first N characters in `TRY$`. If they match, then jump to 280, if not say so.

Programmer's Notebook

Author : N Cooper Requirements:
Language : MTX BASIC
Notes : Below is another in the series
of only very slightly potty routines.
This one does two things at once: it
replots anything up at the top right of
the screen diagonally across the bottom
left corner. The second thing it does
makes it unsuitable for drawings, it
gives a sort of italic effect. To be
honest with you I'd sooner it hadn't done
this but I have not worked out a way
round it. Useful if you're putting
together a leaflet and may be combined
with the output of Megaliner to give a
sort of "Buy Now While Stocks Last"
supermarket slash which may be jacked
into any position of the screen using the
<ESC> sequences to be found on page 175
(198 in Phoenix manual) of the manual in
combination with DSI.

```
1 REM *** A SLASH IN THE CORNER ***
2 REM *** BY NIGEL COOPER ***
10 VS 4
20 CRVS 6,1,17,0,15,8,32: PRINT CHR$(30);: DSI
30 VS 4
40 LET Y=191: LET XX=125: LET YY=0: LET N=0
50 FOR X=130 TO 255 STEP 0.5
60   IF GR$(X,Y,1)=CHR$(1) THEN PLOT XX,YY
70   IF INKEY$=" " THEN STOP
75   REM THERE IS A SPACE BETWEEN THE ABOVE
      INVERTED COMMAS
80   LET XX=XX-0.5: LET YY=YY+0.5
90 NEXT X
100 LET N=N+1
110 LET YY=0: LET XX=125
120 LET YY=YY+N: LET XX=XX+N
130 IF Y-1=127 THEN STOP
140 LET Y=Y-1: GOTO 50
```


Introduction to the MTX Assembler

The MTX Z80 assembler takes the text you input and converts this into the appropriate code in hexadecimal. However after the Main code, when you list from BASIC is a symbols table and the corresponding address. Also, how does the MTX remember when it is disassembling which ones are DB, DS and DW's as these are not part of the Z80 commands. The following is a brief introduction to this:

Type in the following code:

10 CODE

```
4007 LABEL1:    RET
4008 LABEL2:    DS 3
400B ALAN:      DB 0,34
400D FLEM:      DS 2
400F WILSON:    DS 4
4013 RET
```

Symbols:

| | | | |
|--------|------|--------|------|
| LABEL1 | 4007 | LABEL2 | 4008 |
| ALAN | 400B | FLEM | 400D |
| WILSON | 400F | | |

If you now enter PANEL, you'll get the following hex dump:

```
4000 ?? ?? ?? ?? ?? ?? ?? C9
4008 C9 02 00 00 22 C9 02 C9
4010 02 00 00 C9 02 00 00 4C L
4018 41 42 45 4C B1 00 00 00 ABEL
4020 02 01 00 4C 41 42 45 4C LABEL
4028 B2 00 00 00 02 04 00 41 A
4030 4C 41 CE 00 00 00 02 06 LA
4038 00 46 4C 45 CD 00 00 00 FLE
```

```
4040 02 08 00 57 49 4C 53 4F WILSO
4048 CE 00 00 00 ?? ?? ?? ??
```

```
4048 ?? ?? ?? ?? 05 01 00 03 ...this section is the
4050 01 B3 03 04 00 02 03 B0      code for DS, DB & DW
4058 33 B4 05 06 00 02 01 B2
4060 05 08 00 04 01 B1 FF END
```

The actual program code is 4007h to 4013h. The data can now be grouped together for each line of code:

```
4007 LABEL1: RET    02 00 00 4C 41 42 45 4C B1 00 00 00
                   L A B E L
                   05 01 00 03 01 B3

4008 LABEL2: DS 3    02 01 00 4C 41 42 45 4C B2 00 00 00
                   L A B E L
                   03 04 00 02 03 B0

400B ALAN:  DB 0,34  02 04 00 41 4C 41 CE 00 00 00
                   A L A
                   33 B4

400D FLEM:  DS 2     02 06 00 46 4C 45 CD 00 00 00
                   F L E
                   05 06 00 02 01 B2

400F WILSON: DS 4    02 08 00 57 49 4C 53 4F CE 00 00 00
                   W I L S O
                   05 08 00 04 01 B4
```

FF end of code.

What does all this mean?

Actually, it is quite easy to fathom out. The first byte of the sequence is a special code used by the MTX assembler and it can be:

00

01

02 is used to indicate that the following bytes are a LABEL.

03 is used to indicate that the following is a DB command.

04 is used to indicate that the following is a DW command.

05 is used to indicate that the following is a DS command.

The second and third bytes are used to give the displacement from the base address, which is 4007h. The data is in the usual format: LSB MSB. For example, the label FLEM is located at 400Dh. If you subtract 4007 you get 6 (13-7). If you now look at byte 2 of FLEM above it will read 06. For further proof, type in the following code.

```
10 CODE
```

```
4007 ALAN: DS 254
```

should give 05 05 01 A L A etc.

The number of bytes from 4 onwards depends on the label size. You will notice from the above examples that the last digit is truncated and the data byte is greater than 127. What the assembler does is to add the hexadecimal byte of the last digit of the label and add it to the ASCII code in hexadecimal for a colon (:). The assembler extracts these when disassembling, and it knows when the end of the label has been found. The final three bytes in the label sequence is the spacing between labels in the Symbols table.

Finally, similar rules apply for the DS, DB and DW commands. In the above listing the bytes directly underneath the label data is DS, DB and DW information. The first byte is the special code and the next two bytes are the displacement from base. The next byte tells the assembler the number of bytes required to display the command, i.e. 2 for DS. The next byte is the number used in the command, i.e. 3 for DS 3, or FE for DS 254 (254d = FEh). The remaining bytes are used for the ASCII text of the command, the last byte being truncated and added to B0h.

Example:

400E DW END

04 05 00 02 03 45 4E C4
DW displ \$ \$\$ E N

where \$ = reserve two bytes

\$\$ = 3 ASCII codes are used.

C4h = B0h + 0Dh

Note the result of B0h + 0Dh is not BDh but C4h. This is because the assembler has imposed a limitation on this: only numbers 0h to 9h can be used and not Ah to Fh.

Note if you use #FE instead of 254 then all the data is the same except the ASCII text:

F C5 or 2 5 B4

If you decide to shorten a label from within panel you will destroy the assembly code when you go into BASIC and re-list; although the code when you view from PANEL is OK. This is because you have fooled the disassembler/assembler. If you replace the new label with the original code it will re-list as expected.

AF Wilson

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Sidewinder

Sidewinder is a utility, despite the silly name that might lead you to think it was yet another awful game written in BASIC. It does something unusual and, I think, useful if (like me) you have to produce leaflet and posters. Sidewinder turns the top line of the graphics screen into a mini workshop that turns any characters entered on their side!

To explain: The graphics screen is wider than it is long. This is you think about the way your average graphics dump works, is not terribly useful for making leaflets and posters. This utility does away with all that!

Instructions: The single line functions (menu numbers 1 and 4) allow the placing of a single line of text on the screen. The CRVS subroutine at line 330 selects the screen position of your line by returning a value from the final position of the cursor. Press <RET> to enter screen position and your line. In all cases other than the full screen DSI function at line 440 it is unnecessary to delete the cursor using <CTRL> & <_>.

The vertical screen editor creates a virtual screen one character in width at the entered cursor point and allows you to juggle the contents up and down (using DSI escape sequence you will find on page 175 of the old manual and page 198 of the new Phoenix manual) without taking the rest of the screen up and down with it.

The column insert you will find useful for spacing things apart as it saves all that fiddling around with cursor keys etc.

Lastly we have the so-called block transfers. These will take any graphics that consume no more than 15 characters wide by 16 characters deep at the top left of the screen and turn them over on their side as well.

You will note that the program does not routinely clear the screen. This enables you to use it in conjunction with Printliner or Megaliner. As the former contains 55 different (Alan-> I can feel a plug coming on here!) border fonts and a large selection of graphics (Alan-> yepp, here it comes!) you'll find it a handy program to use with this one.

I'm no ace at Assembler, but I can see the advantage of teaming this routine up with a double density A4 graphics dump. There's been a single density A4 graphics dump that uses about 65 columns of an 80 column printer for quite a while. A double density equivalent would allow an instant A4 poster making routine. Perhaps the editor will run a competition for someone to write one.

Nigel Cooper


```

10 REM ***   SIDEWINDER   ***
20 REM *** BY NIGEL COOPER ***
30 VS 5: CLS : PRINT "MENU": PRINT : PRINT "1. SIDEWAYS, SINGLE WIDTH, SINGLE LI
NE"
40 PRINT : PRINT "2. VERTICAL SCREEN EDITOR"
50 PRINT : PRINT "3. DSI"
60 PRINT : PRINT "4. SIDEWAYS DOUBLE WIDTH, SINGLE LINE"
70 PRINT : PRINT "5. INSERT COLUMN AT CURSOR"
80 PRINT : PRINT "6. BLOCK TRANSFER TO SIDEWAYS, SINGLE      WIDTH"
90 PRINT : PRINT "7. BLOCK TRANSFER, DOUBLE WIDTH"
100 LET K$=INKEY$: IF INKEY$="" THEN PAUSE 200: GOTO 100
110 PAUSE 300: LET K=VAL(K$): IF K<1 OR K>7 THEN CSR 12,20: PRINT "1 - 7 Only!"
: PAUSE 1000: CSR 12,20: PRINT "      ": GOTO 100
120 ON K-1 GOTO 130,290,440,460,590,620,750
130 GOSUB 330: LET XX=1: LET Y=191: VS 4
140 CSR 0,0: PRINT "      ": CSR 0,0
150 CRVS 2,1,0,0,23,1,32
160 PRINT CHR$(30): CSR 0,0: DSI
170 VS 4
180 FOR X=0 TO 180
190 IF GR$(X,Y,1)=CHR$(1) THEN PLOT YY,XX
200 LET XX=XX+1
210 IF XX>181 THEN LET XX=1
220 IF INKEY$="" THEN GOTO 260
230 NEXT X
240 LET YY=YY+1: LET Y=Y-1
250 IF Y=182 THEN GOTO 260 ELSE GOTO 180
260 REM PRINT CHR$(30): CSR 0,0: DSI
270 GOTO 30
280 REM *** CREATES SINGLE SPACE VS AT CSR ***
290 GOSUB 330
300 CRVS 2,1,A,1,1,23,32
310 PRINT CHR$(30);: CSR 0,0: DSI
320 CLEAR : GOTO 30
330 LET A$=SPK$
340 VS 4: CSR 0,0
350 PRINT "0123456789ABCDEFGHIJKLMNPOQRSTUVWXYZ"
360 CRVS 2,1,0,0,32,1,32
370 PRINT CHR$(30);: CSR 0,0
380 DSI
390 LET A$=A$+SPK$: LET A=ASC(SPK$): LET A=A-49
400 IF A>15 THEN LET A=A-7
410 IF A=-17 THEN LET A=31
420 LET YY=A*8
430 RETURN
440 VS 4: PRINT CHR$(30): CSR 0,0: DSI
450 GOTO 30
460 GOSUB 330: LET XX=1: LET Y=191: VS 4
470 CSR 0,0: PRINT "      ": CSR 0,0
480 CRVS 2,1,0,0,15,1,32
490 PRINT CHR$(30): CSR 0,0: DSI
500 VS 4
510 FOR X=0 TO 126
520 IF GR$(X,Y,1)=CHR$(1) THEN PLOT YY,XX: PLOT YY,XX+1: PLOT YY,XX+1.01: PLOT
YY,XX-.09
530 LET XX=XX+1.5
540 IF XX>190 THEN LET XX=1

```



```

550 IF INKEY$=" " THEN GOTO 30
560 NEXT X
570 LET YY=YY+1: LET Y=Y-1
580 IF Y=182 THEN GOTO 30 ELSE GOTO 510
590 GOSUB 330
600 VS 4: PRINT CHR$(21);: FOR I=1 TO 23: CSR A,I: PRINT CHR$(32);: NEXT I
610 PRINT CHR$(21);: GOTO 30
620 LET YY=128: LET XX=0: LET Y=191: VS 4
630 CRVS 2,1,0,0,15,16,32
640 PRINT CHR$(30);: CSR 0,0: DSI
650 VS 4
660 FOR X=0 TO 124
670 IF GR$(X,Y,1)=CHR$(1) THEN PLOT YY,XX
680 IF INKEY$=" " THEN GOTO 30
690 LET XX=XX+1
700 IF XX>124 THEN LET XX=0
710 NEXT X
720 IF YY+1>255 THEN GOTO 30
730 LET YY=YY+1: LET Y=Y-1: GOTO 660
740 GOTO 30
750 LET YY=128: LET XX=1: LET Y=191: VS 4
760 CRVS 2,1,0,0,15,16,32
770 PRINT CHR$(30);: CSR 0,0: DSI
780 VS 4
790 FOR X=0 TO 126
800 IF GR$(X,Y,1)=CHR$(1) THEN PLOT YY,XX: PLOT YY,XX+1: PLOT YY,XX+1.01:
PLOT YY,XX-.09
810 IF INKEY$=" " THEN GOTO 30
820 LET XX=XX+1.5
830 IF XX>190 THEN LET XX=1
840 NEXT X
850 IF YY+1>255 THEN GOTO 30
860 LET YY=YY+1: LET Y=Y-1: GOTO 790
870 GOTO 30

```

DON'T FORGET
 TO FILL IN THE ENCLOSED
 CENSUS...IT'S YOUR
 CHANCE TO TELL US
 WHAT YOU WANT!

Blank Media

Cassettes (prices quoted are per cassette)

| | | | |
|-----------|-----------|-----------|-----------|
| C12 - 49p | C20 - 59p | C30 - 64p | C50 - 69p |
| C62 - 73p | C70 - 78p | C80 - 83p | C92 - 87p |
| C96 - 93p | C100- 98p | C120-120p | |

All cassettes come boxed and with labels.
Minimum order quantity is ten cassettes.

Discs

Unbranded:

| | |
|-----------------------------|----------------|
| 5.25" for 250K drives | #4.00 per box |
| 5.25" for 500K & 1Mb drives | #5.00 per box |
| 3.5" for 1Mb drives | #11.50 per box |

Branded:

KAO

| | |
|-----------------------------|----------------|
| 5.25" for 500K & 1Mb drives | #8.60 per box |
| 3.5" for 1Mb drives | #12.35 per box |

Ribbons

Original ribbons (made by printer manufacturer) each

| | |
|---------------------------------|--------|
| Brother HR5 | #3.34 |
| Epson FX/MX/RX80/FX800/LX800 | #4.83 |
| Epson LX80/86/GX80 | #6.73 |
| Panasonic KXP1080/1/2/3/1595/92 | #10.93 |
| Star NL10 | #7.19 |
| Star LC10 | #5.70 |

Paper (all prices per 1000 sheets)

(wf = wood-free paper)

11x9.5"

| | |
|--------------------------|--------|
| wf 60 gsm Plain or Ruled | #11.28 |
| wf 70 gsm Plain or Ruled | #11.93 |

Exact A4

| | |
|-----------------------|--------|
| 80 gsm Letter Quality | #13.55 |
|-----------------------|--------|

EXCLUSIVE!!!

The Software Source has managed to secure the rights to the best adventure games ever written for any eight-bit computer. Level-9 software have given The Software Source the exclusive rights to sell all the adventures which were released for the MTX at cut down prices.

Classics like: **Colossal Adventure, Emerald Isle, The Lords of Time, and Snowball** are all now available from us.

Each title is available on cassette only but comes with complete instructions & full packing. Each is £6.50 each, inclusive.

Send to: The Software Source, 56 Rochester Street, Bradford, BD3 8ED. All cheques payable to The Software Source.

Local Users Groups

One of the problems of running a users group of this size is that we never get to meet our members on a semi-regular basis. Given, however, that "The Team" are spread over the country, the chances are that you are likely to be within striking distance of one of us who are involved in the workings of The Software Source.

We'd like to see the initiation of local users groups of members of The Software Source so that they can get to know other MTX'ers in their area and to sort out any computing problems you might have, face to face.

You could get together to start a programming project or something like that, or just for a natter.

If you are interested in getting something organised in your area, then please let Andy know. We have already had John Hodgson who lives in Bristol interested in this idea as there are a couple of users in his area. Is anyone else interested?

Hardware Shop

| | |
|---|-------------|
| 32K Memory Expansion | #15.00 |
| 64K Memory Expansion | #25.00 |
| RS232 Board | #15.00 |
| Pascal ROM | #15.00 |
| Newword ROM | #15.00 |
| Memotech MTX512 64K Computer | #45.00 |
| MTX500/MTX512 64K Upgrade to MTX512 256K | #50.00 |
| 80 Column Board (for CP/M Systems) | #50.00 |
| Disc Controller (SDX) | #40.00 |
| Disc Controller upgrades (exluding drive) | #10.00 |
| Std non-CP/M to 56 Col CP/M system (500K) | #10.00 |
| Disc Drives | from #45.00 |

All prices include VAT.

Postage: Computers #4.00
Others #2.00

Please allow 14 days for delivery. If there is going to be a delay in your order, you will be notified as soon as we know. All items genuine Memotech hardware.

Please make all cheques payable to: Paul Wood.

Send to: The Software Source Hardware Shop, 12 Bishops Avenue, Worcester, Worcestershire, WR3 8XA.

Ed II - The Sequel

If you have any computer problems or enquiries regarding anything vaguely Memotech'ish, then Ed will be please to help (assuming he/she/it) can. Send all questions to: The Editor, The Software Source, 56 Rochester Street, Bradford, BD3 8ED.

Dear Ed

I have read in the press that it was possible to load Spectrum 16K & 48K programs onto the Memotech. What do I require to do this and can you tell me who will supply and the cost please? And is it at all possible to load ZX81 16K programs onto the Memotech. I would also like to know if you can link one Memotech machine to another and pass info between the two from screen to screen or printer to printer or can you pass info from a ZX81 onto a Memotech.

Andy Bruce

Ed speaks (!): It has been possible for quite a while to run Spectrum software on the MTX. Two devices, if you'll call them that, are available to enable this to happen. The first is a combination of hardware and software and is called the Speculator. It is able to run a small amount of machine code and BASIC programs all of which will be pretty old now I would imagine. At present we're not able to sell Speculators, but we're working on it. The second way of going about the Spectrum angle is to get Z-Loader, which is a software device that emulates a

Spectrum 48K, even down to the extent that it uses the single key entry system. The main limitation of Z-Loader is that it is totally incapable of taking any machine code software and hence limits you to programming in BASIC. I believe later versions of Z-Loader are available which have been modified to allow the >pa playing of Addictive Software's "Football Manager", which is written mostly in BASIC. Bare in mind that any emulator written in the manner in which the Z-Loader is will be slow to run any Spectrum program, but the fact is it does run them and is quite good in that respect. As for ZX81 programs, as far as I am aware, you won't be able to load anything from a ZX81 since the cassette formats are different and there is no emulator for it.

It is very easy to enable two Memotech computers to communicate with each other, or for that matter a Memotech and any other computer provided that you have two things. The first of these is that each computer must have something called an RS232 socket, which is not fitted as standard on the MTX but is available from us (see the Hardware Shop elsewhere in this journal). The other thing you need to have to allow communications between machines with any sort of useability is some nice software to drive the RS232 on your computer and some more software on the other computer with which to answer back. Again, in the case of the MTX, we can help out with Paul Wood's "Terminal" (see your PD catalogue). We use a Memotech and Atari ST linked together through the RS232 ports with little

problems - in fact the journal is put together by using it a great deal. The other option which I could present here is the use of the printer port with Paul Jenkins' "Inprinter" communications board - details of which are available through the PDSL at the usual address. Bare in mind though that computer communications is a whole subject in itself in computing and it goes with a great deal of jargon.

Dear Alan

...The normal household insurance does not cover computer equipment. Also the company only pay 75% of the price of the replacement unit and not the unit that is lost. So if you lose a computer make sure that you quote enough for a suitable replacement.

Mr A Wall

Ed: Thanks for that Mr Wall - it's certainly something everyone ought to check - you heard it first here!!

Dear Alan

Comments from last issue: Page 42
Harwell (U.K.A.E.A.) have a CRAY 2. I know as we have a line to it. As regards size, its about 40" high and 50" in Diameter. I can give you more details if you're interested.

John Hodgson

Dear Alan

Just a little something to add to the magazine when you have a corner spare. For all the people that have the piggy backed Norway ROMs fitted to their machines, then all they need to do is carefully remove the ROM from the socket, either carefully cutting or desoldering the legs of the top of the IC, remove any links from the top IC to the motherboard (some machines have no links - others have a link from the IC to the expansion bus area). Finally, refit th lower ROM in its original position. Should anyone experience any problems they can contact me.

Paul Wood
0905 24260

Phoenix Memotech Manuals

One of the most desirable extras to have for the Memotech is a decent manual. Memotech Limited got a lot of complaints from users about abiguity in the original manual, and for ridiculous errors in it.

As a result, Memotech Ltd commissioned Phoenix Publishing Associates to re-write the entire standard manual. But what with things being the way they are, they were never sold in very many numbers due to the fact that GENPAT went down before it really got off the ground.

However, The Software Source has managed to get a large supply of these manuals and are able to supply them to its members for the knock-down price of £5.95.

The manual is 252 pages in length, and the normal A4 size. It bares a considerable resemblance to the old manual, even to the extent that it has a glossy black cover. Do not be deceived though. Inside lurks the answers to many of the questions that you might have been left asking otherwise.

It deals much better with Noddy, and actually has more than a passing reference to the built in assembler.

As if all this wasn't enough there's the index we've always wanted along with the sort of friendly advice we've always needed.

This is a totally exclusive offer and although we have a large number for these manuals we expect you'll be very keen to get hold of a copy from us, so, **GET IN QUICK!**

Send cheques/postal orders/ international money orders for £5.95 to: Memotech Manual Offer, The Software Source, 12 Roebank Road, Beith, Ayrshire, KA15 2DX.

Price includes postage and packing. Please allow seven days (UK) for delivery.



**Exclusive
Offer!**

End Of File (A.K.A. Alan's Page)

Mega thanks to Paul Trainer for his suggestion for the name of my page...ten brownie points!!

Having given a great deal of thought and consideration as to the consequences of my pulling out of The Software Source, it is with quite a heave that I have to reluctantly do so, and hence this will be the last journal I will have any part in.

The reason for this is one of lack of time to spend on the production of the magazine and the workload I am getting as a result of the course I am on is beginning to show signs of increasing.

I am getting to the stage that by continuing to collate, sort, and generally assemble articles for the journal as well as putting it all together in some sort of meaningful order is putting my degree in jepoardy.

So this is the last journal I shall be putting together, indeed, it is the last journal which I will be involved in. I will still be about, writing the odd article etc, but to all intents and purposes, no longer helping to run The Software Source.

I would like to thank all those people who have helped get things off the ground, especially Brian Houghton, whom I blame for giving me the idea to start The Software Source! My special thanks must go to Andy since, if it wasn't for him, The Software Source wouldn't be here today.

My parting shot is that I hope that you will help Andy as much as possible by giving him as much feedback as you can, since then, and only then, will he know what he is doing is being appreciated...I hope it is.

Goodbye, and thanks...the MTX is far from dead!

Alan Hamilton

Advertising Rates

| | |
|------------|--------------------|
| Full Page | - #7.50 inc VAT |
| Half Page | - #4.50 inc VAT |
| Classified | - Free (non-trade) |

Typesetting at #3.00 extra per advertisement.

The Software Source, 56 Rochester Street, Bradford, BD3 8ED.

Payment with advertisement only.

Contacts

General

For general information, membership renewal forms, journal contents, commercial software, 3.5" to 5.25" to 3.5" disc conversions: The Software Source, 56 Rochester Street, Bradford, BD3 8ED. (0274) 668765.

PD Software Library

For all public domain software orders, latest updates and general enquiries about the ever growing PD library: The Software Source PD Software Library, 1 Saxon Drive, Rowley Regis, Warley, West Midlands, B65 9RD.

Hardware Problems / Repairs

For all hardware repairs / reconfigurations, communications difficulties or other hardware problems: Mr Paul Wood, 12 Bishops Avenue, Worcester, Worcestershire, WR3 8XA. (0905) 24260.

Miscellaneous

For marketing, advertising, constitution, accounts and other details not specified under anyone else's name, contact: Andy Fox, The Software Source, 56 Rochester Street, Bradford, BD3 8ED.

ALWAYS QUOTE YOUR MEMBERSHIP
NUMBER WHEN CONTACTING US
WITHOUT IT WE WILL NOT
BE ABLE TO HELP YOU

Glossary

-
- Cray 2 - A very very powerful mainframe computer.
- Operating System - Every computer has an operating system. It is what makes the computer semi-intelligent and churns up those error messages which we all hate.
- RS232 - The most non-standard standard computer interface which normally allows the connection of the computer to a modem or other computer. It is also possible to interface the computer via the RS232 to various instruments and devices such as robots.
- Sector - Each disc when it is formatted is separated into a number of sectors to enable the disc drive to find information as required.
- U.K.A.E.A - United Kingdom Atomic Energy Authority.

..News Desk...News Desk...News Desk...New

Brian Houghton was recently asked if there was such a thing as a sector editor in the Public Domain Software Library. As has been Brian's intention for quite a while now, he has made up a compilation disc which contains lots of sector editors, along with their necessary documentation. See the PDSL section of this journal for full details.

Apologies for the rather faint printing in the last journal - it varied with copy. The master pages were dark enough but the photocopier had a fit.

We had several complaints about one of the pages in the last journal. To allay any misconceptions, Paul Wood's advertisement was supposed to be upside down...he wanted it that way!!!

One of the things which we've never done in the journal is a high scores table for the games you all play. Send in your scores for any of the games you have for the MTX and we'll see how it matches up to everyone else!

