

TI 99/4A
USER GROUP
NEWSLETTER

TI * MIES

Biggest
ever
issue



99/4(A) Computer and
3rd party items

The first step to a
complete system can
be your own cassette
recorder.

WINTER

Vol. 1, Number 3

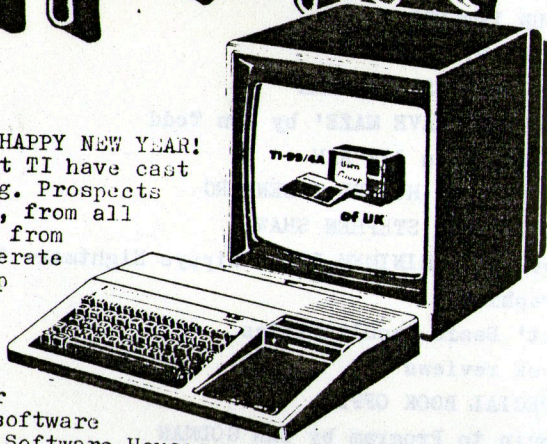
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Sincere THANKS to those who have made this issue Britains No 1 & Best.

**SUPPORT OUR
ADVERTISERS**

Happy New Year



Hello,

It's 1984 and yes we mean it A HAPPY NEW YEAR! in spite of the black cloud that TI have cast over us there is a silver lining. Prospects for TI USERS in '84 look bright, from all accounts theres plenty on offer from third parties and if youre desperate for hardware we know of one shop who has committed themselves to providing you with your wants for the next year.

Your first step to a complete system is your cassette recorder its true! Look at the range of software available on cassette tape, the Software Houses that advertise through the pages of TI*MES offer you some first class products- support them and they will continue to support your TI99/4a.

In each issue of TI*MES you will find some interesting articles which require the use of a cassette recorder, there is no doubt that the TI and cassette can bring hours of fun. While on the subject of cassette tapes, no-one has taken up our offer of FREE YAHTIZEE, the idea is to start a new U.K. TI-User library of your own programs, each member of TI99/4a Exchange who submits a program of your own making on a tape will be put into TI*MES library and in return be given a copy of the user group Yahtizee.

We publish a letter received from Texas Instruments Ltd, Manton Lane, Bedford following our concern we think it answers most questions that you may have, we also understand that TI also plans to continue with repairs to out of warranty machines. We will keep you advised of any events through the year but don't let us stop you getting in touch if you have any 'query either with Texas Instruments direct or us.

This issue is biggest ever and it is thanks all who have made an effort writing, please keep your contributions coming we will do our best in putting it into the pages of TI*MES, next issue Spring (march).

Happy computing

TI99/4a Exchange & TI*MES newsletter is supported only by its subscribers, this TI users Group is completely Non profit making.

YOUR LETTERS

This page is where you get the chance to put your opinions in print.

F.W.Seaman, Chaddesden, DERBY, writes:-

I have just been informed-that 'TEXAS INSTRUMENTS' have decided to pull out of the home computer market - perhaps you would be able to obtain some infomation from TI with regard to future.

ED:- We believe that TI will be back in the home computer market but you will not see the TI99/4a return, hope the Texas letter answers your query.

Miss Fitzpatrick, SOUTHPORT, Mersyside, write:-

Could anyone write a short program to illustrate the use of V.APPS Print AT subroutine in his book? Is it possible to use the subroutine to have many PRINT AT statements in TI BASIC.

ED:-To run this program you will find it easy to use GOSUB after first setting up your PRINT statement, GOSUB will enter the routine at any stage and when you have finished , RETURN will put you to the program line immediately following the GOSUB with which you entered the subroutine. It depends how much memory is used to limit your programme.Next edition we give more examples of this if you can not wait take up our book offer.

Kate Roberts Mum telephoned to say that a SCORE of 251900 on PARSEC was achieved.....ED:- well done KATE!

Terry Relf, Binley, COVENTRY, writes:-ARGOS replaced his TI computer without a quibble when it developed a fault, Terry says its "apity we can't continue our relationship with Argos on TI99/4a peripherals and software!" on the subject of CASSETTE DE-MAGNETISING "Comet Stores sell the TDK cassette head de magnetiser at £8.25....TANDY shops sell a very close look-alike at about £13 -Hmmm!"

ED:- if you do not want an expensive cassette head de-magnetiser & cleaner combined, for £2.50 (to members of our group) this is an exclusive offer not to be missed.

Mr C.P.Casey, CHEIMSLEY WOOD, W.Midlands Writes:-

There is suddenly quite alot of books on the market, I managed to get hold of a few which I would like to comment on.

THE TEXAS PROGRAM BOOK was the first one I had ever seen, and actually out sold the Bible shortly after publication, many useful progs and many can be expanded. TANTALIZING GAMES FOR YOUR TI99/4a- some good Programs, but unless you are good at BUG hunting, don't bother. DYNAMIC GAMES FOR YOUR TI99/4A.. an excellent book by Scott Vincent, many enjoyable programs and all guarantee to run, although you may find his use of SOUND a little trying. 36 TEXAS INSTRUMENTS PROGRAMS FOR THE HOME AND OFFICE...I ordered this from 'galaxy' and promptly sent it back, if it had been a British author he may have been in trouble with the trading standards officer, at £8.00 a definate thumbs down to this one.

D;- Thankyou very much for your comments which everyone can share, from time to time we shall make available Books at discount prices saving at least £1 on mail order prices.

If you wish to put your opinions in print... write to:- TI99/4a Exchange, quoting letters, 40 Barrhill, Patcham, Brighton, Sussex, BN1 8UF.



TEXAS INSTRUMENTS LIMITED

(A WHOLLY OWNED SUBSIDIARY OF TEXAS INSTRUMENTS INCORPORATED
OF DALLAS, TEXAS, U.S.A.)

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YOUR REF.
OUR REF.

Mr Clive Scally
TI 99/4A Exchange - Users-Group
40 Barrhill
Patcham
Brighton
Sussex BN1 8UF

16 November 1983

Dear Mr Scally

TI 99/4A Home Computer

Thank you for your letter of 7 November. In response to the various enquiries which you have made, I can do no better than to let you have a copy of TI's announcement which was recently made to European Press. The following points emerge from this release:

1. TI software availability is envisaged to be sufficient for the reasonably foreseeable future.
2. TI will honour warranties and will continue to provide out of warranty service facilities.
3. Although supplies of TI peripherals are limited, various suppliers in Europe offer products which are compatible with the TI 99/4A.

I will ask Mr Phil Waggott (UK Consumer Products Manager) to provide you with a list of peripheral suppliers in whom you may be interested.

The intellectual property rights in the various TI products are vested in the parent company, Texas Instruments Incorporated of Dallas - and not Texas Instruments Limited. Your question concerning the possibility of a licence to produce and supply command modules and the full range of accessories/peripherals has therefore been referred to the Corporation's patent department in Dallas. I am told that no decision is expected to be made on this issue until January of 1984

and again, I will ask Mr Waggott to let you know the outcome of their deliberations in due course.

Whilst I regret the inconvenience which may have been caused to your user's group as a result of the recent announcement, I am sure you will appreciate that no responsible company could have continued to allow losses of the magnitude announced to continue indefinitely. We believe that the actions taken by TI, particularly with regard to the continued support above specified, strikes a reasonable balance between the various interests which lie in Texas Instruments.

Finally, I do not for one moment dispute that your user's group comprises of serious home computer owners and it is my company's intention to act responsibly.

Yours sincerely

Rod P Attwooll
Managing Director

16th JANUARY 1984

no further developments
why are TEXAS so silent?

The following text is from POST-BULLETIN, Rochester, Minnesota, 12th December 1983:

New York Times News Service.

NEW YORK — This is the year in which the home computer will join the sled and the bicycle under the Christmas tree.

In numbers that outstrip even the most optimistic predictions, Commodores, Ataris and Colecos are being snapped up from the shelves. Americans have embraced the home computer as their favorite gadget for a Christmas present, replacing the food processors and video games of Christmases past.

"Last year, computers were new, unique and expensive," said Egil Jullussen, president of Future Computing Inc., a market forecasting concern that expects 2.5 million home computers to be sold this Christmas, twice as many as last year. "This year, they're cheap, and they have become the gift."

Only six months ago, a fierce price war erupted among home computer manufacturers, sending many into a tailspin from which it appeared some would not recover. This year, the industry will lose almost \$1 billion.

Even with the trend toward more sophisticated machines, however, many are picking up bargains from the rubble of the home computer industry. The biggest seller this Christmas, for example, is the Texas Instruments 99-4A, a computer that brought such headaches to its manufacturer that the company announced five weeks ago that it was getting out of the business. Overnight, the same computer that four years ago sold for \$1,100 was available for \$49.

The incredibly low price tag caused a near-riot in Greensboro, N.C., two weeks ago, as shoppers stormed a K mart to grab the computer while supplies lasted. Crowds swarmed through Toys "R" Us outlets in New Jersey and New York, apparently unconcerned that new programs and spare parts will be scarce.

"In today's economy, it's nearly a stocking stuffer at \$50," said David

Lawrence, a computer analyst at Montgomery Securities in San Francisco.

"I wish we'd bought more," said Warren W. Zorek, consumer electronics buyer at Bloomingdale's, who snatched up nearly 10,000 machines the day that Texas Instruments threw in the towel. Almost none are left.

But at 47th Street Camera, the New York discount house, the sudden demand for Texas Instruments' discontinued computer provided a chance for extra profits. The store was selling the machine Friday for \$69.95.

The boom in computer sales, while strong, has not been across the board. A year ago, analysts said that the software industry — independent manufacturers who sell the programs that run home computers

— would double its business this year.

"It's not happening," said Ken Williams, president of Sierra On-Line Systems, a California company that produces software for the Commodore and the new IBM home computer. Retailers who were caught with thousands of unsold video game cartridges last Christmas refused this year to order more than a 30-day supply of computer programs.

For Williams, who spent much of the year producing programs for the now-defunct Texas Instruments computer and an older Commodore machine that has been superseded, the slowdown means a sales increase of only 20 percent this year.

"I've learned my lesson," he said, bewildered by the pace at which computers come into and fall out of

FOR THE REST OF US BEGINNERS
by Wayne Page

CALL COLOR and CALL SCREEN

During the execution of a program, it's often interesting to highlight some screens, such as instruction and special information screens. To do this you use the CALL SCREEN(N) command (where N is a number between 1 and 16). Refer to the reference manual or to your reference card for the values for each color.

The color of each of the characters that can be defined (32-159) can be controlled by the use of the CALL COLOR(S,F,B) command (where S is the character set number, F is the foreground color number and B is the background color number). A simple routine to change the color of the letters of the alphabet (character codes 48-95) could be accomplished by this FOR-NEXT loop:

```
100 FOR CHANGE=3 TO 8
110 CALL COLOR(CHANGE,10,1)
120 NEXT CHANGE
```

This changes all the numbers and letters to light red with a transparent background color.

If you were to define a character (e.g., 159) and wanted to set the color to dark red, you would enter CALL COLOR(16,7,1). But keep in mind this would also set the characters 152-158 to red.

Here is an example of a short program that would use these two commands.

```
100 CALL CLEAR
110 CALL SCREEN(14)
120 PRINT "MY PROGRAM TITLE": ; ; ; ; ;
130 FOR DELAY=1 TO 1000
140 NEXT DELAY
150 CALL SCREEN(2)
155 CALL CLEAR
160 FOR X=3 TO 8
170 CALL COLOR(X,10,1)
180 NEXT X
190 PRINT "THIS IS MY INFORMATION PAGE. IT"
200 PRINT "WOULD TELL YOU ALL ABOUT MY GAME"
210 PRINT "OR PROGRAM": ; ; ; ; ;
220 FOR DELAY=1 TO 2000
230 NEXT DELAY
240 CALL CLEAR
250 PRINT "GAME STARTS HERE.": ; ; ; ; ;
260 GOTO 260
```

Try playing with these commands. See if you can come up with something interesting to do with them, and share it with us here in our newsletter. If you have any questions about some of the commands in BASIC or how to get something to happen in BASIC, write to the newsletter in care of this column.

Our thanks to:

CAVE MAZE: MSP 99 USERS GROUP
AN ADVENTURE: P.O. BOX 12351
by Jon Todd SAINT PAUL, MINNESOTA 55112

You're lost in a subterranean labyrinth -- a maze of caves, each indistinguishable from the other. Suddenly, in the dim light, you see something sparkle! You reach for it and discover a faultless diamond! Pocketing the treasure, you continue your seemingly futile search for a way out.

Many adventure games require the player to negotiate a maze similar to the one just described. Although it seems complicated during play, the maze is very easy to program.

The following program in TI Basic generates a 12-room maze (one of the rooms is actually a testing location, where you are either allowed to leave the maze or are forced to go back). As in all good mazes, the rooms are identical in appearance and are interconnected by winding passages. The result is that when one leaves a cave heading south, he may find himself in a cave actually located to the north. He may even find himself back in the same cave he just left. Since the caves are identical, the adventurer must somehow mark the cave if he is to recognize it on a later visit.

Traditional maze-solving involves leaving objects in each cave which are recognized and possibly retrieved on a return visit. Cave maze presents an easier approach. One of the rooms contains a piece of chalk that may be used to write with. The WRITE/DRAW section handles the creation of your messages, and lines 420-430 will show you what message (if any) you wrote on any previous visits.

The program direction values and messages are stored in arrays. Thus OB(1) is the location of object #1, the chalk, and OB*(1) is the corresponding name of the chalk. OBDES\$(1) is the supplemental description of chalk, which is printed if we type LOOK-CHALK as a command (see LOOK section). MSG\$(R) is the message you write with the chalk for each room (R). N(R), S(R), E(R), and W(R) represent the room numbers located north, south, east, and west of the current room (R).

Notice that in most sections that affect objects (i.e., GET, DROP, LOOK) the program compares the last 3 letters of your object command SEG\$(V2\$,LEN(V2\$)-2,3) with the last 3 letters of the object name SEG\$(OB\$(A),LEN(OB\$(A))-2,3) to determine which object you mean. This allows you to type GET DIAMOND or GET BLUE-WHITE DIAMOND and have the desired result.

```
100 REM *****
110 REM * CAVE MAZE *
120 REM *****
130 REM BY JON TODD
140 REM SEP 16,1983
150 REM
160 CALL CLEAR
170 DIM MSG$(12),N(12),S(12),E(12),W(12)
180 GOSUB 1740
190 R=8
200 REM *****
210 REM PRINT ROOM, STATUS
220 REM *****
230 CALL CLEAR
240 IF R=3 THEN 1940
250 PRINT "YOU ARE IN:": "A C AVE"
260 IF R(1) THEN 280
270 PRINT "THERE IS A DOOR TO THE NORTH"
280 IF R(1) THEN 300
290 PRINT "THERE IS LIGHT COMING FROM THE NORTH AND FROM THE WEST"
300 PRINT "YOU ARE CARRYING:"
310 FOR A=1 TO 5
320 IF OB(A) THEN 340
330 PRINT "A *OB$(A)"
340 NEXT A
350 PRINT "YOU CAN SEE:"
360 FOR A=1 TO 6
370 IF OB(A) THEN 400
380 PRINT "A *OB$(A)"
390 GOTO 420
400 NEXT A
410 PRINT "NO OBJECTS"
420 IF MSG$(R) THEN 470
430 PRINT "SOMEONE DREW ON THE WALL:": "MSG$(R)&"
440 REM *****
450 REM PARSER
460 REM *****
470 V2$=""
480 PRINT
490 INPUT "COMMAND?": V$
500 FOR A=1 TO LEN(V$)
510 IF SEG$(V$,A,1)="" THEN 550
520 NEXT A
530 V1$=V$
540 GOTO 600
550 V1$=SEG$(V$,1,A-1)
560 V2$=SEG$(V$,A+1,LEN(V$))
570 REM *****
580 REM DIRECTION HANDLING
590 REM *****
600 IF (V1$="GO")+(V1$="WALK")=0 THEN 620
610 V1$=V2$
620 IF (V1$="NORTH")+(V1$="SOUTH")+(V1$="EAST")+(V1$="WEST")=0 THEN 840
630 X=R
640 IF V1$(1)="NORTH" THEN 710
650 IF R(1) THEN 700
660 IF LOCK=1 THEN 700
670 PRINT "THE DOOR IS LOCKED"
680 OB(6)=9
690 GOTO 470
700 R=N(R)
710 IF V1$(1)="SOUTH" THEN 730
720 R=S(R)
730 IF V1$(1)="EAST" THEN 750
740 R=E(R)
750 IF V1$(1)="WEST" THEN 770
760 R=W(R)
770 IF R(1) THEN 230
780 R=X
790 PRINT "YOU CAN'T GO THAT WAY"
800 GOTO 440
810 REM *****
820 REM GET ROUTINE
830 REM *****
840 IF V1$(1)="GET" THEN 810
850 IF LEN(V2$) THEN 960
860 FOR A=1 TO 5
870 IF SEG$(V2$,LEN(V2$)-2,3) <> SEG$(OB$(A),LEN(OB$(A))-2,3) THEN 950
880 IF OB(A) THEN 910
890 PRINT "YOU'VE ALREADY GOT THE ";OB$(A)
900 GOTO 440
910 IF OB(A) THEN 960
920 PRINT "YOU'VE GOT THE ";OB$(A)
930 OB(A)=99
940 GOTO 440
950 NEXT A
960 PRINT "THERE IS NO ";V2$;" HERE"
970 GOTO 440
980 REM *****
990 REM DROP ROUTINE
1000 REM *****
1010 IF V1$(1)="DROP" THEN 1150
1020 IF LEN(V2$) THEN 1100
1030 FOR A=1 TO 5
1040 IF SEG$(V2$,LEN(V2$)-2,3) <> SEG$(OB$(A),LEN(OB$(A))-2,3) THEN 1070
1050 IF OB(A) THEN 1090
1060 PRINT "OK, YOU DROPPED THE ";OB$(A)
1070 OB(A)=R
1080 GOTO 440
1090 NEXT A
1100 PRINT "YOU DON'T HAVE THE ";V2$
1110 GOTO 440
1120 REM *****
1130 REM DRAW/WRITE ROUTINE
1140 REM *****
1150 IF (V1$="DRAW")+(V1$="WRITE")=0 THEN 1290
1160 IF OB(1) THEN 1240
1170 IF V2$(1) THEN 1210
1180 PRINT "WHAT DO YOU WANT TO ";V1$;"?"
1190 INPUT MSG$(R)
1200 GOTO 1220
1210 MSG$(R)=V2$
1220 PRINT "OK, YOU'VE JUST WRITTEN:": "MSG$(R)&"
1230 AND ERASED ANY OLD MESSAGE"
1240 GOTO 440
1250 PRINT "YOU DON'T HAVE ANYTHING TO ";V1$;" WITH"
1260 GOTO 440
1270 REM *****
1280 REM * LOOK ROUTINE *
1290 IF V1$(1)="LOOK" THEN 1480
1300 FOR A=1 TO 5
1310 IF V2$="" THEN 1430
1320 IF SEG$(V2$,LEN(V2$)-2,3) <> SEG$(OB$(A),LEN(OB$(A))-2,3) THEN 1340
1330 IF (OB(A)=99)+(OB(A)=R)=0 THEN 1400
1340 PRINT "YOU SEE": "OBDES$(A)"
1350 GOTO 440
1360 NEXT A
1370 IF V2$(1)="CAVE" THEN 1400
1380 PRINT "YOU SEE": "A DIMLY LIT CAVE; IT LOOKS JUST LIKE ALL THE OTHERS!"
1390 GOTO 440
1400 IF (V2$="DOOR")+(V2$="SLOT")=0 THEN 1430
1410 PRINT "A SIGN SAYS: 'TO PASS NORTH YOU MUST INSERT A COIN'"
1420 GOTO 440
1430 PRINT "I DON'T SEE A ";V2$
1440 GOTO 440
1450 REM *****
1460 REM * INSERT COIN *
1470 REM *****
1480 IF V1$(1)="INSERT" THEN 1670
1490 IF R=9 THEN 1520
1500 PRINT "THERE'S NO SLOT HERE"
1510 GOTO 440
1520 IF (V2$="SILVER COIN")+(V2$="DIME")+(V2$="COIN")=0 THEN 1620
1530 IF OB(3)=99 THEN 1560
1540 PRINT "YOU DON'T HAVE A ";V2$
1550 GOTO 440
1560 PRINT "OK"
1570 N(9)=6
1580 LOCK=1
1590 PRINT "THE DOOR IS OPEN"
1600 OB(3)=0
1610 GOTO 440
1620 PRINT "YOU CAN'T"
1630 GOTO 440
1640 REM *****
1650 REM UNKNOWN COMMAND
1660 REM *****
1670 PRINT "I DON'T KNOW HOW TO ";V1$
1680 GOTO 440
1690 REM *****
1700 REM INITIALIZATION
1710 REM
1720 REM OBJECT LOCATION AND NAME
1730 REM *****
1740 FOR A=1 TO 6
1750 READ OB(A),OB$(A)
1760 NEXT A
1770 DATA 2,PIECE OF CHALK,11, GOLDEN MEDALLION,12,SILVER COIN,7,BLUE-WHITE DIAMOND,4,SPARKLING RUBY,8,SLOT BY THE DOOR
1780 FOR A=1 TO 5
1790 READ OBDES$(A)
1800 NEXT A
1810 DATA ORDINARY CHALK,REAL GOLD!,A 1952 DIME,ABOUT 2 CARATS WORTH!,A REAL GEM!
1820 REM *****
1830 REM ROOM DESCRIPTIONS, DIRECTION VALUES
1840 REM *****
1850 FOR A=1 TO 12
1860 READ N(A),S(A),E(A),W(A)
1870 NEXT A
1880 DATA 1,4,4,1,1,5,5,4,0,6,0,8,0,7,0,4,2,8,0,4,3,0,5
1890 DATA 7,10,8,7,5,11,9,7,0,12,0,8,8,5,11,0,8,11,8,10,0,12,12,1
1890 RETURN
1910 REM *****
1920 REM END ROUTINE
1930 REM *****
1940 IF (OB(2)=99)+(OB(4)=99)+(OB(5)=99)=-3 THEN 2000
1950 PRINT "YOU HAVEN'T YET FOUND ALL OF THE TREASURES.": "YOU MUST GO BACK!"
1960 FOR DELAY=1 TO 1000
1970 NEXT DELAY
1980 CALL CLEAR
1990 GOTO 250
2000 PRINT "YOU HAVE FOUND ALL OF THE TREASURES AND HAVE ESCAPED THE MAZE!"
2010 PRINT "GOODBYE"
2020 END
```

From conception, through development to production. The Arcade Hardware 32k RAM.

By May 1983 I had come to the conclusion that if I wanted a 32k RAM expansion for my TI99/4A that was cheaper than the official unit and didn't require the peripheral expansion box, then the only way to have one was to either import one from the states, which by the time it arrived here would have cost more due to customs duty, V.A.T. postage, not to mention the voltage conversion problem, or to make one for myself.

Due to my work in the amusement industry I had a limited knowledge of electronics and I had already had some commercial experience adapting arcade joysticks for use with my TI99/4A. I knew that my electronics know how wasn't enough to design a memory expansion board, so I turned to a friend who runs his own design consultancy.

Bob took my TI99/4A apart and studied all the documents available for it. It was then that I received my first shock. There was no way that a memory expansion could be made let alone sold for the same price as those sold for say, the Vic-20. Under those circumstances did I still want to go ahead? I gave it some thought and decided yes. Bob made a wire-wrap prototype which after some modification worked fine. The next step was to design a printed circuit board, which would do away with the messy system that wire wrapping entails.

There were several criteria that the PCB had to fulfil. Bob is very particular about his work, so nothing less than the best would do. This meant that there were to be no links on the board, but instead the board would use through plated holes (an expensive process but justified). Also to prevent corrosion at the most likely points, gold plated edge connectors were used again adding to the cost. My own criteria were that the board should function as Texas Instruments own unit did without infringing copyright and that it should work both as a stand alone unit, plugging into the port on the right of the machine, and as a peripheral card inside the Expansion box. Since neither of us had ever seen the T.I. produced RAM expansion card, it was unlikely that the design would mirror T.I.'s own unit. (In electronics there are dozens of ways of achieving the same ends.) Bob set to draughting and I set to with my bank manager.

With the design completed, the transfer was sent off and we waited for the two sample boards to arrive. On arrival, one board was populated and tried out. Bob had certainly done his homework. As a stand alone unit it worked first time. On trying it out in the box, we came across a snag. For some reason, the box's flex cable interface card started blowing buffer chips. By adding a transistor and altering a couple of resistors values this was soon cured although it did mean some reworking of the original design. By the time the board had been altered, it was doubtful if the PCB makers would acknowledge their work so a second draught was made and duly sent off.

With the boards being made up, I set to work finding a plastics supplier to make a suitable case. Having already experienced broken promises with one supplier, I was determined that the same wouldn't happen again. I chose a local supplier who promptly set to making a case in black acrylic which matched the profile of the TI99/4A.

It seems to be impossible to achieve anything in August. Nearly everyone, barring Bob and myself were away on holiday. The P.C.B. makers were away on holiday so that the promise of a 21 day delivery schedule became 41 days. Matters weren't helped when the Post Office decided to lose the boards for a week. In the meantime the plastic case was also held up by holidays.

Eventually though, I had the boards in my hands and I spent many hours slaving away over a hot (soldering) iron. Since all the chips were to be socketed I didn't have to worry about cooking the chips as they would go in cold. With all the boards now having their sockets all that was left was to buy the chips themselves. This at least wasn't going to be a problem. Or was it?

The Japanese were swallowing up not only their own production of chips, but everyone else's as well. Although there were many stockists advertising the required items, the situation was that when pushed they admitted that certain lines weren't in stock and that despite repeated orders to their suppliers, they could not foresee when the situation would get better. Now I'd often been told " If at first " etc. but finding one particular chip nearly drove me to drink. Eventually though I managed to make up all the boards. Now came the big test.

I 'phoned Stephen Shaw to see if he would try out the boards on his machine. As Stephen doesn't live too far from me and has all the software that uses a 32k RAM it seemed easier to try it out on his software rather than try to write a program to utilise the expansion memory. Carefully plugging in the card into his Peripheral Box, I soon had an answer. Every time a program was loaded from disc using the Minimemory it crashed. The same program was then loaded using Editor/Assembler and it worked. It was then tried again with Extended Basic and again it worked. At least all wasn't wrong, but it was a mystery as to why the Expansion memory should fail with the Minimemory. A panic stricken 'phone call to Bob and we agreed to meet at Stephens house the following Thursday. It took Bob all of 10 minutes to find the problem and to affect a permanent cure. The problem was merely two tracks on the PCB being so close to each other that data was being transferred from one to the other, thus corrupting itself. Scraping away the offending area provided the solution.

Ultimately too, the plastic cases arrived, and very handsome they were too. All that was now to be done was to fit the boards into the cases and all was done. The unit worked, it looked good and it fulfilled all the requirements. From start to finish, the project took seven months. That it was finished at all is a tribute to those people who gave help and assistance when I was stuck, often they were laymen with no interest in computing. Because of the following people, you now have a choice as to whether you wish to expand your TI99/4A without buying the Peripheral Expansion Box.

Bob : Who designed the unit and gave encouragement and advice way beyond the requirements of a normal customer/client relationship.

Stephen Shaw : Whose enthusiasm for the TI99/4A is boundless. Without his help, the flaw using the Minimemory would have gone unnoticed. He gave advice and help to a virtual stranger, just because I too was interested in the TI99/4A.

Elaine : My girlfriend, who spent many a lonely evening and weekend, whilst I worked alone. She never once complained, understanding that my ignoring her was not a slight on her.

Gary Harding, Peter Brooks and Richard Blanden : Three people who I've never met, but were still prepared to offer advice and assistance, either by post or by 'phone, just because they too are TI99/4A enthusiasts.

My Father : Who still doesn't understand what a memory expansion is or does, but was still prepared to help in any way he could.

My Bank manager : Not often do they get any credit, but Mr. Ireson believed in me enough to enable me undertake the project. He never once understood what I was doing with the banks money, but still used his professional judgement to consider the statistics and pronounce the idea worthwhile.

Texas Instruments : Who gave no help at all (none was asked) thus ensuring that I never once found out how their unit worked and prevented me from infringing copyright on their design.

I find it rather difficult at times when I'm writing these pages to know which hat I'm wearing. Since the collapse of the TI99/4A the situation has become worse rather than better as wearing the journalists hat I ought to be letting you know of whats available without advertising. Yet as some of whats available are my own products, do I mention them or don't I ?

What of T.I.'s decision to cease production of home computers ? My own view is that they have brought this sorry state of affairs on their own heads. At least to a limited degree. Their insistence that all solid state software is marketed by themselves has done no good at all. Witness the legal battles being fought with Funware because they had the nerve to make modules under their own banner. Yet now it's likely that with the lead they have (and assuming they wish to continue) Funware may go on to become the leading (or only) producer of solid state software. There are other possibilities though and it all depends on the state of the American market. Although all software (excluding Funware) is marketed by Texas Instruments, much of it was not developed by T.I. Milton Bradley for instance developed many of the modules and it remains to be seen if they will chose to continue to make these modules under their own banner.

Yet the blame cannot entirely lie with this insistence on modules flying the T.I. flag. Outside events must play a part. The belief that consumer and particularly computer technology is falling is true. But it certainly doesn't fall at the rate prices have dropped recently. To this event T.I. have been forced to drop the price of the TI99/4A from an outrageously high price through varying levels of profitability to the point where it must come in at loss. If a dealer sells the machine at £100 he must be making something on it. So too do those parasites at Customs and Excise. That means that at the point the machine comes into the country, it can't have cost more than £50.00. If I were to try to make a TI99/4A identical to the one I have it would cost me approximately £80.00 before the inclusion of keyboard and case. Now allowing that Texas Instruments make all their own chips (which they don't) This cost can be reduced by a fair margin. Non the less it is my belief that T.I. were selling the machine at a loss in England, so what kind of damage was being done in the USA at a retail price of 89 dollars defies description. All this price cutting will ultimately benefit no-one. Already it is on the cards that Atari's new machines will not save them, and that they too may go down. It's all very nice having cheap computers and cheap software but if the companies making them cannot stand the heat then they will leave the kitchen either of their own free will (as did Texas Instruments) or will be forced to (as happened to Newbrain). To this end I have deliberately priced my own products at a level where I can continue to make them and still make enough to put something back to develop new lines. That may have made my products dearer than T.I. but I'm still here and T.I. aren't.

So what is available, not counting official T.I. lines left in shops ?

Starting with software, There are now many vendors selling varying quality lines from the mundane through to excellent. Of these vendors the most prominent is Stainless Software. This is run by Stephen Shaw, in a professional manner. Stephen has probably the largest collection of software I've ever seen, and much of it is truly excellent. In particular is an imported program requiring all the expensive hardware called display enhancement package. This lets you do things with the TI99/4A that even T.I. didn't think of. The makers have threatened to make a version for the Mini-Memory that didn't require the Disk system but to date that hasn't been forthcoming. I long for the day I either get a disc drive and controller or Oak tree software make the Minimemory version. Stainless Software don't only stock applications programs, but games and utilities as well, and for every configuration, from the bare console in TI-Basic through Extended Basic to the above mentioned package, which requires Peripheral box, Expansion memory, Disc Controller and disc drive.

There are other software vendors of course. Amongst them Lantern Software and Christine Computing are the most prominent. Christine Computing advertise

elsewhere in these pages. Of their software, I particularly enjoyed the core and fruit machine. Croc-word is a good educational hang man type program which a big enough store of words to prevent it's being worn out in an evening. It stumped me more than once !

There are other software vendors, the most popular advertising place to find them seems to be in the classified pages of ' Home Computing Weekly '.

When it comes to hardware, then it gets embarrassing. There is a dearth of independantly produced hardware for the T.I.99/4A. Of the lines produced, I make most of them. So I'll tell you what's available and advertise my own lines elsewhere. Cassette leads, These come in various forms from my own CS1 (no remote) only, to Christine computings CS1 & CS2 both with remote. Joystick converters are available (to allow Atari/Commodore joystick(s) to run on the TI99/4A). Other products include Arcade joysticks and memory expansion units.

I can't speak for anyone else, but as long as there is a demand for product for the TI99/4A, I will continue to supply. There are certain items that I will be unable to make. One of these is a disc controller. You can use many disc drives with the TI99/4A, you aren't restricted to the official T.I. unit. But in order to make the disc function, then a disc controller is needed, and once the supply of these dries up then if you want a disc system then you might well come unstuck. Printer cards. i.e. RS232 and Centronics adaptors are available in the states, so you should be able to get one of these even after the supply of T.I. units is long gone. I may even make one if there is sufficient demand. As to the ultimate situation when all the T.I. produced product has gone, only time will tell. Some of you will chose other machines. It isn't my place to advise you what to buy. But although there is a place in my affections for Atari, remember that what has happened to T.I. could well happen to Atari. It would be very distressing to have bought two machines that are no longer supported except by 3rd party producers.

TRIBUTE.

It is customary after even your worst enemy has died to stand around the grave muttering about how he was such a fine fellow. Well in this case, the person concerned certainly isn't dead and he's not my worst enemy.

In the last edition of Ti-mes, Clive mentioned that there wasn't much that Stephen Shaw didn't know about the TI99/4A. I'd like to back that up. In all probability Stephen knows more about the machine than those who are

supposed to. I.e. Texas Instruments. Since I first read Stephen's articles in Tidings (now sadly defunct) I have learned a little and enjoyed a lot. I'd have probably have learned a lot but for my being bone idle. Where he gets the time to write for Ti-mes I don't know. In between writing his new book, writing programs for the likes of HCW and Computer and Video games, and a very infomative set of articles for the excellent Popular Computing News on the baffling Mini- memory not to mention running Stainless Software, keeping up to date on all that's new in the USA, he also has time to go to work for a bank. If you ever wonder what exactly Ideal Home are on about when they say so and so has a busy lifestyle, then perhaps they are talking about Stephen. I've met Stephen a couple of times and I've always been impressed with his grasp of the TI99/4(A). I've asked many stupid questions which have always been answered. In addition Stephen was invaluable when testing my 32k Ram expansion. Without his help, a last minute problem would not have been discovered, or put right.

So, Stephen please keep writing. I hope I haven't embarrassed you.

Monday 19th December 1983.

Although it's not apparent to the reader, this is an extra set of items since the previous sheets were sent in and reflect various happenings since they were written.

Ian Godman (Christine Computing) and I have just finished work at the Your Computer Christmas fair at Wembley Conference Centre. Although the show was disappointing commercially, (too many screaming kids treating the place as though it was some free amusement arcade) we did get to meet some very nice people. Some were already familiar with the TI99/4A, others contemplating buying one. To those of you who we managed to stand and talk with sensibly, thank you, you made the show worthwhile.

Amongst the people met for the first time were our editors, Clive and Audrey. It may seem odd to be writing this for unknown people, but they too are Texas owners, and that was enough to prompt not only myself but others such as Stephen Shaw to share trials and tribulations, pleasure and pitfalls re the TI99 with fellow owners. Now I've met Clive and Audrey, I know that my efforts aren't in vain, and that writing for this magazine is worthwhile.

Amongst the titbits of news learnt from C&A was that we shall have a new writer Peter Brooks. Peter was one of the very first people in this country to own a TI99/4 (not 4A) and has accumulated a vast store of know how about the machine which in the pages of Tidings he passed on regularly. All we need now is one more writer formerly with Tidings (Gary Harding) and this magazine will deserve to be sold in WH Smiths. Gary Harding is a Computer programmer by profession and knows as much as is needed to know about programming in machine code. Gary, if you're reading this, please join us.

I've mentioned 'Tidings' several times in these pages I've scrawled (only I can scrawl on a typewriter, it's an art not a science) and doubtless some of you will be wondering what I'm on about. (Some of you will also be wondering why I bother). A long time ago, when the Commodore 64 didn't exist, or about three years ago in English, Texas Instruments launched the TI99/4 amidst a fanfare of silence. Anyone who heard of this obscure machine was very definitely double jointed as they must have kept their ear to the ground permanently. But those who learn't of it, wanted one and moved heaven and earth to get one, they had to as they could hardly be considered available. Now this enormous user base, (about half a dozen people) decided to pool their knowledge in the form of a user group. They published a set of articles and called it Tidings. It could hardly be considered a magazine, twenty or so pages stapled together, but the knowledge was there even if the professional format wasn't. Around the third edition with the user base having grown to around seventy, was where yours truly came in, having bought my TI99/4A and wanting to know more about how to do more than Print "Hello Martians" followed by GOTO 10. Progress was slow, some of the writers assumed that the reader knew as much as they did, but the information was there, all that had to be done was to learn how to use it. In the 1½ years following, the user group grew to around 2,000 and finally the professionals stepped in. Sadly Tidings no longer exists, but this magazine has started in the same manner and I expect it to grow larger, provided Clive & Audrey can stand the pace. If only for the sake of my ego, I look forward to addressing 2,000 or more readers.

One of my worst characteristics is my tendency to be long winded. In this magazine it doesn't really matter. Most people like to read more than just the bare information. But I have another fault that surfaces from time to time. That is to bite the hand that feeds me. I'm not alone in this, it's human nature to a smaller or larger degree. On this occasion though I'm going to give full credit to a group of people who in the past I have regarded as faceless wonders who ran a very disorganised company, ~~but~~ because they had a monopoly, could continue to do as they pleased. No I'm not talking about British Nuclear Fuels but our own Texas Instruments. In the past I have been on of their sternest critics. Elsewhere in these pages I've had a go at them and

my reasons for doing so remain. But I've just come through an experience with them that deserves to be told if only to prove that there are humans at Bedford and that they can be helpful.

As already mentioned I've a) bought myself a colour telly for use with my computer, and b) been exhibiting at the Wembley show. A few days before the show my nice almost new telly went faulty, the repair took a week to perform and I received the set back just in time to take it to London for the show. No sooner did I try it out again than it went faulty again. (Wonderful thing guarantees). Talking on the phone to Ian (Godman) he said not to worry as D.E.R. would kindly supply us with four new sets, so there was no problem. Arriving at the show, we duly set up the stand and the first thing my computer did on switch on was to send D.E.R.'s nice new telly into the repair shop. It's very embarrassing to be attending a show without a computer or telly. Ian 'phoned D.E.R. to ask them if they could replace the set, and at 8.30 the following morning I 'phoned Texas Instruments to ask if they could help immediately considering my circumstances. They agreed to repair the computer if I would bring it in, so off I charged up the M1 in the direction of Bedford. (I always thought Bedford was a lot nearer London than it is) I arrived somewhat breathless to have my computer whisked away to the technicians equivalent of the operating theatre. One of the things I've never liked about my TI99/4A is the quality of it's keyboard. I asked the young lady who acted as go-between the repair shop and myself if it would be possible to have a new one installed whilst I was there, and that I would be happy to pay for the extra work. Forty minutes later back came my computer, A new keyboard had been installed, a new modulator was needed as mine was not only blowing up telly's but beyond repair and I was also given a new power supply. All this in forty minutes and they didn't even charge me!

So I would like to say publicly, My very grateful thanks to Miss Joan Baptiste who authorised the instant repair, the unknown engineer who did the repair job(s) and to the charming Jill who I was to shy to thank in the manner I usually reserve for ladies. Thanks to you I have now acquired faith in the staff at Bedford and I shall stop having digs at T.I. when I'm short of something else to write!

It's very flattering to be considered an expert, but I'm not being modest when I say I don't even come close. Meeting Audrey at the Wembley show, she told me that when confronted with a problem she couldn't answer, she referred the questioner to me. Now I love to talk to people, and I enjoy receiving your letters, but don't be too upset or surprised if I can't answer all your questions. Also if you don't send me an SAE you might never get a reply! For those who do want to get in touch, my address is 211, Horton Rd, Fallowfield, Manchester M14 7QE. I'm also on the phone at 061 225 2248, but please don't phone at ridiculous times (like when I'm in the bath). I do have some technical information to hand, such as a set of schematics, but I have to charge for photocopying and postage so don't be surprised if I ask for money. I might ask anyway!

I make it a policy not to disclose the names or addresses of Arcade Hardware customers, but I am prepared to pass on various comments made by customers and as this is the festive season some have been coming in. I decided that a nice gesture to say thank you to those customers who have bought goods from me would be to send out Christmas cards to as many as those addresses I could find. That's most of them. If you've bought a joystick and didn't receive a Xmas card, it's not a slight on character, more a slight of my filing system. What I didn't expect to receive, was Christmas cards in return. In particular, was one addressed to Elaine and myself which had us both near to tears it was that nice. Stating his thanks for the joystick which was to be his Xmas present along with a Parsec cartridge, was a drawing of his computer with my joystick attached. On the T.V. screen he'd also drawn was an alien being despatched to an early grave. So to the young man in Surrey than you, it was a very pleasant surprise to receive your card, certainly the best I've ever received. If you haven't already heard from Elaine and myself, you will do so shortly.

This page was written spasmodically as bits and pieces entered my cranium. It's not meant to be disjointed, that's just the way it all came out.

Dirty tricks division : Prize stinker this month must go to Thorn-EMI. In February 1983 I received their catalogue with the announcement that Submarine Commander and River Rescue would be released in cartridge format for the TI99/4A in Spring. Quoting the catalogue numbers I promptly ordered the modules. Back came two modules for the Atari. They're very helpful at EMI ordering department. If they think you've made a mistake, they correct it for you and send the item they know you really meant to order. I explained to them that I really wanted what I'd ordered not what they thought I wanted. Oh, said the order desk, we have no record of those items in the computer. Hmmm. I then phoned Thorn EMI video who are the administration for the Video and home computer software. God forbid it should all be in the same building. Speaking to a very pleasant lady she informed me that she had only had the job a week, and that she wasn't really sure of the position. Neither had her boss, who realising that Thorn EMI weren't for him had disappeared in the direction of Virgin who were setting up their own home computer software division. If I were to telephone later, she'd get hold of the new supremo, one Mr. Mike Dixon, and find out what wasn't going on. I duly phoned, and the story was that the launch was postponed until Summer.

Phoning in Summer produced no results. I was beginning to get a little fed up with all this inactivity. However in the October release sheet came the news I was waiting for. Not only would Submarine Commander and River rescue be released but a new addition 'Computer Games' based on the film War games was also due out. I duly placed my order quoted my catalogue numbers and waited. And waited. On the grapevine came the news that the launch was now postponed until Nov 11th. On November the 11th I phoned the Administration office to ask why no delivery. It seems that Mike Dixon had left the company (popular job that) and after checking with the latest supremo I received this statement. "There are not, nor will there be any software from Thorn EMI for the TI99/4A."

Just goes to show, you can still fool a lot of the people for a long time.

I've just bought myself a colour telly for use with my TI99/4A. I mention this, not to point out that I'm well off (I'm skint) but to demonstrate that they aren't as expensive as they need to be. Although colour portables are very good a monitor would be better. As I have access to a supply of cheap colour monitors, it did seem to be more sensible to make an adaptor to convert the signals from the TI99/4A to RGB. Red Green and Blue that is. However this turned out to be a more expensive process than I was prepared to pay and I was getting rather tired of using my colour computer with my 12" portable black and white.

Although adverts for ex-rental sets of 18" and larger were plentiful, there were no adverts for the smaller sets of 14" and smaller. Also private ads for used small sets were not to be found, so the only answer seemed to be to buy new. Before taking this plunge I decided to go round the rental agencies to find out what happened to all their ex-rental sets. Most of the national companies (radio rentals, Rediffusion and the like) have pre determined buyers, who take everything in whatever condition, but the smaller rental agencies, many of whom are small chains who were at one time selling only and then branched out into rental have more flexible policies. After going round most of the ones near home I came to Martin Dawes who had two sets which were both ex-retals and would supply with full parts and labour guarantees for £125.00. I said I wasn't prepared to pay this price for a unit which they had probably already made their money back and so the price came down to £100.00. The set I took was a 13" Hitachi which gives an excellent picture. I was already familiar with the Hitachi tube as my main set has one (so much for Grundig making all their own parts) so I knew it's reliability and quality. So far I'm very pleased with it.

However the moral of this story is : In the smaller chain, the price can be reduced.

Howard's been shopping again. One of the frightening costs about the TI99/4A is the cost of attaching a printer to the machine. The peripheral expansion box, RS232 card and then printer can amount to staggering proportions. It must be my Jewish nature, but I'm forever on the lookout for a bargain, and one of my favourite places is the classified section for private advertisers in P.C.N. One advert caught my eye a couple of weeks ago for an RS232 card. Phoning the number finally gave me the vendor who it seems had bought the card not realising that the box was needed first. So I ended up with a brand new printer card for half it's retail price. To the curious I already have a box. It's sat around the house doing very little apart from being used for development of my 32k RAM card.

The other item I've bought was a printer, so this may be the last edition that I type on my Remington typewriter. I'll be sorry to see the back of this old machine. It's nearly as old as I am, it may even be older, and it was built in an age when machines were designed to do more than outlive the guarantee. Elaine was considering buying herself a new machine, but a trip around most of the suppliers convinced us that the latest generation of portable manual typewriters (which is what this machine is supposed to be) aren't worth the money no matter how cheap they are.

Anyway, back to the printer. With so little business being done on our own stand at the show, I spent a fair amount of time wandering around the other exhibitors. One stand had an unbranded printer on offer at £225 which by Saturday had been reduced to £175. However, by mid Saturday, the gentleman on the stand was using his P.A. system to make offers the likes of which won't be seen again. One such offer was a two minute offer of any Acorn software pack for only £1. I nearly was run down in the rush. But about 10 minutes later business was slack again and he was at the mike again making various other special deals. One such was a MCP40 printer which usually retails around the £150 for only £100. The MCP 40 to those who tour the shops regularly is the four colour printer/plotter usually sold to Tandy and Oric owners. It's a neat little machine and I considered it but decided that if I was going to part with my money, I was going to get exactly what I wanted. Other offers on the stand included the Apple business pack which only the week before I had seen in Currys Micro-C at £1000.00 and considered good value, going for £500 and open to offers. Still business was slack and eventually the man at the mike said "Come on, somebody make me an offer for something". Quick as a flash, I yelled "I'll give you £100 for that printer". He seemed desperate to take somebody's money and the deal was struck. It's a pity I didn't have £300 on me or I could have taken two more and sold them at £150 each with no trouble and so paid for my own. You can't even buy a secondhand printer for £150. At the time of writing, I can't set the thing up, as I'm waiting for a cable to arrive from Essex. But I do know the printer works as it has a self test which prints all the characters. I'll let you know how I get on with it. I wasn't too worried about it being unbranded as most of the gut's seem to be Epson (who make the best), even the expendables such as the printer ribbon are the standard Epson units so I don't think I'll have any hassles there. To the curious, here is it's sample printout as given by the self test.

```
! " # $ % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 ; : < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [ \ ] ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { | } ~ ` ¢ £ ¤ ¥ ¦ § ¨ © ª « ¬ ® ¯ ° ± ² ³ ´ µ ¶ · ¸ ¹ º » ¼ ½ ¾ ¿ À Á Â Ã Ä Å Æ Ç È É Ê Ë Ì Í Î Ï Ñ Ò Ó Ô Õ Ö × Ø Ù Ú Û Ü Ý Þ ß à á â ã ä å æ ç è é ê ë ì í î ï ð ñ ò ó ô õ ö ÷ ø ù ú û ü ý þ ÿ
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I've been reading it's manual and it seems very versatile, there are more character variations than those above. If I seem to be going on rather a lot about this wonderful machine, it's just that when I get enthusiastic about something, I tend to shout about it and let the world share in my good fortune.

This is my final note before Xmas, so I'd like to wish you all compliments of the season (belatedly by the time you read this) and a happy and prosperous new year.

Howard

STAINLESS SOFTWARE

10 Alstone Road STOCKPORT Cheshire SK4 5AH

I have over 80 programs for your TI99/4A, mainly games but also a few powerful utilities. Why not send a large (9" x 6") stamped self addressed envelope for a copy? Mention TI*MES when you write!

Programs are regularly reviewed in HOME COMPUTING WEEKLY. If you don't have all the back copies, here are the best rated programs:

FIVE STAR REVIEWS:

TI BASIC:

GOLF (8.00) "probably the best golf game that I have seen on a computer". One player: 18 holes. Different course every time.

GOBLIN'S REVENGE (Import) by Pewterware—a sort of maze game

BRAINTWISTERS TWO (Import) by Titan. A solitaire card game plus a 'simon' type game.

HANG GLIDER PILOT (Import) by Maple Leaf. ALSO AVAILABLE IN EXTENDED BASIC. Please remember to state which you require!! Super simulation of unpowered flight.

WALLS AND BRIDGES (Import) by TImagination. Joystick required. For 1 or 2 players. An original track laying game.

ZOMBIE MAMBO (Import) by TImagination. Joystick required. Two programs together, combining a search game and a maze game. Amazing graphics.

PLANET DESTROYER (6.00) by Patrick Strassen. A game using a scrolling backdrop..and alien missiles.

EXTENDED BASIC:

Octal/Keys of the Castle (Import) by PS SOFTWARE. One blast em game and one maze game (two programs together).

GLOBAL RESCUE (7.00) BY P Richards. A strategic game with many levels. Find the bad guy before the world ends!

SHUTTLE COMMAND (Import) by FFF SOFTWARE. Shhot the approaching alien. Great use of sprite graphics.

PRICES OF IMPORTS: have not been quoted...the UK pound has fallen in value by 10% in the last 6 months and looks like continuing that way. As TI*MES has such a long life, I cannot quote prices: they could alter! For current prices, please send SAE for catalogue.

FOUR STAR REVIEWS:

TI BASIC: Bluegrass Sweepstakes (Import), ZARQUON (6.00), NIGHT FLIGHT(6.00), Challenge Poker (Import. Also available in ExBas), Braintwisters 1 (import), Lunar Base plus Torpedo Fire (7.00), Happy Math(Import)

EXTENDED BASIC: Roo (7.00), Character Definition Utility(4.00), Cross Country Car Rally(Import), Space Rescue (Import), Meteor Storm(Import)

ASSEMBLY LANGUAGE FOR MINI MEM: Outland, Megafighter, Defend the Cities 2 (all Imports).

STAINLESS SOFTWARE

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I have over 80 programs for your TI99/4A, mainly games but also a few powerful utilities. Why not send a large (9" x 6") stamped self addressed envelope for a copy? Mention TI*MES when you write!

NEW:

SPRING HEELED JACK in Extended Basic...a simple but habituating game in which the screen is split with horizontal lines, with moving holes in them. You must leap through these from the bottom of the screen to the top...or if careless, fall through them! Cost: 6.00

40 COLUMN SCREEN! Display Enhancement Package. Currently 20.00 but an import so could change. On tape for Mini Memory plus 32k RAM.

Devil Craze by Maple Leaf Micro Ware is now available in TI BASIC or EXTENDED BASIC (Import)...a game requiring a colour tv and quick reactions as you press the correct key (choice of two!) when a colour flashes on the screen

HANG GLIDER PILOT is an excellent simulation, played with an aerial view (eagle eye view?) and is in TI BASIC or EXTENDED BASIC...please say which when ordering (import).

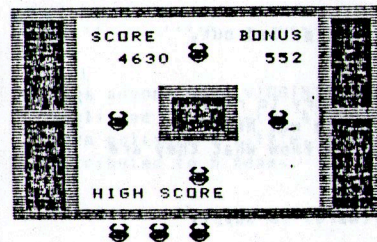
GOLF in TI BASIC by A McMath is a super simulation, for one player, of an 18 hole golf course, different course every time you play. Cost: 8.00

ROO in EXTENDED BASIC by SP SOFTWARE uses very nice graphics and has three screens. Play is not too difficult and involves hopping, jumping and ducking, punching, climbing and finally rescuing your baby roo!

GLOBAL RESCUE in EXTENDED BASIC (P Richards) is for those of you who dislike arcade games, requiring just a little strategy as you seek to find the evil monster intent on destroying the world. Played on a global map. Cost 7.00

QUICKER QWERTY in TI BASIC (Ian Pegg) helps you to key programs in quicker by using more fingers! It takes practice of course, but here is a program to assist. Cost 9.00

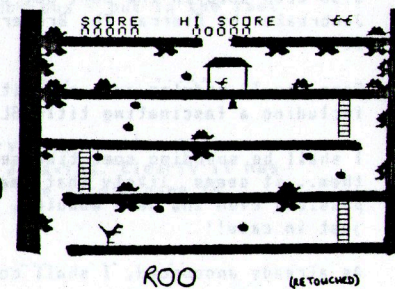
DEVIL CRAZE



HAVE YOU HUGGED
YOUR CAT



TODAY ?



ROO

(RETOUCHED)

Welcome to another issue of Rambles. No requests for specific items so it is the mixture as before!

Since the last issue of TI*MES we have had the appalling news of TI's withdrawal from the home computer market, and even worse for those of us in the UK, the decision by TI to employ (illegal) resale price fixing, at ninety pounds, while over in the USA the State Troopers had to be called in to handle the riots caused by the severe discounting over there!!!

The peripherals were dropped slightly and modules had some nice price cuts. Despite the low discounting, there was still a very significant drop in 3rd party cassette sales for a while, quite destroying the expected Christmas market.

At the time of writing, the end of December 83, almost all of the modules and peripherals were available from Parco in Honiton, but with nothing manufactured since the end of October, supplies will of course be limited.

Galaxy in Maidstone had a few TI modules in, and a small stock of some ATARISOFT modules...that is, modules for the TI99/4A made by Atari. There are about ten modules launched, and Galaxy had four titles in when I phoned them recently. The selling price is thirty pounds or less, and the titles launched include Pac Man, Donkey Kong, Dig Dug, Centipede, Defender, and a couple of titles licenced to Atari by Synapse, Protector and Picnic Paranoia. I am going to buy some of these and maybe review them in the next issue. The UK supply may not be too reliable.

The FUNWARE modules do not have a UK source at present, but the IUG in Bethany can supply them to IUG members in the UK. (International 99/4 User Group, PO Box 67, Bethany, Oklahoma, USA, 73008. Subs:US\$16 p.a.)

Thorne EMI have stated they will not now be launching the 99/4A modules first advertised by them 12 months ago!!!

As IMAGIC have themselves gone out of business, it seems we will not be seeing their modules, although a small number of Demon Attack and Microsurgeon have been sold in the USA.

Small quantities of the Spinnaker modules FACE MAKER and STORY MACHINE have also been sold in the USA, but distribution was by TI. The same applies to Jawbreaker by Sierra. The Broderbund and Sega modules do not seem to have made it.

Some new TI modules just made it into the States before they pulled out, including a fascinating title SLYMOIDS.

I shall be spending some time seeking these modules out and try to review them...it seems likely that small quantities will make there way here, possibly even 2nd hand modules, and it is as well for you to know what they are just in case!!

As already announced, I shall continue (as Stainless Software) to supply cassette software as long as anyone wishes to buy it.

There are many other cassette suppliers...I count over two dozen...so any claims of a shortage of software indicate someone is buying the wrong magazines!

TI Owners who do not wish to purchase by mail order WILL find it difficult to obtain supplies. Look into Home Computing Weekly for reviews of cassette games ,and of course TI*MES!!

Purchasing by mail order does of course require a certain care...the following are some of the things you can do wrong, and result in disappointment or loss:

When writing an enquiry:

Send an SAE to ensure a reply.

Make sure the SAE does have your ADDRESS on it

...and a STAMP.

Make sure your letter and the SAE have adequate postage...few suppliers will accept a surcharged letter.

DO NOT pay postage on the SAE with a franking machine: a franked impression is of value only to the licensee, and cannot be posted elsewhere.

When writing overseas, do not send UK stamps...they are also of no value. Send one or two International Reply Coupons, available from your Post Office. Ensure you have quoted your address, and that it is legible!!!

When ordering goods:

DO NOT pay by means of a franked impression: it has no value.

Try not to send coin: it is easily lost. Also PD regulations forbid sending coin other than by registered post: your letter may be surcharged and refused.

QUOTE YOUR ADDRESS CLEARLY!

Ensure you have the equipment needed to use the advertised product.

Leave adequate time for delivery: 28 days is normally considered a maximum, and 'by return' is rarely available. If you state an unreasonable required by date, your order may just be thrown away!

Tape software is hardly ever offered on approval, due to the ease of copying and the large number of unethical computer owners.

Try not to use Recorded Delivery: it stands a better chance of loss through theft, and as it has to be receipted could be undeliverable if no-one is in when the first and only delivery attempt is made.

And do write to the correct address of the supplier! (and for that matter, ensure you write to the correct supplier!).

With care, mail order can run smoothly. A little carelessness could however cause much distress and possible loss. The above is obvious - but in the last month I have encountered all these things!

.....

Does anyone have VIRGIN's ROBOPDS game? It looks very very similar to a game published in Computer & Video Games called DEFUSE by J Davies. Clearly it has been polished a little, but is the core code similar? The Virgin game is attributed to M Adams.

... ..

A recent issue of PUNCH had an ad by VAN HEUSEN (shirts), which had a TI99/4A in the picture. Anybody spotted any other quest appearances?

KIPPY'S NIGHTMARE by DATA FORCE INC
(Obtainable for 7.95 from TIMELESS SOFTWARE,
3 Bridgend, Fauldhouse, West Lothian, EH47 9HF)

Old readers of TIDings may recall a previous review of this program, then for Extended Basic plus 32k ram, and selling for US\$35.00 !!
This review is of a rewritten version for Mini Memory, now available in the U.K. at the much lower price indicated above.

GAME: In this game you control an animated figure who must avoid being caught by any of six monsters, and 'poof' them back to their cages...after all the monsters are dealt with, its on to the next round!

The animation of the monsters is superb! Points are gained by lighting up dots in the play area (these also act as barriers to the monsters, but do not last for long!), by the length of time you survive, by placing one of your six 'poofers' in the play area, and by 'poofing' a monster.

You have only 6 'poofers'. When you place these in the main playing area, they count downwards, and if they reach zero without a monster having been lured into them, you lose the poofer! When a monster is poofed the used poof is added back to your arsenal.
Sound complex? Actually its a fast and fun game to play!
The main documentation is for the original game, with an insert for the revised version. Read both carefully!

Some points are not however covered:
The area of the playing field which you (as Kippy) can cover slowly reduces as time goes on...this adds a whole new dimension to the game: if you have unused poofs outside the reduced area, it can be impossible to lure a monster into them!
The poofers can in fact poof more than one monster. At times I managed to poof four monsters with one poofer...and each monster poofed added to the arsenal...so you can gain more than six poofers! This again adds to the strategy
As the game progressed, black squares appeared. These did not affect play, but no dot could be lit in them, therefore reducing your opportunity for scoring in this manner.
All these amendments to the original game actually add to the fun, as the game becomes increasingly difficult, and also allow more strategic play.

TECHNICAL: This game is way over 4K and is entirely in machine code. It appears to exceed the 13k the usual tape load can handle....
How's it done?
First you use Easy Bug to load another tape loader. This loads the program at 1200 Baud (eq faster than usual). Then this loader loads the actual game...and most of the game seems to reside in the VDP area!!!

Loading at this speed is a trifle more sensitive, and you will need to ensure your cassette is clean and demagnetised. Finding the right level may take a little longer than normal; and the usual load error messages do not work!!
The author has given you another load indicator...and then failed to document its use! As the fast load is progressing, first the top third of the screen should fill with letters, then an announcement appears in the middle. If the middle announcement is corrupted, switch off, adjust volume levels and start again!

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FINAL VIEW: If you have MINI MEM, this game is a MUST. 100% for value for money and for playability. Recommended.

Stephen Shaw

Two owners have reported difficulty with modules not loading properly. In both cases the problem was apparently caused by a foam strip just inside the module port. The module contacts slide into the strip before passing into the actual socket. TI say the strip was put there to clean the module contacts, but clearly with use the strip itself is becoming contaminated and is dirtying the module contacts.
The reporters took different action: one removed the strip, cleaned it (VERY dirty!) and replaced it, the other just removed it.

We also have reports of some modules becoming sufficiently worn with constant insertion/removal that the console refused to run them.

There have been reports of problem keyboards and tv modulators...if these are giving you any problems, have TI service them for you.

One reporter suggests that replacing the cable between the modulator and the TV with a high quality UHF cable, and balancing it by adding about 10cm of wire from the earth pin, could increase picture quality considerably. The wire from the earth is not connected to anything, it just adjusts the impedance. Actual length is quite critical and could vary from system to system.

TI supplied most dealers by distributor...Robox in Scotland and Lightning in England. Both pulled out quickly after TI's announcement, leaving dealers with an immediate loss of supply. Partly as a result stocks of modules in the UK are higher than might have been expected...there were only a handful of sources left!

LOGO 2 just managed to squeeze in an contains a new tiny bug...the primitive MS (makeshape) which works in a defined procedure in LOGO1 can only be used in direct mode in LOGO2. Thus one of the sample procedures supplied will not run.
It is interesting to see the LOGO2 documentation is stated as Copyright 1984, although supplied in 1983...possibly, under US law, this could render it public domain (for a similar technicality the first series of STAR TREK is not copyright...make as many Video copies as you wish...but remember STAR TREK is also a trademark...).

An new addition to the range of FUNWARE modules is DRIVING DEMON, a creditable car racing game for one player. JOYSTICK REQUIRED. Although no UK supplier known at present, I am sure someone somewhere will bring these modules in...keep watching the ads. Driving Demon is very similar to GRAND PRIX arcade game from Sega, but involves only one scenario. The joystick is used to change gear (fire button), accelerate and brake, and move left and right to avoid the other cars. There is also a time clock. Challenging.

The code on the back of your module says where and when it was made...I have a LOGO2 quoting ATA3783, made in week 37 of 1983 at Austin (Texas). My Mini Memory is LTA1582...made in week 15 of 1982 in Lubbock (and needing a new battery soon!!).

Two books on Assembly Language programming have been announced in the USA, and I shall be sending for these, and reporting to you in due course. One is by Steve Davis Publishing, and the other by John T Dow.

If you would like anything covered in the next RAHBLCS, drop me a line....an SAE is required for a reply please!!!

GRAPHICS are a subject producing some interest....

Your TI99/4A has four graphics modes...only one of which is available if you have only the console!

This is the 32x24 graphics screen, allowing you to place a character on any of 32 columns of 24 rows. There is also a graphics mode in which you can set each of the 32x24 character positions to any of four colours, setting one quarter of a character position at a time. This mode does not seem to be used!

The so called text mode is 24x40 but is otherwise similar to the main mode: the biggest limitation is that you may have only two colours on screen at a time. I have an assembly language program which allows you to use this mode in Basic, using 32k ram and the Assembly modules: Minihew, Ed/As or ExtBasic.

In order to address individual pixels on the screen, and emulate the DRAW or CTRLC commands on other computers, you must use the pixel graphic mode, which cannot (apparently) be used with Basic. It can only be used in a pure machine code program. The only examples known to me are the LINES program sold with the Mini Memory Module, and Parsec.

It is possible to simulate pixel graphics in Basic by continually redefining characters on the screen. You are of course limited by the number of characters which can be defined, and very limited by the speed available (V E R Y S L O W !). I do have a couple of programs which use this method. The same thing can be done using a machine code utility, but it is still not very successful. The LOGO turtle does the same thing...a bit faster admittedly, and it has more characters available, but still manages to run out of ink.

Defining sprites or characters is not too difficult and there are several utility programs on the market to assist with the sometimes arduous task of calculating the right hex code.

GETTING STARTED WITH THE TI99/4A went into its 2nd print within a month: many thanks to everyone who bought a copy. If you purchased the first print, it is possible your bookseller neglected to insert the Errata sheet which contained the joystick program (p.90) omitted in error. I think the program was printed at the back of the 2nd print run. One or two errors were also corrected in the errata. If you don't have a copy and would like one, please send me an SAE.

IMPORTANT! If you are a member of the IUG (US\$16 p.a.) you can ring them up with a credit card order... it is not expensive after Bm our time, and they are pretty fast in dealing with calls. Note that in theory at least you should pay the postman 7% duty and 15% vat.... in practice on smaller orders the Customs often do not levy charges, and even if they do, you may find your sorting office forgets to stick Postage Due stamps on the packet!!!

Stephen

EXTENDED BASIC PECULIARITIES:

There are one or two strange things you may meet up with when dealing with sprites, especially sprites off the bottom of the screen (pixel rows 192 to 256).

```
Try these two:
100 CALL CLEAR
110 FOR T=1 TO 24
120 CALL SPRITE(#1,63+T,2,1*7,10+T,0,5)
130 NEXT T
140 DISPLAY AT(24,1)BEEP:"NOW WATCH...."
150 FOR T=1 TO 50 :; NEXT T
160 CALL SPRITE(#1,42,2,208,20)
170 DISPLAY AT(24,1)BEEP:"HMMHMM...."
180 FOR T=1 TO 900 :; NEXT T
```

Look through your manual and decide what this program is meant to do...concentrate especially on what line 160 is going to do.

Now enter the program and RUN it. Notice anything? Run it again... any change?

In direct command mode, enter CALL DELSPRITE(ALL) and RUN the program again... Where should the * appear? Should it be moving? (Read the manual).

Here is another little puzzle:

```
100 CALL CLEAR
110 CALL SPRITE(#1,66,2,208,50,0,5)
120 CALL LOCATE(#1,208,57) :; CALL MOTION(#1,-1,-7)
130 FOR T=1 TO 70 :; NEXT T
140 CALL SOUND(-10,600,0) :; GOTO 110
```

Now, in every cycle between BEEPs, the same thing should happen...right? Where should the B be?

Run the program and watch the screen carefully for some minutes. Interesting?

Try the first list with:

```
160 CALL SPRITE(#1,42,2,208,20,0,-10).... ANY CHANGE?
and the second with:
120 CALL LOCATE(#1,180,57) :; CALL MOTION(#1,-1,-7)
Any difference?
```

A couple more listings follow on the next page...

My address by the way is: 10 Aistone Road, STOCKPORT, Cheshire, SK4 5AH ...and the post code is important!

Listing one:

```

100 CALL CLEAR
110 R=INT(195+40*RND) : C=INT(RND*240+1)
120 CALL SPRITE(#1,42,2,R,C) : CALL POSITION(#1,A,B)
130 DISPLAY AT(24,1)BEEP:R;A
140 FOR T=1 TO 600 : NEXT T : GOTO 100

```

Run this program: the two values shown should coincide...do they?

Slight amendment:

Try:

```
120 CALL SPRITE(#1,42,2,R,C,0,0) : CALL POSITION(#1,A,B)
```

now RUN the program...any greater accuracy?

or how about:

```
120 CALL SPRITE(#1,42,2,R,C) : Z=2^2 : CALL POSITION(1,A,B)
```

does that give greater accuracy?

When using sprites off screen you cannot apparently rely on Extended Basic doing what it should.

Here is another...four sprites should appear, two in each of two columns, and each pair should be the same distance apart:

```

10 CALL CLEAR : CALL CHAR(40,RPT$("F",16))
20 CALL SPRITE(#1,40,2,200,100,#2,40,2,240,100)
30 CALL SPRITE(#3,40,2,100,150,#4,40,2,140,150)
40 CALL MOTION(#1,1,0,#2,1,0,#3,1,0,#4,1,0)
50 GOTO 50

```

Enter and RUN this one!

If you have the 32k RAM, add:

```
15 CALL INIT : CALL LOAD(-31878,4)
```

and RUN...any difference?

This seems to indicate that Extended Basic is having trouble keeping the CPU informed of the number of sprites moving.

You can also advise the CPU of 4 sprites if you do not have the 32k ram by placing 4 invisible sprites with zero velocities (IMPORTANT!) on screen, moving them to the off screen position and then making them visible and moving them....

this is called fooling the cpu...

```

10 CALL CLEAR : CALL CHAR(40,RPT$("F",16))
20 CALL SPRITE(#1,40,1,1,1,0,0,#2,40,1,1,1,0,0,#3,40,1,1,1,0,0,#4,40,1,1,1,0,0)
30 CALL LOCATE(#2,200,100,#1,240,100,#3,100,150,#4,140,150)
40 CALL COLOR(#1,2,#2,2,#3,2,#4,2)
50 CALL MOTION(#1,1,0,#2,1,0,#3,1,0,#4,1,0)
60 GOTO 60

```

Any improvement? Try some experiments of your own.

```

| | | | | | | | | | | | | | | | | |

```

Congratulations ALEXANDER in Brighton aged 6 years for scoring 120,400 at Parsec, before being rudely interrupted by his little sister.

One of the biggest problems a novice computer user faces is actually coming to grips with your new computer!

The best (only?) way to learn is to USE... and you start of with EASY things.

Two books available at the end of 1983 were of some use:

BRAINTEASERS FOR BASIC COMPUTERS.

Gordon Lee. SHIVA. 4.95

PBK 123pp ISBN 0 906812 36 4

This is a collection of fifty puzzles...you could work them out with a pencil and paper, but the idea is that you are to write a computer program to solve them. Once you have solved them with a program, you can then improve the time your program takes by rewriting it in a different manner (a digital stopwatch is handy). Thus even experienced programmers can improve their programming!

Sample listings are given at the 'back' for each puzzle...these will find the solution, but they may not be the best program.

Notes for TI owners:

In TI BASIC you do not have OR or AND available.

You use the following:

ORIGINAL: IF U=T OR U=H THEN IF U=T AND A=B THEN

TI99/4A: IF (U=T)+(U=H) THEN IF (U=T)*(A=B) THEN

For STR\$, use brackets: A\$=STR\$(A)

For LEN, use brackets: IF LEN(A\$)<>3 THEN...

For concatenation use &: C\$=A\$&B\$

For B\$=A\$(2 TO 5) use: B\$=SEG\$(A\$,2,5-2)

For B\$=A\$(TO 5) use: B\$=SEG\$(A\$,1,5)

For B\$=A\$(3 TO) use: B\$=SEG\$(A\$,3,LEN(A\$)-3+1)

For PRINT 3**3 use: PRINT 3*3*3

In an IF THEN line in TIBASIC, do not use GOTO, just the line number.

For SCROLL use PRINT

Some multi statement lines in the examples also require splitting...this minor conversion is all good work!

This book is very useful in making you think HOW to put a problem into a form your computer can solve.

TIM HARTNELLS GIANT BOOK OF COMPUTER GAMES

Fontana PBK 386pp 3.95 ISBN 0 00 636743 7

This is a book of over 40 programs written in fairly simple BASIC suitable for conversion. Such conversions can also assist you to get to know your computer and having dealt with simple conversion, you can go on to use the sound and graphics of your computer, and generally tidy and improve the program.

The Chess program in this book is quite abysmal, but still a worthwhile practise! Converting to TI BASIC, you have the usual task of splitting multi statement lines...and for some of these programs that can be quite complex! Extended Basic owners will find conversion very much easier!

For TI owners:

For MID\$(...) use SEG\$(...)

Put all DIMs at the beginning of your TI program!

For CLS use CALL CLEAR

For A\$=INKEY\$ use the little routine on the next page....

A\$=INKEY\$....

```

1 CALL KEY(3,A,B)
2 IF B<1 THEN 1
3 INKEY%=CHR$(A) and only then...
4 A$=INKEY$

```

The 99/4A does not have TIME\$. It can usually be omitted completely.
 The 99/4A does not have INSTR...it is probably easier to avoid any program with this in it!

For RIGHT\$(C\$,2) use SEG\$(C\$,LEN(C\$)-2+1,2)
 FOR LEFT\$(C\$,5) use SEG\$(C\$,1,5)

Those little hints should help you with the conversions!!

The games in this book are very simple, but the object is to familiarise yourself with your computer, with conversions, and then of course to improve the programs.

There are two similar books from Creative Computing, costing more, and with perhaps a more restricted range of programs, even if there are more programs in them.

Hartnell's book is perhaps closer to EXTENDED BASIC than the Creative Computing book. Even if you only have TI BASIC, it is still worth while getting your teeth into conversion work of this kind: there are no difficult pokes or peeks, no strange abbreviated commands, and only minimal changes are required to fit the programs onto the 28 column wide print screen you have.

IF YOU HAVE ANY QUERIES, ANYTHING YOU WOULD LIKE IN THE NEXT ISSUE OF RAMBLES, PLEASE WRITE!
 BUT IF YOU WANT A REPLY, AN SAE IS ESSENTIAL, and a reply could take a week or two to put together.

....Apologies in advance to anyone writing to me or ordering programs from me in May/June, for any delays. We are expecting a little peripheral in the family and it could get a little hectic at that time!!!

Stephen Shaw 10,Alstone Road, STOCKPORT, Cheshire, SK4 5AH

The Book written by Stephen Shaw.....
 GETTING STARTED with the TEXAS TI-99/4A get it from us and save

Aimed at first time users, this book takes you from setting up your TI99/4a and guides you step by step until you become sufficiently expert to write your own programs,

This 'essential' book will help you use TI Basic understand Extended Basic design programs, file data on cassette.

EXCLUSIVE to members of TI99/4a EXCHANGE ONLY £4.95 + 55p post & Pkt
 Send your order and cheque to The Computer Home Service (T.C.H.S.)

allow 21 days
 Delivery

Book offer,
 40,Barrhill, Patcham,
 BRIGHTON, BN1 8UF.

This article is an attempt at presenting a technique for structured programming in a manner that is both understandable and usable. However it may not be clear initially what advantages this technique has to offer other than making an understanding of the examples given in later articles easier.

What is presented here are the bare bones upon which some flesh will be put by me, but mostly by you.

GETTING READY.

Before starting to programme there are 2 rules to remember:-

- 1/. Think-don't rush.
- 2/. SWITCH OFF COMPUTER.

Rule 1 will save a lot of problems later as an early mistake can carry on to the end. Rule 2 will save you many a headache and a great deal of agro.

PART 1 SPECIFICATION.

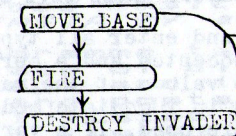
STEP 1:- A program is a series of instructions that perform a task. Therefore the first step is to define the task to be performed eg 'Play space invaders'.

STEP 2:- Analysis. This is the hard think stage. At this point it must be decided what is going to happen during 'space invaders' eg move laserbase across bottom of screen, fire at base, base fire at invader etc.

SUMMARY:- In step one you decide what you want to do and in step two how you expect to do it.

PART 2 PLANNING.

Make out a 'program map' on a sheet of paper by drawing boxes- 'program segments', and in each box write a part of the program. Then join each box with an arrow showing the direction of flow.



It may require several attempts before you succeed. It may even be necessary to return to your analysis.

SUMMARY:- You should now have a pictorial representation of the components and their relationships that will make up the finished program.

PART 3

STEP 1:- This is a return to part 1 but in greater detail. This time each box in the program map is given the analysis treatment, i 'move base' would become 'delete old base, draw base in new position etc'

STEP 2:- Draw a map of each segment as you did for the program map. This is called the flow chart and should look something like this

The Pete Brooks Pages

I've just finished a book on the 99s - MASTERING THE TI 99 - to be published by Castle House from Feb. 16th. this year at £5.95 for about 144 pages (and so far I'm not happy with it because I was restricted to 40,000 words and I needed to write a lot more), and just as we get a confirmed order for 3000 copies, guess-who pulls out of the Home Computer market? I don't yet know if they are going to support the existing users with hardware (maybe at a more realistic price - who's going to willingly pay £550 for a printer when the computer only costs £90?) but I hope that they don't sit on those British entrepreneurs who are trying to make the machine a viable system, like they've tried to do to Funware (and failed, thank goodness).

Anyway, that aside, here are some comments - constructive I hope - on TI.MES:

I didn't pay £500+, I paid £1000+ for my TI and I DID regret it - the only reason I've tried to make a go of it is (a) I can't afford to do anything else, and (b) I found that there were so many people who were buying it as a first machine without realising what they were getting involved in that I felt compelled to help out where-ever I could (and still do). I now have a '4A (courtesy of a local firm who have commissioned me to write a custom Mailing List program for them) and I'm up to my neck in involvements with my local school (I take a group for Computing on what they call THEME DAYS, when they can pick a subject and study it solidly for three days - these are 9-11 year-olds - and I'm due to take a group in the evening starting Nov. 15th. at the same school as part of its Youth Club activities) writing more material on the 99s - this time a second book, 20 articles for Home Computing Weekly, reviews of software for the same and for Personal Computing Today, and the publisher is dangling a carrot in the form of continued publications on different machines which they will supply, drool, drool. Incidentally, anyone thinking that there's money to be made from the book side of things had better be prepared for disappointment. I get 12½% of whatever the publisher makes on each book, BUT - there is a discounting system which lets the retailer purchase the book at an agreed discount of between 50 and about 15%, and there is a sliding scale on my royalties which takes them down to 4% of that 15%. The 3000 copies which TI are taking will gross me some £900, from which has yet to be subtracted the £250 it has cost to hire the professional word processor to write the book (the TI Writer wasn't up to the task), less the tax bill, then there is my £450 overdraft to sort out, plus the other bills which have been run up - I end up with nowt to show for the £900 except for a few satisfied creditors, and 'cos TI have pulled out, the publisher will now not be printing so many for his own distribution, so I stand to make about £1500 in total before anything gets taken off. So now you know.

The Stateside price of the console is \$69 I understand, but a local retailer just dumped his total stock for £49 per machine - beat that if you can!

Any comparison between the BBC 'B' and the TI is doomed to failure. I don't particularly like the BBC, especially as a first-time machine, but credit where credit is due: it is much faster than the TI, the graphics, sound, and other functions are more sophisticated than the TI's, and the only way a TI is as good as a Beeb is if it is free! The tube may not yet work properly (and they may be on their 5th rewrite of the Operating System, but at least they ARE rewriting it and you CAN buy the rewrite - TI haven't offered any owner a new OS to replace the bugged CALL KEY() or the abysmal cassette file handling system) but then neither does the Hexbus adaptor, the Wafertape drive (Castle House had to spell that twice to one of TI's own people and they still didn't reckon that it was one of their products!) or the printer plotter, so, fair's fair, the Beeb isn't God's gift to computing but then neither is the TI. (I'd willingly argue the point with anyone who says that the Beeb's graphics are not as good as the TI's).

Cheaper British Alternative: There is a small group in the UK who are busy working around TI to adapt the Sinclair peripherals for use with the 4A, and to up-stage TI with regard to CMOS RAM units - up to 128K I'm told - for very reasonable prices.

TI.MES: p4: should be 768 not 972 (24 x 32). Don't need 'STEP 1' as this is a default; and the explanation of line 30 is not quite right: '5' is the BACKGROUND colour, not FOREground.

Also p4: Hint 3 can be improved upon (details published by me in Tidings), to get rid of the '?' just use a null string (either as a variable or better as '') thus:

```
INPUT "" : Y$
```

If you use 30 spaces in the INPUT prompt you lose 30 spaces from the input line - 112 maximum - which might be critical with multiple entries.

p14: tape hints: if you type OLD CS1 and press ENTER on a 99/4, you lose whatever you had in memory. Only a 4A can recover from this kind of error. What you can also do is to compare a program in memory with one on tape when you haven't SAVED the one on tape recently. All you do is to type SAVE CS1 and then press C when it tells you to wind the tape back; it thinks you've saved the program and now want to check it. All you do then is play the program which is on tape to the machine, and if the two programs are identical you'll get the DATA OK message - which is one way of finding out if a particular routine is on tape when you forgot to preface it with a spoken comment.

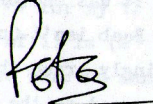
p12: there are 7 extra commands which you can use with the PRK or STARS modules in the GROM port: CALLs A, D, G, H, L, P, and S. No-one has yet written the definitive article on these (there are bugs which even the TI write-up doesn't tell you about), although Paul Karis has made the biggest contribution by far.

p21: marvellous example of lateral thinking, that use of a sprite as a timer.

I mourned the passing of Tidings and the editorial freedom which we had then, and I welcome TI.MES, both in its format and content.

I've written all of this with a kitten perched on my shoulder - how on earth did Long John Silver manage with his parrot....?

Regards,



Pete Brooks

Many thanks Pete for your excellent contribution which we want to share with all our members.. Ed C&A

SINGLE PIXEL DRAWING. (BOTH BASICS.)

The program ~~was~~, originates from an excellent, (aprox, 14,000 word long) article on plotting by Peter (Babbling) Brooks in " TIDINGS " newsletter produced by Paul Dicks of " TIHOME "

This program asks the user to input SCREEN and TRACE colors (try 8,2 for starters) and after a short delay, allows you to move a single pixel dot any-where on the screen under control of the direction keys, leaving a trail as you go.

W E R S D Z X C are the keys to use.

Being in basic it suffers from a lack of speed but could still form the basis of a " DRAWING " program for young children. Other facilities needed would be PENUP, PENDOWN and ERASE modes which might slow things down even further. In the present version the trace will wrap around the screen if driven past screen boundaries. When you run out of " INK ", (no more characters to define) the pixel stops. In TI-BASIC line 520 can be changed to :- 520 IF S=159 THEN 680 -: which will give about 14% more " INK ". Users of version 100 EXT. BASIC should disable sprites for max. speed.

Change R & C in lines 320 & 330 for a different starting point. (Limits are 1 to 192 for R and 1 to 256 for C). Lines 385 & 675 were added to give audible feedback when a key is operated and when a pixel is drawn. They can be eliminated.

We wish to thank T.I.U.P. TI Users Perth Western Australia and of course our good friend PETE BROOKS.....

```

100 REM SINGLE PIXEL DRAWING
110 REM BY P.BROOKS OF TIHOME
120 REM MODIFIED BY E.ELSNER.
130 REM AND K. SCHLUNKE
140 REM T.I.U.P. 16/4/82.
150 REM
160 CALL CLEAR
170 PRINT "SCREEN & TRACE COLORS
    XX,XX"
180 PRINT
190 INPUT SC,TC
200 CALL CLEAR
210 CALL SCREEN(SC)
220 FOR I=1 TO 14
230 CALL COLOR(I,TC,I)
240 NEXT I
250 CALL CLEAR
260 S=31
270 CALL HCHAR(1,1,S,768)
280 DIM C$(128)
290 B$="0000.0001.0010.0011.0100
    .0101.0110.0111.1000.1001.1010.1
    011.1100.1101.1110.1111"
300 H$="0123456789ABCDEF"
310 Z$="0000000000000000"
320 R=10
330 C=200
340 GOSUB 400
350 CALL KEY(1,K,T)
360 IF T=0 THEN 350
370 R=R+(K=4)+(K=5)+(K=6)-(K=0)-
    (K=14)-(K=15)
380 C=C+(K=2)+(K=4)+(K=15)-(K=3)-
    (K=6)-(K=14)
390 CALL SOUND(20,220,1)
390 GOTO 340
400 Y=INT(R/8+.875)
410 X=INT(C/8+.875)
420 R=R+(R-1)*(Y>24)
430 Y=Y+(Y-1)*(Y>24)
440 R=R+(R-192)*(Y<1)
450 Y=Y+(Y-24)*(Y<1)
460 C=C+(C-256)*(X<1)
470 X=X+(X-32)*(X<1)
480 C=C+(C-1)*(X>32)
490 X=X+(X-1)*(X>32)
500 CALL GCHAR(Y,X,H)
510 IF H>31 THEN 580
520 IF S=143 THEN 680
530 S=S+1
540 C$(S-31)=Z$
550 CALL CHAR(S,Z$)
560 CALL HCHAR(Y,X,S)
570 H=S
580 H=H-31
590 B=C-X*8+8
600 P=2*R-16*Y+16+(B<5)
610 IF B<5 THEN 630
620 B=B-4
630 I$=SEG$(B$,POS(H$,SEG$(C$(H$,
    P,1),1)*5-4,4)
640 I$=SEG$(I$,1,B-1)&"1"&SEG$(I
    $,B+1,4-B)
650 I=POS(B$,I$,1)/5+.8
660 C$(H)=SEG$(C$(H),1,P-1)&SEG$(
    H$,I,1)&SEG$(C$(H),P+1,16-P)
670 CALL CHAR(H+31,C$(H))
675 CALL SOUND(20,880,1)
680 RETURN

```

CURSOR PROGRAM
by Jim Peterson, Sydney Users Group

This little program will permit you to move your cursor around the screen. It uses 416 bytes of memory and takes roughly 12 seconds.

```

100 CALL CLEAR
110 CALL CHAR(44,"FFFFFFFFFFFFFFFF")
120 R=1
130 C=3
140 CALL HCHAR(R,C,44)
150 CALL KEY(0,K,S)
160 IF S=0 THEN 150
170 IF K=68 THEN 210
180 IF K=69 THEN 230
190 IF K=83 THEN 250
200 IF K=88 THEN 270 ELSE 150
210 C=C+ABS(C-30)
220 GOTO 280
230 R=R-ABS(R-1)
240 GOTO 280
250 C=C-ABS(C-3)
260 GOTO 280
270 R=R+ABS(R-24)
280 CALL HCHAR(R,C,44)
290 GOTO 150

```

HINT.....

Before typing in the above program First type NEW then press enter.....

Now type NUM & press ENTER...you are ready to start the program

ARCADE

This is the page for under 18's. I m sure there's plenty of you who read this page but we never hear from you. So let's dangle a carrot or three - PRIZES,PRIZES,PRIZES. That woke you up now. A cassette games tape will be awarded to the person sending the BEST LETTER about your school micro - how you use it, how often, how it compares with your T.I. Another tape will be awarded to the best DRAWING for a heading to your Arcade page. To make it fair there will be two sections- one for under 8s and one for 8 plus.

You have until 1st MARCH to send in your contribution.The editor's decision is final and I'm not open to bribes!



* * * * *

SUPERSCORES

The world record scores at the time of writing are:

ALPINE...94,599	ATTACK...1,318,450	CHISHOLM TRAIL...603,400
CAR WARS...97,380	DRIVING DEMON...12,348	HENHOUSE...132,570
II INVADERS...46,192	MUNCHMAN...408,990	RABBIT TRAIL...23,200
PINBALL (VIDEO GAMES 1)...10,028,010		
PARSEC.....3,492,400		

Thanks to Stephen Shaw for the info. I'm sure he holds the record for at least Pinball.The scores may seem impossible but Stephen says if you play the game and no other for several weeks, the only limitation will be the length of time you can sit down!

* * * * *

DEEP IN THE COMPUTER SOMETHING STIRRED -

by Barrie Clark.

Our youngest contributor(to date) has sent us this program.

```

10 CALL CLEAR
20 CALL CHAR(126,"00000FOFFFF0000") - defines car
30 CALL CHAR(127,"1898FF3D3C3CE4C4") - defines man
40 FOR Y=1 TO 4 - sets Y loop of 4 times
50 FOR X=30 TO 1 STEP -1 - sets X volume loop
60 CALL SOUND(-100,110+Y*4,X,220+Y*4,X,330+Y*4,X) - car noise
70 CALL HCHAR(4,2,127) - places man on screen 4 lines
80 CALL HCHAR(4,x+2,32) - erases car at old position
90 CALL HCHAR(4,X+1,126) - places car in new position
100 NEXT X - ends X loop
110 CALL SOUND(-100,-5,0) - 'splat!
120 NEXT Y - ends Y loop.

```

Now run the program. A car speeds across the top of the screen. Listen to the changes in sound as it moves. This is the volume changing. On each occasion the man is hit the sound is slightly different. This is caused by the value of Y rising.

COMING NEXT FROM BARRIE - Matchstick man listing and strange sounds.

Video game scene : Continued from issue 1.

Sorry about the last issue. Three months can go by very quickly when you're enjoying yourself. I wasn't, I was tearing my hair out trying to get the latest gem from Arcade Hardware bug free. (An article elsewhere explaining all that.) But it meant that I really didn't have time or energy to get another unconnected set of words together for Ti-mes.

Not that a lot has been happening. The video game industry has more or less ground to a halt. There is still new product, but there's no-one buying it because no-one is playing it. When I say new product, that isn't entirely true. Many of the 'new' games are merely rehashes of older designs with an extra blip or colour scheme. There is certainly a lack of innovation. So many of the latest releases rely on the success of their predecessors. Just as comedians are now coming out with lines such as " It is now the year 2002, at the cinema, Sylvester Stallone is starring in Rocky 21, Al Pacino is making a great success of Godfather part 17." I can't help wonder when Mrs. Pacman's grandson's adventure through the looking glass will take place. Or will the yellow mouth finally take on the mighty Kong? Another saga that seems to be going on forever.

There have been good games released of late. Atari's pole position has superb graphics, whilst Midway's Tron (taken from the film of the same name) has managed to improve on the multi-phase game. Once again though, game designers seem to be slightly stuck as there is now a new version of Tron, called Discs of Tron. What it's like I don't know. It was one of the very few hits at the American Amusement Machine Exhibition in October. Most of the stars at this exhibition though were the latest generation of video games. Laser disc based games seem to be here to stay. At the American show there were no fewer than thirteen laser disc based games. (An unlucky number ?) It should have been fourteen, but far from it being alright on the night, Atari couldn't get their Fireball working.

Incidentally, there is a video disc controller available for the TI99/4A. It isn't available in this country, and if it were it would probably cost around £500.00. Such technology doesn't come cheap. It seems just as we are moving into the age of the video disc, we T.I. owners are to be denied the means of using something that's already there. For those who are still unaware of the bad news T.I. have decided to cut their losses and abandon the TI99/4A along with the designs for the TI99/8. More on this later.

It's difficult to know where video games are going next. My own view is that they are all but finished, with a few hopefuls clinging on. Even Atari are considering abandoning the market. With a market that has shrunk by 80%, many companies have had to wind down their manufacturing to the point where they are no longer economic. As with computers, all the systems are incompatible so even the convertible scene is in danger of collapse unless all the manufacturers put their heads together and agree on a common operating system. As that's almost impossible, the situation will be dog eat dog until in about five years from now there will be maybe two companies left making video games.

It's ironic that as video games enter a new and better era, the players are no longer around. Games such as Sega's Astron Belt and particularly the Atari Dragon's lair are samples of what is to come. However as one industry cynic remarked at the American Exhibition, " It seems crazy that an industry with one foot in the grave and the other on a banana skin should turn to a more expensive product to try to drag the players in."

Howard

SOFTWARE REVIEWS

CASSFILE TI Basic
CHRISTINE COMPUTING
Watford.

If you want to turn your cassette recorder and computer into a filing system then this is probably the one you are after.

The copy we looked at was not provided with any instructions, however it loaded well and we were able to start setting up a file, the clever programme enabled us to file in five segments. Our other criticism is the spelling errors which appears to be Christine Computing trade mark for most software programmes created by the company, do not let this deter you as this one represents good value for money and as it is in Basic you can do alot to tidy it up, we got it to run on Ext basic & also make good use of the Minimem.

DIYAD TI Basic
TIMELESS SOFTWARE
Scotland

If ADVENTURE games are your choice and you would like to create your own, DIYAD offers both. A 16 page booklet is provided which

is full of detail on making good use of this programme. This one is not for those who want instant games or anyone without patience, also you will need a blank cassette because two loadings are required to run your adventure. We thought Diyad. was an excellent introduction into computer programing, it is one that gives full value for the price

CHARFILE TI Basic
CHRISTINE COMPUTING
Watford

Do you want a personal file for your very own Graphics? This excellent utilities program is just that, you can create Graphic CHARacters

give them a name and file them, for example You draw a little man, press the key and hey presto a HEX code, the computer asks you if you want to save on a file key Yes and it then requests name, so key in man. This one has got lots of potential for good programmes of your own making, strongly recommended for your collection.

TOAD GRAPHICS TI Basic
TIMELESS SOFTWARE
Scotland.

The title of this FUN programme may not strike you as anything special, well you are wrong it is! Within minutes of loading the programme

we were excited to find that a TOAD of all things actually draws all sorts of graphics for you at your command. The programme comes with an impressive 16 page booklet with clear instructions. The beauty of Toad is that it makes full use of TI BASIC and your computer, again Timeless have something to be proud of with this one as you get your moneys' worth drawing lovely pictures, if only they can be saved. This gives you a taste of LOGC at a iraction of the cost.