AUSTRALIA'S MAGAZINE FOR TEXAS INSTRUMENTS 99/4A HOME COMPUTER

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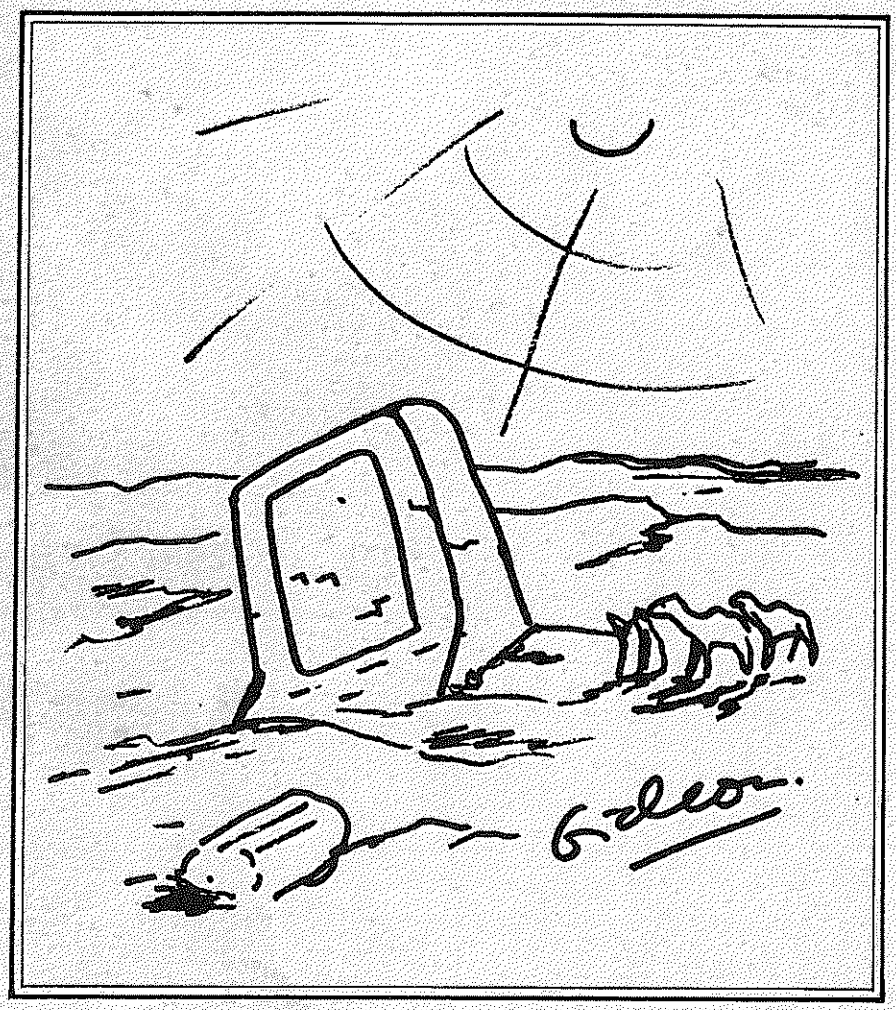

SOFTEX

★ T1 Axes the 99/4A
★ Build your own Joy Sticks
★ Quality Printing with 99/4A
★ Now you've got it, what are you going to do with it?

SOFTEX

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Sketches and cartoons were prepared by Dr. Gideon Polya, and our apppreciation for his efforts on short notice is expressed.

Editorial

This, the first issue of yet another computer magazine, has not reached you without its share of difficulties and doubts.

After deciding that a magazine for Australian TI 99/4 Home Computer Users was a worthwhile proposition, it has taken six months to get this far. The rumours about the future of the 99/4A, together with TI's huge loss in the U.S., led us to pause and reconsider. After deciding to proceed the rumours became reality - see article elsewhere.

We have spent a lot of time considering what our objectives ought to be for this magazine. It seems to us that the Home Computer, if it has not already, will soon come of age. We have all been through that initial euphoria, where everything was to be wondered at, and any program was a good program.

We believe that our subscribers are probably past that stage. They are likely to be much more discerning, now. The Home Computer is, after all a machine; an smart one, admittedly, but still a machine, and machines were invented by Man to be of Service to Man.

Thus, our objective for this magazine is to provide information about how our subscribers can get optimum use from their computers.

We shall attempt to do this by considering the uses available to the User; education, home finances, records, files, and so on.

Then we have to consider the means; not all wish to write their own programs, while others enjoy the challenge of developing software specific to their needs.

Thus, we intend to publish comprehensive programs, simple programs capable of development, descriptions of what can be done with available modules, and the uses to which one can put them. You will notice that all programs included are published in a 28 column, so this is presented exactly the way seen on your monitor. We shall review software and peripherals, to give you an idea of how best to spend your money. Additionally, we shall be offering for purchase some items of peripherals such as printers, interfaces, modems, etc, for you to mail order, at very good prices.

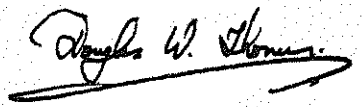
TI Australia's recent price decrease on the Expansion Box and cards is welcome news indeed. These items are now much closer to the average User's reach.

While this is intended as a serious magazine, that does not mean we won't publish games, if they are good; but games are available from many, many sources.

Finally, this magazine is not intended to be a one-way affair; we welcome contributed articles and programs; those which are published will attract a fee.

We sincerely hope you enjoy our magazine, and would appreciate constructive criticism.

Finally please support our advertisers.



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EDUCATION & RECREATION.

COLUMNS.

ADVERTISERS.

TI Axes the TI-99/4A

FRIDAY 28th. OCTOBER 1983.

Texas Instruments (U.S.A.) announced that they are ending the production of the TI-99/4A computer after many months of speculation by the business press following $US330 million losses.

"In order to limit further financial drain on TI, we have made a decision to withdraw from the consumer home computer business,", stated by Mr Mark Shepherd Jr., chairman.

Production of the 99/4A will cease in November.

As yet it is too soon to know exactly what this will mean to all present users, although T.I. will honour the 12 month warranty, and will offer maintenance for the some time until the supply of parts becomes diminished. At this stage they are hoping to have software availiable for some 6 to 12 months, but this may not last this long if a rush develops.

T.I. are still proceeding with the CC-40 so the Hex-Bus range of peripherals will be availiable.

Perhaps, the most immediate effect is to lower the price to $249.00 in Australia for the console, although the price of the peripherals will remain the same. No more new software will come from TI, but I imagine there will be a rush of third party manufacturers to bring out new programs.

The role of Magazines like ourselves, and the various Users Groups will become more important in supplying information in the future, particularly in respect to software and hardware availiable for use with the computer.

Those of us who have used the computer now for 2 or more years are very saddened by this development, which has been largely brought about by TI never really getting to grips with the 99/4A, which we all know is vastly superior to any other mirco on the market. The begining of the end occurred when TI engaged in a price cutting war in U.S.A., bringing down the price to about $75.00 in order to outsell the VIC 20 primarly. Those who know the computer state that there never was a need to drop the prices to this extent, if only they advertised the 99/4A for what it really was, but alas, this is all academic now.

Since the announcement in U.S.A. some 300,000 computers sold in the first 2 days and a rush may also occur here, particularly with the price at $249.00 which is exceptional value. As time goes on third party manufacturers will have to take over the role of producing peripherals and I think we will see some tremendous developments in this area shortly. In Australia we already have a local source for a 32K. memory card, which is a start in the right direction.

As further news comes to hand this be printed in future issues of this magazine.

Text-it

A Simple Word Processor for the TI-99/4A

By Doug Thomas

In recent years you have all heard some mention of "WORD PROCESSORS".

I know that these words frighten some people who feel that Technology will replace them, but in most cases this is not true. All sorts of ideas have been conjured up as to what is meant by these words, more often than not, these are completely wrong.

WORD PROCESSING basically is the formatting of Text electronically, rather than using a type-writer, or pen, which then allows you to correct spelling mistakes, change the complete format, or use the contents as a basis for a form letter without re-typing the text each time. The dedicated units have a large capacity, but even the TI-99/4A version, TI-WRITER, has all or most of the features required.

The Word Processor program with this article is a simple one, that lacks some of the features that the larger ones have, but it does allow you to add, and delete lines, change words, save and print text, multiple copies or even form letters.

The program is written in Extended Basic, which allows freedom to input text, which is not the case with ordinary basic, eg. text with one set of " would not be excepted (through use of LINPUT statement). This version also gives proper screen lower case text, something which TI-WRITER lacks.

Text may be saved using Tape or Disk depending on your choice. The program allows chaining of text together to form up to 7 pages correctly numbered, but the capacity of the basic computer is limited to about 1.5 pages before being necessary to save the text and proceeding on.

NOTE: No safe guard has been added to warn you that you are approaching total capacity, which will cause the loss of all text in memory.

This program is ideal to teach you the concepts of word processing, and wet your appetite for a more efficient version. If you do not own a printer text can still be saved and then printed out using a friends printer.

Using the Program.

After typing "RUN" a title is displayed where the letters can be seen being re-defined into lower case.

Next you are asked to set the Printer Format Parameters, with default values being given for the required responses.

From there you come to the main Index screen, which controls the complete program.

Most of the choices are self explanatory, with further guidance being given as required.

ADD TEXT. :- Selecting 1 allows you to begin writing text or add to text already in file. The line number is shown on the left hand side for each line of text to be entered. If you exceed the number of characters in the line length selected earlier, then the excess text is wrapped around to the beginning of the next line. ENTER has to be pushed briefly at the end of each line to enter text. To leave the Text mode, holding down the ENTER key for longer than 1 second will return the program to the main Index again.

PRINT. :- gives the choice of 1. Printing Text as formatted, 2. either Print to screen only or to printer and screen to-gether, or 3. to reset Parameters again.

DELETE or REPLACE LINE. :- allows a line to be deleted or added prior to a given line number by you. If not sure of the line number use No. 2. choice of PRINT, using screen only to check for the line number.

REPLACE WORD. :- probably the most useful of all the commands, allowing individual words to be exchanged for another, either in a specified line or through-out the text. If a word to be changed appears more than once in one line then all occurances will be effected. If you did not want one of the occurances to change, then this may prove difficult.

START OVER. :- allows you to purge the memory of your text or to begin adding text from the line number previously entered and saved, in order to keep the text in context for printing.

This program runs very efficiently using tape and is capable of printing text quickly, which was a problem in some of the earlier versions I ran for the TI-99/4 model which had to re-define the text line by line to lower and upper case.

With this program it is possible to write an article to send to SOFTEX for publication, as the text is saved in Display 80 format allowing this to be " Read" directly into TI-WRITER. This magazine has been composed entirely using TI-WRITER connected to a Daisy Wheel Printer, see article elsewhere.

```
1 CALL CLEAR :: DISPLAY AT(8
,9):"WORD PROCESSER"
2 DISPLAY AT(13,9):"By Doug
Thomas" :: DISPLAY AT(14,8):
"and Jack Goldberg"
3 DISPLAY AT(18,8):"TI-99/4A
 Version" :: DISPLAY AT(22,6
):"Copyright Softex P/L"
4 REM ****WORDPROCESSOR****
 DOUG THOMAS -MODIFIED 1983
 JACK GOLDBERG
5 GOSUB 25
6 DIM MSG$(500):: DIM MS$(50
0)
7 CALL CLEAR :: CALL SCREEN(
13):: GOSUB 107
8 CALL CLEAR :: CALL SCREEN(
6):: COL=16 :: GOSUB 194 ::
GOSUB 96
9 DISPLAY AT(24,3):"ACTION?
: (PRESS KEY)"
10 CALL KEY(0,K,S):: IF S=0
THEN 10 :: IF K>57 OR K<49 T
HEN 10
11 A=K-48 :: ON A GOTO 12,65
,117,125,134,137,140,158,161
12 CALL CLEAR
13 DISPLAY AT(10,3):"PRESS S
PACE BAR BEFORE ENTER    TO
LEAVE BLANK LINE."
14 DISPLAY AT(16,2):"  PRESS
  [ENTER] FOR MORE","THAN 1
SECOND TO FINISH TEXT"
15 REM ?SHOULD BE 6:FOR L=0
TO L :: PRINT L;" "&MSG$(L):
: NEXT L
16 DISPLAY AT(1,1):"  >


    <"
17 L=L+1 :: PRINT ;L;
18 LINPUT "":MSG$(L+1):: MSG
$(L+1)=MS$(L)&MSG$(L+1)
19 CALL KEY(0,K,S):: IF K=13
 THEN GOTO 23
20 IF LEN(MSG$(L+1))>LL THEN
 GOSUB 59 ELSE 21
21 IF (LEN(MSG$(L+1))>0)THEN
 22 ELSE 18
22 GOTO 17
23 L=L-1 :: GOTO 8
24 REM *CHARACTER DEFINITION
S*
25 DATA 0000003848483400
26 DATA 0040407048483000
27 DATA 0000003840403800
28 DATA 0008083848483400
29 DATA 000018243C201800
30 DATA 0018282038202000
31 DATA 0000384848380830
32 DATA 0020203824242400
33 DATA 0010003010103800
34 DATA 0010003010105020
35 DATA 0040405060504800
36 DATA 0030101010103800
37 DATA 0000006C54545400
38 DATA 0000007848484800
39 DATA 0000003048483000
40 DATA 0000705848704040
41 DATA 0000384848380808
42 DATA 0000002830202000
43 DATA 0000182038083000
44 DATA 0010103810101800
45 DATA 0000004848483400
46 DATA 0000002424281000
47 DATA 0000004454542800
48 DATA 0000002810282800
49 DATA 0000004848301020
50 DATA 0000003810203800
51 REM  **READ DATA AND DEFI
NE CHARACTERS**
52 RESTORE 25
53 FOR Z0=97 TO 122
54 READ Z$
55 CALL CHAR(Z0,Z$)
56 NEXT Z0
57 CALL CHAR(95,"FF")
58 RETURN
59 LENGTH=LEN(MSG$(L+1))
60 PRINT " ****SHORTENED AS
SHOWN****" :: FOR I=LL TO 1
STEP -1 :: IF SEG$(MSG$(L+1)
,I,1)=" " THEN 62 ELSE 61
61 NEXT I
62 MS$(L+1)=SEG$(MSG$(L+1),I
,LENGTH):: MSG$(L+1)=SEG$(MS
G$(L+1),1,I-1):: PRINT MSG$(
L+1)
63 PRINT L+1;MS$(L+1);:: L=L
+1 :: GOTO 18
64 REM PRINT TEXT
65 CALL CLEAR :: CALL SCREEN
(13):: DISPLAY AT(8,2):"1
PRINT TEXT"
66 DISPLAY AT(10,2):"2   PRI
NT SCREEN/PRINTER":" ":" 3
 RESET PARAMETERS":" ":"
     (PRESS 1,2 OR 3)"
67 CALL KEY(0,K,S):: IF S=0
THEN 67 :: IF K<49 OR K>51 T
HEN 67 :: ON 52-K GOTO 7,167
,68
68 M=L-1 :: CALL CLEAR :: CA
LL SCREEN(13):: DISPLAY AT(1
2,5)BEEP:"NO.OF COPIES?: 1"
:: ACCEPT AT(12,21)SIZE(-2):
G :: IF G>1 THEN 69 ELSE 70
69 DISPLAY AT(16,2):"Do you
wish Printer to halt before
printing next copy?    Y/N"
:: ACCEPT AT(19,5)SIZE(-1)VA
LIDATE("YNyn"):S$
70 CALL CLEAR :: DISPLAY AT(
12,11):"PRINTING" :: L=-1
71 OPEN #1:RS232$ :: M=M+1
72 FOR L=1 TO M
73 LENGTH=LEN(MSG$(L+1)):: I
F SEG$(MSG$(L+1),1,1)=" " TH
EN MSG$(L+1)=SEG$(MSG$(L+1),
2,LENGTH)
74 IF YRM$="Y" OR YRM$="y" T
HEN 75 ELSE 80
75 LENGT=LEN(MSG$(L+1)):: IF
 LENGT<LL THEN 80 :: IF SEG$
(MSG$(L+1),LL,1)=" " THEN 76
 ELSE 80
76 FOR YLL=LL-1 TO 1 STEP -1
 :: MSL$(L+1)=SEG$(MSG$(L+1)
,YLL,1)
77 MSL$(L+1)=SEG(MSG$(L+1),Y
LL,1):: IF MSL$(L+1)=" " THE
N 78 ELSE 79
78 MSG$(L+1)=SEG$(MSG$(L+1),
1,YLL)&"  "&SEG$(MSG$(L+1),Y
LL+1,LL-1):: GOTO 80
79 NEXT LL
80 IF L=58 THEN 93 ELSE 81
81 IF L=116 OR L=174 THEN 94
 ELSE 82
82 IF L=232 OR L=290 THEN 94
 ELSE 83
83 IF L=348 OR L=406 THEN 94
 ELSE 84
84 IF L=464 OR L=522 THEN 94
 ELSE 85
85 IF L=580 OR L=638 THEN 94
 ELSE 86
86 IF L=696 OR L=754 THEN 94
 ELSE 87
87 PRINT #1:TAB(TA);MSG$(L+1
):: NEXT L
88 G=G-1 :: L=L-1 :: M=M-1 :
: IF G<1 THEN 92 ELSE 89
89 FOR U=1 TO G :: NEXT U ::
 M=M+1 :: IF S$="Y" OR S$="y
" THEN 90 ELSE 72
90 CALL CLEAR :: DISPLAY AT(
10,2):"SET UP PAGE FOR NEXT
COPY   PRESS ANY KEY TO CONT
INUE."
91 CALL KEY(0,K,S):: IF S=0
THEN 91 :: CALL CLEAR :: DIS
PLAY AT(12,11):"PRINTING" ::
 GOTO 72
92 CLOSE #1 :: GOTO 8
93 E=1
94 E=E+1 :: PRINT #1 :: PRIN
T #1
95 PRINT #1:PRINT #1 :: GOTO
 87
96 DISPLAY AT(1,3):" KEY
  CHOICE" :: CALL HCHAR(2,3,
95,27):: CALL HCHAR(21,3,95,
27)
97 DISPLAY AT(3,3):"1    ADD
 TEXT"
98 DISPLAY AT(5,3):"2    PRI
NT "
99 DISPLAY AT(7,3):"3    SAV
E TO DISK/TAPE"
100 DISPLAY AT(9,3):"4    RE
AD FROM DISK/TAPE"
101 DISPLAY AT(11,3):"5    D
ELETE LINE"
102 DISPLAY AT(13,3):"6    R
EPLACE LINE"
103 DISPLAY AT(15,3):"7    R
EPLACE WORD"
104 DISPLAY AT(17,3):"8    I
NSERT LINE"
105 DISPLAY AT(19,3):"9    S
TART OVER"
106 RETURN
107 DISPLAY AT(1,6):"SET PAR
AMETERS" :: CALL HCHAR(2,8,9
5,14):: DISPLAY AT(3,1):"LIN
E LENGTH(30-79) :64"
108 DISPLAY AT(5,1):"RIGHT M
ARGIN EVEN(Y/N):Y"
109 DISPLAY AT(7,1):"LEFT MA
RGIN TAB(1-10) :5 "
110 DISPLAY AT(9,1):"PRINT D
EVICE  :RS232.DA=8"
111 ACCEPT AT(3,24)SIZE(-2):
LL :: IF LL<30 OR LL>79 THEN
 111
```

```
112 ACCEPT AT(5,24)SIZE(-1)V
ALIDATE("YyNn"):YRM$
113 ACCEPT AT(7,24)SIZE(-2)V
ALIDATE(DIGIT):TA :: IF TA<1
 OR TA>10 THEN 113 :: IF LL+
TA>80 THEN 113
114 ACCEPT AT(9,16)SIZE(-11)
:RS232$
115 RETURN
116 REM - SAVE TO DISK
117 CALL CLEAR :: INPUT "TAP
E (Y/N)? :":TAPE$ :: IF TAPE
$="Y" OR TAPE$="y" THEN 195
 :: INPUT "ENTER FILENAME$:":
FILENAME$
118 IF (LEN(FILENAME$)<1)+(L
EN(FILENAME$)>10)=-1 THEN 11
7
119 OPEN #3:"DSK1."&FILENAME
$,OUTPUT,SEQUENTIAL,INTERNAL
,VARIABLE 80
120 I=L :: PRINT #3:I
121 FOR L=1 TO I+1
122 PRINT #3:MSG$(L+1):: NEX
T L
123 L=L-2 :: CLOSE #3 :: GOT
O 8
124 REM - READ FROM DISK
125 CALL CLEAR :: INPUT "TAP
E (Y/N)? :":TAPE$ :: IF TAPE
$="Y" OR TAPE$="y" THEN 196
 :: INPUT "ENTER FILENAME$:":
FILENAME$
126 IF (LEN(FILENAME$)<1)+(L
EN(FILENAME$)>10)=-1 THEN 12
5
127 INPUT "STARTING AT LINE
NO. :":SL :: IF SL<1 THEN 12
7
128 OPEN #3:"DSK1."&FILENAME
$,INPUT ,SEQUENTIAL,INTERNAL
,VARIABLE 80
129 INPUT #3:Y
130 FOR I=SL-1 TO L+1 :: MSG
$(I+Y)=MSG$(I):: NEXT I
131 FOR L=SL TO Y+SL-1 :: IN
PUT #3:MSG$(L+1):: NEXT L
132 PRINT "THERE ARE ";Y;"LI
NES OF TEXT TO INSERT"
133 L=I+Y :: L=L-2 :: CLOSE
#3 :: FOR DEL=1 TO 1000 :: N
EXT DEL :: GOTO 8
134 CALL CLEAR :: REM - DELE
TE LINE
135 GOSUB 185
136 FOR I=B TO L :: MSG$(I)=
MSG$(I+1):: NEXT I :: MSG$(L
+1)="" :: L=L-1 :: GOTO 8
137 CALL CLEAR :: REM - REPL
ACE LINE
138 GOSUB 185
139 PRINT "ENTER REPLACEMENT
 LINE :" :: INPUT MSG$(B)::
IF LEN(MSG$(B))>64 THEN 59 E
LSE 8
140 CALL CLEAR :: REM - REPL
ACE A WORD
141 INPUT "WORD TO BE CHANGE
D :":R$ :: D=LEN(R$):: IF D=
0 THEN 142 ELSE 143
142 PRINT "ERROR" :: FOR ZZ=
1 TO 500 :: NEXT ZZ :: GOTO
 7
143 N=0 :: INPUT "NEW WORD?
":N$ :: INPUT "FROM LINE (0=
ALL?) ":B
144 IF B>L THEN 145 ELSE 146
145 PRINT "NO SUCH LINE" ::
FOR ZZ=1 TO 500 :: NEXT ZZ :
: GOTO 8
146 IF B<1 THEN 147 ELSE 148
147 C=L :: B=1 :: GOTO 150
148 B=B+1 :: INPUT "THRU LIN
E :":C :: C=C+1 :: IF (C<B)+
(C>L)=-1 THEN 149 ELSE 150
149 C=L
150 PRINT TAB(11):"SEARCHING
" :: FOR K=B TO C
151 P$=MSG$(K):: IF LEN(P$)<
D THEN 156 ELSE 152
152 A=LEN(P$)+1-D :: FOR I=1
 TO A
153 IF R$=SEG$(P$,I,D)THEN 1
54 ELSE 155
154 GOSUB 188
155 NEXT I
156 NEXT K
157 PRINT N;" CHANGES MADE."
 :: FOR ZZ=1 TO 500 :: NEXT
ZZ :: GOTO 8
158 CALL CLEAR :: REM - INSE
RT NEW LINE
159 PRINT "BEFORE " :: GOSUB
 185 :: L=L+1 :: FOR I=L TO
B+1 STEP -1 :: MSG$(I)=MSG$(
I-1):: NEXT I
160 PRINT " ENTER NEW LINE "
: :: MSG$(B)="" :: INPUT MSG
$(B):: GOTO 8
161 CALL CLEAR :: CALL SCREE
N(9):: REM - START OVER
162 INPUT "DO YOU WISH TO CO
NTINUE WITHSCRIPT   IF -YES-
 PRESS >Y<, OTHERWISE >N< &
 ENTER.":O$
163 I=Z :: IF O$="Y" OR O$="
y" THEN 164 ELSE 165
164 FOR I=Z TO L :: MSG$(I)=
"" :: NEXT I :: L=L-1 :: GOT
O 166
165 FOR I=1 TO L :: MSG$(I)=
"" :: NEXT I :: Z=0 :: L=0 :
: I=0 :: V=0
166 PRINT :: PRINT "WORK ARE
A CLEAR " :: FOR ZZ=1 TO 200
 :: NEXT ZZ :: GOTO 8
167 CALL CLEAR :: CALL SCREE
N(2):: COL=4 :: GOSUB 194 ::
 REM - PRINT SCREEN/PRINTER
168 IF L=0 THEN 8
169 DISPLAY AT(10,1):"START
PRINTING AT LINE #";V+1:" ":
"END PRINTING AT LINE #";L
170 ACCEPT AT(10,26)SIZE(-3)
:A :: ACCEPT AT(12,24)SIZE(-
3):B :: PRINT "PRESS SPACE B
AR TO STOP SCREEN PRINT" ::
INPUT "PRESS Y IF USING PRIN
TER ":ANS$
171 IF ANS$="Y" THEN 172 ELS
E 174
172 OPEN #1:RS232$
173 PRINT #1:
174 IF (A<0)+(A>L)+(A>B)+(B<
0)+(B>L)=-1 THEN 175 ELSE 17
6
175 PRINT " ERROR" :: GOTO 1
68
176 FOR I=A TO B :: PRINT I;
MSG$(I+1):: FOR DEL=1*I TO 4
0*I :: NEXT DEL :: IF ANS$="
Y" THEN 177 ELSE 178
177 PRINT #1:I;MSG$(I+1)
178 CALL KEY(0,K,S):: IF K=3
2 THEN 179 ELSE 182
179 PRINT :: PRINT "PRESS SP
ACE BAR TO CONTINUE"
180 CALL KEY(0,K,S):: IF S=0
 THEN 180
181 IF K=32 THEN 182
182 NEXT I :: FOR ZZ=1 TO 20
00 :: NEXT ZZ :: IF ANS$="Y"
 THEN 183 ELSE 184
183 CLOSE #1 :: ANS$=""
184 I=Z :: GOTO 8
185 INPUT "LINE NUMBER? ":B
:: IF (B<1)+(B>L)=-1 THEN 18
6 ELSE 187
186 PRINT "NO SUCH LINE " ::
 GOTO 8
187 PRINT "OLD LINE #";B ::
B=B+1 :: PRINT MSG$(B):: RET
URN
188 CPOS=POS(P$,R$,1):: IF C
POS<>0 THEN 189 :: RETURN
189 T$(1)=SEG$(P$,1,CPOS-1)
190 T$(2)=SEG$(P$,CPOS+D,LEN
(P$))
191 P$=T$(1)&N$&T$(2)
192 MSG$(K)=P$ :: N=N+1
193 PRINT "LINE #";K :: PRIN
T MSG$(K):: RETURN
194 FOR CH=0 TO 12 :: CALL C
OLOR(CH,COL,1):: NEXT CH ::
RETURN
195 OPEN #3:"CS1",INTERNAL,O
UTPUT,FIXED 80 :: GOTO 120
196 OPEN #3:"CS1",INTERNAL,I
NPUT ,FIXED 80 :: GOTO 129
```

KEY	CHOICE
1	ADD TEXT
2	PRINT
3	SAVE TO DISK/TAPE
4	READ FROM DISK/TAPE
5	DELETE LINE
6	REPLACE LINE
7	REPLACE WORD
8	INSERT LINE
9	START OVER

ACTION? : (PRESS KEY)

Roll Your own Joystick Controller

For TI-99/4, TI-99/4A

By Jack Jeffs

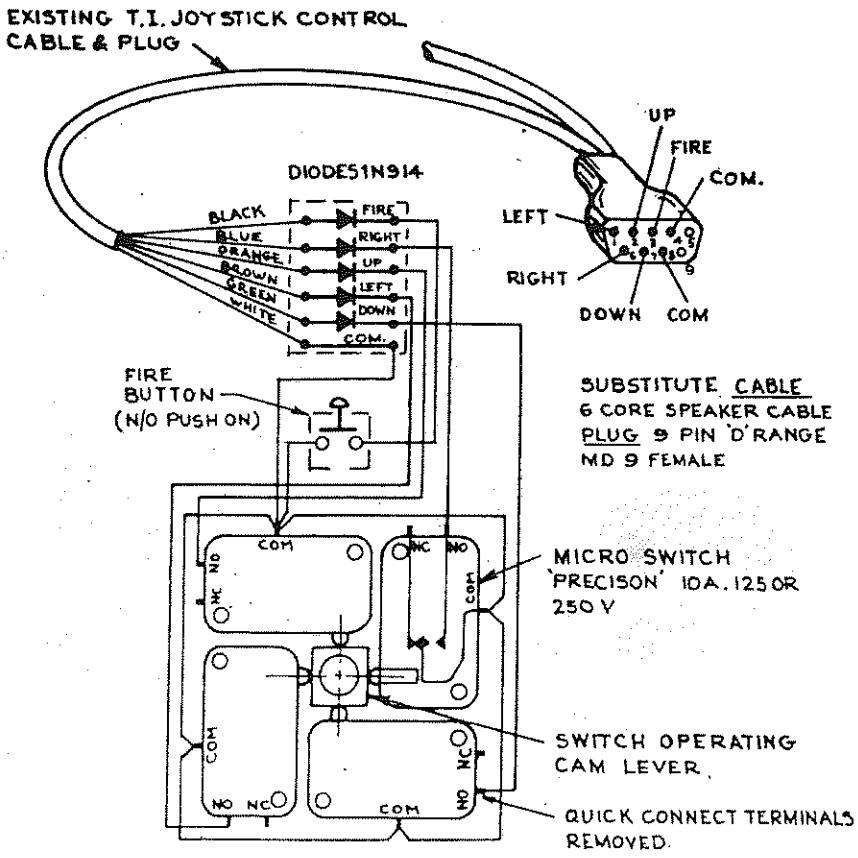
After about 2 months of abuse playing "Munch Man" my "TI" joy stick controllers began to falter. On inspecting the innards of the controllers I found the tracks on the flexible PCB had worn through, thus causing malfunctions.

My first method of improving the system was to replace the flexible PCB with relay contacts; this improved the operation and wear factor. I still found it a problem not knowing if enough pressure or direction was applied to the handle to operate the controller.

I discarded the existing system and built my own using micro switches. The advantage I found was that you could hear a click each time the micro switch operated, assuring you of 100% switching every time.

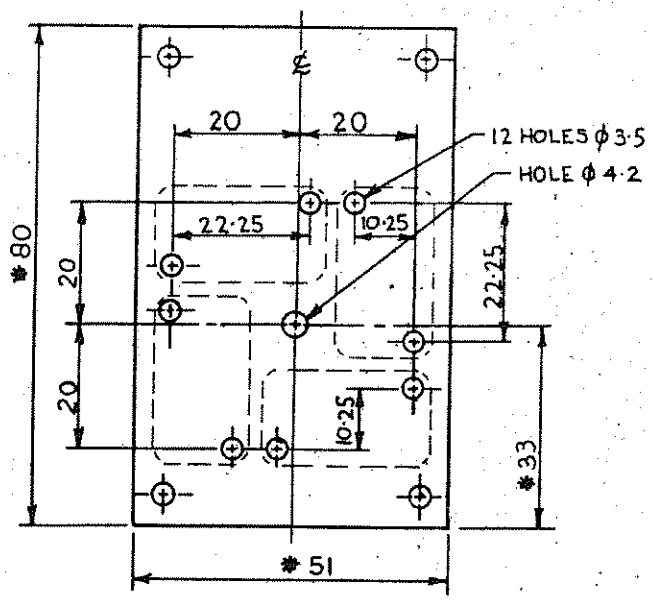
My score has increased and my control over games has improved.

The estimated cost of parts was about $30.00 per pair with about 4 to 5 hours work.

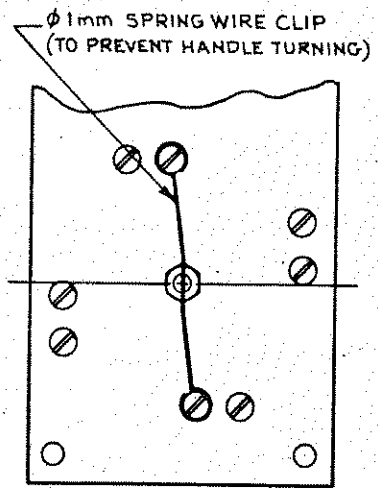


CONNECTION DIAGRAM
(TOP VIEW)

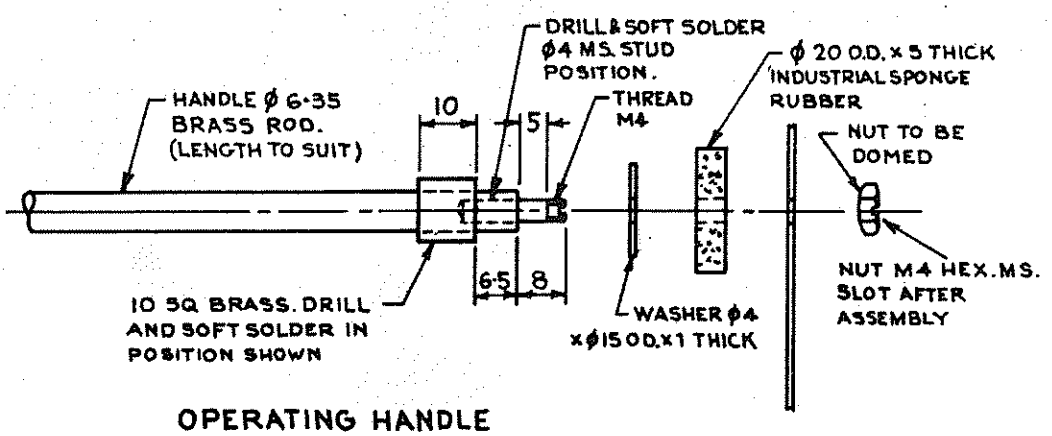
CONT'D



MOUNTING PLATE
1 mm THICK BRASS 1-OFF
* TO SUIT PLASIC BOX USED
SCALE : FULL SIZE



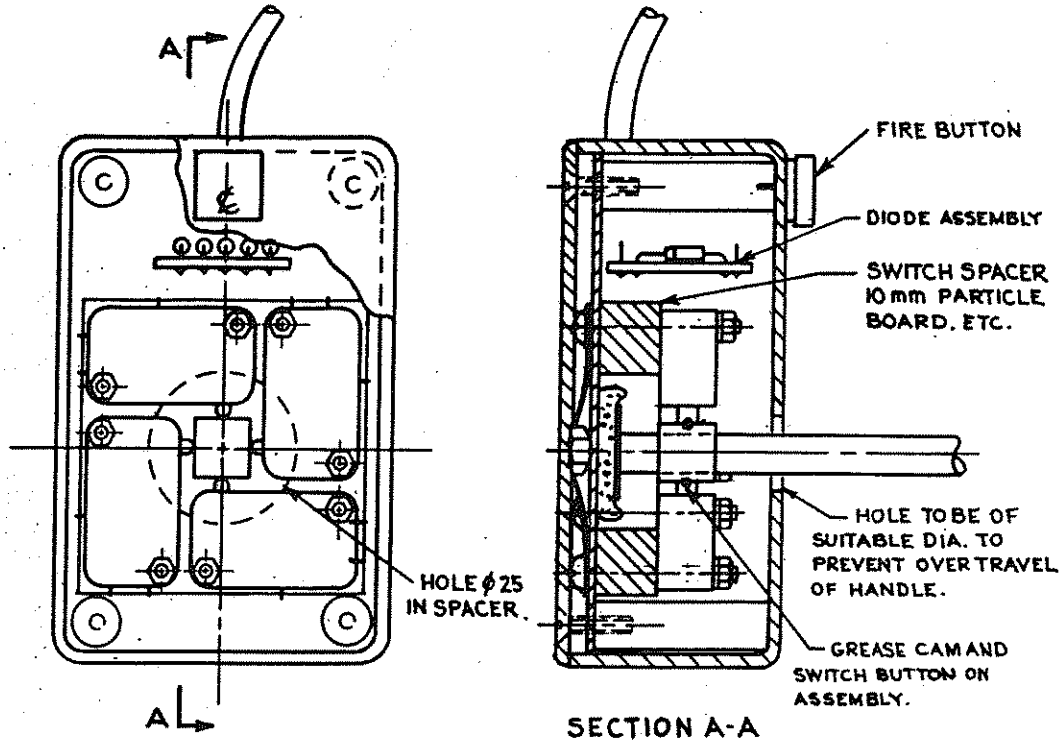
MOUNTING PLATE
(REAR VIEW)



OPERATING HANDLE
MATERIAL: BRASS (UNLESS NOTED)
SCALE : FULL SIZE

NOTE :- ALL DIMENSIONS ARE IN MILLIMETRES

CONT'D



ASSEMBLY

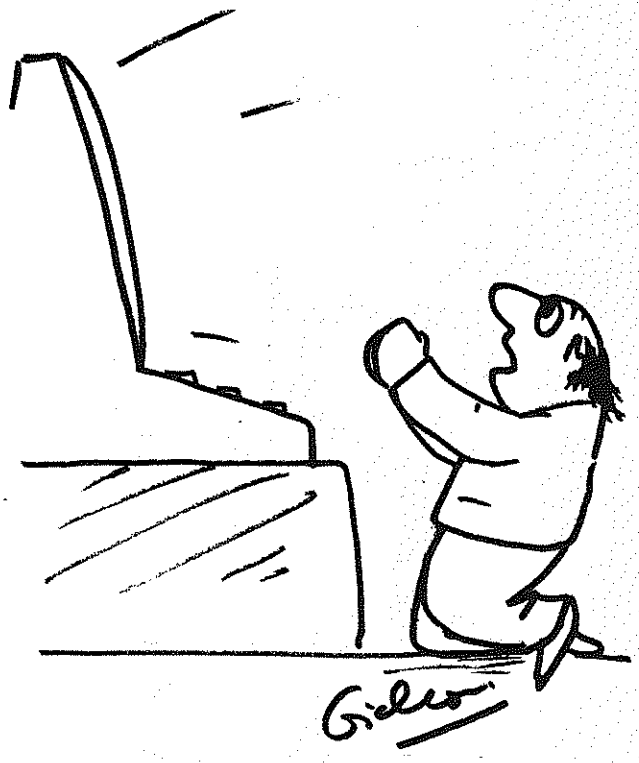
MATERIALS SCHEDULE (Parts per pair)

1 - Box (Electronics project box) min. internal dim. 80 l x 50 w x 25 h
8 - Micro Switches "Precision" 10A, 125V or 250V
2 - Fire Button switch n/o momentary push on
1 - Plug 9 pin "D" range MD9 Female, plus 2 metres 6 core speaker cable (If not using existing cable and plug)
10 - Diodes, 1N914 or 1N4148
1 - Piece Vero Board (Diode mounting)
16 - Screw M 2.5 x 25 lg Brass NP RD HD fit Hex Nut & Washer
2 - Washer 04 x 015 OD Brass 1 Thick
Brass Rod 06.35 x 150 lg
Brass Rod 10 squae x 25 lg
Industrial Sponge Rubber 5 Thick
Spacer 10 Thick Particle Board

NOW WE'VE GOT IT,
WHAT ARE WE GOING TO DO WITH IT?

Use of the P.R.K., Statistics,

and P.R.G. Modules.



This is the first in a series of articles involving the use of the "Personal Record Keeping", "Personal Report Generator" and "Statistics" command modules. It is intended that the articles are interactive and correspondance is invited about any of the contents of the articles.

Introduction.

With some considerable investment in the purchase of our home computers, we would expect that we would be able to do something useful apart from playing computer games. The computer is a machine designed for the processing of information. What do we have that would require to be processed?

A computer has the ability to process both numbers and letters or words; let's list a few things that might actually be useful.

a) Cheque and Expenditure Management.
b) Financial Receipts.
c) Personal Telephone Directory.
d) Checking Tatslotto, Share Prices, Road Accidents, Equipment Failure Rates etc..
e) Club membership lists, scores, accounts.
f) Cataloguing stamp, coin and book collections etc..

Well these are just a few things, but let's have a few suggestions from readers.

The three command modules which these articles are concerned about are very flexible and comprehensive and make use of the computer's memory in the most efficient way. Some little skill is required, however, to make the most effective use of them.

The articles will be aimed at being progressive, starting with a 99/4A computer, a cassette recorder and a "PRK" module. Future articles will include the use of the peripheral expansion system and a printer together with a "PRG" module. The "STATS" module can be used with just the computer or the expanded system. However, the useful processing of information can realy only be achieved with the use of a printer which allows the computer to provide a permanent record of the information it has processed.

Let's not worry too much about this at the moment and see what we can do with the subject of cheque and expenditure management.

Getting Started.

The 99/4A computer has 16K bytes of random access memory("RAM"). With the "PRK" module plugged into the command module socket, the whole of this memory can be used for the storage of the data that we want to process.

What do we want to know about our day to day expenditure that the computer and the "PRK" module could help us to manage? Let's list some items:

1) Identification of cheques.
2) Who the money was paid to.
3) When payment was made.
4) Sorting payments into various categories of expenditure so that we can see how much is spent in the various areas over periods of time.
5) The amount that was spent.
6) Cheque reconcillation with bank statements.

Switch on the computer and define a suitable file using the "PRK" command module. The computer will ask you for the date. The American way is to first give the month then the day of the month and then the year. There may be a reason for this but I don't know what it is. The computer will ask you to name the file. I called my file "Cheque-83" but it can be called anything that relates to the type of expenditure that is to be processed. Now we come to define the "Pages" or blocks of information about any one item of expenditure:

ITEM#1.
Item Name = Cheque No.
Item Type = Put characters (Explain later)
Max No of Characters = 6 (Last 6 digits of cheque No.)

ITEM#2.
Item Name = Payee. (To whom cheque was paid)
Item Type = Put Characters (Explain later)
Max No of Characters = 15

ITEM#3.
Item Name = Month.
Item Type = Integer.
Max No of Digits = 2.

ITEM#4.
Item Name = Day.
Item Type = Integer.
Max No of Digits = 2.

ITEM#5.
Item Name = Category.
Item Type = Integer.
Max No of Digits = 2.

ITEM#6.
Item Name = Reconcile.
Item Type = Integer.
Max No of Digits = 1.

ITEM#7.
Item Name = Amount.
Item Type = Decimal.
Max No of Figures = 7.
Decimal Places = 2.

Item#7 will allow for the entry of sums up to $9999.99 which I hope will be large enough for most purposes. If a larger amount is likely to be entered the maximum number of figures should be changed to allow for this. Increasing the size of the number sets aside memory space which will reduce the total number of pages of information that can be contained in computer RAM.

Now Press "Back" to go on. The file structure is displayed on the screen in report format. You will see that the total number of pages or entry blocks is 293. This would be sufficient for most of us for a year.

To be on the safe side record the file on tape to make sure you don't lose it.

Explanation of File.

Most of the items in the file are self explanatory, however, items 5 and 6 do require some explanation. Item 5 provides 99 categories of expenditure which can be independent. Many of us may only have up to ten major expenditure areas. They could take the following form:

10 UTILITIES. (Gas, Electricity, Water, Rates, Fuel etc.).

20 HOUSEKEEPING. (Groceries, Butcher, Milk, Bread, etc.).

30 RECREATION. (Sporting costs, Entertainment, Theatres, Eating out etc.).

40 TRANSPORT. (Petrol, Vehicle registration, Depreciation, Maintenance etc.).

50 LOANS. (Mortgage, Hire Purchase, Bank card etc.).

60 PROPERTY. (Maintenance, Repairs, Garden supplies etc.).

70 TRANSFERS. (Funds transferred to other accounts).

80 CAPITAL. (Purchases of Capital equipment, Furniture etc.).

90 MEDICAL. (Doctors, Dentists, Chemists, Hospitals, etc.).

00 EDUCATION. (School fees, Books, School clothing etc.).

These major items can be broken down into ten detail areas of expenditure within each of the major category areas.

I would like you to now define your categories of expenditure and keep it in a file for further reference. These categories can be sorted by the computer and totals can be added by means of the built in statistics section of the PRK module.

Item 6 should have a 0 inserted until such time as the cheque is cleared by the bank or is listed in your bank statement.

Let's get started by entering data from your cheque book stubs and defining them into the categories of expenditure you have selected. As soon as the data is entered, record it onto cassette to prevent possible loss. Try sorting the categories using the facilities within the command module. You will be able to see how much you are spending in each category.

This article will be continued in the next issue after you have had a chance to explore the possibilities.

By Ian Streete

FILE STRUCTURE

NAME: CHEQUE-83

DATE: 11/6/83

ITEMS/PAGE: 7

PAGES USED: 24

PAGES LEFT: 269

FILE STRUCTURE

	ITEM	TYPE	WIDTH	DEC
1	CHQ NO.	CHAR	6	0
2	PAYEE.	CHAR	15	0
3	MONTH.	INT	2	0
4	DAY.	INT	2	0
5	CATEGORY.	INT	2	0
6	RECONCILE	INT	1	0
7	AMOUNT.	DEC	7	2

FILE: CHEQUE-83
DATE: 11/9/83
TITLE: SAMPLE FILE

INDEX
0 = PAGE #
1 = CHQ NO.
2 = PAYEE.
3 = MONTH.
4 = DAY.
5 = CATEGORY.
6 = RECONCILE
7 = AMOUNT.

0	1	2	3	4	5	6	7
1	336846	SEC	2	16	1	1	111.53
2	336849	GAS&FUEL	2	23	2	1	63.39
3	336829	GAS&FUEL	1	15	2	1	27.89
4	336850	CSH	2	25	3	1	200.00
5	336843	CSH	2	11	3	1	200.00
6	336832	CSH	1	18	3	1	100.00
7	336847	CSH	2	17	3	1	200.00
8	336834	CSH	1	19	3	1	200.00
9	336838	CSH	2	3	3	1	55.35
10	336836	CSH	1	21	3	1	200.00
11	336837	HILLSIDE	1	28	5	1	24.00
12	336835	PADOVAN	1	23	5	0	50.00
13	336831	WEST BNK CD	1	15	6	1	110.00
14	336848	CAGA	2	21	7	1	86.00
15	336830	CAGA	1	15	7	1	86.00
16	336840	NAT BNK CD	2	5	10	1	70.00
17	336827	NAT BNK CD	1	6	10	1	70.00
18	336839	PRM CTY	2	5	11	1	225.00
19	336842	DR HOCKING	2	10	13	1	40.00
20	336841	FRN TRE MITSU	2	10	15	1	79.80
21	336828	NRE WRN PROD	1	15	17	1	275.00
22	336833	KELSO	1	18	18	1	150.00
23	336844	OCC HLTH SOC	2	14	19	1	15.00
24	336845	SHER VET CLIN	2	15	20	1	80.00

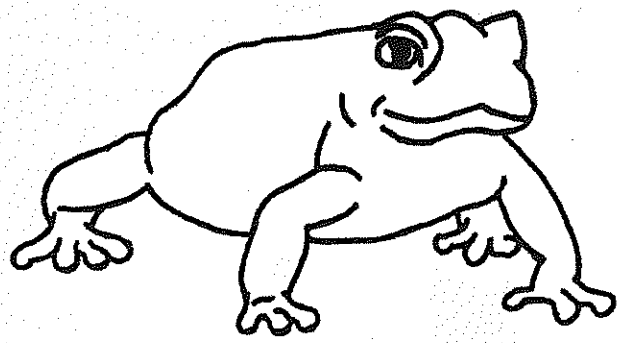
COMING SOON.

Introduction to Assembly Language for the TI Home Computer, by Ralph Molesworth.

This new book is a tutorial for the beginner wanting to learn TMS 9900 Assembly Language. Step-by-Step instructional text for the person who is familiar with TI BASIC but cannot understand the TI Editor/Assembler manual.
Examples included for both Editor/Assembler or Mini-Memory. Watch for this book at your nearest TI Dealer shortly.

Frogs!!

By Wayne Worladge



My love affairs with these unfortunate amphibians started 18 months ago in New Norfolk, Tasmania. (Yes, the asylum is nearby, and, No, I wasn't out on parole for the day.) On an outing whilst visiting the state of my birth, we had lunch at the "Bush Inn", and while waiting , my 4 year old daughter found a couple of electronic games machines...yes, you guessed it...one of them had a "Froggy" game on it.

For those of you who don't know, there are many versions of this game, but they all have basically the same format. One has to jump a frog across a busy road to a river bank, and then log-jump over the river to caves on the other side. When you have filled all available caves, the second level starts, in which the traffic is faster, and the river flowing more swiftly. These frogs cannot swim, nor do they survive being run over by motor vehicles. There is usually a time limit set in which one must reach the cave, and one's score depends upon the rapidity of the journey. The game ends when one's supply of frogs is exhausted.

On my return to Melbourne, I began noticing ads. for these type of games in Computer magazines, and I wrote away for "TI-TOAD" from Software Specialties, which I received in the remarkable time of 10 days. Service, indeed!

The program is on disk, very well protected against "pirates", and can accomodate keyboard or joysticks. Brief explanatory notes are enclosed, which are generally adequate.

With "TI-TOAD", you are required to hop your toad across 4 lanes of traffic to the river bank, then to log-jump over 5 lanes of logs in the river. A truly remarkable river it is, too, as each alternate lane of logs is travelling in opposite directions! There are 5 caves on the other side of the river, and a "stock" of 5 toads to start.

Until four of the five caves are occupied, an alligator may appear in any of the empty ones, causing one to avoid that cave. When only one is left, however, Mr. Alligator is somewhere else.

Program reaction to joystick movement is instantaneous. The toads can be moved forward or backward, or sideways, the latter being useful to avoid tfaffic, at the lower levels at least. One needs to be spot-on with timing, especially entering the caves,as a fraction either side and poor old toad does not survive.

As one ascends from one level to another, the traffic speeds up, lane by lane, and so do the floating objects in the river. The logs are progressively replaced by starfish, crayfish and other colourful river animals.

The game is quick to start, and restart, has a catchy tune, and the graphics are excellent.

The timing system is a series of 8 green bars at the base of the screen which disappear one by one. Your score is determined by how many of the bars are left when you reach the cave (100 points per bar.) If time elapses before you reach the cave, so does your toad. I have found I score better at the higher levels, as the logs are moving faster.

My enthusiasm for "TI-TOAD" became known, and when "TOAD" from "SOFTOX" was sent to us for review, it fell to me to do the review.

Initially, I intended to do a comparison between the two games, and to some extent that is still possible. However, with "TI-TOAD" in Assembler and the local one in XBASIC, there IS no comparison when it comes to sheer speed-Assembler wins hands down! Anyone who wishes to see the difference between the two languages only has to look at these two games.

Let me then tell you about "TOAD". It is a cassette based game, and came to us in a resealable plastic bag, together with detailed instructions on a piece of paper and a bright, attractive label on a piece of white cardboard. Presentation is very good.

The joystick version is on side A and keyboard version on side B. On attempting to load from my cassette player, I immediately had a problem-it wouldn't load under any volume or tone settings. Doug Thomas told me to CALL FILES(1), which I did, and there was no further problem. I guess the difficulty was caused by having the memory expansion and disk drive turned on.

Now to the game. It is slower than "TI-TOAD", but otherwise it is an excellent game. There are only three lanes of traffic, and you have to anticipate your toad's jump, as there is a

delay after the joystick movement, but you soon get used to it. There are only three toads in stock, not adequate while I was learning, but not everyone is as thick as me. Six caves require to be filled before the next level can be reached, and a nice touch is that friend Alligator is around, too, but in this game is swimming in the river, making one think a little more about strategy.

One fault is that the edge of the road from where you start is green, and so is the toad. You do get used to it, but surely the road verge could have been a different colour? At the end of each game the theme music plays, and your name is asked, and your score displayed. This would be OK for a once only game, but for a succession of games, it becomes tiresome. The name part can be eliminated by pressing enter, but I could do without the whole section. A display of score would be sufficient.

There is a timer, an arrow moving slowly across the base of the screen. This is well done, but the scoring system is not adequately explained. Score is related to how close you get to the cave; unlike the other game, in which reaching a cave is a prerogative to scoring.

I won't say a lot more about the game, as it would spoil the fun. Suffice, however to say that the graphics are very good, and the program has been very well thought out. We have communicated our minor criticisms to "SOFTOX", and perhaps they may be able to make alterations.

It is heartening to see some good quality independent Australian software on the market. As yet, we don't know price nor availability

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Brother HR-15 Daisy Wheel Printer

Excellent, ready to go Daisy Wheel Printer, used to prepare this magazine, see article "Quality Printing for the TI-99/4A.

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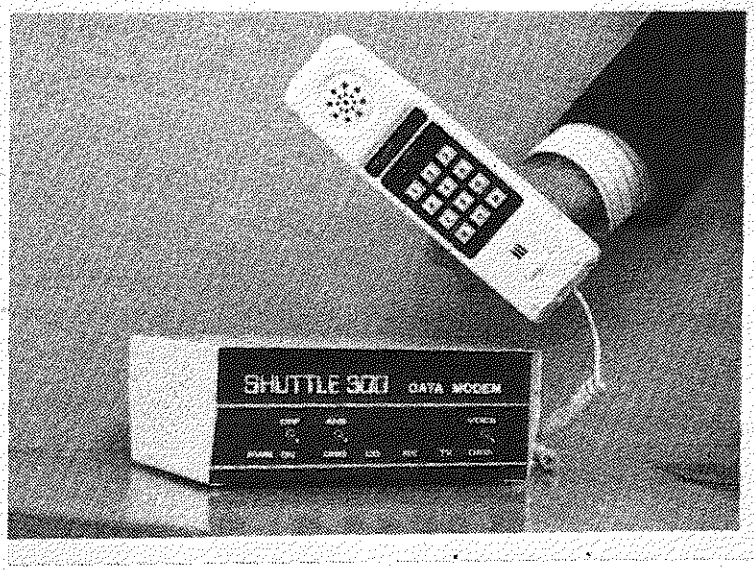

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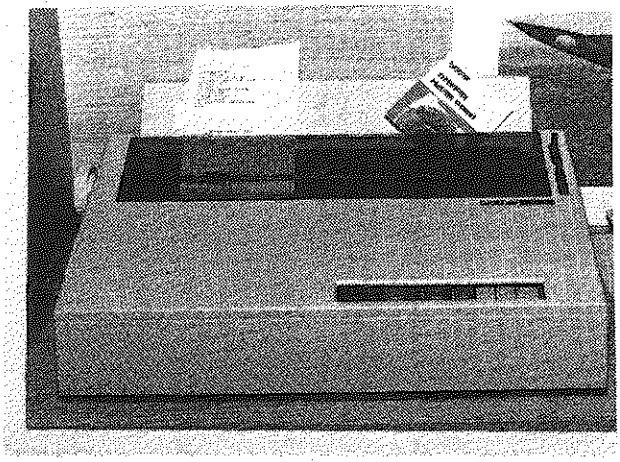
Quality Printing with the TI-99/4A

By Doug Thomas



If any of you have recently been looking for a printer you would have found literally "hundreds" and become throughly confused. Two years ago when I purchased my printer the range was smaller, particularly in the under $1000.00 market - limited to the Microline 80 which sold for $800.00 without interfacing for RS232.

Today this has changed and HOW.

There are two basic types, the Dot Matrix and the Daisy Wheel. Both have their area of use, with the Dot Matrix giving the widest scope of use due to speed and ability to print graphics. Dot Matrix printers start from a print speed of 80 cps. (characters per second) and faster, whilst Daisy wheels start from about 12 cps. and go to 40 cps.. In the under $1000.00 market, which is increasing rapidily, the normal speeds range from 12 cps. to an occasional one approaching 20 cps..

Daisy Wheel printers are limited to printing the style of characters on the replaceable Daisy Wheel (a rotary plastic wheel with the letters embossed on) and to 96 characters. Most Dot Matrix printers may have several different print sizes and styles built in, and are capable of accessing several different language symbols. Although most Dot Matrix printers offer letter quality print (at half the normal speed), the print style is no match to a type-writer or Daisy Wheel printer.

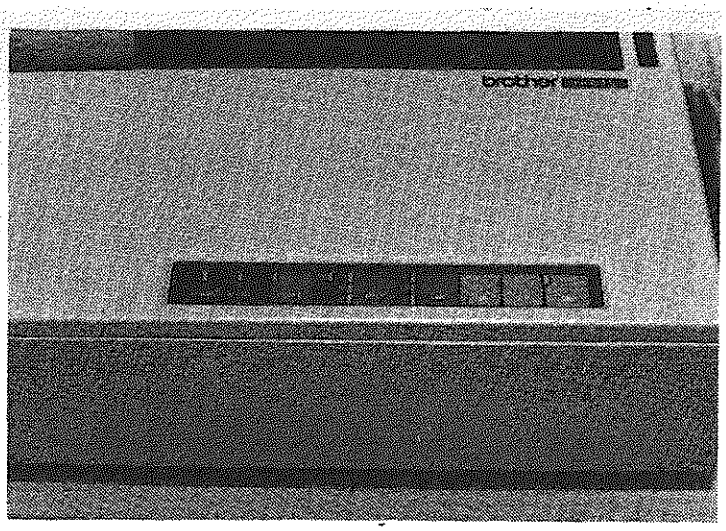
The above gives you the basic differences between the Dot Matrix and Daisy Wheel printers (next issue watch for evaluation of the Amust-80DT Dot Matrix printer).

One of the most versatile Daisy Wheel printers to come onto the market is the BROTHER HR-15. This is availiable both with Serial or Parallel interfaces, with the serial version having a recommended price, including tax, of $895.00 and $845.00 for the parallel version.

In addition a Tractor feeder is available for $189.00 recommended, an Auto-cut Sheet Feeder that allows as many as 200 sheets to be continuously fed through for $449.00 (the cheapest such version on the market), and if you wish a separate Keyboard may be added for $349.00 that converts the printer into an electronic typewriter.

The features built into the basic printer also make it somewhat unique. Character spacing can be selected at 10, 12, or 15 per inch, with proportional spacing also being available. Line spacing can be selected as 1, 1.5, or 2, and paper can be auto-loaded through the platen and bail. A control to feed paper at a specified pitch (Line feed) is fitted along with a switch to put the printer on or into offline mode as required.

A power LED is fitted on the control panel along with an Alarm LED and accompanying buzzer to indicate the ribbon-out, paper-out, etc. condition.



In addition there is a Copy switch which allows text to be stored where a quantity of identical copies are required, allowing the computer to be free whilst the printer is busy.

The Control panel has touch sensitive switching and is positioned on the top front right hand of the printer. The main on-off switch is positioned on the left side of the printer near the back. A paper release and paper bail release lever are provided.

The printer has a 3K. buffer, also allows you to use Red print to emphasize a word or phrase, it has super/sub script, shadow printing and a clear buffer feature.

Now for some brief specifications:-

Print speed 13cps. (11 cps. for Shannon text, pica pitch)

Print Wheel: Cassette type, easily changed, 10,000,000 character life. (Common to whole range of products, price $28.00 ea.).

Characters per line: 110 characters (1/10"), 132 characters (1/12"), 165 characters (1/15").

Max. paper width: 343 mm. (13.5").

Copy capacity: Original (45 kg) + 4 copies (15 kg.).

Carriage motion: Bi-directional: 10, 12, 15 positions/inch. Proportional spacing, minimum increment 1/120 inch.

Paper feed: Bi-directional, fiction platen.

Line spacing: 6,4,3 positions/inch.

Ribbon: Cassette type: Carbon, single strike and multistrike, correctable and fabric. (Price $7.00 to $9.00 ea., common to whole range of products).

Noise: 65 db. or less.

Buffer memory: 3K Option 5K.

Power consumption: 42 W.

Overall dimensions: 464 mm. wide, 339 mm. deep, 165 mm. high.

Weight: 8.9 kg.. Packed 12 Kg..

TEST ON THE TI-99/4A.

Firstly, all the text in this magazine has been printed using the Brother HR-15 Daisywheel printer, apart from the bold headings that were type set.

On arrival the printer was neatly packaged in foam packing and plastic. The version tested was the RS232 (Model HR15-RS Serial I/face). On unpacking the printer a printed sheet showing diagrams of the packing materials to be removed from the printer to make it operational, and the Instruction manual with a separate amendment manual (12 pages) was found. The sheet with the diagrams had no written instructions printed on this, although the diagrams were clear. The Manual does not include any details covering the preparation procedure. The process is simple, but do look carefully before operating that all pieces of foam are removed from inside, together with the 2 pieces of red plastic covering the bar which the print head travels along, these are placed there to prevent the head from moving whilst in transit.

The manual is well set out, with plenty of photographs to show you how to connect the printer to the computer, adjust the impression control, fit daisywheels and ribbons, the red ribbon or correction tape, etc.. It clearly shows the 2 types of interface layout clearly, along with full details of the connector pin configuration, interface circuits and timing charts. The interface area is at the bottom/rear of the printer and contains the RS-232C connector (or CDCC connector for the parallel version), 2 separate banks of 8 Dip switches each separated by a Din socket to connect the optional tractor or cut sheet units, and a connector for the optional Keyboard.

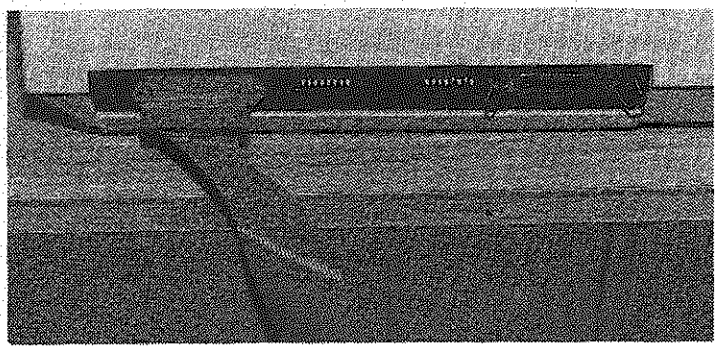
The Dip switches are easily accessed, with the 1st. bank setting up the language group selection, and page length setting (from 3 to 17 inches - applicable to cut sheet or tractor feed operation). The second bank sets auto feed line, auto skip perforation, 7 or 8 data bits length, parity and baud rate selection (110 to 9600 bauds), with the last 3 items applicable to the RS232 version only. The RS232 version comes configured for 7 data bit length, odd parity, and 300 bauds, which means that all the options are the default values for the T.I. RS232 card. The only thing left for you to do is to connect the interfacing cable, details of wiring needed is included at end of this article.

After making sure that a daisywheel is fitted, (comes with 1012 Prestige), and the ribbon is correctly positioned it is ready to switch on. A separate Led light shows which option is selected on the printer. If you have something to print now all you have to do is load paper, and specify the command "RS232", or "LIST RS232" and away you go. Those using TI-WRITER will find that the symbols for emphasized print, and underline, work as normal.

All functions of the printer can also be selected by software commands, so the manual contains 10 pages on the codes involved. This area will confuse anyone not familiar with printer operation as you need to know the ASC 11 code numbers etc. to switch these options in and out, eg. ESC = CHR$(27), ESC+P = CHR$(27)&CHR$(80). There is a Test Printing function also for the printer.

From there on the printer works reliably, with about the only trap being with the use of the "TOF" control that auto loads a sheet of paper into the printer, as this only lifts the paper bail every second time it is operated, assuming that the paper sheet previously used has been fed out by use of this function.

The Brother HR-15 Daisy Wheel printer has been found to work very reliably using the TI-99/4A computer and can be recommended on the quality of print it can produce. If you really do want "letter quality" print and graphics are not any



use to you then consider the Brother HR-15. SOFTEX are agents for this printer, see elsewhere for subscribers special price.

A large range of different type styles are availiable ranging from Pica, Quadro, Grande, Brougham, Script, Italic etc.. When using smaller pitches than the daisy wheel is designed for, there is a tendency for letters to be bunched up together too much. When using proportional spacing using TI-WRITER you finish up with ragged edges, and it is not possible to align up columns using the no fill, no adjust command.

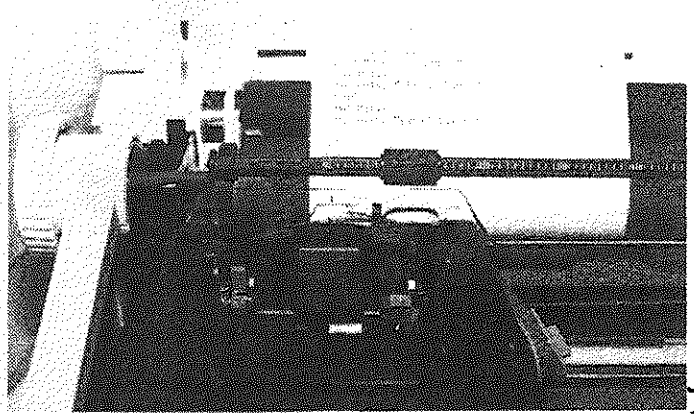
Overall, well recommended for ease of use, quality, and functions built in.

Wiring RS232 Cable.

Connect pin for pin (25 wires) to RS232 connectors, with pin 4 and 20 joined together at one end (if not done, highest baud rate is 300 bauds). Pin 11 can also be connected to pin 20 to give the busy signal.

Equipment required:

The minimum equipment required to operate this printer is :- TI-99/4 or TI-99/4A, a TI 99/4 Peripheral Expansion Box, a RS232 card (or stand alone RS232 peripheral). You can run the printer either using the parallel or serial interface with the RS232 card, your choice.



The Home Computer in its Home Market

Japan

AMUST NEC TOSHIBA

Recently I had the opportunity to visit Japan on a business trip. My arrival in that country was on a weekend and was really planned to give me the opportunity to settle in prior to the very full work program that was to follow in the weeks ahead.

Of course like all "First Timer's" we would have to see all the usual Tourist Spots, but I have had for some years now a great interest in Home Computers and the chance to see what Japan was offering could not be missed.

From information we gained at the Hotel Desk we had only one place to go ..AKIHABARA.. The electronic capital of Japan, right here in Tokyo. Having taken over 1 hour to get into Tokyo City from Narita airport and a shower to freshen up, I felt that this "Computer City" would be closed by the time I got there. I need not have worried because I was soon to find that it was open all weekend.

The traffic density in Tokyo is chaotic even at the weekends and so the best way to our destination was by means of the underground. This rail service is quite unbelievable in both speed and punctuality. Akihabara is a little way out of the main city area and is really a suburb of Tokyo. Once at our destination it was a short walk around the corner from the station to the sight of my life to see stretched before my eyes , row upon row of stores just selling everything and anything that had been incorporated inside a "SILICONE CHIP"

Before I even entered the stores it was evident from the masses of people that this was the right area as countless numbers of them were carrying boxes of "Goodies" ranging from Computers, Printers, VCRs, Laser Disk audio etc. The street had been closed to all traffic and and buzzing in and out of the pedestrians was a radio controlled model car. The way this was controlled it was obvious that a very skilled operator had to be on the end of the controls. It took me some time to find him, it sure was fascinating to watch the control he had over this car.

It was hard not to be diverted from just looking at Computers as there were so many other things to see. If you like "Gadgets" then this the place. Even vacuum cleaners were equipped with LEDs to tell you when to empty them.

Of course it was not that simple to just see a store that sold Home Computers as the degree of specialisation is very high even to the stage that I store justs handles gear to interface Ham Radio to Computers.

Having decided where I would start the great difference I noted was that ALL the Hardware and Software was set up for you to use and every one appeared to have "hands on". Of course my dificulty was that I can't speak Japanese.

My skills in the field of Computers are very limited and at best I can get the most basic of Basic programs to run for me when I write them. The difficulty in Japan is that although the programs are written in "BASIC" the documentation for the user is written in Japanese characters and that's where I got lost.

Another great difference I noticed was that all goods and product pamphlets carried pricing details in YEN. (Japanese currency.) Speaking to Japanese business men later they told me that price cutting is unheard of and the way sales were going it did not look like it was necessary.

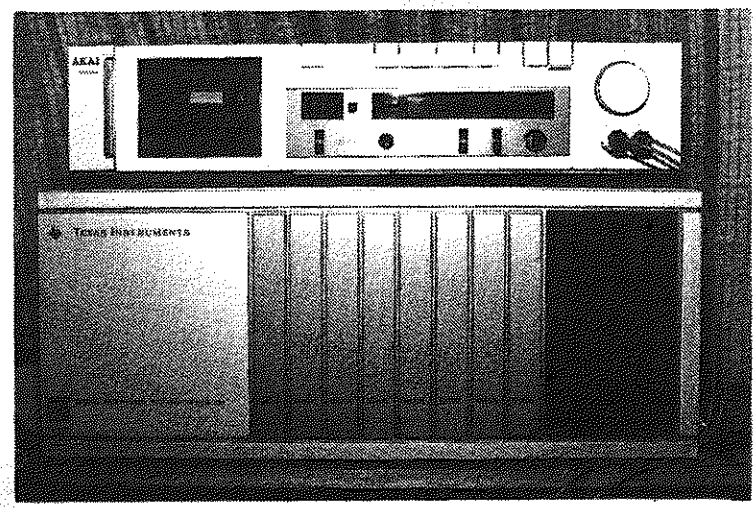
The Home Computers and Personal Computers were equipped with features that even now I haven't seen in Australia. SHARP have one which carries a picture on the screen generated by means of a VCR with the overlay created by the Computer. The demonstration was showing you in control of an Aircraft Cockpit while flying over a landscape, not a graphics type display but an actual film sequence.

I still have my separate peripherals with my TI 99/4A and to see some of the new Japanese Computers where the Winchester, Cassete, and even the printers built in makes me green with envy. From what I have seen my dilemma is, when is the right time to buy. Fortunately, money or the lack of it usually makes that decision for me, after all it is just a hobby, or is it?

Alan Rushton.

HITACHI OKI MITSUBISHI

PERIPHERALS-WHY HAVE THEM?



Peripherals, as the word implies, are items extra to the operation of the computer. Without them, the operation of the computer is unimpaired; with them, its functioning is enhanced.

It is the purpose of this column to describe the peripherals available for the TI 99/4A, an objective decided upon before the recent price decrease.

The single greatest problem with TI's peripherals is also one of their greatest assets; the expansion box which houses them. We are all aware, I guess, that before one can utilise a peripheral, one has first to purchase the expansion box. This can be a costly affair, especially if one wishes to utilise only one peripheral, say a printer, for which you will need an RS232 interface card-a misnomer, in fact, because the card also has a parallel port. Sure, once you have bought the box, addition of other cards is relatively inexpensive.

T'was not always so. The original 99/4 peripherals came as single units which plugged into the peripheral port on thrse right-hand side of the console. Very convenient, you may say- why did they change?

The reason becomes obvious if you have ever seen a complete set of the old peripherals attached to the computer. First there is the Speech Synthesizer, then the 32K Memory expansion, then the others in any order; the Thermal Printer, Disc Controller, and RS232 interface; all except the first having its own power supply, and further, of course, all were 110V. In fact, this is being typed into TI-Writer on such a system- there are seven 240V leads and three 110V ones!

Added to this was the so-called "freight train" effect, gained by all those peripherals in a chain from the right hand side of the console. This problem could be overcome by using a Denali "Backer-Bus"- a bus bar which allowed some of the peripherals to be located behind the console. This, in fact is what I have, and it makes quite a compact unit. This solution does not reduce the number of electric leads needed, however.

So, for the above and other reasons, TI chose the Expansion Box solution to the problem- only one power supply, slimline units and cheaper individual peripherals- fine if you want several peripherals, not so good if you only want one.

Those of you who subscribe to U.S. computer magazines will be aware of the availability of third-party stand alone peripherals- RS232 interfaces, 32K memory expansions, and now a disc drive and controller in a single unit. In this country, the first two units are about to become available. There is obviously a need in the marketplace for them, and its a pity TI did'nt continue to produce them themselves- if I recall correctly, however, they were having enormous difficulties producing enough units of the 4A at the time, and continuing an "old" line would have been deemed madness.

A joystick-port RS232 has been described in the literature, and one of the Melbourne User Group members has made one.

So the message for all those who have been wondering whether they should buy the box is; it's your money- the box is cheaper now than ever before, but on the other hand stand-alone units may be available soon. We expect to review the 32K and RS232 as soon as we can get hold of them.

The Power of Speech

By Wayne Worladge

Most TI home computer users know of the existence of the speech synthesizer; few, however, really appreciate what speech can do for their programs. It is the objective of this article to let you better decide whether you need it or not.

I think I was probably typical of the average user, and felt speech was a gimmick, probably; a technical breakthrough, possibly, but not of great interest to a serious programmer like me (What an ego!). having acquired my synthesizer with some other gear I bought second-hand, I took a closer look at what it could do.

The first advantage of speech is related to "finish". There have been a lot of comments in User Group newsletters about the poor quality of programs available, both from magazines, and overseas User Groups. These comments relate not so much to the way the programs work, but to the standard of presentation; often the instructions are so brief as to make it impossible to make the program work; indeed, on occasion, it is dificult to figure out what the program is trying to do. In essence, then, it is the way the programs are presented to the intending user that has invited the criticism.

Speech is not the complete answer here, but it can make a program's instructions much more understandable, and impart a professional finish to it. Speech is also useful for prompting, especially if a fairly time-consuming subroutine, such as a sort, is being done.(PRK could do with a speech prompt after sorting.)

The second major use of speech is so obvious one tends to overlook it. If a person CAN'T READ, it is darn hard for them to use a computer alone. The most common category of non-readers is pre-school children. If you have decided to write an educational game for your little one, speech will free you from many hours telling little Johnny or Jilly what to do. Secondly, of course, the speech function will enable the teaching of spelling and recognition of words. Such programs have been published. Speech is also very useful for the teaching of retarded adults, and programs have been published for this purpose, though it is a specialised field.

The Speech Synthesizer operates with one of three modules; Speech Editor, Extended Basic, and Terminal Emulator II.
It has an inbuilt vocabulary of 373 words; all of them common words used in programming. These

words are accessible from your program by the use of CALL SAY and CALL SPGET statements (with XB or Speech Editor). The procedure is not easy if you need to add plurals or suffixes such as "-ed" for instance, and the whole process can be rather time-consuming, but still well worth the effort.

TEII operates in a different way. The module's main aim in life is to convert the console into a terminal, to communicate with other computers via a modem or audio coupler. However, the facility of speech was built into it so that the data from a database could be spoken; a weather report is an example. TEII still uses the synthesizer, but has additional grammatical rules programmed into it. With a language like English, it has an uphill battle, as the exceptions to a rule are usually more common than the adherents. However, it has been well done. I tried it out on "-ough" words, and it did well - it knows the difference between "through" and "thorough" for example, and knows the correct pronunciation of "rough","cough", etc. "Bough" ends up spoken as "buff", and my daughter Louisa's name has to be heard to be believed. If spelt "Leweessa", it comes out fine. (The handbook does admit some words have to be spoken phonetically.) Its big advantage is that ANY word can be used; the limitation of vocabulary experienced with the other two modules is not present. The facility is accessed by OPENing an output file called "SPEECH", and PRINTing to it the phrase required to be spoken.

All in all speech is a useful addition to a programmer's armoury of capability, and has its greatest benefit in education, I feel.

The other side of the Fence

At some time we are are asked why we chose the TI-99/4A computer, or why we feel our computer is better than others. It is difficult to give a really subjective appraisel of one system against another unless we have a "basic understanding" of the other computers on the market. In this column it is our intention to give you some background information regarding the other brands of computers on the market, however in the wake of recent developments there soon may be only Japanese models left in the lower cost market.

It is hoped that these columns may help you to understand and translate other computer programs into TI Basic.

The first computer we are looking at is the VIC 20. This computer has sold in large numbers throughout the country, but it is a computer that it is hard to find any real specifications and facts on. The information gleaned below has been gained from reading their program reference guide, and not through direct comparative use.

The VIC 20 comes in the shape of a white plastic keyboard, and like the TI-99/4A has a separate TV modulator and power transformer. The Basic unit has a "useable" memory of 3583 Bytes availiable for programming. All screen displays have a border around them, with the color of the border being limited to 8 colors, and the screen to 16 colors. The resolution is 176 (22 col.) x 184 (23 rows). It uses a 6502 Microprocessor and uses 3 tone and 1 white noise generators for sound effects.

The basic used is discribed as being similiar to Microsoft Basic, but requires extensive use of PEEK and POKES for certain commands. I'm not sure of the quality of the standard reference book supplied, as this review was completed using the VIC 20 Programmer's Reference Guide, that sells for some $22.00 extra.

This referance guide is spiral bound and contains 286 pages, which does contain a schematic circuit diagram. This book is divided into the following sections:-

1. Basic Vocabulary guide
2. Programming tips guide
3. Machine language programming guide
4. Input/Output operation.

Arithmetic precision: Works up to 10 digits (9 displayed only), with Scientic notion ranging from 2.93x10(-39) to 1.701x10(38).

A Cartridge slot is provided for expansion and game cartridges. Peripherals are limited to Commodore devices unless you use special cartridges for outputs, eg. RS232 for interfacing printers.

The VIC 20 and Commodore 64 both use the same language as PET/CBM line of computers, with most of the commands able to be entered by abbreviated typing of the first letter of instruction and using the SHIFT function to complete the second letter. To stop a program in progress the RUN/STOP Key and RESTORE Key are hit together, which resets the VIC 20 without losing the program.

COMMANDS.

See separate list for all commands.

Most work in a similiar fashion to that used in TI Basic except the usual few, eg, LEFT$, RIGHT $, MID$, etc..

Some of the Commands do behave differently, with the following giving you some insight into these.

LIST : can be used in a program, also holding CONTROL Key slows down scrolling.

LOAD, SAVE, PRINT, OPEN, GET, INPUT - DEVICE NAMES

Has a set list of Device names as follows:-

0 - Keyboard
1 - Cassette Deck
2 - RS232 Device
3 - Screen
4 - Printer
5 - Printer
8 - Disk Drive
4 - 127 Serial Bus Device
128 - 255 Serial Bus Device - send if after CR..

FILENAMES, ARRAYS, VARIABLES.

On of the biggest differences is that ONLY the 1st. & 2rd. Characters/digits plus the Indentifier are recognised, so great caution has to be taken in selecting names.

TIME, TI, TIME$, TI$: Used to read internal timer and return value in 1/10 seconds (using 50 Htz. power in Australia effects accuracy).

POKE : used as location,value. Up to 65,536 locations in memory with 5K RAM numbered 0 to 1023 and 4096 to 8191. Values 0 to 255 can only be POKED into memory.

SYS : Common way to mix basic with machine language with RTS switching computer back to Basic.

CMD : Changes normal output device from screen to file specified, eg. printer, disk, etc..

GET# : Receives data 1 Byte at a time from opened device.

FRE : Arguments to FRE are dummy arguments. FRE returns the number of bytes in memory not being used by basic.

SPC(#) : Prints # of blanks on screen - only used with PRINT, must be in range of 0-255.

EDITING PROGRAMS.

The VIC 20 uses 6 Keys for editing, these being :- CLR/HOME, INST/DEL, CRSR

(Up/down), CRSR (Left/right), RETURN, SPACE (Bar)

All the above are dual purpose keys when used in conjunction with SHIFT or C= Keys. The two CRSR, INST/DEL, and SPACE keys will repeat if held down for at least 1 second. CLR/HOME when unshifted moves cursor home to upper Left corner. CRSR keys allow over text movement without deleting text. INST/DEL key without SHIFT deletes characters to the LEFT of cursor. With use of SHIFT key becomes insert key. RETURN key by self acts normaly, but with SHIFT key moves cursor to next line on left of screen. SPACE bar leaves a space or deletes anything that goes over, if pressed with SHIFT or C= is treated as a graphic character.

Multistatement lines possible with use of : symbol.

Graphics are based on an 8x8 grid, with characters stored in ROM taking up 4K. It is possible to use progammable characters by changing the character memory pointer to point to RAM using the following:-

Hex 8000, Decimal 32768, for upper case with full graphics.

Hex 8400, Decimal 33792, for upper case and graphics - reversed.

Hex 8800, Decimal 34816, for upper and lower case and some graphics.

Hex 8900, Decimal 35840, for upper and lower case with some graphics - reversed.

Note: Reversed characters are just characters with their BIT patterns in character memory reversed.

An example of graphics below replaces the letter "T" with a smile face character (TI version - CALL CHAR(84,"3C425581A599423C")

```
10 FORC=7328 TO 7335 : READ A : POKE C,A, : NEXT
20 DATA 60,66,165,129,165,153,66,60
```

SOUND

Tone generators cover 3 octaves each and if staggered slightly can reach a total of 5 octaves. VIC's speaker and volume control are stored in specific memory locations which are accessed by the POKE command.

Volume - POKE 36878,# . # = number 1 to 15.

Speaker - Location 36874 for speaker 1, 36875 for speaker 2 (middle), 36876 for speaker 3 (highest), 36877 for speaker 4 (noise), with a number from 128 to 255 to be poked into the locations. Note: no inbuilt speaker, and once speaker turned on, it remains on until turned off.

PEEK and POKE are mainly used for graphics and sound. CALL SOUND and CALL CHAR commands are easier commands to understand with the TI-99/4A.

MACHINE LANGUAGE.

A documented memory map, 3 pages of useful memory locations along with a full Instruction Set are given for user use.

The Pin configuration of the 6560 chip, Input/Output guide for Joysticks, RS232 Interfaces etc. are given, something not easy to come by with the TI-99/4A.

Whilst most of the other computers use PEEK and POKE, TI substituted an impressive range of built-in ROM's to accomplish most of same things PEEK and POKE do for other computers. Most of these are used as CALL routines, which are easier for the beginner and others to understand programming.

An example of this is:-

TI - 100 CALL JOYST(1,X,Y)

The equivalent for the VIC 20 is :-

```
100                                    POKE
37154,127:X=(NOTPEEK(37151))AND
60-((PEEK(37152)AND 128)=0):POKE 37154,255
```

COMMANDS and FUNCTIONS

CONT	LIST	LOAD	NEW	RUN
SAVE	VERIFY	CLR	DATA	DEF FN
END	FOR_TO_STEP		GET	GOSUB
GOTO	GO TO	IF_THEN	INPUT	LET
NEXT	ON	POKE	PRINT	READ
REM	RESTORE	RETURN	STOP	SYS
CLOSE	CMD	GET#	INPUT#	OPEN
ABS	ASC	ATN	CHR$	COS
EXP	FRE	INT	LEFT$	LEN
LOG	MID$	PEEK	POS	RIGHT$
RND	SGN	SIN	SPC	SQR
STATUS	STR$	TAB	TAN	TIME(TI)
TIME$	TI$	USR	VAL	NOT
AND	OR			

INSTRUCTION SET.

ADC	AND	ASL	BCC	BCS
BEQ	BIT	BMI	BNE	BPL
BRK	BVC	BVS	CLC	CLD
CLI	CLV	CMP	CPX	CPY
DEC	DEX	DEY	EOR	INC
INX	INY	JMP	JSR	LDA
LDX	LDY	LSR	NOP	ORA
PHA	PHP	PLA	PLP	ROL
ROR	RTI	RTS	SBC	SEC
SED	SEI	STA	STX	STY
TAX	TAY	TSX	TXA	TXS
TYA				

Little Programs for Little Kids

By Wayne Worladge

Below are a couple of simple programs which appealed to my (then) four year old. Children of that age find computers like the 99/4A rather frustrating. Firstly, they usually can't read yet, so instructions are meaningless to them. Sure, they learn some, (like "RUN"), but in addition, they have not yet developed the coordination to handle the faster games like "Invaders", or "Munchman". As well, where a game calls for strategy, it is often beyond them.

Simple games like "NUMBER GUESSING" below can be played by little ones, as as there are only a few words to learn, and they get rewarded when they guess the correct answer. Don't be surprised if the logic they use is not up to yours - give them time, it will develop. You can improve on this program by adding music, or speech if you have the speech synthesizer peripheral, and one of the modules to make it work.

Guess Number

```
100 CALL CLEAR
110 READ A$
120 FOR K=1 TO LEN(A$)
130 CALL HCHAR(12,4+K,ASC(SE
G$(A$,K,1)))
140 NEXT K
150 DATA "NUMBER GUESSING"
160 GOSUB 830
170 CALL SCREEN(11)
180 CALL CLEAR
190 PRINT "THE COMPUTER GENE
RATES";"RANDOM NUMBERS BETWE
EN 1";"AND 9"
200 PRINT
210 PRINT "YOU HAVE TO GUESS
THE";"CORRECT NUMBER"
220 PRINT
230 PRINT "PRESS ZERO TO FIN
ISH"
240 PRINT
250 PRINT "PRESS ANY KEY TO
CONTINUE"
260 CALL KEY(0,K,S)
270 IF S=0 THEN 260
280 CALL CLEAR
290 RANDOMIZE
300 N=INT(9*RND)+1
310 Z=0
320 INPUT "GUESS    ":G
330 PRINT
340 PRINT
350 Z=Z+1
360 IF G=0 THEN 860
370 IF G=N THEN 470
380 IF G>N THEN 430
390 PRINT "TOO SMALL!"
400 PRINT
410 PRINT
420 GOTO 320
430 PRINT "TOO BIG!"
440 PRINT
450 PRINT
460 GOTO 320
470 CALL CLEAR
480 CALL SCREEN(5)
490 CALL COLOR(2,16,16)
500 CALL COLOR(9,16,5)
510 CALL CHAR(96,"FF7F3F1F0F
070301")
520 CALL CHAR(97,"0080C0E0F0
F8FCFE")
530 REM  R
540 CALL VCHAR(10,4,42,6)
550 CALL HCHAR(10,5,42,3)
560 CALL HCHAR(13,5,42,3)
570 CALL VCHAR(11,7,42,3)
580 CALL HCHAR(14,6,96)
590 CALL HCHAR(14,7,97)
600 CALL HCHAR(15,7,96)
610 REM  I
620 CALL VCHAR(10,9,42,6)
630 REM  G
640 CALL VCHAR(10,11,42,6)
650 CALL HCHAR(10,12,42,3)
660 CALL HCHAR(15,12,42,3)
670 CALL VCHAR(13,14,42,2)
680 CALL HCHAR(13,13,42,2)
690 REM  H
700 CALL VCHAR(10,16,42,6)
710 CALL HCHAR(13,16,42,3)
720 CALL VCHAR(10,19,42,6)
730 REM  T
740 CALL HCHAR(10,21,42,3)
750 CALL VCHAR(11,22,42,5)
760 REM  !
770 CALL VCHAR(10,25,42,4)
780 CALL HCHAR(15,25,42)
790 GOSUB 830
800 PRINT "YOU WERE RIGHT IN
";Z;"TURNS"
810 GOSUB 830
820 GOTO 280
830 FOR DELAY=1 TO 400
840 NEXT DELAY
850 RETURN
860 CALL CLEAR
870 PRINT "BYE BYE"
880 END
```

Large Number

by Wayne Worladge

EXTENDED BASIC

This second program of this series not only gives your child practice at spelling numbers, but also displays some of the uses of extended basic.

You will note DISPLAY AT and ACCEPT AT are used often in the program. Multiple line programming is used to a limited extent; considerable scope remains for it to be utilized further. In the interests of clarity, it has been restricted.

Subroutine 4000 is one you may wish to use in your own programs, as it generates the integers from 0 to 9, in a single routine, similar to the way numbers are generated on a digital watch; that is, by "turning on" the appropriate segments of the figure eight.

```
100 CALL CLEAR
110 CALL SCREEN(12)
120 CALL COLOR(9,13,12)
130 CALL CHAR(96,"FFFFFFFFFF
FFFFFF")
140 DISPLAY AT(12,4):"NUMBER
SPELLING"
145 GOSUB 2000
150 GOSUB 6000
153 DISPLAY AT(16,3):"FOR NE
W NUMBER,PRESS SPACE": :" BA
R,TO END PRESS ENTER."
160 GOSUB 2000
161 DISPLAY AT(8,4)ERASE ALL
:"OPTIONS"
162 DISPLAY AT(12,4):"1.SEQU
ENTIAL"
163 DISPLAY AT(14,4):"2.RAND
OM"
164 DISPLAY AT(16,4):"3.END"
165 ACCEPT AT(18,4):CHOICE
166 IF CHOICE=2 THEN 170
167 IF CHOICE=3 THEN 9980
168 FOR NN=0 TO 20
169 GOTO 200
170 CALL DELSPRITE(ALL)
171 RANDOMIZE :: R=INT(RND*2
1)
180 RESTORE
190 I=-1
200 READ N$
205 IF CHOICE=1 THEN G$=STR$
(NN):: GOTO 300 ELSE 210
210 I=I+1
220 IF I<>R THEN 200
290 G$=STR$(R)
300 FOR J=1 TO LEN(G$)
310 X=VAL(SEG$(G$,J,1))
320 IF LEN(G$)=2 AND J=1 THE
N P=0 ELSE P=10
330 IF LEN(G$)=2 AND J=2 THE
N GOSUB 4010 ELSE GOSUB 4000
340 NEXT J
350 FOR M=1 TO LEN(N$)
360 A=ASC(SEG$(N$,M,1))
370 CALL MAGNIFY(2)
380 CALL SPRITE(#M,A,7,1+15*
M,200)
390 NEXT M
400 CALL KEY(0,K,S)
410 IF K=32 THEN 440
430 IF K=13 THEN 9980 ELSE 4
00
440 IF CHOICE=2 THEN CALL CL
EAR :: GOTO 170
450 CALL DELSPRITE(ALL)
460 NEXT NN
470 GOTO 161
2000 DISPLAY AT(22,3):"PRESS
ANY KEY TO CONTINUE"
2010 CALL KEY(0,K,S)
2020 IF S=0 THEN 2010
2030 RETURN
4000 CALL CLEAR
4010 IF X=2 THEN 4040
4020 CALL VCHAR(12,10+P,96,8
)
4030 IF X=5 OR X=6 THEN 4060
4040 CALL VCHAR(4,10+P,96,8)
4050 IF X=1 THEN 4190
4060 IF X=4 OR X=6 THEN 4100
4070 CALL HCHAR(4,3+P,96,8)
4080 IF X=7 THEN 4190
4090 IF X=0 THEN 4120
4100 CALL HCHAR(11,3+P,96,8)
4110 IF X=4 OR X=9 THEN 4150
4120 CALL HCHAR(19,3+P,96,8)
4130 IF X=3 THEN 4190
4140 IF X=2 THEN 4180
4150 CALL VCHAR(4,3+P,96,8)
4160 IF X=4 THEN 4190
4170 IF X=5 OR X=9 THEN 4190
4180 CALL VCHAR(12,3+P,96,8)
4190 RETURN
5000 DATA ZERO,ONE,TWO,THREE
,FOUR,FIVE,SIX,SEVEN,EIGHT,N
INE,TEN
5010 DATA ELEVEN,TWELVE,THIR
TEEN,FOURTEEN,FIFTEEN,SIXTEE
N,SEVENTEEN,EIGHTEEN
5020 DATA NINETEEN,TWENTY
6000 CALL CLEAR
6010 DISPLAY AT(5,3):"THIS P
ROGRAM DISPLAYS THE": :" NUM
BERS FROM ZERO TO": :" TWENT
Y,TOGETHER WITH": :" THEIR S
PELLING."
6020 RETURN
9980 CALL CLEAR
9985 CALL DELSPRITE(ALL)
9990 PRINT "THANK YOU FOR PL
AYING"
9995 PRINT "BYE-BYE"
9999 END
```

WANTED

* GOOD PROGRAMS - Games, business and utility programs.

* USEFUL Programming tips.

* ARTICLES on uses of the computer, feature or tutorials on programming or uses.

* SUGGESTION for future articles.

Send material on Disk/Tape if possible (will be returned) along with any explanatory notes. Prefer formatted on TI-WRITER but if use some other Word Processor send copy in order to read program.

A fee will be paid for material used.

Send to: SOFTEX P/L.,
59 Landstrom Quadrant,
Kilsyth. 3137.

News Briefs

* TI Drops Peripheral Expansion System Prices.
  $200.00 Expansion Box.
  $199.00 32K Memory Card.
  $100.00 Disk Controller Card.
  $399.00 Disk Drive.
  $175.00 RS232 Card.
* LOGO II should finally be here in Australia.
* The new Beige colored TI-99/4A's should soon be seen here in shops.
* Some examples of the 128K Memory Cards have come into Australia by Members of the Queensland Users Group, however they are puzzled on how to effectively use them. This comes from the limitation of the 99/4 archetecture which only allows addressing of a maximum of 32K at any time.
* An 80 column card has been advertised in U.S.A., but details of this are not known yet.
* A 32K Memory Card has been manufactured in Australia by Murray Wilson of Trimur Developments, P.O. Box 836, Canberra City, A.C.T. 2601. Tel.: (062) 585586. This sells for $195.00, plus $5.00 packaging and registered postage. This has been constructed using a low power CMOS memory chips. It was originally hoped that this unit would be a stand alone unit, but when the cost of special sockets and a protective box were added the price is not competitive with TI's unit and the Box. I have run the prototype in my box and found that this operated as it should. When supplies of TI's memory cards dry up in the near future, then this will be a source for extra memory with-in Australia.

Readers Mart

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* MICROLINE 80 PRINTER - good condition. Centronics output $380.00 , RS232C card for Microline $100.00.

* PRENTICE STAR ACCOUSTIC COUPLER - Ready to connect to any telephone headset. $190.00.

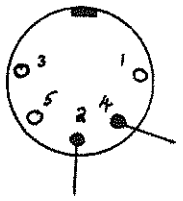
* 1 TI DISK DRIVE CARD (MPI) - SS/SD, for Expansion Box, $320.00

CONTACT: Doug Thomas, (03) 7258178.

USING a BLACK and WHITE MONITOR.

The TI Video output is a color signal but an acceptable B&W monitor picture can be obtained by taking the 2 signals shown below to the monitor input.

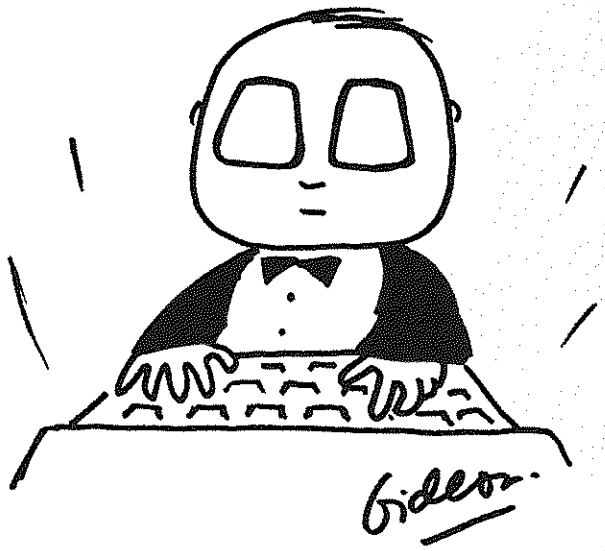
Use shielded cable with shielding braid connected to the Ground pin.



Video connector facing back of computer.

Use what ever plug mates with monitor.

Letters to the Editor



This will be a regular column in future issues.

Please foward your comments, queries, tips, etc. as we are interested in your views.

Address all letters to:
The Editor,
Softex Magazine,
59 Landstrom Quadrant,
Kilsyth. 3137.
Victoria.

Around the Groups

Throughout Australia active groups of users have banded together to form part of an international link to spread tips, knowledge, programs and the latest news amongst each other. About 2 years ago Shane Anderson from Sydney began the task of trying to find other users of the TI-99/4. Gradually small groups began across Australia, until today there are in excess of 1000 members, without counting the spouses, children, relations and friends who also have some contact with the groups. If you are not a member of a group, then I strongly advise you to join one NOW as it will be up to the groups to find support and developments in the future with T.I. now out of the home computer market.

In Australia all groups have kept together and shared news amongst themselves, so it is not an advantage to belong to one group in preferance to another, although logically the nearest one to you should be the one you join. All groups have newsletters, program libraries, numerous overseas contacts etc.. However they each operate in different ways according to size, membership and assets. Following below are details, contacts, costs and services provided by the groups. It is our intention to publish meeting dates and news in further issues to keep you informed of the activities. In addition to the Capital City groups there are regional ones springing up across the country, eg. Newcastle, Mt. Gambier, who are affiliated with the larger groups.

Doug Thomas.

TI-99/4 Users Group Melbourne

Co-Ordinator: Doug Thomas.
Address: 59 Landstrom Quadrant, Kilsyth. 3137.
Telephone: (03) 7258178.
Membership Cost: $10.00 per 12 month period.
Tape Membership: $33.00 for 6 C-60 Tapes with 15 to 20 programs on each. Variety of programs on each, collected from local, interstate and overseas sources. Non members can join tape membership only for $38.00. Programs posted to all subscribers at 2 monthly intervals.
Meetings: Held bi-monthly Saturday afternoons at Victoria College, Burwood Rd., Burwood at 2.00 pm.. Next Meeting 26.11.83. House meetings held in several suburbs between main meetings.
Newsletter: Posted bi-monthly, offering news, tips, programs and details of next meetings.
Fees sent to: TI-99/4 Users Group Melbourne, 123 Ashburn Grove, Ashburton. 3147.

TIUP (Perth)

Co-Ordinator: Kim Schlunke.
Address: P.O. Box 246, Mt. Lawley. 6050.
Telephone: (09) 2718642
Membership Costs: $25.00 pa. or $10.00 pa. Newsletter only.
Meetings: Held the third Saturday afternoon each month. Free copies of software is availiable at meetings, on supplying own C-90 tape.
Newsletter: Published bi-monthly giving program listings, tutorials, and in depth reviews.
Fees sent to: TIUP, P.O. Box 246, Mt. Lawley. 6050. W.A.
Very experienced group of programmers who are leading the way with Assembler and other languages.

TI Sydney Users' Group (TISHUG)

Co-Ordinator: To be elected.
Secretary: John Robinson, P.O. Box 149, Pennant Hills. 2120.
Telephone: (02) 8480956
Membership Cost: $10.00 initial joining fee, $20.00 per 12 month period.
Meetings: Held first Saturday each month (2nd. Sat. if 1st. a holiday weekend) at 2.00 pm. at St. Johns Church Hall, Victoria Street, Darlinghurst. Regional metings held between main meetings on various nights.
Newsletter: Posted monthly, giving news, tips, programs, and future meeting details.
Next Meeting: December 3rd.
Program Tapes: Sold $3.00 ea. at meetings, $4.00 ea. Posted. Each contain about 10 programs, and are set themes, eg. Extended Basic, Ext. Basic Music, Games, Ord. Basic, Ord. Music, Speech. No subscription service, ordered separately.
Fees sent to: TISHUG, P.O. Box 149, Pennant Hills. 2120.
Features: Program Crisis Line.

TICHUG (Canberra)

Co-Ordinator: Helen Rawlinson
Address: 69 Canopus Cres., Giralang. A.C.T. 2617.
Telephone: (062) 415874
Membership Costs: $18.00 per year.
Meetings: Held bi-monthly.
Tape Software: Provided free currently, with 8 to 10 programs on each.
Newsletter: CHUG.A.LUG, produced bi-monthly.
Fees sent to: TICHUG, 69 Canopus Cres., Giralang. A.C.T. 2617.

TIBUG (Brisbane)

Co-Ordinator: Mrs. Cheryl Bailey.
Address: P.O. Box 57, Aspley. 4034.
Telephone: (07) 2634989
Membership Cost: $22.00 pa. reducing on a sliding scale from September.
Meetings: Last Friday night each month except December at Computer & Peripherals, 31 Kate Street, Kedron, at 8.00 pm..
Newsletter: Bug-Bytes, published monthly and posted.
Features: Programmers Hot Line.
Operate a sub-group at Toowoomba. Meetings cover last committee meeting details, and then involve a guest speaker or theme night. 99'er Magazines are sold at meetings along with odds and ends. Running an Assembly language workshop.
Fees sent to: TIBUG, P.O. Box 57, Aspley. 4034. QLD..

ATICC (Adelaide)

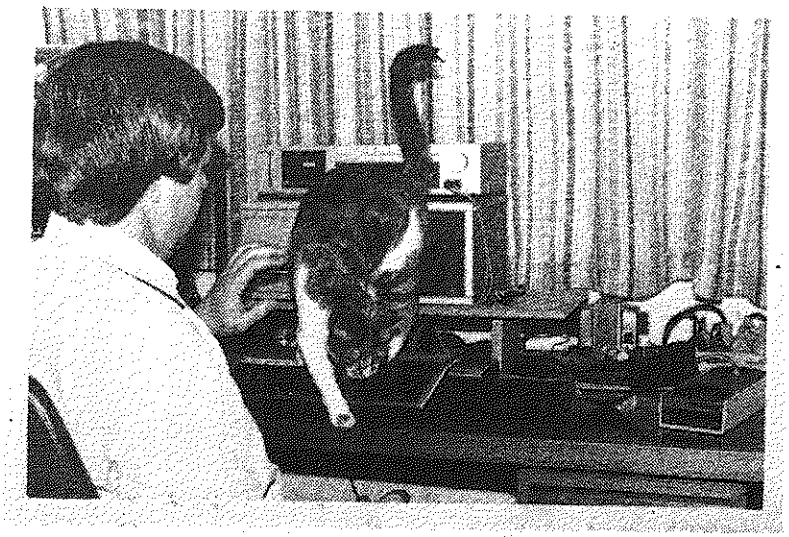
Co-Ordinator: Fred Cugley.
Address: 26 Suffolk Ave., Brahma Lodge. 5109.
Telephone: (08) 2583409.
Membership Cost: $12.00 pa.
Meetings: Held monthly at various members homes.
Newsletter: Published bi-monthly and posted.
Program Tapes: Availiable at $3.50 ea.. The Group is currently going through a transition stage, with the Co-Ordinator and Secretary looking to stand down from their positions. Due to growth the Group is also out growing homes as a regular meeting place.
Fees sent to: ATICC, 26 Suffolk Ave., Brahma Lodge. 5109. S.A.

TI Tas. Users Group (Hobart)

Co-Ordinator: Rex Sheperd
Address: 1 Benboyd Crt., Rokeby. 7019.
Telephone: (002) 726199.(Max Rappl)
Membership Cost: $10.00 per year.
Meetings: Meet informally at Co-Ordinators home.
Tape Software: $5.00 a C-60 tape of user written programs.
Newsletter: None currently, but hope to in near future.
Fees sent to: T.I. Tas Users Group, 1 Benboyd Crt., Rokeby. 7019. Tas.

National

Co-Ordinator: Doug Thomas, 59 Landstrom Quadrant, Kilsyth. 3137. Vic.
Holds a co-ordinating role between the various groups which has yet to be formalised. Organizing a National Co-Ordinators get-together for Australia Day week end 1984, where the experiences of other states will be shared and the future plans for growth and direction will be discussed. At this stage not a funded position.



WHO'S IN CHARGE HERE?

ADVERTISING RATES.

Full Page: $300.00
Half Page: $150.00
Quarter Page: $80.00

Next Issue closes 4.12.83

All Art Work etc. will be charged for on additional cost basis.

Next Month

* REVIEW AMUST-80DT MATRIX PRINTER
* CURE FOR LOCK-UP ON THE TI-99/4A
* REVIEW SHUTTLE MODEM
* RS232 PERIPHERAL
* LOTS, LOTS MORE.