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SYDNEY NEWSDIGEST

PROUDLY PRINTED IN AUSTRALIA

NEXT MEETING>SECOND SATURDAY OF NOVEMBER
12th Nov. (2pm) @ St.John's Church Hall

It's Annual General Meeting time,so we want you to breath on this box provided->
If this box changes colour to RED, you may have some
special illness which will prevent you from attending the A.G.M.
If the box turns BLUE,we all suggest that you stay away from the A.G.M.

HOWEVER, IF IT STAYS THE SAME COLOUR >YELLOW<, THEN THERE IS
NOTHING WRONG WITH YOU, AND YOU ARE ASKED TO ATTEND THIS VITAL MEETING!

CHECK OUT ALL OF THE GOODIES INSIDE
OF THIS 'Sydney News Digest".

Newsletter of TI Sydney Users' Group

editorial

On the second Saturday of this month, we will be conducting our A.G.M. (Annual General Meeting). This is that once a year event when the present TI.S.H.U.G. committee step down from their capacity as the "governing" team of workers, and where YOU vote for a new committee to llok after the affairs of our group for another year. If you are a financial member you can either (1) nominate yourself, or (2) nominate a willing friend for the positions that will become vacant. See below for a list of *committee* positions:

ACTING CO-ORDINATOR: Brian Lewis (who is unable to continue due to other commitments.)

SECRETARY: John Robinson.

TREASURER and ACTING LIBRARIAN: Terry Phillips.

EDUCATIONAL CO-ORDINATOR: Peter Lynden.

CRISIS LINE: Graem Hollis.

PUBLICATIONS EDITOR: Shane Andersen.

GENERAL COMMITTEE MEMBERS: Peter Varga and Manual Constantinadis.

This next meeting is very important, and we hope that ALL financial members will endeavour to attend this important annual event. Copies of the printed constitution will be available and if you are unable to attend, due to work committments or illness, we will post the constitution to you with the Christmas issue of this publication. If you don't have transport to the A.G.M. contact your local regional co-ordinator and come in as a team, representing your local area.

NOTICE TO ADVERTISERS

The next issue of the Sydney News Digest will be the final one for 1983 (the group goes on vacation through January) and obviously the theme will be "Christmas". You are asked to have your advertising in no later than the 16th of November (Wed) at P.O. Box 595, Marrickville, 2204.

Our December meeting will be held on the first Saturday (3rd Dec.) from 2 pm - 4.30 pm and will be our biggest ever "POT LUCK DINNER". This means you bring along a dish or pot of your favourite food, hot or cold, and we'll provide the drinks and cutlery. We then set it out around the Hall like a huge SmorgEggsBord. Music will be provided and the possibility of some great prizes to be won. We'll tell you more about this in the next magazine, if anyone gets elected at the coming A.G.M. (Hint!Hint!)

Cheers for now,
Shane.

While I've got you in this section I should point out that if anyone is wanting to get involved with modem communications, and you would rather not go and purchase a peripheral expansion box, then contact Andrew Nutting on 674-1853. He has a couple of the stand-alone RS232 boxes for sale at $190.00 with transformers. These units plug directly into the side of your T.I. with two output ports: one for modem and, if you wish, the other printer. This would be a great buy and then all you need is a Terminal Emulator II cartridge and modem.

Prices of modems range from $199 to $500. Think of a modem not as a luxury item but rather a medium to be used to enable you to constantly receive new programs, check the stock market, chat to others KEYBOARD to KEYBOARD all over Australia for the price of a local call plus small B.B.S. charges.

This, and more is waiting for right now! I'll expand on this and other information regarding *modem* communications in the next issue of the Sydney News Digest.

Cheers for now,
Shane andersen.
---------- MICC Member #881.
Australian Beginning Code Name TEXPAC.

"THE COMMUNICATORS"

Over the past few issues, we have produced a number of articles related to MODEM COMMUNICATION. This, and the fact that we now have reasonable priced peripherals, has attracted a number of T.I. Users in our group, to a whole new world of Computer Communication.

Since last months issue of this publication, three more of our members have purchased modems. They are Guy Clentsmith, Peter Day, and John Colditz. So, to date, that makes around 10 members in this Sydney club alone, who can exchange software from T.I. to T.I. over the phone, plus use the Electronic Mail services and other benifits.

Hence the reason to commence a new and regular column for the growing family of COMMUNICATORS. This column will be shared by each of you who have modems, infact I welcome your written views which can be sent to me via this medium.

I personally have set aside 3 nights a week to either receive or exchange data with the modem, however, my home number has only been *provided* to fellow Communicators for this specific reason.

T.I. (Australia) GOES B.B.S!

B.B.S. stands for Bullitan Board Service, which is available to modem users.

Negotiations are being made, at the moment, with T.I. Australia in Sydney, and the T.I. users group, to commence a B.B.S. here in Australia. There is a large one set up in the United States called TEXNET, but it costs us too much here in Australia, to use this medium. I spoke with Claudio Ellero of T.I. last week, and he assured methat, because of the growing interest of every user group around Australia to start up our own B.B.S. he was looking at the feasability of doing just that. HOWEVER, at the moment, there isn't an available computer at T.I. Headoffice which can be used for this massive project, but he mentioned tha he thought there was one at the Melbourne branch that could be used, with a TI-LINE to Sydney for our members (we hope!).

WHAT CAN WE EXPECT FROM A B.B.S.?

All the very latest information on new hardware and software, latest developments in Technical advancements with T.I. products, answers to various common not-so-common problems in operating your T.I.HOME COMPUTER and it's peripherals(WHICH HAVE NOW COME DOWN IN PRICE!!!). Plus, Electronic Mail, and Downloading of PUBLIC DOMAIN SOFTWARE etc.

This B.B.S. at T.I. may possibly be in operation by mid-1984 so get yourselves ready!

Wiring up your Cicada 300 or Dick Smith Direct Connect Modem to your RS232 Interface:

RS232 TO MODEM

1	1
2	3
3	2
6	20
7	7
20	6

This is the same as wiring for connecting two T.I.'s together via RS232 in one room or hall.

The RS232 to SENDATA Modem 700 is as follows:

2	2
3	3
4	4
5	5
7	7
8	8

Bridge pin 6 to pin 20 to RS232 end with no connection to 6 and 20 at modem end.

Incidentally, both J.R. and Andrew's columns were both sent to me via modem for inclusion in this publication.

MINUTES

By J.R.

Hi, Everyone should now have received their new membership card. If anyone has been missed then please let me know as soon as possible.

Those of you have subscribed to SOFTEX should have received a letter dated 15/9/83 advising that the first issue will be sent to you in early November.

For those of you who purchased Millers Graphics "Smart Programming for Sprites" please let us know so that we can pass on to you a copy of their first newsletter.

At the next committee meeting we will be deciding on which supplier to purchase disks from, the three tenderers are Memorex, Verbatim and 3M. It is possible that we will receive a tender from Control Data.

Could the member who works at Philips and promised to obtain a translation of the Dutch Newsletter please contact either myself or Shane Andersen.

The winner of the monthly software competition was ..... with his program "MATHS PRACTICE" will be presented with his $50 cheque at the next meeting. It was interesting to note that your committee voted in the same order as members at the meeting.

We are still waiting for more nominations for next years committee which will be elected at the A.G.M. in November.

As you are aware we no longer produce monthly software. Instead we are involved in producing entire tapes devoted to particular areas of interest, for example the following titles are now available:

EXTENDED BASIC VOLUME ONE #1
EXTENDED BASIC VOLUME ONE #2
BASIC VOLUME ONE #1
BASIC VOLUME ONE #2
MUSIC IN BASIC #1
MUSIC IN EXTENDED BASIC #1

Details of the programs on these tapes are given elsewhere in this newsletter. For those of you that order software by mail, please include full details of the tape that you require.

Paul England of Texas Instruments Australia has asked me to clarify the information given in the "TI NEWSLETTER" which is mailed to those of you who place orders by mail or handed out at monthly meetings. In these newsletters mention is often made of special promotional deals in hardware and software. Unfortunately these offers refer only to residents of the United States and are not valid in Australia.

Ashton Scholastic, who for thirteen years have been reaching thousands of Australian school children through a learning-through-fun philosophy are now marketing a range of computer software for TI-99/4A computers. Their range is known as WIZWARE and is available now on either disk or cassette, more information is available by contacting Alistair Campion on Gosford (043) 283555 or (02) 9226777.

We have still a number of back issues of the 99'er magazine from September to February 1983. We would like to dispose of these within the next month so send your orders in right away as we will otherwise be returning them to the publisher.

Happy Computing,

John Robinson
Hon. Secretary.

"PRINTERS DISK DRIVES AND MODEMS"

By Andrew Nutting TISHUG

For those of you that may be getting ready to expand your systems the following information may assist you.

1) If you are thinking of adding a second,third or even a first disk drive to your system then read this short section. From my research into old 99 er's I have determined that it is possible to connect most of the single sided drives on the market to the TI disk controller.(the only one that appears not to be suitable is the OLD TEAC drive which has track access times which are too slow for our controller).Anyway this article is not really about all drives but the DICK SMITH external drive which will plug right onto the TI controller.You need only do one of the following to get it going: A) buy a new 34 pin plug for the drive end or B) cut a slot in the drive's board so that the TI cable which comes with the controller will fit on. It is a simple matter to change the drive number,just look inside and near where the disk controller cable comes in you will see some markings for D1 D2 D3 so you can configure it for what you want.These drives can be picked up for between $200-$400 depending on their age and condition.

2)If you have read my article on Dick Smith Modems there was an omission from the article the cable should be wired as follows: RS232/Modem 1/1 2/3 3/2 7/7 8/20 20/8 . If you wire your cable this way you will get it going first time.

3) The article on the Parallel Port was missing a triangular symbol that denotes pin number one.

Note: see the April 83 Sydney News Digest for more details on Modems and the Parallel Port.

Good Luck Good Printing and Communicating.

99'er HOME COMPUTER™

OCTOBER ISSUE NOW ON SALE

FEATURING: Do-it-yourself Adventure Programming, Big Game Hunt:BEAR'S LAIR TO WIZARD'S KEEP, Plots With the Compact Computer, Assembly Language Made Easy, LOGO-ing on an Adventure, PICO PROCESSOR: A 4-Bit Micro Emulator, Multiplan Bartender.

Plus so much more, and all this within your very own INTERNATIONAL TI USERS MAGAZINE the 99'er.

4 SALE 4 SALE 4 SALE 4 SALE 4 SALE 4

FOR SALE: 1 DISK DRIVE (external) $500. ono
1 DISK CONTROLLER (stand alone) $250. ono
1 32K MEMORY EXPANSION(" ") $275. ono
1 RS232 INTERFACE (" ") $180. ono

The lot for $1,000. Please contact CHRIS RYAN on (02)848 0480 between 6pm-10pm mon-fri.
MUST SELL...WISH TO UPGRADE TO P.E.BOX.

FOR SALE: PARSEC $22, MUNCH MAN $20, NUMBER MAGIC $12, PERSONAL RECORD KEEPER $25, all of these modules are in good working order. Please contact BARRY after hours on (02)6053686.

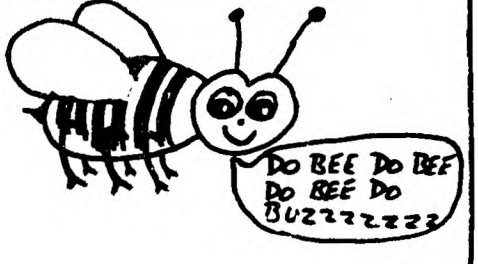
TISHUG

We have a number of very good programmers here in Australia, one of them is Don Gilchrist of the CANBERRA USER GROUP (TI.C.H.U.G.).
Don has written some a number of truly excillant pieces, and the program we hope that you will now type in, will have you splitting your sides with laughter, as you sit back and show off to your family and friends, this one entitled "BUGS IN A GALLERY". I won't tell you any more, other than to say it's worth the effort. [EDITOR]

Oh! by the way, it's written in Extended Basic and is continued on the other page.

```
1 ! BUGS IN THE GALLERY
2 !  BY DON GILCHRIST
3 !       TICHUG
4 !  JULY 28, 1983
5 DATA 2,10,2,5,15,6,7,15,2,2,15,5,7,15,6
6 RANDOMIZE :: FOR S=1 TO 5 :: READ FC(S),BC(S),EC(S):: NEXT S :: CF,X=1
7 CV=20 :: CB=2 :: Z=1 :: CALL SCREEN(13):: FOR S=1 TO 8 :: CALL COLOR(S,2,10):: NEXT S :: CALL COLOR(10,2,2,9,12,12)
8 CALL HCHAR(1,1,104,768)
9 CALL HCHAR(1,1,104,768):: FOR S=2 TO 32 STEP 2 :: CALL VCHAR(1,S,105,24):: NEXT S
10 DATA 0000000817142320408080000810E,80403009060000018,0000E01C0201,000000000000806
11 DATA 0000000102020202,2020E020100807,0000010103DCB1,0FF,E4040201,0000008040201010,1008080808080B08
12 DATA 0204040404080904,0000000060800001,2020202020608003,00000000000000F,0808081010101010,101020202020101
13 DATA 0602040808302040,2020204040404408,1C6000000000300C,0C,000003,0808844423110905,88443A32C2020101
14 DATA 4040404020202020,1010202020101008,03,E,0000000B0403,0202020204E40404,010101010A060201
15 DATA 10080C0B0A0A0A0A,0808088864 1C04,000008,0000004,0404040404040404,0101010202040408
16 DATA 090A0A0A0A0A0A091,004080F8E818E808,000000E01C03,0000000000E,0808081010212244,083020408
17 DATA 1010101020202020,08080C0E1212111,0000000000000804,0000000001010204,4888888808101010
18 DATA 0000000000000101,2020404040 8,1010202020202040 4,300E01,0000F00F,0C1468881010101,202020202020404
19 DATA 0608101010080804,00003807,40404080C0300C03,2020202020201010 1,4040404040404040
20 DATA 0000001E3F3F3F,183C3C1C,10383838,817E00B17E00C324,1A1C0E06,B050A0D,78FC7E3F1E
21 DATA 44289300442893,4400932844009328,0000101212122 2,00020408181611
22 CALL HCHAR(1,1,97,32):: CALL HCHAR(24,1,97,32):: CALL VCHAR(2,2,97,11):: CALL VCHAR(2,12,97,15)
23 CALL VCHAR(5,22,97,15):: CALL VCHAR(9,32,97,12)
24 FOR RA=6 TO 16
25 IF RA=6 THEN CALL HCHAR(RA-1,12,97,11):: CALL HCHAR(RA+3,22,97,11)
26 IF RA<16 THEN CALL HCHAR(RA,13,32,9):: CALL HCHAR(RA-4,3,32,9):: CALL HCHAR(RA+4,23,32,9)
27 IF RA=16 THEN CALL HCHAR(RA,12,97,11):: CALL HCHAR(RA+4,22,97,11):: CALL HCHAR(RA-4,2,97,11)
28 NEXT RA
29 DISPLAY AT(3,2)SIZE(4):"BUGS" :: DISPLAY AT(5,2)SIZE(6):"IN THE" :: DISPLAY AT(7,2)SIZE(7):"GALLERY" :: DISPLAY AT(10,14)SIZE(2):"BY"
30 DISPLAY AT(12,24)SIZE(3):"DON" :: DISPLAY AT(14,21):"GILCHRIS" :: CALL HCHAR(14,31,84):: DISPLAY AT(17,22)SIZE(6):"TICHUG"
31 DISPLAY AT(19,21):"CANBERRA" :: FOR S=1 TO 300 :: NEXT S :: R=5 :: C=12 :: FOR S=33 TO 110 :: IF S=101 THEN S=104
32 IF S=107 THEN S=110
33 READ A$ :: IF S>105 THEN A$=A$&RPT$("0",64-LEN(A$))
34 CALL CHAR(S,A$):: NEXT S :: CALL COLOR(9,7,2,10,5,2)
35 DATA 5,17,7,18,10,16,11,16,12,17,14,16,14,17
36 FOR S=1 TO 7 :: READ A(S),B(S):: NEXT S :: X,D=1 :: R=5 :: E=32 :: FOR C=15 TO 20 :: GOSUB 72 :: NEXT C
37 FOR R=6 TO 11 :: CL=1 :: FOR C=14 TO 20 :: GOSUB 72 :: NEXT C :: NEXT R :: R=12 :: CL=1 :: FOR C=14 TO 19 :: GOSUB 72 :: NEXT C
38 FOR R=13 TO 14 :: CL=1 :: FOR C=13 TO 19 :: GOSUB 72 :: NEXT C :: NEXT R :: FOR S=2 TO 7 :: CALL SPRITE(#S,94,10,200,1):: NEXT S
39 FOR S=8 TO 10 :: CALL SPRITE(#S,95,2,200,1,#S+3,96,2,200,1,#S+6,100,1,200,1,#S+9,106,1,200,1,#S+12,110,1,200,1):: NEXT S
40 FOR S=1 TO 3 :: X=(S-1)*80 :: RX(S),FX(S)=61+X :: LX(S),EX(S)=44+X :: MX(S)=50+X
41 Y=(S-1)*32 :: LY(S)=30+Y :: RY(S)=35+Y :: EY(S)=37+Y :: FY(S)=42+Y :: MY(S)=59+Y
42 CALL LOCATE(#S+1,LY(S),LX(S),#S+4,RY(S),RX(S),#S+7,EY(S),EX(S),#S+10,FY(S),FX(S),#S+13,MY(S),MX(S))
43 CALL LOCATE(#S+16,LY(S)-2,LX(S)+11,#S+19,LY(S)+24,LX(S)-1):: NEXT S :: Q=3
44 FOR T=1 TO 500 :: NEXT T :: GOTO 53
45 IF BG=1 THEN 59 ELSE BB=INT(RND*8)+1 :: BF=BF+1 :: IF BF=3 THEN CALL COLOR(#18,1,#19,1,#17,1)
46 IF BF=5 THEN 47 ELSE IF BB>1 THEN 71
47 BF=0 :: CF=CF+1 :: IF CF=6 THEN CF=1
48 CWP=INT(RND*13)+3 :: IF CWP=7 OR CWP=9 OR CWP=BC(CF)OR CWP=CWX THEN 48 :: CWX=CWP :: CALL COLOR(#17,1,#18,1,#19,1,#20,1,#21,1,#22,1)
```

```
49 FOR S=1 TO 10 :: IF S<9 THEN CALL COLOR(S,FC(CF),BC(CF))
50 IF S>1 AND S<8 THEN CALL COLOR(#S,BC(CF))
51 IF S>7 THEN CALL COLOR(#S,EC(CF),#S+3,EC(CF))
52 NEXT S :: CALL COLOR(10,CWP,2):: CALL SCREEN(INT(RND*13)+2):: CV=INT(RND*10)+
20 :: CT=0
53 CB=CB+1 :: IF CB=9 THEN CB=11 ELSE IF CB=15 THEN CB=2
54 IF AA=1 THEN 55 ELSE AA=1 :: B2=2 :: B3=-4 :: B1=142 :: GOTO 58
55 B2=INT(RND*8)-5 :: IF ABS(B2)<2 THEN 55
56 B3=INT(RND*8)-5 :: IF ABS(B3)<2 THEN 56
57 B1=INT(RND*170)+10
58 BX=INT(RND*2)+98 :: BG=1 :: CALL SPRITE(#1,BX,CB,B1+8,250):: MCH=INT(RND*3)+1
4 :: IF MCH=MCZ THEN 58 :: MCZ=MCH
59 CALL MOTION(#1,B2,B3)
60 IF CT/3=INT(CT/3)THEN XZ=(ABS(B2)+ABS(B3))*2 :: CALL SOUND(-4250,200,30,200,3
0,(110+XZ+CWP)*7.5,30,-4,5):: BK=0
61 CT=CT+1 :: V,U=1 :: FOR Q=14 TO 16 :: P=Q-13 :: GOSUB 87
62 IF EY(P)>P1 THEN V=-1 :: CALL LOCATE(#P+1,200,1,#P+4,200,1):: GOTO 64
63 IF EY(P)>P1-10 THEN V=0
64 IF FX(P)>P2+10 THEN U=-1 :: GOTO 68
65 IF FX(P)>P2 THEN U=0 :: GOTO 68
66 IF FX(P)>P2-10 THEN U=1 :: GOTO 68
67 IF FX(P)>P2-20 THEN U=2
68 CALL LOCATE(#P+7,EY(P)+V,EX(P)+U,#P+10,FY(P)+V,FX(P)+U):: GOSUB 87 :: NEXT Q
69 GOSUB 100 :: IF BK=1 OR V<0 OR INT(RND*2)+1=2 THEN 45 ELSE W=INT((P2+80)/85):
: IF W<1 THEN W=1
70 W=W+1 :: WT=1 :: GOSUB 82 :: GOTO 45
71 Q=INT(RND*3)+5 :: V=INT(RND*2):: GOSUB 77 :: GOTO 45
72 IF CL=1 THEN CALL HCHAR(R-3,3,32,9):: CALL HCHAR(R+1,13,32,9):: CALL HCHAR(R+
5,23,32,9):: CL=0
73 IF A(D)=R AND B(D)=C THEN D=D+1 :: GOTO 76
74 E=E+1 :: F=E
75 CALL HCHAR(R+1,C,F):: CALL HCHAR(R-3,C-10,F):: CALL HCHAR(R+5,C+10,F)
76 RETURN
77 P=Q-4 :: FOR U=-1 TO 2 :: CALL LOCATE(#Q+3,EY(P)+V,EX(P)+U,#Q+6,FY(P)+V,FX(P)
+U):: GOSUB 80 :: NEXT U :: GOSUB 100
78 FOR U=2 TO -1 STEP -1 :: CALL LOCATE(#Q+3,EY(P)+V,EX(P)+U,#Q+6,FY(P)+V,FX(P)+
U):: GOSUB 80 :: NEXT U
79 V=0 :: CALL LOCATE(#Q+3,EY(P)+V,EX(P),#Q+6,FY(P)+V,FX(P)):: RETURN
80 IF V<0 THEN 86 ELSE T=INT(RND*6)+1 :: IF T<>1 THEN 86
81 W=INT(RND*3)+2 :: IF W=WW THEN 85 ELSE WW=W :: WT=1
82 H=W-1 :: FOR O=0 TO 4 STEP 2 :: CALL LOCATE(#W,LY(H)+O,LX(H),#W+3,RY(H)+O,RX(
H)):: NEXT O :: BK=1 :: GOSUB 100 :: IF WT=0 THEN 86
83 GOSUB 87
84 H=W-1 :: FOR O=3 TO 0 STEP -1 :: CALL LOCATE(#W,LY(H)+O,LX(H),#W+3,RY(H)+O,RX
(H)):: NEXT O :: GOTO 86
85 GOSUB 87
86 WT=0 :: RETURN
87 CALL COINC(#1,#Q,5,CI):: IF CI=0 THEN 99
88 CALL COLOR(#Q,2,#1,1):: CALL MOTION(#1,0,0):: CALL LOCATE(#1,200,1):: CALL CO
LOR(#Q,1)
89 CP=1 :: W=INT((P2+80)/85):: IF W<1 THEN W=1
90 W=W+1 :: GOSUB 82
91 FOR S=15 TO 29 :: IF S/2=INT(S/2)THEN CL=2 ELSE CL=1
92 IF S<20 THEN SD=(200-S)*W :: CALL SOUND(-10,SD+10,S-1):: CALL SOUND(-20,SD,S-
1)
93 CALL COLOR(#Q,CL):: FOR T=1 TO 10 :: NEXT T :: NEXT S :: CT=0 :: SW=INT(RND*1
00)
94 FOR QQ=14 TO 16 :: IF QQ=Q THEN 95 :: CALL COLOR(#QQ+3,FC(CF),#QQ,FC(CF)):: G
OTO 96
95 CALL COLOR(#QQ+6,FC(CF))
96 NEXT QQ :: FOR S=314 TO 300 STEP -4 :: CALL SOUND(-100,S+SW,10,S+30+SW,10)::
NEXT S
97 FOR S=300 TO 328 STEP 4 :: CALL SOUND(-100,S+SW,10,S+30+SW,10):: NEXT S :: CA
LL COLOR(#14,1,#15,1,#16,1)
98 GOSUB 84 :: BG=0 :: GOTO 45
99 RETURN
100 CALL POSITION(#1,P1,P2,#MCH,P3,P4)
101 IF P1<190 THEN 104
102 IF B2>0 THEN CALL LOCATE(#1,B2,P2):: P1=B2 :: RETURN
103 P1=190+B2 :: CALL LOCATE(#1,P1,P2):: RETURN
104 IF CT<CV THEN RETURN
105 IF P1>P3 THEN B2=B2-1 ELSE IF P1<P3 THEN B2=B2+1
106 IF P2>P4 THEN B3=B3-1 ELSE IF P2<P4 THEN B3=B3+1
107 IF B2>2 THEN B2=B2-1 ELSE IF B2<-3 THEN B2=B2+1
108 IF B3>2 THEN B3=B3-1 ELSE IF B3<-3 THEN B3=B3+1
109 RETURN
```



TI-PS from DAVID LIELL

In an earlier newsletter I mentioned that BASIC consisted of commands and program statements. This month we will look at program statements and how to use them in contructing a program. The main functions of any program are-

1. Input Data
2. Perform Calculations
3. Print Results

So, you see that there are 2 basic types of program statements-

1. Input/Output
2. General

Also, as our program proceeds, we will probably want to make tests and branch to different places. Statements to perform these functions are called "Logic" or "Program Control" statements. And of course we should comment our program with REM(ark) statements.

Lets try and put all this together into a simple program to print the internal machine representation of a character. The functions of our program will be-

1. Input Any Character From The Keyboard
2. Convert It To Internal Format
3. Print It

To input data, we use the INPUT statement. this can contain a prompt to tell the user what is wanted. INPUT also contains one or more variables which we want entered. So, to get a character entered,

```
100 INPUT "ENTER ONE CHARACTER A-Z OR 0-9";CHAR$
```

Now we must use some logic to make sure that the right value has been entered.

```
110 IF (LEN(CHAR$)=1) THEN GOTO 140
120 PRINT "ONLY ONE CHAR PLEASE"
130 GOTO 100
140
```

WOW! Statement 110 contains a number of things. It uses the LENGTH function to find out how long the input was. This is essential as we only want one input character. Also, it uses the IF..THEN logic test followed by a GOTO branch. If the condition is true. If not, an error message is printed and we return to the INPUT line again.

The next test must be to see that the character entered is within the required range A-Z OR 0-9. This is done with a similar statement.

```
140 IF (CHAR$ "A")*(CHAR$+"Z") THEN 180
150 IF (CHAR$="0")*(CHAR$="9") THEN 180
160 PRINT "INVALID CHARACTER. TRY AGAIN"
170 GOTO 100
180
```

Statements 140 and 150 are called multiple tests. They require 2 conditions to be satisfied, each being enclosed in parenthese and linked by an "*". With this particular statement, this is not a multiplication sign, but a logical AND. This means that to take the branch, both tests must be met. The other form of logical connector is the OR, and this is represented by "+".

Having edited our input character, all that is left now is to convert it and print it. This is coded using the "ASC" function which converts a character to its ASCII or internal representation. (If you don't know what ASCII stands for, check the glossary in the Users Reference Guide).

```
180 PRINT ASC(CHAR$)
190 END
200
```

So now we have completed the consturction of a program from its design to coding. You will need to test it out to make sure that it works. There is one small change you may wish to make. That is to return to the beginning each time after printing out the ASCII code. To do this

```
190 GOTO 100
200 END
```

and change statement 100 as follows-

```
100 PRINT "ENTER ONE CHARACTER A-Z OR 0-9"
105 INPUT "ENTER ""END"" TO FINISH";CHAR$
```

GOOD PROGRAMMING.....

David Liell

Coming Soon!

Announcing our two new DLM language arts educational programs available in December . . .

Word Invasion*—players help a friendly octopus identify words representing six major parts of speech including nouns, pronouns, verbs, adjectives, adverbs, and prepositions.

The program is designed to help players develop recognition of the basic parts of speech. The recognition is achieved by drilling the user in each of the six major parts of speech while challenging the player to defend an octopus against the invading and multiplying legion of words.

Word Invasion

Word Radar*—helps users develop visual memory and discrimination skills by challenging a player to match frequently-used reading vocabulary words. Words are quickly flashed on a radar screen and then blanked out by white rectangles indicating their position. Players, acting as control tower operators, must quickly scan words and identify their location before the radar beam completes its circle.

Both programs offer users increasing levels of difficulty. Word Invasion and Word Radar are for players of all ages. The programs are especially beneficial for students in primary grades and for students who have limited reading vocabularies. Each cartridge is available at a suggested retail price of $39.95.

*A trademark of the Developmental Learning Materials Corporation. (Available 4th quarter 1983)

New Users Groups.

The list of new TI recognized computer users groups continues to grow. There are currently more than 150 groups.

Inquiries about Home Computer Users Groups should be sent to TI, P.O. Box 10508, MS 5890 Lubbock, TX 79408, ATTN: Users Group Coordinator.

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★ALL NEW LOW PRICES ON TI PERIPHERALS★
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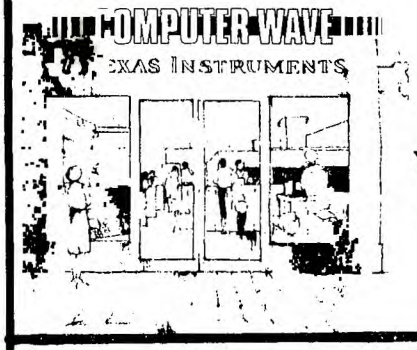

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WYNYARD STORE OPEN 7 DAYS A WEEK

Over the next few pages, we've provided you with a special program from CHRIS RYAN which will give you 40 column screen printing via the medium of this ASSEMBLY UTILITY.

To use this utility, assemble it and save it on disk as "40COL", together with a copy of T.I.'S basis support utility "BSCSUP".

Place this disk in drive #1 and insert the editor/assembler cartridge and select T.I. Basic.

To use the utility the following program segment must be incorporated into your program.

```
100 CALL INIT
110 CALL LOAD("DSK1.BSCSUP","DSK1.40COL")
120 CALL LINK("INIT")
130 CALL LINK("CLEAR")
140 CALL LINK("PRNT","HELLO THERE THIS IS IN
40 COLUMN MODE")
150 FOR DELAY=1 TO 500
160 NEXT DELAY
170 CALL LINK("NORML")
180 Rest Of Your Program
```

EXPLANATION:

LINE: ACTION:

100 Miss line CALL INIT readies the memory expansion to load assembly language sub routine.

110 Loads the 40 column utility and the basic support utilities program.

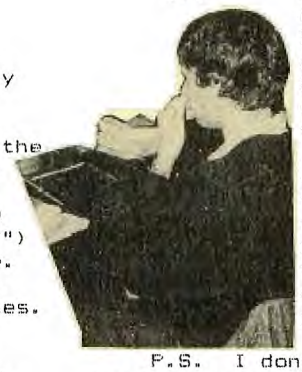
120 This is the first part of the 40 column utility. CALL LINK("INIT") sets the VDP chip into text mode. NOTE: You can only display text, you cannot use graphics or sprites.

130 CALL LINK("CLEAR") This line is used to clear the screen once it has been placed in text mode. Can be used at any time in the section of your program using the text utility to clear the screen.

140 CALL LINK("PRNT",HELLO THERE THIS IS IN 40 COLUMN MODE") This link transfers the string "HELO...etc" to the utility which then displays it on the screen instead of the actual string to be displayed, one can use a string variable in the CALL LINK statement.
E.G. CALL LINK("PRNT",A$) where A$="ANY STRING DATA"

150 AND 160 These lines FOR DELAY =1 TO 500 and NEXT DELAY are merely a delay loop to enable you to see what has been on the screen. Anything can be used here as some sort of delay except for CALL KEY.

170 CALL LINK("NORML"). This command restores the VDP chip to normal basic operating conditions. If the utility is to be used again, the CALL LINK("INIT") command must be used before accessing again. For this reason I suggest that:
1. All data to be displayed in the 40 column mode is placed between the CALL LINK("INIT") statement and the CALL LINK("NORML") statement.
2. After the CALL LINK("NORML") that all color sets and special character definition needed for the program are set.



P.S. I don't guarantee that this utility will perform exactly as i have descried. But it should work at least 99% of the time.

```
*                                       *
*     40 COLUMN SCREEN PRINT UTILITY    *
*     FOR 99/4(A) BY C.RYAN. REQUIRES   *
*     EDIT/ASSEM CARTRIDGE AND 32K      *
*     EXPANSION RAM. (PROBABLY WILL     *
*     WORK WITH MINI MEM. CARTRIDGE     *
*     WITH MINOR MODIFICATIONS BUT I AM *
*     NOT TOO SURE ABOUT THIS)          *
*                                       *
*****************************************
*
       DEF  INIT          DEFINE BASIC ENTRY POINT
       DEF  CLEAR           "      "     "     "
       DEF  PRNT            "      "     "     "
       DEF  NORML           "      "     "     "
*
       REF  STRREF        EXTERNAL REFERNCE FOR STRING REFERENCE ROUTINE
       REF  GPLLNK          "         "     FOR GPL LINK ROUTINE
*
VDPWA  EQU  >8C02         VDP WRITE ADRESS
VDPWD  EQU  >8C00         VDP WRITE DATA
VDPRD  EQU  >8800         VDP READ DATA
*
GPLWS  EQU  >83E0         ADRESS OF GPL WORKSPACE
STATUS EQU  >837C           "     "  STATUS REGISTER
FAC    EQU  >834A           "     "  FLOATING POINT ACCUMULATOR
*
STASAV DATA 0             STATUS STORAGE AREA
SAVR11 DATA 0             BASIC RETURN ADRESS STORAGE AREA
*
FORTY  BYTE 40            CONSTANT USED TO EVALUATE NUMBER OF CHARS IN STRING
*
BUFFER BYTE >FF           BUFFER FOR STRING (MAX 256 CHARS)
       BSS  >FF
BUF2   BSS  192           BUFFER FOR VDP DATA STORAGE
       EVEN
*
MREGS  BSS  >20           WORKSPACE AREA
*
*      1ST ENTRY POINT
*
INIT   MOV  @STATUS,@STASAV   SAVE CURRENT STATUS REGISTER IN STASAV
       MOV  R11,@SAVR11       SAVE CURRENT BASIC RETURN ADRESS IN SAVR11
       BLWP @INIT1            CONTEXT SWITCH TO INIT SUB PROGRAMME
       MOV  @SAVR11,R11       RESTORE RETURN ADRESS
       MOV  @STASAV,@STATUS   RESTORE STATUS REGISTER
       RT                     RETURN CALLING BASIC PROGRAMME
*
*      2ND ENTRY POINT
*
CLEAR  MOV  @STATUS,@STASAV
       MOV  R11,@SAVR11
       BLWP @CLEAR1           CONTEXT SWITCH TO CLEAR SUB PROGRAMME
       MOV  @SAVR11,R11
       MOV  @STASAV,@STATUS
       RT
*
*      3RD ENTRY POINT
*
PRNT   MOV  @STATUS,@STASAV
       MOV  R11,@SAVR11
       BLWP @PRNT1            CONTEXT SWITCH TO PRINT SUB PROGRAMME
       MOV  @SAVR11,R11
       MOV  @STASAV,@STATUS
       RT
*
*      4TH ENTRY POINT
*
NORML  MOV  @STATUS,@STASAV
       MOV  R11,@SAVR11
       BLWP @NORML1           CONTEXT SWITCH TO NORML SUB PROGRAMME
       MOV  @SAVR11,R11
       MOV  @STASAV,@STATUS
       RT
*
*      INIT SUB PROGRAMME
*
INIT1  DATA MREGS,INIT2       LOCATION OF WORKSPACE REGISTER AREA AND PROG
*
INIT2  LI   R0,768            ADRESS IN VDP RAM TO READ DAT FROM
       LI   R1,192            NUMBER OF BYTES TO READ
       LI   R2,BUF2           LOCATION OF CPU BUFFER
       BL   @VADR             SET VDP ADRESS
INIT3  MOVB @VDPRD,*R2+       READ DATA
       DEC  R1                DONE?
       JNE  INIT3             NO.
INIT4  DATA >8000,>81F0,>82
       DATA >830C,>8401,>85
       DATA >8600,>871F
       LI   R2,INIT4
       LI   R1,8
INIT5  MOV  *R2+,R0
       BL   @VADR
       DEC  R1
       JNE  INIT5
       LI   R0,>F000
       MOVB R0,@>83D4
       LI   R2,>0900
       MOV  R2,@FAC
       MOVB R1,@STATUS
       BLWP @GPLLNK
       DATA >0018
       RTWP
*
*      CLEAR SCREEN SUB PRO
*
CLEAR1 DATA MREGS,CLEAR2
*
CLEAR2 CLR  R0
       BL   @VADW
       LI   R1,960
       LI   R2,>2000
CLEAR3 MOVB R2,@VDPWD
       DEC  R1
       JNE  CLEAR3
       RTWP
*
*      PRINT MESSAGE SUB PR
*
PRNT1  DATA MREGS,PRNT2
*
PRNT2  CLR  R0
       LI   R1,1
       LI   R2,>FF00
       MOVB R2,@BUFFER
       LI   R2,BUFFER
       BLWP @STRREF
       BL   @SCROLL
       CLR  R4
PRNT3  LI   R0,920
       BL   @VADW
       CB   @BUFFER,@FORTY
       JGT  PRNT5
       CLR  R1
       MOVB @BUFFER,R1
       SWPB R1
       LI   R2,BUFFER+1
       A    R4,R2
PRNT4  MOVB *R2+,@VDPWD
       DEC  R1
       JNE  PRNT4
       RTWP
PRNT5  LI   R1,40
       LI   R2,BUFFER+1
       A    R4,R2
PRNT6  MOVB *R2+,@VDPWD
       INC  R4
       DEC  @BUFFER
       DEC  R1
       JNE  PRNT6
       BL   @SCROLL
       B    @PRNT3
*
*      SCROLL SUB ROUTINE
*
SCROLL MOV  R11,R9
       CLR  R5
       LI   R6,40
SCROL1 MOV  R6,R0
       BL   @VADR
       MOVB @VDPRD,R7
       MOV  R5,R0
       BL   @VADW
       MOVB R7,@VDPWD
       INC  R5
       INC  R6
       CI   R6,960
       JLT  SCROL1
       LI   R7,>2000
       MOV  R5,R0
       BL   @VADW
SCROL2 MOVB R7,@VDPWD
```

```
LUES TO BE LOAD INTO .:·      STERS


AD POINTER TO DATA
REGISTERS
/ DATA IN R0
ANCH TO ROUTINE TO WRITE DATA TO VDP
NE 8 REGISTERS?
.
S. PLACE COPY OF VDP R1 IN CPU.

RESS IN VDP OF PATTERN DESCRIPTOR TABLE
V ADRESS INTO F.A.C.
EAR STAUS REGISTER
_ LINK LOADS COMPRESSED CHAR SET INTO VDP
 THE ADRESS HELD IN THE F.A.C.
IT INIT ROUTINE


E

CATION OF WORKSPACE AND PROGRAM START

ART AT VDP POSITION >0000
T WRITE ADRESS
0 SCREEN POSITIONS (24 ROWS * 40 COLUMNS)
ANK (CHAR 32)
ITE BLANK TO VDP
NE THE ENTIRE SCREEN YET ?
.
S. EXIT CLEAR ROTINE

ME

CATION OF WORKSPACE AND PROGRAM START

EAR R0
RAMETER NUMBER
X NUMBER OF CHARS IN BUFFER
VE THIS INFORMATION TO START OF BUFFER
AD POINTER TO POSITION OF BUFFER IN MEMORY
ANSFER STRING FROM BASIC INTO BUFFER
ANCH SCROLL SUB ROUTINE

P ADRESS OF 1ST COLUMN LAST LINE ON SCREEN
T VDP WRITE ADRESS
E THERE MORE THAN 40 CHARS TO BE DISPLAYED
S. GOTO PRNT5
. CLEAR R1
AD NUMBER OF CHARS TO WRITE INTO R1
KE IT THE LSB
AD POINTER TO POSITION OF CHARS IN BUFFER
D OFFSET TO CORRECT FOR CHARS ALREADY WRITTEN
ITE CHAR TO VDP
NE ?
. GOTO PRNT4
S . EXIT PRINT ROUTINE
 CHARS PER LINE
CATION OF CHARS IN BUFFER
D OFFSET TO CORRECT FOR CHARS ALREADY WRITTEN
ITE TO VDP
CREMENT OFFSET
CREMENT THE TOTAL NUMBER OF CHARS
ITTEN 40 CHARS YET?
. GOTO PRNT6
S. BRANCH TO SCROLL SUB ROUTINE
EAT THE WHOLE DAMN PROCESS


VE RETURN POINTER
P ADRESS OF COLUMN 1,ROW 1
P ADRESS OF COLUMN 1,ROW 2

T VDP READ ADRESS ACESS
AD VALUE OF CHAR AT LOCATION CONTAINED IN R6

T VDP WRITE ACESS
ITE CHAR IN R7 TO VDP ADRESS IN R5
CREMENT R5
CREMENT R6
S LAST SCREEN POSITION BEEN DONE
. GOTO SCROL1
S.LOAD BLANK CHAR (32) INTO R7

T VDP WRITE ADRESS ACESS
ANK OUT BOTTOM LINE ON SCREEN
```

```
        INC   R5
        CI    R5,960            DONE?
        JLT   SCROL2            NO. GOTO SCROL2
        B     *R9               YES. EXIT SUBROUTINE
*
*       NORML SUB PROGRAMME
*
NORML1  DATA  MREGS,NORML2      LOCATION OF WORKSPACE REGISTER AREA
*
NORML2  DATA  >8000,>81E0,>8200 VALUES TO BE LOAD INTO VDP REGISTERS
        DATA  >830C,>8400,>8506
        DATA  >8600,>8707
        LI    R2,NORML2         LOAD POINTER TO DATA
        LI    R1,8              8 REGISTERS
NORML3  MOV   *R2+,R0           MOV DATA IN R0
        BL    @VADR             BRANCH TO ROUTINE TO WRITE DATA TO VDP
        DEC   R1                DONE 8 REGISTERS?
        JNE   NORML3            NO.
        LI    R0,>E000          YES. PLACE COPY OF VDP R1 IN CPU
        MOVB  R0,@>83D4
        LI    R0,768            ADRESS OF START OF VDP COLOUR TABLE
        LI    R1,192            NUMBER OF BYTES TO WRITE
        LI    R2,BUF2           LOCATION OF BUFFER CONTAINING BYTES
        BL    @VADW             SET VDP ADRESS
NORML4  MOVB  *R2+,@VDPWD       WRITE DATA
        DEC   R1                DONE ?
        JNE   NORML4            NO.
        RTWP                    EXIT NORML ROUTINE
*
*       VDP ACESS SUB ROUTINE
*
VADW    ORI   R0,>4000          ENABLE WRITE FLAG IN VDP
VADR    SWPB  R0                SWAP BYTES
        MOVB  R0,@VDPWA         WRITE LSB OF ADRESS TO VDP
        SWPB  R0                SWAP BYTES BACK,TAKE TIME
        MOVB  R0,@VDPWA         WRITE MSB OF ADRESS TO VDP
        ANDI  R0,>4000          REMOVE WRITE FLAG FROM R0
        RT
*
*
        END
```

Our 99er Home Computer magazine "looker afterer", Terry Phillips advises that he is currently holding limited stocks of the Feburary and March 1983 issues and ample stocks of April, May, June, July, August and September issues.

Copies of this excellent magazine published specifically for our computer are available either at the monthly meetings ($5.00 a copy) or by post from Terry, 8/25 Ormand Street, ASHFIELD. 2131. at a cost of $6.00 each.

Terry feels that some of the newer members to our group may not be aware of this magazine and the wealth of information and ready to type in programmes it contains.

Please feel free to contact Terry on (02) 797-6313 (AFTER HOURS) for further particulars.

BOOK REVIEW by TERRY PHILLIPS

Your ever alert treasurer, while in Angus Robertson bookshop came upon a book entitled "36 TEXAS INSTRUMENTS TI 99/4A PROGRAMS FOR HOME, SCHOOL AND OFFICE".

The book, soft covered of 96 pages is published by ARCSOFT Publishers, Woodsboro, Maryland U.S.A. The author is Len Turner.

According to the fly-leaf companion books are: 101 Programming Tips And Tricks For The TI 99/4A Home Computer
AND
Texas Instruments Computer Program Writing Workbook.

The book contains 12 programmes in each section, Home, School and Office all are fairly short and can be typed in quickly. All programmes are original material and demonstrate once again that a computers uses are only limited by the scope of the imagination.

If your looking for something different and are not concerned by lack of graphics (there ain't none) then you will probably enjoy a few hours with this book and your T.I.

$17.95 was the amount of my "hard-earned" required to purchase the book.

TEXED™ PRODUCT REVIEW

1. DESCRIPTION

Hardware ☐ Software ☑ Module ☑ Texas Instruments ☐
Disk ☐ Third Party ☑
Cassette ☐

Title Percents
Author/s John Plaster (Scott, Foresman)
Price PHM 3097 $44.95

2. EVALUATION

	1	2	3	4	5
Documentation		✓			
Setting Up	✓				
Ease of Use	✓				
Educational Value		✓			
Use of Color, Graphics	✓				
Speech					

Comments:
15 levels of difficulty take the student through all aspects of Math problems and solutions based on Percentages. "Help" feature and does working out.

3. SYSTEM REQUIREMENTS

TI994/A	☑	T.E.II	☐	32K Memory	☐
Extended Basic	☐	LOGO II	☐	Editor/Assembler	☐
MiniMemory	☐	Speech Editor	☐	RS232	☐

TEXED™ PRODUCT REVIEW

1. DESCRIPTION

Hardware ☐ Software ☑ Module ☑ Texas Instruments ☐
Disk ☐ Third Party ☑
Cassette ☐

Title Reading On
Author/s John Plaster (Scott, Foresman)
Price PHM 3046 $59.95

2. EVALUATION

	1	2	3	4	5
Documentation		✓			
Setting Up	✓				
Ease of Use	✓				
Educational Value	✓				
Use of Color, Graphics	✓				
Speech					

Comments:
Colourful, rewarding graphics enhance the teaching concepts through maps, graphs and schedules. Has "Help" feature and 36 skill levels. Auto advancement.

3. SYSTEM REQUIREMENTS

TI994/A	☑	T.E.II	☐	32K Memory	☐
Extended Basic	☐	LOGO II	☐	Editor/Assembler	☐
MiniMemory	☐	Speech Editor	☐	RS232	☐

Entertaining Math Programs

The long lazy days of summer will be gone before long and soon it will be time again to turn your thoughts to back-to-school preparation. You can help your children start the school year right by purchasing several of TI's educational software programs for your Home Computer.

Now is the time to help your young students prepare for their year ahead with motivating and challenging software specially designed to help them advance to the head of their class.

If you've found that your son or daughter cringes at the thought of another year of math, introduce him or her to the arcade-style math practice cartridges from the Developmental Learning Materials (DLM) Arcademics™ series.

These cartridges help make a math whiz out of any student. Best of all, the cartridges are designed to do so with pleasure. Students need only plug a cartridge into the computer to see how much fun learning really can be.

Students of all ages can improve their skills in addition, subtraction, multiplication, and division by utilizing these arcade-style math practice programs. DLM math cartridges are designed to provide continual opportunities to improve skills.

The DLM math series consists of the following six exciting cartridges:

Alien Addition—Waves of alien invaders challenge a missile base far from Earth. The aliens can only be stopped by firing a mobile laser cannon which "equalizes" the enemy by firing correct answers to correspond to the addition problems on the invading alien spacecraft. Your quick reflexes and rapid addition skills are all that stand between the defenders of the missile base and the enemy invaders. "HITS" and "MISSES" are recorded at the bottom of the screen.

Alien Addition

Meteor Multiplication—A violent "meteor shower" threatens a star station. The inhabitants of the star station defend themselves against each of the meteors which bear multiplication problems by firing a cannon loaded with the correct answer. The defenders need your help—both your quick action and your multiplication skills—to survive this dangerous threat from space. "HITS" and "MISSES" are recorded at the bottom of the galaxy.

Minus Mission—A robot fights valiantly to defend its territory from the "creeping slime" above it. Blobs of slime carrying subtraction problems drop down upon the robot who can only destroy the blob if you provide it with the correct answer. You must help the robot fight back against this vile enemy. "HITS" and "MISSES" are recorded in the "creeping slime" at the top of the screen.

Demolition Division—Four tanks, each carrying a division problem, advance menacingly toward the four barricades which defend each of your cannons. Your only ammunition against these enemies is the correct answer to the division problem which each tank carries. Quickly, move the answer next to the cannon which faces the foremost enemy. Fire. Now, move to the next cannon and fire once again with the correct-answer ammunition necessary to save it too. Fast action and rapid division may yet keep back the enemy. "HITS" and "MISSES" are recorded at the bottom of the screen.

Demolition Division

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TEXED by Peter Lynden

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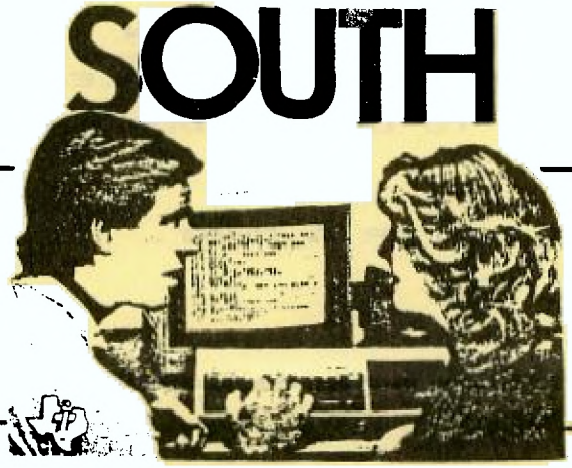

COMPUTER CONNECTION

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MIRANDA. NSW 2228.
PHONE (02) 526 1404

AUSTRALIAN COMPUTER RETAILERS ASSOCIATION
ACRA

```
10 REM  THIS PROGRAM ACCEPTS A DATE IN THE FORM DD/MM/YY
20 REM    AND PRINTS IT AS    YEAR, DATE NUMBER.
30 DIM A(12)
35 CALL CLEAR
40 GOTO 60
45 CALL CLEAR
50 PRINT "THAT DATE IS INVALID!"
55 PRINT
60 INPUT "WHAT DATE IS FOR CONVERSION (DD,MM,YY)?":D$,M$,Y$
65 Z=0
70 REM  CHECK LENGTH
80 IF LEN(D$)<>2 THEN 45
90 IF LEN(M$)<>2 THEN 45
100 IF LEN(Y$)<>2 THEN 45
110 IF VAL(M$)<1 THEN 45
120 IF VAL(M$)>12 THEN 45
130 IF VAL(D$)<1 THEN 45
131 IF VAL(Y$)=0 THEN 140
132 Y=VAL(Y$)
133 IF Y/4-INT(Y/4)=0 THEN 134 ELSE 140
134 Z=5
140 IF VAL(M$)=1 THEN 150 ELSE 160
150 IF VAL(D$)>31 THEN 45
160 IF VAL(M$)=2 THEN 169 ELSE 180
169 IF VAL(Y$)=0 THEN 175
171 IF Z<5 THEN 175 ELSE 173
173 IF VAL(D$)>29 THEN 45
174 GOTO 180
175 IF VAL(D$)>28 THEN 45
180 IF VAL(M$)=3 THEN 190 ELSE 200
190 IF VAL(D$)>31 THEN 45
200 IF VAL(M$)=4 THEN 210 ELSE 220
210 IF VAL(D$)>30 THEN 45
220 IF VAL(M$)=5 THEN 230 ELSE 240
230 IF VAL(D$)>31 THEN 45
240 IF VAL(M$)=6 THEN 250 ELSE 260
250 IF VAL(D$)>30 THEN 45
260 IF VAL(M$)=7 THEN 270 ELSE 280
270 IF VAL(D$)>31 THEN 45
280 IF VAL(M$)=8 THEN 290 ELSE 300
290 IF VAL(D$)>31 THEN 45
300 IF VAL(M$)=9 THEN 310 ELSE 320
310 IF VAL(D$)>30 THEN 45
320 IF VAL(M$)=10 THEN 330 ELSE 340
330 IF VAL(D$)>31 THEN 45
340 IF VAL(M$)=11 THEN 350 ELSE 360
350 IF VAL(D$)>30 THEN 45
360 IF VAL(M$)=12 THEN 370 ELSE 380
370 IF VAL(D$)>31 THEN 45
380 DD=VAL(D$)
390 MM=VAL(M$)
400 YY=VAL(Y$)
401 RESTORE
402 FOR I=1 TO 12
403 READ A(I)
404 NEXT I
405 IF Z<5 THEN 410
406 A(2)=29
410 IF MM=1 THEN 444
420 FOR I=1 TO MM-1
430 DD=DD+A(I)
440 NEXT I
444 IF YY=0 THEN 460
445 PRINT
450 PRINT "THE YEAR IS 19";YY;" DAY #";DD
455 GOTO 471
460 PRINT
470 PRINT "THE YEAR IS 19 00 DAY #";DD
471 PRINT
475 XMAS=359
476 IF Z<5 THEN 477 ELSE 480
477 IF DD>359 THEN 478 ELSE 485
478 XMAS=725
479 GOTO 484
480 IF DD>360 THEN 481 ELSE 485
481 XMAS=725
484 GOSUB 600
485 IF Z>4 THEN 490
486 IF XMAS-DD=0 THEN 494
487 PRINT XMAS-DD;"DAYS TO CHRISTMAS."
488 PRINT
489 GOTO 499
490 IF (XMAS+1)-DD=0 THEN 494
491 PRINT (XMAS+1)-DD;"DAYS TO CHRISTMAS."
492 PRINT
493 GOTO 499
494 PRINT
495 PRINT "***** MERRY CHRISTMAS ******"
496 PRINT
497 PRINT
498 PRINT
499 PRINT "ANOTHER DATE (Y/N)?"
500 CALL KEY(0,K,S)
510 IF S=0 THEN 500
520 IF K=89 THEN 35
530 IF K=78 THEN 550
540 GOTO 500
550 CALL CLEAR
551 END
600 U=YY+1
610 IF U/4-INT(U/4)=0 THEN 630
620 RETURN
630 XMAS=XMAS+1
640 RETURN
1000 DATA 31,28,31,30,31,30,31,31,30,31,30,31
```


HELP!

TISHUG

programmers'
Crisis Line
992229

On the second saturday of November, its A.G.M time so here is your special

NOMINATION FORM

for office bearers of... Co-ordinating Committee within T.I.S.H.U.G.

The following, are the positions available for you to either nominate yourself, or a fellow member of TI.S.H.U.G.
(1):CO-ORDINATOR, (2):SECRETARY, (3):TREASURER, (4):EDUCATIONAL CO-ORD, (5):LIBRARIAN, (6):EDITOR-PUBLICATIONS,
(7):PUBLIC RELATIONS OFFICER, (8):ADVERTISING MANAGER, (9):MEMBER.
All of these positions will be briefly explained to you at the coming meeting.
And now, place the names of these who you feel would be available to take on the above mentioned positions...
(1):
(2):
(3):
(4):
(5):
(6):
(7):
(8):
(9):

remember, you must be a financial Member to vote, nominate or be nominated as a Committee Member of T.I.S.H.U.G.

Younger Set with Jenny

Under 18's Page

Hi again,everyone.This month is **HALL OF FAME** month with the updated listing appearing below.(A * denotes a new record-holder).Congratulations are due for these hi-scorers:

HALL OF FAME NOV. 1983

game	name	score
*THE ATTACK	A.Lewis	109400
CARWARS	P.Dobe	79490
*CHIS.TRAIL	A.Lewis	47400
MUNCHMAN	R.Turansky	187770
PARSEC	E.King	3562000
PINBALL VG~1	A.Lewis	1068460
*TI.INVADERS	A.Lewis	34868
TOAD	C.Read	8600
TOMBSTONE CITY	A.McHugh	386600

Don't forget,the closing date for the **1st Younger Set Software Awards** is the date of our next meeting,November 12,1983. To enter,you'll have to see a back issue of a newsletter,or take an entry form at the November meeting.

There will also be some SPECIAL PRIZES,for these Awards ,so hurry along with your entry !!!!!!

Next month,I'll be presenting a REVIEW of the book:"KIDS and the TI 99/4a",just in time for Christmas.

```
100 DATA MAGIC SQUARE MUSIC
110 DATA STUART ANDERSON SYDNEY 1982
120 DATA PRESS ANY KEY TO BEGIN
130 DATA -JUST A FEW MOMENTS-
140 DATA .
150 DATA AGAIN?-Y/N
160 CALL SCREEN(15)
170 CALL CLEAR
180 DEF NOT$(X)=SEG$(NO$,2*(X+12*(X>12)),2)&" "
190 DEF CTR$(X$)=SEG$("                ",1,14-LEN(X$)/2)&X$
200 FOR I=1 TO 8
210 CALL COLOR(I,2,16)
220 NEXT I
230 CALL VCHAR(1,31,1,96)
240 READ A$,B$,C$,D$,E$,F$
250 PRINT CTR$(A$)::::::CTR$(B$)::::::CTR$(C$)::::::::
260 CALL KEY(0,K1,S1)
270 IF S1=0 THEN 260
280 PRINT ::::::::::::::::::CTR$(D$):::
290 DUR=-1000
300 OPTION BASE 1
310 DIM A(3,8,8)
320 FOR X=1 TO 8
330 FOR Y=1 TO 8
340 A(1,X,Y)=X/Y*8*110
350 NEXT Y
360 NEXT X
370 FOR W=1 TO 8
380 FOR V=1 TO 8
390 READ A(2,W,V)
400 NEXT V
410 NEXT W
420 DATA 52,61,4,13,20,29,36,45,14,3,62,51,46,35,30,19,53,60,5,12,21,28,37,44,11
,6,59,54,43,38,27,22
430 DATA 55,58,7,10,23,28,39,42,9,8,57,56,41,40,25,24,50,63,2,15,18,31,34,47,16,
1,64,49,48,33,32,17
440 FOR J=1 TO 8
450 FOR K=1 TO 8
460 R=INT((A(2,J,K)-1)/8)+1
470 C=A(2,J,K)-(R-1)*8
480 A(3,J,K)=A(1,R,C)
490 NEXT K
500 NEXT J
510 FOR XX=3 TO 1 STEP -2
520 PRINT ::::::::::::::::::::CTR$(E$)
530 FOR M=1 TO 8
540 FOR N=1 TO 8
550 FF=A(XX,M,N)
560 CALL SOUND(DUR,FF,0,FF+FF/110,0)
570 CALL SOUND(DUR,FF,5,FF+FF/110,5)
580 CALL SOUND(DUR,FF,10,FF+FF/110,10)
590 CALL SOUND(DUR,FF,15,FF+FF/110,15)
600 CALL SOUND(DUR,FF,20,FF+FF/110,20)
610 CALL SOUND(DUR,FF,25,FF+FF/110,25)
620 CALL SOUND(DUR,FF,30,FF+FF/110,30)
630 NEXT N
640 NEXT M
650 FOR S=1 TO 8
660 FOR T=8 TO 1 STEP -1
670 FF=A(XX,S,T)
680 CALL SOUND(DUR,FF,20,FF+FF/110,20)
690 CALL SOUND(DUR,FF,10,FF+FF/110,10)
700 CALL SOUND(DUR,FF,0,FF+FF/110,0)
710 NEXT T
720 NEXT S
730 FOR Q=8 TO 1 STEP -1
740 FOR Z=1 TO 8
750 FF=A(XX,Q,Z)
760 CALL SOUND(DUR,FF,0,FF+FF/110,0)
770 NEXT Z
780 NEXT Q
790 FOR P=8 TO 1 STEP -1
800 FOR O=8 TO 1 STEP -1
810 FF=A(XX,P,O)
820 CALL SOUND(DUR,FF,20,FF+FF/110,20)
830 CALL SOUND(DUR,FF,2,FF+FF/110,2)
840 CALL SOUND(DUR,FF,19,FF+FF/110,19)
850 CALL SOUND(DUR,FF,3,FF+FF/110,3)
860 CALL SOUND(DUR,FF,18,FF+FF/110,18)
870 NEXT O
880 NEXT P
890 NEXT XX
900 PRINT ::::::::::::::::::::CTR$(F$):::
910 CALL KEY(0,K1,S1)
920 IF S1=0 THEN 910
930 IF (K1<>89)*(K1<>78)THEN 910
940 IF K1=89 THEN 510
950 END
```

FOUR NEW CASSETTES OF CLUB SOFTWARE--->

BASIC vol#1.No#2...
1>BLOCKADE,2>CO-ORDINATE GEOMETRY,3>CAMEL,4>TI JUMPING JACK,5>JEDI PILOT,6>FIRE FIGHTER,7>YAHTZEE,8>ALPHABLOX

EX-BASIC vol#1,No#2...
1>DEEP SPACE,2>ALPHABET,3>TI-MATHS,4>CORNERWARS,5>EAR TRAINER FOR MUSIC,6>SAY & SPELL,7>READ FAST,8>BEETHOVEN-Variations.

BASIC MUSIC ALBUM #1.
SWEET & LOW,BREEZIN' ALONG,SWEET HEART TREE,PINK PANTHER,DIXIE,SNOOPY XMAS,XMAS WITH CLAUDIO,MUSIC,TUCKER BOX,RONDO,
GUNDAGAI,MOUNTAIN,DONKEY SERENADE,CORDS.

EX-BASIC MUSIC#1.
AUZZIE FAIR,BABY ELEPHANT WALK,CANDYMAN,MAME,RAINDROPS,YELLOW RIBBON,SAN JOSE,SELECTIONS,PUPPYTOWN.

All of these tapes are now available at the next club meeting on the second saturday of November at our A.G.M., but if you are
to get to this meeting due to SICKNESS or WORK, then postal orders are accepted @$3 pertape plus $1 postage.

A WAR GAME FOR THE TI 99/4 & 4A
REQUIRES EXTENDED BASIC

PRICE .. $15
AVAILABLE FROM SELECTED COMPUTER OUTLETS

( )IT'S TIME I RENEWED MY MEMBERSHIP...
( )I WANNA JOIN TI.S.H.U.G.

APPLICATION FORM for MEMBERSHIP to TEXAS INSTRUMENTS HOMECOMPUTER USER GP.

MEMBERSHIP/RENEWAL FORM !!!

NAME:.....

ADDRESS:.....

TOWN/SUBURB:..... STATE:..... POSTCODE:.....

PHONE (HOME):..... (WORK):.....

[Students Only] AGE:.... SCHOOL:.....
[The following information is necessary for mailing list]

COMPUTER MODEL:..... SERIAL No.:..... DATE OF PURCHASE:.....
I am interested in the following areas (please be specific):

.....

SIGNATURE:..... DATE:.....

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