

MONTHLY MAGAZINE OF T.I.Sydney Home Computer User Group, Australia.



The Wonder Of Christmas



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A Note To Club Members from the Editorial Committee: T.I.S.H.U.G. cannot accept any responsibility or liability for modifications or otherwise to Club Members equipment. Sole responsibility lies with the user.

Younger Set with Jenny



Under 18's Page

Hello for the last time this year, gang. As you may be aware, the judging for the 1st Younger Set Software Awards is now complete, and I am happy to announce that the winner is "AIR DEFENCE" by MICHAEL PASCOE. The runner up is the author of "NIGHT RESCUE". I sincerely hope that all entrants can be present for the presentation at our SPECIAL CHRISTMAS MEETING on December 3rd.

On the subject of our Christmas meeting, it is our POT-LUCK CHRISTMAS DINNER. What everyone has to do is to bring a plate of food, which will be placed on a table for everyone to share.

Now that membership is growing, many enquiries have been directed about YOUNGER SET MEMBERSHIP. The answer for everyone is that the membership of TISHUG covers the whole family, that is, if your parents (or yourself) are members, then you are AUTOMATICALLY a Younger Set member. The only condition is that you must be under 18!!!!

Well, it's on again! Yes, February is the big WORKSHOP DAY, and there will probably ANOTHER big PLAYOFF for YOU. However, there'll be more Details in the February Newsdigest.

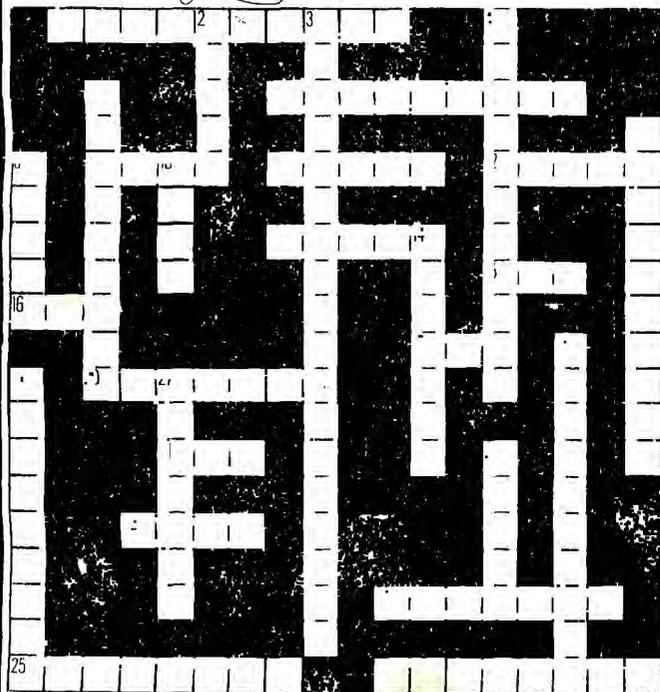
Just before I go, here are some ideas to use during the holidays. If you wish to drop me a line, at ANY time, the address is
p.o. box 595
MARRICKVILLE, 2204

Now here are those suggestions!

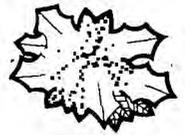
- Have a Tunnels Of Doom marathon with your friends
- A Parsec Tournament (Practising for the playoff!)
- Write a letter about any significant incident with your computer, and send it in.
- Write a program, or improve a club program, and also send it in. (I'll publish most listings)

Lastly, give a thought to the true meaning of Christmas.

Jenny



CROSSWORD PUZZLE



ACROSS

- Addition to System
- Translator which makes two different peripherals compatible
- Children's language
- Monster who chases Munchman
- Sometimes causes input error
- Language built into TI-99/4A
- Command to process program
- Command to leave program
- Mathematical term
- Program documentation within actual program
- Command to automatically number each line
- Terminates program execution
- Process of correction
- A danger when trying to find the Wumpus
- The first aliens to attack in the game PARSEC

DOWN

- New Educational Software
- Temporary space
- Number 1 of color code
- Command to make objects disappear on screen
- Cassette Access
- Command to transfer control to a different routine
- Basic computer unit
- Command to change line numbers
- Inexpensive storage
- Command that gives hard copy
- Type of screen

Programming Music TI BASIC

Programming music on the TI-99/4A, with the CALL SOUND command can produce delightful results.

To get started, you'll need to know how to read notes and their lengths, have a copy of the music you want to reproduce and locate the musical tone frequencies chart on page III-7 of the "User's Reference Guide."

The CALL SOUND command line consists of Duration (length of the note), Frequency (numerical equivalent of the note) and Volume (loudness or softness of the note);
100 CALL SOUND (Duration, Frequency, Volume)

If you wanted to program more than one tone at the same time, the line would look like this:
100 CALL SOUND (Duration, Frequency, Volume, Frequency2, Volume2, Frequency3, Volume3)

Whenever you program two or more notes together, the duration remains the same and is listed only once in the line.

The duration of a note depends on the time signature of the music. The signature tells you how many beats are in each measure and is indicated at the beginning of the music. For your first program, you may want to start with music written in a 4/4 signature (four beats to the measure).

To determine the duration, first choose the length of each measure. For example, if you choose 960 (a fast tempo) as the length of each measure, a quarter note would be 240 (1/4 of 960), a half note would be 480 (1/2 of 960) and a dotted half note would be 720 (3/4 of 960).

The frequency is the actual note. Frequencies for notes are listed in the "User's Reference Guide." The frequency for middle C, for example, is 262. The frequency for high C is 523.

Volumes range from 0 (loudest) to 10 (most quiet).

If you programmed a line to play middle and high C together as half notes at a fairly loud volume, the line would look like this:

100 CALL SOUND (480,262,1,523,1)

A program for "Deck the Halls" follows. Remember, you can make the music play faster or slower by changing the duration of each measure and of each note.

- 100 CALL SOUND (360,523,1,440,1)
- 200 CALL SOUND (120,466,1,392,1)
- 300 CALL SOUND (240,440,1,349,1)
- 400 CALL SOUND (240,392,1,330,1)
- 500 CALL SOUND (240,349,1,294,1)
- 600 CALL SOUND (240,392,1,330,1)
- 700 CALL SOUND (240,440,1,349,1)
- 800 CALL SOUND (240,349,1,262,1)
- 900 CALL SOUND (120,392,1,330,1)
- 1000 CALL SOUND (120,440,1,349,1)
- 1100 CALL SOUND (120,466,1,392,1)
- 1200 CALL SOUND (120,392,1,330,1)
- 1300 CALL SOUND (360,440,1,349,1)
- 1400 CALL SOUND (120,392,1,294,1)
- 1500 CALL SOUND (240,349,1,262,1)
- 1600 CALL SOUND (240,330,1,262,1)
- 1700 CALL SOUND (480,349,1,262,1)
- 1800 CALL SOUND (360,523,1,440,1)
- 1900 CALL SOUND (120,466,1,392,1)
- 2000 CALL SOUND (240,440,1,349,1)
- 2100 CALL SOUND (240,392,1,330,1)
- 2200 CALL SOUND (240,349,1,294,1)
- 2300 CALL SOUND (240,392,1,330,1)
- 2400 CALL SOUND (240,440,1,349,1)
- 2500 CALL SOUND (240,349,1,262,1)
- 2600 CALL SOUND (120,392,1,330,1)
- 2700 CALL SOUND (120,440,1,349,1)
- 2800 CALL SOUND (120,466,1,392,1)
- 2900 CALL SOUND (120,392,1,330,1)
- 3000 CALL SOUND (360,440,1,349,1)
- 3100 CALL SOUND (120,392,1,294,1)
- 3200 CALL SOUND (240,349,1,262,1)
- 3300 CALL SOUND (240,330,1,262,1)
- 3400 CALL SOUND (480,349,1,262,1)
- 3500 CALL SOUND (360,392,1,330,1)
- 3600 CALL SOUND (120,440,1,349,1)
- 3700 CALL SOUND (240,466,1,392,1)
- 3800 CALL SOUND (240,392,1,330,1)
- 3900 CALL SOUND (360,440,1,349,1)
- 4000 CALL SOUND (120,466,1,392,1)
- 4100 CALL SOUND (240,523,1,440,1)
- 4200 CALL SOUND (240,392,1)
- 4300 CALL SOUND (120,440,1,349,1)
- 4400 CALL SOUND (120,494,1,392,1)
- 4500 CALL SOUND (240,523,1,392,1)
- 4600 CALL SOUND (120,587,1,392,1)
- 4700 CALL SOUND (120,659,1,392,1)
- 4800 CALL SOUND (240,698,1,440,1)
- 4900 CALL SOUND (240,659,1,392,1)
- 5000 CALL SOUND (240,587,1,349,1)
- 5100 CALL SOUND (480,523,1,330,1)
- 5200 CALL SOUND (360,523,1,440,1)
- 5300 CALL SOUND (120,466,1,392,1)
- 5400 CALL SOUND (240,440,1,349,1)
- 5500 CALL SOUND (240,392,1,330,1)
- 5600 CALL SOUND (240,349,1,294,1)
- 5700 CALL SOUND (240,392,1,330,1)
- 5800 CALL SOUND (240,440,1,349,1)
- 5900 CALL SOUND (240,349,1,262,1)
- 6000 CALL SOUND (120,587,1,349,1)
- 6100 CALL SOUND (120,587,1,349,1)
- 6200 CALL SOUND (120,587,1,349,1)
- 6300 CALL SOUND (120,587,1,349,1)
- 6400 CALL SOUND (360,523,1,330,1)
- 6500 CALL SOUND (120,466,1,392,1)
- 6600 CALL SOUND (240,440,1,349,1)
- 6700 CALL SOUND (240,392,1,330,1)
- 6800 CALL SOUND (480,349,1,294,1)
- 6900 END

GREETINGS!!!!

This is to introduce myself to the members who were not able to come to the A.G.M. I have been a member of the club now for about two years, when a year ago Shane seconded me on to the committee as liasion officer.

My trade is the real estate game where I have learnt the power of bulk purchasing, which I intend to bring to bear in the interest of the club as a whole.

FIRSTLY, and most importantly, I have contacted T.I. Mr Ellero who has agreed to give us a letter to the effect that they are prepared to support the Home Computer, i.e. repairs, spare parts, etc. for the next FIVE years, also they expect to continue support for software up to 1984, as to the Service Club he will give no undertaking except that he expects that if it is supported by users, it will probably continue, but in another form.

SECONDLY, I intend to putto the committee that we immediately contact overseas suppliers of software, and become agents or effect licence agreements with them, so as to be able to supply you with new and innovative software and hardware.

THIRDLY, I have contacted several computer companies with a view to bulk purchase hardware and found that if at least 5 persons were able to purchase the peripheral expansion box plus disk drives, we could expect a saving of AT LEAST 10%.

FINALLY, I believe we must try to get members interested in and start sub-groups for

- LOGO
- DISC DRIVES
- MACHINE LANGUAGE
- DISTRICT GROUPS
- MODULE EXCHANGE

WOULD YOU PLEASE BRING YOUR IDEAS TO THE BIG DECEMBER MEETING.

- Thanking You,
- PETER VARGA
- Co-Ordinator.

MINUTES

By J.R.



By now you should have received your first SOFTEX magazine - if you have subscribed.

We have ordered more copies of the Millers Graphics "Smart Programming For Sprites" - we expect delivery in time for the meeting.

We recently received the Assembly Language Tutor. I have found it an excellent aid in mastering the Minimemory - I recommend it highly. A review will follow in the next newsletter.

We decided to purchase disks and disk storage units from MEMOREX PTY LTD. Our first shipment has arrived from French's Forest, where MEMOREX has recently moved. They plan local production next year.

In last month's newsletter Brian Rutterfords name was omitted as the monthly software competition winner. A \$50.00 cheque was presented to Brian by our new Co-Ordinator Peter Vaga.



A new tape EXTENDED BASIC VOLUME ONE #4 will be available at the next meeting.

We still have back issues of the 99er magazine available. They would make a excellent Christmas Present. Save \$2.00 with one order of five or more.

We have received a letter from the 99er Home Computer Magazine assuring us that they will continue to support the 99/4A.

I QUOTE:-

"ALTHOUGH THE VAGARIES OF THE MARKETPLACE AND THE REALITY OF CORPORATE PRIORITIES HAVE HALTED ITS PRODUCTION, THIS DOES NOT DIMINISH THE CAPABILITY OF YOUR MACHINE.

THE T.I. HOME COMPUTER REMAINS A POWERFUL TOOL WITH A WEALTH OF UNTAPPED POTENTIAL.

OUR MAGAZINE WILL CONTINUE TO COVER ALL ASPECTS OF HOME COMPUTING -- EDUCATION, GAMING, WORD PROCESSING AND MORE -- FOR OWNERS OF T.I. MACHINES, WHOSE RANKS NOW INCLUDE OVER ONE MILLION MEMBERS".

Last month we had 46 new members join.

We are receiving on the average 8 inquires a day from new owners of the 99/4A.

I wish you and your families a very happy Christmas, bright, healthy and prosperous New Year.

HAPPY COMPUTING
JOHN ROBINSON

Join our family of TI USERS with over 50,000 MEMBERS worldwide - within...

**International
99/4
Users-Group**



Overseas Membership...\$18.00

() Please send me more information about I.U.G
() I wanna join I.U.G...
Please find enclosed my membership fee.

NAME _____
ADDRESS _____

Post Code(zip) _____
I am a member of T.I.S.H.U.G.

**International
99/4
Users-Group**



P.O. Box 67
Bethany, OK
73008

editorial

Well, by now all of you would have read that TEXAS INSTRUMENTS decided to opt-out of the HOME COMPUTER market.

After the news came to Australia early last month, literally thousands of new 99/4A's were and are still being sold for a cost of \$199.00.

A large number of our club members have been seeking my advise as to what happens now ????

Firstly, T.I. Australia has mentioned that their warehouse is full of software and they will continue to honour their promise of support with warranties.

I received a call from John Volk in Arkansas (U.S.A.), who said that he phoned Edward Weiss at T.I. in Texas, about software support.

Edward apparently told John that all the new software titles planned for production in November would be produced.

Infact, T.I. kept their promise and have released their

new titles, and CLAUDIO at TI has told me that he is

trying to get as many of them here before CHRISTMAS.

Now, what about you and your computer in relation to T.I.S.H.U.G.

continue to get support from us, with software and programming advice for many years to come.

However, it does depend on what you are doing with your T.I. If you have learned to program, or use your T.I. for things like Word Processing, Modem Communications and Education, ETC then you will find yourself supporting your computer with our help.

But if you just play games and don't use your T.I. for other things, then you are sadly going to miss out.

Remember that well over 1 MILLION T.I.'S have been sold throughout the world, and software support will not dwindle for some considerable time.

It will, however, depend a lot on people like yourself, to keep this system alive. One of the ways you can do this is to contact companies like MILTON BRADLY P/LTD, here in Sydney, and remind them that they have produced a large number of programmes for the TI, and you would like them to keep it up. One of their products is the VOICE ACTIVATED MBX SYSTEM which we should insist they bring to Australia. This system works with games like BASEBALL and a number of others, which you tell the computer the moves via a microphone/headset, and it will speak back to you. (READ ALL ABOUT THIS IN THE LATEST 99'er MAGAZINE now on sale at the next Club meeting, and at COMPUTER WAVE.

There are rumours that a CLONE to out TI-99/4A is being produced, and we know that TI will be handing over the rights to other companies to produce both the hardware and software in the very near future. But we know that many of you have been feeling much frustrations over this news...but let me mention right now, that YOU STILL HAVE ONE OF THE BEST LITTLE HOME COMPUTERS ON THE MARKET, even if T.I. Australia knew nothing about marketing this product. It has been, and will continue to be one of the best.

NOW, LET'S TALK ABOUT OUR DECEMBER CLUB MEETING

This next meeting will take the form of a sure social activity, infact, we call it our **POT-LUCK-DINNER**. The club will provide the softdrinks, plates forks etc, and YOU BRING A POT or DISH of your favourite meal. We place that pop on a centre table, just like a huge SMORG-AS-BORD (close enough), and we all share the fun, food, and fellowship. For those of you who have been to our meeting in the past...You will be able to get that valuable time to get to know the others on the team.

For you who have never attended a T.I.S.H.U.G. meeting before, we bid you welcome. **REMEMBER!** The first Saturday of December (3rd) at 2pm SHARP through to 4:30pm. **WE WILL HAVE PRIZES TO GIVE AWAY,** and presentations to be made. At the St. John's Church Hall, VICTORIA ST, DARLINGHURST, near St. Vincents Hospital. C U THERE.

I'LL TAKE THIS OPPORTUNITY TO WISH YOU ALL A VERY HAPPY CHRISTMAS AND A HEALTHY NEW YEAR...remembering to DRIVE TO ARRIVE ALIVE as we care about you.!!!

Our next monthly magazine will be out just before FEBRUARY, so bi bi for now.

SHANE ANDERSEN.

(Editor)

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100 REM *****
110 REM COMMODORE KILLER *
111 REM FROM CHANNEL 99
112 REM HAMILTON USERS
113 REM GROUF CANADA
120 REM *****
130 REM BY MIKE TOWERS
140 REM TI BASIC
150 CALL CLEAR
160 RANDOMIZE
170 CALL CHAR(33,"E242424224181800")
180 CALL CHAR(42,"1818181818181818")
190 CALL CHAR(99,"00000CABAEAE2E2")
200 CALL CHAR(126,"00000C42A4ABAE4")
210 ROW=3
220 MROW=23
230 COL=16
240 OCOL=16
250 SCORE=0
260 FOR L=1 TO 14
270 CALL COLOR(L,1,16)
280 NEXT L
290 PRINT :TAB(6);"COMMODORE KILLER":::::TAB(13);"BY"
:::TAB(9);"MIKE TOWERS":::::
300 PRINT ::::::"C 1983":::"PRESS ENTER TO BEGIN"
310 CALL SCREEN(2)
320 CALL KEY(3,K,5)
330 IF K<>13 THEN 320
340 CALL SCREEN(2)
350 CALL CLEAR
360 CALL SCREEN(15)
370 MCOL=INT(RND*30)+2
380 IF MCOL<>16 THEN 410
390 MROW=MROW-1
400 IF MROW<4 THEN 840
410 CALL HCHAR(MROW,MCOL,99)
420 CALL COLOR(1,6,16)
430 CALL COLOR(2,9,16)
440 CALL COLOR(9,7,16)
450 CALL COLOR(12,7,16)
460 CALL KEY(3,K,5)
470 IF K<>83 THEN 490
480 COL=COL-1
490 IF K<>68 THEN 510
500 COL=COL+1
510 IF K<>88 THEN 670
520 OROW=4
530 FOR BROW=4 TO 24
540 CALL GCHAR(BROW,COL,H)
550 CALL HCHAR(BROW,COL,32)
560 CALL VCHAR(BROW,COL,42)
570 MCOL=INT(RND*29)+2
580 IF MCOL<>16 THEN 610
590 MROW=MROW-1
600 IF MROW<4 THEN 840
610 CALL HCHAR(MROW,MCOL,99)
620 IF H=99 THEN 760
630 IF H=126 THEN 930
640 OROW=BROW
650 NEXT BROW
660 CALL HCHAR(24,COL,32)
670 CALL HCHAR(ROW,OCOL,32)
680 IF COL<2 THEN 700
690 IF COL>31 THEN 720 ELSE 730
700 COL=2
710 GOTO 730
720 COL=31
730 CALL HCHAR(ROW,COL,33)
740 OCOL=COL
750 GOTO 370

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760 CALL HCHAR(BROW,COL,126)
770 CALL SOUND(-100,-5,0)
780 CALL SCREEN(10)
790 CALL SOUND(75,-6,5)
800 CALL SCREEN(15)
810 CPV=INT(RND*25)+1
820 SCORE=SCORE+CPV
830 GOTO 670
840 CALL CLEAR
850 CALL SCREEN(4)
860 PRINT "YOUR SCORE WAS ";SCORE:
870 PRINT "PLAY AGAIN <Y/N>"
880 CALL KEY(0,K,S)
890 IF K<>89 THEN 910
900 GOTO 150
910 IF K<>78 THEN 880
920 END
930 CALL HCHAR(BROW,COL,32)
940 CALL SOUND(-100,-3,0)
950 CALL SCREEN(10)
960 CALL SOUND(75,-3,5)
970 CALL SCREEN(15)
980 DCPV=INT(RND*5)+1
990 SCORE=SCORE+DCPV
1000 GOTO 670

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100 CALL CLEAR
110 REM DECK THE HALLS
120 PRINT TAB(7);"DECK THE HALLS"
130 PRINT TAB(8);"ROSS JENNENS"
140 PRINT TAB(5);"MAIN ROAD OLINDA VIC"
150 PRINT
160 PRINT
170 PRINT
180 INPUT "PRESS ENTER TO START":ZF
190 FOR DELAY=1 TO 50
200 PRINT
210 NEXT DELAY
211 CALL CHAR(104,"01030509133C79BB")
212 CALL CHAR(105,"80C0A090CBAC9EDD")
213 CALL CHAR(106,"25499325499707FF")
214 CALL CHAR(107,"A49209A492E9E0FF")
215 CALL VCHAR(20,16,104)
216 CALL VCHAR(20,17,105)
217 CALL VCHAR(21,16,106)
218 CALL VCHAR(21,17,107)
220 PRINT "DECK THE HALLS WITH BOUGHS OF HOLLY"
230 PRINT "FA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA!"
240 PRINT "'TIS THE SEASON TO BE JOLLY"
250 PRINT "FA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA!"
260 PRINT "DON WE NOW OUR GAY APPAREL"
270 PRINT "FA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA!"
280 PRINT "TROLL THE ANCIENT YULE-TIDE CAROL"
290 PRINT "FA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA!"
300 C=523
310 B=466
320 A=440
330 G=392
340 F=349
350 E=330
360 D=587
370 S=659
380 T=698
390 R=494
391 O=262
392 N=220
393 P=196
394 U=233
395 V=165
396 W=175
397 X=247
400 M=2
410 I=100
420 J=200
430 K=300
440 L=400
450 CALL SOUND(K,C,M,N,M,W,M)
460 CALL SOUND(I,B,M,N,M,W,M)
470 CALL SOUND(J,A,M)
480 CALL SOUND(J,G,M)
490 CALL SOUND(J,F,M,N,M,W,M)

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THIS IS MARK,
ONE OF OUR MANY
ACTIVE MEMBERS
OF T.I.S.H.U.G.

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500 CALL SOUND(J,B,M,N,M,W,M)
510 CALL SOUND(J,A,M)
520 CALL SOUND(J,F,M)
530 CALL SOUND(I,G,M,U,M)
540 CALL SOUND(I,A,M,U,M)
550 CALL SOUND(I,B,M,U,M)
560 CALL SOUND(I,B,M,U,M)
570 CALL SOUND(K,A,M,O,M)
580 CALL SOUND(I,G,M,O,M)
590 CALL SOUND(J,F,M)
600 CALL SOUND(J,E,M)
610 CALL SOUND(L,F,M,N,M,W,M)
620 CALL SOUND(K,C,M,N,M,W,M)
630 CALL SOUND(I,B,M,N,M,W,M)
640 CALL SOUND(J,A,M)
650 CALL SOUND(J,O,M)
660 CALL SOUND(J,F,M,N,M,W,M)
670 CALL SOUND(J,G,M,N,M,W,M)
680 CALL SOUND(J,A,M)
690 CALL SOUND(J,F,M)
700 CALL SOUND(I,G,M,U,M)
710 CALL SOUND(I,A,M,U,M)
720 CALL SOUND(I,B,M,U,M)
730 CALL SOUND(I,G,M,U,M)
740 CALL SOUND(K,A,M,O,M)
750 CALL SOUND(I,G,M,O,M)
760 CALL SOUND(J,F,M)
770 CALL SOUND(J,E,M)
780 CALL SOUND(L,F,M,N,M,W,M)
790 CALL SOUND(K,B,M,O,M,V,M)
800 CALL SOUND(I,A,M,O,M,V,M)
810 CALL SOUND(J,B,M)
820 CALL SOUND(J,G,M)
830 CALL SOUND(K,A,M,O,M,W,M)
840 CALL SOUND(I,B,M,O,M,W,M)
850 CALL SOUND(J,C,M)
860 CALL SOUND(J,G,M)
870 CALL SOUND(I,A,M,W,M)
880 CALL SOUND(I,R,M,W,M)
890 CALL SOUND(J,C,M,W,M)
900 CALL SOUND(I,D,M,W,M)
910 CALL SOUND(I,S,M,W,M)
920 CALL SOUND(J,T,M,W,M)
930 CALL SOUND(J,S,M,F,M)
940 CALL SOUND(J,D,M,X,M)
950 CALL SOUND(L,C,M,O,M)
960 CALL SOUND(K,C,M,N,M,W,M)
970 CALL SOUND(I,B,M,N,M,W,M)
980 CALL SOUND(J,A,M)
990 CALL SOUND(J,G,M)
1000 CALL SOUND(J,F,M,N,M,W,M)
1010 CALL SOUND(J,B,M,N,M,W,M)
1020 CALL SOUND(J,A,M)
1030 CALL SOUND(J,F,M)
1040 CALL SOUND(I,D,M,U,M)
1050 CALL SOUND(I,D,M,U,M)
1060 CALL SOUND(I,D,M,U,M)
1070 CALL SOUND(I,D,M,U,M)
1080 CALL SOUND(K,C,M,N,M)
1090 CALL SOUND(I,B,M,N,M)
1100 CALL SOUND(K,A,M,O,M)
1110 CALL SOUND(J,G,M,U,M)
1120 CALL SOUND(L,F,M,N,M,W,M)
1130 INPUT "DO YOU WANT TO DO IT AGAIN?":P#
1140 IF P#="Y" THEN 450
1150 IF P#="YES" THEN 450
1160 IF P#="N" THEN 1200
1170 IF P#="NO" THEN 1200
1180 PRINT "YES OR NO OR Y OR N!!"
1190 GOTO 1130
1200 PRINT "*** DONE **"
1210 PRINT "*** DONE **"
1220 PRINT "*** DONE **"
1230 PRINT "*** DONE **"
1240 PRINT "*** DONE **"
1250 PRINT "*** DONE **"
1260 PRINT "*** DONE **"
1270 END

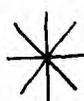
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560 REM *****
570 REM * HOME *
580 REM *****
590 CALL HCHAR(22,8,96):: CALL SOUND(50,-7,0)
600 CALL JOYST(JS,X,Y):: RD1=RD1+SGN(9-RD1)*HARD :: CD1=CD1+SGN(64-CD1)*HARD ::
RD2=RD2+SGN(176-RD2)*HARD
610 CD2=CD2+SGN(226-CD2)*HARD :: CALL LOCATE(#1,ROW,COL,#2,RD1,CD1,#3,RD2,CD2)
620 CALL GCHAR((ROW-Y+7)/8,(COL+X+7)/8,CH):: IF CH/32 OR CH=122 THEN ROW=ROW-Y :
COL=COL+X ELSE 600
630 IF ROW<24 THEN 670 ELSE 600
640 REM *****
650 REM * SCORE & RESET *
660 REM *****
670 SC=SC+HARD*10+100 :: DISPLAY AT(2,1)SIZE(5):SC :: HARD=HARD+.5 :: GOTO 160
680 CALL COINC(#1,#2,6,HIT1):: CALL COINC(#1,#3,6,HIT2):: CALL COINC(#2,#3,6,HIT
3):: IF HIT1 OR HIT2 OR HIT3 THEN 730
690 CALL COINC(#1,#4,6,HIT1):: CALL COINC(#1,#5,6,HIT2):: CALL COINC(#1,#6,6,HIT
3):: IF HIT1 OR HIT2 OR HIT3 THEN 770
700 CALL COINC(#2,#4,6,HIT1):: CALL COINC(#2,#5,6,HIT2):: CALL COINC(#2,#6,6,HIT
3):: IF HIT1 OR HIT2 OR HIT3 THEN 760
710 CALL COINC(#3,#4,6,HIT1):: CALL COINC(#3,#5,6,HIT2):: CALL COINC(#3,#6,6,HIT
3):: IF HIT1 OR HIT2 OR HIT3 THEN 770
720 ON PLACE GOTO 330,540
730 IF HIT3 THEN C ALL PATTERN(#3,129):: GOTO 720
740 FOR I=2000 TO 5000 STEP 150 :: CALL SOUND(-100,110,30,110,30,I,30,-8,0):: NE
XT I
750 CALL DELSPRITE(ALL):: GOTO 850
760 FOR I=0 TO 30 STEP 3 :: CALL SOUND(-100,-5,I):: NEXT I :: CALL DELSPRITE(ALL
):: GOTO 850
770 SC=SC+10*HARD :: DISPLAY AT(2,1)SIZE(5):SC :: FOR I=1 TO 30 STEP 3 :: CALL S
OUND(-100,-7,I):: NEXT I
780 CALL PATTERN(#2,129):: IF HIT1 THEN CALL DELSPRITE(#4):: GOTO 720
790 IF HIT2 THEN CALL DELSPRITE(#5)ELSE CALL DELSPRITE(#6)
800 GOTO 720
810 SC=SC+10*HARD :: DISPLAY AT(2,1)SIZE(5):SC :: FOR I=1 TO 30 STEP 3 :: CALL S
OUND(-100,-7,I):: NEXT I
820 CALL PATTERN(#3,129):: IF HIT1 THEN CALL DELSPRITE(#4):: GOTO 720
830 IF HIT2 THEN CALL DELSPRITE(#5)ELSE CALL DELSPRITE(#6)
840 GOTO 720
850 CALL CLEAR :: DISPLAY AT(5,1):"SORRY YOU LOSE BUT YOUR":"SCORE WAS:-":SC
860 DISPLAY AT(10,1):" PLAY AGAIN Y/N "
870 CALL KEY(3,KEY,STAT):: IF STAT=0 THEN 870
880 IF KEY=ASC("Y")THEN 100 ELSE END

```



STOP PRESS: WANT TO SELL, I.B.M. MAGNETIC TAPE SELECTRIC TYPEWRITER \$50.00.

- INCLUDES: (1) CONSOLE/SLAVE TYPEWRITER
- (2) BOX OF SPARE TAPES. 10+(?)
- (5) 4 MANUALS/BOOKS.

IT NEEDS SOME TUNING/ADJUSTMENTS

CONTACT: I.E.N EASTMAN (02) 481662

PRODUCT CONFIGURATION CHART

R = Required
O = Optional

FUNCTION	ADAPT COP	ASSEMBLY PLATE I/O	JOYSTICKS	SPEECH SYNTHESIZER	EXTENDED BASIC	F	INTF	DISK CONTROLLER	P-CODE CARD	232 CARD	PRINTER	SPECIAL CARTRIDGE		
CASSETTE STORAGE/RETRIEVAL	R	R												
DATA BASE ACCESS					O	R		R			O	O		
DISK STORAGE/RETRIEVAL							R				R			
GRAPHICS (TI BASIC)														
MUSIC														
SPEECH				R	O	O								
PRINTING							R		R		R			
LANGUAGES	C	C	J	SS	TE	EB	PES	ME	232	P-C	D	P	PM	SC
ASSEMBLY (EDITOR/ASSEMBLER)	R						O	R	R	O		R	O	Yes**
ASSEMBLY (Mini Memory)	R	R						O	O					Yes**
UCSD PASCAL™ ¹	R	O		O			R	R	O	R	O	O		Yes***
TI-PILOT	R			O			R	R	O	R	O	O		Yes****
TI-BASIC	R	O		O			O	O	O	O	O	O		†
TI-EXTENDED BASIC	R	O		O		R	O	O	O	O	O	O		Yes
TI LOGO	R	O					R	R			O			Yes**
SOLID STATE SOFTWARE™	C	C	J	SS	TE	EB	PES	ME	232	P-C	D	P	PM	SC
CASSETTE SOFTWARE	R	R												
DISK SOFTWARE							R				R			
EDUCATIONAL CARTRIDGES 1, 2				O	O									Yes
GAME CARTRIDGES ¹				O	O									Yes
HOUSEHOLD BUDGET MANAGEMENT				O	O						O	O		Yes
HOME FINANCIAL DECISIONS											O	O		Yes
MICROSOFT™ MULTIPLAN (Spread Sheet) ²							R	R	O		R	O		Yes
PERSONAL REAL ESTATE				O							O	O		Yes
PERSONAL RECORD KEEPING				O							O	O		Yes
SECURITIES ANALYSIS														Yes
TIWRITER (WORD PROCESSING) ³							R	R	R		R	R		Yes

† Regents of the University of California

¹ A limited number may require use of cartridge and disk or cassette.

² Some require the Speech Synthesizer.

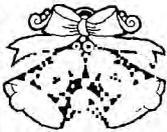
³ Available first quarter 1983 (1Q83)

- * The required items for speech are a synthesizer and one of the following: Extended Basic, TE II or Speech Editor, a module with built-in speech (Early Reading, for example) or PASCAL.
- ** Assembly Language also may be developed by using a P-Code Card, Memory Expansion Card, Peripheral Expansion System, Disk Drive and Controller and P-System Editor/Filer/Utility and Assembler/Linker Disks. You can run, but not write Assembly Language from Extended Basic.
- *** To run P-Code (PASCAL) Programs, the following is required: Peripheral Expansion System, Memory Expansion Card, P-Code Card and hardware appropriate for the software (Disk Drive and Controller for disks, cassette player and cables for tape, nothing else for cartridge). To write P-Code programs, the following is required: Peripheral Expansion System, Memory Expansion Card, P-Code Card, Disk Controller, at least one Disk Drive (two drives are better) and the P-System Editor/Filer/Utility and PASCAL Compiler Disks.
- **** To run TI-PILOT lessons, the following is required: Peripheral Expansion System, Memory Expansion Card, P-Code Card, Disk Controller, at least one Disk Drive and the TI-PILOT Disk. The same items are required to write TI-PILOT lessons. The P-System Editor/Filer/Utility Disk also is required for writing lessons.

Stand-alone peripherals may be substituted for any function which requires the Peripheral Expansion System and one or more cards.

† TI-BASIC can be run with Memory Expansion only when the Mini-Memory Cartridge is used.

** TI LOGO II (available late first quarter 1983) can use the RS-232 Interface Card and printer. TI LOGO can use only the TI Thermal Printer.



EDUCATIONAL LEARNING ENVIRONMENT

Well here we are at last!!! I have been threatening to compile this "Educational Software Directory" for over 9 months now and, I must say, with constant harrassment from Shane, I have finally "got it all together."

Over the last two weeks we have seen our HOME COMPUTER selling for under \$200.00 and it has been selling like it was going out of style (Not a good choice of words there, Peter - Editor.) With this increase in owners will come an inevitable increase in Club Membership and your new committee will be busy over the next month or so processing these applications. I would like to, in advance, welcome all new members to the world of Home Computing and look forward to hearing from you.

Education seems to be a driving force behind many family's decisions to buy the 99/4a and rightly so since it is a very versatile educational tool. With the software selling at half price or less it has been in great demand. To help all those who are looking for educational software for their children (and even themselves!!) this month's "CENTREFOLD" will be a useful starting point.

1. MIND CHALLENGERS (PHM 3025, \$29.95)

This Command Cartridge offers two games that will test your mental powers, Memory Match and Mind Grid. Memory Match is like the traditional "Simon" guessing game that asks you to match colours and sounds generated by your Home Computer. A choice of four skill levels will certainly test your concentration and awareness. On the other hand, Mind Grid is a code-breaking program for ages 10 years and up. Colours and shapes are hidden in a grid and you have to remember their positions. You can adjust the size of the grid and the number of shapes and colours in that grid. An amusing way to spend a Sunday afternoon!

2. MARKET SIMULATION (PHT 6018, \$19.95 or PHD 5018, \$29.95)

A must for teachers of Economics and advanced level Commerce. This disk or cassette based program offers an ideal way to learn about markets and business principles. It allows the users to compete against each other in a simulated business situation. Both players (or groups of players) buy and sell the same products and the object is to be the most successful. I think it is a good way to practically teach some of the theories of the business world. An introductory booklet comes with the program with instructions for setting up and play.

3. MUSIC MAKER (PHM 3020, \$29.95)

Teachers of music and even those who wish to learn about music at homewill find this quite a good buy. Users can create their own original musical scores or copy sheet music. There are two forms of composing, either the traditional mode of placing notes on a musical staff one measure at a time or Sound Graphs which allow you to draw lines that represent musical notes. After you have created your "Meisterwerk" (Masterpiece, I think!!) the Music Maker cartridge allows it to be saved to tape or disk. (See "The Eumper Book of Lists and Reviews" for a much more in-depth review of this versatile tool.)

4. OLDIES BUT GOODIES I (PHT 6015, \$19.95 or PHD 6015, \$24.95)

Five useful educational-type programs on one cassette/disk makes this good value (at least to me it does -- it was one of the first programs I Bought about 14 months ago and I still enjoy it.) Word Scramble, Number Scramble, Factor Foe, Biorhythms and Tic Tac Toe use many of the Home computers colour and sound features to teach Math and English concepts.

5. SPEAK AND SPELL/SPEAK AND MATH (PHD 5030 and PHD 5031, \$29.95)

These two programs are similar in design and execution so I've put them together here, although "Speak and Math" is available on tape (PHT 5031, \$19.95). You will need a Speech Synthesiser, and if you buy the disks, a Disk-based system. I will describe the "Speak and Spell" program only since the principle behind each is the same. Five activities are included: Spell-pronounces a word and asks you to spell it from the keyboard; Mystery Word-a spelling guessing game with words chosen randomly by the computer; Say it-prompts the user to say a word then spell it; Secret Code-codes a word so that no-one can read it until the coded word has been entered and decoded by the Computer. This program will strengthen your child's spelling (and math) skills and the interaction between user and computer is a valuable educational aspect. A final point however, I personally feel better use could have been made of the speech facilities available to T.I. but that's not to say it isn't a worthwhile program. Many other computer users are indeed envious of the T.I.'s speech capabilities.



Demolition Division



Alien Addition

6. ADDITION SUBTRACTION I (PHM 3027, \$29.95)

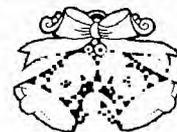
This cartridge was jointly designed by T.I. and Scott, Foresman Co. It provides a positive introduction to mathematics for children in their first years at school. The cartridge begins by teaching the basic concept of counting to nine, using an example and practice drill features so that learning takes place at the child's own pace. This is an essential feature of quality educational software! There are 9 different activities which increase in skill difficulty. A speech synthesiser is recommended to get the full educational advantage out of this cartridge.

7. COMPUTER MATH GAMES II,VI (PHM 3083 PHM 3088, \$29.95 ea.)

Developed by the Addison-Wesley Co. Maths Games is designed with progressive levels of difficulty for children up to Junior Secondary



EDUCATIONAL SOFTWARE



level. Games II has five individual games incorporating basic functions and exponents including colour graphics and music for between 1 and 3 players. Games VI was created for students also up to Junior Secondary but Lower Primary might find the concepts introduced a little beyond them. They are using whole numbers, fractions, decimals, and integers. There are 4 individual games - Math Asteroids, Around the Schoolyard, Math Baseball, and Math Triangles. Up to two players can play.

8. SCHOLASTIC SPELLING (Special Package: Levels 3,4,5,6, PHL 7008, \$169.00 But are available separately for \$49.50 ea.)

One of the more impressive educational software packages from Scholastic Publishing Co. It is aimed at children in Upper Primary and a speech synthesiser would be an advantage. Each cartridge deals with its own particular level and they feature text-to-speech facilities using allophones. Each cartridge uses a separate vocabulary with 30 new lessons, six review lessons, and at least 16 words per lesson. An activity booklet is provided with each cartridge to help the child along. Being an interactive type of educational package I would recommend you have a look at it.

9. MILLIKEN MATH SERIES (Cartridge, \$29.95 ea.)

There are 8 cartridges in the Milliken Math Series - Addition (PHM 3090), Subtraction (PHM 3091), Multiplication (PHM 3092), Division (PHM 3093), Integers (PHM 3094), Fractions (PHM 3095), Decimals (PHM 3096), and Percents (PHM 3097). These cartridges are "drill and practice" by design for children up to Junior Secondary level. They have 75 different problem levels including colour graphics and special rewarding sound effects. They are definitely worthy of your consideration at the current prices. Each comes with a comprehensive booklet to help your child get started and achieve success.

10. OTHER PACKAGES AVAILABLE.

Most of the following have been, at one time or another, discussed in the pages of the SYDNEY NEWSDIGEST:

Reading Fun (PHM 3043), Reading On (PHM 3046), Reading Roundup (PHM 3047), Reading Rally (PHM 3048), Reading Flight (PHM 3082), and Division One (PHM 3049). They are now available at \$29.95 each.

ACKNOWLEDGEMENTS:

Thanks to the International 99'er Users Group for some of the information used in these reviews. The "Bumper Book of Lists and Reviews" is available in limited quantities from me at 11 Toohey Avenue, Westmead, 2145. N.S.W. for \$13.00 Postage Paid.

A TI LOGO CHRISTMAS

Daniel Sabath, an 11-year-old from Lubbock, Tex., designed and wrote the following Christmas program.

"I want to thank my LOGO teacher, Rebecca Powers, and my friend, Carey Wilson, for their help," says Daniel.

Thank you, Daniel, for sharing your holiday program!

Daniel also wrote a short story to go along with his procedure. You can read this to your friends as they watch the tree.

"You are walking on the night of Christmas Eve. You are lost... Snow is starting to fall. In the distance, you see a window. As you come closer, you see a Christmas tree with blinking lights... As you walk toward the tree, you discover you're no longer lost. You're at your friend's house!"

To do this procedure, you will need a TI LOGO Command Cartridge. You probably will want to save your procedure on cassette tape or disk.

1. Make MAKESHAPES 6, 7, 8, 9, 10 and 11. You can make the tree bigger by using more makeshapes. Daniel used two makeshapes, one for each side of the tree. You could add two more to the bottom. If you make your tree bigger, remember to make your window bigger also.

2. Then, type in:

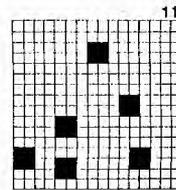
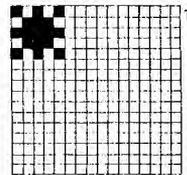
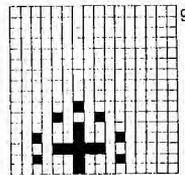
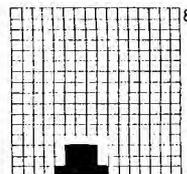
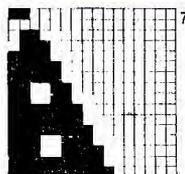
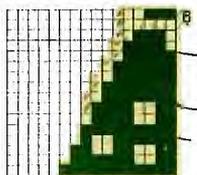
```

TO YULE
CB 1
WINDOW
SNOW
TREE
LIGHTS

TO WINDOW
TELL TURTLE
ST
HOME
SC 15
PU
BK 17
RT 90
PD
FD 30
LT 90
FD 30
LT 90
FD 60
REPEAT 4(LT 90 FD 30)
LT 90
FD 15
LT 90
FD 60
HT
END

TO SNOW
MAKE "N 8
10: TELL :N
CARRY 10
SC 15
SXY RANDOM . 40 - 120
SS :N * 2 SH 182
IF :N = 16 THEN STOP
MAKE "N :N + 1
GO "10
END

TO TREE
TELL 1
CARRY 6
SC 2
HOME
TELL 2
CARRY 7
SC 2
HOME
SH 90
FD 16
TELL 3
CARRY 8
SC 2
HOME
SH 0
FD 16
SH 90
FD 8
TELL 4
CARRY 9
SC 10
HOME
SH 0
FD 19
SH 90
FD 8
END
    
```



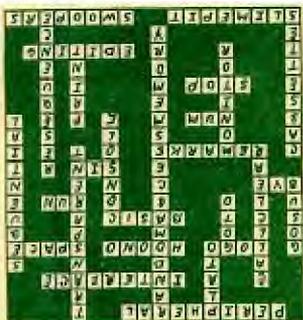
To see your tree, type in TREE. If you need to make changes, type in EDIT TREE and make your changes.

To see your finished product, type in YULE and press TREE.

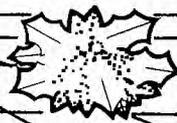
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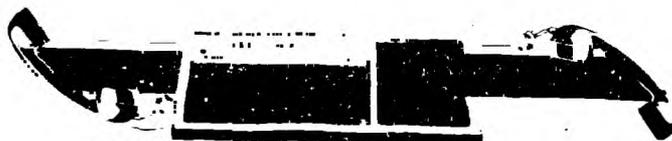
TO LIGHTS
TELL 5
CARRY 11
HOME
SH 90
FD 8
10: SC 6
WAIT 25
SC 2
WAIT 20
GO "10
END
    
```

Take care over Christmas. Peter.



Puzzle Answers





Noël

THE COMMUNICATORS

Because of the growing amount of members in this group who have TELEPHONE MODEMS connected to their TI HOME COMPUTER, we started this new column. The idea was to introduce them to the many Data Bases and Electronic Mail services throughout Australia and the world. The guest columnist this month, is our club Secretary, who is one of those users of the new Electronic medium. John takes a look at MiCC (Mi Computer Club) Bullitan Board Service. In our next issue (FEBRUARY '84) we'll tell you all about the fantastic B.B.S. called THE AUSTRALIAN BEGINNING. And now, here's John:

COMMUNICATING WITH A DATABASE

For those members who have recently purchased modems the best way to learn how to communicate with a database is to practice on the Mi-Computer Club Bulletin Board for the cost of a local phone call (662-1686).

This board is open 23 hours a day (closed 7am - 8am). Up to 10 guest log-ons are possible. Therefore you must subscribe to YOUR COMPUTER magazine pay a once only \$20.00 joining fee. There is no renewal or connect charges.

Here is a run down of a log on...

HOW MANY NULLS DO YOU NEED (0-9)?

0 is usually satisfactory.

WHAT IS YOUR FIRST NAME ? Type in your name
WHAT IS YOUR LAST NAME ? Type in your name

CHECKING USER FILE.....

WHERE (SUBURB, STATE) ARE YOU CALLING FROM ?
Type in your SUBURB STATE.

The system will then respond with a personalised message.
Hello FIRST LAST NAME from SUBURB.
Did I misspell anything ? Y/N.

A series of questions will follow if you are a first time caller. The system will tell you what number your call is. Presently in the 4000 series this number of calls has been made in only eight months of operation.

To the CP/M prompt will follow OA>
To move to the subsystem type BOARD
The system will respond
SETTING UP.....
COMMAND (OR ?) -->

At this point type "?"
A menu will appear as follows:

	Menu	Place	View	Delete
Adverts	MADV	PADV	VADV	DADV
Notices	MNOTE	PNOTE	VNOTE	DNOTE
Meetings	MMEET	PMEET	VMEET	DMEET
Mail	MMAIL	PMAIL	VMAIL	DMAIL

NON-MEMBERS cannot place mail or notices, only view them.

If you want help Type HELP at the command or CP/M prompt.

To log off Type BYE in CP/M mode or LOGOFF in subsystem.

The system will respond:
BYE Version 1.4
Want to leave any comment (Y/N)?

The time now is (HRS:MINS:SEC)...XX:XX:XX
You've been on the system for ...XX:XX:XX

THANKS FOR THE CALL...

OFF AT XX:XX:XX EST. DATE.

At this point your modem disconnects automatically.

During the session you may wish to save data using TEII software with DISK or TAPE.

The question is how does one read back this data.

The following program will read taped files on to the screen and provide hard copy. If you do not have a printer then delete lines 110 140. If you have a printer with different baud settings etc make the appropriate changes.

```
100 OPEN #1:"CS1", DISPLAY, INPUT, FIXED 86
110 OPEN #2:"RS232.BA=9600"
120 LINPUT #1:A$
130 PRINT A$
140 PRINT #2:A$
150 GOTO 120
```

If you do not have extended basic change 120 to INPUT #1. However if a record within the file being read contains commas, the string will be terminated and the next record read. This is because TI-BASIC looks at a comma as a separator between strings in display formatted data. If you have a TI 99/4 you must also define the lowercase characters to display lowercase on the screen.

If you have a disk drive then use following program

```
100 INPUT "ENTER FILENAME:";FILENAME#
105 OPEN #1:"DSK1."&FILENAME&,&DISP,INPUT,FIXED 80
110 OPEN #2:"RS232.BA=9600"
115 IF EOF(1) THEN 160
120 LINPUT #1:A$
130 PRINT A$
140 PRINT #2:A$
150 GOTO 115
160 CLOSE #1
170 CLOSE #2
180 END
```



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- *TERMINAL EMULATOR
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- *COLOUR MONITORS
- *CONVERT YOUR MODULATOR TO RUN
 A COLOUR MONITOR ON YOUR TI for \$45
- *GREEN SCREENS *COMPUTER HIRE/LEASING

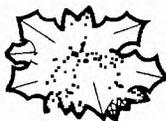
YES! 5% DISCOUNT TO USER GROUP MEMBERS



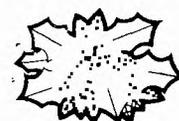
COMPUTER DYNASTY

FLORENCE ARCADE, 15 FLORENCE ST, HORNSBY
 (OPP: Westfield, at foot of Rail Overpass)

Ph (02) 477 6886



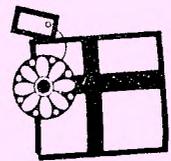
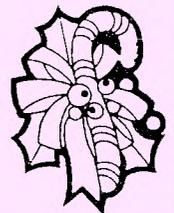
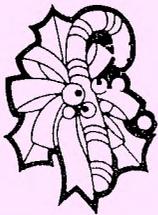
HAVE A HAPPY CHRISTMAS



Merry Christmas

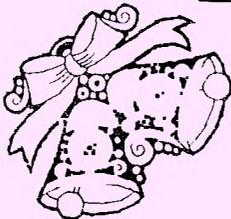
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PHONE (02) 526 1404



Letters

P.O. Box 595, MARRICKVILLE
N.S.W. 2204

TO THE EDITOR

The Editor: ~~DEAR SHANE,~~
This letter follows on from information which I passed on to Shane in a previous letter.

The cassette port on the TI 99/4A has nine pins as can be counted at the plug socket.

The configuration is:-
PINS 1 - 2 CASSETTE 1 CONTROL
PINS 6 - 7 CASSETTE 2 CONTROL
PINS 8 - 9 MAGNETIC IN
PINS 5 - 3 MAGNETIC OUT
PIN 4 NOT USED

Therefore it can be deduced and proven with an ohm meter that the magnetic out for CS1 CS2 are commoned.

By either making or purchasing a lead with one 3.5mm female socket and two male 3.5mm plugs playback and checking can be achieved on both CS1 CS2; Simply take this double lead and plug the female end onto the white playback lead and the two male plugs into the sound output on CS1 CS2, cassette recorder.

CS1 recording and playback now function normally; The bonus comes with CS2; after recording to CS2 has ceased the screen display reads:-

"PRESS CASSETTE STOP CS2"
PRESS ENTER

Do not press enter, it is at this point the "C" can be pressed and normal checking of data as performed on CS1 can be done on CS2.

This little exercise it simply another pointer to the fact of how good the TI 99/4A is; Most machines with a purchase price of under \$1500.00 have difficulty matching their published spec's.

However with the T.I. for under \$500.00 one always seems to be discovering things that the machine will do that are not mentioned and simply come as a bonus.

My favourite example of this is the RS232 card for the P.E.B. which not only gives a single RS232 but one P.I.O. and TWO RS232 outputs.

YOURS
ALLAN WRIGHT

We have received a letter from Mr. Denis Murdoch of Woollooware, whose letter would be of particular interest to software authors who wish to load their programs into cartridges:
Here is Mr. Murdoch's letter:

"Electronics is my background and I have built from scratch about twenty computers but the Texas Instruments 99/4a is my first commercially purchased computer.

I would be available to help modify, design or build any peripherals club members might desire. I have designed and built several disk controllers (single and double density, single and double sided) and estimate the cost of a basic controller to be about \$50.00.

I have ROM-reading and -burning facilities and expect that I can load any disc or tape programs into ROM packs.

At work we use 9900 microprocessors in 990 minis and I have available BIG software, i.e. Assemblers, Real Time Executives, but these will require a lot more RAM than is available in a T.I.99/4a and reprogramming to change I/O ports and protocols.

I only wish to cover costs for these facilities that I hope to provide to members."

Dear Shane,
Here is a Tip for easier recording with your Computer...

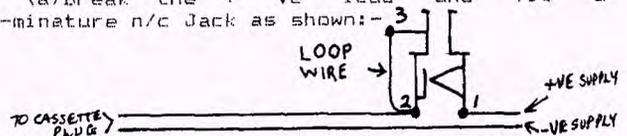
(1) Clean heads are a sound idea
DON'T FORGET to clean the RECORDING HEAD!

(2) If you have an auto record level control TRY VOLUME less than 1/4 and more than 1/8. This eliminates the "double ping" DON'T FORGET to RETURN VOLUME to normal level after recording.

(3) When recording tape-to-tape, I have had success with using the external playback and record socket, and not the MIC connection as is usual. Use shielded cable to eliminate HUM. If stereo, try recording on both channels.

(4) No remote control on your cassette? EASY

(a) Break the + ve lead and fit a sub-miniature n/c Jack as shown:-



(b) Remote control doesn't control? If D.C. motor TRY REVERSING + ve and - ve connections.

HAPPY COMPUTING !!!
Merry Christmas,

AL LAWRENCE.

REGIONAL GROUP MEETINGS

We have not had any reports from our HOME GROUPS, other than to say that as far as we know, all the usual ones are still being conducted. The next CENTRAL COAST REGIONAL HOME GROUP will be on Wednesday evening at 7:30pm at the home of our Musical Director RUSSELL WELHAM: 20 Avonlea Ave, Gorokan. He can be contacted at (043)924000.

THE LIVERPOOL home group will be held at the home of VINCENT CERRETO, Flat 4, 4B-50 Sheffield St, Merrylands, 2160. (02)6377546. on Wednesday 14th December at 7:30pm.

SAINT IVES REGIONAL HOME GROUP: 1st Tuesday (8pm) at the home of BARBARA ATKINS. Please phone (02)833952 for more details.

MARRICKVILLE DISTRICT Home group, 1st Tuesday of each month (7:30pm) now at the new address of UNIT 1/37 GEORGE ST, MARRICKVILLE at the home of our Editor, Shane. He can be contacted at work on (02)2315791. This one will be the last for this year, then the next meeting will be on the first Tuesday of FEBRUARY '84.

FOR MORE DETAILS ON OTHER REGIONAL HOME GROUPS, CONTACT YOUR CLUB SECRETARY

★WARNING★ on (02)8480956.

If you're buying one of these



Look for one of these



And be sure you're in the dependable hands of a member of the AUSTRALIAN COMPUTER RETAILERS ASSOCIATION

You can purchase your microcomputer with confidence - because you have found a computer dealer who has made a solemn promise to honour a Code Of Ethics which protects you, and safeguards your investment.

Computer dealers who are members of the Australian Computer Retailers Association (A.C.R.A.) are distinguishable by the circular emblem you will see displayed on their premises and in their advertising - as shown in this leaflet.

They have each made a solemn undertaking to you, the public, and to their fellow dealers, to conduct their businesses with the integrity demanded by the highly sophisticated nature of the computer industry.

Buying a computer is not like buying a motor car - although in some cases you'll be paying nearly as much for it. Twice round the block on you test drive, and you'll know what you're getting - including all the snazzy features.

But there's an air of mystery about a computer. You know it's a very clever piece of equipment - but can it really do all they claim for it?

And can it go on doing it once you get it home?

And above all, can it actually do what you want it to do?

And if you later run into snags with software or peripherals, will the man you bought it from be there next week, to iron out your problems, and put you back on track again?

Regrettably, it is not unheard of that computer users have encountered such difficulties. Fortunately it doesn't happen with much regularity.

Members of the Computer Retailers Association won't be able to tell you who the wily dealers are. But they'll be able to tell you, very convincingly, who they are not.

They are NOT members of the Australian Computer Retailers Association (A.C.R.A.), who have already proclaimed their integrity by becoming members, and telling the world that they can be relied upon.

That they intend to be around if you should feel the need to go back and ask questions - or get some help.

What you can be absolutely sure of is that a member of A.C.R.A. will not mislead you; They will not over represent their capabilities; They will not knowingly promise you anything they can't deliver; And they will not pretend that either they, or the computers they sell, have abilities they do not actually possess.

This is why you can feel safe with Australian Computer Retailers Association - the people who have gone on record with a solemn promise to conduct their business with integrity, so that you, the customer, can rely on what they tell you.

Here is the 5 point code of ethics adopted by every ACRA member:

Code of Ethics

All members of the Australian Computer Retailers Association undertake to observe the following:

Members

1. will promote goods for sale on their merits.
2. will give honest advice in the selection of products.
3. will recognise the legal ownership of proprietary products.
4. will ensure that all equipment they supply is in working order.
5. will be capable of providing training, instruction and program support services.
6. will provide a competent after sales service.

Use ACRA as your standard of excellence

PROGRAMMING TIPS by Graeme Hollis.

Many games programs require that the operator be able to control the direction of a "tank" or some other object. The following routine may assist some of you that have had difficulty with this task.

If you imagine that your "tank" is in the middle of the screen it will have nine squares that it can move into.

```

-----
I I I I
I ITaI I
-----
I I I I
-----

```

These squares can be seen by the computer as N = -1,0 NW = -1,-1 W = 0,-1 SW = 1,-1 S = 1,0 SE = -1,1 E = 0,1 NE = -1,1

Given that you have determined the "Facing" which is a number obtained by labelling East as 0 and moving around the compass points in an anticlockwise direction so that NE = 1 and N = 2 and C(column) to be able to make your move.

the following extended basic program shows how

```

100 DR=-SGN(SIN(F*PI/4)) :: DC=
SGN(COS(F*PI/4))
110 CALL HCHAR(R,C,32) ! blanks tank position
120 R=R+DR :: C=C+DC ! increments row and
column position of tank
130 CALL HCHAR(R,C,TANK)

```

This routine is very economical and should be useful for many situations.



COMPUTER WAVE

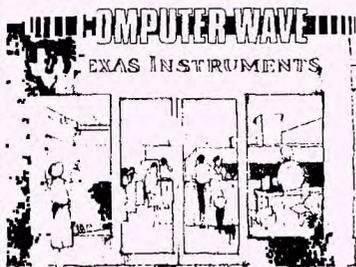


★ We were the **FIRST** with the 99/4A and we still have the largest range of both **TI SOFTWARE & HARDWARE**, at our two **CITY CENTRES**.

★ **PLUS!** check out our range of... 3rd Party Software, like **ASTEROID MISSION CHOPPER ATTACK, TOAD, & FUTURA SOFTWARE HARDWARE**: like **MODEMS, PRINTERS, MONITORS** in color, green & amber.

★ **ALL NEW LOW PRICES ON TI PERIPHERALS** ★

★ Our friendly staff are ready to assist you, with all your home computer needs, plus... don't forget we still provide all **T.I.S.H.U.G. MEMBERS** with your 5% cash/cheq. **DISCOUNT** when you show your card at our centres.



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TECHO TIME with Steve

I purchased a printer about two months ago, and all that time it just sat upon my console grinning at me and doing nothing.

Finally, I was able to purchase a stand alone RS232 interface and to my horror, it only had two serial ports and not a parallel port which my printer required.

Fortunately I knew a person who builds computers for a living who was able to build a serial to parallel converter for my RS232 interface, which we call the BLACK BOX.

I realise that the P.E box RS232 CARD has both serial and parallel ports but there must be people out there who only have the stand alone unit and would like a parallel port.

The "Black Box" is available to club members, and anybody wanting more information about this, can phone CHRIS RALPH on 51-1050(A.H)

On the subject of building things, since T.I are pulling out of the home computer market, Chris and I are investigating the possibility of building cheaper peripherals for the T.I. We are at the moment in the process of designing a stand alone memory expansion unit and I will be informing the club as soon as details are at hand.

I thought a photograph of my console would give some users a idea on how to install thier equipment in a fully contained unit.

My console contains all power supplies, a cooling fan, and switches to turn on the disk drive etc, including a master lock switch for the main power.

My thanks go to Jim Howard for supplying the materials and helping me build this console.

STEVEN WILLIAMS.



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ESHUG 1984 Calendar

CALENDAR - 1984

JAN

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OTHER COMMITTEE MEMBERS INCLUDE:

- Chris Ryan (Public Relations Officer) (02)8480480.
- Russell Welham (Musical Co-Ordinator) (043)924000.
- Andrew Nutting (ASS; Librarian).

* CLUB ADDRESS: P.O. BOX 149, PENNANT HILLS, N.S.W. 2120

* PUBLICATIONS: P.O. BOX 595, MARRICKVILLE, N.S.W. 2204

* CENTRAL MONTHLY MEETING: St. John's Church HALL,

Next door to CALTEX on Victoria St, DARLIGHURST,

BETWEEN Kings Cross Fire Station & St. Vincents HOSPITAL...

2pm-4:30 on the first Saturday afternoon of each month except JANUARY,

-----and those Saturday's within a Public Holiday. (Then, they are usually held on the following Saturday afternoon).