

SYDNEY NEWS DIGEST *THUG*
jan*feb 1986 \$2

H.V.99'ers USER GROUP

Welcome Back!



PO BOX 149
FERNHILL HILLS
NSW, N.S.W.

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Newsletter of TI Sydney Users' Group

Sydney News Digest



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PROGRAM LIFTOUT

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HANGMAN - XB

DISCLAIMER

The Sydney News Digest (SND) is the official newsletter of TISHUG, and whilst every effort is made to ensure the correctness and accuracy of information contained therein, be it of a general, technical, or programming, nature, no responsibility can be accepted by TISHUG as a result of the applying of such information.

THE NEWS DIGEST

The SND is published eleven times per year (no January edition), by voluntary staff, from material provided by group members, other user-groups and other related sources.

Contributions and all correspondence (other than membership) should be addressed to the EDITOR, LIBRARIAN, ADVERTISING, etc., and submitted at the group meetings or posted to the appropriate person at the general address, below.

Copy for publication may be typed, hand printed, or be on tape or diskette media as files suitable for use with TI-WRITER (ie, DIS/FIX 80 or DIS/VAR 80). Please include sufficient information to enable the files to be read - filename, etc. Persons wishing to contribute on a regular basis should contact the editor who will make available a suitable public domain word processor program. The copy deadline for an issue is the first Saturday of the month (ie, meeting date) prior to the month of publication.

Any material, written or electronic, submitted to SND or Library Service is to be considered TISHUG property and to be used at the committee's discretion.

SOFTWARE LIBRARY SERVICE

TISHUG operates a Public Domain Software Library, containing programs written by TISHUG members and from other user groups as well as miscellaneous public domain sources. These programs are made available to members in two ways:-

- 1> by monthly issue - a selection of programs is made available at general meetings for a production/media cost fee. (See TISHUG SHOP column elsewhere for details of releases).
- 2> as a reward for members contribution to the activities of TISHUG by
 - (a) submission of an original program (own work) members receive three programs of their choice, and,
 - (b) submission to SND, or other activity as the committee may otherwise determine, programs of the contributor's choice will be made available.

As the Library is maintained on a voluntary basis, no individual requests for software (other than for the above reasons) can be honoured at the present time.

YOUR COMMITTEE

CLUB CO-ORDINATOR:

HON. SECRETARY:

TREASURER:

LIBRARIAN:

ASSTNT:

FOUR POSITION VACANT
YOUR NAME COULD
BE HERE SOON

PUBLIC RELATIONS:

ADVERTISING:

PROGRAMMERS CRISIS LINE:

MUSIC CO-ORD:

EDUCATION CO-ORD:

MEETINGS: At present, will continue to be held at the St. John's Church Hall, Victoria St, Darlinghurst on the first SATURDAY afternoon of each month, except if that week-end is a public holiday, then it moves to the following week-end. The Monthly get-together starts at 2pm and goes through to 4pm.

SEE YOU THERE 'CAUSE WE CARE

COURTESY TO YOUR FELLOW TISHUGERS

When you strike a programming problem, require information, or just want to chat (modem or otherwise) please look at the clock before you pick up the 'phone! And always ask if it is a convenient time for your call.

IMPORTANT TISHUG ADDRESSES:-

General address
(for all letters
except membership)

TISHUG,
PO BOX 595,
MARRICKVILLE,
NSW, AUSTRALIA, 2204.

Membership address

The SECRETARY,
TISHUG,
PO BOX 149,
PENNANT HILLS,
NSW, AUSTRALIA, 2120.

Monthly Meetings
first Saturday
of the month

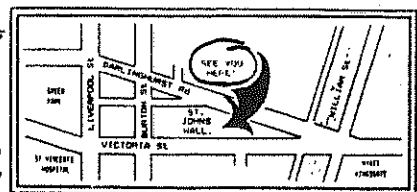
(2 pm)

St. John's Hall,
Victoria Street,
DARLINGHURST.

MON-WED: 10 AM-4 PM ... OTHER DAYS: 10 AM-9 PM

HELP!

programmers
Crisis Line
992229



TISHUG and our future

As you should already be aware, our first meeting for 1986 will be the Annual General Meeting (A.G.M) of T.I.S.H.U.G. Yep! it's that time once again...time to become more involved in the workings of this, your group...time for you to have your say, and elect your Committee for another year of administrative duties. As a financial member of T.I.S.H.U.G, it is important that you attend this meeting, if you care at all about its future. One of our members, (our Legal Beagal) Mr Brian Graham has prepared some facts which I share with you in this section, and we need feed back from you in its regard.

There are a number of very special activities happening this year for fellow TI-99/4(A) users...next month we will be participating in the huge PC 86 COMPUTER SHOW. We are honoured to be chosen as one of the LARGEST HOME COMPUTER USER GROUPS to be given a FREE stand at this show. However, we need your help in staffing this stand. If you can assist with your time as a representative of this group on that stand, please get in touch with our Secretary, John Robinson on (02)848 0956 a/h, or write by return mail to him at P.O.Box 149, Pennant Hills, N.S.W. 2120. Last year we were the first User Group at PC 85 to have and demonstrate the VIATEL NETWORK SOFTWARE by Robert Drago. It drew huge crowds, and TELECOM reps gave us their access codes to log onto VIATEL for the demonstrations.

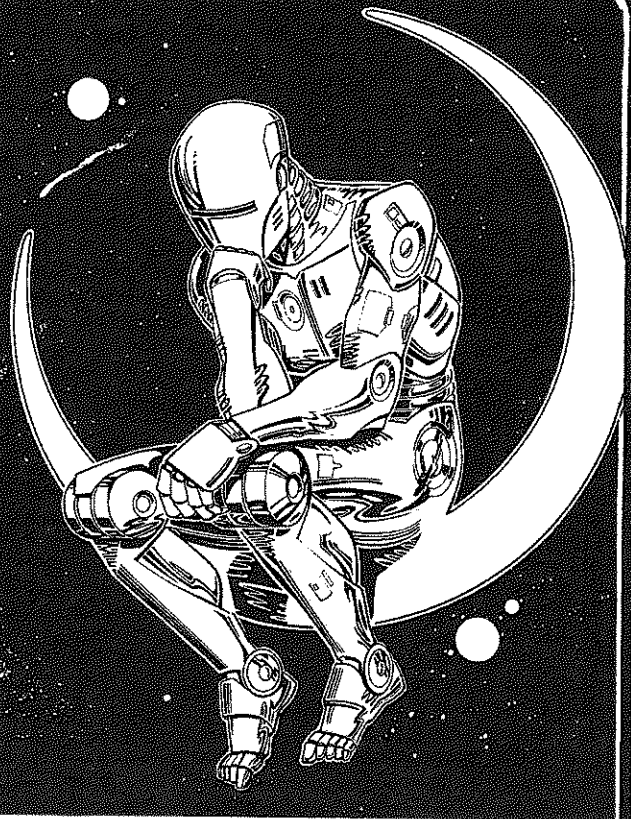
ALSO:APART FROM OUR REGULAR MEETINGS AND ACTIVITIES, we will be attending Australia's first TI-99/4(A) FAIR to be conducted in Melbourne on the 14th June... with our own stand right at the front of the hall, so visitors will be greeted by us first. We have a lot to be proud of, and a lot to show the Melbournites. We would like to get some feed back from you...as to whether or not you can join us for the day FAIR. Special concessions with air travel to and from Melbourne. Read the back page of this issue of SND for more details, and plan to come down with us, and sars in the fun, and software exchange etc of the TI FAIR.

PLEASE TEST YOURSELF ON THIS CHEMICALLY TREATED BOX PROVIDED.....>

We want you to breath onto it as hard as you can, if this box turns RED, then you have a slight cold and you can, with care, attend the A.G.M.

If it turns DARK BLUE, you have got some kind of turminal ailment, which may be catching, and there is no need to turn up at the A.G.M.

If the box remains WHITE, there is nothing wrong with you, and there is no reason on earth why you should not attend the ANNUAL GENERAL MEETING.



AND NOW FOR THE OPTIONS...

OPTION 1 :

THAT THE CLUB CONTINUE AS IT IS IN THAT IT FUNCTION PURELY AS A SOCIAL GATHERING WITHOUT ANY PROTECTION TO ITS MEMBERS AGAINST LEGAL LIABILITY IN SO FAR AS THAT WHICH IS NORMALLY GUARANTEED UNDER A COMPREHENSIVE CONSTITUTION.

PRO ARGUMENT : Nil.

AGAINST ARGUMENT :

The current Constitution of T.I.S.H.U.G. gives members no protection from legal liability for any damages awarded against the Club in any Court action so that all members, both current and past, are both jointly and severably liable for the payment of all debts of the Club no matter how those debts arose.

OPTION 2:

THAT THE CONSTITUTION OF THE CLUB BE AMENDED TO GIVE PROTECTION TO ITS MEMBERS AGAINST THE LEGAL LIABILITY FOR DAMAGES AWARDED AGAINST THE CLUB BUT THAT THE CLUB REMAIN PURELY A SOCIAL VEHICLE FOR MEMBERS.



PRO ARGUMENT :

The alteration to the Constitution will be of benefit to members of the Club without allowing development of the Club over time to cater on a business level with its members and potential members when information and help are required for the continued growth and support of member's machines. There is no need for the Club to become formalised in its dealing with members and it is not necessary that the Club seek outside help for members at a professional level.

AGAINST ARGUMENT :

The alteration to the Constitution although of benefit to members will see the Club involved in too much red tape and no one will have any reason to sue the Club and therefore members do not need to be protected against such a remote happening.

OPTION 3:

THAT THE CONSTITUTION OF THE CLUB BE AMENDED IN ORDER THAT PROTECT BE GIVEN TO CLUB MEMBERS AGAINST ANY LEGAL LIABILITY IN THE WAY OF DAMAGES AWARDED AGAINST THE CLUB AND THAT THE CLUB BECOME INCORPORATED UNDER THE INCORPORATION ACT, 1983.

PRO ARGUMENT :

The amendment of the Constitution will give protection to the members of the Club against any award of damages by the Courts against the Club due to some negligence or some other action by or on behalf of the Club by any of its officials acting outside their authority or by any member doing some action which results in injury to others or the incurring of a debt, currence of a debt. The INCORPORATION of the Club under this 1983 Act will mean that the Club can enter into legally binding contracts in its own name with other businesses and will continue to exist long into the future to cater for the needs of current and future members.

AGAINST ARGUMENT :

The Club should not be INCORPORATED under the Associations Incorporation Act, 1983 as it is a requirement of the Regulations made pursuant to that Act that each organisation incorporated under the Act take out a Public Liability Insurance Policy for a minimum \$ 2,000,000 . Whilst this is a prudent requirement the premium of \$1,000 per year minimum quoted by a Legal Officer of the Corporate Affairs Commission is beyond the financial capabilities of this Club unless membership fees are raised substantially to allow the Club to afford to pay this amount each and every year. Therefore the Club should not be so incorporated.

OPTION 4 :

THAT THE CONSTITUTION OF THE CLUB BE AMENDED IN ORDER TO GIVE MAXIMUM PROTECTION TO MEMBERS AGAINST ANY DAMAGES AWARDED AGAINST THE CLUB IN ANY LEGAL ACTION AND THAT THE CLUB BE INCORPORATED AS A COMPANY LIMITED BY GUARANTEE UNDER THE COMPANIES CODE.

PRO ARGUMENT :

The Constitution of the Club as now drawn up reflects the attitude of its authors at the time it was drawn up as it was drawn up in the light of the Club being a social group as outside support for the Texas Instruments Home Computer was readily available at the time to all users.

As time has changed so has the outside support available to users of this range of computers. It is only through the continued existence of this Club that support will be able to be given to all users of the TI Home Computers. The Constitution must be altered to reflect that fact that it is a legal document by which the existence of the Club and its operations will be governed together with the activities of its members.

As currently drawn the Constitution gives no legal protection to any Club member in the unlikely situation that some amount of money is awarded by the Courts against the Club. If this happens then all members are liable to contribute to the payment of this debt even though he or she has had no part in any of the situation giving rise to the incurring of that debt. The Constitution must be changed to give legal protection against such a possibility.

In relation to incorporation the Club must be guaranteed of existence in the future and the best way to do this is by incorporation. This will also allow the Club to transact business with other companies on the same footing as them and will allow the Club to transact business legally in its own name.

Incorporation also makes it easier on the people elected to run the organisation in that the boundaries under which they can act without the direct approval of the members is set out in the Companies Code. This code also sets out the areas that these people are prohibited from engaging in without approval of the members who become shareholders of the company. Prospective members of the Club may be drawn to the Club if it can be shown that the Club will be around for some considerable time to cater for their requirements on a professional businesslike level. It will also allow existing members to have their programmes marketed at a business level unprecedented in the history of Computer clubs like our own. There are many benefits which will flow to members on incorporation of the Club.

AGAINST ARGUMENT :

The current Constitution of the Club is sufficient to protect the member's interests and does not need updating. The incorporation as a company is not warranted as it will mean that the functions performed by elected members of the Club will have to be altered to comply with the business like requirements inherent in incorporation. Above all the Club will then have to pay Income Tax at company rates which it is not paying at the moment even though it may be liable for such unless all profits are returned to the members of the Club.

** --- **



Sydney News Digest

SECRETARY'S NOTES with J.R.

Hi! A happy New Year to all of you. I hope Santa Claus brought everything you wanted for your TI.

At the November committee meeting a number of important decisions were made. It was brought to the attention of the committee that one of our members was suspected of selling copyright software without the approval of the owners of that copyright. That member attended the meeting to explain his position. After a long debate it was decided to suspend the member until the end of March 1986. It was agreed that in future any member guilty of similar practices would be expelled and reported to the injured party, who hopefully would take legal action.

We have decided to drop Memorex disks as they recently increased their prices. We also wanted to reduce our inventory, which was made difficult as we had to purchase a minimum \$1000.00 worth of disks. We will now be selling Verbatim disks through the CRC arrangement.

We are participating at the Sixth Australian Personal Computer Show which starts at Centrepoint on March 12th and ends 5.00pm March 15th. As in the past we need volunteers to man the stand during this period. Please contact me as soon as possible if you are able to help. The TISHUG stand will be located at stand #904 on the Executive Level.

I recently had the pleasure of a visit to my home from Bernie Elsner, the TI computer guru from the Perth Users Group. He demonstrated some exciting new software and hardware for our orphan computer. Details will be revealed over the next few months.

Now to my favourite program MULTIPLAN.

As you know the OPTIONS command enables you to change the default value of RS232.BA=300 to say PID for your printer. This is acceptable if you do not use the program very often, but can be frustrating for regular users as you have to enter the values for your own particular configuration every time you boot the system. Here is how you can configure the system disk to meet your own system requirements.

Load a disk fixer type program. For my example I will assume you will be using the Navarone DISK FIXER program. Place a copy of the MULTIPLAN system disk in drive 1. From the main menu choose "THE FIND CHARACTER STRING" command by entering:

```
F 000,167,1
```

The prompt ENTER CHARACTER STRING will appear. Enter RS232.BA=300.

The disk drive will be activated, and the a search made for the string from sector >000 to >167 a total of 360 (0 thru 359) sectors for a single density disk. A short time later a sector address, with the first occurrence of this string will be displayed. For the MULTIPLAN disk I was using the sector displayed was >110. It is actually the second sector of the file entitled MPINTR. When you try this it is possible a different sector will be found. All this means is that your disk has had the files saved in a different order than to mine. Incidentally is is better if you save the file named OVERLAY first as this file is continually being accessed. This being the case the sector to be displayed will be >23 (decimal 35).

TECHOtime

SPEECH-IN-CONSOLE

By Peter Schubert TISHUG

Following on from the 32K Matchbox Expansion article, here is another internal mod for your console.

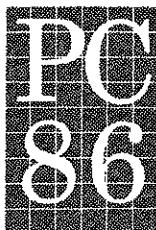
NOTE: Do not do this or the 32K matchbox expansion if you would like to add a stand-alone Disc Controller in the future as this product is being designed now, and will require all the internal space and may include the 32K memory.

First you must remove the speech board from the plastic case and metal cover. Remove the female connector from the speech board by lifting each contact from the board with a small screwdriver while at the same time applying the soldering iron tip. Dont try to do more than one contact at a time.

When all contacts on both sides of the board are loose the connector should come free with a little rocking back and forth. Now you have a clear area to attach the ribbon cable. I separated about 40mm of the end of a length of 16 wire ribbon. This can be separated in the middle for 2 lengths of 8 wire as there is 8 wires used on each side of the board PLUS an earth wire on the bottom side on pin 21. An extra wire is needed for this. Solder wires to the contacts shown below :-

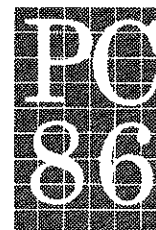
```
TOP- 2 12 34 36 38 40 42 44
BOT- 1 3 5 19 21(EARTH) 35 37 39 43
```

Next attach some double-sided tape to the underside of the board where it is fairly smooth. Two small pieces may be best for good support. This will mount the speech board onto the metal cover of the main console board. The two 8 wire ribbon cables must go to the I/O port connector without obstructing access to the connector so that other accessories can still be plugged in. I did this by running the ribbon cable under the metal cover at the sides of the main board, one at each side of the I/O connector and soldering it to the very inner end of the connector tracks. Strip only the minimum of insulation from the end of each wire and insure that the metal covers still fit. You will have to judge the correct length of ribbon cable so that the speech board fits in an area above the main board that is free of obstructions when the main board is mounted back into the console case. If the 32K memory expansion is not already fitted then I would mount the speech at the other end of the main board from the I/O connector so that the 32K can still be added later, close to the module port extender.



THE SIXTH AUSTRALIAN
PERSONAL
COMPUTER
SHOW

CENTREPOINT SYDNEY 12-15 MARCH 1986



J.R.'s COLUMN CONTINUED

Using the P command enter:

P 110,1

After entering the LIST device (PIO on my system) the following will be printed out.:

```

NAVARONE IND. *** DISK FIXER V2.0 ** SECTOR DUMP      SECTOR ADDRESS 0110
ADDR = 0 1 2 3 4 5 6 7 8 9 A B C D E F INTERPRETED

0000 = 392C 8320 3A4C 8320 38D8 8320 38FE 8320 9,* :L* 8X* 8*
0010 = 35F2 8320 3DC6 8320 3F46 0000 0000 0000 5r* =F* ?F*****
0020 = 0000 0000 0000 0000 0000 0000 0000 0000 *****
0030 = 0000 0000 0000 0000 0000 0000 0000 0000 *****.***
0040 = 0000 0000 0000 0000 0000 0000 0000 0000 *****
0050 = 0000 0000 0005 4453 4B31 2E20 0010 4453 *****DSK1. **DS
0060 = 4B2E 5449 4D50 2E4F 5645 524C 4159 000E K.TIMP.OVERLAY**
0070 = 4453 4B2E 5449 4D50 2E4D 5048 4C50 0000 DSK.TIMP.MPHLP**
0080 = 0000 0000 0000 0000 0000 0000 0026 0000 0000 *****g****
0090 = 0000 0000 0000 0000 0000 0000 0000 0000 *****
00A0 = 0000 0000 0000 0000 0000 0000 0000 0000 *****
00B0 = 0000 0000 0012 05E0 5000 0000 000C 5253 *****`p*****RS
00C0 = 3233 322E 4241 3D33 3030 2020 2020 2020 232.BA=300
00D0 = 2020 2020 2020 2020 2020 2020 2020 2020
00E0 = 2020 2020 2020 FFFF 03E0 03FA 24C6 0000 ***`*z$F**
00F0 = 0000 0003 0000 FFFF 047A 0494 24E0 0000 *****z$$$`**
  
```

We now have to change the data as detailed in the following table:

Address: >BD>BE>BF>C0>C1>C2>C3>C4>C5>C6>C7>C8>C9

Old data: >0C>52>53>32>33>32>2E>42>41>3D>33>30>30

New data: >03>50>49>4F>20>20>20>20>20>20>20>20>20

The changes are made using the command A 00BD=0C 03 etc.

Note >20 has to be inserted at all addresses from >C1 to >E5 inclusive.>20 is decimal 32 which is the ASCII code for a space. Now write the changes to disk using the W command after checking everything is correct in the buffer (Command D).

Using the P 110,1 command will produce the following printout:

```

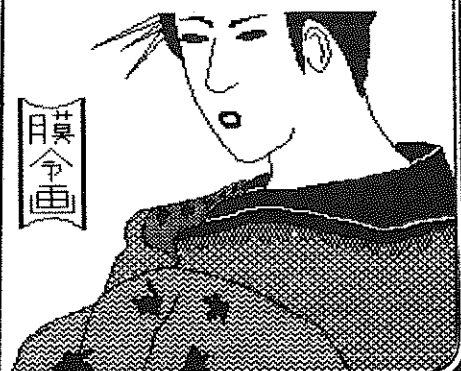
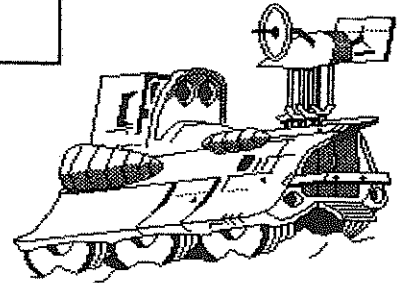
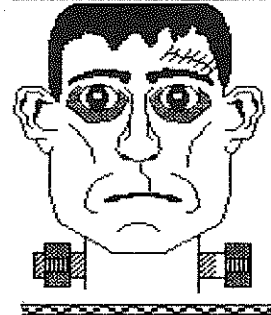
NAVARONE IND. *** DISK FIXER V2.0 ** SECTOR DUMP      SECTOR ADDRESS 0110
ADDR = 0 1 2 3 4 5 6 7 8 9 A B C D E F INTERPRETED

0000 = 392C 8320 3A4C 8320 38D8 8320 38FE 8320 9,* :L* 8X* 8*
0010 = 35F2 8320 3DC6 8320 3F46 0000 0000 0000 5r* =F* ?F*****
0020 = 0000 0000 0000 0000 0000 0000 0000 0000 *****
0030 = 0000 0000 0000 0000 0000 0000 0000 2EAA 0000 *****.***
0040 = 0000 0000 0000 0000 0000 0000 0000 0000 *****
0050 = 0000 0000 0005 4453 4B31 2E20 0010 4453 *****DSK1. **DS
0060 = 4B2E 5449 4D50 2E4F 5645 524C 4159 000E K.TIMP.OVERLAY**
0070 = 4453 4B2E 5449 4D50 2E4D 5048 4C50 0000 DSK.TIMP.MPHLP**
0080 = 0000 0000 0000 0000 0000 0000 0026 0000 0000 *****g****
0090 = 0000 0000 0000 0000 0000 0000 0000 0000 *****
00A0 = 0000 0000 0000 0000 0000 0000 0000 0000 *****
00B0 = 0000 0000 0012 05E0 5000 0000 0003 5049 *****`p*****PI
00C0 = 4F20 2020 2020 2020 2020 2020 2020 2020 0
00D0 = 2020 2020 2020 2020 2020 2020 2020 2020
00E0 = 2020 2020 2020 FFFF 03E0 03FA 24C6 0000 ***`*z$F**
00F0 = 0000 0003 0000 FFFF 047A 0494 24E0 0000 *****z$$$`**
  
```

If you do not have a disk fixer program or find the above instructions too difficult send me your backup disk with the defaults required and I will do the work for you. Your only cost is postage in both directions.

Now to my mail:Warren Christie from Glenorie writes: I enclose a catalogue of all issues of the SND from May 1984- December 1985. There are three categories REVIEWS/HARDWARE/PRDGRAMS with their corresponding page number. I have added as much detail as possible on every issue to fit on a 80 column printer. The catalogue was created using MULTIPLAN and TI-WRITER. I would hope this could be made available to other members on disk or printed form. It took me 2 days eg 16 hours to reread

PIX with
GRAPHIX
drawn by
Keir Wells



J. R.'s COLUMN CONTINUED

every issue and categorise every article as I have found many problems have already been dealt with in past issues if only one could find the answer/article in the SND.

Warren I can assure you that we will certainly make this information available to all members at the earliest opportunity.

M.J.Mable from Malabar writes: In the short time that I have been in the club I have found the people I have come in contact with very courteous and helpful from committee to individual members. I look forward to next issue of the SND.

Alain Beaulieu from Montreal Canada writes: The CLUB INFORMATIQUE MONTREAL 99 (C.I.M.99) is a registered TI-99 Home Computer User's group. We have been operating since 1983. C.I.M 99 promotes exchanges, programming help, information on software, hardware etc... Our goal is to help TI-99 users in using this marvellous machine to its maximum. If any of our members would like to correspond with this group write in English or French to:

C.I.M.99
53 White Oak Road
Dollard des Ormeaux. Quebec
Canada. H9B 1K2

And here is a sad story from Bill Gee, who lives in Waterloo: I have thoroughly enjoyed being a member of your very supportive club and can easily understand why it is the largest (most popular) computer club. Unfortunately I was burgled last July and the robber must have known how good the TI 99/4A was as he took it and its peripherals- which leaves me without a computer. Thank you again for your support and friendship during 1985.

I wish all our members a safe and prosperous New Year. I hope to see you at the AGM and keep those nominations rolling in.

Running out of memory.....

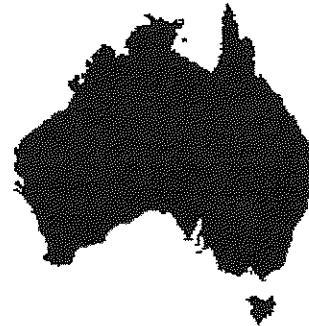
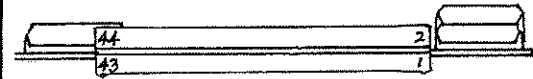
John L. Robinson.
Hon. Secretary.

TECHO TIME CONTINUED

Now check all your wiring again and ensure that pins 1 and 2 are wired on the correct end of the speech board and I/O connector. Also neat soldering is a must. You can now test it out. If when you turn on the console you do not get a master screen then you obviously did something wrong. Check the wiring and if you cannot see the fault start disconnecting wires till you get a master screen.

IF YOU ATTEMPT THIS MOD. YOU DO SO AT YOUR OWN RISK * * *

The speech should function normally just as it did plugged on externally. I have used my modified console with 32K and speech for some time now and have found no problems with them or any programs run on my system, which has the P.E. box attached also. I have a TI 32K card but I do not use it now. With the 32K in console I find that I can switch my PE box off after loading a program, which is handy sometimes. EOF



TO ROBERT,

I THOUGHT I WOULD DROP YOU A LINE AND COMPLIMENT YOU ON YOUR ARTICLES IN TECHO TIME COLUMNS IN THE SND .

I READ THE ARTICLE ON PEB FAN QUIETING AND CARRIED OUT SOME EXPERIMENTS ON REDUCING THE NOISE WITHOUT TOO MUCH LOSS OF AIR FLOW .

I TRIED FITTING THE RESISTORS TO THE FAN MOTOR TO REDUCE POWER AND FOUND THAT THEY CREATED A LARGE AMOUNT OF HEAT EVEN IF MOUNTED OUTSIDE OF THE BOX WAS NOT DESIRABLE NEAR THE AIR INTAKE TO THE CARDS AND IF LEADS WERE ATTACHED LEFT 115VOLTS EXPOSED WHICH COULD BE A SHOCKING EXPERIENCE IF YOU ACCIDENTLY TOUCHED A LIVE WIRE, SO THE IDEA WAS DISCARDED.

INSTEAD OF MODIFYING THE EXISTING FAN I PURCHASED A 4" FAN 240V FROM DICK SMITH ELECTRONICS AND FOUND IT FITTED PERFECTLY IN THE EXISTING STUD PATTERN.

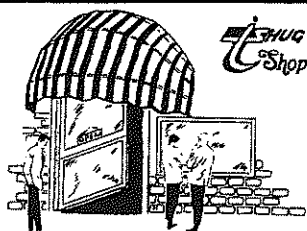
THIS FAN IS A COMPACT ALUMINIUM CASE FAN AND I HOOKED IT UP TO THE EXISTING 115V SUPPLY WIRES. THE FAN VERY QUIET AND GIVES MORE AIR FLOW THAN THE RESISTOR OPTION WITHOUT ANY EXTRA HEAT GENERATED OR EXPOSED WIRES, ALTHOUGH WHEN YOU PUT THE PEB TOGETHER THE BOX ACTS AS AN ECHO CHAMBER GIVING A DRUM, TO OVER COME THIS PROBLEM YOU FIT 1" FOAM PLASTIC INSIDE THE FAN CAVITY MAKING SURE NOT TO CUT OUT AIR FLOW AROUND THE TRANSFORMER ON ONE SIDE AND THE POWER SUPPLY CIRCUIT BOARD. IN EFFECT YOU ARE REDUCING THE AMOUNT OF FREE SPACE IN THE CAVITY GIVING MORE AIR FLOW OVER HEAT GENERATING COMPONENTS. ALSO REMOVE THE FAN GRILL FROM THE BOX AND TRIM WITH CURVE BLADE TIN SNIPS SO THE EDGES OF THE FAN ARE CLEAR OF THE CASEING. THIS CUTS OUT THE HISS FROM THE FAN AND IMPROVES AIR FLOW

WARNING BE SURE NOT TO COVER UP THE PASSAGE FROM THE CARDS WITH FOAM PLASTIC AND TAPE UP ANY UNUSED CARD SLOT HOLES IN THE FRONT OF THE BOX EG. NEXT TO THE CARD LIGHT INDICATORS SO THE AIR IS DRAWN THROUGH THE CARDS IN USE.

I HAVE USED THIS SETUP FOR SOME EIGHT WEEKS AND RECENTLY 12 HOURS A DAY OR MORE WITHOUT ANY PROBLEMS, IT'S NICE TO SIT AND THINK WHILE USEING MY COMPUTER WITHOUT A CYCLONE IN THE ROOM AS WELL.

I HOPE YOU FIND THIS OF SOME USE TO OTHER TIERS IN THEIR QUEST OF INNER PEACE WHILE PROGRAMMING OR COMPUTING.

WARREN CHRISTIE
USER NAME WOMBLES



TISHUG SHOP COLUMN - by Terry Phillips

Well, here we go again with another year of shop columns. I trust that all members and their families enjoyed the holiday break and that 1986 has started the right way. Elsewhere in this issue I have reviewed the Milton Bradley MBX system. I have had a lot of fun playing with this over the holidays and any member wanting one is strongly urged to order quickly as from what I understand stocks are definitely limited. Hopefully I may be able to demonstrate the unit at a forthcoming meeting.

To begin this year here is a listing of items currently held in stock. A brief description follows some of the items.

Navarone DBM System (\$90) - a very useful data base manager - see review in November SND. A lot of these have now been sold and I have heard nothing but praise for it after the relatively complex instructions have been mastered. If you want a good Data Base then this is the one.

Paint 'N Print (\$90) - price includes the Enhanced Graphics Disk. I would not recommend this one to those without a full system, including printer. Very easy to use and come up with some great pictures.

Console Writer (\$45) - probably the fastest loading and easiest word processing package to use. Allows you to save your files to either cassette or disk. If you don't have a printer take your console writer and tape/disk with saved files to a friend's place and print them out.

Cartridge Expander (\$55) - the most useful gadget ever made for the TI. I have used one continuously for about 2 years and I reckon it has saved my cartridge port untold damage. All serious TI'ers should have one of these.

Disk Fixer (\$44) - only one of these is in stock. A must for serious hackers who like to delve into things.

NOTE: All Navarone cartridge based software will not operate on computers showing a 1983 version title screen.

Home Computer Magazine (#8) - Volume 5 Nos. 2,3,4 and 5 are in stock. At a recent Committee meeting the decision was taken to no longer import this magazine owing to the flagging TI content. In the issues on hand there are some good articles of general interest plus programs to type into your computer.

Technical Data Manual (\$15) - a wealth of information on the internal workings of the TI and peripherals. Great for those who may have thoughts of building their own peripherals.

Best of 99'er (\$30) - this very thick book contains essentially all of the first 6 issues of the old 99'er magazine - the forerunner to HCM. This book is purely TI and is a must for new and relatively inexperienced members.

Softex Magazine (#4) - a few copies of the last two issues of this Melbourne production are still available.

Boxes of Disks (\$28) - these are Verbatim SSDD diskettes with a lifetime warranty. Excellent value at this price. Complete with plastic library case.

Cassette Software (\$3) - a fine selection is available from the old series, tapes numbered 1 to 20 and the later series, numbered 1985/1 to 1985/12. All up 32 tapes have been issued to the end of December. Do you have the complete set?

Disk Software (\$5) -

Disk Manager 1000
BEAXS Editor Assembler
TISHUG 1985
Pictures
Adventures
Channel 99
Ultra Copy
2D Graphics
Super Debugger
Forth Demo Disk
TI Writer/Multiplan Enhancements
November

TI Forth (\$30) - includes documentation and operating disk (Editor/Assembler required). If you want to experiment with another language then this is a good one to start with.

Assault the City (\$3 Tape, \$5 Disk) - a Freeware released new game for the Tunnels of Doom Module. Fight new monsters, cast new spells. Great fun!

OK. That's about all the goodies we have available. Now for some new items.

MICROpendium Magazine (\$2) - the very best magazine now around for the TI. Some complete sets of back issue are available - 22 issues up to and including November 1985 at a cost of \$44. Also available is the December 1985 issue and hopefully by the time of the February meeting the January 1986 issue will be to hand. For \$2 this now 56 page magazine has to be great value so get in early as only 100 copies of each issue are being imported.

New Disk Software (\$5 each) - available from the February meeting date will be 3 new disks.

1. TI Writer Tutorial + - this disk contains 3 programs. The major program is a rewritten TI Writer instructional manual which all those struggling with TI Writer will find very helpful. Print the file out and you will see what I mean. Program number two is a very good space shuttle graphics and music display, while program number three has to be seen and heard to be believed. Sesame Street fans will get a big thrill out of this one.

2. Disk Tutorial - written by Bruce Caron, author of DM1000, these files will really reveal the inner workings of a disk system.

3. TI99-OPOLY - Ross Mudie's freeware release is a great computer adaptation of the classical real estate game.

New Cassette Software (\$3 each) - two tapes numbered 1986/1 and 1986/2 will be available from the February meeting date. Both will contain recent locally and overseas obtained material mainly in extended basic. Guaranteed good value at this price. For those preferring these are also available on disk.

Forthcoming disk releases will include 99 Trivia, a Personal Record Keeping Data Base and a fast loading version of TI-Forth.

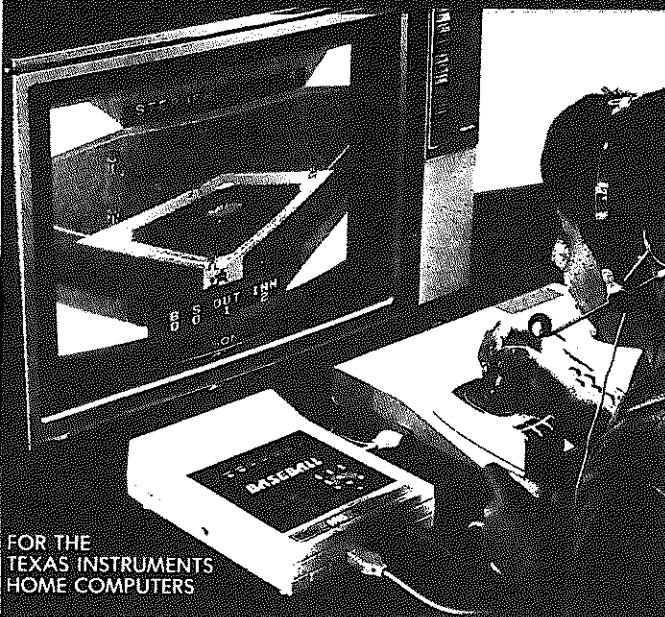
That's all for this month. See you at the shop.



Terry

MILTON
BRADLEY
COMPANY

MBX EXPANSION SYSTEM & SOLID STATE SPEECH CARTRIDGES



FOR THE
TEXAS INSTRUMENTS
HOME COMPUTERS

THE MBX UNIT - A REVIEW

By Terry Phillips

Let's begin by describing just what is an MBX unit. In 1983 the Milton Bradley organisation manufactured an expansion system for the TI Home Computer. The system would be unique in that special cartridges would be used that could be activated by voice commands. Unfortunately, at that time, TI exited the home computer market and consequently Milton Bradley never went into full production with their expansion units. It is understood that only approximately 2000 were made with most going to TI and Milton Bradley employees.

This reviewer had always wanted one of these units, so seeing an advertisement from Texcomp in MICROpendium, and on the pretext of buying my son one for Christmas, an order was duly despatched for the expansion unit and 2 of the game cartridges. In the remarkable good time of less than 4 weeks a large parcel containing all the goodies was delivered to my front door. Perhaps even more remarkable was the fact that HM Customs Department did not slug me one cent in import duties or sales tax!

Opening the parcel revealed the expansion console - a box approximately 25cm by 17cm, a massive joystick, a power supply (110 volt) and a headset microphone as well as the two game cartridges packaged identical to the normal TI variety. A 40 page user's manual completed the package.

First thing to obviously do is read the manual. Done. Now to set up the unit and test it out. The console has two cords with plugs. One attaches to the joystick port and the other to the cassette port. Plug in the power supply to the console attach it to my 110 volt step down unit switch on and I hear a crisp clean female voice inform me that she, it or whatever is "READY".

Now to test out one of the cartridges. These by the way insert into the normal cartridge slot on the computer.

First up - Baseball. Press a couple of keys and I am asked if I want to record voice commands. I press yes on the MBX console, attach the headphone and am ready to go. I am asked to repeat 8 words into the microphone, each word must be repeated twice. A disturbing thing here, at least for the neighbours, was

that I found I had to shout quite loudly in order for it to recognise the command. This trait I am happy to say seems to have diminished a fair bit and now normal voice seems to activate speech recognition. The Baseball game itself has good graphics and seems to play by the rules. It is quite a novelty to be able to talk to the computer and have say first base chase the ball, retrieve it and on command return it to the pitcher.

The second cartridge I ordered is titled Meteor Belt. This one doesn't have speech recognition capabilities and in fact can be played on the normal TI console. I do think however that the inbuilt speech sounds better on the MBX console than with the Speech Synthesizer.

In all, there are 10 cartridges available for the expansion unit. 5 will only operate with it while the other 5 can be used with or without it. All bar 2 have speech recognition capabilities. I intend ordering another 2 cartridges shortly.

For those interested in something a little different for their TI here are order details and prices.

The MBX unit is available from Texcomp, P.O. Box 33084, Granada Hills, CA 91344. Price of the unit is \$39.95, while each of the cartridges are \$9.95. Cartridge titles are - Terry Turtle's Adventure, I'm Hiding, Honey Hunt, Sound Track Trolley, Championship Baseball, Space Bandit, Sewermania, Bigfoot, Meteor Belt and Super Fly. Allow about \$35-40 for return air mail postage. All prices are quoted in US dollars.

TERRY TURTLE'S ADVENTURE™

I'm Hiding™

HONEY HUNT™

Soundtrack Trolley™

**CHAMPIONSHIP
BASEBALL™**

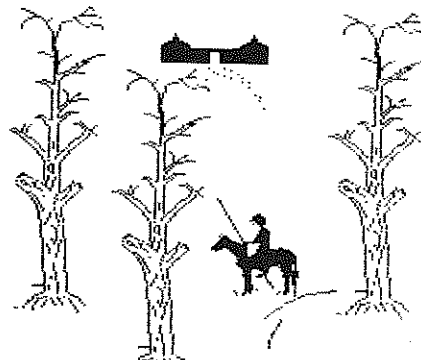
Space Bandits™

Sewermania™

BIGFOOT™

METEOR BELT™

SUPERFLY™





Sydney News Digest

```

* This program will produce object code for use *
* with TI-WRITER. *
* *
* It must be saved in a file (eg. "TI-CHAR/S"). *
* *
* That file must be assembled. *
* *
* The resulting object file (eg. "TI-CHAR/O") *
* must be loaded into memory with the EDITOR/ *
* ASSEMBLER cartridge via the LOAD AND RUN *
* option (3). *
* *
* Next, the SAVE utility from the *
* Editor/Assembler diskette B must be loaded. *
* *
* Use SAVE as the program name. The Save utility *
* will run and give several warning messages *
* *
* The filename to enter is: DSK1.CHARA1. *
* *
* Save this file onto your TI-WRITER program *
* disk - WHEN YOU KNOW IT WORKS! *
* *
* That is all that is necessary. TI-WRITER will *
* load on its own. *
* *
* Graphics by: Glenn E Davis *
* MSP99 User Group *
* St. Paul, Minnesota *
* *
* Prepared for TI.SHUG by Fred Morris *

```

```

*****

```

```

DEF SFIRST,SLAST,SLOAD
*
SFIRST
SLOAD DATA >0020,>0000,>1824,>2418
DATA >0020,>0008,>1808,>081C
DATA >0020,>0018,>2408,>103C
DATA >0020,>0018,>2408,>2418
DATA >0020,>0014,>141C,>0404
DATA >0020,>001C,>1018,>0418
DATA >0020,>0008,>1038,>2418
DATA >0020,>001C,>0408,>1010
DATA >0020,>0018,>2418,>2418
DATA >0020,>0018,>241C,>0408
DATA >0020,>3800,>1C10,>1C10
DATA >0040,>0020,>2038,>2438
DATA >0070,>5070,>4854,>1C14
DATA >0070,>4070,>001C,>1010
DATA >0020,>0018,>243C,>2018
DATA >0040,>0814,>101C,>1010
DATA >0040,>4040,>1824,>2418
DATA >0020,>2020,>2808,>0808
DATA >0040,>4058,>2408,>103C
DATA >0040,>4058,>2408,>2418
DATA >0040,>4054,>141C,>0404
DATA >0040,>405C,>1018,>0418
DATA >0040,>4048,>1038,>2418
DATA >0040,>405C,>0408,>1010
DATA >0040,>4058,>2418,>2418
DATA >0040,>4058,>241C,>0408
DATA >0040,>4040,>1824,>3C24
DATA >0040,>4050,>101C,>141C
DATA >0040,>4040,>1C10,>101C
DATA >0040,>4444,>041C,>141C
DATA >0070,>7070,>7070,>7070
DATA >0040,>4C50,>101C,>1010

```

```

*CHARACTER SET DATA
*
DATA >0000,>0000,>0000,>0000 *" "
DATA >0010,>1010,>1000,>1000 *"! "
DATA >0028,>2828,>0000,>0000 *"" "
DATA >0028,>7C28,>287C,>2800 *"# "
DATA >0038,>5430,>1854,>3800 *"$ "
DATA >0044,>4C18,>3064,>4400 *"% "
DATA >0020,>5020,>5448,>3400 *"& "
DATA >0008,>1020,>0000,>0000 *"' "
DATA >0018,>3030,>3030,>1800 *"( "
DATA >0030,>1818,>1818,>3000 *) "
DATA >0028,>107C,>1028,>0000 *"* "
DATA >0010,>107C,>1010,>0000 *"+ "
DATA >0000,>0000,>0030,>1020 *", "
DATA >0000,>007C,>0000,>0000 *"- "
DATA >0000,>0000,>0030,>3000 *"." "
DATA >0004,>0C18,>3060,>4000 *"/ "

```

```

*
*NUMERALS
*
DATA >0038,>4C54,>5464,>3800 *"0"
DATA >0010,>3010,>1010,>3800 *"1"
DATA >0038,>4408,>1020,>7C00 *"2"
DATA >007C,>0418,>0444,>3800 *"3"
DATA >0018,>2848,>7C08,>0800 *"4"
DATA >007C,>4078,>0444,>3800 *"5"
DATA >0038,>4078,>4444,>3800 *"6"
DATA >007C,>0408,>1020,>2000 *"7"
DATA >0038,>4438,>4444,>3800 *"8"
DATA >0038,>4444,>3C04,>3800 *"9"

```

```

*
*UPPER CASE ALPHABETICAL
*
DATA >0000,>3030,>0030,>3000 *": "
DATA >0000,>3030,>0030,>1020 *": "
DATA >0000,>1830,>6030,>1800 *": "
DATA >0000,>7C00,>7C00,>0000 *": "
DATA >0000,>3018,>0C18,>3000 *": "
DATA >0038,>4408,>1000,>1000 *": "
DATA >0038,>4454,>5840,>3C00 *": "
DATA >0038,>447C,>4444,>4400 *"A"
DATA >0078,>2438,>2424,>7800 *"B"
DATA >0038,>4440,>4044,>3800 *"C"
DATA >0078,>2424,>2424,>7800 *"D"
DATA >007C,>4078,>4040,>7C00 *"E"
DATA >007C,>4078,>4040,>4000 *"F"
DATA >003C,>405C,>4444,>3800 *"G"
DATA >0044,>447C,>4444,>4400 *"H"
DATA >0038,>1010,>1010,>3800 *"I"
DATA >0004,>0404,>0444,>3800 *"J"
DATA >0048,>5060,>5048,>4400 *"K"
DATA >0040,>4040,>4040,>7C00 *"L"
DATA >0044,>6C54,>5444,>4400 *"M"
DATA >0044,>6454,>4C44,>4400 *"N"
DATA >0038,>4444,>4444,>3800 *"O"
DATA >0078,>4478,>4040,>4000 *"P"
DATA >0038,>4444,>5448,>3400 *"Q"
DATA >0078,>4478,>5048,>4400 *"R"
DATA >003C,>4038,>0404,>7800 *"S"
DATA >007C,>1010,>1010,>1000 *"T"
DATA >0044,>4444,>4444,>3800 *"U"
DATA >0044,>4428,>2810,>1000 *"V"
DATA >0044,>4454,>5454,>2800 *"W"
DATA >0044,>2810,>2844,>4400 *"X"
DATA >0044,>2810,>1010,>1000 *"Y"
DATA >0076,>0810,>2040,>7C00 *"Z"

```

```

*
*LOWER CASE ALPHABETICAL
*
DATA >0000,>0038,>4848,>3C00 *"a"
DATA >0020,>2038,>2424,>3800 *"b"
DATA >0000,>001C,>2020,>1C00 *"c"
DATA >0004,>041C,>2424,>1C00 *"d"
DATA >0000,>001C,>2830,>1C00 *"e"
DATA >000C,>1038,>1010,>1000 *"f"
DATA >0000,>001C,>241C,>0438 *"g"
DATA >0020,>2038,>2424,>2400 *"h"
DATA >0010,>0030,>1010,>3800 *"i"
DATA >0008,>0008,>0808,>4830 *"j"
DATA >0020,>2024,>3828,>2400 *"k"
DATA >0030,>1010,>1010,>3800 *"l"
DATA >0000,>0078,>5454,>5400 *"m"
DATA >0000,>0038,>2424,>2400 *"n"
DATA >0000,>0018,>2424,>1800 *"o"
DATA >0000,>0038,>2438,>2020 *"p"
DATA >0000,>001C,>241C,>0404 *"q"
DATA >0000,>0028,>3420,>2000 *"r"
DATA >0000,>001C,>300C,>3800 *"s"
DATA >0010,>1038,>1010,>0C00 *"t"
DATA >0000,>0024,>2424,>1C00 *"u"
DATA >0000,>0044,>2828,>1000 *"v"
DATA >0000,>0044,>5454,>2800 *"w"
DATA >0000,>0024,>1818,>2400 *"x"
DATA >0000,>0024,>241C,>0438 *"y"
DATA >0000,>003C,>0810,>3C00 *"z"

```

```
*
DATA >0018,>2020,>4020,>2018      *"( "
DATA >0010,>1010,>0010,>1010      *"! "
DATA >0030,>0808,>0408,>0830      *"} "
DATA >0000,>2054,>0800,>0000      *"" "
*
```

* SLAST END

FORTH

FORTH NOTES

By Berry Minuk OTTAWA UG Jul 84. and edited for TI.SHUG by Revell Daway

There are only two main versions of FORTH. The TI version, amongst many others, is based on "fig-FORTH", or as it is sometimes called "78-FORTH". This a version that was placed in the public domain by the FORTH Interest Group. The other main version, "79-FORTH", promulgated in 1979 by the FORTH Standards Committee, and contains some additions to the "fig" version. This the version usually offered by private vendors for the larger micros such as the IBM PC/XT.

However, since FORTH is an extensible language, it is possible to add any words to it that you need. If, for example, you have a program written in 79-FORTH and you wish to run it on a fig version computer, such as the TI 99/4A, you can write a conversion program as below, and the 79 program will then run on a fig computer.

This program, while a terrible example from a stylistic point of view, is all on the one screen. Normally, the comments would be on the screen with the program, but instead, they will be in the text before the program listing.

Before this, thanks to Bob Picard who gave me a simple converter program out of a French FORTH book: this formed the basis of the program below.

As you can see from the code, there are several 79 words that do the same as fig words but use a different name/label for the word. The best example is the 79 word "SAVE-BUFFERS", which does the same thing as the fig word "FLUSH". If you look at line 6 you will see that this is handled by defining SAVE-BUFFERS to mean FLUSH. [: SAVE-BUFFERS FLUSH : 1. Using this technique, [: 79word figword :], it is possible to handle all of these words. >IN , ?DUP , CONVERT , NEGATE , etc. have been handled this way.

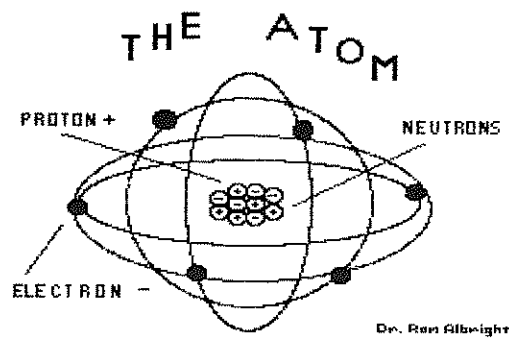
Some words, such as 2DROP and 2/ are not normally required in either version, but are required to define other words that are. For example, 2/ is required to define DEPTH, and 2DROP for FIND.

The most complicated word in the program is ROLL, which is a stack manipulation word. It is used in the format (n ROLL --- (n)) and has the effect of rotating the nth number down the stack onto the top of the stack, so that 2 ROLL is the equivalent of SWAP, and 3 ROLL is the same as ROT. The definition is difficult to understand, but it is something like this.

CONVERSION PROGRAM TO RUN 79-FORTH PROGRAMS USING TI-FORTH.

```
SCR #9
0 ( 79FORTH CONVERSION PROGRAM BERRY MINUK 12JUL84)
1 : >IN IN ; : ?DUP -DUP ; : CONVERT (NUMBER) ; : D- DMINUS D+ ;
2 : CREATE 0 VARIABLE -2 ALLQT ; : 2 DROP DROP DROP ;
3 : D< D- SWAP DROP 0< ; : DNEGATE DMINUS ; : 2/ 1 SRA ;
4 : DEPTH SP@ SO @ SWAP - 2/ ; : NEGATE MINUS ;
5 : FIND -FIND DUP IF 2DROP CFA ENDIF ;
6 : SAVE-BUFFERS FLUSH ; : U/MOD U/ ;
7 : VARIABLE 0 VARIABLE ; : WORD WORD HERE DUP 1+ C@ 0= IF 0 OVER C! ENDIF ;
8 : PICK 2 * SP@ + @ ;
9 : ROLL DUP 1 = IF DROP ELSE DUP 1
10 DO SWAP R> R> ROT R> R> R> LOOP
11 1 DO R> R> R> ROT ROT R> R> SWAP LOOP ENDIF ;
12
13
14
15
```

DRAWN WITH GRAPH



Dr. Ron Albright

When you enter n ROLL, the number n is now on top of the stack. Then the DUP puts another copy of n on the top, then the words 1 = set up a comparison with 1. The IF tests for the equality with 1 and if it is it does a DROP and that is the end of it.

If it is not equal to 1, it goes on to do the ELSE part. This consists of again duplicating the n and going through a DO ...LOOP n-1 times. This loop consists of the following steps. The SWAP puts the next number on top, and then the R> R> bring the loop limits from the return stack, then the ROT brings the next number to the top and the R> moves it to the return stack, then the R> R> return the loop limits to the return stack. This loop is repeated n-1 times. After it is finished, n-1 numbers have been moved to the return stack and the nth number is second from the top and n is still on the top.

The second loop is now performed and reverses the procedure with the final SWAP putting the nth number on top of the stack. It sounds very complicated, but if you work it out you will see why it works.

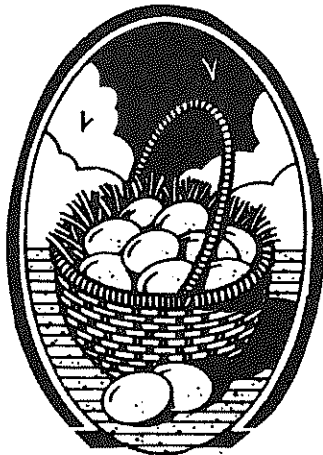
DEPTH is a word which leaves on the top of the stack the count of how many words are already on the stack. As this is not found in fig versions of FORTH, it can be created by using the definition on p83 of Brodie's Starting Forth, with the modification shown in the TI Forth manual.

PICK is a 79 word that is somewhat similar to ROLL. The difference is that while n ROLL moves the nth number to the top of the stack, n PICK copies the nth number onto the top of the stack. Here's how it works. The 2 * multiplies the number by two to create an index for how far n is down from the top of the stack. Then the words SP + add the address index of the number to the number of the address returned by the SP word which moves the address of the stack pointer to the top of the stack. The final step in the definition is the word which is like CALL PEEK in BASIC since it replaces the address which is now on top with the contents of the address which is the number which is on top of the stack.

There is also a word in the conversion program called WORD. This word is found in both versions of the language and has the same function in each. It reads in a list of text characters from the input stream. For further details see TI-FORTH manual glossary, p65. However, the difference is that the fig version leaves nothing on the stack, while the 79 version leaves the memory address of the length byte of the string on top of the stack. The program definition changes this.

INCOME & EXPENDITURE STATEMENT 1985

| INCOME | | EXPENDITURE | |
|------------------------|-------------------|-----------------------|-------------------|
| ===== | | ===== | |
| Membership Fees (New) | 7611.71 | Sydney News Digest | 14401.71 |
| Membership Fees (Rnw1) | 12452.19 | Postage SND | 3007.27 |
| Software Sales | 8422.75 | Postage Misc. | 2073.72 |
| Licensed S'ware Sales | 1106.00 | Airfreight HCM (1) | 2472.30 |
| HCM/Best of 99'er | 5159.00 | Payment HCM (1) | 3564.41 |
| Advertising SND | 985.00 | Awards/Prizes | 445.35 |
| Classified Ads SND | 64.80 | Tape Eraser | 9.95 |
| Diskette Sales | 5757.00 | Tapes | 2093.63 |
| Disk File Boxes/Cases | 419.00 | Printer Ribbons | 189.27 |
| Navarone Products | 7687.00 | Stationery | 147.85 |
| Softex Magazine | 521.50 | Payment Softex | 525.00 |
| SND Back Issues | 134.00 | Diskettes (2) | 8188.54 |
| TI Forth | 452.00 | Envelopes SND | 852.09 |
| SPGS | 291.00 | TAB/Teledata | 56.19 |
| Assembly Books | 1041.00 | Navarone Products | 7280.26 |
| Program Books | 376.00 | Import Duty Navarone | 2091.36 |
| Cassette Plugs | 80.00 | Card Holders | 60.00 |
| TAB Subscriptions | 90.00 | Food Etc.- Meetings | 400.24 |
| Address Labels | 10.00 | Refunds | 120.00 |
| TAC2 Joysticks | 57.00 | BBS Phone Bill | 347.19 |
| Software Listings | 6.50 | BBS News Letter | 73.10 |
| Dust Covers | 42.00 | SND Photographs | 52.23 |
| Repayments Advances | 232.37 | Costume Hire | 60.00 |
| BBS Fees/Donations | 762.00 | Tokens Appreciation | 75.75 |
| Other Donations | 37.00 | Courier Fees | 119.27 |
| Technical Manuals | 677.50 | Misc. Printing (3) | 2506.53 |
| Protocol Manuals | 52.00 | Royalty Payments | 280.04 |
| Library Disks | 212.00 | Expenses Gosford Trip | 20.00 |
| Joystick Adaptors | 50.00 | Classified Ads | 337.00 |
| Entry Fees Etc. | 742.97 | SPGS | 152.61 |
| Auction Fees | 122.00 | Purchase Multiplan | 75.00 |
| IBD Interest | 633.75 | O'Head Proj. Hire | 114.19 |
| TI Mailer | 450.00 | Hall Hirings | 536.50 |
| Rapid Ribbon Mailer | 261.16 | Phone Connect. PC85 | 75.00 |
| Editor Assembler Books | 166.00 | Purchase HR25 Printer | 590.00 |
| Triple Tech Cards | 690.00 | Printer Cable | 25.00 |
| Binders | 18.00 | Double Adaptors | 9.40 |
| CRC Sales | 732.59 | DD Controller Card | 262.30 |
| | | Assembly Books | 588.65 |
| | | Hire Tables PC85 | 28.60 |
| | | BBS Entertainment | 100.00 |
| | | Address Labels | 102.00 |
| | | Rental Box 595 | 21.00 |
| | | Rental Box 149 | 21.00 |
| | | Consultants Fees | 500.00 |
| | | Forth Manuals | 207.55 |
| | | Protocol Manuals | 98.40 |
| | | TEAC Recorder | 114.00 |
| | | Charge Card Fees | 497.47 |
| | | Bank Fees | 105.30 |
| | | Reg. Publication Fees | 54.00 |
| | | VIATEL Fees | 12.50 |
| | | Micropendium Subs. | 38.69 |
| | | Stale Cheque | 4.00 |
| | | Joystick Adaptors | 60.00 |
| | | Purchase DBM System | 75.00 |
| | | Triple Tech. Cards | 544.35 |
| | | Import Duty TT Cards | 128.53 |
| | | MBP Clock System | 157.89 |
| | | Purchase TT Card | 230.00 |
| | | Purchase Binders | 65.00 |
| | | Payment CRC | 712.65 |
| | | Rapid Ribbon Mailer | 63.96 |
| | | Micropendium Airfght | 129.78 |
| | | Micropendium Payment | 245.65 |
| | | Excess Income/Expend. | 8.57 |
| TOTAL | \$58604.79 | TOTAL | \$58604.79 |



NOTES :

- (1) Includes Best of 99'er
- (2) Includes File Boxes/Library Cases
- (3) Includes Bromides, Calendars, Credit Card Authorities, Technical Manuals, Documentations, Tutorial Books, Letterheads, Paste-up Sheets, Reminders, Membership Drive, Workshop Information, Auction Lists.

continued →

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100 REM *****
110 REM #HISTORY#
120 REM *****
130 REM AUTHOR UNKNOWN
140 REM TI BASIC
150 CALL CLEAR
160 RANDOMIZE
170 PRINT TAB(5);"WELCOME TO
HISTORY": : : :
180 PRINT " IN THIS LESSON
YOU WILL": " ATTEMPT TO PLAC
E EVENTS": " IN CHRONOLOGICA
L ORDER": : : :
190 PRINT " PRESS ANY KEY T
O START": : :
200 CALL KEY(3,K,S)
210 N=0
220 W=0
230 RESTORE
240 IF S=0 THEN 200
250 CALL CLEAR
260 READ E*(1),E*(2),E*(3),T
*(1),T*(2),T*(3)
270 N=N+2
280 E1=INT(3*RND)+1
290 E2=INT(3*RND)+1
300 IF E2=E1 THEN 290
310 E3=INT(3*RND)+1
320 IF (E3=E2)+(E3=E1) THEN 3
10
330 PRINT "1. ";E*(E1);: "2
. ";E*(E2);: "3. ";E*(E3);:
:
340 PRINT "WHICH EVENT OCCUR
RED FIRST": "PRESS CHOICE? (1
,2,3)": :
350 CALL KEY(3,K,S)
360 IF (S=0)+(K<49)+(K>51) TH
EN 350
370 C=K-48
380 IF ((C=1)*(E1=1))+((C=2)
*(E2=1))+((C=3)*(E3=1)) THEN
420
390 PRINT "WRONG":E*(1):"OCC
URRED FIRST": : :
400 W=W+1
410 GOTO 430
420 PRINT "RIGHT":E*(1):"OCC
URRED FIRST": : :
430 PRINT "WHICH EVENT OCCUR
RED SECOND?": "PRESS CHOICE?
(1,2,3)": : :
440 CALL KEY(3,K,S)
450 IF (S=0)+(K<49)+(K>51) TH
EN 440
460 C=K-48
470 IF ((C=1)*(E1=2))+((C=2)
*(E2=2))+((C=3)*(E3=2)) THEN
510
480 PRINT "WRONG":E*(2):"OCC
URRED SECOND": : :
490 W=W+1
500 GOTO 520
510 PRINT "RIGHT":E*(2):"OCC
URRED SECOND": : :
520 FOR D=1 TO 700
530 NEXT D
540 CALL CLEAR
550 PRINT "THE CORRECT ORDER
IS": : :
560 FOR L=1 TO 3
570 PRINT E*(L):T*(L): :
580 NEXT L
590 PRINT : : "YOUR SCORE I
S": (N-W); "OUT OF": N; : :
600 IF N=40 THEN 860
610 PRINT "ATTEMPT ANOTHER?
(Y/N)": : :
620 CALL KEY(3,K,S)
630 IF K=89 THEN 250
640 IF K=78 THEN 32767
650 GOTO 620
660 DATA FRENCH AND INDIAN W
AR,AMERICAN REVOLUTION,WAR O
F 1812,1755,1776,1812

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670 DATA CIVIL WAR,EMANCIPAT
ION PROCLAMATION,FOURTEENTH
AMENDMENT,1861,1863,1866680
DATA LOUISIANA PURCHASE,WAR
OF 1812,JACKSON ADMINISTRATI
ON,1803,1812,1820
690 DATA MEXICAN WAR,SPANISH
-AMERICAN WAR,WORLD WAR I,18
44,1898,1914
700 DATA INDEPENDENCE DECLAR
ED,ARTICLES OF CONFEDERATION,
CONSTITUTION,1776,1781,1787
710 DATA BATTLE OF YORKTOWN,
BATTLE OF THE MARNE,BATTLE O
F THE BULGE,1781,1914,1944
720 DATA TREATY OF GHENT,WOR
LD WAR I,TREATY OF VERSAILLE
S,1814,1914,1919
730 DATA BOSTON TEA PARTY,IN
TOLERABLE ACTS,INDEPENDENCE
DECLARED,1773,1774,1776
740 DATA CARTHAGE FOUNDED,FI
RST OLYMPIC GAMES,ROME FOUND
ED,800 BC,776 BC,753 BC
750 DATA BRITAIN TAKEN BY RO
ME,DEATH OF JULIUS CAESAR,JE
SUS BORN,84 BC,44 BC,4 BC
760 DATA DEATH OF ATILLA THE
HUN,FALL OF ROME,BIRTH OF M
UHAMMAD,453,455,570
770 DATA CLOVIS FIRST FRENCH
KING,CHARLEMAGNE'S EMPIRE,E
GBERT FIRST ENGLISH KING,481
,800,828
780 DATA NORMAN INVASION,GEN
GHIS KHAN TAKES CHINA,KUBLAI
KHAN IS GREAT KHAN,1066,121
4,1260
790 DATA SIR RALEIGH IN VIRG
INIA,JAMESTOWN FOUNDED,MAYFL
OWER,1583,1607,1620
800 DATA SEVEN YEARS' WAR BE
GINS,BRITISH TAKE OVER CANAD
A,AMERICAN REVOLUTION,1755,1
763,1776
810 DATA CONSTITUTION SIGNED
,RAID OF BASTILLE,LOUIS XVI
BEHEADED,1787,1789,1793
820 DATA NAPOLEON FIGHTS IN
EGYPT,NAPOLEON BECOMES EMPER
OR,NAPOLEON FIGHTS IN RUSSIA
,1798,1804,1812
830 DATA ABDICATION OF NAPOL
EAN,WATERLOO,TREATY OF VIENN
A,1814,1815,1815
840 DATA CRIMEAN WAR,CIVIL W
AR,BDER WAR,1854,1861,1899
850 DATA RUSSO-JAPANESE WAR,
WORLD WAR I,RUSSIAN REVOLUTI
ON,1904,1914,1917
860 PRINT "THAT'S ALL THE QU
ESTIONS": : :
870 PRINT "RUN AGAIN? (Y/N)"
: :
880 CALL KEY(3,K,S)
890 IF K=78 THEN 32767
900 IF K=89 THEN 210
910 GOTO 880

```

SND

```

100 REM *****
110 REM # ANT WARS #
120 REM *****
130 REM TI BASIC
140 REM BY J. PLANTY
150 RANDOMIZE
160 CALL CLEAR
170 GOTO 1330
180 CALL SCREEN(5)
190 CALL CHAR(96,"427E5AFFE7
FFA5A5")
200 CALL CHAR(111,"00")
210 CALL CHAR(112,"3E418182B
1C1223C")
220 CALL COLOR(11,16,2)
230 CALL CHAR(104,"427E5AFFE
7FFA5A5")

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240 CALL CHAR(152,"FF81B1818
18181FF")
250 CALL COLOR(16,3,2)
260 CALL COLOR(9,6,2)
270 CALL COLOR(10,10,2)
280 X=16
290 FOR J=1 TO 24
300 CALL HCHAR(J,3,111,28)
310 NEXT J
320 Y=12
330 GOT=0
340 CALL HCHAR(Y,X,96)
350 COUNT=1
360 CALL JOYST(1,DX,DY)
370 A=X
380 B=Y
390 IF (DX=0)+(DY=0)=-2 THEN
500
400 X=X+DX/4
410 Y=Y-DY/4
420 IF (X<3)+(X>30)+(Y<1)+(Y
>24)<0 THEN 1080
430 CALL HCHAR(B,A,111)
440 CALL GCHAR(Y,X,Z)
450 CALL HCHAR(Y,X,96)
460 IF Z=111 THEN 500
470 IF Z=104 THEN 850
480 IF Z=112 THEN 980
490 IF Z=152 THEN 1160
500 R=INT(24*RND)+1
510 C=INT(28*RND)+3
520 CALL GCHAR(R,C,Z)
530 IF Z=111 THEN 560
540 IF Z=96 THEN 620
550 GOTO 500
560 CALL HCHAR(R,C,104)
570 IF COUNT<>20 THEN 590
580 GOSUB 890
590 CALL SOUND(100,110,1)
600 COUNT=COUNT+1
610 GOTO 360
620 CALL CLEAR
630 CALL SOUND(2500,440,2,65
9,5,880,10,-6,15)
640 PRINT "GOT YOU!!!"
650 PRINT "IT TOOK";COUNT;"O
F MY BUGS"
660 PRINT "TO GET YOU"
670 PRINT "YOU GOT";GOT;"PIE
CES OF FOOD"
680 SCORE=GOT*100+COUNT
690 PRINT "YOUR SCORE WAS";
SCORE;"PTS."
700 PRINT "THE OLD HIGH SCO
RE WAS";HISCORE
710 IF HISCORE>SCORE THEN 75
0
720 HISCORE=SCORE
730 PRINT "CONGRATULATIONS
YOU HAVE"
740 PRINT "THE NEW HIGH SCOR
E";HISCORE
750 PRINT "DO YOU WANT TO P
LAY "
760 PRINT "AGAIN (Y/N). "
770 CALL KEY(0,KEY,S)
780 IF S=0 THEN 770
790 CALL CLEAR
800 IF KEY=89 THEN 280
810 IF KEY=121 THEN 280
820 CALL CLEAR
830 PRINT "THANK YOU FOR PLA
YING."
840 STOP
850 CALL CLEAR
860 CALL SOUND(2500,440,2,65
9,5,880,10,-8,2)
870 PRINT "YOU KILLED YOUR S
ELF."
880 GOTO 650
890 FOR I=1 TO 10
900 RD=INT(24*RND)+1
910 CD=INT(28*RND)+3
920 CALL GCHAR(RD,CD,Z)
930 IF Z=96 THEN 900
940 IF Z=112 THEN 900

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```

950 CALL HCHAR(RO,CO,(12)
960 NEXT I
970 RETURN
980 GOT=GOT+1
990 CALL SOUND(1000,262,2,33
0,2,392,2)
1000 IF GOT<>10 THEN 500
1010 GOSUB 890
1020 RO=INT(24*RND)+1
1030 CO=INT(28*RND)+3
1040 CALL GCHAR(RO,CO,Z)
1050 IF Z<>111 THEN 1020
1060 CALL HCHAR(RO,CO,(152)
1070 GOTO 500
1080 FOR JOT=1 TO 6
1090 CALL SCREEN(7)
1100 CALL SCREEN(5)
1110 CALL SOUND(10,-5,1)
1120 NEXT JOT
1130 X=A
1140 Y=B
1150 GOTO 610
1160 FOR IK=1 TO 19
1170 READ NHL
1180 CALL SOUND(100,NHL,1)
1190 NEXT IK
1200 DATA 262,330,392,523,39
2,523,330,392,523,659
1210 DATA 523,659,392,523,65
9,784,659,784,784
1220 RESTORE 1200
1230 CALL CLEAR
1240 BONUS=0
1250 PRINT "LUCKY YOU, YOUR
SAFE"
1260 IF GOT<>20 THEN 1280
1270 BONUS=4000
1280 BONUS=BONUS+1000
1290 SCORE=GOT*100+COUNT+BON
US
1300 PRINT "YOUR SCORE IS";
SCORE;"PTS"
1310 GOTO 700
1320 END
1330 PRINT TAB(8);"ANT WARS"
1340 PRINT ":::::";"DO YOU W
ANT INSTRUCTIONS (Y/N)"
1350 CALL KEY(O,K,S)
1360 IF S=0 THEN 1350
1370 IF K=78 THEN 180
1380 IF K=110 THEN 180
1390 CALL CLEAR
1400 PRINT "WELCOME TO ANT W
ARS. YOU "
1410 PRINT "HAVE ENTERED IN
A CONTEST"
1420 PRINT "TO TEST YOUR SKI
LL AGAINST"
1430 PRINT "THE DEADLY YELLO
W ANTS."
1440 PRINT "IN THIS CONTEST
YOU MUST TRY"
1450 PRINT "FOR AS HIGH A SC
ORE AS"
1460 PRINT "POSSIBLE WITHOUT
GETTING "
1470 PRINT "YOURSELF KILLED,
WHILE THE"
1480 PRINT "YELLOW ANTS ARE
TRYING TO"
1490 PRINT "KILL YOU. WHEN
THE GAME "
1500 PRINT "STARTS YOU WILL
BE THE BLUE"
1510 PRINT "ANT IN THE MIDDLE
OF THE"
1520 PRINT "ARENA. THE YELL
OW ANTS WILL"
1530 PRINT "START TO APPEAR
AROUND YOU."
1540 PRINT "ONCE A YELLOW AN
T APPEARS HE"
1550 PRINT "CAN NOT MOVE, BU
T YOU MAY "
1560 PRINT "USE THE JOYSTICK
S TO MOVE"

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```

1570 PRINT "YOUR ANT ANY WHE
RE IN THE "
1580 PRINT "ARENA. IF ONE I
F THE YELLOW"
1590 PRINT "ANTS LANDS WHERE
YOUR ANT IS"
1600 PRINT "HE KILLS YOU. I
F YOU MOVE "
1610 PRINT "YOUR ANT WHERE A
YELLOW ANT"
1620 PRINT " PRESS ANY KE
Y"
1630 CALL KEY(O,K,S)
1640 IF S=0 THEN 1630
1650 CALL CLEAR
1660 PRINT "ALREADY IS YOUR
ANT IS "
1670 PRINT "KILLED. WHAT YO
U SHOULD TRY"
1680 PRINT "TO DO IS EAT AS
MUCH OF THE"
1690 PRINT "'FOOD' AS YOU CA
N.(THE FOOD"
1700 PRINT "WILL SHOW UP AFT
ER 20 OF "
1710 PRINT "THE ANTS ARE IN
THE ARENA)."
1720 PRINT "IF YOU EAT THE F
IRST 10"
1730 PRINT "PIECES OF FOOD T
HEN 10 MORE"
1740 PRINT "PIECES ARE PUT I
N THE ARENA."
1750 PRINT "ALSO AT THIS TIM
E SOMEWHERE"
1760 PRINT "IN THE ARENA WIL
L APPEAR"
1770 PRINT "A WAY OUT. YOU
MAY USE THIS"
1780 PRINT "DOOR AT ANY TIME
."
1790 PRINT "YOU SCORE POINTS
AS FOLLOWS."
1800 PRINT "1 POINT FOR EACH
YELLOW ANT"
1810 PRINT "100 POINTS FOR E
ACH PIECE OF"
1820 PRINT "FOOD"
1830 PRINT "1000 POINTS FOR
GETTING OUT"
1840 PRINT "AND A 4000 POINT
BONUS IF"
1850 PRINT "YOU EAT ALL 20 P
IECES OF "
1860 PRINT "FOOD AND THEN GE
T OUT."
1870 PRINT "GOOD LUCK."
1880 PRINT "PRESS ANY KEY TO
START"
1890 CALL KEY(O,K,S)
1900 IF S=0 THEN 1890
1910 GOTO 180

```

SND

```

100 REM*****
110 REM* *
120 REM* HANG MAN *
130 REM* *
140 REM* BY ROBERT DAVY *
150 REM* *
160 REM* AUSTRALIA *
170 REM*****
180 REM XB WITH SPEECH
190 CALL CLEAR
200 REM=====
210 REM DEFINE CHARACTERS
220 REM=====
230 A$="FF7F3F1F0F070301"
240 CALL CHAR(97,A$)
250 CALL CHAR(128,A$)
260 A$="7F7F7F7F7F7F7F7F"
270 CALL CHAR(113,A$)
280 CALL CHAR(121,A$)
290 A$="FEFEFEFEFEFEFEFE"
300 CALL CHAR(112,A$)

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310 CALL CHAR(120,A$)
320 A$="FFFFFFFFFFFFFF"
330 CALL CHAR(133,A$)
340 CALL CHAR(99,A$)
350 FOR I=1 TO 12
360 READ A,A$
370 CALL CHAR(A,A$)
380 NEXT I
390 DATA 129,0080C0E0F0F8FCF
E,104,000000000F0F0F0,105,0
000000000F0F0F
400 DATA 130,FFFFFFFFF000
0,131,FFFEFCFBF0E0C080,132,0
00103070F1F3F7F
410 DATA 136,01071F3F3F7979F
F,137,80E0FBFCFC9E9EFF,138,F
F7F7B393C1C0701
420 DATA 139,FFFEDE9C3CFBE0B
0,140,FF7F7C393B1F0701,141,F
FFE3E9C0CFC8E0B0
430 CALL SCREEN(12)
440 FOR I=1 TO 6
450 READ A,B,C
460 CALL COLOR(A,B,C)
470 NEXT I
480 DATA 13,13,1,14,7,1,9,9,
1
490 DATA 10,2,1,11,5,1,12,1,
14
500 DIM WORD$(66)
510 REM=====
520 REM READ WORDS AND
530 REM PLAY MUSIC
540 REM=====
550 PRINT TAB(8);"*****
**":TAB(8);"* *
560 PRINT TAB(8);"* HANG MAN
*":TAB(8);"* *":TA
B(8);"*****": : : :
: : :
570 PRINT TAB(7);"BY ROBERT
DAVY"
580 RESTORE 2770
590 FOR I=1 TO 66
600 READ WORD$(I),NOTE
610 CALL SOUND(-200,NOTE,1)
620 FOR ZZ=1 TO 5
630 NEXT ZZ
640 NEXT I
650 REM INPUT NAME AND LEVEL

660 CALL CLEAR
670 PRINT "WHAT IS YOUR NAME
?":(UP TO 10 LETTERS)": :
680 CALL SAY("WHAT+IS+YOUR+N
AME")
690 INPUT NAME$
700 IF LEN(NAME$)>10 THEN 67
0
710 CALL SAY("HELLO")
720 PRINT " : : : "ENTER SKIL
L LEVEL": :
730 PRINT "1 IS EASIEST AND
3": " IS HARDEST."
740 CALL KEY(O,K,S)
750 IF S=0 THEN 740
760 IF (K<49)+(K>51) THEN 740
770 REM=====
780 REM GET A RANDOM WORD
790 REM=====
800 ON K-48 GOTO 810,840,870
810 RANDOMIZE
820 N=INT(RND*22)+1
830 GOTO 920
840 RANDOMIZE
850 N=INT(RND*22)+23
860 GOTO 920
870 RANDOMIZE
880 N=INT(RND*22)+45
890 REM=====
900 REM INITIALISATION
910 REM=====
920 W$=WORD$(N)
930 L=LEN(W$)
940 ERROR=0
950 P1=22

```

```

960 Q1=3
970 U$=""
980 REM=====
990 REM SCREEN SET UP
1000 REM=====
1010 CALL CLEAR
1020 M$="HANG MAN"
1030 R=1
1040 C=11
1050 GOSUB 2690
1060 CALL HCHAR(13,4,95,L)
1070 M$="YOU HAVE USED:"
1080 R=20
1090 C=3
1100 GOSUB 2690
1110 M$="GUESS A LETTER,"
1120 R=5
1130 C=3
1140 GOSUB 2690
1150 CALL SAY("GUESS+A+LET+O
R")
1160 M$=NAME$
1170 R=7
1180 C=13-LEN(NAME$)
1190 GOSUB 2690
1200 REM=====
1210 REM PLAYER INPUT
1220 REM=====
1230 CALL SOUND(200,880,1)
1240 CH=42
1250 CALL HCHAR(7,18,CH)
1260 FOR J=1 TO 5
1270 CALL KEY(0,K,S)
1280 IF S<>0 THEN 1330
1290 NEXT J
1300 IF CH=32 THEN 1240
1310 CH=32
1320 GOTO 1250
1330 IF (K<<65)+(K>90) THEN 12
50
1340 CALL HCHAR(7,18,K)
1350 CALL SAY(CHR$(K))
1360 T$=CHR$(K)
1370 REM=====
1380 REM CHECK IF LETTER
1390 REM IS IN WORD
1400 REM=====
1410 IF POS(U$,T$,1)=0 THEN
1460
1420 IF POS(U$,T$,1)=0 THEN
1970
1430 REM=====
1440 REM WRONG LETTER
1450 REM=====
1460 CALL SOUND(700,110,1)
1470 CALL SOUND(700,117,1)
1480 CALL SOUND(700,110,1)
1490 ERROR=ERROR+1
1500 ON ERROR GOTO 1510,1530
,1550,1580,1610,1660,1700,17
40,1780,1810
1510 CALL HCHAR(19,26,99,5)
1520 GOTO 1880
1530 CALL VCHAR(4,30,99,15)
1540 GOTO 1880
1550 CALL HCHAR(4,23,99,7)
1560 CALL HCHAR(5,29,97)
1570 GOTO 1880
1580 CALL VCHAR(5,25,120,3)
1590 CALL VCHAR(5,26,121,3)
1600 GOTO 1880
1610 CALL HCHAR(8,25,136)
1620 CALL HCHAR(8,26,137)
1630 CALL HCHAR(9,25,138)
1640 CALL HCHAR(9,26,139)
1650 GOTO 1880
1660 CALL HCHAR(10,25,133,2)
1670 CALL HCHAR(11,25,133,2)
1680 CALL HCHAR(12,25,130,2)
1690 GOTO 1880
1700 CALL HCHAR(10,27,129)
1710 CALL HCHAR(11,28,129)
1720 CALL HCHAR(11,27,128)
1730 GOTO 1880
1740 CALL HCHAR(10,24,132)
1750 CALL HCHAR(11,23,132)

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1760 CALL HCHAR(11,24,131)
1770 GOTO 1880
1780 CALL VCHAR(13,26,113,3)
1790 CALL HCHAR(15,27,104)
1800 GOTO 1880
1810 CALL VCHAR(13,25,112,3)
1820 CALL HCHAR(15,24,105)
1830 REM=====
1840 REM DISPLAY LETTER
1850 REM IN USED LETTER
1860 REM SECTION
1870 REM=====
1880 CALL HCHAR(P1,Q1,K)
1890 Q1=Q1+2
1900 IF Q1<31 THEN 1930
1910 Q1=3
1920 P1=24
1930 IF ERROR=10 THEN 2390 E
LSE 1230
1940 REM=====
1950 REM LETTER IS CORRECT
1960 REM=====
1970 FOR E=0 TO 30 STEP 4
1980 CALL SOUND(-99,1397,E)
1990 NEXT E
2000 X=1
2010 P=POS(W$,T$,X)
2020 IF P=0 THEN 2070
2030 CALL HCHAR(13,P+3,K)
2040 U$=U$&T$
2050 X=1+P
2060 GOTO 2010
2070 IF LEN(U$)<>L THEN 1880
2080 REM=====
2090 REM WIN
2100 REM=====
2110 DATA 587,40000,587,4000
0,494,40000,659,40000,587,58
7,587,587,494,494,494,494
2120 RESTORE 2110
2130 FOR I=1 TO 16
2140 READ NOTE
2150 CALL SOUND(-300,NOTE,1)
2160 NEXT I
2170 CALL SAY(" #GOOD WORK#,
#YOU WIN")
2180 M$="PHEW!"
2190 R=17
2200 C=17
2210 GOSUB 2690
2220 M$="YOU'RE SAFE!"
2230 R=18
2240 GOSUB 2690
2250 M$="PLAY AGAIN? Y OR N"
2260 R=10
2270 C=3
2280 GOSUB 2690
2290 CALL SAY("PRESS+Y+OR+N+
TD+PLAY+AGAIN")
2300 CALL KEY(0,K,S)
2310 IF S=0 THEN 2300
2320 IF K=89 THEN 660
2330 CALL SAY("SEE+YOU+AGAIN
+8OME+TIME")
2340 CALL CLEAR
2350 END
2360 REM=====
2370 REM DEAD ROUTINE
2380 REM=====
2390 CALL HCHAR(9,25,140)
2400 CALL HCHAR(9,26,141)
2410 CALL SAY(" , , , , UHOh")
2420 DATA 262,800,262,1,262,
1,262,800,311,1,294,1,294,1,
262,1,262,1,247,1,262,1200
2430 RESTORE 2420
2440 FOR D=1 TO 200
2450 NEXT D
2460 FOR I=1 TO 11
2470 READ NOTE,DUR
2480 IF DUR<>1 THEN 2500
2490 DUR=400
2500 CALL SOUND(DUR,NOTE,1)
2510 FOR D=1 TO 15
2520 NEXT D

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2530 NEXT I
2540 M$=W$
2550 R=13
2560 C=3
2570 GOSUB 2690
2580 M$="YOU'RE HUNG,"
2590 R=17
2600 C=17
2610 GOSUB 2690
2620 M$=NAME$&"!"
2630 R=18
2640 GOSUB 2690
2650 GOTO 2250
2660 REM=====
2670 REM PRINT AT ROUTINE
2680 REM=====
2690 FOR Y=1 TO LEN(M$)
2700 CALL HCHAR(R,C+Y,ASC(SE
G$(M$,Y,1)))
2710 NEXT Y
2720 RETURN
2730 REM=====
2740 REM DATA FOR WORDS
2750 REM AND TUNE
2760 REM=====
2770 DATA JUMP,1047,COIN,988
,LUCK,1047,LIMB,40000,CRUSH,
523,LUNCH,40000,SCHOOL,523,6
ROUP,40000
2780 DATA FISH,784,DEVIL,698
,SNAP,659,SOLD,784,TABLE,104
7,BLACK,40000
2790 DATA BLUE,1047,BEND,131
9,JEWEL,1175,JOKE,1047,KICK,
1175,LASER,40000,DOWN,587
2800 DATA EAST,40000,INVADE,
587,GUILTY,40000,COMFORT,587
,INSTEAD,523,BISCUIT,4942810
DATA UNIQUE,587,TROLLEY,784
,ZOOLOGY,40000,DEVELOP,784,0
RDEAL,40000,EASILY,880,ABSUR
D,988,TRAVEL,1047
2820 DATA COLUMN,988,LOUNGE,
880,MATTER,784,ANIMAL,880,FR
IGHT,784,BEHAVE,698,LOADED,6
59,HAZARD,698,AISLE,659
2830 DATA SYNCHRONISE,587,SY
NTHETIC,523,RELIABLE,523,PER
SUADE,494,PRIVILEGE,440,CARD
IOPULMONARY,392,ZEPHYR,440
2840 DATA BARBECUE,523,AQUIS
ITION,494,BISYMMETRY,587,FLE
XIBLE,523,AVOIDABLE,659,XYLO
LOGY,587,AMBIEXTROUS,698
2850 DATA FREQUENCY,659,PSYC
HOLOGIST,40000,RELINGUISH,52
3,ASTONISH,40000,ESCAPADE,52
3
2860 DATA DEFENSIVE,523,RHYT
HM,523,REMINISCENCE,523

```

SND

```

100 !@//!!!!!!!!!!!!!!@!
110 !@ BOWLING CHAMP @!
120 !@ VERSION 1.2 @!
130 !@ X-BASIC 3.4 K @!
140 !@//!!!!!!!!!!!!!!@!
150 !@AUTHOR UNKNOWN!@!
160 CALL CLEAR :: CALL CHAR(
129,"000000FFFF000000000000B0
CFE000B"):: CALL CHAR(136,"F
FFFFFFFFFFFFFFFFF7BDASASBDE
7FF3C7EFFFFFFFFF7E3C"):: CALL
COLOR(14,12,2)
170 RANDOMIZE :: CALL CHAR(1
39,"FFFFFF9F0F9FFFFFFFFF9F0F
9FFFFFFFF"):: DISPLAY AT(8,8)
:"BOWLING CHAMP!"
180 CALL CHAR(141,"E0E0E0E0E
0E0E0E00000FFFFFFFFFFFFFFFF
FFFFFFFF0000")
190 DISPLAY AT(22,1):"USE AR
ROW KEYS TO STEER BALL"

```

```

200 DISPLAY AT(13,2):"How ma
ny bowlers? (1-4): 1" :: ACC
EPT AT(13,27)VALIDATE("1234"
)BEEP SIZE(-1):B :: FOR A=1
TO B :: DISPLAY AT(15+A,3):"
Bowler ";STR$(A);""s name:"
210 ACCEPT AT(15+A,20)BEEP S
IZE(7):A# :: B$(A-1)=A# :: N
EXT A :: CALL CLEAR :: DISPL
AY AT(1,9):"1 2 3 4 5 6 7 8
9 10" :: FOR C=2 TO 10 STEP
2 :: CALL HCHAR(C,11,129,22)
:: NEXT C
220 FOR A=1 TO B :: DISPLAY
AT(2*A+1,1):B$(A-1):: NEXT A
:: FOR A=11 TO 13 STEP 2 ::
DISPLAY AT(A,1):B$(A-1),B$(
A-10):: NEXT A :: CALL HCHA
R(10,1,129,32):: CALL HCHAR(
14,1,129,32)
230 CALL HCHAR(24,1,129,32):
FOR A=0 TO B-1 :: D(A)=1 :
NEXT A :: CALL HCHAR(15,1,
136,288)
240 CALL HCHAR(16,6,140):: C
ALL HCHAR(22,6,140):: CALL H
CHAR(17,6,139):: CALL HCHAR(
21,6,139):: CALL HCHAR(18,7,
140):: CALL HCHAR(20,7,140)
250 CALL HCHAR(19,7,139):: F
OR E=1 TO 10 :: FOR F=0 TO B
-1 :: CALL VCHAR(1,2,32,9)::
CALL HCHAR(F*2+3,2,130):: G
OSUB 660
260 G=0 :: GOSUB 330 :: IF H
<>10 THEN G=1 :: GOSUB 340
270 IF E=10 THEN ON I GOTO 2
80,290,290,280,300
280 NEXT F :: NEXT E :: DISP
LAY AT(12,4):"PLAY AGAIN? (Y
OR N) Y" :: ACCEPT AT(12,25
)VALIDATE("YN")BEEP SIZE(-1)
:C# :: IF C#="Y" THEN RUN EL
SE CALL CLEAR :: END290 DISP
LAY AT(12,5):"TAKE TWO MORE
BALLS!" :: FOR A=1 TO 300 ::
NEXT A :: DISPL
AY AT(12,1):"" :: D(F)=I-1 :
G=1 :: GOSUB 330 :: IF C<>
10 THEN 320 ELSE 310
300 DISPLAY AT(12,6):"TAKE O
NE MORE BALL" :: FOR A=1 TO
300 :: NEXT A :: DISPLAY AT(
12,1):""
310 D(F)=1 :: G=2 :: GOSUB 3
30 :: GOTO 280
320 D(F)=1 :: G=2 :: GOSUB 3
40 :: GOTO 280
330 FOR J=1 TO 10 :: READ K,
L :: CALL SOUND(20,-3,0):: C
ALL HCHAR(K,L,137):: NEXT J
:: RESTORE :: M=-1 :: H=0 ::
GOTO 350
340 M=0
350 GOSUB 370 :: N=D(F):: I=
D(F):: N=N+C :: ON D(F)GOSUB
550,570,590,610,630
360 D(F)=N :: D(F)=I :: DISP
LAY AT(13+(F<2)*2,26+(F/2=IN
T(F/2))*17)SIZE(3):USING "##
#":D(F):: RETURN
370 P=1 :: Q=23 :: R=-1 :: C
ALL SPRITE(#1,139,2,Q*8-7,8)
380 FOR II=113 TO 185 STEP R
ND*6+4 :: CALL KEY(0,S,T)::
CALL LOCATE(#1,II,8)
390 IF T<>0 THEN 410
400 NEXT II :: GOTO 380
410 HOOK=0
420 CALL SOUND(-4200,150,20,
-7,20)
430 FOR P=8 TO 192 STEP 4 ::
CALL LOCATE(#1,II,P)

```

```

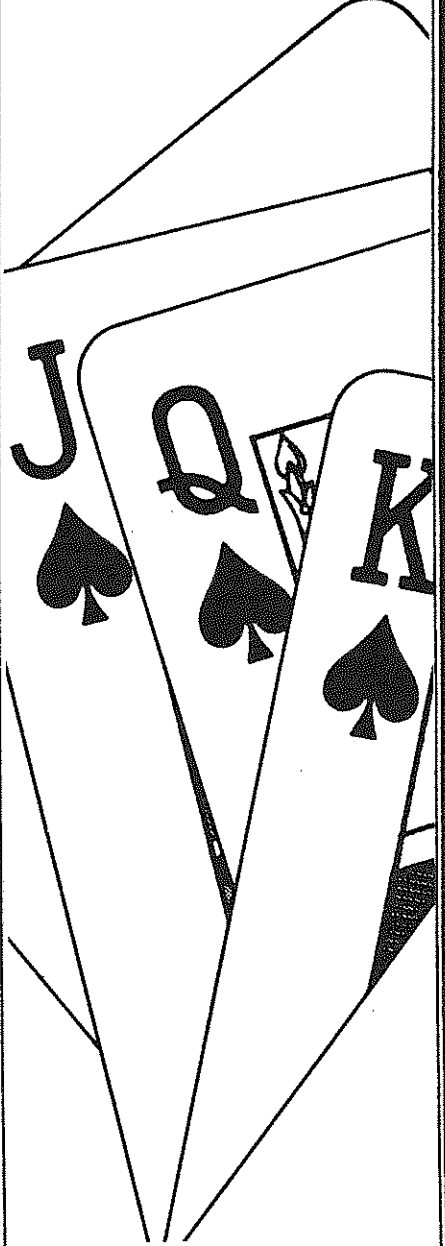
440 IF HOOK=0 THEN CALL KEY(
0,KEY,ST):: IF KEY=69 THEN H
OOK=-.25-RND/2 ELSE IF KEY=8
8 THEN HOOK=.25+RND/2
450 IF II>112 AND II<186 THE
N II=II+HOOK
460 NEXT P
470 P=25 :: C=0 :: CALL POSI
TION(#1,ROW,COL):: Q=(ROW+7)
/8
480 CALL GCHAR(Q,P,U):: IF U
=137 THEN CALL HCHAR(Q,P,136
):: C=C+1 ELSE 520
490 CALL SOUND(-40,-6,0):: F
OR R=-1 TO 1 STEP 2 :: V=8 :
W=P
500 V=V+R :: W=W+1 :: CALL G
CHAR(V,W,U):: IF U=137 AND R
ND<.9 THEN CALL HCHAR(V,W,13
6):: C=C+1 :: CALL SOUND(-40
,-6,0):: GOTO 500
510 NEXT R
520 CALL LOCATE(#1,Q*8-7,P*8
-7):: P=P+1 :: IF P<32 THEN
480
530 H=H+C :: X=C+48 :: IF H=
10 THEN IF M THEN X=88 ELSE
X=47
540 CALL HCHAR(2*F+3,7+2*E+G
+2,X):: FOR J=248 TO 8 STEP
-4 :: CALL LOCATE(#1,185,J):
NEXT J :: RETURN
550 IF H=10 THEN IF M THEN I
=2 ELSE I=5
560 RETURN
570 N=N+C :: IF C=10 THEN I=
3 ELSE I=4
580 RETURN
590 N=N+C*2 :: IF C<>10 THEN
I=4
600 RETURN
610 N=N+C :: IF H=10 THEN I=
5 ELSE I=1
620 RETURN
630 N=N+C :: IF C=10 THEN I=
2 ELSE I=1
640 RETURN
650 DATA 16,31,18,31,20,31,2
2,31,17,30,19,30,21,30,18,29
,20,29,19,28
660 CALL VCHAR(15,27,141,9)
670 CALL HCHAR(15,28,142,5)
680 CALL HCHAR(23,28,143,5)
690 FOR A=27 TO 32
700 CALL VCHAR(15,A-1,136,9)
:: CALL VCHAR(15,A,141,9)
710 FOR II=1 TO 20 :: NEXT I
I
720 CALL SOUND(40,-7,5)
730 NEXT A
740 CALL VCHAR(15,32,136,9):
RETURN

```

SND



Deal Yourself a Winning Hand!



RENEW YOUR YOUR TISHUG MEMBERSHIP NOW !!!

TISHUG: Outstanding Accounts as at 31.12.85

1. DEBTORS

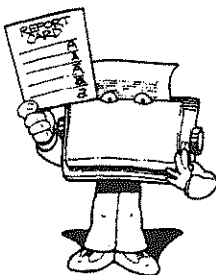
| Name | Amount | For |
|--------------------------|------------------|-----------------|
| Computerwave Pty Ltd | \$140.00 | Advertising SND |
| Leevers Modular Services | \$400.00 | Diskettes |
| Peter Schubert | \$185.00 | Advertising SND |
| Imagic (Aust) | \$ 60.00 | Advertising SND |
| Waltons (Dee Why) | \$120.00 | Advertising SND |
| Crows Nest Exec Centre | \$ 60.00 | Advertising SND |
| B&M Computers (WA) | \$ 40.00 | Advertising SND |
| Shane Andersen | \$ 97.83 | TISHUG Advance |
| TOTAL - DEBTORS | \$1102.83 | |

2. CREDITORS

| Name | Amount | For |
|--------------------------|-----------------|------------------|
| L. Newhouse | \$48.00 | Prepaid Software |
| R. Fischer | \$15.45 | Prepaid Software |
| G. Paterson | \$16.00 | Prepaid HCM |
| P. Hancock | \$34.00 | Prepaid HCM |
| TOTAL - CREDITORS | \$113.45 | |

TISHUG: Statement of Assets as at 31.12.85

| | |
|---------------------------|-------------------|
| Hardware/Software at Cost | \$9006.19 |
| Stock on Hand at Retail | \$5530.00 |
| Outstanding Accounts | \$1102.83 |
| Less Creditors | -\$ 113.45 |
| Cash at Bank | \$5583.63 |
| Term Deposit | \$6000.00 |
| Total Assets | \$27109.20 |

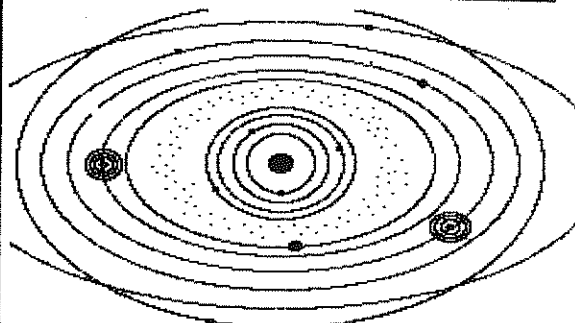
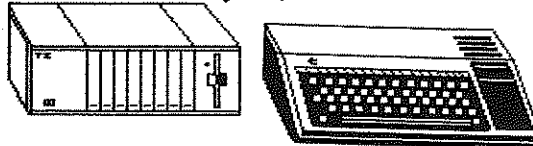


TISHUG: Cash Balance Sheet as at 31.12.85

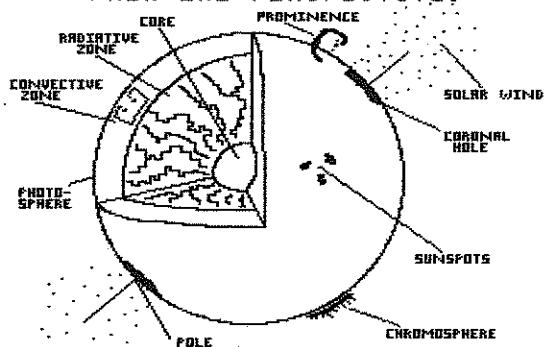
| | | | |
|--|-------------------|-----------------|-------------------|
| Accumulated Funds: | | Balance at Bank | \$5583.63 |
| Balance 1 October 1984 | \$11575.06 | Investment: | |
| Add Excess Income over Expenditure 1984/85 | \$ 8.57 | Term Deposit | \$6000.00 |
| | | | |
| | \$11583.63 | | \$11583.63 |



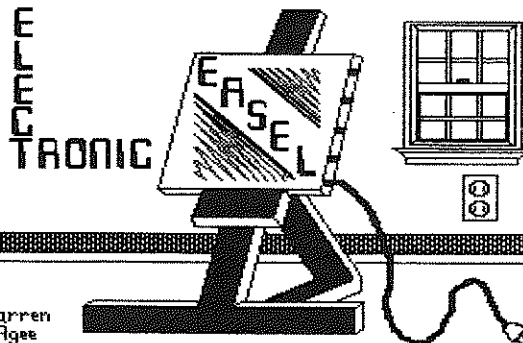
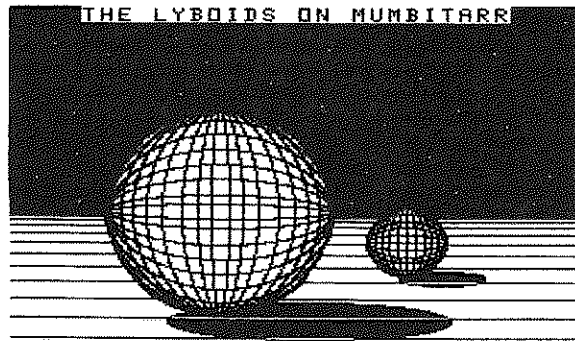
Drawn with Graphics ...



THE SOLAR SYSTEM, A DRAWING FROM ONE PERSPECTIVE.



THE LYBOIDS ON MUMBITARR



Warren
Figgie

CONTINUED →

TISHUG: Inventory of Assets - as at 31.12.85

| Item | Date Purchased | Cost | Serial No. | Condition | Held By |
|-----------------------|----------------|-----------|--------------|-----------|-----------|
| Printer Impact 99/4 | 12.4.83 | \$749.25 | 442550 | Good | Librarian |
| Disk Drive PHP1850C | 6.12.83 | \$412.50 | 1037195 | Good | Librarian |
| Telex Tape Copier | 3.08.84 | \$1643.85 | 0813418 | Good | Librarian |
| Corcomp DD Card | 14.1.85 | \$262.30 | Unknown | Good | Librarian |
| TEAC V307 Tape Deck | 16.6.85 | \$114.00 | 200467 | Good | Librarian |
| TI Multiplan | 20.1.85 | \$75.00 | Unknown | Good | Librarian |
| Tandy PA System | 31.8.83 | \$206.90 | 10A221010031 | Good | Secretary |
| Overhead Projector | 2.07.84 | \$960.00 | Unknown | Good | Secretary |
| Answering Machine | 22.7.84 | \$294.00 | 1-00092 | Good | Secretary |
| Amber Monitor | 1984 | \$238.00 | Unknown | Good | Secretary |
| Brother HK25 Printer | 2.02.85 | \$590.00 | 131718476 | Good | Secretary |
| Navarone DBM System | 7.09.85 | \$75.00 | Unknown | Good | Asst Libr |
| Modem UDM1200 | 5.02.84 | \$510.00 | 7312 | Good | Sysop |
| Disk Drive PHP1850C | 15.2.84 | \$412.50 | LW7223 | Good | Sysop |
| Brother HR15 Printer | 12.3.84 | \$720.00 | K31702331 | Good | Editor |
| Foundation 128K Card | 17.5.84 | \$355.00 | Unknown | Good | Sysop |
| TI99/4A Console | 12.9.84 | | 80000245 | Good | Sysop |
| TI Expansion Box | 12.9.84 | | 109315 | Good | Sysop |
| RS232 Card | 12.9.84 | \$1000.00 | 36324 | Good | Sysop |
| Disk Controller Card | 12.9.84 | | 80319 | Good | Sysop |
| Internal Disk Drive | 12.9.84 | | HW8529 | Good | Sysop |
| Internal Drive (Mod) | 12.9.85 | | MG1915 | Good | Sysop |
| MBP Clock Card | 10.9.85 | \$157.89 | Unknown | Good | Sysop |
| Triple Tech Card | 15.11.85 | \$230.00 | Unknown | Good | Editor |
| Total Value - At Cost | | \$9006.19 | | | |

TISHUG: Stocktake of Goods on Hand - 31.12.85 (At Retail Prices)

| Item | Unit Price | No. on Hand | Total Value |
|-----------------------------|------------|-------------|-------------|
| Cartridge Expanders | \$55.00 | 11 | \$605.00 |
| Console Writers | \$45.00 | 20 | \$900.00 |
| DBM Systems | \$90.00 | 5 | \$450.00 |
| Paint 'N Print | \$90.00 | 6 | \$540.00 |
| Disk Fixer | \$44.00 | 1 | \$ 44.00 |
| Tapes | \$ 3.00 | 147 | \$441.00 |
| Disks (Loose) | \$ 5.00 | 61 | \$305.00 |
| Disks (Boxes) | \$28.00 | 3 | \$ 84.00 |
| Ed/Asmblr Manual | \$20.00 | 1 | \$ 20.00 |
| Forth Manuals | \$25.00 | 6 | \$150.00 |
| Technical Manuals | \$15.00 | 15 | \$225.00 |
| Softex Magazines | \$ 4.00 | 20 | \$ 80.00 |
| Best of 99'er | \$30.00 | 5 | \$150.00 |
| HCM | \$ 8.00 | 137 | \$1096.00 |
| Micropendium | \$ 2.00 | 220 | \$440.00 |
| Total Value - Stock on Hand | | | \$5530.00 |

=See=you=at=the=A.G.M.=
 YOUR CLUB NEEDS YOU TO BE THERE!

Sat. 1st Feb '86 2 pm.

St. John's Church Hall, Victoria St,
 Darlinghurst (near St. Vincents Hospital)

AN ALTERNATIVE TO WORD PROCESSING

by Harl Davis and Geoff Trott

A new method for preparing documents for printing by someone with the TI-Writer Formatter has been suggested by Rolf Schreiber. This needs only the console system (with Extended Basic desirable) and a cassette recorder to enable articles to be prepared for the monthly newsletter.

The method uses BASIC comments to store the text DATA, which can be edited with the normal BASIC edit facilities. The document can then be SAVED as a program file on cassette much quicker than DATA could be. When the file on cassette is taken to a system with TI-Writer (and disk), it is loaded into BASIC from the cassette and listed to a disk file. This puts it into a form which can be read into TI-Writer.

Once it is in TI-Writer, the line numbers and REM or ! are removed and it is tidied up ready for printing. To help in this process the following should be done:

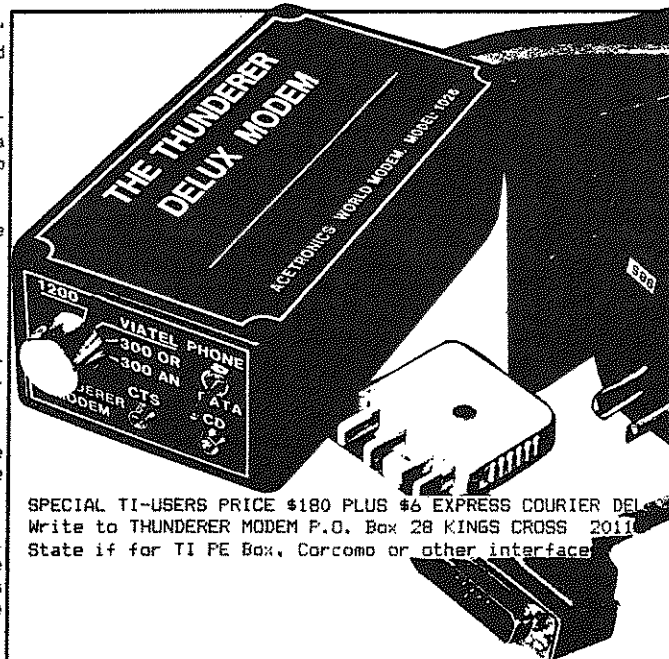
1. Finish each paragraph with a ")" symbol. This will be changed to a new line symbol in the editor.
2. Always put at least one space after every punctuation character (.,;:). Word processors use spaces to break up long lines so more is better than fewer.
3. Format commands should be in a paragraph all on their own. More than one format command can be in the paragraph, separated by semicolons but the first command only must be preceded by a ".". For example:
120 REM .SP 2;CE 1}
would command the printer to leave two lines and centre the next line. Note the ")" at the end.
4. If you run out of space in one comment in the middle of a word carry on in the next comment with a hyphen at the start to allow this to be easily corrected.
5. If you want to underline something just put a "_" in front of it and if more than one word is involved use the " " symbol between them instead of a space.
6. The characters "^,*,&,@" are used by the formatter for special purposes. If you want to use these in a document, you must transliterate or note the fact so this can be done for you.

Assuming Extended BASIC the entry of the article would be as follows:-

1. Enter NUM as per standard program entry in BASIC
2. Enter ! (ie BASIC REM) and start to type in your article putting spaces between each word and after punctuation until the computer will allow no more. Then press ENTER and carry on the next line with a ! and the rest of the paragraph. If you stop go to the next input line in the middle of a word, start the next line with a - followed by the rest of the word
3. When you reach the end of a paragraph, finish it with ".)" and ENTER. If you wish to leave a line between paragraphs, use a command or an ") " on its own. For example the following will have the same effect.
130 ! .SP)
130 !)
4. When the article is finished, save it to cassette as a program in the normal way.

Well, there you have it! There can be no excuses for not writing up that hint you found out, or for telling us all what you are trying to do with you beast. All articles received will be published if there is room.

```
100 !.LM 0;RM 41;FI)
110 !&An^Example)
120 !.ce 1)
130 !by Geoff Trott)
140 !.SP;IN +5)
150 !This is an example of a
n article prepared using Ext
ended BASIC. The first line
shows the command to provid
e automatic number generatio
160 !-n for input. This lin
e will not be SAVED and is o
nly included for completene
s.)
170 !line number 100 has the
commands to set the Left Ma
rgin to 0, the Right Margin
to 41, giving a column width
of 42 characters. FI cause
180 !-s the formatter to dis
regard the line structure of
the document and use the ma
rgins as set.)
190 !Line 110 is the heading
underlined, both words.)
200 !Line 120 is the command
to centre the next line, li
ne 130.)
210 !Line 140 causes a blank
line and all the subsequent
paragraphs to be indented b
y 5 spaces.)
220 !The rest of the documen
t follows in the subsequent
lines, with the ) character
used to force an end of para
graph. When words flow over
230 !the end of a line, a hy
phen is used to show the con
tinuation. Compare the two
outputs for the differences.
)
```



SPECIAL TI-USERS PRICE \$180 PLUS \$6 EXPRESS COURIER DEL
Write to THUNDERER MODEM P.O. Box 28 KINGS CROSS 2011
State if for TI PE Box, Corcomo or other interface

NEW YEAR SPECIAL THIS MONTH ONLY

| | |
|--|-------|
| MULTI-MODEM CARD (AUTO-ANS FOR PE BOX) | \$220 |
| STAND ALONE RS232 + MULTI MODEM | \$250 |
| CUSTOM FITTED 32K MEMORY IN CONSOLE | \$90 |
| Phone Peter on (02)358 5602 | |



Sydney News Digest

A COMPLETE INDEX TO CONTENTS OF SND BACK TO MAY 1984 ... By W. Christie TISHUG

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| | 10 | XB TIDBITS | 11 | RS232/PIO CONECTOR | 10 | CODE GENERATOR | |
| | 12 | H.H.G TO THE GALAXY | 18 | PT 2 MATCH BOX EXB | *17 | DIVERS GOLD | |
| | 15 | MYSTERY FUNHOUSE | 26 | MINI MODEM | *18 | HOUSE HOLD BUDGT | |
| | | ZORK1 | | | | | |
| | 22 | MUSIC MAKER PT 2 | | | | | |
| | | PAINT & PRINT | | | | | |
| | 23 | TI WRITER TIPS | | | | | |
| | 27 | PRK MODULE | | | | | |
| | 28 | ASCII CODES | | | | | |

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| | 7 | EX BASIC WORD PROCES | | FRTHMUSIC/TRIPLE TCH | 14 | Y/SET/CODE | |
| | 16 | DATA BASE MANAGEMENT | | TE4+/99WRITER | 14 | CODE ENCODER | |
| | 17 | D PATCH /HUNT WUMPUS | | MYARC CARDS/RAMDISK | 15 | CODE DECODER | |
| | 18 | MUSIC MAKER | | MYARC CONTROLLER | 15 | X.B.TRON | |
| | 19 | BASIC CAS FILES | | | 16 | PIRANHAS | |
| | 20 | TI PUBLIB | | | | | |
| | 22 | MULIT PROG BASIC | | | | | |

| VOLUME | PAGE# | REVIEWS | PAGE# | HARDWARE | PAGE# | PROGRAMS | LISTS |
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| | | TE/PLUS- NIBBLER | 4 | TECHO/CENTRONICS | *5 | POWER PAC | |
| | | STARSOFT DISASSEMBLE | 8 | TI 99 HARDWARE | *6 | BULL | |
| | | DSK EDITOR/UNPROTECT | 9 | WHAT IS RAM DISK | *6 | TRIFECTA | |
| | 8 | S | | PRK FILES | *7 | FAS-CINATIONS | |
| | | | | TI WRITER SUGTIONS | *8 | BRIGHT EYES | |
| | | | 11 | X BASIC SOUND | *9 | HAPPY BIRTHDAY | |
| | | | | | *10 | ON THE INSIDE | |
| | | | | | *11 | READ A DISK | |
| | | | | | 14 | REGINA | |

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| | 9 | ASSEMBLY FRM EX BASI | | | *3 | AIR TRAFFIC CONT | |
| | 12 | THE FAST LANE | | | *4 | 28 COLUM LISTER | |
| | 17 | U K USER CLUBS | | | 16 | CONVERION ROUTNE | |
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| VOLUME | PAGE# | REVIEWS | PAGE# | HARDWARE | PAGE# | PROGRAMS | LISTS |
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| | 16B | FUTURE OF FLOPPY DSK | 17 | CASSETTE LOADING | 16 | 40 COL DISPLAY | |
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| | 20 | MINI MEM SPEECH | | FEB FAN NOISE | 16 | BERLIN | |
| | 21 | BOOKS | | | | | |
| | 22 | MYARC | | | | | |
| | 23 | TIPS FOR BEGINNERS | | | | | |

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| | 20 | XB PROGRAM HINTS | | | 16 | PARALELPRINT ASS | |
| | | | | | 17 | MAGIC PUZZLE | |
| | | | | | 18 | SEA LORDS | |
| | | | | | 20 | E T ATTACK | |
| | | | | | 21 | PLANETSCAPE | |
| | | | | | 23 | DATA-READ ASS | |





Sydney News Digest

| VOLUME | PAGE# | REVIEWS | PAGE# | HARDWARE | PAGE# | PROGRAMS | LISTS |
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| MAY'85 | 3 | PHYSICAL FITNESS | 13 | C/PM CARD | 5 | COMMISSION CALC | |
| | 5 | TI-WRITER | | | 11 | AUTO GRAPHICS | |
| | 16 | BBS LIST | | | 14 | ASS SUBROUTINES | |
| | | | | | 15 | FTH NUM GUESS | |
| | | | | | 18 | RND NUM GENERATO | |
| | | | | | 19 | PROG HINTS1-3 | |

| VOLUME | PAGE# | REVIEWS | PAGE# | HARDWARE | PAGE# | PROGRAMS | LISTS |
|--------|-------|----------------------|-------|----------------------|-------|---------------|-------|
| APR'85 | 3 | VIATEL | 12 | DISK TEMP PROBLEM | 9 | THRUSTER | |
| | 4 | AUSSAT | 14 | 32K MEM STANDALONE | | GRAPHICS DUMP | |
| | 6 | TAPE-DISK-F-TRANS | 17 | DISK POWER SUPPLY | 10 | FLAG | |
| | | RUN LGE BAS PROGRAMS | 16 | C.ITOH PRINTER REVIE | | AUTO MUSIC | |
| | | JOYSTICK+UPERCASE | | | | | |
| | 8 | LOGO TUTORIAL | | | | | |
| | 10 | E/A WORD PROSS | | | | | |
| | 11 | ASSEMBLY TIPS MIN/ME | | | | | |
| | | TIGERCLUB TIPS | | | | | |
| | 14 | CONSOLE WRITER | | | | | |
| | 16 | BK/R-LEARN ASSEMBLY | | | | | |
| | 18 | MIDAS ACCOUNT | | | | | |

| VOLUME | PAGE# | REVIEWS | PAGE# | HARDWARE | PAGE# | PROGRAMS | LISTS |
|--------|-------|---------------------|-------|----------|-------|------------------|-------|
| MAR'85 | 8 | EXB TITAL ACCEPT AT | | | 4 | ASSCHANGE CURSER | |
| | 10 | TI PROLITE | | | 14 | TI CALCULATOR | |
| | 19 | STAR/FIGHTER | | | 15 | TIMES TABLE | |
| | | STAR/LORD-TI990POLY | | | | | |

| VOLUME | PAGE# | REVIEWS | PAGE# | HARDWARE | PAGE# | PROGRAMS | LISTS |
|--------|-------|------------------|-------|----------|-------|------------------|-------|
| JAN'85 | 15 | USER GROUPS AUST | | | 4 | MICKEY MOUSE | |
| FEB'85 | 18 | LOGO TUTORIAL | | | 7 | ERROR HANDLE XB | |
| | | | | | 13 | TRANSLATORVAR/80 | |
| | | | | | 22 | AEROPLANE | |

| VOLUME | PAGE# | REVIEWS | PAGE# | HARDWARE | PAGE# | PROGRAMS | LISTS |
|--------|-------|--------------------|-------|--------------|-------|------------------|-------|
| DEC'84 | 12 | XB SUBPROGRAMS | 23 | TAPE LIBRARY | 4 | TARGET-BLAST | |
| | 18 | FLIGHT SIMULATOR | 25 | AVDP CHIP | 5 | GO AUSTRALIA | |
| | 19 | BBS LISTS | | | 8 | SCREEN SCROLLING | |
| | 20 | FRIENDLY PROGRAMS | | | 10 | TOTEM MICE | |
| | 24 | LOGO TUTORIAL | | | | DOUBLE HEIGHT | |
| | 26 | AUTO SPELL CHECK | | | 11 | RABID | |
| | 27 | EUCAATION BOOKS | | | 17 | CALANDER/1 | |
| | 30 | SCREEN TEXT LAYOUT | | | | | |

| VOLUME | PAGE# | REVIEWS | PAGE# | HARDWARE | PAGE# | PROGRAMS | LISTS |
|--------|-------|----------------------|-------|----------------|-------|--------------|-------|
| NOV'84 | 4 | TI-COUNT | 14 | RTTY INTERFACE | 11 | DIS/ASS | |
| | 6 | LOGO TUTORIAL | 19 | AVDP CHIP | 22 | BIRTH YTHEMS | |
| | 8 | XB TUTORIAL PRINTING | | | | | |
| | 10 | MEMORIES PT/2 | | | | | |
| | 18 | BEGINNERS BASICGRPHX | | | | | |
| | 21 | BACKGAMMON | | | | | |

| VOLUME | PAGE# | REVIEWS | PAGE# | HARDWARE | PAGE# | PROGRAMS | LISTS |
|--------|-------|----------------------|-------|--------------------|-------|-----------------|-------|
| OCT'84 | 5 | GRAPHX | 10 | ALPHACOM 81T/PNTR | 18 | RND NUM SPEAK | |
| | 6 | MICROSURGEN/FATHOM | | PARALAX INTERFACE | 19 | BLIND MAN BLUFF | |
| | | MOONSWEEPER | 12 | PT/1 AVDP CHIP | 20 | THE FLINSTONES | |
| | 9 | MMM EDIT ASSMBLER | 15 | VIDEO/AUDIO SOCKET | | TI-CUBE | |
| | | SCHOOL DAYS FOR TI99 | 21 | CASSETTE LOADING | | | |
| | 10 | SPACE EMPIRES PT/2 | | | | | |
| | 17 | LOGO CORNER | | | | | |

| VOLUME | PAGE# | REVIEWS | PAGE# | HARDWARE | PAGE# | PROGRAMS | LISTS |
|--------|-------|----------------------|-------|----------|-------|-----------------|-------|
| SEPT84 | 4 | XB TUTORIAL GCHAR | | | 3 | PASSWORD | |
| | 5 | FILE PROCESING | | | 8 | TI LOGO EMBLEM | |
| | 5 | MEMORIES PT/1 | | | 10 | MILLER GRAPHICS | |
| | 6 | SPACE EMPIRES | | | 11 | HEADER | |
| | 9 | IBM PC-TI COM | | | 16 | REBOUND | |
| | 19 | XB TUT COINC | | | | MSP USERS GRUP | |
| | 22 | XB TUTORIAL SUBPROMS | | | | SPRITE FEVER | |
| | 24 | XB QUIRKS SPEECH | | | 25 | FARM ONE DAY | |

| VOLUME | PAGE# | REVIEWS | PAGE# | HARDWARE | PAGE# | PROGRAMS | LISTS |
|--------|-------|----------------------|-------|------------------|-------|-----------------|-------|
| AUG'84 | 5 | TOWER AIR TRAFCONTER | 4 | NEW FEB TI/99/4A | 19 | CONVERSIONS | |
| | 9 | SPEECH HELPER | 16 | MODEM CONECTIONS | 20 | LIMERICKS | |
| | 14 | ASSEMBLER TUTORIAL | | | | MULTIPLICATIONS | |
| | 17 | MULTI DISK INFORMER | | | | | |
| | 18 | BASICS PROG GRAPHICS | | | | | |
| | 21 | TIPS PEEK/LOADS | | | | | |

| VOLUME | PAGE# | REVIEWS | PAGE# | HARDWARE | PAGE# | PROGRAMS | LISTS |
|--------|-------|---------------------|-------|----------------|-------|------------------|-------|
| JLY'84 | 6 | TI FORTH TUTORIAL | 16 | PIN CONECTIONS | 12 | CALCUTTA | |
| | 9 | BOOKS | | | 17 | MUSIC WITH DATA | |
| | 11 | XB TUTORIAL | | | 18 | BATATTACK | |
| | 19 | PROGRAM HINTS | | | 19 | MOTOR VEH BUDGET | |
| | 21 | HINTS TRS80-TI994/A | | | 20 | HINTS | |
| | 22 | TEX BOUNCE | | | | ELECTRIC BB | |
| | 26 | RINGWRAITHS LAIR | | | | COLOR BONZA | |
| | | INTRO TO ASSMBLY | | | 21 | COMPUTER MAGIC | |
| | | ERRORS- | | | | CURTAIN | |
| | 25 | DEBUGGING BUGS | | | | GUY | |
| | | | | | | LOAD PROGRAM | |
| | | | | | | ANIMATION | |

| VOLUME | PAGE# | REVIEWS | PAGE# | HARDWARE | PAGE# | PROGRAMS | LISTS |
|--------|-------|------------------|-------|----------|-------|------------------|-------|
| JNE'84 | 6 | XB TUTORIAL SUBS | | | 8 | KALEIDOSCOPE | |
| | 21 | RAINBOW PYRAMID | | | 14 | 8 ELEPHANT WALK | |
| | | | | | 17 | SQUARES | |
| | | | | | 18 | SPRITE PED | |
| | | | | | 19 | FGN VOCABULARY | |
| | | | | | 21 | RAINBOW WRITEING | |

| VOLUME | PAGE# | REVIEWS | PAGE# | HARDWARE | PAGE# | PROGRAMS | LISTS |
|--------|-------|----------------------|-------|--------------|-------|---------------|-------|
| MAY'84 | 13 | RBSX | 10 | VHF/UHF CONV | 4 | SPRITE DEMO | |
| | 18 | BEGINNERS BASIC | 12 | TOUCH SCREEN | | OUTSIDE IN | |
| | 20 | MACDONALDS FARM | | | 5 | REALITY | |
| | | SIMON SAYS/NUMBERSII | | | | CRYPTOGRAM | |
| | 24 | BSC FILING PROG | | | 6 | LOVE BOAT | |
| | | | | | 19 | DIPOLE ANTENA | |

ACCESSING SOUND IN ASSEMBLY LINKED FROM X/BASIC.
by Ross Mudie of TISHUG.

I had great difficulty in understanding how to make an assembly program linked from extended basic work satisfactorily, and I must admit page 317 and the SOUND equate on page 415 of the editor assembler manual left me quite cold. The assembly program presented herein uses the standard format of TI assembly sound lists, the sound list for the CHIME is from page 322 of the editor assembler manual.

The assembly program is heavily remarked to help those who are not too certain of the mysteries of assembly.

Assemble the code using the object file name CHIME and use the following extended basic to load and run program.

```
100 CALL INIT
110 CALL LOAD("DSK1.CHIME")
120 CALL LINK("CHIME")
130 INPUT "PRESS ENTER FOR CHIME":A#
140 GOTO 120
```

If you have been struggling with sound in assembly, after reading this article and trying it out, read the SOUND chapter (pages 312 to 324) of the editor assembler manual again, it may make a little more sense.

```
IDT 'CHIME' Source file name CH
DEF CHIME Object file name CHIME
GPLWS EQU >83E0 *
STATUS EQU >837C * Extended basic equates, refer to
SOUND EQU >8400 * page 415 of editor assembler manual
*
SAVRTN BSS 2 SAVRTN=save return address
WS BSS 32 WS=work space for 16 registers
*
* EXPLANATION OF REGISTER USAGE.
*
* R4 points to current byte in CDATA
```

```
* R5 is loaded with the 1st byte in each line of CDATA
which describes the number of sound bytes in that
that line. R5 is decremented by 1 after each byte
* is moved to the sound location.
* R6 counter for the delay period of 16 milliseconds.
* R7 counter for the number of 16 millisecond delay
periods which is the last byte in each line of
CDATA. These are in decimal format so that the
look different to the humans.
* R11 is the place for the return address.
```

```
DELAY LI R6,1380 This delay subroutine takes
LOOP2 DEC R6 approximately 16 milliseconds
JNE LOOP2 thus achieving a similar delay to
RT using the 60Hz VDP interrupt.
*
CHIME MOV R11,@SAVRTN Save x/b return address
LWPI WS Load new workspace registers
* if LPWI is not used timing in
* DELAY will be affected.
CLR R4 Clr R4 to start with 1st byte
NEXTL CLR R5 NEXTL=next line
MOVW @CDATA(R4),R5 places 1st byte of line in R5
SWPB R5 swap bytes in R5 to use as counter
NEXTBY INC R4 NEXTBY=next byte pointed to by R4
CI R5,0 If R5=0 then line is finished
JEQ DELOOP Jump if equal to delay loop
MOVW @CDATA(R4),@SOUND moves each byte one at a
time to the sound processor
*
DEC R5 decrement R5 after each byte to sound
JMP NEXTBY loop for next byte
*
DELOOP CLR R7 DELOOP=delay loop
MOVW @CDATA(R4),R7 last value in each line CDATA
SWPB R7 swap bytes to use as LSB
CI R7,0 tests for end of last line which is 0
JEQ END jump if equal to lable END
*
LOOP1 BL @DELAY same as a GOSUB in basic
DEC R7 decrement R7 and compare to 0
JNE LOOP1 jump not equal to 0 to LOOP1
*
INC R4 increment R4 to point to next byte
```

```

JMP NEXTL      jump unconditionally to NEXTL
*
END  LWPI GPLWS      Text book routine to return to
      CLR RO          extended basic program without
      MOV B @STATUS  problems.
      MOV @SAVRTN,R11
      RT

```

```

*
* Brief notes to help understand sound lists
*
* Tone Generator is abbreviated to TG.
* Attenuation is abbreviated to Attn.
*
* First byte in each line is number of bytes in that
* line which are to be passed to the sound generator.
* Bytes beginning with 9,B,D or F are attenuation
* bytes, the number following gives the attn value.
* The number is half the attn value in decibels.
* e.g.,
* 90=TG1 no Attn; 92=TG1 on with 4db attn; 9F=TG1 off
* B0=TG2 No Attn; B4=TG2 on with 8db attn; BF=TG2 off
* D0=TG3 No Attn; D8=TG3 on with 16db attn; DF=TG3 off
* F0=TG4 No Attn; TG4 is noise generator; FF=TG4 off
*
* Frequency is in 2 bytes, 8 is TG1, A is TG2, C is TG3
* and E is TG4, e.g., >BE,>01 >A4,>02 >C5,>01
* The value for the frequency is in one and a half
* bytes, the second half of the byte which indicates
* which TG and the following byte, see if the example
* helps:
* >BE,>01 (second & third bytes, second line of CDATA)
*      8=TG1 > E,>01=hex01E which is decimal 30
* The frequency is 111860.8 divided by 30=3728Hz
* The next tone is >A4,>02
*      A=TG2 > 4,>02=hex024 which is decimal 36
* The frequency is 111860.8 divided by 36=3107Hz.
* The next tone is >C5,>01; TG3, 7457Hz.
*
* The frequencies are remarked on the sound list, all
* other lines affect attenuation only. The last byte
* (in decimal so that it looks different) sets the
* number of 16 millisecond periods that the settings
* are maintained before the next line of the table is
* sent to the sound generator. It is worthy of note
* that once a TG is set to a frequency then the attn
* may be used to control its output, unlike CALL SOUND
* in basic which requires duration, frequency and attn
* every time it is used.

```

```

CDATA BYTE >04,>9F,>BF,>DF,>FF,1      turn all TG's off
      BYTE >09,>8E,>01,>A4,>02,>C5,>01,>90,>B6,>D3,6
* remark TG1-3728Hz TG2-3107Hz TG3-7457Hz
      BYTE >03,>91,>B7,>D4,5
      BYTE >03,>92,>B8,>D5,4
      BYTE >05,>A7,>04,>93,>B0,>D6,5 TG2-1575Hz
      BYTE >03,>94,>B1,>D7,6
      BYTE >03,>95,>B2,>D8,7
      BYTE >05,>CA,>02,>96,>B3,>D0,6 TG3-2663Hz
      BYTE >03,>97,>B4,>D1,5
      BYTE >03,>98,>B5,>D2,4
      BYTE >05,>85,>03,>90,>B6,>D3,5 TG1-2110Hz
      BYTE >03,>91,>B7,>D4,6
      BYTE >03,>92,>B8,>D5,7
      BYTE >05,>A4,>02,>93,>B0,>D6,6 TG2-3107Hz
      BYTE >03,>94,>B1,>D7,5
      BYTE >03,>95,>B2,>D8,4
      BYTE >05,>C5,>01,>96,>B3,>D0,5 TG3-5326Hz
      BYTE >03,>97,>B4,>D1,6
      BYTE >03,>98,>B5,>D2,7
      BYTE >03,>9F,>BF,>DF,0 Last 0 = end of list
      EVEN
*
      END

```

RELATIONAL OPERATORS

The Relational Operator (RO) is a powerful programming tool which is not well explained by TI in its manuals. I will attempt to explain what a RO is and its possible applications in this article.

A RO is a relational expression such as $X=5$ or $Y>A$. I'm sure you've seen this type of expression in a program. The computer replaces a RO expression with either a 0 if the expression is FALSE, or a -1 if the expression is TRUE. It is this fact which gives the RO the potential to do so much for us in a program, as I will demonstrate in this article.

The simplest form of the RO is the simple IF statement:

```
200 IF X=5 THEN 390
```

Then there is the OR statement (in TI BASIC):

```
200 IF (X<1)+(X>9) THEN 390
```

And there is the AND statement (in TI BASIC):

```
200 IF (X=5)*(Y<5) THEN 390
```

The above expressions are all simple ROs. In each case the computer will evaluate the RO (trying typing PRINT 6=7 or PRINT 7<8) and, if the result is other than zero, perform the command that follows the RO. If the evaluation results in a value of zero, control passes to the next line in the program.

As you can see in the OR statement, there are two relationships expressed, with the + between them. This causes the results of the evaluations to be added together. If the total is not zero (i.e. one or both expressions are TRUE), the command that follows is executed.

In the AND statement example, the result of the evaluations are multiplied. Thus, if either is FALSE, the result would be FALSE (0 * -1=0) and control passes to the next line. If both of these are TRUE the result is not zero (-1 * -1=1) and the command that follows the RO is executed.

We've looked at the simplest application of the RO now. In Extended Basic you should use the AND and OR commands that are provided, since they are more space efficient than the methods shown above. In the next section I will show applications of ROs for BASIC or Extended Basic with large potential savings of space outside of the IF-THEN-ELSE statement.

The fact that the computer evaluates and equates ROs as a 0 if FALSE, and a -1 if TRUE, has many other applications when programming in TI BASIC and Extended Basic. Consider the following equivalent statements:

```
100 X=X+1
120 IF X=5 then 200
130 X=0
```

The above can be replaced with the statement below using an RO:

```
100 X=X*(X=4)+X+1
```

The above RO looks at the current value of X BEFORE modifying it. So if X is 4, the RO is TRUE (-1), and the $5*(X=4)$ evaluates to -5, which is added to the other part of the expression; $X+1$. Thus $X=-5+4+1=0$.

This is the power of the RO, that you can set up relationships almost anywhere in your program, that can save memory space. The RO cannot be used in DIM or OPTION BASE STATEMENTS, but maybe be used in all other programming applications where a numeric value is expected. These include FILE NUMBERS, CALL COLOR, HCHAR, VCHAR, DISPLAY, RECORD NUMBERS (in files), FOR-NEXT LOOPS, etc.

A very graphic example of the space savings possible with ROs is shown in the following equivalent examples. In each case, a CALL KEY statement is used to detect any of the four arrow keys, which are being used to set the X and Y values. The X and Y values represent the row and column locations of a graphic character, with its travel limited to rows 1 thru to 24 and columns 3 thru 30.



PUBLICATION LIBRARY

```

=====
= TI-PUBLIB =
=FEBRUARY 1986=
= REPORT =
=====

```



Here we are again! I sincerely trust that you have all had a great time during the holiday period and are ready to get stuck into the business of TI.99ing! The first order of business will be to elect the committee for 1986 - a task so easy but nevertheless important.

This year will be the year of change, challenge and opportunity for the committee - in my opinion some fundamental policy decisions need to be made and followed through. You will all be involved in these policy decisions. I don't think that we should allow ourselves to become complacent and be content to jog along at the present pace. We will need to get involved if we are to further our TI.99/4a progress and strive to develop a more positive and outward policy in respect of software, literature and hardware support. The committee has a difficult time ahead - I wish them well!

My message to all other Australian User Groups is that during 1986 we should look for ways and means to consolidate our efforts with the view to reducing costs and achieving maximum membership satisfaction. My old country - somewhat divided now - actually has as its motto "EX UNITATE VIRES". Loosely translated meaning Unity is Strength. Lets give it a go because there will not be any prizes for ignominious behaviour within the TI fraternity.

Now to business.

Believe it or not - I have actually had one member borrow a publication. Congratulations Ben! Pity though no further additions to the library - 1986 will see a change here.

The Exchange newsletters are now available for borrowing subject to the rules already published. Naughty Kevin Gardener has not returned those handed to him. Please act now! You know the penalty?

During the break I received a 25 page tutorial on Sorting. Thank you Ron Brubaker - Dean of the Department of Arts and Sciences, Governors State University, Illinois - USA. The tutorial comprises 4 chapters on sorting with plenty of explanation and example.
Yours for only \$3.00.

Also now ready is the complete TI publication, 17 pages - explaining, with programs, the subprograms resident in the Personal Record Keeping and Statistics modules. We gave you a taste in the December issue of the SND.
Yours for only \$3.00.

Lastly, I have previously mentioned the series of articles on TI Disk Management by Bruce Carron of the Ottawa User Group. Well, these are now ready and available.
Yours for only \$3.00.

To sum up, get to know more about Sorting, PRK and TI Disk Management for only \$9.00. These are well presented publications (I did them) totalling some 75 pages of information, and sold only to defray the expenses involved in getting them to you (also for the purpose of funding more publications for the library). Write now to the Pennant Hills address for quick action!

That is all for now - who knows the next issue of the SND could well introduce a new Publications Librarian - any takers? Get your nominations in early!!!!

Please accept my best wishes for a happy and peaceful New Year and watch out for CELESTIAL BODIES! (Some say it keeps you young - could well break your neck too - ask a guy by the name of Halley - he knows).



```

10 CALL CLEAR
20 X=10
30 Y=10
100 CALL KEY(0,K,S)
110 IF S=0 THEN 200
120 IF K=68 THEN 160
130 IF K=69 THEN 200
140 IF K=83 THEN 240
150 IF K=88 THEN 280 ELSE 10
0
160 Y=Y+1
170 IF Y<31 THEN 500
180 Y=30
190 GOTO 500
200 X=X-1
210 IF X>0 THEN 500
220 X=1
230 GOTO 500
240 Y=Y-1
250 IF Y>2 THEN 500
260 Y=3
270 GOTO 500
280 X=X+1
290 IF X<25 THEN 500
300 X=24
500 CALL HCHAR(X,Y,42)
510 GOTO 100

```

The above can be replaced with the following equivalent program:

```

10 CALL CLEAR
20 X=10
30 Y=10
100 CALL KEY(0,K,S)
110 IF S=0 THEN 100
120 IF (K<>68)*(K<>69)*(K<>8
3)*(K<>88) THEN 100
130 Y=Y+(K=68)*(Y<30)-(K=83)
*(Y>3)
140 X=X+(K=88)*(X<24)-(K=69)
*(X>1)
500 CALL HCHAR(X,Y,42)
510 GOTO 100

```

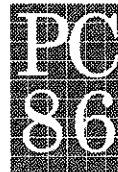
N.B. multiplication is performed BEFORE addition and subtraction.

The above example uses the relational AND to check both the K and the value of the variable (X or Y) BEFORE MODIFICATION: this prevents the variable from being modified to a value outside the desired range. You will notice that if either of a pair of ROs with a * between them is FALSE the result is zero so no change to the variable is made. Remember, when using the relational AND, if TRUE, the result is +1. If using the relational IF, the value is -1, if TRUE, so watch those signs you place in front of the ROs to get the desired effect.

Retyped by Steven Shraibman - TI.SHUG from the San Gabriel Users Group Newsletter.



THE SIXTH AUSTRALIAN
PIERSONAL
COMPUTER
SHOW
CENTREPOINT SYDNEY 12-15 MARCH 1986




```

170 A=B :: B=48 :: CALL SPRI
TE(#1,40,2,A,B):: CALL MOTIO
N(#1,0,15):: FOR D=1 TO 350
:: NEXT D :: CALL POSITION(#
1,A,B)
180 FOR X=3 TO 23 STEP 2 ::
CALL SPRITE(#X,40,2,A,B):: C
ALL DELSPRITE(#X-2):: CALL M
OTION(#X,0,-15):: FOR D=1 TO
400-4*X :: NEXT D
190 CALL MOTION(#X,15,0):: F
OR D=1 TO 39 :: NEXT D :: CA
LL MOTION(#X,0,15):: FOR D=1
TO 400 :: NEXT D :: CALL POS
ITION(#X,A,B)
200 NEXT X :: CALL DELSPRITE
(#23):: GOTO 170

```

Here's a little routine you can put in your programs (just leave out line 110) to clear the screen from outside in. Try changing it so it clears from inside out.

```

100 REM ** OUTSIDE IN**
110 CALL HCHAR(1,1,90,768)
120 FOR R=1 TO 12
130 CALL HCHAR(R,R,32,34-R*2
)
140 CALL HCHAR(25-R,R,32,34-
R*2)
150 CALL VCHAR(R+1,R,32,26-R
*2)
160 CALL VCHAR(R+1,33-R,32,2
6-R*2)
170 NEXT R
180 GOTO 180

```

If your white text on a black screen looks blurry, try grey on black.

If coloured graphics on a black screen look pale or colourless try this:

```

100 CALL CLEAR
110 CALL COLOR(1,2,2)
120 CALL SCREEN(16)
130 CALL VCHAR(1,31,1,96)

```

Now put on your coloured graphics and see the difference.

The same trick will give you that professional looking bordered screen for your text:

```

100 CALL CLEAR
110 CALL SCREEN(5)
120 CALL VCHAR(1,31,1,96)
130 FOR SET=1 TO 12
140 CALL COLOR(SET,2,16)
150 NEXT SET

```

Now put your text on the screen, with a blank on the 1st and 28th column of each line. This border is not affected by scrolling but is erased with CALL CLEAR so use CALL VCHAR(1,3,32,672) instead.

To get the computer to hold 24 lines of text on the screen put a semi-colon after the 24th line.

Don't use character sets 15 and 16 unless you really have to. If you use multiple colons as print separators, put a space between them. Then when you get to Extended Basic, your program will run without modification and faster.

If you have the Extended Basic module use it even when you are programming in BASIC. It allows you to type in 5 lines on a line number which will still run on BASIC and your program will be accepted much faster. You can change and delete much faster, especially when deleting a number of lines. It will quickly tell you how much memory you have left with the SIZE command and bring back a rejected input with FCTN B. So if you stay away from character sets 15 and 16 and watch those double colons you should be OK.

Here's a versatile little program in Extended Basic from the San Gabriel Valley Users Group.

It was originally written as a scrolling program but the programmer got a bit carried away.

If you don't want colour delete lines 110, 130, 140 and 150. To really get the effect of scrolling delete lines 200 and 230, change B in lines 210 and 220 to whatever column you want and change the message in line 120. If you only want scrolling in one direction delete line 210 or 220.

Play around with this program and see what you can do.

```

100 CALL CLEAR
110 CALL SCREEN(2)
120 A$="ABCDEFGHJKLMNQRST
UVWXYZ12"
130 FOR A=1 TO 14
140 CALL COLOR(A,A,A)
150 NEXT A
160 CALL CLEAR
170 FOR A=1 TO 28
180 C$=SEG$(A$,1,A)
190 D$=SEG$(A$,29-A,A)
200 FOR B=1 TO 23 STEP 2
210 DISPLAY AT(B,28-A):C$
220 DISPLAY AT(B+1,1):D$
230 NEXT B
240 NEXT A
250 FOR D=1 TO 150
260 NEXT D
270 GOTO 160

```

Here is a very smart one liner that will automatically align decimal points in a vertical column. C is the column of the decimal point and X is the number.

```
10 PRINT TAB(C-POS(STR$(X))%)
```

In Extended Basic to see how much memory you have used and how much there is left add these two lines to your program:

```
1 A=A+8
2 GOSUB 1
```

Then type RUN. When the program stops and says MEMORY FULL IN 1 type:

```
PRINT 14544-A,A
```

The first value is how much memory you have used and the second is how much you have left.

This is a routine you can incorporate in your programs to throw the user of guard.

```

100 CALL CLEAR :: FOR K=65 T
O 90 :: CALL CHARPAT(K,A$)::
FOR J=15 TO 1 STEP -2 : CH$=
CH$%SEG$(A$,J,2):: NEXT J ::
CALL CHAR(K,CH$)
110 CH$="" :: NEXT K :: DISP
LAY AT(14,3):"VT EHT DENRUT
OHW! YEH" :: DISPLAY AT(12,
13):"? NWOD EDISPU"
120 INPUT Q$ :: GOTO 120

```

This little routine demonstrates the use of CALL MAGNIFY in your programs.

```

10 REM ** MAGNIFY **
20 CALL CLEAR :: CALL CHARPA
T(49,A$,50,B$,51,C$,52,D$)::
CALL CHAR(96,A$%B$%C$%D$,10
0,RPT$("FEFEFEFEFEFE00",4)
)

```



```

30 DISPLAY AT(12,7)BEEP:"CAL
L MAGNIFY(1)" :: CALL SPRITE
(#1,96,16,99,1,0,4,#2,10 0,2
,100,1,0,4):: A=49
40 CALL KEY(0,K,S):: IF K<49
OR K>52 OR K=A THEN 40 ELSE
CALL MAGNIFY(K-48):: DI SPLA
Y AT(12,20)BEEP:STR$(K-48)%"
)" :: A=K :: GOTO 40
    
```

This three liner bounces a character around the screen. Maybe you can turn this one into a game.

```

10 REM ** BOUNCE **
20 CALL CLEAR :: CALL COLOR(
2,5,5):: FOR R=4 TO 23 :: CA
LL HCHAR(R,3,40,28):: NEXT R
:: A,R=38 :: B,C=25 :: CALL
    
```

```

SPRITE(#1,35,16,C,C,R,C)
30 CALL POSITION(#1,Y,X):: R
=R+76*((Y+R>200)-(Y+R<-1))::
C=C+50*((X+C>250)-(X+C<-1))
:: IF A=R AND B=C THEN 30
40 CALL MOTION(#1,R,C):: CAL
L SOUND(-60,-2,9):: A=R :: B
=C :: GOTO 30
    
```

In Extended Basic, use the lowest numbered sprites first as this will speed up execution.

Are you tired of those slow building graphics in BASIC. Well there is no need to wait any more. See if you can understand the logic in this little program.

```

100 CALL SCREEN(2)
110 CALL CLEAR
120 FOR I=1 TO 11
130 READ A,B,C
140 CALL HCHAR(A,B,96,C)
150 NEXT I
160 CALL COLOR(9,5,5)
170 GOTO 170
180 DATA 10,19,2,11,16,1,11,
19,2,12,16,8,13,18,4,13,23,1
,14,18,4,15,18,4,16,16,3 ,16
,21,1,17,21,1
    
```

What actually happens is that since the screen colour, foreground and background are the same you can't see the characters come on the screen. Then when you give the new foreground colour the graphics suddenly pop up.

If you make line 160 into line 90 you can see the difference.



The Communicators

Welcome to another COMMUNICATORS PAGE for February '86

Firstly I wish to mention that we have more interesting reading on our TEXPAC ELECTRONIC MAGAZINE (BBS) for the months of February and March. For those who have just purchased a modem, and would like to access this very unique service of T.I.S.H.U.G., just send me a stamped, self-addressed envelope in with your letter requesting a Registration Form and further details. There is a \$5 fee which is used for the up-keep of our system. One of the special sections recently placed on the BBS is a secret section...and on it is an continuing Adventure story by Keir Wells (KEIRLALOR) entitled the BLIGGERS AND THE BLAGGERS. For those who who able to figure out the PASSWORD to give them access to it for the first

chapter, they were given the opportunity to enter a COMIC STRIP COMPETITION. If you are among those who have started the strip, keep it up and I'll let you know when to submit them, with a chance to win \$50 cash prize.

There has been comment by a couple of people that this BBS is a service is a PROVIDED FOR THE ELITE of our group...those who can afford a modem. I should mention however, that (1)Modems are now affordable for just about every member of the club, and especially those who cannot afford the entire expansion system...See Peter Schubert for details of how you can obtain your own modem. (2)All down-loadable programs on the BBS are available from the Club Library shortly after they have been made available to our modem users. News items on the system, are later shared with members either at the meetings, regional groups or reprinted in this SND, but you see it first on the BBS because it can be updated on a daily basis, where the magazine is only printed once a month.

D.K. Now, here are the programs to be made available for down-loading this month on TEXPAC: BERT & ERNIE, BIORYTHMN, CAR-COP, GRAPHPAPER, MASH-THEME, MOTHS, PENN/POLKA, SHOW ME THE WAY TO GO HOME, VEGA and YACHT plus a couple of others added later on.

REMINDER TO BBS MEMBERS: 1st of February is renewal time for your Registration fee for TEXPAC. If you have not already sent in your \$5.00, please do so by return mail, as you will find yourself unable to log-on the system. A special mailing went out a month ago with the forms etc. Please send the following details to TEXPAC BBS, P.O.Box 595, Marrickville, 2204 with your Fee plus Usernumber, Username and your address.

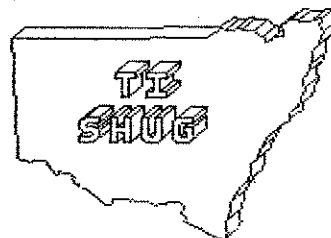
And in March, we have the following programs, also provided by Username:GRACE... AMERICA, BOMB, CAT/P, GEM10X/2, GEOMETRIX, LOONYTUNE, MINDBUSTER, SENSATION, TORPEDO, WHITEWATER.

I do recommend our Joke section by Joyce, she has prepared some rather tacky jokes, which will get you giggling...and for those who are interested in programing, we continue our series of ASSEMBLER/MACHINE CODE tutorials. It is hoped that shortly, we will be switching to dual-speed operation (300 & 1200/75 Baud) thanks to the efforts of Shane Ferret. You will have to stay tuned for further information in that regard...along with other new features soon also to be introduced.

When I first founded this group (5 years ago this coming May) I promised that I would start it up, and then pass it on. Most of the things I have created have been since given to members who have the talent and the time to give each segment of this group their very best. When some members asked when or if we would ever have a BBS, I said yes, and got the ball moving so as to show that we could do it...now its time for me once again, to pass this on. At the coming A.G.M on Saturday 1st February, I will be stepping down as Systems Operator.

This and all other positions become vacant at the A.G.M. Can you assist? If so, please make your presence felt on Saturday 1st February (2pm).

Best regards.
SHANE ANDERSEN



TI FAIR Melbourne 14th JUNE '86

Here's some more news from the organisers of the upcoming TI Exhibition to be held in Melbourne on June 14, 1986. The Exhibition Manager, Peter Gleed has supplied these details.

"By now you will have heard on the 'Grapevine' that the TI-99/4A Melbourne Users Group, Inc. will be holding a TI Exhibition. I can confirm those rumours for you. The exhibition will be held at the Malvern Town Hall on the 14th of June 1986. The Exhibition will start at 11.00am and finish at 7.00pm. A number of expected exhibitors such as Texas Instruments, Brother Printers, Silver Reed Printers, Sendata Modems, Sydney TI Users Group and Canberra Television are just to name a few.

Highlights for the Exhibition are : every person who attends will receive either one tape or disk which will contain TI-99/4A software; new peripherals on show, ie, RS232 stand alone, internal 32K memory expansion and cartridges with extra 8K RAM usable.

The TI Fair is designed to encourage the people who have TI consoles, and do not use them, to wipe the dust off and bring them down. We need you and your organisation to help us generate this boost.

If any of your geniuses have designed and made a TI Peripheral for the Home Computer please let us know. The criteria that we are looking at is that a Peripheral should cost around \$100 or less. This means that they would have to be a single function Peripheral and not multi-function units.

We, the Ti Melbourne Users Group, will supply and fit each stand with a TI Home Computer console, power supply and monitor. The TI Fair is being organised professionally to the extent that one of Victoria's leading personalities will open the show for us.

In February, you will receive from us enough car bumper stickers for every member in your Users Group. This sticker will read "TI99 Users Have Bytes and Nybbles".

In March, you will receive from us enough car rear window stickers for every member in your Users Group. This will show the TI Fair logo.

In April, you will receive from us a showerfull of notices that can be displayed EVERYWHERE, shop windows, work notice boards etc. etc.

Each month you will be swamped with news."

Well there you have it. It sure sounds exciting. By the way anyone wanting bumper stickers should write to The Editor Sydney News Digest PO Box 595 Marrickville 2204. Please enclose a stamped self addressed envelope for the return of the stickers. Same for the car rear window stickers. Anyone who can assist in publicising the event by displaying the notices referred to above can write and let me know.

