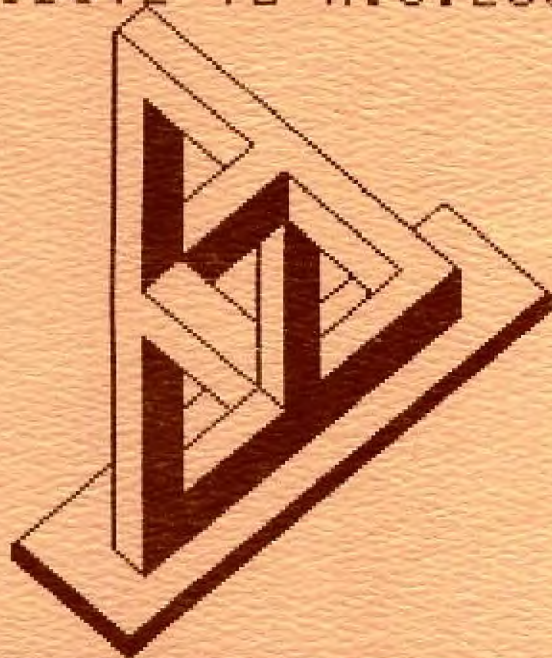# SYDNEY NEWS DIGEST

TRIBUTE TO M.C.ESCHER.

Here are some more entries in the GRAPHX contest which is now closed. ABOVE: a TI CONSOLE by Wayne Southwick. CENTRE: A tribute to M.C.Escher by David Mayo. BOTTOM LEFT:T.I.PHOTOS by Keir Wells and BOTTOM RIGHT:GHOST BUSTERS by Steven Schraibman(also pictured inside).

T.I. photos

K.Wells

who ya gonna call....

Sydney News Digest

inside information

The Texas Instruments Home-computer User's Group, known as TISHUG is a non profit, self supportive group of Texas Instruments computer owners and users. Information regarding membership and payment of dues should be directed to the *Secretary*, address below.

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 NEWSDIGEST

The SND is published eleven times per year (no January edition), by voluntry 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, meetng 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 recieve three programs of their choice, and,
(b) submission to SND, or other activity as the committee may otherwise determine, programs of the contributer's choice will be made available.

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

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.

YOUR COMMITTEE

CLUB CO-ORDINATOR:
  Peter Varga   023897025
HON. SECRETARY:
  John Robinson   028480956
TREASURER:
  Terry Phillips   027976313
LIBRARIAN:
  Terry Phillips   027976313
ASTNT LIBRARIAN:
  FRED MORRIS   (02)8713873
FOUNDER/EDITOR:
  Shane Andersen
PUBLIC RELATIONS:
  Cris Ryan   028480480
ADVERTISING:
  GREG HOPE   (02)6464865
PROGRAMMERS CRISIS LINE:
  Graeme Holliss   02992229
MUSIC CO-ORD:
  Russel Welham   043924000
EDUCATION CO-ORD:
  Peter Lynden   026357841

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-to-gether starts at 2pm and goes through to 4pm.

SEE YOU THERE 'CAUSE WE CARE

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

HELP!
programmers
Crisis Line
992229

IMPORTANT TISHUG ADDRESSES:-

General address (for all letters except membership)

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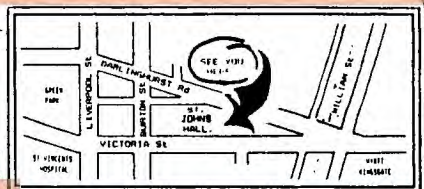MARRICKVILLE,
NSW, AUSRALIA, 2204.

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.

Secretary's Notebook
with J.R.

Hi! Sorry I missed you last month but my computer would not run TI-WRITER as the check on the memory expansion at the beginning of the program indicated it was not connected. It turned out that my trouble originated in the speech synthesizer, and after this was disconnected I solved the problem.

In the May issue I mentioned I was planning to answer Wade Bowner's question on programming sound in assembly language. I was in the process of providing an answer when I came across an excellent article in the TIUP newsletter. Fred N··'s has typed the article up and you will find this on page 20 f this newsletter.

To improve the handling of the club's mailing list we have been waiting for several months for a local software distributor to modify one of his programs so that the files presently being used would be compatible. Fred Morris and I, have with the help of the UK Users Group TI Exchange been able to write the following program which will convert Personal Record Keeping PROGRAM files into DIS/VAR 80 format. With this format the files can be easily edited with TI-WRITER and converted to other formats as required.

Using the Navarone Data base manager the files can be manipulated very quickly. The new DBM manual has now been distributed by Chuck Humphrey, President of Navarone Industries. It is a big improvement on the original documentation and should be ordered direct by sending your Warranty Registration card to :

Navarone Industries Inc.
510 Lawrence Expressway, #800
SUNNYVALE, CA 94086

A revision to the DBM diskette which provides more room to enter detaile of the printer port is also available. This can be obtained by returning the DBM diskette along with US$5.00 plus US$2.00 postage.

```
100 REM  Before loading this program
insert Personal Keeping of Statistics
module. Select TI-BASIC.
110 REM  In command mode -CALL FILES(1)
                         -NEW
                         -CALL P(10900)
120 REM  -NEW Then load and run
              the program.
130 CALL CLEAR
140 PRINT "Input file is that which has
      been created by the Personal Record
      Keeper need-ing conversion.":
150 PRINT :"Filename to be converted.'::
160 INPUT "->Drive no? ":DR
170 IF (DR<1)+(DR>3)THEN 260
180 PRINT
190 INPUT "->Filename? ":A$
200 IF ASC(SEG$(A$,1,1))>95 THEN 240
210 IF LEN(A$)>10 THEN 220 ELSE 280
220 PRINT :"Name too long! Max. 10 chars
             for filename.'::
230 GOTO 150
240 PRINT :"Use capital letters only!'::
250 GOTO 150
260 PRINT :"# Must be between 1 and 3!'::
270 GOTO 150
280 IF INAME$<>"" THEN 310
290 INAME$="DSK"&STR$(DR)&"."&A$
300 GOTO 330
310 ONAME$="DSK"&STR$(DR)&"."&A$
320 GOTO 360
330 PRINT :
340 PRINT "Output file to be created.
             Note, this file is opened
             as DISPLAY, V
ARIABLE 80.   Use TI-WRITER.'::
350 GOTO 150
360 CALL CLEAR
```

```
380 IF Y=0 THEN 620
390 OPEN #1:ONAME$,DISPLAY ,VARIABLE 80
400 CALL H(1,5,0,F)
410 PRINT "FIELDS":F
420 CALL H(1,6,0,R)
430 PRINT "RECORDS":R::
440 FOR I=1 TO R
450 FOR T=1 TO F
460 CALL H(1,10,T,TP)
470 IF TP=1 THEN 530
480 CALL G(1,I,T,Z,RD)
490 IF Z=1 THEN 500 ELSE 510
500 RD=0
510 PRINT #1:RD
520 GOTO 580
530 CALL G(1,I,T,Z,RD$)
540 IF Z=1 THEN 550 ELSE 560
550 RD$=" "
560 PRINT I;T;RD$
570 PRINT #1:RD$
580 NEXT T
590 PRINT #1:" "::
600 NEXT I
610 END
620 PRINT ::::::::::::"Not loaded. Sure
      you read   the instructions?"
630 FOR DEL=1 TO 1000
640 NEXT DEL
```

I was able to meet Leon Lonergan during my recent visit to the Apple Isle. Leon edits the Tasmanian User Group letter. Being so isolated from the mainland they very much would like to hear from fellow TI'ers around Australia and the rest of the world. Leon may be reached by writing to: 7 Tarana Road, Blackman's Bay, Hobart. Tasmania 7152.

On Wednesday June 5th. members were invited to attend a showroom at North Ryde. If you were, like me unable to attend and want to consider upgrading your system to the Professional please contact Patrick Canturi or Alan Gent on 887-1122 for more information.

The tax year is coming to a close and you should be assessing the amount of time you have used your computer for business use. Your tax agent will guide you on the amounts to be claimed for hardware and software.

I am still waiting for my copy of the book entitled TEXAS INSTRUMENTS SOFTWARE: RATING THE BEST published by Consumer Guide Publications International Ltd. Skokie Illinois. Letters sent to Matthew White remain unanswered.

The sixth issue of SOFTEX is now available from the club. Included is a review of GRAPHX, which is highly recommended. Walter Arnold writes an article for those of you without the time or patience to read through the manual written for TI-WRITER. Wayne Worladge introduces you to MULTIPLAN AND Ian Streete reviews the TI-Professional and PROLITE Computers.
Four programs are there for you to type in. I haven't had time to input any of them so I can't comment on their quality.

The magazine includes an article on Speech recognition and a review of the Corcomp disk controller.

Now to my mail: Alan Dunn writes from Port Moresby Papua New Guinea. "Computing magazines are very limited here in PNG and those that are available are mainly for the business user." Alan you can buy The Home Computer Magazine, and SOFTEX from the club. The best newspaper appears to be MICROPENDIUM, which is written exclusively for TI-99/4A owners. Many magazines trying to cater for several makes of computer do not appear to be very successful and are now discontinuing publication.
The International 99/4 Users Group still exists, though the Enthusiast 99 magazine seems to be discontinued. Alan Appleby from Dural NSW. wants to know if there is a stand alone interface available to run his printer. The answer is if the printer has Centronics port then the AXIOM parallel interface would be suitable. If a serial port is required then the Corcomp RS232 interface available from IMAGIC would be an alternative. ND Quigg from Hamilton, Newcastle would like to know if there is an alternative to TI-WRITER. You can use the Editor /Assembler for word processing and even the '·; crone '·'. :;··.

EDITORIAL with SHANE

Well, I hope that you enjoy this bumper issue of the Sydney News Digest. I have been going through some of the Surveys received, and have noted your comments . More about that later in this magazine if space permits. It is a shame that we had such a poor responce with those Surveys. Out of just under 1,000 members, we have, todate, only received a total of 40 of them returned to us. Please...get those Surveys in by return mail...if not sooner, we need to hear from you.

I have received a number of very interested articles and related programs on an inexpensive COLOUR PRINTER PLOTTER from Mr. D.N. HARRIS of Hurstville. If you are interested in getting one of these printers from TANDY/DICK SMITH etc for your TI-99/4(A), then why not contact Mr.Harris on (02)5022267 for information about how to use it with TI-BASIC.

I am unable to reproduce his articles from the print-outs provided, due to the size of type and colours of pens used and the restrictions imposed on printing presses used for the production of the SND.

One of the things of interest that came from the incoming Surveys was an invitation from a member in Coonabarabran. He mentioned that there will be a special HALEY'S COMET FESTIVAL which be run between 30th November '85 and 9th December '85, and has invited us as a group, to come to the SIDING SPRING OBSERVATORY for this event. If any members are interested in attending this event, over a week-end. Please get back to me so that we can arrange transport. Mark your letters to HALEY'S COMET FUN RUN, P.O.Box 595, Marrickville, NSW. 2204. oryou can contat Mr Armstrong direct at Moyhan Timor Rd, Coonabarabran, NSW 2357.(068)421041 8am to 9pm.

No more entries will be allowed for the GRAPHX CONTEST. The FEW entries we have received have been passed on the the author of GRAPHX for his final adjudication, and a decision regarding the winning entry will be passed on next month. A decision will also be made regarding the prize to be awarded in view of the fact that the responce wa poor even after extending the deadline.

RESULTS OF SURVEY

MAGAZINE RESULTS

Rating
Fair	1%
Good	49%
Excellent	51%

Satisfied
Yes	90%
No	10%

Reasons for No
Too complex, Print too small, Programs should say XB-B etc., Not enough games.

Changes that should be made
Regular columns	25%
More programs	28%
More reviews	24%
Minutes of committee	6%
Other	17%

Reasons for other response
More assembler routines
Yearly index, more tech articles, more competitions, info on use of programs, programs in basic, list of members and interests, tutorials on assembler, program listings of modules.

This last comment unfortuantly cannot be condonedb as it is piracy. Column specifically on beginners basic.

Willing to write for magazine
Yes	34%
No	60%
Don't know	6%

General comments
        Club receives software listings from O.S. which can't be included in magazine but could a listing of this be put in so that interested members can ask for it.
        List of contents at front of S.N.D. would be appreciated.
        Some technical plans on how to build variuos bits of equipment e.g. interfaces.
        Information on business application programs, possibly column on multiplan etc.
        Needs more hardware reviews and educational programs.
        The club seems to cater for more advanced members which is good but a lot of members are beginners. A lot of articles take for granted a high level of computer knowledge which is lost on beginners.
        Programs for those without disk drives suitable for small business use.
        More utility programs like SORT etc.
        List of R.H.G's contacts, module reviews. How to build up a system. List of 3rd. party software.
        Less full program listings and more synopses of what listings are available.
        What hardware is available, what it does and where is it available in each state.
        Articles should be on one page only not spread out over many pages, more program hints.

Results of B.B.S. Survey.

Do you use B.B.S.
Yes	16%
No	84%

How often
Once or twice a month	1%
Once a week	48%
Couple of times a week	49%
Most days	2%

Rating of B.B.S.
Good	78%
Excellent	22%

What would like to see on B.B.S.
        Make Tiprices faster and more up to date.
        Product and software information.
        Colour and graphics.

Purchase of modem
Yes	55%
No	45%

This was only those not on B.B.S.

General comments.

Having used the B.B.S. for several months, I feel this is the clubs single most useful asset. I feel that if more members were encouraged to buy modems, expansion of the B.B.S. to handle most of the magazine functions it would be most desirable.

Other aspects of the Survey will be responded to in the next issue of the SND, but lets take a look at some of those points raised for the SND and BBS...
With the magazine such as ours, it is impossible to please everyone, and the more you give, the more others want. With apathy the way it is, most of the information comes from our contacts in the United States or Great Britain...and yet, very little news and reviews are being printed in those publications. A file of all our overseas TI Club magazines will shortly be handed over to FRED MORRIS (Assistant Librarian), who will be providing you with a catalogue on contents for every publication we have received. As you can imagine, this is going to be one hell of a job, but when completed, will be a source of reference which will be most valuable. At the present time, just about anything worth reproducing is done so in the SND. But our biggest problem is for those who are new to this club, who ask about material which has already been produced, perhaps time and time again. There must be a limit to the amount of times we can reproduce tutorials, reviews, and technical articles etc. So, we are planning to create that PUBLICATION LIBRARY for members who are unable to get back-issues of our SND. We will give more details about this as this library comes into fruition.

Because our readership covers a wide age group, I try to produce a magazine which most or all the membership can receive benesit from. Some want more listings, others want less listing and more technical, while others want less technical and more tutorials, while yet others want tutorials that have been done over and over again over the period of the 4 years of TI.S.H.U.G. Some members would not be happy unless it catered exclusively for just their wants and needs, but another problem is that many members are unable, or unwilling to contribute their time and efforts into providing more printed material for this magazine.

```
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
\\                                    \\
\\ Special Birthday Party for BBS     \\
\\                                    \\
\\      we've just reached ONE        \\
\\                                    \\
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
```

In July 1984 this group founded it's Electronic Bulletin Board Service known as TEXPAC-BBS. Now, one year later, it has had over 10,000 calls from members and visitors. During this time, this special and unique system has had a number of face-lifts with new features to make the system run more proficiantly...and every month, has seen constant changes and up-dates to the information & programs to down-load over the phone.

It has become a very vital source for it's users, to help break isolation of its members, and provided them with programming skills plus features like ...

*ELECTRONIC SHOPPING, *ELECTRONIC MAILING, *INTERNATIONAL & LOCAL NEWS etc.

With the introduction of low-cost modems for our members, and now the new MINI-MODEM which you simply plug into your TI without the need to buy expensive peripherals, more and more TI.S.H.U.G members are finding out just how much information they have been missing out on over the past 12 months.

So, a special invitation is extended to any member of this group, who has a modem, or is planning to buy one, to attend the special TEXPAC-BBS FIRST BIRTHDAY PARTY to be conducted at the home of Shane Andersen on Saturday evening (6pm) the 20th July '85 at 1/37 George Street. Marrickville.

If you are planning to attend, drop Shane a line at... TEXPAC-BBS PARTY, P.O.Box 595, Marrickville, 2204 no later that one week prior to the party date so that we can arrange the catering. This will be a Bring-your-own drinks night, but, as with past BBS PARTIES, you will be well fed.

The party will also be designed to launch the new Colour VIATEL Teletext software by Robert Crago plus introduce you to the Multi-speed Modem Card and Mini-stand-a-lone modems by Peter Schubert.

It will be an evening you won't want to miss out on.

We have extended the hours in which the TEXPAC-BBS will now run...MONDAY to WEDNESDAY 7pm to 6:30am and THURSDAY 7pm non-stop though to MONDAY MORNING 6:30AM

Join the COMMUNICATORS within TI.S.H.U.G and be kept in touch with news as it happens, instead of having to wait for the Monthly News Digest...gain access to stacks of ever changing software, and make many new friends all over Australia. Yes! a modem can do all that, so take this opportunity to fill out the TEXPAC-BBS REGISTRATION FORM on the back page of this SND, and enter a whole new world of communication with your TI-99/4(A) or TI PROFESSIONAL. *Shane A.*

MORE FROM J.R.

Evan Matchett from Mt. Warrigal is having problems with his computer. He writes :" When I turn on my computer the screen turns black and makes sounds in different tones. My Extended Basic cartridge picks up a lot of static causing freeze ups." Evan it sounds as if you have dirty contacts on the cartridge port connector system. To clean these refer to one of the back issues of SOFTEX. Write with your cheque for $6 to Softex Pty.Ltd 59 Landstrom Quadrant, Kilsyth. Vic 3137.

Eric Whelan from Healesville Victoria wants copies of back issues of the SND to complete the Extended Basic article. Eric if you want back issues of the SND I have spare copies back to March 1985, and September 1984. Photocopies of any issue ever published may be obtained by visiting the State Library in Macquarie Street. Every month we send a copy to them to comply with the NSW Copyright Act, 1879-1952. The publications are kept in the library as part of the documentary record of the State, and may in time become the only copy in existance.

Daniel Harris from Hurstville has sent me a letter together with a program entitled touch type Greek "for those of us who want to get on in that language with phonetic Latin characters producing their Greek equivalents." Daniel please send me a tape or disk of your program as it is very long and the size of the type selected by you is too small to read easily!

Bernhard Kirschner from Computerwave writes to advise they are overstocked with TI software and are selling it at pre-devaluation prices. They have Corcomp expansion boxes for $895 and with disk drive for $1375. I think these price levels are going to steer alot of people away from our little orphan.

Don't forget Communications 85 show is opening at Centrepoint on August 6th until the 9th. As a visitor you will be able to see and compare more communications equipment at the same time at the one location than by any other means. You will be able to discover new products, gain product knowledge, and obtain literature. Hope to see you there.

A new mail order house is operating in the US for TI computer owners. Contact Harold Mayo at TI ARRANGER , 4362 N. Garrison Ave, TULSA OK. 74106 USA. He has over 1000 items suitable for our computer. Write for details and order with payment made by Bankers draft. Credit cards are not accepted unfortunately.

Running out of memory........

See you next month.

John Robinson.
Hon. Secretary.

```
************************************************************     *
*  Doing it with  T I  F O R T H  from our International Reporter   *
*                                                                  *
************************************************************
```

The following is verbatim from CorComp Cursor, a newsletter to TI-99/4 user groups. When I called to see if they minded if I put this up here I was told the intent of the newsletter was that it be given the widest dissemination possible. So here is what they say about TI-Forth and DSDD (and other) set-ups. Hope you find it useful.

Rich Stanford
75236,43

TI FORTH

This article is intended for all TI FORTH users who have (or plan on having) double density and/or double sided disk capabilities. While the techniques described should work with any disk controller capable of double density, the author's CorComp 9900 Disk Controller card is the only one that has been tested. The purpose of this article is to illustrate both how to access the additional screen capacity and how to modify the FORTH words and disc to be compatable with the new format and Disk Manager.

Throughout this article lowercase letters used in a FORTH definition will indicate a variable value to be entered. The following terms will be used to refer to the various formats a FORTH disc may have.

```
     90 SCRN or SSSD    - the original 90 screen single sided
                           single density format.
     180 SCRN           - either a SSDD or DSSD disk when
                           comment applies to both.
     360 SCRN or DSDD   - a double sided double density disk.
              SSDD      - a single sided double density disk.
              DSSD      - a double sided single density disk.
```

The first step is to use Disk Manager to format (initialize) a 180 or 360 SCRN disk. Next, you must copy FORTH from the 90 SCRN disk to the new 180 or 360 SCRN disk. The disk copy feature of CorComp's Disk Manager will d this properly for you. If you have two drives, the FORTH-COPY word in the -COPY screens will also do it properly (do 0 DISK_LO ! first). However, if you are using TI's Disk Manager II, after copying the three files you must use FORTH to copy screens 1 to 9 because Disk Manager II puts them in the wrong place! To do this, enter the following for each of the nine screens.

```
     n BLOCK UPDATE (where n is the screen number to be read from old
                      disk)
     FLUSH          (after inserting the new disk - note: up to five
                      screens may be entered at a time)
```

Now edit screen 3 of your new disk and add the following commands:

```
     x DISK_SIZE !  (where x=180 or 360 as appropriate)
     y DISK_HI   !  (where y=x times 1, 2 ,3 or 4 depending on the
                      number of drives you have)
```

Unfortunately, TI FORTH does not provide a method for configuring each drive individually. Therefore, the user must be cognizant of which screens are available on each drive when there are differences between them.

At this point, FORTH can be booted and it will recognize the full capacity of your 180 or 360 SCRN disk. You can create, edit, list, and load from screens greater than 89. However, neither Disk Manager nor FORTH-COPY will recognize this disk as having more than 90 screens. To fix this problem you must modify the -COPY screens (39 and 40), the disk header (sector 0) and, the SYS-SCRNS file header (sector 4).

First edit screen 39. Change the value 90, which appears once in DTEST and twice in FORTH-COPY to 180 or 360 as appropriate. Next, edit screen 40 as follows:

Line 3 - change 168 to 2D0 for 180 SCRN or 5A0 for 360 SCRN.

Line 4 - change 944 to 1244 for SSDD or DSDD (no change for DSSD).

Line 5 - replace entire line with:

```
        DUP 10 + 2028 SWAP ! DUP 12 + a SWAP ! DUP 14 + 24 0 FILL
```

        where a = 0201 for DSSD, 0102 for SSDD, or 0202 for DSDD.

Line 10 - change 165 to 2CD for 180 SCRN, or 59D for 360 SCRN.

Line 13 - change 4016 to C02C for 180 SCRN, or C059 for 360 SCRN.
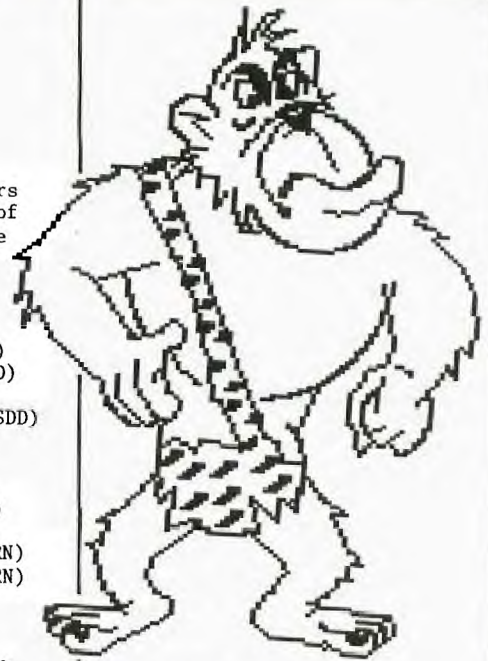
Next edit screen 33 to modify the FORMAT-DISK word to:

    : FORMAT-DISK 1 + a 33616 ! 18 SYSTEM ;

    where a = 258 for DSSD, 513 for SSDD, 514 for DSDD.

Finally, you need to create a word that will modify the header sectors on your new disk. This word only needs to be executed once since copies of this disk, once it's modified, will not require modification. Here is the way to do it:

```
    HEX O DISK_LO !             ( removes disk fence)
    : DD-FORTH O BLOCK UPDATE   ( read screen 0 and mark as updated)
      DUP A + a SWAP !          ( a = 2D0 for 180 SCRN, 5A0 for 360 SCRN)
      DUP C + b SWAP !          ( b = 944 for DSSD, 1244 for SSDD or DSDD)
      DUP 10 + c SWAP !         ( c = 2028 for all versions)
      DUP 12 + d SWAP !         ( d = 201 on DSSD, 102 on SSDD, 202 on DSDD)
          38 + C8 FF FILL       ( flag all sectors as in use)

      1 BLOCK UPDATE            ( read screen 1 and mark as updated)
      DUP E + f SWAP !          ( f = 2A0 for 180 SCRN, 570 for 360 SCRN)
      DUP 1C + g SWAP !         ( g = 4D20 for 180 or 360 SCRN versions)
      DUP 1E + h SWAP !         ( h = 2805 for 180 SCRN, 5205 for 360 SCRN)
          20 + i SWAP !         ( i = F029 for 180 SCRN, F059 for 360 SCRN)
    FLUSH ;                     ( write modified screens to disk)
    DECIMAL DD-FORTH
```

Now your new high capacity copy of FORTH is fully compatable with Disk Manager, the FORTH format, copy, test, and header words and your double density and/or double sided drives and controller. Enjoy!

****

Special thanks to Jim Vincent who is the FORTH columist for the 99'ers Users Group Association.

The picture,by Keir Lalor, you see above, was faithfully re-produced pixel by pixel from the picture in a recent SOFTEX Magazine. It too was drawn on the a-maze-ing GRAPHX program which was created by one of our own members of TI.S.H.U.G.

```
100 REM CHURCH BELLS
110 REM by Robert Davy (aged 14)
120 REM of TI.S.H.U.G. Younger Set
130 B,C=262 :: RESTORE
140 READ A :: IF A=0 THEN RESTORE 170 :: GOTO 140
150 FOR J=2 TO 7 STEP 1.3 :: CALL SOUND(-999,A,J,B,11,C,15):: NEXT J :: C=B :: B
=A :: GOTO 140
160 DATA 262
170 DATA 523,494,440,392,349,330,294,262,523,494,440,392,349,330,294,262
180 DATA 523,440,349,294,494,392,330,262,523,440,349,294,494,392,330,262,0
```

EXTENDED BUSINESS GRAPHS

A REVIEW OF THIS EXCITING BUSINESS PACKAGE

Ever wished you could do bar graphs, pie graphs and X/Y graphs on your TI. Well you can simply and as easily as typing in a few numbers with this very exciting package from Great Lakes Software. Like most good software around for the TI these days you will need the 32K memory expansion, at least one disk drive and Extended Basic. A printer is needed to produce hard copies of your graphs. Have a look at the couple of sample graphs with this article and you can now see that your TI can do what the other systems boast about.

This package couldn't be easier to operate with selections being made from a menu of 8 choices - 1 Enter Data, 2 Read Data, 3 Bar Graphs, 4 Pie Graphs, 5 X/Y Graphs, 6 Print Graphs, 7 Delete Files and 8 To End.

The range of applications for Extended Business Graphs is limitless and it could be used to graphically portray just about anything you could think of.

Want to buy it? Well get in touch with Great Lakes Software, 804 E. Grand River Avenue, Howell, MI 48843 USA.
I don't know the price but would suggest whatever it is it is well worth it. *SORRY. RAN OUT OF ROOM. GRAPHS NEXT MONTH. Ed.
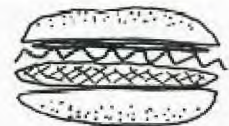
BURGER TIME - A REVIEW

There are probably dozens of climbing games around but this one certainly adds a new twist to the scene. In this game you play the role of the chef whose only lot in life is to build hamburgers - real juicy looking ones at that! To build your hamburgers you have to walk over a piece of bun, meat patty, cheese and other goodies that go into these gastronomic delights al the time climbing ladders and avoiding the nasties that lurk in the kitchen. You do have a defence against the marauding pickles in the form of pepper which temporarily disables them and allows you to go on your way. You start the game with only a limited supply of pepper but can get more by walking over cups of coffee and ice cream cones that appear from time to time. You'll need to be a fairly good joystick jockey to get these little bonus' because they don't stay on the screen for very long.

I like this game and have sat for hours at a time completing the various screens all progressively a bit harder. Graphics and sound effects are excellent and this is a game I thoroughly recommend you buy.

Check with Imagic for availability and price.

TiSHUG Shop

This months software on tape and disk is still being selected from our vast range. The tape/disk will contain about 8 programs most with an educational theme. The tape will be titled 1985/7 and will sell for the usual price of $3 at the meeting or $4 by mail.

Those at the last meeting who purchased Home Computer Magazine will notice that it was issue Volume 5 No. 3. We seem to have missed an issue somehow but I have written to the publisher asking for our copies of Volume 5 No. 2 which I hope will arive in the near future. Copies of Volume 5 No. 3 are still available for $8 at meetings or $9 by post.

On sale at the July meeting will be the following new disk software:

An excellent utility program by member Ross Mudie called Reformater. This is particularly usefull for those members without TI Writer but who have Editor Assembler.

Another utility titled Neat List which gives you very tidy printed listings of your programs.

A third disk will contain two programs from TI given to user groups. One is TI's own Disk Fixer the other a game called Lasso. Editor Assembler is required to run these two while Extended Basic and 32K expansion are needed for Reformater and Neat List.

At the July meeting we will have the big disk lucky dip. As you may know all disks in the library have been transferred to SSDD format so the old SSSD disks are not required. There are 101 of these disks and any of them can be yours for $4 each. Here's how the lucky dip will operate - buy any number of tickets at $4 each and select your lucky numbers from the barrel. The disks with the corresponding numbers are yours. Very simple and there is only one rule - disks are sold as is.

As I write this all stocks of Navarone products are exhausted. More have been ordered but I am not over confident that they will be here by the July meeting. Only limited stocks can now be purchased -under $250- following my warning by some customs officials that if I kept importing large orders I would need to enlist the services of a customs broker to clear the goods. This would have entailed further expense which would have to be passed on to you.

Other items currently in stock include :

Boxes of disks (10) @ $25

Latest Softex Magazine $4

Assembly Language Book $30

Beaxs, Channel 99 disks $5

TI Forth Manual & Disk $30

Disk File Boxes $44

Now a tip from Jeff Bolton of Hornsby which may assist all who have been tearing their hair out trying to solve Paranoids Anonymous an adventure program on one of the earlier tapes. Jeff says to try this. Change line 1430 to read -

IF P(8)<11 THEN 1460

this should enable you to get the keys out of the fish tank!

In my mail in the past few weeks have been some fairly exciting software from my regular correspondent in the USA. Some programs have been Ms Pacman, Shamus, a new Data Base, a great screen painting program - it looks great anyway but I haven't figured out how to fully drive it! - a mailing list program which is very simple to operate, several new copy programs and a data base specifically designed for coin collectors. I still have not received any further programs from my contacts in Italy and Canada but should do so very soon. All software mentioned is commercial but if you want to have a look at any give me a call. Now to finish off a couple of short programs from the library for you to type in. The first is called Berlin and came from our friends at Channel 99 and the second is called Pursuit and I don't know where it came from. Hope you like them. Both are in Extended Basic.

Thought I'd mention that the prize from lucky tape 1985/6 has not been claimed as yet. I definately know that someone bought the lucky tape at the June meeting. If you want a great prize check those tapes throroughly. Remember the lucky tape has a small program after the last program listed on the catalog. Instructions for claiming the prize are in that program.

```
##################################################
#                                                #
# NEW LOCAL CARTRIDGE BY JUNIOR MEMBER . . .     #
#                                                #
##################################################
```

A very inovative member of the TI.Melbourne User Group, 17 year old Secretary , Wayne Southwick has created something which many have shown considerable interest in. It is a combo-cartridge which comprises of the processing chips of three major modules. They are EDITOR/ASSEMBLER, TI-WRITER, and DISK MANAGER #2. Wayne has designed this new cartridge so that he simply de-solders the chips in each of these three modules and transplants them into one module.

The transplanting only costs you $20. A very interesing project which benefits all. If you would like more information on this new development, why not give Wayne a call on (03)241-9681 (a/h) or drop him a line at: 52 CLENDON ROAD, TOORAK, MELBOURNE. VICT. 3142.
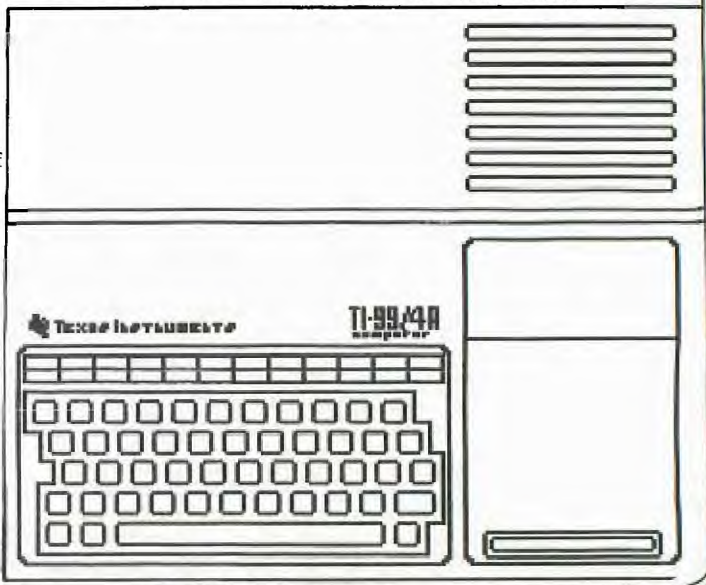
Videotex-99

Now your TI can talk to Telecom's
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Requires:

- o TI 99/4A console
- o 32K Memory Expansion
- o Disk Drive
- o RS232 Card
- o E/A or Minimem cartridge
- o 1200/75 baud Modem
- o Suitable cable

$35.00 plus $1.00 p&p

Available July 1985 from:-

Robert Crago
100 Victoria Road
West Pennant Hills 2120

(Please state Viatel Customer Identity number when ordering)

TECHO TIME

WITH ROBERT

For those who want to build a RS 232 to CENTRONICS interface here are the required alterations.

So as not to need an external power supply solder a wire link betwen pin 1 of RS 232 BUS card edge connector to pin 11 of the RS 232 connector.

These are the connections required to connect the TI RS 232 to the centronics interface.

```
TI RS 232        INTERFACE

PIN No 1 ......... 1 GND.
     * 16 ......... 2 TX.
        7 ......... 7 0 V.
       11 ......... 9 + V.
     * 20 ......... 5 DTR.
```

* THESE PINS USED TO OPERATE FROM RS 232/2, IF RS 232/1 DESIRED CHANGE PINS INDICATED TO SUIT RS 232/1.

The next piece comes courtesy of the MSP 99 newsletter and Bob Hubel.

NOISELESS PERIPHERAL EXPANSION BOX

Are you distracted and disturbed by the tornadic roar of your Peripheral Expansion Box? TI engineered the box to provide sufficient cooling capacity for the most strenuous of circumstances....all 8 card slots occupied and under heavy, continuous usage. Since my use didn't even approach the design limits, I began experimenting with ways to slow the fan down, and I was successful in reducing the noise level down to a barely perceptible purr! I have been testing this change for a sufficient period of time, and I now feel comfortable in recommending this modification to others. In fact, I have even run under light loads for moderate periods of time without any fan at all...but I don 't personally advise going to that extreme.

I had considered 2 options...purchase a quieter fan, or just slow down the present fan. A quieter fan costs about $20 or more, so I quickly discarded that option. I could reduce the fan speed with either a special solid-state voltage regulation device or merely install a power resistor in series with the fan. Since I have no experience with such solid-state devices and the components would likely cost around $10, I elected for the latter method at a cost of $0, using components from my electronics junk box. If you had to purchase the components at retail, the cost would amount to no more than $2-$3.

The PEB fan is rate at 14 Watts. I have found that inserting a 500-700 Ohm power resistor (10 Watts power dissipation) reduces the speed to a very acceptable level (700 Ohms is my own preference). Since a 700 Ohm resistor may be hard to find, you can combine 2 or more resistors which add up to 700 Ohms. This resistor "steals" the energy that was originally intended for the fan and thus the fan doesn't work as hard. However, in doing so, the resistor must shed this extra energy itself, and does so by producing heat. Therefore, you MUST mount the resistor on the OUTSIDE of the PEB, immediately behind the fan, thus allowing the circulating air to cool it. Do NOT mount it inside the cabinet. Although it may be more aesthetically pleasing, it will add unwanted heat inside the cabinet.

Procedure to dis-assemble the PEB to access the fan lead wires:

1) Unplug power cord.
2) Remove lid.
3) Remove disk drive (4 screws - 2 on top 2 on bottom; disconnect 2 cables.)
4) Remove all slide in cards.
5) Remove 2 screws on cabinet sides.
6) Remove 6 screws on back (but not the 2 screws holding the lid clips)
7) Remove 5 screws on the perimeter of the base, plus the 1 near the middle.
8) Slide base out.

The next step requires a little bit of ingenuity and personal customization. You must disconnect 1 of the fan leads and extend those 2 wires to the outside back of the box through a drilled hole. Splice the resistor(s) between those 2 wires, then mount them on the box next to the fan exhaust. I can't tell you exactly how to do this for there are many possible ways. Be sure that all wires are insulated as this is a 240V circuit. After that is done, reverse the above steps to re-assemble the box.

Since the fan intake is through the card cage, I have cut foam to fit in the empty slots, at the far forward side of the card cage. This then forces the reduced airflow to flow through the existing cards, thereby increasing their cooling.

The resistors will run warm and possibly may be uncomfortable to touch....this is normal. Don't cheat and use less than 10 Watt resistors as then they may get too hot and cause problems.

If anyone knows of a cheap solid-state equivalent which will perform the same function, please notify me as it would be the preferred method, if inexpensive.

You'll be amazed at the considerable reduction in the noise pollution.

Good Luck!

Technical manuals are available for $15 at club meetings or from the club Librarian (please add $3.50 postage & handling).

If anyone has a technical problem or wishes to contribute technical articles then contact me (ROBERT) on -
602-4168 between 5.00-8.30 PM
(PLEASE STICK TO THESE TIMES)
or send a letter to

TECHO TIME
P.O. BOX 595
MARRACKVILLE 2204

ANYONE WISHING TO OBTAIN INFORMATION, PLEASE SEND A SELF-ADDRESSED ENVELOPE (WITH SUFFICIENT POSTAGE STAMPS) TO THE ABOVE ADDRESS.

Avoiding TI INT

A little known fact about TI computers is that they will accept nonintegers for arguments such as array subscripts and CALL HCHAR and CALL VCHAR arguments. If a floating point value is used, the computer will round off to the nearest integer. For example, A (1.6) is the same as A (2), and A(5.25) is the same as A (5).

This is useful when you want to compute the proper element of an array with floating point values. For example, say you have a sprite with coordinates SPRITEX and SPRITEY, and you want to see what's underneath it on the screen. You can then use the following command to get the value:

CALL GCHAR(SPRITEY/8+.5,SPRITEX/8+.5,var)

Why is this important? Taking the INT of those values uses a lot of valuable time, and the INT is absolutely unnecessary. In a graphics program, this can speed things up considerably.

Neil Weinstock
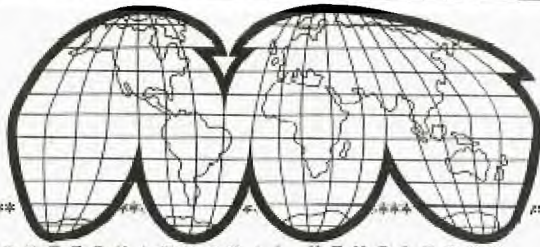
The (TInnnn)are Usernumbers of TI USERS on The Source.

ONE LINERS is a regular column in SUBFILE99 featuring DEF statements commonly used in TI-BASIC and X-BASIC. If you have ideas on how to take advantage of DEF statements, why not send them to SUBFILE99 (TI5361)or your SND and share them with your fellow TI'ers!

BY: TERRY ATKINSON (TI6450)
NOVA SCOTIA, CANADA

Here's four DEF routines that cut down on the "number-crunching" often found in programs. The first is a DEF statement that rounds any number to the specified decimal place. The second DEF automatically converts natural LOGS to any specified base. The third DEF will only work in X-BASIC as it uses the MAX and MIN functions to find the highest, lowest and middle number in a set of three. The final DEF is a handy routine that converts joystick input to integers from 1-9 for faster processing in game programs.

FLEXIBLE ROUNDING
This DEF will round a number (X) to the number of places (left or right of the decimal point) specified in the value R. If R is a negative number, then X is rounded to the LEFT of the decimal place the number of places indicated by R. If R is a positive number, rounding is to the RIGHT. DEF ROUND=INT((((10 R)*X)+.5)/(10 R) For example, if X=1101 and R=-2 then the result would be 1100. If X=10.4567 and R=+3 then the result would be 10.457.

EASY CONVERSION
This DEF statement simplifies the calculation of LOG conversions. Below are two of the most common conversions: To do a conversion from natural logs to BASE 10, use the following: DEF LOG10(X)=LOG(X)/2.30285093 To do a conversion from natural logs to BASE 2, use this DEF: DEF LOG2(X)=LOG(X)/0.6931471806 For other logs consult a mathematic encyclopedia and insert the value after the "/" sign. MAX,MIN AND MID!

To find the highest, lowest and middle value of three variables (X,Y,Z) use the following three lines of code: DEF MX=MAX(MAX(X,Y),Z) DEF MD=MAX(MAX(MIN(X,Y),MIN(Y,Z)), MIN(X,Z)) DEF MN=MIN(MIN(X,Y),Z) X,Y and Z are exchanged into MX (highest), MD (middle), and MN (lowest).

HANDY JOYSTICK DECODER This last DEF is for a joystick decoder, such that, no matter which position is selected on the joystick, it will evaluate to an integer between 1 and 9. you can then use that integer in a GOTO or GOSUB branch to the appropriate part of the program. Decoding is as follows: N=8 NW=7 NE=9 W=4 OFF=5 E=6 SW=1 SE=3 S=2

EF JSTK=((X+3*Y)/4)+5 Here's how it would work in a program: CALL JOYST(1,X,Y)

ON JSTK GOSUB 1000,2000,3000, 4000,5000,6000,7000,8000,9000

Below is a program that uses all of the DEFS mentioned above. Since the MAX,MID,MIN DEF uses the statements MAX and MIN, this program can only run in EXTENDED BASIC.

```
100 REM *****************
110 REM *               *
120 REM * DEF STATEMENT *
130 REM *               *
140 REM *   DEMO NO.2    *
150 REM *               *
160 REM *****************
170 REM
180 REM    SUBFILE99
190 REM
200 REM     8/1/84
210 REM
220 REM
230 REM *************
240 REM *HOUSEKEEPING*
250 REM *************
260 REM
270 DEF MX=MAX(MAX(X,Y),Z)
280 DEF MD=MAX(MAX(MIN(X,Y),MIN(Y,Z)),MIN(X,Z))
290 DEF MN=MIN(MIN(X,Y),Z)
300 REM
310 DEF JSTK=((X+3*Y)/4)+5
320 REM
330 DEF ROUND=INT((((10^R)*X)+.5))/(10^R)
340 REM
350 DEF TABC=(29-LEN(M$))/2
360 REM
370 FOR L=1 TO 9
380 READ M$
390 A$(L)=M$
```

```
100 REM *****************
110 REM *               *
120 REM * DEF STATEMENT *
130 REM *               *
140 REM *   DEMO NO.2    *
150 REM *               *
160 REM *****************
170 REM
180 REM    SUBFILE99
190 REM
200 REM     8/1/84
210 REM
220 REM
230 REM *************
240 REM *HOUSEKEEPING*
250 REM *************
260 REM
270 DEF MX=MAX(MAX(X,Y),Z)
280 DEF MD=MAX(MAX(MIN(X,Y),MIN(Y,Z)),MIN(X,Z))
290 DEF MN=MIN(MIN(X,Y),Z)
300 REM
310 DEF JSTK=((X+3*Y)/4)+5
320 REM
330 DEF ROUND=INT((((10^R)*X)+.5))/(10^R)
340 REM
350 DEF TABC=(29-LEN(M$))/2
360 REM
370 FOR L=1 TO 9
380 READ M$
390 A$(L)=M$
400 NEXT L
410 REM
420 DATA SOUTHWEST,SOUTH,SOUTHEAST,WEST,NO RESPONSE
430 DATA EAST,NORTHWEST,NORTH,NORTHEAST
440 REM
450 REM *****************
460 REM *MAIN MENU SCREEN*
470 REM *****************
480 REM
490 REM
500 CALL CLEAR
510 FOR X=1 TO 5
520 READ M$
530 PRINT TAB(TABC);M$: :
540 NEXT X
550 PRINT : : : : :
560 FOR X=1 TO 500
570 NEXT X
580 DATA DEF STATEMENT,DEMO NO.2,SUBFILE99,8/1/84,
```

```
590 REM
600 REM **************
610 REM *ROUNDING DEMO*
620 REM **************
630 REM
640 CALL CLEAR
650 PRINT "FLEXIBLE ROUNDING":"----------------"
660 PRINT : : :"X=VALUE TO BE ROUNDED": :
670 PRINT "R=# OF PLACES TO ROUND TO": :
680 PRINT "A NEGATIVE VALUE (-3)":"ROUNDS TO THE
*RIGHT* OF"
690 PRINT "THE DECIMAL PLACE!"

700 REM
710 PRINT : : :
720 INPUT "ENTER X:":X
730 INPUT "ENTER R:":R
740 PRINT :ROUND:
750 INPUT "R TO REPEAT,<CR> TO GO ON:":R$
760 IF R$="R" THEN 710
770 REM
780 REM *****************
790 REM *MIN/MAX/MID DEMO*
800 REM *****************
810 REM
820 CALL CLEAR
830 PRINT "MAX/MID/MIN FUNCTIONS":"----------------
-": : :
840 PRINT "X,Y & Z = ANY THREE VALUES": :
850 PRINT "THEY WILL BE RETURNED IN": :"MX-MAX, MD-MID
& MN-MIN."
860 PRINT : : :
870 INPUT "ENTER X,Y,Z:":X,Y,Z
880 PRINT "MAX:";MX:"MID:";MD:"MIN:";MN: : :
890 REM
900 INPUT "R TO REPEAT, <CR> TO GO ON:":R$
910 IF R$="R" THEN 860
920 REM
930 REM ****************
940 REM *JOYST CALC DEMO*
950 REM ****************
960 REM
970 PRINT : : :"JOYSTICK CALCULATOR":"----------------
----": : :
980 PRINT "CONVERTS JOYST VALUES X, Y": :"TO AN INTEGER
FROM 1-9."
990 PRINT : :"USE JOYSTICK #1": : :
1000 INPUT "HIT ANY KEY TO BEGIN:":R$
1010 CALL JOYST(1,X,Y)
1020 PRINT A$(JSTK)
1030 GOTO 1010
1040 REM
1050 END
TAKE A BYTE ON THIS!
```

As you being to get into POKEing and PEEKing around in
your TI console, you're bound to discover (as I have)
that although all the TI manuals refer to memory
addresses in HEX (>0010), the CALL PEEK and CALL LOAD,
etc statements only use DECIMAL values (16)! This can
be frustrating unless you have a HEX-DEC calculator or
some simple TI routines to translate the values for
you. Since I don't own one of those fancy calculators,
I figured out the following DEFS to do the work for me:
DEC TO HEX

This DEF statement will translate a decimal number into
a string representation of the hexidecimal equivalent.
Quite handy when you need to have a CALL PEEK decimal
result turned into the HEX value for checking against
one of your memory maps or manuals!
DEF HEX$(X)=">"&SEG$("01234567
89ABCDEF",INT(X/16)+1,1)&SEG$(
"0123456789ABCDEF",X-(INT(X/16))+1,1)

X=The decimal value to convert HEX$=The hexidecimal
result HEX TO DEC

Of course, if you've got a need for one, you'll
probably need the other! Here's a routine that takes a
hexidecimal string and turns it into a decimal value.
This is great for use with CALL LOAD or CALL VPOKE.
All you do is type in the hex value and the DEF does
the rest! DEF DEC(X$)=(POS("0123456789AB
CDEF",SEG$(X$,1,1),1)-1)+PO
S("0123456789ABCDEF",SEG$(X$,2 ,1),1)-1

X$=The hexidecimal string DEC=The decimal result

GETTING DOWN TO BUSINESS

If you do much programming involving business
calcuations, these three DEFS will come in handy. The
first is a simple one that will give you the average of
any list of values. The second two come in handy when
figuring mark-ups and mark-downs.

AVERAGING
How many times have you wanted a quick way to figure
the average of a list of values? Well, here's an easy
way to do it!

DEF AVG=T/N T=Total of the list of values N=Number of
values in the list
PERCENTAGE MARKUP
Here's a nice DEF that helps all you business-people
out there figure your profit markup on all that TI
vaporware!

DEF MARKUP=P*V/100+V **P-Markup percentage V-Value to**
compute markup on
PERCENTAGE DISCOUNT
And here's a DEF that will help all us TI consumers to
figure out how much we can save by buying through the
mail rather than paying the sales rep's markup!

DEF MARKDN=ABS(P*V/100-V) P=Discount percentage V=Value
to figure discount on Below is a short program
demonsrtating the DEFS in this issue. NOTE: The
program below is being sent in 80-column mode. If you
are using TI's TE-II Module be sure to turn off the
Screen Wrap by hitting FCTN-5!

```
100 REM ****************
110 REM *              *
120 REM * DEF DEMO #3  *
130 REM *              *
140 REM ****************
150 REM
160 REM      11/84
170 REM
180 REM    SUBFILE99
190 REM
200 REM
210 REM ----------------
220 REM DEFS USED:
230 REM
240 REM    TABC
250 REM    TABR
260 REM    TABM
270 REM    MNY$
280 REM    HEX$(X)
290 REM    DEC(X$)
300 REM    MARKDN
310 REM    MARKUP
320 REM    AVG
330 REM ----------------
340 REM
350 REM
360 REM *************
370 REM *HOUSEKEEPING*
380 REM *************
390 REM
400 DEF TABC=(29-LEN(M$))/2
410 DEF TABM=XM-LEN(M$)
420 DEF TABR=29-LEN(M$)
430 DEF MARKDN=ABS(P*V/100)
440 DEF MARKUP=P*V/100
450 DEF AVG=T/N
460 DEF MNY$=STR$(INT(AMT))&"."&SEG$(STR$(AMT-INT(AMT))
&"000",2,2)
470 DEF HEX$(X)=">"&SEG$(H$,INT(X/16)+1,1)&SEG$(H$,X-(I
NT(X/16*16))+1,1
480 DEF DEC(X$)=(POS(H$,SEG$(X$,1,1),1)-1)*16+POS(H$,SE
G$(X$,2,1),1)-1
490 OPTION BASE 1
500 H$="0123456789ABCDEF"
510 REM
520 REM **********
530 REM *MAIN MENU*
540 REM **********
```

```
550 REM
560 CALL CLEAR
570 RESTORE 2070
580 FOR X=1 TO 5
590 READ M$
600 PRINT TAB(TABC);M$
610 NEXT X
620 REM
630 READ M$
640 PRINT : : :M$: : :
650 REM
660 FOR X=1 TO 6
670 READ M$
680 PRINT TAB(5);M$
690 NEXT X
700 REM
710 READ M$
720 PRINT : : :M$
730 REM
740 XT=3
750 GOSUB 2330
760 CALL HCHAR(23,10,XK+48)
770 ON XK GOSUB 890,1160,820
780 GOTO 560
790 REM
800 REM *END OF PROGRAM*
810 REM
820 CALL CLEAR
830 END
840 REM
850 REM ****************
860 REM *HEX-DEC ROUTINE*
870 REM ****************
880 REM
890 CALL CLEAR
900 PRINT "SELECT:": :"<D>ECIMAL VALUE":"<H>EXIDECIMAL
VALUE":"<R>ETURN TO MENU": : :
910 XR$="DHR"
920 GOSUB 2160
930 IF XR=3 THEN 1100
940 IF XR=2 THEN 1040
950 REM
960 REM *DEC-HEX*
970 REM
980 INPUT "ENTER DECIMAL VALUE:    ":X
990 PRINT : :"HEX VALUE IS:        ";HEX$(X): : : :
1000 GOTO 900
1010 REM
1020 REM *HEX-DEC*
1030 REM
1040 INPUT "ENTER HEX VALUE:    >":X$
1050 PRINT : :"DEC VALUE IS:        ";DEC(X$): : :
1060 GOTO 900
1070 REM
1080 REM *ESC TO MENU*
1090 REM
1100 RETURN
1110 REM
1120 REM ****************
1130 REM *BUSINESS CALCS*
1140 REM ****************
1150 REM
1160 CALL CLEAR
1170 PRINT "BUSINESS DEF DEMO":"-----------------": : :
1180 RESTORE 2100
1190 FOR X=1 TO 12
1200 READ M$
1210 PRINT M$
1220 NEXT X
1230 REM
1240 GOSUB 2250
1250 REM
1260 REM *INPUT*
1270 REM
1280 CALL CLEAR
1290 T=0
1300 INPUT "# OF ITEMS IN ORDER?(1-10)":N
1310 IF (N<1)+(N>10)THEN 1300
1320 PRINT : :
1330 REM
1340 FOR X=1 TO N
1350 INPUT "PRICE OF ITEM #"&STR$(X)&":":I(X)
1360 T=T+I(X)
1370 NEXT X
1380 REM
1390 PRINT : :
1400 INPUT "SHIPPING MARKUP(5-25%):":S
1410 IF (S<5)+(S>25)THEN 1400
1420 PRINT : :
1430 INPUT "VOLUME DISCOUNT(5-25%):":D
1440 IF (D<5)+(D>25)THEN 1430
1450 PRINT : :
1460 REM
1470 REM *OUTPUT*
1480 REM
1490 CALL CLEAR
1500 M$="SF99 WHOLESALERS"
1510 PRINT TAB(TABC);M$: :
1520 REM
1530 FOR X=1 TO N
1540 AMT=I(X)
1550 M$=MNY$
1560 DISPLAY TAB(5);"ITEM #"&STR$(X);TAB(TABR);M$
1570 NEXT X
1580 M$="----------"
1590 PRINT TAB(TABR);M$
1600 AMT=T
1610 M$=MNY$
1620 DISPLAY TAB(8);"TOTAL:";TAB(TABR);M$
1630 REM
1640 REM *DISCOUNT*
1650 REM
1660 V=T
1670 P=D
1680 AMT=MARKDN
1690 M$=MNY$
1700 DA=AMT
1710 DISPLAY "VOL DISC ("&STR$(D)&"%)";TAB(TABR);M$
1720 REM
1730 REM *SHIPPING*
1740 REM
1750 V=T
1760 P=S
1770 AMT=MARKUP
1780 M$=MNY$
1790 SA=AMT
1800 DISPLAY "SHIPPING ("&STR$(S)&"%)";TAB(TABR);M$
1810 REM
1820 REM *GRAND TOTAL*
1830 REM
1840 M$="----------"
1850 PRINT TAB(TABR);M$
1860 T=T+SA-DA
1870 AMT=T
1880 M$=MNY$
1890 DISPLAY "GRAND TOTAL:";TAB(TABR);M$
1900 M$="========"
1910 PRINT TAB(TABR);M$
1920 PRINT
1930 REM
1940 REM *AVERAGE COST*
1950 REM
1960 AMT=AVG
1970 M$=MNY$
1980 DISPLAY "AVG ITEM PRICE: ";TAB(TABR);M$
1990 PRINT
2000 GOSUB 2250
2010 GOTO 560
2020 REM
2030 REM ******
2040 REM *DATA*
2050 REM ******
2060 REM
2070 DATA DEF STATEMENT DEMO #3,,11/84,,SUBFILE99
2080 DATA SELECT ONE:,,1 - HEX-DEC CONVERSION,,2 - BUSI
NESS DEFS
2090 DATA ,3 - TERMINATE PROGRAM,CHOICE:_,
2100 DATA YOU OWN AN ELECTRONICS,WHOLESALE OUTLET.  YOU
ARE,FIGURING OUT A SALES ORDER.
2110 DATA YOU ALWAYS GIVE PRICE,BREAKS ON YOUR ORDERS.,
YOU ALSO MUST CHARGE FOR
2120 DATA SHIPPING. YOU WILL BE,ASKED TO ENTER THE
ORDER,THE SHIPPING M AND THE,DISCOUNT PERCENTAGE.,,,
2130 REM
2140 REM *KEY-LET/B*
2150 REM
2160 CALL SOUND(150,1400,0)
2170 CALL KEY(0,XK,XS)
2180 IF XS=0 THEN 2170
```
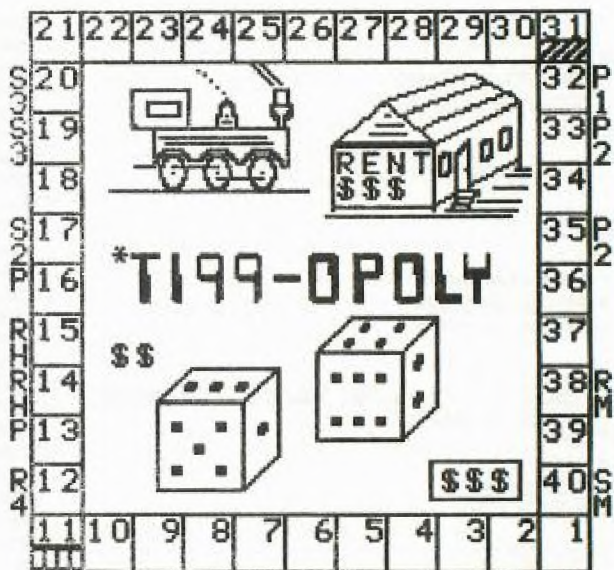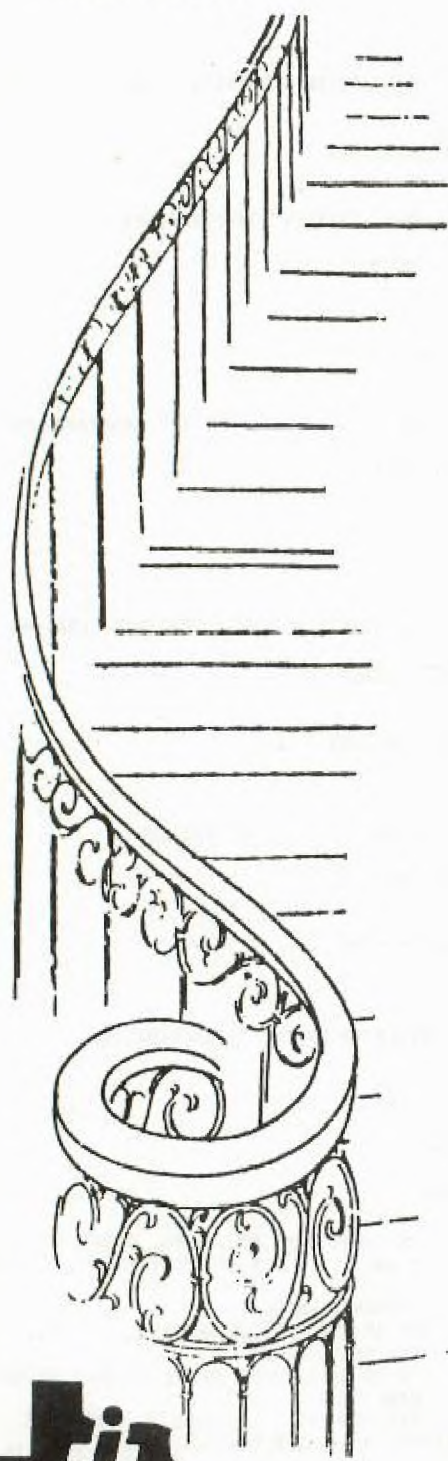
```
2190 XR=POS(XR$,CHR$(XK),1)
2200 IF XR=0 THEN 2170
2210 RETURN
2220 REM
2230 REM  *KEY-CON/B*
2240 REM
2250 PRINT " PRESS ANY KEY TO CONTINUE "
2260 CALL SOUND(150,600,5)
2270 CALL KEY(3,XK,XS)
2280 IF XS=0 THEN 2270
2290 RETURN
2300 REM
2310 REM  *KEY-NUM/B*
2320 REM
2330 CALL SOUND(150,1000,0)
2340 CALL KEY(3,XK,XS)
2350 IF (XK<49)+(XK>XT+48)+(XS=0)THEN 2340
2360 XK=XK-48
2370 RETURN
2380 REM
```

CALL LOADS

CALL LOADS is a regular column in SUBFILE99 featuring
various CALL LOADS and CALL PEEKS that can be used on
the TI Home Computer. In order to use these LOADS and
PEEKS you must have the ED/ASSM, X-BASIC or MINI-MEMORY
Modules and 32K Memory Expansion.

Do you have interesting LOADS or PEEKS that you have
found? Why not send them in to SUBFILE99 (TI5361) and
share them with your fellow TI'ers?

One of the most active areas of RAM in the TI99/4a is
the CPU RAM PAD Area found at >8300 to >83FF (-32000 to
-27745). This area handles the exchange between the
TMS9900 code and the mystical GPL language. It makes
sense then that a number of important functions like,
system quit and restart, keyboard and joystick
scanning, screen updating, interupt timing, and random
number generating is all available through the use of
CALL LOADS and PEEKS to this area. Here's a few CALL
LOADS that illustrate the importance of the activty in
the CPU PAD.

YOU'LL NEVER QUIT AGAIN!

How many times have you been up all night keying in the
450-line graphics and music demo and, at line 449
accidentally hit FCTN = rather than SHIFT = ? There
goes your program!! System shutdown!! Below are two
CALL LOADS that allow you to prevent such disasters.
They LOAD a value into >83C2 which is the falg area for
the interupt routine.

To disable the QUIT function:
CALL LOAD(-31806,16)
To re-enable QUIT:
CALL LOAD(-31806,0)

THE DISAPPEARING DISK DRIVE:

If you need to load a large TI-BASIC program, you are
sometimes told to DISCONNECT (!) your disk drive in
order to free up extra memory. Here's some CALL LOADS
that LOAD a value into >8370 which holds the highest
available VDP RAM address. Thus, it accomplishes the
same end without forcing you to "decapitate" your TI99!

To make the drives "disappear":
CALL LOAD(-31888,63)
To make them "re-appear":
CALL LOAD(-31888,55)

X-BASIC WARM START

Here's a handy CALL LOAD that causes the system to
"restart" X-BASIC. This LOAD causes the computer to
search drive one for a prgram called "LOAD" and execute
it. If no program is found, it boots X-BASIC.
CALL LOAD(-31962,255)

P-CODE WARM START

One of the most annoying features of the TI P-CODE Card
is it's inablitily to "co-exist peacefully" with the
TI-BASIC interpreter. Normally, if you <H>alt from
P-Code into TI-BASIC, you have to turn off the entire
system, WAIT for a few seconds and THEN turn the system
on again in order to re-enter PASCAL!
Here's a simple LOAD that will let you do a "run-time
warm start" of the P-CODE Card:
CALL LOAD(14586,0,0)
Then hit FCTN = [QUIT]

A FITTING END

This final sequence causes the system to return to the
Title Screen, the same as if you hit FCTN = [QUIT].
This involves PEEKing at an address in the console ROM
to find the jump vector for the interupt routine and
loading it into the CPU address (>83C4) that contains
the "user-defined interupt value."

CALL PEEK(2,A,B)
CALL LOAD(-31804,A,B)

NOW FOR THOSE WITH THE
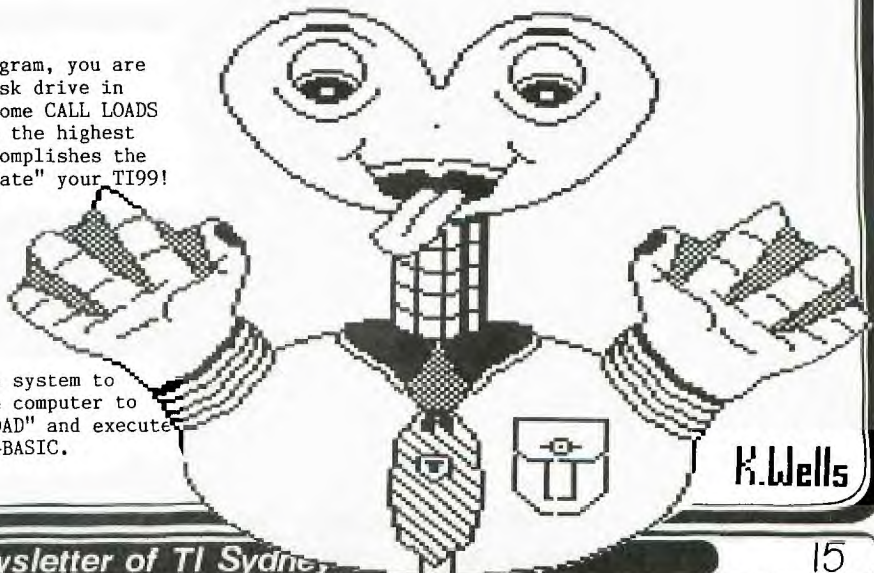T.I.PROFESSIONAL IS A MAGAZINE
JUST FOR YOU CALLED...

" D I R E C T I O N S "

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or phone ISD 0011.1.512.250.7151

Its filled with reviews of both hardware and software,
program listings.

K.Wells

PROGRAM LISTINGS

```
100 REM ********
110 REM *BERLIN*
120 REM ********
130 ! ****************
140 ! *BY S W JOHNSON*
150 ! ****************
160 RANDOMIZE
170 CALL CHAR(128,"00187E000
    0187E00")
180 CALL CHAR(129,"1819023C5
    8981433181800 3C5A99183C18984
    03C1A1928CC")
190 CALL CHAR(132,"FFFFFFFFF
    FFFFFFF")
200 CALL CHAR(133,"000000000
    0000000")
210 CALL CHAR(134,"001010761
    0101010")
220 CALL CHAR(136,"3C4281999
    981423C")
230 CALL CHAR(137,"428118343
    4188142")
240 CALL CHAR(138,"811824424
    2241881")
250 CALL CHAR(139,"DFDFDFOOF
    BFBFB00")
260 CALL CLEAR
270 FOR L=0 TO 14
280 CALL COLOR(L,2,4)
290 NEXT L
300 CALL SCREEN(2)
310 DISPLAY AT(2,7):"STEPHEN
    JOHNSON" :: DISPLAY AT(7,11
    ):"PRESENTS" :: DISPLAY AT(1
    2,12):"BERLIN"
320 DISPLAY AT(22,1):" 1982"
    :" PRESS ANY KEY TO BEGIN."
330 CALL SOUND(120,1400,2)
340 CALL KEY(3,K,S):: IF S=0
    THEN 340
350 DISPLAY AT(2,1)ERASE ALL
    :"ENTER 1": : :"1 FOR KEYBOA
    RD": :"2 FOR JOYSTICK"
360 ACCEPT AT(2,7)SIZE(-1)VA
    LIDATE("12"):Q
370 DISPLAY AT(10,1):"ENTER
    1": : :"1 FOR BEGINNER": :"2
     FOR INTERMEDIATE": :"3 FOR
     PROFESSIONAL"
380 ACCEPT AT(10,7)SIZE(-1)V
    ALIDATE("123"):HARD :: HARD=
    HARD*3
390 CALL CLEAR
400 FOR L=0 TO 13
410 CALL COLOR(L,2,13)
420 NEXT L
430 CALL COLOR(14,15,13)
440 DISPLAY AT(2,1):"EAST";T
    AB(25);"WEST" :: CALL HCHAR(
    3,3,139,4):: CALL HCHAR(3,26
    ,139,5):: CALL HCHAR(4,3,130
    ,3)
450 CALL HCHAR(5,3,130,3)
460 CALL VCHAR(1,7,139,24)
470 CALL VCHAR(1,26,139,24)
480 CALL HCHAR(21,7,32)
490 CALL HCHAR(4,26,32)
500 FOR L=8 TO 25
510 FOR I=1 TO HARD
520 CALL HCHAR(INT(RND*22+2)
    ,L,128)
530 NEXT I
540 NEXT L
```

```
550 PESTORE
560 ME,T=0 :: SH=1
570 FOR GAME=1 TO 6
580 READ POY,B,POX,A
590 CALL HCHAR(24,1,132,64)
600 CALL VCHAR(1,31,132,96)
610 CALL HCHAR(B,A,32)
620 CALL SPRITE(#1,129,2,POY
    ,POX,0,0)
630 X1=0 :: Y1=-4 :: GOTO 66
    0
640 IF Q=2 THEN CALL JOYST(1
    ,X1,Y1):: GOTO 660 ELSE X1,Y
    1=0
650 CALL KEY(1,K,S):: IF K=2
     OR K=3 THEN X1=SGN(K*2-5)*4
     ELSE IF K+1=1 OR K=5 THEN Y
    1=SGN(K-2.5)*4
660 CALL SOUND(-10,ABS(((X1*
    2)+Y1+9)*110),2)
670 T=T+.27 :: CALL POSITION
    (#1,Y,X):: SH=-SH :: CALL PA
    TTERN(#1,SH+130)
680 CALL GCHAR((Y+7)/8,((X+7
    )/8),C):: IF Y1=0 AND X1=0 T
    HEN 700
690 CALL MOTION(#1,-Y1*1.5,X
    1*1.5)
700 IF C<>32 THEN 720
710 IF (X+7)/8>26 THEN 800 E
    LSE 640
720 CALL DELSPRITE(#1):: FOR
    L=1 TO 30 STEP 5
730 FOR I=136 TO 138
740 CALL HCHAR((Y+7)/8,(X+7)
    /8,I)
750 CALL SOUND(-500,-6,L)
760 NEXT I
770 NEXT L
780 IF C=130 THEN CALL HCHAR
    ((Y+7)/8,(X+7)/8,130)ELSE CA
    LL HCHAR((Y+7)/8,(X+7)/8,32)
790 DISPLAY AT(2,1)SIZE(4):"
    EAST" :: DISPLAY AT(2,25):"W
    EST" :: CALL HCHAR(B,A+25,13
    4):: GOTO 810
800 ME=ME+1 :: CALL HCHAR(B+
    4,A+25,130)
810 CALL DELSPRITE(#1):: NEX
    T GAME
820 CALL CLEAR
830 PRINT "THE GAME LASTED F
    OR";T;"SEC.YOU GOT";ME;"MEN
    ACROSS.": :
840 INPUT "DO YOU WISH TO PL
    AY AGAIN?  (Y/N) ";QU$
850 IF SEG$(QU$,1,1)="Y" THE
    N 370
860 IF SEG$(QU$,1,1)="N" THE
    N 870 ELSE 860
870 END
880 DATA 33,5,33,5,33,5,25,4
    ,33,5,17,3,25,4,33,5,25,4,25
    ,4,25,4,17,3
```

```
100 REM *********
110 REM *PURSUIT*
120 REM *********
130 @=1 :: CALL CHAR(96,"1C1
    D097F5C5C1436",104,"3C7EDBFF
    BDC37E3C"):: CALL CLEAR :: P
    RINT "WELCOME TO THE GAME OF
    ":"  PURSUIT":"-------------
    ----------------": : :
140 PRINT "YOU ARE THE GOOD
    GUY (";CHR$(96);")";"AND ARE
     BEING PURSUED BY A STARVIN
    G GLOBULE (";CHR$(104);")"
150 PRINT "THE OBJECT OF THE
     GAME IS TOEAT ALL THE COLOR
    ED SQUARES BEFORE TIME RUNS
    OUT OR YOU ARE EATEN YOURSEL
    F!":"YOU MOVE BY PRESSING TH
    E"
160 PRINT "KEYS(W,E,R,S,D,Z,
    X,C,)": : : :: INPUT "PRESS
    (ENTER) TO BEGIN":A$ :: CALL
     CLEAR :: PRINT " SCORE ":"
    ===== =": : : :" COLOR POINTS
    ":" ----- ------": : :" GREE
    N      10": :
170 PRINT " BLUE      100": :
    " YELLOW    1000": : : :: INPU
    T "PRESS (ENTER) TO CONTINUE
    ":B$
180 CALL CLEAR
190 PRINT " LEVEL OF DIFFICU
    LTY":"-----------------------
    ------": : :"LEVEL     DEGRE
    E":"-----       ------": :" 1-
    3     VERY EASY": :" 4-6
    EASY": :
200 PRINT " 7-10      MODERAT
    E": :" 11-13     DIFFICULT":
    :" 14-18     VERY DIFFICULT":
    :" 19-20     IMPOSSIBLE": :
    :
210 INPUT "WHICH LEVEL? ":A
    :: IF A<@ OR A>20 THEN 210
220 CALL CLEAR :: INPUT "SCR
    EEN BARRIERS (Y/N)? ":C$ ::
    IF SEG$(C$,@,@)="Y" THEN 690
230 B=24 :: C=@ :: D=32 :: E
    =@
240 FOR F=@ TO 6 :: CALL COL
    OR(F,F,F)
250 NEXT F :: CALL COLOR(10,
    9,16,6,12,12):: CALL SCREEN(
    16):: CALL CLEAR :: RANDOMIZ
    E :: FOR F=@ TO 100 :: CALL
    HCHAR(INT(24*RND+@),INT(31*R
    ND+@),56)
260 NEXT F :: FOR F=@ TO INT
    (20*RND):: CALL HCHAR(INT(24
    *RND+@),INT(31*RND+@),64)
270 NEXT F :: FOR F=@ TO INT
    (10*RND)+@ :: CALL HCHAR(INT
    (24*RND+@),INT(31*RND+@),72)
280 NEXT F :: G=@ :: H=@ ::
    I=@ :: J=@ :: K=INT(24*RND+@
    ):: L=INT(32*RND+@):: M=INT(
    24*RND+@):: N=INT(24*RND+@)
290 CALL HCHAR(G,H,32):: O=O
    +@ :: IF O=300 THEN 650
300 IF K=0 THEN K=B
310 IF K=25 THEN K=C
320 IF L=0 THEN L=D
```

Jenny's YOUNGER SET under 18's page

```
330 IF L=33 THEN L=E :: GOTO
    370
340 CALL GCHAR(K,L,P):: IF P
    =56 THEN 630
350 IF P=64 THEN CALL SOUND(
    100,700,@):: S=S+100 :: GOTO
    370
360 IF P=72 THEN CALL SOUND(
    100,-6,@):: CALL SOUND(100,2
    00,@):: S=S+1000
370 CALL HCHAR(K,L,96):: G=K
    :: H=L :: PP=INT(RND+.1*A):
    : IF K<M THEN M=M-PP
380 IF K>M THEN M=M+PP
390 IF L<N THEN N=N-PP
400 IF L>N THEN N=N+PF
410 CALL HCHAR(I,J,32):: IF
    N>32 THEN N=32
420 IF N<@ THEN N=@
430 IF M>24 THEN M=24
440 IF M<@ THEN M=@
450 CALL HCHAR(M,N,104):: I=
    M :: IF K=M THEN 550
460 J=N :: CALL KEY(0,@,R)::
    IF @=87 THEN K=K-@ :: GOTO
    290
470 IF @=69 THEN K=K-@ :: GO
    TO 290
480 IF @=82 THEN K=K-@ :: L=
    L+@ :: GOTO 290
490 IF @=68 THEN L=L+@ :: GO
    TO 290
500 IF @=67 THEN K=K+@ :: L=
    L+@ :: GOTO 290
510 IF @=88 THEN K=K+@ :: GO
    TO 290
520 IF @=90 THEN L=L-@ :: K=
    K+@ :: GOTO 290
530 IF @=83 THEN L=L-@
540 GOTO 290
550 IF L<>N THEN 460
560 CALL CLEAR :: PRINT "YOU
    ARE EATEN!":"FINAL SCORE ="
    ;S
570 IF S<=T THEN 590
580 T=S
590 PRINT "HISCORE =";T :: F
    OR F=@ TO 8 :: CALL COLOR(F,
    2,16)
600 NEXT F :: CALL SOUND(100
    0,-7,@)
610 INPUT "PLAY AGAIN? ":D$
    :: O=0 :: IF SEG$(D$,@,@)<>"
    Y" THEN 640
620 S=0 :: GOTO 240
630 CALL SOUND(100,-3,@):: S
    =S+10 :: GOTO 370
640 END
650 CALL CLEAR :: FOR F=@ TO
    8 :: CALL COLOR(F,2,16)
660 NEXT F :: PRINT "TOO LAT
    E!":"FINAL SCORE =";S :: IF
    S>T THEN 670 ELSE 680
670 T=S
680 PRINT "THE HIGH IS";T ::
    GOTO 610
690 B=@ :: C=24 :: D=@ :: E=
    32 :: GOTO 240
```

O.K. Kids, here we go for another YOUNGER-SET PAGE and have I got some great news for you. I have a new Competition with fantastic prizes...

Before I share with you the prizes you can win, let's talk about what you have to do.

I want you to create a large picture, which will fit on the front cover of our Sydney News Digest. It should be a free-hand drawing, done with a fine black marking pen. You can draw anything you like, but let me suggest a couple of pictures you could work on...

(1) A picture of your TI computer on the desk, with screen, and Peripheral box and printer etc (if you have them).

(2) A large TV screen with a drawing of your favourite game on it, like Parsec, Chess or some other great game.

(3) You holding programming books and modules (self portrait).

or perhaps (4) How about one with Mum & Dad trying to figure out how to use your computer.

These are only suggestions, you can use them as guidlines, or create your very own masterpiece. The winner will have his or her picture reproduced on the front of this magazine, and you'll become famous all around the world, as this magazine is read by both members and Groups all over Australia, America, England, and many other countries. Now, the deadline that we want all entries in by, must be no later than Saturday 31st od August'85. You have almost 2 months to get your entry or entries in to the following address...

JENNY'S FRONT PAGE COMPETITION,
P.O. Box 595,
Marrickville.
N.S.W. 2204.

Now, what are the prizes... I have selected a very special module for the 1st prize called "MINOR 2045er" by Tigervision, which has been flown over from the United States just for this competition.

The 2nd prize is a cassette of assorted programs which I know that you'll enjoy.

Now, there is just one thing I must point out...if I get less than 4 pictures, MINOR 2049er will be put asside for another competition, so it's up to you. You can draw as many pictures as you wish to send me.
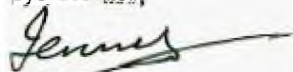
Here is my review of MINOR 20 49er..."Bounty Bob" is mining a radio active mine in the year 2049. Help him "claim" all the various stations (8 screens). Avoid contact with the deadly mutant organisms by running away, or hopping over them. Collect various articles left by prevous miners for bonus points. This game was NOMINATED "VIDEO GAME OF THE YEAR" by Electronic Games Magazine, and is action packed.

I have received 2 games on cassette by Colin Ahern of Northmead. One is a Space game and the other displays Fire Crackers. I have passed them on to Terry Philips, so he can place them in the Junior section of the MONTHLY SOFTWARE COMPETITION where he can win a cash prize plus a selection of his choice of any 3 programs from the club Library. Hi! Colin, good luck and thanks for your entries.

I also received a great little program which I have called CHURCH BELLS. This program was written by 14 year old Robert Davy. You can find the program somewhere else in this magazine, on the same page as the BIG GORILLA and BURGER TIME review.
Type it in, and enjoy the music of church bells. Keep those programmes coming in gang, it's always good to hear from you.
Bye for now,

Jenny

JENNY

SOFTWARE COMPETITION
NEW JUDGING SYSTEM
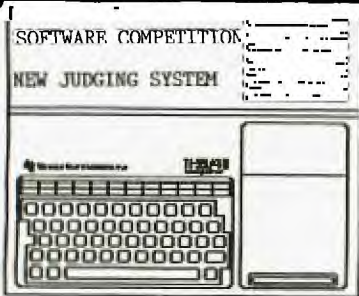
You may recall that sometime ago we published the rules and general guidelines that member written software needed to comply with in order to qualify as an entry in the monthly software competition. At the same time, we also advised the criteria which were to be used in the overall assesment of entries received. Now, some months later it has become necessary to re-evalutate the method used by the judges when arriving at their conclusions.

As you can appreciate, it has been difficult to compare an educational program, to one written in machine code and designed to put a Gemini-10X in to a flat spin! So, to ensure fair play, we just had to come up with a method of judging the entries that would result in the best program taking the prize! This is what we have decided to do:-

We have established 4 broad categories which we believe will cover most user written software. It is our intention that the authors submitting programs for competition purposes should at the time of entry nominate the categories in which the programs are to be judged. This will avoid the judges having to make the decision and ensure that a program is assessed in the correct, and intended, category. The categories are as follows:-

-ENTERTAINMENT
-EDUCATIONAL
-APPLICATIONS
-UTILITIES

Within each of these broad categories certain judging criteria have been established - these will be unique to the main category and will individually carry a differing degree of importance to the main category. Thus, working this way we will be able to put into perspective the difference between the obvious impact of a dynamic fast moving graphic display and say, the input/output facility of a Data Base program.

This is how we see these judging criteria within each category together with the "weighted" value of each:-

ENTERTAINMENT.

-Presentation....10%
-Ease of use.....15%
-Performance.....20%
-Originality.....25%
-Engrossment.....30%

EDUCATIONAL.

-Ease of use.....10%
-Special effects.15%
-Reinforcement...20%
-Rewards.........25%
-Concept.........30%

APPLICATIONS.

-Documentation...10%
-Ease of use.....15%
-Flexibility.....20%
-Data handling...25%
-Benefit.........30%

UTILITIES.

-Documentation...10%
-Ease of use.....15%
-Flexibility.....20%
-Benefit.........25%
-Necessity.......30%

As you can see, it is possible for a sub-category to be present in more than one of the main groups and carry a different degree of importance to the group in which it is used. Well, that part was relatively easy to establish. Now to the actual method of scoring!

A 5 (five) point scale has been established for each of these sub-categories. We see the scale as being LOW to HIGH. Points will be allocated according to the aspect being rated and according to the degree of "weighting" that this aspect carries in the overall group. To explain, a scoring grid would look something like this:-

GROUP: Educational

Aspect/evaluation	LOW	+/-	AVE.	+/-	HIGH
EASE OF USE	(2)	(4)	(6)	(8)	(10)
SPECIAL EFFECTS	(3)	(6)	(9)	(12)	(15)
REINFORCEMENT	(4)	(8)	(12)	(16)	(20)
REWARDS	(5)	(10)	(15)	(20)	(25)
CONCEPT	(6)	(12)	(18)	(24)	(30)
TOTAL is sum of/100	+	+	+	+	+

Not only do we intend that this method be used for evaluating the competition software we also believe that the authors of the software being rated should receive a copy of the overall assesment together with comments intended to offer some constructive suggestion as to program enhancement, encouragement and or advice generally. In so doing, we are confident that the already well received locally written software would reflect an overall higher standard.

In conclusion, by using this system of evaluation we will be able to "score" a program in the category to which it rightfully belongs according to those aspects deemed important to the category. The program gaining the highest score is thus the overall winner and ofcourse, gets the $50 monthly prize!

What do you think! It seems a fairer method to us - any suggestions?

PS. Those members who are interested in submitting programs for TI-SHUG members to enjoy could find that this system will enable us to reach a decision as to the "marketing" of superior programs for the profit of the author! (see the article
(NOW YOU CAN WRITE PROGRAMS AND PROFIT) Ed.

NOW YOU CAN WRITE PROGRAMS AND MAKE A PROFIT

PIRATES AHOY! You are the super-heroes of the software industry! Often intellectually way above the common man, cunning and devious you ply your trade with such efficiency that you are revered where ever you go! You're the most sought after super star of the 20th Century...all conquering and godlike. You've taken on the system and you're winning! CONGRATULATIONS!!!!! Well, I had to get that off my chest. In reality the pirate must rate lower than the serpent cast from heaven for his mindless, idiotic, perverted sense of fairplay. Do you realise what this person is doing to you, the TI.99/4A owner? Do you? This person is causing talented software writers to abandon our machine. These talented people, realising that they can no longer make a "quid", are having to look for other means to ensure their own survival. If this continues just who is going to write the programs that keep us going? In TI-SHUG we have some very talented people, who with the right incentive, would certainly produce some excellent programs. Where are they? I thought about our long term problem and came to the conclusion that TI-SHUG should have a system which would allow members to profit from writing software. At a committee meeting on May 21st, 1985 I proposed that there was a way for us, TI-SHUG, to do this. Bear with me while I explain. The vehicle I have selected is the monthly software competition. As you know all programs submitted are now judged according to a rating system, no matter which category the program is entered into. (Refer editorial on judging system) My idea is that, of the programs submitted, one or more could stand out as exceptional in quality, originallity and/or performance. These programs should be marketed by TI-SHUG for the benefit of the authors. Those that don't quite make it go into the library for general distribution and the best sold. This ensures that the incentive for writing software is high, as is the quality. It follows then that members are assured of nothing but the best! It is my proposal that authors should be able to expect at least $100 for their submission and, ofcourse, be in line for the $50 monthly winner prize. To make this plan work we should:-

a] develop and adopt a code of conduct in TI-SHUG which ensures that any software submitted is protected from unauthorised duplication and distribution. To this end maybe a change to the constitution is in order. This code should spell out the members' view on software piracy and facilitate expulsion from the group for non-compliance.
b] provide a suitable entry/rating form which should accompany any program being submitted. This form will be used to allocate points scored and be returned to the author with constructive suggestion for overall improvement. (if any at all)
c] define the level of points to be earned in order to qualify for marketing of the entry. According to the system, maybe 85/100, is a good starting point?
d] TI-SHUG then promotes the program which may be sold as an individual program or sold together with others of similar high quality. Profits are to be distributed to the authors.

Now, to make sure that the author has any chance at all of earning at least $100, members will be invited to order and pay for these programs in advance of delivery. These programs will only be distributed when sufficient orders have ben received to pay the author. Only when the required quantity has been sold will the authors receive payment and not before! Naturally, members will be asked to pay a little more for these programs, say $10 for a tape containing one to three superior programs, but then they are considered BETTER than the rest! I don't know the answer to the question of beating the pirates but I do know that I would appreciate these talented programmers staying with the TI.99/4A and am prepared to encourage them by making sure that they have a suitable incentive to do so. The committee is supportive of the proposal. What do you think?

FRED MORRIS (Asst. Librarian)

IMAGIC (Aust) IMPORTS NEW CARTRIDGES FOR YOUR TI

Over a month ago, Shane spoke with Don Dennis of IMAGIC about a number on new cartridge games he would like them to bring into the country. Don instantly sent a telex to the States asking for details about availability of these items. A reply came back shortly after, and arrangements were made to bring in those titles. So, within a month, the following cartridges will be landing in Australia in a limited amount of 50 of each title...and they are...

* CONGO BONGO * Q-BERT *BURGER TIME

Pure ARCADE quality fun games.

Also, because of public demand, the same quantity only, of the very popular * VIDEO CHESS cartridge will also be coming in, in the same batch and will be priced at $59.95 . Because there will only be a small amount of them coming in, it's recommened that you get your orders in for them. Write to ...

AUSTRALIAN SOFTWARE GUILD,
C/- P.O.Box 595,
Marrickville. N.S.W. 2204.

SPEECH and the MINIMEM
==========================

From TI-TIMES by Stephen Shaw.

Program framework (for timing purposes)

```
20 CALL INIT
30 S=-27648
100 FOR I=1 TO 1000
105 NEXT I
110 PRINT "START......."
120 FOR X=1 TO 20
130 REM TEST ROUTINE HERE
140 FOR T=1 TO 30
150 PRINT ">":
160 NEXT T
170 NEXT X
180 PRINT "END........"
```

This standard routine sets up a framework to test our
new routine in, and gives a basic time reference. NB
The times quoted are for my system, yours may be
different, but the ratios should be similar.
Running the above program, with the loop in line 140
running 30 times as shown takes 18.7 seconds from start
to end. If you change line 140 to loop just 20 times
the the timing is 12.7 seconds.
Now we can insert our two possibilities, the first of
which is only available using EXTENDED BASIC.

130 CALL SAY("#THAT IS CORRE CT#")

RUN the program again. If line 140 is looped 20 times,
the time taken is 44 seconds. If line 140 is looped 30
times, the time taken is 50 seconds. The time for
speech is constant, it adds about 21 seconds to the
program execution time.
Now for something completely different! This works on
the MINIMEM!!!!!!

```
130 CALL LOAD(S,70,"",S,65,"
",S,72,"",S,70,"",S,64,"",S, 80)
```

If you run the program, it says the same thing as many
times, but look at the execution time! 140 looped 20
times in 26.3 seconds and looped 30 times in 26.5
seconds!!! We know that looping 140 an extra 10 times
adds 6 seconds....so where have thos 6 seconds gone?
The CALL SAY routine holds everything up until it has
finished speaking. But using the CALL LOAD equivalent,
while the computer is speaking it gets on with the next
chore too....the dead time is used, and soaks up those
six seconds. Thus using the CALL LOAD equivalent, the
computer speaks faster, and also permits your program
to run more quickly if there is work for it to do
between speech outputs.
That's a clever demonstration! (IMPRESSED!!!). Now for
the theory. Refer to the EDITOR ASSEMBLER MANUAL pages
351, 355, 422 to 427
Address -27648 is the SPEECH WRITE address. We keep on
feeding it with bytes, and in due course the computer
speaks. The bytes to load are found out as follows:-
First decide what you want to say from the standard
vocabulary.The look in the table on pages 422 to 427 of
the EDITOR ASSEMBLER MANUAL for the address of that
word or phrase. "THAT IS CORRECT" is given as 6816.
This is the Hexadecimal number, and not a Decimal
number! The four numbers are reversed, and become 6186.
Now we offset them by Hex 40 and feed these in. As we
are dealing with Decimals with our CALL LOAD that means
we ADD Decimal 64 to each digit in turn.

```
(64+6)=70
(64+1)=65
(64+8)=72
(64+6)=70
```

(If the numbers were Hex A/F these have a Decimal value
as follows:- A=10 B=11 C=12 D=13 E=14 F=15)

Now we must indicate end of wording by loading a zero, again offset, thus
64+0=64. Finally we must instruct the computer to speak by loading Hex 50,
Decimal 80. Thus we have loaded in order, 70, 65, 72, 70, 64, and 80.
Check back the listing. Note the way CALL LOAD has been
used. A single command to load the same address with
numerous different values.
To assist you with your experimentation, here are some Hex addresses from the
manual. Remember to reverse them, translate to Decimal and offset!

```
6696...TEXAS INSTRUMENTS
56B3...READY TO START
1913...ANSWER
27B3...ELSE
39BD...INSTRUCTIONS
47C0...NAME
68FE...THAT IS RIGHT
7DDB...YOU WIN
1D82...CHECK
3148...GOODBYE
3793...I
49A5...NICE TRY
77E9...WHAT WAS THAT
17A5...AGAIN
1DA2...CHOICE
3571...HELP
37CF...I WIN
5093...PLEASE
1F1A...COMMAND
3757...HURRY
3AED...JOYSTICK
```

This is not only a useful programming aid in its own
right, but by demonstrating a part of the EDITOR
ASSEMBLER MANUAL'S sometimes complex instructions, it
should assist you when you are ready to move on to
Assembly Language proper.

PS. For those members using EXTENDED BASIC and who have
memory expansion the CALL LOADS referred to above may
be used. Don't forget to CALL INIT first!
(Fred Morris-Assistant Librarian)

REVIEW COLUMN by Keir Wells (KEIRLALOR)
****

Books are one of this world's most precious commodities. From them we can be entertained, enlightened and most of all educated. For this reason I shall attempt as often as possible to include in this segment of our magazine a review of a book or specific magazine that deals with our computer.

Before going into any reviews I would like to inform those amongst us who are continually on the look out for more TI books,of a small oasis in the middle of a TI literature desert. If you can make your way to Dymocks bookshop in George St, Sydney, head upstairs and I think that you will be pleasantly surprised. I found several titles dealing with the TI which I have listed below with the marked prices as at May 85.

Users Guide to the TI99/4A, Software and Peripherals	$ 2.00
The Best Texas Instruments Software	$ 3.50
Sprites, a Turtle and TI Logo	$23.95
Compute's Creating Arcade Games on the TI99/4A	$22.95
Programming Basic with the TI Home Computer	$25.95
Compute's First Book of TI Games $22.95	
Programmers Reference Guide to the TI99/4A	$25.95
33 Programmes for the TI99/4A	$20.95
Compute's Guide to Extended Basic Applications on the TI99/4A	$22.95
Compute's Guide to TI99/4A Sound and Graphics $22.95	

Unfortunately I did not get much of a chance to look thoroughly at all these books but if you do happen to be in the vicinity of Dymocks at some time, it would be well worth your time to pay their computer section a visit.

The first book that I will discuss is Compute's Guide to Extended Basic Home Applications on the TI99/4A which I have found to be a publication well worth the expense.

This book, written by Christopher Flynn, is broken down into eight logical chapters, comprising, Introduction, Extended Basic Techniques, File Management, Electronic Spreadsheets, Computer Graphics, Electronic Card File, Appointment Calendar and Putting it all Together.

The second chapter, dealing with Extended Basic Techniques, covers some of the unique features of Extended Basic. These range from the IF-THEN statement to Screen Formatting, Error Trapping and Programme Flowcharting. One of the main beauties is in the inclusion of sample programmes and subprogrammes which put into practice that which is covered in theory. Once again these cover a variety of subjects in order to further explain particular items.

The third and fourth chapters, File Management and Electronic Spreadsheets, explain in quite some detail the methods of setting up programmes for file and data management. As with the previous chapter there are samples to key in and become familiar with before proceeding on into greater depths. Included in the chapter on Electronic Spreadsheets there are two excellent programmes called Tiny Plan and Tiny Plan 2. IF you don't mind sitting down for hours at your console keying in lengthy programmes THEN it would be worth you while trying out these.

Computer Graphics, the fifth chapter, deals mainly with charts and has two more programmes (once again rather lengthy) that could be useful in a variety of applications. Each of these programmes is well discussed and explained by means of programme structure, explanation of variables and examples.

Chapters six and seven, Electronic Card File and Appointment Calendar deal generally around the programmes that are contained therein. If there is one programme that I would recommend most highly in this book it is the Card File. There are two versions listed, the first being for cassette based systems and

the second for those with disk drives. Both programmes have the option provided for those with printers.

The final chapter as previously mentioned is titled, Putting it all Together. It contains programmes for System Menu, System Catalog and a very useful Error Recovery subprogramme.

Unfortunately I have not been able to deal with this book in as much detail as I would have wished so all that remains is for you to at least browse through a copy, whether bought or borrowed and see for yourself the usefulness of the material contained within. Continuing along the line of 'passive' games, this review deals with the module OTHELLO, one of the most underrated games for our computer. There are no space ships to manoeuvre nor are there monsters attempting to devour you, there is only a grid with black and white markers.

Othello can be played by either two people or one person challenging the computer. It is a game of strategy and skill and requires not just a bit of common sense.

The aim of Othello is to outflank your opponents' coloured discs with your own thereby in effect flipping them over so that they become your colour and your discs. Obviously, the player with the greater number of discs at the end of the game is the victor.

If you wish to observe a demonstration game, select option two on the menu, and simply wait approximately 30 seconds and the computer will commence playing a game against itself.

After the demonstration game the computer will prompt you for the general conditions of play, whether you wish to create a game in progress, play against the computer and the level of difficulty required if your opponent is the computer.

When all options have been selected the game commences. The screen displays an eight by eight grid game board with four coloured discs positioned in the centre, these being the mandatory start positions. Along the top of the grid are the letters A – H and down the left hand side it is numbered from 1 to 8. For those that may not have played with a computer board game before, these enable you to enter co-ordinates that the computer understands. At the bottom of the screen there are two boxes, the left box containing a black disc and the right, a white disc. These are the score boxes and below the disc is displayed the current number of discs corresponding to the colour. During play, a small black square will indicate whose turn it is by positioning itself above the respective score box.

One of the real beauties of this game is the computer aid function. This can be accessed by a player whose turn it is by pressing FCTN 7. If you are playing against the computer you are offered five aids. These five are, change level of play, legal move display, computer advice, switch sides with the computer and resume game play. Playing against another person you can only access legal move display and resume game play.

The booklet which comes with the module contains rules of the game and tactical tips and it would certainly be advisable to read these thoroughly before commencing the game.

This game, whilst not having brilliant graphics (which are hardly required) or harmonious music could well be described as one of the better games for the TI and I can not recommend it highly enough. It is a stimulating game and a worthwhile addition to any module library.

** If you wish to have a particular module or book reviewed in this column please nofity me by either leaving a message on our BBS for KEIRLALOR or writing to:- REVIEW COLUMN, PO BOX 595, MARRICKVILLE, NSW, 2204.

```
\```````````````````````````````````
`
` N E W   T I   C O M P A T A B L E !  `
`                                      `
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```

The following article has just apeared in the latest
issue of the Channel 99 User Group magazine from Canada
by W.M.Johnson.

The new Computer should not be called a Texas
Instruments,as it is made by MYARC. Although it uses
T.I. chips the computer is a MYARK (designed and
built). We've all heard about this wonderful computer
from Cor-Comp,but like it's name 'THE PHOENIX' it's
only a myth. Computing on myths is extremely
difficult.
When I spoke to Cor-Comp they were full of excitement
about this mythological creature. Five telephone calls
and two years later the Phoenix is still ashes in the
imagination.
Is Myarc's computer also just a myth? The I.B.M.PC Jr.
was written up to be the best thing since sliced bread.
When I first played with one it reminded me of bread
(crummy). This can be said for just about all the new
wonder machines that have been dreamed up in the last 3
or 4 years. The pre-advertising is so great that the
thing itself is a real letdown.
I don't want to go into technical details why all these
machines have not been so great,sufficed it to say the
companies offer the Moon and deliver a meteorite. Most
machines are over priced and under designed. The old TI
was over designed and now it's under priced.
After two very long and costly conversations with Myarc
on the phone, I was told very little. They feel there
is great danger in building a reputation for a computer
that is not even weaned.

ME: Do you have a new computer , or not?

MYARC: Yes we have built several of the one model,and
it will be announced at the June computer show.

ME: Is it compatible with the 99/4A?

MYARC: Yes,the new machine is based on the defunct
TI-8. It is not a TI-8. We have revamped the system and
have tried to make it compatible , in order to enter an
existing market.

ME: Can you tell me more,what is the size of the RAM
What will it do.

MYARC: No! It's not really a secret but we do not want
this machine spoiled before it is born. The ram will be
more than 80K , it's a 16 bit machine. Bench mark tests
have shown that it's about 60% faster than the
I.B.M.PC. 95% of existing software will be compatible.
It has a cartridge port,and will plug into the T.I.
expansion system.

That's about all the facts I could get from them,though
I did get some under the counter impressions. It would
seem that the Voice Synthesizer will not work on this
new machine. Extended basix will be of little use as
the language built-in is far above ANSI basic.

No one will talk about the price,but this machine will
have a proper keyboard,that generally indicates BUCK$.
It seems the computer does exist and will be on the
market quite soon,it will be as the new Commodore,and
Atari a poke at Apple,not really a home computer.
Not to end on a sad note the new MYARC computer will
have power , speed , and sprites , I guarantee it will
knock the socks of the competition , after all it will
be better than the 99/4(A) and the 99/4(A) is still
better than any machine at twice the price.

COMMENT BY SHANE: O.K. So this sounds like good news.
But when it is officially introduced on the market in
America , who will bring it to Australia? Will IMAGIC
bother? They are getting into the new range of MSX
systems just coming on the market here.  I know that
IMAGIC has taken over the headache from TI and has
warehouses full of TI stock,and I personally feel it
would be in their interest,as well as ours, to take on
the MYARC...but I really believe that the whole thing
really comes back to us! If all of us wrote to IMAGIC
both here in Australia and thier head office in the
States,asking them to continue their support and bring
the MYARC to Australia then perhaps we stand a chance
of keeping our computer alive. But your lazy &
apathetic attitude will be the down-fall of our TI as
we know it in Australia. Strong words I know , but time
will tell.

Come on gang! lets get those pens & paper to work...and
we'll never regret it.

SHANE (FOUNDER/EDITOR)

## TIGERCUB TIPS FOR BEGINNERS
***************************

Don't use EDIT! There are two ways to bring a program line to the screen. You may type EDIT, the line number, and press Enter...or you may just type the line number and press FCTN together with the down-arrow or up-arrow key. But when you graduate to Extended Basic, you will find that you can only use the second method. Then, while you're trying to break the EDIT habit, you are apt to get confused, type the line number, hit Enter...and delete the line entirely!

Don't waste time and memory typing LET. The computer understands X=1 just as readily as LET X=1. You don't have to leave a space after the line number - the computer will do it for you. In Extended Basic, you don't have to leave a space before and after the :: statement separators - the computer will do that for you too, shoving the statements onto additional lines if necessary. When programming in Basic, don't use character sets 15 and 16 (ASCII codes 144-159) unless you really need them for colors or redefined characters. And if you use multiple colons :: to scroll the screen, put a space be- tween them : : (or better yet, :;:;:). Then your pro- gram will usually also run without modification in Ex- tended Basic.

If you have the Extended Basic module, why not leave it plugged in and select the Extended Basic option even when you are programming in Basic? This will allow you to type 5 lines on a line number (unless you put too many short items in a DATA statement), and the Extended Basic will accept input of your program lines much faster, especially when the program gets long. It also accepts changes and deletions much more quickly, and is especially useful when you want to delete a large number of lines. It will quickly tell you how much memory you have left with the SIZE command (but you'll have more in Basic) and will bring your rejected input back to the screen for correction, with FCTN 8. It will also run your program, if you stay away from char- acter sets 15 and 16 and watch those double colons. In Basic, you can write 100 PRINT "HELLO"::::::::::: "GOODBYE" to scroll between lines of print. In Extended Basic, the double colon :: is used to separate multiple statements. When you load a Basic program in Extended Basic, you will usually find that the computer will re- arrange the colons "HELLO" : : : : "GOODBYE" and run the program properly. But some- times, especially if you put colons in front, as 100 PRINT :::"HELLO", the computer may become confused and give you some very puzzling error messages. On rare occasions it may even rearrange the colons into strings of double sets :: :: and that will lock it up completely! So, even when programming in Basic it is a good idea to separate your colons : : : - or better yet, :;:;: or :@$:@$ To get the computer to read the CALL KEY input as upper case letters, even if the Alpha lock is up, just use key-unit 3 - CALL KEY(3,K,S). And to can- cel it, use key-unit 5.

To get the computer to hold 24 lines of text on the screen without jumping the first line off the top, just put a semi-colon at the end of the 24th line. You don't have to RESTORE anything with the RESTORE statement. In other words, you don't have to READ a DATA statement before you can RESTORE it. You can write your program to optionally or randomly RESTORE any of your DATA statements and thus to begin reading DATA from any DATA statement. TI Basic will let you use @ in a variable name. I never use it in a program, but I do try to remember to use it in temporary debugging routines, in util- ity routines which I will save to merge or build other programs around, in modify- ing other people's programs, etc. That way, I don't breed new bugs by duplicating a variable name that is al- ready in the program. Are you tired of that blankety blinking black cur- sor? This won't work in Basic but if you're in XB try 1 CALL COLOR(0,11,1) - or any other color combination.

Have you ever spent an hour looking for a bug, and finally found that you had typed a O for an 0, or vice versa? I'll never understand why Texas Instruments didn't slash the O. You can easily do it with this line, 1 CALL CHAR(48,"003A444C546444B8"). Trouble is, any redefined character with an ASCII code below 128 will only be re- defined while the program is running, so your O's will still be unslashed while you are keying in a program or listing it. However, you can add a temporary line 2 GOTO 2, then key in or list a screenfull of program lines, type RUN, and watch to make sure that all your O's become slashed and your 0's do not. Here is another handy de- bugging routine. Right after the first CALL CLEAR, put in these temporary lines: 101 FOR @=1 to 4 102 CALL COLOR(@,16,1) 103 NEXT @ 104 GOTO 104 Then type LIST. As soon as the first lines have scrolled to the top of the screen, stop the list with FCTN 4. Type RUN. All the numbers and punctuation will turn white. Check for I's instead of 1's and O's in- stead of 0's or vice versa, equal numbers of opening and closing parentheses, misplaced commas, etc. Then break with FCTN 4, LIST (the last line on the screen) and hyphen, Enter, stop it again, etc. Have you ever been typing in a program, and the compu- ter suddenly jumped back to the title screen, and you were sure that you didn't have a finger anywhere near that infernal QUIT key? But maybe you were drinking cof- fee with one hand and trying to press FCTN 1 with the other? So, if you don't have anything valuable in the computer right now, try pressing FCTN, space bar, H and N all at the same time. Oops! There are other combinations that will do the same. Another useless bit of information - try FCTN, 5, 6 and 7 all at the same time. Break! However, if you have Ex- tended Basic and Memory Expansion, you can avoid these problems with Craig Miller's great discovery - CALL INIT :: CALL LOAD(-31806,16). Type that in before you begin programming, and you will never again lose a program to that d...n FCTN = key! Also, put it in as one of the first prwgram lines and your program will be kidproofed against the open- palm press-all technique.



HOW DO I SHOP AT THE TI.S.H.U.G.SHOP?

Well, there are many ways in which you can contact our very own NON-PROFIT club shop.

For those who can get to the monthly club meetings, you'll see it set up there.

If you can't get there, then you can use the MAIL ORDER FACILITIES available to you through the postal system, and if you have a modem (telephone link-up to your computer) you can order Club Shop items via it's Electronic Shopping feature.

Simply read the TISHUG SHOP Column in the SND or on the club Bulletin Board Service (CBBS) and away you go.

For further details, contact Terry Philips (7:30pm-9:30pm) most week-nights and week-ends on (02)7976313, or write to CLUB SHOP, P.O.Box 595, Marrickville, N.S.W. 2204.

# THE CUT-UP PAGE

ON THIS PAGE YOU WILL FIND SEVERAL
USEFUL CLUB FORMS. IF YOU DO NOT WISH
TO CUT YOUR NEWS DIGEST YOU MAY USE A
PHOTO COPY. MAIL-ORDERS, CLASSIFIED
ADS AND BANKCARD AUTHORISATION MUST BE
ON THE APPROPRIATE FORM.

## TISHUG SHOP MAIL-ORDER FORM

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MARRICVILLE,2204

Please foward the
listed items to:-

name:_____

address:_____

_____ p'code____

I enclose:-
  bank-cheque
or money-order
or bankcard-authority

for the sum of _____
  $_____
_____
SIGNED:-_____

| ITEM | : | COST |
|------|---|------|
| | : | |
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| | : | |
| | : | |
| | : | |
| TOTAL AMOUNT | :$ | |
| | : | |

## TI.S.H.U.G MAIL ORDER FORM

BANKCARD & MASTERCARD are welcome at TI.S.H.U.G.
Use this form for the following...

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[_]Renewal or [_]Membership Fee,
[_]BBS Registration Fee, [_]Donation for_____.

Account
#[_][_][_][_][_][_][_][_][_][_][_][_][_][_][_][_].
Expiry Date:[_][_]/[_][_]/[8][5].
Minimum Transaction $5.00

I hereby authorise TI.S.H.U.G.(AUST) to charge my
[_]BANKCARD/[_]MASTERCARD account, the sum of
$[_][_][_].[_][_].

Signature:_____.
If I.S transaction, please list your PASSWORD & NUMBER:
[_][_][_][_][_][_][_]_[_][_], #[_][_][_].
As per order placed on TEXPAC-BBS to the attention of
TISHUG.

✂ CUT ALONG HERE

REGISTRATION FORM TO USE THE 'TEXPAC BBS' (Electronic Bulletin Board Service)

Featuring: *Electronic Shopping, **Electronic Mail, *FREE Software Downloading,
  *International & Local TI News, *Programming Hints, *Jokes,
  *Personal Adverts, *Competitions, *Younger Set on Screen etc.

I wish to Register to operate the TEXPAC BBS, please record the following
details that I have PRINTED below...

NAME_____ ADDRESS_____

PHONE(  )_____ Aprox AGE____. _____ P/Code____.

I have chosen as my USERNAME |_|_|_|_|_|_|_|_|_| to be used for
Electronic Mail etc. (Any NIC-NAME can be supplied other than your own name).

Please find enclosed $5.00 Registration/Service annual Fee.

I own a (MODEM/BAUD RATE):_____.

DATA STORAGE:Please tick...(  )Disk Drive, (  )Cassette, (  )Printer.

I am interested in down-loading the following types of programmes:

(  )EDUCATIONAL, (  )BUSINESS, (  )GAMES, (  )OTHER:_____.

I agree not to use this system in any way, which would bring TI.S.H.U.G  into
disrepute, and will be thoughtful to others by not HOGGING the line.

Signed:_____. Alternative Username:|_|_|_|_|_|_|_|_|_|

MEMBERSHIP Expiry date:___|___. Photocopy of Membership card attatched.

-----------------------------------------OFFICE USE ONLY-----------------------------------------

DATE-RECEIVED|__|__|__. USER NUMBER SUPPLIED:___|___|___.

PASSWORD SUPPLIED:__|__|__|__|__|__|__|__|__|.