# TIsHUG NEWS DIGEST

Focusing on the TI99/4A Home Computer

Volume 13, Number 3 April, 1994

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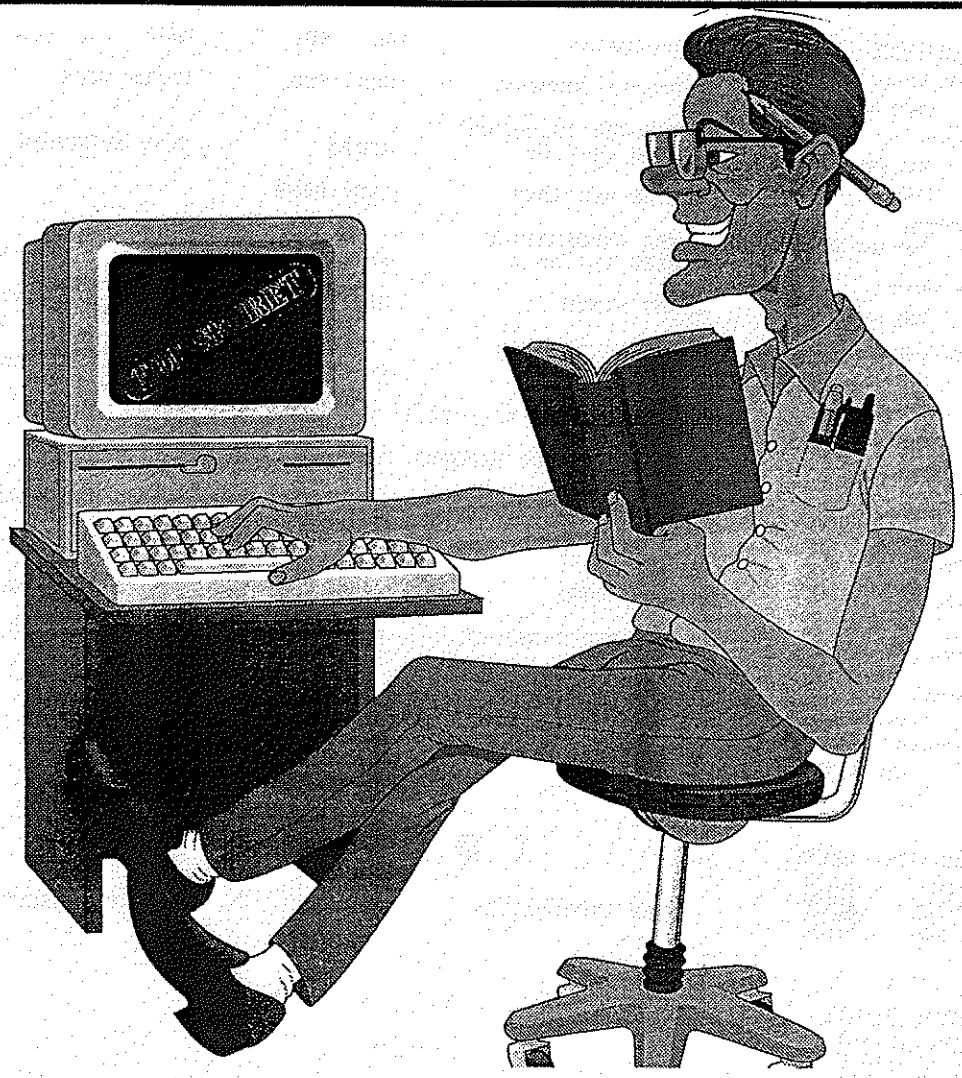

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TIsHUG (Australia) Ltd.
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C/o 3 Storey St.
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TIsHUG Sydney Meeting

The April Meeting will start at 7-0 pm on the 9th April 1994 at Meadowbank Primary School, Thistle Street, Meadowbank.

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# I B M I N D E X


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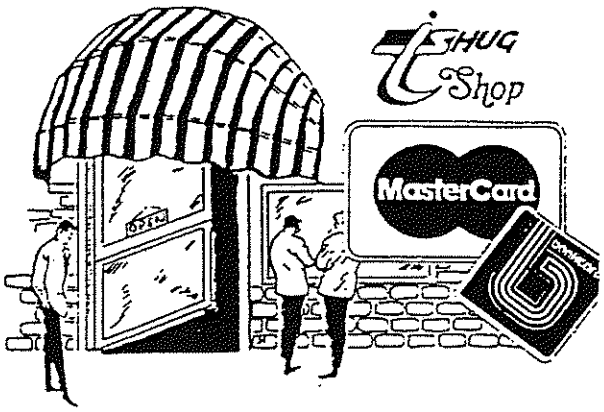



## TIsHUG SHOP.

with Percy Harrison.

Firstly, let me say how sad it was to hear of the passing of Jim Peterson who died on 12th January 1994. Jim, as most of us would know, has supported the TI communities, both in the USA and abroad, for many, many years and was regarded by most clubs and their members as the father of the TI99/4A. His continual dedication to the TI community over the years provided many programs, tips and other software to users throughout the world and we are all indebted to him for his valiant efforts. To his family and friends go our deepest sympathy in their time of great loss.

Last month a console was donated to the club and before putting it into stock I decided to check it out to make sure that all was working as it should. Everything worked fine until I tried the function key which gave no response at all so I had to strip the unit down to find out why this key would not work. For reasons unbeknown to me I discovered that the previous owner had disconnected the wire going to the function key terminal on the edge of the board (pin 6) and inserted a diode. On removing the diode and connecting the cable back to pin 6 everything worked fine. Can anyone offer me a reason as to why someone would go to the trouble of inserting a diode in the circuit at that particular place and for what reason was it done?

At the March meeting our sales of surplus items was quite successful as we were able to make a considerable reduction in slow moving stock. However, we still have a few items left should any of our members be interested. If so they should contact me on 808 3181. Items still available are:

| | |
|---|---|
| Stand Alone modems - 300 Baud | $15.00 |
| PE Box Modems - 300 Baud | $20.00 |
| Stand Alone 5.25 Drive - | $25.00 |
| PIO Interface for Console - | $20.00 |

This last unit enables the use of a Parallel printer direct from the console without the need for a PE Box.

Bye for now.

## CO-ORDINATOR'S REPORT

Over the past two months I have discussed the remarkable developments in computer technology. While we have made incredible progress in computer development, this progress has a flip side. There is always a cost for development. This really came home to me recently after looking at the cost of purchasing an inkjet printer for the editor and the TND. The cost of the printer was comparable to other quality machines, but the ongoing cost we are now locked into, has surprised me. The inkjet has a detachable print head and ink cartridge. The cost of a new cartridge was 43 dollars. We have now bought two cartridges, and we have used approximately only 500 sheets of paper. This Hewlett Packard inkjet printer has cost us about 16 cents per sheet to print. I spoke to sales people at the recent show, and complained about the cost but they didn't want to know. I approached Cannon and asked about the cost of running the BJ2E. They admitted that the normal cost per sheet is about 10 cents.

In a recent article in PC User, they pointed out that many of the inkjet costs are grossly underestimated by the manufacturers, as they quote figures based on only 30% paper usage. While normal printing cost are rising fast, colour printing costs are even higher. We can now buy colour printers relatively cheaply, but the new printers, using new technology, now have very high printing costs. I used to think that 20 cents per page on a colour dot matrix was dear. The cost now of colour lasers, seems to range from $1.00 at the low end to over $3.00 at the dearer end. It is quite clear that as we move further and further, the costs are rising very sharply. On principle now, I will not buy printers which have high operating costs. If one is willing to accept a slightly lower standard of presentation, eg on a 24 pin dot matrix, the cost of printing is relatively cheap.

It is clear that as we develop faster, people become more dependent on the technology, and are unable to choose suitable alternatives. While technology is new it is dear. Obviously, if we are prepared to "sit off the pace" and accept the older technology, we can function much more cheaply. The faster we develop, the faster more recent technology becomes obselete. If we wish to always be up to date, we will pay for the privelege. Updating regularly is costly. Computer gear loses its value very quickly. It becomes less valuable, not because it loses its usefulness, but because it is superceded. My understanding is that our Taxation Dept. allows about 37% depreciation per year. If you choose to always have the latest development, it will cost you dearly.

However, there are other much more fundamental costs if we move with the times. The more versatile computers become, the wider is their application and usage. The more indispensable they become, the more time we spend with them. In fact, because of the nature of the beast, some of us spend an inordinate amount of time. Some of us become addicted to their use, because they have so many facets which appeal to us. For some users, they become far more important than is good for us. They can replace face

to face communication, eg with E Mail, or modem. They reduce our time to do other things. For some, they reduce exercise, activity, sport, other interests. For others they replace normal interactions with people. It is hard to talk to someone who is addicted to playing games, or programming etc. They reduce our need and opportunity to talk with other family members. They might even become a substitute for sex. In-stead of having to plead that we have a headache tonight, we can say quite simply that we have work to do on the computer. I wonder what some wives or husbands think of their partner's computer. I suspect that in some cases, computer addiction could become grounds for divorce.

While children can learn to use them really well at an early age, children can also be addicted. Where they become all important for children, they must lead to an unbalanced life style. Children need communication with real people,and lots of physical activity, else they are stunted in their development. The spread and usage of the games machines, is of real concern to educators. The primary issue is the amount of actual time spent playing them. For developing children, it can be time wasted, because the children are not being exposed to other necessary learning experiences. The other major problem with games machines, relates to the quality of the actual programmes available. A child told me yesterday that he spends lots of time playing a game where peoples' heads get ripped off their bodies. He explained to me patiently that this is the object of the game. We must be vigilant about the quality of the programs available for our children.

However, for those who can balance out their lives, and use a computer productively and satisfyingly, as well as maintain good interpersonal relationships, the computer offers endless delights. The updating can be a learning experience, and relatively cheap if done sensibly. TiShug members have such an advantage over some other users. Computer usage becomes a social activity, where information is shared, advice is sought, and help is given. Ways to reduce the costs are shared among members. A member told me recently eg. that ink cartridges can be refilled with plain Quink ink at minimal cost. Our club is composed of people, not computers. This year, our activities will gradually change, as we try to keep up with the changes all around us. Notice our programme for the year. Come and join us. If you can help us to help other members, tell us how. We need members who will bring their systems along to meetings. If you can bring a system, let me know. TI or IBM machines will both be appreciated. But most of all, come yourself, each month, and join in the fun.

See you at the next meeting

Dick Warburton

EXPLORE

NEW

TERRITORY

## April Software File

### By Larry Saunders

```
Diskname G069
Total Sectors 358  Free Sectors 0
Date APR1994 Files 16

Games disk.  Space agressor, is a space shooting game.
Night Blockade, is a game that you have to gun
replacements to protect a city.
Kaboom, Catch the bombs in the pale of water. Killer
Caterpillar, Try to destroy the caterpillar before it
gets you.
Meteor, another space game.
Multi-Maddness, figure out the numbers to go into the
nine squares in the least amount of moves.
Pie Ring, knock the ape of the wall without getting hit
by the fruit.
Tic Tac Toe, a very good version of this classic game.

Gridder
=======
Requirements
------------
TI-99/4A
Mini Memory module
Joystick.

Loading the program
-------------------
  Select TI BASIC, load the program and RUN it.
  It will install Gridder in the Mini Memory module and
automatically return to the master title screen.  The
game and its high scores will remain available as long
as the module's contents aren't erased.

Running the program
-------------------
Select 3.Mini Memory,
       2.Run and press <enter>.
  The title screen with the high scores should appear
now.  You can select the level by moving joystick #1 or
#2 up or down (1=very slow, 9=very fast), and a screen
by moving it left or right (A=fairly simple, X=most
difficult).  Then press the fire-button to start
playing.

  You control the white face that is constantly moving
across the grid with the joystick.  The object is to
color all the lines of the grid by moving over them.  If
a square is surrounded by colored lines it will turn
blue and you receive points in accordance with the level
you're playing on.  All the squares have to be colored
within the given bonus time.  To make life more
difficult you are chased by two other faces.  You loose
one of your five lives every time one of them catches
you.  By pressing <fire> briefly you can place a star as
a temporary obstacle.  This will cost you some points
however.  From time to time one face will leave behind
an apple.  Eating it will provide you with an extra
life.  If you complete a screen the bonus time will be
added to your score.  If you break a high score you can
enter your name, up to 6 characters long and using
letters only.  Any other key will act as backspace key.

Conditions
----------
This program may be distributed freely.  It is provided
"as is" and comes with absolutely no warranty.

More information
----------------
   The program has been written using the Mini Memory
module, the line-by-line assembler and a cassette
recorder.  Although not as elaborate as many other games
it fits entirely inside the 4K module RAM, which is a
feat on its own.  If you have any comments, please
contact the author at the address below.  Have fun! Eric
Lafortune E-mail: ericlcs.kuleuven.ac.be  Snail-mail:
Rijweg 120 3020 Herent Belgium
```

Disk G069

| | | | |
|---|---|---|---|
| GRIDDER | 20 Prog | GRIDDERDOC | 12 d 80 |
| KABOOM | 15 Prog | KILL | 33 Prog |
| KILM | 19 Prog | LOAD | 5 Prog |
| MET/LOAD | 2 Prog | METEOR | 44 Prog |
| MULTI-MAD | 19 Prog | PI-RING | 42 Prog |
| PIELOAD | 2 Prog | ROOT | 28 Prog |
| TICTACTOE | 23 Prog | TURBO-RACE | 28 Prog |

Diskname AT070
Total Sectors 358 Free Sectors 2 Date APR1994 Files 17

TI-Artist Fonts and Boarders. The boarders are the top left corner only, they can be made into the other three corner with TI-artist.

Disk AT070

| | | | |
|---|---|---|---|
| B11_I | 9*d 80 | B12_I | 7*d 80 |
| B13_I | 8 d 80 | B14_I | 2 d 80 |
| B15_I | 2 d 80 | B16_I | 4 d 80 |
| B17_I | 8 d 80 | B18_I | 10 d 80 |
| B20_I | 3 d 80 | CURVED_F | 19 d 80 |
| HAFNHAF_F | 30 d 80 | LAFAYETE_F | 54 d 80 |
| NEW3D_F | 45 d 80 | PLUSTYP_F | 17 d 80 |
| PRISMA_F | 52 d 80 | ROUNDED_F | 46 d 80 |
| SCROLL_F | 40 d 80 | | |

Diskname U071

Utility disk. The new version of DM 1000 version 6.1 Also on the disk is Mcopy and Track Hacker.

Total Sectors 358 Free Sectors 25
Date APR1994 Files 9

Disk U071

| | | | |
|---|---|---|---|
| DMDOCPT1 | 81 d 80 | DMDOCPT2 | 79 d 80 |
| DMDOCPT3 | 46 d 80 | LOAD | 5 Prog |
| MCOPY | 9 Prog | MGR1 | 33 Prog |
| MGR2 | 27 Prog | ROOT | 28 Prog |
| TH | 25 Prog | | |

Diskname P072
Total Sectors 358 Free Sectors 0
Date APR1994 Files 25

Page Pro Pictures and some Page Pro programs.

Page Pro 99 Device Name Utility is a utility program I wrote to convert all the device names on the Page Pro example disk from DSK1 to WDS1.PAGEPRO (the directory on my hard disk where I put all the examples). This allowed me to load all the example pages without getting I/O errors, or having to use the method detailed in the manual for getting around this problem. I also used it on the three program files to convert all the default DSK1 prompts to WDS1.PAGEPRO prompts.

The utility is really very simple. It reads each sector of the disk on the drive you specify and searches for the string DSK1. If it finds the string, it replaces it with the device name you specify, and corrects the device/file length byte. The program uses low level disk controller sector read/write routines. It has been tested on a CorComp controller on the Geneve, a Horizon RAM disk on the Geneve and a TI controller on the TI99/4A, but it should work on any controller. It has not been tested on the hard disk controller.

To load the program from the Editor/Assembler use option 5 with a file name of UTIL1. To load from Extended Basic, load and run the program LOAD. It will autoload from Extended Basic, of course, if the disk is in drive 1.

To convert a disk, make a COPY of the disk you wish to convert and place it in any disk drive. Load the program. The first prompt asks for the device name you wish to replace DSK1. Enter any legal device name including hard disks with subdirectories. For example, the following are legal device names: WDS1.PAGEPRO, WDS2.GRAPHICS.PAGE, DSK2, DSK6. Do not enter a period after the device name. The next prompt asks for the drive number that contains the disk you wish to convert. This must be a DSKx drive where x can be any number from 1 through 9. The last prompt will ask if everything is OK. You can enter Y for yes, N for no or Q to quit the program. If you enter N, then you will be put back to the first prompt. If you enter Y, the conversion will begin. You will not be able to stop the program once the conversion begins, unless an I/O error occurs.

The bottom of the screen contains a "window" that shows information about what is happening in the program. If an I/O error occurs, the error code and sector number will be displayed in the window. Since the program is modifying data by writing to individual sectors, all errors are considered fatal, and the only out is to abort the program and return to the color bar screen. The file will probably have been damaged if a real I/O error occurs (as opposed to an error caused by the wrong drive #, or not closing the door or some such thing). DO NOT USE YOUR ORIGINAL DISK. Always use a copy of the original. I deny any responsibility for file damage caused to any disk by this program. Use it at your own risk. Also be aware that the program will modify ALL occurrances of DSK1 found anywhere on the disk. If there are files on the disk that you do not want changed, remove them from the disk before running this program. The program also assumes that files are NOT fractured. If there are fractured files, and DSK1 appears at the end of a sector, and the file name appears on a non consecutive sector, sectors will be damaged. A non-fractured copy can be created by initializing a disk, and doing a file copy from the master (NOT a sector copy).

After the disk has been converted, it can then be copied onto your hard disk, or used as is in the drive it was made for.

You may copy and distribute this program freely provided all files, including this README file are provided on the same disk. While I do not consider this program Fairware, any donations would be gratefully accepted.

Richard W. Lauhead
3985 Clover Avenue
St. Paul, MN 55127

Disk P072

| | | | |
|---|---|---|---|
| *RENDOCS | 21 d 80 | CHARACTER1 | 17 I 13 |
| COBRA | 14 I 13 | DRAGON | 6 I 13 |
| GALDIATOR | 16 I 13 | GANGSTER | 13 I 13 |
| HULK | 9 I 13 | JETPACK | 8 I 13 |
| LOAD | 5 Prog | PLANE | 9 I 13 |
| PP-COL2 | 30 Prog | PPT#1 | 42 d 80 |
| PRINTER | 6 Prog | RACECAR | 10 I 13 |
| RAID | 27 I 13 | RAMBO | 19 I 13 |
| RENLOAD | 18 Prog | ROMAN/PIC | 20 I 13 |
| SAMUI | 11 I 13 | SHARK | 6 I 13 |
| SKINDIVER | 10 I 13 | SPIDER | 6 I 13 |
| TANK | 15 I 13 | TYRE | 5 I 13 |
| UTIL1 | 15 Prog | | |

END OF ARTICLE

## BBS HELP BBS HELP

5/10/1986, latest update - 25/1/92.

This is quite an old file which has been partially updated to get it back on the system.

1. When listing files, by pressing the E key you have been able to Escape from reading the file. This has now been extended to menus. If the main menu or the news menu is being listed then press E once and follow the resulting message. If the display freezes when using E try the <ENTER> key then E again, (without pressing <ENTER>).
You can also pause a listing with <CRTL> S and restart listing with <CRTL> Q .

The BBS will automatically convert lower case to upper case when upper case only is valid.

Commas and quotes may be used freely in mail.

Users are requested to limit sessions to 60 minutes with at least 30 minutes break between successive sessions to allow others a chance to log on.

After reading any file the prompt is:

[M]ain[#], [N]ews menu on News # >

You may enter M for the Main menu, M# where # is any number from 1 to 9 to go directly to that Main Menu item, N for the News Menu or any number in the current News Menu to go directly to that file.

2. The BBS program now resets on loss of carrier. Part of this feature is that you may type END (using upper case) to rapidly terminate your session on the BBS. (This does not work from mail).
The carrier loss reset now works on option 2, program download.

3. BBS TIMEOUT.
a) The BBS will time out with lack of activity and disconnect the modem from the telephone line. This time out will occur at least 9 minutes after the last activity and the telephone call will time out and be automatically disconnected by the telephone exchange a further 90 seconds later. There will be no warning given of an impending forced release.

b) The Watchdog timer is set to 12 minutes and if it senses that the BBS has failed it will prevent the modem from answering after 12 minutes has elapsed. If the BBS

fails whilst in use it will just fail to respond, there will still be a carrier from the modem. If the system is called again the modem will still answer then no BBS response, until the watchdog switches the modem off after 12 minutes.

4. PROGRAM DOWNLOAD.
To down load basic or extended basic programs take the following steps.

a) Read PROG_INFO file in the news department.
b) Return to Main menu then select 2 for program download.
c) Select your program for download. Wait until the BBS tells you to exit terminal mode.
If the BBS fails to sucessfully load the selected program then an error message will be given by the BBS.
d) Exit TE2 with <CRTL> 0, ie CONTROL ZERO, do not use FCTN QUIT. Other terminal programs eg Fast Term use FCTN QUIT .
e) Regardless of what terminal program you are using, observe step (f) f) Go to TI Basic and type in OLD RS232 or OLD RS232/2 dependant on where your modem is connected, then press <ENTER>.
** If the program is greater than 46 sectors and you are using a disk system don't forget to use CALL FILES(1) before OLD RS232.

g) Watch the sector numbers count down at the top centre of your screen.
h) When the cursor returns, disconnect the modem from the phone line if you have finished your session on the BBS.
i) SAVE the program on either tape or disk.
j) If you are continuing your session on the BBS after saving the program, return to terminal mode and when on line press enter for the BBS Program menu.
k) If an error occurs on the download, indicated by typically I/O ERROR 56, type OLD RS232 or OLD RS232/2 again in an attempt to complete the faulty download. You may then re-enter TE2 and attempt to log on again to do the down load again.

5. ADVERTISEMENTS.
Advertisments are accepted on this BBS for any TISHUG member.

All advertisements must be of a private nature, the BBS is not available for commercial or business use. If in doubt ask the SYSOP. There is no charge for advertisements on this BBS.

To place an add, simply use the E-mail feature of the BBS and address the mail to ALL . The add will be immediately readable by others and the next time that the SYSOP is on the BBS he will place the add in the appropiate file.

Adds and general announcements are normally left on the BBS for two months from the date of posting.

6. POSTING GENERAL ANNOUNCEMENTS.
Any general announcements or informat- ion that you wish to share with everyone should be placed on the BBS as mail to ALL . The SYSOP will relocate the information in the appropiate file when he is next on the BBS.

Long items should be posted to SYSOP rather than ALL to prevent clogging up the ALL mail file.

7. SENDING RECEIVING MAIL.
You can send mail from your keyboard or from a file. Use the program SENDMAIL5 to send a file. If sending a file from a non-TI computer the sending program MUST wait for the > pace character.

When you receive mail you can save the mail for later by pressing S <ENTER> or allow deletion by pressing D <ENTER>.
Uncollected mail over 2 months old will be deleted at the discression of the SYSOP.

8. OPTIONAL SCREEN COLOURS FOR TEII AND 4A TALK.

Users may change the terminal screen colour or avoid the colour change string by changing the password to include a digit as the last character. Passwords with a letter as the last character will remain with the default of white text on a blue screen.

The following is the last character allocation.

| Digit | Foreground | Background | Note. |
|---|---|---|---|
| 0 | no change | no change | LF/CR |
| 1 | White | Black | |
| 2 | White | Green | |
| 3 | White | Magenta | |
| 4 | Black | Cyan | |
| 5 | Black | Yellow | |
| 6 | Black | White | |
| 7 | Cyan | Blue | |
| 8 | Default | | |
| 9 | Default | | |
| Default | | | |
| Non Digit | White | Blue | |

Digit 0 (zero) gives a LF/CR in place of the colour string.
Digits 1-9 and the default include a clear screen byte (CHR$(12)).

Once you have changed your password the new colours will be seen immediately.

9. HOW TO OPERATE USERS' PROGRAM AREA.
From Version 3Z of the BBS.
(+USER_PROG 28/1/88)

This facility which came on line on 1st December 1987 allows users to upload memory image basic X/B programs. It allows users with only the most basic of TI99/4A configurations to upload a program or to download programs placed on the system by others.

Version 3Z of the BBS provides an information file for each program.

LIMITATIONS.

a) Maximum program size of 48 disk sectors, ie 12024 bytes of program plus the header sector. Programs greater than 46 sectors will require the user to have invoked CALL FILES(1). The BBS will warn disk users to invoke CALL FILES(1) at download time.

b) The system will store a maximum of 28 programs.

c) Deletion is password protected for deletions by other than the uploader.

d) The BBS reserves 150 sectors for text type mail since this facility shares the BBS MAIL disk.

OPERATION.

The Users Programs area is menu item 1 in the Extended facilities area. If there are programs already in memory then a menu is given followed by the prompt:

1 Download from BBS, 2 Del, 3 Prog Info, 4 Upload a program to BBS, 5 Exit >

BBS.

By selecting 1 from the facility prompt you will be prompted:

Enter NUMBER for program >

Either press ENTER only to escape or the number for the selected program followed by ENTER.

The normal download sequence is then followed, on screen instructions are provided.

2. DELETE. (Password Optional).

The person who uploaded the program can also delete the program. The pass- word is used by SYSOP or aide to remove old programs. There is a delay of up to 30 seconds when DELETE has been used to rebuild the menu.

3. PROGRAM INFORMATION.

By selecting 3 from the facility prompt you will be prompted:

Enter NUMBER for program >

You will then read the information provided by the user who uploaded the program.

4. UPLOAD a program to BBS.

a) Enter the required name for the program in the menu, observing the following limitations.

i) Maximum 10 characters.
ii) No period character in names.
iii) No spaces in names.
iv) The name END is invalid.
v) The first character must be less than ascii 91 .
vi) Maximum program size of 48 disk sectors or 12024 bytes in x/b.

If the BBS doesn't like a name you use it will re-prompt at a higher prompt. You can escape this prompt by pressing ENTER.

b) Upload instructions are then given as follows:

i) Exit to Basic or X/B. (BASIC can be used for X/B programs if you don't try to list or run).

ii) Load the program from your tape or disk.

iii) Upload the program once in memory by using SAVE RS232 or SAVE RS232/2 as appropiate. (The number of 256 byte blocks will commence to count down after a 15 second delay).

iv) When your cursor returns, then return to terminal mode and press ENTER, ONCE ONLY.

v) You may then enter information about the program which has just been uploaded.

If you make it back to terminal mode before the BBS has rebuilt the menu then there may be a delay before the menu is given again. If nothing has happened after 30 seconds then try ENTER or the digit 1 followed by enter.

On return to terminal mode the BBS allows entry of information pertaining to the program just uploaded. The BBS provides a header of showing when a program is uploaded, the program name and who it was uploaded by. The user can enter into an open ended file any operating instructions for the program. The MAIL routine is used to put this information in the file, so both lower and upper case in addition to normal punctuation may be used. This file can be loaded by the SENDMAIL5 program. At the end of the file press enter twice after the > prompt without entering anything else to exit. Ctrl H can be used to back space for corrections in the current line only.

5. EXIT.

This returns you to the Main Menu prompt.

IMPORTANT POINTS TO NOTE.

Please remember that the responsibility of only putting worthwhile programs on this area rests with the person doing the upload. The SYSOP only has control over deletion from the area. Programs in this area can be downloaded by any user, they are not private like the mail system. The printer log at the BBS will show program names and when uploaded or downloaded. If an error occurs in transmission during upload (such as noise on the phone line) then an I/O error will probably be given and the program will not be saved on the BBS.

Do not upload a program which is in the extended basic protected mode as it will not download in basic. Programs uploaded in protected mode will be deleted by SYSOP.

10. TO SPEAK TO SYSOP.
You may call the SYSOP, Ross Mudie, at home (02) 456 2122 in evenings 7pm to 9pm and on weekends. The BBS is not monitored during its operation thus it not possible to attract SYSOP attention during operation.

Please remember that like all the positions in TIsHUG the SYSOP is an unpaid labor of "love"?? which consumes countless spare time hours.

If you are experiencing problems with BBS operation, a note to SYSOP using the BBS mail is most convenient.

END OF ARTICLE

Funnelweb 40-Column Editors - Vn 5.00

Part 3 -- Enhanced Editors

(1) The Alternative Editors

This package of files for the Vn 5.00 Funnelweb 40-column Editor contains a further set of editor program files under the modified names ED/AEH, EE/AEH. The one you choose to use should be renamed to ED, EE for use on your Funnelweb work-disk if you require language capability, or the pathname facility. Alternatively, either or both sets may be given another 2-letter name set to load from another central menu slot, or from a User List. These files provide all functions of the baseline 40-column editor except that TI Euro-Writer, PC character graphics capability and pathname functions in SD, have been added. These have, until now, been available only in the 80-column Editor. A minor disadvantage of the enhanced editor is that the program files take more room on disk.

(2) Language Capability

TI released in Europe in 1983 (in Germany at least) a multilingual Version 2.0 of TI-Writer which supported the range of languages implicit in the TI-Writer module selection screen. We will refer to editors of this style as Euro-Writer. Unfortunately Euro-Writer writes Tab records to file which are fatally incompatible with the original USA issue of TI-Writer. It also had a whole range of auxiliary text and character files and a new Formatter with special transliteration files for the new characters.

The new Funnelweb Editor supports both the original TI-Writer and Euro-Writer with selection at load time, either preconfigured (see later) or from the selection screen. The file loader handles all existing tab records (TI-Writer, Euro-Writer, Funnelweb) transparently. The user selection screens are brought up by pressing <space> as the program starts. First choice is between Word Processor and Program Editor. The next choice is from 3 options.

<1> Default 7-bit, in which no further character or command files are loaded.

<2> National 7-bit, which is standard TI-Writer, but loads national command and character files. This will be useful in languages and applications which can coexist with a modified 7-bit character set and is available in both enhanced editors.

<3> All-characters, which supports the PC character graphics set as implemented in most modern printers. It is described in detail in a later section.

<4> TI Euro-Writer, which apart from some redefined normal characters, allows entry of various modified versions of vowels, using keys <fctn-,>, <fctn-.>, <fctn-/> and <ctrl-/>. These are encoded as ASCII 128 to 167 (>80 to >A7). You will need your Euro-Formatter and transliteration files to handle these Euro-Writer files correctly in printing if they contain modified vowel characters. These are not provided with this package.

The next option box allows selection (1 to 8) of the various national languages. Option 1, Default, is the base line option with no further file loads. Modes (2 to 8) use various auxiliary files. National 7-bit and Euro-Writer mode load text command files F4TXAE to F4TXGE and the TI Euro-Writer files CHARA1 to CHARG1. Loading an Euro-Writer file into the 7-bit Editor modes may corrupt the file as the most significant bit is stripped from all characters. If in doubt, load into Euro-Writer mode.

(3) Euro-Writer Operation

Some new key functions are used in Euro-Writer mode, on keys which were not used in the original TI-Writer. They are enabled when Euro-Writer mode is configured or selected at load time.

<fctn-,> in Euro-Writer mode only, modifies the normal vowel under the cursor to one with a circumflex accent. Vowels so modified must be retyped to normal form for changing the accent. Some of the modified forms may already be available in some national character files as alternative versions of regular 7-bit ASCII codes.

<fctn-.>, <fctn-/>, <ctrl-/> similarly apply umlaut, grave and acute accents respectively.

All other functions are as for the baseline editor, except that the tab records written when in specific Euro-Writer mode are as for the European TI-Writer and so incompatible with most previous editors.

Printing from this version will require the TI Vn 2.0 European formatter as the special characters are not widely supported. No work has yet been done on interfacing the Euro-Writer Formatter, and we do not intend to supply it or its auxiliary files. For the moment, change the word in your copy at >30 in the first sector of FORMA1 from >130A to >100A so that you at least can use it with Funnelweb or Editor Assembler. Edit the drive # and language letter in the string DSK1.TXTFA in sector >0D and at >20 of sector >0E change >D800 to >9800 to disable the language selection path from the TI-Writer module.

(4) All-Characters Capability

All-Chars allows use of the full 8-bit IBM PC character graphics set as supported by most modern printers and accessed by printing directly from the

Editor via PF (a Formatter version to support this is not available at this time and may well never be done). New character files CHAR@x are needed on the Funnelweb work-disk. The command text files remain the same as for the 40-column Euro-Writer mode, at the cost of a little redundancy in each. National 7-bit mode remains as for the Euro-Writer model.

This version also supports the pathname access to SD as in the 80-column Editor, to make life easier for hard disk users. A new SD screen is incorporated, with enhanced display and functions. See the later section for details. All other internal functions are the same as for the standard editor.

The price paid for this increased functionality is that the Funnelweb kernel can no longer be stored in VDP during Editor operation for instant reappearance on exit, but must be reloaded from the Funnelweb boot-disk. This is handled automatically, but will cause noticeable delay from floppy disk. Users of Horizon or similar RAMdisks will hardly notice the change and it should be quite rapid from hard disk. You will however lose any on-the-fly customizations, such as marking of program or object file defaults for the Loaders screens. If neither FW or LOAD are found, it will return to the title screen. Operation is similar to that used on the earlier FW version of DM-1000 except that the original boot path is assumed always, with no option to change it. We recommend that users with 80-column capability use the 80-column Editor instead, as it supports all features of both 40-column editors and more and can display in 40-column mode also.

(5) All-Characters Operation

This mode may be configured in, or selected from the load time selection screens. A full 8-bit character file, CHAR@x where "x" reflects the language choice is loaded, along with the command text file in languages other than English. The 7-bit characters in the language files are as for Euro-Writer and the 8-bit set (ASCII 128 to 254) are as in the CHAR@1 file. The ASCII control characters are represented in TI-Writer form rather than the IBM code page 437 format. At this time files are as for TI Euro-writer in the 7-bit component. In languages which use 8-bit Euro-Writer characters in command text files, these text files may need to be modified (either from source or using a sector editor).

In All-Chars mode the text buffer encoding used is as for the Euro-Writer mode in that Editor and buffer capacity will be smaller than for 7-bit modes. Tab records may be configured to be of either original TI-Writer or Euro-Writer form. Remember, if you are sending files to other people, that only the Vn 5.00 Funnelweb editors will handle both forms gracefully. Loading an All-Chars file into normal mode will in general corrupt the file by stripping out the extra bit set for IBM graphics characters and in places where this is not done, as in Help screens intended for All-Chars advice, random patterns will appear instead.

The 8-bit character mode is toggled by pressing <ctrl-,>, but in the 40-column version there is no specific indication that this mode is in effect except by the characters typed on the screen. The space bar in this mode will result in a character on the screen and the right shift keys should be used for spacing right. Entering command mode always cancels the 8-bit mode, but it may be reset there. All characters may be entered (ASCII 0 to 254), but ASCII 255 (which would be <fctn-V> in this mode) is always replaced by a regular space (ASCII 32) when a line is transferred to the text buffer (this is because >FF is used as a flag byte in text buffer encoding). This key may be used to correct accidental <space> entries in this mode, but the change to a blank from the marker arrow character will not be immediately apparent on screen.

Some tools are included to help construction of char-files. CHRCOAL/S is source code for constructing these from character pattern data. It also serves as an example of how a program written to run under Funnelweb can call system services such as QD directory. CHARUTIL extracts source data from existing char-files. These utilities are included because I found existing public domain char-set tools quite inadequate for practical use.

(6) Enhanced Show Directory

The SD function has been extensively revised for the All-Chars Editor. Individual directory pages now contain up to 16 files, and the current work-file and temporary load-file names are shown explicitly. The drive selection is now entered after the SD screen appears. A second one-time page scrolling View mode is available from <W>, which shows only the first half of each line on the 40 column screen. Particularly with program source files, this may well show enough information for View purposes with less on screen confusion.

(7) Enhanced Pathname Support

The enhanced editor offers the same pathname support functions in SD as in the 80-column Editor. <HD> from the command line brings up a pathname for editing. This is initialized at load time as either the Funnelweb utility path or as installed from CONFIG/ED. The pathname entered must end with a "." or it will be ignored. SD then reads the directory associated with this path as described for <0> below. The command line text in the separate command text files does not contain any explicit mention of "HardDisk", to keep these common

In HD pathname mode, all disk access is at the DSR file level, so fracturing of files cannot be detected. The protection status of files is indicated but cannot be altered, as the sub-programs other than for floppy disk DSRs are not currently supported. Marking and viewing are file level operations and are available as usual. Special behaviour for the pathname mode is associated with several keys.

<0> -- as the disk number reads the Internal, Relative 38 catalog pseudo-file for the pathname as configured or as last entered by <HD> from the command line. This entry uses an assembly language version of the standard BASIC program for reading the catalog file as specified by TI for any drive or as extended by Myarc to directories on hard drives. This mode operates at file DSR level and a directory so obtained does not indicate fractured files. File protection is shown, but nothing can be done about it, as alteration may require sub-programs not defined for standard floppy disk DSRs. Marking, deleting and viewing function normally. The sectors used/free display may well be nonsensical for hard disk directories, but is retained for occasions when it is correct.

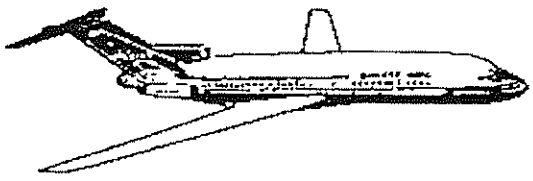
<ctrl-0> -- in pathname mode reads the parent directory of the currently displayed sub-directory. The sub-directory name is also trimmed off the pathname stored in the <HD> name buffer.

<space> -- still marks the Display/80 file under the cursor bar as the current workfile, as used for LF and SF. In addition in pathname mode, if the cursor bar is on a Sub-Dir entry, it will cause that sub-directory name to be appended to the existing pathname and the catalog is generated for that sub-directory. The augmented pathname becomes the current pathname as stored in the <HD> name buffer.

Tony McGovern
215 Grinsell Street
Kotara, NSW 2289
Australia
(049) 52 3162
e-mail phpam@cc.newcastle.edu.au

Jul / 19 / 93

END OF ARTICLE



## JUST A ONE LINER (ED)

What do you call a Pygmy who works underground?
A mini miner.

# GAMES INFORMATION
## IBM Edition
#2

By Robert Brown

Welcome to another famous Games Info article - now available on both the TI IBM computers. As promised last month, I will continue with the Ultima Series, in this case number 2. Here goes....

### ULTIMA II Strategy

Ultima II (The Revenge of the Enchantress) is Lord British's exciting sequel to Ultmme$M.$* * to discover the secret of Minax, th e evil apprentice of Mondain whom you defeated in Ultima I. Once again, you must create a player character who will roam land, sea, air, and even outer space, battling strange creatures and increasing your character's attributes and possessions. However, in Ultima II, you must also unlock the mysteries of the Time Doors. The strategy tips presented in this file should assist you in your difficult quest.

I. CREATING A CHARACTER

By allocating 90 points among 6 attributes and choosing race, profession, and sex, you may create a player character who is initially powerful or weak. For example, relatively high strength is the key to being able to wear certain armor; high agility will allow your character to wield certain weapons and steal more easily. I had good luck with my Elf Thief ("Bugsy") who was able to steal plenty of food, weapons, and armour. However, the Dwarf Wizard ("Hirsutus") I created endured a long, slow battle to merely stay alive. Experiment with different combinations to find out which is more successful and enjoyable for you.

A note about spellcasters: Clerics and Wizards may purchase spells in Villages. However, spells are both very expensive and relatively useless. Spells can only be cast within Dungeons and Towers and, unfortunately, you can easily win the game without ever entering either of those places.

II. BEGINNING THE QUEST

You start out with 400 hit points, 400 foods, and 400 gold. This may seem like plenty, but it isn't. Your diminish rapidly when you are attacked by creatures, and your gold pieces must be exchanged for supplies and equipment. However, you can always attempt to steal, and you can purchase additional hit points by transacting with a King.

Your first task is to obtain a weapon and armour. From where you are when you boot the game diskette, walk west and south into Towne Linda (it looks like a cloverleaf). You will find both an armoury and a weapons vendor there. After leaving Towne Linda, travel south until you reach Le Jester Village (it looks like 5 small circles). Villages are the only places where you can obtain additional food. Now you're ready to do some serious adventuring. But, before you begin your campaign in earnest, be sure to save the game. It's very easy to get killed, and you will want to be able to return to the status quo ante.

A word of advice: This game has an annoying "feature" involving the save game function. First of all, unlike Ultima I, Ultima II has no provision for two disk drives, so be prepared for frequent disk swaps. Secondly, if your character enters a Town, Village, Castle, Dungeon, or Tower (i.e., there has been interaction with the player diskette), and you are then gravely injured or, perhaps, have spent money on an item you are not allowed to use, and you then *leave* that location (i.e., another disk interaction), you will not be able to turn off your machine and reboot to find your earlier (healthier!) save game position. The solution to this problem is this: When you realize that your character has lost a lot of hit points while within one of those locations, turn off your machine then and there. Since no writing to the diskette is involved, you can then reboot and recover 6,4 ** I learned this littlet player character lowt trick.

III. THE INHABITANTS

In order to gain experience points, valuable items, and gold, you must slay many creatures. The universe of Ultima II is populated by Orcs, Devils, Daemons, Thieves, Fighters, Clerics, Wizards, Balrons, Sea Serpents, Guards, Merchants, Jesters, Seers, Oracles, Kings, Queens, and, finally, Minax. Some you must simply kill; others you must not kill but must transact with.

Transact with everyone you find in Towns, Villages, and Castles. Clues to solving the game will be revealed to you (occasionally, however, you have to offer gold to purchase a particularly valuable hint or item). In one Town, you will discover that offering gold results in significant increases to your character's attributes. As I mentioned earlier, you can obtain more hit points by transacting with a King (he pockets some of your gold as payment for this service). Be aware, however, that

after 99 your attributes will roll over to 0! (Rollover occurs as well when any of your possessions total more than 99 and when your hit points, experience points, food, or gold climb above 9999). Don't be too greedy!

IV. ITEMS

Utilize the "Z" (status) command frequently, especially after you have slain a creature. You will notice that there are certain items in your inventory which were not there before the battle. You will learn what each of these items is for (e.g., magical boots save you from a paralysis spell and tools allow you to escape from traps in Towers or Dungeons), and will discover which creatures are more likely to possess something you need.

There are a total of 20 objects for you to find, including: Torches, Keys, Tools, Quick Swords, Wands, Staffs, Boots, Cloaks, Helms, Gems, Ankhs, Red Gems, Skull Keys, Green Gems, Brass Buttons, Blue Tassles, Strange Coins, Green Idols, Tri- Lithiums, and Rings. Once you've obtained a particularly precious item (such as blue tassles which you'll need to board a frigate or strange coins which allow you to stop time), be sure to save the game state. Thieves just love to steal from you, and you may want to recover your earlier position. You will encounter an individual who claims to own "one of everything." Offer him gold and find out!

V. TRANSPORTATION

You may buy a horse in a Town$mn4you travel by land. However, frigates and plane s are needed to traverse the oceans. You will need a rocketship to enter space.

Frigates may be boarded (as they pass by you on a coastline) if you already possess a set of blue tassles. However, planes and rockets must be stolen. Planes are available in only one Town; you'll need brass buttons and skull keys in order to fly a plane. Once you have a plane, you can "walk" it through a Time Door (Time Doors are discussed at the end of this article, under the heading "Ultima II -- Layout").

Rockets are found only in one Town and you'll need a number of items in order to blast off (if you need extra Tri-Lithiums, you can find hordes of the stuff on the highest level of a Tower or the lowest level of a Dungeon). Once in space, explore and transact until you discover the mysterious Planet X and the kindly Father Antos. A note about spaceflight: Landing is the trickiest part of this task; be extremely careful that you land on the grass, otherwise you'll be killed.

VI. DEFEATING MINAX

Ah, yes, the dread enchantress! She rules time and the universe, ever so confidently, from her chambers within her Castle on Legends. Do not attempt to destroy her until you have spent many, many hours developing your character's abilities and have obtained weapons, armour, and valuable items.

One item in particular, a ring, must be in your possession if you wish to pass unscathed through Minax's force fields. She is unwilling to die easily and leads you on a not-so-merry chase from chamber to chamber while her minions attempt to kill you. You can deal with her lackeys by stopping time, but only if you have sufficient quantities of strange coins. Persist in your attack; she will ultimately succumb and she and all her works will be destroyed!

ULTIMA II THE LAYOUT

The cloth map and the pamphlet that come with the game are very helpful. Study both and make your own notes as you continue your quest. The map shows the world as it appears in the A.D. time period with symbols representing the 20 Time Doors that exist. The Time Doors take you from one time period to another, and there are five such periods: B.C. (1423 B.C.); A.D. (1990 A.D.); Pangea (9 millmon$F.G Legends (no time). Once you obtain a magical helm, you will be able to "V"iew your exact location (note, however, that your helm disappears when you "V"). The following is an outline of the various time periods and the locations of their Time Doors.

I. 1423 B.C.

This is where you begin your adventure. You will find yourself in Eurasia with connecting passages by land to North America, Africa, and South America. Locations you'll visit include Towne Linda in Italy, Le Jester Village in Africa, a Tower in South America, a Dungeon in Greenland, Lord British's Castle in England, and a Signpost in Australia (islands may be reached once you board a frigate).

There are 4 Time Doors:
1) The NW Time Door in Europe takes you to England in 1990 A.D.
2) The North Central Time Door in Europe takes you to the eastern peninsula in 9 million B.C.
3) The NE Time Door in North America takes you to Legends.
4) The SE Time Door in South America takes you to takes you to the north of North America in 2112 A.D.

II. 1990 A.D.

Here you will visit Lord British's Castle and Port Bonifice in England, New San Antonio in North America, a Tower in Africa, a Dungeon in Greenland, and a Signpost in Australia.

There are 4 Time Doors:
1) The Time Door in South America takes you to North America in 2112 A.D.
2) The Time Door by the Signpost in Australia takes you to the eastern part of the continent in 9 million B.C.
3) The Time Door near Lord British's Castle in England takes you to Europe in 1423 B.C.
4) The Time Door by the Dungeon in Greenland takes you to the east of the continent in 9 million B.C.

III. 9 MILLION B.C.

In this ancient time, the continents as we know them have not yet separated. This land mass appears to be one great island. You will visit Baradin's Town, a Dungeon, and a Signpost.

There are 4 Time Doors:
1) The NE Time Door by the Dungeon takes you to Legends.
2) The eastern Time Door takes you to Europe in 1423 B.C.
3) The southern Time Door near the Signpost takes you to England in 1990 A.D.
4) The north central Time Door (north of Baradin's Town) takes you to North America in 1990 A.D.

IV. 2112 A.D.

This is the world of the Aftermath, a time of high technology and destruction. Nothing remains in North America, South America or Africa, but there is a Town (Pirate's Harbour) in northern Europe, a Dungeon in Greenland, and a Signpost in Australia. You will need to bring an airplane through the Time Doors in order to fly from North America to Eurasia (where you will find a rocketship).

There are 4 Time Doors:
1) In North America, the NW Time Door takes you to South America in 1990 A.D.
2) The SE Time Door in North America takes you to Legends
3) In Eurasia, the southern Time Door takes you to the east of the continent in 9 million B.C.
4) In eastern Eurasia, the Time Door takes you to Europe in 1423 B.C.

V. LEGENDS

You will visit Legends often in an attempt to break mn$lcontinent; besidesand into her sanctum. Her Castle numerous creatures, there is only a Signpost on Legends.

There are 4 Time Doors in a row south of the Signpost. Starting from the west:

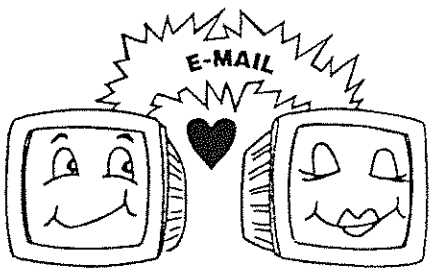
1) This Time Door takes you to the northeast of the continent in 9 million B.C.
2) This one takes you to Europe in 1423 B.C.
3) This one takes you to England in 1990 A.D.
4) The eastern Time Door takes you to North America in 2112 A.D.

[Note: Dates and Time Door locations may differ in various versions of Ultima II.]

VI. SPACE Use your galactic map to plot the coordinates for space travel. You will know you have reached the planet you are seeking when you find Towne Basko and Castle Barataria. Be prepared to fight; the inhabitants are belligerent and the thieves tend to steal from you. Remember also to take extreme care in landing your rocket; instant death results from one careless move. There are no Time Doors in space.

Hopefully this article helps you to crack Ultima II, stay with me, as next month (or article) comes the solution and hints to Ultima III.

See you then...



## FUTURE MEETINGS

In future, meeting topics will be set down well ahead of time. They will follow a set pattern each week. The general timetable is as follows.

12.00-1.00 Directors meeting
1. 30-4.00 Shop
01.00-1.30 Group Meeting
01.30-4.00 Groups for TI and IBM

## GROUP MEETINGS

GROUP ONE will meet with Ross Mudie, and will concentrate on using the basic TI system. It will aim at helping members to use their TI effectively. Ross will take the group through a hands on, question and answer, demonstration approach.It will develop according to the questions and interests of the group.

GROUP TWO will meet with Larry Saunders each week, and test out new programs or shop software. Programs will be demonstrated, and help given with any requested software.

Those interested in the IBM will have the choice of two groups.

IBM GROUP ONE will initially concentrate on building up a club system from scratch with Peter Schubert. Hopefully we will gradually build up a really useful system, which will help all our members to both understand and use their systems.

IBM GROUP TWO will concentrate on using the basic software tools efficiently. We will bring in the necessary people to help us at each level.

The program is as follows;

| | |
|---|---|
| APRIL | Using a DOS system. An overview of DOS. |
| MAY | Using XTREE to manage files. |
| JUNE | Using XTREE GOLD |

Special interest groups will be developed as needed.

Be in it mate,

OR I'LL RIP YOUR

BLOODY ARMS OFF.

## LEARN TO KNOW YOUR TI

## LESSON 14

with Percy Harrison

Whilst many of our members either know how to use a tape recorder with their TI or are not interested because they have an expanded system with one or more drives there are those members who are less fortunate and need to use a tape recorder to save the programs that they create so that their programs will not be lost when they turn their console off.

I have delayed doing this lesson until now because most programs that you have used in previous lessons are relatively short and uninteresting and therefore were not really worth saving. The process of programming was being emphasized, not the end result of useful programs.

Ordinary audio tape is usually satisfactory for computer use. However, remember that a tiny imperfection in the tape can cause it to "drop a bit" ie lose information, and this makes the program wrong and unloadable.

You will not need long tapes, 10 minute to 60 minute tapes are ample for all of your requirements.

### LESSON 14 SAVING TO TAPE

### CONNECTING THE RECORDER

Follow the directions in your Texas Instruments TI-99/4A COMPUTER USER'S REFERENCE GUIDE. Note, if you do not have this book they are available from the Club Shop.

The first time you use the recorder, you must establish the correct adjustment of its volume and treble controls as these adjustments are critical to the successful loading of your programs. Start by positioning the TREBLE control (if one exists) at or close to the HIGH position and set the VOLUME control to the MID position. If the program wont load or save then try increasing the VOLUME a little then try again. Repeat this procedure until you have successfully loaded or saved the program. If you reach maximum volume and still can't load a program go back to the MID setting and try reducing the volume a little each time. When you have established the correct position for both the TREBLE and VOLUME controls mark them so that you will not have to go through this procedure again should someone accidently move either control.

### ENTERING A PROGRAM

If you have a program that you want to save at this point, skip to SAVING A PROGRAM.

If not, enter:

```
NEW
10 REM :::HI:::
20 PRINT "HI"
```

### SAVING A PROGRAM AND CHECKING THAT IT IS ON TAPE

Turn up the sound on your TV, or monitor, so that you will be able to hear the program going onto the tape and the "beeps" that the computer makes.

Put a blank tape into your recorder.

Enter: SAVE CS1

You will hear a beep and see the message:

```
* REWIND CASSETTE TAPE   CS1
  THEN PRESS ENTER
```

Do it. The computer will beep and say:

* PRESS CASSETTE RECORD CS1
THEN PRESS ENTER

Before carrying out these instructions, if your recorder has a counter indicator set this to zero (000) by pushing the reset button. Now press the REC and the PLAY keys together, then press the ENTER key.

The computer now beeps and says:

* RECORDING

There are a few seconds of quite. Then you hear a steady tone and then a strange twittering like a lovesick gorilla. (I always wanted to know what a lovesick gorilla sounded like, now I know and it hasn't improved my lovelife one iota).

The twittering will last a few seconds (for this short program).

Then the computer beeps and prints:

* PRESS CASSETTE STOP CS1
THEN PRESS ENTER

Do it. Now the computer beeps and asks:

* CHECK TAPE (Y OR N)?

It is a good idea to check to see if the program on the tape is OK. The computer looks to see if the "checksum" on the end of the recorded program agrees with the sum calculated as the program is read by the computer.

Press the Y key. The computer beeps and prints:

* REWIND CASSETTE TAPE CS1
THEN PRESS ENTER

Do it. The computer beeps and prints:

* PRESS CASSETTE PLAY CS1
THEN PRESS ENTER

Do it. The computer beeps and prints:

* CHECKING

After a short pause, you should hear the same steady tone and the twittering that you heard when the program was saved. (Yes, the gorilla's at it again).

If everything went well, the computer beeps twice and prints:

* DATA OK

* PRESS CASSETTE STOP CS1
THEN PRESS ENTER

The computer prints the ">" (prompt sign) and you will see the flashing cursor.

BAD LUCK, IT DIDN'T GET SAVED

If the program didn't check out during the

CHECKING

of your program on tape, the computer will print:

either * ERROR - NO DATA FOUND

or * ERROR IN DATA DETECTED

Then it prints a menu:

PRESS R TO RECORD (again)
PRESS C TO CHECK (again)
PRESS E TO EXIT (quit)

You can check the program again, record it again, or just give up the whole thing ie become a defeatist.

You should write the name of your program on the front of the tape cassette. If your recorder has a counter, also write the start and finish numbers on the front of the tape cassette for each program that you record. This will save you time when loading a program that starts somewhere other than at the beginning of the tape.

CAREFUL!

If this is an important program, I suggest you put a second copy on the tape, right after the one that you just did. (That is, just start where the directions above say SAVE CS1 but don't rewind the tape when the computer asks you to in the next instruction). Alternatively, you can save the second copy on another tape, ie make a back-up tape following the same procedure as you used for the original tape.

LOADING THE PROGRAM INTO THE COMPUTER

Let's practice loading the program we just saved.

First, enter: NEW

to erase the program from the computer's memory. (Otherwise we won't know if it loaded from tape or used the one that was left in it's memory.

Rewind the tape.

Enter: OLD CS1

The computer beeps and prints:

* REWIND CASSETTE TAPE CS1
THEN PRESS ENTER

Do it. The computer beeps and prints:

* PRESS CASSETTE PLAY CS1
THEN PRESS ENTER

the computer beeps and prints:

* READING

then it is quiet for a few seconds. Then you hear the steady tone, then the twittering, then two beeps. The computer should print:

* DATA OK

* PRESS CASSETTE STOP CS1
THEN PRESS ENTER

Now you see the > prompt and the flashing cursor of BASIC.

Enter: LIST

to see if the program got into the computer memory OK.

HOW MANY PROGRAMS ON ONE TAPE?

You can put several programs on one tape. If your recorder has a counter, it is easier to find programs on the tape.

With many programs on a tape, and with a recorder that does not have a counter, specific programs are harder to find, more time consuming and also you are more likely to make a mistake and ruin a lot of programs.For this reason it is always wise to make a separate back-up tape of your more important programs especially if they are very long.

Assignment 14:

1. Write a short program (4 lines) and SAVE it on tape.

2. Do NEW, and write another short program. SAVE it.

3. Do NEW. Then load and run each program.

ANSWERS TO LESSON 13

Assignment Question 13-1

```
10 REM ** HAPPY **
15 CALL CLEAR
20 PRINT "ARE YOU HAPPY? <Y/N>"
30 INPUT A$
40 IF A$="N" THEN 20
50 IF A$<>"Y" THEN 20
60 PRINT "GOOD"
```

Assignment Question 13-2

```
10 REM BOYS AND GIRLS
15 CALL CLEAR
20 PRINT
25 PRINT "ARE YOU A BOY OR A GIRL?"
26 PRINT "ANSWER 'BOY' OR 'GIRL'"
30 INPUT A$
32 PRINT
35 IF A$<>"BOY" THEN 40
36 PRINT "SNIPS AND SNAILS"
37 GOTO 60
40 IF A$<>"GIRL" THEN 25
41 PRINT "SUGAR AND SPICE"
60 REM ALL DONE
```

Assignment Question 13-3

```
10 REM PIZZA
12 CALL CLEAR
14 PRINT "HALLO, AY AM MARIO, YOUR PIZZA MAN."
16 PRINT
18 PRINT "JUST TELL ME ZE GORY    DETAILSAND I'LL DO  ZE
REST"
20 PRINT
22 PRINT "WHAT SIZE SHOULD ZIS PIZZA BE? (S/M/L)"
24 INPUT S$
26 PRINT
28 IF S$<>"S" THEN 36
30 PRINT "ON A DIET? HO HO!"
32 GOSUB 80
34 GOTO 52
36 IF S$<>"M" THEN 44
38 PRINT "GOOD CHOICE-NOT TOO BIG, BUTFILLING!"
40 GOSUB 80
42 GOTO 52
44 IF S$<>"L" THEN 22
46 PRINT "YOU MUST HAVE A BIG BUNCH ATHOME!"
48 GOSUB 80
50 GOTO 52
52 PRINT
54 PRINT
56 FOR J=1 TO 1000
58 NEXT J
60 PRINT "HOKAY, HERE IS YOUR PIZZA!"
62 PRINT
64 PRINT
66 PRINT
68 PRINT "DO YOU WANT TO ORDER ANOTHER PIZZA? (Y/N)"
70 INPUT R$
72 IF R$<>"Y" THEN 76
74 GOTO 12
76 END
78 PRINT
80 PRINT
82 PRINT "WHAT TOPPING DO YOU WANT?"
84 PRINT
86   PRINT   "MUSHROOMS,  PEPPERONI,       ANCHOVIES  OR
PEPPERS?"
88 INPUT T$
90 CALL CLEAR
92 IF T$="MUSHROOMS" THEN 102
94 IF T$="PEPPERONI" THEN 106
96 IF T$="ANCHOVIES" THEN 110
98 IF T$="PEPPERS" THEN 114
100 GOTO 80
102 PRINT "WATCH OUT FOR THE TOADSTOOL!"
104 RETURN
106 PRINT "YOU LIKE ZE SMELLY SAUSAGE!"
108 RETURN
110 PRINT "IT'S A FISHY BUSINESS!"
112 RETURN
114 PRINT "YOU'RE HOT STUFF!"
116 RETURN
```

Assignment Question 13-4

```
10 REM COLOR GUESSING GAME
15 CALL CLEAR
20 PRINT
25 PRINT
30 PRINT "PLAYER 2 TURN YOUR BACK"
35 PRINT
40 PRINT "PLAYER 1 ENTER YOUR COLOR"
45 INPUT C$
50 CALL CLEAR
55 PRINT
60 PRINT
65 PRINT "PLAYER 2 TURN AROUND AND"
70 PRINT "GUESS"
75 PRINT
80 PRINT
85 INPUT G$
90 IF G$<>C$ THEN 125
95 IF G$=C$ THEN 100
100 CALL CLEAR
105 PRINT "YOU ARE CORRECT"
110 PRINT
115 PRINT "CHANGE PLACES WITH PLAYER 1"
120 GOTO 20
125 CALL CLEAR
130 PRINT "YOUR ANSWER IS WRONG"
135 PRINT "TRY AGAIN"
140 GOTO 85
```

Next month we will look at short cuts and graphics. Bye for now.

END OF ARTICLE

## RE: GAMES  TI INVADERS

From D.N. Harris

Restart by pressing the fire button down, hold it, while moving joystick left to select "Aggressive" move the joystick to the right to select "Nasty". Also start from the title screen - no need to touch console keys!

# Printing from TI-Artist

by Geoff Trott

TI-Artist is a very good program for doing pictures on the TI99/4A. It is provided by Incesbot and the latest version is called TI-Artist Plus!. I will not dwell on all the features available as I only want to discuss the printing of the pictures on any printer that you have and that is capable of printing graphics. The first things to look at are the print options.

TI-Artist can print one to three pictures in upright (portrait) or rotated (landscape) position on the page or as a banner. The printing can be in high or low density, separated or joined, go directly to a printer or to a disk file. With all these options available, TI-Artist must know about the requirements of the printer to perform its functions. Not all printers do graphics in the same way so Incesbot has provided a means for the user to describe how their printer works so that TI-Artist will produce the printed copy of the picture correctly. They also provide a number of profiles for some well known printers which can be used if they match your printer or as a guide to making up your own profile file.

The README file, which is on the first TI-Artist Plus! disk, provides supplementary information for the TI-Artist Plus! software. There were some changes in the program, which occurred after the documentation was sent to the printer, which are detailed in this file. Basically, more capability was placed in the printer section, which modified the contents of the printer profile files. The profile descriptions in this file supersede the profile descriptions in the documentation. Additional changes are as follows:

A "BANNER" capability was added to the printer capabilities which resulted in changes to the title screen for that module. It now indicates half-page, full-page or banner selections.

A method for changing the path for program file loading was added. You may now run program @PATH5 from disk #1 and follow the instructions. This allows you to make TI-Artist Plus! to load from the ARTIST1 file with the correct path of your choice.

Let me now go through the records of the profile file and try to explain what each means and does. The profile files are on the first disk and all start with the '~' character. I have listed their contents below with a heading of the particular file name. Once you have constructed a profile for your printer, you must run the BASIC program @PRINTSET which will input your profile file and generate a file called PRINTER which is used by TI-Artist. The profile is easily created by editing an existing file using the program editor of Funnelweb (do not want the tabs at the end of the file).

Printer Profile File Description

Rec # Description

1 Algorithm selection -- "V" means vertical pins on the printer. "H" means horizontal pins on the printer. Most dot matrix printers will have their pins aligned in a vertical line. The Canon and CGP220 are the only ones which are horizontal. Perhaps these are laser printers?
2 Default device name -- may be modified when printing if desired. This is either PIO.CR.LF or RS232.BA=9600.DA=8.CR.LF depending on whether the printer is parallel or serial.
3 XPRMAX -- maximum dots per line. These range from 480 to 1280. If the page is 8 inches wide, the density ranges from 60 dots per inch to 160 dots per inch.
4 Top Bit MSB -- "N" will make Top Bit LSB. "Y" will keep it as MSB. Some printers have a different order of bits in the byte that gets sent to the printer. You need to check how the printer arranges the bits to produce the dots. If the picture appears broken up, this may be wrong.
5 SPCSPC -- width in dots of space character. This is used in text to define the normal width of the characters. It ranges from 6 to 16 in the printers looked at here.
6 TYPE -- 0 = black and white, 1 = colour printer. The GP700 and NX1000R are colour printers.
7 # of bits -- 7 or 8 depending on printer. Most printers are at least 8 pins except the GP100 and OKI92.
8 HMAG1 -- horizontal magnification for printing a single picture. To make a single picture expand to fill the entire page requires magnification to go from 256 dots on the screen to the maximum dots of the printer. This is usually 2 or 4.
9 VMAG1 -- vertical magnification for printing a single picture. The magnification here depends on the relative density of the dots in the vertical direction compared to that in the horizontal. To keep the correct perspective when printing (circles remaining circles) this needs to be either 1 or 2 for the printers here.
10 HMAG2 -- horizontal magnification for printing two pictures. The magnification will be halved for two pictures side by side.
11 VMAG2 -- vertical magnification for printing two pictures. This is 1 for all printers.
12 HMAG3 -- horizontal magnification for printing three pictures. Three pictures may not even fit on some printers. The pictures are likely to be squashed sideways.
13 VMAG3 -- vertical magnification for printing three pictures.
14 HMAG1R -- horizontal magnification for printing one picture rotated. These tend to follow those for the portrait cases.
15 VMAG1R -- vertical magnification for printing one picture rotated.
16 HMAG2R -- horizontal magnification for printing two pictures rotated.
17 VMAG2R -- vertical magnification for printing two pictures rotated.
18 HMAG3R -- horizontal magnification for printing three pictures rotated.
19 VMAG3R -- vertical magnification for printing three pictures rotated.
20 BIAS -- bias added to each byte of graphic data. Printers like the GP100 with only 7 bits used for graphics, often have a bias which must be added to all graphics data bytes for the printer to interpret the data correctly.
21 REPEAT -- 0 = no repeat, 1 = repeat. The OKI92 is the only printer which uses this and the next one. I am not sure what its purpose is.
22 Character to repeat. See the previous record.
23 BEG -- codes for beginning of printout. Control codes sent at the start of the picture, perhaps to put the printer into graphics mode, or to set the line spacing correctly so there will be no horizontal white line nor overlapping.
24 AFTER -- codes sent after printout is complete. Used to turn off graphics mode after the picture is printed.

Note: All ENTGx codes must include the number of bytes to print for single picture. You will have to read the manual for your printer carefully to work out what is required here. There are a number of examples to look at in the example printers which should help.

25 ENTG1 -- codes to enter graphics for 1 upright picture.
26 ENTG2 -- codes to enter graphics for 2 upright pictures.
27 ENTG3 -- codes to enter graphics for 3 upright pictures.
28 ENTG1R -- codes to enter graphics for 1 rotated picture.
29 ENTG2R -- codes to enter graphics for 2 rotated

pictures.
30 ENTG3R -- codes to enter graphics for 3 rotated pictures.
31 ENTGB -- codes to enter graphics for banners.
32 CR -- code to return carriage. Usually the carriage return code (13).
33 LF -- code sent to advance line. Usually the line feed code (10).
34 EXIT -- codes sent between pictures. Return to 6 lines per inch and do a carriage return, for example.
35 BLINE -- codes sent between two passes on high density. The codes here advance the paper without doing a carriage return.

Note: the COLxx records define the sequences for each colour. These are only present for type 1 (colour) printers, the GP700 and NX100R. They were not present in the profile files on my disk so I have added them here. The codes should be correct for the NX1000R but are probably incorrect for the GP700. If a colour is to be "aliased" to another colour sequence, it will be entered as "=" xx, where xx is the number in the COLxx. If you want a sequence to be white, just leave the record blank.

36 COL01 -- black
37 COL02 -- medium green
38 COL03 -- light green
39 COL04 -- dark blue
40 COL05 -- light blue
41 COL06 -- dark red
42 COL07 -- cyan
43 COL08 -- medium red
44 COL09 -- light red
45 COL10 -- dark yellow
46 COL11 -- light yellow
47 COL12 -- dark green
48 COL13 -- magenta
49 COL14 -- gray

Note: In the colour example given on page 35 of the manual, the record numbers shown as 16 to 29 are now records 36 to 49.

Calculating the Enter Graphics Codes

The BASIC program @ENTG is provided to help you in calculating the ENTG codes. The needed values will be prompted for.

Note: In the example on page 37 of the manual, ENTG records 6 to 11 are now records 25 to 31.

Banner Usage

To generate a banner type of hard copy output, push "V" until the yellow block is on the right-most section of the icon. Also you must pick the rotated icon on the print menu. The data to be included in the banner should be vertically centered on the picture to be printed. Approximately the middle third of the picture will be included in the banner. The banner will occupy approximately three pages of printed output.

Note: Banner capabilities are limited to 8 bit printers.

^Canon

```
H               * HORIZONTAL ALGORITHM
PIO.CR.LF
640             * XPRMAX
Y               * IS LEFT MSB?
8               * SPCSPC
0               * TYPE              (N/A)
8               * BITS              (N/A)
2               * HMAG1
2               * VMAG1
1               * HMAG2
1               * VMAG2
1               * HMAG3
1               * VMAG3
2               * HMAG1R
2               * VMAG1R
1               * HMAG2R
1               * VMAG2R
1               * HMAG3R
1               * VMAG3R
0               * BIAS              (N/A)
0               * REPEAT?           (N/A)
0               * CHAR FOR REPEAT   (N/A)
                * BEG
                * AFTER
27 'X' 80       * ENTG1
27 'X' 80       * ENTG2
27 'X' 80       * ENTG3
27 'X' 80       * ENTG1R
27 'X' 80       * ENTG2R
27 'X' 80       * ENTG3R
27 'X' 80       * ENTGB
                * CR
                * LF
                * EXIT
                * BLINE
```

^CGP220

```
H               * HORIZONTAL ALGORITHM
PIO.CR.LF
640             * XPRMAX
Y               * IS LEFT MSB?
8               * SPCSPC
0               * TYPE              (N/A)
8               * BITS              (N/A)
2               * HMAG1
2               * VMAG1
1               * HMAG2
1               * VMAG2
1               * HMAG3
1               * VMAG3
2               * HMAG1R
2               * VMAG1R
1               * HMAG2R
1               * VMAG2R
1               * HMAG3R
1               * VMAG3R
0               * BIAS              (N/A)
0               * REPEAT?           (N/A)
0               * CHAR FOR REPEAT   (N/A)
                * BEG
                * AFTER
27 'C' 80       * ENTG1
27 'C' 80       * ENTG2
27 'C' 80       * ENTG3
27 'C' 80       * ENTG1R
27 'C' 80       * ENTG2R
27 'C' 80       * ENTG3R
27 'C' 80       * ENTGB
                * CR
                * LF
                * EXIT
                * BLINE
```

^Epson

```
V               * VERTICAL ALGORITHM
PIO.CR.LF
960             * XPRMAX
Y               * IS TOP MSB?
12              * SPCSPC
0               * TYPE
8               * # OF BITS
4               * HMAG1
2               * VMAG1
2               * HMAG2
1               * VMAG2
1               * HMAG3
1               * VMAG3
4               * HMAG1R
2               * VMAG1R
2               * HMAG2R
1               * VMAG2R
1               * HMAG3R
1               * VMAG3R
0               * BIAS
0               * REPEAT?
0               * CHAR TO REPEAT
27 51 23        * BEG
```

```
                * AFTER
27 76 192 3     * ENTG1
27 76 204 1     * ENTG2
27 76 0 1       * ENTG3
27 76 0 3       * ENTG1R
27 76 128 1     * ENTG2R
27 76 192 0     * ENTG3R
27 76 192 3     * ENTGB
13              * CR
10              * LF
27 50 13        * EXIT
27 74 1         * BLINE
```

^GP100

```
V               * VERTICAL ALGORITHM
PIO.CR.LF
480             * XPRMAX
N               * IS TOP MSB?
6               * SPCSPC
0               * TYPE
7               * # OF BITS
2               * HMAG1
2               * VMAG1
1               * HMAG2
1               * VMAG2
1               * HMAG3
1               * VMAG3
2               * HMAG1R
2               * VMAG1R
1               * HMAG2R
1               * VMAG2R
1               * HMAG3R
1               * VMAG3R
128             * BIAS
0               * REPEAT?
0               * CHAR TO REPEAT
15              * BEG
                * AFTER
8               * ENTG1
8               * ENTG2
8               * ENTG3
8               * ENTG1R
8               * ENTG2R
8               * ENTG3R
8               * ENTGB
13              * CR
8 10 15         * LF
15              * EXIT
                * BLINE
```

^GP250

```
V               * VERTICAL ALGORITHM
PIO.CR.LF
480             * XPRMAX
N               * IS TOP MSB?
6               * SPCSPC
0               * TYPE
8               * # OF BITS
2               * HMAG1
2               * VMAG1
1               * HMAG2
1               * VMAG2
1               * HMAG3
1               * VMAG3
2               * HMAG1R
2               * VMAG1R
1               * HMAG2R
1               * VMAG2R
1               * HMAG3R
1               * VMAG3R
0               * BIAS
0               * REPEAT?
0               * CHAR TO REPEAT
27 'L' 2        * BEG
27 'L' 3        * AFTER
27 'G' 1 224    * ENTG1
27 'G' 0 230    * ENTG2
27 'G' 0 152    * ENTG3
27 'G' 1 128    * ENTG1R
27 'G' 0 192    * ENTG2R
27 'G' 0 152    * ENTG3R
27 'G' 1 224    * ENTGB
13              * CR
10              * LF
                * EXIT
                * BLINE
```

^GP550

```
V               * VERTICAL ALGORITHM
PIO.CR.LF
480             * XPRMAX
N               * IS TOP MSB?
6               * SPCSPC
0               * TYPE
8               * # OF BITS
2               * HMAG1
2               * VMAG1
1               * HMAG2
1               * VMAG2
1               * HMAG3
1               * VMAG3
2               * HMAG1R
2               * VMAG1R
1               * HMAG2R
1               * VMAG2R
1               * HMAG3R
1               * VMAG3R
0               * BIAS
0               * REPEAT?
0               * CHAR TO REPEAT
27 'T13'        * BEG
27 '6'          * AFTER
27 'G480'       * ENTG1
27 'G230'       * ENTG2
27 'G152'       * ENTG3
27 'G384'       * ENTG1R
27 'G192'       * ENTG2R
27 'G152'       * ENTG3R
27 'G480'       * ENTGB
13              * CR
10              * LF
                * EXIT
                * BLINE
```

^GP700

```
V               * VERTICAL ALGORITHM
PIO.CR.LF
640             * XPRMAX
N               * IS TOP MSB?
8               * SPCSPC
1               * TYPE, IS COLOUR
8               * # OF BITS
2               * HMAG1
1               * VMAG1
1               * HMAG2
1               * VMAG2
1               * HMAG3
1               * VMAG3
3               * HMAG1R
1               * VMAG1R
1               * HMAG2R
1               * VMAG2R
1               * HMAG3R
1               * VMAG3R
0               * BIAS
0               * REPEAT?
0               * CHAR TO REPEAT
27 'T12'        * BEG
                * AFTER
27 'K512'       * ENTG1
27 'K256'       * ENTG2
27 'K202'       * ENTG3
27 'K576'       * ENTG1R
27 'K192'       * ENTG2R
27 'K192'       * ENTG3R
27 'K640'       * ENTGB
13              * CR
10              * LF
27 'A' 13       * EXIT
27 'T01' 10 27 'T12' * BLINE
27 114 0        * COL01, black
27 114 6        * COL02, medium green
'=' 2           * COL03, light green
```

```
27 114 2        * COL04, dark blue
'=' 4           * COL05, light blue
27 114 1        * COL06, dark red
                * COL07, cyan
'=' 6           * COL08, medium red
'=' 6           * COL09, light red
27 114 4        * COL10, dark yellow
'=' 10          * COL11, light yellow
'=' 2           * COL12, dark green
27 114 3        * COL13, magenta
                * COL14, gray
```

^NX1000R

```
V               * VERTICAL ALGORITHM
PIO.CR.LF
960             * XPRMAX
Y               * IS TOP MSB?
12              * SPCSPC
1               * TYPE, IS COLOUR
8               * # OF BITS
4               * HMAG1
2               * VMAG1
2               * HMAG2
1               * VMAG2
1               * HMAG3
1               * VMAG3
4               * HMAG1R
2               * VMAG1R
2               * HMAG2R
1               * VMAG2R
1               * HMAG3R
1               * VMAG3R
0               * BIAS
0               * REPEAT?
0               * CHAR TO REPEAT
27 51 23        * BEG
                * AFTER
27 76 192 3     * ENTG1
27 76 204 1     * ENTG2
27 76 0 1       * ENTG3
27 76 0 3       * ENTG1R
27 76 128 1     * ENTG2R
27 76 192 0     * ENTG3R
27 76 192 3     * ENTGB
13              * CR
10              * LF
27 50 13        * EXIT
27 74 1         * BLINE
27 114 0        * COL01, black
27 114 6        * COL02, medium green
'=' 2           * COL03, light green
27 114 2        * COL04, dark blue
'=' 4           * COL05, light blue
27 114 1        * COL06, dark red
                * COL07, cyan
'=' 6           * COL08, medium red
'=' 6           * COL09, light red
27 114 4        * COL10, dark yellow
'=' 10          * COL11, light yellow
'=' 2           * COL12, dark green
27 114 3        * COL13, magenta
                * COL14, gray
```

^OKI92

```
V               * VERTICAL ALGORITHM
PIO.CR.LF
768             * XPRMAX
N               * IS TOP MSB?
16              * SPCSPC
0               * TYPE
7               * # OF BITS
2               * HMAG1
2               * VMAG1
1               * HMAG2
1               * VMAG2
1               * HMAG3
1               * VMAG3
2               * HMAG1R
2               * VMAG1R
1               * HMAG2R
1               * VMAG2R
1               * HMAG3R
1               * VMAG3R
0               * BIAS
255             * REPEAT?
3               * CHAR TO REPEAT
28 27 37 57 8   * BEG
3 2             * AFTER
3               * ENTG1
3               * ENTG2
3               * ENTG3
3               * ENTG1R
3               * ENTG2R
3               * ENTG3R
3               * ENTGB
13              * CR
10              * LF
30              * EXIT
                * BLINE
```

^PROWRITER

```
V               * VERTICAL ALGORITHM
PIO.CR.LF
1280            * XPRMAX
N               * IS TOP MSB?
16              * SPCSPC
0               * TYPE
8               * # OF BITS
4               * HMAG1
2               * VMAG1
2               * HMAG2
1               * VMAG2
1               * HMAG3
1               * VMAG3
4               * HMAG1R
2               * VMAG1R
2               * HMAG2R
1               * VMAG2R
1               * HMAG3R
1               * VMAG3R
0               * BIAS
0               * REPEAT?
0               * CHAR TO REPEAT
27 'T15' 27 91 27 33 27 62 13 * BEG
27 78           * AFTER
27 80 27 'S1024' * ENTG1
27 80 27 'S0512' * ENTG2
27 80 27 'S0256' * ENTG3
27 80 27 'S0768' * ENTG1R
27 80 27 'S0384' * ENTG2R
27 80 27 'S0192' * ENTG3R
27 80 27 'S1280' * ENTGB
13              * CR
10              * LF
27 65 27 93 27 34 27 78 27 60 13 * EXIT
27 'T01' 10 27 'T15' * BLINE
```

^STAR10

```
V               * VERTICAL ALGORITHM
PIO.CR.LF
960             * XPRMAX
Y               * IS TOP MSB?
12              * SPCSPC
0               * TYPE
8               * # OF BITS
4               * HMAG1
2               * VMAG1
2               * HMAG2
1               * VMAG2
1               * HMAG3
1               * VMAG3
4               * HMAG1R
2               * VMAG1R
2               * HMAG2R
1               * VMAG2R
1               * HMAG3R
1               * VMAG3R
0               * BIAS
0               * REPEAT?
0               * CHAR TO REPEAT
27 51 16        * BEG
                * AFTER
27 76 192 3     * ENTG1
27 76 204 1     * ENTG2
```

```
27 76 0 1       * ENTG3
27 76 0 3       * ENTG1R
27 76 128 1     * ENTG2R
27 76 192 0     * ENTG3R
27 76 192 3     * ENTGB
13              * CR
10              * LF
27 50 13        * EXIT
27 74 1         * BLINE
```

~TIPRINTER

```
V               * VERTICAL ALGORITHM
PIO.CR.LF
960             * XPRMAX
Y               * IS TOP MSB?
12              * SPCSPC
0               * TYPE
8               * # OF BITS
4               * HMAG1
2               * VMAG1
2               * HMAG2
1               * VMAG2
1               * HMAG3
1               * VMAG3
4               * HMAG1R
2               * VMAG1R
2               * HMAG2R
1               * VMAG2R
1               * HMAG3R
1               * VMAG3R
0               * BIAS
0               * REPEAT?
0               * CHAR TO REPEAT
27 65 8         * BEG
                * AFTER
27 76 192 3     * ENTG1
27 76 204 1     * ENTG2
27 76 0 1       * ENTG3
27 76 0 3       * ENTG1R
27 76 128 1     * ENTG2R
27 76 192 0     * ENTG3R
27 76 192 3     * ENTGB
13              * CR
10              * LF
27 50 13        * EXIT
                * BLINE
```

END OF ARTICLE

# TREASURER'S REPORT

by Cyril Bohlsen

Income for previous month ..... $ 976.00

Expenditure for previous month .. $ 553.60

Profit for previous month ..... $ 422.60

Membership accounted for $ 199.00 of Income.

Shop sales ..... $777.00 of Income.

The expenditure was made up of the following

Printing & Postage of TND ..... $ 303.60

Purchase of IBM VGA monitor ..... $ 250.00

This has been one of our best profit months this year, but the Bank balance is still declining.

This is the month when we have the majority of our membership renewals falling due.

Actually there are 75 renewals due at this date, so please help the club by renewing as early as possible.

## Chatting with Gary Bowser

from Delphi, courtesy Tony McGovern

The following messages were taken from the Delphi BBS in the USA late in 1993. Tony McGovern had been trying to get Gary Bowser to communicate with him for some time, partly because of the large number of orders from Australia for TIM cards which had not been filled. What follows here are some of the messages which were sent to Delphi by Tony McGovern and Gary Bowser, hopefully in chronological order but not necessarily complete. I am sure you will pick up the flavour of the communication, even if it is not complete. I have done some editing to make it easier to read where the meaning is obvious, but there are some sentences which I could not understand so I have left them as they were. Because of what is said in this interchange, I have decided to manufacture some 80 column cards for local users. These should be under way by the time you read this. (Geoff Trott)

Gary,

Now that we have your attention: you have missed your real vocation. Reply 41453 is truly a fine example in the art of spin-doctoring as more usually practised by high level corporate or government bureaucrats in that great nation to the south of you (and everywhere else in the world too).

Firstly, let us look at the TIM/9958 and software support. Now I have expressed on many occasions the opinion that the TIM/SOB is the most elegant solution yet to the problem of bringing compatible enhanced video to the TI99/4A (this approval does not necessarily extend to the additional software in the GROM simulator, or even to the use of the 9958 as against the 9938 on grounds of mouse support). How many of these are in the hands of serious programmers outside OPA? Given the record of OPA as a supplier of these devices, do you expect any such programmers to put hard $$ down a black hole, when existing long-standing orders remain unfulfilled? I am certainly not going to, especially when I am not even sure that there are many devices out there. In fact I would see it the other way round as OPA hitching a free ride on the work of AVPC and Mechatronics-80Z software writers. That is the way things advance, but it is a two-way game.

What about other things? POP-Carts are for me an irrelevancy, though they may be important to others. What I have NOT seen is any of the interesting software that was talked up; speech for instance. RAMBO is not a bad idea, but not worth major modifications on small HRDs (which are the only ones I have that are reliable). It was probably a pure coincidence and it has been since removed, but ever since a RAMBO was installed on the HRD-3000B (see an earlier Forum posting) this has never worked satisfactorily again.

In fact the good part of OPA's reputation seems to rest almost entirely on the ROS 8.14 development of the original Miami-UG ROS software for Horizon RDs. Even this is a mixed blessing, as it is no longer open source code in a fundamental part of the system. Please, please upgrade it to support 800K DSQD equivalent drives on big HRDs.

Tony McGovern, Funnelweb Farm
GLOBAL01 on Delphi
phpam@cc.newcastle.edu.au

Gary,

I am in regular contact with the Sydney TI Group and they still seem to have some unresolved problems on supply of product from OPA. A letter from Geoff Trott is enclosed. As I see on Delphi that OPA is still functioning and offering products for sale, there would seem to be some matters in need of urgent attention.

Please let me know what is to be done - either by e-mail to this address or to GLOBAL01 on Delphi. I am personally sensitive to this kind of problem, because Will is down several Kilo$ for a fancy Amiga video board to a firm in California which is neither supplying nor refunding. All the papers on that are soon to go to the San Diego District Attorney's office.

Tony McGovern
e-mail phpam@cc.newcastle.edu.au

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Dear Gary Bowser,

I am writing to you on behalf of the members of TIsHUG (Australia) who placed an order through Gary Christensen of Brisbane for a number of TIM boards several years ago. We have been concerned for some time that we have paid our money to you and have received nothing in response. I am wondering if you would be able to send to us something that would allow us to proceed with the addition of 80 columns to our TI99/4As. For example, could you send some printed circuits, some 9958 ICs, some programmed PAL chips for the SoB board and anything else that would help us get going on this project that you have in stock. We are able to put together hardware and even to program PAL chips and EPROMs if we know what their contents are. TIsHUG has one TIM board and one SoB board and would only need access to some of the more esoteric components to make these boards ourselves. We have not done so because we believed that you would eventually honour the order made on you, but if you are not able to do that in full, could you please consider alternatives like supplying parts as suggested. I am sure that you recognise that a lack of 80 columns is one of the main reasons that users move away from the TI99/4A. Any response to this letter would be appreciated. Yours sincerely Geoff Trott, TIsHUG, Sydney, Australia

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41520 8-DEC 01:41 New Uploads
RE: Hi There (Re: Msg 41478)
From: TINET To: GLOBAL01 (NR)

There were many TIMs in the hands of serious programmers, when the device first hit the market in early 1990. We shipped out over 25 units to the "then" current programmers, many of whom have left and the rest never wrote any software. It is true we hit the market after the AVPC card and long after the Mechatronics unit, but as far as we know we have shipped out more TIMs then both the AVPC and Mechatronics combined.

Our reasons for picking the 9958 over the 9938, were for the improved YJK display mode and the easier hardware interface in hooking up digitzers and other devices.

It is true there are about 40 outstanding orders for the TIM/SOB unit, and after a hard two years it looks like things are starting back on the right track. We have moved into a bigger place, and are hiring staff to handle the orders, building and shipping of the unit, and soon will be ordering the needed stock and parts. Producing the TIM/SOB takes a lot of dough and each production run costs well over $9000 in parts, not counting labour, etc. After producing a number of production runs in 1990, we were out of TIMS by early 1991, due to a number of factors. These were mainly an overrun in cost in research and development in two projects we were helping out for other TI'er businesses, and in lost of orders due to people telling customers that we were not shipping goods out fast enough. This caused our monthly supply of orders to quickly dry up.

The reason for slow shipping in 1990, was twofold, lack of enough time and space to handle the growing amounts of orders for TIMs, and too much manpower spent in new research and development in projects undertaken by OPA to help other companies. I could keep going into details, but most people just do not seem to understand or want to listen to our side. TI'ers calling wolf before it happened caused the real crunch of orders in early 1991, which caused more users to scream which caused less orders. This type of business runs on cash-flow, the sale of orders gets more orders, which brings in more money which is needed to kept the ball rolling smoothly. Even today, as little as 30 fully paid orders for TIMs would get everyone a TIM including those that have ordered, as this would bring up the money-pot, enough to start production again. We cannot make just one or two TIMs a time, the $179 price is based on the fact that there will be many orders. We would have to sell the TIM for over $300 if built in small lots of 10 or less.

ROS 8.14 will not be upgraded. I suggest if you want better use of your Horizon, to buy our new RAMOS for all RAMdisks. It supports many new features and I am currently run a HRD3000 with over 13000 sector drive. It is strange; you see most of good reputation in the ROS 8.14, I should thank you for that comment, and most do not even know we wrote 8.14. I do not know why you think it is a mixed blessing for not being open software as I can name any currently marketed software in the TI99/4A world, to be opened, we felt it is better to have the DSR closed, as this side of the TI99/4A is one of the hardest areas to handle, and writing ROS 8.14 was a real job, but still it was not very good, and broke many rules. The all new RAMOS system, took five programmers closely working together for over 18 months to bring it to its finally stage. Solving every problem with every card out there was a good learning job, and I can say for sure our company has become the best DSR programmer out there, and now know everything there is to know regarding the TI99/4A design. I wish I could say the same about the SCSI effort. When you see RAMOS in action, you will be amazed in its speed and power and ease of use.

That is enough for now, TTYL (GarY)

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END OF ARTICLE

## THE NEW LOOK GAMES INFORMATION Series III, No 4

By Robert Brown

I hope you enjoyed the last article on Planetfall and hopefully the map (if it made it to the TND - as I can't say, as I am writing this article on Jan 2 for the March TND - clever aren't I!)

This month I thought I would give you the solution to another Infocom adventure - this time it will be.... wait for it...

$$$$$$$ j j j j

As you sit quietly at the workbench in your research laboratory, you're startled into action by the sound of the videophone alarm bell. You'd better act quickly, because your buddy Tip Randall is raising the roof. The first thing to do is turn on the videophone. As soon as you do that, though, you realize that the picture is fuzzy. That's easy to correct; simply adjust the videophone. There is Commander Zoe Bly, looking worried, and telling you about an urgent problem at the undersea Aquadome. You'd better pick up the microphone, then turn it on.

After asking Bly about the problem, question her about the monster she's seen. Bly is sounding ever more desperate, so tell her goodbye. Suddenly, however, something's wrong with the videophone, and your score drops by 3 points!

Now is the time to go to the Computestor for a clue. First, turn off the microphone and drop the microphone onto the workbench. Then, head for the Computestor and turn it on. Since the machine is now ready for questions, ask it about the videophone. Hmmmm...the problem could be one of many, but you suspect that something may be wrong with the electrical panel. The panel is just down the hallway, so go to the panel, and

examine it. Well, well, apparently the circuit breaker is open. By fixing the circuit breaker, you regain your 3 points. However, you are starting to wonder whether treachery is afoot here in the lab. It's time to have a chat with your assistant, Sharon Kemp.

Go to the office and confront Sharon with your suspicions. Her answers are evasive, and she seems very nervous. Since time is growing short, you decide to leave Sharon and head for your sub, the "Scimitar."

Realizing that the sub won't start unless you have the atomic catalyst capsule, you first examine the work counter. There is the capsule, so you grab it and head for the Scimitar.

Once settled in the pilot's seat, with Tip nearby, you decide to check the sub for any problems. Pushing the test button gives you a positive readout, but you're still apprehensive. You will need to open the access panel in order to enter the sub's crawl space, but you don't have a tool. Maybe Tip has such an item? Tip comes through, handing you a Universal Tool. Open the access panel, and carefully crawl into the space. A check of the voltage regulator reveals that it is damaged. Use the tool to fix the regulator. Now all is OK, and you won't have any problems going full throttle to the Aquadome.

You're ready to get underway, so crawl out of the space, close the access panel, close the sub's hatch, and put the catalyst capsule into the reactor. After closing the reactor, you'll need to turn on the reactor and fill the docking tank with seawater. Once the tank is filled, turn on the engine, open the tank gate, then open the throttle. Push the joystick to the east, and you're off!

The surface of Frobton Bay isn't the safest spot around, so the first thing you need to do is set your depth to 5 meters and set the throttle to slow. You'll want to check the sonar occasionally to make sure you're not heading toward any obstacles. Your sequence of moves must be accurate to avoid destruction.

One$uumgz* * * is to follow
these moves: Northeast, then three Norths, then Northeast again, then wait. The alarm bells may be ringing, but you'll safely avoid a submerged obstacle. Then, suddenly, an approaching ship is detected by the sonar. You'll have to stop waiting and set your depth to 15 meters to dive below the ship. Wait again, and you'll chug right on through the seawall opening into the ocean.

Be sure to save the game here, since you won't want to cross Frobton Bay again! You can turn on the autopilot now, since the sub will head straight for the Aquadome. Because you fixed the voltage regulator, you can set the throttle to fast without overheating. Wait now, as you continue diving deeper and deeper. To check out an enormous whale, aim your searchlight to starboard. The trip will take a little while longer, so you might want to ask Tip about that magazine he's reading. A close study of a particular article in the magazine reveals that Dr. Jerome Thorpe (an Aquadome staff member) has succeeded in creating mutant sea creatures. Further, Thorpe announces in the article that he plans to marry your lab assistant, Sharon Kemp! You're beginning to understand who's behind the attack on the Aquadome, and you're even more anxious to arrive.

Wait a while longer, and then, as you near the structure, your sonarphone rings. It's Commander Bly, asking to speak privately with you when you arrive. You wait a few more turns, and the sub slows to a stop in the docking tank. Open the throttle to slide into the cradle. You wait while the water in the tank empties, and you save the game again.

Before opening the hatch and exiting the sub, you pick up the emergency oxgyen gear...just in case. Leave the Scimitar and head straight for the Aquadome's Reception Area where Bly and her crew await you. Greet them, and then take a quick look around. Your explorations are interrupted by a sudden realization that something is wrong with the air supply. Quickly using the oxygen gear you so intelligently brought with you, head for the Dome Center. Commander Bly and several crew members are gasping for breath, so time is short. Use the universal tool to open the access door to the air supply assembly. Instantly noticing that something has been unscrewed from an important cylinder,$
electrolyte relay. Put the relay into the cylinder, and close the access door. Your efforts are successful, and the air supply is now functioning properly.

As you return to the Reception Area, you observe Doc Horvak with Bly's oxygen gear. You're suspicious, so when Bly ask you to accompany her to the office, you go with her. She volunteers some interesting information: She suspects sabotage in the Aquadome and shows you certain evidence. The evidence consists of a black box which you open and examine. This device could be used to interfere with the Aquadome's sonar, and Tip has an idea about how to trap the saboteur.

Go to the Storage Room with Tip and discuss his idea. Before you reach the storage area, you notice the special Fram Bolt Wrench lying under Bly's desk. Realizing that the wrench must have been used to tamper with the air supply, you show it to Doc Horvak. His reaction proves most interesting.

Now you need to do some serious thinking. Conversations with various crew members will assist you in your search for the traitor. Ask everyone about everyone else, check the locker in the men's dorm, set the black box onto the sonar, and observe everyone's behavior.

Commander Bly will offer to supply you with a bazooka so that you can hunt the monster (the "Snark"). Get that from her and have Tip install it on the sub's extensor claw. Find Doc Horvak and show him the magazine article about Thorpe. Doc will come up with some interesting conclusions, and will offer to prepare a special tranquilizer gun for you. Get the dart gun and have Tip install that as well.

During your explorations and conversations, Mick Antrim will check out the Scimitar then return and ask you whether you'd like to have an Emergency Survival Unit installed in the sub. You agree, then poke around a while longer until the unit is in place. It's time to think about improving your navigation and sonar - the Snark will be difficult to capture or kill. You ask Tip about installing a fine grid and a fine throttle control in the sub, and he agrees to do so.

You're about ready to head out into the ocean again, but you still haven't come to a firm conclusion about who the Aquadome traitor is. Once in your pilot's seat, however, you notice that the survival unit installed by Em
ing the syringe, you head for Doc Horvak and ask him to analyze it. His analysis reveals that the hypo is filled with arsenic! You'd better confront Amy and Bill with this evidence before you do anything else.

The instant you show the syringe to Bill, he turns and runs away. He's heading for the sub, and you race to the office to view his actions on the station monitor. As you watch Bill climb down the inside ladder of the docking tank, you realize you have only seconds to trap him. You quickly turn off the docking tank electricity so Bill can't open the gate. He knows he can't get out now, so he surrenders. You turn the electricity back on, and leave the office.

Cheers follow you as you head back to the Scimitar. After filling the docking tank with water, you turn on the engine and open the gate. Turning the joystick to the South, you open the throttle. Save the game, and head out into the ocean.

You're finally ready to confront the Snark and, perhaps, the evil Dr. Thorpe. Exit the Aquadome's docking tank by going South, then set the throttle to medium. Turn Southeast and wait until you reach the Snark and the Sea Cat (piloted by Dr. Thorpe). Thorpe will taunt you with power, and admit his plan to wreck the Aquadome.

Suddenly, Thorpe's transmission breaks off, and Sharon Kemp begins to speak to you. She explains how she only went along with Thorpe to try to trap him, and she's ready to help you capture the Snark. Sharon has a lot of interesting things to tell you, but you don't have time to talk to her right now. The Snark is moving quickly toward the Aquadome, 9-ady to batter it to bits.

Here is one method you can use to put the Sea Cat out of commission before Thorpe has a chance to attack you: East twice, then check your sonar to make sure you're in position. Set throttle to slow, then turn South. Head Northwest four times. Oh oh! Dr. Thorpe has recovered consciousness and his voice is crackling over the sonarphone. Ignore him, and head Northwest twice more. The sub will be just to the East of the Sea Cat, so, all on one line, enter the following command: West then aim bazooka at power pod then shoot power pod with bazooka.

There! You've done it! The Sea Cat is out of commission and Thorpe's out cold again. Sharon guides the Snark to its hidden cavern so that you can safely study it later. You've completed your mission and saved the Aquadome!

Now how hard was that... not that really when you have the expert help of Robert Brown (Games Information)! For more interesting and helpful articles, read the next TND, until then, by for now!!

P.S. If you need to contact me, here are some ways for you to do this!!

1. By the BBS, Username: Games
   Password: Expert !!

   Phone (02) 456-4606. Since BBS membership is FREE, everymember should be ringing it up. If you do not have a modem, give me a call and I can get one for you eg Netcomm PocketModem, 300, 1200, 2400 Fax approx $300.00

2. By Phone...
   (02) 743-3019 Home
   (02) 332-8110 Work (Until about 7pm)

3. By Post...

   46 Llewellyn Street
   Rhodes 2138
   New South Wales
   A u s t r a l i a

NOW you DON'T have any excuses for not getting in touch with me!! This article is Copyright By

Robert Brown - All Rights Reserved

Just a Short Note:
$$$$---%**the Author) "This article was written waiting for the cricket to start (Aust Vs S.A at the S.C.G.). Don't worry, I am at home writing this article, not at the ground, although it would be nice to do both. Go Aussie Go!"

- Overheard one day, when the author was boasting about his writing talents (or lack of them!!).

END OF ARTICLE

## WORD PROCESSING WITH MULTIPLAN

by Pete Phillips
(Courtesy San Antonio Area 99ers)

Retyped by Bob Relyea

Word processing with Multiplan? Why not? Multiplan has many advantages over TI-Writer and the Editor/Assembler Editor. For instance, Multiplan will allow you to format your document in a columnar layout and print it in condensed text, providing for a larger amount of text on a given page. In addition, Multiplan will center your text where desired, and allow for the movement of blocks of text in a more flexible format.

Using Multiplan as a word processor does have its drawbacks. Among these are the lack of a global editor and the editing of text is a bit more difficult, as you cannot simply type over your text. Additionally, the fast typist will have to learn to slow down a little due to the program's relatively slow processing speed. (This can be alleviated to a degree by using a console with a 'fast' memory. See Geoff for details. ED). Despite these drawbacks, however, for many applications Multiplan may be the easiest way to solve the problem at hand.

I do not propose to go into a full tutorial on the use of Multiplan. For that I would refer you to the Multiplan Manual. I realise that many people find that to be a formidable document, but using Multiplan as a general text processor, only a general knowledge of the use of Multiplan is necessary. Therefore, in this discussion I will merely cover what I have found to be the easiest steps to follow in setting up and using the worksheet.

Starting with an empty worksheet your first step should be to select the OPT or OPTIONS command and turn off the 'recal' option. Since you will be doing no mathematical calculations, this will eliminate the considerable delay incurred as the program searches for mathematical cells.

Next, select the FORMAT option, then DEFAULT on the sub-menu, and finally WIDTH on the next menu, and set the default width at 30 columns. I realise that it is possible to set the width up to 32 columns, but by setting it at 30 we will later be able to widen for a buffer between columns of text.

The next setup step that is advisable is to again select the FORMAT, DEFAULT option, but this time select the CELLS option on the third menu. In the alignment column select L for LEFT. Remember, when Multiplan is displaying the ALPHA/VALUE prompt, hitting a number as the first character in a line will select the VALUE option rather than the ALPHA. Therefore, if the first character in a line is a numeric one, you must first hit <ENTER> twice to specifically select the ALPHA command. In case you forget, however, and the only characters entered on that line are numeric ones, this will prevent them from being right justified or otherwise skewed.

The final setup step I use is to select the WINDOW option and place a border around the one open window. You may then use this border as a line length guide when typing. You may type up to, but not including, the column containing the right border without having the end of your text cut off.

You are now ready to begin entering your text. Start at row one, column one, and enter one line after the other in column one and format it later, since this makes it somewhat easier to move data about. Another advantage is that you do not have to worry about keeping tract of where you are located on the page.

Once you have finished entering your text, you are ready to format the data into columns. Since the maximum column width on the TI printer is 132, we will divide the text into 4 equal columns of 32 characters each and have a 2-column border on the left and right margins.

Assuming we are working with one page as an example, there are two ways you could format the text. One would be to simply divide it into 54 rows per column (assuming your page length is 66), and leave whatever may be left over in the fourth column. You may also decide that you would like the columns to be of even length, in which case you would simply divide the total

number of rows by four, and make each column that length.

For example, let's assume the total number of rows, when the document is formatted in on column is 200. Now, 200 divided by 4 equals 50 (I am trying to keep it easy as Dick may be reading this! ED). We would, therefore, make each column 50 lines long. To do this, we would copy from row 51 to 100, and place the copy in row 1, column 2. Next, we would copy from row 101 to 150, and place the copy in row 1, column 3. Finally, we copy from row 151 to 200 and place the copy in row 1 column 4.

You now have the entire document in rows 1 through 50 and columns 1 through 4, but you still have copies of columns 2 through 4 below row 50 in column 1. To get rid of these use the delete command. Now change the default width to 32 to provide spaces between columns.

You are ready to print the file. To do this, first, save the file to disk. Next, exit Multiplan and select TI BASIC and enter the following commands:

```
OPEN#1:"PIO.CR"
PRINT#1:CHR$(27);CHR$(15);
CLOSE#1

BYE
```

If your printer is not connected to the Parallel I/O interface then you will have to supply the proper file name. This procedure sets up the TI printer to print in condensed text. Next, re-enter Multiplan and select PRINT & OPTIONS. Enter your printer name in the setup field and return to the PRINT menu. Now, select MARGINS and set the left margin to 2 and change the print width to 132. All that needs to be done now is to select the PRINTER command and your document should come out in 4 even columns.

I will admit that this procedure sounds a bit tedious, but it is the most flexible means I know of to format text into columnar form. I have made several attempts to devise a program to translate a D/V 80 file into a Multiplan file using the Symbolic Link file format, but so far all of my attempts have proved to be fruitless. I am still working on it, so if you I have any success I will let you know.

EDITOR' NOTE: The above procedure with the printer could be shortened if you run the BASIC program before you enter Multiplan as it saves you from entering and exiting so many times. The same 132 column condensed print procedure can be done with FunnelWeb. If you want a D/V 80 document printed in 3 or 4 columns I believe there are programs available although there are less options about getting the right word in the right column. Finally, a few years ago there were some articles in MICROpendium about using the Symbolic Link capability for changing D/V 80 files into a Multiplan format. If anybody has followed up on this then please let me (Bob) know. It is easy, of course, to change the Multiplan file to a D/V 80 file and then have it called up by FunnelWeb to make any last minute touch-ups.

END OF ARTICLE

## HANDY TIPS

Courtesy of SPIRIT OF 99 ERS.INC.

HANDY TIPS FOR THE TI99/4A COMPUTER.

** If you have a speech synthesizer and a TEII cartridge here is a trick for debugging programs. All you have to do is enter your program, type LIST "SPEECH" and hit <enter>. The computer will read your listing back to you.

** If you want to disable the quit key (FCTN =) type in CALL INIT :: CALL LOAD(-31806,16) and then enter. You must have Ext Basic and 32K memory.

** If you are going to save a program to tape and type OLD CS1 instead of SAVE CS1 don't panic. Press FCTN E together then press <enter>. This will take you out of the tape loop.

** You don't have to enter line numbers in TI BASIC or EXTENDED BASIC. Before you start enter NUM n(1),n(2); where n(1) is the starting line number and n(2) is the desired increment.

** You can list programs to the screen in several ways. Try these; LIST, LIST n, LIST n-, LIST n-n

** If you want to renumber the lines in a program to make it neater or make room for new lines you don't have to renumber them individually. Just enter the command RES n,n for the resequence (starting number, interval between ines.)

** When entering a listing in Ext Basic and several lines are very similar, you can save time by typing in the first line and hitting <enter>. Then press FCTN 8 (redo). Change the line number and make the changes required then press <enter>.

** Have you ever pressed ERASE by mistake and lost the whole line? Don't panic and DON'T hit <enter>. Instead press FCTN ? then <enter>. (The use of an uneven number of quotes will also prevent the modified line from being accepted by the interpreter). In both cases your line will still be intact.

** In Ext Basic type in RUN CSI. Follow the instructions on the screen. It will load the program and then run it automatically.

** In Ext Basic you can use ! or REM to put docmumentation in a program that the program will ignore.

** When you want to stop a listing on the screen in Ext Basic, just hit any key. To restart the listing hit any key again.

** You can add comments after a GOTO or GOSUB. These commands act similar to a ! or REM.

** With Ext Basic and a disk system, save a program under the name LOAD. When you start with this disk in drive #1, it will load and run the program unaided.

** If you have the TEII and the speech synthesizer type in the program on page 37 of the TEII manual. Try entering strings of K's,Q's,U's,W's,J's or X's for different sound effects. Try mixing them for interesting sounds.

** If you have Ext Basic and 32K type this in as the last line of your program: CALL INIT :: CALL PEEK(2,A,B) :: CALL LOAD(-31804,A,B) This will return you to the Title screen when the program is ended.

** When using a B/W TV as a monitor use CALL SCREEN(15). This will disable the color generator and remove the vertical lines you may see on the screen.

** To speed up the loading of Infocom games, don't use Ext Basic. Use the Mini-Memory or E/A instead. To use these, select the LOAD and RUN option and type DSK1.BOOT. When this has finished loading, press <enter> until you get the program name, then type START. On the Mini-Memory you'll get an ERROR after BOOT loads but keep pressing <enter> and proceed as above.

Retyped by John Ryan of TISHUG

END OF ARTICLE

# REGIONAL GROUP REPORTS

Meeting Summary For APRIL

| | |
|---|---|
| Central Coast | 09/4/94 Saratoga |
| Glebe | 07/4/94 Glebe |
| Hunter Valley | 09/4 16/4/94 |
| Illawarra | 12/4/94 Keiraville |
| Liverpool | 08/4/94 Yagoona West |
| Sutherland | 15/4/94 Jannali |

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CENTRAL COAST Regional Group

Regular meetings are normally held on the second Saturday of each month, 6.30pm at the home of John Goulton, 34 Mimosa Ave., Saratoga, (043) 69 3990. Contact Russell Welham (043)92 4000.

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GLEBE Regional Group

Regular meetings are normally on the Thursday evening following the first Saturday of the month, at 8pm at 43 Boyce Street, Glebe. Contact Mike Slattery, (02) 692 8162.

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HUNTER VALLEY Regional Group

The Meetings are usually held on the second or third Saturday of each month at members homes starting at 3pm. Check the location with Geoff Phillips by leaving a message on (049) 428 617. Please note that the previous phone number (049) 428 617 is now used exclusively by the ZZAP BBS which also has TI support. Geoff.

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ILLAWARRA Regional Group

Regular meetings are normally held on the second Tuesday of each month after the TIsHUG Sydney meeting at 7.30pm, at the home of Geoff & Heather Trott, 20 Robsons Road, Keiraville. A variety of activities accompany our meetings, including Word Processing, Spreadsheets and hardware repairs. Contact Geoff Trott on (042) 29 6629 for more information.

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**********
* LIVERPOOL Regional Group *
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April / May

Regular meeting date is the Friday following the TIsHUG Sydney meeting at 7.30 pm. Contact Larry Saunders (02) 644-7377 (home) 34 Colechin St Yagoona West 2199 After 9.30 PM or at work (02) 708-1987 Liquorland Yagoona for more information.

** ** ** ** ** **

*** ALL WELCOME ***

8th April 1994

Subject: Gopher and Page Pro Utils.

** ** ** ** ** **

13th May 1994

Subject: To be decided

** ** ** ** ** **

Bye for now Larry. Liverpool Regional Co-Ordinator.

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SUTHERLAND Regional Group

Regular meetings are held on the third Friday of each month at the home of Peter Young, 51 Jannali Avenue, Jannali at 7.30pm. Peter Young.

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TIsHUG in Sydney

Monthly meetings start promptly at 1pm (except for full day tutorials) on the first Saturday of the month that is not part of a long weekend. They are held at the MEADOWBANK PRIMARY SCHOOL, on the corner of Thistle Street and Belmore Street, Meadowbank. Cars can enter from Gale Street and park in the schol grounds. Regular items include news from the directors, the publications library, the shop, and demonstrations of monthly software.

# APRIL MEETING - 9th APRIL

# MAY MEETING - 7th MAY

Due to the long weekend over the 1st, 2nd, 3rd, 4th April

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The cut-off dates for submitting articles to the Editor for the TND via the BBS or otherwise are:

| | | |
|---|---|---|
| May | - | 14th May |
| June | - | 11th June |

These dates are all Saturdays and there is no guarantee that they will make the magazine unless they are uploaded by 6:00 pm, at the latest. Longer articles should be to hand well before the above dates to ensure there is time to edit them.

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This months list of words is based around the subject of "EASTER"

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| G | V | U | R | R | Z | I | L | Q | E | A | C | E | X | P |
| O | O | R | R | P | I | A | F | A | O | H | E | Y | B | I |
| Z | D | Y | P | E | B | B | L | K | R | Q | T | W | L | I |
| R | Q | Q | E | A | S | B | B | I | B | I | N | C | R | A |
| V | R | C | S | A | U | U | S | O | N | J | O | K | P | R |
| N | H | K | H | N | S | T | R | A | N | L | X | R | W | G |
| Y | E | B | S | O | K | T | I | R | O | Q | I | N | J | I |
| T | A | K | U | A | C | T | E | U | E | L | T | A | P | V |
| B | N | D | C | N | S | O | R | R | O | C | T | Q | R | I |
| Q | W | G | I | I | N | S | L | D | F | E | T | S | H | N |
| Z | Z | E | R | L | H | Y | P | A | N | E | S | I | P | G |
| T | L | H | L | J | O | C | D | N | T | O | G | E | O | V |
| H | C | X | N | B | D | H | O | O | R | E | A | G | B | N |
| S | R | K | O | Y | I | B | M | C | L | C | E | Z | U | H |
| G | Q | Z | D | R | F | B | S | O | E | Y | J | K | P | A |

Find these hidden words

HOW TO PLAY

All the words listed below appear in the puzzle horizontally, vertically, diagonally even backwards.

| | | |
|---|---|---|
| APRIL | BASKET | BIBLE |
| BONNET | BUNNY | BUNS |
| CHICKEN | CHOCOLATE | CHRIST |
| CHRISTIANITY | COLOURS | CROSS |
| EASTER | EGG | GIVING |
| HOLIDAY | HOT | PEACE |
| RESURRECTION | RIBBON | |

This puzzle was compiled using ASHLEY LYNN'S programme "Word Puzzle" which is avaliable from the TIsHUG shop.