TIHUG NEWS DIGEST

Focusing on the TI99/4A Home Computer

Volume 14, Number 5 June, 1995

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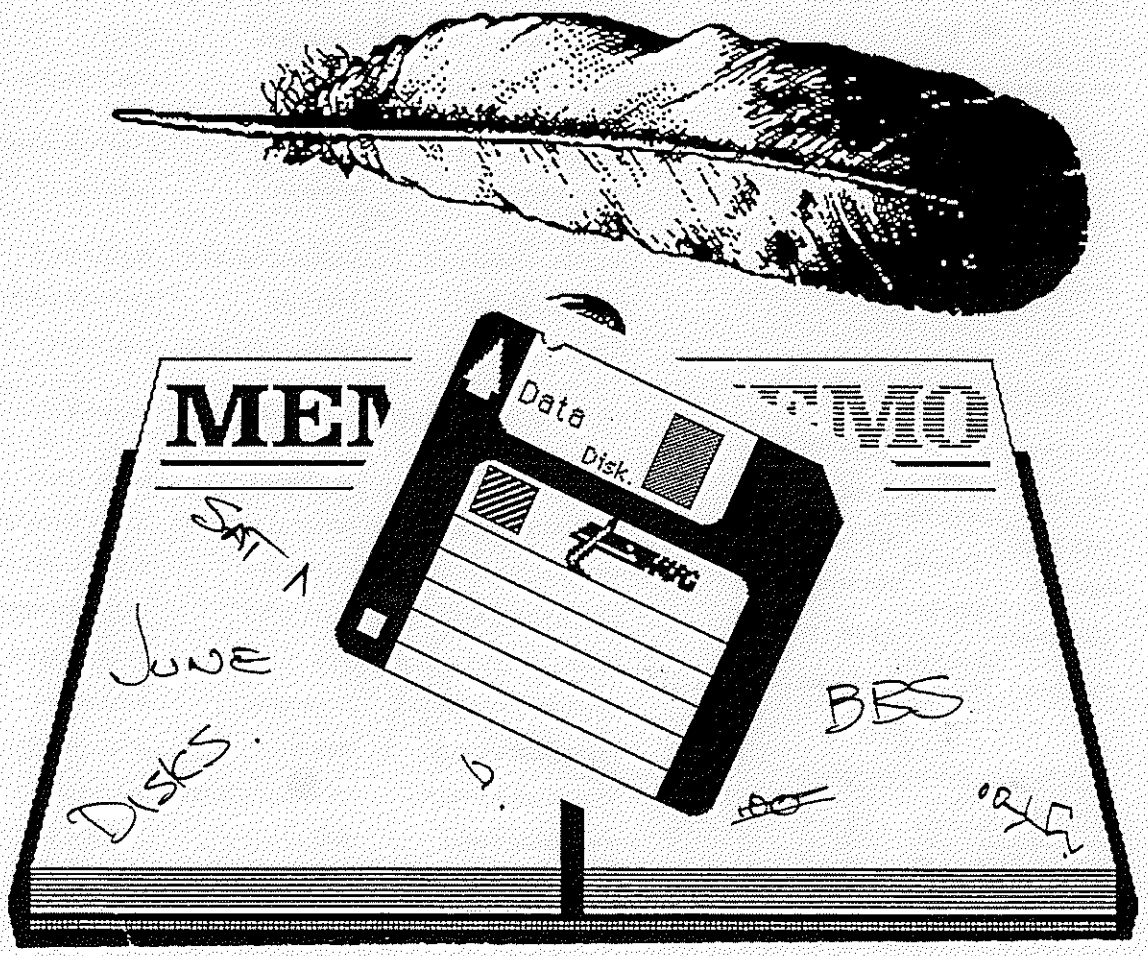

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TIsHUG News Digest

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Membership and Subscriptions

Annual Family Dues	$35.00
Associate membership	$10.00
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Overseas Surface Dues	A$50.00

TIsHUG Sydney Meeting

The June Meeting will start at 2.0 pm on the 3rd June 1995 Workshop for projects at 10:30am at Meadowbank Primary School, Thistle Street, Meadowbank.

Printed by
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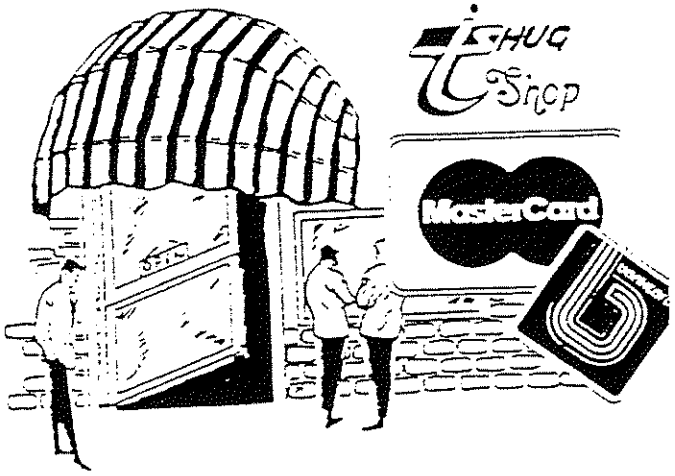


TIsHUG SHOP.

with Percy Harrison.

At the May meeting I advised the Club Directors that, due to ill health, I could no longer continue to operate the club shop and that the May meeting would be the last time that I would man the shop at our monthly meetings.

This is the sixth year that I have been running the shop and in that time I have enjoyed the close co-operation which I have received from our members. Without their support and patronage the club would not have been able to continue as it has been doing.

At the time of writing this we have not yet been able to find anyone to take over the job but it is to be hoped that someone will volunteer before our next meeting so that the shop activities can go on uninterrupted. It is one of the most important functions of the club (maybe the most important) as it provides the software and hardware to our members, especially for our TI'ers as it is now the only source of TI material available outside of finding something in the Trading Post or at garage sales.

Our sales to IBM-compatible users is increasing at a very good rate and, if we can maintain sales in this area, it will ensure continuation of our club at its current level or better. Again I would remind you to get a price from the club shop for your IBM compatible requirements before buying elsewhere.

I have made some very good friends during the time I have been running the shop both at our club meetings and through mail orders and correspondence with our country and interstate members and it is to be hoped that my contact with them on a personal basis will continue as I have valued their patronage and the friendship that we have established.

To the other Directors, I would like to say thank you for the trust that you placed in me in running the shop and the free hand that I have been given in determining what stock should be held in the shop. Over the years I have strived to ensure that the needs of our members were met at very competitive prices and at the same time kept our profit at a level that would enable us to produce the best TI Newsletter available to the TI community. This is born out by a listing in the last Newsletter of the Ottawa Group in Canada which rated our magazine as being the best from any TI club around the world. Unfortunately, this group has now ceased to operate due to the drop-off in their membership. To avoid the same thing happening here, the TI members and the IBM-compatible members of our club must work together to maintain an interest for both groups and make a concerted effort to bring in more members to ensure that we maintain a successful operation.

At the present time I will continue to help out on paste-up day and will still do the mailing of the newsletter each month. My Learn to Know Your TI Lessons will continue to Lesson 33 which was always planned to be the last one in the series.

I realise that I am not Robinson Crusoe as far as health problems go as Frank Hall, our long standing member from Old Bar, has not been feeling the best for some time now. He had a pace maker installed some little time ago and tells me that he is somewhat disappointed with the results. It is to be hoped that the doctors can do something to improve his response to the pacemaker so that he can, once again, enjoy fiddling with his TI again. Jim Lavelle, from Maryborough has been having trouble with his leg for some time , more recently, his wife has taken very ill and Jim now has a full time job taking care of his wife and the household chores. Our very best wishes go to both these members and to Jims wife and we hope that they have a speedy recovery from their ailments.

It would also be remiss of me not to thank Larry Saunders who, though very busy at work, has managed to find the time to prepare the master disks for our TI software each month. This has enabled me to concentrate on doing the shop work without having to worry about which programs to find for release at each meeting.

Bye and thank you all.

COMPUTING

TRAIN SET HANDS ON AT JUNE MEETING.

by Ross Mudie, 2nd April 1995.

At the April TISHUG meeting our co-ordinator, Dick Warburton, expressed the need for members to start to do something more positive at meetings. A letter was read out from one member expressing dismay at the lack of TI orientation at the meetings. Dick suggested that the members could bring along the projects that they had not managed to complete, for what ever reason, and try to achieve completion with the help of other members. Many of the unfinished projects are in this state because of some problem that another member can help with. This is a great idea which I hope members will take up.

Something that I noticed at the April meeting was that there wasn't much happening to interest some of the young people who were there. I realised that my computerised train set has not been along to a meeting for a long time, I thought that its presence may provide some interest for the kids and possibly a few of the other members. Additionally, there are a number of new members who have not seen or played with this train set.

OK, you ask if you havn't seen it before, "what is this TI99/4A train set all about?"

The Train Set is a small HO gauge model railway which is controlled by a TI99/4A computer. It has 6 lamp type signals, 1 semaphore type signal, 3 points, a loop of track, a passing loop and a dead end siding. It can run two trains at the same time. The screen of the computer acts as the track display showing the location of trains, signal and point status. Its almost like in a real railway signal box. The points are controlled from the number keys on the TI99/4A keyboard. The speed of the trains is controlled by the Joy Stick. The program in the computer identifies the location of each engine and prevents the train behind from crashing into the one in front. (Well, most of the time, except when Russell trys to beat a critical timing area or a train coupling separates leaving a lone carriage on the track). The program is designed to make the driver and signal person work to operate the layout, it doesn't do anything interesting unless you drive it! (Its a bit like a computer club, you won't get much out of it unless you are prepared to put something into it).

On the "computer side" of the train set, the display can also include a diagnostic area which allows you to "look inside" the program while it is operating and showing the normal signal box or a brief "operational key help" display is available.

Most importantly, you don't just watch whilst I drive it, that would be dead boring! Everyone that comes along and wants to have a go will be given the 5 minute Engine Driver's and Signal Operator's training course and will be invited to have a go.

Anyone who wants technical details (programming, hardware, construction, etc) will find this type of information is readily available, for free. There is nothing wrong with lying down on the floor to have a look at the "works" underneath the train layout, or watching the trains come wizzing around a corner at you at full speed with your eyes at train level beside the track.

This is an ideal type of project to get involved in at this time of the year. As the cooler months prevent the grass from growing so quickly, the construction and automation of a model train layout can provide countless hours of enjoyment in the construction stage and a huge amount of enjoyment for those who drive it later.

The TI99/4A computer is an ideal machine to use for this type of job. With the low cost of the TI computer hardware, it is practical to dedicate a computer to the train set. The TI99/4A provides good on screen graphics capability and is easy to interface via the expansion bus to a controller card which can be constructed to meet individual needs.

My elder son Sam commented that this train set was the ULTIMATE type of computer "game". It is controlled from both keyboard and joystick providing output on the screen, points, level crossing lamps, signals and in the movement of the trains. It doesn't require lightning fast reaction to control, but rather it requires logical thinking and problem solving to operate.

The little train set was originally constructed in 1988, after I came up with my first design for the "WIRE I/O" for controlling external electronic devices with the computer. I took the Wire I/O along to a TISHUG meeting (it was at Burwood in those days) and there was quite a bit of interest in it. I told members that it would be ideal for controlling things like a model train set, so the TISHUG board of the day asked if I could build such a project to show how it could be done. The end product was a small, reasonably portable layout which I believe is classified as a "suitcase" layout. The concept could be used for a larger and more complex layout. At a computer show in Newcastle University a few years back, a lecturer commented that a train set would be ideal to teach engineering students the principals of computer control of hardware devices.

Please come along to the next meeting on **3 JUNE** 1995 at Meadowbank Public School, from 1.30 to 4.30pm and have a play with the train set, bring along your unfinished projects, hardware and programming problems and make the most of your computer club. While you are there find out just how much your computer club has to offer.

MAIL TO : ALL
MAIL FROM : GEOFFWA

SENT ON Monday 27/03.95 at 17:07:06

RE : THE CONTINUING SAGA OF 'WHAT'S BREWING'

Users,
Further to my last missive on this subject, I received in the mail last week a diskette from "What's Brewing BBS" sysop Tony Laughton. You may recall I had mentioned to him that making the bulletin board a PC - based (not to mention Windows Excalibur specific) system was limiting its availability to users with that particular hardware / software combination. The contents of the disk was an archived file of a modified version of the Excalibur programme that allowed for (wait for it ...) the slow 2400 bps modems

Tony explains that the system sents a tremendous amount of info down the line, is big on graphics, and some of them are terrific, with the opportunity to view files as they are down - loaded, 2400 bps is just too slow, particularly when dialling interstate. It is unfortunate that he has not yet addressed the 'exclusivity' componant of my message to him, but at least he took note of the comment I made on how slow it was for my use, AND DID SOMETHING ABOUT IT !

To recap, if you are in to home brewing, it is worth a look. if you dial the advertised number and hit <ENTER> a couple of times, you get into a front end that allows you to comment and, if you are using an IBM PC - compatible, down load a copy of Excalibur ... but beware, it takes a long time at 2400 bps and could cost you a bit in STD costs

Regards

Geoff WARNER
SECRETARY, TIUP

MAIL TO : ALL
MAIL FROM : GEOFWA
SENT ON Monday 27/03/95 at 17:29:58

MORE ON THE "WHATS BREWING" BBS

So, it looks like I spoke too soon. No sooner had I logged off TEXPAC, and tried the WBBBS, then I discovered another problem. The upgraded bulletin board will only work with the upgraded Excalibur programme installed at the caller's end as well.

As I have not yet done this I can't log on - so what conclusions do we draw from this ? Stick to the old Keep It Simple principle

More to come ...

Geoff

MAIL TO : ALL
MAIL FROM : GEOFFWA
SENT ON Monday 20/03/95 at 16:28:58

SUBJECT : WHAT'S BREWING BULLETIN BOARD
To those of you who read my article in an earlier edition of TIUP TIt BITS on the home brewers' bulletin board, I have just re - logged on after quite an absence to discover that the system has changed somewhat. The system now runs as a windows - based 'EXCALIBUR' system, and effectively wipes it out for use by users of other computer systems. I have made the point to Tony Laughton, the Sysop, that it seems to be a little on the exclusive side, and an eagerly awaiting a reply.

To answer the question as to why an Excalibur system makes it exclusive to users of PC - compatibles, is that the system will not answer to any other communications package other than one from a PC running the 'Excalibur' programme. Those in the know (i.e. those who have logged on to 'What's Brewing' previously know that you can get into the front end by repeatedly pressing <CR>, but that only gets you a message and a comments field

Thanks for listening guys

Regards from the West

Geoff

MAIL TO : ALL
MAIL FROM : GEOFWA
SENT ON Friday 10/03/95 at 18:27:26

RE: TIUP, PERTH
Users of TEXPAC and TIsHUG members, this is to assure you all that TIUP is very much alive, and will in fact celebrate our birthday this coming March 18th General Meeting. As usual we will have cake, party favourites, hats, a marble dance floor and a band playing requests ... not to mention demo's and discussions on the mighty, mighty TI - 99 4A.

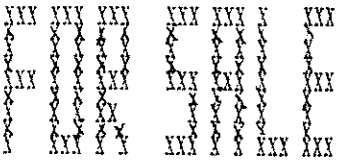
On a more humble note, I must take full responsibility for the lack of TIUP TIt Bits recently. I have, however, discovered an unmailed batch that dates back to late last year that I will get off as soon as I possibly can. Please don't give up on us, we are still alive and kicking ... albeit a little quietly of late
Regards

Geoff WARNER, SECRETARY

MAIL TO : ALL
MAIL FROM : LARRY
SENT ON Sunday 04.12.94 at 09:19:15

The Lexmark IBM Excjet II inkjet printer, will operate well on the TI computer. Up-to-date I have it working with:
Page Pro 99
TI Artist Plus
Writerease
Yet to get it right with TI Writer.

MAIL TO : ALL
MAIL FROM : LARRY
SENT ON Sunday 04/12/94 at 09:17:05



1 X STAR NX1000 PRINTER: 110Volt.
1 x TRANSFORMER.
2 X BLACK SPARE RIBBONS.
1 X RED SPARE RIBBON.
1 X GREEN SPARE RIBBON.
1 X PLASTIC COATED METAL PRINTER STAND.
ABOUT 3 REEMS OF TRACTOR FEED PAPER.

THE LOT FOR $100.00

CONTACT

LARRY SAUNDERS
34 COLECHIN ST
YAGOONA WEST
NSW 2199
Phone (02) 644-7377

END OF ARTICLE

EDITORS COMMENTS

It is with real regret we hear that Percy is unable to continue operating the TIsHUG shop. A task he has preformed selflessly and carried out with great elan for the past 6 years. His smiling presence behind stacks of computer paraphanalia will be missed by us all.

At our last meeting Alf gave us a demonstration of both TI Artist and Picasso, highlighting a few differences of these drawing programs. I had also started a demonstration, that of the 80 column Funnelweb, when Geoff Trott arrived with an updated version. This new version should be available through the shop and is a "must" as it has many more features than our current Funnelweb.

So please come along to our next meeting and see Alf with the TI Artist and Picasso drawing programs, and of course there will be the clubs IBM system full of games and programs to play with.

TIsHUG SOFTWARE FILE JUNE 1995

By Larry saunders

Diskname C113
Used= 358 Free= 0

*README	21*d 80	*RENDOCS	21*d 80
CARD	200*d254	LOAD	5*Prog
PP-COL2	30*Prog	PPT#1	42*d 80
PRINTER	6*Prog	RENLOAD	18*Prog
UTIL1	15*Prog		

INTRODUCTION:
=============

Welcome to the Page Pro 99 BONUS DISK. This disk contains a number of different programs, demos and a tutorial for Page Pro 99. Some of these items are in the public domain, but the majority were produced by Asgard Software specifically for this disk.

THE FILES:
==========

*README - This file
*RENDOCS - Documentation for the rename utility.
CARD - A sample greeting card made with Page Pro. Part of the PPT#1 tutorial.
LOAD - The Extended BASIC loader for all the utilities
PP-COL2 - Page Pro Super Columnizer
PPT#1 - A tutorial on using Page Pro to make greeting cards
PRINTER - A utility for printing the file CARD, or any Page Pro page printed to disk
RENLOAD - An Extended BASIC utility for loading the renamer.
UTIL1 - The renamer. This is an E/A-5 program.

SUPER COLUMNIZER:
=================

The Super Columnizer (really, Page Pro Columnizer version 1.6) is a revised and updated version of the columnizer included on the Page Pro program disk.

Among other things, this version features automatic page numbering, auto paragraph indenting, and some assembly speed-up. It also fixes a number of bugs found in the previous version.

To use this utility, follow the instructons detailed for its predescessor in the Page Pro Ctilities Tutorial manual. In addition to the other questions listed, you'll also be asked if you wish to indent paragraphs and by how many columns (1-6), and if you want a page number line - and if it should be centered or page justified, and at the botton or top of the page. When entering in your Page Number line, use the "#" sign to indicate where you want the page number to go. There are no restrictions on using this program other then to print the text file to disk and to not use Line or Page feeds. Lines with carriage returns will not be formatted. Use carriage returns at the end of paragraphs.

PPT#1
=====

This is a tutorial on using Page Pro to make greeting cards. The file CARD is the example discussed in this tutorial, and should be printed with PRINTER. Fold it into quarters when printed. More tutorials will be released in the near future on creating Newsletters, Forms and more. These can be obtained by registering this copy with Asgard and gaining access to GEnie's LIB 38 (the area for Page Pro owners), or by following directions in Asgard News on obtaining them.

PRINTER:
=======

This simple utility takes a Page Pro page that has been printed to disk and sends it to the printer. This is ideal if you need to print a lot of copies of a page, or if you have a very complex page that you'd like to print quickly later. To print a page to disk, simply specify a filename instead of the printer device name in Page Pro. Single density pages take 200, double 400 and quad 800 sectors. These files will usually compress in Archiver to something pretty small.

To use this utility after you have printed your page to disk, load it, enter the disk filename and your usual printer device name, and then the number of copies that you want. The program will prompt you between each copy to get the paper straight before continuing. When it is done, you can either print another or return to the Bonus Disk menu.

RENLOAD:
=======

Read the file *RENDOCS on using this utility. This little fairware item is useful if you want to transfer pages to a RAM or Hard disk. Remember that it will only convert filenames starting with DSK1.

If you are getting a "venetian blind" effect when you print out your pages with Page Pro, the program can typically be solved by switching the dip switch on your printer from 7 to 8 bits. Many are factory pre-set on 7. This is applicable to owners of the Star NX-10 and Gemini 10X, and the Panasonic 1091i.

Page Pro 99 Device Name Utility is a utility program I wrote to

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 CTIL1. 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 botton 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

Diskname G122
Used= 334 Free= 24

CHARA1	※		
9 Prog	LOAD	5 Prog	
READ ME	4 d 80	ROOT	28 Prog
SHOPTRIP	52*Prog	TOD1	33 Prog
TOD2	33 Prog	TOD3	33 Prog
TOD4	33 Prog	TRUEKING	52*Prog
TUNNELS	52 Prog		

TUNNELS OF DOOM.

Load the file: TOD1.

When the Tunnels title screen has cleared, you must enter a file name. Select from one of the 52 sector files on this disk or any other adventure file compatible with Tunnels of Doom.

Tunnels of Doom files are all 52 sectors long PROGRAM format.

Diskname G123
Used= 355 Free= 3

2HEAD-A	2 d 80	2HEAD-D	2 d 80
ALIEN1-A	2 d 80	ALIEN1-D	2 d 80
ATC	52 Prog	BAT-A	2 d 80
BAT-D	2 d 80	BEE-A	2 d 80
BEE-D	2 d 80	CLAW-A	2 d 80
CLAW-D	2 d 80	DARK-TOWER	52 Prog
DEMON-A	2 d 80	DEMON-D	2 d 80
DISPLAY	2 d 80	EDITOR	93 i254
EDITOR/2	42 Prog	FILE	6 d 80
GIANT-A	2 d 80	GIANT-D	2 d 80
LOAD	31 Prog	MAN1-A	2 d 80
MAN1-D	2 d 80	MENUS	5 d 80
PIXIE-A	2 d 80	PIXIE-D	2 d 80
RAT-A	2 d 80	RAT-D	2 d 80
READ-THIS	10 d 80	SCREEN	10 Prog
SNAKE-A	2 d 80	SNAKE-D	2 d 80
UNSEEN-A	2 d 80	UNSEEN-D	2 d 80
WITCH-A	2 d 80	WITCH-D	2 d 80

Changes for Version 3.0

This version corrects all (I hope) the errors in Version 2.0 of the program and adds a feature you may find very usefull in the creation of dungeons. Wand #3 can now be entered. You are now instructed to place the disk in drive one at the proper time. In version 2.0 the graphics used were always those on the default dungeon on the original disk. The new default graphics will be those on the program you are editing. You are now allowed to edit 55 monsters instead of only 51. this will eliminate the impossible monsters you may have seen in some of the games.

If you encounter any additional errors or bugs, please bring them to my attention by dropping me a note.

Additions To This Program

I have added feature to Program A that will allow you to save you graphics to disk. This option appears in the graphic editor portions of Program A. With this function you can build up a library of graphics in which to us in future dungeons without the need to re-draw them. I have included several samples on this disk. They are designated as either an attack or defense graphic by the addition of a "-A" or "-D" to the end of their name. If you wish to use a graphic on disk simply press "I" to input the graphic. It will then be displayed on the screen. You can then save it

as if you just drew it. To save a graphic simply draw or edit a graphic and press "O" to output the graphic using a name you choose. You may now catalog a disk from the menu (option #19) and run program B from the menu (option #20). You may also edit the menus in the program by loading them into TI-Writer.

Diskname C124
Used= 311 Free= 47

FONT EDITOR: A collection of FONTS, INSTANCES, FORMATTER that uses TI-Artist Fonts and Pictures. Allow has a collection of conversion programs.

ALGRIA_F	47 d 80	CFONT01_F	13 d 80
CFONT02_F	13 d 80	CFONT18_F	15 d 80
CHIP_I	4 d 80	DISK_I	6 d 80
FONT1_F	27 d 80	FUTURA_F	37 d 80
JOYST_I	4 d 80	JPHCHARS_F	13 d 80
LTBULB_I	4 d 80	MT^LOWE_P	25 Prog
OLDCAR_I	6 d 80	PLANT_I	6 d 80
PRINTDEMO1	4 d 80	PRINTDEMO2	4 d 80
PRINTDEMO3	2 d 80	PRINTDEMO4	3 d 80
PRINTDEMO5	4 d 80	PRINTDEMO6	2 d 80
PYRATE_F	42 d 80	STOP_F	17 d 80
TICHARS_F	13 d 80		

END OF ARTICLE

MAIL MERGE IN FUNNELWEB

By Loren West

Mail merging is nothing new, but I will tell you how I have used it to fit my situation. First thing that you should know is that I have taken up a new hobby, Shortwave Radio listening (nothing new I know, its been around almost since radio began) well here I am listening to all these stations on my reciever, Radio Netherland, KNLS Alaska, Radiodifusion Argentina, Radio of America, etc these are just a few to mention. There are a few clubs around that send you frequencies and times to listen to but there is the chance by tuning around the dial that you might hear a station that nobody else has picked up in your area before.
Whether it be a well known station or not, most stations like to know how they are been received in other countries, so comes the Reception Report. This was drawn up to send to the appropriate station to let them know that we heard them.
A copy of the information was to be kept on record for my own benefit for a later date, so how I did this is as follows.
The basic Reception Report (see FIG 1 below) is drawn up from Funnelweb and saved, it used 18 sectors.

RECEPTION REPORT

FROM
NEW SOUTH WALES
AUSTRALIA

Station reference No.:

Name: Mr & Mrs. L R West
Street Address: 22 Butler Crescent
Suburb: Penrith
State/Postcode: NSW 2750
Country: Australia

To the Manager of Radio Station
It is with pleasure that I am sending you this reception report. Programme and reception quality details are as follows:

Date Heard: (UTC Date) Frequency (Khz):
Time: (UTC) hrs To hrs Your Local Time: hrs
Language of Programme:

TIME(UTC) S I N P O RECEPTION REMARKS

PROGRAMME DETAILS FOR STATION IDENTIFICATION AND COMMENTS:

Signal Strength	Interference	Noise	Propagation	Overall Merit
5 Excellent	Nil	Nil	Nil	Excellent
4 Good	Slight	Slight	Slight	Good
3 Fair	Moderate	Moderate	Moderate	Fair
2 Poor	Severe	Severe	Severe	Poor
1 Barely Audible	Extreme	Extreme	Extreme	Unusable

Receiver: National Panasonic
Model: - R.358
Antenna: Longwire

I hope this reception report will be of interest to you. If possible, could you please check the information listed above with your station log, and should you find it correct, please send me a QSL card or letter to confirm my reception of your station.

FIG 1

Then as I listened to a particular radio station I wrote down key points to remember (a cassette recorder is handy here as the reception of some of these stations is not your HI FI quality). This is where the mail merge is used, the basic form from above has had commands added to it, these commands seek information that correspond to that particular variable from another file,
(see FIG 2 below).

COMPUTER 1

RECEPTION REPORT

FROM
NEW SOUTH WALES
AUSTRALIA

Station reference No.:

Name:	Mr & Mrs. L R West
Street Address:	22 Butler Crescent
Suburb:	Penrith
State/Postcode:	NSW 2750
Country:	Australia

To the Manager of Radio Station *1*
It is with pleasure that I am sending you this reception report. Programme and reception quality details are as follows:

Date Heard: (UTC Date) *2* Frequency (Khz): *3*
Time: (UTC) *4*hrs To *5*hrs Your Local Time: *6*hrs
Language of Programme: *7*

TIME(UTC)	S	I	N	P	O	RECEPTION REMARKS
8						
9						
10						
11						

PROGRAMME DETAILS FOR STATION IDENTIFICATION AND COMMENTS:
12
13
14
15
16
17

Signal Strength	Interference	Noise	Propagation	Overall Merit
5 Excellent	Nil	Nil	Nil	Excellent
4 Good	Slight	Slight	Slight	Good
3 Fair	Moderate	Moderate	Moderate	Fair
2 Poor	Severe	Severe	Severe	Poor
1 Barely Audible	Extreme	Extreme	Extreme	Unusable

Receiver: National Panasonic Model: - R.358 Antenna: Longwire

I hope this reception report will be of interest to you. If possible, could you please check the information listed above with your station log, and should you find it correct, please send me a QSL card or letter to confirm my reception of your station.

FIG 2

After sorting through the information I have received IE: Date, Time, Station name, songs, adds, announcements, jingles, names of announcers etc, I call up my file named DATA/PAGE (see FIG 3 below)

```
.CO Radio Station Name
1                                   10
.CO Date(utc)                       .CO as above
2                                   11
.CO Freq (khz)                      .CO ID music main events ETC
3                                   12
.CO Time Start (utc)                .CO as above
4                                   13
.CO Time finish (utc)               .CO as above
5                                   14
.CO Local time of station           .CO as above
6                                   15
.CO Language of radio station       .CO as above
7                                   16
.CO SINPO and Remarks               .CO as above
8                                   17
.CO as above                        *
9
.CO as above
```

FIG 3

Pilling in the blank spaces to what I want to write and then this is saved under the name of the Radio Station. When saved this uses only 6 sectors. If I had written the information on the form and saved it it would use 18 sectors so I am saving 12 sectors per file.
Now I jump back to the formatter of Funnelweb and call up the Reception page then answer the questions at the prompt's as you go down the screen, when you are prompted for Mail Merge answer Yes, then type in the filename (IE. the data/page file that I've saved under a particular radio station's name) then out comes the completed Reception Report.
Below is a completed Reception Report for a radio station in Parkes Australia, this was reviewed on your normal AM transistor radio, just by tuning around the dial.
There are only 2 lines that I have to draw in by hand and they are the vertical lines each side of the page. Everything else is done by the TI994A and the printer.

RECEPTION REPORT

FROM
PENRITH
NEW SOUTH WALES

Station reference No.:

Name:	Mr & Mrs. L R West
Street Address:	22 Butler Crescent
Suburb:	Penrith
State/Postcode:	NSW 2750
Country:	Australia

To the Manager of Radio Station ZPK PARKES
It is with pleasure that I am sending you this reception report. Programme and reception quality details are as follows:

Date Heard: (UTC Date) 28 April 95 Frequency (Khz): 1404
Time: (UTC) 0230hrs To 0400hrs Your Local Time: 2230 - 2400hrs
Language of Programme: English (country music)

TIME(UTC)	S	I	N	P	O	RECEPTION REMARKS
	4	4	4	3	4	Fading early in evening, later fading reduced

PROGRAMME DETAILS FOR STATION IDENTIFICATION AND COMMENTS:
Sponsors, Reflection Jewellers, Roo Dunford's Pharmacy, Western Roadliners Trevel experts ph 621022, Citizen club showcase, host Ross Swiggs, Jackpot Central West Credit Union secret sound ph 622700, Camping world 25 Church St Pmu music, Shane Kerr at RSL, songs, China Doll, Tumbling Tumble Weed, Jimmy Little songs, Born to Lose, Those pretty eyes, Station ID, Release me, Life turns her that way, Hey good lookin, The Sandman, - A very enjoyable show.

Signal Strength	Interference	Noise	Propagation	Overall Merit
5 Excellent	Nil	Nil	Nil	Excellent
4 Good	Slight	Slight	Slight	Good
3 Fair	Moderate	Moderate	Moderate	Fair
2 Poor	Severe	Severe	Severe	Poor
1 Barely Audible	Extreme	Extreme	Extreme	Unusable

Receiver: National Panasonic Model: - R.358 Antenna: Longwire

I hope this reception report will be of interest to you. If possible, could you please check the information listed above with your station log, and should you find it correct, please send me a QSL card or letter to confirm my reception of your station.

LEARN TO KNOW YOUR TI

LESSON 27

with Percy Harrison

This month we will look at switching numbers with strings. The lesson will cover two functions, STRS snd VAL. A general review of the concept of function will also be made.

STRS takes a number and makes a string that represents it.

VAL does just the opposite, taking a string and making a numerical value from it. If the string does not represent a number (for example "5T7") then the computer prints:

* BAD ARGUMENT IN 10

The interconversion of the two main types of variables adds great flexibility to programs involving numbers.

You can slice up a number and rearrange its digits by first converting it to a string. This is demonstrated in the assignment which will make a number "march" by repeatedly putting its rear digit in the front.

Functions "return a value" to the expression they are in. One also says that functions are "called" just as one "calls" a subroutine. The reason is, of course, that functions are implemented as subroutines on the machine code level.

LESSON 27 SWITCHING NUMBERS WITH STRINGS

MAKING STRINGS INTO NUMBERS

We have two kinds of variables, strings and numbers. We can change one kind into the other.

```
Run:    10 REM MAKING STRINGS INTO NUMBERS
        20 CALL CLEAR
        30 LS="123"
        40 MS="789"
        50 L=VAL(LS)
        60 M=VAL(MS)
        70 PRINT L
        72 PRINT M
        74 PRINT "----"
        76 PRINT L-M
```

VAL stands for "value". It changes what is in the string to a number, if it can.

MAKING NUMBERS INTO STRINGS

```
Run:    10 REM MAKING NUMBERS INTO STRINGS
        11 REM
        20 PRINT
        25 INPUT"GIVE ME A NUMBER ":NB
        30 NS=STRS(NB)
        35 L=LEN(NS)
        37 PRINT
        40 FOR I=L TO 1 STEP -1
        45 BS & MIDS(NS,I,1)
        50 NEXT I
        60 PRINT"HERE IT IS BACKWARDS"
        65 PRINT
        66 PRINT BS
```

STR$ stands for "string". It changes a number into a string.

FUNCTIONS AGAIN

In these lessons we use the following functions:

RND()	INT()	SEGS()	LEN()	POS()
VAL()	ASC()	STR$()	CHRS()	

Rules about functions:

Functions always have () with one or more "arguments" in them. Example:

SEG$(D,5,J) has 3 arguments: D$, 5, and J

The arguments may be numbers or strings or both.

A "function" is not a "command". It cannot begin a statement.

Right: 10 LET D=LEN$(CS$)

WRONG: 10 LEN (CSS)=5

A function acts just like a number or string. We say the function "returns a value". The value can be put into a box or printed just like any other number or string. The function may even be an argument in another function.

The arguments help pick which value is returned.

(Remember, string values go into string variable boxes, numeric values go into numeric boxes).

Assignment 27

1. Write a program which asks for a number. Then make another number which is backwards from the first, and add them together. Print all three numbers like an addition problem (with "-" sign and a line under the number).

2. Make a number "leapfrog" slowly across the screen. That is, write it on the screen, then take its left digit and put it on the right. Keep repeating. Don't forget to erase each digit when you move it.

ANSWERS TO LESSON 26

Assignment Question 26-1

```
10 REM CIPHER MAKER
15 CALL CLEAR
20 PRINT "CODE MAKING PROGRAM"
22 PRINT
25 PRINT "ENTER A SENTENCE FOR CODING"
27 PRINT
30 INPUT S$
40 L=LEN(S$)
42 PRINT
45 PRINT "THE SENTENCE IS ";L;"CHARACTERS LONG."
50 S=S$ & " "
55 FOR I=1 TO L STEP 2
60 P$=SEG$(S$,I,2)
65 Q$=SEG$(P$,2,1) & SEG$(P$,1,1)
70 L$=L$ & Q$
75 NEXT I
77 PRINT
80 PRINT "HERE IS THE CODED SENTENCE:"
82 PRINT
85 PRINT " ";L$
```

Assignment Question 26-2

```
10 REM QUESTION ANSWERER
12 CALL CLEAR
20 PRINT "ENTER A QUESTION"
22 PRINT
25 INPUT Q$
27 L=LEN(Q$)
28 PRINT
30 REM TAKE OFF THE QUESTION MARK
32 Q$=SEG$(Q$,1,L-1) & "."
36 REM LOOK FOR THE END OF THE FIRST WORD
40 FOR I=1 TO L
41 C$=SEG$(Q$,I,1)
43 IF C$<>" " THEN 46
44 S1=I
45 I=L
46 NEXT I
48 REM LOOK FOR THE END OF THE SECOND WORD
50 FOR I=S1 + 1 TO L
52 C$=SEG$(Q$,I,1)
53 IF C$<>" " THEN 56
54 S2=I
55 I=L
56 NEXT I
58 REM TURN THE WORDS AROUND
60 S$=SEG$(Q$,S1-1,S2-S1)
62 V$=SEG$(Q$,1,S1)
65 PRINT S$;V$;SEG$(Q$,S2-1,L-S2)
```

Assignment Question 26-3

```
10 REM PIG LATIN
15 CALL CLEAR
20 PRINT "PIG LATIN PROGRAM"
25 PRINT
30 PRINT "GIVE ME A WORD"
31 PRINT
33 INPUT W$
34 L=LEN(W$)
35 PRINT
40 REM FIND THE FIRST VOWEL
41 FOR I=1 TO L
42 V$=SEG$(W$,I,1)
43 IF V$="A" THEN 50
44 IF V$="E" THEN 50
45 IF V$="I" THEN 50
46 IF V$="O" THEN 50
47 IF V$="U" THEN 50
49 NEXT I
50 IF I>1 THEN 60
52 L$=W$ & "LAY"
55 GOTO 80
60 REM FOUND IT
68 L$=SEG$(W$,I,L-I+1)
70 L$=L$ & SEG$(W$,1,I-1)
72 L$=L$ & "AY"
80 PRINT " ";L$
90 FOR T=1 TO 1000
91 NEXT T
99 GOTO 15
```

Bye for now.

END OF ARTICLE

COMPUTER USER

Techo-Time

from Geoff Trott

Letter from Pierre Garoche

Towards the end of last year, I received a letter from Pierre Garoche, who is our only member in France. Pierre often writes letters to me about some of my articles and always adds much to what I have said. This time he also had reason to change a Load and Run (D F 80) file into a memory image (Prog) file for a game. His letter is as follows.

10th November 1994

Dear Geoff

Your article in the November issue of TND came at the right time. Last week, I have built a memory image from a large program named ATC. Your son may take an interest in ATC because ATC is a game. That makes two reasons to say that you had a good idea to issue your Techo-Time in TND #10.

I received ATC from Ian J. HOWLE, 3707 S.W. Southern St., SEATTLE, WA. 98126 (206) 938-4065 in thanks for some information I send him last year. In MICROpendium "reader to reader", Ian asked about bit map mode in assembler. A not very good answer was given in MICROpendium July issue, so I sent more information to Ian. This year, in September, Ian send me the ATC program in thanks for my help (he says). He also says that he is not able to upload the ATC file via modem. He is wondering if I could spread ATC around to any friend or BBS. I am not linked to a BBS but I have friends at TIsHUG and I shall send a copy of ATC both to Larry Saunders and Percy Harrison.

Now, it is time to tell you how I managed to build a memory image file from ATC.

Before I decided to buid a memory image file from the ATC file I know that ATC:

- is a load and run compressed object code program.
- is not a self starting program, its start name is START.
- cannot be loaded from Funnelweb loaders, it overwrites Funnelweb code.
- does not ruin the Funnelweb mail box.

As I do not have as much skill as you have to read tags in the code of a Load and Run file, I think it is better for me to analyse the CPU memory when the program ATC is loaded.

- The starting address will be found from the REF DEF table.
- The memory addresses occupied by ATC code will be found if I clear CPU high memory before loading ATC, so the ATC code can be detected easily.
- Inspect ATC code to detect use of TI utilities and if workspace setting is done before any modification of registers from the start address.

From this information, I can built a specific program to save the occupied memory in suitable files. Each one of these files will have a bit of room in front of the code. Next this bit of room will be patched, using a sector editor, to turn each file into a part of the wanted memory image.

The file MI_MAKER gives in step by step form, the process I used. SAVLR/O is the specific tool. On the floppy you will find also some utilities. If you are of the opinion that some utilities among these may be of interest to TISHUG members I beg you to advise the shop.

Best regards.

As usual, Pierre has approached the problem from a programmer's point of view and written some assembler language programs to help him solve the problem. Here is the process he used.

===> MI_MAKER Pierre Garoche, Nov 1994

Last month I received a floppy disk loaded with a file named ATC. It is a game that must be loaded using the Editor Assembler loader option 3. The program does not start automatically and its start name (START) must be typed in.

The Editor Assembler loader option 3 spends a lot of time loading the file ATC, because ATC is a long file (171 sectors). A Load and Run loader is not a fast tool. It does a complex conversion of the code on the disk to load into memory. A memory image will be more convenient in the present case, as it is the fastest format to load a program and it is self starting. A memory image loader (Editor Assembler option 5) does not do any conversion, only a move from the disk to memory.

The problem springs from the large part of high memory where the program is stored. The tools I could use to build a memory image from the loaded ATC program overwrite a part of the memory where ATC is stored. I had to build special tools: they are named SAVLR/O, MARKHM/O. I take the occasion to explain the method step by step.

Short recall

1 What is a memory image?
A memory image is a file or a bunch of files where the code of a program is stored exactly as it is when stored in memory; a memory image is loaded using the Editor Assembler loader option 5.

2/ Memory image format.
Each file of the bunch (or the only file) begins with 3 words in front of the program code. The 3 word block is named the HEADER; its 3 words are used by the loader to store in the right place in memory the code that is in the file after the header.
- The third word contains the first memory address into which the code must be loaded in the CPU memory.
- The second word contains the number of bytes to load.
- The first word is a flag that means: a zero value means this is last file of the memory image code; any other value means there is at least one more file to load. The non-zero value is usually >FFFF.

Each file of a memory image must not be longer than 8K (>2000 bytes = 6 bytes for the HEADER and >1FFA bytes for the code). (It can be longer than this but this is the normal maximum value generated by the SAVE programs.) If the program uses more than >1FFA consecutive bytes the memory image is a bunch of files, with the name of each file the same except for the last character whose ASCII code is incremented in each file successively.

3/ Memory image loaders.
A memory image loader ends its work by setting the Program Counter of the micro processor at the first address of the program. As a result this address must be the start point of the program. A memory image loader sets the workspace at >83E0 (GPL workspace). Among the various memory TI image loaders, the TI option 3 loaders do not load the TI utilities into low memory. It is the same for the Horizon RAMdisk loader, unlike Funnelweb, which brings in the TI utilities when the E/A loader is selected, and it is the same for Maximem.

The process

To build a memory image it is necessary to save the code of the program when it has been loaded into memory. Then the file header will be added to each file. Eventually the first file will be modified so the memory image loaders links the start address of the program and sometime the user workspace will be set by the modifications.

The method

How to build a memory image from the ATC file?

1 Do an analysis of ATC code implantation in the memory.
2 Save the ATC code and occasionally other code used by the program (the TI utilities) in suitable files.
3 Add to each file the appropriate header.

Analysis of ATC code implantation.
a. At first clear high memory from >A000 to >FFFB using the debugger tool (DEBUG>6000 or DEBUG>2676).
b. Next load the ATC program but do not run it.
c Then reload the debugger to analyse both code implantation and REF DEF table.

The three steps a, b, c, must be done at a stretch from the Editor Assembler menu screen, using loader option 5 for DEBUG and loader option 3 for ATC. To clear high memory, clear the address >A000 using the M command. Next copy the cleared byte from >A001 to >FFFB using the M command. Also you may clear low memory from >3FF0 to >3FFF, reading the REF DEF table will be more easy.
Now return to the Editor Assembler menu using the Q command. From this screen, load ATC, do not type the start name but press FCTN<9> (BACK) to return to the Editor Assembler screen and reload DEBUG. Now it is not difficult to find the memory field where the ATC program is stored and the address pointed to by the label START from the REF DEF table.

Results:

ATC code starts from address >A04C to the address >FFBB and the start address of the programm is at address >A050. The start point of the program is not at the beginning of the code. At address >A056 to >A05C is stored 0200 01E3 0420 211C. This is the code of the 2 instructions LI R0,>01E3: BLWP @VWTR. The program uses the workspace set by the loader and also uses the TI utilities. This information will have to be taken into consideration this when the memory image files are built.

Code modification:

When loaded, a Load and Run program starts using the user workspace (20BA to >20CF). It is different for a memory image program that starts using the GPL workspace (>83E0 to >83FF).

Something must be done to have the right workspace used and to start the program at the correct starting address. The code in the first memory image file must begin with:

```
LWPI >20BA   02E0 20BA
JMP  >A050   1002
```

This adds 6 more bytes and it must be placed just in front of the original ATC code.

Saving the code

Each file must have a header and save the program code so each byte of the code will load into the right memory addresses. The memory contents must be saved in files, with the first 6 bytes of each file not ending up as part of the actual memory image. This may be illustrated as follows:

file # n === .....
file # n+1 ===.....
(=== are the 3 words that will become file header)
(Program code .....)

The last file of the bunch is devoted to the TI utilities. As I am not a retailer, I put in the last file the low memory code from >2000 to >2675 as it is stored in memory by the Load and Run loader.

Next, after the bunch of files are saved, using a sector editor, the first 3 words in each file will be modified to become a header. In the first file the supplementary code will be added in the same manner, so the first file must start 12 bytes before the unmodified ATC code.

To save all the files I have writen a little program: it is stored in low memory from address >2676 so it does not overwrite any part of the memory to be saved. The name of this tool is SAVLR/O. It returns in one shot four files: CODEPART1, CODEPART2, CODEPART3, CODEPART4. As I am wary of my new tools, I decided to do a preliminary test.

Loading high memory in such a way that each word contains is its address, seemed to me a fine solution to test the SAVLR/O tool. This is done by loading at first the program MARKHM/O followed by the program SAVLR/O. Take my advice and do the same operations. Then using a sector editor, a sheet of paper and a pencil look at the files CODEPART1, CODEPART2 and CODEPART3.

Copy the first 10 words of CODEPART1 and the last word of the file. Copy the first 4 words of CODEPART2 and its last word. Copy the first 4 words of CODEPART3 and find the last saved address in the last sector of the file (the last word that is not zero). From these values, check that the memory is saved correctly with the required overlap for the header.

Now thinking about the modifications that will be done when the tool SAVLR/O will be used with a high memory ATC filled, verify that the end of CODEPART1 fits well with the start of code in CODEPART2 when the header will be set. Is it the same for CODEPART2/CODEPART3? Is the last word of CODEPART3 the last address of ATC file? From all the information you have, try to find the correct header for each memory image file.

I make you see the returned files clearly; now, it is time to do the main work:

Load ATC using the Editor Assembler loader option 3, do not run the program, return to the Editor Assembler menu and load the tool SAVLR/O using the same loader. Answer the prompt and you will find 4 files CODEPART1, to CODEPART4. Copy each one using another name, ATC1, ATC2, ATC3, ATC4 and do the modifications in the renamed files. These modifications are:

In ATC1 the 6 first words will be turned into:
FFFF 1FFA A046 02E0 20BA 1002, which is followed by the ATC code: 02E0 A00C ....
In ATC2 the 3 first words will be turned into:
FFFF 1FFA C040, which is followed by the ATC code: 0589 0289 0003 ....
In ATC3 the first 3 words will be turned into:
FFFF 1F82 E03A, which is followed by the ATC code: 80C0 0000 0001 ....
In ATC4 the first 3 words will be turned into:
0000 0676 2000, which is followed by the low memory code: A55A 2128 2398 ....

The proof

From the Editor Assembler memory image loader (option5) load ATC1. Unlock the alpha lock and have fun using joystick #1.

Note: The ATC program, and ATC1,2/3/4 did not run well in my system when my RAMdisks are set to power-up ON.

To call the Editor Assembler menu, I power ON the console pressing the shift key to stop the reset at the TI MENU. Calling the Editor Assembler menu from the HORIZON menu (pressing C key) brings a misfunction. I must say that I have not the Editor Assembler module but MAXIMEM which emulates the Editor Assembler module, but perhaps it gives not a total emulation.

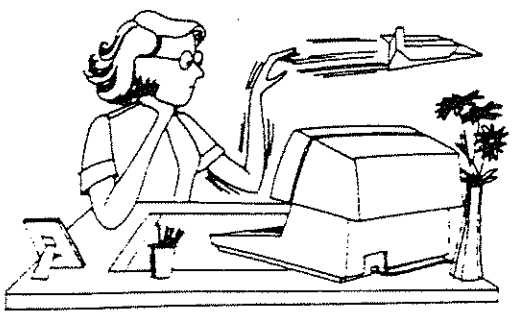
That is the end of Pierre's article. I hope it provided another interesting way of converting display fixed 80 program files into program or memory image files. I found it very interesting that he worried about which workspace was to be used. If you remember your assembler language, the registers used by the processor are located in memory according to the contents of the workspace register. If the program is written correctly, it should not matter where in memory the registers are located, as long as that part of memory is not used by the program. The only other reason for the actual workspace pointer being important would be that some of its registers were assumed to already have certain values in them. This would be a bad way of programming and would certainly lead to problems if the wrong workspace were used. This may be the case here as the ACT program did not run correctly when I ran it from the ROOT menu program.

Pierre has provided some useful utility programs, including several program versions of Debug which load into >2676 (low memory), >6000 (cartridge space), >A050 (high memory above Funnelweb mailbox), and >E000 (towards the top of high memory). He also provided an Editor Assembler loader from Barry Boone with its Extended BASIC loader and the other two programs he mentioned, SAVLR/O and MARKHM/O. If you are interested in these programs, contact the shop.

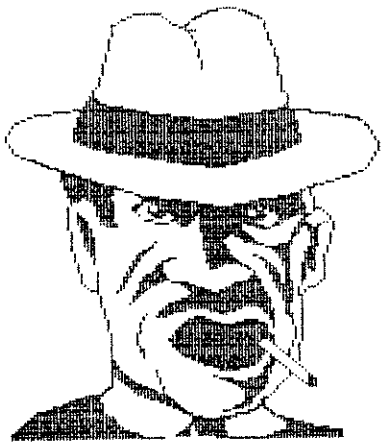
I also had an interesting letter from Jim Banfield from Armidale. He contributed a series of articles a few years ago and uses his TI99/4A in a most unique way. He is building a long word-length computer and uses the TI99/4A as the input and output for this computer. He observed that not many of our members appeared to be interested in hardware, judging from my recent articles. I think that many may feel they would like to know more about the hardware but are unable to come to terms with all the detailed knowledge that is required. Jim has built his own disk controller and written the software for its DSR. He then had trouble when he tried to put all the disk controller programs in an EPROM at address >4000. It worked fine at other addresses but not there. The address range >4000 to >5FFF is shared by all the I/O devices attached to the TI99/4A. A particular device's programs are switched into that memory space by using the CRU I/O of the processor. CRU uses only the address lines for output and its own special line for input to the processor. The only reason for problems in using the address range would be that another device like the RS232 card would be enabled at the same time. The operating system checks all possible CRU addresses whenever some I/O is done until it finds the one it wants.

Meanwhile, I have been looking at the best GIF viewing program I have come across. It was written by Ton Brouwer of The Netherlands and is the easiest to use I have seen. All these programs display pictures which have a maximum of 256 colours and do not do a good job with small changes in colour as with skin tones. They all seem to be written for the 9938 video chip while we now have the 9958 video chip. One of the enhancements of the 9958 is a capability of the simultaneous display of 19268 colours so it should be possible to get better colours with the 9958 chip. My approach was to disassemble the program and try to understand how it works as I am not sure how GIF files store the data. I do know that a GIF file on a PC gives better colour than the same GIF file on the TI99/4A. I am some way down the track in my quest, but I will leave this for another article.

END OF ARTICLE



paperless office



TREASURER'S REPORT

by Cyril Bohlsen

Income for previous month ..... $ 5378.00
Expenditure for previous month ..... $ 5657.55
Loss for previous month ..... $ 279.55
Membership accounted for $ 560.00 of income
Shop sales ..... $ 4818.00 of income

The expenditure was made up of the following :-

BBS Running costs ..... $ 48.55
Printing and posting of TND ..... $ 255.40
Shop purchases ..... $ 5353.60

PERCY HARRISON RETIRES FROM SHOP.

It is with regret, that due to ill health Percy has had to relinquish his position as Merchandising Officer for the club after approximately six years. His untiring efforts have kept the shop functioning for the full benefit of all members. He has been unstinting of himself, always available and helpful. If it was possible for something to be repaired or purchased for the members, he was always willing to oblige.

As treasurer, I have been greatly appreciative of his meticulous book-keeping. The success of Percy's management of the shop has contributed to the club's financial well being (a shop profit of over $4000.00 so far in this financial year.)

Percy has set a standard for shop management that is going to be hard to follow.

CRAZY LANGUAGE "ENGLISH"

Retyped by Robyn West
courtesy Lehigh 99'ers User Group

We begin with BOX, the plural is BOXES,
Then the plural of OX is OXEN not OXES.
Then one is a GOOSE and two are called GEESE,
Yet the plural of MOOSE is never MEECE.
You may find a lone MOUSE or a nest of MICE,
Yet the plural of HOUSE is HOUSES not HICE.
If I spoke of my FOOT and show you my FEET,
And gave you a BOOT would a pair be BEET?
Then one may be THAT and two may be THOSE,
Yet HAT in plural would never be HOSE.
We speak of a BROTHER and also of BRETHEREN,
But though we say MOTHER, never say MOTHERN.
The masculine pronouns are HE, HIS and HIM,
Imagine the feminine SHE, SHIS, SHIM.
So ENGLISH, I fancy that you will agree,
Is the craziest language that you ever did see.

END OF ARTICLE

HORIZON TIP

From OSHTI

Retyped By Lisa West

Now that I have my Horizon Ram Disk (HRD+) up to full capacity, 1.024 Meg it is a real problem when things apparantly CRASH! Here is a tip I read in a newsletter somewhere. I just cant remember where.
If your HRD locks up and won't access even the physical drives, DSK1, then you seem to be stuck to load in anything. The system will seem to work but the Disk Controller light and HRD light (LEDS) will be ON. Turning the console and PBOX off and on Dosn't seem to work This is what to do. Use the E/A module. Turn the PBOX and console off. Then turn the CONSOLE ON FIRST! That's right, FIRST. Then turn the PBOX ON WHILE HOLDING DOWN THE SHIFT KEY. Select option 5 from the E/A and load DSK1. CFG to configure your system. Strangely enough the disk access reappears. The RAM disk directories are still intact as well and their contents are still there. Next, RELOAD the ROS you usually use. DO NOT throw out the existing information. Exit CFG and everything will be fine.
It saves having to dissassemble the HRD from the PBOX and doing other awful things.
It works for me. . . . Tom

MULTIPLAN

Multiplan Madness
By Tom Arnold

Yes I remember that I was going to talk to you about formulas in Multiplan, specially the IF-THEN statement. However time constraints and the fact that I'm not all too clear about them yet has lead me to delay this topic till later. I want to talk to you about using spread sheets in particular Multiplan as Text Editors. Why would I want to use Multiplan as a word processor? Simply because in certain applications it can be very useful. I actually use a spread sheet at work quite often and I never work with numbers! It is very useful in keeping lists of things, in particular lists that you might want to up date from time to time. I assume that you would want to sort these lists. How about a telephone list, an address list of your club members, a list of topics on the TI, an index to a book, any index for that matter. For these applications Multiplan is a very powerful tool. Let me explain.

At work I have to write job practices, generally I type them out. All these practices need indexes. I used to write every topic out by hand, then number each letter in alphabetical order. For example under "P", prince comes before punk and punk before pyke. Then I would write out all the topics in order for the typist to retype. This took a long time, especially if there were many items.

Along comes the computer and I immediately found an easier way. I type out two columns, the topic in column #1 and the page # in column #2. These are entered in the order that I come across them in the book. After I am done I "sort" the first column and I have an instant index. Very simple and the typist does not need to retype it either!

How do you do this in Multiplan ? First, do not type Titles or any other text you would want on the printed page, enter this later. Assuming we are entering an index. Type in the names (topics) in column #1. After each entry move the arrow keys right and then enter the number or other references you want. Repeat this until all entries are done. Now sort the spread sheet by selecting SORT. First you will be prompted the column you wish to sort by, in our case enter (1). Control X will move you to the second field where the ROW selection will be prompted. The default is between rows #1 and #255. This will be your normal selection. However you can use this to sort partial lists. This could be useful if you want to sort part, by one column and the other part by another column. Which brings us

to the last prompt (via Control 3). You are given the choice of ascending order (<) or decending order (>).

I suggest you try this little experiment. List 5 names in column 1, list the numbers 5 to 1 in column 2, list the letters c,f,d,s,f in column 3, and then the numbers 1,34,76,45 in column 4. Now sort using a different column each time. See how the rows follow each other and the order changes. You may also sort using different columns, for example you could sort a long list by column #1 and then the top 20 entries could be sorted by column #2 to achieve a different order.

As for uses, how about starting by making a combination of phone list and address list. Then sort by name, phone numbers, addresses, printing out a new list each time. These would then be handy references. For example, you could isolate all your friends who live in Australia whose names begin with "P" and whose phone numbers are in area code "2456". I would think that you would find 10 or 20 anywhay! Just kidding!!!

One more point about using Multiplan to make columns of items. You won't accidently format them into one jumbled mass! I forgot to mention that all titles etc. should be added after all your sorting is done. Hope this had been helpful.

Courtesy of TI Focus Hamilton Users Group (Ontario Canada) June 1988.

Retyped for TEXPAC BBS by John Ryan of TISHUG.

END OF ARTICLE

THE SUPERHIGHWAY

With complements of Garry Christensen
of TIBUG

While I was preparing to write this evening, still not knowing what I will say, I came across an article that I wrote this time last year. It was all about the information superhighway and what it will be capable of doing. This started me thinking about what we have now and how it is being used.

Pay TV is in the throws of materialising and full interactive TV is still a couple of years off. At the moment the superhighway is the Internet. I don't know what experience you have had with the Internet so let me start from scratch. Let me also point out that I have had very little experience with it myself.

The Internet is difficult to define. It is not something that you can see and touch, yet it exists. In the beginning, there were a large number of bulletin boards. These were useful because they allowed computer users to access a central computer and communicate with it via telephone lines. The users could either deposit data, such as programs or text, and retrieve data. This is called up-loading and down-loading. The bulletin board became a medium where computer users could exchange data, text or programs.

This worked well but had a significant drawback. The data could only be accesses by phoning into that particular computer. The obvious solution was to link several bulletin boards together so that be dialling into one of them, the data on the others could also be accessed. The Internet that we know today began in this way, except that the computers that were connected were secure sites at military installations and universities in the US.

Today, there is no restriction. You connect to the Internet through a gateway. This computer acts in many ways like a bulletin board of old, but can also link in with any other gateway in the net. You can download software, text, or pictures from anywhere in the world. You can communicate with other users or read conversations that have already taken place. There is a trend that when anything news-worthy occurs, someone will access the Internet and report the occurrences as they happen. This is happening with the OJ Simpson trial. The trial transcripts are on the Internet within 30 minutes of the word being spoken.

I also read an article the other day about a young fellow in Ipswich who was employed to scan in photo's and add text while the Indy car race was happening on the Gold Coast. It was estimated that around 100,000 people watched the Indy on the Internet.

I also know that any significant scientific event is uploaded to the Internet. Pictures from the Hubble telescope (large telescope in orbit) are sent out on the Internet almost as they are received. These are just some of the things that are being done with the net.

I really like the thought that you can get on the net and ask a question. Perhaps "Does anyone know the population of the mongolian city that lies closest to the Russian border?". It will probably take less than 24 hours to get an answer. Through the Internet, you have the closest thing yet to access to all human knowledge.

The really great thing is that anyone can establish their own site or address on the net. This means that anyone can access your computer as well as you connecting to others. This has lead to some unusual sites. The concept of trivial Internet sites is said to have begun at a university in the US (I can't remember which) where some IT students connected the Coke machine in the corridor to the net. It meant that anyone from around the world could find out how many cans had been sold that day and how many were left in the machine.

Others have the computer set up so that any text left at their site will be read out by the computer using voice synthesiser software. The reason is that the owner's cat likes to sleep near the computer while he is a work so you can talk to his cat if you wish.

It is this very ability to both access any computer set up on the net or to connect to the net yourself that provides both the advantages and disadvantages of the Internet. The freedom of access to all information on the net is the great advantage. I believe that the advances in technology are directly proportional to the ease that information can be exchanged.

The disadvantage is that there is no control over the net. This leads to a chaotic service where misinformation can be spread as easily as correct information. It is as close to anarchy that we will see in this age. There is absolutely no limit to the things that can be done on the net and no one will ever know exactly what is happening.

It may be interesting to watch how the net evolves. I believe that there will always be the anarchy that forms the net. You will be able to do more than you can today. There will however be problems with complexity. There will be just so much data that it will not be possible to navigate through it all. This will lead to the development of parts of the net that are used commonly. These will form another structure within the Internet.

I don't know what will be in these areas or what they will do. The success of any site will depend on both its usefulness and upon standard market forces that are already well known. Each software supplier will give priority to some sites within this structure (probably their own). The more people who buy that software, the stronger the site will become. Of course, the people will buy the software that provides easiest access to the sites that they feel they need. Add to this the power of advertising and you can see that predicting what will happen is almost impossible.

As the systems develop further, your computer will also learn what you habits are and provide easier access to the sites that you use the most. If you are in the science field, you will use a different set of sites compared to a chef.

I suppose that the word superhighway is not well chosen when describing Internet. Perhaps superjungle is more apt. The highways that develop are the paths that you and other Internet users take most often. Some will be superhighways, some will be tracks and some will barely exist at all.

For my final comments, I would like to take this discussion a little closer to home. What are you doing about all this. As I have said before, the Internet will be only a small part of the superhighway. We will see this type of technology pressing on our personal lives within 10 years and in 20 years, it will be part of life. That means, if you are under 60 years old, you will have to have a significant understanding of the system just to survive.

I don't advocate that everyone races off and joins the Internet. What I do suggest is that you make yourself aware of what is happening. How will it effect your work (because it will), and your home life. Don't decide to look at it later because later there will be so much more that you will not be able to keep up. Jobs in the future will go to those who can adapt the fastest, not those who know their job the best now.

If you have children in school, have a very close look at what they are doing, and get involved. The information that will be taught at school soon will not be that same as when we were there. They will no longer be taught all the information, just how to find it for them selves.

Be active about this. If you sit back, you will be left behind.

END OF ARTICLE

GUIDE TO SAFE FAX

Q: DO I HAVE TO BE MARRIED TO HAVE SAFE FAX?

A: Although married people fax quite often, there are many single people who fax complete strangers every day.

Q: MY PARENTS SAY THEY NEVER HAD FAX WHEN THEY WERE YOUNG AND WERE ONLY ALLOWED TO WRITE MEMOS TO EACH OTHER UNTIL THEY WERE TWENTYONE. HOW OLD DO YOU THINK SOMEONE SHOULD BE BEFORE THEY CAN FAX?

A. Faxing can be performed at any age, once you learn the correct procedure.

Q: IF I FAX MYSELF, WILL I GO BLIND?

A: Certainly not, as far as we can see.

Q: THERE IS A PLACE ON OUR STREET WHERE YOU CAN GO AND PAY FOR FAX. IS THIS LEGAL?

A: Yes, many people have no other outlet for their fax drives and Must pay a "professional" when their needs to fax become too great.

Q: SHOULD A COVER ALWAYS BE USED FOR FAXING?

A: Unless you are really sure of the one you're faxing, a cover sheet should be used to insure safe fax.

Q: WHAT HAPPENS WHEN I INCORRECTLY DO THE PROCEDURE AND I FAX PREMTURELY?

A: Don't panic. Many people prematurely fax when they haven't faxed in a long time. Just start Over; Most people won't mind if you try again.

Q: I HAVE A PERSONAL AND BUSINESS FAX. CAN TRANSMISSIONS BECOME MIXED UP?

A: Being bi-faxual can be confusing, but as long as you use a cover with each one, you won't transmit anything You're not supposed to.

END OF ARTICLE

CLOWN

USING TI-WRITER TO L(OAD) F(ILE) RS232

By Charles Good
Lima Ohio User Group

Retyped by Loren West
TIsHUG

You can hook two different kinds of computers together with a cable linking there RS232 ports. The TI serial printer cable avaliable from many sources will do the trick. You can then LOAD TEXT FILES DIRECTLY INTO TI WRITER (or use the Funnelweb editor). From a word processor program running on the other computer. You don't need a modem or a communicatins program, and the other computer doesn't have to be compatiable with the TI. Here's how.

After cabling the two computers' RS232 together, boot TI Writer, type LF (Load)file) and (enter), then type RS232.CR for the file name and press (enter). The TI's screen will appear to lock up as the TI waits to recieve the file from the RS232 port. It may be necessary to specify a baud rate in the RS232.CR file name if the default 300 baud is not satisfactory. However, TI Writer (and Funnelweb) will not accept baud rates greater than 600.

With the other computer, save (or send) a text file already in memory specifying the serial port as the device. Text will then flow into TI Writer. When text transfer is complete, press FCTN/4 on the TI, and the recieved text file will be displayed.

Since I don't have the TI-994A Hexbus interface, this is how I transfer text from my CC40 to my TI for processing with Funnelweb and printing with my Star printer

END OF ARTICLE

NEW 80-COLUMN CARD released in Germany

Retyped by Loren West
courtesy of MICROpendium

A new 80 column card for the TI made its debut at the Gottingen TI fair, Oct. 14 - 16. Some 70 TI entusiasts from Australia attended the fair.

The new PEB card, called the Enhanced Vido Processor Card (EVPC), was designed by Michael becker. Co-designer was Jurgen Stelter. The DSRs and software were written by Ronald Meier and Harald Glaab. Sven Dyroff also worked on the project.

The card runs at CRU>1400. According to Gerd Weissmann, who is marketing the card, the EVPC can display 256 colours from a palette of 256,000. This can be expanded to 16 million, he says. The card requires modification to the TI console.

The device includes a socket for a sound chip from the console, 128K of video RAM and a 64K DSR-ROM. It can support up to eight sprites simultaneously.

Weissmann says the group of developers is working on a "Super GPL Card". This device will hold the contents of up to 16 modules in flash EPROMs. He says this will allow BASIC programs to run at 10 times normal speed. Also a new mother-board for the PEB is being developed. This board would eliminate the need for the flex cable and would be based on the TMS9900 processor.

Pricing of the EVPC is $254, based on an exchange rate of one U.S. dollar to 1.5 Deutschmarks.

For more information, contact Weissmann at Koenigstresse 17-19, d-67655 Kaiserslautern, Germany, Telephone fax at 0631/12169.

END OF ARTICLE

WHATEVER HAPPENED TO THE FUN OF IT

By Jim Perterson
of TIBUG

Yes, whatever happened? Were you with us
ck in the early days, way back back in
83? Do you remember the days before the
's and user group libraries could supply
with programs by the hundreds, when every
ogram you could acquire was a prized
ssession to be run and used and marveled
. to be shared with your friends. (even
ough it might have a copyright notice on
!), when people actually keyed in programs
om listings and brought them to meetings to
t help in debugging them?

Do you remember when almost everyone was trying to learn to program, and helping each other? The late Earl Dodd was writing music programs, in his unique barbershop quartet style, and bringing them to me to add graphics. Paul Powers, once our user group president, liked to program advanced math theorems and to reprogram more efficiently the programs written by others - it was he who suggested to me the use of mergeable subprograms, which led to the Nuts Bolts series, the only profitable thing I have ever done. It was teenage Brian Beery who pointed out a ridiculous error that was driving me bonkers - Brian might have become another J. Peter Hoddie if he hadn't taken up the guitar.

Do you remember when the IUG was the only source of public domain programs? I was fascinated by the program descriptions in the IUG catalog. I wanted to see every program, to see what some other programmer had been able to do. I swapped the IUG for every program I could, and bought as many more as I could afford. Often I was disappointed, but I never got over that curiosity. I still have it - I read the descriptions of new library acquisitions in user group newsletters, and I get the itch to see the program. Often I write and ask for it.

But, am I the only one left who has that curiosity? I spent hundreds of hours gleaning out the best from my library of several thousand PD programs, arranging them by category, improving them, filled nearly 300 disks (now 400), published a 13-page catalog listing them all, offered them for a copying fee less than most user groups charge their own members, cheaper than downloading them from GENIE - and in 1989, only 175 people in all the TI world were curious enough to send me an order!

Of course, many users have large libraries of programs that they never get around to even looking at. And, the potential uses of the computer have become so varied that many users have specialized in one field and have little interest in anything else. Some are mainly interested in increasing the speed and memory capacity of their machine, and have little time to make use of that speed and memory by actually running programs. Many others nowadays are hooked on

graphics. To each his own. Personally, if I want to decorate my walls with pictures of nudes, I will buy a Playboy magazine and rip out pictures far better than any monitor screen will ever show or any dot matrix printer will ever produce!

Of course, even in the early days all was not sweetness and light. It seemed that everyone was out to make a buck, and those who made the buck were mostly those with questionable business ethics. When I first made contact with the rest of the TI world, I had already written about 90 programs, and I soon met people who wanted to form a business partnership with their one or two programs and my ninety. It was mainly to get them off my back that I decided to go into business for myself - a decision that I have regretted a thousand times.

Charlie LaFara started the International User Group as a nonprofit exchange of public domain software, and converted it into a business for his own profit. An entrepreneur in California acquired his programs and copied his catalog, leading to a lawsuit. Later on, a TI business in Florida called itself a "group" and sold my public domain programs, which led me to announce that "Tigercub Software is a one-man user group pretending to be a business, not a business pretending to be a user group!"

Of course, not everyone was a crook - most simply started out with unrealistic expectations, got in over their heads and faded away, leaving their creditors holding the bag. Emerald Publishing Co. extended credit to too many software advertisers who never paid up; then they got ridiculous and tried to publish a magazine with no advertising! Finally, they ripped off all their remaining subscribers, as did more than one other TI publication which never delivered or refunded subscriptions. There were exceptions, honest companies such as Random Access and another one-man operation in Texas whose name I wish I could remember.

I learned very early not to extend credit to anyone who decided to start up a software business. And I learned not to send an order to anyone for anything until I knew that someone else had actually received their order. There are not many TI old-timers who have not been ripped off at least once!

But, whatever happened to the fun of it? I remember demonstrating my programs at a local school, at a library, at computer fairs - the kids were fascinated! If only the Apple peddlers had not succeeded in brainwashing the educational system! Are Jack Sughrue and Eunice Spooner the only educators still using the TI in the classroom? In the days when I was exchanging my Tips From The Tigercub newsletter with nearly 200 user groups, I twice asked them to let me know of any schools in their area where the TI computer was being used - only two ever responded! If we had harnessed all that youthful energy and enthusiasm, our user groups might now have replacements for all those who are abandoning us for Big Blue.

Whatever happened to the fun of it? Whatever happened to the HOME computer? (remember, that was what the TI-99/4A was called!). They tell me that the COCO is the only home computer left, because there is no way to make it anything more than that. I may just take a look at it - maybe that's where I'll find the fun that I'm missing!

TRY IT

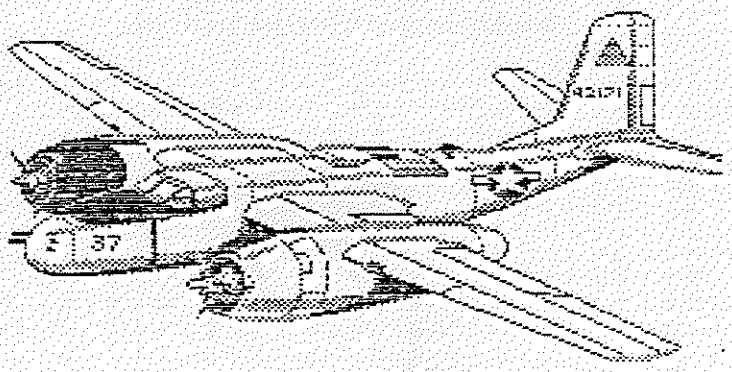
Here is a cute little progrem from the Brandon, Florida group.

Retyped by Loren West TIsHUG

```
1 ! SAVE DSK4.TRYIT
40 MSGS="BRANDON TI 99/4A US
    ERS GROUP"
42 CALL SCREEN(2):: CALL CLE
   AR :: CALL MAGNIFY(2)
43 FOR I=0 TO 14 :: CALL COL
   OR(I,16,1):: NEXT I
45 CALL DELSPRITE(ALL)
50 DISPLAY AT(2,8)ERASE ALL:
"TI BILLBOARD":TAB(13);"by":
   "   Herman Nieuwendaal
": :"      Enter message":"
 or name to display:": :MS
    GS
52 DISPLAY AT(22,1):"  Pres
s any key after all  lette
    rs are in motion to
       abort."
55 ACCEPT AT(14,1)SIZE(-28):
MSGS :: IF MSGS="" THEN 55
57 CALL CLEAR
```

```
 60 C=.868-LEN(MSG$)*.031+1
      90 RANDOMIZE
120 FOR N=1 TO LEN(MSG$):: C
ALL SPRITE(#N,ASC(SEG$(MSG$,
N,1)),INT(RND*(14))+3,(N +(2
8-LEN(MSG$))/2)*6,N*8):: NEX
          T N
130 FOR N=LEN(MSG$)TO 1 STEP
-1 :: CALL MOTION(#N,0,-20)
140 FOR D=1 TO 457*C :: NEXT
       D :: NEXT N
150 CALL KEY(3,K,S):: IF S=0
         THEN 150
160 DISPLAY AT(12,7)ERASE AL
     L:"Do another?:Y"
170 ACCEPT AT(12,20)SIZE(-1)
:X$ :: IF X$="Y" OR X$="y" T
    HEN 45 180 CALL CLEAR
```

END OF ARTICLE



PUZZLE

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

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

Find these hidden words

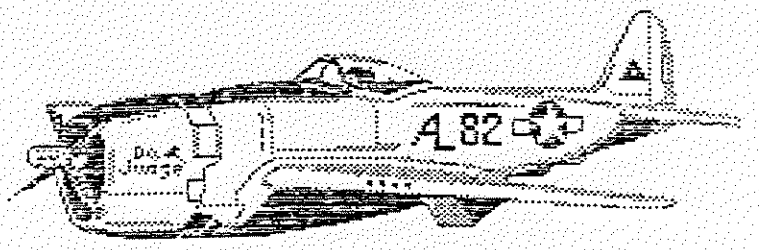
HOW TO PLAY

In this puzzle there are (20) words somewhere, horizontally, vertically, diagonally even backwards.

GOOD LUCK

ADMINISTRATOR	ADMIRAL	BOSS
CAPTAIN	CHAIRMAN	CHIEF
COACH	COMMANDER	DRIVER
ENGINEER	FORMAN	HEADMASTER
KING	LEADER	LORD
MASTER	PILOT	PRINCIPAL
QUEEN	TEACHER	

This puzzle was compiled using Ashley Lynn's programe "Word Puzzle" which can be ordered through TIsHUG.



REGIONAL GROUP REPORTS

Meeting Summary For JUNE

Central Coast	10/06/95 Saratoga
Glebe	08/06/95 Glebe
Hunter Valley	11/06 18/06/95
Illawarra	06/06/95 Keiraville
Liverpool	09/06/95 Yagoona West
Sutherland	16/06/95 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 Sunday 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) 428 176 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 first Tuesday of each month after the TIsHUG Sydney meeting at 7.30pm, at the home of Geoff Trott, 20 Robsons Road, Keiraville. A variety of investigations take place at 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 *

Regular meeting date is the Friday folling the TIshug Sydney meeting at 7.30 pm. Contact Larry Saunders (02) 644-7377 (home). After 10.30 PM or at work (02)602 3312 Liquorland Liverpool West for more information.

*** ALL WELCOME ***

9th JUNE 1995
My Place : 34 Colechin st. Yagoona West

7th JULY 1995 : MY PLACE

12th AUGUST 1995 : MY PLACE

9th SEPTEMBER 1995 : MY PLACE

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 2pm on the first Saturday of the month. 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 school grounds. Regular items include news from the directors, the publications library, the shop, and demonstrations of monthly software.

JUNE MEETING - 3th JUNE

JULY MEETING - 1st JULY

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

JULY - 10th 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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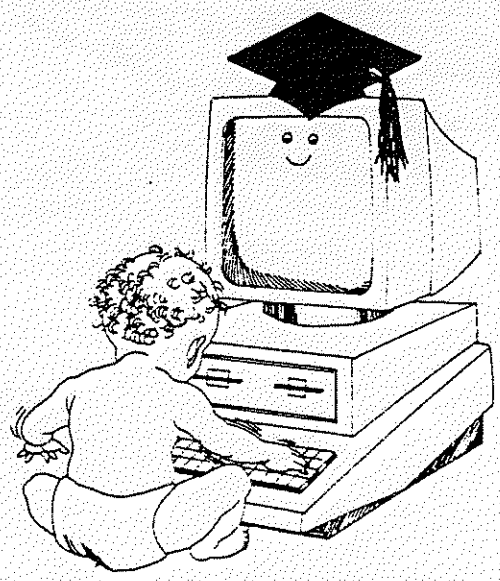

intelligent computer