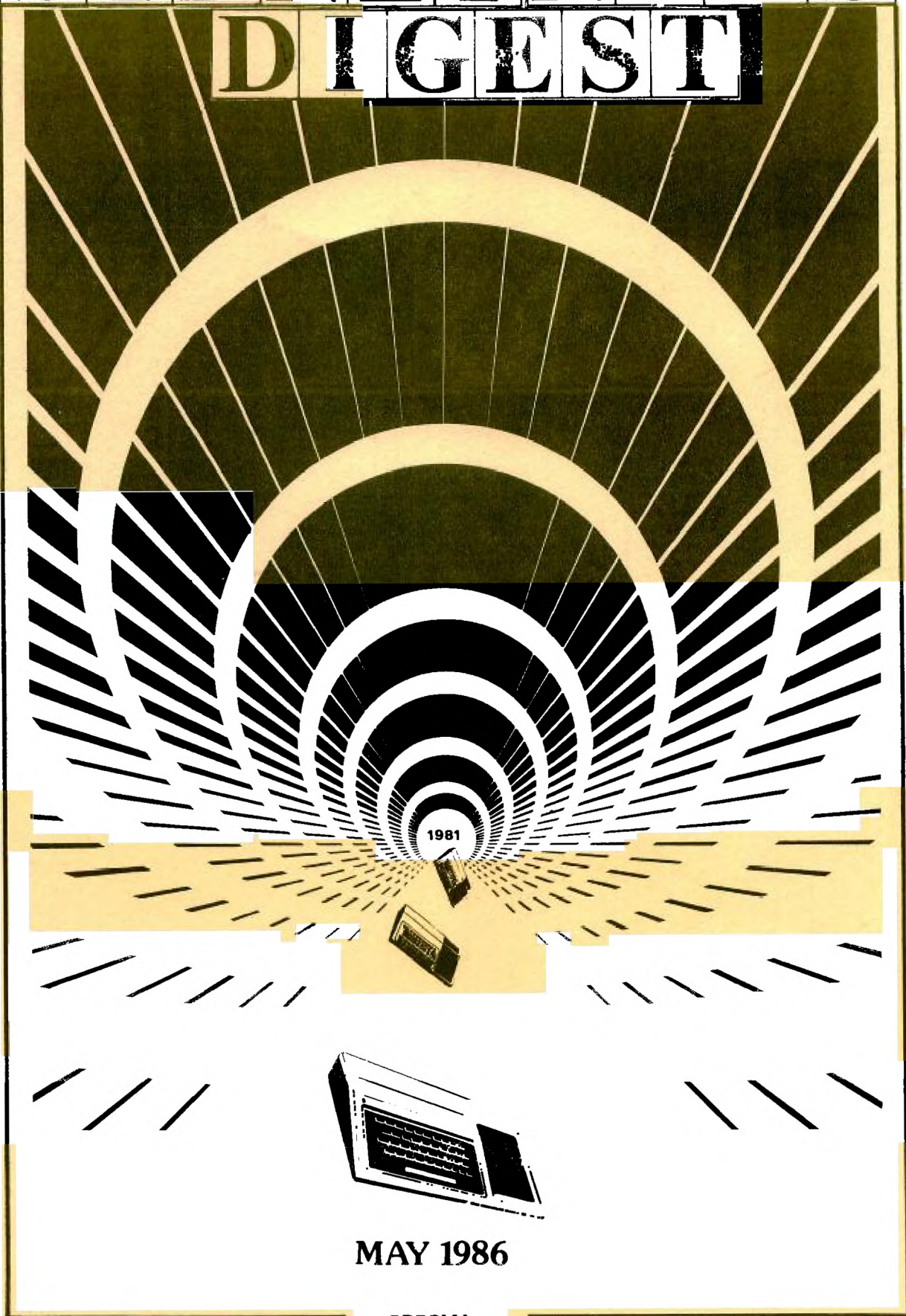


SYDNEY NEWS

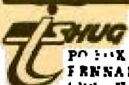
DIGEST



1981

MAY 1986

5 SPECIAL
th BIRTHDAY
EDITION



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

REGISTERED BY AUSTRALIA POST
PUBLICATION No. NH16833

Face to Face

A VIEW FROM THE TOP.

CO-ORDINATOR REPORT MAY 1986.

After last months effort I of the opinion that this report should be kept short and to the point.

Well, we've organised ourselves at committee level but are still having trouble finding the rest of the crew it seems that our TISHUG members are not going to be quick to lend assistance! So, like the PONY EXPRESS we'll just have to get through - a pity though because with more assistance we could really do an even better job for YOU!

This month I would like to cover the financial aspects of running the group. Until now we have used the club shop plus software sales to subsidise the publication costs of the Sydney News Digest and meet the other overheads. As I indicated in a previous report one of our objectives would be the trimming of the budget without necessarily having to diminish the quality of service and support in order to do this. With this in mind, we have decided to restructure the subscription fees - unfortunately, an increase. Plus, we've reviewed the manner in which we administer the membership renewal process - good news, a cost/time reduction. In addition, we have decided to use only 1 postal address for all correspondence. From now on ALL MAIL should be directed to:

THE SECRETARY
TISHUG
P.O. BOX 149
PENNANT HILLS. 2120.

This measure will cut the cost of post office rental and provide more control over monies, orders, subscriptions sent to the group. Also, this action will result in speedier, more effective communication within the group. DO NOT USE ANY OTHER ADDRESS!

In reaching the decision to increase the SND subscription fee we took into consideration the possibility of diminished format and quality. After canvassing the opinion of a number of members it was felt that we should still try to improve! - both in quality and content. Members are always very busy with their DM-1000, NIBBLER and DISK MANAGER programs providing friends with copies of club generated software. Thus sales are at an all time low - Ergo, no profit for club use. The decision therefore to

restructure the TISHUG subscription fees is based on the need for each of the Operating Groups to be self funding, that is, paid for by the users of the service/s. This means that the Communications, Shop, Software and Publications library should be able to cover their overhead.

The changes, effective May 1st, 1986, are:

1. The annual Sydney News Digest subscription rate is \$25.00 per annum with each subscription expiring April 30th, of each year. This increase is \$3.00 per annum.
2. Membership of the BBS remains \$5.00 per annum however, membership is only available to subscribers of the SND. BBS membership expires April 30th, of each year.
3. As indicated previously, the Publications library rules have been changed. The publications library will operate in the same way as the BBS. If you wish to belong to the library the annual fee, also expiring April 30th of each year, is \$5.00 per annum. Membership is limited to subscribers of the SND. The intention here is for the publications library to be self funding in respect of newsletter exchange costs and the purchase of new publications. Another change is the period of a/any publication may be with a borrower. Now the return date shall be 1 month or for Sydney members - from one meeting to the next.
4. Terry Phillips is looking at the Software library and formulating an approach which will result in this division covering its own overhead.
5. The new member joining fee remains \$8.00. In the event that a new member subscribes to the SND, joins the BBS and PUBLICATIONS LIBRARY then this fee is reduced to \$5.00

To sum up. Existing members will be asked with this edition of the SND to renew or extend their subscription to the SND so that all members will have a common expiry date of April 30th, 1987 plus be invited to join the PUBLICATIONS LIBRARY. Existing members of the BBS will have their expiry date advanced to April 30th, 1987.

By way of comparison, the subscription rate in Perth is \$10.00 per annum for only 4 newsletters a year! This equates to \$27.50 per annum for 11 issues. Melbourne charge \$20.00 per annum for a bi-monthly magazine which equates to just under \$37.00 per annum.

TISHUG HAS ALWAYS BEEN GOOD VALUE - RENEW NOW!



PAGE#2: FACE TO FACE-Co-Ord Report.
#3:EDITORIAL-Here to stay.
#4:SHORT WAVE LISTENING & YOUR TI.
#5:MARRAGE MADE IN HEAVEN.
#6:REVIEW with Keir Wells.
#7:LETTERS & Humour.
#8 to 13:THE COMMUNICATORS.
#13:AMATEUR RADIO & YOUR TI.
#14:ONE LINERS.
#15:PUBLICATION LIBRARY.
#16:TIPS AND TRICKS.
#17:MORE KEY CODES & FILE COMPUTING.
#18:DISK INDEXING with Ben Takack.
#19 & 20:ASSEMBLY with Geoff Trott.
#21:REGIONAL REPORT#1 & TISHUG SHOP.
#23:REGIONAL REPORT#2 & COMING EVENTS.
#22:JENNY'S YOUNGER SET.
#24:SOFTWARE COLUMN with TERRY.
#25 & 26:LINK-IT#3 by Ross Mudie.
#27:CRASY THINGS WE DO WITH OUR TI.
#28:SMELLY P.E.B. by Laurie Marsh.

Shifting into Overdrive



Here to Stay

OPEN LETTER by Shane



You Chose the Right Computer

When was the last time you told your computer you love it...come on, give it a real big hug and let it know that you won't throw it away. Don't tell me that you haven't used it in ages! You know, there is no real reason why your TI shouldn't be used at least once a week. Computers have feelings too you know! Let's start shifting into overdrive and put it to some really good use.

You chose the right computer for your home, and its here to stay, with your support. As you should already be aware, this group... TI.S.H.U.G is now 5 years old, and still one of Australia's largest home computer users' groups which is something to be very proud of. In the past 5 years we have gone to great lengths to ensure that all members have been informed on the latest developments with hardware and software, and have been the FIRST in many ventures which was unheard of, or untried by other user groups. Lets give you some idea of what they were...We were the first to create

- * ASSISTANCE WITH SETTING UP OF OTHER AUSTRALIA-WIDE 99/4A USER GROUPS IN BRISBANE, MELBOURNE, ADELAIDE, TASMANIA & PERTH.
- * A BULLETIN BOARD SERVICE ELECTRONIC SHOPPING AND AND FEATURES LIKE FULL SPEECH,
- * VIATEL SOFTWARE & DISPLAY IT AT A COMPUTER SHOW,
- * A PROGRAMMERS CRISIS LINE TO HELP BEGINNERS WITH PROGRAMMING PROBLEMS,
- * FULL DAY TUTORIAL WORKSHOPS,
- * NATION-WIDE SOFTWARE COMPETITION,
- * REGIONAL HOME GROUPS,
- * YOUNGER-SET UNDER 18'S GROUP,
- * DISCOUNT SHOPPING AT RETAIL SHOPS WITH MEMBERSHIP CARDS,

and many more firsts which other groups have since copied, and the best part is that we are here to stay. Yes, we have a club and a computer to be proud of, but to ensure that it continues to be so, they need YOU and your support. As I have said on many occasions...the life of any computer is usually around 2 years, but we have shown that we can survive long after production of our computer has ceased to be produced.

On both our BBS and this publication (SYDNEY NEWS DIGEST), I have commenced a series of article of what people are doing with their 99/4a apart from playing games. If you have an unexpanded 99/4a, don't be afraid to expand it for greater heights, because there are so many devices you can use with your computer. In September, we'll be conducting a very special TECHNICAL DAY where you can be taught how to solder, and how to expand your own computer with extra memory & speech etc. We are grateful to people like Peter Schubert, who has been making peripherals at a cost which we can afford such as 32k, Modem/RS232 units which simply plug into the side of your computer...and he's still working on other devices like a Disk Controller with extra memory to plug on.

If you have run out of ideas of how to use your computer, don't just put it away, we can show you how to get the very best out of your 99/4a.

1986 is going to be a very interesting year for us, as we find many and varied ways in which our 99/4a can serve us, and TI.S.H.U.G will be there to create and help you maintain your interest in computing.

Yours in computing the TI WAY,

SHANE ANDERSEN
(FOUNDER)

YOU'VE PROCESSED YOUR WORDS, SPREAD
YOUR SHEETS, AND TESTED YOUR HAND-EYE
COORDINATION WITH ARCADE GAMES...

Have You Hugged Your 99/4a Today?



This is the start of a series of articles on the many things you can use your TI-99/4(A) with or for...by Shane Andersen (EDITOR).

It is a big shame to see more and more people putting their computers in the closet just because they can't or don't want to think of things to use their computer for. At least those of you with modems have discovered another reason to turn on your TI...even though some of you still haven't bothered to check out the other BBS's or tried INTERNATIONAL MODEM COMMUNICATION.

In this article \ I want to share with you the fun you can have with both a SHORT WAVE RADIO and your TI-99/4(A).

ITEMS NEEDED:

- (1) TI-99/4(A) HOME COMPUTER + Peripherals
- (2) DATABASE and/or SPREADSHEET PROGRAM
- (3) WORD PROCESSOR SOFTWARE
- (4) SHORTWAVE Radio or Scanner

Then listen to such stations as RADIO MOSCOW \ VOICE OF AUSTRALIA \ VOICE OF AMERICA \ RADIO PEKING \ BRITISH BROADCASTING COMMISSION(BBC) \ and hundreds of others as listed in such magazines as ELECTRONICS AUSTRALIA & ETI etc. Each radio station will send you STICKERS \ NEWSLETTERS & QSL CARDS etc.

THIS IS HOW IT WORKS...

(1) You can either use your getto blaster/transistor radio with SW bands or you can spend heaps of money and purchase a dedicated Short Wave Radio and have antenna's ranging from a piece of unshielded wire through to a big BEAM antenna on a rotary base outside your home. In other words...you spend as much as you can afford or as much as you think you need to pick up what you are looking for.

(2) Place your Radio away from your computer so as not to cause harmonics problems from your computer and get ready to LOG each station you pick-up. To LOG YOUR STATIONS you may use a Pad or Spreadsheets program like MULTIPLAN with the following headings...

DATE | DAY | TIMEest | TIMEutc | FREQ. | MODE | COMMENTS

ON YOUR COMMENT SECTION:

It is always best to listen for at least 15 minutes to each transmission then write to that station giving details of what you heard within that time span. They are usually overjoyed to hear what you have to say about them and will send you a packet of goodies out of appreciation and help you to fill your wall or album with QSL CARDS (postcards which confirm receipt of your letter or card...and confirm reception of their station: this is called QSL-ing)

To make it easier for you...we use an international code called the SINPO CODE... S = SIGNAL STRENGTH. I = INTERFERENCE FACTOR. N = NOISE LEVEL. P = PROPAGATION and O = OVERALL MERIT. They are 1 to 5 counts like this: I: 5=NIL 4=Slight 3=Moderate 2=Severe 1=Extreme. EST=Eastern Standard Time and UTC=Universal Co-Ordinated Time .. MODE=AM/UPPER SIDE BAND(USB)/LOWER SIDE BAND(LSB).

A typical letter to the station would read like this:(on your own letterhead)...

Dear Sir/Madam
I am pleased to inform you that I have received your Station _____ at _____ UTC on _____ MHz. My location at this time was _____ and SINPO details were as follows... S[] I[] N[] P[] O[].
Program detail for 15 minutes listening...

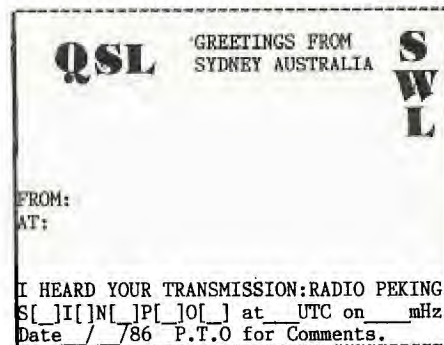
| U.T.C. | COMMENTS



I hope this information is of use to your Technical Department and if it corresponds with your Log I would greatly appreciate Q.S.L verification. My receiver is a KENWOOD R2000 WITH 4.5 metre LW antenna (or what ever gear you are using).
Yours Faithfully

Designing your own QSL CARD to send them with your letter or if you don't want to listen to each station for 15 minutes but still want to send them just a card...

You can use GRAPHX or TI-ARTIST to do this\or use your WRITER program to prepare the text and some brand of instant lettering for the sections to stand out ... like this:



When you have designed it...take it to an Instand Printer and ask them to print you up about 200 hundred at POSTCARD size and/or to fit into an ordinary envelope. You could even have a photograph on the reverse side with you and your radio with computer etc with a section set aside for comments next to it.

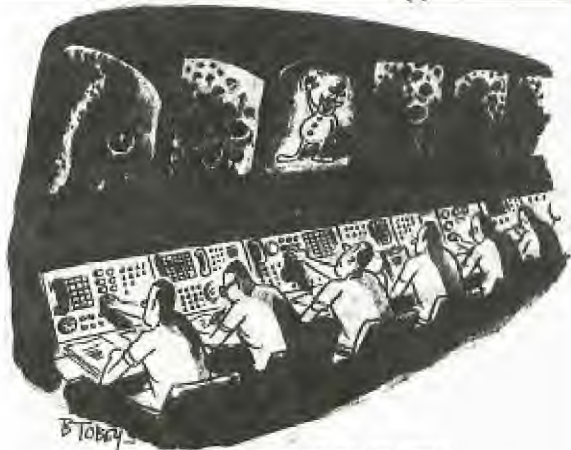
Short Wave Listening is a very popular past-time for millions throughout the world. But sadly not as much here in Australia. Have you ever listened to RADIO SWITZERLAND? They point their beam antenna toward Australia each day at different points of time\and on different frequencies throughout the day or evening and spend many interesting hours telling us about themselves...like What they do\what they grow\how they entertain themselves\what their children a taught in school\how they run their country\the type of money they use etc. Plus you hear the music they like and much more. This is typical of what you hear from many of the others...however RADIO MOSCOW is mainly POLITICAL PROPAGANDA. They often block out other countries transmissions with High Frequency tones which over-ride the signal so that the Russian folk can't hear what it is like to live in a free world. Its interesting to hear that happening.

You can get NEWS first-hand without having to delve through the bull we get on our own TV & RADIO stations.

One couple who are SWL'ers and members of TI.S.H.U.G are Peter & Camilla of Coogee who get a real kick out of it, and can share with you some of the many frequencies upon request by phone (02)6656821.

Well\thats my article for this segment this month. Next month, I hope to tell you more about a unit called INTERFACE II which you can connect to your TI-99/4(A) to enable you to use RSCHAT and both receive and CHAT to HAMS using CW (MORSE) & RTTY (Radio Teletype) which can be heard with your SHORT WAVE RADIO.

If you can think of other ways to use your computer...drop me a line on TEXPAC BBS to Username:SHANE or P.O.Box 595 Marrickville NSW 2204 and lets share your fun with others in this group.



A MARRIAGE MADE IN HEAVEN?

***** MYARC ***** NAVARONE *****
 * DISK CONTROLLER and DATA BASE MANAGER *

Hi! Recently, I acquired the Myarc disk controller card. My thinking at the time was that this purchase would represent an upgrade for my system and in the long term would be cost justified by the saving in disk purchases. At least that is what I told my wife!

My system currently consists of the PEB with a single TI disk drive. Thus, by using the Myarc card - which incidentally, provides for Double Sided drives and Double Density recording I would be able to at free up half of my current disk space. So, on receipt of the card I went into production - transferring single sided/single density to single sided/double density formatted drives and actually freed up some 50 disks (at current club prices, this saved me \$140 in future disk purchases!).

The Myarc card comes well presented and packaged. Included with the card is a disk based Disk Manager - a joy to use, two manuals and cable to connect the drives and controller card. The one manual reminds me of the Disk System manual supplied by TI with the purchase of the PEB system and the other an Instruction book dealing with the Disk manager itself. So, because I know all about "IT" I installed the card - booted the Disk Manager and started to copy files from my TI format to the now double density format. That's as far as I got - problem number 1 - the files would not copy

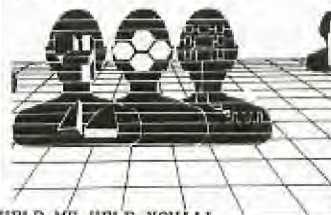


who ya gonna call....

THE PROGRAMMER'S CRISIS LINE

Any Monday To Wednesday
 10am-4pm and any other days
 10am-9pm. (02)95-2225.

REVIEW with KEIR WELLS



HELP ME HELP YOU!!!

In order to write the REVIEW's each month I can only speculate as to what software people wish to read about. I really do require a certain amount of feedback from the club in order to maintain an acceptable level of interest to all.

Please either send me a letter to the club address or leave me a message on the club BBS (Username KEIRLALOR).

beyond the first read and write operation! The on screen help statement kept on calling for the wrong Disk Name! Now was the time to read the instructions! Nothing! Frustrated, I phoned Chris Buttner to ask if he had any problems with HIS card - no! (Chris uses 2 slimline double sided drives).

I thought about it and arrived at the solution. Using 1 single sided drive - to copy from the source disk to the target disk it is necessary for BOTH DISK NAMES TO BE THE SAME! Having done this everything now works well. The card is now almost permanently installed in my PEB. Almost? - Yes almost!

Most of the readers are probably not aware that I am the individual responsible for maintaining the club membership data base - you really should get to know us a little better? Eh! I have previously mentioned that we converted to using the Navarone Data Base Management system some 9 months ago. As we maintain a data base of just over 1000 names our use of the Navarone system was not as powerfully executed as it could have been - the limitation being the lack of a DS/DD disk controller card. Joy! Now we have one - pity though the MYARC CARD and NAVARONE systems DON'T seem to TALK TO EACH OTHER! This statement is probably more generalised than it should be. Let me explain.

The Navarone on disk SORT routines require disk space on the target disk (ie. the disk containing the sorted records) to be twice that of the source file size. Thus, if for instance, the source file size is 300 sectors then the target disk space should be 600. Simple! Except that we have not been able to sort the current membership data using these two systems. Small files are OK. but get into large files - the system CRASHES! What is worse, is that fact that the error message issued by the Navarone sort program is for the non-Assembly minded member really GIBBERISH, UNHELPFUL and plainly NONSENSICAL. Not deterred I dived into the E/A manual to find out a little more about the PAB and found that the system was reporting a "FILE NOT FOUND" error. How could that be - the system WROTE the file and it is on the disk!

Well, back to the TI controller card for this job until I am able to discover just what the problem is. That is the reason why I said that the Myarc card is ALMOST always in the PEB!

To sum up. Every system has its quirks. By using these two systems I have developed a set of rules which allow me to utilise the power made available to me - without undue disadvantage. I am extremely happy with both products - they perform well under most circumstances therefore, I do not hesitate to recommend that if your need is more on line data storage then consider the Myarc controller card. If your need is Data Base manipulation the Navarone Data base Manager does the job. Both of them together - WOW!

Written for TI.SHUG by Fred Morris - Group Co-Ordinator.



In this month's article I intend doing something that I promised myself I would never do. I have copied another persons work. In actual fact it is an advertisement for yet one more graphics programme. But more on that later.

I have decided to write briefly this month on a game that has proven to be one of my personal favourites and proves once again the incredible effects that are able to be tapped from the internal wonders of the 99/4A.

Micro Pinball II

Above all other games, I believe that Micro Pinball II is the most impressive for the TI 99/4A. Supplied on disk and loading through Extended Basic the user is not presented with any fancy title screen or a theme that continues for longer than it really should. Straight away, the pinball machine is displayed and ready to be assaulted.

The screen as just mentioned is a representation of a not too cluttered pinball machine. A quick press of the REDO function key and the action is ready to commence. The score is set to zero and five pinballs are given to the player.

To get the ball rolling (sorry about that) hold down the '0' key and release it to play the ball.

As the ball flies across the screen striking bumpers and whatchemacallits the players score is continually updated and displayed at the top left of the screen.

Flippers are operated by utilizing the '1' and '=' keys and the response is breath takingly real.

In order to really rack up the high points I found it necessary to try getting the pinball into a little area of the machine that is to the top left. Getting the ball up there and keeping it there is one of the greatest challenges that the game offers. Once the player has managed this feat of dexterity and cunning another set of flippers are used to strike the ball against a set of markers placed against the 'back wall'. If all four of the markers are struck they are immediately placed in position again and a multiplaction factor is added to the score. If you manage to score enough of these multiplaction factors on the one ball the machine will also award you with a free ball.

All I can really say about Micro Pinball II is that it must be seen to be believed. The motion of the ball on the screen is absolutely faultless and is every bit as good as any Pinball machine found in the arcades.

** Micro Pinball II can be obtained from:

TEXCOMP
PO BOX 33064 - GRANADA HILLS - CA 91344 - USA

The cost is US\$14.95 + PP and is supplied on diskette. 32K expansion IS required.

JOY PAINT '99

The following section of this article is actually a duplication of an advertisement that appeared in the February 1986 edition of MICROpendium. Please note that it is not a review and has been composed by the manufacturers of the product.

After months of careful planning JOY PAINT '99 is finally available. This all new 100% assembly language program features graphic capabilities found in no other

software application. Use JOY PAINT '99 to create signs, charts, diagrams, advertisements or graphics of any type. JOY PAINT '99 is sophisticated, yet simple to use. In fact, the user never needs to touch the keyboard; all functions are joystick controlled. There are no complicated function keys to remember, just simple on-screen tools like a PENCIL, ERASER, PAINT BRUSH, and SPRAY CAN, just to name a few! JOY PAINT '99 allows circles and ovals to be drawn with incredible speed and precision. Lines, boxes, and rectangles can also be quickly drawn! Additionally, the FILL, PAINT BRUSH, and SPRAY-CAN tools allow filling and painting in any one of 26 selectable PATTERNS. These patterns are re-definable and add the dimension of 'texture' to your graphics. JOY PAINT '99 also features 8 re-definable brush shapes!

A 'pull down window' contains many more features that make creating and manipulating graphics fun and easy. Any object can be INVERTED, ROTATED, FLIPPED VERTICALLY or HORIZONTALLY, COPIED, MOVED, or stored on a CLIPBOARD FILE. A magnify feature allows graphics to be increased. A ZOOM OPTION called FATPIXELS, allows fine single dot editing.

JOY PAINT '99 also contains dozens of features not found in any other graphics application. For instance, a 'UNDO' feature, that instantly 'TAKES BACK' the last portion of work the user performed! Its DIRECTORY feature can CATALOG you diskettes! JOY PAINT '99 CONSERVES DISK SPACE, by not saving the redundant blank areas in your graphics! Printouts can be made directly from within the program, in normal or double size, and in single or double density!! JOY PAINT '99 features a 'drawing area' that is 92% larger than that of any other graphics program. The screen is actually a 'window' through which the user views a much larger graphics page!

REQUIRES! TI-99/4A, 32K, Disk Drive, Joystick and one of the following: Extended Basic, Editor Assembler, or Mini-Memory. Epson compatible printer is optional. (soon other printers too!)

As I have already mentioned this is an advertisement written by the manufacturers. I have not seen the programme but must admit that it sounds all too good to be true.

JOY PAINT '99 is available from:

GREAT LAKES SOFTWARE
804 E. GRAND RIVER AVE.
HOWELL, MI. 48843
USA.

The cost is \$US49.95 POSTPAID.

A BIT OF INFORMATION!!!

For all those who are on the look out for books dealing with computers and computing, a trip to Sydney may well be in order.

The HOTLINE bookstore at 693 George Street, Sydney has in store a wealth of material covering many aspects of computing. Unfortunately though, I found only one book that dealt with the TI and that itself was a small paperback that contained listings of games for Basic and Extended Basic.

If you find yourself in the vicinity it might prove worthwhile stopping by and having a browse. If you do, I strongly urge you to mention to the staff there that you are a 99/4A user and express a little disappointment as to the lack of material held on our computer.

When I expressed the above sentiment to one of the staff he mentioned that if enough interest was shown then something might indeed be done.

Letters



Dear Shane,

I came across the following advertisement in a Computer magazine which I regularly purchase and I thought it may be of interest to some of the club's members. Here it is :-

COMPUTER BOOKS

AUTHOR	TITLE	PRICE	ORDER CODE
Thomas	Art and Graphics with your TI99/4A	\$ 5.75	27001
Manning	Get Personal with your TI99/4A	\$ 8.75	27002
Wyatt	Basic Tricks for TI99/4A	\$ 5.75	27003
Marshall	Get More from the TI99/4A	\$ 7.00	27004
Ton	Entertainment Games in TI Basic	\$ 5.75	27005
Scott	Dynamic Games for your TI99/4A	\$ 5.75	27006
Compute	Computes First Book of TI Games	\$10.75	27007
D'Ingozio	TI Playground	\$ 5.75	27008
Engel	Stimulating Simulations for TI99/4A	\$ 5.75	27009
Jones	I Speak Basic to my TI99/4A	\$ 8.25	27010
Knight	TI99/4A Basic Programmes	\$ 5.75	27011
Muncy	Fun and Games with your TI99/4A	\$ 5.75	27012
Rugg	32 Basic Programmes for TI99/4A	\$10.75	27013
Shaw	Getting Started with Texas TI99/4A	\$ 7.00	27014
Zaks	Your First TI99/4A Programme	\$ 8.25	27015

The above prices included postage and the books are available ex stock in limited quantities from the following company on until 30th, JUNE, 1986 and must be ordered on their special order form which is available free of charge from the company. Write to them as follows :-

FREEPOST NO. 5,
WILBOPRINT & COMPUTER SUPPLIES,
P.O. BOX 56,
CHIFFENDALE, NSW, 2008.

The telephone number for the company is (02) 699-9933 for enquiries or for country members they can order toll-free on 008 - 225542 but you must mention that you saw this advertisement in their catalogue. You might also tell them that you are a member of this Club and you never know what this may mean to them or to you.

The company accepts BANKCARD, MASTERCARD and VISACARD in payment. They also stock lots of other goodies at competitive prices.

Don't forget that these prices on last until end of June this year.

Hoping this is of interest and benefit to all members,
Yours faithfully,

BRIAN G. GRAHAM.



"About this computer of yours that does the work of three men..."



HAPPY BIRTHDAY T.I.S.H.U.G.
5 years of service to TI'ers.



SPECIAL
INTEREST
GROUP OF
T.I.S.H.U.G
(Australia)



The Communicators

with Shane Andersen(SYS-OP)

Welcome to the COMMUNICATORS Special Interest Group section of the Sydney News Digest. As a special bonus to members, as part of the T.I.S.H.U.G BIRTHDAY MONTH, it was decided to provide you with a complete detailed listing and information about how our TEXPAC ELECTRONIC BULLETIN BOARD SERVICE (Electronic Magazine) works.

There has been some interest by users of our BBS, to create their own BBS software, so within the next few pages, we'll give you a list of our TI BASIC & ASSEMBLER SOURCE CODE programs so that you will gain a better understanding of how it works. We give special thanks to the original author of this software, ROBERT CRAGO, and to all those who assisted with updates to the basic program later on in it's use. They are as follows...STEVEN WILLIAMS, GREG HOPE, SHANE FERRET, and MARK NIELSEN. We still haven't finished with it, as we are continually improving it and have some special surprises in store in the not too distant future.

This version, is STATE#1 of the improved versions, and we are using STAGE#3 on our system at the moment with the CLOCK/CALANDAR card. A double sided diskette has now been made available to our CLUB SHOP consisting of the following programs and System Operators' utilities etc, at only the cost of the medium. Write to P.O.Box 149, Pennant Hills, NSW 2120 for further details.

THIS IS HOW IT WORKS:

- These are what you need... (1)Auto Answer Modem
(2)Fully expended 99/4(A) with RS232, 32K.
(3)Three disk drives (standard SS/SD) or you can use 2 drives, and even better if you have up to Double Sided/Double Density.
(4)Editor Assembler and Extended Basic Modules.
(5)TI WRITER or compatible word processing software.
(6)The disks with protocol & utilities on them etc.

Give #1 blank disk the name of PROTOCOL, #2 Disk must be named MESSAGES and #3 NEWS. To prepare your NEWS files, use TI-WRITER and write your news items (without any QUOTES or COMMAS in the text) then instead of SF (Save File), use PF (Print File) to the disk. When you PF to disk, place an '*' asterisk at the start of the filename and the '#' hash symbol prior to all MESSAGE filenames. These symbols tell the computer which drive to read (i.e: *WHO'S_WHO or *JOKES and #BIGKRESH or #KEIRLALOR) When someone sends mail to another member, the '#' is automatically placed on the file by the computer.

The PROGRAM disk is the 4th one to prepare, but no symbols are needed before each filename, however, the length of the program to be down-loaded must not exceed 40 sectors in length. The PROGRAM disk is placed into Drive#1 after the protocol programs are loaded, in fact the system will ask you for that disk automatically.

I'll explain some of the Utility software shortly.

Right! Turn on your system, plug in the ADITOR ASSEMBLER MODULE and go to BASIC. Type CALL FILES(1) then OLD DSK1.TEXPAC. On the prompt type RUN and wait for the system to ask you for the PROGRAM disk. At that prompt, remove the TEXPAC disk and place the Program disk into drive#1 and press <ENTER>. The computer will automatically read the contents of each disk drive. When all is ready, switch your modem to 300 BAUD, and AUTO ANSWER etc. It's now ready to receive your first call.

On your disk, you will see the following files and utilities on side #1: (1)BBSOBJ (2)BSCSUP (the two Assembly routines. (3)CHANGE which enables you to Change or place Users onto the system or USERFILE, (4)PRINTPASS which gives you an up-to-date listing of (a)Username (b)Usernumber & (c>Password of each member. plus the TEXPACBBS program. On side #2 of the disk will be...(1)#SHANE (2)#STRETCH (sample Electronic Mail files) (3)*>HELP_? (4)*MOREBBS'S (sample NEWS files), (5)OPENSESAME file which goes on your Message disk to be used with the OPTON#7 on the main Menu which doesn't appear and which can be used for selective members only. (6)RECORDS (7)TIMES which displays and records how many callers your BBS has received since you first set it up.(8)USERFILE (9)USERS where registered users and their Passwords are stored. (10)USFILE (a TI-WRITER created file of Usernames which is used in the VALIDATION process when someone wants to send MAIL to another member, and (11)WRITE (a mini text creator.

Now lets take a quick look back at one or two of these Utilities. #3 on side 1 of the disk "CHANGE". You place the disk with CHANGE on it into drive #1 and the Message Disk into drive #2 and RUN"DSK1.CHANGE" in Extended Basic (it will also work in TI BASIC. You will then be asked by the computer if you have the MESSAGE DISK in Drive#2 so press <ENTER> and it will then ask for the Usernumber of the member you want to want to add, change or delete from the system. It is self explanatory. All of the contents of side #2 of your disk, other than the two *NEWS files, must be placed onto the MESSAGE disk.

So there you have it. Now, lets take a look at how the User should use this BBS ...

- (1)Set your Terminal Emulator software (I.E. TE#2, FAST-TERM or 4A-TALK etc) to the following settings: (a)300 BAUD RATE, (b)EVEN PARITY, (c)FULL DUPLEX, (d)8 DATA BITS then...
- (2)Dial the BBS number (in our case its 20.5600926)then the system will ring about 3 times and sound a tone called a CARRIER so you switch your modem or ORIGINATE and press <ENTER>. You will be asked by the system to type in your 3 digit Usernumber first, then your PASSWORD (at the prompt)which must be typed in UPPER CASE (CAPS). The Usernumber & Password is supplied to you by the Systems Operator when your application has been received...then read the following HELP file...

STOP THIS SCREEN from SCROLLING?

Hold down the <CONTROL> S keys until the cursor stops...then to restart the text...press ANY key other than 'E'.

CORRECTING TYPING ERRORS ...

DON'T use <FCTN>S as you would usually do in normal programs. The international code for BACK-SPACE (scrubbing out as it goes back) is <CTRL>H



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EXIT A NEWS FILE BEFORE IT ENDS

Now this is when you press that 'E' key. By pressing the E key you will instantly stop the screen from scrolling and <E>xit that file at any time and ask you which MENU you would like next (i.e: <M>ain or <N>ews).

ELECTRONIC SHOPPING ON TEXPAC BBS

Any item either mentioned in the SYDNEY NEWS DIGEST or on this system for sale within the Club Shop can be purchased on TEXPAC BBS ELECTRONIC SHOP. All you If you have either Bankcard or Mastercard\filled in and sent to us your Credit Card Deduction Authorisation form\ then you can order items by sending Electronic Mail to Username: SHOP

Give details of both name and Username on this system so that Terry can identify the Deduction form with you.

If you don't have any of the above mentioned Credit Cards\simply leave a message with your order to Username: SHOP and let Chris know that your Money Order or Cheque will be placed in the mail to P.O.BOX 149 PENNANT HILLS 2120. And your order will be sent to you on receipt of that payment.

WANNA SEND SOME ELECTRONIC MAIL?

Easy...simply go to the <M>ain menu and select #3 then at the prompt type the Username in CAPITALS of the person you wish to respond to. A word of note to the person receiving a letter...PLEASE REPLY A.S.A.P after you receive that mail. Please place DATE on all your letters.

To exit your mail and send it to disk...simply press <ENTER> on a blank line and you will then be asked if you wish to <S>ave or <C>ontinue that letter.

WANT HELP by CHATTING to SYSOP?

Select #4 on the <M>ain menu. If you have the speech Synthesiser connected\you will hear your computer calling Shane. When you have made contact with your SysOp\please type either ** or \$\$ at the end of a sentence so that Shane knows he can respond. (like saying 'OVER' on 2-way radio).

DOWN-LOADING OF SOFTWARE !!!

Select #2 on the <M>ain menu where you will be given a Menu of available software to down-load to your computer. Make your selection or press <M> to return to the <M>ain menu. Once you have selected your choice\this system will confirm it and ask you if that is what you wanted. Then you will be asked to Exit TE#2 (or what ever Terminal program you are using. If you are using TE#2 press <CONTROL>O (EXIT) otherwise press <FUNCTION>+ to return you to the TITAL SCREEN of your 99/4(A) whilst maintaining that you do NOT turn off your MODEM at this point in time. Go to BASIC or EXTENDED BASIC and type: OLD RS232 or OLD RS232/2 depending on your modem connection and you will then start to receive your chosen program. When the figures on the TOP/MIDDLE screen count down to 0 and return your cursor...you MUST then TURN OFF YOUR MODEM to let someone else use this system.

The selection of down-loadable programs are changed at the start of every month so there is plenty of time for you to come back on and get another one.

PLEASE DO NOT HOG THE LINE by coming back onto TEXPAC right away...wait at least 30 minutes before re-calling this system\give others a go.

WRAPPING YOUR SCREEN for print-outs

Many of the files contained on TEXPAC are formatted to 80 columns so that you can print all the information with no wastedge of printer paper. To Wrap your screen...press <CONTROL>5 at the very start of a text file and do that again to stop the WRAP feature on TE#2. If you are using 4A/TALK or FAST-TERM software\there is no need to press Control 5 as all text will automatically be printed at the prepared text line length.

By the way\when in WRAP MODE\you can also STOP the screen from scrolling with control S then use Function S & D to scroll from right to left and back again if so desired.

To print your screen with TE#2...Stop the screen from scrolling then press <CONTROL>2 and send that screen of text to the printer as per your printer manual (i.e:PIO or RS232/2 etc).

EXITING TEXPAC BBS

WARNING: You MUST return to the <M>AIN MENU when you wish to finish your session on this system and select #6 . DO NOT just cut the line at any other point. If you do this\you will leave the system OPEN with your Username for HACKERS to come on in without Usernumber & Password ... to do untold damage which may result in giving you a bad name. Hackers have come on and sent filthy mail and changed the last user's PASSWORD so that you are unable to get back on again.

IF YOUR SYSTEMS OPERATOR CAN BE OF ANY ASSISTANCE TO YOU\PLEASE DO NOT HESITATE TO EITHER 'PAGE' HIM or SEND MAIL TO HIM to the Attention of SHANE (not SYSOP).

HAVE A GOOD SESSION

Bye 4 now.

SHANE ANDERSEN (Username:SHANE)

System Operator

???
?
? WHO'S WHO on TEXPAC BBS (Sydney) ?
?
???

This is a constantly updated list of all those who have registered to use this system and makes it possible for me to get you together as new found friends. Those marked with '*' are Committee members of T.I.S.H.U.G. and those with '+' are BBS Sub-Committee members.

USERNAME	FIRSTNAME	LOCATION
ADVANCED	DANIEL	HURSTVILLE
AMBO	TERRY	MORWELL(Vict)
ANYTIME	DAVID	NEUTRAL BAY
ARTY	ARTO	MINTO
AUSSIE	ANDREW	ASHFIELD
AUGABBS	MATTHEW	KILLARNEY HEIGHTS
AYLING	LES	SANS SOUCI
BALIN	PAUL	BELROSE
BEAVEY	GRANT	FAIRFIELD WEST
BELLA	CHARLES	REDFERN
BEN	BEN	WAHROONGA
BETA	BEN	WAHROONGA
BIGEARS	MICHAEL	GLEBE
BIGKRESE	KRESHO	PENSHURST
BIG-MAC	JOHN	BELLEVUE HILLS
BRIAN	BRIAN	SYDNEY
BRICAB	BRIAN	BAULKHAM HILLS
BROWNGANG	ALAN/PETER	ERMINGTON
CAPTAIN	PETE	ONBERN
CHASCHAN	CHARLES	SPENCE(A.C.T)
CHEMTECH	TONY	MARRICKVILLE
CHINA	PETER	ROCKDALE
CRYOTEMP	RON	LANECOVE
COLDPAC	JOHN	TASMANIA
COMPAUST	BERNIE	MT.LAWLEY(PERTH)



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COMPUTEX	MARK+	RYDE	PEN	IRO	KINGSFORD
DOUG	DOUG	TI. M. U. G. (VIC)	PETESAKE	PETER	WOOLLOOMOOLOO
ELCY	LEN	YAGOONA	PIX	MAURICE (CLUB PHOTOGRAHER)	ROBERT
ELECTRONS	KEITH	FORESTVILLE	RAJAH	REVELL	ST. IVES
FATSO	PETER	BONDI	REVELL	REVELL	NthEPPING
FRANKH	FRANK	GREENACRE	RICHCAM	RICHARD	CAMDEN
FRENCHIE	BERNARD	KIPPARING(QLD)	RICTON	ALEC	LANSVALE
GLIDERKEN	KEN	BAULKHAM HILLS	ROBOT	KEVIN	ENGADINE
GOSPEC	HANS	BROADWAY	ROSS	ROSS	DULWICH HILL
GOWFAR	GREG	AUBURN	RUSTY	JOSHUA	WILLAWARRIN
GRACE	GRAHAM+*	LETHBRIDGE PARK	SCOTTY	KEITH	CHAINVALLEY BAY
GREASO	NOEL	Sth TAMWORTH	SEAGULL	JIM	CRONULLA
GUNSMOKE	ANDREW	Sth HURSTVILLE	SECRETARY	JOHN *	PENNANT HILLS
HAMISH	HAMISH	OYSTER BAY(NIGHTLINE)	SHANE	SHANE. *+	(SYSOP)M'VILLE
HARRYSBAG	CHRIS	MORTDALE	SHIRLOCK	DAVID	BOORAGUL
HEADSPIN	RICHARD	BILGOLA PLATEAU	SHOOTER		
HI-FI	GEOFF	NTH.RYDE	SHORTS	ALPHONS	TOONGABBIE
HIMSELF	HUMPHREY	ASPLEY(Q'LD)	SLIPPERY	HANS	MOOREBANK
HOOPER	WAYNE	LOFTUS	SMITTY	PETER	Est. MAITLAND
HUNTER	BRIAN	GALSTON	STATIC		
ICEPAC	GEOFFREY.	TUNCURRY	STEVEN	STEVEN.	NEWTOWN
IMAGIC	Don/Trent	DEE WHY	STRETCH	JIM. +	BONDI
INDIANA	BRIAN	BLACKTOWN	SUS	STEVEN	DOVER HEIGHTS
JACKR	REGINALD	EMERTON	TALOFA	DAVID	Pt. DOUGLAS(QLD)
JAYJAY	JOHN	NORMANHURST	TECHOTIME	ROBERT *	LIVERPOOL
JAYLEE	JACK	NORTH ROCKS	TERRY	TERRY *	ASHFIELD
JENKO	ALAN	BAULKHAM HILLS	TEXTIT	WAYNE	FORREST FIELD
JOEY	JOSEPH	BEVERLY HILLS	TIMATE	DARAIUS	NORMANHURST
SHOP	CHRIS *	CARLINGFORD	TICTACMAN	STEPHEN	BEECROFT
KEIRLALOR	KEIR *+	GLADESVILLE	TITUS	JOHN	ALICE SPRINGS
LOU	LOU	BAULKHAM HILLS	TOXO	GREG	MELBA(A.C.T)
MAC	ALAN	FORBES	TRIM	TREVOR	Sth. NOWRA
MACIEK	MACIEJ	BLACKTOWN	VEBE	VICTOR	CARLINGFORD
MADMEL	MEL	EMU PLAINS	VK2DWH	LAURIE	BRADBURY
MALBRU	BRUCE	MALABAR	VK2YGW	GARY	MENAI
MICKEY	MICHAEL	BLACKTOWN	WAYNE	WAYNE	MELBOURNE(VICT)
MICROMAN	STEVEN.	CROWS NEST	WEASEL	SHANE F +	MARRICKVILLE
MUDDY	ROSS	BEROWRA	WHISKERS	ALLAN	TOONGABBIE
MUSICMAN	RUSSELL *	GOROKAN	WILLIS	WILLIAM.	CARINGBAH
NEIRBO	JOHN	WINSTON HILLS	WOMBLES	WARREN	GLENORIE
NOMAD	PETER	MARRICKVILLE	YANK	JOHN	CABOOLTURE(Q)
PAINY	JOHN	MT. DRUITT	ZULU	FRED *	CARLINGFORD
PAMPAINV	OLEG	TURRAMURRA			
PANTHER	JOHN	EMU PLAINS			
PARAMUNGO	COLIN	BAULKHAM HILLS			
PEGASUS	RAY.	BONDI			

At present, this system has been designed to take a total of 200 registered users, which we felt was enough for club use. However, you can convert the program to take more, or remove all VALIDATION etc, and have full VISITOR and/or non-member access.

And now for the Basic program of TEXPAC BBS...

```

120 CALL INIT
130 CALL LOAD("DSK1.BSCSUP")
140 CALL LOAD("DSK1.BBSOBJ")
150 INPUT "INSERT PROGRAM DI
SK":MN$
160 MSGDSK$="MESSAGES"
170 PROGDSK$="PROGRAMS"
180 NEWSDSK$="NEWS"
190 SPEAK$=CHR$(27)&"G"&CHR$(
127)&CHR$(27)&"("
200 NOSPEAK$=CHR$(27)&"")"
210 DIM PNAME$(40),PSECT(40)
,MSG$(60),NEWS$(20)
220 OPEN #4:"DSK."&PROGDSK$&
".",INPUT,RELATIVE,INTERNAL
230 INPUT #4:A$,J,J,J
240 NPROG=0
250 FOR M=1 TO 127
260 INPUT #4:N$,TYP,SIZ
270 IF LEN(N$)=0 THEN 390
280 IF TYP<5 THEN 380
290 IF SIZ<41 THEN 320
300 PRINT N$;" TOO LARGE"
310 GOTO 380
320 NPROG=NPROG+1
330 IF NPROG<41 THEN 360
350 STOP
360 PNAME$(NPROG)=N$
370 PSECT(NPROG)=SIZ*256
380 NEXT M
390 CLOSE #4

```

```

400 OPEN #4:"DSK."&MSGDSK$&
".",INPUT,RELATIVE,INTERNAL
410 INPUT #4:A$,J,J,J
420 NMSG=0
430 FOR M=1 TO 127
440 INPUT #4:N$,TYP
450 IF LEN(N$)=0 THEN 510
460 IF (TYP=2)=0 THEN 500
470 IF (SEG$(N$,1,1)="")=0
THEN 500
480 NMSG=NMSG+1
490 MSG$(NMSG)=SEG$(N$,2,LEN
(N$)-1)
500 NEXT M
510 CLOSE #4
520 OPEN #4:"DSK."&NEWSDSK$&
".",INPUT,RELATIVE,INTERNAL
530 INPUT #4:A$,J,J,J
540 NNEWS=0
550 FOR M=1 TO 127
560 INPUT #4:N$,TYP
570 IF LEN(N$)=0 THEN 630
580 IF (TYP=2)=0 THEN 620
590 IF (SEG$(N$,1,1)="")=0
THEN 620
600 NNEWS=NNEWS+1
610 NEWS$(NNEWS)=SEG$(N$,2,L
EN(N$)-1)
620 NEXT M
630 CLOSE #4
640 T=0
650 F=1

```

```

660 FF=3
670 P=4
680 OPEN #1:"RS232.BA=300.DA
=8.PA=N",VARIABLE
690 OPEN #3:"RS232.BA=300.DA
=8.PA=N.CR",VARIABLE
700 OPEN #4:"PIO",OUTPUT
710 REM
820 GOSUB 3420
830 C$=CHR$(27)&CHR$(71)&CHR
$(127)&CHR$(27)&CHR$(40)&CHR
$(43)&CHR$(47)&CHR$(44)&CHR$(
27)&CHR$(41)
840 PRINT #F:C$
860 GOSUB 3760
870 GOSUB 1740
880 PRINT #F:CHR$(12);"*****
*****"
882 PRINT #F:"** TEXPAC EL
ECTRONIC MAGAZINE **"
886 PRINT #F:"*****"
*****":

```



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```

900 PRINT #F:"TIME LIMIT must not exceed 30 minutes!": :
901 PRINT #F:"%% TI.S.H.U.G COMMUNICATORS CLUB BBS %%": :
:
910 PRINT #F:"Press [1]for BULLETINS": :
920 PRINT #F:" [2]to LO AD software": :
930 PRINT #F:" [3]to POST mail": :
940 PRINT #F:" [4]to CHAT with Sysop": :
950 PRINT #F:" [5]to CHANGE your Password": :
960 PRINT #F:" [6]to LOGOFF the System": :
970 PRINT #FF:"Command ";Z$;"? >"
980 SLEN=1
990 GOSUB 3420
995 GOSUB 5000
1000 IF LERROR=0 THEN 1020
1002 PRINT #F:CHR$(7);
1010 GOTO 970
1020 IF S$<"1" THEN 1002
1030 IF S$>"7" THEN 1002
1040 OPT=VAL(S$)
1050 ON OPT GOSUB 1090,1380,2020,2680,4200,2560,10200
1060 PRINT #FF:CHR$(10);"Press ENTER >"
1070 GOSUB 3420
1075 GOSUB 5000
1080 GOTO 880
1090 REM
1100 IF NNEWS<>0 THEN 1120
1110 RETURN
1120 PRINT #F:CHR$(12)
1130 PRINT #F:"No NEWS ITEM": :
:
1140 FOR X=1 TO NNEWS
1150 PRINT #F:X;". ";NEWS$(X)
1160 NEXT X
1170 PRINT #F: "(M for menu)"
1180 PRINT #FF: "Command ";Z$;"? >"
1190 SLEN=2
1200 GOSUB 3420
1205 GOSUB 5000
1210 IF S$="M" THEN 880
1220 IF LERROR=0 THEN 1250
1230 PRINT #F:CHR$(7)
1240 GOTO 1170
1250 GOSUB 3520
1260 IF NUMERIC=0 THEN 1230
1270 IF NO<1 THEN 1230
1280 IF NO>NNEWS THEN 1230
1290 PRINT #F:CHR$(12)
1300 FILE$="DSK."&NEWSDSK$&"."&NEWS$(NO)
1320 GOSUB 3140
1330 CLOSE #2
1340 GOTO 1090
1350 GOSUB 3140
1360 CLOSE #2
1370 RETURN
1380 PRINT #F:CHR$(12);"TEXPACBBS PROGRAM DOWNLOAD AREA"
1390 PRINT #F: "-----"
:
1400 IF NPROG>0 THEN 1430
1410 PRINT #F:"[No programs available at present]"
1420 RETURN
1430 PRINT #F: " [No PROGRAM No PROGRAM]:"
:
:
1440 FOR I=1 TO NPROG STEP 2
1450 PRINT #F:TAB(3);I;PNAME$(I);
1460 IF I=NPROG THEN 1480

```

```

1470 PRINT #F:TAB(26);I+1;PNAME$(I+1)
1475 NEXT I
1480 PRINT #F: "For info on programs read PROGINFO.":
1490 PRINT #FF:CHR$(10);"Which program? (M for menu) >"
1500 SLEN=2
1510 GOSUB 3420
1515 GOSUB 5000
1520 IF S$="M" THEN 880
1530 IF S$="m" THEN 880
1540 IF LERROR=0 THEN 1560
1550 GOTO 1700
1560 GOSUB 3520
1570 IF NUMERIC THEN 1590
1580 GOTO 1490
1590 IF NO<1 THEN 1560
1600 IF NO>NPROG THEN 1700
1610 PRINT #FF:CHR$(10);"Loading """;PNAME$(NO);"" OK? (Y or N) >"
1620 SLEN=1
1630 GOSUB 3420
1635 GOSUB 5000
1640 IF S$="N" THEN 1490
1650 IF S$="n" THEN 1490
1660 PRINT #F:""
1670 PRINT #FF:"EXIT TELI and start receiving NOW >"
1680 CALL LINK("RSLOAD","DSK."&PROGDSK$&"."&PNAME$(NO),(PSECT(NO)))
1685 QUIT=-1
1700 FOR D=1 TO 4000
1710 NEXT D
1720 GOTO 710
1730 RETURN
1740 FOR P=1 TO NMSG
1750 IF MSG$(P)=Z$ THEN 1820
1760 NEXT P
1770 REM
1780 PRINT #FF:"You have no mail."
1790 FOR X=1 TO 600
1800 NEXT X
1810 RETURN
1820 PRINT #T:"READING MAIL"
1830 FILE$="DSK."&MSGDSK$&"."&Z$
1840 PRINT #FF:"You have mail..."
1850 GOSUB 3140
1870 REM
1920 CLOSE #2:DELETE
1930 PRINT #FF:"Mail Deleted"
:
1950 MSG$(P)=" "
1955 GOTO 2010
1970 CLOSE #2
2010 RETURN
2020 REM
2030 PRINT #F:CHR$(12)
2035 PM=0
2040 PRINT #FF:"Who is the message for? "
2050 SLEN=9
2060 GOSUB 3420
2061 GOSUB 5000
2063 GOTO 9000
2064 PRINT #FF:"Send another letter? (Y/N)"
2065 SLEN=1
2066 GOSUB 3350
2067 IF S$="Y" THEN 2020 ELSE 880
2068 PRINT #FF:CHR$(12)
2069 GOTO 960
2070 REM
2080 PM=1
2090 FOR X=1 TO LEN(S$)
2100 A=ASC(SEG$(S$,X,1))
2110 IF (A=32)+(A=46)=-1 THEN 2150
2120 NEXT X

```

```

2130 IF A=77 THEN 880
2140 GOTO 2170
2150 PRINT #F:CHR$(7)
2160 GOTO 2040
2170 IF LERROR=0 THEN 2220
2180 PRINT #F:CHR$(7)
2190 GOTO 2040
2200 PRINT #F:CHR$(12)
2210 PRINT #F:"Loading editor...."
2220 NAME$="DSK."&MSGDSK$&"."&S$
2230 NMSG=NMSG+1
2240 IF NMSG<61 THEN 2270
2250 REM
2260 RETURN
2270 MSG$(NMSG)=S$
2290 OPEN #2:NAME$,APPEND,DISPLAY,VARIABLE 80
2300 PRINT #F:CHR$(12);"Please do not use COMMAS or QUOTES."
2310 PRINT #F:"MAIL FROM :";Z$
2320 PRINT #2:"MAIL TO :";S$
2330 PRINT #2:"MAIL FROM :";Z$
2340 PRINT #F:"MAIL TO :";S$
2350 PRINT #F:""
2360 PRINT #FF:">"
2370 SLEN=40
2380 GOSUB 3420
2385 GOSUB 5000
2390 IF LERROR=0 THEN 2410
2400 PRINT #F:CHR$(7)
2410 IF S$="" THEN 2470
2420 PRINT #2:S$
2430 GOTO 2450
2440 GOTO 2350
2450 PRINT #T:S$
2460 GOTO 2350
2470 PRINT #F:""
2480 PRINT #FF:"[S]ave or [O]ntinue? >"
2490 GOSUB 3420
2495 GOSUB 5000
2500 IF S$="C" THEN 2360
2510 IF S$="c" THEN 2360
2520 IF S$="S" THEN 2540
2530 IF S$="s" THEN 2540
2540 CLOSE #2
2550 GOTO 2064
2560 PRINT #F:CHR$(12)
2570 PRINT #F:"Thank you for calling the TEXPAC-CBBS": :
:
2600 PRINT #F:"***** PLEASE HANG UP NOW *****": :
:
2605 REM
2640 FOR X=1 TO 4000
2650 NEXT X
2670 GOTO 820
2680 REM
2690 PRINT #F:CHR$(12)
2694 IF OPT=4 THEN 2700
2695 IF INTERRUPT=1 THEN 2841
2700 PRINT #T:Z$;" PAGING FOR CHAT"
2710 PRINT #F:"...Paging SYSOP.": : :
2720 FOR B=9 TO 1 STEP -1
2730 CALL SOUND(100,1000,0)
2740 PRINT #FF:SPEAK$&"PAGING"&NOSPEAK$

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```

2750 CALL KEY(O,K,S)
2760 IF S<0 THEN 2835
2770 FOR D=1 TO 500
2780 NEXT D
2790 NEXT B
2810 PRINT #F: : : : : "...Un
available."
2820 RETURN
2835 FOR D=1 TO 60
2837 NEXT D
2840 PRINT #F:CHR$(12);"[Go
ahead]"
2841 IF OPT=4 THEN 2850
2842 FOR RPTB=1 TO 20
2843 PRINT #F:CHR$(7)
2844 NEXT RPTB
2845 PRINT #F:"SYSOP BREAKIN
G IN"
2850 CALL CLEAR
2870 CALL LINK("RSCHAT")
2880 GOTO 3120
2890 IF K=154 THEN 3110
2900 IF K>136 THEN 2940
2910 PRINT "X";
2920 PRINT #FF:CHR$(8)
2930 GOTO 3000
2940 PRINT #FF:CHR$(K)
2950 IF K>13 THEN 2990
2960 PRINT " "
2970 REM
298 G TO 3000
2990 PRINT CHR$(K);
3000 CA LINK("RSREAD",S$)
3010 IF LEN(S$)=0 THEN 2870
3020 S=A (S$)
3030 IF S<>13 THEN 3060
3040 PRINT S$
3050 GOTO 2870
3060 IF S<>8 THEN 3090
3070 PRINT "X";
3080 GOTO 2870
3090 PRINT S$;
3100 G TO 2870
3120 REM
3130 RETURN
3140 REM
3150 OPEN #2:FILE$,INPUT ,VA
RIABLE 80,DISPLAY
3170 PRINT #T:"Reading file
";FILE$
3180 PRINT #F:CHR$(12)
3190 IF EOF(2)THEN 3320
3200 INPUT #2:L$
3250 CALL LINK("RSPAUS",S$)
3270 IF S$="E" THEN 1000
3300 PRINT #F:L$
3310 G TO 3190
3320 PRINT #FF:"Press ENTER
to continue >"
33 G SUB 3420
3340 RETURN
3350 REM
3360 IF F O THEN 340
3370 CA L LINK("RSREAD",S$)
338 IF LEN(S$)=0 THEN 3360
33 0 RETURN
3400 INPUT #F:S$
3410 OT0 3380
3420 REM
3430 LERROR=0
3440 IF F O THEN 3500
3450 GOSUB 3730
3460 IF LEN S$)=0 THEN 3480
0 IF LEN(S$)<SLEN+1 THEN
3490
3480 LEKKOK=-1
3490 RETURN
3500 INPUT #F:S$
3510 GOTO 3470
3520 REM
3530 NUMERIC=0
3540 FO I=1 TO LEN(S$)
3550 IF SEG$(S$,I,1)<"0" THE
N 3600

```

```

3560 IF SEG$(S$,I,1)>"9" THE
N 3600
3570 NEXT I
0 UERIC=-1
3590 NO=v (S$)
0 RETURN
3610 REM
3620 TYPED=0
3630 IF F O THEN 368
3640 CALL LINK("RSREAD",S$)
3650 IF LEN(S$)=0 THEN 3670
3660 TYPED=-1
3670 RETURN
3680 CALL KEY(O,K,S)
3690 IF S=0 THEN 3670
3700 INPUT #F:S$
3710 S$=CHR$(S)&S$
3720 GOTO 3660
3730 REM
3740 CALL LINK("RSREAD",S$)
3750 RETURN
3760 REM
3765 QUIT=0
3770 PRINT #F:CHR$(12);" WEL
COME TO TEXPAC ELECTRONIC MA
GAZINE " : : :
3780 PRINT #F:S EAK$&"WELCUM
TO TEXPAC ELECTRONIC MAGUHZ
ENE. "&NOSPEAK$
3790 FOR D=1 TO 00
38 NEXT D
3801 OPEN #20:"DSK2.TIMES",R
ELATIVE 10,INTERNAL
3802 INPUT #20,RE 1:TC
3803 TC=TC+1
380 PRINT #F:"You are calle
r number";TC
3807 PRINT #20,RE 1:TC
3808 CLOSE #20
3810 PRINT #F: : : "Please In
put your 3 digit number,"
3830 FOR X=1 TO 3
3840 PRINT #FF:"MEMBERSHIP N
UMBER? >"
3850 SLEN=3
38 GOSUB 3420
3865 GOSUB 00
3870 IF S$="visitor" THEN 44
80
3880 IF S$="VISITOR" THEN 44
80
3890 IF LERROR=0 THEN 3910
3900 GOTO 4130
3910 IF LEN(S$)>3 THEN 4130
3920 IF LEN(S$)<1 THEN 4130
3930 IF S$="" THEN 3840
3940 IF S$<"000" THEN 4130
3950 IF S$>"199" THEN 4130
3960 R CORD2=VAL(S$)
397 IF RE D2>20 THEN 413
0
3980 PRINT #F:""
3990 PRINT #FF:"PASSWORD?
>"
4000 SLEN=9
4010 CALL LINK("NOE HO")
4020 GOSUB 3420
4025 G SUB 5000
4030 C LL LINK("ECHO")
4040 IF S$="" THEN 3990
4050 LET PW$=S$
4060 PRINT #F: : :
4070 PRINT #FF:"Searching...
"
4080 OPEN #10:"DSK2.USERFILE
",RELATIVE 10,INPUT ,INTERNA
L
4090 INPUT #10,REC RECORDZ:Y
$,Z$
4100 CLOSE #10
4110 IF X$=PW$ THEN 4170
4120 IF X=3 THEN 4150
4130 PRINT #F:CHR$(7);: : "DA
TA INCORRECT - You only get
3 tries!"; : :

```

```

4140 NEXT X
4150 Z$="BAD LUCK"
4160 GOTO 2560
4170 PRINT #T:TC;";Z$;" LOG
GING ON"
4171 IF LST$<>Z$ THEN 4175
4172 PRINT #FF:" SORRY... LE
T OTHERS ON TOO. RING AGAIN
LATER!"
4174 GOTO 2570
4175 LST$=Z$
4180 PRINT #F:CHR$(12);"Welc
ome ";Z$;" to TEXPAC BBS": :
:
4190 RETURN
4200 REM
4210 PRINT #F:CHR$(12)
4220 PRINT #FF:"STAND BY....
"
4230 OPEN #10:"DSK2.USERFILE
",UPDATE,RELATIVE 10,INTERNA
L
4240 INPUT #10,REC RECORDZ:Y
$,Z$
4250 PRINT #F: : : "Your pass
word is presently ";X$
4260 PRINT #FF:"Change? (Y/
N)
>"
4270 SLEN=1
4280 GOSUB 3420
4285 GOSUB 5000
4290 IF S$="" THEN 4260
4300 IF S$="N" THEN 4450
4310 IF S$="n" THEN 4450
4320 IF S$="Y" THEN 4340
4330 GOTO 4260
4340 PRINT #F:"Enter your ne
w password. (9 CHARS MAX)"
4350 PRINT #FF:"NEW PASSWORd
?"
4360 SLEN=9
4370 GOSUB 3420
4375 GOSUB 5000
4380 IF LEN(S$)>9 THEN 4340
4390 LET X$=S$
4400 PRINT #10,REC RECORDZ:Y
$,Z$
4410 CLOSE #10
4420 PRINT #F:"Your new pass
word is now ";X$
4440 RETURN
4450 CLOSE #10
4460 PRINT #F: : : "Your pass
word remains >";X$
4470 RETURN
4480 REM
4490 LET Z$=S$
4500 PRINT #F:CHR$(12)
4510 PRINT #F:"Sorry, no mor
e VISITOR access. For "
4550 PRINT #F:"details about
either TEXPAC-BBS or"
4562 PRINT #F:"T.I.S.H.U.G pl
ease contacts us at..."
4564 PRINT #F:"P.O.Box 595,
Marrickville.2204"
4565 FOR X=1 TO 1200
4566 NEXT X
4570 GOTO 2560
5000 REM
5010 CALL KEY(O,K,S)
5020 IF S=0 THEN 5100
5030 INTERRUPT=1
5040 GOSUB 2680
5050 INTERRUPT=0
5100 RETURN
9000 REM
9005 PRINT #FF:"Validating..
"
9010 OPEN #25:"DSK2.USFILE",
INPUT ,DISPLAY ,VARIABLE 80
9020 INPUT #25:USNM$
9030 IF EOF(25)THEN 9060
9040 IF USNM$=S$ THEN 9150
9050 GOTO 9020

```

```

9060 PRINT #FF:" ** INVALI
D ** Please check spelling."
9070 PRINT #FF:"Do you wish
to abort mailing? (Y/N)"
9080 SLEN=1
9090 GOSUB 3420
9100 IF S$="Y" THEN 9110 ELS
E 9130
9110 CLOSE #25
9115 PRINT #FF:CHR$(12)
9120 GOTO 880
9130 CLOSE #25
9135 PRINT #FF:CHR$(12)
9140 GOTO 2040
    
```

```

9150 PRINT #FF:" ** VALI
DATED **"
9160 FOR RPT=1 TO 1000
9170 NEXT RPT
9180 PRINT #FF:CHR$(12)
9190 CLOSE #25
9200 GOTO 2070
10000 REM
10005 CLOSE #2
10010 PRINT #FF:"Type [M]=Ma
in menu"
10015 PRINT #FF:CHR$(10);CHR
$(13)
10020 PRINT #FF:"Type [N]=Ne
ws sub-menu >"
10030 SLEN=1
    
```

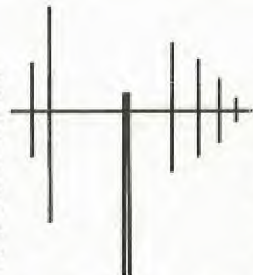
```

10040 GOSUB 3420
10050 GOSUB 5000
10060 IF S$="M" THEN 880
10070 IF S$="N" THEN 1120
10080 IF S$<>"M" THEN 10090
10090 IF S$<>"N" THEN 10010
10200 PRINT #F:CHR$(12)
10210 PRINT #FF:"PASSWORD? "
10212 GOSUB 3420
10230 GOSUB 5000
10240 IF S$<>"OPENSESAME" TH
EN 970
10250 FILE$="DSK2.OPENSESAME
"
10260 GOSUB 3140
10270 CLOSE #2
10280 GOTO 880
    
```

The 2 Assembly routines for this system are included on the disk available from the club shop.

```

#####
#
#           AMATEUR RADIO
#
#           by
#           Laurie Marsh VK2DWH
#           T.I.S.H.U.G
#
#####
    
```



Traffic nets(networks)meet on the air-waves on schedules for the purpose of handling messages for the general public(called third party traffic)for people across the world where 3rd party is allowed in the those countries.By doing so,hams stay in practice in handling emergency messages should any emergency or disaster crisis occurs,the hams can play a very active roll in relaying information to the various emergency organitions to try and save lives in all sorts of emergency situations.

Every minute of every day radio amateurs all over the world are communicating with fellow amateurs from all walks of life .It's a way for discovering new friends while experimenting with different equipment,and ways to advance the art of there hobby.

Ham radio is a global fraternity of people with common and yet widely varing interest,able to exchange ideas and learn more about each other with every contact on air.Amateur radio can also increase international relations as no other hobby can.

It's possible to talk to a Japanese businessman,a U.S legislator,a camper in the Nothen Territy,a sailor on board a defence ship on route to the mediterranean,an astronaut circling the earth in a space shuttle ,or a group of scouts at a jamboree.And all with out leaving home.

There are no social gradings when communicating with your fellow operators ,you can converse with a Russian diplomat in the same manner as a ranch worker in Texas or an eskimo in Iceland. They all have that common interest HAM RADIO.

The way communications are accomplished are just as interesting as the people and groups that you meet.Signals can be sent around the world bouncing off the reflecting layers of the earths ionosphere,or relayed long distances via mountain top repeaters.Orbiting satellites built by amateurs,while some hams can bounce signals off the moon for world wide 2way communications on vhf & higher frequencies The possibilities are almost unlimited, not only do hams use international Morse code and voice mmunications,but also radioteletype,facsimile,slow scan tv,fast scan tv,various forms of digital communications using computer terminals there fore putting the home computer to a vary differant and exciting use.

What is the future?Digital voice encoding techniques?Three -dimensional TV,but if ever there is a thing such as a Star Trek transporter that makes it possible for people to transfer via radio waves at the speed of light,hams will probably have one.



Self reliance has always been the trademark of the radio amateur .This h s often been displayed by many hams who design a lot of there own equipment or modify comercial equipment to suit there applications,or design a completely new electronic unit,all in the interest of advancing the radio art.

Radio amateur are using home computers more and more to do station"house keeping"here are a few applications ,keeping a log of all contacts,printing and designing Q.S.L CARDS,to send via mail to the station contacted,much the same form of layout as stated by Shane on his article on short wave radio listning What does it take to get into amateur radio ?.Well for one thing you can't buy a licence you have to earn it by way of learning how basically a radio works,how antennae picks up a signal or radiates a signal from a transmitter,in other words you have to have a basic understanding of radio & electronics.

Department of communications have two exams a year for the testing of applicants for radio amateurs,this involves approximately 40 multi-choice questions involving the basic's of radio /electronics a test on regulations governing amateur radio and if the applicant is sitting for his Novice or Full call,then there will be a morse code test of 5 words a minute(novice)and 10 words a minute(full call).

An excellent little circuit that would put our computer on the airwaves is the AEM3500 called the(LISTENING POST)as described by the AUSTRALIAN ELECTRONICS magazine july/85 issue 1,osting approximately \$30.00 in kit form,supplied direct from the magazine. This device coupled in with the audio output of a shortwave receiver and connected to the I/O port of your computer,allows the user to eavesdrop on RTTY(Typed messages),FACIMILE(Weather pictures from satellites etc)CW(Morse code sent by hams&comercial operators)

However you do need some software to decode all this information to display it on your screen or printer and I beleive the software has to be written in assembly,I don't know of any software available at the moment ,but if there is any interest in this particular mode of operation I'm sure that some of our assembly programmers could come up with the goods.

1 LINERS

by Dennis Hodgson

TL.SHUG - Penrith Regional Group

I trust that you enjoyed my Calendar one liner in a previous issue of the SND. Here is another 2 I wrote last year. They are also "useful" programs of the educational type - testing the spelling of words and/or phrases and can be used to test typing speed/accuracy.

You will have to time yourself or add a timer sub-program. And, you can build any large fancy program around these one liners. - they CAN do the real "crunching".

Features - Program 1

5 Loops, 11 lines on screen, stopping loops by incrementing control variable in relational expression TRUE (you cannot use If...then... with loops in a one liner) plus use of string and numeric arrays

To enter the one liner simply enter lines 160 and 170 if you do not require REMarks for future reference. Enter line 170 down to and including "H=H+(X=U(B)):" <ENTER>. Type 170 FCTN X for EDIT mode, press FCTN D to proceed to end of the line then continue to type to "FOR D=Z TO Z:." <ENTER>. Proceed as before until the whole line is entered. - Finally!

Note: Do not type spaces before or after " : " (double colons) whilst entering the program line!

Incidentally, have you ever noticed how you can release the FCTN key once you have selected the key required eg. FCTN D -> and the cursor continues to move? Surprise, surprise! This also works nicely when Deleting - FCTN L. Try it!

```
100 !WRITTEN FOR TISHUG BY
      DENNIS HODGSON
      PENRITH REGIONAL GROUP
      1985
```

```
110 !*1 LINE SPELLING TEST*
      *TYPING ACCURACY TEST*
```

```
CHANGE WORDS IN DATA TO YOUR
OWN LIST.
```

```
120 !DONT FORGET>> ,"" AT
END OF DATA LINE/S. WORDS
ARE RANDOMLY DONE, ONCE ONLY!
NEXT WORD ONLY AFTER YOU ARE
CORRECT.
```

```
130 !PRESS ENTER KEY TO SEE
WORD AGAIN. IF MORE THAN 30
WORDS IN DATA, PROGRAM WILL
BE SLOW TO FIND LAST WORDS!
SAVE PROGRAM & DATA.
```

```
140 !DELETE LINES 100-160
AND CHANGE LINE 170 "READ"
TO "INPUT" FOR TRUE ONE-LINE
WORD LIST MUST THEN BE INPUT
EACH TIME!
```

```
150 !ADD LINE>> 10 RANDOMIZE
(FOR RANDOM TESTING EACH RUN
) AND>> :DIM W$(99),U(99)
FOR MORE THAN 10 PHRASES IN
DATA OR INPUT.
```

```
160 DATA WORDS,THESE WORDS,T
O USE,LIST PROGRAM,THEN,TO,O
BTAIN,YOUR OWN,SPELL,INFO, ""
```

```
170 N=99 :: FOR T=Z TO N ::
R=7 :: READ W$(T):: T=T-N*(W
$(T)=""):: NEXT T :: FOR T=Z
TO R-1 :: FOR H=Z TO Z :: X
=INT(RND*R):: FOR B=Z TO T-1
:: H=H+(X=U(B)):: NEXT B ::
NEXT H :: U(T)=X :: FOR D=Z
TO Z :: DISPLAY W$(X);RPT$(
" ",N):: ACCEPT
BEEP ERASE ALL:G$ :: D=G$<>W
$(X):: NEXT D :: NEXT T
180 END
```

Features - Program 2

This program is much faster, handles 99 phrases/words in data, allows selection of display duration and shows errors and total phrases at the end - a score. The only trade off is the loss of a random selection of data - I prefer it.

```
100 !*****
*WRITTEN FOR TISHUG BY*
* DENNIS HODGSON OF *
* PENRITH REGIONAL *
* GROUP '85 *
110 !*1 LINE SPELLING TEST *
*TYPING ACCURACY TEST *
*CHANGE WORDS IN DATA *
*TO OWN LIST, VER 2.0 *
*****
```

```
120 !DONT FORGET>> ,"" AT
END OF DATA LINE/S. WORDS
ARE RANDOMLY DONE, ONCE ONLY
NEXT WORD ONLY AFTER YOU ARE
CORRECT.
```

```
130 !PRESS ENTER KEY TO SEE
WORD AGAIN. IF MORE THAN 30
WORDS IN DATA, PROGRAM WILL
BE SLOW TO FIND LAST WORDS!
SAVE PROGRAM & DATA.
```

```
140 !DELETE LINES 100-160
AND CHANGE LINE 170 "READ"
TO "INPUT" FOR TRUE ONE-LINE
WORD LIST MUST THEN BE INPUT
EACH TIME!
```

```
150 !ADD LINE>> 10 RANDOMIZE
(FOR RANDOM TESTING EACH RUN
) AND>> :DIM W$(99),U(99)
FOR MORE THAN 10 PHRASES IN
DATA OR INPUT.
```

```
160 DATA SPELL,THESE WORDS,T
HEN,LIST PROGRAM,TO,OBTAIN,I
NFO,TO USE,YOUR OWN,WORDS, ""
170 DIM W$(99):: W=1 :: INPU
T "TIME 9?":X :: DISPLAY ERA
SE ALL :: FOR T=Z TO Z :: R=
R+W :: READ W$(R):: T=W$(R)<
>" :: NEXT T :: FOR T=W TO
R-W :: FOR D=Z TO Z :: FOR N
=Z TO X :: DISPLAY AT(9,W):W
$(T):: NEXT N :: ACCEPT BEEP
ERASE ALL:G$ ::
D=G$<>W$(T):: E=E-1 :: NEXT
D :: NEXT T :: PRINT E;"/";
```

```
R-W
180 END
```

WHAT A DEAL

TL.S.H.U.G CLASSIFIED ADS

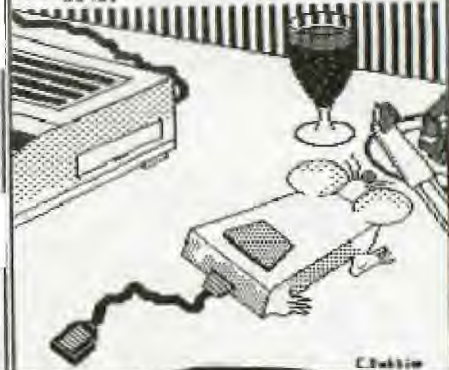
WANT TO SELL:

ONE ONLY - BLACK & SILVER TI CONSOLE IN EXCELLENT CONDITION. WITH SPEECH SYNTHESIZER, MUNCWITH SPEECH SYNTHESIZER/ MUNCHMAN/ EXTENDED BASIC/ TOUCH TYPING TUTOR/ DEMONSTRATION/ TI-OINVADERS/ ADVENTURE/ PARSEC/ TUNNELS OF DOOM/ MICROSURGEON/ AND STAR TREK. can use as a backup system. ALL THIS FOR ONLY \$249.95

ONE ONLY - AMUST 80DT PRINTER WITH MULTI FONT STYLES/ PARRALEL CONNECTOR AND CABLE/ SOFTWARE OF USER CONTROLLED/ 163 CHARACTERS PER LINE IN COMPRESSED MODE/ BI-DIRECTIONAL PRINTING/ AND MORE. ONLY \$200.00

ONE ONLY - TI EXPANSION SYSTEM BOX WITH CORCOMP DISK CONTROLLER/ 300-300\VIATEL MULTI-MODEM CARD/ RS232 CARD/ DS\DD DISK DRIVE/ SS\DD DISK DRIVE. 100 DISKS WITH SOFTWARE/ MINIMEMORY/ TI-WRITER/ EDITOR\ASSEMBLER/ MICROSOFT MULTIPLAN/ DISK MANAGER/ TI-FORTH/ TERMINAL EMULATOR 2/ AND MORE. ALL IN EXCELLENT CONDITION. \$1495.00

ONE ONLY - TI SD DISK CONTROLLER WITH QIXSOFT DISK MANAGER \$95.00 ALL PRICES INCLUDE POSTAGE AND HANDLING. PHONE Melbourne (03)241-5362 A/H or write WAYNE SOUTHWICH 52 Clendon Road, TOORAK, Vict 3142.



5600926
if you can get on that is!

MONDAY: 7PM TO 6:30 AM
TUESDAY: 7AM TO 6:30 AM
WEDNESDAY: 7AM THROUGH TO 10:00PM & 3:00PM

COMING SOON: 1200/15 BAUD SPEED AND 300 BAUD SWITCHABLE
We hope!

TRIPAL ELECTRONIC BULLETIN BOARD SERVICE
80-80142 - IT'S HARD TO GET ON!
...BUT KEEP TRYING!

TI-PUBLIB

Publications library report by Fred Morris

This has got to be the easiest job of the lot! No requests received for access to any one of the items held by the library for some two months now! I am beginning to wonder why we even bother to develop and maintain the facility. Nearly one year ago we faced a small internal difficulty which resulted in the establishment of another User Group because it was held that the information received by the group was limited to a "few in the know" number of members. Too late, we established a lending facility, set a few rules and publicised the availability of the exchange magazines, books - everything in fact that we have pertaining to the TI. TO DATE ONLY ONE MEMBER HAS TAKEN ADVANTAGE OF THE FACILITY THIS REPRESENTS .001% OF MEMBERS. This certainly has been a thankless task!

On the positive side at least I POSSIBLY KNOW MORE THAN MOST REGARDING OUR 99/4A WORLD - don't you think you should get a little involved?

Now, having got that off my chest the committee has agreed to have another shot at making the library easier to use. I recommended that we should review the rules and drop the deposit requirement - which was after all was only introduced to ensure that anything borrowed would, as the boomerang, return to the lender. Too high you said - OK, We didn't believe so because as you can appreciate, you have had the opportunity to borrow the equivalent of an annual subscription to another club's magazine by paying a DEPOSIT and the cost of postage etc. Not bad value we thought. The change accepted by the committee is as follows:

LIBRARY RULES - AMENDED

1. The DEPOSIT requirement will be removed as the basis for borrowing from the library.
2. As is the case with the BBS members will now be able to JOIN the library. In order to do so the library ANNUAL MEMBERSHIP FEE has been determined at \$5.00 per annum and will expire April 30th of each year.
3. Costs associated with any lending situation will be for the cost of the member. Therefore, the library member will be responsible to pay for the postage, freight, insurance etc., both outward from and inward to the library.
4. The MEMBERSHIP FEE received by the library will be used to pay for the development of the library, purchases of new material and financing exchanges with other user groups.

5. The period publications may be borrowed has been extended to 1 MONTH or in the case of Sydney members, from one meeting to the next.
6. Notwithstanding these amendments to the library policy all other provisions of the policy pertaining to member responsibility remain current.

I certainly look forward to a busier time now that the initial financial constraint has been substantially reduced. Fancy - only 0.001% demand for knowledge and entertainment at what really amounted to NO CHARGE! Maybe the new rules will prove the adage "EASY COME EASY GO" when we now have to pay to belong! I STILL CAN'T BELIEVE the lack of interest in this area of the group's activity!

LATE FLASH!

Thank you Brian Graham for your offer to take over the running of the Publications library. Brian will be advising members as to how they should go about borrowing publications. - I hope you will be busier than I was - currently it seems that the member need for self-development is at an all time low! Thanks. Fred Morris.

ANSWER TO LOGIC PROBLEM #1 - MAY 86

MAIL ORDER.

Rolf worked on Sir Timid's order (clue 3) and Eric was the breastplate specialist (clue 2), so the armourer with the four letter name who carried out Sir Sorely's order for a complete suit of armour (clue 5) must have been Gwyn. Garth, who was employed by Link Inc. did not make the helmet (clue 4), whilst the backplate was supplied by Armour a Gogo (clue 1).

We know he makers of the breastplate and the full suit of armour, so Garth must have made the greave. Aidan did not make the backplate for Armour a Gogo (clue 1), so his piece of armour must have been the helmet and, by elimination, the backplate must have been made by Rolf for Sir Timid de Shayke. Sir Poltroon patronised Mail to Measure (clue 2), so he did not order the greaves and we know who commissioned the backplate and the full suit. Since his order was not carried out by Eric (clue 2), he did not order the breastplate and must have commissioned the helmet made by Aidan.

Gwyn was not employed by the Metal Suiting Co. (clue 6), so he must have worked for the Camelot Chain Stores, leaving the Metal Suiting Co. as the makers of the breastplate. Finally, Sir Coward did not order the breastplate from the Metal Suiting Co. (clue 6), so he must have commissioned the greaves from Link Inc. leaving Sir Spynelless as the customer of the Metal Suiting Co.

SUMMARY.

1. Sir Coward de Custarde, greaves, Link Inc., Garth

2. Sir Poltroon a Ghaste, helmet, Mail to Measure, Aidan
3. Sir Sorely a Frayde, full suite, Camelot Chain Stores, Gwyn
4. Sir Spynelless de Feete, breastplate, Metal Suiting Co., Eric.
5. Sir Timid de Shayke, backplate, Armour a Gogo, Rolf.

DID YOU GET IT?

COMPETITION TIME A LOGIC PROBLEM

Whilst browsing in the local news agency the other day I came across various publications which contain mind and logic problems. Definitely the type of publication you must get hold of - just to keep you on the ball! For example:

MAIL ORDER:

Each of the five most timorous knights - Sir Coward de Custarde, Sir Poltroon a Ghaste, Sir Sorely a Frayde, Sir Spynelless de Feete and Sir Timid de Shayke, tried to cover up his lack of courage by ordering a new item of armour. These were a Backplate, a Breastplate, a Full suit, Greaves and a Helmet. Each knight placed his order with a different firm, viz. Armour a Gogo, Camelot Chain Stores, Link Inc., Mail to Measure and Metal Suiting Co., and all orders were hand made by specialists named Aidan, Eric, Garth, Gwyn and Rolf.

PROBLEM:

Can you say who ordered which item from which firm and name its maker?

CLUES.

1. Armour a Gogo supplied the backplate, which was not the piece made by Aidan.
2. Sir Poltroon a Ghaste always patronised Mail to Measure; his commission was not carried out by Eric, the breastplate specialist.
3. Rolf executed Sir Timid de Shayke's order.
4. Garth, who was employed by Link Inc. did not make the helmet.
5. It was Sir Sorely a Frayde who ordered the complete new suite of armour, which forged by an armourer with a four letter name.
6. Gwyn did not work for the Metal Suiting Co., whose customer was not Sir Coward de Custarde.

A COMPETITION - the first correct entry drawn on May 31st, 1986 will win for the author a Complimentary Library Membership - value \$5. So get moving and send entries to TI-PUBLIB c/o Box 149, Pennant Hills, 2120, - Good luck!

LOGIC PROBLEMS published by Bay Books Pty. Ltd. \$1.99(Aus.)



More Key Codes,

by Ben Takach

The computer has to recognise the various length BASIC Words and these have to be converted to digits of uniform length, or in computer jargon to 'tokens'. One have no access to these tokens from the keyboard. This is an internal function and the codes are normally not revealed to the keyboard operator. The TI 99/4A however has a small window through which some of these tokens may be displayed. The key codes above 127 (starting with 80 HEX) are used for codes of Basic statements and commands. Using the REM statement or its single key stroke equivalent ! and the CTRL resp. FCTN characters will print out its token expression when the program lines are listed. One can write a REM program starting with line 128 ! then CTRL , and so on till 198, which is FCTN Y. Table 1 shows the screen display after the characters have been keyed in. One can not see the control characters as these do not return any printable characters. Once completed the program is LIST-ed. Table 2 illustrates the screen display after LIST-ing. Interesting? Well you may care to let me know what can one do with it! Reference: 1. Wade Bowmer, SND Dec.85 p.10 2. Ben Takach, SND March 86 p.12-14

Table 1.

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Table 2.

128	! =0Z^n+ZW6	(1)
129	!ELSE	
130	!++	
131	!@	
132	!IF	
133	!GO	
134	!GOTO	
135	!GOSUB	
136	!RETURN	
137	!DEF	
138	!DIM	
139	!END	
140	!FOR	
141	!LET	
142	!BREAK	
143	!UNBREAK	
144	!TRACE	
145	!UNTRACE	
146	!INPUT	
147	!DATA	
148	!RESTORE	
149	!RANDOMIZE	
150	!NEXT	
151	!READ	
152	!STOP	
153	!DELETE	
154	!REM	
155	!ON	
156	!PRINT	
157	!CALL	
158	!OPTION	
159	!OPEN	
177	!TG	
178	!STEP	
179	!	
180	!	
181	!	
182	!	
183	!	
184	!	
185	!5ZK#0	(1)
186	!OF	
187	!AND	
188	!XOR	
189	!NOT	
190	! =	
191	! <	
192	! >	
193	! +	
194	! -	
195	! *	
196	! /	
197	! ^	
198	!g(VIJBODg	(1)

COMPUTING WITH FILES

by Thor Hansen from Clubline-99.

One of the valuable features about a computer is its ability to store data. What the data is doesn't matter. It could be anything from a series of character re-definitions, your Christmas mailing list, or your bank account status, to your stamp or coin collection. As an added bonus, if you are using data statements in your program, once the data has been created and filed, those program lines can be removed from the program, freeing up memory for more routines, while your program will still be able to use the data.

The TI allows for several methods of storing data, so I decided to look at one method I don't see too often, RELATIVE files.

I decided to create a short program that would demonstrate just how easy it is to work with relative files. The program does require a disk drive, and if you don't have memory expansion, just put the first two statements in line 190 in as a REM statement.

What this program does is allow you to enter 300 records, each record consisting of nine lines of twenty eight characters per line.

Any of the menu options may be accessed by pressing the key of the first letter of that option.

I have included a print option that will allow for printing the screen as you see it, (Formatted).. one long string(Unformatted).. and label printing where the first four lines of the screen are outputted to your printer.

The formatting option that I included is a time consuming one. Please allow about five minutes for the three hundred files to be written to the disk. This option is necessary with new disks. If it is not used, and you try to access a record number with no file, the program will break with an error, and any data in the memory will be lost.

It may at first seem a little strange that I haven't made allowance for such things as deleting, altering, or otherwise fiddling with files. I left that out because, in fact, it is feindishly easy to do. If you wish to change, delete, or otherwise alter/correct your data, merely type R for Read, input the file number you want to alter at the prompt, enter it, then press W for Write, enter the same record number, press enter until you reach the line you want to change, and type in your alteration. Handle delete in the same way unless you wish to delete an entire record. Type on the first line "NO DATA PRESENT", then use FCTN 1 to delete the rest of the record.

For the sake of your disks, I recommend the following procedure for RUNNING this program. Load the program into memory with the OLD command, and once it is in, immediately change disks in drive 1 (if you are working with one drive only) and put in an empty, initialized disk. Then type RUN and ENTER. The reason for this is that in it's present format, RELATIVE 300, the system sets aside 301 sectors for FILE1, the name in the OPEN statement in line 200. An error will be generated if there are insufficient sectors available.

If you RUN this with memory expansion in leave in the CALL LOAD, PLEASE NOTE!!! The keys respond VERY quickly. Don't hold a key down for too long in the menu screen or the results will be unpredictable.

As I mentioned earlier, this is a short program. There is still a lot that can be done with it. If you wish, experiment. Try to make the program do different things with data. One excellent way to learn is to get into something someone else did and change it around to your liking.

The DATA SAVER program accompanying this article was in last months SND PROGRAM LIFT-OUT section.

NOTE (1): Unprintable or non standard characters are included. Print-out is dependent on the printer used. VDU will display different characters.



DISK INDEX

by B.v.Takach

Did you ever faced the predicament that in spite of the carefully prepared disk catalog you could not remember the programming language used, or the cryptic file name such as LETTER1 left you guessing what may its content be? Well if this is so, here is a program to solve this problem.

There are several published programs which will catalog disks. Just to mention a few used by many TI-99 owners:

- Disk Manager 2 module,
- Programming Aids I,
- DM1000,
- TI-Writer

-A program reprinted in the Oct. issue of SND.

All of these will produce much the same result; some will have a printer option, others will only display the disk contents on the screen.

I do not know of any program, which offers the option of additional information on the printout. The particular program language and a remark field would often be a time saver. This is especially the case when the disk is filled with a mixed bag of programs some of which will only run in keyboard basic, others in basic or extended basic as well. A subject field is useful to indicate the contents when the filename does not imply the subject.

This BETA program does give the option of a 4 character language field and an 8 character comment field. Off course a slight program mod. could extend these fields if it is so desired. It was kept short to ensure that the width of the printout will not exceed 5 inches, thus it may be slipped in the disk cover without the need to fold it.

The language can be abbreviated to 4 characters, e.g. BAS., EX.B, B/XB, ASSY, PASC, FORT etc.

Program line 410 may not make any sense to many Australian TI-99 users. It was included with the TI-99 thermal printer in mind. This printer has a 32 character line limit, thus is unable to accommodate any additional fields on the same line. Catalogs will be printed out automatically in the conventional format if the device input is "TP".

The main objective was short run time, therefore the temptation to use subroutines was withstood. Also, unnecessary program lines were avoided.

The program is in Extended Basic. It should be saved with the DSK1.LOAD command, which will run it automatically when powered up in XB mode.

```

100 !*****
110 !*          *
120 !* CATALOGUE *
130 !*          *
140 !*****
150 !BETA MOD.21.1.86;EX.BAS
160 CALL CLEAR
170 DIM TYPE$(5)
180 TYPE$(1)="DIS/FIX"
190 TYPE$(2)="DIS/VAR"
200 TYPE$(3)="INT/FIX"
210 TYPE$(4)="INT/VAR"
220 TYPE$(5)="PROGRAM"
230 GOTO 280
240 PRINT "DISK IS IN DRIVE
";U;" ?":(type Y or drive number)"
250 CALL KEY(O,Z,X):: IF X<>1 THEN 250
260 IF Z=ASC("Y")THEN A=U ::
GOTO 340 ELSE A=Z-48 :: GOTO 310
270 !
280 LNG$=" " :: SUB$="
" :: PRINT "MASTER DISK (1-3)?"

```

```

290 CALL KEY(O,Z,X):: IF X<>1 THEN 250
300 A=Z-48
310 A=INT(A):: U=A
320 IF A<1 OR A>3 THEN 290
330 !
340 FL1=0 :: FL2=0 :: PRINT
"PRINTOUT ? (Y/N) "
350 CALL KEY(2,Z,X):: IF X<>1 THEN 350
360 IF Z=18 THEN FL1=1 ELSE 420
370 INPUT "PRNT.DEVICE ? " :P
R$ :: OPEN #2:PR$,OUTPUT
380 PRINT "LANGU. & COMMENTS ? (Y/N) "
390 CALL KEY(2,Z,X):: IF X<>1 THEN 390
400 IF Z=18 THEN FL2=1 ELSE 420
410 CALL CLEAR :: IF PR$="PI
O" THEN PRINT " SET PRINTER
TO 12 PITCH" ELSE PRINT " I
NSUFFICIENT PAPER WIDTH" ::
FL2=0 !ONLY REQUIRED FOR CERTAIN PRINTERS
420 OPEN #1:"DSK"&STR$(A)&".
",INPUT ,RELATIVE,INTERNAL
430 INPUT #1:A$,J,J,K
440 DISPLAY : "DSK"&STR$(A);"
-DISKNAME= " ;A$:"AVAILABLE="
;K;"USED=";J-K
450 DISPLAY : " FILENAME SIZE
TYPE P": "
" :
460 IF FL1=1 THEN PRINT #2:"
DSK"&STR$(A);"-DISKNAME= " ;A
$:"AVAILABLE=";K;"USED=";J-K
470 IF FL1=1 AND FL2=0 THEN
PRINT #2:" FILENAME SIZE
TYPE P": "
" :
480 IF FL1=1 AND FL2=1 THEN
PRINT #2:" FILENAME SIZE
TYPE P LANG SUBJECT": "
" :
490 FOR L=1 TO 127
500 INPUT #1:A$,A,J,K
510 IF LEN(A$)=0 THEN 700
520 DISPLAY A$;TAB(12);J;TAB
(17);TYPE$(ABS(A));
530 IF FL1=1 THEN PRINT #2:A
$;TAB(12);J;TAB(17);TYPE$(AB S(A));
540 IF ABS(A)=5 THEN 580
550 B$=" "&STR$(K)
560 DISPLAY SEG$(B$,LEN(B$)- 2,3);
570 IF FL1=1 THEN PRINT #2:S
EG$(B$,LEN(B$)-2,3);
580 IF A>0 THEN 620
590 DISPLAY TAB(28);"Y";
600 IF FL1=1 AND FL2=1 THEN
PRINT #2:TAB(28);"Y";ELSE IF
FL1=1 AND FL2=0 THEN PRINT
#2:TAB(28);"Y";
610 GOTO 640
620 DISPLAY TAB(28);" " ;
630 IF FL1=1 AND FL2=1 THEN
PRINT #2:TAB(28);" " ;ELSE IF
FL1=1 AND FL2=0 THEN PRINT
#2:TAB(28);" " ;
640 IF FL2=1 THEN DISPLAY AT
(1,1):" LANGUAGE: " ;LNG$;"
" ELSE 690
650 ACCEPT AT(1,13)SIZE(-4): LNG$
660 DISPLAY AT(1,2):"SUBJECT
: " ;SUB$;" "
670 ACCEPT AT(1,12)SIZE(-8): SUB$
680 PRINT #2:" "&LNG$&" "&SUB$:
690 NEXT L
700 CLOSE #1
710 IF FL1=1 THEN CLOSE #2
720 PRINT : "COMPLETED. CONTINUE ? (Y/N)"
730 CALL KEY(2,Z,X):: IF X<>1 THEN 730
740 IF Z=18 THEN CALL CLEAR
:: GOTO 240 ELSE END
750 REM PROGRAM SUITS TI THERMAL
PRINTER AND ANY COMBINATION
OF SERIAL OR PARALLEL PRINTERS.
760 REM THE TI-THERMAL PRINTER
PRINTS ONLY 32 CHARACTERS PER LINE.

```

Assembler Language

by Geoff Trott
Illawarra regional group - TISHUG

Programmes written in assembler language have the ability to access and use all the facilities of a computer. A programmer using assembler language must have an understanding of the computer, as well as a knowledge of the assembler language and how to use the editor, assembler, and loader.

Computer architecture

All computers can be broken up into three main blocks: CPU or Central Processing Unit; Memory; and I/O or Input and Output. The signals pass between these three blocks through lines grouped into BUSES. There is an Address BUS, a data BUS, and a control/status BUS. The number of lines in the data BUS determine whether the computer is called an 8, 16, or 32 bit machine. The memory is where all the information is stored. This information can be programme instructions or data, and is stored in memory in the form of binary numbers. Everything to be stored in memory must be coded into binary numbers. How it is decoded depends on what your programme instructs the computer to do with it.

The CPU takes the contents of memory and interprets them as instructions which may tell the CPU to use the contents of other memory locations as data. This data could be used as numbers, (integers, with or without sign, real numbers) or ASCII characters etc. The position of a particular piece of information in memory is determined by its address. This address is also a binary number, and the addresses are organised into blocks of consecutive numbers.

Instruction Formats

An instruction usually has at most three parts, an operation and two operands, all of which will be stored in memory as binary numbers. The operation determines what will be done to the data, while the operands are the data. Some instructions require two operands, some require one, while others require no operands. The operands are normally referred to by the address in memory where they are stored. It is obviously important to understand binary numbers if we are to get the most from the use of assembly language. Consider numbers of various radices or bases

Decimal numbers (base 10) $1011 = 1.10^3 + 0.10^2 + 1.10^1 + 1.10^0$
 Binary numbers (base 2) $1011 = 1.2^3 + 0.2^2 + 1.2^1 + 1.2^0$
 Hexadecimal numbers (base 16) $1011 = 1.16^3 + 0.16^2 + 1.16^1 + 1.16^0$

Binary numbers of a reasonable size consist of many digits whose values are either 0 or 1, and are very hard to remember and to talk about. Decimal numbers are convenient to use but difficult to convert to and from binary numbers. Hexadecimal numbers are easier to use than binary numbers and can easily be converted to and from binary numbers. For the hexadecimal number system we need 16 different symbols to represent the digits. The 10 numerical digits are used and the first 6 alphabetic symbols. For example :

Decimal	Binary	Hexadecimal	Decimal	Binary	Hexadecimal
0	0000	0	11	1011	B
1	0001	1	12	1100	C
2	0010	2	13	1101	D
3	0011	3	14	1110	E
4	0100	4	15	1111	F
5	0101	5			
6	0110	6			
7	0111	7			
8	1000	8			
9	1001	9			
10	1010	A			

In order to indicate a hexadecimal number, TI uses > in front of the number

>10 = 16 = 10000 binary
 >100 = 256 = 100000000 binary
 >1000 = 4096 = 1000000000000 binary
 >FFFF = 65535 = 1111111111111111 binary

There are 4 binary digits for each hexadecimal digit. Each 16 bit binary number requires 4 hexadecimal digits. The TI9900 processor has 16 address lines and 16 data lines, and so has 65,536 different addresses for individual 8 bit bytes, while it can also address 32,768 16 bit words.

The TI99/4A uses its memory addresses as follows :

>0000 - >1FFE System ROM
 >2000 - >3FFE Expansion RAM
 >4000 - >5FFE ROM's in Devices. e.g. disk, RS232, etc.
 >6000 - >7FFE ROM or RAM in a cartridge. e.g. Minimem etc.
 >8000 - >9FFE System RAM and memory mapped areas. e.g. VDP RAM, GROM, SOUND etc.
 >A000 - >BFFE)
 >C000 - >DFFE)Expansion RAM
 >E000 - >FFFF)

TI9900 Processor registers

Program Counter - 16 bits (even only). Address of Instructions (words in RAM or ROM), most significant 15 bits.
 Workspace Pointer - 16 bits (even only). Address of workspace register 0 (word in RAM), most significant 15 bits.
 Status Register - 16 bits. Seven bits used for status bits, four bits used for the interrupt mask, and five bits not used.
 Addresses can be up to 16 bits in size.
 Word addresses must be even.
 (Least significant bit = 0)
 Byte addresses can be even or odd.
 Even addresses refer to the most significant byte and, odd addresses refer to the least significant byte of a word.

Examples:-

Address(hex)	Contents(hex)
>1010	>1A3C
R0	>FOFO

Assuming the above values are present before each of the following instructions is executed, R0 will change to the values shown below.

```
MOV @>1010,R0    R0=>1A3C
MOVB @>1010,R0   R0=>1AFO
MOVB @>1011,R0   R0=>3CFO
```

Assembly Language Format

LABEL	MNEMONIC	OPERANDS	COMMENT
LABEL	One to six characters starting with an alphabetic character.		
MNEMONIC	Mnemonic of one of the instructions of the 9900 in abbreviated form.		
OPERANDS	One or more addresses specifying where the data is located.		
COMMENT	Any comment. An asterisk (*) in column 1 makes the whole line a comment.		

The assembler recognises various constants, symbols and expressions.



Constants..: Decimal integers in the range -32,768 to 65535. Hexadecimal integers in the range >0 to >FFFF. ASCII code for one or two characters enclosed in single quotes..... E.g. 'DX' or 'R'.

Symbols....: These begin with an alphabetic character and contain no spaces. The first 6 characters are processed. \$ is a special symbol which represents the current location in the program.

Expression.: The assembler will perform arithmetic on constants and/or symbols using the following operations.

- + addition
- subtraction
- * multiplication
- / division

All operations are integer and are carried out from left to right. Parentheses () may not be used in expressions.

The operand field of the source statement normally contains one or two addresses. There are only a limited number of addressing modes or ways of specifying the address of the data in the OPERAND field allowed.

(1) Workspace Register Addressing

DEC R2

Register R

(PC)-> instruction ->(WP)+2R-> operand

(2) Workspace Register Indirect Addressing

DEC *R4

Register R

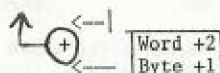
(PC)-> instruction ->(WP)+2R-> address -> operand

(3) Workspace Register Indirect with Autoincrement

DEC *R4+

Register R

(PC)-> instruction ->(WP)+2R-> address -> operand



(4) Symbolic Addressing

DEC @>1A3C

DEC @COUNT

(PC)-> instruction

(PC)+2-> address -> operand

(5) Indexed Addressing

DEC @COUNT(R4)

Register R

(PC)-> instruction ->(WP)+2R-> index >+ -> operand

(PC)+2-> address

SPECIAL ADDRESSING MODES

(6) Immediate Addressing

LI R5,VALUE

(PC)-> instruction

(PC)+2-> operand

(7) Program Counter Relative Addressing

A displacement of an 8 bit signed integer, -128 to 127.

JMP @LOOP

JMP @>13D5

JMP \$-2

(PC)-> instruction ->(PC)+2DISP+2-> operand

The operand for these instructions is an address which may be loaded into the PC.

(8) CRU Addressing

CRU addresses range from >0 to >FFF are for individual bits. There are thus 4096 bits which can be addressed this way. The contents of workspace register 12 (R12) are used as the base CRU address, holding twice the address. For single bit instructions, the number specified in the instruction is an 8 bit signed integer which is added to the base address in R12. For multiple bit CRU instructions, the starting address is in R12.

SBO -5

(PC)-> instruction ->(R12)+2DISP-> operand

-2*CRU address

Use of Workspace Registers

The contents of the Workspace Pointer is the address of R0 in memory.

- R 0 - Data or Address - low 4 bits used for shift count
- R 1 - Data, Address or Index
- R 2 - Data, Address or Index
- R 3 - Data, Address or Index
- R 4 - Data, Address or Index
- R 5 - Data, Address or Index
- R 6 - Data, Address or Index
- R 7 - Data, Address or Index
- R 8 - Data, Address or Index
- R 9 - Data, Address or Index
- R10 - Data, Address or Index
- R11 - Data, Address or Index - BL call return address
- R12 - Data, Address or Index - CRU base address
- R13 - Data, Address or Index - old WP contents after BLWP
- R14 - Data, Address or Index - old PC contents after BLWP
- R15 - Data, Address or Index - old Status after BLWP

REGIONAL NEWS

in report of meetings and
times of our Regional
Home Groups around Sydney and
New South Wales.

The Illawarra Regional Group.

This group meets on the third Monday evening of the month at 7.30 p.m. - Saint Matthews Church Hall, Philip Crescent, Mangerton.

The format of the meetings is for an Extended BASIC tutorial, followed by a talk and demonstration of some topic of interest. Then refreshments are provided for consumption while chatting about problems, or borrowing from the various libraries maintained by the group.

LIVERPOOL REGIONAL GROUP REPORT APRIL 1986.

A well attended meeting was held at Cyril Bohlsens. We covered a number of topics.

1. Summary of main TISHUG meeting presented by FRED MORRIS. Fred outlined TISHUG policies and plans and it hints at an exciting prospect for the future.
2. A demonstration of advanced diagnostics presented by ROSS HARDY he highlightes uses and tricks. Also a look at DISK+AID
3. Redemonstration of RICHARD STANFORDS DISKCAT this program is an assembly language disk catalogue capable of storing 4000 programs in 5 files of 800 each It can add and sort to any size file in less than 4 seconds. Available at the regional meetings or any group member. At 10.30 a number of members adjourned to view the FENECH fight with the rest catching up on software that may have slipped by them. All in all an entertaining evening thanks to CYRIL and ENID for the continual flow of eats and refreshments.



MORE REGIONAL REPORTS ON PAGE 23

Status Register contents

L>	A>	EQ	C	OV	OP	X													
—Status Flags—						—Not used—						Interrupt #							

- L> - Logical greater than - unsigned numbers
- A> - Arithmetic greater than - signed numbers
- EQ - Equal.
- C - Carry out of the most significant bit
- OV - Overflow in signed number arithmetic
- OP - Result of a byte operation is Odd Parity
- X - Extended operation in progress.

Interrupt mask - enable interrupts.

Value = 0 only allow RESET or LOAD to interrupt.
Value = 1 to 15 allows all TI-99/4A interrupts.
The only interrupts generated are at level 1.



First the good news. Those of you who have been buying Micropendium through the club shop have had a bargain. Now the bad: \$2 is below our landed cost! The arithmetic has been done and the price must go up to \$2.50 per issue. If we are able to sell all 100 issues, we will cover costs but if we are left with unsold copies it will be necessary to review pricing. This magazine is filling the shoes of Compute and HCM with support for the TI 99/4A. You will find some interesting articles in back issues (some of which we still have for sale at the old price) relating to PE Box fan noise and how to build your own "smart" modules with 8K of RAM. Excellent value as always.

For our mail order customers we are offering Datarang Binders at a special price of \$6.30 plus postage. These are a once only purchase so first in best dressed. What do they do? Hold up to 4+ cm. of continuous paper stored in such a way that it opens out FLAT. That's right, you read the whole sheet - no more poking under the pressure bar at the top of the binder; no more lost text!

We can now cater to those of you who purchase computer paper and disk supplies on quotation of a Sales Tax Exemption number. Ring me for special prices on our quality products.

Modules of Navarone Industries Console Writer are still available at \$45. These handle saving and loading of text to tape. If you are limited by a tape based system, perhaps this is just what you need. "Bells and whistles" provided in the module allow you to alter foreground and background and highlight colours.

We have recently concluded an agreement with another national supplier to the computer industry; this time in hardware and software. The main purpose of this move was to allow you to purchase truly "Smart" modems at unbeatable prices. These modems support the Hayes Protocol commands and provide auto dial/auto answer, and run under software control. For example, the modem can communicate with Viatel (1200/75) while communicating with your computer at 300 or 1200 baud. Please ring for prices; they are the cheapest in town. A spin-off from this agreement is our ability to supply software and plug-in cards for that machine which has spawned so many clones so you won't see prices advertised in this magazine. However, if you own one you can get items through the shop. Most of the boards are American (AST). Prices are lower than any you will see advertised in the magazines for the same product. Don't spend your money elsewhere, keep it in the family.

We are still holding back issues of HCM Magazine. All unsold stock will be taken to TI FAIRE in Melbourne for sale. This is your last chance to fill those missing issues.

One of the best value for money items in the shop has to be V.3 of Funlwriter by Tony and Wil McGovern. The disk contains DM1000 D Patch Assembler and others as well as the "bells and whistles" added to the TI-Writer section. Unbeatable value at \$5.00.

Items for sale in the shop are currently being reviewed. If you have any specific requests, drop me a line or make yourself known at the monthly meetings. Ray and I are looking forward to meeting you.

Regards, Chris Buttner
TEXPACBBS Username:SHOP



Jenny's YOUNGER SET
under 18's page



Hi gang! As you can see by my picture above (part of me at least) I'm sad. Why? Well over the past month I have not received a single letter from any of my young friends out there. So I can't quote any of you this month nor add any more of your high scores to the list. Never mind, perhaps you will all get your pens and paper out and flood me with letters this month. Remember I enjoy reading your letters and I know that a lot of you like to see your name in print.

Righto! To get you all thinking I have dreamed up a little competition that I want you to work on during the May school holidays which are just around the corner. This is it and keep it as short as possible as this will be part of the judging criteria. Write a small basic or extended basic program that depicts a mouse - one of those furry little critters - and have the program capable of moving it around the screen with both keyboard and joysticks options. Entries will close on the 31st May 1986 and should be addressed to TISHUG : Attention Jenny, PO Box 595 Marrickville NSW 2204. I will arrange for the winner to be announced at the BIG fullday workshop on the 7th June to be held at Woodstock Community Centre Burwood. So if you enter and think you have a chance of winning make sure you get along to this big event as the winner will get something special.

Next meeting, and the last to be held at our old venue, St Johns Darlinghurst will be the 5th Birthday get together. It will take the form of a pot luck dinner so bring along a plate of your favourite tucker to share with your fellow younger setters.

This will be a day to remember and to celebrate the 5th birthday of TISHUG some prizes will be awarded to some lucky people. Also during the afternoon there will be a "COPY-THON". What's a COPY-THON? Well you bring along some disks, or buy some at a special price at the club shop, and then you can copy programs from the 2 computers that will be available. Sounds good and a great way to build up your software library.

And don't forget I still want to hear from all who intend taking part in the September Techo Day.

You may have noticed that there is no program liftout in this issue. The reason for this is that the magazine is a special 5th anniversary issue and is filled to capacity with other material. To make up for this, our Editor, Shane, says he will include extra programs for you next month.

Until next time have fun with your TI's and remember to get those letters to me.

Jenny

MICROPENDIUM - March 1986 - What's In It ...

Copyright : What is it?
How to speed things up - Basic & XB
Moving Triple Tech's reset switch
Access to PEB cards - assembly tutorial
Fancy characters with Forth
Reviews - Super Duper, TOD Editor
Newsbytes, Users Notes and Classifieds plus a host of other interesting bits and pieces including advertising of new products and old favourites.
Get your copy at the club shop at the next meeting. You will not be dis-appointed. Yours truly, the editor of this SND is even mentioned not once but twice.

One interesting item advertised is JOY PAINT 99 from Great Lakes Software. One of their earlier releases has floated its way down here - Extended Business Graphs - which is a real treat to use. Joy Paint is entirely joystick controlled and claims to have 92% more graphics space than previous TI graphics programs with the screen acting like a window. You can use tools such as pencil, eraser, paint brush, circle, oval, box, line and text. Joy Paint companion disks are promised for early release containing hundreds of pre designed graphics. You will need 32K, Disk Drive, Joy Stick and either one of XB, E/A or M/M modules plus an Epson compatible printer. Other printers will also be supported later. The cost of this package is \$49.95 (US) and is obtainable from Great Lakes Software 804 E. Grand River Avenue, Howell, MI 48843. It looks good.

```

100 REM *****
110 REM *TYPING TUTOR*
120 REM TI BASIC
130 REM AUTHOR UNKNOWN
140 DIM CHAR(23,30)
150 RANDOMIZE
160 D=20
170 F1=300
180 F2=4000
190 V1=10
200 V2=2
210 CALL CLEAR
220 FOR J=9 TO 12
230 CALL COLOR(J,2,14)
240 NEXT J
250 FOR J=2 TO 8
260 CALL COLOR(J,2,15)
270 NEXT J
280 IF R=82 THEN 310
290 RESTORE
300 CALL CLEAR
310 PRINT "      TYPING TEAC
HER"
320 FOR I=1 TO 18
330 PRINT
340 NEXT I
350 REM ZERO CHARACTER COUNT
ER AND TIME
360 CHARCNT=0
370 TIME=0
380 REM ROUTINE ENTER CHARAC
TER POSITION DATA
390 FOR ROW=11 TO 23 STEP 3
400 FOR COL=6 TO 30 STEP 2
410 READ CHAR(ROW,COL)
420 IF CHAR(ROW,COL)=0 THEN
490
430 IF CHAR(ROW,COL)=-1 THEN
500
440 IF CHAR(ROW,COL)=32 THEN
470
450 CALL HCHAR(ROW,COL,CHAR(
ROW,COL))
460 GOTO 480
470 PRINT " ";
480 NEXT COL
490 NEXT ROW
500 PRINT
510 PRINT "  PRESS ANY KEY T
O START";
520 CALL KEY(3,S,STATUS)
530 IF STATUS=0 THEN 520
540 CALL HCHAR(24,5,32,22)
550 REM *CHOOSE A RANDOM NU
MBER*
560 N=INT((RND*47)+44)
570 IF (N)=60)*(N<=64)+(N=45
)+(N=58)+(N=OLDCHAR)THEN 560
580 OLDCHAR=N
590 CALL VCHAR(7,16,N)
600 REM **PROCESS YOUR RESE
ONSE$$
610 TIME=TIME+1
620 IF TIME>900 THEN 700
630 CALL KEY(0,CR,STATUS)
640 IF STATUS=0 THEN 610
650 CALL SOUND(D,F1,V1)
660 CHARCNT=CHARCNT+1
670 REM ADD ONE TO TOTAL
680 TIME=TIME+12
690 GOTO 780
700 PRINT TAB(4);
710 PRINT "CHARACTERS/MINUTE
=" ;CHARCNT
720 PRINT
730 PRINT "      HIT R TO RES
TART";
740 CALL KEY(3,R,STATUS)
750 IF STATUS=0 THEN 740
760 IF R=ASC("R")THEN 290
770 END
780 IF CR<>N THEN 880
790 FOR ROW=11 TO 23 STEP 3
800 FOR COL=6 TO 30 STEP 2
810 IF CHAR(ROW,COL)=N THEN
840
820 NEXT COL
830 NEXT ROW
840 CALL HCHAR(ROW-1,COL,N)
850 CALL HCHAR(ROW-1,COL,32)
860 CALL HCHAR(ROW-1,COL,N)
870 GOTO 560
880 CHARCNT=CHARCNT-1
890 CALL SOUND(D,F2,V2)
900 GOTO 560
910 REM *ASCII DATA FOR EYE
OARD*
920 DATA 49,50,51,52,53,54,5
5,56,57,48,61,0
930 DATA 81,87,69,82,84,89,8
5,73,79,80,47,0
940 DATA 65,83,68,70,71,72,7
4,75,76,59,0
950 DATA 32,90,88,67,86,66,7
8,77,44,46,-1

```

IMPORTANT NOTICE

GLEBE REGIONAL GROUP

Starting in May the GLEBE REGIONAL GROUP monthly meeting will change from the Tuesday following the Main meeting to the Thursday following the Main Meeting.

The reason for this change is personal and I regret any inconvenience this might result in.

The May Meeting will be held on May 8 at 8 PM.

MIKE SLATTERY.

GLEBE REGIONAL GROUP REPORT.

The April meeting of the Glebe Regional Group was well attended this month and a most interesting night was had by all.

Mike Slattery gave the second of his tutorials on simple assembly language for the minmem and it was generally agreed that it was well presented and clearly explained. If you still wish to get into assembly language programs it is still not too late as Mike will be presenting the third in the series at the May meeting. Also at the April meeting Peter Schubert showed off several new programs. There were two drawing programs and a number of new games.

The next meeting will be held on Thursday May 8 at 8 PM. All welcome.

NOTE. The night on which the meetings will be held in future have been changed to Thursday. The meeting will no longer be held on the Tuesday night until further notice.

CARLINGFORD USERS GROUP

Our March meeting was held at Claude Fra's home on Wednesday 19/3 and was magnificently catered by Claude's wife. This was the last meeting at Claude's home until he completes the nursery extension.

Ron Kemp brought along an "Astronomers Bible" programme showing the position of the stars and constellations in the heaven at any given time. (This programme originally appeared in Compute and was converted for the TI.) Yes, it does show Halley's Comet. A number of members were able to get copies of this programme. Thank you Ron.

Club shop items were also available for purchase.

One member is having trouble with his Corcomp Disk Controller Card "destroying" files when he tries to save from TI-Writer. This is apparently common with the card if you have the track to track stepping time on the card set at less than the stepping time on the drive. The card has not been opened to check settings, so before we do, is there anyone who has had a similar experience and what was the solution.

It has been necessary to make some changes to forthcoming meeting venues so here are the times and addresses:-

Wednesday 21 May : 79 Jenkins Road Carlingford (Chris Buttner)

Wednesday 18 June : 141 Beecroft Road Beecroft (Ray Brown)

Please note the new May meeting address.



2 BIG PARTIES

3rd May

NEXT MEETING: A POT-LUCK BIRTHDAY PARTY with.. our special COPY-THON activity.

DATE: 3rd May '86 (2pm-4pm) St. Johns Church Hall Victoria St, Darlinghurst near St. Vincents.

Bring a plate of goodies to share, plus join us for our COPY-THON where you can copy some of the best club software in Australia. You can either bring a disk, or buy them at the club shop. A charge will be made of \$2.00 per disk full of your choice of software you copy...REAL GOOD VALUE and it helps the club at the same time.

BBS Party 24th May

Our special BBS PARTY will be held at the home of Shane Andersen, 1/37 George St, Marrickville.

Our BBS parties are always fun to be at, and you won't want to miss out on the fun! It doesn't matter if you don't have a modem, as long as you are interested in modem communication, and want to share with other modem users in TI.S.H.U.G.

The date: 24TH MAY '86 at 6:30pm and will be fully catered for with some delicious treats. B.Y.O.G. If you plan to attend, please R.S.V.P. no later than Thursday 22nd May to P.O.Box 595, Marrickville 2204 or reply on the TEXPAC BBS to Username: PARTY on our Electronic Mail section.

DATE	WHAT'S ON	CONTACT
3/5/86	5th. BIRTHDAY PARTY	St. Johns - Darlinghurst.
8/5/86	Glebe Regional Group	Mike Slattery - (02)692-0559
9/5/86	Penrith Regional Group	Mel Copeland - (047) 35-1340
10/5/86	Central Coast Regional Group	Russell Welham - (043) 92-4000
16/5/86	Liverpool Regional Group	Stan Puckle - (046) 25-6157
18/5/86	Bankstown Regional Group	David Mayo - (02)708-4293
19/5/86	Illawarra Regional Group	Rob Montgomery - (042) 28-6463
20/5/86	Committee Meeting	Woodstock Community Hall John Robinson - (02)848-0956
21/5/86	Carlingford Regional Group	Chris Buttner - (02)871-7753
7/6/86	Full Day Workshop Tutorial	Woodstock Community Hall
14/6/86	Melbourne TI.FAIR	Phone John Robinson if you want to come along.
5/7/86	General Meeting and SIG	Woodstock Community Hall.

Members living in the SUTHERLAND SHIRE should CONTACT PETER YOUNG on (02)528-8775 with the view to forming a regional group in that area. Peter has kindly agreed to become the Regional Co-Ordinator for this area. So, please contact him. - Thank you Peter.

NORTH SHORE members should contact KEITH DE HAAN on (02)451-3032. Keith has agreed to become the Regional Co-Ordinator for this area. If you are interested in TECHNICAL aspects then this group will be for you! - Thank you Keith.



Welcome to another software column. For the May meeting we have something special for cassette users who have had the 32K memory expansion added to their systems. As mentioned briefly last month a copy of programs called CONVERT and 2 memory image XB loaders were recently obtained. One of the XB loaders will be placed on cassette together with three assembly language programs, SPACE JUNK, BLACKHOLE and BEYOND PARSEC. You will be impressed with the speed and graphics of these space type games and they should wet your appetite for more of the same to come. Both BLACKHOLE and BEYOND PARSEC are games for two players and require joysticks. SPACE JUNK is a one player game and also requires a joystick. They will not be available on disk however disk users can buy the tape and also load through XB provided they have 32K memory expansion.

For disk users this month is a great Freeware offering from the USA called TRIVIA 99er. Files on the disk are :

LOAD - to auto boot the program through Extended Basic
 TRIVIA - the main program
 TRIVIADOC - the documentation in D/V80 format
 FILEMAKER - to make up your own questions and answers
 REVISEFILE - to revise Q & A's
 PRINTFILE - to get a hard copy of your Q & A's
 FILE1, FILE2, FILE3, FILE4 and FILE5 - sample questions and answers covering a multitude of categories from history, sport and liesure, geography and a host of other insignificant facts. If you like TRIVIA then this is for you. As a bonus, thrown in on the disk will be a useful program for those who own Gemini printers. This file GMICMD will teach you a lot about your printer control codes. XB is required to run all the above and a printer is optional but recommended.

Other software to be released at the May meeting will be the normal tape number 1986/5 plus the same programs will also be available on disk. Programs on this tape and disk are:

BREAKOUT - a classic tile breaker game
 DRYWELL - drill for oil
 GIANTS & DWARFS - an intriguing board game
 KEY TEST - good graphics display
 LIFELINE TO TITAN - land your spacecraft
 MISSILE COMMAND - a very well done version of the arcade space game
 PARACHUTE - stop the invaders
 SKY RESCUE - pilot your plane and save the people

All require XB except DRYWELL which will run in either Basic or XB.

Part 1 of the software catalog has been completed and it lists 1626 programs, mainly Basic and XB, and runs to 32 A4 size pages. A number of members have expressed interest in obtaining a copy so it will be available in both disk format and hard copy from the shop commencing again from the May meeting. Cost of the printed copy has not yet been determined but it will probably be around the \$2 mark. Part 2 of the catalog which will list mainly Assembly and commercial programs held in the library will be available shortly.

At the April meeting a number of suggestions were put forward with a view to improving software distribution. All suggestions were noted and will be discussed at a forthcoming Committee meeting. What I would like to do would be set aside an hour to an hour and a half at say each alternate meeting to let members copy what they like from the library. A few problems readily spring to mind with such a scheme such as who would provide a full system for such copying, tape based members would be disadvantaged as currently the library is only maintained on disk although it would be possible but time consuming to transfer the majority of the Basic and XB component to quality master tapes, club funds would ultimately suffer as in a short space of time many members would have copied the entire library and would have no need to buy monthly software releases. As mentioned, however, the topic will be discussed at Committee level to see if an answer can be arrived at.

I have obtained an updated listing of all Interstate and overseas groups with whom we exchange newsletters. As a long term project I intend contacting them all with a view to exchanging programs. This brings me to a point. From previous contact with overseas groups the bulk of our software library was obtained. If we have nothing new to offer them, then they are hardly going to go to the trouble and expense of mailing disks to me, full well knowing nothing can be offered them in return. What is needed is more local contribution to the software library. Apart from Ross Mudie and Mike Slattery I have received only one program since Christmas. What has happened? Has everyone stopped programming? Remember for each original program you submit you are still eligible to select any three of your choice from the library.

I hope all you FORTH programmers are hard at it with your entry for the competition as announced in last months SND. Here's another project which I think is long overdue. What this system needs is a good Data Base System. Sure there are commercial DB's available if you can afford the money, there is even PRK which despite its limitations is good value, but there is nothing in the library that can be distributed to members. So there is the challenge - write a DB program. Beacuse of the complexity of such a project entries will not close until the end of October. A suitable prize will be awarded to the entry adjudged to have the most merit.

In the next (April) issue of Micropendium there should be an updated listing of all Freeware currently available in the USA. Upon receipt of that issue I will contact all those offering Freeware which we do not currently have and after receipt will arrange early release. What I have been trying to do over recent months is release one Freeware offering together with the tape/disk of the month and this will continue as long as the supply lasts.

Hans Zecevic was kind enough to drop me in a copy of Richard Stanford's excellent program, DISKCAT. It is very user friendly and efficient and does the job intended, cataloging disks, most effectively. Members attending the Liverpool Regional meetings can obtain a copy and it is also intended to release the program along with some others on a disk in June.

On a final note I have written this article with the Version 3 of Funnelweb Writer which was released as Freeware during April. This has to be the best piece of software around for the TI at the moment and if you haven't got your copy then it is highly recommended that you do so soon. Again congratulations go to Will and Tony of the HV99'ers for the excellent job they have done.




```

* AI R0,940      from 940 which is centre of
*                bottom line and give the
* BL @SUBPT      location of left hand end of
*                command line to be printed
* B @END

```

* Ross Mudie, 1st January 1986

```
DEF P40,PRINT Source PRINT
```

```

* Extended basic format:
* CALL LINK("PRINT",STRING$ or "direct string")
* Alternate format:
* CALL LINK("P40",STRING$ or "direct string")
* This module will obtain a string from extended
* basic, scroll the screen and print the string in the
* space cleared at the bottom of the screen. The string
* may be up to 255 bytes in length.

```

```

PRINT
P40 LWPI MYWS
    MOVB @FF,@LINE Maximum string length 255 bytes
    CLR R0 link Element 0
    BL @SUBSTR Get string, place in buffer LINE
    CLR R5
    CLR R6
    MOVB @LINE,R6 String length byte
    SWPB R6
    LI R4,40 Divisor is number of characters
                per screen line
*
    DIV R4,R5
    C R6,R0 If there is a remainder after
                the division then 1 extra line to be cleared.
*
    JEQ NOREM No remainder after division
    INC R5 Because of remainder.
NOREM MOV R5,R0 Number of lines in R5
    LI R2,40 Multiply by 40 & Number of
                bytes to read=40
*
    MPY R2,R0
    MOV R1,R0
    MOV R1,R5 No of chars to write
    LI R1,BUFFER <-{Buffer is used as temp store
    CLR R4 {when screen line is read with
                {VMBR until rewritten with VMBW
SCROLL BLWP @VMBR
    MOV R0,R3 Save Read line index
    MOV R4,R0 Where to write
    BLWP @VMBW
    MOV R0,R4 Save write line index
    AI R3,40 Add for next read
    AI R4,40 Add for next write
    MOV R3,R0 Where to do next read
    CI R3,960 Scroll up finished yet?
    JLT SCROLL
    LI R0,960 End of screen
    S R5,R0 Start point for print of new line
    MOV R0,R5 Save value for print
    LI R10,960 End of CLL area
    BL @SUBCLL Clear new line(s)
    MOV R5,R0 Point to start location for
                new line
*
    BL @SUBPT Print it
    B @END

```

* Ross Mudie 6th February, 1986

```
DEF COLOR Source COLOR
```

```

* Extended Basic format:
* CALL LINK("COLOR",Foreground,Background).
* This module allows the foreground and background
* colours to be changed whilst in the 40 column mode
* linked from extended basic. The range of colour
* is from 1=transparent to 16=white. If a value is
* out of range or either or both arguments are omitted
* then the defaults of white (16) foreground and light
* light blue (6) background will be used.
* This module is compatible with the SW40 / SW32
* modules on disk MUDIE 86/2 and must be included with
* the file FORTYSTART for the required equates and
* subroutines at assembly time.

```

```

COLOR LWPI MYWS
    CLR R3
    MOVB @>8312,R3 Number of arguments in link
    SWPB R3 Makes whole number
    CI R3,2 Must be 2 arguments
    JLE GETFGN If two or less arguments
    LI R3,2 In case of excessive arguments
GETFGN CLR R0 Element zero
    CLR R1 Argument pointer, gets
                incremented in SUBFAC
*
    LI R9,16 Top limit
    BL @SUBFAC Gets value from first argument
    CI R10,1 Out of limits flag
    JNE FGNDOK Jump not equal to foreground ok
    LI R4,16 Default foreground value
FGNDOK DEC R4 Conversion from x/basic to assy
    MOV R4,R5 Foreground in R5 >000x
    BL @SUBFAC Gets value from second argument
    CI R10,1 Out of limits flag
    JNE BGNDOK JNE to background ok
    LI R4,6 Default background value
BGNDOK DEC R4 Background in R4 >000x
    LI R0,>0700 VDP register 7
    SLA R5,4 Foreground is now >00x0
    A R5,R0 Add foreground to VDP register
    A R4,R0 Add background to VDP register
*
    BLWP @VWTR & foreground
    B @END To change the colours

```

!! TEXPAC BBS PARTY NEWS - MAY'86 !!

On Saturday May the 24th .. we will be conducting another BBS PARTY and we take this opportunity to invite you to attend.

TIME: 6:30 pm (18:30)

PLACE:1/37 George Street MARRICKVILLE (off Livingston Road near Dulwich Hill).

As usual it will be catered for \ with a lot of really good munchies however you will need to B.Y.O.Drinks.

Bring your own blank diskettes with you and expect to go home after the party with loads of great free software.

Other surprises are planned and this will be an evening you won't want to miss out on.

If you are planning to attend this very special function ... then please R.S.V.P. to Username: PARTY on the Electronic Mail section of this system no later than Thursday 22nd May.

You don't have to be a BBS member to attend this party! If you are thinking of getting a modem, then this will also be a fun time for you to see just what they can do.

See you HERE!!!

Speaking of Parties... on Saturday 3rd of May will be the T.I.S.H.U.G POT-LUCK BIRTHDAY PARTY.

PLACE:St.Johns Church Hall in Victoria Street Darlinghurst (2pm).

BRING YOUR OWN PLATE OF FOOD GOODIES FOR OTHERS TO SHARE and take POT LUCK.

We will also be conducting our own COPY-THON in the hall as two computer systems will be provided for you to use to copy the huge amount of software available. You can either bring your own blank disks ... or purchase them at special club rates at the club shop. I understand that there will be a charge of \$2 per copied disk on that day in an effort to raise money for the club.

THE CRAZY THINGS SOME PEOPLE DO WITH THEIR COMPUTER... by Ross Mudie, VK2ZRQ, of TISHUG.

Recently I was involved in an emergency service exercise which involved providing communications for a "Dirt Riders' Club" motor bike rally. The event took its tortuous course via rural and forest roads and sometimes rough, steep bush tracks.

The communications network was provided by amateur radio operators operating under WICEN, the Wireless Institute Civil Emergency Network.

There were a total of 141 entrants registered in the event. Twelve check points were established around the course staffed by both bike ride officials and amateur radio operators. The ride headquarters was set up in a large building in a farm paddock which provided connection to power, an organisational area and canteen facilities. The Radio bases and computer were set up in two caravans a short distance from the building. A local automatic telephone network was set up to allow convenient voice communications between ride HQ, the two radio bases and the computer area.

The TI99/4A computer was set up in the back of one of the radio caravans. The computer was equipped with a 32K memory expansion, one SS SD disk drive, RS232 card, extended basic, Triple Tech card and 80 column dot matrix (BMC BX80) printer. To guard against power failure a small battery backed up power supply was connected in the 240V power mains to protect supply to the console and peripheral expansion unit. The program used was written in extended basic with some assembly routines. The Triple Tech provided the information to date and time stamp each printout as well as freeing the computer in a shorter period of time when a print out was produced due to the use of the 64K printer buffer.

Before the event started the entrant names were entered and saved to disk. As the event commenced data was radioed to the base from the check points as each rider arrived. Most of the messages were in "funny time", two digit numbers which related to the minutes after the hour which that rider started in the event. Some of the messages related to mechanical failure or rider injury. The program allowed two modes of entry into the data field, up to 4 characters in a check-point/entrant/data format or an unlimited string format which permitted entry of breakdowns or injuries.

Special codes RET (REtired) or DNF (Did Not Finish) when entered in a 4 character field produces groups of 4 hyphens in all the remaining checkpoints for that entrant.

The main menu is:

1. ENTER / EDIT DATA
2. PRINT DATA TABLE
3. ENTER / EDIT NAMES
4. END
5. LINE EDITOR / VIEW DATA

1. ENTER / EDIT DATA is on a check point basis since data arrives, most of the time, in batches from check points. Once a check point name (a letter A to L) is entered the entrant number is prompted, then the data can be entered. The program checks for "previous check point data missing" or if data is already entered in the current location. A facility is provided to print out a "Data Query" if required or new information can be entered over existing data to effect a correction.

2. PRINT DATA TABLE allows the entrant numbers, names and data to be printed for any group of entrants or for all entrants. Each printout has a heading and a day/date/time stamp which allows easy identification of the latest printout.

3. ENTER / EDIT NAMES provides an easy method of entering or correcting entrants' name data.

4. END is required in the menu since CLEAR and QUIT are disabled to prevent accidental oopsies.

5. LINE EDITOR / VIEW DATA permits on screen viewing of a selected entrant record or simple entry of non time oriented information, such as a mechanical failure.

The main output of the program is a printed listing of the event data via the printer. Printouts were produced periodically throughout the event, using two part paper, for event organisers and radio operators.

The main problem with operations such as this is getting the data into the computer quickly enough to be of practical use in the running of the event. Two people were used for data entry to the computer, one reading the information off the radio message sheets and the other typing at the computer. When the computer halted entry to do some housekeeping, (saving data from a buffer onto disk), the operators enjoyed a 30 second break. Printouts took just under 2 minutes of computer time whilst the actual printing took a little under 5 minutes. The Triple Tech printer buffer is an absolute blessing in cases such as this. The printer is quite slow since it is operated in the compressed mode for the data part of the table to fit the table into the normally 80 column width paper. A sample of the printout is attached to this article.

The whole operation was not without problems, which is what an exercise is all about. The "240volt" power mains was the major problem. The two caravans were at the end of a 100 metre power cord, connected to the end of a single phase rural power main. At normal the mains voltage was 225V. When a jug was turned on in the other caravan the voltage dropped to 195V and the emergency supply decided that the mains had failed and it switched over to making the 240V AC from the small rechargeable battery. When the jug was turned off the voltage rose again to 225V but due to the hysteresis of the voltage failure detection circuit, it wouldn't switch off the battery until the voltage reached 230V which required annoying shedding of load in the caravans until the power supply switched over. Fortunately there was a small auto transformer in one caravan which was used to step up the voltage for the caravan fridge under low mains conditions. This was pressed into service for the computer and the fridge suffered the low voltage. The 225V mains thus became 255V, (a bit high but, oh well, better than the opposite!). The only times the power supply switched over now was when the jug was on and the water pump in the building started.Guess we will need to organise a constant voltage transformer in addition to the emergency supply next time!

If you are planning to get involved in an operation like the one described proper planning is essential. Proper packing of your computer is necessary due to the possible effects of rough roads. The program must be as thoroughly tested out before the event. The only problem experienced with the computer or program on this event was a lockup right at the end of the event due to the expansion cable connector making a poor connection. Both low and unreliable power mains must be anticipated. A constant voltage transformer and small battery backed up emergency power supply are essential. (Heating up a kettle on a porta gas caravan stove is preferable to an electric jug). A 240 volt petrol driven alternator was also on hand in case of a long term mains power failure.

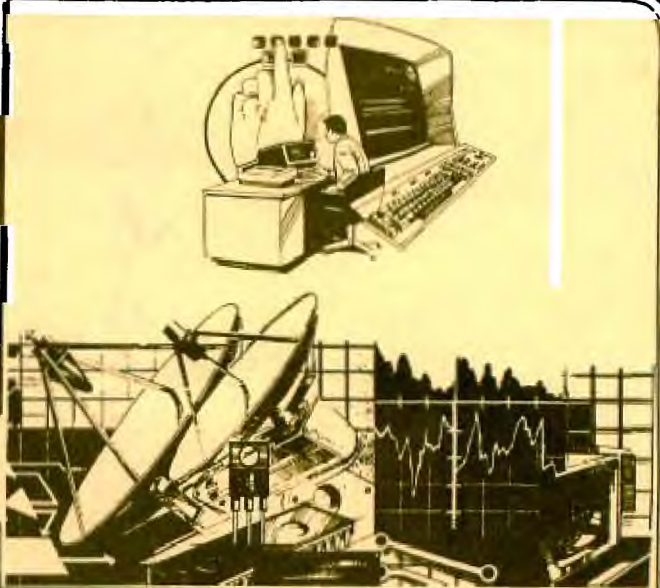
The communications staff (radio and computer) totalled 26 people. This event involved my whole family, I was supervising the operation of the computer, following up problems, doing some of the data entry and some of the data reading in addition to some some relief on one of the radio bases. My wife Sue and eldest son Sam (13) were the main computer operators taking turns at the keyboard and reading the data. Youngest son, Peter (9), did some reading and data entry (when it wasn't too busy), and he did a great job as our courier for message forms, printouts and the very necessary lunches.

It is of interest to note that NO interference to the radio frequencies used in the HF, VHF and UHF bands was experienced, (the WICEN co-ordinator looked for interference from the computer but no interference was found, which was a big difference to other computers used on similar events previously).

This article has been prepared to show that the TI99/4A computer can be used for much more than playing games. I hope that others may benefit from this article in giving a few pointers in planning for such an event. The program is available to anyone who may need it for a similar event.

IN THIS ISSUE, THREE MEMBERS HAVE SHARED WITH YOU SOME OF THE THINGS THEY ARE DOING WITH THEIR COMPUTER, AND EACH, HAS SPOKEN OF 2-WAY RADIO OR SHORT WAVE LISTENING EQUIPMENT WITH IT. NEXT MONTH, I WILL REVIEW SOME PERIPHERALS FOR YOUR TI-99/4A PLUS SPECIAL SOFTWARE THAT WILL ENABLE THEM AND YOU TO TUNE INTO THE WORLD WITH THE HELP OF YOUR TI.

Editor.



THE SMELLY PERIPHERAL EXPANSION BOX

by Laurie Marsh (VK2DWH) of TISHUG.

After having installed 2 extra Panasonic drives to my TI system I thought that I was ready for a bit of serious programming with the pascal system . This was not to be ,I had found my two young boys 6 & 8 had a burning desire to run their popeye etc games ,they must have beleived the games would be more exiting with the extra two drives!,so after the boys went to bed, mum would have a turn.by this time it would be dads turn ,10 oclock start. All went well till the 3rd day then it happened,mum had just finished with popeye,there was a a loud buzzing noise coming from the PEB box and that expensive type electrical burning SMELL !,I raced across the room white faced,and hit the big switch.Too late ,somethink had blown.Well I will just replace the fuse and see what happens after that,after dismantling the peb to it's bare chassis one hour later ,I'd discovered where the fuse was,on the out side back built into the socket that takes the power lead(mum keeps on telling me to see the eye specialist)TI were not that short sighted after all!,so with renewed confidence the fuse was replaced,switch on,then with ears nose and eyes glue to the box it happened all over again,the smell and the buzz.Next step was to disconnect the circuitry from the secondary side of the transformer then install yet another fuse .No diffrance the buzz wanted a bit more of my TI,Then I had discovered it .

I had burnt my finger on the fan motor winding,yes you guessed it,a short circuit fan winding. well not as bad as first appeared,just disconnect the fan and try again.I had every confidence in seeing those wonderful orange Led 's dancing in front of the box. Nothing happened not even a buzz !?@&*?@!.I had one other thing left to check ,the only item left was the primary of the transformer.Yep there it was an open circuit primary winding .The Transformer has duel primaries and taps for the various voltages around the world.

So I thought I would do a bit of digging in the transformer and maybe a fella could get lucky and may be see a burn out to the leads going inside the transformer then I saw it a small fuse under the plastic laying on the winding,sure enough it was blown,things were starting to warm up.then it hit me if the transformer had been operating on one winding ,the turns ratio would be greater there fore the secondary voltage would be greater!YEP you got it,I had 60 & 20 volts running to the card sockets instead of 12 & 20.Having seven cards in the box with a average price of \$200.00 each \$1400 worth this problem could grow into a fit of rage!

Being a chap with a lot of patience I told the family to leave the room while I said a few words—@#!#%\$?! That off my chest the transformer was installed ,then switch on .I had a title screen what a beaut sight,the rest of the system checked out ok.a sense of relief came over me I even exchanged a few kind words with my family All was going well for the next few days ,but little TI was not finished with me yet.TI had decided it would like all my program files turned into a display variable 0 format!.So the last day of the easter weekend was spent stripping the box down and doing a bit more fiddling.Not having any experience in digital circuits,but at least 20 years in the radio service field I pulled out my trusty multimeter and blindly started to measure voltages all over the place with the hope of picking a discrepancy some where No luck,so I switched on for one last try .Our File programs had turned to there original format again Frustrating because I had not repaired anything,but I was not about to argue .Reassemble then place back into the system.

One last test before bed ,there it was back again TI wanted those "dis var o "files again .By pulling out one card at a time then testing I'd discovered that the pascal p.code card was the problem.The sytem was back to normal again less the "p"card .It seems as that previous high volage had started to take its toll.

Having eliminated all that circuitry to one card I'd decided to attack with renewed confidence .Now this is where I can compare voltages,with the card in and then out I measured all socket pin voltages and of course the two rail voltages after the regulators in the "p."card.



* C.U. at
TISHUG