

SYDNEY



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NEWS

DIGEST

**SPECIAL
4th BIRTHDAY
EDITION**



Space Age

TEXAS INSTRUMENTS
HOME COMPUTER

Physical Fitness

Weight Control & Nutrition in '85

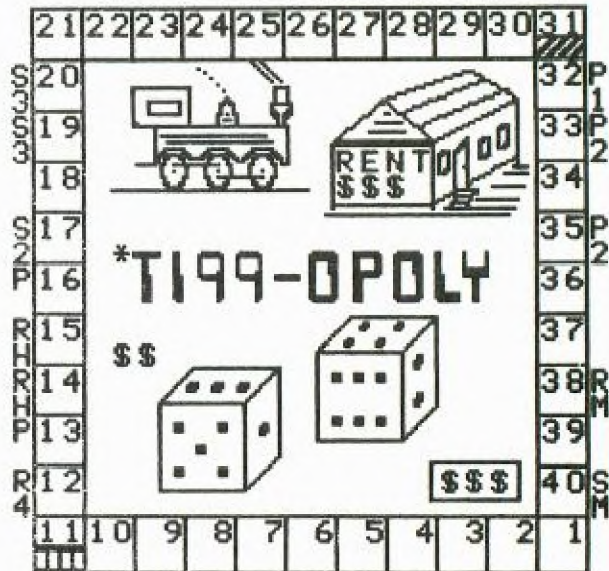
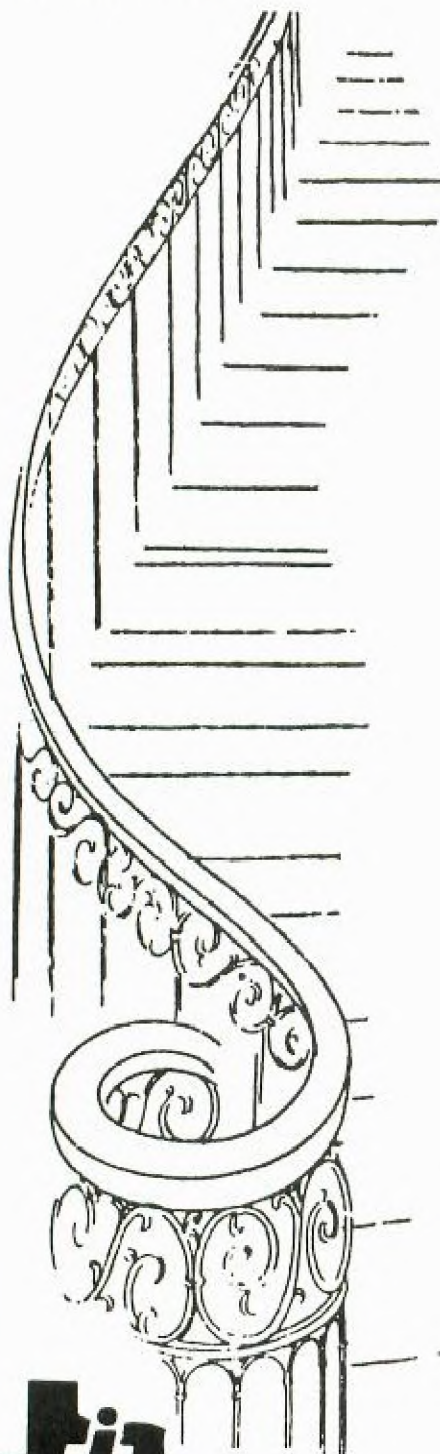
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Physical Fitness



Weight Control & Nutrition

SPACE AGE FITNESS IN THE 80'S WITH YOUR TI-99/4(A) by ..SHANE ANDERSEN

FITNESS, WEIGHT CONTROL and NUTRITION seem to be the trend in the 80's, with records, video's, books and fitness centres available all over the place, and even adds on TV with fat gutted NORM sipping a beer and resting it on his huge belly. All of this is being provided for you so that we will become a healthy country of Aussies.

I know, for myself, that I suffered for many years with chronic back trouble, until I started to get some weight off, and strengthened my back muscles with exercise, now thats all behind me. But is it? I still have my Winter Spread from last year, because I just can't get around to eating the right foods, and that daily exercise seems to be a quick twist and stretch when I wake up.

Now, I know that I am not the only member of this group who can identify with me on this subject, infact there are some out there(not mentioning any names) who leave me for dead when it comes to over-the-belt-hang or spare tyre...so, I thought that I would take this opportunity to introduce two SPACE AGE modules from Texas Instruments. One of them is called "WEIGHT CONTROL & NUTRITION" and the other is "PHYSICAL FITNESS", both of them available for \$19.95 + \$3.50 postage

On television, we are constantly being told that we need only eat selected foods...but I have some good news for you. Now, you eat what you like, With the W C & N module, you'll an 80 page manual of fun ways to diet. Did you know you can loose weight by eating such things as HAMBURGER PIE, MACARONI & CHEESE, FRENCH-FRIED SHRIMP, CHILI CON CARNE, BEEF BOURGUINONNE, and POTATO-HAM SCALLOPS? Well, they are just some of the great food recipes in the 28 page section from BETTER HOMES and Gardens, in that manual. There is also a list of 100 different activities you can do, in 3 segments of light, moderate and strenuous, with such things as ARCHERY, BAKING, GOLF, IRONING, TYPING, WALKING, BOWLING, CLIMBING, DIGGING, JOGGING, ROWING and many, many more.

There's a 12 page section on charting the food you eat, into portions and calories etc.

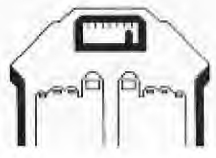
When you start using this healthy module, you'll be given a choice to type in PERSONAL INFORMATION about the foods you like to eat, MENUS are given to you from that huge selection of food listings, and you can get a PROGRESS REPORT, plus Load or Save the information for future checks. If you have a Thermal Printer, you can even get a print-out of daily eating.

The TI will ask you what type of activity you get up to (nothing too personal of course) and puts it into 3 areas...
 (1)LIGHT:Homemaking, Teaching, Office work.
 (2)MODERATE:Building, Industrial Work, Farming.
 (3)STRENUOUS: like Heavy Manual work. It then guides you through your planned eating and weight loss.

The real fun comes, when the computer asks you to make a selection from (1)DAIRY PRODUCTS, (2)BREADS/CEREALS, (3)FRUITS/VEGETABLES, (4)MEATS/ALTERNATIVES, (5)SALADS and (6)DESSERTS. You should see the range of food in each of these categories. All you have to do is answer with a Yes or No to your likes from its range. Let's take a look at one small screen on BREADS/CEREALS. Whole Weat Bread, White Bread, Toast, Rye Bread, French Bread, Corn Bread, Hot Rolls, Bran Muffins, English Muffins etc.

When you have told the computer all the things you love to eat, it then calculates a daily eating plan of Breakfast, Mid-day & Evening meals, tells you how much of each type of food you can eat per meal, and how many calories in each segment...like this

JOHN'S BREAKFAST	MENU REVIEW	TOTAL CALORIES
SUNDAY		463
FOOD ITEMS	PORTION	# CAL
PANCAKE	1 SERVE	2 258
BACON	2 SLICES	1 85
LOWFAT MILK	8 OZ	1 120



PRESS UP or DOWN arrows to SCROLL
 PRESS BACK WHEN FINISHED
 PRESS PROCEED TO CHANGE MENU

CHECKING NUTRIENT CONTENT:
 To check the nutrient content of the daily menus, you can select option#3, at this part of the MENU and after a moment, the module displays a list of days with corresponding numbers. Type a number from 1 to 7 to indicate the day that you wish to check, then press ENTER. It will look something like this:

NUTRIENT CONTENT for JOHN
 SATURDAY TARGET CAL=2426
 >ACTUAL CAL=2783<

NUTRIENT	TARGET	ACTUAL
PROTEIN	15%	16%
FAT-UNSAT.	20%	24%
> -SAT.	10%	14%
CARBOHYDRATE	55%	48%
NUTRIENT	%US RDA	
MINERALS		
-CALCIUM	138	
> -IRON	76<	
VITAMINS		
-A	118	
-THIAMIN	108	
-RIBOFLAVIN	138	
-NIACIN	94	
-C	333	



Sounds great! This is just a quick look at probably one of the best value's for money in TI-99/4(A) modules, and at the end of this article, I'll tell you where you can obtain this, and the next one I want to share with you.

The second part of staying alive and well, is of course, FITNESS. And with the TI-99/4(A) module called PHYSICAL FITNESS, this is just the module to complement the Weight Control & Nutrition module.

Once again, this can be a fun cartridge to get and use. Lets forget about SHOOT-EM-UP, and lets talk about GET-EM-OFF (perhaps not in that order).

PHYSICAL FITNESS helps you in planning (and staying with) an exercise program designed especially for you. Based on guidelines from the President's Council on Physical Fitness, and recommended for ages 13 and up. Listen! if its good enough for the President of the U.S.A (and we all know how old he is) then you'll breeze in.

I should point out at the commencement of this review, that it is recommended you consult your doctor before beginning any exercise program, regardless of your age and your assessmet of your present level of fitness. The 20 page book that comes with this module explains why.

I demonstrated this module to a doctor, who was amazed at how detailed both the booklet and cartridge was, and he agreed with me in that it would prove to be a fun and vital addition to any collection of your modules...especially if you put it to the test.

[continued page 4]



On the screen you will be given a choice of an Introduction to the exercises, provide you with Exercise Evaluation, and the difference between both Women and Men's Exercise.

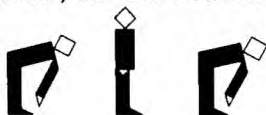
At the start of the Evaluation section, it lets you take your pulse, and calculates it for you. The manual shows you how to do this, and where. The computer helps you time the pulse-counting routine (ten seconds) by sounding a tone that tells you to start counting and then giving you another to stop. After that, you type in the number of beats you counted, and will then compute and show you your TARGET TRAINING VALUE using the following formula: $TTV = 0.6(220 - \text{YOUR AGE} - \text{RESTING RATE}) + \text{RESTING RATE}$. You'll see a chart of maximum after-exercise pulse rates for certain age groups:

AGE GROUP	PULSE RATE
13-29	170
30-39	160
40-49	150
50-59	140
over 60	130

Remember that these are "average" guidelines. Next, you'll be directed to select a level and perform the exercise. After you've completed the exercises illustrated by the figure on the screen, you'll be asked to take your pulse again and enter after-exercise pulse rate. This evaluation compares your after-exercise pulse rate to your Target Training Value and helps you determine whether or not you are using the correct level and pace in your conditioning program.

Sound a little technical? When you see it on the screen, you'll be able to understand it even more.

The real fun comes, when you start your exercise. You'll see a little fellow on the screen, instructing you what position to get into, then he or she will do those exercises with you. Just so you don't have to look at the screen all the time, the computer will sound a tone when each exercise is completed. This comes in handy when you are touching your toes with your rump in the air, and can't stretch your neck to look up.

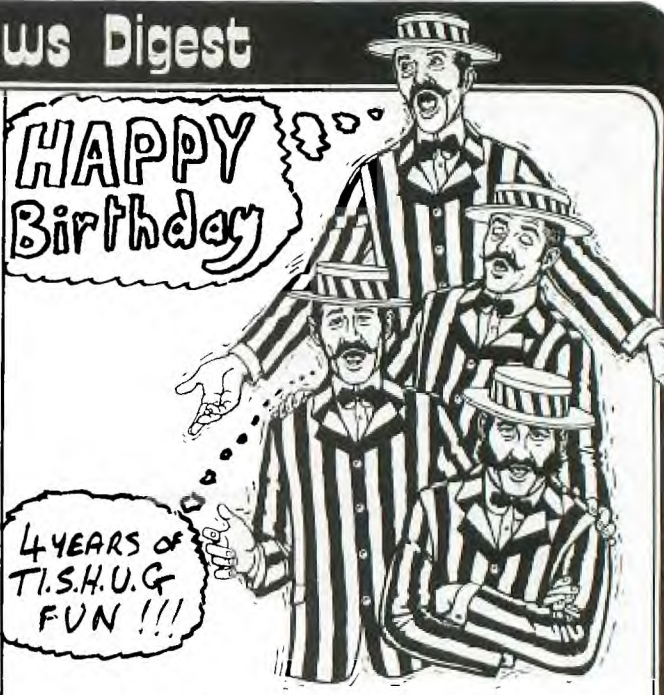


Once you have completed these exercises with the fellow on the screen, you will then have a choice of other activities: (1) Combination of running in place and jumping, (2) Combination of rope skipping and walking, (3) Distance running.

If you want to rest during the exercises, then simply press the SPACE BAR. The activity will stop, and the screen will display the word "WAITING". Just one sneaky snag, if you wait one minute, the computer is watching, and will back-up one exercise. If you wait 2 minutes, the computer will back up 2 exercises. So don't think you are going to just take a rest and that will be that. It wants to see you fit, and will be patient with you, but you must also want to get back into shape.

O.K. Now it's up to you, to feel good and to look good...because a healthy body will produce a healthy mind.

Now, where to get these two great modules... (1) At selected retail outlets, or you can order them on the TEXPAC-BBS, or, send your Bankcard, Visa number, Money Order or Cheque to IMAGIC (Australia), P.O. Box 595, Marrickville. 2204.



HAPPY Birthday

4 YEARS OF T.I.S.H.U.G FUN !!!

This month.. May 1985, this Texas Instruments Homecomputer User's Group conducts it's 4th Birthday. Boy! Have we seen some changes in that time. We have seen the rise and fall of the Texas Instruments Home computer division of TI International after 4,000,000 units were sold around the world with 20,000 TI-99/4(A)'s sold here in Australia. And yet, we have also seen our computer continue to prosper with the help of IMAGIC (Australia), selected Retail outlets, and our Australian TI Home computer User's Groups.

Here in Sydney, we have been particularly fortunate to have such an active user's group filled with members who are resolute in ensuring that our computer will not be like others that have fallen by the wayside. Because of this, we are proud to be one of largest Home Computer User's Groups in this great country of ours, and with your help, we will continue to see that it stays that way.

In this past 4 years, we have seen the introduction of THE PROGRAMMERS CRISIS LINE, HOME REGIONAL GROUPS, FULL-DAY HALF YEARLY TUTORIALS, and THE TEXPAC ELECTRONIC BULLETIN BOARD SERVICE which features PROGRAMS TO DOWN-LOAD OVER THE PHONE, ELECTRONIC MAIL to members, ELECTRONIC SHOPPING, UP-TO-DATE PRICE LISTS, both INTERNATIONAL & NATIONAL NEWS & VIEWS, PROGRAMMING HINTS, JOKES, PERSONAL ADVERTS & HAPPENINGS and many more. We have been one of the few User Groups to be asked, and have joined in the fun of the PERSONAL COMPUTER SHOWS. We have had members passed onto us by RADIO STATIONS who know the work that this group has been doing in an effort to help cut isolation and provide Computer Education with our Internationally read SYDNEY NEWS DIGEST magazine.

And you know, these are just a few of the many features that you have helped to make possible, by being a member of T.I.S.H.U.G.

The life span of any home computer is around two years, unless of course, you decide to stay with it, learn and grow with it, and create new fun things to do with it. New peripherals are still being made to ensure that you still have a great future to be had with your TI-99/4(A) computer. We are already starting to see it being used with the most modern technology of communication with the World via Satellite and 2-way contact with TELETEX VIATEL and AMATEUR RADIO.

We would like you to share with us, these and many other areas of computing. We hope that you will stay with us, renew your membership, and be part of this great future.

LEARNING TO LIVE WITH TI-WRITER.

My decision to buy a personal computer was motivated by my desire to gain a word-processing facility so that I could churn out essays for a course I was doing at Uni. I chose a TI because for years previous I had used a TI-59 which had proved to be both versatile and reliable, indeed, I still have it to this day. *TI-Writer* and I first met in about mid '83 and have grown in time to know each others limitations and develop a special rapport.

For anyone who has used a UNIX editor on mainframe *TI-Writer* is not a big change in environment. In fact to call *TI-Writer* a word-processor is something of a complement since it is really just a text-formatter and not a real word-processor like *Multimate* or *Wordstar*. With *TI-Writer* you first type in all the text using an editor and then you tell the printer how to format it by using coded instructions prefixed by a period. Because there is no 80-column card for the TI it is necessary to view your text by scrolling horizontally through three windows (each one 40 characters wide). Hardened users will be aware of *TI-Writer's* recalcitrant attitude in occasionally dropping off a typed input character as the VDU is remapped. These days I tend to type only in the first window and then use formatting instructions to set appropriate margins and indentations. The trade-off, of course, is smaller files as some memory is wasted.

This brings me to what I regard as *TI-Writer's* most severe limitation- its use of a text buffer that limits the size of files to about 23K. Real word-processors (such as *Multimate*) store their documents to disk page by page so that very large files are possible. Since the TI is such a small machine it is not intelligent to use so much of that 48K as the text buffer for to do so severely limits the number of built-in utilities you can offer with the word-processor. The only way to type a really long document in *TI-Writer* is to make a master file of "include file (.IF)" commands which sends *TI-Writer* out searching your disk drives for the appropriate files which it then prints end to end. You must use a master file as "include file" instructions cannot be nested in a way that would allow each file to call its own successor.

One of the things I like about *TI-Writer* is the inclusion of a "transliteration" instruction in the formatting set. This enables the user to plant special printer control codes within his documents. For example, in most of my files ASCII code 35 is not used to print the symbol "#" but instead is used to tell the printer to enact double width printing. Other ASCII codes are dedicated to print quotations in italics and to enable or disable sub-scripts or super-scripts. While most word-processors would do this one way or another many actually require insertion of all the relevant ASCII codes at each point in the document where they are required. This can soon get tedious! I always start *TI-Writer* with a file called DSK2.WORKFILE which is empty except that it contains all my commonly used transliterates already encoded.

I would like to conclude my comments with a recommendation. I cannot praise too highly the new software package "Auto Spell-Check" available from Shane.

For anyone producing important documents this programme represents great value even if you regard your spelling as good. The package itself consists of two disks that contain the programmes and a rather limited standard English dictionary. It will recognize the word "prefer" but not "preferred" so you had better not throw away your dictionary of word-division (at least not straight away). The real virtue of this package is its ability to allow you to construct your own user-defined listings for special purposes. If you're into horticulture you could construct a special dictionary of all your favourite flowers.

[continued page 18]

The listing below comes to us from the Channel 99 Canadian User Group...

```

100 CALL CLEAR
110 PRINT "::::"THE FOLLOWING PROGRAM WILL"
120 PRINT "CALCULATE THE AMOUNT OF"
130 PRINT "COMMISSION EARNED FOR"
140 PRINT "SALES MADE AT WENTWORTH"
150 PRINT "SUPPLIES."
160 PRINT "::::"
170 REM *****
180 REM #THE ABOVE CODE PRODUCES A PROGRAM HEADER *
190 REM #THAT WILL TELL THE USER WHAT THE PROGRAM *
200 REM #DOES. *
210 REM *****
220 FOR TIME=1 TO 5000
230 NEXT TIME
240 REM *****
250 REM #FOR/NEXT LOOP THAT GIVES THE USER ENOUGH *
260 REM #TIME TO READ THE HEADER. *
270 REM *****
280 COMMISSION=0
290 INPUT "HOW MANY SALES WERE MADE?":A
300 REM *****
310 REM #WE HAVE JUST INITIALIZED "COMMISSION" WHICH*
320 REM #IS THE numeric VARIABLE THAT WE WILL USE TO*
330 REM #HOLD THE TOTAL COMMISSION THAT THE SALESMAN*
340 REM #WILL EARN ON SALES CONSIDERED. IN ADDITION*
350 REM #WE HAVE ASKED THE USER FOR THE NUMBER OF *
360 REM #ITEMS THAT WE HAVE TO CONSIDER. BECAUSE WE*
370 REM #KNOW THIS INFORMATION, IT IS VERY EASY TO *
380 REM #SET UP A FOR/NEXT LOOP TO CALCULATE THE *
390 REM #TOTAL COMMISSION EARNED. *
400 REM *****
410 FOR I=1 TO A
420 CALL CLEAR
430 PRINT "WHAT WAS THE VALUE OF SALE #";I;
440 INPUT "?:";VALUE
450 IF VALUE<15 THEN 550
460 REM *****
470 REM #AT THIS POINT THE PROGRAM DECIDES WHETHER *
480 REM #COMMISSION IS VALUED AT 2% (WHICH WILL BE *
490 REM #CALCULATED AT LINE 550 OR 4% WHICH IS THE *
500 REM #SECTION OF CODE THAT IMMEDIATELY FOLLOWS *
510 REM #THIS REMARK SECTION. *
520 REM *****
530 COMMISSION=COMMISSION + .04*VALUE
540 GOTO 560
550 COMMISSION=COMMISSION + .07*VALUE
560 NEXT I
570 REM *****
580 REM #AT THIS POINT THE PROGRAM HAS CONSIDERED *
590 REM #EACH SALE (VIA THE FOR/NEXT LOOP) AND HAS *
600 REM #CALCULATED THE ENTIRE COMMISSION OWING. *
610 REM *****
620 CALL CLEAR
630 PRINT "THE VALUE OF THE COMMISSION"
640 PRINT "OWING FOR THESE TRANSACTIONS"
650 PRINT "IS $";COMMISSION
660 REM *****
670 REM #THE SCREEN HAS BEEN CLEARED AND THE FINAL *
680 REM #COMMISSION HAS BEEN DISPLAYED. YOU WILL *
690 REM #ALSO NOTE THAT EACH OF THESE REMARK *
700 REM #HAS BEEN BLOCKED OFF WITHIN THE PROGRAM. *
710 REM #THIS IS PURELY A COSMETIC DEVICE. IT DOES,*
720 REM #HOWEVER, DRAW YOUR ATTENTION TO WHERE THE *
730 REM #REMARKS ARE, AND THE REMARKS THEMSELVES DO *
740 REM #NOT CONFUSE THE READING OF THE PROGRAM. *
750 REM *****
760 END

```

OUR NEXT MEETING will be conducted at St. John's Hall on the first Saturday ... 4th MAY 1985, 2pm - 4pm. Victoria St. Darlinghurst (next door to CALTEX near St. Vincents Hospital).

This is our 4th BIRTHDAY and we will have some great surprizes instore for you.

At our last meeting, we had Allan from TI showing us the PRO-LITE computer, and ANNIE from AUSSAT. We thank them for making that afternoon a fun packed time.

New publication from TI helps computer buyers,

If you are investigating how a computer can help you in your work or thinking of buying one, you will find valuable information in "Personal Professional Computers - How can they help you?", a new title published by Texas Instruments.

The book aims to provide the prospective user with enough information to evaluate computer hardware and software and decide what to buy. It was compiled by staff of the Faculty of Computer Science at North Texas State University, a TI software analyst and contributing editors.

The book provides a basic understanding of computers, through examples of how people are using them and discussions of hardware and software. This background will also help

the uninitiated to understand common computer jargon.

It also shows, by devoting a chapter to each topic, how a computer can help in business management and financial planning, word processing, managing information (files, data bases etc.), accounting, project management and scientific applications, communicating between computers or other related equipment, graphics presentations and applications using speech commands.

Easy-to-understand applications are clearly illustrated and explained using off-the-shelf software. The reader is led through each application step-by-step.

The book is available in Australia from Texas Instruments at \$19.95 per copy.

PRODUCT INQUIRY NO. A1

Microcomputer-aided design and drafting with new system

Sophisticated two-dimensional computer-aided-drafting (CAD) is now available to microcomputer users with the Texas Instruments TI AutoCAD professional software system.

TI AutoCAD combines the power of large-scale CAD computer systems with the low-cost precision graphics of the Texas Instruments professional microcomputer family, to produce high-quality drawings and schematics.

It is a multi-utility system, suitable for a wide variety of applications including architectural and landscape drawings, drafting for mechanical, electrical, chemical, structural and civil engineering.

The ability to create user-defined screen

menus, via ordinary text files, and to prepare libraries of often used parts, makes it exceptionally easy to gear the system to individual application requirements.

A user can interactively create and edit drawings of any size and to any desired scale. It is also possible to move, copy, rotate or erase any portion of a drawing at any time.

With the system a house plan can be drawn and manipulated to move walls, erase or add windows, enlarge bathrooms or re-position electrical outlets - all quickly and easily. For a printout of the drawings, TI AutoCAD supports a range of color plotters plus quickplot.

The Basic TI AutoCAD-86 is priced at \$1580.

Plugging into a local area network - the TI way

Local area network, or LAN, is a familiar buzzword heard in technology circles. A LAN is a network of computers and peripheral equipment linked by cable within a small geographic area so that computers can communicate and share resources.

Each unit, or node, on the network is "intelligent" and autonomous and can therefore operate by itself.

LANs are a hot topic and bound to get hotter if we can believe industry projections that their use will increase more than tenfold over the next four years with expenditure in this area rising from \$72 million in 1983 to 150 million in 1984 and up to 1.06 billion by 1987.

One widely touted advantage of LANs is their ability to share expensive resources such as printers, disk space and software.

A Texas Ether Series local area network consists of several TI Professional Computers connected by cable. One computer functions as the network's server and manages the network. The others, up to seven or eight, are the nodes.

Creating a functional network requires additional hardware and software such as EtherSeries, EtherPrint, EtherMail and EtherVoice.

EtherShare is a disk server which allows Winchester disk mass storage to be shared. It divides the disk among the users allocating portions to each. Users control access to their portions of the disk, called volumes, by assigning each level of security which

determines who can read the files in that volume and who can modify them.

Sharing a Winchester disk amongst users has several benefits. Winchester's are faster than diskettes, even when accessed through a LAN. A Winchester has more capacity than a diskette so each user can potentially have more storage.

Most important however is the sharing of information. A volume that is created for public access can be read but not modified by any user on the network. A volume created for shared access can be read and modified by any user.

EtherPrint allows two printers to be attached to a server. Any user on the network can send a print request to either printer and with a feature called spooling, EtherPrint lines up the print request and performs them in the order they were received. Sharing printers benefits the network owner by eliminating the need to have a printer for each computer, by reducing the noise and by providing access to twice as many printers.

A LAN can be an efficient way to share data when many users need to access the same data. A method called semaphoring allows multiple users to concurrently access a single file as though each had control of it.

TI's EtherMail is an electronic mail facility that allows the user to compose, edit, send, forward and reply to memos on the network. Users can send messages or memos to a common electronic post office.

An Australian Profile ...

TI'S INDUSTRIAL SYSTEMS DIVISION

This division was established as part of Texas Instruments Australia more than five years ago and is responsible for the marketing, engineering and support of a wide range of programmable controller products aimed at automating machinery within local industry.

The group is headed up by Nick Fondas, National Marketing Manager in Sydney, Derek Jones, Product Support Manager in Adelaide and Ross Dye, Applications Engineering Manager in Sydney.

Its popular CU 5000 color graphics operator interface, based on a TI Professional Computer has been installed in many areas of Australian industry including food processing, general manufacturing and material handling.

ISD also provides a family of networking products, the TIWAY system, which enables one central computer system to run almost all the machinery in an entire factory.

A batch of exciting new products will be released throughout the year as well as a brand new controller, the Model 560, with even more capabilities expected to be available here towards the middle of this year.

The Industrial Systems Division is well positioned to take advantage of the continued growth that is projected for the factory automation market in Australia. TI's Semiconductor Division currently

manufactures many of the integrated circuits used in the Industrial Systems Division's products. It also offers the unique potential of special design chips for industrial applications.

The Industrial Systems Division has an impressive track record and plans to continue with its current strategy of using distributed control systems to control their own future.

NOTHING IN THE WORLD CAN TAKE THE PLACE OF PERSISTENCE, TALENT WILL NOT; NOTHING IS MORE COMMON THAN UNSUCCESSFUL MEN WITH TALENT, GENIUS WILL NOT; UNREWARDED GENIUS IS ALMOST A PROVERB. EDUCATION ALONE WILL NOT; THE WORLD IS FULL OF EDUCATED DERELICTS. PERSISTENCE AND DETERMINATION ALONE ARE OMNIPOTENT.

To receive mail the user must access EtherMail at which time mailbox contents are displayed along with an explanation of other available functions including get, reply, next etc. Messages can thus be sent, read, modified and forwarded between users. It is a powerful tool where it is useful for individuals to exchange brief communications.

EtherVoice makes message sending quicker, easier and more effective. Memos can be recorded and attached to other data and mailed to the receiver's mailbox.

One of the most important benefits of a LAN is that it links intelligent workstations that can function independently when necessary. This means a user can go offline from the network with all its facilities and use the system as a personal computer with its productivity software.

If you are considering the purchase of a LAN, there are many questions and concerns you might have. One thing that can help is to approach the situation from a problem-solution standpoint. Don't describe what you need but rather your problem.

Is it that you don't have enough disk space? Do you want to send messages to your co-workers? Do you have an inventory control problem? If possible determine with what you are having problems and derive the best solutions.

THIS TI PAGE, WAS PRESENTED WITH THE COMPLIMENTS OF ...



TEXAS INSTRUMENTS
INCORPORATED

WATCH THE NEXT ISSUE OF SND FOR VERY SPECIAL PRICES TO CLUB MEMBERS ON THE "TI PROFESSIONAL" COMPUTEK,



The CU 5000 color graphics operator interface with a TI professional computer.



Hi! As I write this the P85 Computer Show is over for another year and Easter is fast approaching. At the top of this page you will see a photograph of the stand. We were the only stand apart from Telecom to demonstrate the Viatel videotex system. Our thanks to Robert Crago for writing the TI Emulator software to make it all possible. The club's 1200 baud modem was used and Telecom's representative loaned us a password and User number for the day so the club did not incur any direct costs. Robert is putting the final touches to his program and hopefully it will be ready to market within the next few weeks. Special thanks to the show organisers Australian Exhibition Services, IMAGIC, who supplied the Corcomp Expansion system and Access Controls, who provided the Axiom parallel stand alone interface. I was particularly impressed with the Axiom interface. It enables the person with a bare bones system to connect a Centronics parallel printer for a minimum cost. The Corcomp disk drive system was impressive and highly portable. I know of some members who have sold their old expansion box and replaced it with the Corcomp system. The only criticism I had was the quality of the power transformer, which was housed in a very flimsy steel box. I understand IMAGIC is now sourcing transformers from another supplier, who is providing a better designed enclosure. The show was well attended as usual despite the \$4 entry fee. I saw people paying to go in at 4.00 pm on the Saturday afternoon! Fred Morris and I attended opening day on the Level 4 of the Centrepoint Tower. The Hon Eric Bedford, the NSW Minister for Industry, Decentralisation, Small Business and Technology opened the show. Apple and Microsoft joined in a busy marketing exercise that offered visitors a unique opportunity to test drive the MAC. TI Australia showed their new truly portable rather than transportable Pro-Lite Professional computer. Technical Support Manager for TI, Roger Andrews, said that the Pro-Lite computer attracted many representatives from large corporations to the stand in the first day, giving them a chance to see that a full size screen is available in a portable computer. The Pro-Lite features a 12-inch liquid crystal display that

shows 80 columns by 25 lines. The high resolution screen can display either characters or complex graphics. An external colour or monochrome video display monitor will be offered as an option. Tandy launched their TANDY 1000 personal computer. This is compatible with Big Blue's PC, plus graphics and sound enhancements. Commodore's PC10 computer with 256K, two drives and also IBM compatible was under glass and will not be available until mid June.

The locally produced Koala PC from Interfaceware was shown. This uses the 8088 microprocessor and comes standard with 256K RAM, dual double sided drives etc. I was particularly impressed with the LaserWriter System on the Apple stand and a more modest laser printer on the Hewlett Packard stand. It won't be too long before the prices of this type of printer drop to more competitive levels.

From the front cover you will have seen that we are celebrating our fourth Birthday. The 1400th member recently signed up. He is Stuart Paynter from Balmoral a suburb of Brisbane. Incidentally Stuart, you sent us too much money! The joining fee is only \$8 not \$18. You will shortly receive a refund of \$10.

And now to my review of the quarterly journal International Computer Commentaries, which is available by a \$48 per year subscription from Commentaries Trust, 430 William Street, MELBOURNE, Vic 3003. This is a 178 page journal with 2 color glossy cover it is essential reading for business people and teachers or anyone interested in the use of computer systems. There is no advertising as such. I found the commentaries from a very broad range of individuals, to be generally very interesting and well written. The magazine kicks off with a speech by The Hon.S. Rajaratnam, the Second Deputy Prime Minister of Singapore. He says "It would be hard enough for those who have entered the new technological race to keep on running, but those nations which opt out of the race opt permanently out of high civilization." The future of those countries which do not recognise and

respond to the computer based technological challenge could be very bleak and perhaps, disastrously irreversible. Barry Jones Minister for Science writes about today's economic challenge here in Australia. Professor A.H. Sale from the University of Tasmania answers the question "Why do we need Computer Literacy courses?" You will also find answers to unimportant questions such as why Koala Technologies Corp. isn't an Australian organisation. Company Profiles of most of the companies involved in the computer industry in Australia are given at the end of magazine. Overall I found the commentaries to be informative and easy reading. The second magazine entitled "Computerisation Quarterly" concentrates on the Computerisation in schools. For this reason it is essential reading for school teachers. I would not recommend it for a general audience. The first issue was 52 pages and a subscription to Computer Commentaries Trust is \$48 per year.

Now to my mail bag.... Ray Brown has recently moved to DENILQUIN from BEECROFT and writes "I would be happy to start a regional group in this outback town. His phone number is 058.812360." Ted Santana from Apopka, Florida USA writes: "I am 13 years old and have just bought a second hand TI-99/4A. I think it is fabulous! Everyday I come home from school at 4:00 pm. and turn on my computer." Ted wants to join TISHUG and would also like to be a penpal and learn more about Australia. Age doesn't matter but if anyone wants to contact Ted drop me a line and I will send you his address.

Colin Lee from Singapore writes to inform us he has started a new group known as TIES, which means TEXAS INSTRUMENTS ENTHUSIASTS OF SINGAPORE. The group has a small number of members truly committed to keeping the spirit on the 99'er flying high. You may write to Colin c/- PO Box 698, Tiong Bahru, Singapore 9116.

Bruce Ryan of Ryte Data, Haliburton, Ontario, Canada writes: "A new computer based on the defunct 99/8 has been developed by one of the foremost TI support companies. Fully hardware and software compatible, the new computer promises to revive the huge TI 99/4 world. This new computer goes beyond the unreleased 99/8 (Ed. 250 of the 99/8 computers were built by TI and given to the members of the design team.) in several important ways. The formal release is scheduled for the June 1985 Consumer Electronics Show to be held in the USA. Beta testing is slated to begin as soon as the printed circuit boards roll off the production line. Full scale production hinges upon the interest and response generated among TI users around the world particularly in North America. The new computer will be marketed by a new company. A newsletter will be established and if you want to risk a dollar send it to Bruce Ryan, PO Box 210 Mountain Street, Haliburton, Ontario L0M 1S0 Canada. You can be assured that your existing TI 99/4A is not obsolete as we understand existing TI equipment can be used with this new computer. It was only a matter of time before someone took advantage of the superb technology represented by the TI99/4A. We are seeking assembly language programmers who wish to provide programs for this true 16 bit 10 Mhz computer. Code is fully compatible with the 9900 chip."

Frontline Press of Toowong, Queensland has sent us a press release about SCALE AND DICE. This is a new magazine for wargamers and military modellers to fulfil a need in Australia for a magazine catering for figure gamers and modellers as well as board and computer games.

The first edition, which will be promoted by a nationwide advertising campaign will consist of an average 60 page magazine. The cover will be full colour, gloss. The first run will be 6000 magazines with 500 copies going to the U.K. and the U.S.A. respectively for promotional activities.

SCALE AND DICE will be distributed throughout Australia and New Zealand to newsagents, whilst model and game retail outlets can order retail copies direct from FRONTLINE PRESS. Recommended retail price of SCALE AND DICE will be \$2.50.

SCALE AND DICE will be published every two months until a sound base is established and will then become monthly. SCALE AND DICE will be suitable for age groups from 9 to 95. It will contain authoritative articles in the wide field of wargaming, modelling and military history.

Brian Graham of Panania writes: "I am writing with respect to one of the programs contained on DISK 1985/2, namely PERSFILE. Whilst trying to run that program I found that the use of option number 8 shown in line number 380 caused the program to CRASH!!!!. Line #410 is the problem. Any use of that routine is not covered by line #410. Therefore a few amendments are needed and I have found the following work:-

```
410 on K-48 GOTO 440,920,1020,550,470,1120,1380,1740
1740 REM ** SUB TO QUIT **
1750 PRINT "DID YOU WANT TO TERMINATE THE SESSION?"
1755 INPUT X$
1760 IF X$="N" THEN 360
1765 IN X$="NO" THEN 360
1770 PRINT "GOODBYE."
1780 STOP
1790 GOTO 350
```

With these changes it is possible to QUIT under option 8 without a crash and indeed if option 8 was incorrectly chosen then you have chance to go to the main menu again."

It looks as if I will have to leave my answer to Wade Bowmer's question on generation of sound from assembly until another issue as I am fast running out space.

I was unable to attend the March committee meeting as I was away in Melbourne on business. The committee members are keen to see members attend these meetings as observers. We hold these meetings on the third Tuesday of the month commencing 6.30 pm. at the Woodstock Community Hall, Burwood. The meetings usually run two hours and I hope to see some members there this month. The monthly software was judged at the March meeting and those shortlisted will be voted on at the next meeting.

Whilst in Melbourne I took the opportunity to see Doug Thomas, our National Co-ordinator. Doug will be relinquishing this position soon and we are therefore looking for volunteers. The next issue of SOFTEX was being pasted up on his dining room table and will be sent to the printers during this month. Doug was kind enough to check out our duplicating machine. It turns out the problem has been with producing a good master tape. The equipment needed to correct this problem is presently being purchased so hopefully soon we will be able to supply top quality program tapes.

Running out of memory,



John Robinson,
Hon. Secretary.

THE "GRAPHX COMPETITION" CLOSSES AT THE END OF THIS MONTH, SO GET THOSE ENTRIES IN NOW. For more details, see mention of this competition over the last few months.

Let's see what you have designed. Send your entries to "GRAPHX CONTEST",
TI.S.H.U.G. (Aust)
P.O.Box 595,
Marrickville. NSW 2204.
before the 1st of June '85.

Jenny's YOUNGER SET under 16's page

Welcome to our Special 4th Birthday edition of Younger Set, with entries of our big Cartoon Competition.



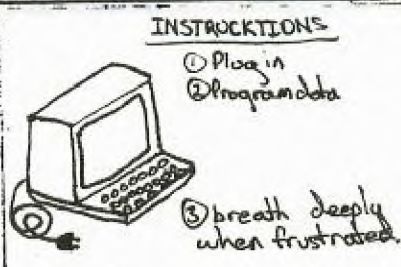
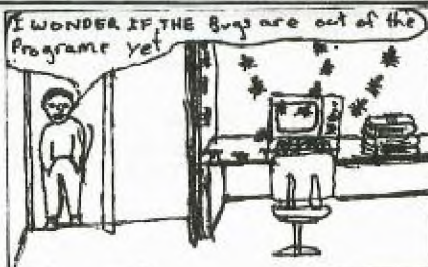
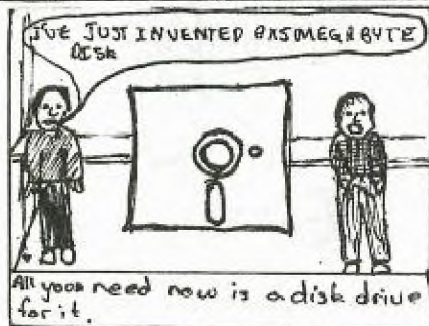
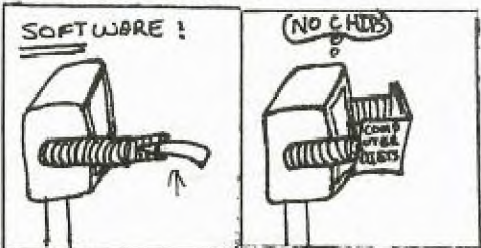
Hi! gang, well, I have received so many entries in the CARTOON COMPETITION that I am only able to show you some of the entries over the next couple of pages. Next month, I'll show you more and will tell you who I have selected as the winning entrant. That person will win that fantastic POLE POSITION CARTRIDGE by ATARI-SOFT for the TI.

Here is the first one by 13 year old member who forgot to write his or her name. He or she has submitted 5 little cartoons plus this program for you to try out->

```

100 CALL CLEAR::CALL SCREEN(2)
110 FOR C=1 TO 12::CALL COLOR(C,3,2)
120 NEXT C::FOR E=1 TO 5
130 FOR A=0 TO 6.3 STEP .2::Y=SIN(A)
140 PRINT"TAB(20*Y);"."::NEXT A
150 NEXT E::FOR S=1 TO 100
160 CALL SOUND(1,6000,0)
170 PRINT"."::NEXT S::GOTO 100
    
```

Now for the cartoons...



Now here's a cartoon by Chris Denniss of Tumbi Umbi N.S.W. That's a funny name for a town, and a funny cartoonist...



Now, the next one comes from Darron Smith, aged 13 years, and lives at Rydalmere...



I Just cant Figure out how they made mice traps.

Turn over to the next page for some other really great cartoons... Don't forget, that the GRAPHX CONTEST is still on, and the contest ends next month, so if you or your dad has bought GRAPHX, get those entries in.

MORE "JENNY'S YOUNGER SET" OVER THE PAGE

Here are two cartoons by 15 year old John Cornish of Gulgong NSW...

Here are 3 entries by 11 year old Warren Welham of Central Coast...



BY: JOHN CORNISH

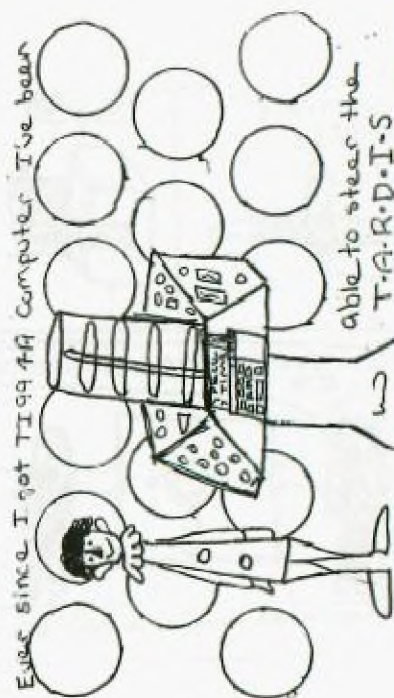
TRY SOMETHING ELSE!!



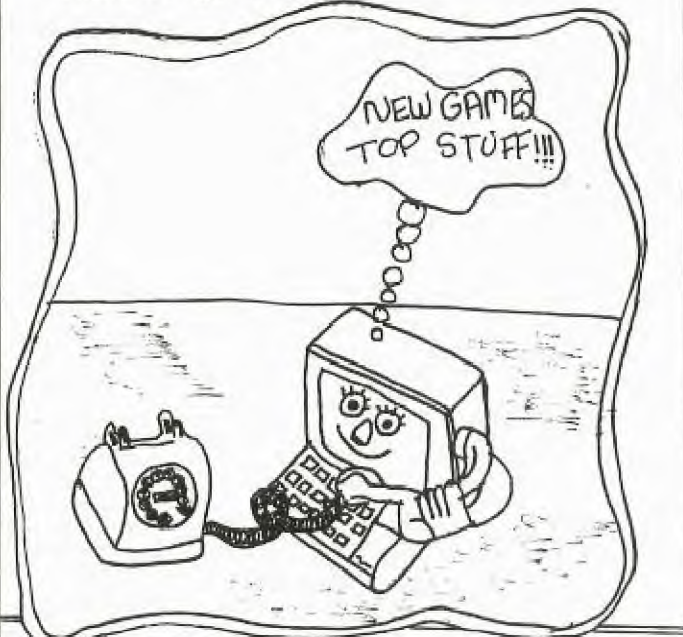
It's a living!



BY: JOHN CORNISH



And this next Cartoon Contest entry comes from SHANE MARTIN of GOSFORD. Shane is aged 13 years.



As mentioned in this column last month our next tape to be issued will comprise 8 programs all written by members. This tape - 1985/5 - will be on sale from the May meeting date. Some programs to be included are :

Alpha Munch, Gunsmote, Soft Sell, Go, Stock Exchange, Surround plus 2 others yet to be selected.

I hope you will like this one and that it might stir more of you into action to write and submit your own programs.

Tape 1985/4 which went on sale from the April meeting date contains 8 programs, 4 each in Basic and Extended Basic. One of the Extended Basic programs, Snoopy Kong, arrived in a consignment from Italy where I exchange programs with Marcello Zannini of the TI Users Club located in Bologna. Marcello tells me that the program was written by an 11 year old member of their club and that it won first prize in their last software competition. I am sure that when you look at it and play the game you will agree that the author, Tristano, has done an excellent job.

Also via Marcello comes a very useful piece of software developed in Italy by Paolo Bagnaresi. Paolo has given his permission for TISHUG to distribute his package called BEAXS which is virtually TI's Editor Assembler package on disk. BEAXS requires Extended Basic, 32K expansion and naturally a disk system to run. Once booted you are confronted with a very similar screen to Editor Assembler with the same 5 options to choose from. BEAXS however has some inbuilt routines not available in Editor Assembler including a disk catalog option, a utility to half source listings and a very powerful disassembler. A reference guide is available with this package but as yet it has not been translated to English so it did not accompany the disk. I will attempt to obtain a copy and have it translated

(T.I.S.H.U.G SHOP with Terry)
continues on page 12 & 13



INTRODUCING AUTO-GRAPHICS

HOW LONG DOES IT TAKE YOU TO DESIGN GRAPHICS AND WRITE PROGRAM CODE TO DISPLAY IT, OR WRITE MUSIC?
TWO OR THREE DAYS? A WEEK OR MORE? WHEN TIME PERMITS?

WOULD YOU DO MORE GRAPHICS AND MUSIC PROGRAMMING, IF YOU NEVER HAD TO TYPE "HEX STRINGS" OR "CALL CHAR", "CALL HCHAR", "CALL UCHAR", "DISPLAY AT" AND "CALL SOUND" STATEMENTS AGAIN?

IF YOU WANT TO GREATLY REDUCE THE TIME REQUIRED TO WRITE PROGRAMS AND NEVER HAVE TO TYPE THOSE BORING STATEMENTS AGAIN, THEN AUTO-GRAPHICS WILL BE OF GREAT HELP IN YOUR PROGRAMMING. HERE ARE SOME OF IT'S FEATURES:

- A GENERATES COMPLETE SUBPROGRAM CODE
- B SUBPROGRAMS SAVED IN MERGE FORMAT
- C GENERATES CODE TO REDEFINE CHARACTERS
- D GENERATES CALL SCREEN AND COLOR COMMANDS
- E GENERATES DISPLAY AT STATEMENTS
- F GENERATES CALL HCHAR AND UCHAR STATEMENTS
- G GENERATES CALL SOUND STATEMENTS
- H DATA AND READ STATEMENTS CAN BE SELECTED
- I SIZE OPTION CAN BE ADDED TO DISPLAY AT
- J FULL DATA FILE MANAGER
- K MUSIC CAN BE COMPOSED BY NOTES OR FREQUENCY
- L UP TO THREE TONES AND ONE NOISE CAN BE USED IN MUSIC
- M EDITORS FOR MUSIC, CHAR SETS AND COLOR TABLE
- N INTERACTIVE CHARACTER DRAWING
- O SCREEN DRAWING USING CURSOR
- P CHARACTER PALLET USED FOR SCREEN DRAWING
- Q TEXT CAN BE ADDED TO GRAPHICS
- R ALL OPERATIONS ARE MENU OR FUNCTION KEY DRIVEN

AUTO-GRAPHICS REQUIRES THE FOLLOWING HARDWARE
THE TI 99/4A HOME COMPUTER
32K MEMORY UNIT & AT LEAST ONE DISK DRIVE
EXTENDED BASIC COMMAND MODULE

COMING SOON: THE 16K VERSION.

ANOTHER GREAT TI-99/4(A) PRODUCT AVAILABLE
LINDLEY & ASSOCIATES, for only \$49.95

Write away for a listing of other superb products for your TI computer... to:

LINDLEY & ASSOCIATES, P.O.Box 77,
Zillmere QLD 4034
" " or: P.O. BOX 595,
Marrickville, NSW 2204

Bankcard and Mastercard are also welcome.



locally. In the meantime anyway wanting a copy of BEAA can obtain it at meetings for \$5 or by mail order for \$6. Marcello has further informed me that under development in Germany is a program called TURBO-PASCAL which will operate without extra hardware such as the P-Code card. I will let you know via this column when it arrives.

Also in my mail over recent weeks has been a lot of software from contacts in the USA and Canada. Most of it is pirated commercial software from cartridge dumped to disk so naturally TISHUG cannot distribute it to members. Some of the titles include Burger Time, Miner 2049'er, Munch Mobile and a great game called TI RUNNER which is a lot like, only better in my opinion, LODE RUNNER which you may have seen running on other systems. Also acquired was a copy of the latest adventure from Infocom, Hitchhikers Guide to the Galaxy, but so far I have had no luck in even getting out of my room with this one.

Three good programs for members with full systems that I have received via Tom Arnold of the Channel 99er User Group, Hamilton Ontario I can distribute. These are Auto-Cad, which allows you to draw by turning any pixel on or off on a screen 480 by 192 pixels. It has circle, line, box, triangle, parallel lines, cursor horizontal and vertical set functions. The program prints to a dot matrix printer with graphic capabilities on either the parallel or serial port. This program loads through Option 3 of Editor Assembler but I am advised that it does not work on all versions of the TI99/4A.

The second program, Disk Sector Reader will read any sector on the disk and display the contents on the screen. Runs from Option 5 of Editor Assembler.

The third program is a Single Drive Disk Copier which will copy a disk in 3 passes. This one also runs through Option 5.

The above three programs will be released on disk at the May meeting for only the cost of the media - \$5. If ordering by mail add an extra dollar to cover those costs.

I had hoped to do a review in this issue on Navarones Data Base Manager and Console Calc but as they have not arrived as I type this the reviews will have to be held over until the next issue. Similarly I cannot yet tell you the new prices of Navarone products until they do arrive and pass through customs.

Other items currently available in reasonable stocks included:

Home Computer Magazine - Volume 5 No. 1 - cost \$7, \$8 by mail.

Best of 99er - cost \$26, \$28 by mail.

Hidden Powers of Disk Fixer - \$15, \$16 by mail.

Super Dupor Copiers - \$44, \$46 by mail.

Disks - still \$25 a box of 10.

If you have a need for something that the Shop doesn't stock, or you think it should, then give me a call on 02-797.6313 to discuss. If it sounds a reasonable proposition I will do what I can to obtain the items at a good price or suggest where you may be able to buy at a reasonable price.

Now here's a little something that my son dreamed up. As I rather like the idea I will put it into practice as from May this year. This is how it will work:-

* on one tape in the batch produced for May software and each subsequent month a small program will be inserted after the last program listed on the tape.

* after you have loaded the last program listed keep the tape running for a while to see if there is another program there.

* if there is, load it and run. it will give you a congratulatory message plus an indication of the prize you have won together with details on how to claim the prize.

A couple of rules :

1. There can only be one winner each month.
2. The judge (Librarian) reserves the right to substitute a prize in the event of the indicated prize not being available.

Thats all for this month. Keep those programs coming in!

THIRD PARTY SOFTWARE - ON SALE AT YOUR TISHUG SHOP

In an effort to stimulate sales of our great range of commercial licenced software each program is reviewed in this column. To further increase sales the price has been reduced to \$8 per program or any 4 for \$25. This is a bargain so order now using the order form especially for this purpose at the end of this review.

DECATHLON - this one is from Pewterware and as its title suggests it is a sporting game. Up to 8 players can compete in the tradition decathlon events of 100 metres, Long Jump, Shot Put, High Jump, 400 metres, 110 metres Hurdle, Discus, Pole Vault, Javelin and 1500 metres. The game has interesting graphics - limited a bit with Basic I suppose - but it should keep you occupied for a few hours on those rainy days ahead. Some really accurate timing inputs are required if you are going to break some world records. Runs in standard TI Basic.

UP PERISCOPE - this is a one player game also from Pewterware written in Extended Basic. Some good graphics and sound affects make this in interesting game to play once the rather complex instructions have been mastered. The object, of course is to sink as much enemy shipping as you can with your limited fire power. A fair bit of skill is called for as you cannot catch an enemy ship as you lack speed. You must plot your course to intercept enemy shipping.

BLUEGRASS SWEEPSTAKES - a 1 to 8 player game with the object of placing bets on horses to win the most money. This game probably wont appeal to those who like to blast aliens but for those interested in a pleasant afternoon or party diversion then there are a lot worse than this one around. The graphics and actions of the horses are fairly lifelike although like most Basic programs a little jerky.

ROLL FIVE - to be honest this is only a slightly jazzed up version of Yahtzee which we have distributed as free club software. I therefore can't see any reason why anyone would want to buy it.

SNOW TREK - this is a 1 player game written in TI Basic. You maneuver you van and then your snowmobile around various winter obstacles. While that may not sound much it can get harder as the level of difficulty increases. Probably a good game suited to the younger set who will enjoy its cute graphics.

MATCH WITS - 1 to 4 players can participate in this challenging TI Basic game. The object is to match up pairs of 6 pictures. The game is quite easy to learn but will provide a lot of entertainment both for old and young alike.

CHALLENGE POKER - a game in TI Basic the object of which is to score the most points by forming the best poker hands on a 5 by 5 gameboard. A wild-card option makes the game more interesting. 1 to 4 players can participate in the game which makes it ideal for the family or as a party type game. My belief is that this is one of the more interesting card type games going around.

 TI.S.H.U.G SHOP/REVIEWS with
 Terry, continues on page 13.

Goblin's Maze - a 1 play game written in 11 basic. Your objective is to navigate a difficult maze avoiding the Goblin who is hot on your heels. Two difficulty levels are provided, the second is quite a challenge. Sound effects and graphics in this one are good.

FAST FROG - a Frogger type of game for 1 or 2 players. It's probably no better or worse than a lot of others around. Some good graphics add to the pleasure of the game. This one is written in Extended Basic.

NORBERT - this is a Q-bert type of game which is a bit difficult to master. Graphics and sound effects are also good in this one. The object as all Q-bert fans know is to change the colors of the blocks while avoiding the chasing monsters. Extended Basic is required.

TRACTOR FOLLIES - the object of this Extended Basic game is to drive your tractor along the road avoiding all types of hazards. 1 or 2 people can play the game. There are some very good graphics in this one particularly the starting sequences.

HORRORS - another Extended Basic game the object being to change all the colors of a wall while avoiding chasing ghosts and other ghouls. Graphics and engrossment in this one are good and it is sure to be a hit with the younger set.

WALLABY - probably one of our "better" commercial range. Written in Extended Basic the object being to climb, slip and slide through a coal factory. The program incorporates aspects of Donkey Kong and Miner 2049er and is a joy to play. Graphics are very good.

TORPEDO ATTACK - written by member Tony Imbruglia this is the latest offering in our commercial range. Tony has developed a very good action game where the difficulty increases the longer you play. The object is to shoot down attacking planes and enemy shipping from your submarine. Graphics and sprite action have been very well developed. This one is recommended.

ORDER FORM FOR COMMERCIAL SOFTWARE

Name

Address

Please send me the following programs :

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4.
5.
6.
7.

Total enclosed \$ or charge my

Bankcard/Mastercard No.

with the amount of \$

.....
(Signature if ordering by Bankcard etc)

This Order Form can be Photocopied if you don't wish to cup-up your SND.

INTERNATIONAL

FOUNDATION OFFERS 'CLAMSHELL COMPUTER' USING Z80A CHIP.

Foundation Computing is introducing a 'clamshell computer' for the TI-99/4(A) Spokesman Bill Hunter says the company is introducing a new card for the peripheral expansion box that includes 64 K of RAM, a built-in Western Digital disk controller and a propriety operation system. It is price at about \$350 U.S.

The card's CPU is Zilog Z80A operating a 4 Mhz. The disk controller operates double density drives, and the card includes 2 RS232 ports. Hunter describes the card as the 'CLASSIC CP/M COMPATABLE' device.

The card is designed to use CP/M software in the Kaypro and Cromemco formats. This is a full stand along computer on a card. This card will also be operated in conjunction with the soon-to-be-released Foundation's 80 column card.

Hunter says the 80-col card is being retrofitted to function as a 9600 baud terminal. Originally the 80 column card was going to be sold with an 80 col version of Intelpro's Companion word processor. However, that plan has been dropped. And this new 80 Column card for the CP/M CARD will cost about \$250 U.S.

Owners of the Foundation 128K card will soon be in for a nice bit of software which will allow it to copy diskettes in one pass instead of a number of passes.

For more information about these cards (orders not taken yet)...contact:

FOUNDATION COMPUTING at 74 Claire Way, Tiburon, California, 94920 or telephone 0011-1-415-3883840

Please tell them that you heard it from TI.S.H.U.G.(Australia).

Now you can learn to fly, or refresh your skills if you already are a pilot, with the program called "DOW-4 GAZELLE". It is a very good flight simulator program by John Dow. The program simulates a typical private, 4-place single engine instrument equipped airplane and the features include a full colour instrument display and realistic sound.

Beginners will learn to take off, land, and use radio navigation aids. Advanced skills include stall recovery, slow flight, and steep turns. This program requires Joy- stick, and is available on cassette for \$25.95 (U.S) Plus postage, from ...

SOFT-LITE SOFTWARE, 7610 Reading Road, Cincinnati, Ohio. U.S.A. 45237.

When you send for your DOW-4 GAZELLE, ask them about the other programs they market, like the full range of INFOCOM ADVENTURES, COMPILER 99, SUPER SKETCH GRAPHIC TABLET, BOX-CAR(RS232)AXIOM INTERFACE, and many other goodies.

For those who are into FORTH here is some news for you...

For only \$9.95(U.S), you can now obtain the FORTH MAILING LIST entitled TC-MAIL. It features *TITLE FIELD, *MULTIPLE SORTS, *SORTS BY ANY FIELD, *FULL-SCREEN DATA EDITOR, *40 COLUMN SCREEN DISPLAY, *710 RECORDS PER DATA DISK, *1,2 or 3 UP LABELS, *NO UNNECESSARY DISK SWAPPING, *WHOLE PROGRAM RESIDES IN MEMORY, *DATA DISK INITIALIZING FROM PROGRAM, *BINARY SAVED FOR FAST PROGRAM LOADING, *PREPARES PHONE LISTS (Name and Phone number only), *SETS COLOURS FOR EITHER COLOUR OR MONOCHROME MONITORS.

To obtain you copy, write to RAMSOFT ENTERPRISES, 1501 East Chapman Ave, Suite 338, Fullerton, California. U.S.A. 92631 or phone them on: 0011-1-714-738-5665 (I.S.D)





From the pages of the Channel 99 User group magazine...Canada.

SUBROUTINES by Don Cook

Load the subroutines you typed in last month and add the following REF statement at the beginning of it.

```
REF VSBW, VMBW, VSBR, VMBR, RSCAN
```

Now type in the following routines. There is a section at the end called 'SUBROUTINE DEMO' which will put a prompt at row 23 for you to enter your name and a flashing cursor. If you press a function key the JNE statement tests the status bit set by the input routine. You could do all kinds of things depending on which function key is pressed but in this case the screen will clear and the prompt starts again. I'll leave it to you to experiment with it, remember this is just a demonstration. One good use for the hex routines is to print on your screen certain key variables in your program while it is running. Save the entire file as DSK1.SUBROUTS and assemble as DSK1.SUBROUTO.

There is a way in which you can save these subroutines that will allow less assembling time. You assemble the subroutines in a separate module than the main program. To accomplish this add these DEF statements at the

```
DEF START, FINISH
DEF INPUT, GETHEX, HEXOUT
DEF CLRSCL, VSBIDUP, VMBWD, VMBRD
DEF HEXDEC
```

beginning of the subroutine file, add the END directive at the end and delete all the lines after 'subroutine demo'. Now assemble the subroutines as a separate file i.e. DSK1.SUBS/1. Now assemble the SUBROUTINE DEMO (with its own end statement) as DSK1.SUBDEMOS. Use the load and run option to load DSK1.SUBS/1 and type DSK1.SUBDEMOS, press enter and run the program i.e. type START.

SUBROUTINES by Don Cook

The following assembly language subroutines may be loaded with the COPY command and used in your programs. This subroutine reads a four digit hex number at the screen location specified in the data statement following BLWP @GETHEX statement. If a good hex value is at that screen location, then the equal status bit is set for appropriate action on return to your main program. The hex value entered on the screen is put into R0 of your main program. e.g.

```
*GHEX BLWP @INPUT
* DATA 68,4
* BLWP @GETHEX
* DATA 68
* JNE GHEX
* This will allow you to input a hex value. If a proper
*hex value is not entered, it will go back and try again.
GETHEX DATA HEXWS, S1GHEX
S1GHEX SETO R6 Flag for hex value
CLR R4 Clear to store calculated hex value
MOV *R14+, R0 Get screen location of value
LI R1, HEXWS+14 Use R7 & R8 as storage location
LI R2, 4 Four hex digits
BLWP @VMBR Read hex digits from screen
S1LPI MOVB *R1+, R3 Get one digit
CI R3, >3000 ASCII for "0"
JL S1NHEX Value less than "0"
CI R3, >3A00 ASCII for ":"
JL S1XOTI Value between "0" and "9"
CI R3, >4100 ASCII for "A"
JL S1BWFY Value less than "A"
CI R3, >4700 ASCII for "F"
```

```
JH S1NHEX Value greater than "F"
AI R3, >900 Add 9 to values "A" to "F"
S1GOTI SLA R3, 4 Remove highest nybble
SRL R3, 12 Value from >0 to >F
SLA R4, 4 Make room for new nybble
A R3, R4 Add new nybble
DEC R2 Next digit
JNE S1LPI Last digit
CLR R6 Flag for good hex value
MOV R4, *R13 Hex value to R0 of calling routine
S1NHEX MOV R6, R6 Good hex value?
S1STI R1J Store status for calling routine
RTWP
```

* This subroutine will display the hex value in R3 of your main program at the screen location specified in R0 of your main program.

```
*e.g. LI R0, 2
* LI R3, >345F
* BLWP @HEXOUT
```

* This will display 345F at screen row 1, column 3.

```
HEXOUT DATA HEXWS, S1RHEX
S1RHEX LI R7, 4 Four hex digits
MOV *R13, R0 Calling routine R0 (VDP location)
MOV @R13, R3 Calling routine R3 (hex value)
S1LPI MOV R3, R1
ANDI R1, >F000 Get highest nybble
SRL R1, 4 Make nybble a byte
CI R1, >900
JLE S1NUM Digit less than or equal to 9?
AI R1, >700 Add 7 for values from A to F
S1NUM AI R1, >3000 Add ASCII offset
BLWP @VSBW ASCII value of digit to VDP RAM
INC R0 Next VDP RAM location
SRC R3, 12 Get next nybble
DEC R7 Next digit
JNE S1LPI Last digit?
RTWP
```

* This subroutine puts ASCII 32 (blanks) at all screen locations.

```
CLRSCL DATA HEXWS, S1CLR
S1CLR CLR R0 Screen location >0000
LI R1, >2000 Blank (ASCII 32)
LI R2, 768 # of screen positions
S1BCPY BL @S1VWRT Set to write in VDP RAM
S1BWT MOVB R1, @8C00 Send value to VDP RAM
DEC R2 Next location
JNE S1BWT Last location?
RTWP
```

* This subroutine puts a byte value at the VDP location and number of times specified in the DATA statement.

```
*e.g. BLWP @VSBIDUP
* DATA 2, >3100, 28
* This displays 28 1's at the top screen row
```

```
VSBIDUP DATA HEXWS, S1COPY
S1COPY BL @S1DCLL Get data from call routine
JMP S1BCPY Write values in VDP RAM
```

* This subroutine is equivalent to the VMBW statement except that the values are entered as DATA.

```
*e.g. BLWP @VMBWD
* DATA 4, JUNK, 10
* This will put the 10 bytes in JUNK on screen row 1.
```

```
VMBWD DATA HEXWS, S1WRT
S1WRT BL @S1DCLL Get data from call routine
BL @S1VWRT Set to write in VDP RAM
S1WBYT MOVB *R1+, @8C00 Write byte in VDP RAM
DEC R2 Next byte
JNE S1WBYT Last byte?
RTWP
```

* This is equivalent to VMBR using DATA values.

```
VMBRD DATA HEXWS, S1READ
S1READ BL @S1DCLL Get data from call routine
BL @S1VRD Set to read from VDP RAM
S1RBYT MOVB @8800, *R1+
DEC R2 Next byte
JNE S1RBYT Last byte?
RTWP
```

```
S1DCLL MW *R14+, R0 Get VDP location
MW *R14+, R1 Get value to write to VDP RAM
MW *R14+, R2 Get Number of bytes
RTWP
```

```
S1VWRT @R0, >4000 Set to write
S1VPB SWPB R0 Swap for MSB
S1VLOC MOV R0, @8C00 : Set VDP RAM
SWPB R0 : write location
MOV R0, @8C00
```

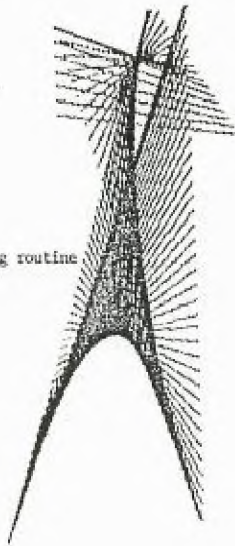
FORTRAN

```

RT      :      *
* This subroutine converts a hex number in R6 of your
*main program to a decimal value. The hex value must be
*positive and between 0 and 9999.
*e.g. LI R6,>0100
*      BLMP @HEXDEC
*      MOV R6,R3
*      LI R0,6
*      BLMP @HEXOUT
* This will display 0256 on row 1 of the screen.
HEXDEC DATA HEXMS,S1HXD1
S1HXD1 MOV @L2(R13),R2 Get R6 of calling routine
      CLR R0 Start clean
      LI R4,4 4 digits
      LI R5,10 Decimal
S1HXD2 SRC R0,4 Shift digit over
      MOV R2,R2
      JEQ S1HXD3 Remainder = 0?
      MOV R2,R3
      CLR R2
      DIV R5,R2 Divide by 10
      SOC R3,R0 Remainder in R0
      DEC R4 Next digit
      JNE S1HXD2 Last digit?
      SRC R0,4 Shift digit over
S1HXD4 MOV R0,@L2(R13) Result to R6 of calling routine
      RIMP
S1HXD3 SRC R0,4 Shift digit over
      DEC R4 Next digit
      JNE S1HXD3 Last digit?
      JMP S1HXD4

*
+ SUBROUTINES DEMO
*
NAMBUF BSS 28
PRMPT1 TEXT 'PLEASE ENTER YOUR NAME'
PRMPT2 TEXT 'PLEASE ENTER A HEX NUMBER'
EVEN
TEST BLMP @START
*
TEST2 BLMP @CLRSCL Clear screen
*
TEST4 BLMP @VMBWD Write prompt
      DATA >2C2,PRMPT1,22
*
      BLMP @INPUT Accept at
      DATA >2E2,28
      JNE TEST2
*
      BLMP @VMBRD
      DATA >2E2,NAMBUF,28 Put name in buffer for
      future reference
*
      BLMP @VMBWD
*SUBROUTINES TESTER
      DEF TEST
      REF START,FINISH
      REF INPUT,GETHEX,HEXOUT
      REF CLRSCL,VSBDDUP,VMBWD,VMBRD
      REF HEXDEC
*
+ EXAMPLE OF HOW TO USE THE ROUTINES
+
NAMBUF BSS 28
PRMPT1 TEXT 'PLEASE ENTER YOUR NAME'
PRMPT2 TEXT 'PLEASE ENTER A HEX NUMBER'
EVEN
TEST BLMP @START
*
TEST2 BLMP @CLRSCL Clear screen
*
TEST4 BLMP @VMBWD Write prompt
      DATA >2C2,PRMPT1,22
*
      BLMP @INPUT Accept at
      DATA >2E2,28
      JNE TEST2
*
      BLMP @VMBRD
      DATA >2E2,NAMBUF,28 Put name in buffer for
      future reference
*
      BLMP @VMBWD
      DATA 2,PRMPT2,25
TEST3 BLMP @INPUT
      DATA >22,4
      JNE TEST3
      BLMP @GETHEX
      DATA >22
      JNE TEST3

```



```

SCR #3
0 ( A Number Guessing Game 15 FEB. 1984 J. VOLK )
1 ( Load Screen #1 and -GRAPH then this screen-type 'RUN' )
2 0 VARIABLE GUESS : ENDMSG ." TYPE 'FORGET GUESS' " ;
3 0 VARIABLE RAND
4 CLS 2 SCRIN START ! : TOP CLS 0 0 GOJOXY ;
5 : GREET TOP ." Guess a Number 1-99" CR ." Enter Your GUESS-sp
6 ace -GO " CR CR ;
7 : GOTIT 99 RND 1+ RAND ! ." I've got a number." CR ;
8 : NEM# DROP 1 GUESS +! CR CR ." Guess # " SPACE GUESS @ . ;
9 : HIGH -DUP RAND @ < IF CR ." Go HIGHER" ENDF ;
10 : LOW -DUP RAND @ > IF CR ." Go LOWER" ENDF ;
11 : EQUAL -DUP RAND @ = IF TOP BEEP ." YOU GOT IT!" CR ." It to
12 ok " GUESS @ . ." Tries." 0 SCRIN START ! ENDMSG QUIT ENDF ;
13 : RUN GREET 0 GUESS ! 0 RAND ! 0 GOTIT NEM# ;
14 : GO HIGH LOW EQUAL NEM# ;
15 RUN

```

```

SCR #6
0 ( Moire Pattern ---- 22 FEB. 84 J. VOLK )
1 ( LOAD THESE OPTIONS FIRST -GRAPH -VDMODES ) GRAPHICS2
2 ( 6 LOAD TO RUN >>> THEN 'GO' )
3 HEX : DC D RND 2+ 10 * 1+ DCOLOR ! ;
4 DECIMAL 128 CONSTANT YPOS 128 CONSTANT XPOS 132 VARIABLE X4
5 : QUAD1 128 0 DO DC YPOS DUP XPOS DUP ROT DOT SWAP I DUP -4 X4
6 +! X4 @ DUP ROT DOT SWAP LINE 4 +LOOP ;
7 : QUAD2 190 128 DO DC YPOS DUP XPOS DUP ROT DOT SWAP I DUP 4 X4
8 +! X4 @ DUP ROT DOT SWAP LINE 4 +LOOP ;
9 : QUAD3 128 190 DO DC YPOS DUP XPOS DUP ROT DOT SWAP I DUP 4 X4
10 +! X4 @ DUP ROT DOT SWAP LINE -4 +LOOP ;
11 : QUAD4 0 128 DO DC YPOS DUP XPOS DUP ROT DOT SWAP I DUP -4 X4 +
12 ! X4 @ DUP ROT DOT SWAP LINE -4 +LOOP ;
13 : DESTRUCT ." TYPE 'FORGET DC' TO CONSERVE MEMORY " ;
14 : GO BEGIN 129 X4 ! QUAD1 0 X4 ! QUAD2 190 X4 ! QUAD3 255 X4 ! Q
15 UAD4 2KEY UNTIL TEXT DESTRUCT ; GRAPHICS2 GO

```

```

SCR #7
0 ( SPRITE DEMONSTRATION 15 FEB. 84 J. VOLK )
1 ( LOAD THESE FIRST -GRAPH -VDMODES )
2 ( THEN TYPE 'RUN'ccccccccANY KEY TO STOP THE DEMONSTRATION )
3 MULTI MUNIT 0 MAGNIFY
4 HEX 800 SSUT
5 HEX 0008 081C 7F1C 0808 60 SPOHAR
6 DECIMAL
7 : PUT 32 0 DO 124 96 13 2+ RND 96 I SPRITE LOOP ;
8 : MD 32 0 DO RANDOMIZE 125 RND 1+ -125 RND 1+ I MOTION LOOP ;
9 : MESSAGE DELALL TEXT ." TYPE 'FORGET PUT' TO SAVE MEMORY " ;
10 : RUN PUT 32 #MOTION MD BEGIN NKEY UNTIL MESSAGE ;
11
12
13
14
15

```

```

SCR #8
0 ( Random dots & lines 16 FEB. 84 J. VOLK )
1 ( LOAD -GRAPH & -VDMODES FIRST)
2 ( DLINE IN GRAPHICS2 TO START -ANY KEY TO STOP THEN 'TEXT' )
3 HEX
4 : DBCOLOR D RND 2+ 10 * 1+ DCOLOR ! ;
5 DECIMAL
6 : PUTDOT 3 1 DO 250 RND DUP 190 RND DUP ROT SWAP DOT
7 LOOP ;
8 : DELAY 501 0 DO 201 0 DO LOOP LOOP ;
9 : DLINE BEGIN 99 0 DO DBCOLOR PUTDOT LINE 7KEY LOOP DELAY GRAPHI
10 CS2 UNTIL ;
11 ( Random Dots, Press and HLD fctn '4' to end and type 'text' )
12 : DOTS BEGIN 999 0 DO DBCOLOR 250 RND 190 RND DOT LOOP DELAY GRA
13 PHICS2 ?TERMINAL UNTIL ;
14
15

```

We want to take this opportunity to send a BIG Hi! to our fellow TI Users at the Channel 99 Canadian User Group. We exchange information and are very impressed with their User Group Newsletter. If you would like to contact them, write to CHANNEL 99 HAMILTON. P.O. Box 1005 Station 'A'. Hamilton, Ontario, Canada. L8N 3R1.

NEW FEATURES on our system

TI.S.H.U.G. Texpac-BBS THE COMMUNICATORS

NEW ELECTRONIC SHOPPING GOODIES

The TEXPAC-BBS has come a long way since it first started way back in July last year ('84). Now one of the areas that has been used to purchase club-shop items has now EXPANDED. The TISHOP#1, #2, and #3 listings have been brought up-to-date, plus, you can now save money and purchase each of those items from IMAGIC and LINDLEY & ASSOCIATES on this system. We invite you to come on-line soon, and read the Bulletin file entitled "BBS-SHOP" for all the details.

We have another new feature on our TEXPAC-BBS called the...

INTERUPT "Excuse Me" (burp!)

What does this mean to you? Not much, but it means a lot to Shane, your System Operator. Now he can break-in to assist you, at any time. Prior to this new feature by our own GOWFAR (Greg Hope), The system was a one-way street wch enabled you to perform your duties on the BBS, but if Shane wanted to break-in, to offer his help, or give you an urgent message, he was unable to do so.

When you least expect it, you may hear 20 fast bleeps, the screen will clear, and a message comes up on the screen saying SHANE BREAKING IN FOR A CHAT. He can do this at any time, even when you are in the middle of reading a file, or posting electronic mail...but never fear, when the chat is complete, you will be placed back to where you left off, so you can continue with what you were doing.

You can use this to your advantage, in that, if Shane is buisy when you page him, leave a message asking him to break-in before you logg-off. If he can, he will do so.

«80P»

For those of you who haven't been on the system for some time, we have added yet another feature. We simply call it <80P>

<80P> is designed with 2 purposes in mind. (1)Many of the CP/M based BBS's are formatted to 64 or 80 charactors per line, so that means for each of their lines, you see around 1 1/2 lines on your screen. This can not only look weird on your monitor, but when you go to print your screen, it looks even funnier. (2)We want to introduce the WRAP Command to you, which will fix this screen mess, particularly if you have a printer.

Some of the Bulletin files are written in <80P> or 80 charactors, so that you can use the WRAP command to use up the printer paper usually not used when printing screen text. If, before you use the printer, the text scrolls off the screen, use <FCTN>X or E to scroll it back on your screen. The TE#2 will hold up to 3 screens of text. Infact you may have heard your computer sound a BEEP once in while, this is a WARNING that the module is full, and you have 8 seconds to dump that information to either Disk or Printer. With other systems, that constantly scroll...and you hear that BEEP, just use <CTRL>S to stop that system, then print the information, and press <CTRL>Q to continue the flow of text. On our system, we usually stop the text for you at the end of each screen with MORE(Y/N).

When you come on-line, read the HELP file for more details about <80P> .

OTHER BBS & RCP/M'S in Australia...

HERE IS A LISTING OF OTHER BBS'S AND Remote CP/M'S IN AUSTRALIA. This listing is regularly updated on the TEXPAC-BBS.

TOMORROWLAND	(02)4112053	IBM USERS.
SYDCOM64	(02)6671930	C64 USERS.
SKULL BBS	(02)5298750	SOFTWARE PIRATES'S BBS
BRESIKE RBBS	(02)4578281	
TERRERACT RBBS	(02)6511404	
CLUB 80 CBBS	(02)3322494	TANDY U/G BBS
THE ORICLE	(02)9603641	
MiCC RCP/M	(02)6621686	Mi Computer Club
THE PROPHET RBBS	(02)6287030	
KEYBOARD RBBS	(02)6292230	
SORCERERS CBBS	(02)3874439	USERS CLUB
RUNX	(02)4872533	PROGRAMMERS BBS
ACEBBS	(02)5259130	ATARI USERS BBS
DICK SMITH BBS	(02)8872276	
S.P.A. RCP/M	(02)8083536	Commercial Service.
DATE BBS	(02)5501004	Match making Service.
Micro Design Lab	(02)6630151	
TR80 USER GP BBS	(02)4982495	
OSBORNE U/G BBS	(02)955377	
AUGABBS	(02)4516575	Apple User Group.
TEXPAC-BBS	(02)5600926	TI Users in Sydney.
TI.B.U.G.BBS	(07)2636161	TI Users in Brisbane
SOFTWARE TOOLS	(07)3789530	RCP/M in Brisbane.
CANBERRA RCP/M	(062)888318	
MICSIC-BBS	(062)866334	(CANBERRA)
RTRS-BBS	(062)414395	(CANBERRA)
MICOM RCP/M	(03)7625088	(in Melbourne)
IBM BBS	(03)5283750	(in Melbourne)
TARDIS	(03)677760	(in Melbourne):
SORCERER U/G CBBS	(03)8364616	(in Melbourne):
P.R.SYSTEMS RBBS	(03)8426857	(in Melbourne):
GIPPSLAND RCP/M	(051)341563.	
ADELAIDE MUG BBS	(08)2712043	
DARWIN RCP/M	(089)277111	
DARWIN CBBS	(089)274454	(OMEN-II TANDY)
PERTH RCP/M	(09)3676068	
PERTH RMPM	(09)3816070	

W.A.M.T. | VICT. | A.C.T. | SYDNEY

For hours of operation for each of the above, sign on to TEXPAC-BBS and read the file called SYSTEMS.

NEXT MONTH, ROBERT CRAGO CONTINUES HIS REVIEW ON THE NEW VIDEOTEX 'VIATEL' SYSTEM. HIS PROGRAM TO JUST ABOUT COMPLETE, AND DEMONSTRATIONS OF VIATEL CAN BE ARRANGED UPON REQUEST WITH SHANE.

STOP-PRESS-STOP-PRESS-STOP-PRESS-STOP-PRESS

News has just come to hand as we were about to send this paste-up of the SND to the printers, that the new STAND-A-LONE 32K BOXES ARE NOW AVAILABLE. There are 2 models, 1 @ \$160 and the other with Power Supply at \$180.

There is no need to buy a Peripheral Box just to extend your memory now...this unit simply plugs into the side of your TI-99/4(A) HOME COMPUTER and has port on-side for other expansions, like the coming STAND ALONE MODEM. This is a product created and made by one of our own TI.S.H.U.G Members...Peter Schubert. You can contact him either on the TEXPAC-BBS (Username:PETESAKE) or by phone(02)358-5602. Orders can be also sent to: Peter's Expansion Box, C/- TI.S.H.U.G. (Aust) P.O.BOX 595, MARRICKVILLE, NSW 2204. Money Orders/Cheques payable to PETER SCHUBERT.

REGIONAL REPORT: Reports from our Regional Home-group leaders...

'See you there 'cause we care'

REPORT FROM THE CENTRAL COAST
REGIONAL GROUP.
REPORTER R. WELHAM

The meeting held in March 1985 of this group was attended by a group of 12 enthusiastic people, there was also apologies from a number of members who normally attend but on the day had other commitments.

The subject of the meeting was questions and I would try to help with the correct (Fingers crossed) answer.

The main subject raised were questions on programs that the members had either typed in or written themselves.

I was able to with group participation help solve the problems.

Software was demonstrated, in particular the Music program from West Germany.

Ebel Cummins supplied and all present enjoyed a well layed out afternoon tea and as usual time ran out too quickly. So I hope to see everyone again at the next meeting.

Russell WELHAM.

NEWCASTLE REPORT

The Newcastle members held their A.G.M on Tuesday 12th March to vote in a new Committee for the year. A good turnout was expected, and achieved with over 30 TISHUG members in attendance.

The new Committee members are: PRES: J. WRIGHT. SEC: P. COXON. TREAS: B RUTHERFORD. LIB: A. LAWRENCE. plus B. WOODS T. McGOVERN A. BYRNE D. WINTON R. McGLURE and S. TAYLOR

The new Committee would like to thank all members holding positions last year for doing a great job. Thanks again.

If you missed the AGM you missed out on TI WRITER demo by Tim Watkins and Wil McGovern. Don't fret, this will be on again next month. A new beginners LEARNING BASIC class is about to start, details at the next meeting. All the old favorites are back. T. McGovern with Extended Basic and G. Jones with Basic.

If you need more information on the Newcastle group, why not come along to the COMMUNITY HALL, SPEERS POINT at 7pm or phone Peter (049) 751930 or Joe (049) 468120.

We haven't received any more Reports from our Regional Group leaders this month, probably due to the Easter Week-end holidays. If you would like to know about Regional Home Groups as part of TI.S.H.U.G, contact the Secretary on (02)8480956 after 7pm or TI.S.H.U.G Monday Phone (02)5600926 any Monday between the hours of 8:30am and 5pm.

See you there 'cause we care



mail talk

TO THE EDITOR

Dear Shane, Are there any Civil Engineers in the Club? If so, and they are interested in developing or using engineering programs on their TI, I would like to hear from them. My particular interests are in hydraulics and hydrology and I have developed a number of related programs covering such topics as Rainfall Run-off, flood routing and back-water curves, which I would be pleased to share around. I am also treasurer of the Body Corporate at the Straits Development where I live, and have written a few programs to assist me in that job which may be of interest to other members holding similar positions. Anyone interested in either of these matters can contact me at home at Nth. Ryde or (02)887 3932,

Let me also take this opportunity to commend Tony McGovern for his excellent series "Extended Tutorial". I have found it difficult to find elsewhere the in-depth information on XBasic which Tony has presented. Tony obviously has a thorough knowledge of XBasic as well as other languages and I have certainly learned a great deal from his articles as I'm sure have many others.

Regards...David Wignell

DEAR DAVIL, THANK YOU FOR YOUR LETTER. WE HAVE INDEED BEEN VERY FORTUNATE TO HAVE TONY PRESENT THOSE ARTICLES AND WE LOOK FORWARD TO HEARING MORE FROM HIM IN THE FUTURE. REGARDING YOUR OFFER OF PROGRAMS, I'M SURE YOU WILL BE HEARING FROM MEMBERS WHO WORK IN THOSE AREAS. ONCE AGAIN THANKS.

Dear Shane,
With reference to the article "Word Processing Using Editor/Assembler" on page 10 of the April 1985 issue of the SND, I would like to make readers aware of a program which I have written to assist when using the E/A as a text editor. The program is a REFORMATER which uses a text file created and saved to disk by the E/A. It reformats the file into a new disk file with a different column width. The user selectable range of reformatted column width is 28 to 80. The program is accompanied by an explanatory file entitled HELPFORMAT. The REFORMATER program, which is written in extended BASIC, is extensively documented with remark statements which should permit ease of modification of the program to meet the special needs of individual users. Whilst the program does not provide right margin justification, it makes each line no longer than the specified limit and reshuffles whole words within the structure of each paragraph. This program evens up the line lengths (within the limit of whole words) after editing a file providing that lines to be joined together are not indented. I hope that this program and help file, which have been submitted as an entry to the software competition, will become available to members via the TISHUG shop with other club software. Yours faithfully, Ross Mudie.

HI! ROSS, GREAT TO HEAR FROM YOU IN REGARDS TO YOUR PROGRAM. YOU WILL BE HAPPY TO KNOW THAT THE COMMITTEE HAS PLACED THIS ONE ON THE SHORT LIST OF WINNERS IN THIS MONTHS SOFTWARE COMPETITION. THIS MEANS THAT WE BELIEVE IT TO BE A REAL WINNER AND HOPE TO SHOW IT, ALONG WITH THE OTHER RUNNERS UP AT THE NEXT MEETING ON THE FIRST SATURDAY OF MAY, AS SOON AS IT BECOMES AVAILABLE AT THE CLUB SHOP, I PERSONALLY RECOMMEND IT TO ANY MEMBER WHO HASN'T AS YET PURCHASED THEIR WORD PROCESSOR BUT MAY HAVE EDITOR/ASSEMBLER.

"Learning to live with TI-Writer."

The spell-checker is activated by selecting Utilities from the main TI-Writer menu. You are then prompted to insert the disks containing the standard dictionary. The programme then compares each word in your document against those in the standard dictionary and places in a stack all those words it fails to recognize. You are then prompted to run your special dictionaries. At this stage the programme takes out of the stack any words included in your user-dictionaries. Once all that is complete you then review the stack with the options of making a correction, not making a correction, or adding the word to one of your user-dictionaries. If you make a mistake and add an erroneously spelled word to your dictionary you can later edit it out by calling up your user-dictionary into the TI-Writer editor. The utility of this software package should be obvious - the more documents you spell check the better your dictionaries develop and the more errors you can eliminate. Even programmers could use this package to eliminate many syntax errors in programmes they are editing in files that can be read by TI-Writer.

Finally, let me say that living with TI-Writer has never been dull but I wish one of our club's more innovative programmers would write a real word-processor programme that could offer TI users the sophisticated features of a Multimate or Wordstar.

BROWN CAT.

NEXT MONTH: We'll be featuring a special fill-out QUESTION/ANSWER SHEET. We hope that you will take the time to fill it out and send it back to us by RETURN MAIL...we need your answers so that we can serve you better. You can also be in the running to win \$50.00 cash, if you get this Question sheet in, within a month from the time you received it. Another good reason to get this back to us.

Solutions to new applications will be the challenge for local business in 1985



By Randall Gilliam, Managing Director, Texas Instruments Australia.

With the majority of companies not yet comfortable using microcomputers the continuous stream of new products released into the Australian market is constantly challenging the users to find new applications. It is essential to continue to provide solutions to business problems and is the responsibility of the computer supplier to take new products to the market in such a way that users can immediately benefit from them.

I see 1985 as a year of consolidation of existing products with major advancements in new areas of computer technology.

The Research & Development direction of Texas Instruments continues to move strongly in the area of Artificial Intelligence. Products already released as a result of this move include the Explorer symbolic processing system and the Nu Machine - a commercial product based on advanced 32-bit Nullas architecture.

This year will see new emphasis placed on strengthening our established product range. Powerful peripherals, application software and improved networking products will be added to the Business Systems family with new models introduced to fill out the Professional Computer range. Networking will be of major importance here also.

TI will also be concentrating on specific vertical markets with a strong offering of products and specialised software in the Computer-Aided-Design, Real Estate, Small Business and Accounting areas.

TI has always been in the forefront of technological development and this is evidenced by the company releasing the first commercial computer system to incorporate the 32-bit Nullas architecture (see page 1).

It is not anticipated to release the Nu Machine in Australia at present, but more commercially oriented products incorporating this innovative development will be seen here before the end of the year.

I believe that 1985 will be an exciting year for TI and our Australian users and I look forward to reporting on some of these developments.

BASIC FAST LANE

by Stephen W. Johnson
From CHANNEL 99 User Group.

This month's is another peek the will get random numbers considerably faster than the RND and contrary to what a lot of people believe, you DO NOT need a memory expansion or a disk drive, just Extended BASIC.

This peek gets a number from 0 to a hundred instead of 0 to 255. But you still must have randomized before each number or the number will always be the same. The following program will demonstrate why you need the RANDOMIZE statement before each peek that gets a random number. If you read last month's article you won't need to type in this program.

```
100 PRINT "PRESS ANY KEY TO
CHANGE THE RANDOM NUMBER."
110 RANDOMIZE
120 CALL PEEK(-31880,A)
130 PRINT A
140 CALL KEY(3,K,S)
150 IF S=0 THEN 120 ELSE 110
160 END
```

Know the following programs demonstrate the speed.

```
100 RANDOMIZE
110 PRINT "ORDINARY RANDOM"
120 FOR L=1 TO 20
130 CALL SOUND(-999,INT(RND*
1000)+110,0)
140 NEXT L
150 PRINT "PEEK RANDOM"
160 FOR L=1 TO 20
170 RANDOMIZE :: CALL PEEK(-
31880,A)
180 CALL SOUND(-999,A+110
,0)
190 NEXT L
200 GOTO 110
210 END
```

The only disadvantage with this PEEK is that you can't get two random numbers from the same peek unlike last month's. In case anyone didn't see last month's article here is a small program that show you last month's peek.

```
100 CALL CLEAR
110 CALL MAGNIFY(2)
120 CALL SPRITE(#1,42,2,96,1
28)
130 RANDOMIZE
140 DISPLAY AT(24,6):"ORDINA
RY RANDOM"
150 FOR L=1 TO 20
160 CALL LOCATE(#1,INT(RND*
96)+1,INT(RND*256)+1)
170 NEXT L
180 DISPLAY AT(24,6):"PEEK R
ANDOM"
190 FOR L=1 TO 30
200 RANDOMIZE :: CALL PEEK(-
31808,X,Y)
210 CALL LOCATE(#1,X+1,Y+1)
220 NEXT L
230 GOTO 140
240 END
```



EXAMPLE #1: This listing re-defines the UPPER case and the numbers of your keyboard. Just key it in at the beginning of your program. Each character is a full character in height so there must be a blank line between each line of text. The PRINT statements are included for demonstration only.

EXAMPLE #2: Tired of zapped spacecraft just being a coloured spot on your screen? The craft is moving across the screen left to right. Now just press the 'H' key. The craft turns yellow then divides into 4 sections which move away at random directions and speeds. The sections then rotate 360 degrees in a clockwise direction.

EXAMPLE #3: Did you ever need a Nuclear Explosion and didn't have one on hand? Well, now your problems are over. The following subroutine provides one in DOUBLE-SIZED sprites and is about 8 seconds from start to finish. So have a go! If you have to ZAPP 'EM, do it properly.



T.I.S.H.U.G...

PRO. RAMMING HINTS

by JOHN LUCK

#1

```
50 REM*BY JOHN LUCK TISHUG*
60 REM
70 REM
100 CALL CLEAR
110 CALL CHAR(48,"3C62524A66
62623C")
120 CALL CHAR(49,"1010101018
181818")
130 CALL CHAR(50,"7E42020408
10607E")
140 CALL CHAR(51,"7C02021E06
06067C")
150 CALL CHAR(52,"4040404060
647E04")
160 CALL CHAR(53,"7E40407C02
62627C")
170 CALL CHAR(54,"7E42407C62
62627C")
180 CALL CHAR(55,"7E42040810
181818")
190 CALL CHAR(56,"1824247E62
62623C")
200 CALL CHAR(57,"3C42423E02
62623C")
210 CALL CHAR(65,"3C42427E62
626262")
220 CALL CHAR(66,"7844447864
646478")
230 CALL CHAR(67,"3C42404060
60623C")
240 CALL CHAR(68,"7C42424262
62627C")
250 CALL CHAR(69,"7E40407860
60607E")
260 CALL CHAR(70,"7E40407860
606060")
270 CALL CHAR(71,"3C42404060
66623C")
280 CALL CHAR(72,"4242427E62
626262")
290 CALL CHAR(73,"1010101018
181818")
300 CALL CHAR(74,"0202020206
06463C")
310 CALL CHAR(75,"4444447F62
626262")
320 CALL CHAR(76,"4040404060
60607E")
330 CALL CHAR(77,"42665A4262
626262")
340 CALL CHAR(78,"7E42424262
626262")
350 CALL CHAR(79,"3C42424262
62623C")
360 CALL CHAR(80,"7C42427C60
606060")
```

```
370 CALL CHAR(81,"3C42424262
6A663C")
380 CALL CHAR(82,"7C44447E62
626262")
390 CALL CHAR(83,"7E42601008
66627E")
400 CALL CHAR(84,"7E10101018
181818")
410 CALL CHAR(85,"4242424262
62623C")
420 CALL CHAR(86,"4242424262
763C18")
430 CALL CHAR(87,"4242424262
7A6642")
440 CALL CHAR(88,"4242241818
646262")
450 CALL CHAR(89,"42427E1018
181818")
460 CALL CHAR(90,"7E02040870
60607E")
470 CALL CHAR(33,"1010101818
180018")
480 CALL CHAR(47,"0000000020
303C3C")
490 CALL CHAR(63,"3C42020408
101818")
500 CALL CHAR(59,"0018180000
181838")
510 CALL CHAR(58,"0018180000
181818")
520 PRINT "ABCDEFGHJKLMNO PQ
RSTUVWXYZ"
530 PRINT
540 PRINT "1234567890.:?!"
550 GOTO 550
```

#2

```
50 REM*BY JOHN LUCK TISHUG*
60 REM
70 REM
100 CALL CLEAR :: CALL SCREE
N(2)
110 CALL CHAR(96,"182442D5AB
817E00")
120 CALL CHAR(99,"102040D000
000000")
130 CALL CHAR(100,"080402050
000000")
140 CALL CHAR(101,"00000000A
080700")
150 CALL CHAR(102,"000000000
B010E00")
160 CALL CHAR(103,"000000000
10A0408")
170 CALL CHAR(104,"00000000A
0402010")
```

```
180 CALL CHAR(105,"102050800
0000000")
190 CALL CHAR(106,"000000005
0405020")
200 CALL CHAR(107,"007080D00
0000000")
210 CALL CHAR(108,"0COA020A0
0000000")
220 CALL CHAR(109,"304050300
0000000")
230 CALL CHAR(110,"000E01050
0000000")
240 CALL CHAR(111,"000000000
20A020C")
250 CALL CHAR(112,"080C02090
0000000")
260 CALL CHAR(113,"000000000
B020408")
270 CALL CHAR(114,"000000009
0403010")
280 CALL SPRITE(#1,96,5,96,1
24)
290 CALL MOTION(#1,0,8)
300 CALL KEY(O,K,S)
310 IF S=0 THEN 300
320 IF K=72 THEN 330 ELSE 32
767
330 CALL MOTION(#1,0,0):: CA
LL POSITION(#1,A,B)
340 CALL SPRITE(#3,99,11,A,B
)
350 CALL SPRITE(#4,100,11,A,
B)
360 CALL SPRITE(#5,101,11,A,
B)
370 CALL SPRITE(#6,102,11,A,
B)
380 CALL DELSPRITE(#1)
390 RANDOMIZE
400 CALL SOUND(700,-7,0)
410 FOR Q=3 TO 6
420 Z=INT(RND*15)-7
430 S=INT(RND*15)-7
440 CALL MOTION(#Q,Z,S)
450 NEXT Q
460 FOR D=1 TO 150 :: NEXT D
:: CALL PATTERN(#4,103,#6,1
06,#5,109,#3,112):: FOR D=1
TO 150 :: NEXT D
470 CALL PATTERN(#4,104,#6,1
07,#5,110,#3,113):: FOR D=1
TO 150 :: NEXT D :: CALL PAT
TERN(#4,105,#6,108,#5,111,#3
,114):: FOR D=1 TO 150
480 NEXT D
490 CALL PATTERN(#4,100,#6,1
02,#5,101,#3,99):: FOR D=1 T
O 150 :: NEXT D
500 FOR Q=3 TO 6
510 CALL DELSPRITE(#Q)
520 NEXT Q
530 GOTO 280
```

#3

```
50 REM*BY JOHN LUCK TISHUG*
60 REM
70 REM
100 CALL CLEAR
110 CALL CHAR(96,"0000000000
000008004000B3FFF7F1F000000
000000000100200E4FEFFFEF8")
120 CALL CHAR(100,"000000000
123010307830307071F1F0700000
01000COE0C0C280C8E0F0FCF8F0")
)
130 CALL CHAR(108,"810103010
123010307830307071F1F078080C
090C2COE0C0C280C8E0F0FCF8F0")
)
140 CALL CHAR(104,"03377FFFF
FFF5F0F002200002000004060F8F
EFFFFF00020080020040000")
)
```



```
680 CALL DELSPRITE(#1):: CALL
L SOUND(-100,-7,0):: CALL CO
LOR(#2,16):: CALL MOTION(#2,
4,0,#3,4,0)
```

```
150 CALL CHAR(112,"000000000
000000000000040E8BFFF3D00000
00000000000000000133FFF6FC"
)
160 CALL CHAR(116,"000041030
F070B01000000000000000000008
0A0F9F0FC000000000000000000"
)
170 CALL SCREEN(4)
180 FOR N=2319 TO 880 STEP -
20
190 CALL MAGNIFY(3)
200 CALL SOUND(-99,N,2)
210 NEXT N
220 CALL SOUND(500,-7,0)
230 CALL SPRITE(#3,112,2,96,
124):: FOR D=1 TO 150 :: NEX
T D
240 CALL PATTERN(#3,96)
250 CALL SOUND(500,-7,5)
260 FOR D=1 TO 100 :: NEXT D
270 CALL COLOR(#3,7)
280 FOR D=1 TO 75 :: NEXT D
290 CALL COLOR(#3,2)
300 FOR D=1 TO 75 :: NEXT D
310 CALL PATTERN(#3,100)
320 FOR D=1 TO 200 :: NEXT D
330 CALL SOUND(500,-7,10)
340 CALL SPRITE(#2,116,2,96,
124)
350 FOR R=1 TO 200 :: NEXT R
360 CALL PATTERN(#2,104)
370 CALL PATTERN(#3,108)
380 CALL MOTION(#2,-1,0)
390 FOR D=1 TO 750 :: NEXT D
400 CALL PATTERN(#3,100)
410 FOR D=1 TO 200 :: NEXT D
420 CALL SPRITE(#1,96,2,96,1
24)
430 FOR D=1 TO 200 :: NEXT D
:: CALL DELSPRITE(#1)
440 CALL PATTERN(#3,96)
450 FOR D=1 TO 100
460 NEXT D
470 CALL PATTERN(#3,112)
480 FOR D=1 TO 200 :: NEXT D
490 CALL DELSPRITE(ALL)
500 FOR D=1 TO 500 :: NEXT D
510 GOTO 170
```

```
100 ON WARNING NEXT
110 CALL CLEAR
120 DISPLAY AT(10,1):"
PRESS"
130 DISPLAY AT(12,1):"FRANCA
IS #1"
140 DISPLAY AT(14,1):"ENGLIS
H #2"
150 CALL KEY(0,K,S)
160 FOR I=1 TO 100 :: NEXT I
170 DISPLAY AT(23,1):"
"
180 CALL SOUND(10,INT(RND*20
00)+500,INT(RND*28+1))
190 IF S=0 THEN 150
200 IF K=13 THEN 150
210 IF K=ASC("1")THEN GOSUB
1000
220 IF K=ASC("2")THEN GOSUB
1090
230 CALL CLEAR
240 CALL MAGNIFY(3)
250 FOR PL=1 TO 8 :: CALL CO
LOR(PL,2,8):: NEXT PL
260 CALL COLOR(9,3,8):: CALL
COLOR(13,12,8):: CALL COLOR
(14,9,8)
270 CALL CHAR(92,"0000000081
COE2F73F3E071020000000000000
00F8017DFDF05FD217070")
```

```
280
CALL CHAR(100,"000000000000000
D1F0D0C000000000000000000000
00000000000000000000000000")
290 CALL CHAR(104,"000000000
0003F7FFFFFAA804020100800000
00000000F8FCFEFAA0204081020"
)
300 CALL CHAR(108,"0B0B090F0
303030302020206000000000A0A02
0E080808080808080C000000000"
)
310 CALL CHAR(112,"0000000000
0003F7FFFFFAA808080808000000
00000000F8FCFEFAA0204081020"
)
320 CALL CHAR(116,"4323110F0
303030302020206000000000A0A02
0E080808080808080C000000000"
)
330 CALL CHAR(120,"0000000000
0003F7FFFFFAA804020100800000
00000000F8FCFEFAA0202020202"
)
340 CALL CHAR(124,"0B0B090F0
30303030202020600000000084881
0E080808080808080C000000000"
)
350 CALL CHAR(96,"0000000000
00FFFF")
360 CALL CHAR(128,"0000000000
000FFFF")
370 CALL CHAR(136,"0000000000
000FFFF")
380 CALL CLEAR
390 DISPLAY AT(2,9):AA$
400 CALL HCHAR(9,23,96,2)
410 CALL HCHAR(9,26,128,2)
420 CALL HCHAR(9,29,136,2)
430 DISPLAY AT(10,1):BB$
440 DISPLAY AT(12,1):CC$
450 DISPLAY AT(14,1):DD$
460 CALL KEY(0,KY,NU)
470 IF KY=67 THEN WD=2 :: GO
TO 510
480 IF KY=66 THEN WD=4 :: GO
TO 510
490 IF KY=71 THEN WD=8 :: GO
TO 510
500 GOTO 460
510 CALL CLEAR
520 CALL HCHAR(24,12,96,10):
: CALL HCHAR(24,14,128,6)::
CALL HCHAR(24,16,136,2)
530 DISPLAY AT(1,1):EE$
540 RANDOMIZE
550 JP=JP+1 :: DISPLAY AT(2,
2)SIZE(3):JP
560 DISPLAY AT(2,6)SIZE(5):S
C
570 DISPLAY AT(2,13)SIZE(5):
HS
580 DISPLAY AT(2,23):IN$
590 CALL DELSPRITE(#1):: FR=
120 :: FOR PL=29 TO 5 STEP -
1 :: CALL SOUND(-500,FR,PL,F
R+1,PL):: NEXT PL
600 CALL SPRITE(#1,92,2,17,1
,0,32)
610 FR=FR+1
620 CALL POSITION(#1,PY,PX):
: IF PX<225 THEN 640
630 CALL SPRITE(#1,100,2,17,
240,0,-19):: FOR PL=5 TO 29
:: CALL SOUND(-1000,FR,PL,FR
+1,PL):: NEXT PL :: GOTO 590
640 CALL SOUND(-500,FR,5,FR+
1,5):: CALL KEY(2,KY,NU)
650 IF KY<>18 THEN 610
660 CALL SPRITE(#2,104,1,PY,
PX+8,16,0,#3,108,2,PY+18,PX+
8,16,0)
670 CALL POSITION(#1,PY,PX):
: IF PX<225 THEN FR=FR+1 ::
CALL SOUND(-500,FR,5,FR+1,5)
:: GOTO 670
```

```
690 CALL JOYST(2,JX,NU):: JY
=JX+INT(RND*(WD--WD+1))+WD
:: CALL MOTION(#2,4,JY,#3,4,
JY)
700 ON JX*.25+2 GOTO 710,720
,730
710 CALL PATTERN(#3,116,#2,1
12):: GOTO 740
720 CALL PATTERN(#3,108,#2,1
04):: GOTO 740
730 CALL PATTERN(#3,124,#2,1
20):: GOTO 740
740 CALL POSITION(#2,PY,PX):
: IF PY<160 THEN 690
750 CALL SOUND(-10,-6,0):: C
ALL MOTION(#2,4,0,#3,0,0)::
CALL LOCATE(#3,180,PX):: FOR
PL=1 TO 40 :: NEXT PL :: CA
LL MOTION(#2,0,0)
760 IF PX>115 AND PX<127 THE
N PT=50 :: GOTO 800
770 IF PX>99 AND PX<143 THEN
PT=30 :: GOTO 800
780 IF PX>83 AND PX<159 THEN
PT=10 :: GOTO 800
790 CALL SOUND(-1000,-3,0)::
GOTO 850
800 PT=PT+(WD*2.5)
810 FOR SC=SC+10 TO SC+PT ST
EP 10
820 DISPLAY AT(2,6)SIZE(5):S
C
830 CALL SOUND(-100,1000,5):
: CALL SOUND(-100,750,5):: C
ALL SOUND(-100,500,5)
840 NEXT SC :: SC=SC-10
850 FOR PL=1 TO 100 :: NEXT
PL
860 CALL DELSPRITE(#2,#3)
870 IF JP<5 THEN 540
880 IF SC<=HS THEN 910
890 HS=SC :: FOR PL=1 TO 5 :
: CALL SOUND(-100,1000,0,250
0,0):: DISPLAY AT(2,13)SIZE(
5):" " :: DISPLAY AT(2,13)SI
ZE(5):HS :: NEXT PL
900 ACCEPT AT(2,23)SIZE(4):I
N$
910 JP=0 :: SC=0
920 DISPLAY AT(10,1):FF$
930 DISPLAY AT(12,1):GG$
940 DISPLAY AT(14,1):HH$
950 CALL KEY(0,KY,NU)
960 IF KY=67 THEN 510
970 IF KY=87 THEN 380
980 IF KY=69 THEN END
990 GOTO 950
1000 AA$="PARACHUTE"
1010 BB$="PESEZ C/POUR CALM
E 10-20-30"
1020 CC$=" B/POUR BRIS
E 20-40-60"
1030 DD$=" G/GRAND VEN
T 30-50-70"
1040 EE$="SAUTS-PTS MEILLE
UR INIT"
1050 FF$="PESEZ C POUR CONTI
NUER "
1060 GG$=" W OPTION VEN
T "
1070 HH$=" E EXIT"
1080 RETURN
1090 AA$="SKY DIVER"
1100 BB$="PRESS C/FOR CALM
10-20-30"
1110 CC$=" B/FOR BREEZ
Y 20-40-60"
1120 DD$=" G/FOR GUSTY
30-50-70"
1130 EE$="JUMP SCORE HI-SCO
RE INIT"
1140 FF$="PRESS C TO CONTINU
E "
1150 GG$=" W TO SET WIN
D OPTION"
1160 HH$=" E EXIT"
1170 RETURN
```

```

100 ! ELECTRONIC TYPEWRITER
110 ! BY ROY T. TAMASHIRO
120 ! XB/MEM EXP/PRINTER
130 ! FCTN S CURSOR LEFT
140 ! FCTN D CURSOR RIGHT
150 ! FCTN 3 DELETE LINE
160 ! FCTN 2 INSERT SPACE
170 ! FCTN 1 DELETE CHAR
180 CALL INIT :: CALL LOAD(8
196,63,248):: CALL LOAD(1637
6,84,89,80,69,32,32,48,190)
190 CALL LOAD(12288,0,0,0,1,
48,36,255,0,255,0,255,0,255,
0,255,0,255,0,255,0,255,0,49
,148)
200 CALL LOAD(12312,255,0,25
5,0,255,0,255,0,2,48,13,0,80
,32,32,32,32,32,32,32,32,32,
32,32)
210 CALL LOAD(12336,32,32,32
,32,32,32,32,32,32,32,32,32,
32,32,32,32,32,32,32,32,32.3
2,32,32)
220 CALL LOAD(12360,32,32,32
,32,32,32,32,32,32,32,32,32,
32,32,32,32,32,32,32,32,32.3
2,32,32)
230 CALL LOAD(12384,32,32,32
,32,32,32,32,32,32,32,32,32,
32,32,32,32,32,32,32,32,32.0
,255,0)
240 CALL LOAD(12408,42,32,69
,76,69,67,84,82,79,78,73,67,
32,84,89,80,69,87,82,73,84,6
9,82,32)
250 CALL LOAD(12432,42,32,69
,110,116,101,114,32,97,32,10
8,105,110,101,32,111,102,32,
116,101,120,116,58,32)
260 CALL LOAD(12456,40,84,12
1,112,101,32,69,78,68,32,119
,104,101,110,32,100,111,110,
101,46,41,32,2,224)
270 CALL LOAD(12480,131,224,
2,1,240,129,216,1,131,212,21
6,1,140,2,6,193,216,1,140,2,
2,1,244,135)
280 CALL LOAD(12504,216,1,14
0,2,6,193,216,1,140,2,2,224,
48,0,4,192,2,1,128,0,4,32,32
,32)
290 CALL LOAD(12528,5,128,2,
128,3,192,22,250,2,0,0,7,2,1
,138,0,4,32,32,32,5,128,2,12
8)
300 CALL LOAD(12552,0,32,22,
250,2,0,0,87,4,32,32,32,5,12
8,2,128,0,112,2,250,2,0,0,4
7)
310 CALL LOAD(12576,4,193,4,
194,208,98,48,120,2,33,96,0,
4,32,32,32,5,128,5,130,2,130
,0,25)
320 CALL LOAD(12600,22,245,2
,1,32,0,2,2,0,1,216,129,48,3
6,5,130,2,130,0,81,22,250,2,
0)
330 CALL LOAD(12624,1,184,4,
193,4,194,208,98,48,146,2,33
,96,0,4,32,32,32,5,130,5,128
,2,130)
340 CALL LOAD(12648,0,22,22,
245,2,0,1,224,4,194,208,98,4
8,168,2,33,96,0,4,32,32,32,5
,130)
350 CALL LOAD(12672,5,128,2,
130,0,22,22,245,2,0,2,48,200
,0,48,32,6,160,50,240,192,32
,48,32)
360 CALL LOAD(12696,2,1,126,
0,4,32,32,32,2,0,5,0,216,0,1
31,116,4,193,2,0,32,0,2,2)

```

```

370 CALL LOAD(12720,255,0,4,
32,32,28,144,32,131,124,19,2
6,144,160,131,117,19,243,2,3
,0,5,6,3)
380 CALL LOAD(12744,2,1,9,19
2,6,1,22,254,4,32,32,28,144,
32,131,124,19,11,144,160,131
,117,19,228)
390 CALL LOAD(12768,4,32,32,
28,192,195,22,239,152,32,48,
34,131,117,22,220,216,32,131
,117,48,34,4,193)
400 CALL LOAD(12792,208,96,1
31,117,2,129,8,0,22,15,4,194
,192,160,48,32,2,130,2,48,22
,2,4,96)
410 CALL LOAD(12816,49,144,6
,2,200,2,48,32,6,160,50,240,
4,96,49,144,2,129,9,0,22,2,4
,96)
420 CALL LOAD(12840,50,178,2
,129,13,0,22,2,4,96,50,206,2
,129,7,0,22,2,4,96,48,190,2,
129)
430 CALL LOAD(12864,4,0,22,2
0,192,32,48,32,2,32,253,210,
2,2,0,80,192,194,6,3,216,163
,48,36)
440 CALL LOAD(12888,48,36,6,
2,128,3,22,249,2,1,32,0,216,
193,48,36,4,96,49,144,2,129,
3,0)
450 CALL LOAD(12912,22,20,19
2,96,48,32,2,33,253,209,192,
193,2,0,0,80,5,131,216,99,48
,36,48,36)
460 CALL LOAD(12936,5,129,12
8,3,22,249,2,2,32,0,216,194,
48,36,4,96,49,144,2,129,32,0
,26,251)
470 CALL LOAD(12960,2,129,12
6,0,27,248,192,224,48,32,2,3
5,253,209,216,193,48,36,6,16
0,50,240,192,96)
480 CALL LOAD(12984,48,32,2,
129,2,127,17,2,4,96,49,144,5
,129,200,1,48,32,4,96,49,144
,120,32)
490 CALL LOAD(13008,131,124,
131,124,4,192,2,1,0,1,2,2,48
,36,4,32,32,16,120,32,131,12
4,131,124)
500 CALL LOAD(13032,2,224,13
1,224,4,96,0,112,2,0,2,48,2,
2,0,1,4,193,208,98,48,36,2,3
3)
510 CALL LOAD(13056,96,0,4,3
2,32,32,5,128,5,130,2,130,0,
81,22,245,4,91)
520 OPEN #1:"PIO"
530 CALL LINK("TYPE",W$):: I
F SEG$(W$,1,3)="END" THEN CL
OSE #1 :: CALL PEEK(2,1,B)::
CALL LOAD(-31804,A,B)
540 PRINT #1:W$ :: GOTO 530

```

```

1 !*****
2 !*
3 !* ADVANCE AUSTRALIA *
4 !* FATR. *
5 !* IMPROVED VERSION. *
6 !*
7 !* BY RUSSELL WELHAM. *
8 !* EXT-BASIC 1/4/1985 *
9 !*****
10 !
11 AFO=779 :: AO=825 :: ASO,
BFO=875 :: BO=923 :: CO=982
:: CSO, DFO=1040 :: DO=1107 ::
DSO, EFO=1168 :: EO=1237 ::
FO=1311 :: FSO, GFO=1389
12 A1=110 :: AS1, BF1=117 ::
B1=123 :: C1=131 :: CS1, DF1=
139 :: D1=147 :: DS1, EF1=156
:: E1=165 :: F1=175 :: FS1,
GF1=185 :: G1=196
13 A2=220 :: AS2, BF2=233 ::
B2=247 :: C2=262 :: CS2, DF2=
277 :: D2=294 :: DS2, EF2=311
:: E2=330 :: F2=349 :: FS2,
GF2=370 :: G2=392
14 A3=440 :: AS3, BF3=466 ::
B3=494 :: C3=523 :: CS3, DF3=
554 :: D3=587 :: DS3, EF3=622
:: E3=659 :: F3=698 :: FS3,
GF3=740 :: G3=784
15 !
16 GO=1471 :: GSO, AF1=1559 :
: GS1, AF2=208 :: GS2, AF3=415
:: GS3, AF4=831 :: GS4, AF5=1
661 :: R=40000
17 X=200 :: Y=X*2 :: Z=X*1.5
:: @=X*0.5 :: FLAG=0
18 DISPLAY AT(11,3)ERASE ALL
:"ADVANCE AUSTRALIA FAIR.":
:TAB(5);"BY RUSSELL WELHAM."
:: RANDOMIZE
19 GOTO 30
20 CALL SOUND(T,S1,V1):: RET
URN
21 CALL SOUND(T,S2,V2):: RET
URN
22 CALL SOUND(T,S3,V3):: RET
URN
23 CALL SOUND(T,S1,V1,S2,V2)
:: RETURN
24 CALL SOUND(T,S1,V1,S3,V3)
:: RETURN
25 CALL SOUND(T,S2,V2,S3,V3)
:: RETURN
26 CALL SOUND(T,S1,V1,S2,V2,
S3,V3):: RETURN
27 CALL SOUND(T,S1,V1,S2,V2,
S3,30,-4,V3):: RETURN
28 CALL SOUND(T,S3,30,S3,30,
S3,30,-4,V3):: RETURN
29 CALL SOUND(T,S1,V1,S3,30,
S3,30,-4,V3):: RETURN
30 !*** SONG START ***

```

CLASSIFIED ADVERTS SECTION

WANT TO SELL:

P.E.BOX, RS232, DISK DRIVE & CONTROLLER, 32K CARD, PRINTER, SPEECH SYNTHESIZER, TI-WRITER, MHLTPCAN, XBASIX Plus: Software and Mags etc. Value over \$2,000 will sell for \$1,400 ONO. Phone: (02) 635 1269 ask for Paul.

AXIOM PARALLEX INTERFACE for Sale:

\$120.00 (almost new), connects TI-99/4(A) to any PARALLEL-Input Printer. Phone:(w)8680398 or (h)8682679 and ask for M.R.DUNCAN.

FOR SALE: TI PERIPHERAL EXPANSION SYSTEM with 32k Ramcard, Serial/Parallel(RS232)card, Disk Controller Card and 2 Chinon Slimline(low power)Disk Drives. \$920 Or Nearest Offer...and includes lots of software. Ring (02)785 217

```

31 T=Y :: S1=E3 :: S2=C1 ::
S3=CO :: V1=0 :: V2,V3=3 ::
GOSUB 27 :: !@P-
32 S1=G3 :: S2=D1 :: S3=DO ::
: GOSUB 27 :: S1=E3 :: S2=E1
:: S3=EO :: GOSUB 27 :: S1=
D3 :: S2=F1 :: S3=FO :: GOSU
B 27
33 S1=C3 :: S2=FS1 :: S3=FSO
:: GOSUB 27
34 S1=B3 :: S2=G1 :: S3=CO ::
: GOSUB 27 :: S1=A3 :: S2=FS
1 :: S3=FSO :: GOSUB 27 :: S
1=G2 :: S2=G1 :: S3=CO :: GO
SUB 27
35 S1=C3 :: S2=F1 :: S3=FO ::
: GOSUB 27
36 T=Z :: S1=E3 :: S2=G1 ::
S3=GO :: GOSUB 27 :: T=X ::
S1=C3 :: GOSUB 27 :: T=Z ::
S1=D3 :: GOSUB 27 :: T=X ::
S1=B3 :: GOSUB 27
37 T=Y+Y+Y :: S1=C3 :: S2=C1
:: S3=CO :: GOSUB 27 :: GOS
UB 70 :: FOR FLAG=1 TO 4
38 T=Y :: S1=G2 :: S3=G1 ::
GOSUB 24 :: S1=C3 :: S3=C1 ::
: GOSUB 24 :: S1=G2 :: S3=GO
:: GOSUB 29 :: S1=E2 :: S3=
EO :: GOSUB 29
39 S1=G2 :: S3=GO :: GOSUB 2
9
40 CALL CHANGE :: S1=C3 :: S
2=C1 :: S3=CO :: GOSUB 27 ::
T=X :: S2=B1 :: S3=BO :: GO
SUB 27 :: GOSUB 27
41 T=Y :: S2=A1 :: S3=AO ::
GOSUB 27 :: S1=E3 :: GOSUB 2
7
42 S1=D3 :: GOSUB 27 :: S1=C
3 :: GOSUB 27 :: S1=B3 :: GO
SUB 27 :: S1=C3 :: GOSUB 27
43 S1=D3 :: GOSUB 27 :: S2=F
1 :: S3=FO :: GOSUB 27 :: S1
=R :: S2=E1 :: S3=EO :: GOSU
B 27 :: S1=G2 :: S2=D1 :: S3
=DO :: GOSUB 27
44 S1=C3 :: S2=C1 :: S3=CO ::
: GOSUB 27 :: S1=G2 :: S3=D1
:: GOSUB 24 :: S1=E2 :: S3=
E1 :: GOSUB 24 :: S1=C2 :: S
3=F1 :: GOSUB 24
45 S1=G2 :: S3=E1 :: GOSUB 2
4 :: T=X :: S3=D1 :: GOSUB 2
4 :: GOSUB 24 :: T=Y :: S3=C
1 :: GOSUB 24 :: S1=E3 :: S2
=A1 :: S3=AO :: GOSUB 27
46 CALL CHANGE :: S1=D3 :: G
OSUB 27 :: S1=C3 :: S2=C1 ::
S3=CO :: GOSUB 27 :: S1=B3
:: S2=D1 :: S3=DO :: GOSUB 2
7 :: S1=A3 :: GOSUB 27
47 S1=G2 :: S2=G1 :: S3=GO ::
: GOSUB 27 :: GOSUB 29 :: S3
=A1 :: GOSUB 22 :: S3=GO ::
GOSUB 29
48 S1=A3 :: S2=F1 :: S3=FO ::
: GOSUB 27 :: T=X :: S2=E1
:: S3=EO :: GOSUB 27 :: S1=B3
:: GOSUB 27 :: T=Y :: S1=C3
:: S2=D1 :: S3=DO :: GOSUB
27 :: S1=A3 :: GOSUB 27
49 S1=G2 :: S2=C2 :: S3=C1 ::
: GOSUB 26 :: T=X :: S2=B2
: S3=B1 :: GOSUB 26 :: S1=E2
:: GOSUB 26
50 T=Y :: S2=A2 :: S3=A1 ::
GOSUB 26 :: S1=G2 :: S2=G1
: S3=GO :: GOSUB 27 :: CALL
CHANGE
51 S1=A3 :: S2=F1 :: S3=FO ::
: GOSUB 27 :: S1=C3 :: S2=E1
:: S3=EO :: GOSUB 27 :: S1=
F3 :: S2=D1 :: S3=DO :: GOSU
B 27

```

```

52 S1=E3 :: S2=C1 :: S3=CO ::
: GOSUB 27
53 S1=D3 :: S2=G1 :: S3=GO ::
: GOSUB 27 :: GOSUB 29 :: S3
=A1 :: GOSUB 22 :: S1=G2 ::
S3=GO :: GOSUB 29
54 S1=A3 :: S2=F1 :: S3=FO ::
: GOSUB 27 :: T=X :: S2=E1
: S3=EO :: GOSUB 27 :: S1=B3
:: GOSUB 27
55 T=Y :: S1=C3 :: S2=D1 ::
S3=DO :: GOSUB 27 :: S1=A3 ::
: GOSUB 27 :: CALL CHANGE
56 S1=G2 :: S2=C2 :: S3=C1 ::
: GOSUB 26 :: T=X :: S2=B2
: S3=B1 :: GOSUB 26 :: S1=C3
:: GOSUB 26
57 T=Y :: S2=A2 :: S3=A1 ::
GOSUB 26 :: S1=D3 :: S2=AF2
:: S3=AF1 :: GOSUB 27
58 T=Y+X :: S1=E3 :: S2=G1 ::
: S3=GO :: GOSUB 27 :: T=X
: S1=C3 :: GOSUB 27
59 T=Y+X :: S1=D3 :: GOSUB 2
7 :: T=X :: S1=B3 :: GOSUB 2
7
60 T=Y+Y+Y :: S1=C3 :: S2=C2
:: S3=C1 :: GOSUB 26 :: CAL
L CHANGE :: NEXT FLAG
61 T=Y :: S1=E3 :: S2=C1 ::
S3=CO :: GOSUB 27
62 S1=F3 :: S2=D1 :: S3=DO ::
: GOSUB 27 :: S1=E3 :: S2=E1
:: S3=EO :: GOSUB 27
63 S1=D3 :: S2=F1 :: S3=FO ::
: GOSUB 27 :: S1=C3 :: S2=FS
1 :: S3=FSO :: GOSUB 27
64 S1=B3 :: S2=G1 :: S3=GO ::
: GOSUB 27 :: S1=A3 :: S2=FS
1 :: S3=FSO :: GOSUB 27
65 S1=G2 :: S2=G1 :: S3=GO ::
: GOSUB 27 :: S1=C3 :: S2=F1
:: S3=FO :: GOSUB 27
66 T=Y+X :: S1=E3 :: S2=G1 ::
: S3=GO :: GOSUB 27 :: T=X
: S1=C3 :: GOSUB 27
67 T=Y+X :: S1=D3 :: GOSUB 2
7 :: T=X :: S1=B3 :: GOSUB 2
7
68 T=Y+Y+Y :: S1=C3 :: S2=C1
:: S3=CO :: GOSUB 27 :: STO
P
69 !@P+
70 M$="FFC3A59999A5C3FFFFFFF
FC7EFFFFFFF7FF7FF7FFBFFF
FFFFFF7FEFFFFFFF"
71 CALL CLEAR
72 CALL MAGNIFY(4)
73 N$="03031F1F3FFFFFFF7F786
000000000010B0F8F8FCFCFEFE
EFC3C3800180000"
74 CALL CHAR(96,M$)
75 CALL CHAR(100,N$)
76 FOR T=2 TO 16
77 IF T<9 THEN 78 ELSE 80
78 CALL SPRITE(#T,96,T,T,T
,T*3)
79 GOTO 81
80 CALL SPRITE(#T,100,T,T,T
,T*3)
81 NEXT T
82 RETURN
83 SUB CHANGE :: CALL SCREEN
(INT(RND*16+1)):: SUBEND

```



PROGRAMMING HINTS . . .

Lets take a look at SOUNDS with your TI Home computer...
NOISES

FREQUENCY DESCRIPTION

-1 . . . Periodic Noise Type 1
-2 . . . Periodic Noise Type 2
-3 . . . Periodic Noise Type 3
-4 . . . Periodic Noise that varies with the frequency of the third tone specified
-5 . . . White Noise Type 1
-6 . . . White Noise Type 2
-7 . . . White Noise Type 3
-8 . . . White Noise that varies with the frequency of the third tone specified

Volume is an interger ranging from 0 to 30 and can also be a numeric literal, numeric variable or numeric expression with 0 being the HIGH and 30 being the LOW.

Now lets try out some examples...

FREQUENCY vs PITCH

100 FOR F=110 TO 1760 STEP 50
110 CALL SOUND(500,F,0)
120 NEXT F

DURATION:

100 FOR D=100 TO 4250 STEP 1000
110 CALL SOUND(D,262,0)
120 FOR X=1 TO 1500::NEXT X
130 NEXT D

VOLUME:

100 FOR V=0 TO 30
110 CALL SOUND(500,262,V)
120 FOR X=1 TO 500::NEXT X
130 NEXT V

NOISE:

100 FOR N=1 TO -8 STEP -1
110 CALL SOUND(3000,N,0)
120 FOR X=1 TO 1500::NEXT X
130 NEXT N

HARMONY:

100 CALL
SOUND(3000,262,0,330,0,392,0)

DISCORD:

100 CALL
SOUND(3000,110,0,672,0,151,0)

interesting SOUND
EFFECT this ROCKET IN MOTION...
100 REM ROCKET IN MOTION
110 FOR L=1 TO 10
120 CALL SOUND(1000,-7,3)
130 NEXT L

100 CALL CLEAR
110 RANDOMIZE
120 CALL CHAR(96,"81423C18183C4281")
130 DISPLAY AT(2,10):"DOODLEBUG"
140 CALL SPRITE(#1/96/2/90/125)
150 A=INT(RND*20)-INT(RND*20)
160 B=INT(RND*20)-INT(RND*20)
170 CALL MOTION(#A,A,B)
180 GOTO 150



THERE ARE SO MANY WAYS IN WHICH YOU CAN CONTACT YOUR COMMITTEE OF TI.S.H.U.G.

BY MAIL: MEMBERSHIP & RENEWALS: The Secretary, P.O.Box 149, Pennant Hill. NSW Aust. 2120.

GENERAL/SYDNEY NEWS DIGEST/TEXPAC-BBS:P.O.Box 595, MARRICKVILLE. NSW Aust. 2204.

BY BBS: Phone(02)5600926 7pm-6:30am Monday-Friday & 24 hours on Weekends. Committee members are listed with '*' on the Who's-Who file for your Electronic Mail Service.

BY PHONE:Every Monday during office hours(8:30am-5pm)on (02)5600926 . . . Shane

The Secretary:John Robinson(02)8480956 a/h:7pm-9pm.

The Treasurer/Librarian:Terry Phillips(02)7976313 a/h:7:30pm-9:30pm.

Technical Co-Ordinator:Robert Peveril(02)6024168 a/h:5pm-8:30pm(only)

PROGRAMMERS CRISIS LINE:10am-4pm Mon.Tues. & Wed. 10am-9pm other days (02)992229.

OUR MEETINGS: Usually conducted on the 1st Saturday of each month(unless it falls on a public holiday-then the 2nd Saturday. 2PM-4PM at St.John's Church Hall, Victoria Street, Darlinghurst.(Near St.Vincent's Hospital & next to Caltex Service Station).

Plus Regional Home Groups: See the Regional Column or phone The Secretary for further information on groups near you.

S E E Y O U T H E R E - ' C A U S E W E C A R E ! ! !

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*NEWS both International, National & Local, much of which is exclusive to TEXPAC BBS Users.

*UNDER 18's section to encourage programming for the young members.

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*PROGRAMS TO DOWN-LOAD over the phone...with a constant supply of free programs.

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