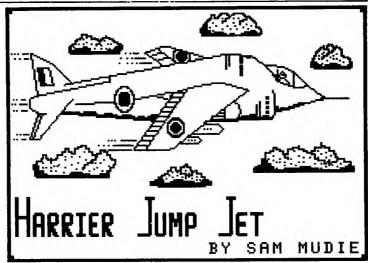
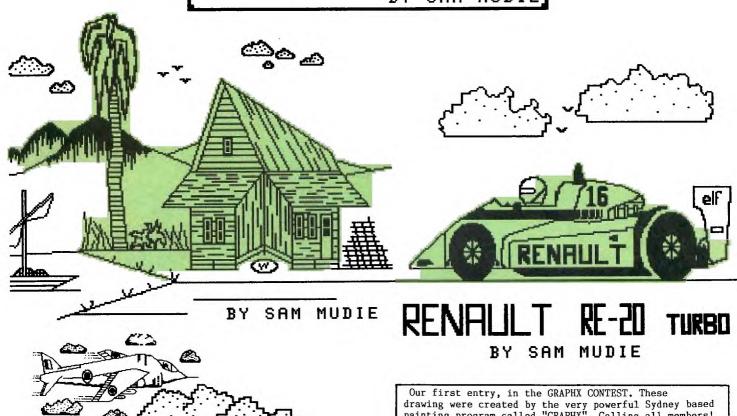
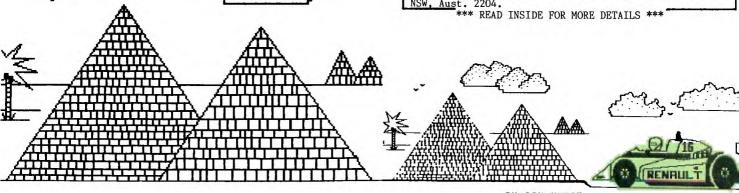
SYDNEY PENNANT HILLS AIRO, N.S.W. DIGESTREWS PENNANT HILLS AIRO, N.S.W. P. "-1 - 1) NO. NISHIGASS DIGESTREWS JUNE





Our first entry, in the GRAPHX CONTEST. These drawing were created by the very powerful Sydney based painting program called "GRAPHX". Calling all members! Now is the time to get those entries in to: TI.S.H.U.G. GRAPHX CONTEST, P.O.Box 595,MARRICKVILLE, NSW, Aust. 2204.

*** READ INSIDE FOR MORE DETAILS ***



BY SAM MUDIE

RENAULT RE-20 TURBO



The Texas Instruments Home computer User's firmup. known as TISHU5 is a non profit, self supportive group of Texas Instruments computer owners and users. Information regarding membership and payment of dues should be directed to the Secretary, address below.

DISCLAIMER

The Sydney News Digest (SND) is the official newsletter of TISHUG, and whilst every effort is made to ensure the correctness and accuracy of information contained therein, be it of a general, technical, or programming, nature, no responsibility can be accepted by TISHUG as a result of the applying of such information.

THE NEWSDIGEST-

The SND is published eleven times per year (no January edition), by voluntry staff, from material provided by group members, other user-groups and other related sources.

Contributions and than correspondence (other membership) should be addressed EDITOR, LIB LIBRARIAN, the to ADVERTISING, etc., and submitted at the group meetings or posted to the appropriate person at the *general* address, below.

Copy for publication may be typed, hand printed, or be on tape or diskette media as files suitable for use with TI-WRITER (ie, DIS/FIX 80 or DIS/VAR 80). Please include sufficient information to enable the files sufficient information to enable the files to be read -filename, etc. Persons wishing to contribute on a regular basis should contact the editor who will make available a suitable public domain word processor program. The copy deadline for an issue is the first Saturday of the month (ie. weeting date) prior to the month of publication. of publication.

Any material, written electronic, submitted to SNU or Library Service is to be considered TISHUG property and to he used at the committee's discretion.

SOFTWARE IBRARY SERVICE

TISHUG operates a Public Domain Software Library, programs written containing programs written by TISHUG members and from other user groups as well as miscellaneous public domain sources. These programs are

available to members in two ways:

1> by monthly issue - a selection of programs is made available at general meetings for a at production/media cost fee. (See TISHUG SHOP column

elsewhere for details of releases).

as a reward for members contribution to activities of TISHUG by (a) submission of original program (own work) members recieve three programs of their choice, and,

(b) submission to SND, or other activity as the committee may otherwise determine, programs of the contributer's choice will be made available.

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

YOUR COMMITTEE

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CLUB CO-ORDINATOR:

Peter Varga HUN. SECRETARY: John Robinson TREASURER:

Terry Phillips LIBRARIAN:

Terry Phillips ASTNT LIBRARIAN: (02)8713873 FRED MORRIS

FOUNDER/EDITOR: Shane Andersen PUBLIC RELATIONS:

Cris Ryan ADVERTISING: GREG HOPE

(02)6464865 PROGRAMMERS CRISIS LINE: 02992229

Graeme Holliss MUSIC CO-ORD: Russel Welham

EDUCATION CO-ORD: Peter Lynden 026357841

MEETINGS: At present, will continue to be held at the St. John's Church Hall, Victoria St, Darlinghurst on the first SATURDAY afternoon of each month, except if that week-end is a public holiday, then it moves to the following week-end. The Monthly get-to-gether starts at 2pm and goes through to 4pm.

SEE YOU THERE 'CAUSE WE CARE

COURTESY TO YOUR TISHUGERS FELLOW

When you strile a progressing problem, require information. or just want to chat (modem otherwise) please look at the clock before you pick up the 'phone! And always ask if it is convenient time for your call.



IMPORTANT TISHUG ADDRESSES:

General address (for all letters except membership)

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

The SECRETARY. TISHUG, PO BOX 149. PENNANT HILLS, NEW, AUSTRALIA, 2120. Monthly Meetings first Saturday of the month (2 pm)

St. John's Hall, Victoria Street, DARL INGHURST.



FHUG

Sydney News Digest



CONVERSION OF TEXT FORMAT BASIC/XBASIC FILES FROM TEXPAC BULLETIN BOARD.

by Ross Mudie of TISHUC.

On the TEXPAC bulletin board often small basic or extended basic programs are printed in text file format which would normally require retyping before the program could be used. If the file containing the program is stored on disk it may then be edited using the Editor/Assembler editor or TI Writer, then saved back to disk. The file is then processed through a translator program which converts the text file detail of the basic or X/B program into a X/B MERGE file with all program lines set up as remarks statements using the exclamation mark (!). Then by using the X/B editor it is a very simple job to remove the exclamation marks making a valid basic or X/B program.

In the message system of the TEXPAC bulletin board it is not possible to use commas or quotation marks, however when a basic or extended basic program is given in one of these files the commas are usually replaced with a backslash(\) and the quotes (") are replaced with an apostrophe ('). If the file is in 80 column format (using the <80P> mode) then it is be very convenient to use the replace string feature of E/A or TI Writer to change all the \ to , and all the ' to ". Firstly, download the file using your TI TERMINAL EMULATOR II with <CRTL> WRAP enabled and save the file to disk.

Next replace all the \ with , and ' with " .
For the benefit of those unfamiliar with this the following proceedures apply:

(a) EDITOR ASSEMBLER.

When in the edit mode press function 9 (ESCAPE) once then press R for Replace. The function then requires to be told how many times to do the replacement, just give it an estimated number greater than the required number of times, followed by the replace old and new strings. Did I hear you say EH? here is the example: R <ENTER> ... Editor prompt is: REPLACE<V,>CNT>(COL,COL>)/OLD/NEW/?
You TYPE 100//,/ then press <ENTER) and wait a few seconds for the editor to do the job for you 100 times. If 100 is not the number required substitute the number needed. If the number you enter is too big then no problem, if too small then you won't go to the end of the file so just do it again.

Do the same again for the apostrophe e.g, R <ENTER> then 100/'/"/ <ENTER>
(b) TI WRITER.

When in edit mode press <FCTN> 9 once then RS <ENTER> for Replace String. TI Writer editor prompt will be: REPLACE enter/old string/new string/? You type /\/,/ then press <ENTER> and TI Writer will now search for and display the first occurance of the "old" string which is the backslash and the prompt will be: REPLACE STRING(Yes,No,All,Stop)? Press A for All and wait for TI Writer to complete the task. Do the same again for the apostrophe,

e.g, RS \(\)ENTER\(\) then \(\)'\"\ \(\)ENTEK\(\).
Edit out any other extraneous items in the file then save the file to disk in DISplay VARiable 80 format.

It should be noted that any "program" line longer than 80 characters will be truncated (cut short) from the right at the 80 character point by the Translator.

Next go to Extended Basic and load/run the TRANSLATOR program which appears at the end of this article. In response to the prompts enter the name of the file which you have just previously saved and the name for the new file which will be created as an extended basic program MERGE file.

On completion of the merge file type NEW <ENTER> then when the cursor returns type MERGE DSKx.mergefilename (substitute the appropriate number of disk drive for the x and the actual name previously used for the mergefilename.)

LIST the program to find the first line number then start at the first line and work through the whole program deleting the first ! after each line number using <FNCT> 1 to delete each ! and <FNCT> X to step down a line at a time.

SAVE your handiwork to disk and run the program.

To work back the other way you can convert a basic or X/B program to a text file by using LIST

"DSXx.filename". This allows you to make mass changes of the same thing many times throughout a program using the replace string feature of your text editor, then convert to basic or X/B format as detailed above.

100 ! SAVE DSK1.TRANSLATOR

110 !ORIGINAL PROGRAM BY JOHN HAMILTON

120 !CENTRAL IOWA USA

130 !MODIFIED BY FREDERICK HAWKINS

140 !LEHIGH 99'ER

150 !THIS VERSION BY ED YORK

160 !CIN-DAY USER GROUP

170 PUBLISHED IN TISHUG SND, SYDNEY AUSTRALIA JAN-FEB

180 ! REMARKS by Ross Mudie 6th March 1985. 190 ! This Translates, from a program in a DISPLAY VARIABLE 80 format to a BASIC or XBASIC format,

placing a ! after each line number which
200 ! must be removed by editing once the program is

in BASIC or X/BASIC format.

210 ! To use (1)RUN TRANSLATOR (2) Enter Source file name (3) Enter object file name (4) When program finishes with "PROCESS COMPLETED!"

220 ! Type NEW then press ENTER (5) Type MERGE
DSK1.your object file name (6) List the program (7)
Edit all lines to remove the ! after each

230 ! line number (8) Save the program....R.M. 6/3/85
340 DISPLAY AT(6,10)ERASE ALL:"TRANSLATOR": : :"FILE
NAME TO BE CONVERTED?": "DSK1." :: ACCEPT
AT(12,6)SIZE(10):A\$

AT(12,0)SLZE(10):A\$

350 DISPLAY AT(14,1):"MERGE FILE NAME?": :"DSK1.":

CCEPT AT(16,6)SIZE(10):B\$:: OPEN #1:"DSK1."&A\$

CDEN #0:"DSK1."&A\$

OPEN #2:"DSK1."&B\$, VARIABLE 163
360 LINPUT #1:C\$:: A=POS(C\$," ",1):: UN EKKUK 4UU

B=VAL(SEG\$(C\$,1,A))
370 ON ERROR 390 :: C=INT(B/256):: A\$=CHR\$(B)
380 PRINT #3.CUP\$(C).A\$.CUP\$(131).SEC\$(C\$ A+1 8

380 PRINT #2:CHR\$(C);A\$;CHR\$(131);SEG\$(C\$,A+1,80) CHR\$(0):: GOTO 360

390 PRINT #2:CHR\$(255); CHR\$(255):: CLOSE #2 :: DLSPLAY AT(22,6):"PROCESS COMPLETED!" :: END 400 ON ERROR 390 :: RETURN 360

MULTI-MODEM CARD FOR PE BOX

GOOD NEWS FOLKS--- Another new device has been created by Peter Schubert (member of TI.S.H.U.G. (Aust). Its the MULTI-MODEM CARD for your Peripheral Expansion Box. We saw a demonstration of the prototype at the recent Club 4th BIRTHDAY GET-TO-GETHER. The features include:

1 300 ORIGINATE

2 300 ANSWER

3 1200/75

4 75/1200 VIATEL CONFIGURATION AND IT WORKS BEAUTIFULLY THE MULTI-MODEM CARD IS NOW GOING INTO PRODUCTION AND WILL SELL FOR \$260 IT WILL ALSO HAVE CAPABILITY TO..*AUTO ANSWER, *AUTO DIAL, **TELECOM CERTIFY?

PETER WILL ALSO OFFER TO THOSE OF YOU WHO HAVE THE 300 CARD, A CASH-BACK/EXCHANGE DEAL ON YOUR OLD MODEM.

This will give many, a chance to get closer to the world of Modem Communication, and in particular, access the new VIDEOTEX 'VIATEL' SYSTEM.

The VIATEL story continues this month, with a look at three areas of interest...

sending GREETINGS & TELEX and ELECTRONIC BANKING.

A report by Shane Andersen

Over the next few months, both Robert Crago and I will be telling you about some of the interesting features of the new Teletex system call VIATEL, which you can access with your TI-99/4(A) computer. As previously mentioned, to use this unique service, you need a multi-speed modem which provides you with 75/1200 baud seed access.

First, a few hints about Viatel...To dial up VIATEL, you simply phone 01955 anywhere in Australia as a local call. You will be asked to type in your 10 charactor Password, then a 4 digit Usernumber. Once this is done, you can then go to what ever area you like by simply typing an asterisk,the department number, followed by a hash symble...like this: *199# and then press the <RETURN> or <ENTER> key. At 1200 baud, you will be shown your selected screen in a matter of only a couple of seconds.

Here is a listing of some of my most used areas...

That is just a few of the many areas you can access.

(1) Sending GREETING CARDS and Telex: VIATEL has designed a number of very interesting card DESIGNES which are displayed on your screen. You can choose BIRTHDAY GREETINGS, CONGRATULATIONS, BON VOYAGE etc, which have been designed for you to simply type in your message. When the person that you are sending this greeting to comes on line, instantly they are confronted with a dramatic picture and your message. Its fun, I sent one to a TI.S.H.U.G member who I know will be coming on-line shortly to welcome him aboard. The cost is 5c per card/screen, and is simply charged to your VIATEL bill. Now to sending a TELEX...

There are times when you see an advert for a computer product in a magazine, which you require further information. Many of those adverts carry a TELEX number at the bottom of the add. Now you can send them a Telex for speedy replies anywhere in Australia. Each successful Telex delivered costs you \$1.75 and will be shown as a separate change on your Viatel bill. You will be shown the following menu of your screen...

KEY 1 - VIATEL INDEX

11 - TO SEND TELEX 13 - INSTRUCTIONS/REFERENCE GUIDE

13 - INSTRUCTIONS/REF 14 - OPENING TIMES

15 - ADVICE, HINTS & TIPS

17 - TELEX PROBLEMS, COMPLAINTS.

To send a TELEX, go to *1033# the same area for scuding Greetings.

Now lets take a quick look at TELEBANK:

Press *555# and a whole new world of Banking is at your fingertips, and you can *PAY BILLS(including Telephone, Electricity, Gas & Water rates)... *TRANSFER FUNDS between accounts... *PERSONAL LOANS (access information

on lending services)... *AIKFARES (make booking enquiries, and find out flights, fares, packages)... *TERM DEPOSITS (Check investment rates)... *RETIREMENT & MIGRANT information...*ACCOUNT STATEMENTS (Instantly view statements and request copies to be sent to you)... Plus, you can also check foreign exchange rates and monitor money markets (great for school projects) and many others. Soon you'll also be able to do your shopping, book holidays, and apply for a loan.

To gain access to this section, just call into your local Commonwealth Bank, and ask them for a TELEBANK application form and further details.

Other banks are starting to see just how important it is for them to provide similar services through VIATEL, like...WESTPAC *333# ...ANZ *899# ...BANQUE NATIONAL de PARIS *331# ...NATIONAL AUSTRALIA BANK *880# ...STATE BANK of NSW *40211# and SATISFAC CREDIT UNION *789001#

Because VIATEL is very new, information is being added to the system every day. By pressing *123# you'll be kept abreast of all the new developments as they happen.

Next month, we hope to have some more news of how to get the best from VIATEL with your TI.
Cheers for now.



Your telephone. And your television.

All you add is a small remote-control keyboard.

Or your own slightly modified personal computer.

And space-age banking comes to your home or office.

It's called Telebank.

With it, you can do your banking 24 hours a day.
7 days of every week and 365 days of every year.



Last months Software Tape. 1985/5 didn't sell all that well at the meeting and this is probably the reason why the bonus prize has not been claimed as yet. 100 copies of the tape were made and the lucky tape is in there somewhere. The prize on that tape is, by the way, a \$20 open order at the club shop. There will also be a lucky tape among those made for Tape 1985/6. Remember if you have the prize winning tape contact the Librarian to claim your

Tape 1985/6 is something that I like a lot. It contains 9 Extended Basic musical programs, all with graphics, written by that great programmer Sam Moore. Titles are Album-Leaf, Venetian Boat Song, Dog-Gone Boogie Woogie, With Love in my Heart, Organ Player, Ode to Puppy Town, Rockies' Robot Boogie, Venus Night Race Rhapsody and Western Boogie. As a bonus on the disk version there is a very useful Load program.

Now to other items available from the Shop.

Console Writers are still available at a cost of \$44.

Boxes of disks at \$25. As a bonus any member buying 2 or more boxes of disks will receive as a bonus at no extra cost the equivalent number of library storage cases.

Disk file boxes (90 capacity) at \$44 each.

Learning Assembly La<mark>nguage</mark>

Commercial software - see last SND for review and prices. Thanks for the orders that have been filtering through!

Those interest in getting into the FORTH language can now obtain a copy of the documentation and disk for

Disk software . BEAXS and Channel 99 disk, at \$5 each. A couple of callers have rung to express their delight with the Channel 99 disk. The programs on it are probably the best \$5 investment available for the TI.

Always available are the TI Writer and Multiplan enhancements, Super De-Bugger and TI Forth Source Codes. The enhancements and De-Bugger are \$5 each while the Source Codes are \$10.

I have had to throw out a few returned tapes lately because either the tabs have been punched out or the tape has been heavily marked with a marking pen. If you do by chance get a faulty tape would you please not do this to it.

Now for some overseas news and bits and pieces from my mail bag.

I have received a copy of the first issue of a new magazine entitled Mini-Mag 79. It will be available for members to peruse at the June meeting and if enough interest is shown I will attempt to contact the publisher to order a bulk lot.

From Chris Bobbitt in Maryland USA, whom I exchange programs with, comes the following praise of Shane's handywork, otherwise known as our Sydney News Digest - "THANKS FOR THE NEWSLETTERS. Your newsletter makes my own group newsletter, which was recently rated the best in the US look like so much trash. The quality and quantity of material in your newsletter makes it easily the best of any computer user group newsletter. Even the 15000 member Boston Computer Societys newsletter is less well done. How much would an overseas subscription be?

Shane my friend, take a bow. Without your efforts our SND would probably qualify for the trash category.

Chris also advises that we are not alone in having a few problems with the Corcomo Cards. His card will only read from his 2nd drive no matter what he does he can't write to that drive. Corcomp don't seem able to assist him! He also tells me that 4 TI-99/4A compatables are slated for introduction within the next 6 months. The Myarc model sounds the most interesting with 128K standard, built in XB and Turbo Pascal, fully compatable yet about 6 times faster. He will give me more info as it comes to hand. Chris was also kind enough to send me a copy of a program he markets "Floppy Copy" It does an excellent job and the disk is so heavily protected it has defied my attempts so far to back it up. I hope to demonstrate it along with a number of other copy type programs at a future meeting.

Now to finish off a couple of programs for you to type in. These are also courtesy of Chris. The first one is called Battle of the Sea-Lords and is an updated version of a game that appeared in one of the early editions of the old 99'er Magazine. This version however allows 2 to play via modem. The second program is called The Magic Puzzle and is a computer version of the old childhood toy. Both need extended basic. I hope you like them.

CURSOR ROUTINES

The following comes courtesv of STICC - Saskatoon (Canada) TI Computer Club. 32K and Extended Basic are needed to try out these interesting cursor routines.

10 CALL CLEAR :: CALL 1NIT
20 CALL LOAD(8196,63,248)
30 CALL LOAD(16376,67,85,82,83,79,82,48,8)
40 CALL LOAD(12288,255,129,129,129,129,129,129,255)
50 CALL LOAD(12296,2,0,3,240,2,1,48,0,2,2,0,8,4,32,32,36,4,91)
60 CALL LINK("CURSOR") :: END

Until a GUIT or BYE is given this program should still remain defined. If you wish other patterns, use different values in line 40 after 12288, Pattern is based from hex in pattern identifier table and converted to decimal.

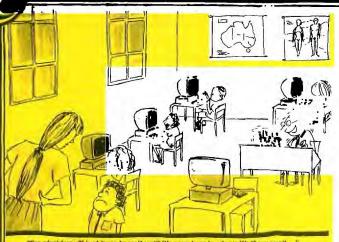
Try this one :::::::::

CALL LOAD(12288, 48, 48, 63, 255, 254, 124, 24, 12)

Experiment and see what you can come up with.

SHUG

Sudney News Digest



"I'm afraid you'll just have to walt until it's your turn to play with the pencil..."

It seems that almost every member of our club that I have spoken to, has in their module library some sort of shoot-em-up game. Whether it is Buck Rogers, Moonsweeper or the ever faithful Parsec. Let me introduce you then, to a game on the more passive side. Munchmobile.

Munchmobile is a game that is novel in its approach to the much worn car and obstacles concept. I will attempt to mention all aspects of this game. After selecting Munchmobile from the main menu you are faced with a rather strange looking screen with a large demonic looking face which consistently winks at you. It is in fact the top view of an expanded Munchmobile. If you care to see a demonstration game, then refrain from pressing a key and after a short wait you will be shown a game with the computer in control of the car. It is a good idea if you have not seen the game before to let this demonstration bring itself to an end while you note the various hazards that await you. Pressing FCTN 7 will give you a brief explanation of the game, a point which is sorely lacking in so many other modules.

There are two levels of play, Professional and Amatuer. Once you have selected your level of play you are presented with three options of Munchmobile speed, Slow, Normal and Fast.

Munchmobile's sole aim in life is to reach out to the side of the road and pick up snacks that he can happily munch on. There are six different kinds of items that will appear on either side of the road for your Munchmobile to pick up and devour, apples, cherries, juice, fish (whilst crossing the bridges), bags of money and last but definitely not least gasoline (read petrol).

To pick up a snack for your hungry little muncher you must carefully watch the eyes at the front of the car and when they are looking in the right direction (left and right only), press the fire button on the joystick to extend the Munchmobiles arm. Beware though, if you hit an obstacle with your arm, garbage bin or bush, the arm will instantly return to the side of the car and throb with pain, refusing, and rightly so, to pick up any more snacks until the throbbing has ceased. If you successfuly manage to extend the arm the correct length and place the hand over the snack, release the fire button to stop any further extending of the arm and then press it again to bring it back to your Munchmobile. To gain the points you must retract the arm until it disappears and then you are ready to go again.

You will see your score displayed on the right of the screen along with a High Score and graphic representations of snacks and items that you have retrieved on your way. At the bottom of the board is displayed the amount of remaining Munchmobiles and

above this you will see how much fuel there is remaining in your current Munchmobile. Your fuel tank is replenished every time you manage to pick up a can of gas (petrol).

After picking up a snack, points can be earned by depositing rubbish into the bins placed on the side of the road. This is done in the same way as picking up a snack.

At times during the game you will be required to cross bridges with oncoming traffic, not always on the right side of the road, and intersections with traffic again that remains ignorant of give way laws.

With all these hazards, it is sometimes difficult to remember to remain wholly on the road and avoid losing one of your ever hungry little autos. But the end does eventually arrive when Home Sweet Home in the form of a cozy little garage appears at the top of the screen and all that remains is to guide your Munchmobile safely into his own little home.

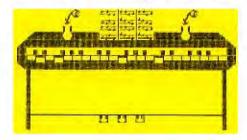
Once you have parked your Munchmobile in the garage and you begin congratulating yourself on a job well done, take care, a more difficult road is selected for you to drive on, with more hazards and increasing difficulty in picking up a snack. This vicious circle continues until all you Munchmobiles have gone to the big Tollway in the Sky.

The game is overall quite amusing and can be quite deceptively difficult as you go up in levels. My one main criticism though is with the music. It is repetitious throughout the whole game, but if it bothers you to the point of distraction, then there is always the volume control.

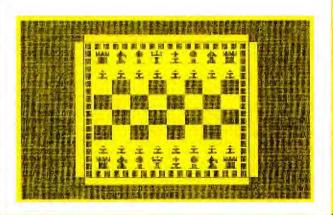
Graphics are quite good and overall I found the game to be quite amusing and a pleasant change from lazer blasting aliens.

*** DFX-PRINT ***
BI] IMAGE SCREEN PRINT VER 1.2
COPYRIGHT 1984*DATA FLEX SOFTWARE
TITLE: DEMO

BY PUDDIO VAN BEETHOVEN



PROGRAM BY SAM MODRE IR





DEFINITEL LEWS

A report of meetings and

times of our Regional

Home broups around Sydney and

New South Wales.

LIVERPOOL REGION REPORT

The April meeting was held on 19/04/85 at Steve Carrs of Campbelltown. Although only a small band of twelve members braved the cold to attend, the informal evening proved intersesting as it provided a night whereby members had an opportunity to take the floor and talk about their current activities. Some points of interest included:—

A member who is a radio announcer at a local community radio station proposes to put to air a computer radio program to talk about various popular computers, including the 11 and programming hints, and hopes to experiment with downloading software over the radiowaves.

Another member is working on developing a 32K expansion board using low cost ram chips.

One is in the process of marketing his excellent program "AUTO GRAPHICS" which writes subprograms for text, graphics and music and will shortly be available on the market. This program has been demonstrated to our group and is highly recommended. Another member with artistic talent is developing graphics programs involving cartoon captions which cuold be used in education programs. And yet another member demonstrated his personal record keeping program. This is a beauty so watch out for it in the club competition.

FORTHCOMING EVENTS:Friday 14 June 7.30
at Hans Zecevic,
33 Malinya Cr.
Moorebank (6008716).
Theme: Creating, reading/
writing to files AND
communications with the
VIATEL system.

Friday 12 July 7.30
at Vince Cerreto,
St. Clair (6705304).
Theme: How to use the

Theme: How to use the Editor/Assembler module

Friday 9 August 7.30
at Stan Puckle.
15 Richmond Cr,
Campbelltown
(046-256157)

Theme to be advised

SHORT REPURI ON THE AFRIL MEETING OF THE CENTRAL COAST REGIONAL GROUP.

SEVEN MEMBERS A: LENDED
THE MEETING HELD AT BUDGEWOI
N.S.W. THIS MEETING CARRIED
ON FROM THE LAST MEETING WITH
A DEMO ON HOW TO DEBUG A
PROGRAM USING PROGRAMS THAT
HAD BEEN BROUGHT IN BECAUSE
THAT WERE FAULTY.

ONE FAULT IN AN ADVENTURE PROGRAM THAT A MEMBER HAD WRITTEN WITH THE AID OF A BOOK. WAS YOU WENT TO THE WRONG ROOMS, ANSWER, WHEN THE DATA WAS READ IN THE PROGRAM WAS LOOKING FOR 7 BITS OF INFORMATION IN EACH LINE BUT THE DATA LINE CONTAINED 8 BITS OF DATA THEREFORE THE PROGRAM GUI OUT OF STEP AND READ THE WRONG DATA. SOME NEW PROGRAMS WERE DEMONSTRATED AND AFTERNOON TEA WAS ENJOYED BY ALL, THANKS GOTO EBEL FOR SUPPLING THE TEA.

RUSSELL WELHAM (SHORT SWEET I HOPE)

** CLASSIFIED ADS **

TU SELL: Muliplan \$100.00 one
WANTED: Transformer for 1199/4A
CONTACT:-

Terry Houge, c/- Woorabinda School Camp, FO Box 418, Moe, Vic. 3829,

WANTED: Mini-Hamory module

CONTACT:-Ph (02) 5252034 after 3pm ASK FOR Brett McKimm: TECHO TIME

WITH ROBERT

SURRY MROUT THE HESENCE
OF TECHO TIME LAST MONTH, BUT
IT IS HARD TO FIND SOMETHING
OF INTEREST EVERY MONTH
WITHOUT HELP FROM CLUB
MEMBERS. SO HOW ABOUT SOME
ARTICLES FROM SOME OF YOU

I HAVE CHECKED THE WIRING OF THE PLASTIC MODULATOR

(WHICH IS THE ONLY MODULATOR THAT CAN BE MODIFIED FOR WHE/UHF OPERATION) AND HAVE COMPILED THE FOLLOWING DETAILS.

TECHNICAL MANUALS ARE
AVAILALE FOR \$15 AT CLUB
MEETINGS OR FROM THE CLUB
LIBRARIAN (PLEASE ADD \$3,50
POSTAGE & HANDLING)
IF ANYONE HAS A TECHNICHL

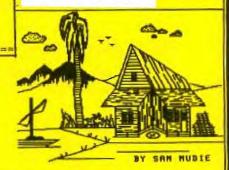
IF ANYONE HAS A TECHNICHL
PROBLEM OR WISHES TO
CUNTRIBUTE TECHNICAL ARTICLES
THEN CONTACT ME (ROBERT) ON
602-4168 BETWEEN 5.00-8.30 PM
PLEASE STICK TO THESE TIMES)
OR SEND A LETTER TO
TECHO TIME
P. O. BOX 595

P. O. BOX 595

P. O. BOX 595

MARRACKVILLE 2204

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



Over the past 4-5 months, we have been promoting the special "GRAPHX COMPETITION". Now is the time to get your entries in. On the front cover of this SND, you can see what the GRAPHX program is capable of producing so lets hear from you. We need at get at least 3 entries to continue the contest...so, lets hear from

Younger Set member SAM MUDIE has done a fine job, and now we ask you to follow in his footsteps.

We have extended the competition until the 1st July.

Send your entries to P.O.Box 595, Marrickville, NSW, 2204. Australia.



Jenny's YOUNGER SET under 18°s page

gang! Well, here is part 2 of the Big CARTOON COMPTITION...with more entries received. I will announce the winning entry at the end of my section, so laugh along, and lets get right into it. I hope that you all enjoyed your recent school vacation!

Here's the first one for this month, from Ben Salan, who writes...Hi, its ben again.Here is a utility to guard your secret program. I hope that you like it. In tine 110 you put your password while you are entering it you press the CTRL button. The password will be invisible. Then when you are entering the password whilethe program is running, you must press the CTRL buton other wise the computer will not take your password.

100 CALL SCREEN(2)

110 P\$="

120 INPUT K\$

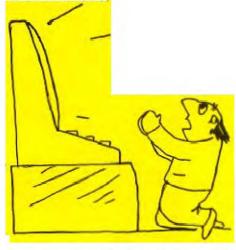
130 IF K\$<>P\$ THEN GOTO 140 ELSE 150

140 GOTO 110 150 CALL CLEAR

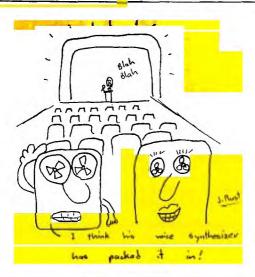
160 CALL SCREEN(2)

170 GOTO 160

HERE IS BEN'S CARTOON.,



Please please Don't Lock up now. I'll do anything you say.



HEKE IS THE NEXT LETIER:... Dear Jenny, My name is Stewart Kelly and I am 12 years old. Whenever I get my SND, I read your Younger Set first. Here are some of my high scores: PARSEC 675,400... BUCK ROGERS 149,326 HOPPER 41,675 and MUNCHMAN 51,824. My mum has signed to verify my scores. Yours faithfull, Stewart Kelly of Seven Hills. Here are my entries in the Cartoon competition,

THANK YOU STEWART, GLAD TO HEAR THAT YOU READ THIS PAGE, AND ITS GREAT TO SEE YOUR ENTRIES...KEEP THEM COMING. I WILL PLACE YOUR SCORES IN THE HALL OF FAME, AND NEAR THE END OF THE YEAR, I'LL PRODUCE A LISTING OF ALL THE PEOPLE AND THEIR HIGHEST SCORES RECEIVED.



RIGHT NOW THEYRE LEARNING ABOUT FRACTIONS





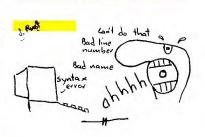
WOW! 376,294,976 th SCHEEN AND STILL 10 MENLER









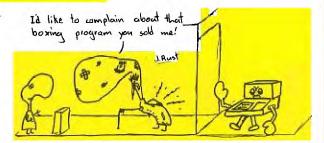


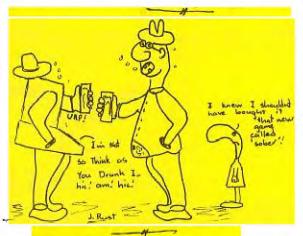
Here is a nice long letter, and comptition entries fromJoshua Rust of Willawarrin, Kempey. He almost didn't
get this letter through in time, because he sent it to
the membership address instead of the JENNY'S
YOUNGERSET, P.O.Box 595, MARRICKVILLE. N.S.W 2204...
Dear Jenny, Enclosed are my entries in your competition
for POLE POSITION. I only joined TI.S.H.U.G a few
months ago and am not yet familiar with what goes on. I
have only the computer (99/4a), tape recorder,
joysticks and Extended Basic, which I got for
Christmas. I recently bought 'Car Wars' and 'Munch
Man', and I have a few games on cassette like the 'Khe
Sahn', 'Towers' and Aztec Challenge'etc. I am interested
in knowing just exactly what a Peripheral Expansion Box
is and what can be done with it. Software is scarce up
here, except for the occational game in a magazine.
Very few people up here have got a TI Computer that I
know of, and the man at the local Tandy Electronics
store thinks that they are an outdated pile of junk! (I
don't think he knows what he's talking about!)

I am hoping to get a modem soon so I can talk to other TI owners on the BBS. Here are a few scores for the hall of Fame...CAR WARS:19983 & MUNCHMAN:128330.

DEAR JOSHUA, WELCOME TO OUR YOUNGER SET PAGES, JOSHUA. IT WAS GREAT TO HEAR FROM YOU. I have asked Shane if he can do anything to help members like yourself who live way out in the country areas of Australia. He mentioned that he planned to produce a complete price-list of all the things you can get for your TI, and how to get them. Check out this magazine for those details. To answer some of your questions...The guy from Tandy's is only trying to get you down, so that you will buy a Tandy computer. Even though the TI stopped production about a year ago, there is still plenty of good programs around. And the club Librarian has over 1,500 in the club library which you can obtain on monthly cassettes at only \$3 each plus \$1 postage. Read the TI SHOP column for more details. A Peripheral Expansion Box is a device which enables you to add more memory, printers and Disk drives to your TI. It will cost a tidy packet, but when you compare the price of a Tandy or Apple computer with all of those features supplied, you still save money with your TI. Lets hear more from you.

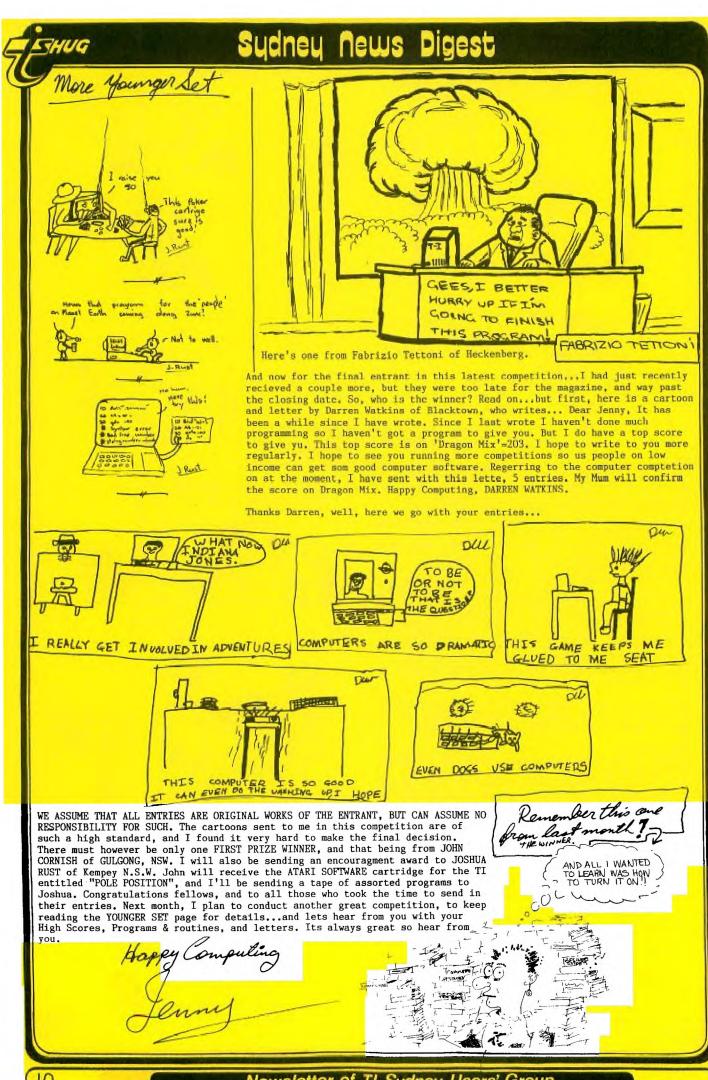
For our other members who may live out in the country areas, or even live near Joshua, why not write him a letter and exchange programs with each other. His addres is Lot 761 Armidale Road, Willawarrin, Kempey. NSW 2440.











ϳϦϧϗϦϧϗϦϧϗϦϧϗϦϧϗϦϧϗϦϧϗϽϗΑΒΟΑΒΟΑΒΟΑΒΟΑΒΟΑΒΟΑΕΘΑΑΘΑΑΘΑΕΘΑΕΘΑΑΘΑΑΕΘΑΕΘΑΕΘΑΕΘΑΒΟΑΒΟΑΒΟΑΒΟΑΒΟΑΕΘΑΕΘΑΕΘΑΕΘΑΕΘΑΕΘΑΕΓ SOASOASOASOAS BOASOASOASOASOA AOGAOGACGAOGAOS NO&AQ&AQ&AQ&AQA QAAQAAQAAQAAQ SQASQASQASQASQ ġ&AQ&AQ&AQ&AQ&AQ&AQ&AQ&AQ&AQ&A QA SQA SQA SQA SQA SQ LIFT OUT PAGGAGGAGGAG PASSAGEAQAAQA AORADRAGRADA SOABOLL 084034921011. 11 MIM 2 A. 14 AO AGRAQ SPASON SAGEAS THIS THIS ! SURVEY! SARRAQ AQ&AQU AQCAQ ACZAQ O&AO! SACSAC OBAC 189ABGAB OASO ASCASOAS SAQE MCGASDAF SOA. APOADOA SAQS SOAL AQ 110 A ." At 108A08 3CASOA: SOASOAS AQSAQSAGSA SOASOASOA SOASOASOA ROASOASOAS САВРАЕРАНСАВ A 5:4.5 LAQJAHLLM Oh. J. A. DALQALQALQALQA. ARGARGARGARGA. SOASOASOASOAS jaboar eksparijasi Varijasearspar SACGACGACGACE AQAAQAAQAAQAAQAAQA алфалфалфалфал SOASOASOASOAS sóasóasoas pasoasoas MARCASSASSAS BOASOASOASOASOASO ASOAOAAOA SOACOASOASOASOASOASO ADDACOASOACOACOA '. A (-7. A !) ?. AGCA CALDASCACUA aagaagaacaagaagaa ΑφολήπΑφαλέδαδο. SHUG

Sydney News Digest

We have just entered our 4th year of existance...and we need your help to continue our work on your behalf, which will keep this group vital & vibrant. We ask that you detatch this Survey from your SND, fill it in and get it back to us by return mail. All surveys received by the end of JULY '85 will be in the running to win a \$50 cheque from TI.S.H.U.G. So there are two reasons why you should get this survey back to us at ...

\$50 cheque from TI.S.H.U.G. So there are two reasons why you should get this survey back to us at
TI.S.H.U.G. SHRVEY
P.O. Box 595,
Marrickville, N.S.W. Aust. 2204
PLEASE FILL IN AS ACCURATELY AS POSSIBLE

DEMOGRAPHIC DETAILS ************************************
NAME:AGE:
OCCUPATION:
ADDRESS:POSTCODE:
TELEPHONE:()
How long have you owned a TI 99/4 or TI 99/4A ?
How long have you been a member of TI SHUG ?

HARDWARE (Please cross [X] the hardward you own.)
[_] TI-99/4 [_] TI-99/4A [_] T.V. [_] MONITOR
[_] SPEECH SYNTHESIZER [_] RXPANSION BOX [_] 32K CARD
[_] DISK CONTROLLER [_] DISK DRIVE(S) [_] RS232 CARD
[_] PASCAL CARD [_] MODEM CARD [_] STAND-ALONE MEMORY
[_]STAND ALONE DISK CONTROLLER [_]STAND-ALONE DSK-DRIVE
]STAND ALONE RS232 INTERFACE [_]CASSETTE RECORDER
[_]JOYSTICKS [_] PRINTER (Brand/Model)
[_]MODEM or ACOUSTIC COUPLER (Brand/Model)
OTHER HARDWARE (Please specify)
where the same state of the sa
Would you send overseas to buy hardware ?
(eg 128K Card) :[] YES [] NO
Would you purchase hardware, if available
through TI SHUG ? [_] YES [_] NO
********* SOFTWARE (Please cross [X] the software you own.) *********
[_]EXTENDED RASTG [_]EDITOR/ASSEMBLER [_]MINI MEMORY
[_]PORTH [_]LOGO [_]MULTI-PLAN [_]TI-WRITER [_]PLATO
How many games modules (eg PARSEC) do you own ?
How many educational modules (eg MATHS FUN) ?
How many applications modules (eg STATISTICS)?
How many 3rd party modules (eg ATARI, NAVARONE)?
Do you regularly purchase club software ? [_]YES [_]NO
In general, how do you rate the club software ?

[_]BAD [_]POOR [_]FAIR [_]GOOD [_]EXCELLENT
Would you send overseas to buy 3rd party software ? [_]YES [_]NO
Would you buy 3rd party software, if available, form us?
[_]YES [_]NO
******** CLUB SHOP (Please cross [X] your reponse) ********
What would you like the club shop to stock ?
[_]HARDWARE [_]SOFTWARE [_]BOOKS [_]ACCESSORIES
Do you think the prices charged are reasonable ?
t_lyes [_lnd
In general, are you satisfied with the club shop ?
[_]YES [_]NO
If no, please explain why :

Would you be willing to help run the club shop ?
[_]YES [_]NO

Are you satisfied with the present method of software
distribution ?[_]YES [_]NO?
If no, please explain why :
Would you be willing to help run the club library ?
Would you be willing to help run the club library?
[_]YES [_]NO ************* MONTHLY MEETINGS (Please cross [X] your response) ***********************************
L_YES [_]NO *********** MONTHLY MEETINGS (Please cross [X] your response) ************** Do you regularly attend the monthly meetings **
<pre>[_]YES [_]NO *********** MONTHLY MEETINGS (Please cross [X] your response) **************** Do you regularly attend the monthly meetings ! [_]YES [_]NO</pre>
[_]YES [_]NO ************ MONTHLY MEETINGS (Please cross [X] your response) *************** Do you regularly attend the monthly meetings ! [_]YES [_]NO In general, how do you rate the meetings ?
<pre>[_]YES [_]NO *********** MONTHLY MEETINGS (Please cross [X] your response) **************** Do you regularly attend the monthly meetings ! [_]YES [_]NO</pre>
<pre>[_]YES [_]NO ************ MONTHLY MEETINGS (Please cross [X] your response) ************** Do you regularly attend the monthly meetings ! [_]YES [_]NO In general, how do you rate the meetings ! [_]BORING [_]DULL [_]FAIR [_]GOOD [_]INTERESTING What would you like to see more of at the monthly meetings ?</pre>
[_]YES [_]NO *************** MONTHLY MEETINGS (Please cross [X] your response) ***************** Do you regularly attend the monthly meetings ! [_]YES [_]NO In general, how do you rate the meetings ? [_]BORING [_]DULL [_]FAIR [_]GOOD [_]INTERESTING What would you like to see more of at the monthly meetings ? [_]GUEST SPEAKERS [_]NEW PRODUCTS [_]"HOW TO" LECTURES
<pre>[_]YES [_]NO ************ MONTHLY MEETINGS (Please cross [X] your response) ************** Do you regularly attend the monthly meetings ! [_]YES [_]NO In general, how do you rate the meetings ! [_]BORING [_]DULL [_]FAIR [_]GOOD [_]INTERESTING What would you like to see more of at the monthly meetings ?</pre>
************ MONTHLY MEETINGS (Please cross [X] your response) **************** Do you regularly attend the monthly meetings ! []YES []NO In general, how do you rate the meetings ? []BORING []DULL []FAIR []GOOD []INTERESTING What would you like to see more of at the monthly meetings ? []GUEST SPEAKERS []NEW PRODUCTS []"HOW TO" LECTURES []TECHNICAL INFORMATION [_]OTHER (Please specify): Would you be willing to speak / demonstrate at the
<pre>[_]YES [_]NO **************** MONTHLY MEETINGS (Please cross [X] your response) ***************** Do you regularly attend the monthly meetings ! [_]YES [_]NO In general, how do you rate the meetings ? [_]BORING [_]DULL [_]FAIR [_]GOOD [_]INTERESTING What would you like to see more of at the monthly meetings ? [_]GUEST SPEAKERS [_]NEW PRODUCTS [_]"HOW TO" LECTURES [_]TECHNICAL INFORMATION [_]OTHER (Please specify):</pre>

******** MAGAZINE (Please cross [X] your response)

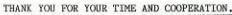
How do you rate the club magazine ?[_]BAD [_]POOR
[_]FAIR [_]GOOD [_]EXCELLENT
Are you satisfied with the club magazine ?[_]YES [_]NO
If no, please explain why :
What changes, if any, do you think should be made in the magazine ?
[_]REGULAR COLUMNS (EG BASIC, EXTENDED BASIC, LOGO, ETC)
[_]MORE PROGRAMS [_]MORE SOFTWARE/HARDWARE REVIEWS
[_]MINUTES OF COMMITTEE MEETINGS [_]OTHER :
Would you be willing to write for the magazine ?
[_]YES [_]NO
*************************** SPECIAL INTEREST GROUPS (Please cross [X]your response) ***********************************
Would you like to see the formation of special interest groups (SIG) to concentrate on specific features of the 99/4A ?(eg Extended Basic, Assembly Language, Forth, etc.)
[_]YES [_]NO
If yes, please state your specific interest (eg forth)
Would you be willing to assist in the formation
and running of a SIG ? []YES []NO
Would you be willing to hold SIG meetings in your home:
[_]YES [_]NO
Would you be willing to speak or demonstrate at SIG
meetings ? [_]YES [_]NO
Would you be willing to write SIG reports for the club
magazine ?[]YES []NO
Would you be willing to help write a SIG magazine ?
[]YES []NO

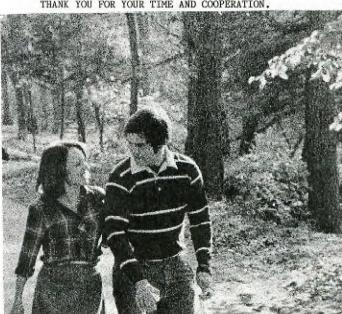
Do you attend a RHG? [_]YES [_]NO. If no, please indicate why
[_]None in my Region. Prevented to attend due to
[_]Work Committmets [_]Transport problems.
[_]OTHER:
If Yes, how do you rate your RHG: [_]BORING [_]FAIR
[_]GOOD [_]EXCELLENT.
Are you able to Co-Ordinate a RHG in your home?
I TAKE I TWO are at some one along home. I TAKE I TWO

Are you able to assist in the running of a RHG:
[_]YES [_]NO.
Would you be willing to write RHG reports for the club
magazine? [_]YES [_]NO or help write the reports:
[_]YES [_]NO.
Would you be willing to Speak or Demonstrate at a RHG:
[_]YES [_]NO

Do you use the club BBS? [_]YES [_]NO. If yes, How
often [_]Once a month [_]Once a week [_]Couple of times
a week [_]Most days.
What do you think of the BBS: [_]POOR [_]FAIR [_]GOOD
[_]EXCELLENT.
What would you like to see on the BBS:
If you do not have a modem or acoustic coupler, do you think you will possibly purchase on in the near future.
[_]YES [_]NO.

COMMENT (In the space remaining please comment on any aspect of the club which you feel needs attention.)





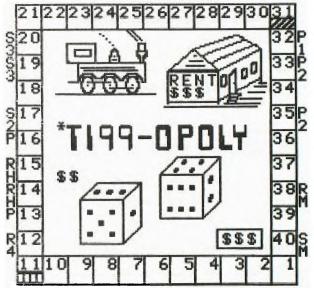
325 George Street (Near Wynyard Station) Sydney

Phone: (02) 29 1631

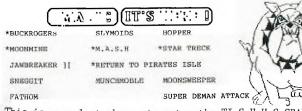
PTY LIMITED

upstairs for all your

TI computer needs



TI99-OPOLY, based on the very popular Monopoly Board game. \$25.95. This one Monopoly Board game. \$25.95. This on will keep the entire family frantic. You'll require Extended Basic, Disk system, and 32k of memory.



This is your last chance to enter the TI.S.H.U.G GRAPHX Contest, and we sell 'GRAPHX'. So join in the fun, and get those entries in.

A comprehensive range of Texas Instruments Education, Games, and Personal Business

cartridges + many 3rd party cassettes.

We also have TI-99/4(A) Peripherals and

harware like Modems, Monitors & Printers.

We specialise in cables for your hardware needs

Come up and see us some Time! [IMAGIC



The Fast Lane

ITED BY IAIN JOHNSON

IFNI



SCREEN DUMP by Don Cook

Character pattern bytes are stored memory on a row by row basis. The first byte is the pattern for the top row of a character. A dot matrix printer takes information, in the graphics mode, on a with the first byte as the column basis. left column of the character.
The PRPATT subprogram

takes character patterns stored in VDP RAM and converts them to patterns suitable for the low resolution graphics mode of a dot matrix printer. The PLINE subroutine matrix printer. creates two 128 character strings based on the 32 ASCII codes on line. The line number to be printed is input from BASIC. These two strings can then transmitted to the be printer to print the screet line (including redefined character patterns).

DEF PRPATT, PLINE STRASG FOU >2010 Subroutine to pass string to basic NUMREF EQU >2000 Subroutine to get number from basic EQU >8344 Stack location for number PRINIP BSS >400 Store printer patterns here LENSTR DATA 128 String length LINSTR BSS 256 Store printer codes for 1 line here CHAR BSS Temporary character pattern storage PCHAR BS\$ 7 Rotated character pattern storage SAVRIN DATA XXXXX Return location storage

MYWS BSS 31 Workspace PRPATT MOV R11, GSAVRTN Store return location LWPI MYWS New workspace I.I R3, PRINTP Printer character patterns MOV R3,R6

R6,>400 Last character pattern AI RO,>0004 LI VDP RAM character patterns at >400 MOVB RO,@>8002 VDP RAM address LSB SWPB RO Swap for MSB MOVB RO,@>8002 VDP RAM address MST

EXHAF CIR RI GETPAT MOVB @>8800,@CHAR(R2) Read pattern from VDP RAM TNC RI Next pattern byte R2.8 CI Last byte of pattern?

JNE GETPAT CLR R. COLS. CLR F/4 CLR RIO

TRANSF MOVB @CHAR(R4),R10 Get character pattern SRC R10.15 Put bit 0 at far right MOVB R10, @CHAR(R4) Store shifted pattern INC R4 Next character pattern line CI R4,0 Last character pattern line ? JNE TRANSP

SWPB R10 Print pattern to MSB MOVB R10, (PCHAR(R5) Store print pattern INC RI # of columns of pattern R5,1 CT Last pattern column? INE COL

LI R2.4 4 words per character pattern LI R1, PCHAR Printer character patterns STRKUT MOV *R1+ *R3+ Store Printer character pattern DEC R

Clear status

STRROT JNE R3.R6 Last character pattern? JLT ECHA RETURN MOV @SAVRTN,R11 Get return addres

CLR @837¢ LWPI >83E0 Restore CPL works RT MON RLL GSAVRIN Store return address LINE IMPI MYWS New workspace No array CIR RO

First argument from basic LINK R1. LI BLWP GNUMRER Get screen line number from BASIC Get EXP and MSD (refer to III-13 MON GFAC, RE in USER'S REFERENCE GUIDE)

Eliminate EXP ANDI RB,>UUFF Adjust line number assem.language DEC RE SLA R8,3 Multiply by 32 (32 characters/line) SWPB R8 Swap to send LSB first

LSB of screen table location MOVB R8,@>8002 SWPB R8 Swap to send MSB MOVB R8,@>8002 MSB of screen table location 32 characters per line LI R5,32 R1,LINSTR Storage location for pattern string GETASC MOVB @8800,R4 Read ASCII code from screen table SRL R4,8 Shift for word operation R4,-32 -96 for BASIC offset & -32 for code AI SLA R4,1 Multiply by 8 (8 bytes/pattern) LI R3,4 8 bytes per pattern NXTPAT MOVB @PRINTP(R4), *R1+ Get printer pattern INC R4 Next pattern byte location DEC R3 JNE NXTEAT Last pattern byte? DEC RS JNE GETASC Last character on screen line? CIR RO Not an array Second arguement in LINK LI R1.2 String length byte location R2,LENSTR+1 T.T String for left half line to BASIC BLWP @STRASG Next arguement in LINK INC R1 MOV R2,R3 R2,128 Right half of line AI Store string length byte MOVB *R3. *R2 BLUP @STRASG String for right half to BASIC Return to BASIC JMP RETURN

CLOCK D.L. Fichhorn

Assemble the program under the name clock To load the program use the following three lines. The clock will run as long as you stay in the basic environment. CALL INIT CALL LOAD("DSK1.CLOCK" CALL LINK("START") To stop |LINK("STOP" CALL the clock TITL 'CLOCK'

INTERRUPT DRIVEN CLOCK BY: D.L.FITCHHORN 305 NAVAJO KELLER, TX 76244

SOURCE PHILADELPHIA TIBBS * 215 927 6432

START, STUP INIKPI EQU >8304 TIMOUT EQU >83D6 VDPWD EQU >8000 VDPWA EQU >8003 COUNT EOU STNMIL EQU

HOURS EQU MINUTS EQU 🕏 MYREG BSS >20 SECNOS FOU COUNTR EQU MYREG+4 DATA >4000 WRB SIN DATA 13

*INITIAL SCREEN LOC DATA XXXX SCRN DATA 59 *# OF 60THS TO COUNT RESET HD DATA >0001,>0203,>0405,>0607 DATA >0809,>1011,>1213,>1415 DATA >1617,>1819,>2021,>2223 DATA >2425,>2627,>2829,>3031 * TABLE TO ALLOW

DATA >3233,>3435,>3637,>3839 DATA >4041,>4243,>4445,>4647 * >00 - >3B TO DATA >4849,>5051,>5253,>5455 * DECIMAL 0 - 59 DATA >5657,>5859 AORG >2800

START MOV GRESET, @COUNTR MOV @SCRN,@MYREC MOV @STN,@MYREG+6 CLR @MYREG+8 CIR @MYREC+10

*INITIALIZE COUNTER *INITIAL SCREEN LOCATION *SET STANDARD TIME MOURS Matnifies

*WRITE BIT

*STANDARD TIME

*QUICK HEX CONVERSIONS

RO. CLOCK

@MYREC+1:

CIR

SHUG

Sydney News Digest

by Tom Arnold MOV RO, GINTRPT *TELL INTERRUPT WHERE TO CO STOP CLR @IMIRPT PARALLEL PRINTER SUBROUTINES by Don Cook *TURN INTERRUPT OFF The following program illustrates the way the CRU is used to send information to a parallel printer using the TI RS232 card or ANIOM interface. CLOCK LIMI 0 *ENSURE NO INTERRUPTS LWPI MYREG *POINT TO MY RECISIERS Inta is sent directly from memory to the printer DEC COUNT *DECREMENT COUNT OF GOTHS JNE TEXT without using the DSRLMK subroutine. DEF DISK REF VMBW HOW GRESET, COUNT *RESET COUNTER TNC SECNES VMBW, VMBR MUPDATE SECONDS MWS BSS 32 CT SECNOS, 60 *AT MAX7777 BSS >1000 STORE JIME. ALTERN DATA >0333,>0444,>0555,>0666,>0777 DATAS (72 SECMOS WES LWPI MYWS INC MINITS MUPDATE MINUTES To change to AXIOM parallel printer, change line CI MINUTS,60 *AT MAX??? below to BL GPRINT2 .INE ALLDUN GERINT1 Turn on printer control CIR HINUTS BL. *YES Print 4 hex values at >0000 BLMP GPRINT HOURS *UPDATE HOURS Location 0, 4 digits/4 values DATA >0000,>0404 HOURS, STIMIL #AT MAX??? Carriage return/line feed OCULE ALLITIN PLAP GPRINT Print ASCII values at >3F30 CLR HOURS *YES 00:00:00 MILITARY STIMIL, 24 DATA >3F30, X0040 Location 3F30, ASCII/64 values *SHOULD THIS BE STANDARD?? Carriage return/line feed JEQ ALLDUN BI. GCRLF Print 16 ! values BLUP GPRINT INC HOURS *YES 01:00:00 STANDARD DATA >2100,>FF10 Byte >21, print byte/16 times ALLIAN SWPB RO *PUT TIME ON SCREEN BLMP @PRINT Print 5, 3 digit data values MOVB RO, @VDPWA *LOAD VID ADDRESS Location DATA3, 3 digits/5 values DATA DATA3,>0305 SWPB RO SOC GARB. RO (CRLF Carriage return/line feed *SET WRITE BIT ANDI R12,>FF00 Reset CRU address HOVB RO, GVOPNA SBZ 0 Turn off printer control SZC GWRB.RO HOVB @HD(R4),R1 *HOURS IN DECIMAL 10 GOSUB 3000 SRL R1,4 *POSITION FOR LEFT DIGIT 20 GOSUB 3100 AI R1,>9000 *MAKE HEX CHAR (BASIC) 30 INPUT N.H MOVB R1, @VDEWD 40 GOSUB 3130 SLA R1,4 *POSITION FOR RIGHT DIGIT 50 GOTO 30 ANDI R1,>OFOO *IBID AS ABOVE 60 END AI R1,>9000 3000 REM Printer string codefor CR,LF & HOVB R1, @VDPWD * H low resolution graphics with LI R1,>9A00 . . 3010 REM 256 bytes to follow MOVB R1, @VDPMD 3020 Cs=CHR\$(13)&CHR\$(10)&CHR\$(27)&"K"&C * MINUTES IN DECIMAL MOVB @HD(R5),R1 HR\$ (0) & CHR\$ (1) SRL R1,4 3030 CALL INIT AI R1,>9000 3040 CALL LOAD("DSK1.PRINTPAT") MOVB RI, @VDPVD 3050 REM Change line below to suit RS232 SLA R1,4 type printer ANDI R1,>OFOO 3060 OPEN #1: "RS232.CR.BA=4800.PA=N.DA=8 AI R1,>9000 HOVE R1, @VDEWD 3070 REM Set printer line feed to 8/72 o R1,>9A00 f an inch HOVE RI GATISANO 3080 PRINT #1:CHR\$(27)&"A"&CHR\$(8) SECONDS IN DECIMAL HOVB (NED(R6), R1 3090 RETURN SRL R1,4 3100 REM Store character patterns in a f R1,>9000 AI orm suitable for the printer HOVB R1, @VDPMD 3110 CALL LINK("PRPATT") SLA R1,4 3120 RETURN ANDI R1,>OFVO 3130 REM Print out screen lines in the I AI R1,>9000 MOVB R1,@VDPWD ow resolution graphics mode 3140 FOR X=N TO M *RESET SCREEN TIMEOUT SETO @TIMOUT 3150 CALL LINK ("PLINE", X, Ls, Rs) *RESTORE CALLING REGISTERS TEXIT LUPI >83E0 3160 PRINT #1:Cs;Ls;Rs RT *AND RETURN 3170 NEXT X END END 3180 RETURN

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REM HERE ARE SOME PROGRAMS FOR YOU TO TYPE IN. TAKE YOUR TIME AND TYPE
100 REM HERE ARE SUME PROGRAMS FOR YOU TO
110 REM CAREFULLY. THE LISTINGS ARE FROM
120 REM CHECK YOUR TYPING. HAPPY KEY:
130 REM HERE ARE SOME PROGRA
140 REM CAREFULLY. THE LIFE FOR THE PROGRAM OF THE 
                                                                                                                                                                                                                                                                                                                                                  THE PROGRAMS
                                                                                                                                                                                                                                                                                                                           TALE YOUR
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                         51
                                                                                                                  BOME PROGRA
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                                                              REFULLY. THE LIST!
        00
                        FFN
                                                                                             TYPING.
                                                                                                                                                                                                                                                      NG. AND ENJOY THE PROGRAMS - TISHUG.
  ZIO REM CHECK
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100 REM ************* 110 REM *THE MAGIC PUZZLE* 120 REM ************* 130 REM BY CHRIS BOBBITT 140 DIM M(4,4),L(20),Q(16):: ON WARNING NEXT :: ON ERROR 170 !:: ON BREAK NEXT 150 CALL BEGIN(D):: CALL SET UP(M(,),L(),D,Q()) 160 CALL CHECK(M(,),L(),TU): : CALL INKEY(L(),M(,),X1,Y1, B, I, J):: CALL MOVE (M(,), B, X1 ,Y1,I,J):: TU=TU+1 :: GOTO 1 60 170 FOR II=1 TO 16 :: CALL M OTION(#II,0,0):: NEXT II :: **GOTO 160** 180 SUB CHECK(M(,),L(),TU)::
 Z,K=0 :: FOR N=1 TO 4 :: FOR P=1 TO 4 :: Z=Z+1 :: L(M(N,P))=Z :: IF M(N,P)=Z THEN K =K+1 190 NEXT P :: NEXT N :: IF K =16 THEN CALL ENDR (TU) ELSE S UBEXIT 200 SUBEND 210 SUB INKEY(L(),M(,),X1,Y1 ,B,I,J):: I,J,B=0 :: DISPLAY AT(23,12):"=>" 220 ACCEPT AT (23, 15) SIZE (-2) VALIDATE(NUMERIC)BEEP:B :: F B>15 OR B<1 THEN 220 230 FOR I=1 TO 4 :: FOR J=1 TO 4 :: IF B=M(I,J)THEN 250 240 NEXT J :: NEXT I :: GOTO 250 IF L(B)-4=L(16) THEN X1= Y1=0 :: SUBEXIT 260 IF L(B)+4=L(16)THEN X1=1 :: Y1=0 :: SUBEXIT 270 IF L(B)-1=L(16) THEN X1=0 Y1=-1 :: SUBEXIT 280 IF L(B)+1=L(16)THEN X1=0 :: Y1=1 :: SUBEXIT 290 GOTO 220 :: SUBEND 300 SUB MOVE(M(,),B,X1,Y1,I, J):: CALL FOSITION(#16, X3, Y3 ,#B, X2, Y2):: CALL COLOR (#16 1):: IF X1<>0 THEN CALL MAKE 1(M(,),I,J,X1,I1,J1,I2,J2) 310 CALL LOCATE (#16, X2, Y2):: CALL COLOR (#16,4):: CALL HC HAR((I*2)+7,(J*2)+11,40,2)::CALL HCHAR ((1*2)+8, (J*2)+11 40,2):: CALL SOUND(1250,-5, 20) 320 CALL MOTION(#B.X1*4,Y1*4 #16, X1*4, Y1*4) 330 CALL POSITION(#B,X4,Y4): : IF X4=X3 AND Y4=Y3 THEN CA LL MOTION(#B.O.O.#16.0.0)ELS 330

340 CALL LOCATE (#B, X3, Y3)::

CALL HCHAR ((I+X1) *2+7, (J+Y1)

*2+11.128.2):: CALL HCHAR((I

+X1)*2+8, (J+Y1)*2+11,128,2):

350 CALL LOCATE (#16, X2, Y2) ::

16 :: M(I+X1,J+Y1)=B :: IF X

1<>O THEN CALL MAKE2(M(,), I1

CALL COLOR(#16,6):: M(I,J)=

CALL COLOR(#16.1)

J1, I2, J2) ELSE SUBEXIT

360 SUBEND

370 SUB ENDR(TU):: CALL DELS PRITE(ALL):: CALL CLEAR :: C ALL SCREEN(15):: CALL CHARSE 380 DISPLAY AT (3,1):" ONGRATULATIONS!": :: "YOU SO LVED THE PUZZLE IN": TU: "MOVE S. " 390 CALL MUSIC :: DISPLAY AT (18.1): "DO YOU WISH TO FLAY AGAIN": "(Y/N)?" :: ACCEPT AT (19,9)SIZE(-1)VALIDATE("YN") : YNS 400 IF YNS="Y" THEN RUN 410 CALL CLEAR :: CALL SCREE N(8):: STOP :: SUBEND 420 SUB MAKE1 (M(,),I,J,X1,I1 , J1, 12, J2):: ZZ=I+X1 :: JJ=J +1 :: IF JJ>4 THEN JJ=1 430 FOR W=1 TO 2 :: CALL HCH AR((I*2)+7,(JJ*2)+10+W,M(I,JJ) *4+58+(W*2)):: CALL HCHAR((ZZ*2)+7, (JJ*2)+10+W, M(ZZ, JJ) *4+58+(W*2)):: NEXT W 440 FOR W=1 TO 2 :: CALL HCH AR((I*2)+8,(JJ*2)+10+W,M(I,J J) *4+59+(W*2)):: CALL HCHAR((ZZ*2)+8, (JJ*2)+10+W,M(ZZ,JJ)*4+59+(W*2)):: NEXT W 450 I=ZZ-X1 :: I1=I :: J1=JJ :: I2=ZZ :: J2=JJ :: CALL D ELSPRITE(#M(I,JJ),#M(ZZ,JJ)) : SUBEND 460 SUB MAKE2(M(,), I1, J1, I2, J2):: CALL SPRITE(#M(I1,J1) M(I1, J1) *4+60, 16, ((I1*2)+7) * 8-7, ((J1*2)+11)*8-7) 470 CALL SPRITE (#M(I2.J2).M(I2, J2) *4+60, 16, ((I2*2)+7) *8-7, ((J2*2)+11)*8-7):: FOR II= TO 2 :: CALL HCHAR((I1*2)+ 6+II. (J1*2)+11,128,2) 480 CALL HCHAR ((12*2)+6+11, (J2*2)+11,128,2):: NEXT II :: SUBEND 490 SUB BEGIN(D):: CALL CLEA R :: CALL SCREEN(15):: CALL CHAR (64, "3C4299A1A199423C"): : DISPLAY AT (5,7): "THE MAGIC PUZZLE": TAB(7): "=== ===== 500 DISPLAY AT(11,1):" BY: C. BOBBITT": : :" @ 1984" :: CALL MUSIC : : CALL CLEAR 510 DISPLAY AT(3.2): "CHOICE? ": :"[1] COMPUTER CHOSEN ORD ER":"[2] PLAYER CHOSEN ORDER

560 DISPLAY AT(17,1): "PLACE IN EACH TILE LOCATION A NUMB THE NU ER CORRESPONDING TO MBER OF A TILE. THE SPACE IS REFERRED TO AS THE" 570 DISPLAY AT(21,1): "NUMBER '16'. EACH ENTRY MUSTHAVE A NUMBER BETWEEN 1 AND 16.NO TWO ENTRIES MAY BE THESAME." 580 U=0 :: FOR A1=1 TO 4 :: FOR B1=1 TO 4 :: U=U+1 590 ACCEPT AT (3+(A1*3), (B1*6)-1)SIZE(-2)BEEP VALIDATE("1 234567890"):M(A1,B1):: IF M(A1, B1) > 16 OR M(A1, B1) < 1 THEN 600 Q(U)=M(A1,B1):: FOR C1=1 TO U-1 :: IF Q(C1)=Q(U) THEN 610 NEXT C1 : NEXT B1 : I NE XT A1 : CALL CLEAR : SUBEN 620 SUB EMP3(M(.)):: CALL SC REEN(2):: FOR A=1 TO 4 :: FO R C=1 TO 4 :: CALL LOCATE(#M (A,C), ((A*2)+7)*8-7, ((C*2)+1 1) *8-7) 630 IF M(A,C)=16 THEN CALL H CHAR((A*2)+7,(C*2)+11,40,2): : CALL HCHAR((A*2)+B,(C*2)+1 40.2) 640 NEXT C :: NEXT A :: SUBE ND 650 SUB SETUP(M(,),L(),D,Q()):: CALL CLEAR :: CALL SCREE N(15):: CALL MAGNIFY(3):: FO R I=1 TO 15 :: CALL SPRITE(# I,32,1,1,1):: NEXT I 660 IF D=1 THEN CALL EMP1 (M (,),Q())ELSE CALL EMP2(M(,),0 ()) 670 CALL SCREEN(2):: CALL CH AR (64, "FF8080818381818181818 181838080FFFF010181818181818 1818181C10101FF") 680 CALL CHAR(68. "FF80808182 84808080808182878080FFFF0101 C12111112141810101F10101FF") 690 CALL CHAR(61, "000000FF80 FF000000E09088048890E0") 700 CALL CHAR(72, "FF80808384 80808180808084838080FFFF0101 C1212121C121212121C10101FF") 710 CALL CHAR (76, "FF80808080 81828487808080808080FFFF0101 41C1414141E1414141410101FF") 720 CALL CHAR(80, "FF80808784 84848780808084838080FFFF0101 E1010101C121212121C10101FF") 730 CALL CHAR(84, "FF80808384 84848784848484838080FFFF0101 C1210101C121212121C10101FF") 740 CALL CHAR (88, "FF80808784 80808080808181828080FFFF0101 E1212141418181010101010101FF") 750 CALL CHAR(92, "FF80808384 84848384848484838080FFFF0101 C1212121C121212121C10101FF") 760 CALL CHAR (96, "FF80808384 84848380808081818080FFFF0101 C1212121C14181810101010101FF") 770 CALL CHAR (100, "FF8080848 C948484848484848E8080FFFF010 1718989898989898989710101FF"

": :" =>" :: ACCEPT AT(8,6)
SIZE(-1) VALIDATE("12"):D ::

520 SUB EMF1(M(.),Q()):: RAN

DOMIZE :: FOR K=1 TO 4 :: FO

530 M(K.W)=INT(RND*16)+1 ::

:: IF Q(Z)=Q(N)THEN 530

[]" :: NEXT W

Q(Z)=M(K,W):: FOR N=1 TQ Z-1

540 NEXT N : NEXT W : NEXT

550 SUB EMP2(M(,),Q()):: FOR

W=6 TO 15 STEP 3 :: DISPLAY AT(W,1):" [] [] [

R W=1 TO 4 :: Z=Z+1

K :: SUBEND

SUBEND

1010 DATA 600,988,784,150,10

```
** Listing of THE MAGIC PUZZLE continued **
780 CALL CHAR (104, "FER080848
C848484848484848E8080FFFF010
1216121212121212121710101FF"
790 CALL CHAR (108, "FF8080848
C848484848484848E8080FFFF010
1718909111121214181F90101FF"
BOO CALL CHAR (112, "FF8080848
C848484848484848E8080FFFF010
1718909093109090989710101FF"
810 CALL CHAR (116. "FF8080848
C948484848484848E8080FFFF010
11131519191F9111111110101FF"
820 CALL CHAR(120, "FF8080848
C948484848484848E8080FFFF010
1F9818181F109090909F10101FF"
830 CALL CHAR (40. "FFFFFFFFFF
840 CALL CHAR (128, "FFFFFFFFF
FFFFFFF")
850 CALL CHAR(136, "00003F3F3
F3F3F3E3E3F3F3F3F00000000F
CFCFCFCFC7C7CFCFCFCFCFC")
860 CALL CHAR (140, "3E3E3E3E3
E3E3E3E00FFFFFFFFF00000000F
FFFFFFFF007C7C7C7C7C7C7C7C7C7C
870 FOR I=1 TO 14 :: CALL CD
LOR(I,2,2): NEXT I :: FOR I
=9 TO 16 :: CALL HCHAR(I,13,
128,8):: NEXT I
880 CALL HCHAR (8, 12, 136):: C
ALL HCHAR(8,13,142,8):: CALL
 HCHAR(8,21,138):: CALL VCHA
R(9,21,143,8):: CALL HCHAR(1
7,21,139)
890 CALL HCHAR (17, 13, 141, 8):
 CALL HCHAR (17, 12, 137):: CA
LL VCHAR (9, 12, 140, 8)
900 FOR II=64 TO 120 STEP 4
:: Z=Z+1 :: CALL PATTERN(#Z,
II):: NEXT II :: CALL PATTER
N(#16,40):: CALL EMP3(M(,))
910 CALL COLOR(0,16,2,1,2,2,
2,6,6,3,15,2,4,15,2,13,13,13
 14.7.2)
920 FOR II=i TO 15 & CALL D
OLOR(#11.16):: NEXT II :: CA
LL COLOR(#16,6):: FOR 11=5
0 12 :: CALL COLOR(II,16,13)
: NEXT II :: SUBEND
930 SUB MUSIC :: RESTORE 950
FOR R=1 TO 51 :: READ AA
BB.CC :: IF BB=CC THEN BB=3
0000
940 CALL SOUND (AA, BB, O, CC, O)
:: NEXT R :: SUBEXIT
950 DATA 150,586,587,150,784
,784,150,988,988,300,1175,24
7,300,1175,294,300,1175,392,
300,1175,494
960 DATA 300,740,523,300,740
,523,300,784,494,300,784,494
 300, 1047, 440, 300, 1047, 440, 3
00,988,392,300,988,392
970 DATA 150,880,370,150,880
,494,150,440,440,150,392,392
,150,370,370,150,330,587,150
,784,294,150,988,262
980 DATA 300,1175,247,300,
75,294,300,1175,392,300,1175
,494,300,740,523,300,740,523
,300,784,494,300,784,494
990 DATA 300,880,659,300,880
,459,300,587,523,150,523,459
 150,740,523
1000 DATA 600,784,494,150,78
```

4,784,150,880,880,150,740,74

0,150,587,587

```
47,880,150,880,740,150,740,5
87
1020 DATA 600,988,1175,150,9
88,1175,150,1175,1047,150,11
75,880,150,1175,740,1000,117
5.1175
1030 SUBEND
 198 REM **************
 120 REM ************
 130 CALL CLEAR
 140 CALL SCREEN(5)
 150 FOR I=0 TO 12
 160 CALL COLOR(1.2.11)
 170 NEXT 1
 180 DISPLAY AT(1,1): "* BATTL
 E OF THE SEA LORDS *"
 190 DISPLAY AT(7,2):"PRESS
 IF YOU USE
 200 DISPLAY AT(9,2):" 1
 RS232/11
 210 DISFLAY AT(10,2):"
  RS232/2'
 220 CALL KEY(O,K,S)
 230 IF K<>49 AND K<>50 THEN
 220
 240 CALL TAP
 250 RS2s="RS232/"&STR$(K-48)
 &" . EC"
 260 DISPLAY AT(14,2):"DO YOU
  NEED THE RULES?"; TAB(2); "(Y
 /N) "
 270 CALL KEY (0, K, S)
 280 IF K<>89 AND K<>78 THEN
 270
 290 CALL TAP
 300 IF K=78 THEN 360
 310
    REM [RULES]
 320 CALL CLEAR
 330 CALL PAGE (8,4)
 340 CALL PAGE (4,16)
 350 CALL PAGE (4,16)
 360 REM CINITIALIZE GAMEJ
 370 CALL CLEAR
 380 DPEN #1:RS2$, UFDATE, VARI
 ABLE 32
 390 CALL COLOR(9,16,2,10,16,
 7,11,16,5,12,16,5,13,16,5,14
  16,5)
 400 CALL CHAR (96, "FF81818181
 8181FFFF81BDBDBDBDB1FF")
 410 CALL CHAR (104, "FF8181818
 18181FF")
 420 CALL CHAR(112, "FF9999FFF
 E9999FF")
 430 CALL CHAR (120. "013149497
 9494901017149714949710101314
 941414931010171494949497101"
 440 CALL CHAR (124, "017941714
 1417901017941714141410101314
 941594931010149497949494901"
 450 CALL CHAR (128. "017121212
 1217101010909094949310110301
 010103800FF3C240408103C00FF"
 460 CALL CHAR (132, "3C041C040
 43C00FF08283C08080800FF3C203
 C04243C00FF20203C24243C00FF"
 470 CALL CHAR (136, "3C0408101
 01000FF3C243C24243C00FF3C243
 C04040400FF3C242424243C00FF"
 480 CALL CHAR (140. "808080808
 0808080FF")
 490 SHF$(1)="CARRIER" :: SP(
```

```
500 SHP$(2)="CRUISER" :: SP(
(2) = 4
510 SHP$(3)="DESTROYER" :: S
P(3)=
520 SHP# (4) = "SUBMARINE" :: 5
P (4) =
530 SHP$ (5) = "PT BOAT" :: SP (
5)=2
540 SHIPS=17
550 REM [SCREEN DISPLAY]
560 CALL CLEAR
570 CALL HCHAR (1,1,142,480)
580 FOR I=1 TO 10
590 CALL HCHAR (2+1, 4, 96, 10)
600 CALL HCHAR (2+1, 20, 96, 10)
610 FOR J=1 TO 10
620 LDC(I,J)=0
630 NEXT J
640 NEXT I
650 FOR I=1 TO 10
660 CALL HCHAR(2+1,3,119+1)
670 CALL HCHAR (2+1, 19, 119+1)
ABO NEXT I
690 FOR I=1 TO 10
700 CALL HCHAR(2,3+1,129+1)
710 CALL HCHAR (2, 19+1, 129+1)
720 NEXT 1
730 FOR I=1 TO 2
740 CALL HCHAR(13, I*16-12, 14
1.10)
750 CALL VCHAR (3, 1*16-2, 140,
10)
760 NEXT I
770 DISPLAY AT(16.1): "* BATT
LE OF THE SEA LORDS *"
780 REM [SHIP PLACEMENT]
790 M$="CARRIER...." :: N=5
800 GOSUB 2600
810 FOR I=1 TO 5
820 CC(I)=MC(I)
830 CR(I)=MR(I)
840 LOC(MR(I), MC(I))=1
850 NEXT I
860 M$="CRUISER ... :: N=4
870 GOSUB 2600
880 FOR I=1 TO 4
890 BR(I)=MR(I)
900 BC(I)=MC(I)
910 LOC(MR(I), MC(I))=2
920 NEXT I
930 M$="DESTRUYER..." :: N=3
940 GOSUB 2600
950 FOR I=1 TO 3
960 DR(I)=MR(I)
970 DC(I)=MC(I)
980 LOC(MR(I), MC(I))=3
990 NEXT I
1000 M$="SUBMARINE..."
1010 GOSUB 2600
1020 FOR I=1 TO 3
1030 SR(I)=MR(I)
1040 SC(I)=MC(I)
1050 LOC(MR(I), MC(I))=4
1060 NEXT I
1070 Ms="PT BOAT...." :: N=
1080 GOSUB 2600
1090 FOR I=1 TO 2
1100 PR(I)=MR(I)
1110 PC(I)=MC(I)
1120 LOC(MR(I),MC(I))=5
1130 NEXT I
1140 DISPLAY AT (19,3): "FLEAS
E CHECK GRID AS TO"
1150 DISPLAY AT(21,2):"INSUR
E THAT IT IS CORRECT"
1160 DISPLAY AT(24,2): "=> PR
ESS PRCD OR REDO <="
1170 CALL SOUND (165,1400,2)
1180 CALL KEY(0,K,S)
1190 IF K=6 THEN 580
1200 IF K<>12 THEN 1180
1210 REM [PREPARE TO PLAY]
1220 CALL CLS
```

1)=5

** SEA LORDS continued ** 1230 DISPLAY AT(18,2): "PRESS IF YOU' 1240 DISPLAY AT (20, 2): 1 SHOOT FIRST" 1250 DISPLAY AT(21, 2): 2 SHOOT SECOND" 1260 CALL KEY (0, K, S) 1270 IF K=49 THEN FLAG=1 :: 50TO 1300 1280 IF K<>50 THEN 1260 1290 FLAG=2 1300 CALL TAP :: CALL CLS 1310 PRINT #1: "ATVO" 1320 CALL DEL(2) 1330 PRINT #1:"ATDR" :: DISF LAY AT (19.2): "PLEASE CONNECT YOUR MODEM" 1340 DISPLAY AT (21,5): "THEN PRESS ENTER" 1350 CLOSE #1 1360 CALL KEY (0, K, S) 1370 IF K<>13 THEN 1360 1380 CALL TAP :: CALL CLS 1390 HIT=3 :: EDG=0 1400 REM CMAIN GAMINGI 1410 ON FLAG GOTO 1430.1420 1420 OPEN #1:RS2\$, UPDATE, VAR IABLE 32 :: GOTO 1670 1430 CALL CLS 1440 DISPLAY AT(18,2): "FREFA RE TO FIRE" :: CALL DEL(2) 1450 DISPLAY AT (20, 2) BEEP: "E 1470 IF K<65 OR K>74 THEN 14 60 1480 CALL TAP 1490 TR=K-64 1500 CALL HCHAR (20,14,K) 1510 CALL KEY (0, K, S) 1520 IF K=8 THEN 1450 1530 IF K<48 OR K>57 THEN 15 1540 CALL TAP 1550 IF K=48 THEN TC=10 ELSE TC=K-48 1560 CALL HCHAR (20, 22, K) 1570 CALL KEY (0, K, S) 1580 IF K=8 THEN 1450 1590 IF K<>13 THEN 1570 1600 CALL TAP 1610 DISPLAY AT(22,2): "TFIRT NG 3 " 1620 SHOT\$=STR\$(TR-1)&STR\$(T C-1) &STR\$ (HIT) &STR\$ (EDG) 1630 OPEN #1:RS2\$, UPDATE, VAR IABLE 32 1640 FRINT #1: LHK\$ (127); SHOT 1650 IF EUG=1 THEN 2250 1660 REM [CALCULATE SHOTS] 1670 INPUT #1:RET\$ 1680 IF LEN(RET\$)<4 THEN 174 1690 ER=0 1700 FOR I=LEN(RET&)-3 TO LE 1710 IF ASC(SEG\$(RET\$, 1, 1)) 48 OR ASC(SEG\$(RET\$, I, 1))>57 THEN ER=1 1720 NEXT I 1730 IF ER=0 THEN CLOSE #1 : : GOTO 1760

1740 FRINT #1: CHR# (127): "000

1760 RR=VAL (SEGS (RETS, LEN (RE

1770 RC=VAL (SEG\$ (RET\$, LEN (RE

1780 HT=VAL (SEG\$ (RET\$, LEN (RE

1790 EDG=VAL (SEG\$ (RET\$, LEN (R

1750 GUTG 1670

T\$)-3.1))+1

T(s) - 2 - 1) + 1

T\$)-1.1)

ET\$) 1))

1800 F1\$=CHR\$(RR+64) 1810 IF RC=10 THEN P2\$="0" E LSE P2\$=STR\$(RC) 1820 IF EOG=2 THEN 1645 1830 IF HT=1 THEN 1920 1840 IF HT=2 THEN 1970 1850 IF HT=3 THEN 2020 1860 IF HT=9 THEN 1900 1870 CALL HCHAR (TR+2.TC+19.1 04):: GOSUB 3030 :: GOSUB 29 80 :: GOSUB 3030 1880 DISPLAY AT(22,2): "ENEMY "; SHP\$ (HT-3); " SUNK!!!" 1890 GOTO 2020 1900 DISPLAY AT (22,2) BEEP: "Y OU ALREADY SHOT HERE ??" 1910 GOTO 2020 1920 CALL HCHAR (TR+2, IC+19,) 12) 1930 GOSUB 2980 1940 DISPLAY AT(22,2): "YOUR SHOT MISSED. . . " 1950 CALL DEL (5) 1960 GOTO 2020 1970 CALL HCHAR (TR+2, IC+19, 1 04) 1980 GOSUB 3030 1990 DISPLAY AT(22,2): "YOU H IT AN ENEMY SHIF ... " 2000 CALL DEL(5) 2010 REM [CALCULATE INCOMING 2020 IF EOG=1 THEN 2370 2030 IF LOC(RR,RC)>0 AND LOC (RR.RC)<6 THEN 2140 2040 IF LOC(RR,RC)<>6 THEN 2 090 2050 HIT=9 2060 GOSUB 2930 2070 DISPLAY AT(24,2)BEEP: "E NEMY SHOT WENT WILD ... " 2080 GOTO 2200 2090 GDSUB 2930 2100 CALL HCHAR (RR+2, RC+3, 11 2) 2110 GOSUB 2980 :: HIT=1 2120 DISPLAY AT (24,2): "ENEMY SHOT MISSED ":P1\$; "-"; F2\$. 2130 GOTO 2200 2140 GOSUB 2930 2150 CALL HCHAR (RR+2, RC+3, 10 2160 GDSUB 3030 |: HIT=2 :: SHIPS=SHIPS-1 2170 SP(LOC(RR.RC))=SP(LOC(R R.RC))-1 2180 IF SP(LOC(RR,RC))=0 THE N HIT=LOC(RR,RC)+3 2190 DISPLAY AT (24,2): "ENERTY SHOT HAS HIT "; P1\$; "-"; P24 2200 CALL DEL(10) 2210 LOC(RR,RC)=6 2220 IF SHIPS=0 THEN EDG=1 1 : GOTO 1620 2230 GOTO 1430 2240 REM CEND OF GAMET 2250 CALL CLS 2260 DISPLAY AT(19,2): "YOUR FLEET HAS BEEN SUNK" 2270 FOR I=1 TO 3 2280 FOR J=1 TO 30 2290 CALL SOUND (-50,440-J*10 2,1100-J*I*10,2) 2300 NEXT J 2310 NEXT I 2320 CALL SOUND: -500,110,2,1 40.2) 2330 CLOSE #1 2340 CALL DEL(10) 2350 DISPLAY AT(21,2): "THIS GAME IS OVER" 2360 GOTO 2440

2380 FOR I=1 TO 30 2390 FOR J=1 TO 30 2400 CALL SOUND (-50, 220+J*10 2.220+J*10*I.2) 2410 NEXT J 2420 NEXT I 2430 DISPLAY AT(21,2):"THIS GAME IS OVER" 2440 DISPLAY AT(23,2):"PLEAS E DISCONNECT NOW" 2450 CALL DEL (500) 2460 CALL CLEAR 2470 END 2480 REM [DATA FILES] 2490 DATA OBJECT: the object of this game is to locate a nd to, destroy the enemy flee t, before it destroys you.,, 2500 DATA GETTING STARTED: f irst you, must plot your ship s on, your home grid [left].y ou, are in command of 5 ships 2510 DATA each ship must be plotted, on either a horizont al or, vertical line. diagona 2520 DATA plots are not used ships, may touch one anothe but, they must never overla p., once both players have 2530 DATA placed their ships they, then determine who wil 1, shoot first. then players, may connect their modems., 2540 DATA GAME PLAY: game pl ay is, simple. taking alterna ting, turns players fire at t he,opposing fleet. your shot 2550 DATA will be shown on t he enemy,grid [right]. incom ing, shots will be displayed on, your home grid. the game 2560 DATA ends when one of t he fleets, is destroyed.,, NOT E:any incoming shots, that go wild are actually, shots tak en on a orid that 2570 DATA has already been h it. 2580 REM (SUB-ROUTINES) 2590 REM [SHIP PLACEMENT] 2600 CALL CLS 2610 DISPLAY AT(18,2): "5HIF PLACEMENT" 2620 DISPLAY AT(20,2):M\$; TAB (14); "USES"; N; "PLACES" 2630 FOR I=1 TO N 2640 DISPLAY AT(22,2) BEEF: "E NTER ROW __ COL _" 2650 CALL KEY(0,K,S) 2660 IF K<65 OR K>74 THEN 26 50 2670 CALL TAP 2680 CALL HCHAR (22, 14, K) 2690 MR(I)=K-64 2700 CALL KEY (0, K, S) 2710 IF K=B THEN 2640 2720 IF K<48 DR K>57 THEN 27 00 2730 CALL TAP 2740 DISPLAY AT(22,20): CHR#! 2750 IF K=48 THEN MC(1)=10 E LSE MC(I)=K-48 2760 CALL KEY (0, K, S) 2770 IF K=8 THEN 2700 2780 IF K<>13 THEN 2760 2790 CALL TAP 2800 CALL HCHAR(2+MR(I).3+MC (I).97)2810 NEXT 1 2820 DISPLAY AT(24,2):"=> FF ESS FRCD OR REDO <="

2370 CALL DEL(10):: CALL CLS

EMY HAS BEEN SUNK"

:: DISPLAY AT (19.2): "THE EN

PROGRAMMING WINTS

EXAMPLE #1:

This listing is a space shoot-out for Extended Basic. You move the crosshairs around the screen with the joystick until you have it on the E.T, push the fire button and ZAPP, no more E.T. It also uses the subroutine for the exploding spacecraft from last months SND to give an example of how it can be used. It also features a couple of interesting sounds effects.

EXAMPLE #2:

This listing works in Basic or Extended Basic. It is a planetscape with a horizon on which there is a city skyline. In the forground there is a geometrical pattern with some cubes and pyramids. In the sky there are three planets of different size and colours. The idea is to biuld your program on this background. For example, E.T Attack, also listed, would look great on this background. Maybe you could do even better with your own space game.

While we are on the subject of routines and programming, I wish to take this opportunity to extend a very special Greeting and thanks to Graeme Hollis on the programmers Crisis line, who has given me and other members a great deal of assistance with problem areas in programming.

```
100 REM**************
                                 350 NEXT F
110 REM*
                                 360 DISPLAY AT (17.12): "ATTAC
            E.T. ATTACK
120 REM*
130 REM*
                                 370 DISPLAY AT (20,9): "By Joh
140 REM*
            EXTENDED BASIC
150 REM*
            AND JOYSTICKS
                                 380 DISPLAY AT (22 12): "TISHL
160 REM*
               REQUIRED
170 REM*
                                 390 FOR SND=30 TO ( STEF -)
            JUHN THURKALICHHE*
180 REM*BY
                                 400 CALL SOUND (-100.440.SND)
190 REM*
                                 262, SND, 131, SND)
410 NEXT SND
200 REM* for S.N.D 26/4/85 *
210 REM*
                                 420 DISPLAY AT(24.1): "Frest
220 REM****************
                                 Any Key"
230 CALL CLEAR
                                 430 CALL KEY(0,K,S)
240 CALL CHAR(42. "FFFFFFFFFF
                                 440 IF S=0 THEN 430
FFFFFF"):: CALL COLOR(2,13,1
                                 450 IF S=1 THEN 460
                                 460 CALL CLEAR
470 PRINT "YOU HAVE 5 E.T's
250 CALL CLEAR :: CALL SCREE
N(15)
                                 TO DISTROY"
260 PRINT "
                     RESER ES
                                 480 PRINT
***
                                 490 PRINT "AND 50 PHOTON TOP
270 PRINT "
                                 PEDOES"
                                 500 FOR P= TO 6
280 PRINT "
                                 510 PRINT
                                 520 NEXT P
290 PRINT "
                                 530 FRINT "Don't Forget To F
                                 elease"
300 PRINT "
                                 540 PRINT "ALPHA LOCK"
                                 550 FOR D=1 TO 1000 . NEXT
JIO PRINI
                                 560 CALL CLEAR
320 PRINT
                                 570 CALL CHAR (96, "182442D5AF
                                 817E00")
330 FOR P=1 TO 9
                                 580 CALL CHAR (97, "0800000000
340 PRINT
                                 000000")
```

```
590 CALL CHAR (98, "0000661818
660000")
600 CALL CHAR (99, "102040D000
000000")
610 CALL CHAR (100, "080402050
0000000")
620 CALL CHAR(101, "000000000A
0807000")
630 CALL CHAR(102, "0000000000
B010E00")
640 CALL CHAR(103, "000000000
10A0408")
650 CALL CHAR (104, "000000000A
0402010")
660 CALL CHAR(105, "102050800
0000000")
670 CALL CHAR(106, "000000005
0405020")
680 CALL CHAR(107, "007080D00
0000000")
690 CALL CHAR(108, "OCOA020A0
0000000")
700 CALL CHAR(109, "304050300
0000000")
710 CALL CHAR(110, "000E01050
0000000"1
720 CALL CHAR(111, "000000000
20A020C")
730 CALL CHAR(112, "080C02090
0000000")
740 CALL CHAR(113, "000000000
B020408")
750 CALL CHAR(114, "000000005
0403010")
760 CALL CHAR(115, "182466818
1662418")
770 FOR SCR=1 TO 14
780 CALL COLOR (SCR, 14, 2)
790 NEXT SCR
800 FOR S=10 TO 28
810 RANDOMIZE :: ST=INT(RND*
190)+1 :: SA=INT(RND*250)+1
820 CALL SPRITE(#S,97,8,ST,S
AL
830 NEXT S
840 CALL CLEAR :: SHP=0 :: S
HO=C
850 CALL SPRITE (#1.96.5.96.1
247
860 SHP=SHP+1
870 DISPLAY AT(1.1): "SHIPS:"
; SHP
880 IF SHP=6 THEN 1330
890 CALL SPRITE (#7,56,16,192
, 124)
900 CALL SPRITE (#2,115,4,50,
124)
910 CALL JOYST (1, X, Y)
920 DISPLAY AT (3,1): "SHOTS:"
; SHO
930 IF SHO=50 THEN 13<mark>30</mark>
940 CALL MOTION(#2,-Y*3,X*3)
950 CALL POSITION(#7,R.C)
960 CALL POSITION(#2,RT,CT)
970 RANDOMIZE :: KL=INT(RND*
30)-16 . PL=INT (END*30)-16
```

** Listing of SEA LORD BATTLE continued **

```
2830 CALL SOUND(165,1400,2)
2840 CALL KEY(0,K,S)
2850 IF K<>6 THEN 2900
2860 FOR I=1 TO N
2870 CALL HCHAR(2+MR(I).3+MC
(I),96)
2880 NEXT 1
2890 GOTO 2600
2900 IF K<>12 THEN 2840
2910 CALL CLS :: RETURN
2920 REM [INCOMING SOUND]
2930 FOR I=2 TO 50
2940 CALL SOUND(-300,1200-IX
10,INT(50/I)
2950 NEXT I
2950 NEXT I
```

2970 REM [MISSED SOUND]

```
2980 FOR I=1 TO 5
2990 CALL SOUND -10.1500+1*1
00,1)
3000 NEXT I
3010 RETURN
3020 REM [H<mark>IT SHIP SOUND]</mark>
3030 FOR I=1 TO 10
3040 CALL SUUND(-10.110.1)
3050 CALL SUUND(-10,140,2)
3060 NEXT I
3070 RETURN
3080 REM [SUB-PROGRAMS]
3090 SUB CLS
3100 CALL HCHAR (17.1.32.256)
3110 SUBEND
3120 SUB DEL (D)
3130 FOR J=1 TO D*100
```

3140 NEXT J

```
3150 SUBEND
3160 SUB TAP
3170 CALL SOUND:-1,880.8)
3180 SUBEND
3190 SUB PAGE(X,Y)
3200 DISPLAY AT(1,1) ERASE AL
L: "* BATTLE OF THE SEA LORDS
3210 FOR L=X TO X+V
3220 READ MSG$
3230 DISPLAY AT(L. 2) MSG#
3240 NEXT L
3250 DISPLAY AT (22,2) BEEP: "p
    enter to continue"
ress
3260 CALL KEY(0,K,S)
3270 IF K<>13 THEN 3260
```



** John Luck's PROGRAMMING HINIS continued **

```
** ET-ATTACK continued **
980 CALL MOTION(#1,KL,PL)
990 CALL KEY(1,K,S):: IF S=0
 THEN 910
1000 IF k=18 THEN 1010 ELSE
990
1010 CALL SPRITE(#8,98,10,K
1020 SH0=SH0+1
1030 RV=(RT-R) *0.55
1040 CV=(CT-C) *0.55
1050 CALL MOTION (#8, RV, CV)
1060 FOR SND=30 TO 10 STEP
1070 CALL SOUND (-100,1760,80
N, 1568, SND, 1397, SND)
1080 NEXT SND
1090 CALL COINC (#1, #8, 10, AS)
:: IF AS=-1 THEN 1120 ELSE 1
100
1100 CALL DELSPRITE (#8)
1110 GOTO 910
1120 CALL DELSPRITE(#8):: CA
LL MOTION(#1,0,0,#2,0.0):: C
ALL POSITION (#1.A.B)
1130 CALL SPRITE(#3,99,11,A,
RY
1140 CALL SPRITE (#4,100,11,4
1150 CALL SPRITE (#5,101,11,4
1160 CALL SPRITE(#6,102,11,6
1170 CALL DELSPRITE (#1)
1180 RANDOMIZE
1190 CALL SOUND (700, -7,0)
1200 FOR Q=3 TO 6
1210 Z=INT(RND*15)-
1220 S=INT(RND*15)-7
1230 CALL MOTION (#Q, Z, S)
1240 NEXT Q
1250 FOR D=1 TO 150 :: NEXT
D :: CALL PATTERN(#4,103,#6,
106, #5, 109, #3, 112):: FOR D=1
 TO 150 :: NEXT D
1260 CALL PATTERN (#4.104, #6.
107, #5, 110, #3, 113):: FOR D=1
 TO 150 :: NEXT D :: CALL PA
TTERN(#4,105,#6,108,#5,111,#
3,114):: FOR D=1 TO 150
1270 NEXT D
1280 CALL PATTERN(#4,100,#6,
102,#5,101,#3,99):: FOR D=1
TO 150 :: NEXT D
1290 FOR Q=3 TO 6
1300 CALL DELSPRITE(#W)
1310 NEXT Q
1320 GOTO 850
1330 CALL CLEAR :: 'CALL MOT'
DN(#1,0,0,#8,0,0,#8,0,0):: D
ISPLAY AT(12,5): "PLAY AGAIN
YES OR NO"
1340 FOR X=110 TO 9000 STEF
500
 1350 CALL SOUND (-50, X, X/1000
 1360 NEXT X
 1370 CALL KEY (0, K.S)
 1380 IF S=0 THEN 1370
 1390 IF K=121 THEN 840
 1400 IF K=110 THEN 1410 ELSE
  1380
 1410 CALL CLEAR
 1420 DISPLAY AT(12,9):"OK 60
 OD BYE"
 1430 FOR D=1 TO 500 :: NEXT
```

1440 CALL DELSPRITE (ALL):: C

ALL CLEAR :: END

```
100 REM**************
110 REMX
120 REMX
           PLANETECAPE
130 REM*
140 REM*BY JOHN LUCK*TISHUG*
150 REM*
160 REM*FOR BASIC-EX BASIC
170 REM*
180 REM**************
190 CALL CLEAR
200 CALL CHAR (95, "025CF42232
1AOCOR")
210 CALL CHAR(96, "FFFFFFFFFFF
EFFFFF")
220 CALL CHAR(97,"000000000C
2E3AEE")
230 CALL CHAR(98, "00000000000
606DFF")
240 CALL CHAR(99. "00000000000
0074FF")
250 CALL CHAR(104,"010204081
0204080")
260 CALL CHAR(105, "B04020100
8040201")
270 CALL CHAR(105, *000000FF0
00000000")
280 CALL CHAR(107, "010101FF0
1010101")
290 CALL CHAR(108, "010101010
1010101")
300 CALL CHAR(109,"10385C9E5
C381000")
310 CALL CHAR(110."1028446C5
C5C3810")
320 CALL CHARILLIA "IF2347FFB
ERESCES")
330 CALL CHAR(112, "010000000
0000000")
340 CALL CHAR (120, "0103071F1
F3F7F7F")
350 CALL CHAR(121, "COFOFBECT
CBEFFFF")
360 CALL CHAR(122, FFFBF1787
F3F0FQ1")
370 CALL CHAR (123, "FFFEFEFEF
CFBF0C0")
380 CALL CHA<mark>R(128,</mark>"00F078FCF
C7E3F7F")
390 CALL CHAR (129, "FFFE7EFCF
C387000")
400 CALL CHAR 136, FFFFFFFFFF
FFFFFFF")
410 CALL CHAR(137, "FOFCFCFEF
FFFFEFF")
420 CALL CHAR(138, "FFFEFCFEF
EFCFCFO")
430 CALL CHART139, "BOBOCOBOE
0000080")
440 CALL CHAR(140, "COFOFOF8F
EFEFEFF")
450 CALL CHAR(141, "FFFEFUFBF
8F0F080")
460 CALL SCREEN(2)
470 CALL COLOR (8, 2, 7)
480 CALL COLOR(9,11,1)
490 CALL COLOR(10, 2, 11)
500 CALL COLOR(11,8,2)
510 CALL COLOR(12,4,2)
520 CALL COLOR(13,6,2)
530 CALL COLOR (14,7,2)
540 FOR R=20 TO 24
550 CALL HCHAR (R, 1, 96, 32)
560 NEXT R
570 CALL HCHAR(21.1,106,32)
580 T=6
590
    FOR R=20 TD 24
600
    T = T - 1
610
    CALL HCHAR(R.T, 104,1)
620 NEXT R
630
    T=13
640 FOR R=20 TU 24
```

```
670 NEXT R
680 T=20
690 FOR R=20 TO 24
700 T=T+1
710 CALL HCHAR(R, T, 105, 1)
720 NEXT R
730 T=27
740 FOR R=20 JU 24
750 T=T+1
760 CALL HCHAR(R, T, 105, 1)
770 NEXT R
780 CALL VCHAR (20,16,108,5)
790 CALL HCHAR (21,16,107,1)
800 CALL HCHAR (19,1,99,4)
810 CALL HCHAR (19,5,97,3)
820 CALL HCHAR (19,9,99,2)
830 CALL HCHAR (19,12,98,3)
    CALL HCHAR (19, 15, 97, 5)
840
850 CALL HCHAR (19,20,99,6)
860
    CALL HCHAR (19, 26, 98, 2)
870 CALL HCHAR (19, 28, 97, 1)
    CALL HCHAR (19, 29, 99, 4)
890 FOR R=1 TO 25
900 RANDOMIZE
910 SR=INT(RND*18)+1
920 SC=INT(RND*32)+1
    CALL HCHAR (SR, SC, 112, 1)
930
940 NEXT R
950 CALL HCHAR (7,19,120,1)
960 CALL HCHAR (7,20,121,1)
970 CALL HCHAR (8,19,122,1)
980 CALL HCHAR (8, 20, 123, 1)
990 CALL HCHAR (15, 13, 128, 1)
1000 CALL HCHAR (16,13,129,1)
1010 CALL VCHAR (22, 27, 109, 2)
1020 CALL HCHAR (23,6,110,2)
1030 CALL HCHAR (22, 18, 111, 1)
1040 CALL HCHAR (1,1,136,2)
1050 CALL HCHAR (2,1,136,3)
1060 CALL HCHAR (3,1,136,4)
1070 CALL HCHAR (4,1,135,4)
1080 CALL HCHAR (5,1,136,5)
1090 CALL
          HCHAR (6, 1, 136, 5)
1100 CALL
          HCHAR (7,1,136,5)
1110 CALL HCHAR (8, 1, 136, 4)
1120 CALL HCHAR (9,1,136,4)
1130 CALL HCHAR (10,1,136,3)
1140 CALL HCHAR (11,1,136,2)
1150 CALL HCHAR (4,5,137,1)
1160 CALL HCHAR (8,5,138,1)
1170 CALL HCHAR (5,6,139,1)
1180 CALL HCHAR (6,6,139,1)
1190 CALL HCHAR (7,6,139,1)
1200 CALL HCHAR (1,3,140,1)
1210 CALL HCHAR (2,4,140,1)
1220 CALL HCHAR (3,5,140,1)
1230 CALL HCHAR(11,3,141,1)
1240 CALL HCHAR (10,4,141,1)
1250 CALL HCHAR (9,5,141,1)
1260
     CALL HCHAR (3, 2, 95, 1)
1270 CALL HCHAR (6,3,95,2)
1280 CALL HCHAR (7,5,95,1)
1290 CALL HCHAR (10, 3, 95, 1)
1300 GOTO 1300
```



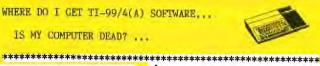
660 CALL HCHAR (R. 1, 104, 1)

450

T=T-1

WHERE DO I GET TI-99/4(A) SOFTWARE ...

IS MY COMPUTER DEAD? ...



Lets answer the second question first... NO! your TI-99/4(A) is not a dead computer, even though both hardware and software seem to be getting more and more difficult to obtain.

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Now to answer that first question...WHERE DO I GET HARDWARE & SOFTWARE.?

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The average charge for deliver of each software item is \$3.50 normal, or \$5.00 express. Hardware is usually aprox; \$5.00 normal.

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O.K. now, lets take a good look at the many items you can obtain through this medium of Mail Order...

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Please note that the codes at each item mean as follows:

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Please a	dd enough to cover P	ostage.

```
100 REM FABCINATION
110 REM
120 REM WRITTEN BY:
  130 REM
  140 REM JAN BARNIER
150 REM
160 REM ROZENBTRAAT 36
  170 REM
180 REM 8471 KM, WOLVEGA
  190 REM
 200 REM NETHERLANNDB
210 *E** WRITTEN ON:
220 *E** WRITTEN ON:
230 NEM
240 REM 31 OCTOBER 1983
250 REM
240 REM 31 OCTOBER 1983
 250 REM

260 RANDOMIZE

270 CALL SCREEN(2)

280 CALL HCHAR(1,1,31,768)

270 FOR A=1 TO 12

300 READ A$

310 CALL COLOR(A,INT(RND*14+3),2
 320 FDR B=A TO 25-A
330 CALL CHAR(33+(A-1)*8,A*)
340 CALL HCHAR(B,4+A,33+(A-1)*8,
24-C)
24-C)
350 NEXT B
360 C=C+2
370 NEXT A
380 RESTORE
390 FOR D=1 TO 12
400 FOR E=4 TO 16
410 F=INT(RND*14)+3
420 IF F=G THEN 410
430 FOR H=12 TO 1 STEP -1
440 CALL COLOR(H, INT(RND*14)+3,F)
  450 NEXT H
 460 G=INT(RND*14)+3
470 IF F=G THEN 460
480 FOR I=1 TO 12
 490 CALL COLOR(1,1,2)
500 NEXT 1
510 CALL CHAR(E*8+1,8*)
520 NEXT E
520 NEXT E
530 READ B6
540 NEXT D
550 GUTU 380
560 DATA 24247E7E7E7E2424
570 DATA 000000FFFF000000
580 DATA 181=:::818181818
570 DATA 000 * 1632300000
590 DATA 000 * 1030500000
600 DATA 1810302424301818
610 DATA 8142241818244281
620 DATA 183076FFFF783018
630 DATA 00767767777500
640 DATA 8142241818244281
650 DATA 995830FFFF305A99
660 DATA FF818181818181FF
 670 DATA 3588558855885588
```

SIMPLE READ-DATA DEMO LOAD DEF/REF TABLE COPY "DEKZ.START-EA/5"

PUT UP TITLE

BEGIN	BL	BERCLR
	BL	BPRNTAT
		D1, D8, L1
	BL.	@PRNTAT
	DATA	D2, D8, L2
	BL	EPRNTAT
	DATA	DB, D2, L3

READ & DISPLAY INTEGERS

TOOL.	El lati	BOE LEWI
	DATA	INTOAT. DLISTI
	BL	eron
	DATA	LOOP, DIG, D17,
	BL	HISETDAT
	DATA	DTEMP
	BL	@INTFLT
	DATA	DTEMP, FLIEMP
	EL	COLORSTR
	DATA	FLIEMP, STRING

BL BERNTAT DATA LOOP, DB, STRING BL BNEXT DATA LOOP

* READ & DISPLAY STRINGS

Service Control of the Control of th		
SLOOP	BL	@PRN1AT
	DATA	DB, D15, L4
	BL.	RSETDAT
Section 1		STRDAT, DLINTS
100	BL	@FDR
	DATA	LUGP, D10, D19, D
La Contraction	BL	SETDAT
	DATA	STRING
	BL	GERNTAT
	DATA	LOOP, D15, STRIN
	BL	RNEXT
	DATA	LOOP

PROGRAMMING GUIZ

by Bill Tiep

Some of the follow statements are incorrect. how many you can correct, the correct statement on blank line undermeath incorrect one. Put the the

You sight enter these in the smediate mode on your console and see what mestages you get.

1) ABS(A6)

2) CALL CHAR (96, 1389EFEFEFE)

3) CALL CLR

4) DATA """ THIS HAS GUOTES""

5) DIM X (9, 8, 7, 6, 5, 4, 3, 77)

4) OPTION BASE O

7) PEEK (3214, A. B. C. D)

B) GS-PI

9) SAVE CS1.FUN, HERGE

10) STOP RUN

MPRNTAT BL #PRNTAT DAIA D23,D5,L5 BL #KEYCON BL #EITHEN DATA KEYNI1,ED,QUITKY,EXII BL #HFF1.BE

DATA IL IN T, EG, FCINB, BEGIN

END PROGRAM

LIMI Z # VARIABLES

DATA 14 TEXT 'READ-DATA DEMO' EVEN L1 12 DATA 14

EVEN DATA B TEXT 'NUMBERS:' L3 1.4

DATA B TEXT 'STRINGS:' DATA 18 TEXT 'PRESS REDO OR GUIT' LOOP DATA O

FLTEMP STRING DTEMP DLIST1 DATA 1,2,3,4,5,6,7,8,7,0

OLIBIS DATA TEXT DATA TEXT 2 , OCC.

TEXT DATA TEXT DATA יםםםםי PEEEEE. TEXT

DATA 6 DATA 7
TEXT 'FFFFF,
DATA 7
"EXT 'GGGGGGG'

DATA B TEXT 'HHHHHHHH' 111111111 PATA 10 • 3333333333

. WAIT FOR KEYHIT

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