

CLEVELAND AREA 99-4A USERS GROUPS NEWSLETTER

MARCH 1987

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This past month almost every newsletter has carried the announcement of the TI/IBM. Most of have been inserted without consent or have come to the same conclusion as my comments last month...that if I want an IBM clone, I will buy one and if I want a TI, I will keep my TI. I could not understand the reasoning for going this route until I read where TRITON evidently did a survey and found that most of their customers are people who have only the TI and lots of modules and wanted something which would allow them to use IBM programs and retain the use of their modules at the same time. For the past three years TRITON has been selling mostly OLD TI modules and amazingly they employ about 30 people to man the phones to take orders.

The fact that for the past three years TRITON has done so well selling mostly OLD TI modules shows you how many people out there are still using their machines. The trick is to match them up with user groups. I hope you are sitting down when I tell you how many "registered" TI owners there are in the Northeastern section of Ohio. It is going to take a while, but somehow we are going to contact them and if they are still using their systems, get them into the user groups, and if they are not using their systems, put them in contact with people who are still looking for TI equipment. Are you sitting down? Marty Smoley of the Northcoast group received a CARTON of TI owners' names and addresses on mailing labels directly from TI. It contains over 46,000!!! labels. Other groups around the country have doubled their membership from contacts made from these lists from TI. There is no reason why the same thing cannot happen here. Marty is one of those dedicated people who refuses to let the TI die.

Thanks to Mary Phillips of Chips for joining our newsletter group this month. Hope you come again!. Chuck Narend, where are you? You are going to need a truck to carry all the newsletters back to your group if we don't hear from you soon. Steve Weinkheiser....now that you don't have to write executive notes for Solon, it should give you TWICE as much time to do some more of those "Mini-reviews" we were enjoying for awhile.

Be sure to key in and play the nifty game programmed by one of our teen members. Paul Newmeyer's articles on Forth have almost convinced me to get out my Forth disks and give that language one more try. It takes lots of patience, but he keeps telling us it is worth it. My apologies to Dick Alden for not having the time to get in some more of his summaries for the book library.

Last month's list of freeware items were put in the newsletter so that YOU could send for them. Our librarians are NOT paid staff members and you can imagine how much work it would be for them to write that many letters to get these freeware items. It would only take you a few minutes to order ONE of these programs and then donate it.

Tom Nellis wants you to know that you can scratch the unkind words he had last month for Myarc. In total frustration, he contacted Judy Thalner and within a couple of days he had a replacement controller which works perfectly.!!!

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EXECUTIVE NOTES - NORTHCOAST

NORTHCOAST ADDENDUM

Well I survived my first meeting and I think it went very well. I'd like to thank Frank Jenkins for the great demo on PRBase and also Tom Nellis for a short demo on a new Tape Loader program. Tom's demo was late in the meeting and many people missed it, however don't feel too bad if you missed it and are tape based. We will review this program and several others to allow our new members who may be using tapes to share in the newest programming.

I should say that the fact that my first meeting went well was not all my doing. The people who brought monitors, cables, miscellaneous hardware, and supplied the manpower to set up the whole show deserve a great deal of credit (and you know who you are).

As reported at the meeting we are making some headway with ongoing projects and committees.

Disk Library: Ernie Nitschke said that people are starting to help with the new disk cataloging, but more help is needed.

Book Library: Dick Alden is formulating plans for library organization. The influx of exchange newsletters from other groups will add considerable information from other parts of the country.

Newsletter: Deanna Sheriden stated that incoming material was not as good as it could be, but that she expected enough would accumulate before the newsletter deadline.

NOTE: The Newsletter is always in need of people who can do reviews, write short articles, and submit simple programs for publication.

Financial: Jim Mekeel said that we are not in the best condition money wise, but if our old members send in their renewals and we pick up a few new members, we'll be all right.

Membership: Elmo Iacobucci reports that we have picked up several new members, which puts our total number at about seventy-five.

I'd like to mention (for those of you who would like to learn more about almost any subject) that working on different committees allowed me to associate with a very knowledgeable group of people. The reward for this was the ability to acquire a wealth of exciting new information about the TI 99/4A and many other subjects. In other words volunteer for a committee you'll be a better person for it.

As a possible point of interest, the Greater Cleveland Timex/Sinclair Users Group will hold a computer fair at the Euclid Square Mall the week-end of October 3 and 4, 1987. Our group has been invited to participate as a group or possibly individually. If you are interested in representing our group, contact any of our executives.

The Next NorthCoast Meeting

I hope the next meeting will be as good as the last, and we are going to try. Paul Wheeler and Tom Nellis will give a combination demo starting with TI/Writer and progressing to the newest version of FunnelWriter (3.4). The demo system will include two color monitors, one B/W, Corcomp DS/DD with three drives, two Horizon Raddisks, one GramKraker, and I'll see what else I can scare up.

*** See you there ***

After Marty Smoley wrote the Northcoast Executive notes, it was decided that starting with the March meeting, there will be a major change in library policy. There will be a \$1.00 per disk charge and the club will supply the disk. You will receive either a double-sided disk or "flippy" which means that you are only paying 50 cents per side. Also, you will be encouraged to bring a list of the disks you need, leave them with the librarian and pick them up at the next meeting. You cannot circumvent this charge by asking a sub-librarian for what you want between meetings. This is a minimal charge compared to many clubs and it was felt necessary to keep us financially healthy in the coming year. To encourage you to donate programs to the library, you can receive "free" disks of programs by either donating programs not already in the library, or taking it upon yourself to type in the programs which are now going to waste in the various newsletters we receive.

Elmo Iacobucci has volunteered to give another seminar on telecommunications. A time has not been set, but keep it in mind if you are interested in entering this area. With the advent of PC Pursuit, calling bulletin boards here and around the country is within the reach of the average computer user.

EXECUTIVE NOTES - TI-CHIPS

Equipment problems forced a late start at the February meeting. Once things got under way, however, there were many interesting and informative demonstrations. Vice President, Russ Schimandle, had gathered many tape preparation programs from the disk library. With these he showed us how to best use your TI for 1040 preparation. Some of the programs he used were from Disks 3F, 3G, Freeware disk L, and the Multiplan cartridge.

Les Kee showed the members a printout of a BASIC program to determine the density of a printed circuit board. This useful program demonstrated the use of the INPUT statement to feed information into the running of a program. President Terry Vacha demonstrated and highlighted the commercial program entitled "High Gravity", a game in which you must get supplies to a space station among the planets.

During the business part of the meeting, members were reminded once again to pay their renewal dues on time. Many of the group's memberships are due to expire in the coming month. A motion was passed to buy a computer system for use by the Club at meetings. Anyone who can supply this equipment (at a good price) is asked to contact Terry Vacha, either by telephone or Free-Net.

A disk of the "Master Painter" was offered in the monthly raffle, and was won by John Parken. Money was also collected to send to Australia as compensation for the writers of FUNLWRITER.

New and exciting products for the TI are coming out all the time. Judy Thalner of Edu-Comp hopes to demonstrate NYARC's new Geneve at the March meeting. Hope you can all be there.

Mary L. Phillips

DISK HELPER ONE Revised
February 25, 1987

NorthCoast 99'ers member Jim Mekeel has released Version 2.0 of his FAIRware disk titled Disk Helper One. Changes include faster execution with the prescan feature, more print options, automatic disk cataloging, speech commands and much more.

Disk Helper One contains Display Fix/Var Fileprinter, Catalog Printer and serves as a utility for DM1000, and disk copiers. The disk has purposely been kept to a SSSD format to allow the greatest compatibility with most TI systems. Extended Basic and 32K memory are required, speech synthesizer is optional.

The Display Fix/Var Fileprinter will allow the user to read and DIS/FIX or DIS/VAR file of any record length. The user has options to print to the screen or to a printer with several of the printer features selectable.

Catalog Printer allows the user to dump the disk catalog to a printer. Again, the user can choose several printer options. But where this program really shines is in cataloging a pile of disks. Using two disk drives, the computer will print out individual catalogs repeatedly with a minimum of keystrokes, such like a "box format" operation.

The user is led through the program execution with prompts containing default values, making this software "user friendly".

With a donation of \$5 going toward future TI99 software development, Disk Helper One is a bargain. Send your check, disk and prepaid mailer to:

Jim Mekeel
11596 Forest View Drive
Chardon, OH 44024

Or, you can get a copy from the NorthCoast 99'ers library. Jim says to watch for Disk Helper Two which is now under development.

HINTS FOR REQUESTING FAIRWARE
By Jim Swedlow

(Note: Jim wrote "Side Print for Multiplan". This came from the Cin-Day newsletter without any credits. I am not sure, but think that Jim is associated with a southern California group.

These hints can help you when you send for fairware :
SEND A NOTE or letter asking for the program. Fairware

authors are in this to share their effort and to support the 4A. A check without any kind of note is discouraging. Mention where you heard about the program and describe your system.

IF YOU SEND A DISK, initialize it as SSSD (unless otherwise specified). Don't sweep it, format it and verify the sectors. This will make sure that it is OK. Check with the postal service to make sure that you are using enough postage (and not too much!!!). Be sure to include return postage.

Many fairware authors would greatly appreciate getting programs from you - it is a waste to send an empty disk! Send programs from your area that may not have migrated to where the author lives. Mention the programs in your note so the author will look for them.

IF YOU SEND MONEY, print your return address clearly. Better yet, send a mailing label. It not only helps the author, but the post office moves your mail faster when the address is typed.

Send your funds in the currency of the author's country. It can be anything from inconvenient to impossible to cash a check written in foreign funds. Your bank may be able to help or you can send an international money order from the post office. This is slow but sure - one that came to me from France took almost a month!

REACT AFTER YOU GET THE PROGRAM. Drop the author a line and let him know what you like (or didn't like). Many fairware authors report that communication with other 4A owners is very important to them. Many programs have improved significantly from user feedback.

If you ask a question, send a SASE (self-addressed stamped envelope). It will help assure that you get an answer.

SUPPORT FAIRWARE AUTHORS. If a contribution is requested and the program meets your needs, send it with a note.

Some fairware authors give special support to people who support them. Examples are extra documentation, notices of fixes and updates, copies of updates and bonus disks.

Some User Groups collect funds for fairware authors. If the User Group and the author are in different countries, it is a good idea to contact the author before sending anything.

USE COMMON COURTESY. Fairware authors are 4A owners who work and/or go to school full time. Fairware is a side line. Treat them the way you would like to be treated.

8TH ANNUAL LAKE COUNTY HAMFEST

FEATURING **HARDWARE **COMPUTERS** **SOFTWARE****

SUNDAY, MARCH 22, 1987

8 A.M. TO 4 P.M.

MADISON HIGH SCHOOL - MADISON, OH

COLD FORTH GAMING
BY PAUL NEUMEYER - NORTHCOAST

Let's embark on an expedition--into the vast and mysterious reaches of our club's library set of 10 FORTH disks. Hear tell that excellent games lurk in the torrid domain of the unknown. During our hunting trek, we'll not only find some games, but hopefully also learn a little bit about the COLD instruction.

We all realize, when working with the computer, numerous and voluptuous ways exist to achieve the same effect. It's like traveling through the jungle, when a choice of many trails. You only choose certain ones, depending upon the purpose of your journey. Sometimes, in effecting a computer technique, one way is better than another, but accomplishing the task constitutes the main thing. In this forth journey we'll show you how to load and run the games on these disks, and do it with the least amount of Forth-technique and failure. However, if you have a bias to another method, by all means enjoy your method. Our purposes here centers on achieving the objective, and forfeiting the headaches of repeatedly shutting your computer on and off and avoiding piling unwanted garbage on the stack.

Before starting, let's make several presuppositions: 1. That we have previously loaded the TI Forth System, using E/A option 3. 2. That we enter each game either from an off or a COLD start (COLD is a resident word that enters with the System entry). When you enter COLD the System disk must be in the drive. The dictionary will then usually boot back to the original System entry point. 3. We will use a configuration of only a single disk drive.

So, let's plunge into our expedition by entering the options -GRAPH -VDPNODES, followed by entering GRAPHICS. Next insert Disk #1 and enter 18 Load to transport into the deep outer space territory of Battlestar. Finally, follow the screen instructions and engage in the chafing challenge of firing lasers to defend yourself from a massive meteor space invasion.

We realize that by entering a proper FORGET xxx instruction, we usually can go from one program to another; however, we won't use that route now, but instead enter MON which takes us to the title screen. We do this because COLD, in this instance, produces a screwy screen.

Thus, when the invasion ceases, insert the System disk and enter MON. Then re-enter the Forth System and wait for the booting (without boots you aren't properly attired to walk on this expedition. You need good boots to walk on a

COLD road). After booting, enter -GRAPH -VDPNODES. Replace the #1 disk and enter 35 Load. Follow screen instructions to embark upon another space drama called SUICIDE SHIPS. You stop invading ships from blowing up planetary mining operations.

Our expedition penetrates deeper into the mysterious game dimensions as we now hit the COLD road by inserting System Disk and entering COLD. Enter -GRAPH2 -GRAPH -TEXT. Put in #1 disk and enter 44 Load. Screen instructions will gesture you into a NUKE ATTACK. You must defend yourself against a Russian nuclear invasion on U.S. cities; you represent your nation's only hope.

Again, insert System Disk, enter COLD, and enter -SYNONYMS> Insert Disk #2 and enter 24 Load for a game called BREAKFORTH. After loading enter BREAKFORTH and follow screen instructions. Attempt to bounce a ball back and break through the top.

Introduce the System Disk, enter COLD, and then the -GRAPH -VDPNODES options. Insert Disk #2 and enter 31 Load for MICRO JAWS. Follow screen instructions to transform yourself into a roaming shark which compulsively eats swimming fish (dare we call this a "cold fish"?).

Put System Disk in drive and enter COLD. Enter the -GRAPH -VDPNODES options. Insert #3 disk and enter 34 Load to play NUMBER RACE> Follow screen instructions. Enter RUN to restart play. This is a 2-player game using joysticks. Keep Alpha lock up to play, down to enter RUN. Catch as many numbers as you can.

Put in System Disk and enter MON. Re-enter Forth System and then enter -GRAPH -VDPNODES. Insert #5 and enter 70 Load. After an arcade game BODY SNATCHERS boots in, follow the instructions. Press ENTER to start and RUN to replay.

Insert the System Disk and enter COLD. An excellent strategy challenge comes in a space adventure, COSMIC CONQUEST, which takes you to a galactic conflict setting. Enter the -GRAPH option, insert Disk #4, and then 10 Load. Enter CONQUEST to start. Type COLD to go to next game.

How about a side trip to a Las Vegas style slot machine? Enter -TEXT -GRAPH -GRAPH1 options. Now insert #4 and hit 68 Load. Match the pictures in this flashy slot machine. If you score, you'll return from our trip with bags of gold.

After re-entering the System Disk, hit COLD. Now, wasn't that a fun hike? What vexatious pleasures we have experienced! Take off your boots, warm your feet, put your game in the freezer, and rest up for another journey into the wacky, wistful world of Forth.

>> F O R S A L E <<

COMPLETE TI SYSTEM - CONSOLE - PBOX WITH "QUIET FAN",
32k, MEMORY AND DISK CONTROLLER CARD. TWO DISK DRIVES (NO
POWER SUPPLY FOR SECOND). UNITECH 300-BAUD MODEM (TELEPHONE AND
SPEAKER BUILT IN). DISK MANAGER CARTRIDGE. SPEECH SYNTHESIZER.
COMPUTER DESK. WOULD PREFER TO SELL AS A UNIT RATHER THAN
PIECEMEAL. ASKING \$400, BUT PRICE NEGOTIABLE. CALL CHUCK
GILBERT AT 226-5177.

**TEN STEPS FOR TYPING IN AND RUNNING
ASSEMBLY PROGRAMS**
By L.R. Livergood, Decatur 99er UG, 9/86

Many consider assembly language programming to be more difficult to learn than BASIC; however, you don't have to become an expert assembly programmer in order to take advantage of it. If one just learns how to enter and assemble the code, then he or she can begin to utilize the expanded capabilities that this language has to offer.

If you are familiar with only the BASIC language, then the concept of "compiling", or in the case of assembly language, "assembling" a program may not be clear to you. With either a high-level language such as BASIC or an intermediate-level language like assembly, a program must be translated into machine language before it can be executed by the computer. TI's BASIC uses an interpreter rather than a separate compiler which allows the "writing" and "running" of BASIC code to be done at the same time without the need to first "edit" and then "compile" the program--a two step process in other languages.

In the case of TI 994/A Assembly Language, you must first enter the program with the EDITOR (provided with the E/A module) and then assemble it with the ASSEMBLER. The key to doing this is to familiarize yourself with the following words:

SOURCE PROGRAM
OBJECT PROGRAM
LISTING

where the SOURCE PROGRAM is the collection of assembly language statements typed in by you that are translated by the assembler into the OBJECT PROGRAM. Also produced is a LISTING that includes the assembly language statements typed in by you that are translated by the assembler into the OBJECT PROGRAM. Also produced is a LISTING that includes the assembly language statements, the resulting machine code produced by these statements, the machine code memory locations, as well as other information.

With this in mind, it is fairly easy to get assembly programs typed in and running by doing the following:

CREATE A SOURCE PROGRAM WITH THE EDITOR
ASSEMBLE THE SOURCE PROGRAM INTO AN OBJECT PROGRAM WITH
THE ASSEMBLER
RUN THE OBJECT PROGRAM AFTER CORRECTING ANY
ERRORS APPEARING IN THE LISTING

Both the EDITOR and ASSEMBLER programs can be found on the disk supplied with the E/A module called PART A. Place this diskette in drive #1 before beginning the 10 steps below:

CREATING THE SOURCE FILE

1) Bring up the EDITOR Selection List menu on the E/A module. This is done by pressing 1 to EDIT from the Editor/Assembler Selection List.

2) Making sure you have the Editor/Assembler diskette in drive #1, press 2 to EDIT. The Computer should automatically load the EDITOR from the system diskette. If it is already present in memory, then the screen is cleared so that you can begin typing in a new program.

3) Enter the program using the editor functions. It operates similar to the TI-WRITER editor which you are probably familiar with. If you are having trouble, then read 2.1.2.1 of the E/A Manual which explains the editing features. It should be easy to see that the listing you

are about to type in is divided roughly into four fields or columns. It is important to make sure that the information is being entered into the appropriate columns. For reference they are described as the LABEL FIELD, INSTRUCTION OPERATION CODE or ASSEMBLER DIRECTIVE FIELD, OPERAND FIELD, and COMMENT FIELD. Note that by placing an asterisk in the first column, the whole line becomes a comment.

The tab positions of the EDITOR default to the beginning of each of these fields. It is important to keep the columns separated. However, it is not necessary for all columns to contain information on each line.

4) After you have entered the program, you must save it. Press FCTN 9 (or escape key) twice to return to the Editor Selection Screen. The press SAVE and answer (Y)es to the VARIABLE 80 FORMAT (Y/N)? question. Next place a formatted diskette in another drive or replace the system diskette if you have only one drive and type in a file name for the program. The saved program is the source file (not runnable as is) and should be coded as such when you type in the file name.

ASSEMBLING THE SOURCE FILE

5) Next, bring up the Editor/Assembler Selection List (press the escape key if you are in the Editor) and press 2 to ASSEMBLE. You should have the system diskette in the appropriate drive again before answering the LOAD ASSEMBLER (y/n) question. After pressing (Y)es, you will be asked for the source file name which should be the name given above. Next, you will be prompted for the object file name. This will be the location of the file created by the assembler and should be coded as such.

6) Give a file name for the List File which will contain a listing of the errors encountered along with other information such as line numbers, memory locations, machine code and source program statements. You can use a printer name or disk name, but a name is required even if you don't want a listing.

7) The next prompt is for the OPTIONS. They are R for prefixes to be included, L to produce a listing (if you really do want it), S for a symbol table, and C to save the object file in compressed format. If you aren't sure what to use then type in RLSC and see what happens.

8) Next, you should get the message ASSEMBLER EXECUTING at the bottom of the screen and will have to wait for the PRESS ENTER TO CONTINUE message to appear. If you selected a printer for the listing then you should have that in front of you by now. If you chose to send the listing to a disk instead, then you can examine it now by calling up the EDITOR (see above) and loading the listing into it.

9) If you have any errors in your source program, they will appear in the listing. You must go back and correct these by loading the source program into the EDITOR and re-saving with the corrections. In turn, you must now reassemble the source program. Continue this procedure until you get an error-free listing.

10) Finally, go back to the Editor/Assembler Selection List and select 3 for the LOAD AND RUN option. Give the object program file name at the prompt. If everything is as it should be, then the program should be up and running.

Some additional points to remember. Unless your program includes a way to terminate, you will have to shut off the computer to stop the program. Additionally, just because the listing is free of errors, does not mean the program will run error free. There may be logistical errors in addition to syntax errors which the assembler might not pick up.

GRAM PACKER - PART 2
BY TOM FREEMAN - LA 99ERS

(Note - Last month no mention was made as to where to obtain this utility. J. Peter Hoddie who wrote the Gram Packer is associated with the Boston Computer Society, One Center Plaza, Boston, MA 02108.

2. OPERATING SYSTEM MODS

Several modifications have to be made to your operating system in GRAM 0 in order to make full use of the GRAM PACKER. You will be using your Gram Kracker Editor to accomplish these (option #5 from the GK main menu.) Rather than describe all the keystrokes each time, I will remind you of the general method here. First of all, when you get the editor screen, press FCTN 1 once to get to GRAM memory. Now when you are instructed to search for a string, press FCTN 5 for search. The cursor will be on the "start" address. Accept the default of 0000 if it is there, or type it in, then press enter to get to "finish" and type 2000. Now press FCTN 9 and type in your search string, remembering FCTN = to get to hex if that is what you are searching for (in general it will be). BACK UP the cursor one space to get it over the last character in the search string, then press enter. If the string is not found, the edit field will not change - if it is found, the address in the upper left hand corner will reflect the location of the first byte of the string found. Now press FCTN 5 again to get out of SEARCH, the FCTN 9 to edit, and type in the appropriate changes. You will need NP off in order to type in the changes - remember to turn it back on when you are finished typing.

The following set of changes need to be made only if you will wind up with more than 9 items on your main menu. There would be two problems if the changes were not made: 1) you wouldn't see any after 9 because of the double spacing! and 2) even if you could, the key presses would be: ; < = > etc. some of which would actually be two keys (SHIFT and key). We will, therefore, enable single spacing on the main menu (thanks to Craig Miller in The Smart Programmer for this information) and change the sequence of key presses from numbers beginning with 1 to letters beginning with A.

First, to change to double spacing: Search for (hex) A3 52 00 3A. In many consoles this will be at 02E0. Change the 3A to 1A. Next comes a problem of another routine using temporary storage where we will need it (not actually involved with the double spacing, but needed if there ARE more than 9 items on the menu). Leaving the start and finish addresses the same, get back to SEARCH by pressing FCTN 5, FCTN 9 and type in 00 02 28 60 for the search string. You should find it at about 0380. FCTN 5 to get back to the memory window. The top line should read:

```
00 02 28 60 00 D6 28 AA 43 95 D2 29
```

change the 3rd, 7th, and 12th bytes:

```
00 02 40 60 00 D6 40 AA 43 95 D2 41
```

You should also insert the small capital character set

into the TITLE SCREEN characters using the NENCHARS program on the original GK utility disk, otherwise the characters will touch each other top to bottom and be almost impossible to read. Note that you can only have 16 items on the menu if you are preserving TI Basic in GRAMS 1-2 because the start address is destroyed by the 17th item. I believe it is possible to use the 17th if you are using GRAMS 1-2 for other purposes, such as all of these programs!

Now to change the key presses to letters - this is simpler. First change your start address back to 0000, then search for BE 5B 30. You should find it at about 0275. Change the 30 to 40. Next search for A6 75 31 (should be at 02FC) and change the 31 to 41. You will now see letters instead of numbers on the main menu.

I found another problem with many programs: they do not bother to change the keyboard unit to be scanned, assuming it to be 5, since that is where the E/A module is when option #5 is chosen. The problem is that the operating system is using keyboard unit 3 at the time the menu is set up (for this reason you can use lower case letters for the key press on the menu - they will be converted to upper case). Here is a simple fix: 12 bytes past the 41 you just typed in you should see 06 03 Cx A4, where the x is probably an E. Change the first 3 to 05 18 00. Now FCTN 9 to get out of memory window, move the cursor to the address after the g in the upper left hand corner, and type in 1800. Now FCTN 9 again, press enter to "home" the cursor, and type in the following: 06 03 Cx BE 80 C6 09 05 03 0y where x is the same as you just found above, and y is 3 higher (in hex) than the address where you found the 06 03 (if that was 030A as it was in my console, then y would be D). This changes the keyboard unit to 5.

For those of you using SBU66, as I do often, and who wish to use it from the main menu, you may have found that the small character set is not loaded, which is a PAIN! It's OK if you have loaded it from E/A #5. Here is a fix: it incorporates MG's GPLLNK inserted directly into memory and then a simple BLMP @GPLLNK DATA >004A and then return to the beginning of the actual program. You will need a sector editor for this. First find the FDR of the file (catalog sector). Change byte 16(>10) from 92 to EA. Second find the first actual data sector of the file. Change byte 3 from 92 to EA and bytes 24-25(>18-19) from 62 84 to 7D D2. Finally go to the LAST sector of the file (there are 30 data sectors) and starting at byte 146(>92) carefully type in the following over whatever is there:

```
7D 7E 7D 9E 7D C2 17 6C 00 50 00 00  
00 00 00 00 00 00 C8 1B B3 E8 C8 3E  
B3 EC C3 20 20 0E C8 09 20 0E 02 E0  
B3 E0 06 94 C9 20 7D 92 B3 02 05 E0  
B3 73 04 60 00 60 C1 20 16 6C 06 94  
02 E0 7D 7E C8 0C 20 0E 03 80 02 00  
0B 00 C8 00 83 4A 04 20 7D 8C 00 4A  
04 60 62 84
```

(Next month we will feature part 3. Xbasic Programs Direct From the Main menu)

(Note: The Lima newsletter came with a diskful of programs, including the following Check-Book Writer.) Rather than take the space to print the program out, it can be found in the clubs' libraries. We have reciprocated and sent Lima a disk of programs we hope they will find useful also.)

How many TI users balance check books and keep track of their checks with the aid of a computer program? The answer is, "Not many." Although there are several good checkbook programs in the libraries of most groups, they are time consuming. You have to write your checks, record data in your checkbook, load the computer program, and enter the same data into the computer. Most TI users prefer to use a hand calculator and keep track of checks by hand, since it is faster that way.

This program is different. It actually SAVES TIME. The program IMPRINTS CHECKS and PRINTS CHECK STUBS with the printer as you enter data. All you do is run the program, and type in the names and dollar amounts as prompted. When all data for a check are entered, the computer prompts you to insert a blank check into the printer (not at all difficult, see below), and the data are automatically printed onto the check and onto a printed check stub. Sheets of these stubs can be saved in a notebook instead of manually entering the transaction in your checkbook. The data are also automatically merged into a disk file which can later be printed out or displayed on the screen either as is, or sorted according to payee.

Check-book Writer can be track of 4 different bank accounts all from the same program and all on the same disk. You could, for example, keep records on your own checking account, your spouse's checking account, a money market account with limited check writing privileges, and one of the kid's checking accounts.

Using the program is easy. It is menu directed, and an instruction subprogram is immediately available from most menus. Put the program on a newly initialized disk. Name the program LOAD and use the disk in DSK1. Select extended basic, and once autobooted the program will start RUNNING in a few seconds because a prescan routine has been added. Then you RUN the program for the first time, select item (6) from the first menu. This routine will create all needed data files on the disk. You will not have to use item (6) again until you put the program on another disk.

The program is designed to use normal sized bank checks in its first three accounts (Bankbooks 1-3). Program lines 2800-2890 control the actual alignment and printing of normal sized checks on a Star or Epson printer. These lines can be altered if your checks are physically slightly different than mine. Fanfold paper is left in the printer, and it is NOT necessary to use special templates to run the checks through most printers. When prompted, an unused check is inserted on top of the paper and partially inside the bar which guides the paper as it emerges on the PLATEN in front of the printer. If the platen RELEASE LEVER is open (in the "T" or tractor feed position), this insertion is easy. The check is lined up with the left paper perforation and with a horizontal line previously printed on the paper as part of the check stub. The platen RELEASE LEVER is then engaged (in the "F" or friction feed position) and the PAPER BAIL BAR (the bar with the little rollers on it to hold the paper flat on the platen) is lowered over the top of the check. The check is now held firmly in position and at the press of the <ENTER> key check printing begins. This description is based on inserting checks into a GEMINI 10X or STAR S610 printer.

Insertion into other printers is probably just as easy.

Using "Bank book 4" from the first menu, the program will permit proper printing on special large 8.5 x 11 inch checks with sprocket holds. These special large checks are designed to feed through a printer in the same way as fanfold paper. Such checks can be ordered from some office supply stores or from computer supply catalogs. The cost of these large checks is usually more than the cost of ordinary checks you get from your bank.

System requirements include extended basic, 32K, and a disk system. A printer is not absolutely required, since all data can be displayed on the screen, but it is certainly extremely useful. Also useful, but not required, is the CorCoop TRIPLE TECH card or 9900 Clock. By removing the "!" in lines 2550-2570, you can have a time and date added to each check record.

The program creates 3 files for each of the 4 bank accounts. One printer name file is also created. The default printer name in this file is PIO. If you cant to change the printer name, or examine what name is currently stored in the printer name file, choose item (5) from the first menu. All files are DIS/VAR 80 and can be edited using TI-WRITER. The easy ability to edit these files with TI-WRITER is an advantage if you make incorrect entries.

BKBOOKx shows the account x balance. It is a one-line file with a blank space followed by the balance.

BKNBOOKx shows the number of the last transaction or check used in account x. It is a one-line file with a blank space followed by the last check's number.

CHECKBOOKx shows (in this order) the reference (or check) number, the date, "For", deposit amount, payee, check amount, was check printed?, and new balance for each transaction. This file is your record of all previous activity in account x. The first record (line of this file should be a null string (blank).

PRI-SET shows the name of the printer. Default is "PIO". It is a one-line file with the printer name starting in column 1 (no blank space before name).

Data entry instructions can be read from within the program. Be sure to enter data exactly as directed. For example, January 1, 1987, must be entered as "01/01/87". "1/1/87" would generate an error and return you to the first menu. Also, amounts must have a decimal point and cents. Six dollars should be entered as "6.00", not as "6". Deposits are recorded by choosing item #1 (Write Checks) from the main menu. When entering deposits, a zero should be entered for "Amount" of check.

I find this program a real time saver. I sit down once a month, load this program, and write checks for all my bills. Any deposits or checks written in the meantime, I temporarily record in my checkbook until I can enter the data into this program. When I get my checks back from the bank, I use TI-Writer to load the CHECKBOOKx file and place an "x" next to each transaction number (checks and deposits) listed on the bank statement. I also make a notation of the amount of any checks or deposits that are not yet recorded on the bank statement. I then load the program, select the proper account number from the first menu, and select BALANCE CHECKBOOK from the second menu. After entering as prompted, the bank statement balance, recent deposits, the value of outstanding checks, and any interest or service charges not yet on the bank statement, the BALANCE CHECKBOOK routine calculates the new balance. The only thing this program doesn't do is, from within the program, bring up a check number and allow you to check it off as having been returned by the bank. This is done with TI-Writer as described above. Maybe some good XB programmer can add such a feature.

EXCERPTS FROM....
GETTING ON-LINE - AN INTRODUCTION
TO TELECOMMUNICATIONS
BY FRED AND ANNY MACKEY - PUG VIA
JACKSON COUNTY 99ERS

How do you get started in telecommunications? What kind of software and hardware do you need? What is telecommunications anyhow? The following will help you get started.

The purpose of telecommunications is to use your computer to locate and retrieve information stored on someone else's computer. This electronic collection of information is called a database. Telecommunications is a tremendous asset for anyone; it is a library at your fingertips.

Information available in this electronic library includes news, sports, stock market reports, programs, all of which are available on news and informational services. Information can also be accessed on bulletin board systems, of which there are thousands across the country, and usually a free service. A bulletin board, or BBS, is designed to bring together those of common interests, owning specific computers. The personal business possibilities of telecommunications also include making airline and hotel reservations, electronic banking, and bill paying. And you can do all this from you TI 99/4A!

The information is sent from one computer to another over telephone lines in the form of modulated data. (The tones you get when you punch numbers on your push-button phone represent modulated data.) But telephones and computers are based on different signals. The modem serves as a translator between the two. At one end of the phone line the modem MODulates the computers digital signals into analog signals to be carried over the phone lines, only to be DEModulated back into digital signals at the other end.

Some modems connect directly to the telephone line through the telephone jacks. Others are acoustic type where the telephone headset is coupled into the suctioned modem cups, one containing a speaker and the other a microphone.

Telecommunications could not exist without software. This is the program which connects the computer to the outside world and gives it the instructions on what to do with the information it accesses. In addition to your console and monitor, you will need a serial card, modem and telecommunications software.

When buying a modem, there are 5 basic features to look for.

1. Direct Connect which means it plugs directly into a modular telephone jack, eliminating all outside noise. The other option is an acoustic modem, the only advantage being it can be used with any phone. (Note - If your home does not have a modular jack, you can purchase an adapter for about \$5).

2. 300 Baud is how fast a modem will send and receive data. A 1200 baud modem is 4 times quicker, but costs about twice as much. (Note - although you can receive information 4 times faster, CompuServe and some other databases charge extra for this speed).

3. Auto Originate is a feature that causes the modem

to dial the number you have entered from the computer keyboard, as opposed to you dialing the phone yourself. (Note - The real advantage to this is that the modem will also have the ability to keep trying the number if it is busy, which frees you up from dialing over and over.)

4. Auto Answer is a feature necessary if you want to have the ability to receive calls via your computer (ie, if you ever want to set up your own BBS).

5. Full Duplex is the ability to send and receive signals at the same time. Simply put, the database computer is constantly asking your computer if it is ready, and your machine is constantly responding "yes". Without full duplex, there would be a line turnaround delay between each question and answer.

Any modem can be used with any communicating computer. However, serial cards (and software packages) are designed for specific computers. To hook up the modem, you need to have a serial card. The job of the serial card, simply put, is to take the internal language of your computer, which is spoken in 8 bit "words", and send the "words" out of the computer to the modem one bit at a time, instead of 8 at a time. ("Serial" for transmitting bits individually in a series, and "parallel" for transmitting bits in a parallel - 8 at a time.) So, the serial card takes the specific language of your computer, and makes it common language for any brand of modem to receive. (Note if you own a serial printer, as opposed to parallel, you already have a serial card. TI's card provides 2 serial ports so you can run a printer at the same time you are using your modem, along with a parallel port.)

There will be a "port" or plug on the serial card, and a port on the modem. Now, just because you bought a modem, that doesn't mean it comes with a cable to connect to the serial card in your computer. The two are hooked together by plugging in a serial cable, which must be purchased separately. Most modems and serial cards have female ports and require cables with male plugs on either end. So, make sure you buy a cable with the right sex for your equipment. The plugs are called DB25 connectors. The TI serial card is set up for printers and the TI acoustic modem. If you purchase another brand modem, you will probably have to reverse wires 2 and 3 on one end of your cable. To verify this, compare the pin listings shown in the manual for your modem against those for the TI shown in the RS232 manual. Data In for the computer must be connected to Data Out for the modem and vice versa.

You may see "internal" modems advertised for lower prices than the same brand "external" modem. They are less expensive because they get their power directly from the computer rather from their own power supply and they do not have a case. There are no internal modems currently available for the TI99/4A.

There is one more thing you need before you can transfer data between computers - the software or "telecommunications program" designed especially for your computer. This program directs your computer how to use the modem and how to transfer information between the two computers. For the TI, most telecommunications programs will require 32K memory and either the Editor Assembler or Extended Basic cartridge.

< < < Fasterm Command Summary > > >

f>	Function	c>	Control	s>	Shift	
f>	0		Toggle Window (On/Off)	*c>	0	Screen Width (40/80)
f>	1		Transmit >7F (delete)	*c>	1	Modem Baud Rate
f>	2		Transmit >14 (ctrl-T)	*c>	2	Toggle Print Spool
f>	3		Transmit >0E (ctrl-N)	*c>	3	Modem Parity
f>	4		Transmit BREAK	*c>	4	Modem 232 Port
f>	5		Window Right	c>	5	Serial Print Parity
f>	6		Transmit >05 (ctrl-E)	*c>	6	Printer Port
*f>	7		Alter Text Color	c>	7	Serial Printer Baud
*f>	8		Alter Screen Color	c>	=	Quit
f>	9		Disk Directory			
f>	K		Start, Reset Timer			
f>	L		Window Left			
f>	=		Quit			* Can be preset with DEFAULT
fs>	D		Duplex Toggle (Half/Full)			

ASCII Files

Receive File		Send File	
f>	B	f>	N
	Name File		Name of File
	Logging starts on ENTER	f>	,
	Printer Name for Print-Out		Select Line-by-line
f>	.		or by Complete File
	Toggle Logging (On/Off)		Chimes on Completion
f>	Y		X-Modem Protocol
	Clear Log Buffer	f>	J
			LineFeed after CR

TE-II Protocol

Receive File		Send File	
f>	N	f>	N
	Name File		Name File
fs>	T	fs>	T
	Enter TE-II Protocol		Enter TE-II Protocol
	Select File	f>	,
	Enter to Start Transfer		Start Transfer

X-MODEM Protocol

Receive File		Send File	
f>	N	f>	N
	Name File		Name File
fs>	X	fs>	X
	Enter X-Modem Protocol		X-Modem Protocol
R	To Receive	S	To Send
	Choose CRC Check (Y/N)		Transfer Automatic
f>	4		
	Aborts		

Using Print Spooler

c> 2 Toggle Printing (On/Off)

Printing Screen Dump

f> 0 Freeze Screen
 Scroll Back (Space Bar - Fast, S - Slow)
 fs> P Dump Screen
 f> 0 Unfreeze and Return

Cursor Control f> E,S,D,X or c> I,J,K,M

IMPACT-99
TEXTWARE, SOFTWARE, AND ELSEWHERE
Happenings in the T.I. World Community
By Jack Sughrue, Box 459, E. Douglas, MA 01516

(Note: Mr. Sughrue has started sending a monthly newsletter to clubs who will send him one in exchange. This should help ease the void left by Jim Peterson, who coincidentally is featured in Mr. Sughrue's first mailing.)

There's a grandfather in Ohio who bought his son a computer back in 1982. His son was in high school then and was planning on going into engineering. Neither father nor son knew anything about computers, but the TI-994/A was purchased because both liked the feel of the keyboard. The son went into journalism instead of engineering, and the father began to play with the machine. He perused the blue manual, experimented with the computer, liked the things he discovered, and became a computer addict.

Within the next four years, the addict became an expert of world-wide fame within our special world of the 99. During that time Jim Peterson - also known as Tigercub Software (156 Collingwood Ave., Columbus, OH 43213) - became the Columbus of this special world. He discovered more and explored more new TI territories than anyone else in the business (including the people at TI). And he shared these discoveries with us in monthly columns: TIPS FROM THE TIGERCUB. Those 41 columns were chock full of programs, tips, subroutines, reviews, recommendations,, and items from his huge and dedicated following.

When TI died, Jim Peterson did not. He stayed aboard what appeared to be a sinking ship, throwing us a life preserver before we all went down for the third time.

Though he teaches computer workshops, he never took one. I learned more about the TI from Jim Peterson than I did from the 60-plus books I own on 99 computing.

Looking through my disk files a few minutes ago, I discovered I have over 400 files from Tigercub Software, most included on five remarkable (there is no other word) disks: TIPS #1,2,3 and NUTS 'n BOLTS #1 and 2. The others are single programs I bought along the way: ANTONYMY, SYNONYMY, HOMONYMY, HIEOGLYPHY, PLAIN OF JEWELS, DRUNKEN SAILOR, BAZDO, MECHANICAL APTITUDE TEST, GRAPHIC DESIGNER, SCRUM, SQUINCH, STUFF 'n NONSENSE, KID/STUFF, HANDYDANDY 1,2,3, HAUNTED GRAVEYARD and others with equally fascinating titles. There are lots of demos, music, utilities, games, puzzles, graphics: all original, all his.

I never purchased anything from Jim that I haven't been extremely satisfied with. Little by little I hope to buy his entire catalog. Then I can have the TIGERCUB LIBRARY to spend my cold winter nights with. And that's good company. Look at the titles above. Variety? Yes. But the big thing is the sense of humor. This genius seems to be filled with wonder and awe everytime he uncovers something new about our machine, and he shares these uncoverings in such unusual ways and with such a delightful sense of humor that one cannot help but be caught up in his enthusiasm. He does all this in the speech of the common human: not in the techie robotics. He has never lowered himself to shunning the masses. He's one of those people I'd really like to meet someday.

Intrigued by these titles, you probably wonder, What's

a Squinch, Scrum, Mechanical Aptitude Test, Synonyay, or Handydandy?

Well, a Squinch is a very peculiar word game for one or many players in which two words have been bizarrely intermingled into one. A timer may be activated as you try to separate the combinations. There are literally millions of possibilities. A Scrum is a very speedy puzzle where you attempt to change the colors on a 3X3 grid. The problem is that the adjacent square's color also changes. Over 500 puzzles in one. Very challenging. The Mechanical Aptitude Test should be shot at damn. A frustratingly wonderful puzzle requiring only the mental ability to join two geometric pieces together. (You have to see this to really understand this). Handydandies (1,2,3) are collections of about 75 programming routines you can read and LIST and use (and demonstrate). Excellent forerunner to the WONDERFUL disks of TIPS and NUTS 'n BOLTS. Synonyay (similar to Antonymy, etc.) is a game of synonyms. Excellent for adult fun and ideal for children's learning.

It would be easy and endless to describe all of Jim's neat little programs (including the rather whacked-out Drunken Sailor), but I wanted to save a little column space for his masterpieces.

There can be no question that NUTS 'n BOLTS (1 and 2) and TIPS (1,2,3) are masterpieces. (I just learned in this morning's mail that there is also a #4 TIPS) Every person I know who bought these 5 disks (about 400 programs, files, subroutines, tutorials, etc., not counting TIPS 4) is astounded. If one opened up these packages today and did no work outside the home, it would really take months to go through these items and use them. The files include such things as TIMEDEF, NUMBERSPK, POCKETAL (for Kaleidoscope), BELLMUSIC, CHANBORDER (for Chameleon), UPSIDEDOWN, SLASHZERO, SCRENGRID, INITCHECK, MOON, STACKGRAPH, QUICKCOLOR. On and on. Hundreds of programs and subroutines. The subs are already in MERGE format ready to plug into any program and try them out. They are numbered so many subs can be used in the same program. A quickref-type manual sheet comes with easy-to-follow directions with M 'n B. There are README files for docs. Aren't the titles tantalizing? So are the programs.

Jim Peterson is MR.99 to most of us in the TI community. We have looked forward to reading his columns in newsletters from around the country; have admired his frankness and dedication and humor and humanness. Now that Jim is no longer doing his column for newsletters around the world, maybe he'll still put out some more great disks. As he said in his final column "I am NOT going out of business."

All of us in the TI community are going to miss his TIPS. Best of luck, Jim. Thanks to you our "memories are Full," too.

(Note: Jim Peterson's programs are reasonably priced at \$3 per program. They come on tape or disk. He has some special offers on complete disks. And the NUTS 'n BOLTS and TIPS disks are under \$20 apiece with specials if you buy more than one. If you are interested in doing your own programming, these are a MUST).

```

THE FOLLOWING GAME WAS PRO-
GRAMMED BY DON NITSCHKE OF
THE NORTHEAST 99ERS,
CLEVELAND, OHIO. DON IS ONE
OF THE TEEN MEMBERS OF OUR
GROUP.

```

```

10 REM RUSSIAN ROULETTE

```

```

20 REM BY DON NITSCHKE

```

```

30 REM COPYRIGHT 7/23/84

```

```

40 REM

```

```

50 CALL CHAR(96,"FFB09C949CB
08383939390909F8080FFFF01392
93901C1C1C9C90909F90101FF")

```

```

60 CALL CHAR(100,"FFB09C949C
8083838383809F909080FFFF0139
293901C1C1C1C101F9090901FF")

```

```

70 CALL CHAR(120,"0060FF0F00
000000000000000000000000103FE
FE2E3E0E0E0000000000000000")

```

```

80 CALL CHAR(132,"000000000000
000000103070F1F3FFFF0000000
00000000080C0E0F0F8FCFFF")

```

```

90 CALL CHAR(140,"00003C0000
00000000000000000000000000")

```

```

00000000000000000000000000000000")

```

```

100 DIM NA$(50):: B=0 :: CAL
L CLEAR :: CALL SCREEN(16)::
RANDOMIZE

```

```

110 DISPLAY AT(8,7):"RUSSIAN
ROULETTE" :: DISPLAY AT(12,
8):"BY DON NITSCHKE" :: DISP
LAY AT(16,8):"EXTENDED BASIC
"

```

```

120 FOR TD=1 TO 500 :: NEXT
TD

```

```

130 CALL CLEAR :: INPUT "HOW
MANY PLAYERS?":PL :: FOR N=
1 TO PL :: PRINT "NAME OF PL
AYER";N :: INPUT NA$(N):: NE
XT N

```

```

140 CALL MAGNIFY(4):: CALL C
LEAR :: CALL SPRITE(81,96,5,
75,110,0,0):: CALL SPRITE(85
,32,4,42,110,0,0)

```

```

150 CALL SPRITE(82,120,7,75,
180,0,0)

```

```

160 FOR N=1 TO PL :: CALL CL
EAR :: PRINT "IT IS ";NA$(N)
;"'S TURN." :: "PRESS 'F' TO
PULL TRIGGER."

```

```

170 GOSUB 180 :: NEXT N :: I
F N=PL+1 THEN 160

```

```

180 CALL KEY(0,K,S):: IF S=0
OR K<>70 THEN 180

```

```

190 RANDOMIZE :: X=INT(RND*5
)+1 :: IF X=3 THEN 230 ELSE
200

```

```

200 FOR X=1000 TO 1100 :: CA
LL SOUND(1,X,0):: NEXT X ::
PRINT "THE GUN DIDN'T FIRE."
:: FOR T=1 TO 500 :: NEXT T
:: RETURN

```

```

210 B=B+1 :: IF B=5 THEN 220
ELSE 160

```

```

220 PRINT :: PRINT "YOU SURV
IVED THE GAME OF":"RUSSIAN R
OULETTE." :: FOR T=1 TO 500
:: NEXT T :: CALL DELSPRITE(
ALL):: CALL CLEAR :: GOTO 30
0

```

```

230 FOR X=1000 TO 1100 :: CA
LL SOUND(1,X,0):: NEXT X ::
CALL SPRITE(83,140,13,75,180
,0,-100)

```

```

240 CALL COINC(81,83,8,B)::
IF B=-1 THEN 250 ELSE 240

```

```

250 CALL SOUND(300,-5,0):: C
ALL DELSPRITE(83):: CALL PAT
TERN(81,100)

```

```

260 CALL MOTION(85,-100,0)::
FOR T=1 TO 20 :: NEXT T ::
CALL MOTION(85,0,-100):: FOR
T=1 TO 20 :: NEXT T :: CALL
MOTION(85,100,0)

```

```

270 FOR T=1 TO 100 :: NEXT T
:: CALL DELSPRITE(85)

```

```

280 PRINT "YOU HAVE BEEN SHO
T." :: "THE GAME IS OVER FOR
";NA$(N):: FOR Z=1 TO 1000
: NEXT Z

```

```

290 NA$(N)=NA$(49):: PL=PL-1
:: FOR Q=N TO PL :: NA$(Q)=
NA$(Q+1):: NEXT Q :: IF PL=1
THEN 300 ELSE 140

```

```

300 FOR T=1 TO 1000 :: NEXT
T :: CALL DELSPRITE(ALL):: C
ALL CLEAR :: PRINT "THE ONLY
SURVIVOR IS ";NA$(1) :: "":
"CONGRATULATIONS" :: PRINT

```

```

310 INPUT "PLAY AGAIN (Y/N)"
:ANS$ :: IF ANS$="Y" THEN 10
0 ELSE END

```

REVIEW:QS-SOLITAIRE
BOB DUDLEY - AAC - DECEMBER, 1986

The ever-popular card recreation Solitaire has been programmed for the TI99/4A by Quality 99 Software in a superb Assembly language version with bit-mapped graphics.

This version plays identically with the card version, but the computer does all the work of shuffling, dealing, and moving the cards for you. The pleasant surprise in this fast Assembly version is to see the computer move an entire stack of cards instantly from one pile to another! Other computer versions which I have seen tend to move a single card at a time. QS-Solitaire also skips the imitation routine of shuffling the cards. Such a routine may be "cute" the first time you play the program, but it quickly becomes a drag. QS-Solitaire lays out all the cards ready for you to start immediately after the title screen and the selection of the game. QS-Solitaire gives the player two options: regular Solitaire and Las Vegas Solitaire. In the latter game you are provided \$250 to begin and you buy the deck of 52 cards for \$1 a card. You get \$5 for each card you can play to the top of the area. Additionally, you do not turn over three cards at a time, but only a single card, and you are only permitted to go through the deck once. You will find it is very difficult to play all of the cards out in this version and be rewarded with a bonus. Instead you will probably get to watch your \$250 shrink after each hand! Of course, the advantage is that you are not actually paying the bartender

\$52 a deal.

The game handles keyboard errors instantly with no fuss. It simply erases the erroneous entry and awaits a correct entry. There are not annoying buzzes to distract from playing the game. The graphics are excellent. Although the display for all of these cards makes for a screen full of detail, Quality 99 has done an excellent job of laying out the game with clarity. I have a version of Solitaire for the Texas Instruments Professional Computer (which has one of the best color resolution displays available), and naturally there is no comparison as to the graphics which can be rendered on the two machines. But QS-Solitaire is definitely the better version to play with its fast moves following your instructions. Quality 99 has chosen by far the easiest keyboard operation of the game among the several versions which I have been and used. The choices of keys to make your decisions are very intuitive, and the player will be comfortable with the keyboard in a very short time.

If you are already a Solitaire fan, you know that this game provides many hours of entertainment for one person. It has done so for many generations. The game does not "wear out" as so many arcade games do after a short time. Of course, there is always the danger that you will spend more time with the game than you originally intended. It is addictive in nature. Quality 99 Software lists the game for \$24.95, but has been seen for \$19.95 from the firm at 1884 Columbia Road #1021, Washington, DC 20009.

THE SIMULATED STEREO SOUND ADAPTER
BY BEERY MILLER - FRONT RANGER 2/87

The simulated stereo sound adapter is a new device to provide two more additional audio and two more video outputs from the console using RCA jacks for all outputs. The device plugs into the back of the console at the modulator output and requires no soldering. An additional jack has been provided to allow one to still use their TV and the modulator as though the adapter was invisible. This device will then be capable of outputting to two additional monitors that would be excellent for any User Group demo so that everyone can watch and see the screen. The greatest feature that is provided with this device is that if both audio outputs are connected to the left and right channels of a stereo system, any music or sound program will be capable of simulated stereo playback and will be of a much higher quality. In many of the music programs, you would think that the sound is coming from a radio station, but in reality, it is from your TI-994/A

console. Another important feature provided by this device is the ability to record any video and audio output to a VCR. This should again be a fantastic device for any User Group that either wants to record all demo programs for either later viewing or resale.

So, you may think that this device would be expensive to purchase with all of its capabilities, but it isn't. For only \$15 + \$1.50 shipping and handling, this device can provide you the pleasure from those music programs that you always wanted, but were unable to get the full benefit with the speaker from your monitor or TV. To order yours today, please send either a money order or cashier's check for \$16.50 per unit to:

Beery Miller
45 Idlewild S. Apt #507
Memphis, TN 38104

If you wish further information, I run Risky Business BBS at 300/1200 baud, seven data bits, one stop bit, even parity at (901)-726-5623.

!! NEWSLETTER SUBSCRIPTION ONLY !!

..... Send me the next 12 issues of the CLEVELAND AREA 99/4A USER GROUP NEWSLETTER. I am enclosing a check or money order for \$8.00 PLEASE PRINT.

Name..... Mail to: TI User Groups Newsletter
Address..... C/o Frank Jenkins, 19809 Gladstone Rd., Cleveland, OH 44122
City, State..... Zip..... This subscription is not necessary for fully-paid members of the User Groups

.....Send me a membership form for the following group:...TI-Chips:Golden CrescentNorthCoast

CLEVELAND AREA 99/4A USERS GROUPS
C/O DEANNA SHERIDAN
20311 LAKE ROAD
ROCKY RIVER, OH 44116

PLEASE NOTE - NEW ADDRESS

CHECK YOUR EXPIRATION DATE.
THIS MAY BE YOUR LAST ISSUE!

!! TIME DATED MATERIAL !!

12