Decatur 99'er User's Group

B-O- Box 724

Decatur Illinois 62525

March 31, 1984

Dear Secretary or Officer:

Attached to this letter is a copy of our current newsletter. During the past winter months we have participated in an exchange with several user groups from around the country so that we could bring our own members new information and ideas.

Due to the recent pullout of Texas Instruments from the home computer market, we see ourselves as having to step in and provide the missing link between 99/4(a) owners and third party vendors. Both members and non-members of our organization have relied heavily on our word about what to expect in the future and what's available today.

It is our feeling that your situation may be somewhat similar to ours. Therefore, we would like to begin a newsletter exchange which will hopefully benefit both of us for many months to come. Most of our articles are written by members of our group, however, we occasionally include those from other groups which are unique or informative.

If you do not have a newsletter please send us a note about your current status. If you already are sending newsletters to other organizations then we would appreciate a list of those groups in order that we might contact them.

Please contact either myself or Joe Mcmahan, our club president at the above address. Thank you for helping us and we hope to be reading your correspondence in the future.

Sincerely yours,

Larry Livergood

Secretary -

NEWSLETTER OF THE DECATUR 99er USERS' GROUP

PRESIDENT'S LETTER..by J.L.McMahan

Recently, while in Los Angeles on business, I had the pleasure of meeting Terri Masters, the newly elected President of the newly formed Users Group (actually, part of the older L.A. Users Group). My trip to Southern California was quite short so our meeting was limited to a short visit at the Los Angeles airport just prior to my departure. In spite of having just 40 or 50 minutes, we had a very condensed and informative talk about our respective groups and the current status of third party hardware and software.

One concept which might be of interest to many members of our group is a group purchasing plan started in L.A. The L.A. group has been very successful with reducing the cost of programs and books through bulk purchases. One mail order company in the L.A. area has purchased "in excess of a million dollars" of obsolete inventory and plans a direct Users Group purchase plan at substantial savings. She also has good luck with a long list of excellent books purchased with a group discount. We will discuss this at our next meeting. I will attach a list of many books now available for each of you to review at our meeting.

Another topic we discussed was a side by side thin disk drive package for the P box at very economical prices. The L.A. group has tested these and had great sucess.

Terri promised a visit to our area in the near future. We welcome her as our guest as we do all User Group members when they are in Central Illinois

IN THIS ISSUE ... EDITOR

We're pleased to include a large amount of information from outside Decatur this month, not for lack of local information, but due to the high quality of the articles. We thank the L. A. TopIcs and the TI Home Computer Newsletter (Arizona 9906) for their information. We are also including in full, a letter from Texas Instruments, Inc. which many of you will find interesting.

Locally, Larry Livergood and Jay Seaberg have done their usual excellent job and, of course, the Computer Widow struck again. Thanks for the help.

This issue will be mailed to 34 Users Groups around the country. The information contained in the newsletters recieived in return is of ever inproving quality and even the beginners should consider saving it for the future.

PROGRAM POTPOURRI...by Jay Seaberg

This month's review will cover the new version of the old 99'er Magazine.

It was resurrected in February under the new title of 'HOME COMPUTER MAGAZINE'. I was pleasantly surprised by the new format and coverage.

As you may already know, the magazine now covers several other types of home computers in addition to the 99/4A. The quality coverage of the 4A has not been lost. In fact, it has been expanded with programs written in Basic, Extended Basic, and Mini-Memory. There are more reviews of third-party software than ever, and the articles on other computers are interesting.

There are eight different programs in this issue for your computer, covering diverse topics from music to nuclear reactor meltdowns. One feature sure to catch a lot of attention is the availability of all the programs on tape or disk for the low price of \$3.95. This offer is available for proof of purchase and a check for that amount. Some of the programs are rather long, and this feature would be a real time-saver.

I have been waiting for the new version for several months, and the wait has been worth it. I am sending my check to cover a subscription right away, as I am sure future issues will disappear as soon as they hit the stands.

CHALLENGE CORNER

Welcome to the first CHALLENGE CORNER! In this column we will bring you a monthly problem in Basic or Extended Basic programming. These problems will be fun and instructive to solve.

Here is your first challenge: Create a program which will generate and print a list of prime numbers. You should probably limit your list length to the first ten or twenty primes. A prime number is an integer which is divisible only by itself and one, such as 1, 2, 3, 5, etc. This challenge really does not serve any useful purpose. It does not require a math background. We do not give prizes for beating the challenge, your success is its own reward. We will print the different solutions we get for the challenge, along with your name. We will also accept new challenges from our members to be printed. If you have any ideas, please contact the editor.

IN THE BEGINNING...by Jay Seaberg

Well, you've gone and done it! You spent some hard-earned cash on a computer and it just sits there. What is your computer capable of, and how do you use it? The first step is to set it up per the instructions in your users manual. This manual is also the best source of information for the beginner.

Your computer can be used to educate your children, keep records, play games, make music, solve problems ...the list is almost endless! You can learn from your computer as you use it. The act of programming your computer forces you to think logically. It also sharpens your skills in english and mathematics. Our TI computer is a power ful tool and a wonderful toy. There are many sources of information to you as a computer user. The users manual, the library, book stores, and, of course, this User's Group, are all at your disposal. For most of us, the users manual is the first place to learn how to use your machine.

The manual contains the commands and programming tools you need to learn. It also has many useful subroutines and tips to make programming easier. At the end of the manual there are several complete programs that help teach you programming logic.

In my own case, the user's manual was my first source of information and programs. I started to read the book page by page. I typed in the routines shown and tried to learn the logic behind them. Although the logic sometimes escaped me, I still was able to use the routines in my own programs.

Another learning source was magazines, expecially '99'er HCM' and 'Compute!'. These magazines carry complete program listings for your computer. All you do is type them in and you have a finished program. In order to learn programming skills, you should study each listing carefully. The library is a good source of information on computers in general. They have books which contain listings written in generic basic which can be translated into TI Basic with a little experience.

Probably the best source of new info and programs can be found in your User's Group. By joining a users group you have allied yourself with people of like interest. These new friends will help you to learn the ropes of this machine. They all remember when they were newcomers to a 'Brave New World' and had to seek out whatever help was available. Some of the 'old-timers' remember when they were all alone with very few resources. They realize that by helping newcomers, they are also helping themselves.

The users group will only be as good as you make it. By attending meetings, workshops, and spending a little time at home, you can learn to use your machine to its fullest.

TI VS. APPLE...reprinted from the ARIZONA 99ER U

At the COMDEX show in Las Vegas, Apple was demonstrating a new board called the Arcade Board. It plugs into the Apple. It had very good graphics and sells for \$400.00. It was called the supreme board for the Apple. The Apple Card uses the TMS9918A VDP chip that your 99/4A uses. This allows the Apple to do SPRITES just like your computer. However, just the board sells for more that most of us paid for the whole 99/4A computer.

BOOK REVIEW...L.R.Livergood

The long wait for the arrival of the BEST OF 99'ER, VOLUME is over. Many who pre-ordered in anticipation of a quality publication have probably recieved their copy within the last few weeks. I think most of them would agree that it was well worth the wait.

Currently selling at \$19.95 from the editors of 99'ER HOME COMPUTER MAGAZINE, the book is basically a collection of programs and articles from the first year of publication. Much of the original material has been revised and debugged while new information, never before published, has been included.

Who is this book for? Of all the books currently available, this one is probably going to appeal to the broadest group of people. I would highly recommend it for the beginner who is looking for a suppliment to the user's manual. The use of the book will grow as the user develops his basic skills and starts looking for more advanced articles on programming. Chapters flow smoothly from beginning to end while covering all aspects of the 99/4(a). In fact, it touches on practically every significant concept one would want to learn in the their first year of programming.

The following is a general list of the contents:

- 1) Starting Out
- 2) Programming Techniques and Languages
- 3) Inside BASIC and Extended BASIC
- 4) LOGO
- 5) Assembly Language
- 6) Computer Assisted Instruction
- 7) Computer Saming
- 8) Applications and Utilities

If one looks closely they can see that a few of the chapters contain information for the more advanced programmer. I have found Chapter 5 to be a good introduction to assembly launguage programming and Chapter 8 is a must for those trying to get the most out of their disk system.

CARTRIDGE REVIEW...L.R.Livergood

When I first heard that Atari would soon market the home computer version of the popular arcade game called DONKEY KONG for the 99/4A I was filled with both excitement and skepticism.

I was excited mainly because I had had first hand experience playing it at college (a place where many new games are tested) and was quite pleased with its high resolution and subtle programmed movements that made the main character, Mario, extremely acrobatic.

However, it was this same feature that made me very skeptical of a home video version. I recalled seeing Atari announce such games as PAC MAN for their 5200 which ended up barely resembling the arcade hit when they arrived. I wondered how great would their efforts be to please the users of the competition's equipment?

When DONKEY KONG finally appeared it became quite evident that Atari's efforts were for real. Only after close scrutiny could I tell that this version was not an exact replica. The attention to detail, however, was excellent. Mario had all the subtle moves and looks which were so much fun to watch in the arcade version.

What is so great about Mario and his moves? Well, try showing me another arcade game that gives you so much control over the leading character (like about four different profiles while standing in the same spot). By tapping left or right on the joystick makes Mario go through subtle movements which slightly alters his profile. The result is a feeling of confidence that you are in full control.

When playing the game one might get confused over just how the graphics, the object, and the title all relate? The general idea seems to be about the hero trying to rescue the fair maiden from the ape who rolls a never ending chain of barrels down a series of ramps and ladders toward Mario's feet. Well, I dont have any idea where the "donkey" ever enters into it but Mario was created with a strong pair of legs and jumps with abandon. In fact, he jumps standing still or with a running start. He can jump two barrels at once either frontwards or backwards! One must watch it, however, since one never really knows whether a barrel is going to follow a ramp or take a stairway.

In all, their are four seperate screens which have different requirements for rescuing the lady (although, one never really rescues her since the ape takes her to the next screen before Mario gets there.) As you complete each series of screens on a level, the level changes to the next which increments through the screens in a different pattern. The other screens include knocking out rivets in a steel pyramid while avoiding "chasing" fires that look like water drops.

The third level involves riding elevators and the fourth, which many might not see for a while, contains horizontal conveyors.

Unfortunately, this specific game cartridge has what might be to some, a serious problem. While trying desperatley to jump on an elevator, the screen suddenly broke up and the game could no longer be played without turning the system off and back on again. I took the cartridge back and exchanged it for a new one that performed like the first. After trying it in another computer with the same result, I finally called the Atari service center. What I found out was that this problem was labeled as number three on a list of complaints or faults for this particular cartridge and that there would not be a revised version in the future. Since I was about to the end of the waranty period I reluctantly exchanged it for one of II's new games. As for the other problems (1 and 2), they would not tell me.

LOVE AT FIRST BYTE?...by another C.W.

Hello again! This time around I have a couple of puzzles for you. What are C.C.C. and what do they have in common? Give up? Well, C.C.C. stands for Computers, Children and Cats and the one thing they all have in common is that they all get me into trouble.

As you probably know by now, my husband is a Computer Fiend. He is completely devoted to his computer and if we ever were to get a divorce, I could name it (the computer) in the suit. My mate is totally baffled by my lack of interest in this wonderful invention. He keeps telling me that if I'd only give it a chance, the computer would be the best friend I ever had. I'd sooner have a case of the Black Plague, take flying lessons from Dracula or learn to dance with Hitler. So, as you can see, there is no meeting of the minds here.

I love my children but to be totally frank, I was crazier about them when they couldn't talk and stayed put in a playpen. Sometimes keeping track of everyone I feel like Elliott Ness stalking Frank Netti! The biggest pain is when hubby starts screaming about who's been playing with his computer, who forgot to put a disk away and on and on. Who does he think I am, the advance man for the C.I.A.!

It is sometimes amazing how the head of the household demands a full accounting when HE discovers cat hairs on the computer and assorted junk dumped on the floor from the desk, even though HE forgot to close the door to the den, HE didn't cover the computer and HE speaks fluent CAT. He always wants to know how such things could happen. Sometimes I could scream!

So, if anyone who is looking for a best friend who doesn't get along with computers and doesn't have eyes in the back of her head, I would like to apply for the job.

I recently read a copy of the Fox Cities Users Group Newsletter dated February 19.1984, which contained an unsigned article titled Full Screen Edit. The author included a program which would convert an output file from TI-Writer to a program.

I have been asked many times if there was any way to convert a program in another language to TI Basic and have always said no. Most computers store Basic programs in a compressed format where each function or statement is represented by one byte. It would be easy if all used the same codes, but tha situation is much worse that the differences in Basic dialects. There is absolutely no relationship between the compressed coded from one Basic and another, unless they happen to be minor variations of one language.

However, a program listing is a different matter. Since it is made for humans to read, it is all spelled out. Since it normally goes to a printer, i is organized as DISPLAY with a variable line length up to 80 bytes. This is the same as the output of TI-Writer, which is a file which may be brought back into the computer for further editing. Therefore, if we were to list to a disk, we would have a file which could be edited.

Putting this information on editing a listing with the article listed above. We can conclude that we can change a listing back into a program. Following are the necessary steps.

First, put a listing on a disk. For testing purposes, you list a program of yours to a disk. You could also enter a program in another version of basic irectly into the TI-Writer, since entering it as a program might result in rejection. However, the reason I wrote this is that a friend with a different model computer could list his program to your computer by way of the RS232. Modems also would be necessary unless a direct wire connection is available.

The next step is to edit the program using the TI-Writer. The replace command can be used to change commands which are different. For instance, the single colon between statements in many versions of basic could be changed to TI's double colon. The function MID\$ could be changed to SEG\$. One restriction on this process is the restricted line length. By placing a 'FUNCTION V' at the end of segments of line which have been cut, my program will rejoin the line before further processing. When you have completed editing to your satisfaction, save the file, using an appropriate name.

Then, you use the following program to convert the DISPLAY, VARIABLE 80 file to a DISPLAY, VARIABLE 163 file which is the way MERGE programs are stored the program rejoins the split lines, converts the line numbers to integer format instead of display, and removes any excess spaces before or after the line number. It then adds an asterisk between the line number and the rest of the line and stores the program backk on disk.

Finally, give the commands: NEW which clears the memory, and MERGE using the name under which the file was saved by the conversion program. The line number conversion allows the MERGE command to work, but the rest of the program is still a text file. Now, you must go through the program and eliminate all the asterisks after line numbers. This is a fairly rapid processince you have to hit alternate 'FUNCTION X' and 'FUNCTION 3' keys. As each text line (less asterisk) is entered, the operating system processes it just if the whole line had been typed in. You now have a program which may be say or run. If your editing has been accurate, it will run without a hitch. The more usual case will be that there will be some necessary changes that you forgot to make and the program will stop with an error message.

Even with the added work of removing the asterisks (which I used for better visibility), the convenience of the global changes on TI-Writer should result in less total effort in the conversion of the program. Of course another advantage is that, if you can get the listing via RS232, you have to type only the changes, not the whole program.

130 REM * George
F. Steffen *
140 REM * 512 W.
158th St. *
150 REM * Gardea
a, CA 90248 *
160 REM * PHONE
(213) 329-3527 *
170 REM *
* 180 REM **************

190 REM LOS ANGELES
99'ER COMPUTER GROUP
200 REM **************

210 REM
220 REM TI EXTENDED BASIC
230 REM VERSION 1.0, 2/29/84
240 REM PROGRAM TO CONVERT T
I-WRITER EDITED FILES TO EXT
ENDED BASIC MERGE PROGRAMS
250 REM FILE TO BE CONVERTED
MUST HAVE LINE NUMBERS AT T
HE BEGINNING OF EACH LINE
260 REM BASIC LINES WHICH AR
E SPLIT INTO MORE THAN ONE F
ILE LINE MUST HAVE "FUNCTION
V" AT THE END OF LINES OTHE
R THAN LAST
270 REM THIS IS THE KEY TO T
HE REJOINING OF THOSE LINES
IN THIS PROGRAM
280 REM AFTER RUNNING THIS P
ROGRAM, YOU MUST MERGE THE F
ILE WHICH IT CREATES INTO A
CLEAR MEMORY
290 REM THIS CAN BE DONE BY
THE COMMANDS "NEW" AND THEN
"MERGE " WITH THE FILE N AME
300 REM THEN THE ASTERISKS A
T THE BEGINNING OF EACH LINE
MUSI BE REMOVED USING NORMA
L PROGRAM EDITING
310 REM THE PROGRAM MAY THEN
DE CAUEN DO DUN

BE SAVED OR RUN

```
320 P#="CONVERTED? (BLANK WI
LL END PROGRAM) "
330 GOSUB 790
340 IF LEN(F$)=0 THEN 720
350 FC$=F$
360 P$="MERGED?"
370 GOSUB 790
380 IF F$<>FC$ THEN 410
390 PRINT : : "NAMES MUST BE
DIFFERENT"
400 GDTD 360
410 OPEN #1:FC$.INPUT
420 OPEN #2:F$, VARIABLE 163,
QUTPUT
430 IF EOF(1) THEN 680
440 GOSUB 940 ! GET DNE LINE
450 IF LEN(L$)=0 THEN 430
460 A=1
470 B=POS(L$," ".A)
480 IF B=0 THEN 660 ! NO LIN
E NUMBER. QUIT
490 IF B>A THEN 520 ! FIRST
CHARACTER NOT SPACE
500 GDSUB 740
510 IF LEN(L$)=0 THEN 430
520 IF SEG$(L$,LEN(L$),1)<>"
" THEN 570 ! INSIDE THE QUO
TES IS "FUNCTION V"
530 L1$=L$
540 GOSUB 940
550 L==SEG=(L1=.1.LEN(L1=)-1
)L$
560 GDTD 520
570 LN=VAL (SEG$(L$,1,B-1))!
LINE NUMBER
580 L$=SEG$(L$.B.161)! REMAI
NDER OF LINE
590 A=0
600 GOSUB 740
610 C=INT(LN/256)! CONVERT L
INE NUMBER TO TWO CHARACTERS
620 D=LN-C6
630 A$=CHR$(C)CHR$(D)CHR$(
42) L$CHR$(0)! MERGE FILE F
ORMAT
640 PRINT #2:A$
650 GOTO 430
660 PRINT "ERROR IN LINE AFT
ER":LN
620 EFLAG=-1
680 PRINT #2:CHR$(255)CHR$(
255)
```

690 CLOSE #1 700 CLOSE #2 710 IF EFLAG=0 THEN 320 720 STOP 730 REM TAKE INTIAL SPACES O FF STRING 740 A=A+1 750 B=POS(L4," ",A) 760 IF B=A THEN 740 770 Ls=SEG\$(Ls.A.161) 780 RETURN 790 PRINT : "NAME OF PROGRAM FILE TO BE":P\$ 800 INPUT " ":F\$ 810 IF LEN(F\$)=0 THEN 920 820 IF SEG\$(F\$,1,3)<>"DSK" T **HEN 790** 830 FOR I=1 TO 3 840 IF SEG\$(F\$,4,1)=STR\$(I)T **HEN 870** 850 NEXT I 860 GDTD 790 870 IF SEG\$(F\$,5,1)<>"." THE N 790 Start Bestern 1986 880 FOR I=6 TO LEN(F\$) 890 IF SEG# (F#, I.1)=" " THEN 790 ! SPACE ILLEGAL IN FILE NAME 900 IF SEG#(F#.I.1)="." THEN 790 ! PERIOD ILLEGAL IN FIL E NAME 910 NEXT I 920 RETURN 930 REM GET ONE LINE OF FILE AND REMOVE ANY CONTROL CHAR ACTERS AT END 940 LINPUT #1:L\$ 950 IF LEN(L\$)=0 THEN 1020 960 IF ASC(SEG\$(L\$,LEN(L\$),1)))31 THEN 990 970 L=SEG\$(L\$,1,LEN(L\$)-1)! REMOVE ANY CONTROL CHARACTE 980 IF LEN(L\$)=0 THEN 1020 990 IF SEG\$(L\$,1.1)<CHR\$(128)THEN 1020 1000 L\$=SEG\$(L\$,2,161) 1010 IF LEN(L#) THEN 990 1020 RETURN

*book review continued

The only reservation I have is in the chosen method of binding. I don't feel that a soft cover is durable enough, however, I do see its necessity for price. My suggestion would be to go to a spiral binding for ease of typing in programs and possibly extending the life of the spine.

IBM PCjr VS. 99/4A reprinted from the ARIZONA 99 U5.

Many of the publications are calling the IBM PCjr's BASIC very luxurious. They say the BASIC includes commands that are seperate utilities on most other home computers, such as RENUM, TRON, TROFF, FILES, and KILL. Those of you that have had your 99/4A awhile already know that your computer has all these commands built-in also.

The RENUM is NUM with the 99/4A. The TRON is TRACE. TROFF is UNTRACE. FILES is just listing a directory from the DISP MANAGER, and KILL is DELETE from BASIC or EXTENDED BASIC.

The PCjr's built-in ROM BASIC is 32K bytes long. The 99/4A's built-in ROM BASIC is 26K bytes long. Only 6K bytes shorter and a lot less expensive.

The PC;r's EXTENDED BASIC cartridge adds another 32K of ROI BASIC. The TI-99/4A's EXTENDED BASIC cartridge adds another 32K of ROM BASIC. Both are the same byte size. However, the 99/4A's EXTENDED BASIC is only \$99.00.

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* BYTE-LINE is the newsletter of the Decatur 99er Users'
# Group, Published in Decatur, Illinois
* The information contained in this newsletter may be
* reprinted by a recognized Users' Group which gives
# proper recognition to the DECATUR 99ers.
* Advertising will be accepted if prepaid and camera
* ready. Advertising which in the opinion of the DECATUR *
* 99ers' is unacceptable will be returned with prepayment.*
* ADVERTISING RATES:
                           Submit Advertising to:
* FULL PAGE
             $20
                           Deactur 99er Users' Group
# HALF PAGE
             $12
                           P.O.Box 726
                           Decatur, Illinois 62525
# QUARTER PAGES 8
                           Attn: BYTE-LINE Editor
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WANT ADS ... A SERVICE FOR MEMBERS ONLY.

One peripheral box, new in original packaging, \$100. Contact Jesse Jolly or write to the clubs PO BOX for mor information.

Free to a good home. One slightly used computer "monitor from our old meeting place. See Larry Livergood for a good deal.

March 28, 1984

Decatur 99er UG P.O. Box 726 Decatur, IL 62525

Dear 99/4A Owners:

I would like to take this opportunity to thank each of you for your loyal support of our products, and also to pass on information concerning a change in the services we have been offering to our customers.

Effective April 2, 1984, Texas Instruments will no longer sell products for the TI-99/4A Home Computer. As you may recall, when we announced our withdrawal from the home computer market we said we were committed to providing product sales support until such time as another means of support could be identified.

Arrangements have now been concluded to provide availability for all existing software through an organization separate from Texas Instruments. The Triton company is a well-established direct-response/mail order firm, and we are confident that they are capable of providing this continued support. They may be contacted at:

Triton P.O. Box 8123 San Francisco, CA 94128

You may also call them toll-free at 800/227-6900 in the continental United States or at 800/632-4777 in California.

Although availability may be limited in certain areas, you should also check with local Texas Instruments retailers if you wish to purchase additional software titles. Many titles may still be obtained through these retailers.

At this time Texas Instruments peripherals and accessories are no longer in production and quantities are very limited. To further assist you we can now provide a listing of many third-party peripheral suppliers.

Please keep in mind that while the enclosed list is not comprehensive and while we cannot assume responsibility for the quality or compatibility of any of these products, we do feel that it is a means for additional enhancement for your basic system.

We do appreciate the understanding and patience you have shown in the past months. It has been a most difficult time for all of us, and we want you to know that we are still very much committed to providing continued support of the 99/4A product line, including in- and out-of-warranty repair capability, applications information and technical programming assistance.

Although we no longer formally coordinate TI Users Groups, we do assist new groups and maintain and make available an up-to-date group listing. In addition, we are interested in receiving newsletters and information on your current activities, as your participation makes our work that much easier.

I would like to again emphasize our appreciation of your support and interest in Texas Instruments. We are justifiably proud of our commitment to excellence in both our products and customer service. I hope that we continue to warrant your support, as we will make every effort to work with your group in the coming years.

If you have further questions or comments or should you require assistance, please contact us at the letterhead address.

Sincerely,

Mundlack
Carl Gundlach

Manager, Consumer Services

/das

Enclosure

Texas Instruments



TI-99/4A Home Computer Third-Party Peripheral Suppliers Effective March 23, 1984

MANUFACTURERS OF THE FOLLOWING ITEMS HAVE REPRESENTED THAT THEIR PRODUCTS ARE COMPATIBLE WITH THE TI-99/4A. HOWEVER, TEXAS INSTRUMENTS ASSUMES NO RESPONSIBILITY FOR THE QUALITY OR COMPATIBILITY OF ANY OF THESE PRODUCTS.

FLOPPY DISK DRIVES (Stand-alone:)

Percom Data Cor., 11220 Pagemill Road, Dallas, TX 75243 Phone Number: 214/340-5800

(Utilizing TI Disk Controller:)

و المعاولات المعالم الله المعالم المعا

Software Support, Inc., One Edgell Road, Farmingham, MA 01701 Phone Number: 617/872-9090

International 99/4 Users-Group, Inc., P.O. Box 67, Bethany, OK 73008 Phone Number: 405/948-1023

Western Micro Systems, 2760 S. Havana, Suite S, Aurora, CO 80014 Phone Number: 303/337-5909

WINCHESTER DISK SYSTEMS

Myarc, Inc., P.O. Box 140, Basking Ridge, NJ 07920

STAND-ALONE RAM EXPANSIONS

Ultracomp Systems, 1001 Ogden Avenue #5, Downers Grove, IL 60515

Doryt Systems, Inc., 14 Glen Street, Glen Cove, NY 11542

Tachyon Systems, 5125 S. Westwind Way, Kearns, UT 84118

Intellitec Computer Systems, 2337 Bonanza Court, Riverton, UT 84065

RAM EXPANSION CARDS FOR PERIPHERAL BOX

Intellitec Computer Systems, 2337 Bonanza Court, Riverton, UT 84065
Foundation, 74 Claire Way, Tiburon, CA 94920

IEXAS Instruments



TI-99/4A Home Computer Third-Party Peripheral Suppliers Effective March 23, 1984

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STAND-ALONE RS-232 INTERFACES

Ultracomp Systems, 1001 Ogden Avenue #5, Downers Grove, IL 60515
Intellitec Computer Systems, 2337 Bonanza Court, Riverton, UT 84065
Model Masters, Inc., 22411 Mountain Laurel Way, Diamond Bar, CA 91765

RS-232 INTERFACE CARD FOR PERIPHERAL BOX

Information Associates, P.O. Box 2207, Acworth, GA 30101

STAND-ALONE PARALLEL (CENTRONICS-COMPATIBLE PRINTER) INTERFACES

Intellitec Computer Systems, 2337 Bonanza Court, Riverton, UT 84065

tin to with lay , the kert at

PRINTERS

There are numerous companies advertising printers which can be used specifically with the TI-99/4A, but in reality, almost any printer which can be interfaced via the RS-232 serial or Centronics parallel methods can be used by means of the appropriate cable obtainable from one or more of the vendors in the "CABLES, SUPPLIES, & MISCELLANEOUS" section below.

MONITORS

Vid-Com, 1018 E. Philadelphia St., York, PA 17403

Any video display which can accept NTSC composite video or VHF channel 3 or 4 RF can be used.

Texas Instruments



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JOYSTICKS

Newport Controls, Bishop, CA 93514 Nebulous Enterprises, P.O. Box 99, Swartz Creek, MI 48473

Jackson Design, 12520 Ridgeton Dr., Lakeside, CA 92040 Wico Corp., Consumer Div., 6400 W. Gross Point Road Niles, IL 60648

Several of the vendors in the "CABLES, SUPPLIES, & MISCELLANEOUS" section below after adaptors which can allow any Atari-compatible joystick to be used with the TI-99/4A.

MODEMS

Anchor Automation, 6913 Valjean AVe., Van Nuys, CA

CARL VERTICAL CONTRACTOR

Any modem which can be interfaced via the RS-232 serial or Centronics parallel methods can be used by means of the appropriate cable obtainable from one of more of the vendors in the "CABLES, SUPPLIES, & MISCELLANEOUS" section below.

BAR CODE READER

Databar Corp., Eden Prairie, MN 55344

LIGHT GUN

Non-Polyoptics, 13721 Lynn Street #15, Woodbridge, VA 22191

KEYPAD

Computech Distributing, 209 E. Walnut, Springfield, MO 65805

Texas Instruments



TI-99/4A Home Computer Third-Party Peripheral Suppliers Effective March 23, 1984

MANUFACTURERS OF THE FOLLOWING ITEMS HAVE REPRESENTED THAT THEIR PRODUCTS ARE COMPATIBLE WITH THE TI-99/4A. HOWEVER, TEXAS INSTRUMENTS ASSUMES NO RESPONSIBILITY FOR THE QUALITY OR COMPATIBILITY OF ANY OF THESE PRODUCTS.

COOLING FAN

Reality Software, 4615 Kensington Dr., San Diego, CA 92116

CABLES, SUPPLIES, & MISCELLANEOUS

Vid-Com, 1018 E. Philadelphia St., York, PA 17403 Tex-Comp, P.O. Box 33084, Granada Hills, CA 91344 Danien Enterprises, Inc., P.O. Box 522036, Miami, FL 33152

Software Support, Inc., One Edgell Road, Framingham, MA 01701

99'er-Ware, P.O. Box 5537, Eugene, OR 97405 Towertronics Inc., P.O. Box 18870, Fort Worth, TX 76118

Tenex Computer Marketing Systems, Box 6578, South Bend, IN 46660

Denali Data Design, 1413 N. McKinley Ave., Oklahoma City, OK 73106

Compro Systems, P.O. Box 33173, Cleveland, OH 44133 Cintronics, 431 Ohio Pike #206C, Cincinnati, OH 45230 Western Micro Systems, 2760 S. Havana, Suite 5, Aurora, CO 80014

International 99/4 Users-Group, Inc., P.O. Box 67, Bethany, OK 73008