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WASHINGTON D.C. AREA
TI 99/4 USER'S GROUP

NEWSLETTER

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ISSUE #1

Bill Whitmore, President

Richard D. Sturgell, Editor

*** HAPPY NEW YEAR ***

Your Newsletter is now celebrating it's 1st birthday. I was only one year ago when we stated this publication. The first issue was only one page in length. The volume of information we publish each month has increased to 10 to 16 pages. The success of this publication or other is only possible is we all contribute and share our ideas with each other. I want to thank all of those who contibuted articles or or ideas for publication this past year.

As we all know, nothing stays the same forever. Now is an appropriate time to let eveeveryone know the rules on contibuting to the Newsletter. To assure that you get your Newsletter on time, your contribution should be mailed to the above address by the 10th of each month. Any material received after the 10th with be published only if there is enough time and if there is space available. When possible, submit your material ready for publication. By that I mean typed or printed on white paper with margins on the top and bottom and on each side. I normally use a margin on the right and left of 5 spaces. The number of lines per page should be 56-58. For those who have the TI Editor/Assembler, you may send your material on a diskette or cassette.

Your Newsletter now reaches over 400 households. At this time last year we were only mailing out 100 Newsletters. For those who contibute material are helping and reaching an increasing number of people.

Members may advertise their personal used TI equipment or software free of charge. Commercial advertisements are charged a fee. See Bill Whitmore (703-777-2017) for the fee structure.

HOW TO MAKE MONEY WITH A TI99/4 COMPUTER

Many computerists are torn with the idea of "How am I going to make money with this thing? I know this is true because I observe the steady sales of "How to Make Money With Your Home Computer" books that are still selling briskly in book stores in spite of the fact that they have not changed a word of copy in five years, when they were first published.

Another sign of the times is that the micro field is now being invaded by the "I Want to Leave This to My Fellow Man Before It Is Too Late" school of mail order rip off. I name the school after the headline of a classic get-rich-quick-and-easy ad that ran at least fifteen years to my knowledge. There is a particularly nasty subculture that runs little classified ads that say "Six months ago I was penniless. Starting with nothing, I have increased my PART TIME income to \$2,888 (a believable number, adjusted for inflation) a (MONTH!) (WEEK) (DAY) ((Time interval is a measure of the ethics of the publication you are reading)). Send (\$1)(\$1,88)(\$2) ((Again, this amount depends on a test of the market and the publication to see what draws)) for a complete report on my (dog racing)(horse racing)(envelope stuffing)(ring selling) system." RIGHT--I saw one of these ads the other day with "home computer inserted in the right places. If you send money you will get a couple of xeroxed pages. This "report" is usually a copy of a section of an uncopyrightable government report on the subject at hand.

What happens then? The price has been kept low for a purpose. Only three or four people per hundred will write and ask for their money back. Most of these operators will refund money to those who write and ask for it because they do not want to get in trouble with the Post Office. If a company uses a POB in an advertisement, you may write the Postmaster of that zip code area and request the business address of that firm and get it! Nothing is more bracing for a sleazy operator than a letter addressed to his street address demanding a refund. The following is therefore my contribution to the "state of the art" in the how-to-get-rich-with-your-home-computer field of literature.

What this country needs now is the computer baby sitter. Baby sitting is an old and honored form of youth labor, so it can be indulged in by persons of any age. How does a baby sitter operate? In the classic sense, a baby sitter is a surrogate parent/teacher/supervisor. At the high end of this field is the tutor, even the consultant, while at the low end is a person who makes sure the child does not kill himself in the absence of the parents. All of these jobs are paid, and some quite well. The problem with home computers is that we are all conditioned to the "computer expert" this in spite of the well known truth that by one's students one is taught. Think about it. A computer professional is a person who is paid to learn about computers and the client's problem. Wouldn't it be neat to be paid to learn about the 99/4?

If further incentive is needed to seek to make money with your computer, consider the tax advantage. The president of Radio Shack some years ago suggested that you could write off your computer as a tax preparation device. Your tax advisor is the only one who can say

whether this is a reasonable approach. However, there is little question that you can charge off cost of your machine, using depreciation, if it is a source of cash flow for you or your children. Again, check with your tax specialist. Several can be reached through the TI99/4 Users Group.

While we weren't looking, the number of people who are wondering what to do after you push "enter" has just exploded by a factor of ten or more. This means that anyone that has been playing with his computer for six months or a year has experience to sell. The old truck bumper sticker "I may be slow, BUT I'M AHEAD OF YOU" applies in this case. therefore, if you or your child have spent some time with the 99/4 you are prepared to go to work. Simply let the world know you are prepared to provide a service. At the low end of the services you have to offer, you, or again your child, can offer to read the instructions along with your client and make sure that person does not get electrocuted. A variation would be to read to the client lines of code from the Beginners Basic Book as the client keys in the lines of code. You would explain the error messages that person generates. This sounds crude. It is. Simply charge accordingly. Of course, your efforts will not remain crude for long. There is nothing more bracingly effective than a customer-client relationship to focus the attention of both parties to the task at hand. At any rate, what is the going rate for a baby sitter to eat all the food in your refrigerator? Initially add \$0.75 for expertise and as a surcharge for not eating your client's food.

As you learn along with your clients, you naturally charge more, letting the newcomers take on the beginners at lower rates. As you dig up the answers to you client's questions you will indeed begin to learn while being paid for the process--Shazam! You have become a consultant! The more answers you are able to provide, the faster your reputation will spread. You will notice that your schedule is becoming full. Perhaps a future article is needed on helping your reputation spread. When you reach that point, you can begin to schedule groups at much lower rates than you charge individuals, but at a greater aggregate income to yourself. You can conduct these sessions at home, at someone else's place, or at some convient hall. The two advantages of group meetings are that you can make more money to offset the increased hassle, plus you can generally schedule fewer evenings at a time more convenient to you. One other advantage: groups tend to raise your reputation even more than one-on-one sessions, both because of the numbers and the status conferred on a group leader.

Let's turn over the coin a moment. What does a person gain from hiring an information provider (I used the term "baby sitter" to emphasize the availability of this activity to all levels of skill? The overt purpose of any tutoring effort is to educate, to pass on information. Americans have become a nation of information customers, ever more ready to pay "experts" in non traditional areas, if the information or skill is needed or desired. Time is an important function, and can be saved. Quite often, however, training imparts other intangible benefits. Other than computer science, I have probably spent more money on ski lessons than any other form of tutoring, although I can ski moderately well and at a pace that I am satisfied with. While I still desire to improve my skiing, I have quickly learned that students with an instructor go to the head of long lift lines!

A similar situation exists here. The information purchaser generally ends up getting a "consultant for life". It is very difficult for the tutor to go around holding a stop watch to people, even if that person wanted to. There is the story of the doctor, who upon being approached at parties or in groups for free medical advice would say, "take your clothes off, and I will see what I can do." I see no appropriate comeback for the information provider in this case, however. So the information consumer is likely to get a bargain, quite possibly a tax deductible one to boot. This is particularly true if you pick the right person and grow with them.

So hire an information provider rather than letting the computer gather dust. You will be comfortable with your computer much faster. There is an old Army saying that it really does not take much practice learning how to be miserable. There are some miserable moments in the beginning computerists starting days and weeks. Things do not have to be that bad, and a little help at the beginning goes a long way. Where does the Washington Area TI99/4 Users Group fit in to all of this? The most important thing a club of our type does is to serve our membership as a conduit of information, exchanged between members. Volunteer organizations should concentrate on what they do well. Providing professional, consistent, and customized instruction is not one of our best roles, although some of the high spots will certainly interest the entire membership. We certainly can let our membership know who is willing to provide such service.

A utilitarian means to this end is classified ads. To place an ad, simply type or have typed your message, ready to print. For now, the ad is free to members. We may have to charge as our postage costs rise or as space becomes a problem. An example would be "My name is Tim. I am 15 years old and am a TI99/4A user with over six months experience. I can help you get started, using either your computer or my expanded one. Very reasonable rates. Call 703 999-999." There are, of course, other means of becoming known, to include cards in supermarkets and elsewhere. One of the most beneficial to the club, of course, is to provide an interesting and free program some evening. More on that later, perhaps.

When I said I would tell you how to make money with your computer, I did not say you could get rich following my advice. I will defer to the likes of Steve Job, if we ever could get them, to stop making apples long enough to tell their secret. However, using the techniques mentioned, many have done quite well and many have generated a comfortable living while doing something they liked. So send in your ad and get started. Please hurry, as my own notice will be in the next month's issue.

The RS232 "Y" Cable will soon be available, check your TI sales outlet.

The "Rat Race" to find a tape recorder that is compatible with the TI99/4 may soon be over. The rumor is that TI will soon be marketing one with their name on it.

PROGRAM LIBRARY

I would like to thank the following members who helped the library in the transition from disks to tapes: Dave Hill, Keith Koch, Dick Schmitt, Dick Sturgell, Ted Walton, Carl Savillo Jr., Rick Stickle, Fred Gray, Paul Peyser, Oscar Farah, Richard McCollum, and Chris Goodman. Without the many hours of effort put in by those members, the Club would not have a tape library. Once again, to all of them, Many Thanks!

Also, thanks to everyone for their patience during the transition period and for cooperating so nicely with the new library procedures. (More program catalogs and Request Forms will be available at the next meeting.)

And an especially BIG THANKS to Ken Geremia, who has volunteered to fulfill all those tape requests!!

Good news! All tapes have been turned in, and therefore all tapes that were ordered at the December meeting will be available for pickup at the January meeting. (Remember -- be sure to bring your newsletter with the mailing label, in order to pick up your tapes.)

There are many varied programs in the library. Most will run with just the console. Some programs, in order to run, might require one or more of the following: joysticks, speech synthesizer, speech editor module, Terminal Emulator II module, Extended BASIC module, Memory Expansion, printer, disk drive.

Some tapes contain the program 'CATALOG', which requires a disk drive. Some programs contain the statements, CALL INIT :: CALL LOAD(-31878,0) , if you do not have the Memory Expansion, delete those statements. Notice that Page 2 of the library catalog contains additional programs for tapes 12, 13, and 14.

Before reading the tapes into your computer, set the tape recorder tone control to maximum (high) and the volume control to maximum (high). Play a cassette head cleaner tape through your recorder once. Then load a program tape with OLD CS1.

If you get the error message "ERROR IN DATA DETECTED", lower the volume a little and try again.

If you get the error message "ERROR-NO DATA FOUND", raise the volume a little and try again.

If you still have trouble, review pages I-9 to I-12 in the User's Reference Guide.

Thanks to Jim Kulp and Craig Schneider for donating programs to the Club library. All members are urged to donate their programs to the library.

We still need a volunteer with two disk drives to handle the disk-to-disk duplication.

* * N O T I C E * *

Each person who receives programs from the Club library must agree not to sell the programs and not to give them to anyone who is not a member of the Club.

----- (Larry Hughes) -----

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SOME COMMON COMPUTER TERMS AND THEIR DEFINITION

1. Algorithm—A fixed step-by-step procedure for accomplishing a given task.
2. ANSI—An acronym for the American National Standards Institute.
3. ASCII—An acronym for the American Standard Code for Information Interchange. The ASCII codes are about the only thing that is standard in BASIC. TI BASIC uses ASCII codes 32 through 127. TI EXTENDED BASIC uses ASCII codes 30 through 143. See pages III-1 and 196 and 198 respectively for each set of codes.
4. BASIC—An acronym for Beginners' All-purpose Symbolic Instruction Code. A programming language designed for personal computers and beginning users.
5. Baud—A unit of signaling speed for information transfer. Speed expressed in bauds is equal to the number of signaling elements per second. Baud rates are 110, 300, 1200, 2400, 4800, and 9600. The TI99/4A RS232 interface uses all six of the baud rates. Normally you can use the higher baud rates when sending data to a printer. When using the Terminal Emulator II you can use only 110 and 300 to send and receive data.
6. Binary digit—The smallest unit of information in a binary system of notation. The digits used to represent binary digits are 0 and 1 (off and on).
7. Bit—A contraction of "binary digit".
8. Bus—A channel along which data can be sent.
9. Buffer—A storage device used to compensate for the difference in rates of flow of data from one device to another or from an input/output device to the central processing unit.
10. Bug—A mistake or malfunction in a computer program. Common bugs in programs are: syntax errors and logic errors. See your TI manual for other errors.
11. Byte—A group of bits treated by the computer as a single unit of information.
12. CRT—An acronym for Cathode Ray Tube. A television-like picture used in visual display terminals. Often used to refer to the terminal itself.
13. Character—A single, printable letter, numeral or symbol used to represent data. Also includes nonvisible control characters such as space, tab, cursor, etc. Character sets are complete sets of characters that can be displayed on a visual display screen.
14. Character printer—A printer that prints one character at a time, like a typewriter.

The following financial program is presented in two version. The original version was written by Keith I. Wiese of Suitland, MD. Keith is a retired military officer and a recent purchaser of a TI. The program gives prompts to enter your federal income tax bracket, the starting point for the investment return you want to study, how many lines of interest return you want to study, and your state income tax bracket. The program will then calculate your return on the interest rate for investment of \$10,000. The program can be changed to reflect other investment figures by changing line 180 in the first program and line 220 in the second program. The first program is the screen version by Keith Wiese and the second program is a printer version by the Editor. We thank Mr. Wiese for his contribution.

SCREEN VERSION

EXAMPLE

```

10 REM TAX COMPARE-BY KEITH WIESE, 6004 GOODFELLOW DR., SUITLAND, MD., 20746
20 INPUT "FED TAX BRACKET (%) ":TB
30 INPUT "START INTEREST AT (%) ":I
40 INPUT "HOW MANY LINES? ":L
50 INPUT "STATE TAX (%) ":B
60 PRINT
70 PRINT
80 PRINT
90 F=TB/100
100 S=B/100
110 IN=I/100
120 PRINT "NET INC ON $10K AFTER TAXES"
130 PRINT TAB(1);"User specified tax bracket)"
140 PRINT
150 PRINT TAB(2);"INT";TAB(7);"NO";TAB(13);"ONLY";TAB(19);"ONLY";TAB(25);"FED"
160 PRINT TAB(3);"%";TAB(7);"TAX";TAB(13);"STE";TAB(19);"FED";TAB(25);"ST"
170 PRINT
180 P=10000
190 FOR A=1 TO L
200 INX=P*IN
210 ST=INX-(INX*S)
220 FT=INX-(INX*F)
230 STFT=INX-((INX*F)+(INX*S))
240 INX=INT(INX+.5)
250 FT=INT(FT+.5)
260 ST=INT(ST+.5)
270 STFT=INT(STFT+.5)
280 PRINT IN;TAB(6);INX;TAB(12);ST;TAB(18);FT;TAB(24);STFT
290 IN=IN-.01
300 NEXT A
310 END

```

NET INC ON \$10K AFTER TAXES
User specified tax bracket)

INT %	NO TAX	ONLY STE	ONLY FED	FED +ST
.2	2000	1850	1400	1250
.19	1900	1750	1330	1180
.18	1800	1665	1260	1125
.17	1700	1573	1190	1063
.16	1600	1480	1120	1000
.15	1500	1388	1050	938
.14	1400	1295	980	875
.13	1300	1203	910	813
.12	1200	1110	840	750
.11	1100	1018	770	688
.1	1000	925	700	625
.09	900	833	630	563
.08	800	740	560	500
.07	700	648	490	438
.06	600	555	420	375

- NOTES 1) Line 330 decrements interest by 1%.
2) Line 220 specifies principal.
3) Lines 280 to 310 rounds to \$1.
4) INPUTS: Enter without decimal, e.g. 37.

PRINTER VERSION

EXAMPLE

```

10 REM TAX COMPARE-BY KEITH WIESE, 6004 GOODFELLOW DR., SUITLAND, MD., 20746
20 REM REVISED PRINTER VERSION BY RICHARD D. STURSELL
30 OPEN #1:"RS232/1.BA=9600"
40 INPUT "FED TAX BRACKET (%):";TB
50 INPUT "START INTEREST AT (%):";I
60 INPUT "HOW MANY LINES?";L
70 INPUT "STATE TAX (%):";B
80 F=TB/100
90 S=B/100
100 IN=I/100
110 PRINT #1:TAB(2);"TAX BRACKET";TB;"%"
120 PRINT #1:TAB(2);"INTEREST STARTING AT";I;"%"
130 PRINT #1:TAB(2);"STATE TAX BRACKET";B;"%"
140 PRINT #1
150 PRINT #1:TAB(2);"NET INC ON $10K AFTER TAXES"
160 PRINT #1:TAB(2);"User specified tax bracket)"
170 PRINT #1
180 PRINT #1:TAB(2);"INT";TAB(7);"NO";TAB(13);"ONLY";TAB(19);"ONLY";TAB(25);"FED"
190 PRINT #1:TAB(3);"%";TAB(7);"TAX";TAB(13);"STE";TAB(19);"FED";TAB(25);"+ST"
200 PRINT #1:TAB(2);"----";TAB(7);"----";TAB(13);"----";TAB(19);"----";TAB(25);"----"
210 PRINT #1
220 P=10000
230 FOR A=1 TO L
240 INX=P*IN
250 ST=INX-(INX*S)
260 FT=INX-(INX*F)
270 STFT=INX-((INX*F)+(INX*S))
280 INX=INT(INX+.5)
290 FT=INT(FT+.5)
300 ST=INT(ST+.5)
310 STFT=INT(STFT+.5)
320 PRINT #1:IN;TAB(6);INX;TAB(12);ST;TAB(18);FT;TAB(24);STFT
330 IN=IN-.01
340 NEXT A
350 CLOSE #1
360 END

```

TAX BRACKET 30 %
INTEREST STARTING AT 20 %
STATE TAX BRACKET 5.75 %

NET INC ON \$10K AFTER TAXES
(User specified tax bracket)

INT	NO	ONLY	ONLY	FED
%	TAX	STE	FED	+ST
---	---	---	---	---
.2	2000	1885	1400	1285
.19	1900	1791	1330	1221
.18	1800	1697	1260	1157
.17	1700	1602	1190	1092
.16	1600	1508	1120	1028
.15	1500	1414	1050	964
.14	1400	1320	980	900
.13	1300	1225	910	835
.12	1200	1131	840	771
.11	1100	1037	770	707

HOME BUSINESS OPPORTUNITY WITH YOUR TI 99/4A COMPUTER

Distributorships available for the right product at the right time: the Texas Instruments TI 99/4A Home Computer. Keep your present job. Work out of your home with a small investment. Make more money and keep more of it. I will show you how. Call now for your future. (301) 948-1916

ELECTION TIME:

The January meeting will be election night for the 1983 officers. Nominations were made several months ago and the following are the nominees:

President-Bill Whitmore
Jim Horn

Vice-President-Rick Stickle
Pete Eddy

Secretary-Fred Grey

Treasurer-Gene Harter
Dick Sturgell

FROM TI:

The two promos TI has going now have been extended to April 15, 1983. The first promo is the \$100 rebate on the TI console. The second promo is a free Speech Synthesizer if you purchase two module albums or six command modules. If you are interested see your TI dealer for details and the mail-in coupon. The Speech Synthesizer is a very good deal.

INTEREST GROUPS:

At the December meeting several interest groups were formed. One of those groups was an Assembly Language group. The first meeting for the group will be at Paul Peyser's home. Paul lives at 903 Annmoore in Silver Spring, MD. From I-495 outer loop exit on University Blvd. Then go to Arcola and turn right. Follow Arcola to Kempmill Rd. Turn right on Kempmill to Monticello and turn left. Go to Annmoore and turn right. From I-495 inner loop exit on Colesville Rd. to University Blvd. If you get lost, call Paul at 301-649-9870. If you haven't done so, call Paul and tell him that you are coming so he will be prepared.

All of the interest groups are encouraged to write a column for the Newsletter.

POTPOURRI:

Rep. Newt Gingrich (R. GA.) will introduce a bill in January which will give tax credits toward the purchase of a home computer. The Family Opportunity Act will allow a \$100 tax credit for each year for every family member for up to five years or half of the price of the computer or the computer programs purchased. It is not known at this time how much support there is for this bill.

MINUTES OF THE LAST THREE MEETINGS:

OCTOBER 14, 1982

Jim Horn started the meeting because our President Bill Whitmore was late. Jim explained the setup he had gotten for the club for the computer show. Rick Stickle additionally contacted the "Source" and got them to donate a connection to the "Source" during the show for free. The booth at the show will be 10 ft. by 10 ft. and we may also have the TI Writer at the booth.

The next meeting was announced for Nov. 9 at Tyson's Corner. TI will help with the mailing of the announcement. Brian Grate, the TI rep, at last year's meeting is leaving TI and won't be able to attend our meeting.

Treasurer's report correction for last meeting--\$345 minus this month's mailing costs.

There were a lot of first time users at the meeting. The majority wanted to know how they can use the TI for word processing. The second item they wanted to know, was where can the buy TI software at the lowest prices.

The places mentioned were:

- 1. Washington Calculators
301-384-2010

No charge cards	DISCOUNT	SHIPPING
	-----	-----
ITEM >\$200	29%	FREE
ITEM >\$ 40	23%	+\$1.50
ITEM <\$ 40	10%	+\$1.50

- 2. Dheins Hardware
319-236-3861
7 W Airline Hwy
Waterloo, Iowa, 50701
Charge cards accepted with no penalty
- 3. Pete Eddy
- 4. W. Bell, Memco
- 5. Will's Computer, MD.

The librarian wanted \$50 to transfer programs to tape. Then we would start a system of checking out tapes at the meetings. The cost for duplication of tapes would be \$2,00. The club voted yes to give Larry Hughes the \$50.

The presentation on assembly language took up the rest of the meeting.

NOVEMBER 9, 1982:

We had a huge gathering at Tyson's Corner. There wasn't enough room for everyone who came, so some people may have left disappointed. Our President promises to rectify the situation and future meetings will be able to accomodate all the members who attend.

The first speaker was from Wabash. He explained that Wabash had been in the computer business before they started selling disks. Now they just sell disks. A discussion ensued on the merits of punching a hole on the other side of a single sided disk to use the other side. He warned against doing this because unless you could duplicate the procedure used in making disks. You will probably damage your disk drive in the long run. The flexible plastic covering with backing is laid out in sheets and stamped outward. This means when they cover the magnetic disk all rough edges face outward so there will be no rubbing.

We also learned all disks are made the same and there is no separate lines for single sided, single density or double sided, double density. The classification on a disk is made on the basis of the certification. Double sided, double density disks are certified through testing that they will work as stated. Those that fail one side are then called single sided, double density and those that fail the density requirement are then called single density. Single sided, single density is the bottom of the barrel.

A floppy disk is a special disk which can be turned around to use the back side on a single sided drive.

The second speaker was from the TI Exchange Center and talked about how you go about exchanging your machine if broken. He also gave hints on how to clean your leads to the command modules. There is a new toll free number. It is 800-858-4075. This is in addition to the present one.

New item: Epson will have a new series coming out in 1983.

Okidata then gave a talk on their machines and provided handouts on how to connect them to the TI 99/4A.

Final note: Rick Stickle did an outstanding job running the club booth at the computer show all four days plus the night before set-up. We need more members to take an active role in the club's activities like Rick. Also Jim Horn, Pete Eddy, Gene Harter, Dick Sturgell, Steve Myers, Mike Capobianco, Carl Savillo, and others did an excellent job during the computer show.

Sad but true: During the Okidata presentation the lights were out some items were stolen from the Will's Computer Store booth. Also an assembler manual from the Video Title's booth was stolen. Returns would be appreciated.

DECEMBER 9, 1982:

Larry Hughes collected orders for club tapes as outlined in the December Newsletter.

There was an excellent presentation on the inside working of the TI-99/4A by Rev. Keith G. Koch. He also gave us insite into the future with a comparsion of the TMS9900 (TI 99/4A chip) and the TMS99000 (new TI computer) chips. The new computer will be compatible with the software of the TI 99/4A. The new computer will have extended basic, RS232 interface, and speech built in and will retail for \$499.00. Look for it in the stores in mid-83.

FOR SALE:

SECURITY ANALYSIS	\$35.00
THE ATTACK	25.00
VIDEO CHESS	50.00
HANGMAN	15.00
CONNECT FOUR	15.00
TUNNELS OF DOOM(cassette)	45.00
ADDITION & SUBSTRACTION II	30.00
MULITPLICATION I	30.00

Contact Carl at (703)339-6428. He will also have any items not sold at the next meeting.

HOUSEHOLD BUDGET MANAGEMENT \$30.00

Contact Rebecca Sturgell at (703)670-3906. If not sold it will be available at the next meeting.

Rebecca Sturgell will be offering the following classes:

1. An Introduction to the TI Home Computer and BASIC for Young People ages 8 and up.
2. An Introduction to the TI Home Computer and BASIC for Adults.
3. How to Use Your Home Computer for Tax Record Keeping.
4. Tutoring for remedial help or enrichment for preschool through elementary.

Telephone (703)670-3906 for information and registration.

NEXT MEETING
THURSDAY JANUARY 13, 1983
AT THE
FAIRFAX HIGH SCHOOL
3500 OLD LEE HIGHWAY
7:00 PM

Directions: From I-495 (Washington Beltway) exit 8 West, U.S. 50, go 3.5 miles (at 3 miles you will drive thru Fairfax Circle), another 1/2 mile at a traffic light turn left. There is a small sign on the right shoulder of the road directing your left turn to Fairfax High School. Also on the right is a Denny's Restaurant (good food, inexpensive), and P. J. Skidoos Restaurant. After turning left the road winds around the athletic field to the school building. At the school building enter to the left side of the pillared center section. Located just inside the entrance will be a bulletin board directing you to the meeting room.

Alternate Directions: From Beltway take I66 west to the exit at Va. Route 123 South. Go south on 123 about 3/4 mile to the second traffic light, and turn left, this is U.S. 50 east, then go about 1/2 mile, pass the Red Lobster Restaurant, the Old Budapest Restaurant. Watch for a Fire House on right, then go to the next traffic light and turn right to school. This is the same light as described above at Denny's and P.J. Skidoos Restaurants.

In the event of bad weather, snowing, etc., or if Fairfax Schools are closed this meeting will be cancelled.

OUR THANKS TO,

Jack Earnshaw

The User's Group wants to thank the Sheraton Washington Hotel and Mr. Jack Earnshaw for providing the Delaware Suite for our last meeting on December 9. The meeting was attended by 230 TI owners many of whom commented on the excellent facilities. Mr. Earnshaw is Director of National Association Accounts for Sheraton Hotels, and also a User's Group member.

PERSONAL OBSERVATIONS

by Bill Whitmore

Peripheral Expansion Box: When you are inserting the Peripheral Expansion Card you will notice a small tab that projects outward from the cable connector clamp on the rear of the Expansion Interface Card. This tab on the right of the connector cable clamp has a small hole near the end.

Located on the back panel of the Expansion Box is a small black phillips-head screw. This screw that is located to the left of the fan ventolator openings, and right of the slot that the Interface Cable projects thru, of the three black screws located in this area the one that you must remove is the center one (the second from the top). With the Expansion Interface Card in position you will notice this tab on the right of the cable and the screw location. If your card is already installed follow instructions in manual for removal of cards. Then lift up the rear of the card, remove proper screw. Now reposition card in correct position and secure cable clamp tab with the screw. You may have to band the tab foward slightly to properly secure the cable. Just be careful that the Interface Card is not misaligned by over tightening of this clamp. There is nothing in the instruction manual about this strain relief, and three people that I have contacted at TI will not admit that this even exists. I have secured the clamp on my Peripheral Box, lets hope that I have done the proper thing.

When attempting to install the Disk Controller Card with an internal drive the instructions just would not work as written in the Disk Memory System Instruction Book (PHP1240). Make the following changes and installation will be easier:

Page 10, step 10 Slide the card all the way down into the slot.

Step 11. Locate cable to be used with the internal drive. Carefully position cable so that it comes straight out from the pins of the connector. The connector has a key (small raised area in the center on one side) that should be toward the rear of box.

Step 12. Reach thru the opening of the Disk Drive compartment and insert the 34 pin connector into the mating 34 pin connector that is mounted on the side of the tab on the Controller Card.

TI Mail List:

The mail list program is written in the TI Basic and therefore can be used without the Extended Basic Module.

This program will keep a good mail list for you, however it does have some problems. Most are insignificant and can be modified by the user as required. One that seems to elude even TI is the randomly dropping of a name when the list is condensed or sorted. I have found this to happen with as few as 19 names on a disk. As the name dropped is always at the beginning of an alphabetized list, one brute force way that I have found to prevent loss of names is to always put names like AAA1, AAA2, and AAA3 on each disk and put these names in each group. When these groups are printed watch for the 3 special entries.. At random times they may drop out one by one, but they can then be reentered before any important data is lost.

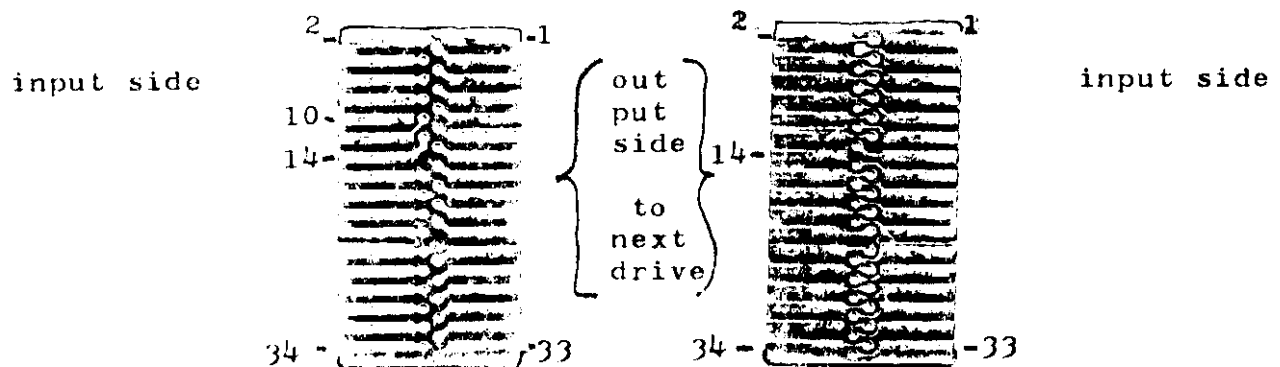
NOTES ON THE DISK DRIVE SYSTEM

TI's theory on the TI99/4A home computer is that their computer is just that, a HOME computer. With this in mind TI has designed all parts so as to be as easy and as simple as possible for use by any home owner.

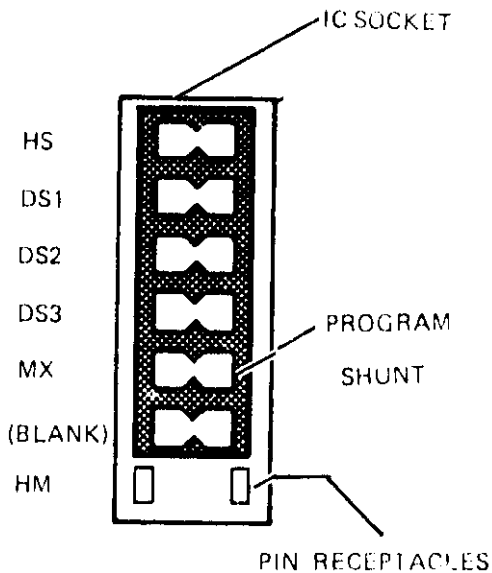
The Disk memory is one of the systems that is simplified to the extent that for most part you can plug it in without any preprogramming. The Disk drives used in most computers require that the owner preprogram the drive by breaking shunts on a terminal block. Each drive must be set for one position in the chain of one to three drives. However TI has simplified this preprogramming by a universal method. All Disk drives are preprogrammed the same by TI. Therefore any Disk drive that the user purchases can be used as DSK1, DSK 2, or DSK3 without cutting any shunts to program the individual drives. With the TI system only the termination resistor package must be removed in all but the last drive in a chain of two or three drives.

Drives can be interchanged without any shunt changing, only the termination resistor package will have to be changed if the last unit of the chain is interchanged.

TI part No. 040362-1 PC Board



This adaptor card is the secret to TI's easy to connect Disk drive system. The adaptor card is simply plugged into the female connector located at the center of the previous drives cable. Then the connector for the next drive is connected to the male card edge of the adaptor. All pins on the adaptor card are connected pin to pin (pin 1 to pin 1, pin 2 to pin 2, etc.), except for pins 10, 12, 14. Pin 10 is not connected, pin 12 goes to pin 10 of the next drive cable and pin 14 goes to pin 14 of the next cable. Therefore in normal wiring pin 10 is drive 1 select, pin 12 is drive 2 select, and pin 14 is drive 3 select, but with the TI adaptor card pin 12, connects to pin 10 of the second drive and pin 14 connects to pin 12, when the third drive is connected drive 3 select that started on pin 14 is jumpered to pin 12 at the first card and then to pin 10 at the second card. We can now see that the drive select input to the drive is always on pin 10. Using this system all drives can be preprogrammed the same.



This figure shows the program shunt module with the program shunt installed. The module is an IC (Integrated Circuit) located on the printed circuit card near connector J1. The socket has seven sets of pin receptacles, while the program shunt has six sets of pins. One set of pin receptacles at either end of the IC socket is always unused. The program shunt can be removed and placed on a newspaper with the "legs" up. Then use a small screw driver to punch thru and break the shunt. The only shunts that should remain are the HS and DS1. An alternate method of programming the shunt is to remove shunt from socket, and bend pins or legs out and replace in socket so that the pins bent out will not make contact with any circuits adjacent to the socket. CAUTION: Be sure that all disks that you buy are 40 track. If you try to use a 35 track disk, damage to the head/carriage assembly will occur when attempting to seek tracks 36 thru 39.

DISKETTE

The diskette recording medium is contained in a sealed envelope that measures 5.25 inches (13.335 cm) square. The diskette recording medium is 5.125 inches (13.0175 cm) in diameter and is made of mylar coated with magnetic oxide on both sides. The diskette has 40 circular tracks that are spaced 0.02083-inch (0.529082 mm) apart.

DISKETTE HANDLING

Protection of the diskette requires the same careful handling specified for computer magnetic tapes. Use the following procedure:

- A. Return the diskette to its storage envelope whenever it is removed from the disk drive.
- B. Keep diskettes away from magnetic fields and ferromagnetic materials.
- C. Replace storage envelopes when they become worn, cracked, or distorted.
- D. Do not write on the plastic jacket with a lead pencil or ball-point pen; use a felt-tip pen.
- E. Do not touch or try to clean the diskette surface. Abrasions may cause loss of data.
- F. Do not expose diskette to heat or sunlight. Exposure to temperatures in excess of 51.6°C (125°F) may cause irreversible damage to the diskette.

Home Users Can Tap Vast BRS Files

REPRINTED FROM MISWEEK

LATHAM, N.Y. — The BRS Search Service, a network of some 65 on-line databases used by major research centers, corporations and university libraries around the world, is now available to the home computer user.

Called BRS/After Dark, this new service provides access to information from millions of journals, reports, books and articles via a transparent, user-friendly interface to the sophisticated BRS Search software.

Available from 6 p.m. until midnight, local time, the service offers dramatically reduced searching costs during convenient, after-work hours, said a company spokeswoman.

BRS/After Dark provides business people, educators, attorneys, physicians, students — anyone with a need for up-to-date, comprehensive summaries of the most recent information with direct access to many of the same important databases used by professional researchers during the day. These include business and finance, news, education, medicine, psychology,

the environment and numerous other subject areas, the spokeswoman said.

Valuable peripheral services of particular interest to the personal computer owner are also a part of BRS/After Dark. These services include instant on-line communications anywhere in the country via electronic mail, as well as an informative newsletter reporting rapidly changing data processing and software developments impacting home

computers. Shop-at-home programs, instant software delivery and other services are also planned for the near future, she said.

BRS/After Dark is available for a one-time subscription fee of \$50 which covers the search service, the BRS/After Dark Newsletter, electronic mail and other services. Access to BRS/After Dark costs as little as \$6 a connect hour, including Uninet telecommunications charges.

A NIGHT ON THE TOWN

TI User's Group Members, in addition to a few other Personal Computer User's Groups in the D. C. area are being offered a special night at the National Symphony. Details will be furnished later, but reserve the evening of Feb. 11 to join other Personal Computer User's and their families at the Kennedy Center to hear Chopin's "Concerto No. 2 in F Minor for Piano and Orchestra", Gabriel Fauré's "Pelléas et Mélisande" — and best of all, Richard Strauss' "Thus Spoke Zarathustra" which many will remember as the Theme from "2001 Space Odyssey" where computers attempted to take over from humans. More details (in/at) the next TI (meeting/newsletter). Oh yes! The price per ticket for our group will be 20% off, \$13.60 for orchestra seats. Show starts promptly at 8:30 p.m.. The Watergate Restaurant Les Champs, just across the street, serves all you can eat fantastic salad bar for about \$5 — and if you eat there you can park free underneath the Watergate.

The TI rebate
and speech offer
has been extended until April 15

COMMUNICATIONS

TI's RAM Controller Chip To Aid Dynamic Memories

DALLAS — Texas Instruments Inc. (TI) has introduced a dynamic random-access memory (RAM) controller chip designed to help interface dynamic RAMs to a range of microprocessors.

TI said the controller chip is suited for "cost-sensitive" applications where dynamic memories would be used but are not, due to the complexity and cost of control circuitry. A TI

spokesman said the controller replaces from 10 to 15 small- and medium-scale circuits, thus reducing board space.

The "TMS4500A" chip features synchronous operation and functions such as address-multiplexing, timing control and refresh/access arbitration, according to TI. The chip can directly address and drive up to 256 Kilobytes of memory.

The RAM controller chip interfaces with most popular microprocessors, including TI's TMS9900 and TMS99000 microprocessors and those not manufactured by TI, including the MC68000, 8085, 8086, Z-80 and Z-8000.

The TMS4500A also incorporates a 16-bit multiplexer that generates row, column and refresh addresses for up to 32 dynamic RAMs and provides the strobe signals required by the dynamic RAMs to decode the addresses, TI said.

By handling refresh-related functions, TI said the controller chip gives dynamic memory systems a static appearance. The chip provides strap-selectable, wait-state generation for matching memory speeds to the microprocessor, can be synchronized or interleaved with multiple controllers and the three-state outputs allow multipoint memory configurations.

The chip also eliminates arbitration delays and reduces electrical noise generated in a system by the multiplexing and refresh circuitry by operating synchronously from the microprocessor clock, according to TI.

The TMS4500A is fabricated using scaled MOS (metal-oxide-semiconductor), technology to enhance the speed, power, reliability and cost relationship, TI said. It requires a single 5-volt power supply with a continuous power dissipation of 770 milliwatts.

TI said the controller chip is available immediately for \$18.45

SUPER CATALOGER, for the TI 99/4A Home Computer, reads all your disks and using either an RS232 printer or the Thermal Printer, produces two reports. The first report lists all your disks along with the space used and the space available for each disk, thus making it possible to quickly determine which disks have enough space left to SAVE your program, write data files, etc.

The second report is a listing of all your filenames - in alphabetical order! Thus, you can find out which disk a particular program is on, in just a few seconds, instead of searching through many individual catalogs on small slips of paper.

Let SUPER CATALOGER, organize your disks for you! Then, in just a few seconds, you can determine the location of any program and find the available space on any disk.

SUPER CATALOGER accepts up to 550 filenames from as many as 63 disks. It contains a very fast Assembly Language sort routine, for example, it can sort 200 filenames in only 6 seconds! The program requires: Extended BASIC, Memory Expansion, a disk drive, and either an RS232 interface and printer or the Thermal Printer.

ALSO AVAILABLE AT CLUB MEETINGS

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SUPER CATALOGER
MULTI-DISK CATALOG PROGRAM

Have you ever forgotten on which disk a particular program is located? Imagine being able to determine in just a few seconds which disk contains the program you're searching for! **SUPER CATALOGER** accepts up to 500 filenames from as many as 63 disks and produces a sorted catalog on any printer. *And it's fast too!* ... an Assembly Language subroutine sorts 200 filenames in six seconds! Requires: TI-Extended-BASIC, memory expansion, disk drive and printer. Special introductory price: \$19.95 postpaid. Virginia residents add 4% sales tax.

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