

THE GUILFORD 99'ER NEWSLETTER

VOL. 2 NO. 1

JANUARY

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Carl Foster, U. Pres.  
Andrew Small, Sec/Treas.  
David Cohen, Program Chmn.

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Sandy Carmany, Education

NEW MEETING PLACE

COMPUTER CLASSES

DATE: January 8, 1985  
TIME: 7:00 P.M.  
PLACE: TAX INVESTMENT PLANNERS  
218 N. Eugene St.

PROGRAM: General business meeting.  
Mrs. Sarah Von Foerster will present a  
comparison of the IBM PC, APPLE and  
the TI in running a real estate  
program.

We anticipate re-starting computer  
classes in February. Based on the  
questionnaire that is in this  
newsletter, we might be adding  
EXTENDED BASIC to the BASIC and FORTH  
classes. If you or any member of you  
family would like to attend any of  
these classes, be sure to fill out the  
questionnaire and bring it to the  
meeting or mail it in to our P.O. Box  
before January 15th. We need the  
information to help plan the classes  
and select a meeting place and time  
that is suitable to the majority of  
the students.

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For those of you who haven't been  
able to find Extended Basic at any  
price anywhere, there is hope!  
MICRO-PAL has come out with an  
Extended Basic cartridge under license  
from TI. It is advertised as being  
similar to the TI original. The  
specifications sound like the TI  
manufactured cartridge. It is  
available from TENEX for \$74.95. You  
might write to them for further  
information.

TEX-COMP has also finally joined  
the discount software movement. They  
are advertising 22 game and  
educational cartridges for \$4.95 each,  
11 additional titles for \$6.95 each,  
and 30 more titles for \$9.95 each.  
Check the HCM advertising supplement  
for more details.

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A relatively new group, the 99/4A  
NATIONAL ASSISTANCE GROUP, has been  
advertising various original TI  
products at greatly reduced cost (or  
in some cases FREE with an order).  
There is a \$10.00 yearly membership  
fee. For those of you who are  
interested, the address is:

Bob Stitz informs us that he is  
having a problem with the SUPER SKETCH  
II that he bought. He is unable to  
save any of the drawings to tape. It  
may be a problem with that individual  
piece of hardware or the rave reviews  
of the product might have been  
exaggerated. He will try to let us  
know something at this meeting.

99/4A NATIONAL ASSISTANCE GROUP  
National Headquarters  
Box 290812  
Fort Lauderdale, FL 33329

PROGRAM NOTES

The program planned for our January meeting will be very interesting for several reasons. First, of course, is the change in the meeting location to a larger, central downtown location at 218 N. Eugene St. This is across from the Blue Bell building and behind the Bus Station. Secondly, this January meeting will be on Tuesday, January 8, 1985 because of the holiday on our regularly scheduled meeting date. Thirdly, and just as importantly, because of the topic.

Ms. Von Foerster, of TAX INVESTMENT PLANNERS, will demonstrate the similarities and differences between our T.I., the Apple II-C and the IBM PC. To demonstrate such a comparison she will use a real estate investment program in 0 to which you are invited to input your own figures. The computers will analyze your figures and tell you whether your investment is a good one. This analysis works with rental, as well as personal homes --- not to mention the different options.

The January meeting will, thus, not only compare the different computers, but will also demonstrate a very practical, utility program. Hope to see all of you at this meeting. And, as always, please let me, or any of the other club officers know of any topics you would like to have presented at future meetings.

Dave Cohen

PROGRAM CHAIRMAN

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Mc Crory's in Four Seasons Mall has some cassette cases (plastic) for \$2.49 each. They will hold 15 tapes or command modules.

Walden Books at the Mall has several TI books in stock at reasonable prices.

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PEEKING AROUND  
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To check for a sprite coincidence, you can use the following code in your Extended Basic programs:

```
CALL PEEK(-31877,N)::IF N AND 32 THEN  
... (sprite coincidence has occurred.)
```

This code works the same as:

```
CALL COINC(ALL,N)::IF N THEN ...  
(sprite coincidence has occurred.)
```

For random numbers (0-99):

```
100 RANDOMIZE::CALL PEEK(-31880,A)::  
PRINT A;::GOTO 100
```

For random numbers from 0-255:

```
100 RANDOMIZE::CALL PEEK(-31808,A,B)  
::PRINT A,B::GOTO 100
```

Here is a routine that produces random sprite motion within the range of -128 to 127.

```
CALL PEEK(-31808,A,B)::CALL MOTION  
(#1,A-128,B-128)
```

Here are two more addresses to play with. The address of the highest numbered sprite that is in motion is contained at -31878, the UDP Interrupt timer is at -31879.

These can also be used in programming applications.

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MILLERS GRAPHICS has introduced a Memory and Disk Diagnostics program that will check your complete memory and check disks for bad sector, fractured files, drive motor speed, etc. It retails for \$19.95.

SCI TECH has started production on a RAM Disk Card (disk emulator) that will store up to 127 files and is expandable from 64K to 256K in 64K increments. It fits in the PEB and comes with its own power supply for semi-permanent storage (like the Mini-Memory cartridge).

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THE PRESIDENT'S CORNER  
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It is the beginning of another year and we are looking forward to a bright and promising future for our Users' Group. I am anticipating building on the base that we have tried to establish during the past year.

The beginning of February will bring the resumption of FORTH, BASIC, and EXTENDED BASIC classes. There is an educational questionnaire in this newsletter to help us plan for the classes --- please fill it out and either return it at the meeting or mail it in to our Post Office Box.

While we are on the subject of computer classes, if there is anyone who would like to help in the teaching aspect of our classes, contact Sandy Carmany at 855-1538.

For those of you who missed the last meeting, make a note that we have changed the location of our meetings. The move brings with it a minor problem, however. There is a nominal charge for the meeting facilities and it looks like we will have to propose an increase in dues to cover the cost of our meeting place, newsletter, and provide for a surplus to maintain the library, etc. We will make the proposal at the business portion of the meeting so make plans to be there on January 8th.

I am going to make an appeal to you to pitch in and help us administer YOUR Users' Group. In the past, we have had some problems with apathy within the Group. Remember, it is, after all, YOUR club and we need help from all of you. Whether it is in the form of newsletter submissions or participation in monthly programs, your help is always welcome.

Our Library is still growing!! The addition of the block of programs through Dave Cohen's efforts will bring the total to well in excess of 700 programs. That doesn't mean that we wouldn't like to have some from our members. I'm sure that George would be happy to get some more that we can share with the members of our Group.

We are going to try to start a newsletter exchange program with other Users' Groups in the area. There are several in North Carolina and one in Danville, Virginia that I have written to in an effort to get an exchange of ideas (and newsletters) going. We will have the newsletters on hand at the meetings as they come in.

The T.I. "drop-out" has had an interesting effect on the market. T.I. cartridges are moving from the distributors at 10,000+ per day. In fact, one distributor (Keystone) has moved them 20,000 at a time and said they could move all the consoles that they could find. It looks like the notice of the 99/4A's demise was a bit premature.

Before I ramble on too long, I'll quit for this month and simply wish you and yours a Happy Holiday season and Prosperous New Year!!!

Bob Carmany

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MEETING PROGRAMS

My name is Dave Cohen and I've just been elected as Program Chairman. I would like to start off by soliciting your wishes for programs at future club meetings. These programs are for all our benefit as club members.

What do you think would benefit you at a club meeting?

Send your thoughts to me c/o the Users' Group at P.O. Box 21691, Greensboro, N. C. 27420. Or, if you prefer, call me at 378-5207 during the day.

I'll do my best to arrange a meeting program based on your ideas. In this way, meetings can be informative for all.

Thanks for your attention to this and for your help.

Dave Cohen

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MINUTES  
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The December 1984 meeting was held in the Zayre Conference Room with 19 members and guests present. Vice President Bob Carmany presided.

The minutes of the November meeting were adopted with corrections as printed in the Newsletter. The financial report was given by Carl Foster.

The report of the Nominating Committee was given by John Hyatt. The recommended slate of officers were:

- President - Bob Carmany
- Vice President - Carl Foster
- Sec'y/Treas. - Andrew Small
- Program Chairman - Dave Cohen
- Librarian - George Von Seth
- Education - Sandy Carmany

The slate of officers who were nominated was elected unanimously.

Volunteers for Newsletter Editor were solicited. The need for a source of printing facilities for the Newsletter was discussed. Buddy Cato volunteered to assist in running off the newsletter.

Dave Cohen is in contact with a User Group in Raleigh and will be securing some 600 programs from that group. He also submitted a recommendation for a form letter to use to contact other User Groups for our mutual benefit.

The program for this meeting was Christmas music and graphics. There were several programs written and/or adapted by Carl Foster which were displayed.

Mrs. Sarah Ann Foerster offered the use of the available facilities at 218 N. Eugene St. for our future meetings. The facilities include a T.I. system which is already set up and ready to run.

The fee will be \$10.00 per meeting and members will pay \$.50 per meeting to defray the costs. It was moved that beginning with our January meeting the Users' Group will meet at that location. The motion was seconded and carried unanimously.

It was also decided that the January Meeting will be held on the second Tuesday in January because the regular meeting night will be on January 1st. Mrs. Von Foerster offered the use of bulk mail privileges of Tax Investment Planners. The meeting will be held at the Tax Investment Planners, 218 N. Eugene St. on January 8, 1985 at 7:00 P.M.

After the business and discussion was concluded the meeting was adjourned.

Respectfully Submitted,

Andrew Small, Sec'y/Treas.

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LOADing

Here is a re-cap of some of the CALL LOADs that have appeared in past issues of the Newsletter. They can be used by those of you with Mini-Mem, Extended Basic and 32K memory expansion, or with Editor-Assembler. Remember to use CALL INIT. They can be used in both the immediate mode or within a program.

- 1) To disable/enable FCTN=.  
CALL LOAD(-31806,16) (Turns it off)  
CALL LOAD(-31806,48) (Turns it on)
- 2) Disk File disable/enable  
CALL LOAD(-31888,63,255) (Turns it off)  
CALL LOAD(-31888,55,215) (Turns it on)

If we turn up any more CALL LOADs that work and can be of value in a program, we will pass them on to you.

THE GUILFORD 99'ER USERS' GROUP NEWSLETTER IS FREE TO DUES PAYING MEMBERS OF THE USERS' GROUP (ONE COPY PER FAMILY, PLEASE). DUES ARE \$6.00 PER FAMILY PER YEAR. SEND CHECK TO P.O. BOX 21691, GREENSBORO, N.C. 27420. THE SOFTWARE LIBRARY IS FOR DUES PAYING MEMBERS ONLY.

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THE GREAT DISK PUZZLE  
by Howard H. Arnold  
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I've poked around in all the manuals I can find and on quite a number of disks. I have found out a little about the organization of the records on the disk and also found that there is a BUNCH I don't yet know. The purpose of this column is to share with other 99'ers what I have observed and to solicit information from anyone else who can fill in some of the pieces.

I reckon we all know by now that the TI disk contains 360 sectors (9 sectors times 40 tracks). A newly initialized disk shows 358, not 360. This is because the first 2 sectors are taken up by the disk master directory. The first sector (sector 0) contains: the disk name in the first 10 bytes padded with spaces (ASCII Hex 20) as necessary, a two byte binary representation of the total number of sectors on the disk (usually Hex 0160 for 360), and 8 additional bytes which appear to be the same on all of my disks but whose meaning I don't yet understand. Next, starting at byte Hex 38, there appears to be a map of the sectors used on the disk. Although this information appears to be arranged logically, I haven't been able to completely decode it beyond recognizing that zeros seem to represent unused areas and "F's" and other Hex numbers appear whenever sectors are occupied.

The second reserved sector of the disk (sector 1) is the directory index. Here, each 2 byte word points to the directory for a particular program or file. The words are arranged so that the directory entries referred to are in alphabetical order. For example, if the directory entries for files TEST, ADAM and JONES appear on sectors 2, 3, and 4 respectively; the index on sector 1 will be 0003 0004 0002.

Each program or file has a sector devoted to its individual directory, such as sectors 2, 3, and 4 in the above example. The area between sector 2 and Hex 21 inclusive appears to be reserved for this purpose. The first 10 bytes of this directory entry again is used for the ASCII representation

of the program or file name. I'm not yet sure what information is contained in the next 20 bytes, but byte 1C appears to contain a pointer to the sector on which the actual program or file begins.

I've also garnered a bit of information about how the files and programs themselves are organized on the disk and I'll be tickled to death to share this with anyone interested, either through these columns or individually. Also, I'm VERY interested in any information you may have that you're willing to share, or any source documents I haven't yet been able to come by.

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#### PROGRAMMING: EXTENDED BASIC

The DISPLAY AT statement is similar to the PRINT statement, but Extended Basic adds some nice features. By picking out a row and column number, your printing can be anywhere on the screen. For example, typing:

```
DISPLAY AT(3,4):Y
```

displays the value of Y at the third row, fourth column of the screen. Adding the USING clause to the DISPLAY AT statement allows you to use different formats for your variables. You can enter a variable as a whole number and have it displayed with two decimal places. Try the following program:

```
100 N=50  
110 DISPLAY AT(12,5):USING"###.##":N
```

When the program is RUN, 50.00 will be displayed on the 12th row, 5th column of the screen.

\*\*\*\*\*  
 BITS AND BYTES  
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Here is a program that allows you to catalogue a disk without removing the cartridge that you have in the computer. If you save this program on every disk, you will not have to switch to the Disk Manager module every time you forget the disk contents or want to re-catalogue a disk.

```

100 CALL CLEAR
110 DIM TYPE$(5)
120 TYPE$(1)="DIS/FIX"
130 TYPE$(2)="DIS/VAR"
140 TYPE$(3)="INT/FIX"
150 TYPE$(4)="INT/VAR"
160 TYPE$(5)="PROGRAM"
170 INPUT "MASTER DISK (1-3)?":I
180 I=INT(I)
190 IF (I<1)+(I>3)=-1 THEN 170
200 OPEN #1:"DSK"&STR$(I)&".", INPUT,
  RELATIVE, INTERNAL
210 INPUT #1:A$,J,J,K
220 DISPLAY "DSK";STR$(I);"- DISKNAME
  = ";A$;"AVAILABLE=";K;"USED=";J-K
230 DISPLAY : "FILENAME SIZE TYPE P
  ":"-----"
240 INPUT #1:A$,I,I,K
250 IF LEN(A$)=0 THEN 330
260 DISPLAY :A$;TAB(12);J;TAB(17);
  TYPE$(ABS(I));
270 IF ABS(I)=5 THEN 300
280 B$=""&STR$(K)
290 DISPLAY SEG$(B$,LEN(B$)-2,3);
300 IF I=0 THEN 240
310 DISPLAY TAB(28);"Y";
320 GOTO 240
330 CLOSE #1
  
```

While this will not replace the Disk Manager cartridge, it will provide a simpler method of cataloguing your disks.

It is also written in BASIC.

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In the area of software, there have been several new introductions in the past few months. INFOCOM has introduced FATHOM, MOONSWEeper, SUPER DEMON ATTACK, and MICROSURGEON for the TI. The graphics are supposed to be spectacular. ESPIAL is another new one. Check TENEX for the best prices.

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 FREE PROGRAM  
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Here is a program that you might be able to use. It is a cassette data file storage example that uses a simple name and phone list. It can be modified to use almost any kind of data.

```

100 REM CASSETTE DATA
110 REM FILE STORAGE
120 DIM NAME$(100),PHONE$(100)
130 CALL CLEAR
140 PRINT "PHONE LIST":;;;
150 PRINT "1-READ FILE FROM TAPE":;"2
  -REVIEW AND ENTRY OF DATA":;"3-SAVE
  FILE TO TAPE":;"4-QUIT":;;;
160 INPUT CHOICE
170 IF (CHOICE>4)+(CHOICE<1)=-1 THEN
  130
180 ON CHOICE GOTO 190,250,410,480
190 REM READ FILE FROM TAPE
200 OPEN #1:"CS1",INPUT,INTERNAL,
  SEQUENTIAL,FIXED,64
210 FOR N=1 TO 100
220 INPUT #1:NAME$(N),PHONE$(N)
230 NEXT N
240 CLOSE #1
250 GOTO 130
260 REM ENTER DATA IN FILE
270 CALL CLEAR
280 PRINT "WHICH RECORD NUMBER"
290 INPUT ENTRY
300 IF (ENTRY>100)+(ENTRY<1)=-1 THEN
  130
310 CALL CLEAR
320 PRINT "ENTRY NUMBER ",ENTRY," IS:
  "NAME$(ENTRY):;"WHOSE PHONE # IS: ";
  PHONE$(ENTRY):;
330 PRINT "1-ENTER NEW NAME":;"2-ENTER
  NEW PHONE NUMBER":;"3-TRY ANOTHER
  ENTRY":;"4-EXIT REVIEW AND ENTRY MODE"
340 INPUT CHOICE
350 IF (CHOICE>4)+(CHOICE<1)=-1 THEN
  310
360 ON CHOICE GOTO 370,390,270,130
370 INPUT "NAME? ":NAME$(ENTRY)
380 GOTO 310
390 INPUT "PHONE #? ":PHONE$(ENTRY)
400 GOTO 310
410 REM SAVE FILE TO TAPE
420 OPEN #1:"CS1",OUTPUT,INTERNAL,
  SEQUENTIAL,FIXED,64
430 FOR N=1 TO 100
440 PRINT #1:NAME$(N),PHONE$(N)
450 NEXT N
460 CLOSE #1
470 GOTO 130
480 END
  
```

THE SOFTWARE SHOPPER

Although books and magazines are not really software, we are going to take a look at what is available for the TI 99/4A.

The first one we will examine is HOME COMPUTER MAGAZINE (formerly 99'ER MAGAZINE). HCM has added APPLE, COMMODORE, and IBM PC to the TI in its pages. It usually has several programs for the TI in each issue that range from games to utilities. It also has an on-going LOGO column. The only real problem that it has is the publication schedule (or lack of one). Recently, the magazine has been on anything but a monthly schedule. The subscription rate is \$25 per year with reduced rates for longer subscriptions.

The subscription address is HOME COMPUTER MAGAZINE, P.O. Box 5537, Eugene, OR 97405.

THE SMART PROGRAMMER is another alleged monthly publication but this one deals exclusively with the TI. It is a 16+ page newsletter that is of a more technical nature than most that you will encounter. It usually has about three or so programs per issue as well as tips, and columns on FORTH and other items of interest.

It, too, has been on a rather erratic publication schedule. The issues are running about 3 months behind the calendar but all the subscriptions have been extended. The newsletter is one of the better that I have seen.

The subscription rate is \$12.50 per year. You can write for information to MILLERS GRAPHICS, 1475 W. Cypress Ave., San Dimas, CA 91773.

Incidentally, both of these publications have back issues available. HCM - 99'ER has some 14 available and THE SMART PROGRAMMER has all the issues dating back to last February in stock.

Both are well worth the price of the subscription.

Books on the TI and programming are more numerous than are the magazines. There are many that can be purchased "over the counter" or from one of the mail-order houses.

Here are a few of the titles available:

TI HOME COMPUTER ASSEMBLY LANGUAGE PRIMER by John Dow, PROGRAMMER'S REFERENCE GUIDE TO THE TI 99/4A by C. Regena (COMPUTE MAGAZINE), CREATING ARCADE GAMES ON THE TI-99/4A by the COMPUTE staff, CREATIVE PROGRAMMING COMPUTER COMPETENCY SERIES (8 volumes) by the TI staff, KIDS AND THE TI 99/4A by Edward H. Carlson, EDITOR/ASSEMBLER MANUAL by TI staff (comes with the EDITOR/ASSEMBLER cartridge), PASCAL PRIMER by Fox and Waite, etc., etc.

These books range in price from \$5.95 to over \$16.00. Of course, there are many others available in book stores, newsstands and from UNISOURCE, TENEX, and TEX-COMP.

TEXAS INSTRUMENTS also has technical manuals on every micro-chip that they produce. These can be purchased from TI along with books on TMS 9900 system development and various aspects of solid-state circuitry.

You can see from this brief sampling that there is still a virtually endless pool of knowledge available about the TI 99/4A. In fact, many of the books that are around today were not written until after TI made its announcement over a year ago.

Probably the best sources for information on these publications are the major mail-order houses and TI itself. The 1-800-TI-CARES phone line is still in operation and they will be glad to process your order for any of their technical manuals --- and there are a bunch of them!!

That does it for this month ---

If you are having a problem with your cartridges when you try to use them, the first place to look is the cartridge contacts. Clean off the oxidation deposits with a "pearl-pink" eraser or one of the CARTRIDGE cleaning kits that are available.

In the year since the announcement of TI's pull-out from the computer market, there has been a major "shake-out" among third-party hardware suppliers. Many of the items that were mentioned in previous newsletters are no longer available. Suppliers have shifted production to other computer lines or some have gone bankrupt.

We are going to look at what is still available for the TI in both PEB configuration and as stand-alones.

FOUNDATION COMPUTING, 74 Claire Way, Tiburon, CA 94920 is still turning out PEB cards for the TI.

They have a 280A card for the PEB with 2 RS232 ports, 64K of memory, a 4Mhz 280A, and a double-density disk controller. It allows you to run CP/M programs on the 99/4A. The retail price is \$349.95.

They also have an 80-Column Intelligent Terminal card that allows a true 80 column display and it is compatible with their 280A card. The price on this one is \$249.95.

The third offering is their 128K memory expansion card. It has an optional (\$29.95) disk file emulator. It sells for \$230.00.

TACHYON SYSTEMS, 5125 S. Westwind Way, Kearns, UT 84118 is still producing the 32K stand-alone memory expansion for \$110.00. In fact, they have improved it to the point where it does not need a separate power supply. It is technically equivalent to the TI card and supports memory expansion in exactly the same manner.

AXIOM CORPORATION, 1014 Griswold Ave., San Fernando, CA 91340 makes the PARALLAX TI which is a parallel interface for the TI that allows the use of a parallel printer. It sells for \$89.95 and can be purchased from the mail-order companies as well. They also make several direct-connect printers for the TI.

Both MULTICOM and ULTRACOMP are still producing the 32K memory expansion and RS232 stand-alones. TRITON PRODUCTS has them both in stock. They run about \$120.00 each. You can look in the latest catalogue or write to TRITON at P.O. Box 8123, San Francisco, CA 94128 if you don't have a catalogue.

Of course, the printer manufacturers were unaffected by the TI pull-out.

STAR MICRONICS has a complete line of printers from the thermal STX-80 to the Gemini series. They have even introduced a letter-quality printer of late.

EPSON has their full line of printers available unchanged from what it was a year ago.

In fact, the price of a printer for your TI system has come down in the past year. The thermals start at about \$150-\$160 and the impact dot-matrix printers start at about \$250.

There are several NEW products on the market as well. The SUPER SKETCH II (see November newsletter) has just been introduced and MYARC has just started marketing its expansion system.

Joysticks are still available with the PROSTICK II (Newport Controls) and WICO leading the pack. Both are much more responsive and durable than TI's flimsy pair.

PERCOM DATA is producing the TX-99 standalone disk drive but the price has not come down significantly since it was introduced. It still retails for \$329.00 most anywhere that you see it advertised.

INNOVATIVE CONCEPTS has cartridge-cassette storage files as well as disk storage files for \$17.95. Most of the mail-order companies have them.

Modems are widely available from such producers as HAYES and ANCHOR SIGNAL. They range in price from \$69.00 up!

There are other items that are not specifically TI related but are useful and sometimes necessary. Power strips with surge control circuits, anti-static sprays, computer cleaning kits, CRT stands, desks, and other items are readily available.

TI-specific cables are in stock at TENEX that will let you connect the 99/4A to printers, modems, PEBs, and cassette recorders.

There is a wide range of products still on the market with proven TI compatibility. In most cases, they are less expensive than they were a year ago!!



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COMPU-NOTES  
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We will take this space to discuss some of the more common problems that have been mentioned at our meetings and perhaps addressed in one of the earlier newsletter columns.

The first involves the problem of getting tapes to load on different recorders.

There may be several factors involved. The first is the quality of the tape itself. The so-called bargain tapes are hardly that. For good, accurate data storage and transfer, a good quality COMPUTER GRADE tape is the best. Regular C-60 audio tapes rarely have the high frequency response that is necessary to faithfully reproduce data.

The second factor is the positioning of the record/playback head in the recorder itself. There may be enough of a variance to cause the garbling of data and the resultant error messages.

A similar problem can occur with diskettes. A cheap brand of diskette can have dead sectors and other defects that cause problems with data transfer.

For best results, always use quality tapes and disks for data storage.

Also make sure that the treble control on the recorder is turned on its maximum setting.

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A REVIEW  
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THE BOOLEAN BRAIN is a program that appeared in the last issue of HCM. It is billed as a combination logic and adventure game. It lives up to its reputation in this regard. The problem that is presented is this:

You are trapped within the innards of your computer and the only way to get back out is to locate and repair the CPU. You go from room to room and the direction you are facing is in front of you. There are 3 doors with those colored red being locked. If you choose a locked door, the logic lock that secures the door is displayed. When you correctly complete the logic path to the edge of the screen, you pass into the next room. You proceed in this manner until you find the CPU. The computer keeps count of the total number of tries it takes to get through each logic lock and displays the grand total as your score at the conclusion of the game.

As it was written, the game was almost impossible to play because of the lack of instructions at the start. However, it has been successfully modified and that version appears in our library.

With the instructions, the game is challenging and maybe a bit more difficult than what you are used to. It is quite good for those of you who like adventure games and their clones!

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Below is a questionnaire about the classes that we will be starting in February. Make sure that you fill it out and turn it in at this meeting. In the space next to each category, fill in the NUMBER of people in your family that would like to attend those classes. Also, answer the other questions, please.

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\_\_\_ BASIC    \_\_\_ EXTENDED BASIC    \_\_\_ FORTH

When would you like to have the classes held?

How long would you like each class session to last ?



GUILFORD 99<sup>ER</sup> USERS' GROUP NEWSLETTER

P.O. BOX 21691

GREENSBORO N.C. 27420

