ELECTIONS/COMMITTEES/RETROSPECTIVE

In this newsletter you will find a list of those up for officer positions for 1986. Again there is only one person running for each position which makes the election pretty much a foregone conclusion. The ballot will be included in the December newsletter. Write-ins are allowed. If you would like to be an officer then at this point you must campaign as a write-in candidate.

On the flip side of elections are the committee positions. To be on a committee you must do two things: 1> Express an interest, 2> Participate after having volunteered.

We hope very much that those who have recently shown an interest will continue further and help us. A number of club activities have been essentially one person affairs.

Bob Willis has for over two years been our mainstay for the club software library and we have a excellent record in that the diskettes or cassettes sent out, to those ordering programs, have rarely ever had a problem. Bob has organized the Program's Library and produced the club's Software Listing. This is an activity that the bulk of the club has little chance to see. People who are not local, hear about our club, obtain a catalog of our software, and order programs from us. These program orders have done a great deal in helping the club to cover costs. Thank you Bob Willis.

The Atlanta 99/4A Computer Users Group (A9CUG) had its first meeting in November 1982. The club produced it's first newsletter in January 1983. The newsletter has been a one person effort for the most part since the beginning. We appreciate every single article written by either our members or those obtained from other groups across the country. We hope the group appreciates the efforts of Elise Gordon, Tom Boisseau, and Marshal Gordon who have at various times been the main force in charge of getting the newsletter produced month after month. The job is not meant to be a solo task. That is just the way it has wound up.

Marshal Gordon has for the last year single handedly been producing the newsletter. He will not be able to devote the time in the coming year to be a full time Newsletter Editor. Bob Willis is in a similar situation.

So......

The following people have spoken up to work on the Newsletter:

Bobby Miller 921-8308	Mac McBride 949-3974
Ken Burdges 432-8134	Paula Heiney 924-2816
Richard Hodges 876-1221	

The following people have indicated they will help with the club library:

Ed Banovatz 434-7755	Ken Burdges
Jim Marks 478-2435	Bobby Miller
Jim Tillman 971-5676	Jim Barksdale 881-2643
Bill Mitchell 843-8269	

Both responsibilities; producing the newsletter and the library duties, have tasks that need doing now. Both Marshall and Bob are very willing to help those interested in working on those committees. If you have volunteered to help, please do not wait. Find out what you can do to help. We need to find out who has the time and the desire to get started now.

The Program Committee is responsible for planning the presentation to be given during the monthly meetings. Ideally each meeting should have programs that appeal to those just beginning to use their computer as well as those who are past that point. The Program Committee does not specifically present each program but instead arranges for speakers and sounds out the members to see what topics are desired. It provides members a focal point to suggest what they feel should be talked about. Several people have stated they would help present a program but feel too shy/scared/uncomfortable standing before a group/not knowledgable enough to present anything/ etc. To those people I say Pashaw. Several can present a program instead of one. You may find that working with 2 or 3 others makes the project downright fun.

At the last meeting, these folks stated they would like to be on a Program Committee: Jim Hubbard (W)482-1390, Gunter Hirschler 971-0424, and Paul Hauck 482-1390.

Special Interest Groups (SIGs) have historically had a hard time getting off the ground. They typically occur between the main meetings, at someone's house and usually have as the driving force one person who wants to learn more about a particular subject. That person is motivated to arrange the get togethers and keep them going. SIGs do not presupposed that you are an expert in the topic but only that you want to learn about it. People who meet for the main purpose of learning about a subject usually do learn about it. The club through the newsletter and the monthly meetings will be happy to announce when SIG meetings are held.

People who have spoken up are:

TI-Writer - Ed Banovatz, Ken Burges, Bill Kleinsorge(971-2599), and Bob Bohler(478-4392).

Multiplan - Marshall Gordon(953-4210), Bob Bohler, Jim Duhig(394-0304), Bill Kleinsorge and Dale Scott(478-9209).

Assembly - Chris Morgan(971-8935)

Oh yes, to finish up what was begun many words ago; the people nominated as officers for 1986 are:

President-Gary Matthews   Vice Pres.-Jim Hubbard
Secretary-Melvin Carter   Treasurer-George Sears

Gary Matthews

CALL NEWSLETER
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CALL NEWSLETTER is the voice of the Atlanta 99/4A Computer Users Group. P.O.Box 19841, Atlanta, GA. 30325.

It is published at least 10 times a year. The A9CUG is not affiliated with any commercial company or organization.

CALL NEWSLETTER is published by and for the members of the A9CUG to enhance their knowledge of home computers. CALL NEWSLETTER is composed of articles written and/or donated by members of our group and from articles appearing in other home computer users' groups around the world. Opinions expressed by the authors do not necessarily represent those of the Officers or members of the A9CUG.

Permission is hereby granted to any users group recieving our newsletter to reproduce any article appearing in this newsletter, unless the article is otherwise noted, provided credit is given to the author and CALL NEWSLETTER. The A9CUG freely exchanges newsletters with other groups around the country. If another club would like to receiver our newsletter but does not have one of their own to exchange; we will gladly sent it to them. We do ask that they send $5 a year or 50 cents a newsletter to help cover costs.

Membership is open to family and individuals who own or are interested in using and programming home computers. Membership includes copies of this newsletter as they are published, access to the meetings of the main group and sub groups, and the groups Public Domain Library. Annual dues are $15.00.
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M E E T I N G S

The dates and times for the meetings of the Atlanta 99/4A Computer User's Group is the third Sunday of the month at the downtown Atlanta Public Library (off Margaret Mitchell Square) at 2 p.m. For more information call a club officer or 231-0992.

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SOUTHSIDE chapter meetings are held the first Sunday of the month at the Clayton County Recreation Center in Jonesboro, 101 Lake Jodeco Rd., meetings begin at 3 p.m. For more information call Francis Hauke at 461-7193.

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****   C L U B   O F F I C E R S   ****
****

Gary Matthews	President
(404)233-3096	
George Sears	Vice President
396-4112	
Jim Hubbard	Vice President
(1)345-5905 W-482-9421	
Billy Glass	Secretary/Treasurer
Marshal Gordon	Newsletter Chairman
Bob Willis	Library Chairman
993-5399	
Charles Dupree (366-1914)	BBS#1 Sys. Operator
Jim Fairchild (991-6250)	BBS#2 Sys. Operator

****

SOUTH SIDE CHAPTER

Francis Hauke	President
461-7193	
Terry Casey	Librarian/Vice President
477-0496	
Pete Couch	Secretary/Treasurer
471-9480	
Billy Glass	Program Chairman

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FOR SALE:TRANS-STAR 315 COLOR GRAPHICS PRINTER (PIO 7 colors/ New ink cartridge 8 1/2X11paper Tractor & Friction.$100 Melvin Carter 997-2617 This is sold at a loss in EXCELLENT condition do to owner having bought another printer.

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====   C L U B   S A L E S   ====
Available at the Meetings

TI FORTH Members $20   Non-members $30
--- thru mail Members $25 Non-members $30
Diskettes $1.50-$2.00 Depending on brand
Diskettes in boxes - $15.00 a box
Ribbon cable & connectors, Spare keyboards
Cassetes Tapes C-10, C-20, C-30 $.90-$1.10
Best of 99er Magazines as well as selected issues of Home Computer Magazine.
The prepared diskettes are: $3 Mm. $4 Non-mem.
(Some is FREEWARE- Please Support the Authors)
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FROM THE MAILBAG

LATE IS BETTER THAN NEVER.
We received a letter from Elmer C. Voshall. We received it not weeks ago but months ago. The same is true for a letter the club received from Jim Sleeth.
So.... at this point admitting my horrible lack of response....Here is the gist of both letters. Now any answer they are looking for may be too late, but my conscience demands I do this.
From Elmer Voshall (216)-749-0078
3400 Mapledale Ave.,Cleveland, OH 44109

I have 4 TEAC disk drives and 1 TI disk drive. I purchased the extra two TEAC DS/DD after I was unable to use the Z80 CARD. The idea was to use two of the TEACs with the 99/4A and two TEACs with the Z80 CARD. In this way I thought the problem would work out as the 99/4A would be out of it.
However, I was not to find the solution as easy as that. Now I am able to load the first diskette and boot up the second disk. Then when I try to engage the B drive I get an error message "illegal drive". This is the same result I was getting (and still get when I use the Z80 CARD through the TI Disk Drive Controller). I think I have tried all the changes possible on the Drive select pack and resister pack on the TEAC drives.
The newer version of the TERMINAL EMULATOR will allow use of the COR-COMP Disk Controller Card.
One other question I have when setting up the TERMINAL EMULATOR, when asked for baud rate and printer spooling, etc. to give an answer do I just push enter?

From Jim Sleeth (619)-588-5253
2134 Valley View Blvd.,El Cajon, CA 92021
I use my 99/4A for accounting purposes. It is important for me to find the best software or get another computer. I have never seen any articles on Accounting programs. It is possible to spend up to $700 on a full system. This makes for the most expensive TI software available. I have found that the cost of the system does not necessarily relate to quality. This is most true for certain applications.
It is not possible to buy all accounting programs to find the right one, so some type of summary would be helpful. I am familiar with three GL programs and have read the documentation on others. When it comes to larger systems then the GL may not be as important as Billing or Accounts Receivable.
Things to look for are automatic defaults for date, account numbers, and amounts. Preset function keys are also good. Will the system roll over for the next year without rekeying the chart of accounts or customer data base ie: #, name, address, phone, etc.
Here is a sample of some of the information I am

aware of about various packages. Would you be so kind as to have your members write to me with their experiences and knowledge of good and bad points.

Futura GL - Easy to use, but does not allow sub-totaling of more than two expense categories. It is slow because it requires many disk inquires. It is very professional.
Futura - Bill, Accounts receivable ETC. ???
Sound Design - Easiest to use and is the only system with Budgets and variences. It is fast to set up and use, but does not provide Trial-balances. Don't know if it is still on the market.
IUG GL - ???????
IUG Accounts Receivable - A real bargain in that it works well and is easy to set up, and can be rewritten for your own improvements. Does not integrate to other programs.
AMA GL, Billing and Inventory - ???????
AMA A/R - Statements are good and easy to set up but doesn't print overpayments by customers (how convenient).
_Pike Creek GL_ - Looks like a nightmare. Is it worth the effort to try and learn how to run it?
Pike Creek A/R, Billing, Inventory - ??? Has anyone got past the GL to try and run these programs?
Ucan - Have not seen anything on this yet.

Some of these programs may be good for small businesses or certain types of service businesses. What is now a new factor is will these programs work with the Foundation 128K Card without rewriting the programs which the author does not want you to do. The Myarc card may not require any changes and may be the card to use if you run large account systems. Has anyone used any of these on Hard Disk systems. This should provide something for those of us who are looking for the best system to look into before buying more programs or cards that may not work with these programs as we might expect they would.
I would appreciate if the reader of this letter would pass it on to someone who uses accounting programs and who would like to share their experiences and maybe charts of accounts set up for various types of businesses. I do apartment and condo accounting and try to get extra expense categories for sub-totaling ie: Gardening, Pool, Recroom etc.
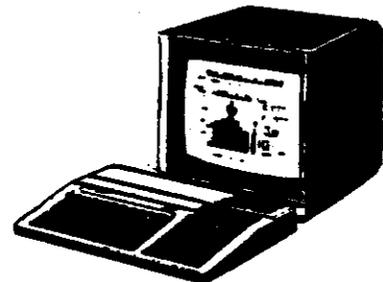
The following 'FORTY COLUMN' program is one we reprinted from the St. Louis Bridge newsletter (credit given below) in our JULY 1985 newsletter. It is reprinted AGAIN here for your convenience since the two articles and programs which follow are based upon it. Thanks to Melvin Carter for retyping those two following articles.

From the COMPUTER BRIDGE (December 1984) comes this beauty. Our thanks to Dr.Roy T.Tamashiro, Ed. D. for a great program.

I have often wanted to use a 40-column screen in a BASIC program because you can put 43 percent more text on it than on the normal 28-column screen in basic. However, the 40-column screen is not available in TI-BASIC or EXTENDED BASIC, even though this 40-column screen is present in the TI-99/4a ROM. The program below makes it possible to create and implement programs in EXTENDED BASIC on the 40-column screen. The 32-K Memory Expansion, the EXTENDED BASIC cartridge, and cassette or disk system are required. To access the 40-column screen, type in and save the program "FORTY-COLUMN TEXT SCREEN FOR X-BASIC" (below, on disk or cassette). Then compose your program for the 40-column screen.

To turn on the 40-column screen in your program, use the instruction, CALL LINK("FORTY"). You may use most of the normal EXTENDED BASIC instructions, but make the following substitutions:

EXTENDED BASIC INSTRUCTIONS:	REPLACE WITH THIS FORMAT:
CALL CLEAR	CALL LINK("CLS")
INPUT, LINPUT, or ACCEPT AT	CALL LINK("INPUT",ROW%(1-24),COLUMN%(1-40),String Variable
PRINT or DISPLAY AT	CALL LINK("DISPL",ROW%(1-24),COLUMN%(1-40),String Variable
CALL COLOR, CALL SCREEN	CALL COLORS(Foreground,Background)

(If you wish to change the colors of the characters on the screen, add lines 16000 to 16020 in the SAMPLE PROGRAM below to your program as the last routine in your program. This makes it possible to use the above CALL COLORS(Foreground, Background) instruction. Use the color codes(1-16) normally used in BASIC to designate foreground and background colors. See example in the "SAMPLE PROGRAM" below.)

Do not use SPRITE instructions (CALL SPRITE, CALL MAGNIFY, CALL COINC, etc.) on the 40-column screen. Other instructions such as CALL HCHAR and CALL GCHAR work, but since they are oriented to the 32-column screen rather than the 40-column screen, the locations are confusing.

To switch back to the normal 32-column screen in EXTENDED BASIC, use the instructions, CALL LINK("BSCRN"). Be sure to include this CALL LINK when you exit the EXTENDED BASIC program-- otherwise your program will not be visible on the screen. (See line 200 the "SAMPLE PROGRAM" below.)

Note that the new INPUT and DISPLAY instructions use string variables only. Thus, numeric variables must be converted before and after these CALLs. For example, to DISPLAY a numeric variable, use the following model:

```
210 N=1::N$=STR$(N)::CALL LINK("DISPL",24,1,N$)
```
(In this example, the value in N, which is 1, is converted to the string variable N$ and displayed at row 24, column 1.)

Or, to INPUT a numeric variable:

```
230 CALL LOAD("INPUT",24,1,N$)::N=VAL(N$)
```
(In this example, a number is accepted at row 24, column 1 and assigned to N.)

To RUN your program, first load and RUN the program below ("FORTY-COLUMN TEXT SCREEN FOR X-BASIC"), then load and RUN your program. As long as you do not use CALL INIT or load another Assembly Language program, you can run your program without re-RUNning the "FORTY-COLUMN TEXT" program.

```
100 ! ***********************
110 ! * FORTY-COLUMN TEXT *
120 ! * SCREEN FOR X-BASIC *
130 ! ***********************
140 ! AUTHOR: ROY T. TAMASHI
RO, ED.D
150 ! DECEMBER 1984, X-BASIC
W/ MEMORY EXPANSION
155 ! FIRST LOAD AND RUN THI
S PROGRAM. THEN LOAD AND RUN
 YOUR PROGRAM.
160 ! AS LONG AS YOU DO NOT
DO A 'CALL INIT' OR LOAD AN
'ASSEMBLY',
165 ! YOU CAN RUN YOUR PROGR
AM WITHOUT RERUNNING THIS ON
E.
170 CALL INIT
```

```
180 CALL LOAD(8196,63,216)::
 CALL LOAD(16344,66,83,67,82
,78,32,50,108,68,73,83,80,76
,32,48,190)
190 CALL LOAD(16360,73,78,80
,85,84,32,49,36,67,76,83,32,
32,32,48,78,70,79,82,84,89,3
2,48,38)
200 CALL LOAD(12288,8,31,16,
0,50,190,0,0,0,0,1,108,51,18
8,0,0,0,0,0,0,2,12,50,116)
210 CALL LOAD(12312,215,32,4
7,190,215,32,47,191,13,0,1,1
08,2,107,2,224,131,224,2,1,2
40,129,216,1)
220 CALL LOAD(12336,131,212,
216,1,140,2,6,193,216,1,140,
2,2,1,245,135,216,1,140,2,6,
193,216,1)
```

```
230 CALL LOAD(12360,140,2,4,
96,48,86,2,224,48,0,6,160,48
,98,4,224,131,124,2,224,131,
224,4,96)
240 CALL LOAD(12384,0,112,4,
192,2,1,128,0,4,32,32,32,5,1
28,2,128,3,192,22,250,4,91,2
,1)
250 CALL LOAD(12408,0,1,4,19.
2,4,32,32,12,200,32,131,74,4
8,36,192,224,48,36,2,67,0,25
5,2,2)
260 CALL LOAD(12432,255,216,
2,34,0,40,6,3,22,252,200,2,4
8,34,2,1,0,2,4,192,4,32,32,1
2)
270 CALL LOAD(12456,200,32,1
31,74,48,36,192,96,48,36,2,6
5,0,255,6,1,168,1,48,34,4,91
,2,224)      CON'T
```

```
280 CALL LOAD(12480,48,0,6,1
60,48,118,2,1,255,0,216,1,50
,189,2,1,0,3,4,192,2,2,50,18
9)
290 CALL LOAD(12504,4,32,32,
20,4,197,209,96,50,189,6,197
,2,6,50,190,192,32,48,34,6,1
60,49,28)
300 CALL LOAD(12528,4,193,19
2,86,2,33,96,0,4,32,32,32,5,
128,6,160,49,28,6,5,19,9,6,1
93)
310 CALL LOAD(12552,2,33,96,
0,4,32,32,32,5,198,5,128,6,5
,22,236,4,96,48,86,2,128,3,1
92)
320 CALL LOAD(12576,21,251,4
,91,2,224,48,0,2,2,1,0,2,1,3
2,0,216,129,50,190,6,2,22,25
2)
330 CALL LOAD(12600,6,160,48
,118,2,1,0,255,192,32,48,34,
160,64,2,129,3,192,18,2,2,1,
3,192)
340 CALL LOAD(12624,200,1,48
,36,4,196,193,64,2,1,32,0,21
7,1,50,191,2,1,126,0,4,32,32
,32)
350 CALL LOAD(12648,2,1,5,0,
216,1,131,116,6,160,50,34,21
6,32,131,117,48,32,4,193,208
,96,131,117)
360 CALL LOAD(12672,192,5,2,
129,13,0,22,18,2,1,128,0,4,3
2,32,32,4,224,131,124,4,192,
2,1)
370 CALL LOAD(12696,0,3,6,19
6,216,4,50,190,2,2,50,190,4,
32,32,16,4,96,48,86,2,129,7,
0)
380 CALL LOAD(12720,22,13,2,
1,32,0,217,1,50,191,2,33,96,
0,4,32,32,32,6,0,6,4,22,245)
390 CALL LOAD(12744,4,96,49,
36,2,129,8,0,22,17,2,1,32,0,
217,1,50,191,2,33,96,0,4,32)
400 CALL LOAD(12768,32,32,6,
0,6,4,128,32,48,34,18,191,5,
132,5,128,4,96,49,86,2,129,9
,0)
410 CALL LOAD(12792,22,2,2,1
,32,0,2,129,32,0,17,169,217,
1,50,191,2,33,96,0,4,32,32,3
2)
420 CALL LOAD(12816,5,132,5,
128,136,0,48,36,18,158,6,0,6
,4,4,96,49,86,4,193,2,0,32,0
)
```

```
430 CALL LOAD(12840,2,2,255,
0,4,32,32,28,144,32,131,124,
19,26,144,160,131,117,19,243
,2,3,0,5)
440 CALL LOAD(12864,6,3,2,1,
9,192,6,1,22,254,4,32,32,28,
144,32,131,124,19,11,144,160
,131,117)
450 CALL LOAD(12888,19,228,4
,32,32,28,192,195,22,239,152
,32,48,32,131,117,22,220,4,9
1,2,224,48,0)
460 CALL LOAD(12912,6,160,48
,98,2,0,3,0,4,193,4,32,32,32
,5,128,2,128,3,192,22,250,2,
0)
470 CALL LOAD(12936,224,1,21
6,0,131,212,6,192,4,32,32,48
,2,0,3,32,4,32,32,48,2,0,7,2
3)
480 CALL LOAD(12960,4,32,32,
48,2,0,8,0,2,1,16,0,4,32,32,
32,5,128,2,128,8,31,22,250)
490 CALL LOAD(12984,4,96,48,
86,0,255,0,32,32)
```



```
100 REM *SAMPLE PROGRAM *
110 CALL LINK("FORTY")
120 CALL LINK("CLS"):: CALL
LINK("DISPL",1,15,"HELLO THE
RE")
130 CALL LINK("DISPL",10,1,"
Foreground Color--Enter 1-16
:")
140 CALL LINK("INPUT",10,35,
F$):: F=VAL(F$)
150 CALL LINK("DISPL",12,1,"
Background Color--Enter 1-16
:")
160 CALL LINK("INPUT",12,35,
B$):: B=VAL(B$)
170 CALL COLORS(F,B)
180 CALL LINK("DISPL",23,1,"
Enter (1) to go on; or (2) t
o exit:")
190 CALL LINK("INPUT",23,38,
K$):: IF K$="1" THEN 120
200 CALL LINK("BSCRN"):: END
16000 SUB COLORS(F,B)
16010 CALL LOAD(12350,16*(F-
1)+(B-1)):: CALL LINK("FORTY
")
16020 SUBEND
```

NOTES ON THE EXTENDED BASIC
TEXT SCREEN PROGRAM
Roy T. Tamshiro, Ed. D.

There has been considerable interest in the article, "Using the 40-Column Text Screen in Extended BASIC" (December, 1984 issue, The Computer Bridge). Some of the questions and comments from individual readers are worthy of discussing with all users of the published routine.

First, the program listing with its CALL LOAD statements is tedious to type. Even a single typographical error will result in problems in using the program.

SECOND, IF YOU USE THE 40-COLUMN Extended BASIC screen for several programs, you need not reload or re-RUN the "FORTY-COLUMN TEXT" program for each program, as long as you have not used CALL INIT, loaded another Assembly Language program, or turned off the Peripheral Expansion Box. The program also remains intact even if you turn off the console or return to the title screen, because the 40-column program stays in expansion memory in the P-box. Simply load and RUN the Extended BASIC programs which implement these 40-column routines. This is a great time-saver.

Debugging a program you create on the 40-column screen may be more difficult than on the regular 32-column Extended BASIC screen. When an error is encountered in your program, such as "SYNTAX ERROR", you will usually not see the message on the screen. Instead, you must exit using QUIT (usually), then reload your program and search for the error. This means you need to be especially careful to save your current programs on disk or tape before RUNning the program. One consolation is that you do not have to reload the "FORTY-COLUMN TEXT" program.

Several readers have suggested some excellent enhancements to the program. I am working on some of these ideas and, I encourage others to experiment and develop those routines also. The "COMPUTER LOG" program described in this issue is one practical application of the 40-column screen program.

Here is a program compliments of Mr. Bill W. Knecht, President of the Houston Users' Group. It is for an off-line mail preparation program for bulletin boards. He said that the idea (but not the program) came from Steve Davis' "Mail Writer" program. The advantage that his program has over Steve's is that you can type a 39 character line on one screen line. The program will allow up to 12 lines of text for the message, which is what is allowed in TIBBS. It also features easy

editing. He has tried it on their HUG-TIBBS system and it worked fine. It allows you to upload your messages with the TE2 or P-Term99.
To run this program, type it in and save it as "BBS/40F". Then take the "FORTY" program by Tamashiro and add a line at the end "RUN DSK1.BBS/40F" and save this as "BBS/40". Then all you have to do is type in RUN "DSK1.BBS/40" and both will load.
COMPUTER BRIDGE (Volume 4, Number 1, Pp. 7-9, January, 1985)

```
1 ! 40-COLUMN BULLETIN BOARD
MAIL-PREP PROGRAM
2 ! BY BILL KNECHT * HOUSTON
USERS' GROUP
3 ! USES FORTY COLUMN TEXT S
CREEN PROGRAM BY TAMASHIRO
4 ! ***LOAD & RUN FORTY PROG
RAM FIRST***
5 !
100 ON ERROR 820
110 CALL LINK("FORTY")
120 CALL LINK("CLS")
130 CALL CHAR(96,"55AA55AA55
AA55AA")
140 CALL LINK("DISPL",2,7,"'
''''''''''''''''''''''''''''")
:: CALL LINK("DISPL",3,7
,""
'")
150 CALL LINK("DISPL",4,7,"'
40-COLUMN BBS MAIL PREP '")
:: CALL LINK("DISPL",5,7
,""
'")
160 CALL LINK("DISPL",6,7,"'
    by bill knecht      '")
:: CALL LINK("DISPL",7,7
,""
'")
170 CALL LINK("DISPL",8,7,"'
''''''''''''''''''''''''''''")
180 CALL LINK("DISPL",20,10,
"INSTRUCTIONS? (Y/N)")
190 CALL LINK("INPUT",20,30,
A$):: IF A$="Y" THEN 200 ELS
E 430
200 CALL LINK("CLS"):: CALL
LINK("DISPL",1,14,"INSTRUCTI
ONS")
210 CALL LINK("DISPL",3,1,"T
his program enables you to w
rite your")
220 CALL LINK("DISPL",4,1,"B
BS messages ahead of time an
d transmit")
230 CALL LINK("DISPL",5,1,"t
hem to the BBS using TE2. Th
is program")
240 CALL LINK("DISPL",6,1,"i
s in 40-column so 1 line of
text equals")
250 CALL LINK("DISPL",7,1,"1
line of the bbs message lin
e.")
260 CALL LINK("DISPL",9,1,"D
o not exceed the 39 characte
rs per line")
270 CALL LINK("DISPL",10,3,"
(max. 12 lines of text)"):: 
CALL LINK("DISPL",12,1,"
The EDIT MODE allows you to
view the")
280 CALL LINK("DISPL",13,1,"
message and re-type any of t
he lines.")
```

```
290 CALL LINK("DISPL",14,1,"
In the Edit Mode, 0 returns
to menu.")
300 CALL LINK("DISPL",16,1,"
Your message should be saved
with a file")
310 CALL LINK("DISPL",17,1,"
name of 5 letters or less. T
o enter your")
320 CALL LINK("DISPL",18,1,"
message on the BBS, when the
BBS system")
330 CALL LINK("DISPL",19,1,"
prompts you to enter Line 1,
exit TE2 by")
340 CALL LINK("DISPL",20,1,"
CTRL 0, then select OPTION 2
of the TE2")
350 CALL LINK("DISPL",21,1,"
and replace LOGON with your
message file-")
360 CALL LINK("DISPL",22,1,"
name. When message has loade
d, hit ENTER")
370 CALL LINK("DISPL",23,1,"
for command level to save me
ssage.")
380 CALL LINK("DISPL",24,8,"
(press any key to start)")
390 CALL KEY(0,K,S):: IF S=0
THEN 390
400 DIM L$(13)
410 GOTO 430
420 CALL LINK("FORTY")
430 CALL LINK("CLS"):: CALL
LINK("DISPL",5,16,"M E N U")
440 CALL LINK("DISPL",8,13,"
1   ENTER TEXT"):: CALL LINK(
"DISPL",10,13,"2   EDIT T
EXT"):: CALL LINK("DISPL",12
,13,"3   SAVE FILE")
450 CALL LINK("DISPL",14,13,
"4   TERMINATE"):: CALL LINK(
"DISPL",20,10,"enter sel
ection:")
460 CALL LINK("INPUT",20,30,
A$):: IF (A$<"1")+(A$>"4")TH
EN 470 ELSE 480
470 CALL LINK("DISPL",22,9,"
Input Error ...try again"):: 
FOR I=1 TO 500 :: NEXT
I :: GOTO 430
480 A=VAL(A$)
490 ON A GOTO 500,630,720,80
0
500 X$=RPT$("-",39):: Y$="en
ter = on next line when fini
shed"
510 CALL LINK("CLS"):: CALL
LINK("DISPL",1,14,"enter mes
sage")
520 CALL LINK("DISPL",3,1,X$
):: CALL LINK("DISPL",18,1,X
$):: CALL LINK("DISPL",2
2,3,Y$)
```

```
530 CALL LINK("DISPL",18,3,"
(last line for text)")
540 N=0
550 N=N+1
560 CALL LINK("INPUT",(N+4),
1,L$(N))
570 IF LEN(L$(N))<40 THEN 61
0 ELSE 580
580 CALL LINK("DISPL",(N+4),
1,"    (line too long ...re-e
nter)       ")
590 CALL LINK("DISPL",(N+5),
1,"
         ")::  FOR
I=1 TO 800 :: NEXT I
600 CALL LINK("DISPL",(N+4),
1,"
     ")::  GOTO 560
610 IF L$(N)="=" THEN 620 EL
SE 550
620 L$(N)="" :: GOTO 430
630 CALL LINK("CLS")
640 CALL LINK("DISPL",2,15,"
EDIT MODE"):: N=0
650 N=N+1 :: IF N=13 THEN 67
0 :: N$=STR$(N):: CALL LINK(
"DISPL",(N+4),1,N$&L$(N)
)
660 GOTO 650
670 CALL LINK("DISPL",20,2,"
enter line number to edit /
0 to exit")
680 CALL LINK("INPUT",20,39,
LN$):: IF LN$="0" THEN 430 E
LSE N=VAL(LN$)
690 CALL LINK("DISPL",22,13,
"enter new line")
700 CALL LINK("INPUT",23,1,L
$(N))::  GOTO 630
710 L$(N)="" :: GOTO 430
720 CALL LINK("BSCRN")
730 CALL SCREEN(5):: FOR I=0
TO 12 :: CALL COLOR(I,16,1)
:: NEXT I
740 DISPLAY AT(10,1)ERASE AL
L:"enter filename to save da
ta" :: DISPLAY AT(12,9):
"DSK1."
750 ACCEPT AT(12,12)VALIDATE
(UALPHA,"123.")SIZE(-7):F$
760 OPEN #1:"DSK"&F$ :: N=1
770 IF L$(N)="" THEN 790
780 PRINT #1:"1"&L$(N)&CHR$(
13):: PRINT #1:"2"&CHR$(80):
: N=N+1 :: GOTO 770
790 CLOSE #1 :: GOTO 420
800 CALL LINK("DISPL",24,5,"
Sure you want to quit? (Y/N)
")
810 CALL LINK("INPUT",24,34,
A$):: IF A$="N" THEN 430
820 CALL LINK("BSCRN"):: END
```

A COMPUTER LOG FOR
1985 TAX RECORDS
Roy T. Tamashiro, Ed. D.

Beginning in 1985, the Internal Revenue Service will require accurate records to establish the business use of a home computer. There will be strict rules about contemporaneous record keeping, certified statements that you kept accurate records, and even a negligence penalty if the IRS discovers you do not have adequate records. The COMPUTER LOG program below is designed to help keep track of your use of the computer for this new IRS requirement.

RUN this program each time you use the computer and, at year's end, you wil have detailed computer log. The exact format of the new record keeping requirement has not yet been detailed computer log. The exact format of the new record keeping requirement has not yet been detailed by the IRS. However, you will need to keep a record that indicates the nature or purpose of each business and personal use of the computer. The COMPUTER LOG program suggests that you enter the month, date, time-on, time-off, and purpose of each use.

To use COMPUTER LOG, the Extended BASIC cartridge, 32-K Memory Expansion, and a Disk Drive System are required. You must first load and RUN the program "FORTY-COLUMN TEXT SCREEN FOR X-BASIC" (See THE COMPUTER BRIDGE, Vol. 3, No. 12, December, 1984, pp. 2-5). Then load and RUN "COMPUTER LOG" as listed below. For convenience, you may want to merge the two programs, and save it as "DSK1.LOAD", so the program will RUN when Extended BASIC is selected. This will help you to rememeber to make a log entry every time the computer is used.

When you RUN the program, you will see a menu with the following options:

1 Make New Entry
2 View the Entries
3 Modify an Entry
4 Print the File
5 Exit
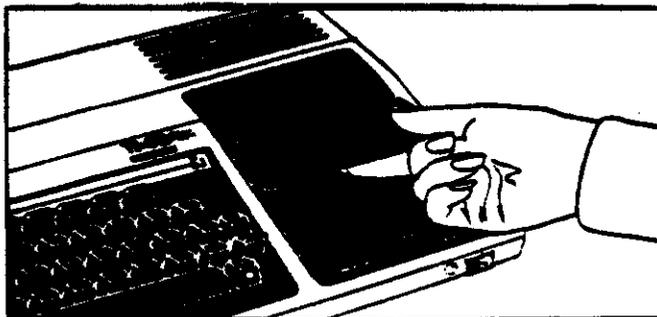
When you select option #1, the top of the screen will show:
1985 Time Log

No.   MO DA Time-On Time-Off Purpose

1

You are instructed to "make your entry in 2 lines beginning with the Month." A sample entry might be:
----
1 JAN 11 7:15 pm 8:00 Memo to supervisor/new desk.   TI-WRITER,Disk 33

The headings are suggestive only, so you may enter any information which fits on the space provided. When you have made your entry, the menu reappears.

Option #2 enables you to see all the entries to date. If you see an entry which needs to be changed, make notes of the Record Number, and select option #3 (To Modify an Entry) from the main menu. Type the record number when the prompt appears, and you will be asked to make your corrected entry.

When you choose option #4 (Print the File), all records to date are printed on the 80-column printer you specify. You can also create files which are compatible with TI-WRITER by selecting this option (4 Print the File) and designating a disk filename such as DSK1.LOG-TEXT when the "Device Name:" prompt appears.

The final option (5 Exit) returns you to Extended BASIC environment. You may reRun the program without re-loading the 40-COLUMN TEXT SCREEN Program as long as you have not loaded other Assembly Language programs, or given the CALL INIT command.

When 1986 arrives, change each line number in which "1985" appears (570, 590, 850, and 900) to "1986" and your log will be ready for the new year.

```
500 ! ****************
510 ! * COMPUTER LOG *
520 ! ****************
530 !AUTHOR: ROY T. TAMASHIR
O, ED.D.
540 !JANUARY 1985,X-BASIC W/
MEMORY EXP & DISK SYSTEM
550 !Uses "40-Column Text Sc
reen", THE COMPUTER BRIDGE,
December 1984
560 CALL LINK("FORTY"):: CAL
L LINK("CLS")
570 OPEN #1:"DSK1.LOG-1985",
RELATIVE 80 :: IF EOF(1)THEN
 590
580 INPUT #1,REC 0:P
590 C$="Your Choice (1-5): "
&CHR$(30):: CALL LINK("CLS"
):: CALL LINK("DISPL",1,
8,"Computer Time Log for 198
5"):: CALL HCHAR(2,16,45,26)
600 CALL LINK("DISPL",5,3,"1
 Make New Entry"):: CALL LIN
K("DISPL",7,3,"2 View th
e Entries"):: CALL LINK("DIS
PL",9,3,"3 Modify an Entry")
610 CALL LINK("DISPL",11,3,"
4 Print the File"):: CALL LI
NK("DISPL",13,3,"5 Exit"
):: CALL LINK("DISPL",22,18,
C$)
620 CALL KEY(0,K,S):: IF K<4
9 OR K>53 OR S=0 THEN 620
630 CALL LINK("CLS"):: ON K-
48 GOTO 640,690,730,820,960
640 GOSUB 900 :: GOSUB 920
650 CALL LINK("DISPL",23,1,"
Make your entry in 2 lines b
eginning"):: CALL LINK("
DISPL",24,1,"with the Month.
")
660 P=P+1 :: CALL LINK("DISP
L",5,1,STR$(P)):: CALL LINK(
"INPUT",5,5,E$)
```

```
670 IF LEN(E$)>76 THEN E$=SE
G$(E$,1,76)
680 PRINT #1,REC 0:P :: PRIN
T #1,REC P:E$ :: GOTO 590
690 IF P=0 THEN 950
700 FOR V=0 TO 99 :: GOSUB 9
00 :: FOR I=1 TO 9 :: IF (I+
9*V)>P THEN I=9 :: V=99
:: GOTO 720
710 R=3+2*I :: LINPUT #1,REC
 I+9*V:E$ :: R$=STR$(9*V+I):
: CALL LINK("DISPL",R,1,
R$):: CALL LINK("DISPL",R,5,
E$)
720 NEXT I :: GOSUB 930 :: N
EXT V :: GOTO 590
730 IF P=0 THEN 950 ELSE CAL
L LINK("CLS"):: CALL LINK("D
ISPL",1,14,"Modify Entry
"):: CALL HCHAR(2,22,45,12)
740 D$="Enter Record No. to
be Modified(1-"&STR$(P)&")"
:: CALL LINK("DISPL",5,1
,D$):: GOSUB 940
750 CALL LINK("INPUT",7,1,M$
):: IF M$="" THEN 590
760 IF M$<"1" OR M$>"999" TH
EN 730
770 GOSUB 900 :: GOSUB 920 :
: M=VAL(M$):: LINPUT #1,REC
M:E$ :: E$=SEG$(E$,1,76)
780 CALL HCHAR(12,9,45,40)::
 CALL LINK("DISPL",5,1,M$)::
 CALL LINK("DISPL",5,5,E
$):: CALL LINK("DISPL",8,1,M
$)
790 CALL LINK("DISPL",23,1,"
Enter your Correction, or"):
: CALL LINK("DISPL",24,1
,"Press <ENTER> for no chang
es.")
800 CALL LINK("INPUT",8,5,E$
):: IF E$="" THEN 590
```

```
810 PRINT #1,REC M:E$ :: GOT
O 590
820 IF P=0 THEN 950 :: CALL
LINK("DISPL",1,15,"Print Fil
e"):: CALL HCHAR(2,23,45
,10)
830 CALL LINK("DISPL",5,1,"D
evice Name:"):: GOSUB 940
840 CALL LINK("INPUT",7,1,D$
):: IF D$="" THEN 590
850 OPEN #2:D$ :: PRINT #2:T
AB(20);"Time Log for 1985"
860 GOSUB 890 :: PRINT #2:"N
o. MO  DA  Time-On  Time-Off
  Purpose" :: GOSUB 890
870 FOR I=1 TO P :: LINPUT #
1,REC I:E$ :: E$=STR$(I)&" "
&SEG$(E$,1,76):: PRINT #
2:E$,:: NEXT I
880 GOSUB 890 :: CLOSE #2 ::
 GOTO 590
890 FOR I=1 TO 79 :: PRINT #
2:"-";:: NEXT I :: RETURN
900 CALL LINK("CLS"):: CALL
LINK("DISPL",1,15,"1985 Time
 Log"):: CALL HCHAR(2,9,
45,40):: CALL HCHAR(4,25,45,
40)
910 CALL LINK("DISPL",3,1,"N
o. MO  DA  Time-On  Time-Off
  Purpose"):: RETURN
920 CALL HCHAR(8,17,45,40)::
 RETURN
930 CALL LINK("DISPL",24,1,"
Press <ENTER>."):: CALL KEY(
0,K,S):: IF S=0 THEN 930
 ELSE RETURN
940 CALL LINK("DISPL",24,1,"
Press <ENTER> for Menu."):: 
RETURN
950 CALL LINK("DISPL",23,1,"
No Records available."):: GO
SUB 930 :: GOTO 590
960 CALL LINK("BSCRN"):: END
```

MYARC 512K CARD UPDATE

When last you read about the Myarc 128/512K Memory Expansion/Ramdisk in this newsletter, the 512K portion of it was still to come. Well, it's here and has been running in my P Box for a couple of months now; And it has delivered everything it has promised to deliver. The card has worked flawlessly, but alas I have not always been flawless in my dealings with it.

When I received the chips to upgrade to 512K, all that was necessary was to pull out the chips that made up the 128K and swap them with the new ones. After doing this I used the CALL PART command to partition my Ramdisk after booting up. That was my first mistake. Every time I tried to partition I would get a SYNTAX ERROR. The card would not accept CALL PART(400,112), after all doesn't that add up to 512K? My bout with stupidity thankfully did not last too long. The correct command is CALL PART(400,80). I had forgotten that 32K is used for normal memory expansion. (Note: Those of you who also have the Myarc Double Density Controller card and accompanying Disk Manager on disk will discover that the Disk Manager defaults to this partition. I did not have the Myarc Controller when I first bought the Ramdisk.)

My second mistake involved using a DC power supply to keep the information current in the Ramdisk, even when the P-Box is turned off. The power supply was not a sturdy one. After being left on for a week it overheated and died. Now I use a slightly bigger power supply that has lasted fine for weeks, and I give it a rest every once in a while.

Working programs that involve heavy disk access is what makes the Ramdisk truly appreciated. One such program is NAME-IT by Extended Software. The club's master membership record is kept on files accessed by the NAME-IT program. Updating, Sorting, Printing, and general usage is greatly enhanced when running the files on the Ramdisk. This brings me to my last and costliest mistake. Any power glich will cause the Ramdisk to lose it's information or cause the data to become corrupt. A battery backup to the Ramdisk might avoid this. I cannot say, since I have not tested that specifically. At any rate, I updated the files, then copied the files off the Ramdisk back to the original diskettes. Here is where I found out that the data was corrupted. The club's membership roster was now virtually unusable.

The lesson learned here is: Always copy to a backup diskette, never over write the original till you have had time to verify the data is good.

I am a big booster of the Myarc 512K Ramdisk. Everytime my computer is used, the Ramdisk is used. It reminds me of how good a business machine the TI99/4A can be.

We received this from Guy Romano of the Helpline in San Francisco.

David F. Hepper has placed this design for a "cartridge extender" in the Public Domain. It allows you to have a cable of any reasonable length plugged into the Grom slot which is hooked to a device which can have as many cartridge connectors as desired. Anyone with specific questions can send a S.A.S.E. to David F. Hepper, 3516 Cedardale Drive, San Jose, CA 95148. David has successfully installed his extender into a case with a five inch monitor, a Corcomp Expansion system and one disk drive. He added a detachachable keyboard that functions as a cover so that the whole thing is a largish suitcase-shaped portable and fully contained 99/4A.

THIS HAPPENED AT THE NOVEMBER MEETING

Volunteers were solicited to help with the various committees. We got some positive response, Ed Banovatz is organizing the effort. We hope to have more programs of a strictly console basic nature for some of the newer members; however the problem is that so few people have volunteered to help in this.

A raffle was held for the first of three diskettes that the club the club purchased from Jim Peterson of Tigercub Software. The winner was Mac McBride. A second drawing was held for the disk of varios Christmas music that Jim Hubbard brought in. The winner was Fred Ballard. Raffle tickets were 50 cents each sold at the beginning of the meeting.
The idea went over well so the other Tigercub disks will be raffled off one per month.

Marshall Gordon gave the first lecture on his series of Multiplan lessons. This will continue for several meetings.
A mention was made and is repeated here that in a future newsletter (maybe January) a list will be printed of all the local members and their telephone numbers. If you do not want your name on the list then speak up at the next meeting or leave a message on the club answering machine. This has been done before and appreciated by many. The list will be alphabetical and have the name, phone, and city included. It will not have the full address so it could not be picked up and used by someone as a mailing list. If you live in Stone Mt. wouldn't it be nice to glance through and see other members who also live in St. Mt.? Such a list will also help those interested in starting Special Interest Groups, Extended Basic for example.

On the wall were copies of dozens of newsletters that the club receives each month. These are for members to take home with them and as usual none were left hanging by the end of the meeting. Thanks to George Sears for bringing these to the meeting and taping them up.
At the front of the auditorium were over a dozen large notebooks where the permanent copy of the newsletters are available for browsing. Also on the same table are the notebooks containing the advertisements and offers that the club receives from numerous vendors and distributors. It really is a MUST SEE to go through these advertisement notebooks.
Also thanks to Jim Hubbard who lugs back and forth to each meeting all the magazines, diskettes, and other periphenalia that is available at the entrance to the auditorium each month.

Hope you can make it to the next meeting.

FREEWARE UPDATE

Every so often newsletters include a listing of the Public Domain 'Special' software and Freeware that they have or that they know is available along with the authors' addresses. We did this last month and to blantantly borrow John Koloen (of Micropendium)'s idea; we shall try to update the list and repeat it every other month or so.
By the way.. MICROPENDIUM ($15 year)
P.O. Box 1343, Round Rock, TX 78680
is one of the best TI99/4A publications around. I strongly recommend a subscription to it.
Back to Freeware etc:
The purpose of such a list is to let others know what they can get from their club and to promote and support the 'Freeware' concept. Whether you obtain the program from the club or the software author, SEND the author money for the program if you think it is a good one. I repeat SEND MONEY TO THE AUTHOR if you believe the program is worth it. Our printing this list is not an endorsement of any program. Some, I know for a fact are outstanding. You would pay over a hundred dollars for them through professional marketing channels especially if they were for a computer other than the TI99/4A. Other programs are admittedly average, but at these prices they are still a bargain.
Updates or Corrections to last month's list:

The letter/money we sent to 99 Assembly Software P.O. Box 639, Lucasville, OH 45648 for the Sound Digitizer came back stamped "UNKNOWN". Either our address is wrong or the company doesn't exist. So, don't send for it.

We received FAST FORTH from Tim Curran however the package we received indicated that this is copyrighted and marketed, but not under the FREEWARE concept. The program uses the the Public Domain Forth as released by TI and the Public Domain Extended Basic loader for FORTH by Tom Freeman, however Tim Curran has defined some further words for FORTH and written and copyrighted two Editors for FORTH. The program is available through KCR, P.O. Box 8128, Huntington, WV 25705 for $9.95. Since Tim was kind enough to send us the program we are glad list the address for ordering his FAST FORTH but we must remove this from the list of freeware.

All in all, we have gotten an excellent response from the authors to whom we sent money and self-address/stamped mailers.
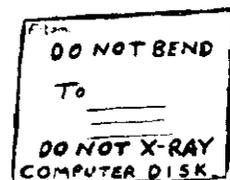
In time for Christmas we include this helpful desription breakdown of 99/4A Cartridges. This was written by John Taylor
and printed in the Shoals Users Group (Alabama) August 1985 newsletter.

THE GREAT MODULE REVIEW

The Great Module Review is a project I started at the last month's General Meeting.
I have noticed that the prices on most all modules have dropped drastically in the last
few months. However, even at $5+ dollars, there are so many it is hard to choose. Most
modules are listed as just a title and nothing more. I hated to think that a really good
one might get by me and be gone forever. For that reason I asked and got about 8 people
to volunteer to review some modules. First I got a list of every module to review specific
had. It totaled up to 68 different modules. Then I asked everyone to review specific
modules and give you the information that they though you'd like to know if you were

thinking about purchasing it. The reviews are the opinion of those that reviewed them and
should be looked at as a guide only. One person_junk could just be anothers treasure.
Take a look at the current catalogs at the meeting and I am sure the prices will surprise
you. Ouida would be more than happy to get a group order up with Unisource. See her for
more details. The modules have been sorted into alphabetical order within 5 groups --
Education, Games, Home Use, Languages, and Utilities. I hope that you enjoy the reviews
and that it helps you to re-discover all of the module software that is available before
they are all gone.

John E. Taylor

ADDITION AND SUBTRACTION 1

This module has speech capabilities with the Speech Synthesizer. This module was
designed to provide children with a positive introduction to mathematics.
The module begins by teaching the basic concept of counting to nine. Step by step,
the principles of addition and subtraction, with the numbers zero through nine, are
introduced. My four year old son enjoys most of these activites, but some are a little
advanced for him, this module is probably best suited for a child around five or six. The
Graphics and speech are very good.

ADDITION AND SUBTRACTION 2

This module is a good follow up to Addition and Subtraction 1. Speech is optional
but is a good addition if you have the speech synthesizer. This module has nine addition
and subtraction activities

1. Counting 0 to 10
2. Numbers 10 to 18
3. Addition Facts
4. Add another way
5. Add three numbers
6. Add in a Clcuwn
7. Subtraction Facts
8. Subtract another way
9. review the facts

COUNTING TO 10

Line Bars are used to drill your child in counting to 10. Bars with numbers 0-5 are
shown. If these are correctly recognized then the activity moves to bars with numbers
6-10. These must be correctly recognized before the activity advances to the next activity.

NUMBER 10 TO 18

This section introduces the concept of grouping numbers into tens. To get a number
greater than 10, one group of 10 is added to a group of units. Bars or objects appear on
the display. If the correct answer is given the units move together and the word and
numbers are shown.

ADDITION FACTS

You are presented two sets of objects with corresponding numbers under each group.
The objects move upward and form a number bar in the middle of the display. As the
objects reappear in their original position on the display, corresponding numbers also
appear and form an addition sentence. The signs "+" and "=" and the answer are displayed
to complete the sentence. With the help of bars or objects, the drill asks your child to
complete the addition sentence.

ADD ANOTHER WAY

This activity moves the horizontal addition sentences to form a vertical sentence.
All the problems in the drill are presented in the vertical format. Your child is asked
to type the correct answer to the problems.

ADD THREE NUMBERS

This activity extends the concept of horizontal addition to include three numbers.
It also introduces the associative property of addition: (3+5)+4=3+(5+4). To help your
child recognize this property, a box is drawn around the combined addends in the addition
sentence. The drill asks your child to enter the sum of the three numbers.

ADD IN A COLUMN

This activity continues the skill of adding three numbers by presenting the numbers
in a column. The boxes drawn around the combined numbers and objects visually reinforce
the associative property of addition in the vertical format. The exercises in the drill
appear in this format. The correct answer is to be entered under the three numbers.

SUBTRACTION FACTS

This activity subtracts a single-digit number from a double-digit number with the
visual assistance of "x-ing" out train engines. Ten to 18 train engines appear on the
display. A random number of train engines are "x-ed" out and then disappear. Next, the
corresponding horizontal subtraction sentence appears. The drill displays a subtraction
sentence and asks your child to complete it with the correct answer. If an incorrect
response is given, train engines appear and are "x-ed" out to assist your child with the
next response.

SUBTRACT ANOTHER WAY

Subtract Another Way demonstrates the concept of taking a smaller number from a
larger one by crossing out a number of bars from a large group of bars and then having
them disappear in the vertical format. If an incorrect answer is given, appropriate
counting bars appear to assist your child with the second response.

REVIEW THE FACTS

The review presents a variety of 24 problems, utilizing the skills represented in the
module. Only one try is allowed, with an incorrect response resulting in a
computer-supplied answer. For the child who answers 20 or more of the problems correctly,
the module automatically provides an EXTRA FOR EXPERTS. This ten-problem activity
displays one of the addends and the sum of the addition problems. Your child is asked to
fill in the missing addend.

This is a very good module for you and your child to work with. It will help develop
a good understanding of addition and subtraction.

ADDITION AND SUBTRACTION 3

Addition and Subtraction 3 teaches and provides practice in the addition and
subtraction of 2 and 3 digit numbers. The module also introduces the concept of
"renaming" (carrying and borrowing). Addition and Subtraction 3 has 8 different
activities. They are: Add 2 digit numbers, Subtract 2 digit numbers, Regroup objects (for
renaming), Add with renaming, Subtract with renaming, Add 3 digit numbers, Subtract 3
digit numbers, and Review. All activities except Review begin with a teaching example
that makes extensive use of the speech synthesizer which is optional but highly
recommended. The program also excellently uses the sound and graphics of the 99/4A. The
instructions for the exercises are simple enough for most children to follow with little
supervision. Each teaching session is followed by a review of what was learned in that
activity, and the computer generates several practice problems. The problems are randomly
generated, so the student is not given the same problems every time he uses the module.
If the answers to these problems indicate that the child is having difficulty, the
computer will provide more teaching instruction dealing with the problems being done.
When a satisfactory number of correct answers are given to the practice problems, the
student is allowed to go to the next activity. Correct answers are rewarded with colorful
graphic animations and cheerful tunes.

Addition and Subtraction 3, by Scott, Foresman and Company, is one of the best
educational modules that I have seen for the TI 99/4A. The excellent teaching methods and
the use of color graphics, sound, and speech really make it a favorite.

ALIEN ADDITION and MINUS MISSION

These two modules provide for practice in addition and subtraction. Both games have "attackers" trying to destroy your "defender". In Alien Addition the attackers are alien ships and your defender is a laser cannon. In Minus Mission the attackers are slime blobs and your defender is a robot armed with a laser gun.

In each game the attackers are carrying a math problem (in addition or subtraction depending on the module) and descend from the top of the screen toward your base. The object is to neutralize the attackers and send them to the top of the screen. You do this by arming your defender with the correct answer (using the arrow keys) and fire (press the space bar). When an attacker is neutralized, he returns to the top of the screen and gets a new problem. If the answer you fire is incorrect, then the attacker you fired at advances out of turn toward the bottom of the screen. Each game has five attackers, and if you let any one of them reach the bottom of the screen, then your defender is destroyed. You start the game with three defenders, and the game ends either when you lose all of them, or when the game runs out. The game time is selectable from 1 to 5 minutes, as are the difficulty level of the problems and the desending speed of the attackers.

Each module also has available a joystick version of the game which is played slightly different from the keyboard version. In the joystick version your defender is automatically armed with the correct answer to one of the attackers problems. It is then up to you to find the attacker carrying a problem that is solved by that answer. You position the defender under the attacker, and fire. The answer my be correct for more than one attacker, so a bit of strategy is involved in selecting which one to neutralize. You should get the one nearest the bottom of the screen since the answer to that problem may not appear soon enough to get another shot before your defender is destroyed.

These games make fairly good use of color graphics and sound, and provide a challenging and fun way for children to practice their addition and subtraction. Althoug aimed at elementary age children, the games can be fun for adults as well when played at the highest difficulty and speed levels in the joystick mode.

BEGINNING GRAMMAR

The "Beginning Grammar" module is specially designed to help your child in the study of grammar. Seven (7) of the eight (8) "parts of speech" (nouns, verbs, adjectives, adverbs, prepositions, conjunctions, and pronouns) are introduced through engaging, colorful activities, that are both fun (a game) and at the same time provide educationally valid learning experiences.

Each activity (game, part of speech) begins with a definition and includes examples to help understand the concept. The child will learn a little typing by using the key board and computer command keys e. g. enter, shift key, space bar and the on/off switch. The sound and color truly add to the enjoyment and learning process. Oh! Yes! It also keeps score in the most unique way.

Beginning Grammar consists of the following activities (games, programs): 1- going places with nouns; 2- verb lift; 3- pronoun posters; 4- adjective's restaurant; 5- adverb attractions; and 6- preposition/conjunction.

You should take some time with preschoolers and first and second graders to show them how to use the programs and operate the keyboard and computer. You will be surprised at how quickly they learn and how much fun they have.

All you need is the TI 99/4A computer and the Beginning Grammar module and at least one small (and at times not so small) person to both learn and have fun.

DECIMALS

The decimals module is divided into 56 levels of difficulty, covering material generally taught in grades five through eight. The program provides practice in recognizing decimals as fraction, determining the order of decimals, rounding decimals, and doing arithmetic with decimals. Children add, subtract, multiply, and divide numbers. This program assumes that your child has mastered basic arithmetic and a certain degree of mental computation.

LEVELS 1-11

Your child deals with relations and numbers in these first 10 levels. They are asked to tell which number is greater (>) and which numbers are smaller (<). Equals (=) is also discussed in this section. A progress report is displayed on the bottom of the screen so you can see how you are doing at all times. Only one chance is give to answer correctly so problems or questions that have only two or three possible answers. At least two changes are given to answer problems with many possible answers.

LEVELS 12-20

In these levels you deal with addition of and using decimals.

LEVELS 21-30

Subtraction is explained in these next groups. They are introduced to borrowing.

LEVELS 31-35 and 40-49

Here you are introduced to multiplication using decimals.

LEVELS 36-39 and 50-56

This is where division is taught. Beginning at level 50 you are shown and drilled on how to find the correct decimal place. Level 51 gives direction in moving the decimal point.

As you progress you are moved to higher and harder levels. You can move to different levels or back up at any time if you feel that you need more help.

This module comes from the MILLIKEN MATH SERIES. They also produce modules in math that start with kindergarden age and go up. They have a very fine series of modules for education.

DIVISION I

This module continues in the development of math skills with drills and exercises in division. Speech is optional with this module. Division I contains nine activities. The module will advance your child to more difficult activities if 80 percent of the problems are answered correctly. If less than 80 percent are answered correctly, the computer will return to the tutorial activity, providing more practice.

The nine activities are as follows:

1.MEANING OF DIVISION - demonstrates the meaning of division by displaying a random number of objects and then evenly grouping these objects. The activity explains how many objects there are in all and how many objects there are in each group. Then the computer counts the groups for you. You are then ask to determine the number of groups.

2.DIVISORS OF 1,2,3 - This activity displays a random number of objects evenly grouped in boxes and indicates how many objects there are. Then the corresponding word sentence appears. The boxes then are counted, and the total moves to the answer position in the word sentence. The corresponding division number sentence appears below the word sentence. After displaying a random number of grouped objects, the drill uses divisors of 1,2 and 3 and ask you to complete the number sentence by determining the number of groups.

DIVISORS OF 4,5,6 - displays a random number of objects and indicates how many objects there are. Then the objects are evenly grouped. It is similar to activity 2 but extends the randomization to include division problems using divisors 4,5, and 6. The drill ask you to complete the division sentence by indicating the number of groups.

DIVIDE USING - Shows how the division sentence is rewritten in the vertical format. Evenly grouped objects and the corresponding horizontal division sentence appears on the display. The groups are counted and that number moves into place, completing the sentence. The numbers then move to form the vertical division format. The word sentence representing both formats appears next. The drill in this activity presents a series of problems in the vertical division format for you to solve.

PRACTICE AND PAINT - lets you creatively practice division facts for divisors 1 through 6. A painter's pallette displays the numbers 1 through 9. A division problem appears in the center of the pallette. As the objects are grouped and the groups are counted, numbers on the palette. When the correct number is reached, you press ENTER. You have two chances to find the correct answer and the computer keeps score by "painting" a square in the score box each time a correct answer is given.

DIVISORS OF 7,8,9 - groups objects to include divisors of 7,8, and 9. A random number of objects appears on the display, followed by the vertical division problem. A check is given by determining the divisor and quotient together. You solve the problems in the drill by determining the answer to the horizontal or vertical division problem. If a wrong answer is given, multiples of the divisor are displayed to help you.

HOW MANY BOXES? - presents a word problem that identifies a number-grouping situation and introduces the concept of remainders. A random number of objects appears and then the objects are evenly grouped and then the drill asks how many boxes are needed to group the objects evenly according to the situation presented in the word problem. After indicating the right number the computer counts the remaining objects.

8. DIVIDE WITH A REMAINDER - displays a vertical division problem with the corresponding number of objects above it. The problem is solved with the remainder being displayed. The drill presents vertical problems. You are ask to select the closest quotient. The divisor and quotient are multiplied and the answer is shown in the problem. Then you must solve for the remainder. If you can not work out the problem in two tries the computer will work you through the problem.

9.MAKE A PICTURE - ask you to solve division problems in both vertical and horizontal formats to create a picture. Each correct answer adds parts to the picture. You must get 10 problems right to complete the picture. If 80 percent of the problems are complete on the third picture, you can continue on to the activity "EXTRA FOR EXPERTS." Here you are given five multiplication and five division problems. You are asked to give the missing element in each problem.

EARLY LEARNING FUN

This module is my children's favorite. There are four categories in the module: Numbers, Shapes, Sorting, and the Alphabet. Within each group the activities are arranged according to difficulty, with simplest exercises first. The graphics are good and very colorful.

EARLY LOGO LEARNING FUN

LOGO is a computer language especially written to be used by children to aid in the learning process. While LOGO was being developed and used by students, several interesting procedures, or programs, were written. This module contains a selection of 5 of those routines. I really like the module because my son quickly mastered the repetitive activities in the Early Learning Fun module. The activities in this module are a lot more free-form. You are essentially presented with a blank screen and some picture shapes. For example, BUILD allows you to build pictures out of blocks. The blocks can be positioned anywhere on the screen in any of 7 colors. This is all done with single key presses. PARK gives you either cars or garages which can be moved anywhere on the screen. PEOPLE gives you bodies, heads, arms, and legs which you use to build people. DRAW puts a turtle (triangle) on the screen and lets you draw lines (like an Etch-A-Sketch) to make pictures. And DALLAS lets you generate whole fleets of trucks and jets going every which way on the screen. When I first got the module I thought that it was a waste of money. However, after watching my son use it, I've changed my tune. It is one of the few modules available that doesn't hold him down to a specific answer at a specific time. He is free to explore what he wants when he wants. And isn't that what learning is really all about?

EARLY READING

Early Reading is used along with the speech synthesizer to help develop word recognition and reading skills. Six new words are introduced in each of nine different Pick A Picture Stories. There are three sections for your child to work through. "PICK A PICTURE", "PICK A WORD" and "MAKE A STORY." It is recommended that you start with Pick A Picture because it provides the foundation for the other sections.

The Pick A Picture title screen shows nine numbered pictures. Each picture represents a different story. When you select a number, you see the story title. The computer (if speech synthesizer is connected) will read the title. Next a picture from the story will appear and the computer will tell you what the picture is. After the computer has read the sentence, it will ask you to find a certain word. This is done by moving the red line with the space bar until it is under the word and the pressing enter. You will be rewarded if correct or asked to "TRY AGAIN" if wrong. This continues until all the new words are introduced.

The second part of this activity uses the same words in new sentences to make a short story. The computer will read the sentence and then ask you to read the sentence after which you press enter. You are allowed to read each sentence at your own pace and then press enter to go to the next sentence. At the end of the story the entire story is displayed on the screen for you to read.

PICK A WORD

This section is like a game for your child to play. They are shown ten sentences one at a time. Each sentence has a word missing. Your child is to complete the sentence by picking one of three words listed at the bottom of the screen. If the word is correct the word is displayed in the box and the child earns one point. If the word is wrong, the child is encouraged to "Try Again." After two wrong answers the computer will show you the correct answer. After all ten sentences are finished the computer will show you how many points were earned.

MAKE A STORY

This activity makes new stories from the words introduced in the other two sections. You are given a screen to read after which you press enter. As the story progresses you are given a choice of words to complete the sentence. The word you choose determines how the story progresses. Eight different endings are possible. This module was developed for Texas Instruments Learning Center. This is a very nice module for your child to use with the computer.

FACE MAKER

This is one of those "Gee I wish they had that when I was a kid" modules. The idea is simple. You are presented a blank face and you begin making a face. First you add eyes, then hair, a nose, ears, and a mouth. You are given 8 choices in each of these groups. This allows you to create a very wide and varied set of faces. After building your favorite face, it is time to begin animating it. Press E to wiggle the ears, W to wink, C to cry, S to smile, F to frown and T to stick out your tongue. Once this is done, you can write a program, or series of instructions for the face to do. Finally, you can play a "SIMON" game with the face. The results can really be great. Each time it adds one more expression and you try to keep up with it's every move. This module is really cute. Children of all ages should like it because they get to design the face they want and make it do what they want.

FRACTIONS

The Fraction Numbers cartridge is divided into 56 levels of difficulty, covering material generally taught in grades four through eight. (Just right for my level). The program provides practice with a wide variety of skills related to fractions, including finding common factors, recognizing order of fractions, reducing fractions to lowest terms, working with mixed numbers (whole numbers plus a fractional part), finding least common denominators, finding reciprocals, and changing fractions to decimals.

The program includes adding, subtracting, multiplying, and dividing fractional and mixed numbers. Problems are presented both vertically and horizontally. This program assumes that your child has mastered basic arithmetic and a certain degree of mental computation.

It is very simple to use, and you can start at any level, so you do not have to go over the levels you know or have done. Plus, there are several special features that increases its motivational and reinforcement value. Such as, colorful graphics and sound effects that appear in response to correct answers. There is also an unintimidating, try-again approach to incorrect answers. A progress report is posted at the bottom of the screen. A "help" feature that displays the problem step by step until the final answer is found. Advancement to the next level occurs if problems are answered correctly, or it automatically returns to a lower level if your child needs more practice. Question-and-answer activities allow your child to interact with the computer so that the skills of reducing to lowest terms and the relationship between mixed numerals and improper fractions are understood. A special regrouping feature to help your child in rewriting mixed numbers for easy problem solving. Report Screens are personalized with your child's name at the end of each level. An "exit" screen with a complete report on your child's score at the end of the work session. This is a self-paced "tutor", education at its best for a price that can't be beat.

FROG JUMP

Gives practice in counting and ordering numbers. Frog Jump is a one or two player game. The object of the one player game is to collect 20 lily pads in as little time as possible. In a two player game, the object is to be the first to collect 20 lily pads.

When you select FROG JUMP from the menu you are ask to choose a level. The levels are HARD, HARDER, HARDEST. Then you enter the names of the players up to 10 characters. You then get to select a color for your frog.

Your turn will begin when your name appears on the screen. The problem will appear on the screen, a musical tone sounds, the cursor flashes, and the timer begins. You type your answer as quickly as possible and the press ENTER. The number of lily pads you win is determined by the number of seconds you use to answer the problem. Lily pads are awarded as follows:

TIME	LILY PADS
1-2 SECONDS	3
3-5 SECONDS	2
6-45 SECONDS	1
OVER 45 SECONDS	0

This is a example of the difficulty levels.

PROBLEM

HARD LEVEL
A. Give 1 more.
97 98
B. Give 1 less.
54 53

HARDER LEVEL
A. Give the next number.
60,62,64, 66
B. Give the next number.
35,40,45, 50
C. Give the next number.
60,70,80, 90

HARDEST LEVEL
A. Give 10 more.
2783 2793
B. Give 100 more.
8396 8496
C. Give 1000 more.
7549 8549

The hardest level can even prove a challenge for the adult. This is a good module for the whole family to use and have contests to collect lily pads.

MULTIPLICATION I

The Multiplication I module shows your child the "magic of multiplication." It provides a strong foundation not only in the basic facts, but also in later work with larger numbers, colorful graphics and lively music transform the learning factors and products into an exciting experience.

NUMBER MAGIC

This module can show your child that mathematics can be fun and a rewarding experience. Learning activities provide valuable practice and exploration with numbers that is enriching and exciting. Working at the pace and level of difficulty that best matches individual capabilities, children can test and improve problem solving skills and gain a better understanding of the basic functions of addition, subtraction, multiplication, and division. Correct answers are rewarded with good scores, colorful, animated screens, and sound effects. Incorrect answers prompt an encouraging <Try again> from the computer. For children 6 years and older.

PICTURE PARTS

Picture Parts is a mathematics game that allows practice in addition, subtraction, and multiplication. In it you are presented with math problems ranging from hard to harder to hardest. After entering your name you are shown a math problem at the bottom of the screen. If you type in the correct answer you get to pick a feature to add to a face. This is a rather simple game/educational module. However at its current price you really can't go wrong with it.

PYRAMID PUZZLER

This module, by Scott, Foresman and Company, provides practice in multiplication for children in the 9 to 13 age range. The object of the game, for one or two players, is to be the first to reach the top of the pyramid. In a two player game, you race against your opponent. In the one player game, the computer is your opponent. The pyramid is covered in a checkerboard pattern, and the players start in opposite corners. In both versions of the game. You cannot move if your answer is incorrect. You can "bump" your opponent further from the top of the pyramid by moving your marker to his position. This feature puts some challenge. Other than multiplication into the game.

In the single player version of the game, you move one space for each correct answer and so does the computer. However, if you answer the problem incorrectly you cannot move, but the computer moves two spaces. If the computer moves its marker to the space that you are in, you are given an extra problem to answer. If you get it right, the computer gets bumped. If you're wrong, you get bumped.

The module provides a fun way for children to practice multiplication. With the

three levels of difficulty that are available. It should remain useful throughout the time a child is learning multiplication.

READING ADVENTURES

This module, by Scott, Foresman and Company, is one in a series of programs designed to provide basic reading skills. Reading Adventures deals with main and supporting details, drawing conclusions, and recognizing sequence relationships. Each section is divided into two parts, first a "Study It" section where the particular skill is taught, then a "Try it Out" section for practice. "Study It" first explains what the section is about, and has a short story to read. The story is presented in pages, and there are questions to answer before going on to the next page. In "Try it Out", a longer story is provided, again with questions along the way. An additional "All Skills" category has a story that helps the student with all three skills together. The module comes with a reader that has additional stories to read.

According to the manual, Reading Adventures is designed for children in grades 2-4. I believe that the program is best suited for children in the upper range of that age group. Reading Adventures makes very good use of graphics, and rewards the student with animated scenes for correct answers.

READING CHEERS

This module introduces the following word identification skills: recognizing root words with spelling changes before endings and suffixes, recognizing contractions, and recognizing compounds. You can work on just one skill at a time or on all three at once. If for example you are working on root words, you'll be asked to underline the root words in the sentence. The module graphics, and you'll be asked to underline the root words in the sentence. The module comes complete with a very nice colorful reader.

READING FLIGHT

The reading flight module contains four colorfully depicted stories and three practice drills. Three of the four stories concentrate on one reading skill each, in a format entitled "Study It". This module is not to teach children how to read, it is to improve the reading skills of children who are already reading. This module is best suited for children in grades 4 and 5. This module has good activities, graphics, and speech capabilities.

READING FUN

Reading Fun contains four colorfully depicted stories and three practice drills. Speech Synthesizer is optional, but a very nice addition to this module.

After the title screen you are given a menu screen to choose your activity from. The activities are "PROBLEMS IN STORIES", "WHY THINGS HAPPEN", "HOW CHARACTERS FEEL". It is suggested that your child start with activity one. After one of the skills is selected, the following options appear: Press 1 for STUDY IT or Press 2 for TRY IT OUT.

STUDY IT - allows your child to study the skill by reading the story and participating in several activities.

TRY IT OUT - lets your child practice the reading skills previously selected; in a set of five short stories with question and answers.

PROBLEMS IN STORIES - After asking this selection your child will read a story "ALMOST TOO LATE." In this story, a girl is often late for school. This causes her problems which your child is asked to help her solve. Three new vocabulary words are introduced; Promised, Excited and Striking.

WHY THINGS HAPPEN - Another story is given called "WHY BATS FLY AT NIGHT." This story explains why there is darkness and why bats fly at night. Your child is then asked why these two situations occurred. Three more words are also introduced: Africa, floated and Continued.

HUM CHARACTERS FEEL - Gives you the story "THE LION AND THE MOUSE." In this story, a lion and mouse change how they feel about each other. The reader is then questioned about the changes. Three new words are introduced; frightened, tighter, and gnawing.

The subject matter of this module corresponds to material covered in grades 1 through

READING RAINBOWS

This module offers seven activities in three comprehension skills generally taught in grades one and two. They are recognizing part-whole, size and class relationships. They read an interactive story about Clyde the Dragon's search for a Rainbow. Speech is optional with this module.

There are four activities to choose from the main menu.

1. How things are alike
2. Parts and Wholes
3. Sizes
4. The Rainbow Adventure

HOW THINGS ARE ALIKE - You will be shown a group of things on the screen and asked how they are alike. EXAMPLE:(SHOWN) CAP, MITTEN AND SHOE. You will be asked if the are CLOTHES, FOOD or Have WHEELS.

TRY OUT THE SKILL - lets you practice the skill you learned above. You are given a word and asked which group it belongs in. EXAMPLE (GIVEN) CAR. Groups will be 1.ANIMAL, 2.A COLOR, 3.SOMETHING ON WHEELS.

A juggling clown keeps score by adding a ball to the ones he is juggling when a right answer is given.

PARTS AND WHOLE - Gives you pictures of objects on the screen. You are asked if they are for the same thing or not. If they are you are asked to pick out the object they belong to.

SIZES - here you are shown pictures of the same object but different sizes. You are asked which one is largest or smallest.

THE RAINBOW ADVENTURE - uses the skills learned from the above activities. You will be asked questions about objects on the screen and help Clyde find the rainbow. This module also comes with a reader and your child can read together. This module uses a lot of color and sound to keep the interest of the child.

READING TRAIL

This module, by Scott, Foresman and Company, is one in a series of programs designed to provide basic reading skills. Reading Trail deals with recognizing characters, setting, and point of view. Each section is divided into two parts, first a "Study It" section where the particular skill is taught, then a "Try it Out" section for practice. "Study it" first explains what the section is about, and presents a paragraph to read. In "Try it Out", a wizard tells multiple choice question is asked after each paragraph. You must answer a question that deals with the particular eight short stories and the student must answer a question that deals with the skill being used. An additional "All Skills" category tells a story that the student helps make up along the way. Again, questions are asked about the characters in the story. The module comes with the manual, Reading Trail is designed for children in grades 3-5.

According to the manual, Reading Trail has additional stories to read. Reading Trail makes very good use of graphics and music, and has some excellent animated sequences.

SCHOLASTIC SPELLING - LEVELS 3, 4, 5, and 6

The Scholastic Spelling modules provide spelling practice for 600 different words in each module. The words are divided into 36 lessons of twenty words each, with each 6th lesson being a review of 20 words from the last 5 lessons. When the program begins, you are asked for a lesson number to study. After selecting a lesson, the computer lists all the words on the screen and speaks them. You can then choose from 3 different activities. The first is a spelling bee where the computer says a word and then asks you to spell it. You can also ask for clues consisting of vowels or consonants. If you answer correctly, a butterfly tiles across the screen as a short song plays. That Did It! It is a hangman type game. Space Race is just like Spelling Bee except that no clues are given, and instead of a butterfly you get a spaceship flying across the screen. All four modules follow the same format.

I must admit that I had been tempted to purchase at least one of these modules at the retail price of $49. When lex Comp dropped the price to $29 for all four, I couldn't resist. Boy, am I glad I didn't pay full price for them! I am more disappointed with these modules than with any other software that I've purchased for my computer. The

speech used is the TE III type speech which is very hard to understand, and after spelling a few words, the butterflies and spaceships along with the crummy little songs that accompany them get to be too much to bear. The manual says that after you complete a lesson by correctly spelling all 20 words, you get a longer musical reward, but the kids couldn't understand the words well enough to spell them, and I couldn't stomach the short songs long enough to get that far. I can't believe that anyone could take it for any words.

The only bright thing about these modules is the manual. Each one comes with a workbook for the kids, and mine really enjoyed them. All in all, I think you can find much better educational software to spend your money on.

STAR MAZE

This module, by Scott, Foresman and Company provides for practice of division problems through game playing. The game, for one player, involves getting a lost character, called a Thid, through a maze of stars in order to get home to planet Mathid. In order to move Thid through the maze, you must correctly answer division problems presented by the computer. Each correct answer allows you to move Thid to any star in the maze that is adjacent to the one he is currently on. The object is to get Thid home before time runs out, and also to accumulate all the points you can while doing so. The stars in the maze each have a point value, blue stars are worth 5 points, yellow ones are 10. There is one red star on the maze, a Goodid star, that is worth 20 points. Also, when you move Thid to the Goodid star the point values for the other stars are doubled for 15 seconds. There are three Badid stars, disguised as blue or yellow stars, hidden in the maze. If you move Thid to a Badid star, he gets bounced around the maze, and stops on a star farther away from Mathid than before. The game ends when you get Thid home to Mathid, or when time runs out. The time is user selectable for 2, 3, or 4 minutes. The player can also select from three difficulty levels.

Star Maze does not attempt to teach division, but is good at providing a fun way to practice it. According to the manual, the game is mainly for third through sixth grade students, but older children and adults will be challenged by playing in the Master level of difficulty.

STORY MACHINE

This could well be one of the most overlooked educational modules of all. How many times have you written a story and gone off day dreaming that it were really happening. This module allows that to happen. The module understands about 50 key words. As you type the words in, they are transformed into actions on the screen. For example, if you were to type in - "The dog dances near the boy" - it would really happen. As soon as DOG was typed in a dog would appear on the screen. As soon as the sentence were completed a boy would appear and the dog would dance near him. The stories can become fairly involved and once it is finished you can see the whole thing re-played for you. You can even save your stories on cassette or disk to be looked at again. Now only if they'd come out with one to do the same thing with bill paying.

Touch Typing Tutor
Requirements:The Basic Console
Summary:The Touch Typing Tutor is designed to help you learn basic typing skills if you are a beginner or to polish your touch-typing skills if you are an experienced typist.The flexible, varied drills in this module provide practice on:(1) single keystrokes and letter combinations,(2)over 40 frequently used word beginnings and endings,(3)sentences,(4)over 500 frequently used words.

ADVENTURE MODULE

The module "Adventure" allows you to play twelve (12) adventure games as follows: 1- Adventure Land: 2- The Count: 3- Mystery Funhouse: 4- Ghosttown: 5- Mission Impossible: 6- Strange Odyssey: 7- Pirate: 8- Pyramid of Doom: 9- Savage Island 1: 10- Savage Island 2: 11- Voodo Castle: and 12- The Golden Voyage.

The data for each game is stored on the separate "Adventure" diskette or cassette tape. The Adventure module allows very quick access to each adventure game and starts by providing an instruction screen. The adventure module allows you to save each adventure

to the extent you have played each game up until that time.

The action is rapid and the commands and method of play follows the typical adventure game. You use one (1) or two (2) word commands e.g. Help, quit, save games, score and take inventory. You may abbreviate any word by typing the first letter of the direction. You are always allowed word, and directions by typing the first letter of th to restore a previously saved game before losing your turn and therefore the program, when you die, etc.

The adventure module and accompanying diskettes or cassette tapes are an absolute must for all who truly enjoy adventure games.

ALPINER

This is an arcade type game. In it you try to guide a mountain climber from the foot to the top of six progressively more difficult mountains. There are lots of stationary (bears, mountain lions, trees, rocks) and moving (rockslides, avalanches, and icefalls) to avoid. There is even a nasty skunk that will try to spray you. Running into or being hit by one of these obstacles can cause anything from falling back a few feet, to falling all the way down the mountain and losing the life of your climber. It is said that if you make it to the 6th mountain (Everest), you will meet the ABOMINABLE SNOWMAN on skis (I have to take their word that it happens, as I never get that far). Although not required, this game makes good use of the Speech Synthesizer. Male and female voices warn, compliment, and taunt you. It really makes me mad when, after falling 4000 feet down the mountain, a female voice butts in and says "Harder than it looks, isn't it!".

A-MAZE-ING

If you like mazes, you'll love A-MAZE-ING. Different options give users a variety of maze situations. From simple mazes to a cat and mouse situation. Thirteen options with a total of 5,200 different variations are possible. Many hours of fun and excitement for all ages.

BLACKJACK & POKER

If you enjoy an occasional game of Blackjack or Stud Poker, you'll appreciate the Blackjack & Poker Module. Just plug in, sit back and relax while the computer shuffles, deals and handles all the details of play. It allows you to play either game with up to four players. It lets you choose the size of your beginning bankroll. It shuffles the card's, deals the hands, and keeps track of the bets. Also it determines the winning hand(s) and pays off the bets. You can play as long or short a game as you wish, with all the challenge and skills of the games. You can't cheat, and win or lose you come out a winner in enjoyment. I really do enjoy playing the blackjack no matter how much money is in my pocket, or how much I win or lose.

BLASTO

This cartridge isn't one of your all-time great arcade games but I kind of like it. The object is to clear the lanes of dots with your car without being crashed by a car controlled by the computer. You maneuver your car through the maze by using a joystick or the arrow keys on the keyboard. There are breaks in the lanes that allow you to change lanes and you are given a slight advantage over the computers car in that you more for blasting your opponent. 1 or 2 players, nice music (When Johnie Comes Marching Home), several options (trails, speed, mine density, invisibility, obstacles). It's not all that easy to clear the mine field.

CAR WARS

Car Wars is an arcade style game. The playing field is a maze of lanes filled with dots. The object is to clear the lanes of dots with your car without being crashed by a car controlled by the computer. There are breaks in the lanes that allow you more for blasting your opponent. You can only move one lane at a time. In a menu selection before the start of the game, you select the speed of the cars. There are three different speeds. The cars start off in opposite directions at the same speed, but the computers car doubles its speed sometime during the game, depending on the "speed-up level". Another before game menu selection. You can double the speed of your car at any time by holding down the fire button on the joystick, or by pressing the "y" key. If you

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are successful in clearing the maze, bonus points are given and you get another car in your "pit" (you start a game with three cars). The maze then fills up with dots again, and you start another round. The game ends when you lose all your cars. Car Wars is a fun game for all ages, and has good graphics and sound.

DONKEY KONG

Help Mario save his girl. Mario, the fearless carpenter, wants desperately to save his girlfriend from the clutches of Donkey Kong, who holds her captive atop a mass of broken girders. Mario must scale four different structures to rescue his sweetheart. He always begins at the bottom of a stack of girders. Help true love, with only three chances to reach the top of the heap. Mario must climb ladders, lead over a barrage of bouncing barrels, jumping into fast moving elevators to avoid fatal torching by fireballs, sidestep moving buckets of sand and complicated chains of conveyor belts while battling the unrelenting fireballs. With a steady hand and true heart, let true love win out and make it one for the little guy.

FOOTBALL

This is a pretty good module, it would be a lot better if the graphics were improved, but I think this was one of the earlier modules. Two people can play or one person can play against the computer. Players pick out their own team's name and control the offensive and defensive plays. There are eleven offensive and seven defensive plays that the appropriate player chooses from.

HANGMAN

Hangman is a module game just like the game you have played on paper. You are trying to guess a word before the man gets hung.

With the HANGMAN module you can play against the computer or an opponent. You can use the words that are already in the module or create your own word list. You can save your custom list on cassette tape if the cassette tape player is connected to the computer.

ONE PLAYER GAME. You can select to play a regular game or a scrambled game. The regular game places the letters you guess that are in the word, in the proper place in the word. When the scramble game places the letters in the word in the order that you select them. When the last letter is chosen in the word, it is unscrambled and displayed in its proper form.

TWO PLAYER GAME. In the two player game you have several choices you can make for the game. You can each guess on the same word. You can guess on different words or each opponent enters a word for the other one to guess.

Another feature you can add to the game is to place a time limit on each guess. There is a red line that starts flashing under the H or HANGMAN as your turn starts. It takes about 30 seconds for it to reach the last letter in the word. There is no penalty assessed by the computer for the time delay.

The scaffold has 11 pieces. If a wrong letter is guessed, one piece of the scaffold appears in the center of the display. Also one point is subtracted from the score. You continue guessing until the word is spelled or you hang your man.

Another use for this game is to put your child's spelling list into the custom list each week. Then they can practice spelling the words as they play a game. It can prove to be very helpful.

Hunt The Wumpus

Requirements:The Basic Console

Summary: Deep in a dark and twisted maze lives a creature called the Wumpus. Hiding in its lair, the Wumpus wants to ambush careless explorers who enter its cavern.

In Hunt the Wumpus, you play a hunter, looking for clues to help you find the Wumpus and fire a single arrow into its cavern. At the same time, you must avoid the perils of the maze... slime pits, giant bats, and the Wumpus itself.

Hunt The Wumpus has three levels of maze difficulty - Easy, Hard, or Pro. You can also try it Normal, Blindfolded, Express, or Blindfolded and Express.

HUSTLE

A fast action 1 or 2 player game requiring lightning fast hand-eye coordination and quick thinking! You score points by outmaneuvering your opponent or the computer. The games challenge your ability to make split-second decisions while maneuvering a snake or the playing area. Each game has three skill levels. Joysticks optional.

INDOOR SOCCER

Strictly a two player game, you and your buddy can go toe to toe on the field. You set the length of game, name your teams, and control one key player on your five man team. The ball caroms nicely off of the wall as you pass it down the field while your opponent tries to intercept it. You can change your controlled player as well as control the speed and direction of the passes.

MICROSURGEON

This is one of the better modules TI developed for the 99/4A, the graphics are great. A player or players (two can play) perform experimental surgery and treat a variety of different patients. Players use a robot probe as a surgical tool, diagnose the patient's condition and direct the probe through the body toward threatening conditions and eliminate them with medications from the probe. With Microsurgeon you can use joysticks, enjoy multi-screen graphics and choose from three levels of difficulty - student, intern, or surgeon, also speech that simulates the action of an operating room.

MUNCHMAN

Four cunning Hoonos are in hot pursuit of your Munch Man. Can he make it to an energizer in time to change the attack or will the Hoonos eat him? You must out-maneuver four Hoonos, as you try to connect the passages with a chain. Score points by connecting the passages with a chain. The objective of Munch Man is energized.

OTHELLO

Othello is a strategy disc an board game, two people may play Othello, or you can choose the computer as your opponent. Various skill levels are available to players, whether you're new to Othello, as I am, or an expert player. The objective of Othello is to get as many discs of your color as possible on the board. Your success lies in your ability to outflank your opponent by capturing a horizontal, vertical, or diagonal row of the opponents discs between two of yours.

PAC MAN

This is the one! Only if you were born yesterday, you haven't heard or know of Pac Man. It started the arcade game fad. The object of the game is to keep Pac Man happy and healty in his home of mazeland. Pac Man starts the game with four lites (turns). The longer he survives, the more points you score. You score a point for every video wafer that Pac Man eats. You also score points when he eats power pills, vitamins, and ghosts. Everytime he eats all of the video wafer on the maze, he earns an extra life and a new maze full of video wafers. Only when Pac Man eats a power pill and scares the yellow ghosts blue can he eat them, other wise he must avoid the ghosts as they will eat him. So sit back and play away.

PARSEC

Fly into combat with the starship Parsec. Destroy rebel alien fighters and cruisers by out maneuvering them and laying down withering fire from your laser. Then try to survive the deadly asteroid belt. Parsec is made to work with or without the speech synthesizer. With it, it enhances the game by simulating an onboard computer in your starship. It warns you of oncoming alien craft and refueling tunnels, and it congratulates you for good performance. With increasing levels of difficulty to challenge your strategy and skills as a startighter. With great graphics, color, and action this is one of the best modules for the T.I. there is, try it and you're hooked.

ROLE POSITION

Install your engine (cartridge) in your computer and you're off and running. The object of role Position is to pit yourself against the clock and the competition (other high-performance racers). Now is your chance to prove you've got the nerve and skill to be a professional race car driver. Using the keyboard or joystick to steer and increase or decrease your speed, to change from low to high gear. In the extreme upper right-hand corner of the playing screen is your current Lap Time Counter (0'.00). The Time Clock at the center, which determines the remaining time your car has to cross the finish line. The winds down as your Lap Time Counter increases. Also, at the top right is the high and low gear indicator (HI/LO). Your speed as shown can reach a max of 195 MPH. You have 90 driving seconds in the qualifying run, but must achieve a lap time of 73" (seconds) or better to qualify for a race. Once you've qualified, the race that was selected begins in a matter of seconds. So put the petal to the metal, gun it down the straightaways, downshift for the turns and may the best driver win.

STAR TREK

I'm told this one is the arcade game brought right to your friendly TI. Speech, music, action... what more could you ask? The game gets progressively harder as you advance but not much different. Your screen shows three pictures at a time: your gauges, a panoramic view of the galactic area you're occupying, and a simulated three dimensional view from your cockpit. It'll take you a while to learn to quickly recognize the red and yellow Klingon battle cruisers, the blue anti-matter saucers, nomads, used and unused starbases, etc. The pause feature is nice when the phone rings in the middle of a rousing battle.

TI INVADERS

Everybody knows about TI Invaders, one of the first arcade modules put out by TI. The world is under attack by creatures from outer-space, you must use your wits and quick movements to destroy the invaders. A player can use the keyboard or joysticks with the module.

TOMBSTONE CITY

Don't buy this one if you are planning to get the Editor/Assembler. The assembly language code for it is included as their example program. It's an arcade type game but harder than a lot of them. It has good music. The key to doing well is to get out of the city streets as fast as you can and start blasting cacti.

TUNNELS OF DOOM

This is the classic Dungeons and Dragons game in module form. The object is to send a party of from one to four players into a Dungeon to retrieve a King, his Crown, his Orb of Power. The players are assigned certain characteristics including, Hero, Fighter, Rouge, and Wizard. The party is then given some gold pieces and placed in a general weapons store. Here you spend your gold in the best possible manner to outfit your group for battle. The dungeon can be from 1 to 10 floors deep. Each floor has more than 20 rooms on it that are filled with anything from horrible monsters, to spells, gold, fountains, and traps. The graphics in this game are quite good. The action is not arcade type, rather it is more of a strategy game where your wit will determine how you fare. On moderate level, with a party of 5 playing, in a dungeon of 10 floors, the average game will last between 5 and 10 hours. Obviously, you are given the opportunity to save the game at any point. If you enjoy strategy games, or have ever wondered just what Dungeons and Dragons was like, then this should be a must for you.

VIDEO CHESS

I don't think that this particular version will win the international computer chess competition but it sure can handle me with no problem. That is unless I select the lose option. Yes, it does include that as one of several choices available including skill level, beginner game, just using the screen for the chess pieces, save game, and playing up to nine opponents at a time. The graphics are nice and it handles all of the legal moves including castling, capturing en passant, etc. You can learn a lot about the game by asking for hints, asking for help, or by just switching sides when the going gets rough.

YAHTZEE

A few years back the dice game Yahtzee was very popular (well, 15 years is a few to me). Here it is for the TI computer: virtually the same as the game purchased in a local toy department. I like the music, like the game, what more can I say? The only problem with it is that you can't really use it with a group of friends, one or two players is it. I've been able to improve my scores by watching the computer's stategy and emulating it.

HOME FINANCIAL DECISIONS

Thinking about buying a car but unsure of monthly mortgage payments? Considering a move into a new home but wondering what type of monthly mortgage payments to expect?

With the help of Home Financial Decisions, getting answers to questions such as these are as easy as turning on your computer.

Home Financial Decisions is designed to give users a method for through analysis so they can make informed decisions in four areas: buying a car, applying for a loan, changing residences, or planning a savings goal.

By giving the computer basic information such as the desired size and number of monthly payments, down payments, and interest rates, the computer is then able to automatically compute the following types of information - Loan limitation, Size of payments, Monthly property taxes, Monthly insurance payments, Mortgage payments, Appreciation, Market value, Total interest paid, Expected increase in Market value.

Users can effectively utilize it to evaluate alternate choices by simply varying input data. There is no hard copy option.

HOUSEHOLD BUDGET MANAGEMENT

Household Budget Management (HBM) module requires a cassette tape recorder or disk drive to save the data once entered. The HBM module adds 12K bytes of active memory with stored program to the TI 99/4A computer.

HBM module is a step by step guide to better money management. It helps you set budget guidelines, track income and expenses, spot problem areas and keep easily accessible records.

The HBM module is simple to use - just follow the instructions - and with the computer acting as your guide, you can: design an individual, business or family budget plan; track income and expenses on a monthly or yearly basis; analyze spending and project your current expense trends for the remaining year to see the effect on your budget; and record and save your monthly income and expense figures to establish a personal financial history.

The first screen to come up in HBM is the Preliminary Selections List which consists of the following data: 1- see demonstration data; 2- set up for first time; 3- load your data; 4- start a new budget year.

The main index screen consist of the following options: 1- enter income/expenses; 2- analyze data; 3- change income/expenses; 4- change budget; 5- change categories; 6- miscellaneous change; and 7- finish this session.

The analyze data screen consists of the following options: 1- all categories for one income; and 5- total expenses.

The HBM module allows for ninety-nine (99) categories, but you can only actually use thirty-four (34) active categories at any given time.

The color, projection and graph capabilities add tremendously to the usefulness and versatility of this program. You can print your data to the screen or to your printer and save it either to cassette tape or diskettes.

The HBM module is a very useful tool in establishing a budget and organizing your individual business or family finances.

MICROSOFT MULTIPLAN

Microsoft Multiplan consists of a solid state cartridge (module) and diskette. It is used to create an "electronic worksheet". Multiplan is a personal productivity tool that allows you to design "spreadsheets", for row-column calculations - expense statements, planning forms, data analysis, budgets, financial reports and more.

The Multiplan cartridge is designed to be used with the TI 99/4A home computer only. It requires the TI memory expansion unit and the disk memory system (disk drive controller and disk memory drive). For the best operational results you need two (2) disk drives, but Multiplan will work with one (1) disk drive.

The Multiplan electronic worksheet is easy to learn and its versatility is enhanced by the skill of its user. As you become more familiar with multiplan and better able to use its powers, you'll be surprised at how quickly and efficiently you'll accomplish various task.

The two part manual is designed as a tutorial and reference guide. Part one (1) is tutorial and gives an overview of the features of Multiplan. Part two (2) is a detailed reference guide to all of Multiplan's features. Parts one (1) and two (2) compliment one another and will teach you the concepts as well as uses of Multiplan.

Also there is a reference card which readily sets out the function keys; control keys; editing keys; format choices; help features; functions or groups of cells; mathematical, logical and text functions and error values. It is handy concise and very useful.

Multiplan is best learned in the hands on mode. Turn on the computer, insert the diskette, load the program and follow the tutorial and you will be amazed at how quickly you will be able to use Multiplan and how much it will do for you at work and at home.

I use Multiplan at home and it is certainly one program that truly allows the full use of the TI 99/4A computer as a computer.

PERSONAL REAL ESTATE

Many alternative Personal Real Estate investments can be easily evaluated with this module. It can also be a valuable educational tool -- Closely follows techniques used by the Realtors National Marketing Institute. An excellent package for Real Estate agents and investors. It's designed to give you a quantitive tool for evaluating a variety of personal real estate investments -- from apartments and rental houses to commercial and business property. Because the program leads the investor step by step, it isn't necessary to have a sophisticated background in real estate.

Personal Real Estate addressed everything from projected income and cash flow analysis to depreciation, type of financing, internal rate of return, financial management rate of return, and tax calculations.

Personal Record Keeping

Requirements: Audio cassette deck or other storage accessory.

Summary: this module offers an easy method of creating, maintaining and utilizing your own files. This module uses a system of prompts to guide you through the process of setting up your file. The Personal Record Keeping module organizes your files in groups called pages.each page is made up of a list of categories called items of which there can be up to a total of 15.the total number of pages is determined by the number of items and their length. I used this module to keep up with the cost of an addition I put on my house it worked great.

Personal Report Generator

Requirements: Disk memory system or audio cassette deck .A printing device and files created with the Personal Record keeping or Statistics Command Module.

Summary: This module takes already created files and let you create reports such as: personalized form letters, address labels, tables of results, personal calenders and a personal telephone directory. another thing I found interesting is the fact you can delete or add items to a report already generated.

SECURITY ANALYSIS

The user who is a serious investor will be interested in the Securities Analysis software package. Offers users a variety of securities analysis techniques. Financial tools such as stock analysis, Call options, Option spreads, and Cash flow are included. Printed copies are obtainable from this module through the RS232 interface.

STATISTICS

Provides a library of established routines for anyone with a need to make lengthy and difficult statistical computations or analyse data regularly. The program performs a variety of complex statistical computations with speed and accuracy. Leaves you more time to analyse the results and apply them to your particular situation. You can perform calculations in descriptive statistics, including mean, standard deviation and frequency tables. Also correlation, linear regression, inferential statistics -- including T-test and analysis of variance (1 way and 2 way). Significant level calculator for Z, Student's T,F, F, and X t t. Printed copies and files can be obtained.

Tax/Investments Record Keeping

Requirements:Disk memory System,Optional Printer connected via RS232 Interface
Summary:This is a versital module used the year round to (1) Organize your financial data categories and sub categories that suit your own needs.(2) Generate a variety of financial reports.(3) Locate and total specific transactions.(4) Compare income and expenses.(5) Assess your capital gains or losses to help you make better-informed investment decisions.(6)Determine your own worth.

TI-WRITER

TI-Writer Word Processor is designed to bring many of the features of large word processors to users of the 99/4A. Inserting and deleting text and lines, automatic paragraph indention, right-margin justification, automatic word wrapping, overstriking and underlining, moving and copying line of text, and document reformatting are just some of the features of this software package. To use the TI-Writer Word Processor, you need ~ memory System ~ Memory Expansion Cartridge and Program Diskette(both are required) ~ The Disk Memory System ~ Memory Expansion unit ~ RS-232 Interface unit ~ And RS-232 compatible printer.

The items mentioned above are all required to operate the software.

If you do not have TI-Writer I suggest you try to get one, the prices are now low enough to make TI-Writer well worth the money.

EDITOR/ASSEMBLER

The Editor/Assembler is one of the most misunderstood modules of all. In order to use it you must have 32K memory and disk drives. The module is used to write, compile, and run Assembler or machine language. Its purchase can even be frightening. It comes with 2 disks, a module, and a huge 470 page reference manual that begins with "this manual assumes that you already know a programming language, preferably an assembly language." It assumes that you already know a programming language. preferably an assembly language." All of this capability is not really needed or used by the majority of the folks that buy this module. Most folks, myself included, generally use it to run the programs written by those that know what they are doing. When our machine runs in pure machine language, it's speed would be very hard to beat. There are a lot of really fine programmer's out there in I'll land that really understand how to run the machine. It is because of the fruits of their labors that I really recommend that everyone has this module. Even if you never get past the "this manual assumes", you will get to use programs that would otherwise be beyond your reach.

EXTENDED BASIC

In my opinion this is the basic that should have been built into the TI-99/4A. Unfortunately, it was not, so you have to buy the module. Extended Basic offers almost all of the commands offered in Console Basic, with a lot more thrown in, and the speed of most increased. Extended Basic allows multiple statement lines, sprites, much improved screen input and output, and many, many more. Most people will never use this module to actually write programs. Most people use it to run those programs written to take advantage of it's power. At one time, shortly after TI dumped the computer, it was hard

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to swallow only paying $50 for the computer and then paying $99 for the module. Well those days are gone now. The module is down to $49 and possibly still dropping. If you still don't own this "MUST" own module, now is the time to get it.

MINI-MEMORY

This cartridge adds 14K bytes of memory availability to your system (4K GROM, 4K RAM, 1/2 4K RAM) and has a built in battery so you can store either assembly language programs or BASIC files. It allows you to use expanded memory without Extended BASIC and lets you do some of the things that Extended BASIC will let you do. This cartridge and the book "Computer's beginner's Guide to Extended BASIC programming. It's not as good as the Editor/Assembler cartridge for serious A/L work but because it's a line-by-line assembler you can see what's happening as you program.

TI LOGO II

This is TI's version of the famous LOGO language. Logo was developed primarily as an easy language for children to learn. It comes with a basic vocabulary of things that it will do. To do more you define or create new words that are made out of old words. For example, the computer can draw lines. To create a new command called BOX, we tell the computer to go forward and turn 90 degrees four times. This then defines BOX. The main idea behind LOGO was to give children a way to quickly and easily learn how to use a computer. It is presented to them as if they are teaching the computer what to do. (This is all that a program really is anyway). LOGO requires 32K memory, but not a disk system. It will save onto cassette. If you have children that are interested in the computer, but are not old enough to learn Basic, then you should definitely consider LOGO.

DISK MANAGER II

The Disk Manager II module is a utility module to be used with the disk drive and your TI 99/4A computer. It allows you to "manage your disk" once you have begun to acquire several disks and numerous programs and files.

The first screen comes up with four (4) options. Select #2 for English instructions. Then the Disk Manager logo appears. Push the enter key and continue. I always select #4 first in order to set all commands for single disk processing since I only have one (1) disk drive.

As you can readily see this module is a must if you have a disk drive and therefore work with diskettes.

Now you can do any of the other three (3) selections 1- file commands; 2- disk commands; or 3- disk tests.

When you select file commands you have four (4) options: 1- copy file; 2- rename file; 3- delete file; and 4- modify file protection.

When you select disk commands you have four (4) options: 1- catalog disk; 2- backup disk; 3- modify disk name; and 4- initialize new disk.
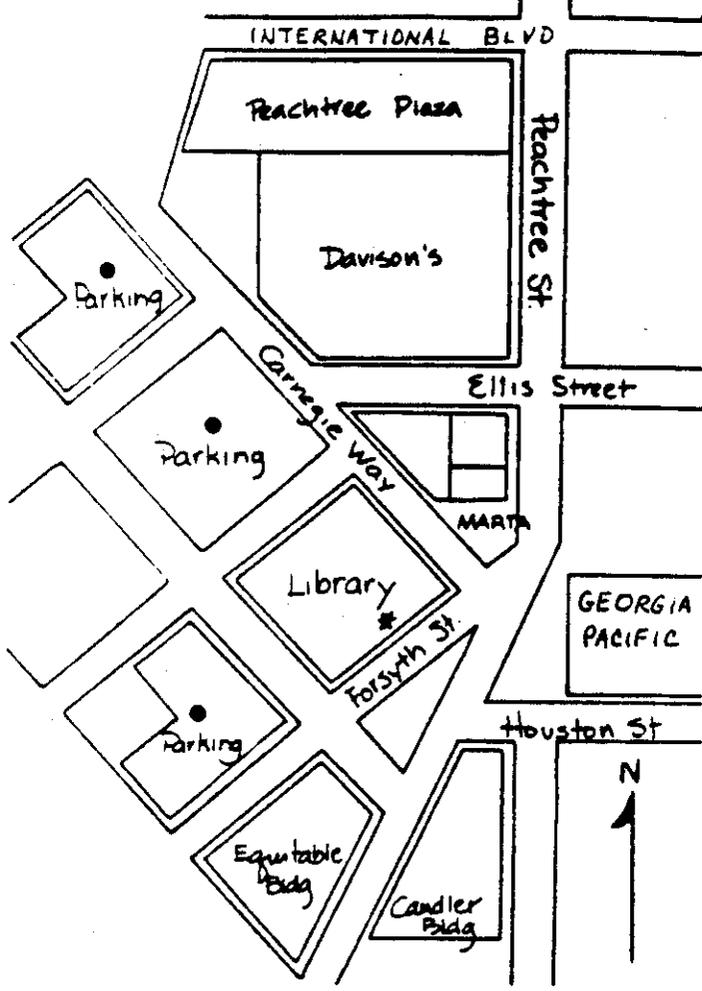
When you select disk tests you have two (2) options: 1- quick test and 2- comprehensive test.

TERMINAL EMULATOR II

The module is usually purchased for one of two reasons. The first is that it is TI's one and only terminal emulator program. The program allows you to tele-communicate with other computers and mainframes. It also allows you to transfer programs and files between two TI Home Computers. In order to do this, you must have at bare minimum, and RS232 interface and a telephone modem. Most people get the many available disk based terminal emulators. It is a lot older and doesn't offer near as many features. However it is easy to plug in and use and it does do TI to TI program transfers fairly easily.

The second reason for purchasing this module is the Text-To-Speech capability it gives to console Basic. The Speech Synthesizer is an amazing device. However, it requires a module to make it speak. The TEII module is the best of the lot because it gives you the ability to have sentences translated directly into speech. This provides excellent opportunities for games, and educational program. If you have just a console and a speech synthesizer, you should consider having this module.

INTERNATIONAL BLVD

Peachtree Plaza

Davison's

Peachtree St.

Carnegie Way

Parking

Parking

Parking

Library

Forsyth St.

Ellis Street

MARTA

GEORGIA PACIFIC

Houston St.

N

Equitable Bldg

Candler Bldg

Atlanta
99/4A
Computer
Users
Group

NEXT MEETING:
SUNDAY, DEC. 15
ATLANTA PUBLIC LIBRARY
3:00 P.M.

FOR MORE DETAILS, CALL 231-0992

(A DONATION WILL BE REQUESTED -
MEMBERS - 50¢, NON-MEMBERS - $1.00)

ATLANTA 99/4A COMPUTER USERS GROUP
POST OFFICE BOX 19841
ATLANTA, GEORGIA 30325

*   DUES ARE DUE THIS MONTH
**   DUES WERE DUE LAST MONTH
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