

# CALL DEWSLETTER

VOLUME III NUMBER 2

FEBRUARY 1985

ATLANTA, GEORGIA

#### PRESIDENTS CORNER

We are now beginning the second year of existence as an orphanned computer. Some good things and some bad things have happened. The main and significant 'bad' is that 99/4As are not currently in production and are not likely to ever be again. We can not expect any future productions of software or hardware from Texas Instruments. The obvious good is the increase of third party equipment good is the increase of third party equipment and software, as well as the large reductions in price of existing TI software. Many suppliers are filling the gap where TI left off and several projects that TI started have been given to the public domain. There are two reasonably reliable upgrades to the 99/4A having gotten past the 'planning' stages. The support for the TI 99/4A has been shown in the last warm to come from the support for the TI 99/4A has been shown in the last warm to come from the last warm to come from the support for the support fo in the last year to come from the many users groups across the country. Our group is hanging in there, but we need an influx of new members and more support from the numbers that we currently have. I can very strongly say that A9CUG has survived and progressed to the point we are at now due to the efforts of Marshal Gordon and Elise Kalfus-Gordon. They will still be very active in the club (In fact Harshal is now the Newsletter editor) but decided not to run for office this year. If a list were made showing how you could help your club, two things would stand out.

1.) Come to the meeings, show up, he there!

2.) Inform others about this club' existence: Put up notices, tell you club's your acquaintances, and bring someone else to the meeting when you come. Those who use their computer at all realise that this is indeed the best computer for the money ever made. It is our job as officers and club members to learn more about it and to help others learn. There are many boxes left to still be opened. Gary Matthews

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#### PHONE PHONE NUMBER

404-231-0994

With the change of administration and President of the club, the phone number has also changed. This number will generally be an answering machine.

Our mailing address will remain the same. \*\*\*\*\*\*\*\*\*\*\*\* TI-WRITER SIG

The first meeting of the word processor SIG will be at 2:00 pm March 17th at the main library. We will have a 45 minute meeting. We must be finished by 3:00 pm so that the regular meeting can begin.

### HOME COMPUTER MAGAZINE

Volume 4, Number 5

Home Computer Magazine finally issued Volume 4, Number 5. We got it in January though they say it was issued in December. They also say that all "subscribers will still receive the correct number of issues they are entitled to based on their original subscription ... All other subscriptions and renewals entered during 1985 will be based of ten issues per year".

Mr Kaplan apparently intends to publish ten issues of HCM, however it is now mid-february and we have yet to see Vol 5, No. 1. HCM has long been the one and only 99/4A based magazine around. They have kept publishing for us despite II's pullout, no other magazine has. I don't like the new look, I don't like sharing space with apples and jr's but I do not want HCM to disappear. I would like, however for Kaplan and his editors to look at what has been doing on and make a more realistic appraisal of what they can do, and stick to doing it. Their worse enemy is the doubt and uncertainty that is created by their lack of consistency in a computer environment.

#### HARDWARE

ASSORTED FACTS AND FICTIONS First for some of the FACTS?

Foundation Computing the original producer of the 128K card has announced a price reduction for the month of February only and only through your Users Group. The Card and the Disk File Emulator Software retail price \$259.95 for \$180.00 and \$6.00 shipping. Cash in advance. Please let Gary or me know immediately if you wish to purchase this card.

Foundation Computing who recently announced the release of their 80 column card, has withdrawn the release date. Withdrawn the release date.
They have also released a CPM card for the P-Box. Price \$349.00 contains a 4Mhz Z80a chip with 64K of built-in RAM, two RS232 ports and a double density disk controller. No configuration was stated so I cannot say if it is trully CPM compatable, or with what system.

CorComp has decided to shelve the 99/8 in favor of financial fitness. (Good for favor of financial fith them, bad for our growth).

Their Disk Controller is now compatable with the 128k Card of Foundation. And all fixes necessary have been completed. It is in this editors eyes truly a best buy if you are considering expansion.

For anyone with a RS232 card by Corcomp that was built before February 84, and you have or intend to purchase a Disk Controller from Corcomp, send back the RS232 card for modification, it works properly with the TI Disk Controller.

#### HARDWARE ... (Cont from pg. 1)

MYARC who produced the first and only hard disk for the 99/4A, and also produced and marketed the first non-TI P-box for the 99/4A is producing its own RS232 card, and Disk Controller, a double sided, double density, four disk version but one that requires TI's Disk Hanager 2 (supplied with purchase). MYARC has just announced a 32K card with printer spooler, and expandable to 128k. I have not seen the card operate and I have not seen the literature so what I am repeating may not be correct.

There is also a rumor running around that MYARC is in the final stages of producing the 99/8, and a CPM card.

Speaking of rumors there is another one that a group in Florida is trying to build an expansion card for the P-Box like the CPM card or the Pascal Card, on power-up it will take control of the console. It is rumored to be capable of addressing 1,000,000 bytes of RAM.

New game to play. You all remember when I made flippy-floppys of my single sided disks for my single sided drive, well I'm up to the same game. This time though I'm making them double sided, double density. I've been working with them for a short while now so far no trouble except remembering where I put a program. Its fun having 1428 sectors on one disk, without CorComp, but it does make it hard to find where that program is.

Morning Star's CPM card has been up and running for some time now, but I just don't know anyone who has one that I can report to you about.

SCI TECH a company from silicon land has started work on a 64k expanable to 256k RAM Disk Card. This card will have an optional external power supply which will allow the data stored to remain in memory, even with the console and the P-Box turned off. Due in March 1985?

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#### HEETINGS

The dates and times for 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 3 p.m. The next meetings are February 17th, March 17th, April 21st, and May 19. For more information call Cary Matthews at 231-0992.

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 5p.m. The next meeting dates are March 3rd, April 7th. and May 5th. For more information call Billy Glass at 961-9199.

EASTSIBE chapter holds regular meetings every other month. The meeting are held on the first Monday of every other month. The group meets at the Clarkston's Womens Club, off N. Indian Creek across the tracks from E. Ponce DeLeon beside the Clarkston Baptist Church. The next meeting dates are April 1st, and June 3rd. For more information call Ralph Danson at 292-3427.

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 ASCUG is incorporated as non-profit and is not affiliated with any commercial company or erganization. CALL NEWSLETTER is published by and for the members of the ASCUG 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 ASCUG. Permission is hereby granted to any users group receiving our newsletter, unless the article is otherwise moted, provided credit is given to the author and to CALL NEWSLETTER. The ASCUG freely exchanges Newsletters with other Users Groups around the country. If another club would like to receive our Newsletter but does not have one of their own to exchange; we will gladly send 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 families ad individuals who own or are interested in using and programming home computers. Membership includes copies of this newsletter as they are published, access to meetings of the main group and sub-groups, subject to the rules of the sub-group, and the groups Public Domain Library. Annual dues are \$15.00.

\*\*\*\* CLUB OFFICERS \*\*\*\*

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Gary Matthews
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Billy Glass
Marshall Gordon
Pat Cameron/
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Bill Kleinsorge
HELP
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Recruitment
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Vice President
Newsletter Chairman
Newsletter Chairman
Program Chairman
Program Chairman
Program Chairman
Program Chairman
Recruitment Chairman
Recruitment Chairman

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#### CAST SIDE CHAPTER (ESCUG)

Raigh Banson President
Bill Dickinson Vice President
Pat. Hester Secretary/Treasurer
Robert Murphy Librarian

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SOUTH SIDE CHAPTER

Billy Glass President
Dennis Hawkins Vice President
We need one Secretary/Treasurer

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#### EDITORS NOTES

#### Disk Drives and FAMILY COMPUTING(tm)

Here I go again, tilting with windmills. For a magazine that says that it supports the 99/4A the writers and editors of Family Computing(tm) know so very little about our computer that it is pitiful.

Although I have a subscription, which I will not make the mistake of renewing, I only read the magazine occasionally. If usually get so infuriated with it that I'H not fit to live with for several hours after I have read it. For example in the Becember 1983 issue Mr. Peter McWilliams in his article "The Layman's Guide To Word-Processing states "Shopping for a TI word-processing program is easy-you have only one choice. TI WRITER, a program in plug-in cartridge form...". As we all know nothing could be further from the truth. For all the other machines at least 4-5 programs were found, but apparently no research was needed on the 99/4A, it wasn't worth their time.

Then in the February 1984 issue they reported that "EasyFiler", "PFS:File", "VisiDex", and "VisiFile" were available for the 99/4A, again nothing could be further from the truth. I called the companies that wrote or distributed these programs and was told the obvious, they weren't writting any programs for the 99/4A. I called family Computing(tm) and I was told that Texas Instruments had given them that information. I really have a hard time beleiving that II gave them any such information. I have an even harder time beleiving that any magazine that doesn't know enough to realize that this needed to be verified knows enough to support 99/4A users.

Now in their September 1984 issue Mr. Louis Now in their September 1984 issue Mr Louis Wallace an apparent expert on disk drives, has this to say. "Disk drives for the II-99/4A are not exactly easy to come by, now that the computer is no longer manufactured." And once again nothing could be further from reality. The 99/4A uses what I have called the Shugart standard, or what is currently called IBM compatible. If you are looking toward nurchasing a big for the standard of the shugart standard or what is currently called IBM compatible. If you are looking toward nurchasing a big for the standard of the shugart that the shugart standard or what is currently called IBM compatible. If you are looking toward the shugart standard or the shuga purchasing a Disk Drive don't buy any

are Apple, Commodore, or Atari compatible, they won't work with the 99/4A. However any drive listed as IBM compatible and is IBM compatible will work with your 99/4A

Listed below are some of the ones that you can use:

Producer	Single Full Ht	Sided Half Ht	Bouble Full Ht	Sided Half Ht
HPI	51		52	•
Shugart	SA-400L		SA-405L	SA-455-2
TEAC		FD-55A*		FD-55B*
Tandon	TM100-1	TM55-1	TM100-2	TM55-2
CDC:			9409	9428
Quне				142
Panasonic/ Matsush	ita			JA551-2N
Mitsubishi				4851

\* half power/for two in one P-box.

I know that we're not getting much from COMPUTE any more, they've just about dropped us. The IUG hasn't published in quite a while. From the rumors going around 'ole chuckles has gone into a new business, he'll sell you a TI-Pro at a very good price. If you'll agree to write programs for it, for his "Public Domain Library". Make sure you read the fine print before you sign that contract... in blood? Hmmmm. Giving the devil his due there are a few good articles in Family Computing(tm), even if they're not for the 99/40, you maybe able to learn from the techniques used. Their programs are so simple that except for teaching children they are not much good. In my opinion the support offered is more in their minds then in any published reality. in any published reality.

If you agree with me, then write them and let them know - though I doubt that it'll do much good it does ones soul good to tilt with windmills every once in a while.

Marshall

#### Programs

#### Available

We have just received an assembly language screen dump. The program which was placed into the Public Bomain is by Banny Michael, of the Shoals 99'ers group a very talented programmer. It will dump single or double sized, horizontal or vertical, with an inverse image option. Danny has given our group a copy of the program for all of our members. If you went out and purchased a screen dump of this caliber expect to pay \$30.00 to \$50.00. It is available to any member, members only for the price of a disk. Banny wants everyone to be able to read, understand, and rework his program so the only restriction placed on the program is that everyone who gets the program gets is that everyone who gets the program gets the source code also. So if you pass it on please pass on the Source Code with it.

The other programs now available area TI's Advanced Assembly Debugger TI-WRITER Enhancements Multiplan Enhancements

Also available is MASSCOPY one of the best Also available is MASSUUPT one of the best sector copy programs available. This program is not in the Public Domain, it is a Freeware program, its free for the taking, but you are asked by the author to send him an amount, in this case \$10.00 for his work. I also encourage you to pay this very low price. The cost of similar programs exceeds \$20.00, and this is one of the best I've seen.

#### TI LETTER

When TI released their last gifts they sent a letter along with them. we've never published a copy of it so here it is.

Many groups have requested the source code to TI-FORTH. Here it is! It's on two diskettes, and the attached instruction sheet should provide you with the instructions you will need.

I have also enclosed a diskette with some enhancements that were made to TI-WRITER and Multiplan has been speeded-up a little, plus you will now have auto-repeat when moving the curser around the screen. Simply replace these files on your Multiplan System diskette with these files on the enclosed diskette: MPBASE, MPCHAR, MPDATA, MPINTR, GVERLAY.

TI-WRITER has been enhanced to provide true lower case letters, eliminate the form feed while using the Formatter, and provide for a printer default while using the Formatter. You will need to add the CHARA1 file to your system diskete and replace the EDITA1 and EDITA2 files with those on the diskette. For the printer defaults in the Formatter, to get "RS232.BA=1200.LF" replace the FORMA1 and FORMA2 files. The other default is "RS232.BA=4800.LF" and replace the FORMA1 and FORMA2 files with the FORMA4800A and FORMA4800B file, while keping the file names FORMA1 and FORMA2 respectively. keping the respectively.

This will be the last letter you will be receivingfrom we, for next month I will be transferred to Dallas to begin working for II's InformationSystems and Service Group. I have enjoyed your newsletter, personal letters and phone calls. I wish you all continued happines working with your TI-99/4A.

Very truly yours,

William H. Barniea Manager Home Computer Software

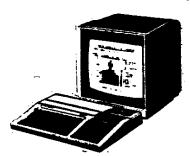
#### FORTH ASSEMBLER SOURCE CODE

These two disks contain the portion of TI Forth written in assembler. The disk contents is as follows:

Part 1 (ASMSRC) is the dictionary entry for the 250 or so primitives that are present when Forth is booted. This is loaded into memory at >4000.

Part 2 (DRIVER) is the code for the I/O system and support for Forth. It contains the disk and screen I/O, the allocation of user variable space, the stacks etc. Because it is more efficient to rearrange memory from the way that it defaults in the Editor/Assembler, this section also includes (in the UTIL\* files) those porting of the E/A utilities that Forth rquires and assembles them to different addresses. A small portion of code is also placed into the console RAM at >8300 for speed reasons.

Also on part 2 is a program called BOOT. After Forth is loaded using ASMSRC and DRIVER, Forth can (after loading the file words) save an image of itself to the VIP RAM and write this image to disk as a program file. BOOT is used to read this image and to reconstruct the Forth system from the image. When booting the Forth system in the normal manner, the file FORTH is the object code of BOOT and the file FORTHSAVE is the memory image of the system. Note that if the size of the system changes, BOOT will have to have some addresses modified to work correctly.



Now for those of you, who like me, cannot make heads or tails out of TI's engineers explanations is an article from Scot Buck of The Daytona 99'ers.

Are there any forth programmers out there who have become slightly crazy tryong to decipher the two disks containing assembly code for forth? I have some good news and bad news for you. First the good news, here is how you decipher the disks.

1. You need two drives and the E/A module, set up to assemble. Place your TI disk A in drive 2 and your copy disk in 1. When it asks for source file, put BSK2.ASMSRC and whatever file name you wish when it asks for object file (expect) by the same thing for disk B using DRIVER as your source file.

2. After assembling each file use option 3 (load and run) on the E/A module and load each.

3. When each file is loaded hit enter to make the program name appear and when it does type FORTH2.

4. If you have done everything correctly you will get a flashing cursor and the words TI FORTH on your screen.

Now for the bad news. All these disks do is load the FORTH I/O code and assembly utilities (the same thing you already have with you regular FORTH disk). In order to have FORTH function, when the program prompt name appears on your E/A module and before you type and enter FORTH 2 put your regular FORTH disk in drive 1 and then enter FORTH 2. This will load the FORTH screens which are on disks A and B.

hope this will help restore some sanity to those of you like myself who have driven themselves crazy with these two disks.

SCOT BUCK

```
This program is reprinted from the newsletter of the San Antonio Area 99 Users Group. The Program is written by J. Volk.
```

What can I do with FORTH? Well, this article was written using the Mini FORTH Writer listed below. The directions are contained as comments between the ()'s. Please note that this as a direct print writer only, you cannot go back and edit a prevously typed line.

This program actually takes less than 250 bytes of memory if you leave out the comments. I admit that it's not fancy like the TI-WRITER, but it will get the job done.

```
O ( Mini FORTH Writer by J.Volk)

1 ( Load Options needed: -Print, -Synonyms then 'RUN' to start,

2 FCTN 4 or CLEAR to end): END ." TYPE 'FORGET END'";

3 : CIT PAD 80 BLANKS; ( Clears 80 spaces in PAD)

4 : ETR PAD 80 EXPECT; ( Enter Text into PAD mem. location )

5 : PTX SWCH PAD 80 TYPE CR UNSWCII; ( After text is entered by

6 ETR, this word turns on the printer, according to your

7 parameter on screen # 72 of the System Disk, and takes the

8 characters kept in PAD and prints them to the printer. A CR is

9 issued, the printer is turned off and control returned to the

10 screen. ): TOP CLS 0 O GOTOXY; ( Clears screen and puts

11 cursor in HOME position. ): RUN TOP BEGIN CIT ETR CR PTX

12 ?TERMINAL UNTIL END; ( Final run word. These sections can be

13 entered directly from terminal without loading the screen. )
```

The following program comes from Rick Mirus of the Cin-Day Users Group of Uhio Free Programs by Ed York

The program below was submitted by Rick Mirus, a Member of the Cin-Bay User Group "The program is written in TI-FORTH and will display a digital clock on the screen (complete with seconds) and fill allow you to continue programming in TI-FORTH.

#### SCR #33

14

```
0 ( clock to start enter hour 1 - 24 and minute and TIME )
 1 0 VARIABLE XX 8 ALLOT 58 XX 2 + C! 58 XX 5 + C! 0 VARIABLE TT
 2 : *UPDATE 1 TT +! TT 2 59 > IF 0 TT !
 3 XX 7 + 1 OVER C2 + DUP 58 < IF SWAP C! ELSE DROP 48 SWAP C!
 4 XX 4 + 1 OVER C2 + DUP 54 < 1F SWAP C! ELSE DROP 48 BWAP C!
 5 XX 4 + 1 OVER C2 + DUP 58 < IF SWAP C! ELSE DROP 48 SWAP C!
 6 47 TT !
  XX 3 + 1 OVER C3 + DUP 54 < IF SWAP C! ELSE DROP 48 SWAP C!
 8 XX 1 + 1 OVER C2 + DUP 58 < IF SWAP C! ELSE DROP 48 SWAP C!
 9 XX DUP C3 1 + SWAP C! ENDIF XX C3 50 = XX 1 + C3 52 = + 2 = IF
10 48 48 XX C! XX 1+ C! ENDIF ENDIF ENDIF ENDIF
11 XX 22 8 VMBW ENDIF ;
12 : TIME 10 /MOD 48 + XX 3 + C! 48 XX 6 + C! 48 XX 7 + C!
13 48 + XX 4 + C! 10 /MOD 48 + XX C! 48 + XX 1+ C!
14 INTLNK 2 ' #UPDATE CFA ISR !
                                   -31804 ! :
15 : STOPCLOCK 0 -31804 ! :
```

This is a clock program written in TI Forth. To set the clock enter the hours and the minutes end enter TIME. The word STOPCLOCK will stop it. Here is a line by line description of how it works:

LINE 8: Remark. Not needed.

- LINE 1: Variable TT will be used to count tenths of a second. Variable XX will be 8 bytes long. 2 bytes for hour, a colon, 2 bytes for minutes, a colon, and 2 bytes for seconds. The time is stored in ABCII so it won't have to be converted before writing to the screen. Char 58 is a colon.
- LINE 2: The word \*UPDATE is the main portion and is responsible for Reeping track of time and displaying it on the screen. The word \*UPDATE will be executed 40 times per second. Each 1/60th of a second 1 is added to TT. If TT is greater than 57 them 1 second has elapsed and clock is updated by lines 3 to 18.
- LINE 3: XX + 7 (units seconds) is incremented by 1. If greater than 9 (ASCII 58) then it is made equal to zero (ASCII 48) and tens seconds is updated

- LINE 4: Update XX + 6 (tens seconds)
- LINE S: Undate XX + 4 (units minutes)
- LINE 4: Correction factor. Adds 478 milliseconds to clock every ten minutes to make up for inaccuracy in clock. This can be changed from 8 to 37 to sion or speed up the clock.
- LINE 7: Undate XX + 3 (tens minutes)
- LINE 8: Modate XX + 1 (units hours)
- LINE 9: Opdate XX (tens hours) If the maximum time has been reached them reset to all zeros. To change from a 24 hour clock to a 12 hour clock change 39 to 47 and change 32 to 30.
- LIME 18: Change time to all zeros.
- LINE 11: Display time on screen. XX is monory location of time data. 22 is the screen location to start writing. Changing this value will change where the clock assears so the screen. I is the number of characters to be displayed. This could be changed to 5 to display hours and minutes only. He seconds.
- LINE 12: Create word TINE which breaks up starting time into tens and units and stores the ASCII value (add 48) in variable XX.
- LINE 13: Continuation of line 12.
- LINE 14s Set up ISR so that the word SUPDATE will be executed 48 times per second. Chapter 10 page 3 of Forth book explains this.
- LINE 15: Word STOPCLOCK stops ISR by putting a zore into memory location -21804 ( hex 6304 )
- This clock will work in the TEXT mode and the SMANICS mode. Veriable XX is actually as array. In line 2 ""S allot" is similar to ""dim XXXII)" in BMSIC. This camend sets aside \$ bytes for XX. If the time was 12:45 the time would be stored like this: XX XX+1 XX+2 XX+3 XX+4 XX+5 XX+4 XX+7 (unrighte names)
- t # 0 (ASELI characters)
- 47 58 52 58 58 48 46 (ASCI) codes).

Since this clack is appleted by an ISR the computer is free to do other things while the clack is running. You can even write and edit Forth programs with the clack running. Her the STOPCLECK custons befor using COLD counsed or Bit-Hap nodes.

#### TI-WRITER

Data Base Files

This is a very powerful word processing program. As an example take a look at what the disk controller automatically alphaped to me while I was working on this newsletter last night. I had just finished along article, but I had been a naughty boy. Caught up in what I was writing I did not save to disk from time to time as I should have. Just as I was about to save to make the completed first draft — a power glich hit, the key board locked up, the screen looked turned into psychedelic checkerboard fireworks and finally went blank. After a few calm curse words I remembered a new word I had seen recently, "Recoveredit". The file was still in the memory expansion if I could get to it I could get the work back. I turned off the Peripheral Expansion System in this case), waited an interminable two minutes and turned the console back on. Calent The process of the process this case), waited an interminable two minutes and turned the console back on. Selected II-WRITER from the menu, and then "1" for edit. Then the moment of truth, was TI-WRITER up to the strain of the big moment, in command mode I entered "RE" then pressed "ENTER", Typed "Y" at the prompt and pressed "ENTER" and low and behold there was my work back on the screen again. there was my work back on the screen again. Except for 'the first line, which was easilly replaced. I then did what I should have while typing, I "SAVED" the text to disk.

TI-WRITER may not be the most fancy program out, and the P-Box may be big, and noisy but they can really do many things that no other computer can manage.



discovery.

Thats great he said, but if you filed all the names in alphabetized groups, like all the A's B's and C's together, then you could use "Find String" to locate a first name, if you didn't remember the last name. Or you could use it to find a street name, zip code or anything else you wouldn't even have to sort each time you wouldn't even have to sort each time you wanted to fange the base of the item was looking fange. the base of the item you were looking for.

No fair I said you've been working with TI-WRITER also.



### Mickey Mouse



Free Program: by Ed York
The program listed below was written by
Cin-day User Group member Dave Rose. The
program does a nice drawing of the famous
cartoon character known world wide as
"Mickey Mouse". The picture, also shown,
was created using the very fast assembly
language screen dump called "SCREEN DUMP".
"SCREEN DUMP" is available from Bright
Micro Komputers.

100 REN NICKEY MOUSE 110 REM 120 REM WRITTEN BY: 130 REN 140 REN DAVE ROSE 150 REM 160 REM CIN-DAY USER GROUP 170 REM 180 CALL CLEAR 190 CALL SCREEN(16) 200 FOR A=1 TO 14 210 CALL COLOR(A, 2, 1) 220 NEXT A 230 FOR B=35 TO 138 240 READ AS 250 CALL CHAR(B, AS) 260 MEXT B 270 RESTORE 600 280 FUR C=2 TO 13 290 FOR D=13 TO 19 300 READ F 310 CALL HCHAR(C,D,E) 320 NEXT B 330 NEXT C 340 FOR F=18 TO 20 350 FOR 6=6 TO 26 360 READ H 370 CALL HCHAR(F,S,H) 380 MEXT 6

390 NEXT F 400 CALL KEY(0, I, J) 410 IF J=0 THEN 400 420 CALL CLEAR ATA CMB 440 DATA 000000000000001,00 00000073F7FFF,0000000080F0F BFC,000000000010303,00073FF FFFFFFFF, OOCOFOFCFEFEFFFF 450 DATA 0303070707070707.FF fffffffffffffff, feffffffffff FFE, 00000000071F3FFF, 0303030 JE1FFEJC1,FFFFFFFFFFFEFCF8 460 DATA 07030301,FFFFFFFFF 1F, FFFFFFFEEE1C1C3C, C3911920 200E112,8C92B200001C22B1.FF7 738381C1C1E1E.FOC 470 DATA 3C3C3E3E3F3F301,202 0262727128001,011939391100FB FC, 1E3E3E3E41,000000000008040 40,2020202110100807 480 DATA 014181404020100F,FC FCFBF0000104FC, 4020508182041 86,40408,000000103070F0F,00 OFFFFFFFFFFD 490 DATA C2F1FBFEFFFFFFF, 24 09F3078FFFFFFF,8000008080C0C OE. 0F0F060404080808, 80003878 78787161, 1F070060F0F0F0F

500 DATA FFFFFF7B3B131F0F.E0 EOFOFOFBFBFCFC, 0808080804040 404,0101,F0E0C,0F0F0F1F1C101 01,F0E0E08,0808080403 310 DATA 001008040ZEF1F0F,00 0000000FF7FBF, 101008080830C EC1,0000000000000E,00000000 001F408.0703010100C03C03 520 DATA BEDEDFEFEF779718.CO COEOEOEOFOFBFC, 1F, OOF8040101 010438,000101010101 530 DATA 8000000000008040,00 OCO20101,1F0B080C0A894804,FB FBF00000810204,F01E0201408,0 00000C030080404,20180403 540 DATA 000000807F.040A1960 B.081900C020180601,000000000 00003FC, 0404040810608, FCFCFC FC3038383C, 0303030300010103 550 DATA FOFOFOFOCOCOCOCO.30 7878300000007.00000000000000 3E, 1C1C1C0404040404, 00000000 00000FB, 000000000000001F 560 BATA 000000000000007E.34 3633333131FEFC, 02060C0C9898F 343.COCOCOCOCOCOF0F0.7070101 01010107C, 7F7F41404040417F 570 DATA 040404050704041F.FB F860804060307C,7F7F41417E404 17F, 1F1F040402020101, 7C7C101 0202040C,FCFC, 6303,F0F0

580 DATA 7C7C.7F3E.1F1F.0000 000000030303,8080808080E0E0E 0,0000000000001E,0000000000 000007,7F7F41414141417F 590 DATA 1C1C08080808080F,71 712121202021F9.FCFC0400F8040 4FC, 0F07, F988, FCF8 600 DATA 35,36,37,32,38,39,4 0, 41, 42, 43, 44, 45, 42, 46, 47, 48 , 49, 50, 51, 52, 53 410 DATA 32,32,54,53,56,57,5 8, 32, 32, 59, 60, 61, 62, 63, 32, 64 , 65, 66, 67, 68, 32 **620 DATA 32,69,70,71,72,73,3** 2,32,74,73,76,77,78,32,32,79 ,80,81,82,83,32 630 DATA 32,84,85,86,87,88,8 9,90,91,92,93,94,95,96,32,97 ,98,99,100,101,102 640 DATA 103,104,105,106,107 ,108,109,107,110,111,32,32,3 2,103,104,105,107,130,131,10 9,107 450 DATA 112,113,114,115,116 ,117,118,119,120,121,32,32,3 2, 112, 113, 114, 132, 133, 134, 13 5.119 660 DATA 122,123,124,125,126 ,127,125,126,128,129,32,32,3 2,122,123,124,126,136,137,13 8, 126

## 

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#### FROM THE NEWSLETTER OF THE CHATTANOOGA USERS GROUP

JOYSTICK-EXT BASIC INTERACTION BY IAN E. SMITH THE PROGRAMMER AT LARGE

>1 CALL INIT
>2 CALL LOAD(16376,74,79,89,8
3,84,49,37,20)
>3 CALL LOAD(8194,37,136,63,2) 48) 74 CALL LOAD( 9460, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 203, 20, 203, 53, 2 03, 78, 203, 231, 204, 71)
>5 CALL LOAD( 9482, 204, 150, 204, 228, 205, 29, 205, 75, 205, 96, 2, 224, 36, 244, 3, 0, 0, 0, 4, 192, 2, 1 )6 CALL LOAD( 9504, 0, 1, 4, 32, 32, 12, 208, 224, 131, 75, 2, 1, 0, 2, 4, 32, 32, 12, 208, 160, 131, 75)

)7 CALL LOAD( 9526, 9, 130, 216, 3, 131, 116, 4, 32, 32, 28, 193, 66, 2, 7, 0, 4, 57, 71, 2, 38, 7, 124)

)8 CALL LOAD( 9548, 192, 6, 4, 32, 32, 40, 9, 129, 208, 224, 131, 118, 209, 32, 131, 119, 9, 132, 9, 131, 5 )9 CALL LOAD(9570.160,67.10.1 29,4,32,32,32,5,128,4,32,32, 40,9,129,160,68,10,129,4,32) >10 CALL LOAD(9592,32,32,4,19 2,216.0.131,124,2,224,131,22 4,4,94,0,112,84,207)

above program requires: TI-Extended contridge, Memory Expansion, and Basic ca Joysticks.

I found that the only thing I ever used my joysticks for was to move sprites, so I said to myself "Write an Assembly Program that will do it for you!", and that is what I did. The program above is the actual disassembly of the memory after the assembly code is loaded. So all you have to do is: Turn everything on, type the program in. (Ed note; 'SAVE' the program before you 'RUN' it. Just in case an error locks up your keyboard. Then 'RUN' it, make necessary corrections and then 'SAVE' the corrected version.) RUN it (until it the corrected version.) RUN it (until it works 0.K.), SAVE it on whatever you have, and then NEW it. Ah, but you're saying "That will kill it.", no it won't once the values are in memory everything is fine. (Ed note: this program will load into low memory in the memory expansion of the P-Box and will not be lost until you turn off the P-Box.) P-Box.)

I would suggest that when you are typing in this program, have someone else call out the numbers to you, it will save you some hassle.

Strange things may happen when you exceed the normal sprite speed limit. The sprite may reverse direction or it may slow down. This is due to the way sprites are handled in the sprite attribute table in VDF RAM.

To show you how to use this program type in the next program after you have the above program up and running and have entered 'NEW'.

>1 CALL CLEAR :: DISPLAY AT(2
4,1):"ASSEMBLY LANGUAGE" ::
CALL MAGNIFY(2):: CALL SPRIT E(#1, 42,5,100,100,0,0)

2 CALL LINK("JOYST1",1,1)::C

ALL KEY(0,K,S):: IF 5=0 THEN

2 ELSE DISPLAY AT(24,1):"EX TENDED BASIC" >3 CALL JOYST(1, A, B):: X=X-B :: Y=Y+A :: IF ABS(X)>127 TH EN X=0 ELSE IF ABS(Y)>127 TH EN Y=0 )4 CALL KEY(O.K.S):: IF S=0 T HEN CALL MOTION(#1,X,Y):: GO TO 3 ELSE 1

Have fun with these programs. If you have any questions or comments on either one please write:

## Ian Smith 2201 Crescent Club Brive Hixson, Tn. 37343

#### CURSOR CURSOR MONTH TWO

From the VALLEY Times, the newsletter of the Valley 99's of Columbus Ga. comes the following:

If you have the Editor/Assembler or Minimemory and are programming in Basic, you can change the cursor shape with a simple POKE. Try this (after CALL INIT): CALL POKEV(1008,0,60,36,36,36,36,36,60) or this: CALL POKEV( 1008, 0, 0, 0, 0, 0, 0, 0, 60)

These pokes carry the same data as line 5 of last months cursor program.

This next program authored by Mr. Burgett, but in my haste I did not make list the group that this is from so my apologies to Mr. Burgett and his group.

NEW WAYS TO PERSONALIZE YOUR PROGRAMS
The primeval urge to mark your territory
comes to computing.

1 ! MAKES A BLUE \*B\* FOR BUR CETT CURSOR WITH SPECIAL COL ORS

22 CALL CLEAR :: CALL SCREEN(
15):: FOR S=1 TO 12

23 CALL COLOR(S,5,16):: NEXT >10 INPUT X\$ :: GOTO 10

(Cont. on page 11)

#### EDUCATION MODULES

Many of us purchased the 99/4A to help our children with their school work. One of the best names in children's learning programs is Scott, Foresman. At the time II left the Home Computer Market Scott, Foresman had written a group of programs for II, for II to release. Although a number had been released prior to II's departure from the market II refused to release the remainder of the programs. The enclosed offering is that remainder, released by Scott, Foresman at a greatly reduced price.

I nearly purchased several of these programs from one of the mail-order houses at prices of \$20.00 apiece. When I learned about this offer I cancelled my purchase. I Called the local Scott, Foresman office and ordered them over the phone. They are selling them on a first come first served basis. If you want any of these programs you'd best make sure you can get them by purchasing them now. these programs

If you do purchase them please tell Scott, Foresman that you saw the ad in your local User Groups Newsletter. It might just encourage them to make disk programs for the 99/4A.

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There are well over 200 Users Groups in the country. The common reoccurring problem is that it is a difficult if not impossible task to keep a current list of all the active groups. Presented here is such a list. Let me first make all apologies and excuses up front in case you know about or belong to a group that is not included here. This list was compiled mainly from all those clubs around the country that send us their newsletters. All the addresses listed are the addresses that were taken from the resultators. In some cases that address will be different than the address that might be considered the 'club's' address. We send our newsletter to many more clubs than we receive, very soon we will send only to those who send to us or those that we have just learned about.

We will still send to those who do not have a newsletter if they will inform us on a regular basis that they still exist (like maybe 3 or 4 times a year).

Another reason to print this list is to show all those who get our newsletter just who we send to in case they would also like to do the same. Any group that has sent us a newsletter since June 1984 is included.

they would also lik	e to do the same. Amy	group that has sent	us a newsletter since	June 1984 is included.
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CURSOR CURSOR, MONTH TWO (Cont. from page 2)

Here's one even more advanced then the last. Its from Danny Michael of the Shoals 97'ers, Muscle Shoals, Al.

I came across a neat extended basic program in the latest issue od the VALLEY TIMEs, the newsletter of the Columbus GA users group. It requires the 32K memory expansion to run. What it does is change the color of the screen and characters while in the command mode of extended basic. There have been some tricks published to do this, but they all have the same problem in that the screen goes back to the black on cyan format if an error occurs. That does'nt happen with this program. But, there's no such thing as a free lunch. This program has a problem too. It makes it impossible for a basic program to change the screen color. There is a easy way around this, but you have to remember a few numbers to turn it off. Here's the program listing ... I'll explain how to use it after you type it in.

>160 DATA 0,0,32,216,32,36,24 4,140,0,6,6 >170 DATA 22,251,4,91

Type in the program, SAVE it, and then RUN it. The screen should turn dark blue, with white letters. This is about the best color combination I have found for my eyes. If you want to change the colors, use this formula:

Character color code minus one times sixteen, plus screen color code minus one.

For example, to change to dark red letters on a light yellow screen: Color code for dark red is 7. 7-1=6, 6=96. Color code for light yellow is 12, 12-1=11. 96+11=107. So now you have a number, what do you do with it? You have to "POKE" it into memory location 9460. This statement will do it. CALL LOAD(9460,107). (Ed note: When you find the right number for the color combination you like exchange it for the first number, 244, in the data statement on line 130.

After you have RUn the program, you can type NEW, and then do your own thing. The screen will stay as you set it. As I said earlier, it is impossible for a basic program to change the screen and character colors without first turningthis program off. Use the following statement to turn it off.

CALL LOAD(-31804,0,0)
If you want to turn it back on again, CALL LOAD(-31804,36,246)

I think this is a gem of a program and I think you'll like using it.