



NEWS

NET 99ER

030
8710
Net 99.



VOLUME 5 NUMBER 10

OCTOBER 1987

Next meeting NOV. 7th
At the Hurst Public Library
9 AM

President: Gary Higgs
v. President: James Crosson

Editor
Ken Dominiec

Treasurer: Ken Dominiec
Secretary: Richard Beckmar

Newsletter Staff
Ken & Pat Dominiec & Doc Graves

The reviews, evaluations and opinions contained in articles in this newsletter are the authors' own and do not reflect the views of the NET 99er KCUG.

Great Lakes Computer Group, Inc.

REPROGRAPHICS BY
XEROX REPROGRAPHICS CENTER
LEWISVILLE, TX

HELPFUL HINTS AND TIPS

Do you have an Avatex Modem? If so these are the cable connection which have, reportedly, worked for others using this modem.

RS232	MODEM
1	1
2	3
3	2
6	20
7	7
20	6

Newsletter of the Central Westchester 99'ers, AUGUST 1987

The Bit Bucket #3

By Art Byers

THOUGHTS ON BLACK FRIDAY PLUS 4

As the anniversary of "Black Friday" approaches, after which we will have remaining only one last year of support for the 99/4A promised by TI, some things are very evident:

First, TI has apparently reduced their inventory of chips, prom roms, cards, pcb's etc. Already they are "out of stock" on quite a few items.

Second, the active base of 99'er enthusiasts is slowly but steadily shrinking. With a very few exceptions, Club size is gradually going down, attendance is dropping at TI 99 Fairs, and one by one some of the best assembly programmers such as Stu Olsen and Danny Michaels have moved over to the 8088 family chip and PC compatible computers.

Last, the Myarc 9640 cannot really be considered as a savior. It is taking its base from the 99/4A. Recent examples are a whole new flock of assembly games in module form (requiring only the console, color RV and joysticks), and a new module based word processor complete with printer interface and cable, the OMEGA terminal program by Travis Watford (32K, RS232 & 1 drive needed) with the capability to display RLE graphics while on-line, and a new module-based XB from Triton that adds many new calls including DRAW, CLOCK, CHIMES, HONK, PEEKrom POKEGram, PEEKVdip, and POKEVdp. Also a new disk-based competitor to TI WRITER rom CorComp is now on the market.

There is a trend to be seen in much of this. Manufacturers are trying to reach the millions of "console only" 99/4A owners by offering new modules.

Dead of dying... surely not YET, with even more new and exciting additions reported to be in the works.

And set all the DIP switches in the "up" position.

Lately I have come across quite a few people who are using the tractor feed on their printer and ALSO have the lever set for friction feed. PLEASE DON'T DO THAT! It not only makes it difficult to load paper into the printer, but it is very hard on the machine and the paper.

Also, I have seen some who let one of the tractors float (do not lock it down). When I first came across this I thought what a great idea it will accommodate any variations in the hole spacing. NOT true! The darn tractor floats around OK, but it moves so much it can mis-feed the paper. After adjusting BOTH tractors, lock them BOTH down.

I have seen, on several occasions, information for getting a carriage return (CR) symbol in TI-WRITER or other WRITER programs. The info. has gone like this...press CTRL U, CTRL M, CTRL U. All of these key presses are NOT necessary because CTRL M (in regular TIW mode) will give you a CR, as will CTRL B.

The battery, on my Gram-Kracker, went belly-up. I tried Radio Shack for a replacement 9CR-2430 and they didn't have one. I remembered that I had heard they were the same batteries used in electronic pet flea collars. I tried a pet store and sure enough they had them. The only trouble is that they come packaged in pairs, 2 for \$3.97. If anyone needs one I have one for sale at \$2.00. The name and address of the pet store is PET CITY, 22011 KELLY, EAST DETROIT, MICH. 48021.

THE EDITOR SPEAKS(again).

This month in the old mailbag we received an invitation to the Chicago TI Fair. This was amo the many good newsletters we receive each month. For those wanting to go it is November 7th at Triton College. For more details on the Faire contact me and I will give you the details of the Faire. And speaking of newsletters, Editors of other Users Groups check your mailing list, we would like to send to all Users Groups but the cost is great. We will stop mailing to all Users Groups who do not exchange with us. If you haven't exchanged with us yet please do and for those who have been, Thanks for all the useful information. The Users Groups that will be dropped will appear in the membership portion of the next newsletter. If your group is having problems with your newsletter like we have had in the past and present let us know and we will keep your name in the list. I would like to Thank Chuck Long for offering to help me with the newsletters. I would also like to put up the job of newsletter editor. If there is anyone out there who would like to try their hand at it. I thought if someone had more time this publication could be better and out in a timely fashion. If not I guess you are stuck with me. Till next month.

ke

President's Memory Dump

Nine down...three to go. It seems like my time as President is all most over, and I'd like take this opportunity to thank the membership and the other club officers for their support during my time at the helm. I have enjoyed every minute of it(well almost every minute!). The next meeting will be held on Saturday, November 7th, at 9:00am at the Hurst Public Library. Charles Bathman will giving a demo of his Myarc 9640, so I know everyone will want to come out and catch this one. Seems like we still have been having problems with the club equipment and at the last meeting we decided that enough is enough. We will be upgrading the club equipment as soon as possible, and I hope to have a new system for the club before my term is up. I ordered a built 512K Grand Ram from Inovative Programing about a month and a half ago, still haven't gotten yet but last time I checked, I was told that they would start shipping in about five days. Keep your fingers crossed for me. When and if it does get here, I will show it at December or January Meeting. I have mailed of a letter to E.S.P. Corporation, in regards to the chip that they offer for sale to upgrade Gemini 10X printers to NLQ capabilities. Will keep the membership informed of this also. Lots of other things happening in regards to hardware and software, I will pass comments along about these things as they become readily available. Our own VP James Crosson is still busy with various projects he is working on, and we all look forward to them. In regards to the format of our newsletter, i.e. 2 or 3 column, regular or condensed print, was pretty well hashed out at the last meeting. With the argument of format versus cost. I hope we resolve this soon and to memberships satisfaction. Seems to be sometimes no matter what you do; there is always going to be someone who doesn't like it. Oh well...all I can say is "Good Luck" to our newsletter editor Ken Dominiec. I know Ken was looking for help with the labels, folding, etc., and he did find a volunteer at the last meeting to help out with this, although the name of the escapes me at this time. I do apologize for that. Thanks also go to Doc Graves for finding someone to print our newsletter at substantial savings from our previous printer. We do appreciate Doc's help with that matter. On another note, recently over the course of the last several meetings we have picked up some new members to the group and would like to take this opportunity to welcome them to our group. It is the membership as whole that makes our club what it is and not any one individual.

Memory Empt

Gar

VP REVIEW

If you haven't guessed it yet it is almost time to have another meeting and it isn't too lo before the election of officers comes up, I hope that everyone is at least thinking about who they would like to nominate. It has been suggested that I run for President this time, however I am not sure that I

can at this time for personal reasons and it would not be fair to the club if I ran and was elected only to have to quit in the middle of the year. I believe that I may be more useful to the club if instead I worked behind the scenes and did some of the volunteer work that I have been harping about for some time. And besides it has been a hard year for me and its about time we have some new blood in the front office with some fresh ideas and some new helpers. Say everybody Gary has got a good domo cooked up with Charlie Bathman and a closer look at the 9640 computer. Charlie says that at first it didn't do much, but now, well lets see what he has discovered at the next meeting. I think that you may be surprised and if what I hear is true then we may have a new upgrade for the TI-994a after all. Oh before I forget the next meeting will be November 7th at 9:00 a.m. at the Hurst library. Until then see ya at the meeting.

James

=====

TREASURY DEPT

Our books look like this;
\$874.52 Aug bal \$ 18.75 Aug
Micropendium \$ 30.00 Aug
newsletter printing \$ 81.00
Sept newsletter printing \$
22.00 P.O. box rental \$
32.01 equipment \$100.00 bulk
mailing (approx \$25 a month
per 200 newsletters) \$590.76
total

\$115.00 Sept deposit \$
3.82 Sept interest \$169.00
Oct. deposit \$882.58 grand
total

As you can see we are pretty stable. Thanks to all who buy the disk of the month and game disk. This has put us on a winning

track. One bit of bad news is that I will not be running for office next year, so if you like to play with money this is the job for you. Well I guess I will see you next month.

NET99'ER MINUTES OCT 3, 1987

The meeting was called to order by Gary Higgs with all officers present. No visitors were present. In the secretary's absent last month the minutes were not taken. The Treasurer report was incomplete. Ken gave as near of a report as he could. Ken Dominiec is also the Newsletter editor. He stated the old newsletter format (4 columns) cost \$60.00 versus \$90.00 for the present format. After a club discussion, a three column format and a two column format would be tried before a decision would be made. A decision was also made to use white paper versus the color. A volunteer was asked to help fold and sort the news letters. Chuck said he would help. Gary told the club that they need to start thinking of next years officers. The present officers will act as the nomination committee. Anyone interested may contact a officer or give them a name of someone else who might be interested. Several Brochures were passed out by Gary. He also mentioned a RGB VIDEO adapter kit available for \$17.00. The Buy, sell, and swap session was then held with little offered. Gary Higgs stated he did not feel good in supporting the planned local TI FAIRE. His reasons being the that the FAIRE was planned by Richard Fleetwood who also runs Armadillo Bytes. Richard was paid

approximately \$1500.00 dollars 6 months ago by one of our members, Ward Ray. This was towards the purchase of a 9640 computer. Ray has still not received his computer. A few other members voiced their problems in getting items from Richard. Roy Willis, a member who is also a member of the other two metro clubs, said that Richard Fleetwood is no longer in charge of the FAIRE. Richard is only responsible in contacting vendors. Roy has taken charge in overseeing the arrangements and coordinating between the clubs. A demonstration of the disk of the month (DOM) and the game disk of the month was tried with no success. Apparently the modified 16 bit bus TI console or the clubs disk drive did not want to cooperate. This was followed with the meeting break. Afterwards Gary gave a brief overview of the DOM and game disk of the month. Then the 16 bit bus TI console was demonstrated with a text file along with James Crosson's speed attenuator. A statement was made by Ken Dominiec that the clubs corcomp interface system should be replaced. The 9640 and many other printed circuit boards could easier be demonstrated with a true TI expansion system. This was excepted with the corcomp system to be raffled off. The next meeting is to be Nov 7, 1987.

-----END OF MINUTES-----

October 3, 1987

I would like to welcome new members:

Ken Anderson M10/88
3713 Springdale Fort Worth
Tx 76111

Laurie Foster M10/88
513 Milam Euless Tx 76039
Donald Hammonds M10/88
5307 Parliament Dr Arlington
Tx 76017-3237 483-2560
461-5444

The following members renewed their membership:

Brent Cooper M8/88 Dr
William Krass M10/88

We had one membership re-instated:

Robert Wessler M10/88
4300 Frazier Fort Worth Tx
76115 926-9869 332-3201

Unfortunately we had some members who did not renew their membership:

Dr Michael McLendon David
L Shivers

The following members will be dropped if dues are not paid at the next meeting:

Leo Parades Mike Reeves
Sarah J Rupe Danny Soto Jim
Stewart

A NOTE TO ALL MEMBERS. Look on your mailing label on your newsletter for the date that your membership is renewable, such as M1/86 is January 1986, M5/86 is May 1986, etc.. The club does not send out reminders on dues because the postage is prohibitive. If you know any of the members who did not renew, please give them a call and see if you can learn the reason. Let your officers know so they can look into the reasons. Your help on this will be greatly appreciated.

John Lambert Membership
Chairman

Cassette

I think that we are finally on a roll here at the cassette library. I have been told by several people that they were having trouble loading and running programs off some of the cassette library's collection of tapes. I

discovered when I used my tape recorder to record something I could play it back without any problems, however when someone else tried they had little or no luck loading, as I found that the problem was in my recorder and to align it would be more than the cost of another recorder. If anybody out there has a TI or Panasonic recorder that they don't need or want the group could sure use it if you would like to donate it to the group library. Ron Miller, our new chief librarian had graciously donated several taped that should be of interest to any new people out there just getting started. I have been working for several years with the North Richland Hills Library on procuring software and hardware for loan-out from the library. I have been told that other computers have been donated to the library for check out as well as software and special hook-ups and instructions to use their equipment. As yet no one has done what was promised 3 years ago and that was to donate a TI-99 4a computer to the library so young people could check out a console and see if they liked it. I don't know how all of you people feel about your machine, but I darn well like my computer and I would like everybody to see what it can do in comparison with those other guys. They bought the speech synthesizer and many other things, but as yet nobody came through with the computer. Since they have been nice enough to invite us to come and visit at the new library, I think that it would be a good idea if we donated at least a good used

console to them for the purpose of educating the people that would like to know about our little machine. Let me know what you think? See ya at the meeting 11/7/87 9:00 a.m.

James

Hardware

I suppose that the hardware project of the month has to be the one that Gary is working on. It is a inexpensive way to get both RGB color and also have composite output for your TI and also share it if you want to with a I*B*M (choak cough !@#%^&*) did I really say that. Anyhow, I'll let Gary explain this one at the meeting. Also the new Grand Ram is supposed to be in by the time we have our next meeting, and the literature that speaks of this card is almost too much to believe. I just hope that it can do all that it claims or there is going to be some very angry people around here. And for the hardy people out there Doc had finally completed the double banked 8k super-cart which is what Gary has been using in place of a ram disk for the last several weeks while he is waiting for his Grand Ram to come in. Doc says that people that want to upgrade their super-carts can trade their's in with him and pay only a small difference and receive the new bank switched 8k super-cart that equals to 16k in one cart. He says he is thinking about making a 32k super-cart in the near future. Way to go Doc!!!! Everybody come and see the 9640 work this time at the library 11/7/87 9:00 a.m.

James

\$

An Update On The Computer Tax Law From The Ft. Worth Star Telegram Computer Newspaper STARTEXT

(10/02/87- 2:56 pm) Fees would drive computer users off networks, House subcommittee told

BOSTON (AP) -- Thousands of computer users, from hobbyists to doctors, would be driven off their electronic networks if the Federal Communications Commission imposes higher telephone fees on them, opponents of the plan told a congressional panel Friday. The harm to computer users and to the infant information-services industry would be far greater than the slight reduction in long-distance rates that might result, they told a House Energy and Commerce subcommittee. Schools would be forced to cut back their use of electronic data bases for research, said John Stuckey, director of academic computing at Northeastern University. Cutbacks also would be forced at hospitals, where doctors rely on computerized medical data bases for quick reference, said Jacqueline Bastille, director of the medical library at Massachusetts General Hospital. "This is a vital service," she said. "Access to biomedical information is needed quickly. Same-day retrieval is critical to quality patient care." In addition, many of the approximately 750,000 home computer users would be driven away from the electronic networks where they read stock reports and news stories, call up airline schedules, and even line up blind dates, said

Richard tenEyck of the Boston Computer Society, the largest computer group in the country with 25,000 members nationwide. FCC Chairman Dennis R. Patrick, however, testified that fairness is the basis of the proposal to raise telephone fees paid by information service providers. The fees, called access charges, are already paid by long-distance callers, he said. "If we exempt one category of users, that means another category of users will have to pay more," he said. "It's not clear to me it is appropriate in an equity sense if it increases the amount borne by low-income voice users." Computer users said electronic information services are already paying their share of phone network costs in a flat-rate surcharge per customer. The access charges are levied on long-distance phone companies to help pay the cost of maintaining the local phone network. The long-distance companies pass those charges on to callers in their rates. The proposal would add about \$4.50 per hour to the cost of connecting a computer to an information network. For low-priced services, the fees would more than double the rates. Floyd H. Trogdon, vice president of Telenet Communications Corp., a computer network that connects computer users with information data bases, said the access charges would raise some of its off-peak rates by 500 percent. He estimated that the access charges from the computer industry would lower long-distance rates by less than one half of one percent. The FCC, when it

adopted the access charge system in 1982, exempted information service providers from the fees because of the fear that the new industry would not withstand the sudden increase in costs. Now, the FCC believes, it may be time to lift the exemption, but Patrick said the computer industry's opposition to the proposal has not been lost on him. "I've personally received more than 1,000 letters against it," he said. However, he added, "We want to see the (computer) networks evolve in response to the economics of the marketplace . . . not in response to subsidies." Under questioning by Rep. Edward J. Markey, D-Mass., chairman of the telecommunications subcommittee and one of two members at the field hearing, Patrick estimated that making information providers share in the costs of the local phone network would lower the amount long-distance companies would pay, reducing long-distance rates by roughly 1 percent. But, Markey said, "It's a cost-benefit analysis that has to be weighed here." Markey said he has received more than 4,000 letters protesting the FCC proposal, and added, "Our highest priority must be to guarantee that these services are widely available and all information flows freely."

END -- COMP12

***EDITOR'S NOTE: The deadline for contributions for the OCT. newsletter is Sat. Oct. 17th

Comments or questions about anything? Contact your officers:

PRESIDENT---: Gary Higgs,

817-738-9290 Startext
MCS1107 V.PRESIDENT--: James
Crosson, 817-281-4868
Startext MC167788
SECRETARY---: Richard
Beckman, 817-232-2852
Startext MC160589

TREASURER---: Ken Dominiec
817-656-1473 Startext
MC151357
Got some interesting info
to share? Articles, letters,
paragraphs, && words of
wisdom are yours to

contribute. Contact Ken
Dominiec, editor.
817-656-1473. Startext
MC151357 THE END

Word Play

May 1987

FROM
PORTLAND OR.
NEWSLETTER

Page 5

Add Printout to Programs

(This program comes to us from the Delaware Valley Users Group)

"Many of us have some of those older programs that were quite useful but they only displayed on the screen and did not print out. Well this program is just what you are looking for!

It will convert any BASIC program and XBASIC programs with certain limitations.

First you should Resequence your program by 10's starting with line 100 (RES 100). The program adds print lines between your line numbers. Also your XBASIC program must NOT contain more than 1 statment per line.

The program leads you through the necessary steps. You must load the program to be cconverted into memory and then save it in merge format. (OLD DSKn.FILE--SAVE DSKn.FILE/1, MERGE).

Then you should load the ADDPRINT program and follow the prompts. Use yet another name for the converted program (DSKn.FILE/2) and the program proceeds to convert your old program to one that will print out. I have debugged and tested this program and it works nicely. Like other programs in this issue, it will be made available to the FUNN Library.

```
100 REM ADDPRINT -
110 DATA 0,95,159,253,200,1,
49,181,199,999,179,247,0,999
120 DATA 156,253,200,1,49,18
1,999,160,253,200,1,49,0,999
,255,255,999
130 REM
140 REM BASED ON AN IDEA BY
PAUL YORKE :
150 REM DISK SYSTEM REQUIRED
160 REM OP$ = "95 OPEN #1:"
IN TOKENIZED STORAGE
170 REM EN$ = ",OUTPUT" IN C
ONDENSED DISK CODE (TOKENS)
180 REM E$=END OF PROGRAM
190 REM F$="PRINT #1:"
200 CALL CLEAR
210 PRINT " THIS PROGRAM WIL
L CONVERT ANY NON-MODULE DE
PENDENT PROGRAM TO PRINT
TO A NAMED OUTPUT DEVICE."
220 PRINT : " IT DOES THIS BY
ADDING AN OPEN STATEMENT AN
D REWRITING"
230 PRINT " ALL PRINT STATEM
ENTS ADDING OUTPUT REQUIREME
NTS."
240 PRINT : " PROGRAM MUST HA
VE ONLY ONE STATEMENT PER LI
NE."
250 PRINT " THE ORIGINAL PRO
GRAM MUST BE SAVED IN MERGE
FORMAT."
260 PRINT :: INPUT " PRESS E
NTER TO CONTINUE":T$
270 PRINT ; " YOU MUST RESEQU
ENCE YOUR PROGRAM BEFORE S
AVING IT IN MERGE FORMAT.":;
:
280 GOSUB 530 :: OP$=T$
290 GOSUB 530 :: EN$=T$
300 GOSUB 530 :: F$=T$
310 GOSUB 530 :: C$=T$
320 GOSUB 530 :: E$=T$
330 PRINT :: INPUT "PROGRAM
TO BE CONVERTED? " :IF$
340 PRINT :: INPUT "NAME OF
MODIFIED PROGRAM? " :OF$
350 IF OF$=IF$ THEN PRINT "N
AMES MUST BE DIFFERENT!" ::
GOTO 330
360 PRINT :: LINPUT "NAME OF
OUTPUT DEVICE? " :OD$
370 PRINT : "A - ADD OUTPUT T
O DEVICE": "C - CHANGE FROM
SCREEN TO OUTPUT DEVICE":
: "SELECTION"
380 ACCEPT AT(23,12)SIZE(-1)
VALIDATE("AC")BEEP:T$ :: S=-
5*(T$="A")
390 OPEN #1:IF$,DISPLAY,VAR
IABLE 163,INPUT
400 OPEN #2:OF$,DISPLAY,VAR
IABLE 163,OUTPUT
410 OPEN #2:OP$&CHR$(LEN(OD$
))&OD$&EN$ :: P=1
420 IF EOF(1)THEN GOTO 460 E
LSE LINPUT #1:T$ :: IF T$=E$
THEN GOTO 460
430 GOSUB 570 :: IF C=156 TH
EN L2=L2+S :: GOSUB 560 :: P
RINT #2:LN$&P$&SEG$(T$,4,160
)
440 IF C=139 OR C=152 THEN G
OSUB 560 :: GOSUB 510 :: L2=
L2+5 :: GOSUB 560 :: PRINT #
2:LN$&SEG$(T$,3,161)
450 GOTO 420
460 L2=L2+10 :: GOSUB 560 ::
GOSUB 510
470 PRINT #2:E$ :: CLOSE #1
:: CLOSE #2
490 PRINT : "THE CHANGED PROG
RAM WILL THEN BE IN MEMOR
Y AND YOU SHOULD SAVE BEFO
RE RUNNING IT."
500 STOP
510 IF P THEN PRINT #2:LN$&C
$ :: P=0
520 RETURN
530 T$="" !CLEAR STRING
540 READ C :: IF C<256 THEN
T$=T$&CHR$(C):: GOTO 540
550 RETURN
560 LN$=CHR$(L1-(L2>255))&CH
R$(L2+256*(L2>255)):: RETURN
570 L1=ASC(T$):: L2=ASC(SEG$
(T$,2,1)):: C=ASC(SEG$(T$,3,
1)):: RETURN
```

OBSOLESCENCE IS A STATE OF MIND

(This article originally appeared in an advertising supplement to the New York Times in Nov. 1986; which was prepared by members of the the staff of CMP COMMUNICATIONS INC. of East Brunswick, NJ)

Webster's dictionary defines obsolete as something that's no longer useful. But the personal computer industry has a very different definition. When personal computer makers and software companies talk about obsolete, they're referring to products that are no longer the newest and the greatest. And, because technology in the computer industry advances at breakneck speed, those products could be just a couple of months old. Personal computer vendors update their machines frequently - sometimes several times a year.

But that doesn't mean older products are obsolete.

Just ask Henry Forfa.

Forfa, president of Boulevard Lunch Service, a New Jersey company that distributes food to lunch trucks, runs his entire business on two Processor Technology Sol Computers - a forerunner even to the Apple personal computer. But Forfa doesn't consider his Sols obsolete. "I run these machines from 9:00 AM and they don't stop until 6:00 PM at night," Forfa says. "They're constantly processing information."

Forfa bought his first Sol in 1978. The machine has only 48 Kbytes of memory. [EM Same as an expanded TI99]. But he manages to do almost all of his invoicing, inventory control and production work on the machine.

"I could never have been in the position that I am today without this machine," Forfa says. "The only reason I'm considering using new computers is that you can't get parts for my Sols. It's sort of like running an antique car."

Forfa did buy two new personal computers, IBM's PC XT, but those machines have been sitting around for two and a

half years. "I can't program software that does what I want," he says.

Forfa isn't unique. Nearly every computer users group in the country lists members still using what are now known as obsolete computers - products made by companies now no longer in business or products that are several versions old.

These people continue to use their machines despite the common perception that they are obsolete products. That perception is often promoted by the personal computer manufacturers themselves.

"We might give people the idea that they've got to keep buying new products and upgrading," says one executive with a major personal computer company. "It's not a conscious thing. But the technology keeps advancing, and we want our products to keep advancing, too."

Some industry insiders do their best to dispel the idea of obsolescence.

"This whole myth of obsolescence is ridiculous," says Gordon Hoffstein, president of Microamerica, a company in Waltham, MA, that wholesales all sorts of personal computer products to computer dealers throughout the United States. "Every product on the market is technically obsolete the day it comes out, because somebody else is improving the technology."

"Key to deciding whether or not a personal computer is obsolete is determining whether it does what the user wants it to do," Hoffstein says. "There is a difference between technical obsolescence and functional obsolescence," he says. "If you have a 1985 car, is it obsolete when the 1986 models come out? Absolutely not."

Technical obsolescence, for instance, might mean personal computers that run an older operating system called CP/M. Most of industry now uses a newer updated operating system called MS-DOS. (Operating systems are a set of programmed instructions on a computer that allow the software to work with the hardware.) Users who still run CP/M machines may have some trouble finding software.

Technical obsolescence can be overcome in some cases by adding additional products, call add-ons, to personal computers. A healthy add-on industry made up of companies marketing products, such as external disk drives for more storage, boards that add memory, boards that improve a computer's graphics capabilities, and other similar products have sprung up in recent years.

Functional obsolescence, on the other hand, means that user simply outgrows the machine. He may want more storage for his data, or a personal computer that runs faster.

Until a user finds himself in either situation, his computer and software products - no matter how old they say be - are just fine.

"Obsolescence is a thing that happens between an individual and his computer," says Alex Randall, president of the Boston Computer Exchange. "It isn't obsolete because a new piece of equipment comes out. It's obsolete when the individual says it doesn't do what he wants it to do any more."

So will your computer become obsolete? Eventually yes, but if you are using it as a tool in your business it will last as long as it performs the function you purchased it for.

POSTSCRIPT

by Ed Machonis

I first read the above article nearly a year ago and it seemed almost to be directed at the TI community. At the time we were all awaiting Geneve's debut and rumors were flying that Craig Miller was up to something big. Today, with both Geneve and the Turbo XT on the market competing with numerous IBM clones and compatibles, the article seems more germane than ever.

I certainly hope that someday I will purchase a new computer. It will mean I have lived long enough to have outgrown my TI. I am thankful that I have been able to see the dawn of the personal computer and to have been able to play a small part in it. My only regret is that I was born about 40 years too soon.

For the present, my TI99/4A is doing everything I had hoped it would do when I purchased it, and then some. Black Friday has proved to be a blessing in disguise for me. At the time I was still using a cassette recorder and a small black and white TV. Today I own two complete expanded systems, one serving merely as a spare parts repository. One of my systems has been upgraded with a RAVE keyboard and it certainly meets a long felt need. Multiplan's less than lightning like speed has me seriously considering adding 32K memory to the console and one of these days I hope to find time to quiet that faa.

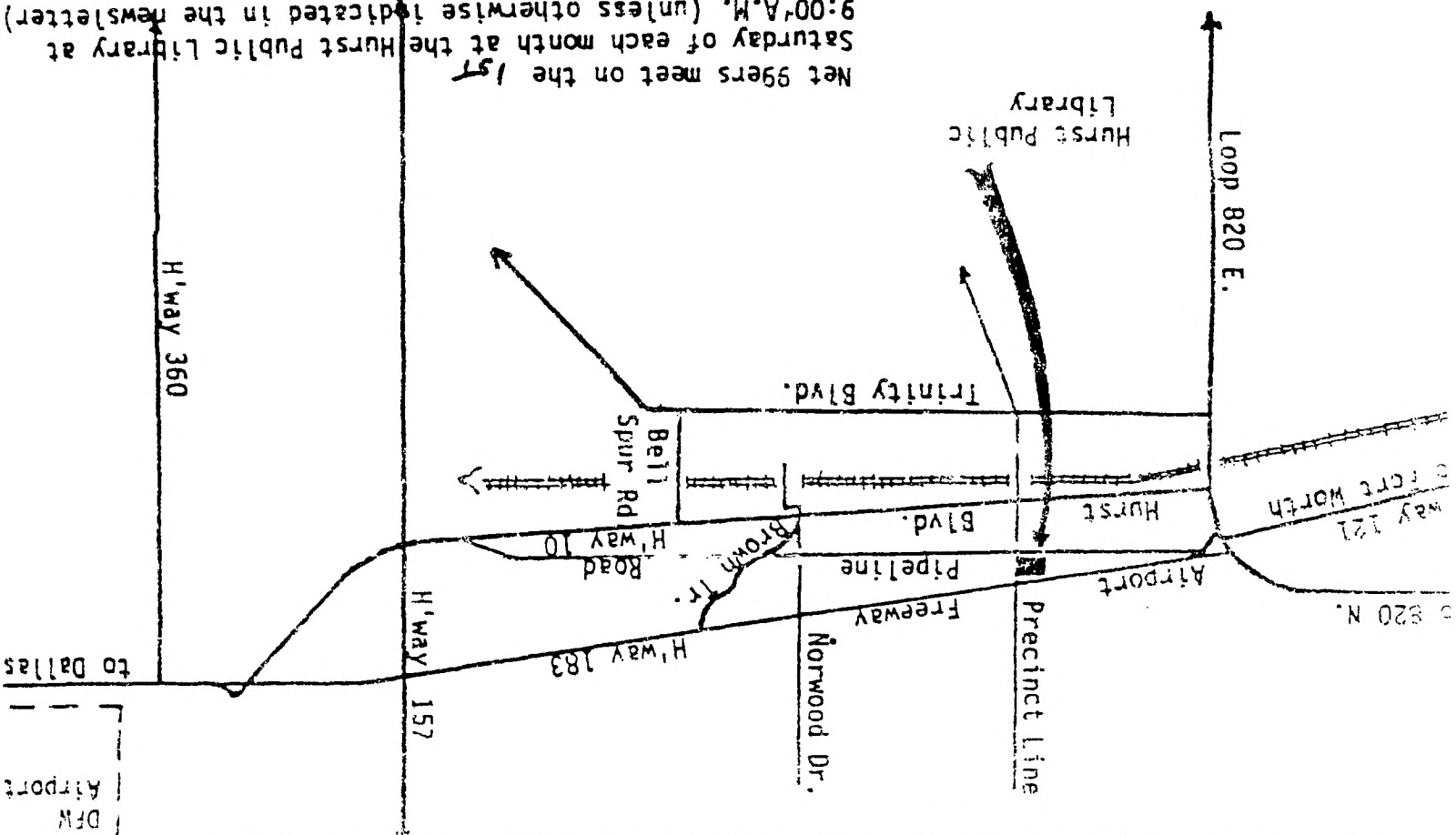
For those who want to stay with their TI99s, there are many add-ons available. If you don't own one, an expanded system

should be your first consideration followed by a second disk drive. Depending on your needs and the depth of your pockets, you may want to look at the MYARC and CORCOMP disk controllers, RAVE keyboard, HORIZON RAM disk, RGB monitor and adapter, 80 column cards, etc., etc.

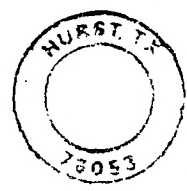
If you find you need many of these upgrade features, perhaps you HAVE outgrown your computer and you should compare the cost of the add-ons against the price of a new computer.

But just because an add-on is available, it doesn't mean you need it. I thought I needed a color monitor and find I use its amber screen almost exclusively. DON'T THINK YOUR COMPUTER INTO OBSOLESCENCE! Remember Henry Forfa's IBM PCs sitting on the shelf.

Net 99ers meet on the 1st
 Saturday of each month at the Hurst Public Library at
 9:00 A.M. (unless otherwise indicated in the newsletter)



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