

8709  
08797



# TACOMA USERS USERS GROUP NEWSLETTER

MAILING ADDRESS  
P. O. BOX 42383  
TACOMA, WA 98442

Volume 4

SEPTEMBER 1987

No. 9

## *From the President . . .*

Greetings to you all again. Sorry about missing a letter from the president in the August Newsletter. About the time the letter should have gone in, I was spending some time in school in Dayton, Ohio getting more training for my job with NCR. Also had to miss the second meeting of July.

This is the time of year to get into the fall schedule of events. Hate to think that summer is almost over. Try to get back to the meetings and support your club. We are going to have some good demos coming up at our 2nd meetings of the upcoming months. Also need ideas of what you want to see as a demo. For those who don't know, our 1st meeting of the month is primarily a business meeting with some open discussion.

### **TACOMA USERS USERS GROUP**

#### **OFFICERS**

**PRESIDENT**

VERN SCHROTENBOER...848-6872

**VICE PRESIDENT**

WALT TODD.....572-8716

**SECRETARY**

LARRY HAWK.....564-3884

**TREASURER**

RON PREWITT.....474-7310

**LIBRARIAN**

BOB HAUN.....584-3938

**EDITOR**

ART DANIELS.....564-3434

## COMING EVENTS

**SEPTEMBER 17**  
Demo on the GENEVE 9640  
at the Regular Meeting- 8 p. m.

**SEPTEMBER 26**  
TI FAIR  
Sea-Tac Holiday Inn  
10- 5 p. m. - Three Dollars

**OCTOBER 15**  
DEMO ON CSGD  
at the Regular Meeting- 8 p. m.

# **DUES ARE DUE**

Also will try to keep up with having a doorprize and/or sell tickets for a \$15.00 software certificate with our club or some other worthwhile prize. We are selling chances to participate in the door prize for 25 cents and the other tickets for 50 cents or 3 for \$1.00. Try to make all the meetings and watch the newsletter for coming events. Don't forget the TI FAIR coming up on Sept. 26 at Sea Tac Holiday Inn.

Called Bob Haun and talked to him and found out he is feeling much better. Not doing much Library work yet. Hope this takes care of your problems, Bob. Sure glad to see you back. Just to remind you, the library has some great programs and keeps getting more in all the time. Look at what is there and use it. Get your orders in and don't forget to get your loaner disk back. Hard to beat the price.

At the August 20 meeting, we saw a very informative demo on Genie given by Wally Dubberly. Showed the many subjects on Genie and the various ways Genie can be used. Wally used PTerm99 program to access the Genie board and to save downloaded files for later use. Very interesting demo. Thanks Wally for the time and effort put into this demo. We have several people in the club that subscribe to Genie and are getting very good information and programs.

Also we are getting a lot of newsletters from other clubs and they have very good articles in them. The article on Data Bases that was in the August newsletter, I copied that from a newsletter that we received from another club. We have also had some very good articles in our newsletters from some of our own people. Just read the ADVANCED TECHNIQUES article by Walt Todd on helpful tips on using Multiplan that was in our last newsletter. Thanks go to all who can contribute. There are also other tips on Multiplan in some of the other newsletters if you are interested in that. Keep your eyes and ears open for anything of interest and turn it in to Art Daniels by the 25th of the month so other people can share in what you know. Your newsletter needs your help.

Remember one of the purposes of the club is "To encourage the use and enjoyment of the TI99/4A Computer." Help by getting involved in Club activities and meeting discussions. Bring us some of your ideas.

Sincerely do hope you all had a good summer and we look forward to seeing more of you at the meetings. If you have any questions, please call one of the numbers listed in the newsletter.

Till next month,  
Vern Schrottenboer

2nd Annual  
**TI 99-4A  
 FAIR**

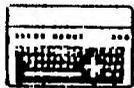
SEPT. 26, 1987

10 a. m. - 5 p. m.

SEA-TAC HOLIDAY INN

Seattle, Washington

ADMISSION - 3 DOLLARS

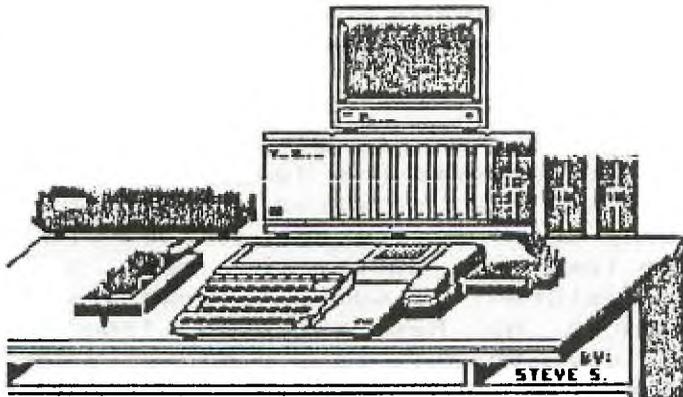


A SPECIAL MINI SHOW  
 Sponsored by  
 STATE OF WASHINGTON TI 99-4A  
 HOME COMPUTER USER GROUPS



Featuring ---  
 Consignment Tables, Door Prizes, Buy, Sell,  
 Trade Computer Items that Interface with TI '99

FIRMS AND USER GROUPS ATTENDING WILL BE:  
 COMPUserve Jim Horn - Genie Scott Darling - ASCARD Software Chris Bobbitt - DISK  
 ONLY Software - RECHATRONICS Franz Wagenbach - AYARC, INC. Jack Riley and Lou Phillip  
 - Queen Anne Computer Shoppe Barb Wiederhold - Bits and Chips Janie Lawrence -  
 MILLERS COMMUNICATIONS Dave Miller - COMPU-SHOP - Puget Sound 99ers - Tacoma 99ers  
 - Tic Tac User Group - TI Orphans User Group - Kitsap County User Group - Houston  
 User Group and Many, Many More



**TACOMA  
 99ers  
 Users Group**

COME AND SEE WHAT YOUR  
 99-4A CAN DO FOR YOU



MEETINGS - 1st and 3rd THURS. - 8 p. m.

South Edd Pool Building - 482 E. 56th Street - Tacoma, WA

For More Information Call 474-7310

# OPEN LETTER REBUTTAL

One TI Group's Reply to Harry Brashear's Letter!!!

(Downloaded from GENIE BBS)

Don't get me wrong! I'm still as much a TI'er as I have ever been but I do take exception with some of Harry Brashear's comments that were in this area last week.

First, I have two TI systems, one running Villa-TI, our group's BBS, and the other tied by RS232/2 to COMM2 on my IBM XT clone, which I bought while out at TI-Fest West last May. I have only used my clone for a couple of months but I can see that there are things that it can do that the TI simply can't. Most are due to the severe lack of memory in the TI. When you see a clone copy a DSDD disk in one pass, this fact is painfully clear. As to word processing capability, I'm not sure who Harry was referring to in his piece when he mentioned "a former member of Front Range Nin(e)ty-niners" who couldn't write a letter on his clone. I have a program that you can get for less than TI-Writer used to be, which will do everything that TI-Writer could do and more, including on-line spell checking while you type a document. Perhaps the individual he spoke of didn't have the DOCs for the program he was using (if you catch my drift). If one is using bootlegged software, it is often difficult to get it to do what you want if you don't have the complete DOCs.

As for multi-computer groups, I would probably agree that it is better to join another group for one's other computers, although I see little difference between a clone SIG and a 9640 SIG in a TI group. The 9640 is a different computer as is a clone. If there is any doubt of this, I quote Walt Howe in this July's Boston Computer Society newsletter, "If you have a 9640, the only working emulator at the moment is Paul Charlton's modified Fast Term". In speaking of the FAIRWARE fee, "Don't consider that if you already paid him (Paul) for your 4A program, you have a right to it", referring to the 9640 version. "With FAIRWARE, you are expected to pay for each computer you use it on, particularly if they are different computers." Furthermore, let's remember that even the prestigious LA 99'ers were forced to share the upper level of the Shrine auditorium with the Amiga group in order to make TI-Fest West economically feasible.

I especially take exception to Harry's crack about Craig Miller. Craig is in business to make money. He supports his family by turning out software and hardware products. When our esteemed TI community could do nothing better than turn out copiers that caused him to discontinue marketing software due to loss of sales, he had little choice but to move on to greener pastures. I would like to see how long Harry could survive on the revenues he has received from his software offerings. For most of us, the TI is a hobby or second occupation. We don't depend on it for our livelihood. Craig does, and the TI community has no one to blame but itself for his departure! If the TI community does not survive, it is because it has generated the seeds of its own destruction. How many have software that they use and have not paid for? Why do some feel that because they paid for their hardware that they have the right to use every piece of software that has been written without compensating the authors? When they buy a car, do they feel they should get gas for nothing? Apparently so!!!

As for software, I have used 4A/Talk, Fast Term, F-Term, Mass Transfer, TE 1200, TE II, Omega, and TE 3, to mention a few, but to compare any of these with Procomm is ludicrous. The TI programs are good as far as they go, and the programmers who wrote them made excellent use of the space they had, but Harry touches on the exact point I mentioned before..... lack of memory. Mass Transfer uses up 38.4% of the TI memory while Procomm uses only 19.5% of the clone's. Furthermore, Procomm has earned it's authors well over a million dollars as FAIRWARE according to a Kansas City Times article which was reprinted in the Rocky Mountain News on July 21st of this year. The basic price for this program is \$25 so you can see that they have sold a bunch! As for the prices of other clone software you can pay as much or as little as you want and get excellent programs at either end of the spectrum. I bought a spreadsheet for \$30 that will do far more than TI's Multiplan including computing and printing line, bar, and pie graphs from the data on your spreadsheet. It recalcs faster than you can enter your data so you don't have to disable it. I'm looking at an ad this very moment for an integrated software package (word processor, database, spreadsheet, mail-merge, calculator, RAMdisk, directory manager, typewriter program, and more) and it's only \$39.95. The software area on GENie for the clone when printed out, is over an inch thick!

So, Harry, let me say that there are things you can do with the clone that you cannot and will not ever be able to do on the trusty 4A, a 9640, perhaps, but not the 99/4A. By the same token, there are some things that a 99/4A will do that a clone, at least my clone, will not do yet. If we never moved on to a new computer, I would still be using a Sinclair computer.

Now, as for the vitality of a group, ours has been doing quite well over the last few years. Our membership has been in the 90's and our treasury is in good shape at a bit over \$2800. In addition, the club owns a complete TI system with a PEB with the standard TI cards in it, three DSSD drives, an AMDEK color monitor, modem, and are in the process of purchasing a TI printer. Our newsletter has been rated among the best by many and our newsletter exchange program has been most successful with about sixty groups on our exchange list. We always attempt to have interesting programs for our members. We have flown in guest speakers from out of town, interviewed others by phone at our meetings, and try to demonstrate any new software that is developed. We have been blessed with good leadership over the years, having four different presidents in our four years of existence, and we will soon have a fifth. Perhaps, Harry, it is time to turn over the reins to someone else. New people have new ideas, and that's what makes the whole thing work. We have had some members buy "new toys" but we have never cast aspersions upon them. We hate to see them leave, not because they have changed computers, but because they are friends and we will miss them. Many still are active on our BBS.

I'm a TI owner and proud of it! I'm also a clone owner, and a TRS-80 owner and I'm proud of that too. Each has it's pros and cons. I made one trip to the Chicago Faire two years ago with a full blown TI system so I could upload items of interest back to our members on our BBS. Try hauling one in and out of motel rooms for four or five days. I quickly learned that it could be done much more efficiently with a

(Continued on Page 9)

# VIDEO DIGITIZER FOR THE 99-4A

\*\* Using the "ImageWise" Video Digitizer with the TI 99/4A \*\*

=====

by Steve Langguth  
(Downloaded from GENIE BBS)

For the past year or so, thanks to the authors of a couple of "RLE" programs, users of the TI 99/4A have been able to view and use high resolution pictures created by the users of other brands of computers. It was great being able to take advantage of all of the picture files that could be found on the various online databases and BBS's. But it also made me realize that something was missing in the world of the 99/4A. Users of other brands of computers (even the 8 bit antiques like the Commodore 64 and Atari 800) had access to video digitizers, and TI users did not. Now, this might not seem like a very big problem to some users, but to those of us who enjoy working with computer graphics it was. Notice that I said "was". Finally, users of the TI 99/4A can digitize images from video cameras and VCR's and put those images into a format that can be used by the various bitmap mode drawing programs available for our computer. This article describes how it can be done.

## The Hardware

-----

In the May and June 1987 issues of BYTE magazine, Steve Ciarcia (BYTE's resident hardware genius) described a video digitizing system that he had developed called the "ImageWise" system. This system is composed of two parts, a "digitizer/transmitter" and a "receiver/display". Each of these parts is contained on a separate printed circuit board. You can buy each board already assembled or in a kit with all the needed components. Or, you can just buy the printed circuit boards (with an EPROM containing the control software) and then buy all the other necessary components yourself. I chose to buy the components myself, and the two parts of the system wound up costing me a total of about \$150 each. When the boards arrived in the mail, they came with detailed instruction manuals and parts lists, including the various part numbers for several of the larger electronics supply companies. Even though I had never attempted a hardware project before, I had little trouble getting everything put together. (I DO have a friend next door, who is a 99/4A hardware "genius", so I could afford to be a little "braver" than I would have been if I had to attempt a project like this totally by myself!) And once I finally got all the components soldered into the correct holes (don't ask!!), both boards worked great. The digitizer/transmitter (d/t) board is, as the name implies, the part of the "ImageWise" system that does the digitizing. Unlike some digitizers made specifically for other computer systems that take several seconds to digitize a complete image (and therefore require your "subject" to not move or your VCR to be set to "freeze frame"), the ImageWise d/t board captures a complete image in 1/60th of a second. It accepts video signals from a standard TV camera (either BW or color), VCR, laserdisc player, or camcorder, and stores the picture as 244 lines of 256 pixels with 64 levels of grey scale for each pixel. The d/t board then converts the stored video image to RS-232 serial data which can be transmitted to any computer with a RS-232 port or to the ImageWise receiver/display board. The receiver/display board (r/d)

accepts serial data from the d/t board or files downloaded from a computer. It converts this data back into a picture suitable for display on a composite video input monitor. Together the two boards allow the user to create a file of digital data that represent an analog video image, use a computer to manipulate this file, and then display the newly "manipulated" image. The July and August 1987 issues of BYTE magazine both contain articles describing interesting image processing techniques that can be performed on files created this way.

#### The Software

-----

As I stated earlier, each board comes with an EPROM that controls what that board is doing. But you still need programs for your computer that allow you to accept the data being sent from the d/t board to the RS-232 and to send a data file from your computer to the r/d board. Also, if you want to display the digitized images on your computer monitor, you need a program that converts the data file into a form that your computer can use. If I was an IBM PC user, this would have been no problem, because the boards come with a disk containing programs for the PC that both "grab" and "show" images. But because my little 99/4A is an "orphan", I had to write these programs myself. To "grab" a digitized image from the d/t board, you simply connect the DB-25 connector on the board to the RS-232 of the computer. The program needs to send a one byte code to the board to tell it what resolution to use (the choices are 256x244, 128x122, and 64x61), then when the program sends to the board a character >11 (XON), the board "instantly" digitizes the picture and begins sending it to the computer. (The baud rate being used is selected by a DIP switch on the board itself.) If the computer must take a "time out" to write to disk, the program simply sends a character >13 (XOFF) and the board stops sending until it receives another "XON". The file created by this program is LARGE. The board sends one byte for each screen pixel. The values of these bytes range from >00 for black to >3F for a pixel that is white. This adds up to a file of 246 sectors for each picture digitized. Of course, the file contains a lot more "data" than 99/4A users can use, because even though our high resolution screen is 256x192, we only have 15 colors to work with and each pixel cannot be colored "independently". Perhaps more of this data will be put to use on the Myarc 9640. To "show" a digitized image on the r/d board, the process is just reversed. A file is simply read one record at a time and then sent to the r/d board via the RS-232. I found that I had to use assembly language to write the "grab" program, but a very simple Extended Basic program worked fine for the "show" program. Finally, because I wanted to use my digitized images on my 99/4A, I wrote a program that will "convert" the information in the files created by the d/t board into a picture that can be saved in TI-Artist format. At first I decided to simply "turn on" a pixel if it was above a certain value and leave it "turned off" if the value was below the "dividing line". Unfortunately, this simple method really didn't give as much detail to the pictures as I knew was possible. After a lot of experimentation I was able to create an "algorithm" that turns on more pixels in the areas that are supposed to be darker, and less in the lighter areas. The converted picture has much less resolution than the original, but it CAN be saved as a TI-Artist picture file (25 sectors), which can then be modified or printed out.

#### Summary

-----

The ImageWise video digitizer system is a fairly simple to build, relatively inexpensive, very powerful video digitizer that CAN be used

(Continued on Page 9)

## From the Library Desk . . .

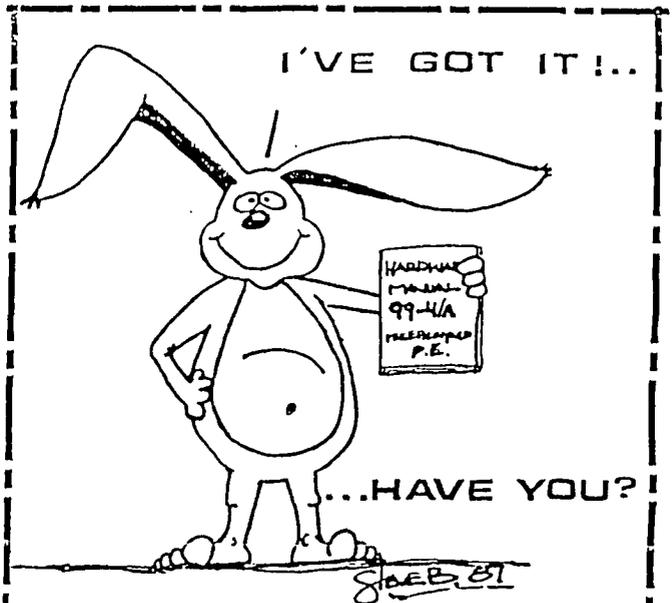
This is being written by the Editor as Bob Haun has been in the hospital lately. As per phone conversation with Bob he said that anyone that has their DUES paid by October 31st will get \$5.00 credit from the club library. That sounds like a great deal. Not only do you get programs from the library, but you get 12 great issues of The Tacoma 99ers Newsletter for a year for \$15.00 for an individual.

## Games

By Walt Todd

I love to play games on our TI. But I could never get past level 4 or 5 and then I'd get tired of playing the same level and finally put the game away and try something else. Then I found TI Runner. At first I didn't know the secrets of Runner but as soon as I found out it was the game for me. Now I'm here to tell you I don't play for "POINTS", but, just to "BEAT" each level and on Runner there 50 levels.

I can play any level just by using FCTN and number 5 keys. Hold both down and the levels move on until I see a level I want to beat. Another secret is on some levels you can get trapped with no way out so you turn the game off. Right? WRONG! Just push number 6. Your man dies but the game goes on. Runner has been such a good game for me that I've put together 50 all new levels. Some are hard and some just fun to run. So, if you enjoy Runner, pick up a copy of my new 50 levels at the September TI Fair.



### HARDWARE MANUAL FOR THE TI 99 / 4A

IT DESCRIBES:

- CONSOLE DESIGN
- CUSTOM CHIP OPERATION
- TMS 9900 H/W ORGANIZATION
- TMS 9900 INSTRUCTION SET
- INTERFACING PITFALLS
- CONSOLE SCHEMATICS
- PEB CARD DESCRIPTION
- GROM SIMULATOR DESIGN
- EXTENDED BASIC MODULE DESCRIPTION & SCHEMATICS

WEEKEND HARDWARE SEMINAR  
(INFORMATION AVAILABLE ON REQUEST)

Send \$19.95 Check or Money Order To:  
(CANADA & FOREIGN SEND \$21.50 U.S. FUNDS)  
(VOLUME RATES AVAILABLE... ON REQUEST)

THE BUNYARD GROUP  
PO BOX 53171, LUBBOCK, TX 79453

Say you saw it in  
The Tacoma 99ers  
Newsletter

## Video Digitizer . . .

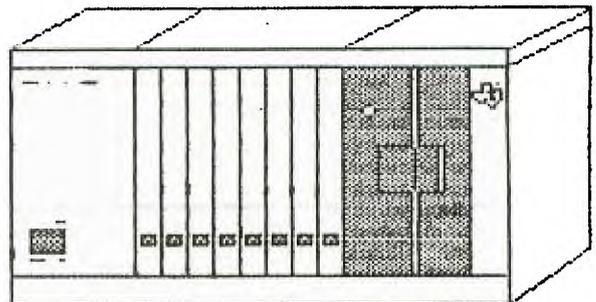
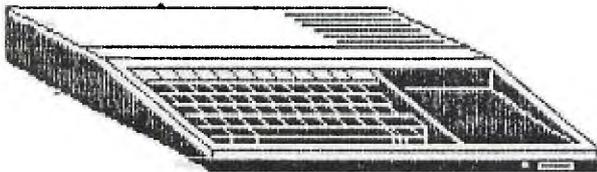
(Continued from Page 7)

with the 99/4A. If all you are interested in is digitizing video from a camera or VCR, all you really need is the digitizer/transmitter board, which can be assembled for about \$150-\$175 dollars. To use the digitized images on the 99/4A itself, you will have to "sacrifice" a lot of the resolution. But because the system sends its data through a standard RS-232 interface, it will continue to be compatible as you "upgrade" your graphics capabilities.

If you have any questions that I haven't answered, just leave them on the message base here on GENie, or write to me at :

Steve Langguth  
2956 South Barnes  
Springfield, MO 65804.

Also, if you would be interested in buying the programs I wrote to use with the ImageWise system and the 99/4A, I will gladly sell them to you for \$10 --\$11, if I have to supply the disk (hey, I've got to pay for this baby somehow !!!).



## Open Letter Rebuttal . . .

(Continued from Page 5)

TRS-80 Mod 100. It has come in real handy on three trips over the past year or so for this very reason. Each has it's own place and does some things better than the others, but I like them all. Remember, if the TI-99/4A were the last word in computers they would never build any new ones!

Best Regards,

Joe Nuvolini  
President,  
Front Range 99'er Computer Club  
(303) 596-6938

### DISCLAIMER

THE ARTICLES CONTAINED IN THIS NEWSLETTER DO NOT NECESSARILY REPRESENT THE OPINION OF THE GROUP, EDITOR, OR ANY PERSON OTHER THAN THE AUTHORS. THE TACOMA 99ERS USERS GROUP CANNOT ASSUME LIABILITY FOR ERRORS OR OMISSIONS IN ARTICLES, PROGRAMS OR ADVERTISEMENTS.

PERMISSION IS GRANTED TO COPY ARTICLES, PROVIDED THAT THE SOURCE OR SOURCES BE DISCLOSED AND PROPER CREDIT GIVEN TO THE AUTHORS.

TACOMA 99ERS  
USERS GROUP  
P.O. BOX 42383  
Tacoma, WA 98442



## IN THIS ISSUE

PRESIDENT'S MESSAGE, Vern Schrotenboer	1
SEATTLE TI 99-4a FAIR .....	3
OPEN LETTER REBUTTAL, By Joe Nuvolini..	4
VIDEO DIGITIZER "ImageWise", By Steve Langguth .....	6
FROM THE LIBRARY.....	8
GAMES, By Walt Todd .....	8
FOR SALE .....	10

## FOR SALE TI 99-4A

**Extended Basic  
Software  
and more**

Call Don Hundven,  
206-474-2259

---

**MEETINGS - 1st and 3rd THURS. - 8 p.m.**  
South End Pool Building -- 402 E. 56th Street -- Tacoma, WA

---