

# CLASSIC COMPUTERS

## COMMODORE

### CP/M Column

by Cheryl Peterson

#### CP/M Software Sources

In response to my requests for information on good sources of CP/M software, I have received many letters. Some have been from the companies actually selling software. Others have been from software buyers who have purchased products and been happy with the service they received. Another came from a man who has also been trying to build a list of sources. While I'd like this to be a comprehensive list, I'm sure there are sources that haven't been tapped yet and I will probably miss more than one group. Forgive me if I do, but write and chew me out anyway so I can include you next time. Let's start with a letter.

Dear Cheryl Peterson:

I own a Commodore 128D and use CP/M extensively. To my knowledge your column is the only monthly Commodore CP/M column published. This is a major reason why I buy *Computer Shopper*.

In the July issue in your article "WordStar Notes And Other CP/M Things," you talked about the problem of finding CP/M commercial software. I have experienced that problem. I am stationed in Japan with the U.S. Navy. Trying to find good software is a major problem. I have enclosed a newsletter, Orphan Mode, that I was working on for other Commodore CP/M users over here. I intend to update it as more information comes in from other users. The other list, Update, is the latest list of software we have heard about but do not have copies of or detailed information on. Please feel free to use them anyway you wish.

Also in that same issue was a letter by Geroge L. Hess concerning the program Alpha Text by Cranberry Software Tools. On page 442 of that issue was a small classified ad by that company. I have sent them a letter and will pass anything I get along to you.

I look forward to your next column.  
 Kyle D. Pratt

While some of the products mentioned in Alpha Mode have been covered before in this column, Pratt gives a little insight into each that may be valuable so I will include his comments with this listing.

My Family Record (\$99.50)  
 Everton Publishers  
 P.O. Box 368  
 Logan, Utah 84321.

This is a genealogy program as the name implies. I do not own this program but those who do rate it from

good to excellent. The program requires two disk drives or a hard disk with one floppy drive. A second utility disk, price \$49.50, that allows the printing of standard and personalized genealogy forms requires MBASIC.COM to run.

CP/M Kit (\$29.95)  
 Innovative Computer Accessories (INCA)  
 1249 Downing St.  
 P.O. Box 789  
 Imperial Beach, CA 92032-0837.

This is a set of two disks of public domain software and a basic instruction manual for CP/M on the Commodore 128. Most of the software is available through FOG. They also have a small library of public domain software, other than the CP/M kit, which includes some games.

Out-Think (\$69.95)  
 KamaSoft Inc.  
 2525 SW 224th Ave.  
 P.O. Box 5549  
 Aloha, OR 97007.

Out-Think is an outline processor. I have used Out-Think and found it to be an excellent but somewhat hard to learn program. Out-Think comes with a good users manual complete with a glossary, four appendices and an index. You will need to read it. The program can be installed specifically for the Commodore 128. KamaSoft claims to have pioneered outline processing for CP/M computers; they certainly have a good program.

LoadStar Disk #33 (price \$9.95)  
 Magazines on Disk  
 P.O. Box 30008  
 Shreveport, LA 71130-0008  
 (318) 868-7247.

A very nice program by M. Garaszeghy that allows five conversions between ASCII, Pet ASCII, CP/M SS, CP/M DSDD and MSDOS DSDD is on this disk. The program runs in the Commodore 128 native mode.

WordStar V4.0 (\$89.95)  
 MicroPro International Corp.  
 33 San Pablo Ave.  
 San Rafael, CA 94903

Probably the last word in CP/M word processing. When you order WordStar you also get the Word Plus as part of the package. Be sure you ask for the Kaypro or Osborne CP/M version. Note: Check the January 1988 *FOGHORN* for a WordStar overlay for the Commodore 128.

CBASIC and MBASIC (both on one disk \$39.95)  
 SuperCalc V1.05 (\$39.95)  
 WordStar V2.26 (\$39.95)  
 Public Domain Software Copying

Company (PDSC)  
 33 Gold St., Suite L3  
 New York, NY 10038

These programs were bundled with the Osborne computers. PDSC bought them after the company went bankrupt. They are good programs and run fine on the Commodore 128. With any of the programs listed earlier you also get a copy of the Osborne 1 User's Reference Guide which contains the instructions on how to use all the programs. They offer other programs also. Check for their advertisement in *FOGHORN* and other Commodore magazines. When ordering other programs request double-sided disks.

Push 'N Pull (\$39.95)  
 Somogyi Software  
 P.O. Box 1009  
 Redondo Beach, CA 90278

A very good outline processor that is fairly easy to learn. Note: check out the reviews of Push 'N Pull in the April '87 and '88 *FOGHORN*.

dBase II V2.3 (\$125.00)  
 SuperCalc2 (\$99.00)  
 Worswick Industries, Inc.  
 4898 Ronson Court, Suite H  
 San Diego, CA 92111  
 (619) 571-5400.

dBase is the mark by which database programs are measured. Worswick Industries' advertisement in *FOGHORN* states you can get a free update to V2.43 from Ashton-Tate with this purchase. I have not ordered dBase from them but I certainly know of no better legal way to get dBase II. They offer other software and services. You can write them for a free catalog.

#### Update

Alpha Text (\$35.00)  
 Cranberry Software Tools  
 P.O. Box 681  
 Princeton Junction, NJ 08550-0681  
 A word processor.

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## TEXAS INSTRUMENTS

### TI Forum

by Jonathan Zittrain and Barry Traver

#### PrEditor Debuts

Worth noting is Tom Bentley's PrEditor, a recent release from Asgard Software (P.O. Box 10306, Rockville, MD 20850; phone 301/559-2429). Its name accurately suggests what it is: an improved Programmer's Editor, useful for writing programs in assembly, c99, Fortran 99, Pascal, or even Extended BASIC (if combined, for example, with the excellent Fairware program Text-Loader written by Curtis Alan Provance, Paragon Computing, 17 Constance Street, Merrimack, New Hampshire 03054). Tom Bentley, incidentally, is also the author of a fine library of c99 routines relating to dynamic memory allocation, disk cataloging, CHARA1 loading, floating point math, and file access.

As a Programmer's Editor, his PrEditor should be compared to TI's Editor/Assembler Editor (to which, in my opinion, it is significantly superior) and not to word processors like TI-Writer (although it has some nice features TI-Writer lacks) and Companion (with which it shares some features that TI-Writer lacks). Again, PrEditor is not a full-fledged word processor (it has no formatter, and its editor lacks word wrap and reformat) and is not intended to be. Charles Earl (like Tom Bentley, another excellent Canadian programmer) is currently developing a new word processor called Press for Asgard, in fact. (Charles Earl is the programmer of the terminal emulator Telco and also made significant contributions to the Tex-Link BBS program

and the current DM1000 released by the Ottawa Users Group.)

Unlike the Editor/Assembler (or TI-Writer) editor (and like the Companion word processor by Allan Swett, yet another excellent Canadian programmer), Tom Bentley's PrEditor is not a line editor, but rather what might be called a block editor, text processor, or concept processor. Rather than having to remember line numbers to delete, copy, or move sections of text, PrEditor allows you to mark the beginning and end of a block of text and then deal with the block. And—in contrast to the E/A or TIW—PrEditor accomplishes those actions instantaneously (whereas the E/A or TIW may take 30 seconds; for example, to delete a large section of text).

One especially nice feature of PrEditor is that you can have two different files in memory at the same time, working on one, working on the other, and moving blocks from either to the other. (In addition, you can view a third file while editing the two others!) You have a full range of text editing functions (delete or insert lines or characters, etc.), so that cutting and pasting is made as simple as possible.

Windowing essentially includes the features of the E/A or TIW, but offers more as well (e.g., switching between the two files). The side-to-side window is not the jerky three-position window to which users of TI-Writer may be accustomed, but a continuous smooth movement. (In addition, if you happen to be fortunate enough to have a Myarc 9640 Geneve or any TI-99/4A

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# TEXAS INSTRUMENTS

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80-column card, you can view 80 columns on the screen at once if you wish.)

There's not room here to discuss all other features of PrEditor (e.g., that it has an as-is mode that allows typing and sending of control codes to the printer, it includes a built-in disk cataloger, it can be individually customized to a surprising degree, and it allows you to use the extra memory available in a Mini-Memory or supercart if you have one), so it may be best to wind up with some general final comments.

The documentation is short, but clear and adequate (although one wishes perhaps that someone would invent an apostrophe checker for whoever writes Asgard's docs! Example: "times change and so do peoples needs" on first page of manual). The program itself is in many ways clearly superior to the E/A editor, as indicated. Although it is not a word processor (and cannot do many things TIW can do), it uses standard DIS/VAR 80 files, and therefore can be easily used along with TIW (using PrEditor for those things that TIW does not do well). In short, it's a fine pro-

gram, and I hope we'll see many more from the gifted Tom Bentley!

## Canadian 99'ers Update

Charles Earl's outstanding terminal emulator program Telco (reviewed in a previous issue) continues to improve. Those who have Version 2.1 should replace that with the newer Version 2.2, which includes HFDC (Hard/Floppy Disk Controller) support, bug fixes, xmodem support for TIBBS, an improved autodialer and PC-Pursuit dialer, and possibly other changes as well. Perhaps because of the thoroughness of the revision, as far as I know there is no way to upgrade from Version 2.1 to Version 2.2 other than by replacing the entire package. (If you cannot find this Fairware program elsewhere, you can order it from the author directly. His address is Charles Earl, 34 McLeod Street, Ottawa, Ontario, Canada K2P 0Z5, and the registration fee is \$20.00.)

Canada is indeed noted for a number of proficient programmers. Others include Clint Pulley (author of c99) and R. A. Green (author of RAG Assembler

and RAG Linker). Art has also written another program that deserves wider circulation: a useful program to transfer a program from disk to cassette. (If you can't find it elsewhere, you may want to get in touch with Art at this address: R. A. Green, 1032 Chananay Drive, Gloucester, Ontario, Canada K1C 2K9.)

Why is such a program important? After all, we're not doing badly for a computer that has been orphaned for five years. In the Philadelphia Area Computer Society, for example, the TI user group is the fourth largest group (IBM, Apple, and Macintosh have more members than we, but we have more members than Atari, Commodore, Radio Shack, or any other group). In addition, perhaps 95% of our TI group have disk systems (and some have upgraded recently to a hard drive). Why then is it important, in my opinion, to support cassette users?

A community survives and thrives as it brings in replacements to take the place of those people it may lose in the process of time. Since new TI-99/4As are not presently being produced, this means that we must find those people who are closet TIers, i.e., who may already have a TI in the closet, but who have not used it much because of not knowing how much can really be done with it, particularly with a rather modest financial investment.

program that will copy the file over to your H-89, and allow it to be saved as a CP/M file again on your machine's H-17 drive. Remember that the H-17 disk has only about 90K capacity instead of 360K, and may not hold some larger disk files. Also, both the MSDOS and CP/M versions of the communications program that you use must be compatible, and must allow transfer of executable .com files. Some version of Xmodem or Kermit is usually the best choice.

Q. Have you actually tried this?

A. Yes. I was able to port over an early version of CP/M Turbo Pascal, which I originally purchased to run on my brother's Kaypro II. Since it's only about 35K or so, it fits on the H-17 with no problem. I used Convert.Com running on an XT clone with one 360K floppy and a 20 Meg hard drive, and the Heath and IBM versions of Kermit, which are available from HUG and public domain groups. The MSDOS version of Kermit I used allows you to set the IBM COM1 baud rate, etc. from inside the program. The H-89 version is much smaller, and requires that you use the Heath CP/M CONFIGUR program to set the ports and baud rates. If you don't use a modem, you'll need a null-modem cable with pins 2 and 3 inverted between the IBM COM1 and the H-89 serial port.

Q. How about driving a regular, soft-sector PC-type disk drive with my existing H-17 controller?

A. It can be done, but you'll still need to use hard sector media in the new drive. The new drive(s) go in parallel with the old one on the ribbon cable, and the last drive in the chain needs a terminating resistor network. Also, some jumpers or DIP switches on the drives may need to be changed, especially if you're mixing drives with

The important news to get out, I believe, is that you do not have to have a disk system to run assembly programs. What you need is a cassette recorder and 32K memory expansion. The cassette recorder is easy, since the TI-99/4A (unlike many other computers) will work with almost any cassette recorder (which the same family is likely to already have also in the closet!). So for most people, all that is necessary is a cassette cable costing a few dollars.

Likewise, it shouldn't cost much to add 32K memory, a project in which many 99er's have indicated great interest. We hope in a future issue to publish more information on adding 32K internally to the console (many have found different ways to do this, including Bernie Elsner, Mike Ballman, and Joe Spiegel, and the cost may be as low as \$20 to \$25), but fairly inexpensive add-ons plugging directly into the console are also available at a cost as low as perhaps \$50 to \$60. (One recommended source for such is The Captain's Wheel, 17295 Chippendale Avenue, Farmington, MN 55024).

What is needed, then is the ability to transfer disk-based "EA5" (i.e., Editor/Assembler, option 5) programs to cassette. A number of people have written programs to accomplish exactly

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a head-loading solenoid with the other kind, which doesn't use them. I'd want to make sure I had good documentation and schematics for the drives before I tried it.

## A New Newsletter

Finally, in addition to the regular H/Z magazines and Len Geisler's *SEBHC Journal*, there is a new 8-bit Heath newsletter out, called "The Staunch 89'er" published by Kirk Thompson of West Branch, Iowa. Contact him for details.

Quickdata, Inc.  
P.O. Box 1242  
Sheboygan, WI 53082  
(414) 452-4172

*SEBHC Journal*  
895 Starwick Drive  
Ann Arbor, MI 48105  
(313) 662-0750

The Staunch H-89'er  
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# HEATH/ZENITH

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Second, because the media rotates backward when you use the back side of a floppy-punched single-sided disk, some of the oxide-catching properties of the inside surfaces of the Tyvek jacket are defeated, which may crud up your drive head and shorten media life. I used to floppy-punch all my disks back in the days when they cost thirty or forty bucks for a box of ten, but I don't bother any more. If you do floppy-punch your disks, you should use them just for archival files and backups that you don't use very often, not a system disk that you access every few minutes. The single-density, 40-track Heath format only stores about 100K on a side, but the low density also makes it very forgiving of errors, and I have floppy disks I bought in 1982 that still work fine. To be on the safe side, I'd recommend that any time you have a possibly weak or marginal disk, you should go over it with a utility program like HUG's DISKCHK.COM, and isolate and label any bad sectors.

Q. I want to buy some of that bargain CP/M and HDOS software to run on my H-89, but I only have an H-17 drive and the vendors only provide the software in H-37 soft-sector, (or Kaypro, Osborne, etc.) format. I have the same problem with HUG and public domain disks. What can I do?

A. It used to be that this was no problem, as there were plenty of H-89 users with both soft and hard sector drives, and you could always find somebody in your HUG group or at a local

Heathkit store who could copy the files over for you. This has gotten a lot tougher, as even the Heath stores often no longer can read, write, or format H-17 disks. Many users have abandoned CP/M and HDOS completely; those who still run CP/M on an '89 or on the 8085 side of a Z-100 may not have H-17 capability.

If you can locate a friend with some other CP/M computer with a serial port, such as a Kaypro II, Osborne, Ampro Z80 Little board, etc. you can use that machine and one of the common disk-converting programs like Multimate, Uniform, ZCPR3 Multidisk, or something similar to read the H-37 format disk, and then use a communications program to send the software over to your H-89 with a modem or serial cable, so you can save it on an H-17 disk. This only helps with CP/M, though, not HDOS.

Q. What if I don't have access to another CP/M computer; can I use an IBM compatible?

A. Yes, but—First, you need a PC compatible that can read the same physical disk format as your CP/M software, usually 360K DS, DD. Second, you need a conversion program that will run on the PC, and that will read the Heath CP/M format files on the disk, and then store them as a temporary MSDOS disk file, either on a hard disk or another floppy drive. My favorite for this purpose is Convert.Com, by Selfware.

Finally, you need a communications



# Fortran Language For C-64

Abacus, the largest producer of language software for Commodore computers announced the latest addition to its lineup—Fortran 64.

Thirty years ago, Fortran was the first high level language. Today it remains one of the most universally used programming languages. Fortran 64 supports more than 45 statements and functions and is a practical, economical and convenient way for users to learn Fortran on the popular Commodore 64. Fortran 64 is aimed at the student and novice programmers who want to use this mathematically based language.

Fortran 64 includes a built-in-editor, compiler, and linker and creates a fast stand-alone program. Once completed, the program module may be run without Fortran. Sub-routines and functions may be compiled separately from the main program. Input and output may be free form or formatted. And the user has access to the 6502 registers, Kernal and machine language routines. Fortran 64 was scheduled to be available mid-October. Suggested retail price \$39.95. For additional information contact Abacus, 5370 52nd Street SE, Grand Rapids, MI 49508; (616) 698-0330.

## TI Forum

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that, including Walt and Tony McGovern in Australia, and J. Peter Hoddie, but one of the best is the one done by Art Green. (I understand that Stephen Shaw in England—where disk systems are not as common as they are here—has also had substantial experience in making assembly programs available to cassette Tiers.)

Such programs may be loaded, I'm told, using the Editor/Assembler cartridge (which I haven't tried), or with the Extended BASIC cartridge using an XT "EA5" loader program (something that I have personally verified). Even multi-file assembly programs can be run, but there is a trick to it because of TI's practice of auto-incrementing the last character of the supplied device name. "CS1" won't work, because the loader looks to "CS2" for the second file. "CS1." won't work, because the loader looks to "CS1/" for the second file. "CS1.X" will work, because "CS1.Y" will also access CS1 for the second file. (With cassette usage, the loader ignores anything after the "." in the filename.)

At any rate, those Tiers who have only a minimal system can get a lot more out of it as they realize how easy it is to access EA5 assembly programs at little or no cost. In addition, some of these newly enthusiastic Tiers, as a result of seeing what their computer will do, may go on to further upgrade their systems. Either way, if TI user groups remember to support novice Tiers, I believe our community as a whole will gain the benefit. (Let us know what you think of this subject, and whether you would like to see more similar material directed toward helping new Tiers.)

## Faire News

The 1988 Chicago TI Faire is just around the corner as this issue goes to press. The festivities begin with a social mixer on Friday, November 11, followed by the main faire on Saturday, and a dinner Saturday night. Exhibition space is \$75 per eight foot table. The faire manager is Marcy Brun, 380 Park, Elgin, IL 60120, phone (312) 695-9291.

The Milwaukee Area 99ers are hosting their own event at the Quality Inn in Milwaukee on November 13.

For further information contact Gene Hitz, 4122 N. Glenway, Milwaukee, WI 53222, phone (414) 535-0133.

If you can't attend the faire, videotapes of the highlights will likely be available. We'll pass along that information as soon as it becomes available.

## Touring The Boards

Carrying on Ron's tradition of "Tour de Boards," we checked in with a 99er bulletin board this month. It's the Mid-Night Hour BBS, serving the Mid South 99/4A Users Group based in Memphis, TN. The number is (501) 735-9980, and the board is 300/1200 baud, 24 hours a day.

The board itself does not run on a TI, but that's about all that's not 99-oriented about it. Beside supporting full screen cursor control and graphics for those terminal programs that support it and other technical goodies (such as a polling area and graph of system usage), the board has an active membership of a little over 70 with many messages and informational files and programs for the 99/4A and 9640. If you're looking for an interesting, professional BBS to call, this one is worth a shot!

The group's newsletter is also very informative and professional. A newsletter membership to the group is available for \$10; contact the Mid-South 99 Users Group, P.O. Box 38522, Germantown, TN, 38183-0522 for more information. Three free newsletters are offered to potential members as a sort of trial offer.

## A Satisfied Customer

Patrick S. Graham of North Bay, Ontario, writes to tell us of his satisfaction with a commercial modification to the Triton Super Extended BASIC module (discussed in Barry Traver's "Extending Extended BASIC" piece two months ago). John P. Guion of 11923 Quincy Lane, Dallas, TX, 75203, sells a do-it-yourself package for \$22.95 that allows the user to add the Editor/Assembler, TI Writer, and an improved Disk Manager III internally to the SXB module. An additional modification allows for full use of the Navarone widget cartridge expander with the module.

We'll try to have a full review of the product in an upcoming column. In the meantime, thanks for the tip, Patrick! ●

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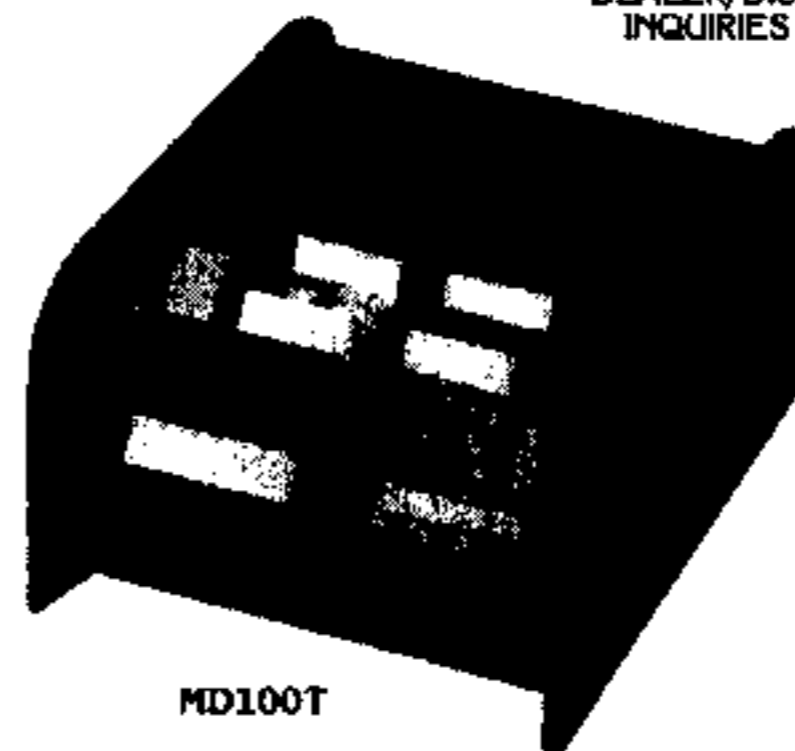
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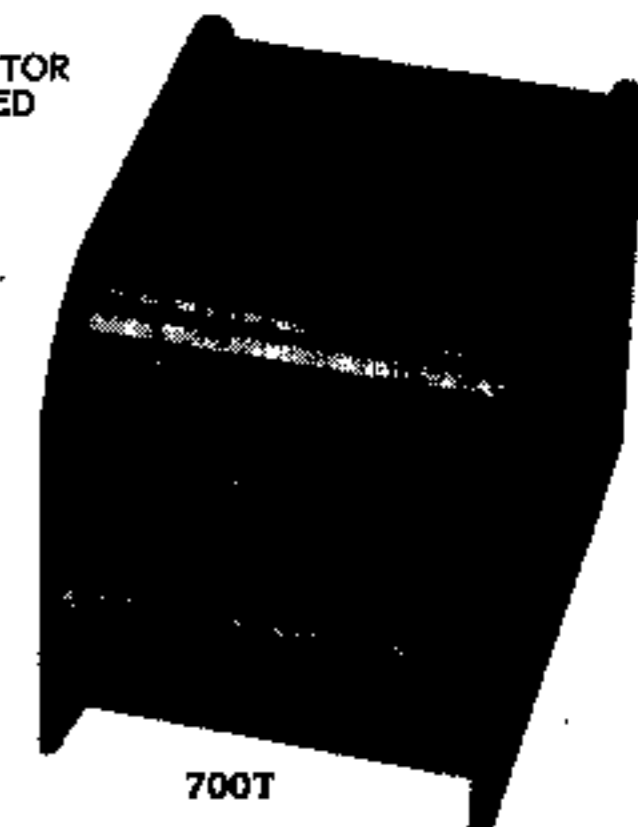
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# The Natives Were Restless

by Jim Horn

As I blazed through my electronic mail on CompuServe, a familiar name flashed on the screen. Why would a TIMIX director be writing Jim Horn? I am a member (ID 76703,603), and I do run TIFORUM on CompuServe,

but John Musgrove, a Director of the International Mini/Microcomputer Information Exchange (TIMIX) runs a minicomputer business when he is not busy being a Director. TIMIX long ago had dropped even the block on their application blank that allowed you to check off 99/4A. Indeed, the natives of

the orphaned TI PRO world have recently become restless, internationally beating the tom toms on conferences in TIFORUM on CompuServe on the shape and structure of a proposed users group. Since a transcript of that watershed discussion was bouncing around electrically, I presumed that I was about

to take a few hits for encouraging a bit of rebellion, primarily by lending a helping hand to Ed Cameron and Virginia Lake of Chesapeake TIPC Users Group.

## TIMIX Does Not Tell Time Under Water

Wrong! Musgrove was inquiring about how the mighty TIMIX could join US 99ers! Remember when the recruiting ads said that Army wanted to join you? That is about the way I felt, but read on. TIMIX is housed in the facilities of the Texas Instruments Data Systems Group complex in Austin, Texas, near the shores of beautiful Lake Travis. TI Data Systems Group operates a secure facility that does its share of TI's military contracting, no doubt, but is also the center of the TI minicomputer business. Indeed, the 990 minicomputer series is an older, quietly successful cousin of the 99/4A, sharing the same family of chips. Rosemary Colgrove is the managing editor of the 13,000 circulation TIMIX magazine, called DirecTIONS. She and I had chatted before.

Newly elected Director John Musgrove wrote with specifics, offering to develop a TIMIX library for the 99/4A! He was seeking my help. I ended up calling John, who was taking calls right and left. He is an energetic fellow, writing a monthly column called MisDirecTIONS, a "column designed to help solve selected computer-related problems for all TI computer systems..." More about that in a second. In my call to John, I mentioned that the 99ers having become used to doing everything with nothing, had become quite independent, relying on sources like *Computer Shopper* and specialized magazines. 99ers also regularly network electronically as well as at regional and international shows. Perhaps some other things needed doing before another 99/4A software library was set up, I suggested. Here is your chance to second guess me, if you like. I am going to tell you how to get in touch with John. If you disagree and want a TIMIX 99/4A software library, be sure and tell him!

## TIMIX As Beginners

Let's face it, willing or not, TIMIX is starting out almost at square one in building a library. There are some wonderful collections out there. Boston Computer Society features what one in the dog world would call a judged product. BCS may not have the latest and hottest thing instantly available, but it is checked out stuff and quality. Chicago and MANNERS and others strive to be comprehensive, letting their own internal networks provide a word of mouth quality control. Several other user groups have libraries out there that would take your breath away. If you like, write me and brag about your own group's library. TIFORUM on CompuServe, my outfit, and the other

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**The Natives**  
continued from page 494

telecommunications supports tools strive to quickly make available, on a worldwide basis, the latest update and enhancement. A lot of the new stuff crosses the oceans that way. The services give programmers what they need the most, instant feedback and critique on their pet programs, shall we say a wonderful way to improve the breed, since I seem to have slipped into the dog and pony argot. However, that is no sign that TIMIX will not quickly become the major contributor to the community they want to be.

**Would You Like To Get Your Nickel's Worth In?**

I offered some ideas where I thought that TIMIX, with their close channels of communication with Texas Instruments, could become a unique and highly supportive member of the 99er community. Obviously TIMIX will have some members who already own 99/4As, and adding those people to the mainstream would be great. Encouraging an exchange of ideas with people programming the 990, who they have in adundance, might be useful. There are other things that a group with a paid staff and a regular house organ can bring or at least add to our already yeasty mix. Your ideas are what John wants to hear, though. If you would like to give John Musgrove an idea of the power of his idea, send him a postcard or letter encouraging him. Offer your own suggestions. Feel free to

tell him Jim Horn is all wet and a library would be just great. An offer to help TIMIX would be greatly appreciated, of course. If you would like a free copy of DirecTions, I am sure they would send one. Understand, DirecTions does not have any 99/4A material in it right now. It does have some articles on the TIPRO. If you would really like to show your support, send TIMIX a check for \$40 and an offer to be on the TIMIX liaison in your user group. Technically, they require a user group to have ten TIMIX members to be considered an official chapter. There are application procedures to be accomplished to be recognized, but everything in its time. However, in the spirit of walking before running, I notice several "unofficial" TIPRO groups are mentioned in various parts of DirecTions. There is no reason for 99/4A groups to be omitted! The listings alone would show TIMIX cares. There could be a slogan there, don't you think? The DirecTions masthead, for example says "TIMIX is an organization for users of Texas Instruments computers and peripherals. Its mission is to represent and serve the worldwide community of TI computer users by acting as a clearinghouse for relevant and timely information and referral." John Musgrove intends to make that mean what it says.

**Some Free Publicity For Your Group**

Ask them to include your user group on their next user group listing and certainly in their calendar. The calendar covers notices of both regular meetings

and special events, so do not leave DirecTions out. Be sure and include the dates of the year your club meets, a contact telephone number and mailing address where mail will be regularly picked up and answered. If you meet on the same day every month, be sure and say when. If not, you can give them up to a year of meeting dates, as long as the dates are at least 8 weeks in advance. Give them a years worth of meeting dates. It won't hurt. If you need information before you get a sample copy to go by call (512) 250-7151 for information, or to ask for the sample copy.

**Important For Current TIMIX Members To Write**

Of course, if you already are a TIMIX member, it is very important that you write, and that you mention that you are a member now and appreciate what John is trying to do. You can write John Musgrove, Director, TIMIX c/o POB 201897, Austin, Texas

78720. Please mention *Computer Shopper* and this article.

**c99 Programming Available For Geneve**

Chris Bobbitt (Asgard Software, POB 10306 Rockville Maryland, 20850, self addressed envelope, loose stamps for catalog), new editor of MANNERS reports that Clint Pulley has at long last released his c99 compiler for the MDOS mode of the Myarc Geneve. This language is a "useful subset of the C language on the 99/4A with its major shortcoming when compared to standard C being that it lacks a structure facility and is limited in the data types it allows, according to Bobbitt. Bobbitt appears to have an extra spring in his step, perhaps because he is newly married to the lovely former Leslie Johnson. The wedding took place in Rockville in August.

**High (c99) Gravity**

What is c, or C all about? Now that

continued on page 498

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## The Natives continued from page 495

the language is available on both the 99/4A and the Geneve, perhaps now is the time to look into it if you have been putting it off. Simply and briefly put, "C" is Assembly Level language without much of the pain. c99 is what is called a "compiled" language, meaning after you are finished with it, you can run it through a program that will convert (compile) your code into machine language. After that, your program should run at a speed that appears to be as fast as an assembly language program to all but those with a practiced eye or a good stopwatch. C or even "small c" is not as easy to pick up as BASIC, but neither is it an enigma. With the rudiments of BASIC under your belt, C will be easier to pick up, of course. However, if you have put off doing BASIC, there is certainly no law against starting right off with C, which is what thousands of learners did with lots of languages before BASIC was in-

vented, primarily as a programming learning tool. If you do learn c99, you will have a powerful development tool at your disposal, one which has already generated several commercial applications, to include High Gravity Game, by Tom Wyble, sold through Asgard. If you are ready to take on c99, send a formatted disk, along with a generous donation to Clint Pulley, 38 Townsend, Ave., Burlington, Ontario, Canada 17T 1Y6. Clint's announcement in MANNERS did not support an amount, so it is up to you. Do not ask me how much, because I tend to suggest outrageous amounts such as \$50 for monuments like him, but do not let this deter you from sending less, or even the disk alone, because that is what he told us. Clint is that kind of guy. If you don't send money, however, please send a decent container, a formatted disk and enough postage to get it to you. The postage is important since it costs a little more coming back to you from Canada. Remember this if you send one of those containers that would make Brinks flush

with pleasure. C tutorials are available on CompuServe TIFORUM and in Ron Albright's Orphan Survival Handbook (\$17.95 delivered from DOS, my favorite publisher).

### A Peek At The Fabled "High Level Languages" For The 99/4A

If you are inclined to try your hand at commercial programming, most publishers like to see the ability to program in Assembly or in a compiled language. The reason for this, of course, is that a compiled language executes faster than translated BASIC, to say nothing of the fact that the source code is a step away from prying eyes. "Source" code is the code you actually write. In most BASICs the source code is the same as the code in the program that executes after an on line translation, thus the rare use of the term in the BASIC community. However, when you deal with code which can be "compiled" there is both "source" and "object" code. The "object" of all our attention in this case is the actual executing program, the product of another program called a compiler. I will stop at this point to avoid either boring you or totally confusing the issue. Let me know if you would like to hear more about the so called "high level language" terminology.

### Why Not Pretend You Know Assembly?

All of the aforementioned was by way of telling you that Al Beard has developed a way you can pretend to be an Assembly Language programmer while working in a language almost as easy to use as BASIC, at least as soon as you get the hang of it. If you know BASIC it will be a snap for most programmers, except for the usual last two percent of the job! Even more, this language is easier to convert from one style to another. Having been around a while, there are programs written in several versions. The reason for this is fairly straightforward. Since BASIC entered the scene almost concurrently with the creation of micros, it quickly went "out of control" and various BASIC versions created a tower of Babel. However, FORTRAN is a creature of mainframes. It was thus easier for standard organizations such as American National Standards Institute (ANSI) to maintain control over FORTRAN. This was because the mainframes were fewer, more expensive, and tended to be managed by less of a crowd of wild men than micros. Not our cup of tea, but to our advantage in this case.

### After Five Years And A Cast Of Thousands

At any rate, after five years of effort, Al Beard an assistant Sysop on BIX, has crammed a COMPILED FORTRAN onto a 99/4A. That is right, a 4A with a 32K card! Yes, he supposes he will be "doing" the Geneve in a bit but the 99/4A is Al's first love. BASIC is said to be a subset of FORTRAN. FORTRAN stands for FORMula TRANslator, after its original ability to deal with algebraic formulas quickly, something that other higher level languages like COBOL did not do well at the time. However, FORTRAN has been dressed up and continues to be a

leading language, supported by an extensive user network of its own. One computer guru is supposed to have said "I do not know what language we will be programming in the year 2000 but I know it will be called FORTRAN!" He meant that the supporters of FORTRAN have seen to it that it has been upgraded to the point where it can be made to look like almost any other language. Al Beard did not find enough room not did he have the extra years to include all of the latest features of FORTRAN, but it is a full featured FORTRAN, one capable of being used to produce commercial code. Not only for the 99/4A, but for any computer with a FORTRAN compiler, such as clones, Apples and others. All you do is run your source (there is that word again) program through the compiler for the object machine. See how quickly we can sink into new buzz words?

### Vice Versa Without Vice

The opposite and intriguing possibility exists as well. Programs written in FORTRAN for clones or Apples or others can be recompiled with 99FORTRAN into machine language object code for the 99/4A! Your search for programs need not be limited to micros either.

Many FORTRAN programs have been written for minicomputers such as the DEC or even the beloved TI 990. Minicomputers did not use all that much RAM in earlier days, so using minicomputer programs is not as wild sounding as it might appear. Some tweaking will no doubt be in order, but is not that the fun part? Plus, there are a lot of 99/4A systems out there with definitely unshabby amounts of memory, something I flog friends and neighbors with all the time. Al Beard's 99FORTRAN is sold by DOS (\$35 plus \$5 S&H, POB 4170 Rockville, Maryland 20850 or call 1-800-45-MYARC credit card orders). DOS also sell Myarc products, obviously. I am a partner in DOS. Therefore if you are lurking out there in FORTRAN land, or rubbing elbows with it, this is your chance to shine. Why not (1) learn 99FORTRAN; (2) locate a neat FORTRAN application from the thousands out there; and (3) port it over after adding your own knowledge by making it current or dressing it for the 99/4A world's tastes? There are people reading this who have already completed one or more of these steps. WHOLA! A new commercial or fairware author may soon be bursting on the scene. I suppose we can forgive you if you use your 99/4A and the capabilities of Al Beard's system to also market to other micro and mini worlds. After all, the 99er community has "raised" some of the best authors and even software houses on the scene today.

### Something To Further Your Education From The U.S. Navy

There are tons of books on FORTRAN, of course, one even published by the U.S. Navy that can be purchased for just \$6.50 including S&H. Send your order to GPO Retail Sales, 8660 Cherry Lane, Laurel, Maryland 20707. Check, money order, MasterCard, Visa are okay. Include your expiration date. Ask

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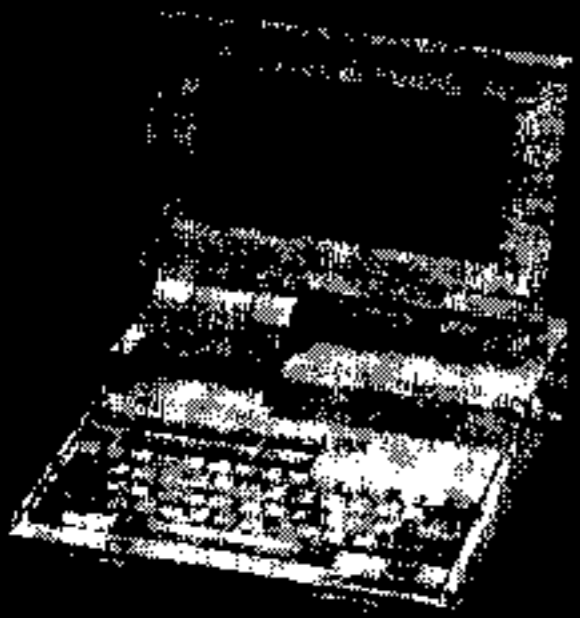
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continued on page 500



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## More Timex Sinclair continued from page 298

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The QL computer makes a fine gift. Although they are no longer in production, they are extremely versatile and powerful computers. In recent months they have been offered at fire sale prices at computer fests. The level of interest and support remains high. Contact A + Computer Response, 69-B Island Street, Keene, NH. 03431 (603) 357-1800.

Many of the fine products that I

reviewed this past year, were products that I discovered on my recent trip to England. These same products are now beginning to appear on store shelves here in the U.S. Due to normal shipping delays from overseas, I will not mention these products here as viable Christmas shopping selections. Subsequent articles will outline the details and merits of these products from abroad.

It is with much optimism and enthusiasm that we look forward to another year of More Timex Sinclair here in the *Computer Shopper*. As always, thanks to Stan Veit, Ted Drude, Douglas Kilarski, Chris Portch and the staff at the *Computer Shopper* for their keen insights and support. Mark Fendrick's Timex Sinclair articles, and these monthly jaunts into the forbidden, provide the largest published forum for Timex/Amstrad users. Without your continued patronage and subscriptions, we could not continue. Drop Stan Veit a note and show your continued sup-

port and thanks. As always, feel free to contact me with any questions, ideas and suggestions in c/o the *Computer Shopper*, or CompuServe ID# 71620, 1032.

1989 will continue to bring you fresh reviews of the latest software/hardware developments for the TS/1000/1500/2068, QL, Sinclair/Cambridge and Amstrad computers. Also look for specialized articles on BBS-ing, financial investment and travel.

Happy Holidays to you and your family, may 1989 bring a year of renewed promise, peace and prosperity. Take the time to occasionally turn off the computer, and spend valuable time with your families and friends. Do something this year to make this a better country to live in, and to keep the Timex/Sinclair promise alive. Oh, and by the way, keep your fingers crossed for the Indianapolis Colts. (1-5 at time of writing). Thanks to Jack and Lois Swiderski—Merry Christmas. ●

## The Natives continued from page 498

for *Introduction To FORTRAN* item number 008-047-00306-4. It has 138 pages. Admiral Grace Hopper wanted there to be a cheap textbook on programming available to all students and got *Introduction To FORTRAN* and two books on COBOL into the inventory. Many a college student has cheated the good ole university book-

store with those volumes. "Introduction..." is not precisely 99FORTRAN but useful in acquainting yourself with the basics. You can fine tune with library books. If you would like a tutorial on 99FORTRAN written by the author, send two dollars check or cash to DOS along with a label or label sized slip of paper with your address on it. The 99FORTRAN package contains generous documentation as well.

Nottoway, Virginia is a piece down

the road from Richmond. It is tobacco country, people, and tobacco country is not doing well. Anne Pemberton is a special education teacher down there, and she and her high school need 8 to 10 computers just for starters in their special education program. Any of you 99ers reading this who can help Nottoway you get on down there, hear? Anne needs some help. Your talents would be very useful if you are in the area. There obviously is the potential to form a user group in Nottoway. Anne has promised, with the help of Mid Atlantic 99ers, to either get all machines she receives operational or, if absolutely flooded by your generosity, to make sure other caring educators get any overflow. What more could a closet computer want? If you could send her a computer or two along with the trimmings, some kids down there could really use it. MANNERS needs a contact point in the Nottoway area, too. If you just send the console, that is fine. More is fine too, of course. The address is Anne Pemberton, c/o Nottoway High School, Nottoway Virginia, 23955. If you have suggestions or need to talk to her, call (804) 292-5373 only during her free hour, which is 9 to 10 Eastern on a school day, of course. She hates to leave her special education kids alone. If you are reading this, of course, you are probably an active 99er, but call up ex-members of your group and friends you know have a 99/4A in their closet. If they are no longer interested in "doing" the 99/4A for any reason, this is a good place to urge them to send it. If they wish, they can sell the expansion system and other "goodies" and send along the rest to Anne, such as the console, the software, etc. There is no need to send an assembly language guru another copy of the blue book and his fifth copy of a module. If you must send the lot C.O.D. for postage Anne may be able to pull it off, but call or write first, but do it today. Oddly enough, if you urge ex-members to give up their computers for a good cause, they start wanting what you have, and you may have a newly active member on your hands, a good result as well. ●

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