

TANDY

The CoCo Column

Written by Dan Robins

It's not a disease in the classic sense, but once the "modem bug" gets you, it's hard to shake off. It is, after all, quite a bit of fun! In this month's article, a look at the technical and not-so-technical end of the CoCo and telecommunicating. Also a review of an alternative in desktop publishing and letters from *Computer Shopper* readers.

CoCo And Communications

The "bit-banger" is one of the most commonly used terms associated with the Color Computer, as it refers to the serial port in the back of the computer's case. Ever wonder why they call it that? Essentially, because the serial port either exports/imports data to/from other devices one bit at a time. At the point the bit-banger processes eight bits of information it then continues to the next BYTE (eight bits = one byte).

The CoCo's serial port is utilized for more than one purpose. In many homes, it is connected to a serial printer, like the DMP-105. If you are lacking a Tandy RS-232 cartridge, it's quite handy for data communications through a modem. Because the P.I.A. has to constantly switch between accepting input and sending output to the modem, your baud rate using this method is limited to 300 baud. Before anyone disagrees, the CoCo 3 and it's reliable high speed mode, do allow for communications through the serial port at 1200 baud.

There are two Peripheral Interface Adapters used in the CoCo. One (known as PIA-U8) is mainly for reading the keyboard matrix. The other (known as PIA-U4) is for several different functions. These functions include digital to analog conversion (changing bits/bytes into actual sound waves), activating your cassette's motor relay switch, controlling graphic modes, and sending information out of and into the computer through the serial port.

The job that PIA-U4 must do is selected through the use of "registers". These registers are located at memory locations (hexadecimal) \$FF20, \$FF21, \$FF22, and \$FF23. In general, \$FF20 and \$FF22, commonly known as the I/O registers, contain the data received from or to be sent to the modem. Registers \$FF21 and \$FF23 are referred to as the control registers. The use of these will determine what direction the information is going. It also allows you to switch between using the other two registers (\$FF20 and \$FF22) as places to store data OR setting the direction of the data.

Additionally, you can use these four registers to determine if your modem has detected carrier from another modem, enable the sound generator, and even detect and give control of the computer to a ROM cartridge.

Public domain programs like MikeyTerm and Greg-E-Term, as well as several commercial offerings, support modem communications through the "bit-banger" serial port. All support transmission rates of 300 baud, and Greg-E-Term will support 1200 baud with the use of the Color Computer 3. If you wish to obtain a higher baud rate, seriously consider the purchase of an RS-232 cartridge. I should mention though that Tandy has dropped the production of the RS-232 pack and they may be hard to find. One alternative to the RS-232 pack is the Direct Connect Modem. While limited to only 300 baud, Mike Ward (the author of MikeyTerm) recently developed a patch to the program which offers compatibility with the Direct Connect Modem. This patch can be found on most of the national electronic forums.

In next month's CoCo Column, we'll finish our inside look of the Color Computer, with details of the VDG (Video Display Generator) and the different display modes.

Reviews And News

Recently I reviewed Tandy's Home Publisher, the OS9 Level 2 desktop publishing program, but when Bob Rosen of Spectrum Projects (P.O. Box 264, Howard Beach, N.Y. 11414) sent me NEWSPAPER, an RS-DOS desktop publishing program, I wondered how different it would be from it's OS9 counterpart. It is different, and it's graphic's abilities are equal to and faster than Home Publisher.

As you begin, you must customize the program for your system using a configuration program. Specifically for the Color Computer 3 with disk, you select your type of monitor (RGB or CMP), Disk Basic (1.0 or 1.1), the system/data default drives, and your type of printer. Compatible printers with Newspaper include any Epson, several DMP models, the CGP-220 color graphics printer, and even the Laser LP100. After completing this setup, a configuration files is written to disk for future use.

There are four main sections selectable with Newspaper. The Type-Up Graphic Editor, the Layout Program, a Print/View section, and the Picture and Font utilities. Although this program does not interface with the Color Mouse and does require mostly keyboard interaction, you will not experience the lengthy redraw sequences of Home Publisher.

While in the Type-Up Graphic Editor section of the program your options include a picture stamp, clearing the screen, UNDOing a previous action, pencil, grab picture, and the disk menu. The grab picture function allows you to import a previously saved graphic, including those produced by ColorMax 3. Pencil provides drawing functions,

such as lines, boxes, circles, dots, fill, erase, invert, and text modes. The Disk menu gives options of loading or saving a font set, pattern set, graphics panel, or a separate piece of art. The object of the program is to design and draw your newspaper in one of several blocks. Later, each block is imported and placed for the final product. I became quite discouraged that I could not return to the Main Menu after completing my work in the Type-Up Graphic Editor. Either you do not have the ability or the process of returning is omitted from the documentation. In my particular case I had to reset the computer to return to the Main Menu.

The Layout portion of the program prompts you to select the way you want to set up Newspaper. You have three selections. The first is a page with 7 blocks. The uppermost block is stretched horizontally to give you a headline effect, and the remaining six blocks are layed out in a two column fashion. Selection 2 has two columns with four blocks in each column. The final selection is like the second, except there is no white space between the columns at the top. I should mention that when you save the Layout configuration, use the default extension. I gave it another extension and found myself unable to retrieve it in later use.

The third-selection from the main menu is the View/Print package. By selecting this option you may view the entire contents of your newspaper or print it. A printing option allows for

either a draft copy or final copy of the newspaper. The final copy will print a much darker version than the draft copy if the printer allows it.

Finally, the Font and Picture utilities give you the ability to edit or create different fonts or patterns used in the creation of the newspaper.

Other than a few omissions in the documentation and the ability to return to the Main Menu from the "Type-Up" section, I found Newspaper to be quite a functional program. I am pleased with it's performance and it's speed is quite fast. The program sells for \$49.95, which may be a bit steep and puts the product out of reach for some customers. However, it is a good alternative for those who care not to mess around in the OS9 environment of Home Publisher.

I also received two programs from a High Point, North Carolina company, A TO Z Unlimited, written by David Ostler. The first program, BTU Analysis, offers the user the opportunity to analyze the heating requirements for a home or business. This program took more than three years to complete and through the process of answering questions will figure the amount of BTU's (British Thermal Units) necessary to heat an apartment, home, office, or plant. It's printing utility of the resulting information is formatted in a very professional manner. This gives an HVAC (Heating, Ventilation, & Air Condition-

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TI Forum

by Ron Albright and Jonathan Zittrain

I bought my first TI-99/4A console at the J.C. Penney Department Store, along with a few cartridges (then called "command modules"). I paid about \$225. That was in August of 1982, aeons ago for the TI-99/4A community if not the whole computer industry.

The price of a TI-99/4A console has certainly changed since then, dropping to as low as \$25, depending on what fire sale one might be attending. And that's a more significant difference—one is now far more likely to find a TI-99/4A at a fire sale than at a J.C. Penney's.

The TI dealer and distribution network has swung from one extreme to the other since the time the home computer was originally released. Prime time television advertising with Bill Cosby promoting the machine has given way to the classifieds in *Computer Shopper*. A solid, consistent set of software, tightly controlled and released by Texas Instruments, is now an incredibly colorful collection of programs ranging from the totally useless to the awe-inspiring, from myriad authors and sources.

Where is the TI dealer network today? How is it that the TI-99/4A has had its best and brightest years only

after Texas Instruments threw in the towel and gave up its multi-million dollar investment in the machine and its market? How much longer can this last?

Not only are these questions interesting, but they are important to ask if the TI community is to be able to set its own course in the future.

With most computers, the core of the brand's success and proliferation is at the local dealership level. Consumers can call their local computer store for help on using their computers, and stop in and browse the latest products. With the TI distribution chain originally going through department stores and other large, diversified dealers, there was never that element of being able to rely upon the dealer for help using the computer. There were, however, plenty of chances to browse and buy. Today that is gone as well—in fact, most people who do not currently own a 99/4A are probably completely unaware of its existence. Yet that still leaves approximately one million 99/4A owners who did purchase their computers before TI pulled out in "Black October" of 1983.

There had been a few local TI stores, owned and operated by Texas In-

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struments before the pullout. These, and the large department stores, were gradually replaced by small local dealers, who often offered only TI products.

Chuck Percherke, owner of the Computer Bug in Pittsburgh, Pennsylvania (412/882-3374), was one such dealer. He opened shop on October 1, 1983, only to find TI pull out of the market on October 29. "I thought it would be a complete disaster," said Percherke. "Instead, it was a blessing. Because of TI's withdrawal my major competition was eliminated—the discount houses like K-Mart and Service Merchandise."

According to Percherke, he shipped as far west as Oklahoma, and regularly had customers from New York and Ohio. "When I first opened, I had everything," said Percherke. "I offered

almost every TI program that was ever made."

William Nitka, owner of Nitka Computer Software in Sinking Springs, Pennsylvania (215/670-0800), tells a similar story. "We were sending computers out to California," said Nitka. Percherke and Nitka characterized their customers as usually owning only a console, often visiting their stores for the first time. Hence disk-based software, the kind that most third party software manufacturers produce, was and is not as much in demand. "There's only so many disk systems," Percherke said. "There's a tremendous amount more that just have the consoles."

This, combined with the ease with which disk programs could be copied illegally, eventually contributed to his decision to offer only cartridges to his

customers. "I used to have a lot of third party software available on disk," said Percherke. "To watch it sit on the shelf month after month was too frustrating." According to Percherke, program piracy had a major impact on the amount of interest in buying disk software. "If you get one out there, within a short time everybody's going to have it."

Nitka was surprised to find that his customers often obtained illegal copies of software even before he could get the software on the shelf in his store. Other dealers, while careful to acknowledge users groups as a major source of business, point to users groups as great opportunities for programs to spread, copyrighted or otherwise.

"I'd steered away from third party material because, frankly, a lot of it was really junk," added Nitka. "The only good third-party programs are the cartridge-based games." Percherke and

Nitka both cited gaming and educational software as their top sellers. With the advent of newer and cheaper video game systems such as Nintendo's, however, interest in the game cartridges for the 99 is waning a bit more, said Percherke.

The few years following 1983 thus saw the peak and decline of the local TI dealerships. With the value of the unsupported 99/4A going down and new computers being released, TI consumers became less interested in sinking more money into their 99/4A systems. It is now difficult to find any small local dealer that stocks any TI hardware or peripherals, or that would be all that willing to order one in. "There's too much used equipment out there now," Nitka said. "Why would anyone order new when they could ac-

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ing) specialist quite an impressive spec sheet to offer a prospective client. The program has an encryption-type copy protection. Through the use of a basic-to-machine language process it will show several P/N syntax error messages, but goes on its way without any real error. Having dealt with several companies in the past that would find this type program useful it's \$27 price tag is a steal!

A TO Z's Chemistry Tutor was also impressive. It comes packaged in a two disk set and presents an impressive study of high school or early college chemistry. Using a mixture of the CoCo's 32 column screen and P/Mode 4 graphics, you'll be taught chemistry principles and theories. I was also impressed with the testing section which quizzes you on what the Tutor has presented. The \$42 price tag may be a bit on the high end for some, but attendance at a community college to learn the same material would definitely cost more.

For more information on these two A TO Z Unlimited products, send inquiries to their Software Division, 901 Ferndale Blvd., High Point, N.C., 27260.

Letters From Readers

Q. From Don Northcutt of Wichita Falls, Texas:

In the CoCo Column in the March 1988 issue, the answer provided for Richard Davis' question about upgrading his CoCo 2 skipped over the disk controller issue. Most of the CoCo 1 disk controllers require 12 volts on "land 2" of the cartridge port. The CoCo 2 and 3 do not have this present because only 5 volts DC is used internally. However, an adequate unregulated voltage (approximately 10 volts) is available at one of the large diodes near the power supply.

A. You're absolutely right! As a matter of fact, I fell into that category of

the unknown! My first disk controller was one of those, and I quickly found out that without the voltage present every disk command ended with an I/O error. Although 12 volts can be tapped in and around the CoCo circuitry, the safest bet is to provide the controller with the necessary voltage with the use of a separate power supply unit.

Q. From Dallas Jensen of Coleridge, Nebraska:

Back when the CoCo 2 first came out, I bought one for my daughter who lives in Virginia. At first she just used cartridges and the tape programs. I then ordered a set of double sided half height disk drives and controller from J&M systems with JDOS. I sent her some disk programs but she has never been able to get any of them to run. The computer and drives have been checked out and are okay. Could you make some recommendations as to what I should do to make this a usable system? Is a color monitor and video driver worth the cost and will it work on the CoCo2. Should I get the Tandy drives and RS-DOS?

A. The problems with having a non-RSDOS disk controller are those of incompatibility. Some software manufacturers include routines that check what DOS you are using and make changes accordingly. Some don't! No need to take drastic measures. My suggestion would be to obtain a Radio Shack Disk Basic chip and plug it into the appropriate chip socket. Although there are other alternatives, since this involves both of you in different states, it is probably the easiest route. No need to get new drives though. A video driver and color monitor will come in handy if the computer is heavily used for projects like word processing or office work. If your daughter is unhappy with the RF modulator-to-TV hookup which is standard with the computer, then by all means purchase the driver. ●

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tually buy used more easily, and at a cheaper price?"

Thus after the post-1983 peak in TI interest, TI dealers found themselves restricting their TI offerings, including other computer brands on the shelf—or going out of business. Many dealers boarded up shop, and some skipped town, often having taken payment from customers for goods that had not been in stock.

Dealers like Percherke and Nitka have survived by offering other computer brands as well as TI. Percherke began by adding Sanyo computers, which are IBM-compatible, and then Leading Edge. Nitka offered Apple, Commodore, and IBM. Yet, said Percherke, TI sales still comprise twenty percent of his sales. Said Nitka, "I have nights when I don't sell anything except for TI."

Those TI users seeking more than cartridges have found sources other than local dealers in many cases. Bulletin

board services and telecommunications networks such as CompuServe, Delphi, and GENie, offer ways for even geographically isolated 99'ers to exchange software. Of course, software through the networks is limited to the public domain or "fairware" variety, but there's a lot of good programs for the 99/4A in that category.

The remaining programs—commercial software on disk not usually offered by local dealers—are available either directly from the developers or through one of two large mail order/catalog houses supporting the 99/4A. Genial Computerware of Boston, Massachusetts, and Asgard Software of Rockville, Maryland (301/559-2429), are two software firms whose programs are geared towards the TI'ers with more than just consoles.

According to Chris Bobbitt of Asgard, there are about 25 local dealers across the country who stock Asgard products. Bobbitt estimated that 10%

of his sales are to local dealerships. The rest are either through direct orders or distribution to Triton and Tenex, the "big two" mail order houses supporting the 99/4A.

"At least 50-60% of my business is through Tenex and Triton," said Bobbitt. "They can call up and order 400 of something at one shot."

Bobbitt rejected the idea of offering most software in cartridge form to appeal more to local dealerships. "The console was a great machine...in 1979," Bobbitt said. "Trying to put our software into cartridge form is like trying to put a size twelve foot into a size three shoe."

Barry Traver of Genial Computerware said that the company's software is aimed at those who have full-blown 99/4A systems, usually with "multiple disk drives and ramdisks." Genial has a few dealers, but mostly uses direct order and local TI faires for its sales. Genial might someday also have a section in a Triton or Tenex catalog.

Triton Marketing (800/227-6900) has

a unique position in the TI community. A company that markets books, tutorials, and programs for Ashton-Tate, dBase, and others in the PC world, it suddenly found itself involved with the 99/4A when Texas Instruments charged it with distributing remaining stocks of 99 equipment after the '83 pullout.

"We were given the names of about one million TI-99/4A owners," said Terry Miller of Triton. "We have sold something to 300,000 of them." Such volume, as Bobbitt pointed out, is extremely large for a community like that of the 99. Triton publishes catalogs throughout the year, assuring that each of the original million customers receives at least two.

"The overall response has declined," said Miller. "Yet there is a core group of very committed people to their TI-99/4A and we plan on continuing to support these people for a long time to come." Triton not only offers old TI hardware and software, but has worked out deals with many third party manufacturers for the distribution of both disk and cassette software. Miller welcomed interested parties to contact him (415/574-2559) for more information on offering innovative programs to the large TI audience Triton reaches.

"With us," Miller said, "no sophisticated dealer or distribution network is needed. We offer people a way to get to the marketplace." And with most other ways being blocked, Triton is suddenly a major force keeping the flow of commercial hardware and software going for the 99.

As Tenex and Triton compete, prices remain reasonable, although help and service on products is much more difficult than through competent local dealers.

What of the future? It looks like what remaining commercial support the TI community has plans to stick around for the foreseeable future. "Nobody with any brains would think you could live very long with a machine that's been discontinued," said Percherke. "It's amazing today that six years later there's still software and hardware, amazes me year after year."

And although Percherke hasn't sold a piece of TI hardware in "six or eight months," he believes he will always carry products of some kind for the 99/4A. "It looks like this machine is going to last and be worth my while for another six or ten years, possibly forever," he said.

"I keep saying to myself," maybe I should get rid of some of this stuff," Nitka chuckled. "Then someone comes in and asks for a strange one and I'm happy to have it in stock. TI is definitely not washed up yet."

"The TI simply refuses to sit down and die," declared Traver.

The impact of Myarc's 9640 computer, a card that fits into the TI Peripheral Expansion Box (reviewed in the April '88 *Computer Shopper*), is uncertain. The local dealers do not see

ter" winner. The February issue contains an "On The Boards" section, with bulletin board information and question/answer conversation excerpts, a review of Gauntlet and the new XF551 disk drive, a MIDI column and a rumor and information column.

The *BAACE Newsletter* is the newsletter of the Blue Angel Atari Computer Enthusiasts (c/o Luke Hanley, 2731 Semoran Drive, Pensacola, FL 32503). The February issue features mail and news columns, reviews of Bop'N Wrestle, Wizards Crown, Infiltrator, and a local BBS listing. The newsletter makes excellent use of graphics and fonts. The public domain programs, for example, are rated visually by bar graphs on four qualities.

The February *PACUS Report*, the newsletter of the Packerland Atari Computer Users Society (2714 South Eleventh Pl, Sheboygan, WI 53081), features several interesting columns, news, and reviews of Awardware, Spitfire 40 and MIO. The newsletter utilizes fonts and icons in a very neat and attractive layout.

The *Acorn Kernel* is the newsletter of the Atari Computer Owners of Rochester, New York (P.O. Box 23676, Rochester, NY 14692-0676). The February issue features columns on BASIC, news, and reviews of the SX212 modem and Daisy-Dot II.

The February issue of *Sorcerer's Apprentice*, the newsletter of the Michigan Atari General Information Conference (28111 Imperial Drive, Warren, MI 48093), features 8-bit Atari news, an article on the Atari's redefinable character set, a machine language routine and other interesting articles.

We'll look at reader mail and more news and products for making the most out of your 8-bit wonder.

Readers' comments, questions and contributions are welcome. Address all correspondence to: Jeff Brenner, "Applying The Atari 6/88" P.O. Box F, Titusville, FL 32781. ●

ATARI

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ined the contents of the ROMs and was surprised to learn that they are not 5200 ROMs at all, but games for a system I used to own, the Bally/Astrovision Professional Arcade. Since it is a Z-80 based machine, I fear the chips won't work in the Atari. I don't blame Lolir, though. They probably believed whatever the seller told them.

Robert Davis was looking for a VT-100 emulator in the same column. B & C Computervisions (3257 Kifer Road, Santa Clara, CA 95051, 408-749-1003) has a Public Domain library and shows a VT-100 emulator for the Atari 800. (It needs a translator for the XL/XE.) It is disk #PD037 and sells for \$5.00.

I also have a request: Can anyone tell me how to get decent resolution on the Commodore 1902A monitor with the Atari 130XE driving it through the Composite Video input? I get a lot of artifacting and some smear, and the color background seems slightly out of register with the bright letters in the foreground in 40-column mode (80-column is about as bad as a TV).

Also, do you know how much interest there would be in a relatively simple (half-a-dozen chips) text-to-speech machine which plugs into the parallel printer port? I'm talking about a do-it-yourself article with drawings and possibly photos. No programming is required, so you could use the unit with Infocom games, for example. (Just what everybody needs—the ability to have everyone in the house hear of your untimely demise while playing "Leather Goddesses of Phobos!")

SSG Richard C. Tietjens
Bavaria, West Germany

Thanks for sharing the information.

Reader Paul Strutz was indeed using real Atari 5200 ROMs, and the reason why they would not work on the 8-bit computers was because of hardware and operating system differences described in last month's column by Bill Hicks. I'm glad that you mentioned the Lolir ROMs, however, in the event that some readers have been trying to use the ROMs with actual 5200 machines. If the ROMs are truly 5200 ROMs, you should be able to replace the ROMs of a cartridge with the new ROMs and get a working game cartridge. I haven't examined the ROMs offered by Lolir, and cannot verify if they indeed are Bally/Astrovision ROMs.

As for your suggestion of a text-to-speech machine for the parallel printer port, I don't know how much interest there would be in such an article since the fascination with speech synthesizers has faded considerably. Your best bet would be to modify an existing text-to-speech device or one of the several voice synthesizer projects that have appeared in magazine articles for the 8-bit Atari. A program such as SAM (Software Automatic Mouth, a software-based text-to-speech synthesizer for the Atari) rewritten to hide in unused memory and to read the text buffer sent for printer output would be ideal.

Newsletter Honorable Mentions

Last month the *Michigan Atari Magazine* won the title of best newsletter, and this month we'll take a look at several other well-designed newsletters that were submitted for February 1988.

Phoenix, the newsletter of the Toronto Atari Federation (5334 Yonge St., #1527, Toronto, Ontario, Canada M2N 6M2), was a previous "Best Newslet-

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it catching on in their areas and have received few inquiries. "Those who were interested at first got tired of waiting and bought IBM-compatibles," said Percherke. "If we could sell a 9640, we wouldn't bother," he added. "There's a minimum order of 3-6 machines to become a dealer, and there just isn't that demand."

"If two people come in and say they absolutely want one, I'll do it," said Nitka. "But it'll never happen."

Possible third party software developers for the 9640 might go so far

as to ensure compatibility with 99/4A software, but seem reluctant to work on producing software that takes advantage of the extra capabilities the 9640 grants the 99/4A environment. "That's a little farther down the road," said Bobbitt. "I don't expect to see a great deal of 9640-specific software out there."

There is one TI dealer that simply bubbles with enthusiasm for both the 99/4A and the 9640. Barb Wiederhold, owner of the Queen Anne Computer Shoppe in Seattle, Washington (206/

522-6558), is staunchly and completely TI-specific. She began in October of 1983, because there was "a need," and has since been labeled "TI evangelist extraordinaire." "The only problem with the TI market is that they don't know where to find the dealers," said Wiederhold. "All we need to do is get the word out."

"Most who shop here don't have expansion systems," she said. "But once we show them what they can do, they want them—it's just a question of advertising."

Wiederhold offer a 24-hours, 300/-1200 baud bulletin board (206/361-0895) for direct purchases and discussions of TI products. The board boasts 168 9640 users, including three from Italy.

"I think fairware isn't such a great idea," said Wiederhold. "People would buy the software in the computer shop or a catalog." According to Wiederhold, the Shoppe breaks even financially, and as long as it supports itself, she is willing to work there. "I'm not making any money," Wiederhold said. "I'm providing a service."

Amazingly, there is enthusiasm and activity within the TI community that defies the fact that the original supplier and manufacturer has long abandoned it. While the users groups continue to meet and support faires (notes Traver, from Philadelphia, the TI group there is second only to Apple and IBM in popularity), the bulletin boards remain in operation, the local dealers offer further information and software, publications print TI-specific news, and Tenex and Triton keep mailing out catalogs, the TI-99/4A will not die. It's the users of those other brands who are missing out.

Ron's Part

Summer is upon us and, as opposed to the usual "doldrums" in computer activity, the TI world is alive with activity. Just goes to show you again that the 99/4A community does not follow the prevailing breeze in the computer world. It's a nice breath of fresh air, certainly.

New Software

Paul Coleman of "Namelec Software" sent us a copy of his latest release,

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TIMEX/SINCLAIR

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as well. Going online? You may want to spend some time reading the portion of this chapter which relates to interfacing and using a modem. Even game software (even though the QL is billed as a business computer) gets looked at in the final chapter.

Five appendices follow, making this the most complete and easy to use book on the Sinclair QL that I have ever seen. Even if you think that you know your QL I would highly recommend the purchase of this book as an addition to your QL library. I am sure that you would

find a few new pointers between its covers.

It is amazing how time flies, especially when dealing with the Sinclair computer community. It does not seem that long ago that I first noticed an advertisement in GAMES magazine for a real computer priced at just \$99.00! That computer came with just 1K of memory although it boasted an 8K ROM with built in BASIC. I ordered it and soon was hooked. (Yes, I added 64K of memory—quite a lot for any computer in those early days). Soon I was writing

software for my (then) photography business and a gradebook for my wife. When I saw the poor quality of the software being marketed by Timex, I soon found myself putting my software on the market—quite successfully. The T/S 2068 followed and then it happened—Timex pulled the plug. My determination to keep the Sinclair community together and help each other coincided with Stan Veit's call for the same thing. Thus, in June 1984 this column made its first appearance. As we start our fifth year together I once again have to thank Stan and the entire Computer Shopper family for being as supportive of the Sinclair community as they have. Thanks gang!

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TI Forum

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Graphic Lister. It is a companion to the TI Artist package. It makes Artist even more useful by making the graphics of Artist useful in generating mailing custom mailing labels. Actually, Lister is a combination of utilities. "Listmaker" is a BASIC program that allows you to build, save and edit a mailing list. Examples are provided. Once a mailing list is generated, there are three programs which are written

in super fast c99 to do the actual printing. One takes all or any part of the list and print labels incorporating any 12 character T. Artist font. A second program can place a small (7x5) instance on your labels. The third utility allows printing of a larger (up to 12x10) instance along with an Artist custom font. Other utilities included will convert a previous Labelmaker data file to a "Listmaker" file. Other utilities are included as well. The Graphic Lister package requires TI Ar-

tist, 32K memory expansion, printer and disk drive. It loads from either Extended BASIC or Editor/Assembler. I think you will find it a super addition to your graphics collection. The software (along with Nameloc's Designer Labels package) is available directly from Nameloc (3971 S.E. Lincoln, Portland, OR 97214) or Texaments (53 Center St., Patchogue, NY 11772; (516) 475-3480). Cost is an incredible \$10 + \$1.50 S & H. And, get this: you can get the c99 source code for the 3 print-

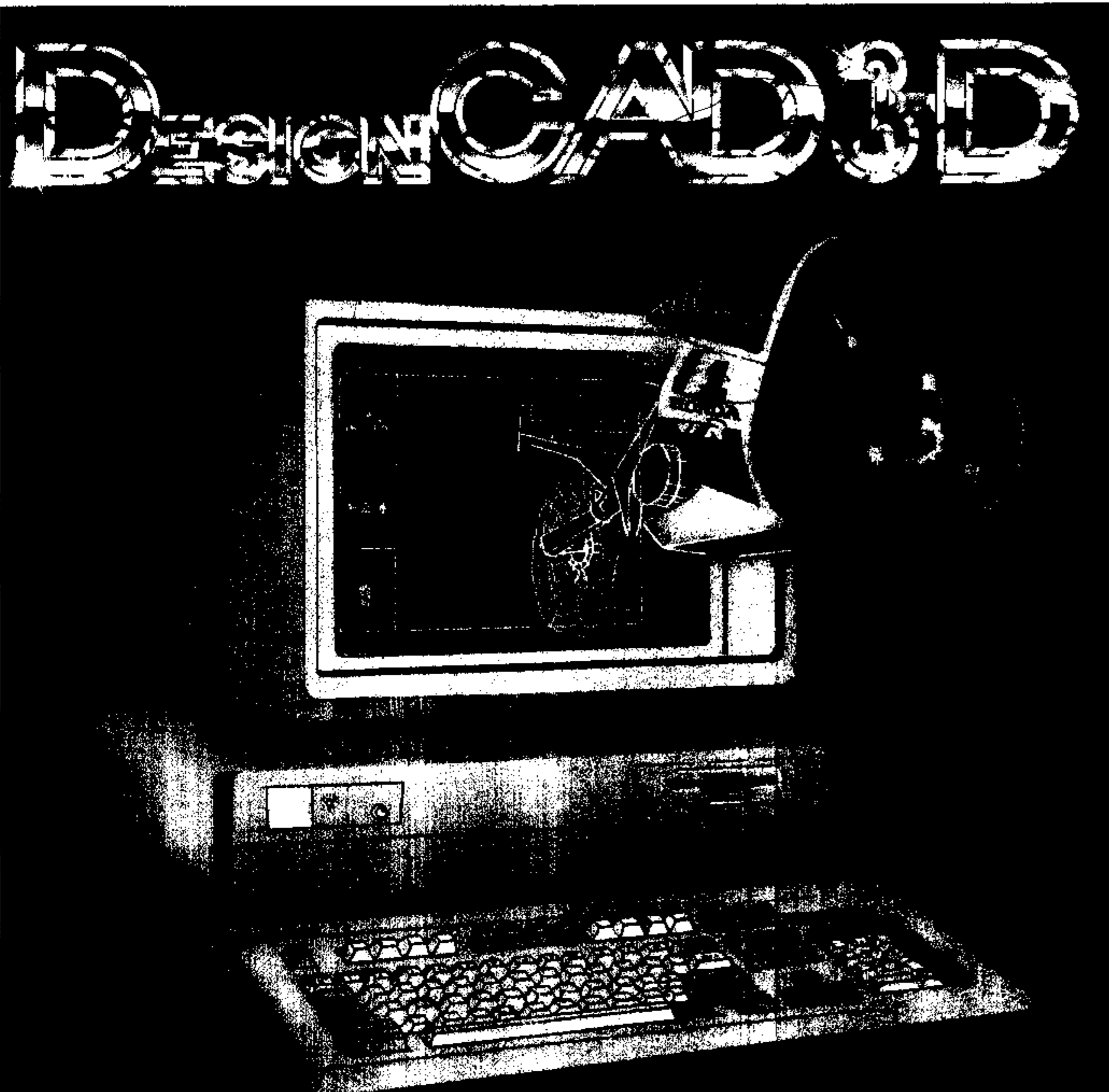
ing utilities for an additional \$5. A super offer. Take advantage of it.

There is a new compiler on the market. One of the laments of the TI programmer for some time is that BASIC and Extended BASIC on the 99/4A is not very fast. BASIC on other machines has the advantage of being "compiled," enhancing the execution speed of the code. The MSDOS and other machine types have several packages that take the native BASIC code and convert it to machine code thus markedly increasing the performance of the software. There have been a few attempts previously to accomplish this on the TI, all with varying success. Now there is another for your consideration. Douglas Martin of "DKM Enterprises" (P.O. Box 501046, Indianapolis, IN 46250-1046) sent along his XCOM compiler package. The software comes on a copy-protected disk and a 10 page manual. System requirements include a Mini-memory module (to load and execute the compiled programs), 32K memory expansion and at least one disk drive. According to the manual, the way the system works is like this: you save a BASIC or Extended BASIC program to disk with the "merge" option. Simply type "SAVE DSK1.XYZ,-MERGE", where "XYZ" is the name you want to give the saved file. "Wait a minute!" I hear you saying. You can't save a file to merge format from BASIC, right? Wrong. With the utility provided on the XCOM disk, you can. From BASIC with Mini-Memory plugged in, you simply type "CALL LOAD("DSK1.MERGE)", which loads an assembly language utility from the disk. You then can load your BASIC program in and save it "merged" with "CALL LINK ("MERGE", "DSK1-XYZMERGE")." Neat, eh?

Compiled programs are then loaded in from Option 1 of the Mini-Memory module. There are some limitations to the compiler as described in the manual provided. The BREAK, TRACE, UNTRACE, and UNBREAK statements are not supported. Some of the other statements calling for arguments may have to be modified as well. But, in general, the package appears to be perhaps the best of this genre to come along. Confession: I did not have a Mini-Memory module with which to run the compiler prior to this column's due date. Therefore, I cannot give you a firm "buy this." I hope to be able to, however, from what I see on paper, it is well worth your looking into. Why not drop a line to DKM for further details. Be a pal, and send along a SASE if you can as well. The price for the software is \$49.95. Check it out!

How To Get Fairware

We often discuss the latest in offerings from TI programmers under the "alternative" marketing scheme called "Fairware" (or "shareware" or whatever). This is a "try before you buy plan" that enables small business ventures to get their programs out with a minimum start-up cost and allows the users, themselves, to do the marketing by spreading the software hither and yon. This plan has brought forth some of the best software around for the TI



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Have you ever tried to design a part in 3-D? It's a lot more fun than you think. DesignCAD 3-D is the only 3-D design tool that runs on the TI-99/4A.

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TI Forum
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(PRbase, Fast-Term, the c99 programming language among others) are prime examples. The two most accessible for many TI users to get at this software are either through belonging to a users group (you do belong to at least one, right?) or through communications networks, either the local BBS or one of the major networks. Unfortunately, I have found that many of the readers

of this column are neither in a users group nor have capabilities to telecommunicate. Where do they turn? Well, someone has filled the gap. Bob Neal (317 Hickory, Romeoville, IL 60441) makes available all the major fairware packages to those who fall into this predicament. For \$2.50 a program (hardly covering the time and effort involved in a disk copying, mailing, etc.), Bob's Fairware Exchange will get these fine programs out to you. For his latest catalog, send along a SASE to him and

check it out. I think you will find his service excellent and his offerings complete. Further, you will be amazed at what is available through the fairware marketplace.

Just "FYI"

Ali Ulgen, a member of the North-Coast 99ers in Ohio has completed a survey of some 700 plus TI owners nationwide, mostly user groups members from some 73 different groups. He has made the results of the survey available

and they give a clear picture of the make-up of the "typical" TI 99/4A owner, at least those who belong to users groups. Here is the summary as published in the Charlotte TI 99/4A USers Group newsletter. (And I wish I could reproduce the illustration that accompanied this summary. Great work, Charlotte!)

The TI owner is a he, over age 45, with a college degree. He is self-employed or a professional, who uses a computer to some extent at work. He owns 2 TI's, one of which probably is at work. Only one system is full-expanded. On that system, he has standard TI equipment, a 32K memory card, a TI controller, one single-sided, single-density drive and perhaps a second external drive. He owns no hard dis, RAM disk, 9640, Turbo XT, Rave 99 keyboard, mouse, or anyone else's expansion card, and probably doesn't plan to buy one. His printer is a Star Gemini. One of his systems has a monitor, the other is attached to a television. He has about 25 modules, one games, which he still likes to play. Outside of that, he uses his TI for word processing, doing letters and small tasks with it. He is trying to organize his life with the ideal database which he has yet to find. He programs a little, mostly in Extended BASIC. He occasionally uses a modem to connect to a friend's computer and transfers a program using a 300 baud modem. He is thinking about using a commercial computer telecommunications network. He attends his user group meetings which he wouldn't think of leaving—its his lifeline to continued enjoyment of his TI.

Well, how do you stack up? The freebie winner this month is Marc Levine of Champaign, IL. Marc wins Recipe Writer II, Legends, Calendar Maker, and the Electronic Gourmet, all from Asgard Software (P.O. Box 10306, Rockville, MD 20850). Congratulations to Marc and thanks to Chris Bobbitt of Asgard for sending the software along. ●

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Secrets Of The Adam
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sometimes? The microprocessor within Adam is "house cleaning." To help cure this annoying problem, include a statement in your program, where screen printing isn't necessary, A = FRE(0). This statement will make the Adam do "garbage collecting" when it will be less noticeable.

Of course, you can PRINT or LPRINT the variable A to see how much free memory you have left, but in most game situations you will not want this to clutter your display. There is a practical side to the statement. If you are programming a database program, you may need to check the memory allocated and see if you have room for your files.

Colors! Colors! Colors!

Are you tired of black & white on your Adam? Well, type in the following program and save it as HELLO on

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