

# TI-99ers in the '90s

Classic Computer Column  
by Barry A. Traver

## Fall Faire Follow-Up

In my July 1990 column I mentioned two TI faires scheduled for October. That information still stands (e.g., you can contact N. Michal Calkins, 1215 S.W. Cedar Street, Lake Oswego, OR 97034, phone 503/636-1839 for information on the Columbia Northwest TI Computer Fair scheduled for Portland, Oregon, for October 27-28) with one important change: the Harrisburg faire, otherwise known as the Fourth Annual CPUT Computer/Electronics Exposition, has changed its date to October 7--one week sooner than announced earlier-

-and its location to the National Guard Armory, Palmdale, Pennsylvania. For up-to-date information, write to the Central PA 99/4A Users Group, P.O. Box 14126, Harrisburg, PA 17104-0126, or phone Dave Ratcliffe at 717/238-5414.

Be sure to remember the Chicago TI Faire, one of the big TI events of the year, scheduled for November 2-3. We hope to have more information in next month's column, but if you want more details right now, you can contact the Chicago TI Users Group, P.O. Box 578341, Chicago, IL 60657. Since I have not heard otherwise, I assume that the Milwaukee TI Faire--a smaller, more informal event, but with its own nice qualities--will be scheduled as usual for the following day, i.e., November 4.

## 80-Column Card Update

At least one reader has written to ask for more information on the 80-column cards for the TI-99/4A I mentioned casually in this column a while back. The situation has changed considerably in the last few months. At that time, the Mechatronics card (made in Germany) was no longer available in the U.S. But DIJIT in this country was making its own 80-column AVPC (Advanced Video Processor Card) which likewise was able to offer TI'ers the opportunity to move up from the TMS9918A video chip to the advanced features of the V9938. The V9938 includes not only 80-column text display, but also other

improved features, including the ability to display color GIF pictures on the screen.

Well, there's good news and bad news. The bad news is that DIJIT, while definitely committed to supporting the AVPC's that have already been sold, is presently not taking any new orders for the AVPC. That's too bad. I have an AVPC myself and think it's a good card. The good news is that Asgard Peripherals (P.O. Box, 10697, Rockville, MD 20849) has announced its plans to bring back the Mechatronics card in a revised format.

In fact, if Asgard was able to hold to its announced intentions, the Mechatronics device hopefully should be available at the time of publication of this column. Asgard intends a selling price of \$200 (plus

## CLASSIC NEWS

### Commodore Corps

of thunder rolling over the waters.

## Company Information

Heat Wave Amiga, \$44.95 Apple II GS, \$44.95 Commodore 64, \$29.95 IBM PC/Tandy, \$39.95 Accolade 550 S. Winchester Blvd. San Jose, CA 95128 Phone 408 296-8400

## Butcher Hill

You dive into your inflatable dinghy and rev up the engine. You power up and you're heading upriver, flanked by a threatening dark jungle. You concentrate on fighting the current. Suddenly the waters boil with frenzied action. You start blasting away at mines drifting towards your river craft, your every nerve and sinew alert to danger. You keep a wary eye out for the friendly plane dropping ammunition, food and medical supplies. You haven't seen the enemy yet but already you face a

constant battle as you edge your way toward the waiting enemy.

Once in a while your mind edges back towards reality. You find yourself facing your C64 monitor. Besides the scenery and the action graphics, the screen shows your remaining stamina, score and the amount of ammunition you have left. You can change the sky's color with the number keys at the top of the keyboard.

If you want you can silence the frightening music. With the F3 key, you change the sound so you only hear the quiet river sound effects. When the game is over you record your name and high score and the program saves it.

Does this game sound exciting? Well, the idea is fine but the action needs improvement in this game for the C64 by Mastertronic. The first graphic you see after loading the program is an artistic rendition of a muscular jungle fighter. You hope he is on your side. Then, the music begins, adding tension to the drama with its haunting, repetitious minor refrain. Unfortunately, once you find yourself

in the game maneuvering your dinghy the questions begin.

Why don't the controls respond in a useful way? Why does the craft jump over obstacles sometimes and explode at other times? Why does the craft sway at random intervals with a slipshod response to the joystick as if this were a cheap BASIC magazine program? An elementary question should be... who is the enemy anyway?

You look in the five page pamphlet that came with the game and you don't find any worthwhile answers. The pamphlet says you are to start the game in the River scene, advance to the Jungle scene and end up in the Village battle. Neither myself, nor my two teenage assistants, Allen and Jason, were able to advance beyond the River stage.

The first disk I used didn't load properly most of the time. I called Mastertronic at 714 833-8710 and received another disk shortly. This

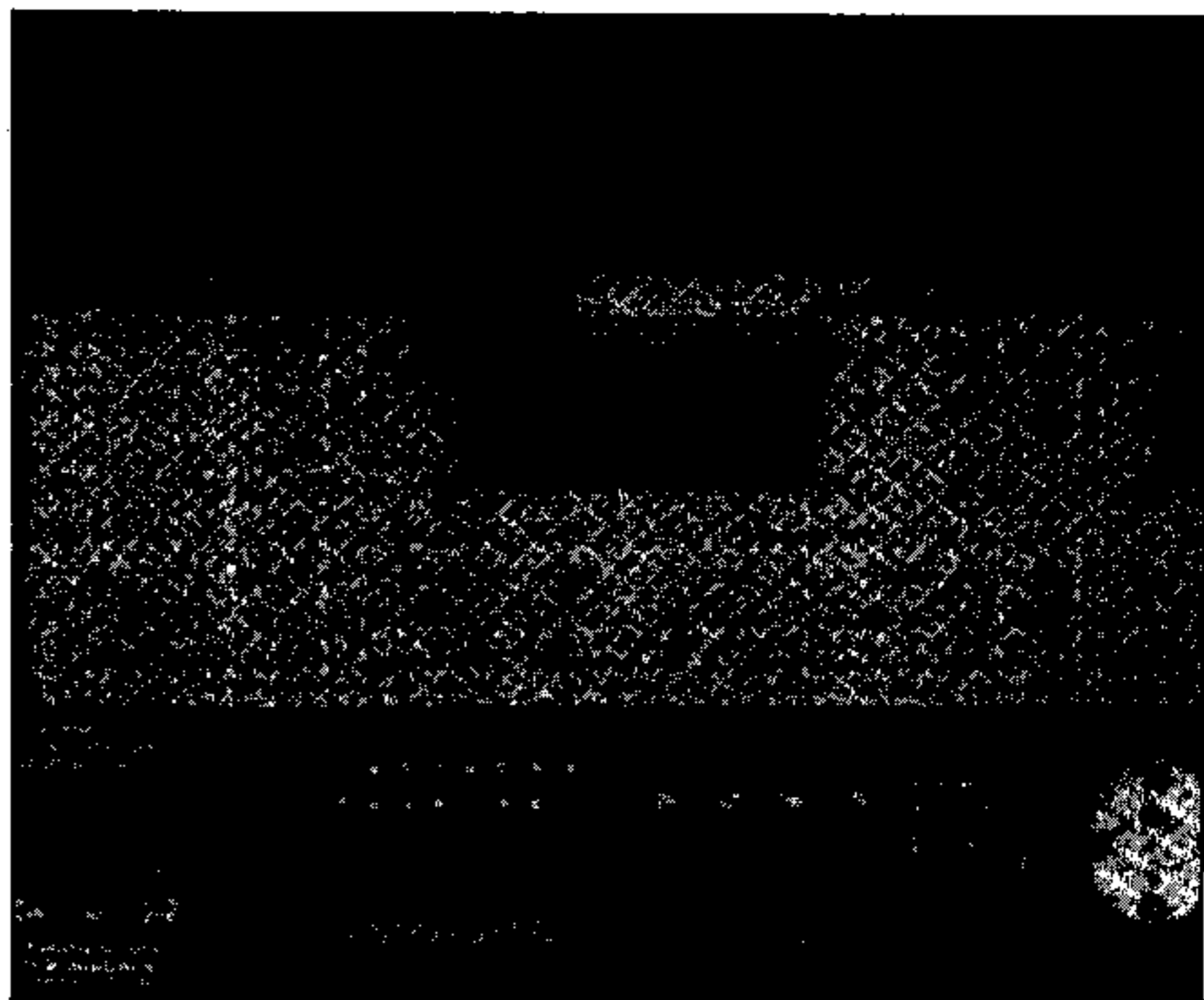
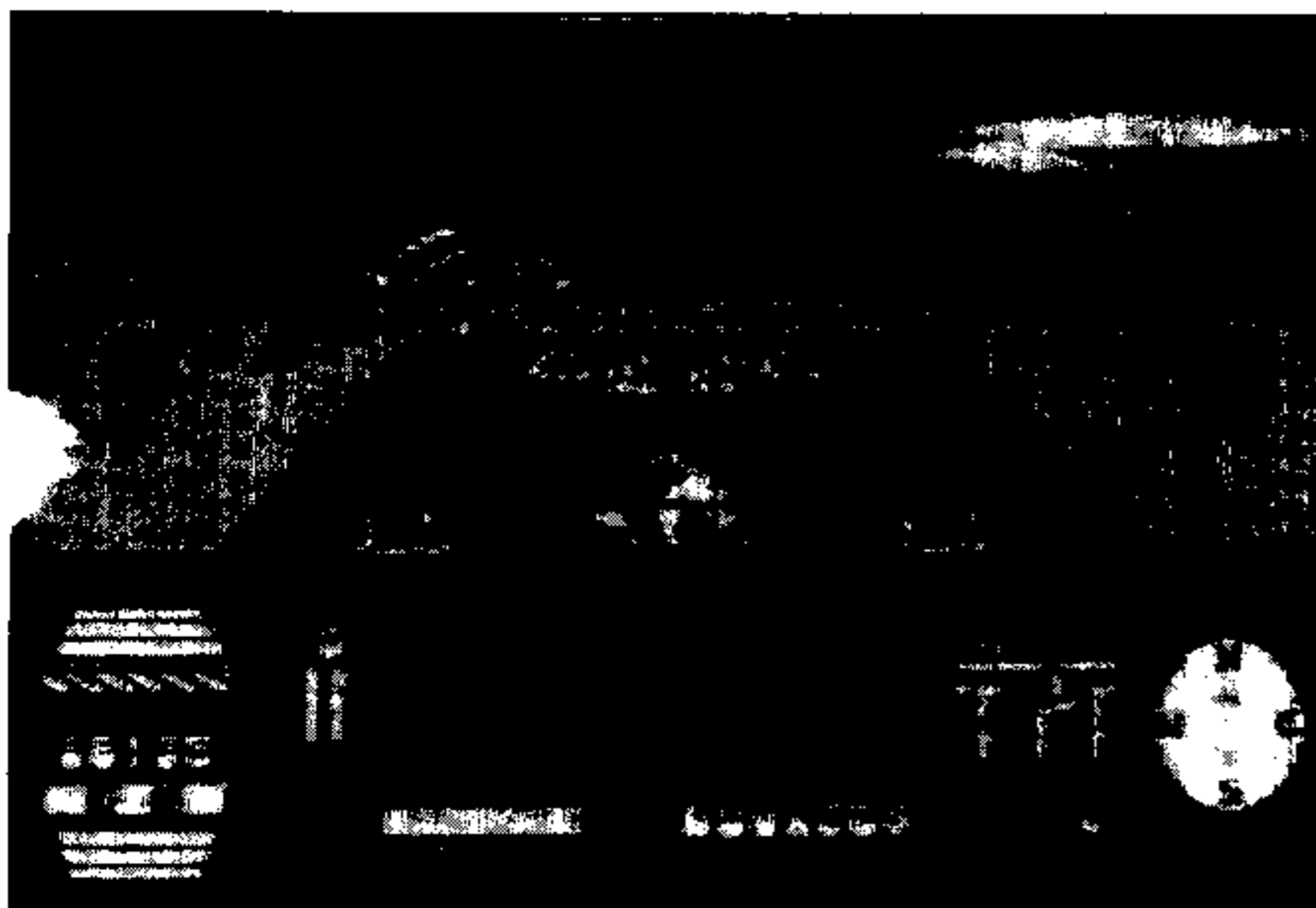
disk loaded fine, but the game was as baffling as before.

Another problem noted is that you only have half a screen to see the obstacles float toward you. This doesn't give you much time to defend your craft.

Although the game promises much on first impression with its excellent initial screen graphic and outstanding musical effects, the slushy joystick action and the baffling joystick control movement prevent me from recommending this game. The Mastertronic representative assured me there are other Mastertronic programs that are of more interest. So, park your inflatable dinghy, pack up your M16 in grease and head back for home base. Butcher Hill is not a keeper.

## Company Information

Virgin Mastertronic International, Inc., Price \$9.95, 18001 Cowan, Irwin, CA 92714 (714) 833-8710 ■



## TI-99ers

\$10 shipping and handling), but you should check directly with Asgard (phone 703/255-3085) as to up-to-date price and availability before ordering.

The DIJIT device was a card that fit into the Peripheral Expansion Box (P.E.B), whereas the Mechatronics card takes a sidecar approach, attaching to the side of the console. Each method has its advantages and disadvantages. The DIJIT approach took up less desktop space, but it had the disadvantage of requiring that any RS232 card in the P.E.B. be modified in order for the serial ports to work properly--not that major a matter, but something extra needing to be done, nonetheless. The Mechatronics device is easier to install. Both, of course, require some modification of the console to disable the 9918A chip presently there.

I understand that Barry Boone, author of ARCHIVER III and many other very popular programs, is rewriting (or, hopefully, by this point has rewritten) the internal software for both the DIJIT and the Mechatronics cards. His versions should have substantial improvements over the original versions, particularly in the case of the Mechatronics card which reportedly once contained some significant deficiencies. If you order the Mechatronics card from Asgard, you will have the new Boone software. If you have a DIJIT card, you may have to get the new Boone software for it directly from Barry (Barry Boone, P.O. Box 1233, Sand Springs, OK 74063).

The price for either device (\$200-\$250) is a lot of money for most people, but many Tiers would testify that it is money well spent. Another way to move up to the 9938 is, as I mentioned in a previous column, to purchase the Myarc 9640, a TI-99/4A-compatible upgrade, but that's a topic for another time. One nice aspect of the situation is that excellent software for the cards is already available (e.g., 80-column FUNNELWEB and the XHI assembly routines to use as CALL LINKs with Extended BASIC), with the promise of more to come.

## Multi-Color (And More) For XB

Having already surveyed 12 different "Extended Extended BASICs" in past columns here and elsewhere (DEP, EDP, Mechatronic XB II+, Myarc XB II, STAR, SUPERBASIC, String Master, SXB, Triton SEB, XDP, XXB and The Missing Link), we're ready for yet another; a worthwhile accomplishment by Jean Marleau that I should have reviewed earlier. It's called Multi-Mode XB, and it's available from Disk Only Software, P.O. Box 244, Lorton, VA

22079 (or call 1-800-736-4951, U.S. and Canada).

As its name suggests, MMXB offers not two, but three graphics modes: normal graphics mode, text (40-column) mode and (something new!) multi-color mode. One very nice feature is that you can do a FCTN-4 (BREAK) while in text mode or multi-color mode and not end up in never-never land. In fact, a simple CON will let you resume where you left off. This is a feature that is not present in most other packages that utilize text mode (e.g., XXB). Another nice feature is that you can CALL user-defined subprograms while in text mode and not have screen glitches appear at the bottom of the screen. In short, MMXB is a professional resource that ought to be considered for purchase even by those who are not excited about multi-color mode and who may already be using something else that offers 40-column screen display.

MMXB offers 54 new or expanded assembly subprograms and 10 new Extended BASIC subprograms that show practical applications of some of the new assembly CALLs. Some of the new CALL LINKs can also be found in other "Extended Extended BASICs," e.g., BEEP and HONK (accept and error tones), NOQUIT and QUITON (disabling and enabling QUIT key), HIDE and SHOW (turning off and on the screen), BIGCAP and LOWCAP (different size capital letters), LOWCAS (reloads lower case letters), STARTM and STOPM (starts and stops sprite movement), QUIT (goes to title screen), and NEW (erases XB program, but doesn't clear screen). This overlap is not necessarily a bad feature. What it means is that if you switch over to MMXB, you may retain essential utilities which you may have come to depend upon.

In addition to the routines just mentioned, there are more that may be familiar. ALPHAK, CTRLK, FCTNK and SHIFTK return the status of the alpha lock, control, function and shift keys. SPACEK does the same for the space bar. LOAD, LOADV, LOADVO, PEEK and PEEKVO are powerful routines for reading from and writing to CPU or VDP RAM. Actually, LOADVO and PEEKVO are unique to MMXB, as far as I know. These routines allow reading from or writing to the screen with the 60 or 96 BASIC offset built in, a nice touch. Another command, OFFSTR, lets you offset each character of any string by whatever amount you want.

There is a very powerful ACCEPT routine for text mode or normal graphics mode which, among its many features, includes four new function keys and lets you define up to 18 function keys of your own!--controlled by FCTON and FCTOFF. In text mode, ACCEPT can even accept in reverse video. Both ACCEPT and the simpler KEY routine

can detect all 256 characters. TXMODE allows entry into text mode--after colors have been defined with COLORT--and XBMODE allows return to normal graphics mode. PRINT can be used in either mode to display expressions on the screen (similar to XB's DISPLAY AT).

MCMODE allows entry into multi-color mode, and CLEARM clears the screen in multi-color mode, just as CLEAR clears the screen in text mode. Other multi-color routines are ALLCOL, CARCOL, GCOLOR, HCOLOR, VCOLOR and SPRITS. I won't try to explain them here, but they do make it much easier to work in multi-color mode, as do the user-defined XB programs GETLINE, SAVELINE, RCOL, WCOL and STRCOL also included on the disk.

There is also scroll support for graphics and text modes, i.e., it is possible to lock the top lines (with LOCKUP) and bottom lines (with LOCKDN), and scroll the screen up (with SCRLUP) or down (with SCRLDN). GCHAR, HCHAR and VCHAR are also supported in both modes.

VERSION merely tells what version of MMXB is being run, but GSOUND and SSOUND provide support for sound lists, permitting playing of music without further program control. JOYSTS scans both joysticks and fire buttons at the same time. INVERT inverts each character of a string, useful for reverse video. That's about it, except for the other XB user-defined subprograms that I didn't cover; e.g., VDPDUMP which saves to disk or loads from disk screen image tables of any of the three modes!

I must confess that after having looked at so many other XB extension packages, I was not expecting to be impressed with this new entry into the field. But I am glad that I was proven wrong. However, since a good reviewer must try to find some things to complain about, I'll mention two things.

First, MMXB takes one minute and 45 seconds to load. The author mentions that "if you have PROJEM's SAVE-ASM-FOR-XB, you can easily modify the structure of Multi-Mode XB (and most other assembly programs) to load a lot faster in Extended BASIC (about seven seconds)." Personally, I would like to see future versions of MMXB include a quick-load program right on the original disk. The PROJEM program suggested may be worthwhile, but it isn't necessary to purchase to accomplish this purpose: Todd Kaplan's public domain ALSAVE program (supplied, e.g., with XXB) will work just as well.

Second, the 28-page Multi-Mode XB manual is adequate and the disk includes a good demo program that illustrates use of almost all of the commands. But I'd like to see the documentation expanded and more demo programs supplied in future

versions, if the author can be so persuaded.

But these complaints are minor. MMXB is one of the best "Extended Extended BASICs" yet (perhaps not as versatile as The Missing Link, but with its own good qualities nevertheless), and I hope that it will find a wide audience. I do not have up-to-date information on price, although I believe it is in the \$35-\$45 range, which is a reasonable price but perhaps a bit high for the TI marketplace.

## After Computer Monthly, What Else?

In the July 1990 issue of Vulcan's Computer Monthly, Lynn Williams reported on two magazines currently supporting the various TRS-80 machines, so it may be appropriate here to report on the publications magazines currently supporting the TI-99/4A and Myarc 9640.

You already know about the "TI-99'ers in the 90's" column in Computer Monthly, of course (you're reading it now!). Computer Monthly is, as far as I know, the only newsstand publication currently supporting Tiers on a regular basis. If you're grateful to have a magazine around that is continuing to support classic computers like ours, I have two specific recommendations for you: (1) have forthcoming copies of Computer Monthly sent to you directly by subscribing, if you don't already. This will mean getting each issue at about half the cost you would pay at the newsstand, not to mention being guaranteed to get a copy of each issue, and (2) be sure to tell your TI and Geneve friends about Computer Monthly and encourage them to subscribe as well.

I hope you read the rest of the magazine in addition to this column. Besides publishing a regular monthly section devoted to the TI-99, Computer Monthly is a helpful publication in at least two other ways: (1) it is a good "source for computer buyers" if you're looking for a good deal on things like disks, modems, printers, disk drives, monitors, etc. (e.g., I get my 5 1/4" DS/DD disks at 21 cents each from MEI/Micro Center, whose advertisements regularly appear in Computer Monthly), and (2) it is a good way to keep up with what's happening in the computer world in general.

Like the TRS-80, the TI-99/4A has two magazines that are strictly devoted to our machine, but are not available on the newsstand: MICROpendium and Reflections. If you have sent in your subscription to Computer Monthly, you should also consider subscribing to either or both of these magazines.

MICROpendium (P.O. Box 1343, Round Rock, TX 78680) is now, I believe, in its seventh year of publication. The cost of subscribing to this monthly magazine is \$25 per year for U.S. subscribers and \$32.50 (U.S.

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# Apple II News

*Classic Computer Column*  
by Philip Chien  
(c) 1989

## Three Times 2400 BPS

The first internal modem for the Apple was introduced in 1978 shortly after the first Apple IIs were released. By today's standard, the DC Hayes Micromodem II was relatively crude. It only communicated at 300 baud, used pulse dialing and had a bulky box which took up desk space in addition to the internal board. But for its time, it was a radical step forward. For the first time, direct connect modems with auto-answer/auto-dial capabilities were placed with reasonable budgets.

The Micromodem II is still surprisingly popular. Many internal Apple modems from other companies were designed to emulate the Hayes Micromodem II. However, in 1980 a new standard was established which changed how computers programmed modems with the DC Hayes Smartmodem. The Smartmodem defined a set of ASCII commands, starting with the prefix "AT," which sets up the modem and programs it to answer the phone, disconnect and change modes, among other functions. Since the Smartmodem is a stand-alone ASCII modem with an RS-232C interface, it could hook up to virtually any computer or terminal. Ironically, the introduction of the Smartmodem, which quickly became the defacto

standard of the computer industry, made the DC Hayes Smartmodem one of the few modems available which ISN'T Hayes (Smartmodem) compatible.

The Hayes Smartmodem standard has become so entrenched, it's now used with mainframe computers, smart interface I/O boxes which have nothing to do with computers, and over 99 percent of the stand-alone modem market. Even internal modems emulate the Hayes Smartmodem standard. PC-compatible internal modems emulate an IBM serial interface attached to a Hayes Smartmodem, and internal modems designed for Apples emulate an Apple Super Serial card at-

tached to an external DC Hayes Smartmodem.

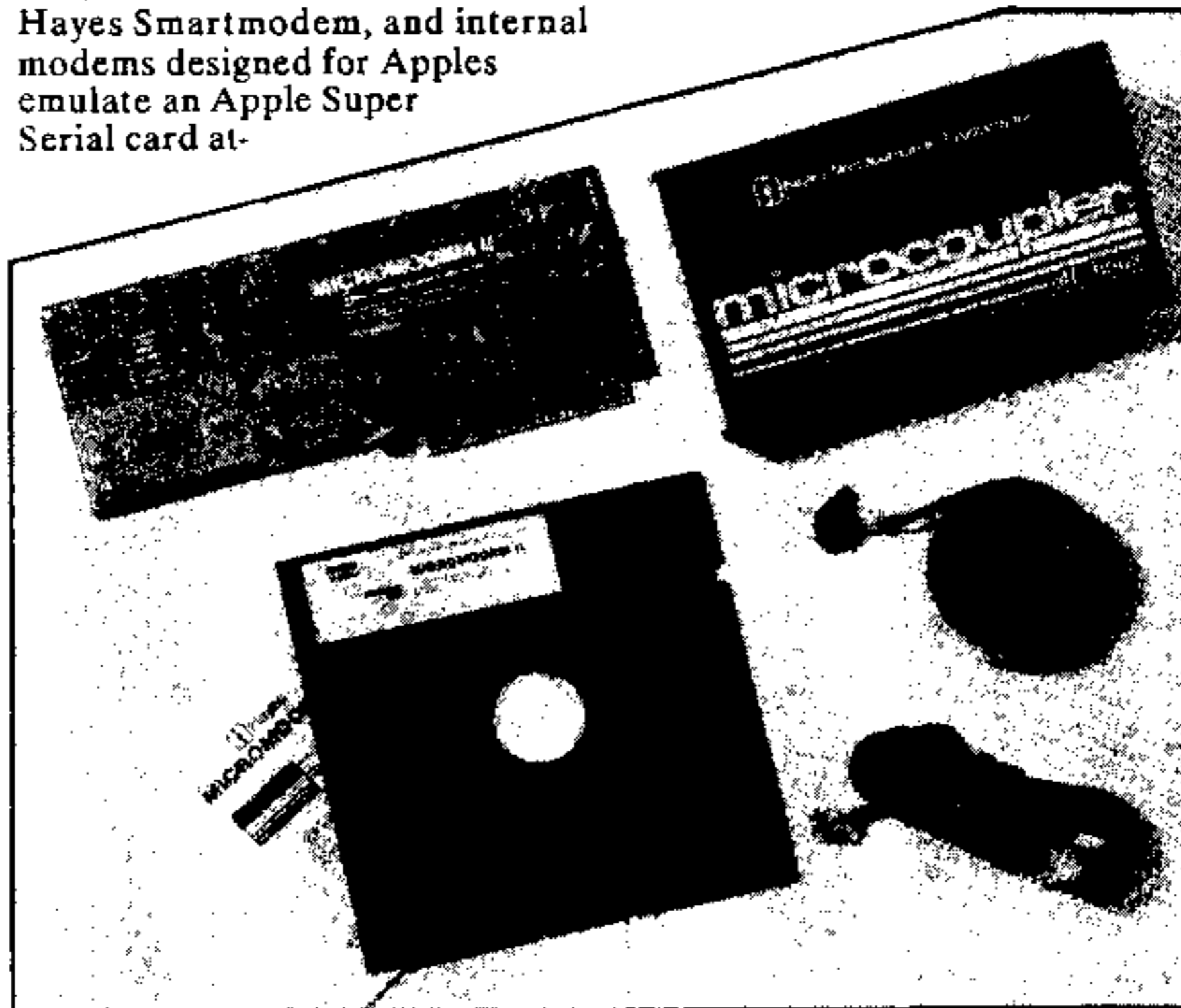
Apple Computer has made serial cards with three different ACIAs (Asynchronous Communications Interface Adapters). The original Apple Communications card and DC Hayes Micromodem II used the Motorola 6850. The Apple III, Apple Super Serial card and the Apple IIc use the Synergistics 6551, and the IIGs and the Appletalk serial card for the Apple IIe use the Zilog 8530 ACIA. Some second party cards used different ACIAs, which should

be avoided since they're highly incompatible with most programs. Communications programs must be written specifically for the ACIA used, and you should be aware of the type of ACIA used for your communications port.

All of the current internal modems for the Apple II family emulate a Super Serial card with its 6551 ACIA attached to a Hayes-compatible Smartmodem. Even if you install your modem in a IIGs, you should tell your communications program that you're using a Super Serial card.

When choosing a modem, one of the most commonly asked questions is: Should I choose an internal modem or an external modem with a serial interface? The primary advantages to external modems are status LEDs which monitor the modem's status, and flexibility since the same modem can be used with several different types of computers. The disadvantages of an external modem are the additional desktop space, extra power outlet and the cost associated with the serial cable. The cable is the final link between the modem, your computer and the serial card for IIe owners. IIGs and IIc owners have built-in serial ports, making the advantage of an internal modem less important.

For most users, a generic external 2400 bps (bits per second, often incorrectly referred to as "baud")



## TI-99ers

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funds) for Canadians. MICROpendium has a proven track record and an enthusiastic readership.

The magazine includes news, reviews, programs, articles, regular columns and quite a few advertisements. MICROpendium describes itself as "covering the TI-99/4A and the Myarc 9640," and indeed includes something for everyone. I personally recommend the magazine highly. John Koloen is the publisher and Laura Burns the editor. Both of them have been doing a consistently high quality job over a substantial period of time.

Magazine length may vary slightly from issue to issue, but most issues seem to run about 48 pages. Incidentally, if you don't like typing in the programs, you'll be glad to hear that MICROpendium does offer regular subscribers the opportunity to order the programs published in the

magazine on disk--at \$4 per disk or \$40 for a full set of 12 monthly disks.

A much more recent arrival to the scene is Reflections (Asgard Publishing, P.O. Box 10697, Rockville, MD 20849), edited by Chris Bobbitt. This is not a monthly, but a quarterly at \$12 a year (\$15 Canadian) for the four issues. The first issue is 24 pages long, including the 8-page insert of Asgard News (from which Reflections developed).

One nice thing about the first issue of Reflections is that it gives Computer Buyer's Guide (now called Computer Monthly) a free plug, so I suppose it's only fair that we return the courtesy here!

As past columns here have suggested, Asgard is one of the most important current publishers of software for the TI-99/4A and Myarc 9640. Since TI'ers need all the support they can get, it is good to see Asgard getting involved in hardware and hardcopy as well. The Asgard News insert is specifically devoted to support of Asgard products and customers, whereas Reflections is devoted more broadly to coverage of

the TI and Myarc world in general.

Like MICROpendium, Reflections includes a variety of material, including news (plus a "rumors" section that frequently seems to get some people stirred up!), reviews, articles, etc. Unlike MICROpendium, Reflections (at least judging from the first issue) does not seem to publish programs. Also, Reflections gives the impression of being a bit more informal and opinion-oriented, which some people like more than others.

If you can afford both magazines, then I recommend that you go for it: each one has its own unique contribution to make. They lack the general coverage of the computer world that you find here in Computer Monthly, but they are both worthwhile magazines in other ways. I'm admittedly biased, but I hope you'll be a regular reader of all three!

## Public Domain Software On Cassette?

I issue this challenge: as far as I know, there is presently no suitable source where TI'ers with cassette sys-

tems may order public domain software on cassette by mail (including assembly programs, for those cassette users who may have 32K expansion, either sidecar or installed in the console). If you know of one, let me know. I'd love to be proved wrong and will be happy to provide publicity for such a source in this column. If no such source presently exists, then let me know if you believe an endeavor of that sort is important enough for us to work on creating it. If there's demand for it, we can make it happen. When there was no TI Users Group in the Philadelphia Area, I founded one, and it's still going strong!

## Keep Those Letters Coming!

I've heard from a few readers of this column, but not as many as I would like. Let me know what you would like to see us do here. My address is Barry Traver, 835 Green Valley Drive, Philadelphia, PA 19128 (phone: 215/483-1379). In the meanTime, keep on compuTIn! ■