



AN OPEN LETTER TO THE TI COMMUNITY % CHARLES GOOD

Looking through the latest issue of B.B.&P., I thought it was time that I sat down and wrote you a letter--that could be published if you like--concerning Asgard, Harry Brashear, and the current state of my computer philosophy.

As you know, as of November 1993, Chris Bobbett turned Asgard over to me lock, stock, and barrel for the price of saying "Yes, I'll take it." He wouldn't have done that if there had been any more money to be made on the company. Sales had taken a plunge as of the Lima fair that year and by October was down to zip. Most of the lack of sales stemmed from my inability to get the author of First Draft to fix a couple of minor bugs that were causing a lot of problems. I had to stop selling the program after Lima 93 on account of them and never got the program off the ground again. Believe me, I did everything I could, but it's impossible to deal with someone a thousand miles away that doesn't want to be dealt with--the Ti community has had this experience more than once.

All of that occurred under the old Asgard structure so by the time I took it over, there was nothing new to sell. Besides, it appeared that the size of the community had taken a steep plunge after the 93 Lima show. To supplement my catalog, I made arrangements with Ken Gilliland to handle all of his current software, quickly made up twenty-five copies of each, and began to dump out flyers on it. I still have twenty-five copies of each almost a year later. To make matters worse, a number of authors decided to pull the rug out from under me because they felt that Chris and I had no right to dump the company the way we did. No problem, most of what was pulled hadn't sold a copy in the preceding year anyway.

Because of nothing new, there has been no reason to advertise and I think that, now, some people have decided that Asgard is dead too. Not true. Yes, the COMPANY is dead because I decided not to officially resurrect it, but I am still around personally if people should happen to need something out of the old catalogs. So, bottom line; Asgard is dead, I'm not, and if I should get some new software worth the time and money, I will advertise it under a new name.

I have something to say to those people who have or are considering jumping ship.

Over the last eleven years, no one has been more of a Ti advocate than I. I would like to think, even, that I was partly responsible for adding some Ti life to a couple of groups and a few individuals. It was tough because eight years ago, my wife became involved with Delphi in the P.C. Sig and has kept it up to a point where, today, she is the data base manager and gets paid for her work. I think you can

appreciate the fact that I have had a lot of high tech equipment shoved down my throat 24 hours a day, yet, managed to keep pounding on my TI up to three years ago. At that stage of the game I started having to deal with half meg files of writing and had to move over for the sake of file size, if nothing else. First Draft would have held me (That's really why I took on the First Draft project.) and even today's Funnelwriter 5.0 + would have given me a half life since I had a TIM in my system. but neither of those were available.

Before I go on, I want to tell you that I STILL use the Ti for all my business invoices and year end book keeping; I made those programs years ago, still use them monthly, yearly, and have no reason to change. They work! And if there is something new I need done--reports etc.--I can go in and change the programming.

Looking back, I think I can safely say that the Ti is not a computer, it's a digital attitude, specifically, the longest digit on your hand, presented in vertical format to any IBMer and, most certainly, to some other computers in the old days. Ultimately, even Ti was the recipient of the 99er's high-sign. (I doubt if they expected in their wildest dreams the pack of rebels they were selling this computer to would be demanding repairs ten years after market.) It's nothing personal, it's just us and the age we were brought up in. What I want to tell you is that I have found a way of working on an IBM and keeping the attitude, now dealt with venomous feeling toward Bill Gates, Microsoft, and the !&\$^% @&#! world of Windows--I use Geoworks Pro on my 386.

Geoworks is not sold in stores. It is sold only from the company. It has user groups world wide, has three monthly newsletters and is user supported. It has drawing capabilities, word processing, over seven hundred fonts available, a spread sheet, an interactive data base, a communications package, spell checking, thesaurus, date book, scrapbook, full file and disk management, will auto run DOS based programs and return, has built in games, camera ready printer output, etc., etc. They all run at once and you can cut and paste from one to the other with ease. Plus it will run on even an 8086, though I wouldn't recommend it speed wise. Even the Australians have gotten on the Geos band wagon, so you KNOW it has to be good. . . and rebellious.

No, I'm not selling Geos, though I'd like to find a way. What I'm telling you is that, there is a place to go if you feel you must move on, where the Ti/99 spirit is still alive, where you can find that friendship, that attitude we are so famous for, and find the old challenge that we yearn to maintain. If I have insulted you with this thought, I apologize, but believe me, I still have the heart of a 99er and an awful big stock of Ti programs.

***DONE**

Harry Thomas Brashear
2753 Main Street
Newfane NY 14108

FIRST ANNOUNCEMENT OF THE NEXT LIMA MULTI USER GROUP CONFERENCE: April 28 and 29, 1995

The Lima Ohio User Group is VERY pleased to announce that we have scheduled another TI Multi User Group Conference for Friday and Saturday April 28/29 1995. Most scheduled activities will be Saturday. As in past years the event will be in Reed Hall of the Ohio State University Lima Campus. This all 99/4A-Geneve-CC40 event is totally free, with no admission or display table charges. For more information either write the group at P.O. Box 647 Venedocia OH 45894, or send internet email enquiries to cgood@lima.ohio-state.edu, or voice phone Charles Good evenings at 419-667-3131.

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CECURE NOW REPAIRS ALMOST EVERYTHING

Texas Instruments has designated Cecure Electronics as the only worldwide authorized repair and exchange center for the CC40 computer, hexbus peripherals, and all 99/4A products that were manufactured by TI. Other TI 99/4A and CC40 repair centers in the USA and in the rest of the world have been closed. Although Cecure only repairs and does not sell TI computer hardware, the company does have some NEW software cartridges for the CC40 (old official TI software in unold unused cartridge format) for sale. Cecure repairs these products on an exchange basis, just as TI used to do, but sometimes at a lower price. TI has turned over all its "pieces and parts" for repairs of CC40s and 99/4A products to Cecure.

Cecure is also the designated Myarc repair center. They fix Myarc 99/4A peripherals as well as the Geneve 9640 computer and offer to do a variety of useful upgrades to the Geneve. Used and sometimes new Myarc products are available for sale.

For further information phone 800-959-9640 (do the last four digits remind you of anything?) or 413-679-4343 voice or 414-679-3736 (BBS). You can also write Cecure Electronics at P.O. Box 222 Nustego WI 53150.

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A LITTLE KIDDI MAGAZINE REVIEW OF THE TI 99/4A COMPUTER SYSTEM

I doubt that many of you have ever seen the 99/4A review reprinted on the next four pages. It was published in ELECTRONIC FUN WITH COMPUTERS & GAMES vol 1 no. 6, April 1993. I never heard of this magazine, so I suspect it wasn't around for very long like a lot of other computer magazines of its day.

This same issue has a full review of the Natell "Intellivision II" game and computer system. The keyboard, which I believe was never actually sold, has 49 chicklet keys as well as Basic in 12K of ROM and adds a gigantic 2K of ROM programming space to the game console. The magazine describes more losers that nobody ever heard of. These include the Unitronics Expander that turns an Atari VCS game machine into a 16K home computer, the Vectric Color Graphics System that "makes hi/res color graphics affordable for the first time" for only \$1995, and TOPO the \$1000 robot that will roll around your house and bring you a can of Pepsi if your floor is nice and smooth so he doesn't fall over.

Charles Good

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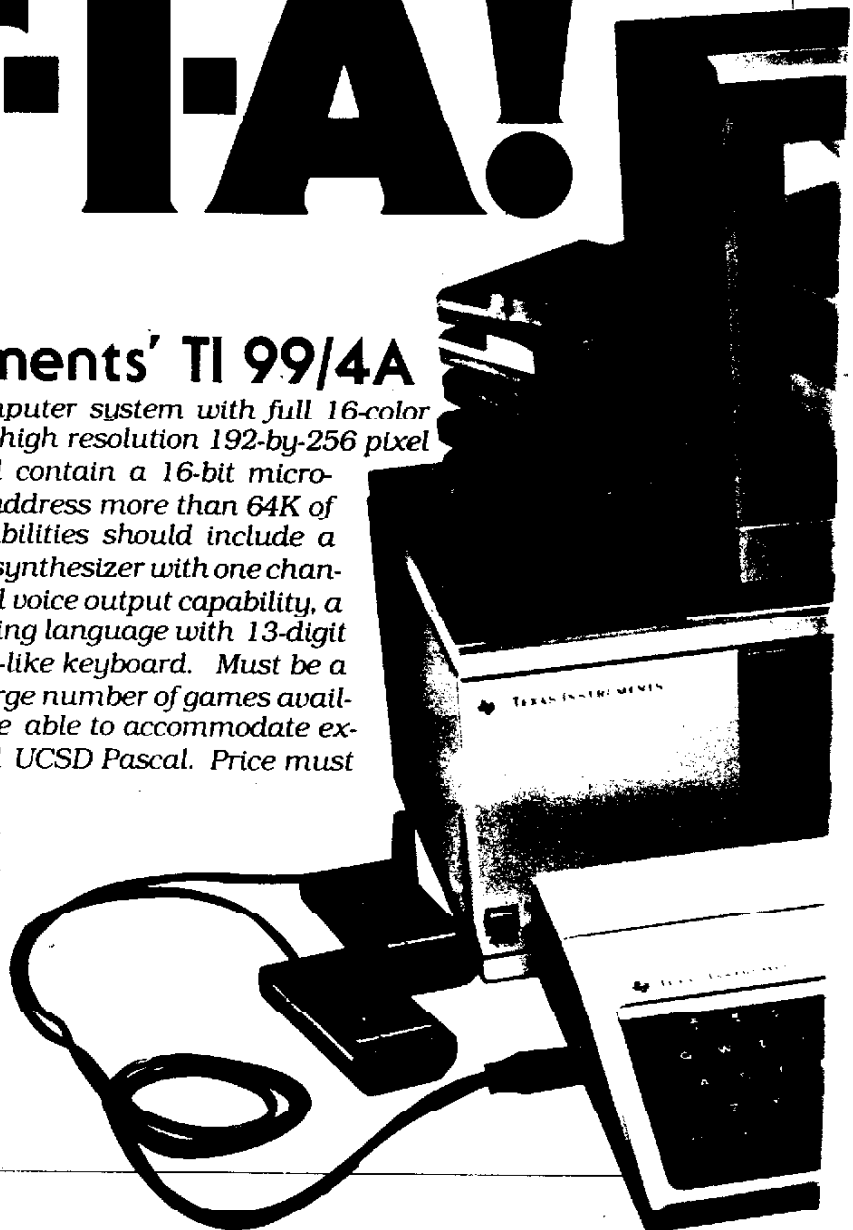
ELECTRONIC FUN · COMPUTERS & GAMES

COMPUTER WORKOUT**Yippee
T-I-A!****Texas Instruments' TI 99/4A**

WANTED: Personal computer system with full 16-color graphics capability and a high resolution 192-by-256 pixel display. Computer should contain a 16-bit microprocessor, and be able to address more than 64K of memory. Additional capabilities should include a built-in three-voice music synthesizer with one channel of white noise, optional voice output capability, a built-in BASIC programming language with 13-digit accuracy and a typewriter-like keyboard. Must be a popular system with a large number of games available. Computer should be able to accommodate extended BASIC, LOGO and UCSD Pascal. Price must be under \$200.

By Jules H. Gilder

Does the above "want ad" sound like it's straight out of someone's computer fantasy? Two years ago it would have been. Today, however, it's not fiction—the computer that meets all of these requirements is the TI 99/4A from Texas Instruments. While the 99/4A is a great machine for video gaming because of its excellent color graphics, sound and voice capabilities, you'll



ELECTRONIC FUN - COMPUTERS & GAMES

probably have a few serious criticisms of it if you've had experience on other computers. On the one hand, the 99/4A has a lot of potential. On the other hand, it's not always accessible to the user. Nevertheless, in this past year, 99/4A computers have been selling like crazy, but it wasn't always so.

When Texas Instruments first introduced its home computer a few years ago, reaction to it was less

than ecstatic. Known then simply as the TI 99/4, the unit came bundled with a color monitor and sold for over \$1,200. In addition, the 99/4 had only a small keyboard with calculator-like pushbuttons.

The original 99/4 had one other very big disadvantage. If you wanted to add peripherals, you needed a table that was capable of expanding its length—the peripherals plugged into the side of the computer in a chain-like fashion. Each time you added something onto the computer, the width of the table would have to grow. Now the 99/4A has an expansion box that sits behind the computer and can hold most of the add-ons.

Brain Power

The microprocessor in the 99/4A is a TMS 9900, which is a 16-bit micro. This means that the micro has the ability to address a lot more memory than the more commonly used eight-bit devices. While the TI computer uses this to some advantage, it still has a lot of untapped brain power.

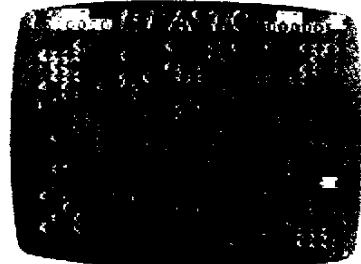
The 99/4A comes with 26K of internal ROM memory that contains the operating system and the BASIC language. The basic machine comes with 16K of RAM, but it is expandable up to 48K. As an extra plus, the TI 99/4A can accept program cartridges, called Command Modules, that have up to 30K of additional ROM memory. With so much memory available for game designers to work with, games for the TI 99/4A can be



TERRY TURTLE'S ADVENTURE



TUNNELS



DLASTO

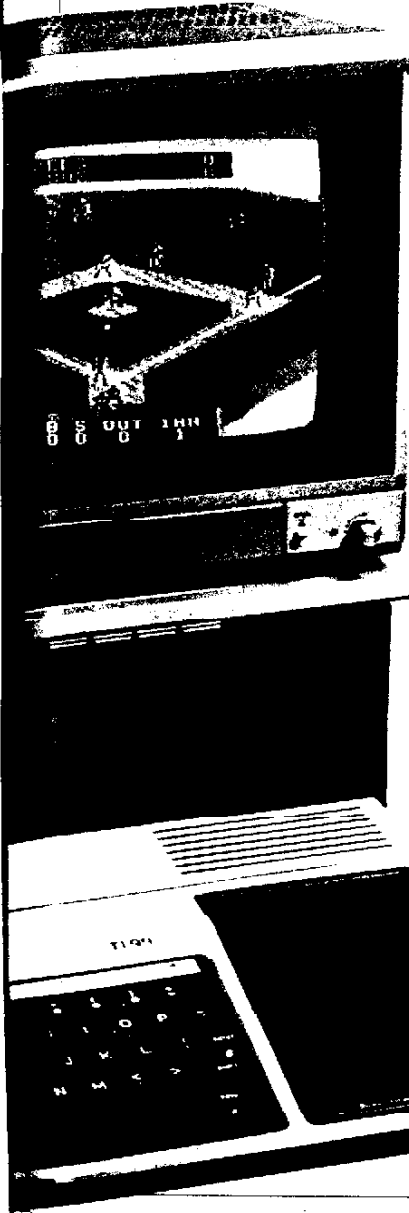
quite sophisticated and have excellent graphics.

Designers of other computer games and computers should look at the way Texas Instruments designed its cartridge

system. Its primary aim is to meet the needs of the user, rather than have the user meet its needs.

Most video games and computers that accept cartridges

require the user to turn the game off before plugging a cartridge in or pulling it out. The on/off switch, however, is one of the most unreliable parts of



The TI 99/4A computer has 16-color graphics capability and music and voice synthesizers.

Bits, Bytes & Pixels

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any system; it's subject to early failure with frequent cartridge changes. The designers at TI decided that it shouldn't be necessary to force the user to turn the computer off, so they produced a system that will allow the switching of cartridges even with the power on.

Although the TI 99/4A is a programmable computer, it is really better as an educational tool and a

game machine than as a computer. This is because a lot of its graphics capabilities are not accessible to the owner/programmer and are only available through programs in Command Modules. How come? One reason is that there are no plotting commands available to the user.

TI BASIC, which comes with the 99/4A, has many of the familiar

BASIC commands in it, but it's missing many of the more useful ones. PEEK and POKE, for example, have been left out of TI BASIC, probably to keep programmers from wandering around the machine's internal memory thereby aiding in the protection of TI's Command Modules. Other missing commands are LEFTS.

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Above, three games from TI and some of the add-ons available from Milton Bradley including the Expander.

TI 99/4A

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 RIGHTS and ONERR. to name a few. Some of them, like SEGS (which is really MIDS) have been renamed for some unknown reason. So if you want to copy programs that have been published in computer magazines but designed for computers other than the TI 99/4A, you're going to have a tough time.

Space We Must

The lack of many of the standard BASIC commands is not the only problem with the 99/4A. TI BASIC is a very rigid language. Where most versions of BASIC will ignore the presence or absence of spaces, TI BASIC requires that all BASIC keywords be followed by a space and failure to do this will cause an error. It's true that some people prefer this rigid structure, but many programmers who have worked on other microcomputers do not. Another problem with the language is that it doesn't permit multiple statements per line, while almost every other microcomputer BASIC does. Finally, if your program requires the use of arrays, you are limited to only three dimensions. This can be a severe handicap. But many of the problems with TI BASIC have been eliminated with TI's Extended BASIC Command Module, which sells for about \$100.

MAX And MIN

On the plus side, TI has added some really nice features. To begin with, they have added MAX and MIN functions which can be used to determine the largest and smallest numbers of a set. They've also added the constant "pi" to the language. More exciting than anything else, however, is the fact that they have borrowed an idea from FORTRAN and incorporated it into their Extended BASIC—the concept of subroutines that can be called with a list of parameters. This makes it very easy to develop libraries of subroutines that can be put together to form programs—an

approach to programming that can reduce development time substantially.

Another excellent feature is that the user can redefine any of the 128 ASCII characters to produce any pattern desired. Each character consists of an 8-by-8 dot matrix whose elements can be selectively activated by the user. This helps make up for some of the shortcomings due to the lack of plotting commands, although not all of them.

There are plenty of peripherals available for the TI 99/4A. In fact, TI is currently offering 16 different add-ons for the machine. For storing your own programs written in BASIC you can use either a standard audio cassette recorder or you can purchase a disk system from TI. Up to three 5¼-inch drives can be connected, each with a storage capacity of 90K. Also available are an RS-232 interface, a modem, a memory expander, thermal and impact printers and a speech synthesizer module, to name just a few. TI has been one of the pioneers in the area of speech synthesis: their speech module is quite good and very easy to use.

Expandability

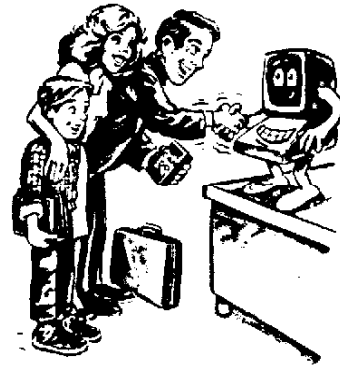
Expandability for the computer is not limited to hardware only; TI has also seen to it that a lot of software is available for the machine. In addition to the large number of game cartridges the company is producing—there are now some 280 to choose from—it has made available a lot of system software as well. For example, the TI machine was the first personal computer to offer the LOGO language for kids. In addition, PILOT and Pascal are also available.

All in all, TI has come a long way since the old 99/4. Last year alone, about 550,000 99/4A's were sold, and there doesn't seem to be any let-up. In fact, the biggest problem may be finding one in stock.

In the event that you do have trouble locating a store in your neighborhood that carries the TI, you can contact the company at PO Box 53, Lubbock, Texas 79408 or call (800) 741-2000. □

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Bits, Bytes & Pixels

Assembler Executing #7. .
By Bob Carmany

How about something simple for this month's column. It is about time that we did something with our programming. One of the easiest things to do in assembly is to put a line of text on the screen. All you have to know is where, what, and how much. Here is one way that you can do it.

```

REF VMBW
|   |   |
MSG1  TEXT 'This a test message'
|   |   |
DSPLY  BL   @VMBW
        DATA R4,MSG1,19
|   |   |

```

Obviously, there is quite a bit of code missing in this example but you can let your imagination fill in the details.

What we have done is use the VDP Multiple Byte Write (VMBW) routine in the E/A cartridge to write the message to the screen. We first must include it in the REFERENCE block to be able to use it. The alternative would be to write our own routine and include it somewhere in the program. Next we have the message that we want to display. In this case, MSG1 TEXT 'This is a test message'. To do the dirty work, we access VMBW and give it the data that it requires: where (screen position B4), what (MSG1), and how much (19 chars). Remember that when you count the characters in a TEXT message the spaces count as well as the alphabetic characters. Oh yes, the screen position is calculated from the upper left corner of the screen which is 0.

Remember when we went through all of those Jump instructions? How about using them to create the A/L equivalent of the XB ACCEPT AT statement for a range of keypresses.

```

|   |   |
ASC0  TEXT '1'
ASC9  TEXT '9'
|   |   |
RNGE  CB   R1,@ASC1
        JLT KEYPRS
        CB   R1,@ASC9
        JGT KEYPRS

```

For the purpose of this example I have assumed that the keypress value was stored in R1. The code is simple, the Compare Byte instruction is used to test whether the keypress returned was less than 1. If so, the program goes back to KEYPRS for new input. If it is one or more then it is tested against 9. If it is more than 9 control is once again passed back to KEYPRS for another input. If it falls within the range of 1-9 then the program continues to the next bit of code.

This method is particularly valuable if you are going to be using 1 and 9 in other capacities in the program. That way, you would only have to define the ASCII character once and could use it in several ways.

Another method that comes to mind is to use CB and the hexadecimal value of the number or letter (ie. >31 for 1 and >39 for 9). The further abbreviated code would look like this:

NEXT PAGE

```

|       |       |
RNGE   CB    R1,>31
        JLT   KEYPRS
        CB    R1,>39
        JGT   KEYPRS
|       |       |

```

That is one of the beauties of A/L. Whatever you want to do, there is always another way to do it. Unlike XB or BASIC, you aren't constricted to a specific format. By the same token, it is a bit frustrating at times as well. Invariably just after you finish that 'masterpiece' program, you think of another way that you could have done --usually more efficiently and easier. But the best part is that for every potential problem, there always seems to be a 'workaround' if you spend the time to find it.

Before I leave for the month, here is a little trick that has made the rounds of the TI community for years. Merle Vogt passed it on to Bruce Harrison who, in turn passed it on to me. It has been used to help convert D/F 80 object code to program image files for a long while.

```

        DEF   SFIRST,SLAST,SLOAD
SFIRST EQU  >2000
SLOAD  EQU  >2000
SLAST  EQU  >23BA
        END

```

When this bit of code is assembled through the E/A cart, it becomes a 5-sector files with the E/A utilities. It can be used as the second file of a program image file that will run independently of the E/A cartridge. Thus you can make use of all of the E/A utilities with a simple program image file loader.

this is getting a bit long. There are some other projects that need a bit of attention. 'Til next month . . .

DONE

WILLIAM SANER

Longtime member of the Lima User Group William W. Saner passed away in early September. Bill was president of the Bradenton Florida TI User Group at one time, and in recent years published a Saner family TI newsletter. Most members of Bill's extended family use the 99/4A. Those of you who were at the last Lima MUG Conference in May 1994 may remember seeing Bill. He had a whole bunch of TI impact printers and Gemini 10X printers for sale. Bill lived in Springfield Illinois. He died from prostate cancer, which he had been fighting for several years.