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THE HUGgers
HOOSIER USERS GROUP
People Helping People

OFFICERS' CORNER

Last meeting we all looked at a demo version of the new BBS system instead of demoing the MacInker. One of these months we'll get to it. I've decided that I'll just keep it handy for when we need a demo.

The big news is that it's almost time for the Chicago faire. As I said last month, the date has been moved up a week from previous years to October 31 (Halloween!). For those driving up, we gain an hour on the way to Chicago (and loose it going back). Look elsewhere for detailed directions for getting to the faire.

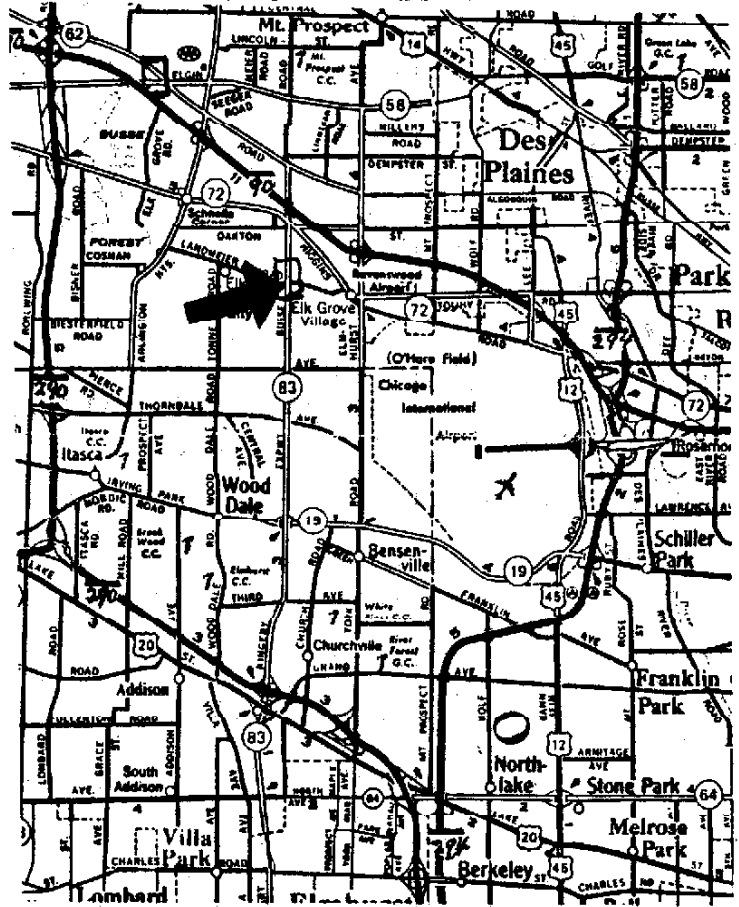
ComputerCraft has been sending us copies of their magazine for some time now. They call it "the practical magazine for personal computers & microcontrollers." It originally was a hobbyist electronics magazine called "Modern Electronics." Anyway, they sent us an offer for any of our members to subscribe through the club at reduced rates. I'll have the details at the next meeting (or give me a call - GBL).

Thomas Walker, our member from Crane, IN, is offering to copy Lima Fair tapes. He currently has the 1991 tape set and says they copy quite well with his equipment. You supply the tape. Interested parties should call or write:
 Thomas Walker
 Box 407
 Crane, IN 47522
 (812) 854-1806 (after 6pm 7877)

The club has a lot of books and equipment that we will be hauling up to sell at the Chicago faire. We'd like to give our members first crack at this stuff, so (hopefully) you will find a list in this issue. There are a few items without a price at press time. To our newsletter exchanges and out-of-town members, we mail-order too.

I'd like to welcome back some long-lost Huggers -- Del & Darla Wright and Carl & Mary Rose Clark (from Palmer Alaska!). Thanks for renewing! The Wrights have also contributed to the newsletter for our running their ads. Thanks again!

**T I INTERNATIONAL
WORLD FAIRE**



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INDIANAPOLIS, IN
MEETING STARTS
AT 2:00 P.M.
OCTOBER 18 1992

**** ASGARD SOFTWARE NEWS RELEASE ****

Subject: ASGARD 128K MEMORY SYSTEM RELEASED

For more information contact:

Asgard
Attn: Chris Bobbitt
P.O. Box 10697
Rockville, MD 20849-0697
(703)255-3085

Asgard is pleased to announce the completion and eminent availability of the ASGARD 128K MEMORY SYSTEM.

The AMS is a product of a two-year research and development program focused on increasing TI-99/4A memory capacity. Designed by a team of hardware and software experts guided by experienced businessmen, and with the assistance and insights of a wide range of users, this device represents the beginning of a new direction, as well as a blending of new and proven technology.

The AMS combines flexibility with reliability and compatibility. It is the first advanced memory system for the 99/4A designed to be used exclusively as memory for programs and data.

When installed in your Peripheral Expansion Box it functions as a 32K card with standard TI-99/4A software. It is completely transparent to virtually every other TI-99/4A peripheral - it will not conflict with any floppy or hard drive controller, or even some RAM-disks. The card does not need to be configured - simply plug it in and turn on your computer. Because it uses little power the AMS is highly reliable.

Programs designed to work with the card can access up to 128K of CPU memory simply and with a minimum of restrictions on program design. Memory can be banked in 4K increments, within a few clock cycles, anywhere within the standard 32K memory space available to TI-99/4A programs. The design used by AMS is similar to that used by TI in their TI-99/8 computer - and is currently readily accessible to programs written in Assembly and GPL.

To assist in programming for the AMS example programs with source code as well as extensive technical documentation is included with the device. All materials were prepared by software designers to be as clear and comprehensive as possible to programmers - and not just other hardware designers. The result is what we believe to be the easiest to program extended memory device for the TI-99/4A.

For non-programmers, AMS will open the door to a variety of new programs currently under development by some of the brightest programmers in the TI community today. With four times as much space available, AMS compatible programs will be more capable, faster, and have much more capacity for storing data. Types of programs can be written that would be impossible in 32K. Compatible languages under development will allow even casual programmers to write programs with access to the memory.

AMS is not just a promise of new possibilities, it also represents a different way of doing things as well as a different approach to past problems.

While it may seem unusual that a software company would take the initiative in producing a new memory card, it's not so strange when you consider that you need software to make hardware useful, and a software company can insure that some of that software is written.

Further, to break with the long history of some developers (including TI) of playing favorites and of secrecy, Asgard guarantees we will freely provide any and all software developers as much information needed to take advantage of the AMS. It's time to end the games that have hurt the community in the past, and to bury the hatchet somewhere other than in each others backs.

Finally, since no one likes to buy something that becomes obsolete tomorrow - all users can be assured an investment in AMS will be protected by a company that has been serving the TI community for 10 years. Asgard will provide reasonably priced upgrades and even trade-in options as we continue to develop this technology. Further, any software written for AMS will be fully compatible with future developments with few if any changes.

AMS is not an end in itself, it is a beginning on a path to liberating the TI-99/4A from memory constraints. It also represents a new way to do business in the TI community.

The ASGARD 128K MEMORY SYSTEM requires a TI-99/4A with a Peripheral Expansion Box and a disk system. It is compatible with all disk controllers, all video cards, and some RAM disks and memory cards, as well as virtually all other cards for the TI-99/4A. It is not guaranteed to function with the Myarc or Corcomp RAM-disks, or the TI, Corcomp or Myarc 32K cards. No problems have been encountered with Horizon RAM-disks to date.

The suggested retail price of the AMS is \$119.95. At this time all design and testing of the design has been completed, and it is expected to be in stock by the end of September.

To order, send a check or money order for \$119.95, plus \$10.00 S&H (in North America - \$20.00 for Airmail shipping elsewhere) to:

Asgard Peripherals
P.O. Box 10697
Rockville, MD 20849-0697

COD and credit card orders are not accepted. All orders to U.S. customers will be shipped via UPS Ground - please allow 4-6 weeks for delivery.

Programmers may receive a free packet containing programming information by sending a post card to the above address. Again, please allow 4-6 weeks for delivery.

HUG OFFICERS

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PRICE LIST

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 Rest of Newsletters _____ \$4.00
 Mini-Memory and TI-Diagnostics (With Disks) _____ \$5.00
 H U G Library Catalog _____ \$?.??
 Catlib _____ \$2.50
 Graphics Programming Language _____ \$5.00
 Mailing Label Program (With Disks) _____ \$3.00
 Schematics for P Box Cards _____ \$3.00
 "Getting the most from your Cassette System" _____ \$?.??
 (Unbound Books, 49 pages)

DISKETTES 5 1/4"

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 Speech Synthesizer _____ (?.??)

Adapter Model AC9500 _____ \$6.00 each
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 Phone Modem _____ (make offer)
 Power for Key Board _____ (?.??)
 Joy Stick Adapter _____ (?.??)
 TI-Writer (Module, Disk and Book) _____ \$10.00
 Game Modules _____ \$2.50 each
 Plastic Boxes -Anti-Static _____ \$0.75 each
 Book (Beginner's Basic) _____ (\$?.??)
 Book (TI-Forth) _____ (\$?.??)
 Buttons (TI Related) _____ (\$?.?? ea.)

ELECTRONIC CONNECTERS

36 cond. gold Edge Connectors _ \$5.00 each
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 Alcoswitches (momentary) _____ \$0.75 each
 (use for reset)
 36 Connector Card Edge _____ \$1.00 each
 (use for Janowski Super-Cart)
 44 Connector Card Edge _____ \$1.00 each
 (same as expansion port)
 60 Connector Card Edge _____ \$1.00 each
 (plugs in P-Box buss)

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THE CLEARING HOUSE BBS

by Jim Peterson

At the Lima Multi-User Group Conference in 1990, the problem of dissemination of TI information was discussed. It has always been the custom for user groups to exchange newsletters, and to reprint articles from each others newsletters. With decreasing membership, it was becoming too expensive for some groups to maintain this exchange. Others were mailing them in bulk every few months, which delayed receipt of new information.

It was therefore decided to establish a Clearing House BBS, to which text articles could be uploaded and downloaded for rapid circulation. Irwin Hott, SYSOP of the Spirit of 99 BBS of the Central Ohio 99'ers, agreed to be the SYSOP, and the Central Ohio 99'ers assumed responsibility for establishing the BBS.

It was necessary to add a hard drive and other equipment to the existing BBS, in order to receive this large volume of files. To defray the cost, it was decided to charge participating user groups \$30 for initial membership, and a lesser fee to defray maintenance costs in future.

The following user groups and individuals contributed - Lima 99/4A Group, Twin Tiers User Group, Blue Grass 99/4 Computer Society, Tigercub Software, Atlanta 99/4A Computer Users Group, Philadelphia Area TI Users Group, Sacramento TI Modem Users Group, E. L. Edwards, Great Lakes Computer Group Inc., NEWJUG 99ers Group, Boston Computer Society TI 99/4A User Group, L-Town 99/4A User Group, S. Jean Hall, Cedar Valley TI User Group, and C.O.N.N.I. Of these, the Lima User Group contributed \$200 and S. Jean Hall, C.O.N.N.I. and Tigercub Software each contributed \$100.

Because of Myarc's unreliable support, we were reluctant to purchase their hard drive controller. The ESD corporation had announced a new hard drive controller to be soon available. We waited for it - and waited, and waited.

Finally in November of 1991 the Clearing House went into operation, with a MYARC HFDC loaned by Chuck Grimes. Irwin

Hott, Chuck Grimes, Karl Romstedt, Ken Marshall and Dick Beery donated much time in getting the drive installed and operating, and in modifying Irwin's already highly-modified TIBBS to work with a hard drive.

Unfortunately, there were still further delays in announcing and publicizing the opening of the Clearing House, and it has still not been well publicized.

However, a large number of articles have been uploaded and are available for downloading by those who have subscribed by becoming associate members of C.O.N.N.I.

The Lima Users Group alone has contributed about 125 files, including Charles Good's articles about many rare and unreleased peripherals and software, Andy Frueh's software reviews, etc.

The Bluegrass User Group has contributed about 15 articles by Mark Schafer, Steve Burns, and others, and recent articles from the C.O.N.N.I. newsletter are also on file.

I have uploaded all 67 of my Tips From The Tigercub, updated and edited and with obsolete advertising removed. I have also uploaded about 40 other articles I have written - XBasic programming tutorials, product reviews, TI world news, commentary, etc.

Additionally, I have uploaded many excellent articles from foreign newsletters which have not been widely distributed in this country. These include 26 contributions from the Brisbane User Group in Australia, written by Col and Garry Christensen, many of which would be of great interest to assembly programmers; several articles by Jan Alexandersson, from the Swedish newsletter (but written in English!) on assembly programming and the hidden commands in the PRK and Statistics modules, etc.; and about 25 articles from the TI*MES of England, mostly by Stephen Shaw, on many subjects.

I have also uploaded numerous files from disks supplied to me in the past by the now-defunct Central Westchesters and by the K.C. 99ers, and another 37 files written by a prolific author, Jim Swedlow, for the User Group of Orange County newsletter.

And I have a stack of about 30 other disks full of articles which I will

check, catalog, archive and upload if I see any evidence that the board is getting enough use to justify the considerable time that it will take me to do so.

All files in the Clearing House are archived to cut down on downloading time. Irwin is preparing a condensed catalog of file descriptions for each library, which will also be archived and can be quickly downloaded for reference, rather than wasting long distance time in browsing through file descriptions.

User groups which have not joined the Clearing House are urged to consider doing so. Any individual TI user who would like access to this great collection of information is also welcome to join, for the same \$30 fee.

And anyone at all is welcome to browse through the clearing House and see what we have to offer, although you will not be able to download if you have not joined us. Call the Spirit of 89 BBS at (614) 263-3412 and at the main menu enter 0 for other.

And finally, the board will gladly accept uploads of text files from anyone, and anyone who writes an article for a TI newsletter is urged to upload a copy to us.

What's wrong with TI?

What's wrong with the TI99/4(A)?

It can be summed up in four words — "ninety-nine eighty five."

No, this is not the price your local discount store "blew" them out at in 1984 — or maybe it was, but I am referring to the TMS9985. This was the CPU that TI planned to have in the 99/4. Due to technical difficulties, the TMS9985 was never produced. That forced TI to use the more expensive 9900 in the 4A.

The TMS9985 is the father of the 9995, just as the 99000 is the son of the 9900. Let's review some of the highlights of the 9995.

- Has an onboard cache of 256 bytes.
- Has an 8-bit data bus.
- Utilizes only one dedicated external interrupt level besides Reset.

These are all "features" that the 9995 and 9985 share.

Highlights of the 9900:

- Has a 16-bit data bus to all memory.
- Has 15 external prioritized interrupt levels besides Reset.

Now, let's say for a minute you had a system designed for a TMS9985 but you were suddenly forced to use a 9900. What would you do?

- Tie interrupt pins such that only one external interrupt level was possible.
- You would probably implement the 256 bytes of on-board RAM as 256 bytes of static RAM on the 16-bit bus to simulate the on-board cache, but would leave the rest of the system access as 8-bit reads (done twice).

Does all of this sound familiar?

These considerations have had one major impact. If TI had implemented the 9900 like it had been designed, anyone building a 4A compatible would have been forced to use the 99000 as an upgrade processor.

While you can make a 9900 or a 99000 act like a 9985 or 9995, you cannot make the reverse happen.

Dan Eicher
Mooresville, Indiana

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12518

Msg#:12518 *TI-ECHO*
08-29-92 19:19:00 (Read 1 Times)
From: BEERY MILLER
To: ALL
Subj: GENIE TO TI-ECHO RE FORTH
Message 502 Sat Aug 29, 1992
J.CARVER [Me John] at 14:39 EDT

Barry T.,

I'm going to answer in reverse order. You say that Basic experienced a revival in the PC world due to the new features added to it. I will agree with you on that. Any time something that people are familiar with, like basic, is released in a new version people are going to check it out. However, I think the main reason for popularity of basic in the PC world is due to the fact that they have basic compilers that work.

I'll admit to looking at PC magazines and catalogs, and from what I've seen, a lot of the shareware has been written in basic and then compiled. I even called a BBS one time where the entire BBS program had been written in basic and then compiled. If you can find someone that is able to write a basic compiler for our machines that not only works, but works well, I think you'll see a revival of interest in basic on the TI. I haven't used the Advanced Basic on the Geneve, remember we established last message that I don't even speak basic, but I've heard that it has some nice features and is pretty fast at some things. I really should take a look at it. Maybe I could get into basic. Sometime's it's embarrassing to have to admit that I don't speak basic.

Now on to the good stuff. Yes, I have worked with Wycove Forth. I have a couple of versions laying around here, even one that loads from cassette! Wycove is a good product. I tried to get a copy of their last revision several years ago and never could find anybody that had it. I even called the number in Canada that was in one of the old manuals and couldn't find anyone. Maybe they are the original invisible supplier. I heard that the last version was quite a step forward with many major changes but since I could never find a copy, I can't say.

As to any significant update of TI-Forth, Databiotics did quite a bit when they released Super4th. This was a complete rework of the kernal correcting all known bugs and adding several features including hard drive access and the ability to use a supercart to store most of the program in, freeing up quite a bit of RAM.

Mike DeFrank from Florida released his Forth Utilities which was a pretty impressive set of routines in TI-Forth. In the package he had the first really decent debugger I'd ever come across. He had a lot of nice utilities, very useful for the Forth programmer. Since I used TI-Forth about eighty percent of the time, these worked out quite well.

The biggest change, regarding TI-Forth, was Lutz Winkler and all the work he has done over the years. Lutz wrote a set of tutorials early on that were a good rock solid introduction to Forth. Some people complained that the tutorials were too similar to the ones done by George Smythe, but there are only so many ways to do things in Forth. If I write a tutorial on learning French, and you write one, I bet we both talk about verbs and I bet we use some of the same words too.

Lutz's biggest contribution was the AVPC Forth for the Dijit 80 column card. 80 column Forth! I was a beta tester when Lutz saw no reason that it shouldn't work on a Geneve also since they both used a 9938. It wasn't quite that simple, but almost. It ran in TIMode on the Geneve and did have eighty

columns, no windowing. Other than that, it was the same old TI-Forth, but I believe that it was one giant step forward for Forth on the Geneve. (We had, by the time Lutz finished his AVPC Forth, already figured out how to get the old TI-Forth to boot and run on the Geneve and the patches for that and to slow down the cursor are here in the message bases on Genie, down in the Myarc section somewhere).

Next, per Beery's message, was Mike McCann's Forth. Another great step forward. Still basically TI-Forth but it ran in native mode on the Geneve and had many, many added features that took advantage of the Geneve. Probably the most impressive change was the ability to save programs in files instead of screens. Actually, there were toggle words and one could save files either way. The resulting files could be moved to any disk in any format. No more worry about damaging the integrity of the Forth disk. You remember how hairy that used to be.

The next great step forward, still in process, we don't know where the foot will drop, is Bill Sullivan's MMMS Forth. I'm beta testing the product now and it's working out pretty well. Bill has posted public messages about this product elsewhere, so I'll not be telling tales out of school if I give you the highlights. The package is firmly based on McCann's Forth which was firmly based on TI-Forth so we know where our roots are. It's interesting that both Sullivan and McCann used code from Lutz Winkler's AVPC Forth.

MMS stands for memory management system. The package takes advantage of all the features of the Geneve, including a 2 Meg Memex, full hard drive usage and a unique memory manager that keeps track of memory page usage and calls and sets up additional pages as needed. The message that I have describing all of the features of this package is six pages long, so I won't go into great detail. Just as McCann's great innovation was the ability to save programs in file format, Sullivan's is libraries. The one thing lacking for TI-Forth programmers all this time has been libraries, toolboxes and whatever else the people in the PC world call them. Forth programmers have always had to roll everything from scratch. In the PC world, programmers take advantage of libraries or toolboxes to find commonly used routines. There are libraries for C and several other languages.

Thanks to Bill Sullivan we can do this now with Forth on the Geneve. He has built in routines that make it very easy to create a library and then detach it and send it to someone else to install on their system. He's even written the first few libraries. He has a floating point library, a ED/ASM library, a FORTH83 library and a database library. The floating point library speaks several different dialects other than RADIX 100. He is also working on a TIMODE library, a graphics library and a few others that he won't talk about yet. He has expanded the original Forth kernal to nearly four times the original size. Yes, it is Geneve specific, but in working with it I have come up with an idea for a project that would be implemented on the Geneve, then working backwards, adapting it to Lutz Winkler's AVPC Forth it would run on a TI with an 80 column card and from there, to a standard TI.

The only problem with the whole thing is I don't think anyone will buy Bill's package. It's going to be a fantastic package when it's finished, but I think he's too late. I don't know if anyone besides me is even still interested in Forth, much less buying a packaged Forth.

Hope this answers your questions and ask away again if it doesn't. Since the user groups are dead around here, I don't get much of a chance to talk computing or programming with anyone. Would love to write a book on Forth and the TI and Geneve, but I'm afraid it'd only sell three or four copies. Well, ten if I count the grandchildren!

John

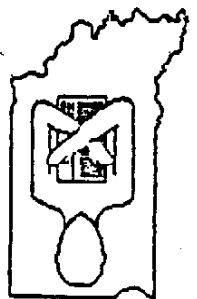
Dan H. Eicher
 P.O. Box 605
 Mooresville, IN 46158

May 1993

TIME DATED
 October 18, 1992
MATERIAL



HOOSIER USERS GROUP
 P.O. Box 2222
 Indianapolis, IN 46206-2222



APPLICATION FOR MEMBERSHIP

Below you will find an application for membership to the Hoosier Users Group. Active membership entitles you to the Newsletter, up and download on the HUGbbs, attendance and voting rights at regular club meetings, access to the HUGger Library of Programs, special club activities and special guest speakers for one year.

Make check or money order payable to Hoosier Users Group. Send completed application to:

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