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TEXAS INSTRUMENTS

TI FORUM

by Barry Traver and Jonathan Zittrain

99/4A Still First Love

In a previous column, I reported an informal, non-technical conversation concerning some features of the TI-99/4A often not known by owners of other computers. I indicated that we "can put 16 colors on the screen at one time, and the automated sprites will stay in motion with no attention from the CPU." The Editor/Assembler manual states it a bit more precisely: "After you start sprites moving, their motion continues without further program control." The point about the sprites is simply that—in contrast to a number of other computers—so far as sprite movement is concerned, on the TI you can "set it and forget it" (providing that VDP interrupts are enabled, of course). True, the CPU is actually involved keeping them moving, but the work of the CPU is invisible (somewhat like multi-tasking?), since it can be doing something entirely different at the same time (e.g, figuring out square roots). That's not true with many other machines. The point about the colors is that other computers may also advertise 16 colors but only allow 4 different colors on the screen at the same time. Not so for the TI-99/4A (now you know the reason for the show-off color bars on TI's title screen!).

My purpose in bringing out these things was not to put down any other computer—each has its advantages and disadvantages—but simply to show that the TI-99/4A has its own definite strengths, many of which are unknown by the general public. It is not without reason that TIers are so loyally devoted to a computer that (in certain areas at least) still has an edge over more recent competitors often costing much more. I have other computers myself (I own at present a Myarc 9640 and an Apple II clone, and I expect sometime to get around to be getting an IBM clone), but find that my /4A can still do things that they cannot (even as they can do some things the /4A cannot). Incidentally, lest it be thought from these remarks that I may be thinking of "switching over" to another computer, let me state that I have absolutely no plans to give up my TI-99/4A. It is the one on which I still spend 90% of my computer time, and I do not expect that to change in the near future. The others are supplements to (and not replacements for) my TI, which continues to be my first love.

The Myarc HFDC

A surprisingly popular item in the TI community right now is Myarc's HFDC (Hard & Floppy Disk Controller), put out by Myarc, Inc., P.O. Box 140, Basking Ridge, New Jersey 07920. (For further information, you can call the Alabama office at 205/854-5843.) With the hefty price tag involved ($325 plus cost of hard drive, which means another $100 to $200), you might not expect this to be a best-selling item, but an unusually large number of TI-99/4A (and Geneve) owners seem to be using this means of substantially upgrading their systems.

Perhaps part of the reason for the interest is that the HFDC offers real competition to the traditional RAMdisk, especially now since chip prices for memory expansions have been so high. For the same cost as a 512K Horizon RAMdisk (maybe $425), it is possible to have a Myarc HFDC with a 10 megabyte hard drive (if you can shop around for the hard drive and know what you're doing). A number of RAMdisk dealers have reported that their sales have declined, and one reason may be that people have been spending their money purchasing hard drives instead.

Many TIers who started out with cassette systems remember what a joy it was to be able to move to a floppy disk system. Some of them have also had the joy of seeing the similar increase in speed that a RAMdisk can offer. Well, Myarc's hard drive operates at a speed comparable to a RAMdisk, unbelievable as that may seem for those who have not seen it in operation. If the hard drive is as fast as a RAMdisk, offers much more storage space than the largest RAMdisk, and doesn't cost any more than a 512K RAMdisk (assuming a RAMdisk utilizing static RAM rather than dynamic RAM for comparison purposes), it's easy to understand why many are deciding to purchase a hard drive.

Myarc's HFDC has a lot going for it. It supports up to four 5 1/4" or 3 1/2" drives, mix or match, and all standard disk formats, e.g., SS/SD (98K), DS/DD (320K or 360K), or DS/QD (640K or 720K). Unlike Myarc's earlier (and much more expensive) "personality card," the HFDC interfaces with most standard, off-the-shelf, hard and floppy disk drives. It has its own built-in real time clock for time-and-date stamping of files, and Myarc's Disk Manager V (popularly known as MDMV) sets a new standard for disk managers. (As a Sysop, I do have a minor complaint about how Myarc handles file headers, however. For its own purposes, the HFDC makes use of a certain "reserved bit" in byte 12 of the file header. In most situations, setting this bit doesn't hurt anything, but if it is set, the disk cannot catalog properly from a BASIC or Extended BASIC catalog program.

► APPLYING THE ATARI

my system includes a 130XE, two double-density 1050 disk drives, a Star NX-1000 printer, and an SX-212 modem. A 13" color TV (with antenna removed) serves very well for a monitor.

Before I purchased my first Atari, several of my science students (I am a secondary school science teacher) began asking questions about computers in general. This was "way back" in 1984 when the average home computer system cost something less than $1000. With my very limited exposure to computers, I couldn't answer many questions and determined to buy a home computer to "learn on" for myself. Then as I learned, I would pass my knowledge along to the kids.

The popular and affordable computers on the market in those days were Commodore 64s, Tandy 8-bit models, the TI, and the Atari models. IBM and Macintosh models were out of the question financially, so I studied as much information about the various modes as possible. Then around Christmas, the XL computers were released and I bought a 600XL with a 1010 cassette device on Christmas eve. How well I remember that Christmas vacation of late-night sessions with my Atari and Atari BASIC. My greatest achievements were in producing a BASIC program to computerize the carts and logistics of a favorite war game and another program that tracked and automatically averaged my student's grades. What had previously taken from 3 to 4 hours to do was then done in about 30 minutes! Later when the disk drive was added to the system and the program rewritten, the time further decreased to about 5 minutes! While all the other teachers were sweating it out the night before grades were due, I was playing Star Raiders!

Our school had nothing in the way of computer instructions and my physics students were begging me to do something for them, so after much arm-twisting and pleading, I managed to persuade our administrator to allocate funds to set up five 600XL cassette systems and a time slot for me to teach BASIC programming. The next year, the class grew and we were forced to incorporate other aspects of computer usage besides programming to accommodate non-math oriented students. Now our school has a computer laboratory with twelve 64K Ataris, each with its own disk drive and color TV. We also have three XMM801 printers.

In the process of developing the computer lab, a curriculum was also needed. Taking notes from various magazines, books, and personal experience, I used TextPro to type up a 140+ page curriculum for our high school students. It covers elementary programming, word processing, spreadsheets, databases, and graphics. It also includes complete instructions for the public domain software that is used during the coursework. In addition to a high school curriculum, an elementary curriculum was added to teach rudimentary aspects of BASIC and LOGO.

Word spread to other schools of the success we were having at a fraction of the cost that most schools were spending for Apple or IBM computer labs (we spent about $5,000 for the entire lab of 12 computer systems). Two other schools asked me to come and set up similar labs in their facilities and to train a staff member to use and teach with the Atari computers. At last report, they are doing just fine and one school has continued to add hardware.

The 130XE does everything I need it to do. Perhaps the newfangled 16- and 32-bit computers can do the same things my 8-bit can do in a fraction of the time, but I am perfectly happy with my system and intend to stick with it, come what may.

Michael E. Bennett
Augusta, Georgia

Readers who are interested in the curriculum materials developed by Michael (including programs and documentation) can send him a long, self-addressed, stamped envelop for more information. Write to: Michael E. Bennett, 2207 Glynn Arven Court, Augusta, GA 30906.

8-bit Software

If you are trying to locate 8-bit software that has been discontinued or cancelled, please write in and let me know. I will be coordinating requests from individuals and users' groups to see if arrangements can be made with various manufacturers to re-release discontinued products or to locate old inventory. Also, if you're a software manufacturer or distributor with a substantial inventory of 8-bit software, please let me know. I'll print further details in a future column.

Next Month

We'll have more Atari 8-bit information, new products, reader mail, and a reader-submitted utility program Readers' questions, comments and contributions are welcome. Address all correspondence to: Jeff Brenner, "Applying The Atari 6/89" c/o *Computer Shopper* P.O. Box F, Titusville, FL 32781.

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► TI FORUM

Later versions of MDMV reset this bit when a file is copied from the hard drive to floppy, but when a file is uploaded to a network directly from the hard drive itself rather than from floppy, that bit remains set.)

With the arrival of Myarc's HFDC, can RAMdisks survive? I believe the answer is yes, if they are able to do other things other than serve as RAMdisks. If a memory expansion card can only serve as emulating a disk storage device, it's difficult to see how it can compete against the HFDC (unless you are talking about a RAMdisk costing less than the HFDC plus hard drive). BUT a memory expansion card ought to be able to provide other services, and often can do so if appropriate software is provided. That is to say, a memory expansion has the potential of doing a number of things that a hard drive cannot do.

In next month's column, we expect to be reviewing a very nice memory expansion card from Rave 99. It costs as much as a Myarc HFDC plus hard drive, but it has its own attractive features. Like the Horizon RAMdisk, it uses static RAM chips and is thus very dependable for memory retention of contents (unlike the less dependable Myarc memory card which uses dynamic RAM chips), but unlike the Horizon (and like the Myarc) it allows you to run Myarc Extended BASIC II, offering you in a sense the best of both worlds. It can pretend that it's a supercart, and there are other things that it can do that a HFDC cannot (e.g., when software is available, it can provide a print spooler), so the battle is not over. We've come a long way since Foundation offered its rather limited 128K card, and—with the competition from the Myarc HFDC—I expect that we may finally get to see some of the things memory expansions are able to do (including the obvious one of providing additional addressable CPU RAM).

Incidentally, as with some of its other products, Myarc offers an optional extended warranty for those who desire such (the standard warranty covers 12 months parts, 6 months labor).

TI BASIC On The 9640

Why would anyone want to combine the old, standard TI BASIC with a new Myarc 9640? Bob Sherburne, president of the Southern Nevade 99/4A Users Group, has an answer. Some programs actually were written in console BASIC, but required the Editor/Assembler module to be plugged in as well (Joy Paint '99 is one such program).

To accomplish the same effect on a 9640, one needs a Gram Kracker. Turn the GK loader off and save GROMs 1 and 2. Name the GROMs "BASIC" and "BASIC1" and save to a newly initialized diskette. Then, load up a sector editor and change the first word of sector >22 from 0002 to FF02 and save the change to disk. BASIC can now be loaded into GPL just like any other cartridge.

To load BASIC along with the Editor/Assembler, save the E/A cartridge to disk with the Gram Kracker and name it "BASIC2." Then, change the first word of sector >43 from 0003 to FF03. Now when BASIC is loaded into the GPL environment Editor/Assembler will also be included on the main menu.

Help For The Isolated User

You may remember our report in a previous issue of Jim Peterson's incredible offering of public domain software (Tigercub Software, 156 Collingwood Ave., Columbus, OH, 43213). Peterson offers copies of his organized collection of 200 public domain diskettes for $1.50 each postpaid in the U.S. and Canada, $2.00 overseas by airmail.

Well, the Macon 99/4A Users Group in Macon, Georgia, is jumping on the same bandwagon. They are offering the club library on disk to any full member of the club (membership is $20 per year). The process works fairly straightforwardly. First, the club's catalog is printed in small portions in the newsletter. The member wanting copies must initialize however many single-sided, single-density diskettes are needed for the programs ("flippies" are permitted).

The member then puts the disks into a mailer with his or her own address filled out, including return postage. The mailer can be sent in another package, along with a note listing what disks are requested. To become a member of the club, send dues to The Macon 99/4A Users Group, c/o Don Alexander, 635 Villa Crest Ave., Macon, GA, 31206.

Between Peterson and the Macon 99ers, no TI user should feel left out!

The Blue Scare Debate Continues

In a previous column we asked for opinions about those 99/4A users groups that initiate IBM special interest groups to revitalize the overall club. Gary Cox, president of the Mid South 99 Users Group (which, incidentally, has an excellent newsletter for $15/year, P.O. Box 38522, Germantown, TN, 38183-0522), adds the following to the debate:

"My opinion on this matter is that we should stay strictly TI and Geneve as there is plenty of user groups for IBM compatibles already and mixing two computer types can lead to trouble and it is difficult to serve both."

In fact, many of the officers of our group (including myself) own an IBM compatible as each system has its advantages and disadvantages, but we still stick with our TI activities. Of course, if it is a question of a group going under or staying alive an IBM compatible sig in the group would be a better alternative than no group at all."

Any other opinions?

Attention All Adventurers

Mickey Schmitt of the Pittsburgh Users Group (P.O. Box 8043, Pittsburgh, PA, 15216) is attempting to put together for publication the entire set of adventure programs written for the

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2400 fell from $12.50 an hour to $10. All costs are exclusive of any connect surcharges, sometimes collected by local service carriers (about a dollar an hour).

User groups across the US and now a few other countries as well have been taking advantage of the Z*Net newsletter supplement offered by Ron Kovacs. The maker of the on-line *ZMagazine* weekly has been producing the monthly 12 page Z*Net since March, and has over 20 club applications carrying the supplement to a circulation of over 3,000 copies. Regular columnists include Matt Ratcliff, Darek Mihocka, and many other well-known personalities. It features very up to date news and reviews, and is professionally produced, ready for duplication by participating clubs. It carries advertising and thus can even pay the groups to include the supplement in their newsletters. Your club probably gets a participating Z*Net newsletter in exchange from one or more of these clubs. Look it over and consider it for your club. Z*Net goes a long way to help frazzled newsletter editors find quality material to print, with no "typing in" involved. Contact Ron Kovacs at *ZMagazine* on GEnie, or at Box 74, Middlesex, New Jersey, 08846; 201-968-8148 for more information.

A last technical note that has done a lot for a lot of users: Is your 1050 disk drive making you climb the walls? More and more units are having the same problem: some disks read some times. The problem is often failure to grip the disk itself tightly enough to rotate it in the disk sleeve. This is fortunately very easy to remedy. Open the drive case, and look for the lever that is attached to the turn-down handle. It has a cam on it that pushes down on the hinged top plate that actually clamps the disk. Just put a few layers of disk labels between the cam and where it touches the plate. This will increase the pinch tension enough to eliminate the problem. While you are in there, think about putting a little bit of silicone lubricant on the head rails—you will be amazed at how much quieter the drive will run!

That's it for this month, next month I expect to have hot stuff to tell you about from the World of Atari show in Disneyland! Don't miss the other Atari columns in this issue of *Computer Shopper*. ●

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TIMEX SINCLAIR

MORE TIMEX SINCLAIR

by Michael O'Brien

Without the intricate thread of newsletters, BBS SIGs and users groups that tie us together, the destiny of our computers would have long been decided. It is precisely this elaborate network that weaves us all together.

This month I would like to focus on the emergence of SNUG (Sinclair North American Users Group). From as far away as Australia, inquiries have come for information on SNUG; what is it, how can I belong?

Former Winterfest '88 officials met to discuss the purpose and intentions of the organization. Specifically, first that SNUG would indeed become a reality, and secondly the objectives of this group. The primary objective of SNUG is to better facilitate communication between existing Sinclair users groups and the Sinclair user. No one better than I know that there are hundreds of users out there still acquiring Sinclair computers, with seemingly no where to turn. There still is a tremendous amount of confusion out on the front lines.

SNUG was designed to provide a single source of information about Sinclair computers, and to better direct specific inquiries. The best way to accomplish this was to first seek and acquire a definitive collection of information such as; a list of all current/active users groups, vendors, BBSs and or BBSs with TS SIGs, establish and maintain a complete public domain software collection, newsletter and document library, and the establishment of a database of known hardware/software problems with available solutions.

A very capable Mel Nathanson assumed the Chairperson Pro-tem position, Mary Lynn Johnson acts as Vice-Chairperson Pro-tem, Daryl Stec as Treasurer Pro-tem and Will Adams as Librarian Pro-tem.

Again, SNUG is not in competition with established users groups, but merely compliments them with the clout of a group with national perspective. Quoting a SNUG news release, "At this point we want to point out we are not in competition with currently established users groups." "The idea has always been, and always will be to support these groups, and not detract from them." "They are the backbone of the community." "We are here to help them, and in turn help themselves." "Without them we would have a very difficult road indeed." "This does not preclude the individual user, isolated without ready access to a users group." "Though we hope to put him/her with all the users groups, or point them to a local users group nearby."

SNUGs long term goals include forums designed to tackle the enormous software/hardware incompatibilities confronting us. Also, establishing firm contacts with users groups abroad for exchange of public domain software, investigating the release into public domain of information held by authorized patent holders of Sinclair technology, and to contact software house and cottage industries to release into public domain their rights and interests in programs no longer offered on the market.

Offers have already been made by long established users groups, to contribute their existing libraries into the common SNUG library, for access by all. A complete listing of all Sinclair public domain programs is forthcoming from SNUG.

Frank Davis has been appointed the head librarian, and Tim Ward has assumed the assistant librarian position. These are two very capable and dedicated people.

SNUGs second press release announced the established formats of the library.

ZX-81/TS-1000/TS-1500—Cassette & Larken DOS

Spectrum/TS-2068—Cassette, A&J Microdrive, Wafadrive, Aerco, Larken, Oliger DOS, CP/M, Portugal Timex, Zebra * Ramex SPDOS.

QL—Microdrive & floppy disk.

Cambridge Z-88—Software—Eprom.

As you can see, all formats are available, and with eager and talented people like Tim Ward, Paul Holmgren, Tony Willing, Andy Hardesky, Pete Fischer, Willie Jones, Tim Stoddard and Gary Lessenberry hot on the trail, I am excited! These truly are the same faces that you have seen popping up, time and time again throughout the years, and their names have become synonymous with commitment.

With firm goals and talented people in place, SNUG now needs your commitment. Join! I highly recommend this organization. To date, this has been the highest level of commitment from a huge pool of innovators. The scope and accomplishments will be staggering.

Memberships are $12 for individuals, and $15 for users groups. Again, to quote their most recent press release, "We anticipate your joining the organization." "There is something special about a person willing to take a chance on an idea, that has nothing immediately tangible for their hard earned money." "It takes a person with vision and courage." "Ideas with as much scope as the one we are attempting, are difficult enough to pull off without your help." "Be proud, there are not many of you out there."

Contact SNUG at 7515 Arbordale Drive, Port Richey, Florida. 34668. (813)-863-5552.

Amstrad

While on the subject of users groups, I'm glad that I finally have the time this month to mention AUGUST. (Amstrad Users Group United States Territories). Begun by Harley Ristad, a retired computer engineer for IBM, his name has also become synonymous with contributions. Harley began the group as "therapy," a creative outlet

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TI-99/4A, including public domain and fairware offerings. As you might imagine, this is quite a task.

Anyone with fairware or public domain adventures is encouraged to drop a line to Schmitt in care of the PUG.

Some Tips To Newsletter Editors

Jack Sughrue, well-known author of Impact-99, a news column for the 99/4A originating in the Massachusetts MUNCH newsletter (P.O. Box 7193, 560 Lincoln Street, Worcester, MA, 01605), offers some tips to newsletter editors that might be very helpful. A few of them follow:

* Because so many newsletters now exchange, limit the amount of low-interest materials. Focus as little as possible on the business meeting, treasurer's report, time and place of next meeting, etc.

* Add some graphics. The 99 (with MAX-RLE, GRAPH-X, TI-ARTIST, CONVERT, PICTURE IT, PICASSO, CSGD, etc.) has a wealth of wonderful clip art.

* List your library, even in pieces. This is important for members and exchanges. Be sure to put it on disk, too.

* Gripe! By having a __little__ gripe column, the TI world will change. It's as important to have a legitimate gripe as it is to have legitimate praise.

* Thus, praise. If someone has found a program they like or love, encourage them to write about it. Or, because you are editor or write, encourage them to demonstrate it and you write it up for the newsletter.

* Look through other newsletters. If an article interests you, it will probably interest your readers.

* But be careful. Very few people have RAMdisks, Geneves, Triple-Tech cards, or whatever. Most TI owners don't even have disk drives. Try to encourage them to get drives, but don't overlook them.

We'd like to add one more tip to Mr. Sughrue's list—be sure you are exchanging newsletters with MUNCH; Impact-99 is a valuable addition to any newsletter! ●

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