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TEXAS INSTRUMENTS

TI FORUM

by Barry Traver and Jonathan Zittrain

Tracking Down Public Domain Software

Perhaps because it is an orphan computer, the TI-99/4A has much public domain software and fairware available for it. There are a number of ways in which such material may be obtained. Many user groups have excellent libraries of non-commercial software. Telecommunications come to the aid of some, since the major networks (BIX, CompuServe, DELPHI, GEnie, the Source, etc.) often have very extensive libraries, and even local BBSs can often prove to be an especially valuable resource. But what of the TIer who has no modem and no user group nearby?

For these people (and others), there is good news! Jim Peterson, author for many years of "Tigercub Tips" (a column which appeared regularly in many user group newsletters), has decided to make the better programs from his own public domain library of over 3600 programs available to the TI world at large. From his collection, he has chosen enough programs to fill 200 single-sided, single-density disks, arranged by category.

The software itself is free; the only charge Jim is making is a copying charge of $1.50 per disk to cover cost of media, mailer, postage, etc. (The $1.50 is for the U.S. and Canada; for $2.00 per disk, Jim will even send the material overseas airmail.)

If you would like a copy of his 9-page TI-PD catalog including all titles and authors (where known), just send $1.00 (refundable on first order) to Tigercub Software, 156 Collingwood Avenue, Columbus, OH 43213. (Be sure to specify that you want the TI-PD catalog. Jim also has original software available—over 120 copyright entertainment, educational, and utility programs at $1 each, full disk collections at $5 each, and his excellent "Nuts & Bolts" series of Extended BASIC subprograms or his Tigercub Tips disks at $15 each. If you want that catalog as well, send another $1—again, deductible from first order—and specify that you want the Tigercub catalog.)

Jim's public domain collection has some advantages over the libraries of many user groups (and perhaps over your own library?). Each disk has been provided with an autoloader. With few exceptions, the programs can be run from Extended BASIC. TI BASIC programs have been converted to run from Extended BASIC (except for those speech programs requiring the TE2 module). When possible, assembly programs have been provided with XB loaders. Although there is no guarantee that all programs are perfect, Jim has done some bug-correction as well as added instructions to some of the programs. And, as already noted, material is grouped by category (rather than a too-common practice of having lots of disks labeled merely "miscellaneous!").

Note that the TI-PD collection is public domain. Jim will distribute fairware only if he has the author's express permission to do so, since Jim feels that "fairware authors may reasonably object to anyone charging to distribute their work." Since Jim's copying fee is half the price some user groups charge for the same activity, I suspect that few if any authors would object to Jim's becoming an extensive fairware distributor as well, but he may be kept busy enough copying public domain software! (Incidentally, although many Tigercub programs are copyrighted, Jim has also done his share of writing public domain programs, as his collection proves.)

Where To Find The Fairware

If you are interested in fairware rather than public domain software, you should be aware that Steve Mehr has taken over the updating of Dick Altman's famous fairware list, which currently has over 200 entries. The list is available on a single-sided, single-density disk, and can be requested by writing to Steve Mehr, 633 Hollyburne Lane, Thousand Oaks, CA 91360, Attn: Fairware List. The cost? Steve requests only $1 to cover expenses, but I suggest it would be fairer to send $2. (By the time of publication of this article, the list should also be on the networks and bulletin boards, for those who are involved with telecommunications.) The fairware programs themselves could then be ordered by mail directly from the respective authors.

New commercial software, of course, contains to be available from Asgard, Comprodine, and Inscebot, among others, but it is also good to know that there seems to be no lack of good public domain software and fairware available for the TI-99/4A.

Back To BASICs—And Logos, Pilots, Etc.

Uh-oh, musing on the rich quantity of good public domain software and fairware is leading one of the authors of this column onto the soapbox (or is it the preacher entering the pulpit?). Watch out!

In this day where the TI-99/4A owner may have perhaps a hard drive, a 1MB RAMdisk, 80-column card and RGB capabilities, various grom/gram emulators (I almost said "gremulators!"), IBM-style keyboard, and other hardware gadgets and upgrades (even apart from the option of moving to a Myarc 9640), we are far advanced beyond the situtation of a few years ago, when it could be a bit embarrassing to admit you owned a /4A, especially since Texas Instruments chose to market the computer more as an educational toy for children rather than as a serious computer for adults. Those of you who may occasionally get together with general (non-TI) computer types may identify with my own experiences. In such a setting (in my case, the Philadelphia Area Computer Society was one such setting), sooner or later the question comes, "And what computer do you have?" If you respond at once to that question, "a TI-99/4A," the response may be gales of laughter accompanied by comments not appropriate for this column. I devised my own strategy for dealing with such situations.

Rather than answering at once, I would say something like this: "I'll let you guess. Unlike the lowly Apple II or Commodore 64 (or whatever), it has a 16-bit microprocessor, giving me mainframe-style assembly language with some rather nice features, such as relocatable code and movable software registers. I can put 16 colors on the screen at one time, and the automated sprites will stay in motion with no attention from the CPU. For languages, I also have BASIC (at least a dozen different varieties, including the major Extended Extended BASICs), Fortran, Forth (two major kinds), Logo (with turtle, tiles, sprites, and music), Pascal (UCSD and Turbo), Pilot (three different versions), and more (including ASPIC and a small C). In addition to running programs using speech, I can run programs using speech recognition...." And so on.

As you can guess, their guesses were rather comical (almost sending me into gales of laughter!), but what I enjoyed most was the look on their faces when I finally announced, "No, it's a TI-99/4A." You see, by that point I had proven that the /4A was not just an educational toy for children sold by a well-known Jello salesman on TV, but a serious computer with serious capabilities for adults.

Well, I think we have come to a place where the pendulum has swung, so much so that we have forgotten that the /4A—indeed a good computer for adults—is still one of the best computers around for children. I am very familiar with the software available for the /4A on various major telecommunications networks, and (though I am in general greatly encouraged) what disappoints me is—in the midst of such riches—what is missing, viz., programs (educational and otherwise) for children.

For elementary-age children, for example, TI Logo II is an excellent implementation of the language. It is better than the standard Apple or Terrapin-Krell Logos, since in addition to the "turtle" (everyone has that) TI Logo II has tiles, sprites, and music. Each issue of the old *99'er Home Computer Magazine* used to include a significant section on Logo, but in the past several years, no one seems to be doing anything new with Logo. For instance, you will find few if any Logo programs on CompuServe, DELPHI, GEnie, or the Source. Likewise you will look in vain for programs written in Pilot (a language admirably suited for teaching children), even though two versions of Pilot take full advantage of the friendly features of the computer (unlike most of the Plato courseware, which does not utilize the full-color graphics, sprites, music, etc., of which the /4A is capable). Jim Peterson himself recently lamented the lack of new educational software for children (although he has been doing something about it, namely, writing Quizmaster

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► AVOID PROBLEMS WITH YOUR ADAM

Be careful when looking for a place to put your computer. If the room gets very cold, and you put Adam near a heater, you could cause the internal boards to warp. You wouldn't be helping your disks much, either. Likewise, if you place Adam in strong, direct sunlight that is uninterrupted all day, you run the same risk.

Placing Adam close to a telephone or stereo system could be a bad move, also. The telephone's ringing causes coils in the receiver to give off a small magnetic field that could wipe out data on your disks. The stereo speakers have coils that cause a similar reaction. In fact, Adam itself, as well as the TV, monitor, printer, or CPU create a magnetic field that could wipe out data on your tapes/disks. It is, therefore, a good idea to store your tapes/disks some distance away from these components. You don't have to go to extremes, but keeping your tapes/disks stored right next to any electronic equipment that creates a magnetic field is asking for trouble.

With a little TLC (Tender Loving Care), Adam will serve you long and well. It's well worth that small amount of effort. Adam has managed to survive in spite of being abandoned by Coleco. That must say something for its ability to hold its own in the wonderful world of computers. Happy computing!   ●

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TIMEX SINCLAIR

MORE TIMEX SINCLAIR

by Michael O'Brien

Time to crank up this old bucket of bytes for another fascinating month, as my fingers gingerly dance across the chicklet keys of my trusty 2068.

You'll be interested to know, upon reviewing your mail over the past six months, here are some interesting results. 99% of you had very kind words (thank you)!

Half of the letters received, were from new users. I'll repeat that—NEW users, looking for assistance. Fate (and $3.50 a month) has brought them here for that help. Obviously Timex no longer produces the 1000/1500/2068, but it's kind of like every six months the country plays "musical computers," and novice users keep acquiring them. More than ½ of that 48% are Amstrad users also wondering why Alan Sugar has forsaken them, or why SOS wants their first child.

Some of the mail received offered their advice and expertise for hardware projects, and software acquisition assistance. These are the letters that truly are invaluable. The tips and techniques that are so universal in appeal. Please continue to offer this information by writing to me c/o *Computer Shopper*. I keep a master log database of users and their area of expertise. As requests arrive, I often refer them straight to the experts— You! Those answers and explanations are also published regularly here in this article.

Happy Birthday to Ed Greys' Grey Matter BBS. At the time of this writing, the BBS celebrates its first year on-line. In addition to the Time(X)Change BBS, also in the Los Angeles area, it is an excellent BBS for Timex and CP/M users. Grey Matter BBS (213) 759-7406. Time(X)Change BBS (213) 329-3922. Both are PC-Pursuitable.

Timex/Sinclair Telecommunication

A few years ago, Timex computers were a hardware upgrading project waiting to happen. Today, they communicate with banks, travel agencies, stock brokerage firms, libraries, and government operated BBSs. Though the use of the TS computer via modem is no startling news, there are new products out that make the communication link, and subsequent storage of information, easier.

Mterm is still widely used amongst TS users for BBS hookups. Its limitations are poor documentation and lack of buffer for up/downloading files. MtermII upped the ante with a 27 + K buffer for error check-free ASCII file transfers, addition of macro keys to facilitate faster log-ons, and auto dial. Pioneer Kurt Casby, often written about in these articles, added the Xmodem option to file transfers. Utilizing CRC (Cyclic Redundancy Check), for error checking, it added a new dimension to our telecommunication. Xmodem was much faster and precise than ASCII transfers. Kurts' Loader V works with the MtermII software package, but still limited the user to 32 column displays. The Xmodem enhancement, and Schoenwetter 80 column printer utility could not coexist in the printer buffer area. It is possible to utilize BOTH programs, but not without a great deal of frustration and cassette switching.

So far so good—or was it? The OS-64 cartridge, introduced by Zebra Systems. What made the cartridge unique was its ability to integrate printer utilities for 80 column printers. Early attempts to run MtermII on the cartridge proved fruitless, so Zebra developed Zterm-64. When used with the OS-64 cartridge, it was the best thing since fondue parties.

Now you could take advantage of the Xmodem protocol, import ASCII files from word processing files, and still use HEX if you choose. The inevitable price tag for the 64 column display was a 10K RAM loss for the resident programs in use.

Again, Ed Grey & Associates to the forefront of technology with the introduction of another terminal program. Initially, only for the Spectrum or ROM emulated TS/2068s, it was later modified for stock TS/2068s. It was actually a compilation of the "Best Of" of all previous innovations. A 31K buffer, Xmodem transfers, 64 column display, and full screen color control. Even better, it ran at 1200 baud! It also works with all commercially available RS232C interfaces. Through the use of the Overlay Loader, you can customize the program to use with a 2050 modem and no Z-SI/O board.

Specterm-64 is a powerful program, now offering a full size printer driver, and may be used with the JLO or Aerco disk formats. Full on-line and phone support is available from Ed Grey, of Ed Grey and Associates.

For those of you with the Larken Disk system, and LKDOS v.3, try the new Maxcom software from Larry Kenny. The hitch here is that Maxcom combines terminal and BBS software capabilities. Maxcom is compatible with either the Z-SI/O bare boards and RS-232, or the 2050 modem. File transfers of over 100K get dumped to disk, and of course Maxcom supports 1200 baud. Available from Ed Grey & Associates. (Address listed earlier.)

That's a nice story Mike, but ya know, I own a TS/1000/1500 or ZX81, where is your sense of compassion? Try Zterm*80. Two years ago this month, a unique cooperative effort between several people got the pages of TS/1000 history flapping in the wind.

Zterm*80 offers 40/60/80 column display, adjustable windows, menu driven, redefined upper/lowercase keyboard display, full sized printer support, Xmodem transfer, and supports the Byte-Back and Westridge modems. All comments on the program are of course excellent. The down side to the program is that it requires an NVM card (Non-Volatile Memory). Options include the Hunter board or Silicon Mountain/Larken SCRAM card. Zterm lists for $25, and the SCRAM card is $39.95.

Another pleasant surprise that arrived at press time, is that Ed Grey confirmed he is beta testing a digitizer for the TS/2068. If all proceeds as planned, it may be available for release before year's end.

By the way, as I originally mentioned earlier, the Grey Matter BBS has a massive selection of public domain software on-line for all TS computers, QL & Amstrad.

I also highly recommend (for newer

▶ TI FORUM

and other fine programs to deal with this lack).

Since so many people can program in BASIC and since we have so many good "Extended Extended BASICs" (in addition to the nine surveyed in previous issues of *Computer Shopper*, a new one—XDP or eXtended Display Package—has now arrived from Australia), it is not difficult to write professional-looking programs in this area. I would like to challenge *Computer Shopper* readers to write and share such programs with the TI community at large. After having proven that the /4A is a serious computer for adults, I think we do not need to be apologetic about the fact that children also love this computer, and I think we ought to have more written especially for them. If you agree, I (we?) would like to hear from you, whether you be a parent, a teacher, a child, or none of the preceding!

Well, I suppose it is time to leave the soapbox or pulpit, but it is my hope that

developments in this area will catch up with technical, "adult" advances for our machine. We've got lots of "techie" stuff happening (and I do get excited about that as well, including hardware developments, in spite of my being a genuine American technoklutz), but I'd also like to see new Logo programs, Pilot programs, educational programs, and, yes, maybe a few new simple games as well (though I admit to preferring thinking games over the arcade type).

In the meantime, you can take advantage of the extensive public software that has come out in the past few years (Jim Peterson and Steve Mehr can help here), and we'll continue to keep you informed of new things coming out to the best of our ability!

The Ultimate Hardware Documentation

Information on designing and building interface cards for use with the Peripheral Expansion Box has

always been hard to come by, possibly dissuading some techies from taking on complex hardware projects. Someone now seems about to come forward to fill that information void.

Hardware expert Tony Lewis has been hard at work contacting hardware and software gurus in the TI community to assist in the development of the new "Unofficial" TI Interface Standard. According to Lewis, "the purpose of this standard is to assemble as much useful information as possible in one document to assist people interested in developing new peripheral products for the 99/4A and its peripheral expansion box."

Says Lewis, "it is specifically geared towards the software and hardware design of new cards or add-on products, and not simply another manual on how to write assembly programs, or how the /4A is put together."

The manual is intended to cover both hardware (electronic circuits used in

TI system products, and a discussion of the various 9900 signals and interface requirements) and software (code to access memory, CRU bits, and development of device service routines). Other possible topics include a discussion of the 36-pin module port, GROMS/GRAMS, other cards from Myarc, CorComp, and others, and the Myarc 9640.

Projected release date for the manual is second quarter 1989, and Lewis is interested in hearing from anyone who can contribute or has specific requests for particular material to be covered in the project. Lewis will have some time away from this important undertaking to contribute a few pieces to TI Forum about do-it-yourself hardware projects, to include 32K in-console expansion. For more information, drop us a line at TI Forum, or contact Lewis directly at 409 Drolmond Dr., Raleigh, NC, 27615; CompuServe [73357,1730], DELPHI TONYLEWIS.   ●