TI-99ers In The '90s

Classic Computer Column
by Barry A. Traver

ORPHAN SURVIVAL TACTICS

I have argued on various occasions and in various places that TI-99/4A owners CAN continue to survive (and thrive) if they put into practice three important "survival tactics": (1) "Cottageing," (2) "Archiving," and (3) "Networking." By "cottageing," I mean that TI'ers must recognize that an individual or small company can often produce software/hardware that is equal or superior to that produced by a large company, and then they must go on to purchase such products from those "Mom and Pop" or basement operations that merit our support. By "Archiving," I do not have in mind the technical combining of disk files (a procedure accomplished earlier by my original ARCHIVER program and now by Barry Boone's enhanced version, a utility very useful in telecommunications), but simply that TI'ers must collect - and make available to others - technical information, public domain software (and fairware), etc., so that we have an organized library of information, programs, etc. at our disposal. Finally, by "Networking," I mean that TI'ers must work together in user group and in other ways to share all that is legal and ethical for us to share.

In short, "Cottageing" means recognizing that we can make it on our own without help from Texas Instruments or other giant companies (although TI has continued to give us admirable support), "Archiving" means collecting, and "Networking" means sharing. I first set forth these principles a number of years ago in the opening article in the book ORPHAN SURVIVAL HANDBOOK, edited by Ron Albright (itself a commendable example of collecting and sharing), and I believe these same principles are equally important to us today.

Are we putting these principles into practice? To a large extent, I believe we are, and I trust you will see some evidence of it in this column. The value of "cottage industry" can be seen, for instance, in "little green men" (more about that later!), and there is new activity in the areas of collecting and sharing of public domain software and fairware, for instance. I do have a concern that I would like to address, however, and it is this: most of the current programming activity for the TI-99/4A (and Myarc 9640) seems to be being done by "professional" programmers in what are generally considered to be "professional" languages. I suppose that activity is good news to many users, but - while I appreciate the evidence that there is no lack of "professional" programmers around writing "professional" programs - I think we will all lose out if we don't see some new activity in the areas of "amateur" programmers writing in "amateur" languages.

WHAT LANGUAGES ARE SPOKEN HERE?

As chief SYSOP now on the TI RT on GEnie and earlier as one of the regular Sysops on TI FORUM on CompuServe, I've gotten to see a lot of what's been uploaded by way of thousands of files on the major telecommunications networks during the past few years. I've also gotten to see what hasn't been uploaded. I think part of the point I want to make can be seen if we consider the matter of languages for a moment.

Many languages are available for the TI-99/4A, including assembly, BASIC (TI BASIC, TI Extended BASIC, and a dozen or more significant variations or extensions of TI XB, including the recent MMXB by Jean Marleau and TML by Harry Wilhelm), an approximation of small C (Clint Pulley's c99), Forth (including TI Forth and Wycove Forth), For-Tran (99 and 9640), LOGO (TI LOGO and TI LOGO II, not to mention Tiny LOGO for those who have only a cassette system with no expanded memory), Pascal (UCSD and Turbo), PILOT (three versions: one by DataBioTics, another by the late Thomas Weithofer, and TI PILOT from TI), and maybe a few other languages I've neglected to mention (such as ASPIC, which appeared in an old issue of 99'ER MAGAZINE).

Moreover, there is new work being done in the area of language development. For example, a number of people are at work in independent efforts on a fuller (or full) implementation of C, including Al Beard, Paul Charlton, and at least two others (one in the Southern U.S. and the other in Europe, according to rumor). Al Beard, for example, has already got going a C cross-compiler that runs on the Amiga and produces code that will run on a TI-99/4A or Myarc 9640. As I understand it, he hopes ultimately to bring the C compiler over so that the compiler will run on the Myarc 9640 directly.

Now, judging from the files uploaded to the networks (and the programs that are being written), what are the popular languages today compared to the popular languages in earlier years? Most programs today seem to be written in assembly; if it's not written in assembly, it's likely to be c99 or possibly ForTran. All of these are considered to be "professional" languages. I see very little that is written in XB (or if it is in XB, it's likely to make use of assembly language subroutines), and I can't remember any new LOGO programs being uploaded to the networks for several years. BASIC, of course, tends to be regarded as a language for "amateurs" (is that why even Myarc's Advanced BASIC for the Geneve has received so little attention?), and LOGO is considered to be even worse: a language suitable only for children!

What has happened? In my opinion, TI'ers have gone to such lengths to prove to the world that the TI-99/4A is not a child's toy, but a "real" computer to be treated seriously by adults (and I believe we have accomplished that in great measure) that we may have forgotten that the TI is also still a great computer for children. I guess I'm unhappy about that, since in many ways, I'm still a child at heart myself. Some of the time I don't really care about sophisticated utility programs or many-optioned database programs like Inscebot's TI-BASE, fine as that program may be for certain purposes: sometimes I just want to do things to have fun and enjoy the color graphics with animation, the music, the speech, etc., that my TI can give me, things that "professional" programs don't need, but I do!

LOOKING AT LOGO

On the topic of LOGO, I believe that TI LOGO II still seems to be the best LOGO available for children of elementary school age. TI LOGO II includes not only the "turtle graphics" that you expect and find, say, in Apple LOGO or Terrapin-Krell LOGO for the Apple II, but also features that you don't find in those implementations (e.g., tiles, sprites, and music). TI LOGO II is not perfect (the turtle can run out of ink, and the program is confined to integer arithmetic), but it is certainly not a language that deserves to be forgotten or neglected.

My purpose here, however, is not to complain about the undeserved neglect of TI LOGO (II), but to remind TI'ers (especially those with young children) of the benefits of LOGO. The ideas expressed in the book MINDSTORMS: CHILDREN, COMPUTERS, AND POWERFUL IDEAS by LOGO's inventor, Seymour Papert, continue to be valid. Today as earlier, too often CAI ("Computer Aided Instruction") means "using computers to 'program' children," but LOGO offers an alternative to that. (I'm not against rote drill- such drill is necessary, and computer programs can perform that function admirably, making it not unpleasant, for example, for a child to learn his times tables. It's just that that's not the only - or necessarily the best - use of the computer in education.)

Fortunately, there are some signs that we may be ready for a return to a recognition of the value of the TI-99/4A to children and to education. In the area of education in general, Don Shorock (as noted in a previous column) has single-handedly (or maybe double- handedly, if he happens to type with both hands!) given us many new and excellent educational programs for the TI. In the area of LOGO in particular, Charles Good called my attention to something new that I hope will spark renewed interest in LOGO.

If you are interested in learning more about TI LOGO, you'll be glad to hear that Eunice Spooner (R.F.D. 1, Webb Road, Box 3720, Waterville, ME 04901) has made an excellent videotape (VHS format) to assist you to do precisely that. The videotape (and accompanying disk) is available at the cost of only $10 (I think that Eunice follows the example of Charles Good of the Lima User Group of not charging enough, but what can I say?). Since my column last month included comments on the "VCR/computer connection," it's good to be able to give you another example of the practical value of that combination. If you always wanted someone to come to your house to show you what TI LOGO is and does (and to teach you how to use LOGO commands), send for this tape! (And, thanks, Eunice, for doing your part to make LOGO alive again!)

GETTING BACK TO THE BASICS

In a phone conversation a while back, I believe Jim Peterson of Tigercub Software called my attention to the fact that most of the TI BASIC and TI Extended BASIC public domain programs available today (Jim has made hundreds of disks of PD programs available to TI'ers from his own personal software library) seem to have been written several years ago. True, some people are writing BASIC programs today, but few in comparison with previous years. Since we are seeing, on the other hand, lots of new programs written in assembly, c99, etc., can it be that BASIC programmers have let themselves be intimidated by the increased activity in the more "professional" languages?

The situation is indeed paradoxi-

Adam News

Classic Computing
by Faye Deere

I talked to Mark Gordon of Micro Innovations, 12503 King's Lake Drive, Reston, Virginia 22091, and he tells me he is working on some wonderful things for the ADAM! If you want to get information on the newest innovations of Micro Innovations, Mark has set up a BBS that operates from 6 PM to 6 AM, Monday through Thursday, and from 6 PM Friday until 6 AM Monday morning. The number of his BBS is (703) 264-3908. He asks that you not call that number any other time as Mrs. Gordon uses that phone for business purposes during normal business hours. Calling his board will give you all the current information. If you have questions, you can leave messages and Mark will get back to you with an answer.

First of all, Mark has come out with a new line of Powermate Hard Disk subsystems. He has merged the Powermate 2 and 4 models into a single product called POWERMATE. The POWERMATE includes a new external enclosure that holds up to four disk drives, and sits underneath the ADAM computer. The new enclosure is essentially an "AT-junior" type enclosure that contains a 150 Watt power supply with a cooling fan. The new power supply has sufficient capacity to provide power for the ADAM computer itself, as well as for up to four disk drives. POWERMATE is being offered for the same price as the POWERMATE 2, which means that you save $100 from the POWER-

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cal, because - with the many more powerful BASICs available now (including a dozen extensions of TI XB useful for TI'ers in general, plus Myarc's Advanced BASIC for the 9640) - it is easier for an "amateur" to write "professional" programs in BASIC than it ever was before. "Basic XBASIC" is itself an excellent all-purpose, versatile language, but even more powerful are such extended Extended BASICs as Harry Wilhelm's The Missing Link (available from Texaments, 53 Center Street, Patchogue, New York 11772) and Jean Marleau's Multi-Mode XB (which, according to the author, should be ordered only from PROJEM, P.O. Box 155, Station D, Montreal, Quebec H3K 3B9, Canada), which open up tremendous possibilities for the BASIC programmer.

I have no objection to more "professional" languages (indeed, I will shortly have some very positive things to say about one of them), but I would like to see more TI'ers "getting back to the BASICs," particularly if BASIC is the only language they know. If you know another language, great - use it. If you know only BASIC, don't let current prejudice against BASIC stop you from writing (X)BASIC programs and sharing them with other TI'ers!

THE LANGUAGE OF LITTLE GREEN MEN?

Having put in a plug for two languages that I think deserve more attention than they've gotten in recent years (i.e., LOGO and BASIC), I'd like to put in a plug for a third language that deserves more attention, viz., the language of "little green men." Well, actually I'm talking about ForTran - a language which -unlike LOGO and BASIC - is generally considered to be a "professional" computer language. It is available for the TI-99/4A and Myarc 9640 from LGMA Products (5618 Applebutter Road, Coopersburg, PA 18036). (In case you haven't guessed it yet, LGMA stands for "Little Green Men Associates"; I presume they work under the supervision of Alan Beard - gentleman, scholar, expert programmer, and friend to TI'ers - who lives at the same address.)

Although ForTran does not have quite the same popularity in the TI world at present as assembly and c99, it deserves (in my opinion) equal popularity. For one thing, since ForTran is the "granddaddy" of BASIC, it may be easier to learn for the person who already knows BASIC (i.e., most of us!) than either of the others. For another thing, Alan Beard has put out a professional product (here's evidence of the power of "cottage industry"!) and has done a professional job of supporting and upgrading it.

The language is available for both the TI-99/4A (99 ForTran, $49.95) and for the Myarc 9640 (9640 ForTran, $69.95) (or you can order the two combined for $79.95). Those prices, by the way, include the cost of shipping and handling. The latest version is 4.4 for both (evidencing the kind of support Al gives to the product). (Incidentally, if you bought version 4.3 of 9640 Fortran and haven't sent in your registration, please do so, and Al will mail you version 4.4 at no additional cost.)

Since ForTran is a compiled rather than an interpreted language, it has some real advantages over BASIC (since we do not have at present what I would consider to be a real BASIC compiler, although there are always new rumors of someone's possibly working on such). ForTran (from "Formula Translator") was originally specifically intended for programming related to math and science, but 99 ForTran and 9640 ForTran have gone beyond those limitations, so if you already know BASIC and want to try another language, I highly recommend your giving a try to ForTran! (It will also be interesting to see if Al is able to offer a similar package for C in the future....)

NOW ABOUT COLLECTING AND SHARING....

Where does one find TI information as well as public domain software and fairware? As I've already mentioned, one resource (if you have a modem) is the major telecommunications networks. (If you don't have a modem, you can often purchase an external 2400 baud modem now for less than $100.) I was recently promoted to the position of Chief Sysop on the TI RT on GEnie, but other choices for the TI'er are the TI FORUM on CompuServe (Jim Horn, Chief Sysop) and TI NET on Delphi (Jeff Guide, Chief Sysop).

Which of the three should you choose? Each has its own strengths and weaknesses. CompuServe seems to have the most active message base, GEnie seems to have the largest and most active software library, and Delphi seems to fall between the two in both areas. Many TI'ers are on more than one network, and some are even on all three, which is an indication of their value. Here you will find a major effort at collecting and sharing. (I think I'd be on all three myself if I could afford it!)

User groups are another important resource, particularly larger groups such as the L.A. 99'ers and the Chicago User Groups (yes, you can become a member without living in Los Angeles or Chicago!). Here also you will find a major effort at collecting and sharing, including larger user groups doing full exchanges of software libraries (including the two I just mentioned?). Networks and user groups can obviously support you in a way that your local computer store cannot (especially when the latter organize TI Fests, Faires, etc., which can also be a tremendous resource).

PARTIAL PROGRESS REPORT ON CASSETTE PROGRAMS

When people download files and programs from CompuServe, Delphi, and GEnie, they download them to disk. When user groups organize group libraries, the programs are usually on disk. Most of the software sold at TI computer conventions is on disk. What then about the TI-99/4A owner who does not have a disk system, but uses cassette storage instead?

Well, if you're in that category, I have good news for you, although you'll have to wait till my next column for more complete details. Just as Jim Peterson made his public domain disk library available, so also Jack Sughrue (a school teacher like Eunice Spooner) is in the process of working on making public domain library available on cassette. I have also heard (but have not yet confirmed details) that the MANNERS user group of the Washington, D.C. area will be (or is?) making cassettes available to TI users.

This is encouraging news, because I believe our future welfare is tied up with how well we support all TI'ers, beginners and experts, those with minimum configurations and those with full-blown systems. So I'll let you know in next month's column what else I find out in this area.

SHORT NOTES

Tony Lewis (409 Drolmond Drive, Raleigh, NC 27615) has put out a helpful INTERFACE STANDARD & DESIGN GUIDE FOR TI 99/4A PERIPHERALS (cost: $21.95 with one DS disk or $22.95 with two SS disks). I'm not a hardware buff, but Jan Janowski in his review in MICROPENDIUM called it "a wealth of information for hardware hackers." The manual includes such chapters as "9900 Signal Interfacing," "Console and PBox connectors," "PBox Card Electronic Features," "Typical Circuit Examples" (including "Memory Interface" and "CRU Interface"), and "TI Developed Cards" (including "RS232 Card," "32K Memory Card," and "Disk Drive Controller Card"), among others. If you're interested in hardware development, you'll want this book!

After a long delay (caused partly by my Dad's long and serious illness and final passing away earlier this year), the Genial TRAVelER - a diskazine for the TI-99/4A - has resumed publication. If you are a current subscriber and have not yet received Vol. 3, No. 1, get in touch immediately with Barry Traver, Editor, Genial TRAVelER, 835 Green Valley Drive, Philadelphia, PA 19128 (phone: 215/483-1379).

Until next month, keep on compuTIn'! ■