PICASSO PUBLISHER

T n T

A TIME FOR THANKS

How many things we take for granted, and good we feel when we receive an unexpected thanks, so now consciences tweaked how about a couple of cards or letters of thanks.

Bill Knecht, a name very familiar to many of us. Bill's music disks have made us smile and shake our heads in wonderment many times, but if you check in your disk box right now you will find a couple right there. BBSers have long enjoyed "chats" with Bill and know him well. Bill has had a bout of rather ill health, and his participation in the community has had to take a back seat to his recovery. That of course has left a void in Bill's days, so how about showering him with cards and letters and let him know that even if he is temporarily curtailed, we think and care about him. Bill Knecht

815 Yorkshire
Pasadena, Tx. 77502
above courtesy John Owen

Computer Shopper, wow what can I say about this two ton wonder. The support this "orphan" receives in this publication is fantastic. Before we even get to the TI Forum, let us look at the sections devoted to User Groups. Any group can be listed FREE of charge simply by following the submission policy clearly stated. There are 6-8 full pages of User Groups listed by State and Zip Code. I know it works as I get many calls from our listing. Then there are BBS listings, once again FREE for the asking also listed by State and Zip Code. 14 full pages of BBS across the nation. That is over 20 large pages of helpful User information each month, INCREDIBLE! These of course represent many computers, but just look through these listings and see how many of US are there. Then there is of course the TI dedicated pages, both the TI Forum and the classified. Jim Peterson has long said his greatest response came from the classified ad he placed here. The TI Forum co-written by Ron Albright and "JZ" is an excellent source of information. There is frequently candid comment, and for the most part you will NOT see an A rating for the brain. It is time we let Computer Shopper know how much we appreciate them. Here we have two options, hopefully some of you will do both. Write a note of appreciation to Stan Veit, Editor in Chief, Computer Shopper, 5211 S. Washington Ave., Titusville, Fl. 32781, and/or subscribe $21.00 to the same address, or LA 99ers still have a few "show specials" at $14.00. For those of you on networks the following are Computer Shopper ID #'s. CIS 70275,1023, Source TCC575, Delphi CSHOPPER or SVEIT.

PICASSO

One great advantage of reading Newsletters from around the world is discovery. Recently I have been aware of a new graphics program with many good things said about it. This all from Australia. Anxious to know about this program I wrote to a good friend there who recently (yesterday) presented me with a copy. I was also in conversation with our club member Jerry Steinberg who also had received it. Well it is reviewed in these pages by Jerry who has version 1.1. The one received directly from Australia is Version 1.2. Jerry believed this is Fairware, from what I can see it is NOT. The Author Arto Heino has copyrighted this program and is selling it commercially for $20.00 plus $2.50 shipping. He can be contacted at 33/8 Guernsey Ave., Minto, 2566, N.S.W. Australia. Please respect the Authors Copyright, and if you see it on Networks and/or BBS ask the SYSOP to remove it. I will contact Arto and ask if he wants it distributed from this area and let you know what his

decision is next month. Until then this program will NOT go into our library.

RUMOURS

Recently spent a week in the New York, New Jersey, Pennsylvania area and as usual sought out my 99/9640 friends.

The same above mentioned pleasure of other area Newsletters also causes some grief. There are too many just waiting for failure so they the doomsayers can say I told you so. Well for one I reserve those thoughts for the greedy charlatans among us, and also those consumed by the GREEN MONSTER. I held in my hands the floppy/hard disk controller now in its final (software) development stage. The Card is a reality and it looks GREAT! The longer than intended development to market has benefited this card as well as the 9640 itself. Anyone in the computer field knows as soon as a prooduct is released it is on its way to being obsolete. Well the gate array surfaced just in time to give Myarc an excellent tool with which to improve a great product. Hold your tongues, dump the negative "I'll believe it when I see it" attitude and just relax a bit and realize what magnitude Lou Phillips and his "team" has accomplished. There have been several acts of bad faith to overcome along the way, but Lou with his go forward attitude has dealt with them as gnats (which most of them are). I

don't know whether you realize what an incredible against odds project is nearing completion.

Speaking of Green Monsters, once again the empty, tired, baseless line has reared its ugly head. I challenge those of you who like to brag of how good you are to come forward with something to prove it other than meaningless promises of "vaporware". You cannot lick the boots of those you malign. Question, is a ported system without credit to its originator legitimate?

GRAND RAM

No comment here other than if this turns out as it claims it will, it looks to be the answer to a lot of prayer, including mine. I have long asked for an addressable RAM disk similar to the fantastic MYARC 512 I have long been using. My purpose is to use one for constant storage and the other for constant use, rather than have to clear space for current projects. I hope this comes to pass and is indeed a positive asset to our systems.

Super Extended Basic, remember this club is offering it at only $50.00, a definite bargain, everyone can use this great improvement. You will love it!

Tom couldn't come to the typewriter this month - he's too busy moving furniture and says if he survives the next four months it will be a miracle!

Picasso Publisher - Review of a New Graphics Program

by Jerry Steinberg, LA 99ers

This newest graphic program is from Australia written by Arto Heino, and quite a program it is. The basic requirements to run it are XB or FA or MM, 32K Memory, Disk system, Epson compatible printer, and a Joystick. The program will autoload from XB.

There are almost thirty commands available so I shall have to skim over them rather than go into great detail, since I do not wish to fill up the whole Newsletter with this review. When you hit the letter "B", the bottom of the screen fills with the different brushes you may select for your painting.. There are 32 different ones to choose from.

Hitting C,D, & F will get you into circle, draw, and fill respectively. A "G" for get file will allow you to load any DV80 file...A FCTN S will abort.

An "I" will invert the image and a "K" will reverse the on-off dots. An "L" will give you lines and an "M" will give you a mirror image. Hitting an "N" will line up a row of 32 different textures for you to choose from.. By choosing the right brush and the right texture an almost limitless number of great drawings can be done.

Pressing the "O" makes boxes and the "P" puts you in the mode to print out your hard copy.. You will be asked for your printer configuration such as PIO.CR or RS232 etc. The printout will be compatible with all Epson compatible printers, & the Brothers M1009 and M1109. Hitting an "R" will give you rays and an "S" will allow you to save your file in a DV80 format.. A "T" will put you into Text input and there are ten fonts on the disk to allow you to

choose your text which includes script, vertical, etc. A "U" will toggle your pixel status on & off.. This also works in the Zoom mode. "W" gives you a window frame which is used in several other places .. All these things are controlled with joystick #1. "Z" allows you to move or copy.."+" and "-" slow or speed your joystick response.. "1" and "2" are for saving fonts and loading fonts respectively... Hitting an 8 gives you the same "undo" feature that Joypaint 99 has. Hitting enter will put you in the font editing mode if you want to make your own fonts .. The spacebar puts you in the Zoom mode.. Function/4 clears the entire screen.. Function/+ gives you a File Utility Menu.. Available from this Menu are the abilities to load a TI-Writer file, Load a Graphic File, Overlay a Graphic, Catalog a Disk, or return to the Picasso opening menu or Exit program.

There are also many other delightful features which are fully explained by the documentation which is on the disk.. The documentation is easy to follow and anybody even slightly used to any other Graphic program will have no problem with it. I would have to give this program an A+, since it ranks the equal with many of the favorite programs now available... The one big advantage it has over the others is that it will shortly be in the Club Library, since I have just given a copy to Terrie Masters. [ED. Note: Until we clear up the question of whether or not this is a commercial copyrighted program, it cannot be placed in the library - hopefully we will know next month]

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RANDOM NUMBER ASSORTMENT

by A.S. Whitman, LA 99ers

The random number function RND is useful in BASIC or XBASIC programs to select varying parameters in puzzles and games. "Pick a card, any card." "Think of a number, any number from 1 to 10." You know the kind of thing.

Picking a simple number from 1 to 10 would probably be set up as:

X=1+INT(10*RND)

This works well enough if you only need to select one number, but often the application calls for randomly sorting the elements of an entire array. For example, suppose we wanted to shuffle a deck of cards or set up a ladder for a tennis tournament with 32 players. In this case it is not enough merely to use the random number generator to point to selected elements of a starting array, you also have to check that each selection has not previously been made on the same element. It doesn't do at all for two hands to hold the same card - five aces in a deck are grounds to suspect the dealer even if this is a computer!

One way to avoid this is to check each element of the array selected against all those previously made and to reject a selection whenever a match is found. This also means returning for new random numbers repeatedly until all selections have been made without duplication. For a large array, like a card deck, this could be quite time consuming. After you have selected say the first 48 cards, each new random number selected is more likely to match one of these 48 than the few which remain.

The short (sub)program below illustrates a better approach which does not need to do any comparative checking. Each element selected is removed from the array and cannot be selected again. This example is for the tennis ladder problem; assume that A1$(32) contains the names of the players, then A2$(32) will return those names in a random order.

```
100 DIM A1$(32),A2$(32)
110 M,N=32 :: RANDOMIZE
120 FOR I=1 TO M
130 C=1+INT(N*RND)
140 A2$(I)=A1$(C)
150 IF C=N THEN 190
160 FOR J=C TO N-1
170 A1$(J)=A1$(J+1)
180 NEXT J
190 N=N-1:: NEXT I
200 SUBEND
```

Lines 160-180 remove the element C selected in line 130 from the array by sliding the remaining elements down into an array with only N-1 elements. Line 150 bypasses this inner loop if by chance the element selected in line 130 happens to be the last element available. In Line 110 N sets the total elements of the original array to be 32 and M sets the total number of selections to be made, in this case also 32, i.e. the entire list is to be shuffled.

As written this routine will destroy the starting array and so other segments of a program would be used to make A1$ a working copy of the original list.

Other similar applications of the routine could include setting up a letter substitution cypher for coded messages and choosing teams for charades at the party, although the virtue is more apparent in larger arrays such as the card shuffle problem.

Added note by Tom Freeman

While preparing this article for publication it came to me that this routine might be speeded up even more. The one slow part here is that when a low element is picked in line 130, then the process of moving all the higher elements of the array down one can be time consuming. The following method (which is limited to arrays of 255 or less because of line 120) sets up a dummy array composed just of ASCII numbers in a single string and thus a numeric array can be set up randomly by picking a position in the string, then the string is shortened by one character by use of the SEG$ function.

```
100 DIM A1$(32),A2$(32),A(32
)
110 M,N=32 :: RANDOMIZE
120 A$="" :: FOR I=1 TO N ::
A$=A$&CHR$(I):: NEXT I
130 FOR I=1 TO M
140 C=1+INT(N*RND)
150 A(I)=ASC(SEG$(A$,C,1))
160 IF C=N THEN A$=SEG$(A$,1
,N-1)ELSE A$=SEG$(A$,1,C-1)&
SEG$(A$,C+1,255)
170 N=N-1 :: NEXT I
180 FOR I=1 TO M :: A2$(I)=A
1$(A(I)):: NEXT I
```

Line 120 sets up the string for picking the next element in the array, line 140 actually picks it, line 150 then sets the dummy array element equal to the number picked, and then line 160 shortens the string by one. This is the key to shortening the process, because this step takes the same time no matter how many elements are left in the array, and no matter which position the last one picked is in. Finally in line 180 the new random string array is set up by use of the dummy numeric array.

In a benchmark test that I ran using 75 elements rather than 32, the first program took 50 seconds, using Super Extended Basic (time should be the same in TI's XB); the second program took 18 seconds.

LIFE-and-TIMES of a GRAM KRACKER

by A.S. Whiteman, LA99ers

Having just replaced a battery in my Gram Kracker, it occurred that there might be some interest in some of the statistics of battery lifetime in the field. I have replaced the battery three times in my Gram Kracker which is an 80K version I obtained around Christmas 1985. In each case battery failure became apparent by inexplicable "glitches" in behaviour and total or near-total losses of data when the computer was off.

For the purposes of this note, I assume that the original battery was installed at the factory about 20 December. With this assumption, my battery installation schedule would be:

			Days
12-20-85	Duracell	DL2430	213
7-21-86	Varta	CR2430	213
2-13-87	Duracell	DL2430B	203
9-10-87	Duracell	DL2430B	-

As indicated, the first three batteries lasted 213, 213 and 203 days, respectively, for an average of 210 days or just about seven months. These numbers are probably off a few days since I recorded only the dates that new batteries were actually installed, rather than the dates that battery depletion was evident. Even so, the data are remarkably consistent so that I can "schedule" having a new battery on-hand for April 7, 1988.

A final comment on finding a battery. Locally (Los Angeles), I have only found the Duracell DL2430B, which is a replacement for the DL2430 called for in the Operators Manual, these only in Thrifty Drug Stores, and then only when they are not out of stock. It has usually taken a few days and several phone calls to find a source.

If any other GK users have some similar data, perhaps this too could be shared.

"BUT IT'S NOT IN THE DOCS!"

by Steve Mehr, Tri-Valley 99ers

Being a member of so many Users Groups does have a few disadvantages. Nothing negative about the hobby though, just my sanity, organizational skills, and the mileage on my car tend to suffer. Until recently though, I saw very little overlap between users and User Group meetings. At the 4 meetings I attend monthly, I usually expect to see certain faces at certain meetings. I am happy to see my UGF, "User Group Fever" starting to spread around as more and more users are realizing that one meeting a month is great, but two (or more) is even better. One of these people is Jan Williams of the San Fernando Valley 99er's Users Group, and she deserves mention here.

At the August meeting, Jan showed off Joypaint '99, the latest graphics program for the 4/A. But something happened before the demo that happens to almost all of us at one time or another... the program wouldn't load. Well, it did, but then it just sat there, blank screen and all. (How many times have you loaded a program staring at a blank screen, only to find that the computer locked-up? Not funny, is it?) After several attempts by Jan to load the program, Tom Freeman came to the rescue. After several attempts at solving the problem, including module swapping and P box checking, the demo was finally under way. The solution, you ask? You're never going to believe it... THE FIRE BUTTON! The program was waiting for the fire button to be pressed. Read the documentation? O.K. So where does it say "press the fire button to load the program?" No way, not there.

I didn't bring this up to discuss proper documentation. As Joe Nuvolini says "'NUFF SAID!" The reason why I did mention this is to applaud Jan for her fortitude throughout her demo. To get up in front of a group of people and not have things go right is far from "one of my favorite things." Add to that the reactions by some of the members and it's almost enough to say "never again!" Jan, I hope you're not deterred from sharing with us in the future. Thank you for a great demo.

Some ramblings... Good to see people like Ken Gilliland get what they deserve, good press. Another mention in MICROpendium associated with Asgard. Received a letter through Tom from Jerry Keisler, President of the Paris 99/4A Users Group in Paris, Texas. Seems that he teaches a BASIC SIG for his group and was interested in Norm Weiss' BASIC manual. Hope he gets in touch with you, Norm. It can only benifit both of you, and all of us. Bud Mills hopefully to carry the 1 meg upgrade kit for the Horizon RAMdisk very soon! That's right, 1 megabyte, battery backed. I hear from John Johnson that Mike Ballman has one up and running! Have I got the fever now! Say Dennis...

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BAT's "In the Belfry":
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atTIc thoughts from Barry A. Traver

"I feel I am growing wings," said the mouse.
"So what, bat?"
— Stanislaw J. Lec, UNKEMPT THOUGHTS (New York, 1962),
p. 40.

Do you program in standard TI Extended BASIC? You do? In spite of the fact that there are many "Extended BASIC Extensions" out there (like the Triton new Extended BASIC, the Myarc Extended BASIC, the Mechatronics Extended BASIC, and all those three-letter assembly language extensions, such as DEP, SXB, EDP, and XXB)? Oh, I see. You realize that most TI'ers have standard TI Extended BASIC (some of whom may not have memory expansion), and you want to write programs that the greatest number of TI'ers can run and use.

Well, in future columns I may deal with the merits of some of those "Extended BASIC Extensions" (for example, the next column will probably deal in some detail with Curtis Alan Provance's excellent EDP or Enhanced Display Package, a very worthwhile Fairware or Shareware product), but I want to devote this month's column to what I consider to be one of the best tools currently available to the person who wants to write programs in standard TI Extended BASIC. That tool is Triton's new Super Extended BASIC.

No, I'm not contradicting myself. I realize that Triton's SEB (let's call it that, so as not to confuse it with Jim Hollender's SXB or Super eXtended BASIC) has lots of exciting new features, including Quality 99 Software's "Draw 'n' Plot" package built-in. And there are other reviewers who will be very glad to tell you about such features. My purpose here, however, is to bring out the way SEB may cut in half the time needed to write professional programs in standard TI Extended BASIC.

Some of you will be already familiar with some of the enhancements, since some were made available in a Utilities disk from Millers Graphics done by Danny Michael for the GRAM Kracker. Those of you who do not have a GRAM Kracker may as a result have envied your friends who did. Well, here's the good news: YOU can now have all of those enhancements to Extended BASIC and more, and without needing a GRAM Kracker, for Triton's Super Extended BASIS is a "regular cartridge" that is available for little more than half the price that standard TI Extended BASIC used to cost! And - here's

good news for those who do not have expanded systems - most of the programming utilities are available to those who have only a console and cassette recorder (although the utilities are all the more useful, of course, if you do own a disk system and 32K memory).

Even though I am restricting myelf to those features which are useful for those people who want to restrict themselves to standard TI Extended BASIC programs, please don't expect - even in that limited area - my comments to be either complete or systematic. I just want to mention some useful things that the Triton SEB cartridge (available from the L.A. 99'ers for $52 or so, I believe) can do.

With standard TI XB, if you want to edit the end of a long program line, there is no other way to get there than to start at the beginning and proceed - character by character - till you get to the end (maybe limping slowly through five screen lines in the process). Not so with SEB: a simple FCTN-SHIFT-D will immediately place the cursor after the last character in the program line! Likewise, FCTN-SHIFT-X and FCTN-SHIFT-E will immediately move the cursor down a line or up a line, and FCTN-SHIFT-S will return the cursor to the beginning of the input line. Those features in themselves are real time savers (without my even mentioning what can be done by combining CTRL with S, D, W, C, or Z).

Or suppose you're writing a program and you want to make use of a subroutine that occurs in lines 1350 to 1500 of another program. How do you excerpt those lines from that program? With TI XB and no disk system, the only way is to delete the lines that you don't want one by one, and that may seem to take forever. If you have TI XB and a disk system, it's not much better: you may save the earlier program to disk in MERGE format, use a special utility - like my MERGEDITOR program - to excerpt lines 1350-1500, and then MERGE the result back into memory, all of which again can take considerable time.

With Triton's SEB, all you have to do is load the earlier program into memory, enter DEL -1349 (that is, delete all lines before 1350), enter DEL 1501- (that is, delete all lines after 1500), and you're in business! And the whole process is done within seconds.

Imagine another situation: you've just finished writing a fairly long subroutine beginning at line 2000,

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and your next task is to write a fairly similar subroutine beginning at line 3000. Do you have to start retyping everything in from scratch? Well, SEB has new commands that allow you to COPY or MOVE a program line or blocks of program lines with ease. Assuming the subroutine already written goes from 2000 to 2350 and you want a regular increment of 10, all you have to do is enter COPY 2000-2350,3000,10. Once again it's done within seconds.

Perhaps you would like to RESequence just part of a program. For example, sometimes - if only for aesthetic reasons - I like to write "neat" programs, structured in this way: single-digit line numbers handle pre-scan, double-digit numbers take care of the initial "housekeeping" tasks, three-digit numbers represent the "driver" program, four-digit numbers designate various subroutines (called by GOSUBs), and five-digit numbers are for actual subprograms (SUBs). For neatness' sake, I also like to have my various subroutines start with nice "round" numbers, e.g., 1000, 1500, 2000, etc.

Well, things don't work out that neatly while you're writing programs, but Triton's SEB has modified RES so that you can resequence portions of programs without resequencing the whole program, so that I can fix up my program to look neater when it's finally done. (Something to keep in mind, however, if you decide to try this out: you can't RES portions in ways that would conflict with existing line numbers, so I do a RES 1,1 first and after that work backwards from the subprograms forward, thus avoiding possible conflicts of two program lines fighting for the same number.)

Let's suppose that your program has been completed and is all ready to be printed up for publication in the User Group newsletter. If you LIST a program ordinarily, however, it puts it in 80-column format, and 28-column format would be preferable (since that's the way it would look on the screen when devoted readers are typing it in). Well, SEB has modified the LIST routine so that you can specify a line length when you are outputting your listing to a device such as a printer. Thus you can enter LIST "PIO":28:. Or, if you want to print it out on your printer in compressed mode so as not to waste paper, you can enter LIST "PIO":132: and you're all set (note, by the way, that a colon must follow the line length).

SEB also helps out with debugging programs. One common powerful technique is to use a TRACE, but with TI XB this can be a frustrating thing if your program contains a lot of CALL CLEARs or if it is heavily dependent upon what's going on on the screen (e.g., a graphics program). SEB has a modified TRACE command that

will allow the trace output to be sent to any output device, such as a printer, so you don't need to worry about messing up your screen.

A very useful feature is the ability to catalog a floppy disk or RAM disk while in command mode. Standard TI XB does not allow this (unless you're using a special utility like Mike Dodd's resident Disk Manager, DM99). With SEB, it's a simple CALL CAT("DSKn."). You don't need to save what you've done so far with your XB program, go to a disk manager (e.g., Disk Manager 2), return to command mode in XB again, and re-load your program.

TI XB contains PEEKs and POKEs for CPU RAM (TI calls them simply PEEK and LOAD), but it does not contain the same for VDP RAM or GRAM/GROM. Triton's SEB, on the other hand, has available CALL PEEKV, CALL POKEV, CALL PEEKG, and CALL POKEG (although the last of these is useful only for those with GRAM Krackers or similar devices). (If you do have a GRAM Kracker, by the way, you can Save SEB to disk and load it into your GRAM Kracker along with a moved Editor/Assembler cartridge, if you so desire.)

Even such features as the auto load bypass (with SEB, if you keep your finger on the key you press to choose Extended BASIC, it will not try to find and run a LOAD program from DSK1) and the ability to disable the quit key (with a simple CALL QUITOFF, so that you don't accidentally exit and lose everything when you were just trying to type a SHIFT-"=" instead of a FCTN-"=") make life a lot easier for the person who wants to write programs to be run in standard TI Extended BASIC.

Again, Triton's Super Extended BASIC does include exciting possibilities for those who want to write programs for others who possess the same cartridge. That is certainly a subject worth treatment in itself, but I'll leave that to others at the moment. The point I want to make in this column is rather this: if you're serious about programming in TI Extended BASIC, you'll find purchase of this cartridge an outstanding investment, even if you have no intention whatsoever of using the Draw 'N' Plot routines or other new routines to include within programs.

In closing, may I say that I believe the TI community is much in debt to D.C. Warren, Danny Michael, and Mike Dodd, who contributed various enhancements found in SEB, which - in addition to what else it can do - is one of the most useful tools I know for TI'ers programming in TI Extended BASIC. If you don't have it, get it! I don't think you'll be sorry.

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LI TopIcs
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by Howie Rosenberg

First, I would like to thank Teresa for her hospitality during Sylvia(my wife) and my all to brief stop in Los Angeles while on vacation. It was real nice seeing some of my TI friends. I'm sorry that, with the pressure of time I could not meet you all. I also would like to thank Teresa for her kindness in not mentioning names when she wrote about the vacation going, deadline missing, persons in the last TOPICS. I know Barry who, obviously is the person to whom she was referring, also appreciates her consideration.

It is great indeed that more tools are constantly becoming available to the TI programmer. The recent addition of FORTRAN as an available language, the promise of a version of Pascal, and the new version of Extended Basic come to mind. The machine, to me at least, always was, is, and always will be, a fun machine, and a tool for learning and expression. In this context ALL higher level languages such as Extended Basic, FORTH, C and the new FORTRAN are great! I have heard some heated discussions lately on the subject of which language is "best". The two largest factions seem to be those purists who feel that Assembly language is the only way to go. The largest or at least more vocal opponents seems to be in the C camp. Both groups seem to have lost sight of the fun nature of owning, using, and programming for the TI machine. As a learning tool ALL languages are useful. Programming in each one can be a new experience, a means of self expression and, above all, fun. If one listens to the arguments of the assembly programmers, than as the only measure of utility is speed of execution, the only conclusion one could reach is get a faster machine. Programming in a higher level language such as FORTH and "tuning" the code by coding those routines which need speed is one technique to gain speed while preserving the nice feature of ease of coding an debugging which an interpretive language affords. Another which has been championed with great effect by Barry Traver is programming in Extended Basic utilizing the wealth of routines which have been recently developed. Routines for rapid sorting, displays, string handling, you name it. All are available to the EXTENDED BASIC programmer by simple CALL LINK statements.

If you are strictly a user, than the language that a particular program is written in is transparent to you. As long as it performs the function you wish you really don't(or shouldn't) care in which language it is written. If you are a professional programmer than you must make some decisions and, by now already have done so. If you, as so many TIers do, fall in between these extremes, than you have been dealing with the problem, listening to the wise word of gurus, and timidly wishing it were a bit easier. Personally I feel, and have always felt that too much time is spent by folks worrying about the media(language) rather than the logic and algorithms that need precede code or in the actual development of applications. If you have spent a bit of time learning the syntax in any language(and I would wager that for the majority of us that language is BASIC!), than that language is really fine for what I consider the prime task of the novice or for that matter accomplished "coder" who while he has learned to paint the strokes required has never learned to fill the canvas with anything worthwhile. Just as in the analogy I present, someone with primitive brush strokes and poor technique can create exciting canvases, someone who is not what some would consider talented in the use of programming tools can create works of art. Many I have seen who are "talented" coders have never really "created" anything more than Carbon copies, "ported" ideas, and such. Few of us can be truly creative but most of us can create at some level, not necessarily a canvas of any use to anyone but ourselves but of great value to us both from the standpoint of learning and just because, as I have felt personally, and have heard verbalized by a few others, "it may not be the best but it is mine".

To complete the analogy I started, language syntax is the brush stroke of programming. Development of an algorithm for performing a specific function is the forms, figures, and details while the total program is the total canvas. Many of us have developed some level of expertise in using our brush to make strokes of some sort. It is in the development of algorithms that many stop in their programming development. Much involved in this area is personal. We do not all think alike and there is ALWAYS more than one way to perform the same function). Still I would like to at least try from time to time to express my(not necessarily the best) way of looking at a problem and coming up with at least one solution. So for this month part one of DEVELOPING ALGORITHMS.

As a first example I would like to explore the problem of shuffling a deck of cards. While it is not the intention of these "tutorials" to present any finished code, I will use BASIC expressions to illustrate the thoughts involved. At first glance it appeared(to me at least) to be rather trivial. First I would allocate space in an array, DIM CARDDECK(52), or some such expression. I would use the random number generator to select CARDDECK(1) followed by CARDDECK(2) etc. until each card was selected. Of course I would need check each time a card was selected to see if it had been selected before and repeat the selection if it had been previously chosen. In the language of statistics what is required is called selection without replenishment. After a particular card is selected it should no longer be available for selection again. A little thought convinced me and should convince you that checking each selection against previously selected cards might be fine for the first several cards selected but shortly becomes rather cumbersome. As an example consider card 50. There are two cards left to be selected. Selecting a random number from one to 52 means that there is only 2 chances in 50 of selecting a new card. That kind of shuffle would take forever! At card 50 one would need to check card 50 against the first 49 selected cards, redo

if the card had been previously selected, and repeat until a new card is chosen. Obviously a better way must be found. I next envisioned the physical process of shuffling a deck of cards. First the standard riffle shuffle. Divide the deck into two approximately equal stacks. Not too difficult in BASIC. I could choose a random number from say 24 to 28 and set up two new arrays. A simulated shuffle could be performed by alternately selecting small groups of cards from each array by using random number between, as an example, 1 and 5. These groups would be stacked into the original array which would be subdivided once again into two stacks and the process repeated. Notice that the process described is an exact analog of the process of actually riffle shuffling a deck of cards. Any of you who are still with me is obviously far enough advanced in programming skills to wish to avoid writing code for this "algorithm". Needless ·to say it would be difficult to write, cumbersome, and most likely slow. Similarly my mind wandered to overhand shuffling with similar results. Finally I stepped back and examined the problem from a slightly different point of view. I would like to operate on each card only once. Let me set up the cards in the deck in order just like a new deck after you break the seal. Simply put 10 DIM CARDDECK(52) 20 FOR N=1 to 52:: CARDDECK(N)=N:: NEXT N.

So far so good we now have a situation a card shark would love a well ordered deck. What next. Suppose I take the top card of the deck and place it in a random location from 2 to 52 and, at the same time, take the card at that location and put it at the location of the original card, in this case on top. The top card is now a randomly selected card. If I then move down to the second card and repeat by choosing a card with which to swap from 3 to 52 and continue the process for the whole deck I should have a completely shuffled deck of cards after a single pass through the deck!. A variable called, as an example, cardpointer, would move from CARD=1 to 51 and a loop set up to swap the card in CARDDECK at the cardpointer location with a random number ranging from cardpointer+1 to 52. Quite a simple algorithm and very simple resulting code(the two usually go together). Notice that the development of this algorithm involved visualizing a physical process and simulating the process using the constructs of the language in use. Simply put simple is, as is usually the case, best.

[ED. Note: The similarity of subject between this article and the one by A. Whiteman is purely coincidental! It is interesting to note the different approaches to the same problem.]

From The Disk Of....

Mike Dodd

[ED Note: The following docs were sent to us by Mike Dodd with the "warning" that the program was not to be released yet. He told us this week that an updated and improved version will be put on the next Genial Traveler disk, however non subscribers can obtain a copy directly from Mike for $10. His address is below.]

M-COPIER version 1.0

PROGRAM AND DOCUMENTATION COPYRIGHT 1987 BY MIKE DODD

M-Copier is a utility program designed to copy files from one disk to another. Unlike normal Disk Managers, however, M-Copier will place all of the FDR (File Descriptor Records) at the start of the disk, regardless of how many there are. This reduces head stepping of the disk drives, resulting in faster access and less wear and tear on your drives.

M-Copier is, in my opinion, the leading program in the field of User-Antagonistic software. My slogan is, "Mike Dodd. His software isn't user friendly - it's Anti-User". And I'm proud of it.

Actually, it's not all that bad. To load it, use Editor / Assembler option 5. Then place the master disk in DSK1, and a initialized disk in DSK2. Press <ENTER>. The program will copy the files, displaying the filename of each file as it is copied. When the program is done, it will re-display the title screen. Press ENTER to copy another disk (after switching disks, that is), or quit (FCTN = on a 99/4A, CTRL-ALT-DEL on a Geneve 9640) to exit.

The program is 100% compatible with both the TI-99/4A and the Geneve 9640, on which this program was developed. It will load from E/A option 5, or the DSK1> prompt with the Geneve's DOS V0.0. I have no idea if it will boot from the DOS prompt on the final M-DOS V1.0, as a) I don't have it, and b) it isn't done (good reason, eh?). It will work on the TI disk controller, CorComp disk controller, and MYARC disk controller. In addition, it will work on either 40 or 80 track disks.

By the way, the name "M-Copier" comes from "Mike Dodd's disk copy program".

This disk is unprotected, will work with any existing or future RAM disk, and works with Quad Density (80 track) disks. It has a few other advantages, as well, but I won't get into that now. [ED Note: Those of you with 80 track drives may have noticed that sectors are wasted each time a new file is written because the FDR sector takes "two" sectors since the bit map in sector 0 uses each bit to stand for two sectors. In addition if the number of data sectors is odd then an additional sector is similarly wasted. Mike's program takes care of this and thus saves a lot of space if there are a lot of files.]

Anyway. Hope you enjoy this program. I can be reached via mail at 116 Richards Drive, Oliver Springs, TN 37840; by phone at 615/435-1667; or by TI Forum mail on CompuServe to user id# 73367,466.

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Did you know that...?
by Chick De Marti

AUTOMATE YOUR SCROLL ROUTINE
By CHick De Marti

In the Aug. issue of MICROpendium, Regena used the familiar scrolling routine (lines 200 thru 250). Some years ago, I saw and thereafter used whenever I had more then a half dozen lines I wanted to scroll. It is so old that many of the more seasoned (note the deplomacy) programmers may have forgotten it while the student proggamer has a new tool. Below is a program displaying then two routines. For ease of reading I used BASIC.

```
100 CALL CLEAR
100 PRINT "A demo of a regul
ar scroll": :"and an AUTO/nu
mber scroll": :
120 GOSUB 460
125 CALL CLEAR
130 REM ---regular scroll---
140 REM
150 M$="This is a regular scroll"
160 R=14
170 C=3
180 GOSUB 400
190 GOSUB 460
200 REM ---auto example---
210 REM
220 M$="1406This is Auto/Exam"
230 GOSUB 300
240 GOSUB 400
250 GOSUB 460
260 END
```

```
300 REM --def for auto routine--
310 REM
320 R$=SEG$(M$,1,2)
330 R=VAL(R$)
340 C$=SEG$(M$,3,2)
350 C=VAL(C$)
360 M$=SEG$(M$,5,LEN(M$))
370 RETURN
400 REM ---scroll routine---
410 REM
420 FOR T=1 TO LEN(M$)
430 CALL HCHAR(R,C+T,ASC(SEG
    $(M$,T,1)))
440 NEXT T
450 RETURN
460 INPUT "Press <ENTER> when
    ready :":X$
470 CALL HCHAR(22,1,32,96)
480 RETURN
```

NOTE: In a recent article by Woody Wilson, "A PROGRAM FOR BEGINNERS" in the SD TI-SIG newsletter, he used:

```
760 CH=ASC(SEG$(M$,T,1))
770 CALL HCHAR(R,C,CH)
780 C=C+1
```

to relpace Regena's line 430. This is just a matter of choice.

~~~~~~

The UG in SHAWNEE MISSION, KANSAS in March reported on how to eliminate AUTO START on D/F80 programs. Load up DISCO or DISKU (latest version) and locate the string "20314523462020" and change it to "2020202020202020"

From the ALOHA newsletter comes the answer to setting up the printer "...to LIST a line of more than 80 characters. On the GEMINI or EPSON try:

```
110 OPEN #2:"PIO".VARIABLE 140
120 PRINT #2:CHR$(15);
```

(Did You Know ... cont.)

PERMANENT SCREEN COLOR CHANGE
(-ALMOST-)

This item came from the SUNCOAST BEEPER who got it from the Chicago TI*MES. Quote:
"Just type it in and save it on any of your working disks under the name "LOAD", and when your ready, it is!"

```
100 CALL CLEAR
110 B=7 :: F=2 :: ! B=BACKGR
OUND, F=FOREGROUND : INSERT
YOUR CHOICE
120 C=16*(F-1)+(B-1)
130 CALL INIT :: CALL LOAD(9
984,C,C,C,C,C,C,C,2,0,7,15
+B,32,32)
140 CALL LOAD(9999,48,2,0,8,
0,2,1,39,0,2,2,0,8,4,32,32,3
6,2,0,8,8,4)
150 CALL LOAD(10021,32,32,36
,2,0,8,16,4,32,32,36,2,0,8,2
4,4,32,32,36,4,91)
160 CALL LOAD(-31804,39,8)
170 CALL LOAD(-31952,255,231
,255,231)
180 END
```

A THOUGHT FOR 1987
(From the Bulletin Boards)

Fm: Ray Bartee 71336,436
To: ALL

   ALL I EVER NEEDED TO KNOW I
      LEARNED IN KINDERGARTIN
by Robt.Faughum Kansas City Times

Most of what I really need to know a-bout how to live, and what to do, and how to be, I learned in kindergartin. Wisdom was not at the top of the graduate school mountain, but there in the sandbox at the nursary school.

These are the things I learned:

Share everything.
Play fair.
Don't hit people.

Thanx to Jean Wilcox
   of the SUNCOAST BEEPER

   Here's another CALL LOAD for you. "If you CALL INIT :: CALL LOAD(-31932, 0), it will remove the "* READ *" from your Extended Basic screen."   If used in command mode, it "...will come back after a program has been run" but give it a line number "...and RUN it, then gone until you turn the computer off. Not Earth-shaking, but interesting.

<*><*><*><*><*><*>

(continued)

Clean up your own mess.
Don't take things that aren't yours.
Say your sorry when you hurt someone.
Was your hands before you eat.
Flush!
Warm cookies and cold milk are good for you
Live a balanced life.
Learn some and think some, draw,paint and sing some, and dance and play and work everyday some.
Put things back where you found them.
Take a nap every afternnon.
When you go out into the world, watch for traffic, hold hands, and stick together.

Remember the little seed in the plas-tic cip. The roots go down and the plants go up. Nobody really knows how

UPLOADED TO THE COMPUSERVE TI FORUM

<*><*><*><*><*><*>

WEll, I'm out of coffee.   See you next month.   Chick

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KIDS ############

KORNER
#
#
#
#
#

```
10 REM - BASE 2 CARD TRICK
20 REM - BY MICHAEL W. ECKER,
30 REM - SCRANTON, PA.
40 RESTORE:REM INITIALIZE DATA TABLE
45 PRINT
50 PRINT"BASE 2 CARD TRICK"
55 PRINT
60 PRINT"PLEASE THINK OF A WHOLE NUMBER FROM 1 TO 63"
70 PRINT:FOR Z=1 TO 800:NEXT Z:REM TIME DELAY
80 PRINT:PRINT:PRINT
90 INPUT"PRESS <ENTER> (OR RETURN) TO CONTINUE";X$
100 PRINT
110 S=0
120 FOR J=1 TO 6
130 T=1
135 PRINT TAB(5);
140 FOR K=1 TO 32
150 READ A
180 IF A<10 THEN PRINT A;"     ";:GOTO 200:REM 3 SPACES IN QUOTES
190 PRINT A;"    ";:REM 2 SPACES IN QUOTES
200 IF K=4*T THEN PRINT:PRINT TAB(5);:T=T+1
210 NEXT K
220 PRINT
230 INPUT"DOES YOUR NUMBER APPEAR ON SCREEN (Y OR N)";N$
240 IF N$="Y" THEN S=S+2[(J-1):REM "[" IS EXPONENTIATION
250 IF N$<>"Y" AND N$<>"N" THEN GOTO 230
260 N$=" ":REM ONE SPACE
270 NEXT J
280 PRINT
290 FOR Z=1 TO 500:NEXT Z
300 PRINT"OKAY, CONCENTRATE VERY HARD NOW..."
310 PRINT"I AM READING YOUR MIND..."
320 FOR Z=1 TO 800:NEXT Z
330 PRINT:PRINT:PRINT"YOUR NUMBER IS ";S
340 FOR Z=1 TO 500:NEXT Z
350 PRINT
360 INPUT"DO YOU WISH TO PLAY AGAIN (Y OR N)";X$
370 IF X$="Y" THEN GOTO 40
380 GOTO 510
390 DATA 1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37
400 DATA 39,41,43,45,47,49,51,53,55,57,59,61,63
410 DATA 2,3,6,7,10,11,14,15,18,19,22,23,26,27,30,31,34,35,38
420 DATA 39,42,43,46,47,50,51,54,55,58,59,62,63
430 DATA 4,5,6,7,12,13,14,15,20,21,22,23,28,29,30,31,36,37,38
440 DATA 39,44,45,46,47,52,53,54,55,60,61,62,63
450 DATA 8,9,10,11,12,13,14,15,24,25,26,27,28,29,30,31,40,41
460 DATA 42,43,44,45,46,47,56,57,58,59,60,61,62,63
470 DATA 16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,48,49
480 DATA 50,51,52,53,54,55,56,57,58,59,60,61,62,63
490 DATA 32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49
500 DATA 50,51,52,53,54,55,56,57,58,59,60,61,62,63
510 END
```

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FORTH

F O R T H   A R T
by Dennis Weisner

Thanx to TINS newsletter...

As you may have noticed, the local TI FORTH group has been somewhat
depleted by a migration to bigger and better?? machines. In order that
the fine language goes represented in our equally fine newsletter, I
cobbled up the following code. (This goes for the LA 99ers as well.)

The following program will take FORTH source screens and convert them
into a format more ameable to editing and uploading. The following
code could have been written in BASIC but somehow that would have de-
feated the purpose of this article as we are trying to recruite more
FORTHophiles into our ranks. It should be noted taht the following
code was developed under WYCOVE FORTH and therefore the I/O specific
words would have to be converted into the TI-FORTH equivalents.

```
SCR 35
0   ( Screen to Disp/Var 80 utility.DW 08/87
1   ( ----------------------------------------)
2   ( Purpose: )
3   ( Convert a specific range of screens to a Display Variable 80 )
4   ( format file.  This resulting file can be editted using  the  )
5   ( standard text editors or undergo file transfer via standard  )
7   ( terminal programs.                                )
8   ( ------------------------------------------ )
9
10 24 CONSTANT LINES/SCREEN
11 :  DV80 ( - record length/filetype )  80  16  ;
12 DV 80 PAN:   OUTPUT_FILE DSK? ????????
13 :  FILENAME (pab-filename ) 12 - ; OUTPUT_FILE FILENAME 12 BL FILL
14 :  INPUT_NUM ( - number ) QUERY INTERPRET
15 -->


SCR 36
0   ( Convert to D/V80 .. 2 of 3            )
1
2   : INPUT_STR ( - addr/len ) QUERY BL WORD HERE COUNT ;
3   : TRIM   ( addr/len - addr/len ) BEGIN 2DUP + 1- C BL = OVER 0> AND
4          WHILE ( len>0 and last char=blank ) 1- REPEAT ;
5   : INPUT_FILENAME INPUT_STR 1+ SWAP 1- SWAP ( include length byte )
6     OUTPUT_FILE FILENAME 1- SWAP CMOVE ;
7   : GET_SCR_LINE ( scr/line -addr/len ) SWAP <LINE> ;
8   : PUT_DV80_LINE ( start/len - ) TRIM OUTPUT_FILE WITEM OUTPUT_FILE
9        WRITE ;
10  : USER_DIALOG  ( - from/to ) CL4 CR ." From screen:" INPUT_NUM CR
11       ." To screen:" INPUT_NUM CR ." Filename:" INPUT_FILENAME ;
12  : CONVERT_LINE (screen/line - ) GET_SCR_LINE PUT_DV80_LINE ;
13  : INITIALIZE ( - loop limits ) USER_DIALOG 1+ SWAP OUTPUT_FILE
14       OPEN ;
15 -->
```

(FORTH - continued).

```
SCR 37
0     ( Convert to DV80 .. 3 of 3            )
1
2   : CONVERT_SCR ( screen - ) LINES/SCREEN 0
3         DO DUP I CONVERT_LINE LOOP ;
4   : FINAL_HOUSEKEEPING  OUT_FILE  CLOSE ;
5   : SCREEN->DV80  INITIALIZE DO I CONVERT_SCR LOOP ;
6
7   ( Thanx again to Dennis and the TINS newsletter ... Chick )
```

REMEMBER NEXT MEETING - Wednesday Sep. 30, Torrance Public Library, 7 PM

```
*****************************************************************************
********************* CLUB OFFICERS *****************************************
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**                                   *                                    **
*****************************************************************************
*****************************************************************************
```

Membership in the LA 99ers, including subscription to TopIcs is $20.00 per year

NOW AVAILABLE

THE HANDY TI99/4A REFERENCE GUIDE

The LA 99ers are pleased to announce that the new HANDY TI99/4A
REFERENCE GUIDE, 20 pages of material, collected over the past 18
months, from various Newsletters and other sources, is now on sale.
AS usual, the LA 99ers makes these compilations available as a fund
raiser, for $2.50 at the meeting or $3.00 mailed to you. I believe
with this new addition, you will probably replace at least three
manuals. Below is the Table Of Contents.

Page	TITLE and other info.	Author and source
2	PATTERN-IDENTIFIER CONVERSION TABLE COLOR CODES and CHARACTER SETS	USER'S REFERENCE BOOK
3	KEY CODE/TOKENIZED BASIC CODE CHART	compiled by Dan Donlon
4	QUICK REFERENCE SHEET (some duplication of Key Codes of page 3)	PUGET SOUND 99ers
5	TI 99/4A ERROR CODE REFERENCE CHART	HOCUS Newsletter of the MILWAUKEE AREA 99ers
6	HOW TO LOAD PROGRAMS FROM DISK	by Darren Leanard, PUG
7	PRINTER COMMANDS for Epson compatibles	gathered from several enhanced by yours truly
8	"SIMPLE LETTER WRITING" ... w/TI WRITER (for the beginner).	by Fred Moore LA 99ers
9	TI-WRITER "USERS AIDE I"	MSP 99 Users Group
10	WRITE RIGHT #1 Explanations of DOT commands.	by Siles Bazerman
11	THE TRANSLITERATE COMMAND (as printed in the Topics).	by Bern Dehlin
12	CONTROL YOUR PRINTER using "CTRL U" also a postscript "insert values"	CENTRAL JERSEY 99ers from A9CUG Newsletter
13	Print out of Keyboards #3 and #4 and split keyboard (shows Char.value)	USER'S REFERENCE GUIDE
14-15	"how to fix disks" (printed in the SFV Times)	Niraj N. Shah and Mike Ballman
16	PEEK and POKES (8192 to -31974)	by John Hamilton...CIUG
17	" " (-31952 to -32352)	from SNUG Newsletter
18	PIANO KEYBOARD, STAFFS and CALL SOUND also "Special Screen Character Codes"	Oliver D. Herbert TIMES SORRY ! Author unknown.
19	A HEX TO DEC CHART "DISCO" commands PRINT USING commands	Author unknown Taken from the program. By yours truly
20	Full page of "CTRL/FCTN"command strips	from QB MONITOR, QB99er

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HAC LABS LTD.
Helene M. LaBonville
121 Camelot Drive RFD5
Bedford, NH 03102

CLOSEOUTS

AUGUST 1987

SOFTWARE (NEW)

```
TI MULTIPLAN...........$15          HOUSEHOLD BUDGET MGT......$3
TI LOGO II.............$15          HOME FINANCIAL DEC........$3
PERSONAL REAL ESTATE....$3          AMAZING...................$3
HUNT THE WUMPUS........$3           TOMBSTONE CITY............$3
TINY LOGO (CASS)........$3          JOTTO (CASS)..............$3
```

FIRM/HARDWARE (NEW)

BOOK: Weber Systems Inc. <u>TI-99/4A USER'S HANDBOOK</u>............$4

```
                                  10 DSDD 5.25 diskettes...$10
       5  3.5" disks in plastic case (SSDD).....$7.50
```
<u>AVERY LABELS</u>
```
          3000  3up labels (2.5 X 15/16).....$10.00
          2000  2up labels (4 X 15/16).......$ 7.00
          1000  1up labels (4 X 1 7/16)......$ 7.00
```
<u>PICO ANTI GLARE SCREENS</u>
```
      #345 for use with 12" color monitor...........$6.00
      #355 for use with 14" color monitor...........$6.00
      $350 for use with 14" mono monitor............$6.00
```

SOFTWARE (USED)

```
SAMS "TI-99/4A 51 Fun and Educational Programs" cass/book...$5
SAMS "BASIC Tricks for the TI-99/4A" cassette/book..........$7
Milton Bradley's (MBX): TERRY TURTLE'S ADVENTURE.............$5
    CARTRIDGES         <SOUNDTRACK TROLLEY....................$5
                       <HONEY HUNT...........................$5
                       <I'M HIDING...........................$5
TINY LOGO (CASS).........$2        JOTTO (CASS).............$2
```

FIRMWARE (USED)

```
BOOK:  TI'S SOFTWARE DEVELOPMENT...........................$6.50
       TID BITS FOR BASIC by Harry Patricoff..............$2.50
       FUN TO PROGRAM YOUR TI-99 SERIES by Howard Budin..$1.50
```

TERMS: All new TI products are sold with factory warranty only and
<u>must</u> be returned to TI for any warranty claims or repairs. All
<u>sales</u> are final. Payment by Certified Check, Money Order or C.O.D.
Please include your street address (City, State, & ZIP) and your
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   <u>At these prices we are forced to handle domestic orders only.</u>

POSTAGE & HANDLING: 20% of total order ($3.00 min. east of
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refunded!   C.O.D. add another $2.   Please include a <u>Self Stamped</u>
<u>Addressed Envelop</u> with your payment (we will return payment if
insufficient payment is made or if stock has been depleted).

POINT-COUNTERPOINT
=======================

AN OPEN LETTER TO ALL TI GROUPS
===============================

Someone had to be crucified!
Someone had to burn Watts!
Someone had to get shot at Kent!
The TI community will not be satisfied until someone sets themselves on fire in the middle of Times Square with a TI computer clutched in their arms! Who shall it be? Barry Boon, Peter Hoddie, Chris Bobbit? How about Stu Olson or Barry Traver? Maybe Ron Albright would do this for us. It sure as hell won't be me because nobody knows me, and besides, sombody has to remain as curator.
I am sick and tired of the whimpering and whining that is echoing from the halls of this community.
Many times in the last few weeks of this summer I have been subjected to rumors of TI groups across the country converting to multi-computer groups. It is my belief that the people suggesting this are nothing more than lemmings going to sea. And the people that are listening are going to lead the pack.
I want to make it very clear to everyone that I do not believe that computer is spelled "TEXAS INSTRUMENTS". I have, over the last seven or eight years, been associated with Atari, Color Computer, IBM and clones. Also, I have had nodding acquantances with Commadore and Apple. During that period of time I have compared my computer to every one of them, and have often been envious of graphics, sounds and massive amounts of memory. But at the same time, I have left the keyboards of these machines with the attitude that "I (my TI) can do that, too." Every time I have been proven correct. Axel-F, TI-Artist, and the Horizon ram disk have done the job, and there's more to come.
It's a proven fact that in any group, no matter what they gather for, five percent of the people will always do ninty-five percent of the work. There is no getting around it. Many of the most dedicated of group members will sit back and let the "knowledgeable" take the lead. That doesn't mean they are not interested, it just means that they have stupid priorities like families, work and a bowling league. These are not the people that are coming under fire here. I am bringing to task the leaders of those people. The "knowledgeable ones" that are not saying "Kiss off IBM, I'm a TIer and proud of it!"
Quit worrying about the size of your groups. The people that are leaving you are USERS or MONEYMAKERS. The users are the people that in the last seven years have never bothered to learn to program the simplest code. The money makers come in two catagories. There are the "I-have-an-IBM-at-work'ers" and the "I-can't-make-any-money-from-TIer's" gang. Neither of these two groups can do you any more good. The first group added nothing more than volumn to the ranks, the second group, for the most part, I have a tiny bit of sympathy for. We TI'ers are a cheap lot. I don't really know why. I guess we are just birds of a feather, but I didn't join this community so many years ago because I was cheap. I joined for the value of the TI and what it could do based on my investment. I have NEVER regretted my decision, but I do realize that I'm not making anyone rich, least of all Craig Miller, a fine example of what I'm talking about.
I know of people that have left the community and have come back to us with sheepish grins. Allow me to quote a former member of the Front Ranger Ninty-niners of Colorado Springs.
"I sold my TI and bought an AT clone. I used to walk up to my TI, press a couple of keys, wait a minute and pound out a perfectly formatted letter. I was in

control. Now I have to walk up, bow twice and BEG my computer to PLEASE allow me to do the same thing I used to do on my TI.... I WANT MY TI BACK!!!"
I will quote one other.
"I purchased a PC and an AT for my business, where-upon I put my TI on a desk in the corner. That was six months ago. I bought some user friendly programs for the clones and went to work answering all their questions. I'm still answering questions and my TI is doing all the work."
I have been the president of the Western NY 99'ers for three years. The group used to consist of about 125 members. Today there are 60. Out of that 60 people, 45 show up at every meeting because the staff has a monthly meeting and plans a program for them. Of that 60, 28 have Horizon rams, and I feel safe in saying that ALL of the rest are looking forward to one or at least something like it. The group fully supports our BBS with purchases of public domain disks every month. The GROUP requested that we continue meetings all summer, no breaks. We have many people that drive over a hundred miles round trip to every meeting. We have one of the best looking newspapers in the community, supported by the dues and printed every month without fail.
Why are we successful? Because six people, (10%), meet every month and PLAN. We INFORM the people. We have published the prices for IBM software in our newsletter and compared the abilities of Procom to Mass-Transfer... and questioned why it takes 125000 bytes to accomplish what we do in 18432 bytes. Is it possible to use Genie or Delphi with a TI terminal program? If that question weren't so serious I would be rolling around the floor hysterically.
When I am asked why I continue with TI, my answer is simple. "Because I have not fully explored the possibilities of the TI. I still have at least four languages to learn and uncounted memory locations to attack. I have programmed the TI to handle all of my business records, and I know how to manipulate my files to get all the information I will ever need, and it's all so easy.
If the person that asks the question says he is going to buy a clone, then I say "Byebye, make sure the person you sell your TI to knows we're here."
And that brings up my final point. I have yet to find a TI in a trash can, and believe me I've looked! How can the community be going down hill when all of the equipment is STILL IN CIRCULATION?? You guys aren't trying! We have people in my group that are mainframe programmers by day and TI hobbyists under the cover of night. It's positively inspirational!
This fall will bring two new P-boxes to the nine out of ten consoles that do not have them. If the people are made aware of this, many of the dust collectors will get pulled out the closets and brought to life.
QUIT WHINING, FIND YOURSELVES A SMALLER PLACE TO MEET AND KISS THE USERS GOODBYE. Combine the groups in a given area and have a general meeting every three months as well as the regular local meetings. Form a statewide group and take out adds in Popular Science so that the new TIers know we exist. Look and SEE where your new members are coming from. Concentrate on that area. You are going to find out that the community is better off today than it's ever been. If you wind up at the waters edge, call me for help.
Respectfully Submitted,

Harry T. Brashear
President;
Western NY 99er's
1-716-778-9104

One TI Group's Reply to Harry Brashear's Letter!!!

Don't get me wrong! I'm still as much a TI'er as I have ever been but I do take exception with some of Harry Brashear's comments that were in this area last week.

First, I have two TI systems, one running Villa-TI, our group's BBS, and the other tied by RS232/2 to COMM2 on my IBM XT clone, which I bought while out at TI-Fest West last May. I have only used my clone for a couple of months but I can see that there are things that it can do that the TI simply can't. Most are due to the severe lack of memory in the TI. When you see a clone copy a DSDD disk in one pass, this fact is painfully clear. As to word processing capability, I'm not sure who Harry was referring to in his piece when he mentioned "a former member of Front Range Nin(e)ty-niners" who couldn't write a letter on his clone. I have a program that you can get for less than TI-Writer used to be, which will do everything that TI-Writer could do and more, including on-line spell checking while you type a document. Perhaps the individual he spoke of didn't have the DOCs for the program he was using (if you catch my drift). If one is using bootlegged software, it is often difficult to get it to do what you want if you don't have the complete DOCs.

As for multi-computer groups, I would probably agree that it is better to join another group for one's other computers, although I see little difference between a clone SIG and a 9640 SIG in a TI group. The 9640 is a different computer as is a clone. If there is any doubt of this, I quote Walt Howe in this July's Boston Computer Society newsletter, "If you have a 9640, the only working emulator at the moment is Paul Charlton's modified Fast Term". In speaking of the FAIRWARE fee, "Don't consider that if you already paid him (Paul) for your 4A program, you have a right to it", referring to the 9640 version. "With FAIRWARE, you are expected to pay for each computer you use it on, particularly if they are different computers." Furthermore, let's remember that even the prestigeous LA 99'ers were forced to share the upper level of the Shrine auditorium with the Amiga group in order to make TI-Fest West economically feasible.

I especially take exception to Harry's crack about Craig Miller. Craig is in business to make money. He supports his family by turning out software and hardware products. When our esteemed TI community could do nothing better than turn out copiers that caused him to discontinue marketing software due to loss of sales, he had little choice but to move on to greener pastures. I would like to see how long Harry could survive on the revenues he has received from his software offerings. For most of us, the TI is a hobby or second occupation. We don't depend on it for our livelihood. Craig does , and the TI community has no one to blame but itself for his departure! If the TI community does not survive, it is because it has generated the seeds of its own destruction. How many have software that they use and have not paid for? Why do some feel that because they paid for their hardware that they have the right to use every piece of software that has been written without compensating the authors? When they buy a car, do they feel they should get gas for nothing? Apparently so!!!

As for software, I have used 4A/Talk, Fast Term, P-Term, Mass Transfer, TE 1200, TE II, Omega, and TE 3, to mention a few, but to compare any of these with Procomm is ludicrous. The TI programs are good as far as they go, and the programmers who wrote them made excellent use of the space they had, but Harry touches on the exact point I mentioned before..... lack of memory. Mass Transfer uses up 38.4% of the TI memory while

Procomm uses only 19.5% of the clone's. Furthermore, Procomm has earned it's authors well over a million dollars as FAIRWARE according to a Kansas City Times article which was reprinted in the Rocky Mountain News on July 21st of this year. The basic price for this program is $25 so you can see that they have sold a bunch! As for the prices of other clone software you can pay as much or as little as you want and get excellent programs at either end of the spectrum. I bought a spreadsheet for $30 that will do far more than TI's Multiplan including computing and printing line, bar, and pie graphs from the data on your spreadsheet. It recalcs faster than you can enter your data so you don't have to disable it. I'm looking at an ad this very moment for an integrated software package (word processor, database, spreadsheet, mail-merge, calculator, RAMdisk, directory manager, typewriter program, and more) and it's only $39.95. The software area on GEnie for the clone when printed out, is over an inch thick!

So, Harry, let me say that there are things you can do with the clone that you cannot and will not ever be able to do on the trusty 4A, a 9640, perhaps, but not the 99/4A. By the same token, there are some things that a 99/4A will do that a clone, at least my clone, will not do yet. If we never moved on to a new computer, I would still be using a Sinclair computer.

Now, as for the vitality of a group, ours has been doing quite well over the last few years. Our membership has been in the 90's and our treasury is in good shape at a bit over $2800. In addition, the club owns a complete TI system with a PEB with the standard TI cards in it, three DSSD drives, an AMDEK color monitor, modem, and are in the process of purchasing a TI printer. Our newsletter has been rated among the best by many and our newsletter exchange program has been most successful with about sixty groups on our exchange list. We always attempt to have interesting programs for our members. We have flown in guest speakers from out of town, interviewed others by phone at our meetings, and try to demonstrate any new software that is developed. We have been blessed with good leadership over the years, having four different presidents in our four years of existence, and we will soon have a fifth. Perhaps, Harry, it is time to turn over the reins to someone else. New people have new ideas, and that's what makes the whole thing work. We have had some members buy "new toys" but we have never cast aspersions upon them. We hate to see them leave, not because they have changed computers, but because they are friends and we will miss them. Many still are active on our BBS.

I'm a TI owner and proud of it! I'm also a clone owner, and a TRS-80 owner and I'm proud of that too. Each has it's pros and cons. I made one trip to the Chicago Faire two years ago with a full blown TI system so I could upload items of interest back to our members on our BBS. Try hauling one in and out of motel rooms for four or five days. I quickly learned that it could be done much more efficiently with a TRS-80 Mod 100. It has come in real handy on three trips over the past year or so for this very reason. Each has it's own place and does some things better than the others, but I like them all. Remember, if the TI-99/4A were the last word in computers they would never build any new ones!

Best Regards,

Joe Nuvolini
President,
Front Range 99'er Computer Club
(303) 596-6938

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NEW ADDS LA99 LIBRARY 1

ALL DISKS ARE $3.00 EACH   **4 FOR $10.00**
      Mailing cost = 2 disk for $1.00 USA

Two copies Of all program disks will be made available to the members at the. If you plan to obtain any disks from the library at the meeting it is best to phone or write the LIBRARIAN in advance to be sure they will be on hand. I will put your name on them.

THE LA LIBRARY CATALOG HAS BEEN COMPLETLY CHANGED. THE NEW CATAOLG WILL DESCRIBE THE DISK IN MORE DETAIL AS SHOWN IN THE LIST BELOW. THIS NEW LIBRARY EITHER ON PAPER OR DISKS FOR $1.00. WHEN OBTAINED BY DISK UPDATED VERSION CAN BE OBTAINED FOR $0.50 ON YOUR OLD DISK. PRINTING UPDATED CATALOG USE TI-WRITER ALL YOU NEED TO DO WHEN IN THE FORMATTER MODE IS TYPE IN THE PAGE NUMBER YOU WANT TO PRINT. NO NEED TO PRINT THE WHOLE CATALOG LIST EVERY TIME. WHEN ORDERING DISK FROM THE LIBRARY ASK FOR OOOOA/B. MAILING CHARGES WILL BE $1.00. I HOPE ALL OF YOU OBTAIN THIS NEW LIBRARY CATALOG AND KEEP IT UP TO DATE BY EITHER GETTING YOUR OLD DISK UPDATED OR UPDATE YOUR PAPER COPY YOURSELF BY USEING THE NEW ADDS TO LIBRARY SECTION EACH MONTH IN OUR NEWLETTER.

4501   **H.C.M. VOL.4 NO.1** APOLLO (logo), FIDDLE (basic), MELTDOWN (x/b), MUSIC ASSEMBLLER (basic), MUSIC MAGIC (x/b), SLOTS (basic), TOWER OF HANOI (basic), FLAK ATTACK (basic) (SSSD)237

4502   **H.C.M. VOL.4 NO.2** FROGO (logo), CANNBAL (basic), THE HOME SECRETARY (basic), LOGOFILES (logo), SEA OF STATES (x/b), TABLUT (x/b) (SSSD)162

4503   **H.C.M. VOL.4 NO.3** ELEMENTARY ADDITION & SUBTRATION (basic or x/b), BARS & PLOTS (basic), SNAP CALC (x/b), CYBER CIPHER (basic), WILD KINGDOM (x/b), MISSLE MATH (basic or x/b), FLAKES (logo)

4504   **H.C.M. VOL.4 NO.4** BOOLEAN BRAIN (x/b), TAX DEDUCTION FILLER (x/b), MARKET MADNESS (x/b), STADIUM JUMPING (basic or x/b), SPREADSHEET (logo procedures), MISSIONARY IMPOSSIBLE (logo procedures) (SSSD)199

4505   **H.C.M. VOL.4 NO.5** BIRDBRAIN (x/b), DIVISION TUTOR (x/b), PERSONAL LOAN CALCULATOR (x/b), JUMPING AHEAD WITH GAME PROGRAMMING (basic or x/b), QUIT CONSTRUCTION SET (basic or x/b), QUIZ GERMAN1 (b or x/b), QUIZ GERMAN2 (b or x/b), QUIZ TRIVIA (b or x/b), QUIZ VOCAB1 (b or x/b), QUIZ VOCAB2 (b or x/b), SLITHER (b or x/b), SNAP-CALC UPDATE mergeable file (x/b), CLONES (logo procedues), PERSONAL LOAN CACULATOR (b or x/b), SNAP-CALC DATA FILE (x/b), SNAP-CALC LOGIC FILE (x/b) 2(SSSD)409

4506   **H.C.M.VOL.5 NO.1** ORBITAL DEFENDER (b or x/b), ELECTRONIC BACKGAMON (x/b), KORS-ELF (x/b), PERSONAL LOAN CALCULATOR (b or x/b), ORGANIZER file manager, main menu, outline editor, dummy report (b or x/b 32K), QUIZ-PRINT (b or x/b), RAZZLE DAZZLE (b or x/b), SAILING (logo all), (SSSD)342

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NEW ADDS LA99 LIBRARY 2

4507 **H.C.M. VOL.5 NO.2** EVACU-POD (x/b), IT FIGUREST! (x/b), LASERITHMETIC (b or x/b), RAZZLE DAZZLE (b or x/b), THE ORGANIZER REPORTS (x/b), SWITCH 'N' SPELL (b or x/b), *ORGANIZER FILE EXAMPLE (ramdon access file), *OUTLINE EDITOR UPDATE (x/b), TAX DEDUCTION FILER UPDATE (x/b), *SEA OF STATES UPDATES (x/b), (SSSD)223

4508 **H.C.M.VOL.5 NO.3** BUDGETRON (b or x/b), TI TECH NOTE (x/b), GEOMETRIX (b or x/b), RAZZLE DAZZLE horizon (x/b), OVER-REACT (b or x/b), TORPEDO ALLEY (x/b), ACHILLES AND THE TURTLE (logo), *EVACU-POD UPDATE (x/b), *PERSONAL LOAN CALCULATOR CALCULATOR UPDATE (x/b) (SSSD)209

4509 **H.C.M.VOL.5 NO.4** ARCHEODROID (b or x/b), RAZZLE DAZZLE composer (x/b), MINE OVER MATTER (x/b), RUN-DAY-VIEW (b or x/b), TRIG-TRIX (b or x/b) (SSSD)163

4510 **H.C.M.VOL.5 NO.5** RAZZLE DAZZLE cyber-abacus (x/b), BUGOUT (x/b), CARD-TRIX (x/b), TI TECH NOTE error recovery (x/b), NANO PROCESSOR (b or x/b), ONE-LINER (x/b), PLAINS OF SALISBURY (b or x/b), TEN-LINER (b or x/b), VITAL SIGNS (b or x/b) (SSSD)179

4511 **H.C.M.VOL.5 NO.6** RAZZLE DAZZLE TI ventriloquist (b or x/b), CELL MATES (x/b), NANO EDITOR (b or x/b), ONE-LINER (x/b), SELF CITY (ZB OR X/B), TI CARD SUFFLER (x/b), TEN-LINER (b or x/b) (SSSD)171

8058 **INSTANCES #1** From Henry Hein 25 pictures for TI Artist in DIS/VAR 80 format. APPLE BIRTHDAY BIRTH BUBBLY BUNNY BUTRFLY CANDLE CAT CLOCK COMPUTER CUP&SAUC CUPID DOG DOVE DRUM FLOPDISH GRADUATE HEART HOUSE ICECREAM JACKOLAN LITEBULB MENORAH MONERBAG NOTES (SSSD)359

8059 **INSTANCES #2** From Henry Hein 25 pictures for TI Artist in DIS/VAR 80 format. OLDCAR OLDTRAIN PATTERNA PATTERNB PENPAPER PIANO PIG PRESENT QUESTION ROBOT ROCKET ROSE SAILBOAT SCALES SKULL SPACE SUN TEDDY TOPHAT TRUMPET TURTLE WEDBELLS WREATH XMASTREE YINGANG (SSSD)355

8060 **INSTANCES #3** From Henry Hein 23 pictures for TI Artist in DIS/VAR 80 format. ABE BABY BAND BEACH BINGO BOOTS BOWL CAMP CASHBOX CHEM CHIP CHOPPER CITY CREST DEREST DOCTOR DOLLAR DRAFT FOOTBALL GEORGE GET_WELL GOLF GUITAR (SSSD)345

8061 **INSTANCES #4** From Henry Hein 24 pictures for TI Artist in DIS/VAR 80 format. INSTNMTS JET KEYBOARD KING LIBERTY MAP MICRPHON MICSOPE MORSE MOVIE NEWS NURSE PHAROH PLANE RACER SCORE SHERLOCK SHIP2 SHIP SIESTA SKI STAMP TRAIN WISH (SSSD)351

8062 **INSTANCES #5** From Henry Hein 22 pictures for TI Artist in DIS/VAR 80 format. CHESS CHISEL CLOWN COOKING DRAFT ELECTRAIN ENGINEER GAS GLEAN1 GLEANINGS IO3 JUKEBOX KNIT MASON MECHANIC PAINT PATTERNC PATTERND PATTERNE PATTERNF PATTERNG PATTERNH (SSSD)349

8063 **INSTANCES #6** From Henry Hein 14 pictures for TI Artist in DIS/VAR 80 format. PATTERNI PATTERNJ PENGUIN PLUMBER POT SEW SPOON TOOLS TRACTOR TURKEY WASH WELDER WOODWORK WORLD (SSSD)208

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NEW ADDS LA99 LIBRARY 3

8064   **GRAPHIC #1** From Amnion 14 Graphic and Demos programs in Basic or
Extended Basic.   BASIC DEMO, CHRISTMAS, USA FLAG, HAUNTED HOUSE,
KALEIDOSCOPE, JOB COST, SNOOPY, SEAHORSE, PINK PANTHER, SHIP, SNOOPY
CHRISTMAS, VALENTINE, FISHING, ITT SAYS, (SSSD)357

8065   **GRAPHIC #2** From Amnion 18 Graphic and Demos program in Basic or
Extended Basic.   STARS, LOVE, MAZE, SINE WAVE, COLOR BURST, BUNNY,
PATTERN, CARDS, RHODE ISLAND, WYOMING, NEW NEXICO, VISIONS, OHIO,
INDIANA, TEXAS, ARITHMATH, GRAPHS, COLOUR, HALLOWEEN (SSSD)330

8066   **GRAPHIC #3** From Amnion 18 Graphic & Demos program in Basic or
Extended Basic.   STARS, LOWER CASE LETTERS, MAZE MAKER, PRINTED MAZES,
COLOR CRAYON, VERY LARGE LETTERS, SAFETY, COLOR COMBINATION DISPLAY,
SNOPPY #2, SIGNS, KALEIDOSCOPE, (SSSD)327

8067   **GRAPHIC #4** From Amnion 17 Graphic and Demos programs in Basic or
Extended Basic.   TICKER TAKER, DIAMONDS, H.C.M. TITLE SCREEN, MEMORY
MAZE, CALENDAR, INK BLOT, CHRISTMAST SCREEN, FREQUENCY TEST, RANDOM
CHARACTER GENERATOR, SPRITE DEMO, MOTHER GOOSE, 3 SCREEN DEMO, ROBOT
JOKES, MIRRORS, STARFIELD, SPEECH GENERATOR, AC/DC, (SSSD)327

8068   **GRAPHIC #5** From Amnion 11 Graphic and Demos in Basic or Extended
Basic.   CABOOSE, KWIK DRAW, KALEIDSCOPE, SPRITE BUILDER, PATTERNS,
SCORPIO'S CASTLE, EASEL, TI MARQUEE, GRAPHIC DESIGNER, NIGHT BEFORE
CHRISTMAS, COLOR CRAYON II,(SSSD)360

8069   **GRAPHIC #6** From Amnion 9 Graphic and Demos in Basic or Extended
Basic.   SPRITE DEMO, ENTROPHY, DRAW 'N COLOR, GAME DEMO I, CHUG-CHUG,
GLOBE, DOOLES, COLOR DWAW, SPACE SHUTTLE DEMO, MAGIC PENCIL, CHARACTER
DESIGNER, FLAGS OF EUROPE, HI RES PLOTTER,(SSSD)338

8070   **GRAPHIC #7** From Amnion 15 Graphic and Demos in Basic or Extended
Basic.   NEW YORK FANTASY, QUICK SPRITES, SPRITE WORKSHEET, COUNTRY
RACING, EYE GLITTER, RANDON CHARTERERS, DEFENDER, BOXES, GRAPHICS
PROGRAM GENERATOR, ALABAMA, MICKEY MOUSE, COMPUTER DRAW, STAR WARS,
ENTREPRISE, HEXY,(SSSD)321

8071   **GRAPHIC #8** From Amnion 13 Graphic and Demos in Basic or Extended
Basic.   SPRITE BUILDER, THE ELECTRONIC WEAVER, THE CANADIAN FLAG, SPACE
SHUTTLE, BUILDING BLOCK, SPRITE DEFINITION, COMPUPRO, MATH PLOT,
(SSSD)331

8072   **GRAPHIC #9** From Amnion 8 Graphic and Demos in Basic or Extended.
PAINT BRUSH, ANNIVERSARY, GIRL BOWING, LINES, GRAPHIC CODE GENERATOR,
(cataloger editor lines indexer joystick data rulemaker titlemaker)
SPRITE VIEWER, CARDS, (SSSD)345

8073   **GRAPHIC #10** From Amnion 5 Graphic and Demos in Basic or Extended
Basic.   MARILYN MONROE, ED'S SPRITE EDITOR, SPACE SHUTTLE, STAR WAR,
BOWL, (SSSD)333

8074   **GRAPHIC #11** From Amnion one large program about making LINES
(SSSD)268

7048   **MUSIC #40** From Chick DeMarti 15 musicial programs YES WE HAVE NO
BANANA, BEATLES PLAYER PIANO, BEETHOVEN MEDLEY, MUSICAL SCALES, MUSIC
ASSEMBLER, MUSIC DURATION TRANSLATOR, MUSIC MAGIC, PINK PANTHER, SANTA
CLAUS, SHEPPARD BLUES, THE STING, (SSSD)360

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MARKETPLACE
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(the marketplace is a fund raiser for
the club, that is, the "profit" goes
to maintain the quality of this News-
letter.   In general the price listed
splits the difference between cost
and retail.   Please help your Club.)

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SUPER  EXTENDED  BASIC                        50.00
        MILLERS  GRAPHICS
DISkASSEMBLER                                 18.50
ORPHAN  CHRONICLES  (PRICELESS)                9.95
ADVANCED  DIAGNOSTICS                         18.50
NIGHT  MISSION                                18.50
GK  UTILITY  I                               10.00
SMART  PROGRAMMING  FOR  SPRITES              6.25
        NEW  RELEASES
KRACKER  FACTS                                5.00
UTILITIES  DISK/DOCS  (T  FREEMAN)            8.00
ORPHAN  SURVIVAL  HNDBK(ALBRIGHT)            15.00
JOYPAINT                                     30.00
JOYPAINT  PAL                                 7.50
PRE-SCAN  IT!  (J.PETER  HODDIE)             10.00
GRAM  PACKER            "                    10.00
FONT  WRITER           "                     19.00
PRINTER'S  APPRENTICE  (M.McCANN)            19.00
        MYARC
RS232                                         Check
D/D  DISK  CONTROLLER
128K  RAM  DISK/SPOOLER                        for
512K  RAM  DISK/SPOOLER
EXTENDED  BASIC  II  LEVEL  IV             discount
128K  RAM  DISK  W/XBASIC  II
512K  RAM  DISK  W/XBASIC  II               prices
GENEVE  9640  COMPUTER
        INSCEBOT
TI-ARTIST                                    15.00
DISPLAY  MASTER                              12.00
ARTIST  EXTRAS                                6.00
        GENIAL  COMPUTERWARE
XBasher     (MIKE  DODD)                      9.00
XB:Bug       (J.PETER  HODDIE)              12.00
        MEGATRONICS
EXTENDED  BASIC  II  PLUS                    72.50
INTERN  (BOOK  ON  GPL)                      16.50
128K  GRAM  CARD                            227.50
        HARDWARE  &  SUPPLIES
TEAC  55BV  DSDD  DRIVES                     90.00
DISKETTES  DSDD                                .50
        BACK  ISSUES
SUPER  99  MONTHLY                            1.25
MICROPENDIUM                                  1.25
SMART  PROGRAMMER    JUNE  1986               1.50
BEST  OF  NEWSLETTERS  W/DISK                 5.00
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BEGINNER'S  FORTH  NOTEBOOK                   2.50
ASSEMBLY  NOTES  VOL  1                       2.50
TECHNICAL  AND  BUSINESS  BOOKS               5.00
SAMS  BOOKS   (VARIOUS)                       5.00
SAMS  BOOKS  WITH  CASSETTES                  7.50
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(please send your order to the CLUB address, not the Librarian, and add
$1.00 per disk for postage and handling. CA residents add 6.5% tax).

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