TACOMA 99ERS USERS GROUP NEWSLETTER

FROM THE LIBRARY DESK

I HOPE EVERYBODY READS THIS FOR A CHANGE AS IT WILL AFFECT EVERYBODY. THANKS TO JOE NOLLAN, A LOT OF CHANGES AND DELETIONS ARE BEING MADE IN THE CATALOG 6000 SERIES. HE HAS REVIEWED MOST OF THEM AND CLEANED UP, COMBINED AND WHATEVER ELSE JOE DOES SO WELL TO MAKE IT A HECK OF A LOT BETTER! HE IS STILL REVIEWING THE REST OF THEM SO EXPECT MORE CHANGES.

PLEASE MAKE THESE CHANGES TO YOUR CATALOG ASAP!

NUM	CHANGE	NUM	CHANGE	NUM	CHANGE
6004	USE 6002	6046	USE 6001	6125	USE 6108
6006	" 6002	6047	" 9028	6126	" 6102
6008	" 6033	6056	" 6111	6131	" 6007
6009	" 6001	6061	" 6214	6140	" 6159
6010	DELETED	6068	" 6159	6142	" DM1000
6023	DELETED	6075	" 6001	6144	" 9028
6025	" 6013	6088	" 6007	6150	" 6001
6026	" 6007	6089	" 6115	6151	" 6007
6028	" 6007	6091	DELETED	6177	" 6159
6031	" 9028	6099	" 6007	6183	" 6103
6032	" 6115	6100	DELETED	6197	" 6007
6034	" 6007	6101	" 6007	6203	" 6159
6036	" 6002	6102	" 6159	6205	" 6146
6044	" 6030	6114	DELETED	6218	" 6117
6045	" 6007	6119	" 6133		

IT IS VERY IMPORTANT THAT YOU MAKE THESE CHANGES! IF YOU ORDER ONE THAT HAS BEEN DELETED, YOU WON'T GET IT AS IT WILL BE GONE FROM THE LIBRARY. SO IF EACH PERSON ORDERING PROGRAMS GIVES ME THE CORRECT NUMBERS, I WON'T GOOF UP YOUR ORDER.

HOPEFULLY AT THE FIRST MEETING IN MAY, I WILL BE GIVING OUT MORE NEW ADDITIONS TO THE CATALOG. I'M GUESSING AT THIS POINT, BUT I FIGURE ABOUT 6 MORE PAGES. THEY CAN BE OBTAINED AT ANY OF THE NEXT FEW MEETINGS. BE SURE TO PICK UP YOUR COPY.

BOB HAUN, **584-3938**

We are all familiar with the SAVE and OLD commands used to save or load a program. These commands are used with PROGRAM type files. In addition to the SAVE command you can also use LIST followed by the device and filename such as: LIST "DSK1.SAMPLE" to save a program. Programs saved in this manner are stored in DV-80 format on the disk and can be loaded with TI-WRITER. You can then use it's full editing capabilities to edit the file. After editing, the file must be stored on a disk and then converted back into program form before it can be run and that is the purpose of the TRANSLATOR program.

A translator program is needed to convert the DV-80 file (which won't run) into PROGRAM form. It does the reverse operation of the LIST command. Converting back however, is a two step process in which the DV-80 file is converted into a DV-163 (MERGE) format file. This file can be merged into memory and then saved as a normal program.

If you're asking yourself, what's the use of all this converting when you start with a program and end with a program, the answer is that in the DV-80 form the editing can be done with TI-WRITER with greater ease than with X-BASIC. Here are a couple of sample edits. First defeat the word-wrap feature to avoid any reformatting. The SEARCH/REPLACE allows you to find all the occurances of a variable name and change it to something else which I use to shorten the variable names. A six character name uses more memory than a single variable one. With LINES you can move parts of the program around or delete portions of the program. Moving lines or deleting a block of them is a slow process in X-BASIC. I don't want to spend too much time with the editing possibilities and these two examples should get you started. Remember that these translator programs don't know what to do with a carriage return symbol so you must be sure to delete any of them from your program document. The translator also doesn't know what to do with the TAB values saved at the end of a document so you should use the PF (print file) command to save the program document.

In short the normal editing procedure would be to start with a program and LIST it to disk, then editing it as desired and saving this edited version back to the disk. At this point the TRANSLATOR is run to convert the file to the merge format and by merging the results into memory you will have a new program including the changes made.

Each translator program will have it's own requirements which will be noted in the instructions or REM statements and I recommend a little practice with a program to gain a working knowlege of what can and can't be done with it. Some have trouble with long lines and most include an extra character which must be removed.

I found that 6159 in our library is by far the best of the programs that I reveiwed. It can handle lines that are longer than 80 characters and no EXTRA characters need be deleted. The program first prompts the user for the file name of the input and output files. The input file is the DV-80 file on disk and the output will be a DV-163 file created by the program. The next prompt is for BASIC or X-BASIC and you select the form that the program was written in. The final prompt determines how the program will handle lines. If the line numbers are regularly sequenced you will have the best chance of good results. If not then any line with a character in the 80th column will be joined with the next line which works most of the time except for the rare case when the 80th character is the LAST character of the line.

I have set up a demonstration for this translator program and will be showing the basics of the process. It is a short demonstration so that there will be time to answer any questions from the members. In the future I hope to get some input as to which programs you would like to see. It's a good opportunity to see a program as an aid in making a selection. I have been going over the 6000 series in the library and will have them availible at the meetings. There are 8 translator programs in the library (6068, 6086, 6102, 6126, 6140, 6159, 6177, and 6203) and 6159 is the best. In the future there will be a 6000 series update published which will show a lot of deletions in cases like this where we have many programs doing the same thing. Until then just ask me.

DOTS PERFECT
Upgrade for Epson Printers

This is for you fellow EPSON(tm) FX,JX,RX or MX printer owners who would like the capabilities of the newer dot matrix printers without having to invest in a new printer. The DOTS-PERFECT(tm) upgrade kit from Dresselhaus Computer Products will give your EPSON(tm) a NLQ(Near Letter Quality) print mode, a buffer clear command if you have a print buffer or spooler and a panel button menu font selection.

I ordered my upgrade kit directly from Dresselhaus by phone and received it via airmail two days later. The kit is a replacement chip that plugs into the printer's main circuit board in place of the original chip. The chip comes well packaged and protected along with a seventeen page booklet that clearly explains how to install the chip and operating instructions for using the new print capabilities. Installation is simply removing the printer cover to expose the main circuit board, gently prying out the old chip with a flat bladed screwdriver, inserting the new chip using care to make sure all the pins are properly lined up and then replacing the cover. This took approximately fifteen minutes to complete. I then re-connected the printer to power and the RS232 card and ran the printer self-test to make sure the new chip worked properly. The self-test now alternated between draft mode and NLQ mode. The difference was striking. The NLQ print uses a special two pass character set with four times the resolution of regular draft print. The NLQ mode can be selected by pressing only one button on the printer or by using software codes in your program.

In addition, you can select from a menu of fifteen special print functions to create over 160 different font printing combinations. All of the panel button font selection steps begin with the printer on-line. When the printer is off-line, the FF and LF buttons operate in their usual form feed and line feed modes. To select NLQ, tap the FF button only. To select draft, tap the LF button only. To select from the menu, press on-line and FF together. To activate the buffer clear command, press on-line and LF together. NLQ can be used with most other print functions such as emphasized, italics,double-wide and super/sub-scripts. NLQ cannot be used with condensed or elite. When you press and release the on-line and FF buttons to activate the selection menu, you will hear two quick beeps. This signals that you are at the top of the menu. The FF and LF buttons now have new functions. The FF button beeps and moves the selection to the next function. The LF button toggles the selected function on or off. Pressing the On-Line button deactivates the menu and returns to ON-LINE mode. The functions that can be selected from the menu are:

1. Condensed	6. Perf-skip	11. 8 Lines Per Inch
2. Elite	7. 1/2" Left margin	12. Quiet Mode
3. Double-wide	8. Italics	13. Slash Zero
4. Emphasized	9. Underline	14. 8 1/2" Wide Paper
5. Double-strike	10. Fine Print	

The DOTS-PERFECT(tm) upgrade kit can be purchased for $79.95 plus $2.00 shipping/handling from Dresselhaus Computer Products by calling 1-800-368-7737. The mail address is 8560 Vineyard Avenue,Ste 405, Rancho Cucamonga, CA 91730. HAPPY COMPUTING,Ron Prewitt

Program Files

by R.A. Green
Ottawa 99/4 User's Group

There are seven different ways to store programs in the TI 99/4A. In this article we will have a look at each of these seven forms and how they are used.

Everyone is familiar with the form used by TI BASIC to store programs on cassette or disk. It's identified as 'program' in the disk catalog. It is created or stored by the BASIC "SAVE" command and loaded by the BASIC "OLD" command. This is the only way that TI BASIC uses to store your program.

EXTENDED BASIC can, and usually does, use the same form as TI BASIC to store programs. There are, however, two other forms that XB uses. Both these can only be used to store programs on disk.

If you have the 32K memory Expansion, you can write an XB program which is too large to store in the usual format. XB will store these large programs in an "INTERNAL VARIABLE 254" file. The usual "SAVE" and "OLD" commands are used to store and load these programs.

The third form used by XB is the "merge format" stored in a "DISPLAY VARIABLE 163" file. This form is created when the "MERGE" option is specified on the "save" command. The beauty of merge format is that when it is loaded it does not necessarily overwrite the program to memory. The "MERGE" command does that - it merges the new program (or program segment) with the program in memory according to line numbers.

Now we get to the good stuff, Assembler Language programs. There are three forms for an assembler program: tagged object, compressed tagged object, and memory image.

Tagged object is stored in a "DISPLAY FIXED 80" file on disk only. All program data is in hexadecimal so that it can be edited by te E/A editor. Tagged object can be loaded via "CALL LOAD" in XB, option 3 on the E/A menu, option 1 on the MM menu or "CALL LOAD" in TI BASIC when either the E/A or MM module is used. The program can be "absolute" or relocatable". An absolute program must always be loaded at the place in memory. A relocatable program can be loaded any place in memory. A tagged object program may have references to other programs or subroutines. The loader will resolve these external references, except for the XB loader.

Compressed tagged object is very nearly the same as tagged object except that the program data is stored as bytes rather than as hexadecimal digits. Compressed tagged object loads faster than regular tagged object as you would expect. The XB loader cannot load compressed object.

Tagged object, in either form, is produced by the Assembler when it assembles a source program.

The "memory image" form of assembler program is the most compact and the fastest loading. It can be stored on cassette or disk. It is identified as "PROGRAM" in the disk catalog (just like a BASIC program). Memory image programs can be loaded by option 5 on the E/A menu or option 3 on the TI Writer menu (and I assume, by Multiplan although I have never tried since I don't have Multiplan). It should be noted that there is one slight but important difference beteen how te E/A calls a memory image and how TI-Writer does it. TI-Writer blanks the screen just before calling the program and the E/A does not. This means the program must turn the screen back on or nothing will show. Memory image programs are created by a Utility program. (one is provided on the E/A disk).

A program file, containing an Assembler memory image or a BASIC program, can be read or written to any input/output device with a single I/O operation. This is one of the reasons they load so quickly.

There is a restriction on the size of an Assembler memory image program of 2400 bytes(9216 decimal). However, the E/A and TI Writer modules will load multiple memory image files to make a program of any size. They use the convention that the file name of the second and following files is obtained by incrementing the last digit or letter of the previous file name. For example, the TI Writer editor consists of two memory image files: EDITA1 and EDITA2.

As a matter of interest, the ADVENTURE, TUNNELS OF DOOM, PERSONAL RECORD KEEPING, STATISTICS, AND PERSONAL REPORT GENERATOR modules use a memory image or "PROGRAM" for their data bases. The fact that memory image can be saved or loaded with a single I/O operation makes them attractive for such uses.

A lot of the Assembler language games that are circulating around are in memory image format so let's look closer at them. Assembler memory image files have a three word header followed by the data to be placed in memory. The three header words are:

(1) This word is a "flag". If it is not zero(i.e. FFFF), then this file is not the last in a multi-file program. For example, the flag word for EDITA1 is FFFF indicating that there is another file called EDITA2; the flag word for the EDITA2 file is 0000 indicating it is the last

Cleaning of Disk Drives

To clean or not to clean?
That is the question!

By Art Byers

When asked by club members, my instinctive answer has been an immediate "NO"!!! - afterwords qualified by the old sage advice: "If it ain't broke don't fix it!". The quick reply is backed up by two things: a great deal of personal running time on two different brands of disk drives, and the advice of one of the most qualified and the most respected authorities on the 99/4A, Craig Miller of Miller's Graphics.

Personal: In two years of heavy use, I have yet to clean my PERCOM drive. It performs flawlessly. When I first got it, it was used 2 to 4 hours a day, five or six days a week, for a year. It was carried to club meetings and still is on occasion, used for copying the club library, and so forth. As long as it performs, I will not even THINK about cleaning it.

The TI drive in my new PE box has not had that kind of use as yet. I suspect that I probably use my computer more hours a week than any other club member. After many months of heavy use - the club newsletter is turned out on it etc. - I have not given a single moments consideration to head cleaning because IT IS WORKING WELL.

Therefore I reprint, without comment, Craig Miller's advice from the May 1984 issue of the SMART PROGRAMMER: "My opinion on cleaning your disk drives with a head cleaning diskette is only to use it as a last resort!.

If you have made sure that its not the floppy, a bad connection or an improperly closed file, then run the destructive diskette test. If you have a lot of errors on a lot of different floppies then as a last resort use the head cleaner BUT follow the directions to the letter!! If they say 9 or 10 drops don't use 20 or 30 unless you want it all over the inside of your drive. If they say run the disk for 30 seconds, then don't run it any longer!

The reason I'm against these head cleaners is that they are ABRASIVE and if you use them too much you will wear out the read/write head in your drive. I know the head cleaning kit manufacturers say to clean your drive at least once a week and more often if they are used heavily, but nowhere on my kit does it guarantee NOT to hurt my drives. As a matter fact, most of them have a disclaimer and they will only replace the cleaning kit if something goes wrong.

We use our computers between 6 and 15 hours a day, 6 to 7 days a week and we don't clean heads any more than ONCE or TWICE a year." To which I say: Thank you Craig! Based on that, the average club member should not clean his drive more often than once every four or five years!!

To hammer home the "overkill" and more to the point, here is the Warranty copied from a cleaning kit for sale in a local store. It is typical of them all. My form of comment is to call your attention to certain parts by underlining them. As all such disclaimers are very similar, I have deleted the manufacturer's name.

"IMPORTANT NOTICE TO PURCHASER

The following is made in lieu of all warranties, implied or expressed: Manufacturer's and Seller's only all such obligation shall be to replace such quantity of the product proved to be defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising out of the use of or the inability to use the product. Before using, user shall determine the suitability of the product for his intended use, and user assumes all risk and liability whatsoever in connection therewith. The foregoing may not be altered unless in writing signed by an officer of xxxxxxx Corporation.")

If reading that on the product does not make you think twice before using a disk head cleaner, you need your own head cleaned! The foregoing may not be "Well O.K." you may say after reading this, "but I have reached the last resort and am desperate enough to try a head cleaner.

How do I get the disk drive to run for the 30 seconds that most cleaning kits require.?" - and you'd have a good point because the moment the head finds out there is no magnetic media in the disk jacket, but rather some wet fuzzy stuff, it will send out an error message and stop.)

Here is a program to take advantage of that error message to keep the disk running until you stop it:

"100 ! This extended basic program has appeared in many newsletters "and magazines. Original source is not known-AJB

```
110 CALL CLEAR
120 PRINT "**WORKING!**": : : : :
130 PRINT "HOLD FCTN/4 TO STOP": :
140 ON ERROR 160
150 RUN "DSK1.ZZZ"
160 GOTO 140
140 ON ERROR 160
150 RUN "DSK1.ZZZ"
160 GOTO 140
```

THING MY MODEM TOLD ME
by Walter Howe
(adapted from the Boston Computer Society TI-99/4A User Group Newsletter)

Well, the New England 99 Fayuh has come and gone for 1987, and although we do not know the bottom line on the earnings vs. expenses yet until the school bills are in, it certainly was a success on other grounds. The attendance was good, the sales were brisk, the attendees were enthusiastic, the speakers were excellent, and there were few glitches in what is a very complex undertaking for the Fayuh Committee and the many volunteers who helped. Those who travelled a long way to the Fayuh all seemed to think their trip was worthwhile, and they sure travelled a long way to get to it. The longest travellers were two 99ers from the Netherlands!

As for the speakers, Barry Traver was his usual inspirational self, enthralling his audience with the wealth of tools available to the XBASIC programmer. Tom Freeman spoke on the development of his DISkASSEMBLER for Miller Graphics to a small, but select audience of assembly programmers or would-be assembly programmers. Cheryl Regena Whitelav proved as skillful and entertaining a speaker as she is a programmer and author. Clint Pulley gave a very entertaining account of how he happened to develop c99. Jonathan Zittrain fulfilled the promise we had seen the year before when he was asked to say a few words to the audience. This time he spoke eloquently on the phenomenon of telecommunications and the growing role it is playing in our lives. We are hoping he will decide to come to Harvard next year, so he can take part in the Boston 99 community. Lou Phillips was the final speaker, and as usual drew the largest crowd. More on his presentation below.

Actually, two faires have taken place since our last meeting - our own and the New Jersey TICOFF, and some of us diehards went to both. Even if the Fayuh did no better than break even on costs vs. expenses (probably lots better), the BCS TI-99/4A User Group made a lot of money. At TICOFF the week before, we made about $1000 after expenses, and we topped that at the Fayuh. Although many of you were at the Fayuh, I'll single out a few things just in case you missed them. One was the new rival to the RAVE keyboard from RI. Like the RAVE, it provides an interface that plugs into the console. Unlike the RAVE, it does not come with a keyboard, allowing you to use whatever IBM compatible model you wish. For those who already have a keyboard they can use, it saves on the expense. The new model also adds several new CALLs to BASIC.

RAVE retaliated with a new plug-in card for the speech synthesizer. It works fine for the 4A and for some software with the 9640, but I understand the 9640 is so fast that some old programs will not work properly with it. The fix doesn't look too difficult, and I expect the RAVE folks will correct it to work for the

9640, too. It is much cheaper than the Triple Tech Card from CorComp, which does not work properly with the 9640 anyway due to nonstandard code in the Triple Tech Card. MYARC dropped plans to bring out a speech card after RAVE introduced theirs.

I picked up four new Adventure module games by Lucille Rock on one disk for $5 from the North Eastern 99ers. That one was quite a bargain! I have worked through one adventure so far and it was excellent. It was really priced to sell! And to think that I bought Scott Adams games for much, much more than that originally!

Lou Phillips and the MYARC crew as usual attracted lots of attention. Although we in the BCS have been spoiled by regular advance showings of the 9640, lots of people in attendance were seeing it for the first time. Even for those who have seen it before, there was a lot new on view for the system. We saw MULTIPLAN in 80 columns for the first time, we saw a demonstration of multitasking involving the 9640 and a dumb terminal running two different programs simultaneously, and we saw some great new graphics drawn with the mouse-supported draw program. The 9640 was delayed again by some 300 bad pc boards that had to be replaced by the manufacturer.

There has been a lot of controversy on the information services lately. Dr. Ron Albright, author of "The Orphan Chronicles," has taken the position that the 9640 is only for 99/4A owners and the day has gone when the 9640 could have offered any appeal to others. It is too far behind the AMIGA, the ATARI ST's, and the new MACINTOSH models in software development, if not in capabilities, to offer any outside appeal. In making his position clear, he has belittled MYARC's claims that a broader range of software will be coming from companies that write for other computers. He is actively advising that if you are not a hacker or a strong 4A hobbyist, if what you want is better application software, you should not consider the 9640 unless and until a lot of software is available. Ron's position makes some sense, and if he wasn't quite so negative in his outlook, I would find it easier to agree with him. If the only reason I wanted a computer was to run application programs, I would probably wait a while to buy the 9640. But I can live with the software that is already available, particularly with the new 80-column versions, and I really want to try my hand at programming with the new capabilities. I don't want to buy a much more expensive computer and start to amass software from the beginning again. So the 9640 is definitely for me! I'm impressed enough with MYARC's business record and product support to believe the 9640 and MYARC will be around for a long time to come. Another argument to wait is that there will in all

ULGEN

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ALI ULGEN [TI3917]
MARCH 27 1987

GREETINGS FELLOW TI USER GROUPS:

Six months after purchasing my TI, it became an orphan. When did you buy yours? Now, as I look around, its hard to believe the recent proliferation of 3rd party TI hardware products. What kind of an orphan is this? Wouldn't you be interested to find out how strong the TI user base is and where its going? A viable market would certainly be of interest to software developers. In turn, we users would benefit.

I want to contribute to the TI community. Since I still lack proficient skills in programming, I decided to conduct a survey of TI owners. The best game program I wrote is so fast its impossible to play, but still manages a colorful screen declaring me a winner. A utility program I've been working on created a new alphabet on my printer.
So I've been working on a survey for threee months. One important development has been that there is a need for two surveys. One for Users Groups and the second for TI owners.
A second concern became the questionaire; were the questions right, or redundant, perhaps there were too many questions, all sorts of notions crept into mind. I asked a knowledgable psychologist for his opinion and he said that the questionaire was excellent but I needed help.
The surveys that I've created have met most of my personal goals. Both appear on a single page; with enough query to reach solid conclusions but not so verbose as to put one to sleep. Most answers for TI Owners survey are in the form of check marks. This will also aid in tabulating the results later on. I've tried to avoid multiple answer questions. That is, you may have more then a single answer for a question but you'll have to make a selection according to your need. For example, you may have two printers but you'll have to decide which is used more often with your TI. In some cases then, and there will surely be objections to this, you'll have to weigh the answer selection and decide which is best suited for you.

You'll find two surveys attached; one for the User Group officer and one for TI owners. User Groups; Please fill and return promptly the User Group Survey. Try to answer all questions, if you're unable to do so enter N/A. If addressees don't return the survey they will be considered defunct user groups. If you know of any user group which failed to receive a copy of the survey please pass it along.
In regards to the TI Owners Survey; User groups are urged to make copies and distribute to all members. To reduce mailing costs, you're encouraged to return-post multiple copies of the TI owners survey. However, please post User Group survey results separately.
Its important that every endevour be taken to distribute TI Owners survey to as many as possible. Even if the owner is using his TI for a doorstop. User Groups are encouraged to reprint the Owners Survey in their publication. User Groups supplying a SASE (business - $.50 stamp), or $1- will receive summary results of the User Group survey. Complete results, including name and address of all UGs will cost $5-. TI Owners survey results should be published, please watch for announcements.

Please note that I'm on Source: TI3917, and would wellcome suggestions made via SMAIL. Since the turnout will be a mystery, I will not make predictions as to the day the survey results will be available.

FYI: Total number of User Group Surveys mailed out; 171, of which 31 are foreign. Remember: your cooperation and aid is in your own best interest. Thank-you.

SINCERELY

Ali Ulgen

**PLEASE FILL IN SURVEY
ON PAGE 8 AS VOTED ON
AT LAST MEETING. MAIL TO
ADDRESS LISTED ON SURVEY.**

TI-99/4A OWNERS SURVEY   DATE:_____

PLEASE USE A DARK COLORED FELT PEN, THANK-YOU
YOU MUST SELECT ONLY 1 ANSWER, NO EXCEPTIONS.

A1(2) WHAT IS YOUR SEX?   M __ F __
A2(5) WHAT IS YOUR AGE GROUP?   17 OR UNDER __ 18-24 __ 25-34 __ 35-44 __ 45 AND OVER __
A3(5) HOW MANY YEARS OF EDUCATION?   11 OR LESS __ 12 __ 13-15 __ 16 __ 17 AND OVER __
A4(5) YOUR OCCUPATION? STUDENT __ BLUE COLLAR __ WHITE COLLAR __ PROFESSIONAL __ RETIRED __
A5(2) DO YOU USE A COMPUTER AT WORK? Y __ N __
A6(8) WHICH BRAND? N/A __ IBM __ APPLE __ DEC __ SPERRY __ NEC __ DONT KNOW __ OTHER __
A7(3) HOW MANY TI-99/4 OR 4As DO YOU OWN? 1 __ 2 __ 3 OR MORE __
A8(4) HOW MANY PESystems DO YOU OWN? 0 __ 1 __ 2 __ 3 OR MORE __
A9(7) WHICH MEMORY EXPANSION DO YOU HAVE? NONE __ TI __ CORCOMP __ FOUNDATION __ MYARC __ MECHATRONIC __ OTHER __
A10(6) WHAT SIZE? N/A __ 32K __ 128K __ 256K __ 512K __ 1024 __
A11(6) WHICH DISK CONTROLLER CARD DO YOU OWN? NONE __ TI __ FOUNDATION __ MYARC __ CORCOMP __ OTHER __
A12(4) HOW MANY 5-1/4" DISK DRIVES DO YOU OWN? NONE __ 1 __ 2 __ 3 OR MORE __
A13(5) CONFIGURATION? N/A __ SS/SD __ DS/SD __ DS/DD __ DS/QD __
A14(2) DO YOU OWN A HARD DISK SYSTEM? Y __ N __
A15(4) WHATS THE SIZE? N/A __ 10 OR LESS MEG __ 20 MEG __ 30 OR MORE MEG __
A16(2) DO YOU OWN A MODEM? Y __ N __
A17(4) INDICATE MODEMS BAUD RATE? N/A __ 300 __ 1200 __ 2400 __
A18(10) WHICH PRINTER DO YOU OWN? NONE __ TI __ EPSON __ PROWRITER/NEC __ OKIDATA/C ITOH __
       STAR MICRONICS __ COMREX/TOSHIBA __ BROTHER/CANNON __ JUKI/CITIZEN __ OTHER __
A19(2) DO YOU OWN A MONITOR? Y __ N __
A20(2) ARE YOU USING A TV? Y __ N __
A21(10) WHICH MONITOR BRAND? N/A __ TI __ AMDEK __ SANYO/TAXAN __ NEC __ TATUNG/SAMSUNG __
       MAGNAVOX/NAP __ EPSON/PRINCETON __ HITACHI __ OTHER __
A22(4) IS YOUR MONITOR? N/A __ RGB __ RGB/COMPOSITE __ MONOCHROME __
A23(2) DO YOU HAVE THE GRAM CRACKER? Y __ N __
A24(3) HOW MANY SOFTWARE CARTRIDGES (MODULES) DO YOU OWN (INCLUDE CASSETTE) ? 9 OR LESS __ 10-24 __ 25 OR MORE __
A25(3) HOW MANY SOFTWARE DISKS DO YOU OWN? 9 OR LESS __ 10-24 __ 25 OR MORE __
A26(4) HOW DO YOU USE YOUR TI? ENTERTAINMENT __ BUSINESS __ EDUCATION __ PROGRAMMING __
A27(7) PROGRAMMERS, WHAT DO YOU PROGRAM IN? N/A __ BASIC __ XBASIC __ ASSEMBLY __ FORTH __ C __ OTHER __
A28(2) EVER WRITE A COMMERCIAL PROGRAM FOR TI (INCLUDE FREEWARE)? Y __ N __
A29(7) IN WHAT LANGUAGE? N/A __ BASIC __ XBASIC __ ASSEMBLY __ FORTH __ C __ OTHER __
A30(2) DO OTHERS USE YOUR TI? Y __ N __
A31(4) HOW MANY OTHERS? N/A __ 1 __ 2 __ 3 OR MORE __
A32(2) DO YOU OWN ANY OTHER BRAND OF COMPUTER? Y __ N __
A33(6) IF SO WHICH BRAND? N/A __ IBM __ APPLE __ COMMODORE __ ATARI __ OTHER __
A34(4) APPROXIMATELY HOW MANY HOURS PER WEEK DO YOU USE YOUR TI? 4 OR LESS __ 5-9 __ 10-14 __ 15 OR MORE __
A35(2) ARE YOU A MEMBER OF A USERS GROUP? Y __ N __
A36(8) HOW MANY MEMBERS? N/A __ UNDER 33 __ 34-49 __ 50-74 __ 75-99 __ 100-150 __ 151-199 __ OVER 200 __
A37(2) ARE YOU MEMBER OF A COMMERCIAL NETWORK? Y __ N __
A38(5) WHICH ONE? N/A __ COMPUSERVE __ SOURCE __ GENIE __ OTHER __
A39(6) HOW MUCH IN DOLLARS DO YOU USE IT PER MONTH? N/A __ $29 OR LESS __ 30-49 __ 50-74 __ 75-99 __ 100 OR MORE __
A40(2) DO YOU PLAN TO PURCHASE (OR HAVE) THE MYARC 9640? Y __ N __
A41(9) WHAT SOFTWARE AREA YOU WOULD LIKE FOR THE 9640? N/A __ CAD/GRAPHICS __ DESK-TOP PUBL __ DATABASE __
WORD/PROC/MULTIPLAN __ TRUE BASIC __ ASSEMBLY __ C-LANG __ OTHER LANG __
A42(8) WHAT ABOUT HARDWARE FOR THE 9640 ? N/A __ APPLE COMPATIBLITY __ IBM COMPATIBILITY __ RGB MONITOR __ 3.5" MICRO
DISKETTE __ CD ROM __ SPEECH RECOGNITION __ INTELLIGENT MODEM __
A43(2) DO YOU PLAN TO PURCHASE (OR HAVE) TRITONS TURBO XT? Y __ N __
A44(8) HOW MANY EXTRAS DID YOU BUY WITH THE TURBO-XT? N/A __ 1 __ 2 __ 3 __ 4 __ 5 __ 6 __ 7 __
A45(2) WOULD YOU LIKE AN 'AT' UPDATE FOR THE TURBO-XT? Y __ N __
A46(3) HAVE YOU PLANS TO PURCHASE CARDS BY OTHER VENDORS? Y __ N __
A47(2) DO YOU PLAN TO PURCHASE (OR HAVE) RAVES KEYBOARD? Y __ N __
A48(2) DO YOU PLAN TO PURCHASE (OR HAVE) A MOUSE? Y __ N __
A49(2) DO YOU SUBSCRIBE TO: MICROPENDIUM Y __ N __
A50(2) DO YOU SUBSCRIBE TO: SMART PROGRAMMER Y __ N __
A51(2) DO YOU SUBSCRIBE TO: COMPUTER SHOPPER Y __ N __
A52(2) DO YOU SUBSCRIBE TO: SEXUAL TRAVELER Y __ N __
A53(2) DO YOU SUBSCRIBE TO: UG PUBLICATIONS Y __ N __
A54(5) WHAT IS YOUR OPINION OF THIS SURVEY? VERY POOR __ POOR __ OK __ GOOD __ VERY GOOD __

AC$(3) THE NEXT 2 QUESTIONS ARE DEMOGRAPHIC. IF YOU ARE IN USA OR CANADA WHAT IS YOUR TELEPHONE AREA CODE. ALL OTHERS ENTER
CITY: _____
ZC$(3) IF YOU ARE IN USA OR CANADA PLEASE ENTER YOUR ZIP CODE. ALL OTHERS ENTER COUNTRY: _____

FOR COMMENTS, PLEASE WRITE A BRIEF LETTER & ENCLOSE IT WITH THE SURVEY.
IF YOU WANT: SEND YOUR NAME & ADDRESS ON THE OTHER SIDE OF THIS FORM.

MAIL TO: ALI ULGEN ATTN: SURVEY 952 E PARKHAVEN DR SEVEN HILLS OH 44131-3918

PROGRAM FILES

file and there is no EDITA3.
(2) This word is the length of the memory image in bytes, including the six byte header.
(3) This word is the CPU memory address where the memory image is to be loaded.

Execution of a memory image program always begins at the first byte of the first segment loaded.

Finally, the seventh form for programs is created and loaded by "EASY BUG" of the Mini Memory module. It can be written only to cassete and is a memory image, but is slightly different from the E/A memory image file. The EASY BUG memory image program can consist of only one segment. The header on the EASY BUG format is two words, as follows:
(1) This word is the CPU memory address at which the memory image is to be loaded.
(2) This word is the length of the memory data, not including the four header bytes.

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If this whole thing is too complicated- maybe a table showing all of the options will help.

FILE TYPE	CONTENTS	MODULE	DSK	CS
PROGRAM	BASIC Program	Console	YES	YES
PROGRAM	BASIC Program	XB	YES	YES
INTERNAL V 254	BASIC Program	XB	YES	NO
DISPLAY V 163	MERGE Program	XB	YES	NO
DISPLAY F 80	Tagged Object	XB	YES	NO
DISPLAY F 80	Tagged Object	E/A	YES	NO
DISPLAY F 80	Tagged Object	MM	YES	NO
DISPLAY F 80	Compressed Object	E/A	YES	NO
DISPLAY F 80	Compressed Object	MM	YES	NO
PROGRAM	E/A Memory Image	E/A	YES	YES
PROGRAM	E/A Memory Image	TIW	YES	YES
PROGRAM	MM Memory Image	MM	NO	YES

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MODEM TALKS...
likelihood be an even more powerful MYARC computer somewhere in the future, but I have learned not to keep waiting for the next generation. If today's version is what you want, don't wait for tomorrow's promises no matter how good they sound.

The 4A has seen some incredible utilities and hardware developed in the past year, but very little application software. Without a secure software market, 4A programmers are writing for themselves more than ever, and the utilities are the result. Some are complaining that the 9640 is drawing away programming talent, but I really don't see that happening. More significant is that there is no such thing as a standard 4A anymore. Once the standard was 16k console with tape recorder. Then it was 48k, PE Box, and a single-sided, single density drive or two. But what is it now? With new RAMdisks, GRAM devices, operating systems, quad drives, and 80-column cards the hardware available has far outstripped the old standards. What capabilities should a programmer write for? Should he write for 48k only and ignore the added features, or should he limit his market by using them? I see that more than the 9640 as a limiting factor. Perhaps it will take the new standard set by the 9640 to get development moving again towards applications software. I don't see much more being written for the 4A, unless they are 9640 offshoots!

So why should anyone stay with the 4A? There are lots of answers to that one. If you are happy with everything it can do and do not need any more software or features, why spend the money? Lots of people fall into that description. Or if you enjoy learning about computers and you feel you have much more to learn about the 4A, why complicate things by getting a more complicated computer? The 4A's design was very far seeing in some ways. I've been told that if the computer had not been built with an 8-bit buss and 6 wait states, it could have run like a minicomputer. It essentially uses mini or main-frame assembly language as it is. Some believe that the hardware limitations were deliberate to keep it from being too capable, just as the IBM PC Jr was introduced with a chiclet keyboard and other limitations originally to keep the cheap model out of the business world. The point of this is not the limitations, but the largely unexploited capabilities that remain. There is enough in the 4A to keep a developer who wants to break new ground busy for a long time.

TACOMA 99ERS
USERS GROUP
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SWAP MEET

COMING

MAY 30th

Start saving your throw-away articles for our swap meet on May 30th at the Midway Drive-in. Anything of value can be used. Help is also needed the day of the Swap Meet. Sign up now and don't miss this chance to help YOUR club make some needed money so we don't need to raise dues in the future.

MEETINGS — 1st and 3rd THURS.— 8 p.m.
South End Pool Building -- 402 E. 56th Street -- Tacoma, WA