SOUTH BAY TI USERS GROUP

BITS & BYTES NEWSLETTER

‡ ‡ ‡ *JUNE 1988* ‡ ‡ ‡

PRESIDENTS MESSAGE
by Mike Ewell

I downloaded a BBS program called Paradigm from The Source!! This Faireware program, by Travis Waterford and Mike Kimble, is written in Extended Basic with a lot of assembly calls to speed it up. It has a demo feature that lets you logon as a test before you connect it to the modem. I will be giving it to Keith to try out for possible use on the club's BBS!! The program is made up of 59 files that use 667 sectors. If you need a copy of this program, it can be made available as it is Fairware. The suggested fee is $30 to the creators.

If you are having a problem with a program, ask! for help at one of the meetings and bring a sample of the problem and/or program. It might make it easier to get YOUR answer.

There was a lot more input at the May meeting!! This will be of HELP! to the board members when it comes time to plan the demos. Keep the input coming!

If you see TI equipment for sale, put a SBTIUG card with the items or a note with the club address. We might pick up some new members. Cards are availble at the meetings!

If you don't want to ask your question at a meeting, write a note to Bill for the newsletter answer column!? (On disk!?!)

Please ask Bill what YOU can do for YOUR newsletter!!!!!!!!!!
Please ask Pat what YOU can do for YOUR newsletter!!!!!!!!!!!

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[][][][][][][][][][][][][][][][][][][][][][][][][][][][][][][]
[]                                                          []
[]    The May SBTIUG meeting will be held at 7:16 P.M.      []
[]                                                          []
[]              THURSDAY, JUNE 2, 1988                      []
[]                                                          []
[] The meeting will be held in the Saratoga Public         []
[] Library. The library is located at 13650 Saratoga       []
[] Avenue. From 280(680), take the Saratoga Avenue exit    []
[] SOUTH. The library will be on your left, just past      []
[] the Fruitvale intersection. This is about four miles    []
[] from the 280 exit.                                      []
[]                                                          []
[][][][][][][][][][][][][][][][][][][][][][][][][][][][][][][]
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The demo for the June meeting will be on TI-Writer using .TL (transliterate) codes, and on using control codes to control your printer. The demo will also show how to print more then 80 columns in both the Editor and the Formatter modes! Since you might have a few questions about your printer, bring the manual for your printer to the meeting. You could also bring your printer, CABLE!! and a sample of something that you are having a problem printing out!

The August demo will be on TI-Multiplan or on (Your Choice).

Please ask Bill and Pat what YOU can do for YOUR newsletter!

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X NOTICE XX NOTICE XX NOTICE XX NOTICE XX NOTICE XX NOTICE X
N                                                          N
O               JULY AND AUGUST MEETINGS                   O
T                                                          T
I  The July meeting will be held on 7-7-88 which is the    I
C  first Thursday.                                         C
E                                                          E
X  The August meeting will be held on 8-4-88 which is the  X
N  first Thursday.                                         N
O                                                          O
T  The first Thursday will continue to be the first choice T
I  for our meetings, but please read the dates carefully   I
C  to avoid a wasted trip or missing a meeting.            C
E                                                          E
X NOTICE XX NOTICE XX NOTICE XX NOTICE XX NOTICE XX NOTICE X
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SBTIUG CLUB OFFICERS AND OTHERS

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PRESIDENT............MIKE EWELL...............408/370-7988
VICE-PRESIDENT.......JOHN WENTE...............408/559-1680
TREASURER............KEVIN DABERKOW...........408/281-7435
SECRETARY............NORMAN KNUDSEN...........408/267-6193
LIBRARIAN............HELMUT FUCHS.............408/263-8339
EDITOR...............BILL SCHULT..............408/446-1182
 *ASSISTANT..........PAT MICETICH.............408/227-6212
 *ASSISTANT..........How about YOU!!!.........408/???-????
SBTIUG BBS...........24-HRS/DAY...............408/258-3679
 *SYSOP..............KEITH FELIX..............408/258-6678
 *REMOTE SYSOP.......RON SPRINGER.............408/225-8670
CALTEX BBS...........FRANK CONTINOLA..........408/578-6264
PUBLIC RELATIONS.....DON APTE.................408/629-0725
ARCHIVER/NEWSLETTERS..HOY COLE...............SEE AT MEETING
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From the desk of the VP

Are all the club members following
all of the DEMOS we are having lately?

Are there NO MORE questions that need
to be asked?

Do you find that when you go home after
the meeting and try some new program or
a newer version, that it doesn't work
the way it did at the CLUB DEMO?

There is still hope "bunki", maybe we
can have a bonehead course for some of
the slow learners like myself.

Let's hear from you members out there!

John Wente

SBTIUG GENERAL MEETING 5 May, 1988

by Norm Knudsen

The May meeting of the SBTIUG was held at the Saratoga
Public Library and was called to order at 7:30 PM by
President Mike Ewell.. There were 18 members in attendance.

President Mike Ewell then called for a report from
treasurer, Kevin Daberkow, who stated the after paying for
two months' newsletter expense, and receiving two renewals,
the balance was approximately $500.00.

A period of discussion followed about the likely causes and
possible solutions to the problems with the Savin copier
donated by Don Apte. The consensus was that a proper
cleaning might do wonders.

Helmut Fuchs announced several new goodies in the club
library. Among them were BA Writer, a disk cataloger
program, and a fast disk copier - like both sides in 32
seconds - copy or format. There is also a program for
printer codes for TI Multiplan and and upgrade for C-99.

Newsletter report -- We can use a few articles!

Don Apte gave his usual complete rundown on fairs and swop
meets. Something nearly every weekend.

Mike Ewell then conducted an oral questionaire of the group
as to equipment owned and individual interests. The was at
least one request for a Multiplan demo.

The general meeting was then adjourned for a very lively
demo and discussion on Fun-L-Web 4. The demo featured the
configure procedure now less of a mystery to many of us
thanks to Kevin.

TREASURERS REPORT
by Kevin Daberkow

PLEASE look at your mailing label to see if some color has
been added. If your membership expiration date has been
high-lighted in RED, this is your last issue until you
renew. If you membership expiration date is in YELLOW, then
you should renew at the June meeting.

>> THE DUES ARE $15 PER YEAR <<

NOTE: Your membership expiration date can be found on the
last line of your mailing label.

If any of the information on your label needs to be changed,
please let me know. Call me at (408) 281-7435 or write to
me at the following address:

SBTIUG - Treasurer
P.O. Box 23447
San Jose, CA 95153-3447

There were a couple of renewals during the month of May:
Glen Johnson, and Charles Nolan. Thank you for your
continued support.

The club paid out $76.47 during the month of May to cover
the April and May newsletter costs.

This left a balance of $496.88 in our treasury at the end of
May.

HELP - HELP - HELP - HELP

As some of you may know, Don Apte recently donated a
couple of desktop copying machines to the SBTIUG. They are
Savin copiers models 755 & 780. The model 755 definetly
works and the 780 is questionable. I am interested in
finding out if any of the club members knows anything about
these copiers, or copy machines in general. As I stated
above, the 755 does work, but the copies come out
"streaked". We are hoping to get one of these copiers
working well enough that the club newsletter can be produced
upon it. This will save the growing copying costs. I will
bring sample output from the model 755 to the May meeting.
Again, if you know anything about these copiers and what it
might take to get one of them in good working order, please
contact:

Kevin Daberkow
Home Phone: (408) 281-7435
Work Phone: (408) 746-3116

Your help in this matter would be much appreciated.

Thanks Kevin

LET'S TALK RAM DISK'S PART III
by John F. Willforth
reprinted from WEST PENN 99'ers

Last month I talked about the HORIZON RAM DISK (HRD), and it makes sense that we continue this month with the major enhancements of this unit, the 256K (976 sector) version by Edward A. Hallet, and the 1-MEG. (4088 sectors) version by Mike A. Ballman and marketed by Bud Mills Services as a kit in various sizes. See details below.

The 256K. enhancement designed by Edwad A. Hallet, added 64K. of 8K static ram to the existing DSSD HRD from HORIZON. This was equal to 256 sectors for a 35.5% addition. At the time this was a welcome improvement because the full blown HRD was precisely the same as the majority of the disk configurations in PEB units. This meant that you could store an entire DSSD (720K.) diskette (the max. for the TI controller) on a single DSSD HRD. This was fine as long as you were not using the HRD as a media to do multiple copies of a DSSD diskette, or when all the utilities and your "PET" programs were just too large for the HRD. The additional memory was nearly the size of a standad 90K. drive and therefore was a very welcome enhancement. Some of the more common programs that would occupy this space, were the MENU, by John A. Johnson, DM-1000, and many more, these when on the HRD enhanced, would still allow the space to move an entire DSSD diskette to and from the HRD and not disturb these programs.

The information on this upgrade is available from Edward A Hallet, 5600 S COUNTRY-CLUB #64, TUCSON, AZ 85706 [(602) 889-6930], or as a kit w/instructions from Bud Mills Services, 166 DARTMOUTH DRIVE, TOLEDO, OH 43614 for $30. (upgrade only). Be sure to send Edward something for his trouble and postage.

The HRD, HRD Enhanced, and HRD+ constitue probably the largest range of various disk sizes in the ENTIRE micro-computer industry. There are now "EIGHT" different sizes to choose from, and if you count using the Ver. 4 from HORIZON and the ROS from Mike Ballmann and John Johnson, there are actually "ELEVEN" different sizes. The smallest is 90K (360 sectors) all the way up to the 1-MEG. HRD+, and nearly every useable size between(180K, 250K, 360K, 512K, 800K, 800K + BOOT DISK). As you might expect, a special formatter is needed to handle all the various sizes and iniatialize them reliably, and this is available in the CONFIGURE program by John Johnson, which allows initializing all or any parts of the above HRDs. More on this and the MENU program at another time and in another article. These are offered as public domain programs.

On 1/16/88 Bud Mills services completed the purchase of the HORIZON RAM DISK from Ron Gries and Dave Romer. I'm not sure of their current arrangements, but it would appear that orders for the BARE BOARD and I recommend most if not all the parts, contact Bud Mills Services at the address above. The 90K drive Kit sells for $140. and the one MEG kit sells for $435. (inc s/h) Others are proportionately priced.

All HRD's are constructed on the HORIZON ram disk board using 62256Ip's (or equiv.) as of this date. The 6254's (8K chips) are no longer used. The cost per Kilobyte of RAM has been reduced, as well as the physical chip count and thus capacity of the board improved.

The ROS (operating system) allows a single RAM DISK at a CRU address (say >1000) to be divided into TEN LOCICAL DRIVES if desired, or into as little as ONE with a size from as little as around 30 sectors up to 4088 sectors on the 1-MEG. version if you can find enough large files to use it all. TWO of these can be called DSKn (1-9) and any of the remaining will respond to DSK(name)., The Disk Number can be changed with a CALL from BASIC. The flexability in this area exceeds the space I can take here, but briefly you can Write Protect Drives, Auto-ON a call automatically on power-up, Toggle Disks into the second LOGICAL DRIVES location, even from another RAM DISK. You can FILL up any PEB with the HRD+ and use all of them. There are nine CALLS and 15 MENU selections available in MENU ver 7.3, which will add even a lot more expansion capabilities in these areas.

Construction is the HARDEST part for most people. after all, no matter what errors are made (operator type), someone will be able to assisst you on the phone, but if you destroy the board, or a component, or have wired it incorrectly, very few can help a novice repair it over the phone. The instsructions have all the informaion there to build the board, but you MUST be better than average at following instructions, an at elecronics kit construction, or you better find someone who is! It can be done, I did it the first time right. Hey a little luck can't hurt either. Want a rumor, the PRINT SPOOLER is just a few weeks away for the HRD's! Was I wrong about the 1-MEG RAM DISK?

RECYCLE RIBBONS
repinted from MICROpendium Macrh 1988

Don Weber, of the West-Jax 99ers (Jacksonville Florida) suggests that old printer ribbons can be made nearly as good as new. Here is his recommendation for re-inking ribbons.

Basically. the job is done by drawing the ribbon across a stamp-pad that is normally used for rubber stamps by applying a small amount of pressure to your ribbon while holding against the pad. The ribbon will absorb the ink. By arranging a method of continuously moving the ribbon across the stamp-pad at low speed, the entire ribbon will be re-inked in short order.

The ribbons for my printer have a convenient drive shaft that will fit in the chuck of a slow speed drill motor. You may have to mark the ends of the ribbon witn White-Out to know when one cycle has been completed. Also, it may be necessary to make a couple of passes to fully re-ink the ribbon. Or, make one pass on the inside of the ribbon and the second on the outside.

10 STEPS FOR TYPING IN AND RUNNING ASSEMBLY PROGRAMS

by L.R.Livergood
The Decatur 99er Home Computer Users Group

Many consider assembly language programming to be more difficuot to learn than
BASIC, however, you don't have to become an expert assembly programmer in order
to take advantage of it. If one just learns how to enter and assemble the code
then he or she can begin to utilize the expanded cpabilities that this language
has to offer.

If you are familiar with only the BASIC language, then the concept of
"compiling" or in the case of assembly language, "assembling" a program may not
be clear to you. With either a high-level language such as BASIC or an
intermediate-level language like assembly, a program must be translated into
machine language before it can be exec;uted by the computer. TI's BASIC uses an
interpreter rather than a separate compiler which allows the "writing" and
"running" of basic code to be done at the same time without the need to first
"edit" and then "compile" the program--two step process in other languages.

In the case of TI 99/4A Assembly Language, you must first enter the program
with the Editor (provided with the E/A module) and then assemble it with the
Assembler. The key to doing this is to familiarize youself with the following
words.

SOURCE PROGRAM
OBJECT PROGARAM
LISTING

Where the source program is the collection of assembly language statements
typed in by you that are translated by the assemgbler into the object program.
Also produced is a listing that includes the assembly language statements, the
resulting machine code produced by these statements, the machine code memory
locations, as well as other information.

With this in mind, it is fairly easy to get assemgbly programs a typed in and
running by doing the following:

CREATE A SOURCE PROGRAM WITH THE EDITOR
ASSEMBLE THE SOURCE PROGRAM INTO AN OBJECT PROGRAM WITH THE ASSEMBLER
RUN THE OBJECT PROGRAM AFTER CORRECTING ANY ERRORS APPEARING IN THE LISTING

Both the Editor and Assembler programs can be found on the disk supplied with
the E/A module called PART A. Place this diskette in drive #1 before beginning
the 10 steps below.

CREATING THE SOURCE FILE

1) Bring up the Editor Selection List menu on the E/A Module. This is done by
pressing 1 to EDIT from the Editor/Assembler Selection List.

2) Making sure you have the Editor/Assembler diskette in drive #1, press 2 to
EDIT. The computer should automatically load the Editor from the system
diskette. If it is already present in memory, then the screen is cleared so
that you may begin typing in a new program.

3) Enter the program using the editor functions. It operates similar to the
TI-WRITER editor which you are probaly familar with. If you are having trouble,
then read 2.1.2.1 of the E/A Manual which explains the editing features.

It should be easy to see that the listing you are about to type in is divided roughly into four fields or columns. It is important to make sure that the information is being entered into the appropriate columns. For reference they are described as the LABEL FIELD, INSTRUCTION OPERATION CODE or ASSEMBLER DIRECTIVE FIELD, OPERAND FIELD, and COMMENT FIELD. Note that by placing an astereisk in the first column, the whole line becomes a comment.

The tab positions of the Editor default to the beginning of each of these fields. It is important to keep the columns seperated, however, it is not necessary for all columns to contain information on each line.

4) After you've entered the program you must save it. Press function 9 (or escape key) twice to return to the Editor Selection Screen. Then press SAVE and answer (Y)es to the VARIABLE 80 FORMAT (Y/N)? question. Next place a formatted diskette in another drive or replace the system diskette if you have only one drive and type in a file name for the program. The saved program is the source file (not runable as is) and should be coded as such when you type in the file name.

ASSEMBLING THE SOURCE FILE

5) Next. bring up the Editor/Assembler Selection List (press the escape key if you are in the Editor) and press 2 to ASSEMBLE. You should have the system diskette in the appropriate drive again before answering the LOAD ASSEMBLER (Y/N) question. After pressing (Y)es, you will be asked for the source file name which should be the name given above. Next, you will be prompted for the object file name. This will be the location of the file created by the assembler and should be coded as such.

6) Give a file name for the List File which will contain a listing of the errors encountered along with other information such as line numbers, memory locations, machine code and source program statements. You can use a printer name or disk name, but a name is required even if you don't want a listing.

7) The next prompt is for the OPTIONS. They are R for prefixes to be included, L to produce a listing (if you really do want it), S for a symbol table, and C to save the object file in compressed format. If you aren't sure what to use then type in RLSC and see what happens.

8) Next, you should get the message ASSEMBLER EXECUTING at the bottom of the screen and will have to wait for the PRESS ENTER TO CONTINUE message to appear. If you selected a printer for the listing then you should have that in front of you by now. If you chose to send the listing to a disk instead, then you may examine it now by calling up the Editor (see above) and loading the listing into it.

9) If you have any errors in your source program they will appear in the listing. You must go back and correct these by loading the source program into the Editor and re-saving with the corrections. In turn, you must now re-assemble the source program. Continue this procedure until you get an error free listing.

10) Finally, go back to the Editor/Assembler Selection List and select 3 for the LOAD AND RUN option. Give the object program file name at the prompt. If everything is as it should be, then the program should be up and running.

Some additional points to remember. Unless your program includes a way to terminate, you will have to shut off the computer to stop the program. Aditionally, just because the listing is free of errors, does not mean that the program will run error free. There may be logistical errors in addition to syntax errors which the assembelr might not pick up.

The following message was downloaded from DELPHI TI NET SIG. It has been posted on other BBS's also. Read and take heed!!

5483 23 APR 04:45 99/4A
GRAND-RAM SCAM
From: ARMABYTES   To: ALL

I have a big question to ask of any Grand Ram purchasers who may have purchased from INNOVATIVE PROGRAMMING.

If you purchased a Grandram from I.P., what kind of feedback have you gotten from Galen Reid, or Bill Mosied? Have you noticed the disconnected phones? Have you noticed complete lack of responce from Galen Reid pertaining to your order?

Did you place a call to Databiotics and speak with Mr. Mosied?

Let me tell you a little story.... last September, 18 members of two Dallas area users groups placed two large orders for Grand Ram, thru Innovative Programming. Our checks were cashed within 4 days of being mailed out. We never received any kind of acknowledgement from I.P. for the order. After several phone calls to find out the status, and getting the runaround with Galen, I called Bill Mosied and sought to find out the status of the card. I complained to him about Innovatives business practices, and how I was worried our $864 order was about to be kissed goodbye. In answer to my queries, Bill Mosied said "that Databiotics would make good on our order". His meaning was that Databiotics would ship the cards directly to us, after I provided proof of purchase (a cancelled check to I.P.) This was in late November. In early January I called again, to see what was going on. Bill transferred me to Mike Evanbar. Mike again reiterated that Databiotics would make good on orders. His exact words were that "Databiotics would be willing to accept a loss for this first year of Grand Ram production.

Then in early March, I got a form letter, addressed to "Grand Ram Purchaser", stating that Databiotics was pursuing trying to get funds for orders taken from Galen. Also enclosed was a letter from Mike to I.P. "DEMANDING" payment, and a thorough accounting of orders taken for Databiotic products. As of this moment, no one knows how to get in contact with Innovative, or Galen. Mike has said that Galen has way over $10,000 that is due to Databiotics for the Grand Ram. $3,000 of this is for the 18 local TI users who ordered in Good Faith.

WARNING!! Do not order anything either Directly from Databiotics, or from a dealer, unless you can get the product COD. Even then, until this problem is solved, I would like to recommend a boycott of Databiotics and their products.

They made verbal promises, they let a local distributer, who also happened to be a paid employee of theirs abscond with thousands of dollars of customers money, and they have continued to break all commitments to many people.

If you have any recommendations about posible legal action, please contact me.

(RICHARD A FLEETWOOD, Pres. Forest lane Users' Group of Dallas)
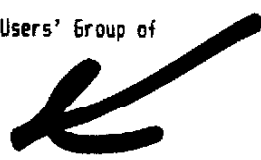
CONTROL CODES
by Tom Demura
reprinted from DALLAS 99 INTERFACE

Control in computer terminology is defined as the direction or command of an electronic device to perform a desired function. Codes are systems of symbols that quickly communicate information that allow control of these devices.

Many devices are under the control of the computer used. Every time a disk drive or printer is used a command is sent to the device in order to access it. Most of the time the user is unaware of the use of control codes to effect this use.

Numbers are in actuality codes. They communicate information. They can indicate numbers, letters, or instructions to control external devices such as printers. The information communicated can be varied.

Alphanumeric characters struck on the keyboard turn up on the screen after a transmission by code to the computer. There are 96 characters that can be sent from keyboard to screen. Each of these characters is sent by code. Each character has a corresponding code number. Everything the computer does uses numbers. Everything is in code internally. For example an A typed at the keyboard is encoded as code number 65 and sent through the circuits of the computer to the screen where character 65 (which has been defined to look like an A) is displayed.

Instructions to control external devices such as printers are sent in code as well. To tell the printer to perform one of its various functions it is necessary to encode the instruction. For example using TI-Writer with a Gemini printer it is possible to shift into compressed printing by first instructing the printer to turn on that mode before printing any characters. The control codes may be imbeded in the documents that are produced. The codes are actually numbers but appear on the screen as a variety of characters. The Gemini printer has capability for block graphics and user defined graphics. It is possible to instruct the printer to use these graphics in documents by the use of control codes.

Control codes are accessed by a variety of digital contortions on the keYboad. Codes numerically start with 0 and go up to 255. Each code number performs a different activity. The numbers 33-126 are used by the alpha/numeric and special characaters keys of the keyboard to be displayed on the screen. They are used evertime a letter or number key is pressed.

THE FOLLOWING INFORMATION COMES FROM TOPICS-LA 99ERS

The following type of files can be loaded directly into the computer and RUN:

PROGRAMS
DIS/VAR 80
DIS/VAR 163
DIS/FIX 80
DIS/FIX 128
INT/VAR 254

Let's take each file one at a time.

1. PROGRAMS (PR).
There are several options for running these most common used files.

A. TI EXTENDED BASIC will load and run automatically when you select XB and the disk is in drive #1, or can be run by " typing OLD DSKx.LOAD then RUN or typing RUN "DSKx.FILENAME". If program loads correctly but you get a BAD VALUE error when it runs you need to load the program into TI BASIC (no CHARS above 143 is allowed in EXTENDED BASIC). If the program file is more than 45 sectors and won't load you have to open up more memory in the computer. You do this by typing the following:

CALL FILES(1) (enter)
NEW (enter)
OLD DSK1.FILENAME (enter)
RUN (enter)

B. TI BASIC programs need to be loaded by typing OLD DSKx.FILENAME and then RUN. Most TI BASIC programs will load and run in EXTENDED BASIC but not vice-versa. If you get a FOR-NEXT ERROR in line xxxx and when you edit the line and get a lot of nonsense the program is written in EXTENDED BASIC. The same is true if the sectors are greater than 45. THEN more space is needed in the computer. See CALL FILES above. If you still get a memory full and tried X/B then most likely it can only be run on tape (OLD CS1) without the "P" box turned on.

C. EDITOR/ASSEMBLER. If a program file will not load and run in BASIC or EXTENDED BASIC and gives an I/O ERROR 50 it is likely to be an assembly language program and needs the EDITOR/ASSEMBLER module to run. Such programs as Funlwriter or TI-WRITER can also be used. To run load the EDITOR/ASSEMBLER. Press #2 for EDITOR/ASSEMBLER then #5 for RUN PROGRAM FILE. Type DSK1.FILENAME (enter). The program should load and run. For programs listed in consecutive order such as MASS, MAST,MAS, or UTIL1, UTIL2, UTIL3, try E/A OPTION #5, enter the first file name of the sequence then (enter). The rest will automatically run. Program files of 33 sectors are most likely an Assembly Language program.

D. OTHER PROGRAM FILES. Some specialized program files can only be loaded from special modules such as ADVENTURE (54 sectors), PERSONAL RECORD KEEPING, STATSITIC, TUNNELS OF DOOM (52 sectors).

2. DIS/VAR 80 FILES (DV 80)
These are text or documentation files. When ever you have these files (DOCS, READ-ME, ETC) on the disk it is a good idea to print them out on a printer by using the TI/Writer. The instruction on how to use the disk are in these files. These files can be read from the screen, edited, and printed. Funlwriter, E/A OPTION #1, (to edit), DM 1000 among many others can read these files.

3. DIS/VAR 163 FILES (DV 163)
This type of file is an EXTENDED BASIC subroutine in MERGE format. They can be merged into a program already in the computer memory., Type MERGE DSK1.FILENAME (enter). you must do this even if no program is in the computer memory. Do not use OLD WITH FILES SUCH AS THESE. To save a file in MERGE format type SAVE DSK1.FILENAME, MERGE in EXTENDED BASIC only. BASIC cannot be used.

4 DIS/FIX 80 FILES (D/F 80)
These files are ASSEMBLY LANGUAGE programs and can be loaded and run in several ways.

A. You will need the EDITOR/ASSEMBLER MODULE or any similar program such as FUNLWRITER. Use LOAD AND RUN OPTION #3. Enter the disk drive # and the filename (DSK1.FILENAME), (enter). When it asks for a second filename just press enter again with no entry. If the program does not run from that point, it will ask for a program name. If you do not know the program name try some of these: START, BEGIN, SAME, LOAD, RUN FIRST, ETC. If you still cannot find the program name search the last few sectors of the file with a sector editor, such as DISCO, and try a name that seems likely or read the documentation. Sometime the start up name is given.

B. If there are consecutive DIS/FIX 80 files on the disk such as FILE, FILE1, FILE2, FILF, FIL6, ETC. load them into E/A OPTION #3. Load them in sequence. When all are loaded press ENTER to get them running.

5. DIS/FIX 128 FILES. (D/F 128)
These are usually ARCHIVED files. THey must be DE/ARCHIVED before you can identify the kind of files they contain. use a new disk for every DIS/FIX 128 file you intend to UNPACK. This will make sure there are not two files on the disk with the same name.

6. INT/VAR 254 FILES (I/V 254)
These files usually have more than 45 sectors and are EXTENDED BASIC programs requiring MEMORY EXPANSION. They do not require CALL FILES(1) to load and run. TI BASIC cannot be used. The same commands are used such as RUN or OLD DSK1.FILENAME. The programs are usually so long that they cannot be saved to TAPE (SAVE CS1).

7 DATA FILES.
Files such as INT/FIX 108, INT/VAR 128, INT VAR 64, are usually DATA files that are used by a program on the disk. They will not RUN and should be left on the disk with the other programs.