Texas Instrument 99/4A and Myrac 9640 computers

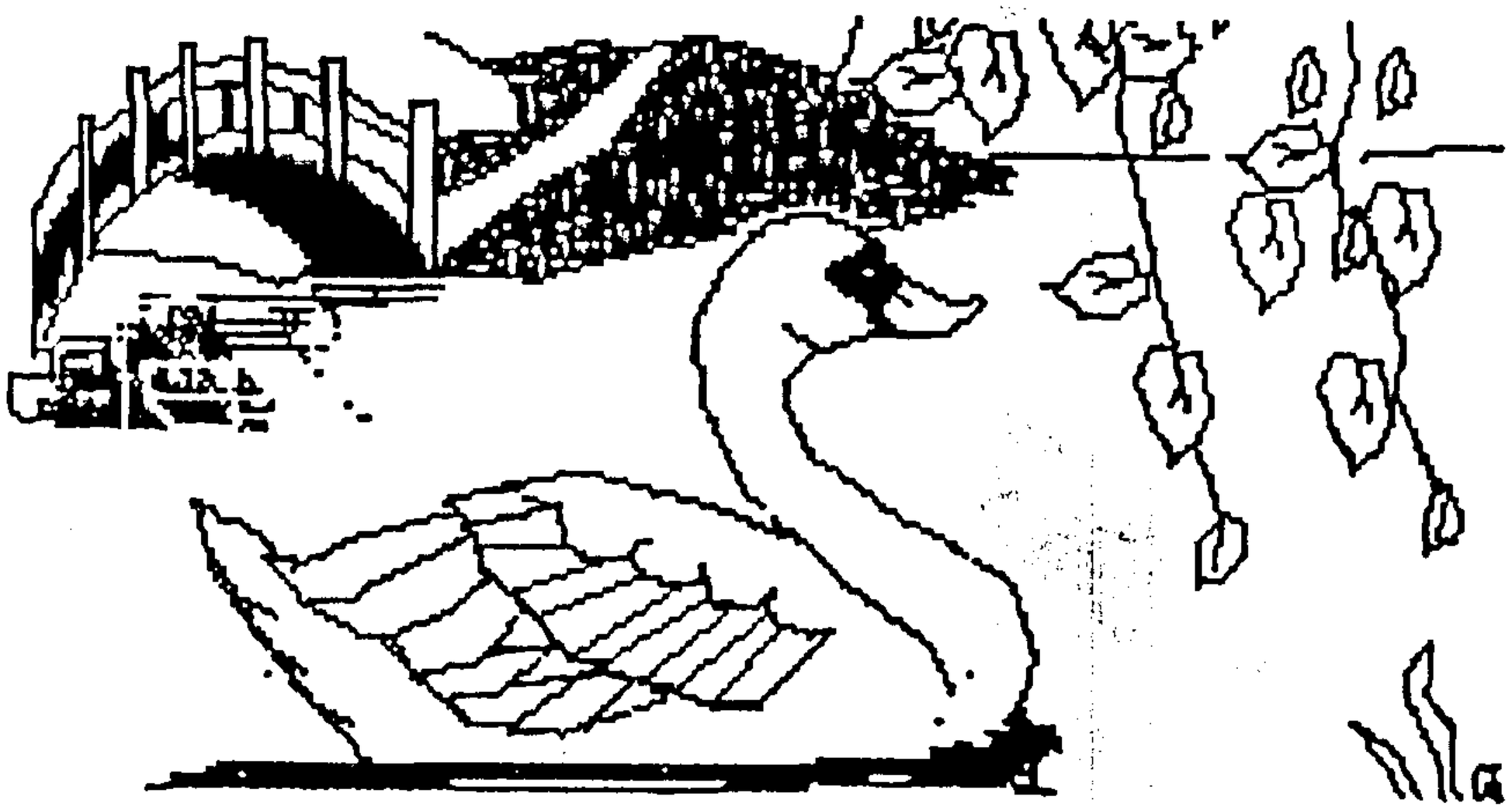
Spirit of 99

CENTRAL OHIO NINETY NINERS INC.

THE OFFICIAL NEWSLETTER OF THE CENTRAL OHIO NINETY-NINERS INC.

PUBLISHED MONTHLY IN COLUMBUS OHIO

MAY



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Spirit of 99

THE OFFICIAL NEWSLETTER OF CENTRAL OHIO NINETY-NINERS

Spirit of 99 is published monthly for Central Ohio Ninety-Niners Inc. by C.O.N.N.I. members and is the official newsletter of C.O.N.N.I. User Group.

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Central Ohio Ninety Niners Inc. is a non profit organization comprised of MEMBERS who own or use the TI99/4A computer and it's related pro-ducts and have paid a yearly membership fee of $28.00 and whose main objective is the exchange of Educational and Scientific information for the purpose of computer literacy.

C.O.N.N.I. meetings are held the 2nd Sat-urday of each month at the Martin Janis Senior Center - East Eleventh Ave. at the Ohio State fairgrounds.Meeting time is at 9 am. Meetings are open to the public. Membership dues ($28.00) are payable yearly to C.O.N.N.I. and cover the immediate family of the member. (An application has been placed in this newsletter for your convenience) Please address it to:
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COLUMBUS, OH 43214

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ANNOUNCEMENTS

DUES WERE DUE IN MARCH !

DUES ARE USUALLY PAID AT OR BEFORE THE MARCH MEETING, AND ARE $28 PER YEAR FOR FULL MEMBERSHIP, LIBRARY AND VOTING PRIVILEGES, PLUS THE NEWSLETTER. YOU MAY ALSO PAY YOUR DUES IN TWO INSTALLMENTS IF DESIRED: $14 IN MARCH AND $14 IN SEPTEMBER. IF ONLY THE NEWSLETTER IS DESIRED, THEN PAYMENT IS $20 PER YEAR. THOSE WHO JOIN DURING OTHER MONTHS OF THE YEAR PAY A LESSER, PRO-RATED AMOUNT:

MAR---28.00	APR---25.75	MAY---23.50	JUN---21.00	JUL---18.75
AUG---16.50	SEP---14.00	OCT---11.25	NOV----9.50	DEC----7.00
JAN----4.75	FEB----2.50			

FILL OUT AN APPLICATION BLANK (ONE ON THE BACK OF THIS NEWSLETTER), MAKE A CHECK OUT TO C.O.N.N.I. AND GIVE IT TO EVERETT WADE, THE MEMBERSHIP REGISTRAR, AT ONE OF THE MEETINGS OR MAIL TO HIM AT THE FOLLOWING ADDRESS:

EVERETT WADE 179 ERIE RD COLUMBUS, OH 43214

MEETING AGENDA ----- SATURDAY 13 MAY 1989

9 AM LIBRARIES OPEN
BULLETINS AVAILABLE
REGISTRATION - MEMBERSHIP
MICROPENDIUM MAGAZINES FOR SALE

MS/DOS SIG
AND OTHER SIG GROUPS OF INTERST TO MEMBERS

9:25 AM QUESTION AND ANSWER SESSION

9:50 AM BUSINESS MEETING

10:20 AM GAME DEMONSTRATIONS:

LARRY FAIRBANKS JR
DAVE TRUESDALE
BILL WOOD

12:00 PM WE MUST BE OUT OF THE BUILDING BY NOON!!!!!

WELCOME TO NEW MEMBERS AND NEWSLETTER SUBSCRIBERS

EDWARD M. KELLY	NL
SISTER PAT TAYLOR	NL
ROBERT A. SCHIFFER	NL

COFFEE ANYONE? SATURDAY MORNINGS

CALL JIM SEITZ (875-5532) TO BE A HOST OR HOSTESS. SIGN UP IF YOU WANT ANY COFFEE!!

MAY - EVERETT WADE
JUN - JEAN HALL

WEDNESDAY EVENING MEETING - MAY 24

7:30 PM AT MCDONALD'S CORNER OF CLEVELAND AVE AND MAIN IN WESTERVILLE

HOPE TO SEE YOU THERE!!

FROM THE PRESIDE...

by DICK BEERY

Some of you may have noticed the article by Jim Peterson in our April issue describing some articles of interest to be found in other groups' newsletters. At the April Saturday meeting, Curt Borders, our dedicated Publications Librarian, was happy to find several more people checking out newsletters to take home and read. We have, at Curt's suggestion, encouraged borrowers to check out one or more folders containing a series of issues of the same newsletter. In this way one can get the big picture--see many or all of features printed in serial fashion over several issues, get acquainted with the content of regular columns and the personality of their authors, etc. Curt shares with many of the officers the feeling that, if you are neglecting this source of information, you may well be missing much of the richness the T.I. has to offer. Jim hopes in his column, expected to be a regular feature, to whet your appetite for more, and to get you to read the entire article to which he refers.

Perhaps you have noticed in Micropendium a healthy balance of presentation: articles ranging from instruction in Basic through Pascal, "c", Logo, mathematical topics, treatment of hard drives and the Geneve, and programs, NEW and AMAZING programs. To the Printer's Apprentice McCann Software has added the Geometer's Apprentice; Asgard is still working toward the release of Press, a word processor that may literally "blow our socks off"; three capable databases offer great hope for us where none really existed before: PR-Base, TI-Base, and the recently-released First Base. Eighty-column cards are being discussed, together with RGB monitors, analog and otherwise; large regional fairs continue to abound. (Check the listing on page 29 of the March 1989 issue). BBS's for the T.I./Geneve world are holding their own, as are users' groups themselves. Ask Jim Peterson to share with you his recently-revised lists of each of these. Harry Brashear's fine booklet and disk , Home Publishing on the 99/4A, that many of us purchased at the meetings several months ago, are reviewed and explained in the same issue, as are Form Shop, Boot/Menu and the NX-1000 printer. Add hardware articles, increased and more diversified advertising, and you get a heady mix. It's a publication no serious T.I. user should neglect.

Since my theme in this month's article is "Being Informed", let's add another element: a recently-appearing list of places and publications where software and hardware for our computer may be found. This is one of the frequently-asked questions at meetings: "Where can I get . . .?". The list to which I am referring is titled T.I.Comparison Shopper, and is to be found on our group's April 1989 Disk of the Month. Its filename(s) are TICS1 and TICS2. It contains alphabetical lists, by category, of books, hardware, software and "bye", the latter being items no source seems to have available for sale now.

In conclusion, read, listen, ask and discuss at our meetings the new products you have heard of, or computer needs, capabilities or applications that you would like to see someone address. As Disk Librarian Chuck Grimes pointed out during the April Saturday meeting, don't let a problem or a lack of understanding of some program or procedure get you down. Ask someone. Call the officers. Ask for help.

and on points that are familiar to you, help others. That's been our reputation as a group; let's make it even better deserved than it already is.

In the April issue, I wrote an article about an application using TI-Base. I would appreciate your feedback--was it understandable? Helpful? Could you see ways of modifying it to meet needs of your own? Would you like to see more articles of a similar nature? Thanks for your help!

MINUTES
CONNI Meeting
04/08/89

The meeting was opened at 9:00 A.M. by President Dick Beery with the announcement of the question and answer period conducted by Jim Peterson. At 10:00 A.M. the group was called to order and the names of the officers were read. Visitors were then introduced. The visitors were Bob Shaner and Mr. and Mrs. Vojsak. Upcoming TI classes were discussed such as TI Writer by Jean Hall and TI Artist by Ken Marshall. The minutes of the last meeting were approved. The Disk of the Month was offered and described by librarian Chuck Grimes. Chuck also reiterated that if anyone in the club needed assistance in any facet of using the TI they should not hesitate to call any of the more knowlegeable people in the organization. The Multi-Computer Fair at the Franklin County Fairgrounds April 15 was discussed and it was decided that the CONNI table will offer Disk of the Month programs at $2.95 apiece. The Lima Faire on May 20 was also announced.

The Chicago user's group newsletter was discussed at some length. A Nun named Sister Pat was mentioned in the newsletter for the fact that she had found the TI helpful in her work with the elderly as a therapy. A motion was made to send a subscription to our newsletter plus software to her. Motion was seconded and carried. Also a new Chicago BBS number 312-862-0182 was read. A TI portable project was discussed. A request from TI user Norman Craigo of Los Angeles for software was read. A request for members to place handouts around town was mentioned.

Curt Borders suggested that members be allowed to take newsletters by the complete user group folder instead of on an individual basis. Motion seconded and carried. Jim Peterson moved to allow the limit on cassette library loans to be removed. Jean Hall read an article on the danger of using solvent to renew printer ribbons. President Beery announced that the May meeting will emphasize TI games. Volunteers were requested for Demos. Chuck Grimes said that Bud Mills will loan our club a P-Gram Card so that members can try it out. Jim Peterson asked for any sources of TI Professional Computer software. Pat Quinn reported on calling former members.

At 11:00 A.M. Pat Quinn conducted the raffle. Bill Wood then gave a Demo on Typwriter Word Processing for cassette and also on the Charfix program to alter Charal files. Irwin Hott then gave a Demo on the Merge Word program called Alsave. Meeting adjourned at 12:00 P.M.

Respectfully Submitted
Charles Osment, Secretary

VERIFY A FORMATTED DISK?

by GARY W. COX

(taken from the St. Louis 99ers newsletter-The Computer Bridge)

When I format a disk, should I verify it? Verifying the disk when formatting (also known as initializing a disk) determines if the disk formatted properly without any errors. DM1000 gives the user the option of verifying or not verifying by typing a Y or N beside the Verify question. When the disk is being verified, the computer counts through each sector of the disk to verify that each sector is good after being formatted. If a sector is found to be bad (computer is unable to read and write to that portion of the disk) then that sector is locked off so that it cannot be used. After verification a 100% good disk will show 2 used on the sector information. If a bad sector was found it would show 3 used, if 2 bad sectors were found it would show 4 used and so on. However, note that when using the Disk Manager 2 cartridge, the sector information will show 0 used on a good disk and then 1 used for 1 bad sector and so on. 2 sectors of the disk are actually used to store directory information (this is how the computor finds programs on the disk). The disk manager 2 cartridge just doesn't tell you 2 sectors are used - as it says that 358 are available (on SS/SD disks) and 0 used - while DM1000 is actually providing more correct information, that 360 sectors are available and 2 used. The amount of sectors available are still 358 for single sided, single density disks (SS/SD).

Continued on page 17

Pt. Ur...

IMPORTANT TIPS

NorthCoast 99'ers - Nov. 18, 1988
Late information By Martin A. Sooley

In Tutorial 3, I presented an Extended Basic program to convert TIB CFs (which are I/F40) to D/V80 files. I had to change some things because "%" doesn't go through the TIW Formatter as it is. In doing so, I knocked off the N in the second IN$, in line 250. The line should read.

```
250 IF LEN(IN$)>12 THEN OUT$=SEG$(IN$,1,12)&"$DV"
```

Originally I said I didn't like the fact that the help screens on the disk were the same as the manual. After I realized how much I disliked reading the print in the manual, I used this program and FunnelWeb to print out all the stuff on the disk in Emphasized, Doublestrike mode. It took some effort, but I'm happy with the full sized, dark print copy I have now.

This is very important. The commands LOAD and SAVE are in the manual. These commands are there for Assembly Language Program additions to TI-Base. This is for TI-Base development only. You should never type LOAD or SAVE at the dot prompt. Typing either of these commands alone or with the name of a Command File or Database, will probably cause the system to lock up and any open files to be lost or damaged. You should be working with CREATE, USE and CLOSE for Databases, and Modify Command, DO and FCTN 8 for CFs. Read your manual.

"This makes me happy." I received a great letter and some software from Jerry Keisler, 2221 College Dr. Paris, TX 75460. He has written a program to convert DV/80 files to TI-Base. The system he uses to do the job is relatively complex and people with limited skills in XBasic or File transfer will have to put some extra effort into the project, but I think the program is incredible. Jerry's program was published in the Nov. issue of the Paris 99'er News. If your group exchanges newsletters with them, keep your eye open for Jerry's articles on TI-Base.

One last thing. I am presently using TI-Base Ver. 2.0. There are still some problems with the Horizon Ramdisk, as of 11/18/88, but aside from that I can't believe this program is real. Database files can be stored on the Ramdisk. Most, if not all, of the old bugs are gone. It loads faster from a regular disk drive. It has new printer control code capability and you can set your print designation to "DSKn.filename" to append to a D/V80 file. It has new features like READSTRING, which puts in the "quotes" for you, and SUM which will total up a complete field for you. TIB now has filters which Dennis calls (scope). This means if you had a massive book inventory Db, you could use (PRINT ALL TITLE,PRICE ;FOR AUTHOR = "HEMINGWAY"). Under the proper conditions this would give you the Title and Price of only the books you have that were Authored by Hemingway. There's more than this, and Dennis says there will be a new manual. "AND", I haven't even mentioned CONVERT, a new function of TIB that converts external files to TIB Database Files. You're not going to believe this stuff.

Good Luck. Marty.

TI-BASE - From INSCEBOT
TUTORIAL 4 By Martin Smoley
NorthCoast 99'ers - Nov. 8, 1988


```
* Command File MOVED1      10/27/88
* Save as MOVED1/C
*  Move Data from TNAMES to NEWNAMES
*
CLEAR
CLOSE ALL
* SET TALK OFF
SET RECNUM OFF
SET HEADING OFF
SELECT 2
USE NEWNAMES
TOP
SELECT 1
USE TNAMES
TOP
LOCAL NUMT N 4 0
REPLACE NUMT WITH 1
  DO DSK2.MOVED2
SET RECNUM ON
SET HEADING ON
SET TALK ON
RETURN

* Command File MOVED2      10/27/88
* Save as MOVED2/C
*
WHILE .NOT. (EOF)
  SELECT 2
  APPEND BLANK
   REPLACE 2.NM WITH NUMT
   REPLACE 2.LN WITH 1.LN
   REPLACE 2.FN WITH 1.FN
   REPLACE 2.MI WITH 1.MI
   REPLACE 2.SA WITH 1.SA
   REPLACE 2.CT WITH 1.CT
   REPLACE 2.ST WITH 1.ST
   REPLACE 2.ZP WITH 1.ZP
   REPLACE 2.PH WITH 1.PH
   REPLACE 2.XP WITH 1.XP
   REPLACE 2.GP WITH 1.GP
   REPLACE 2.ID WITH 1.ID
  REPLACE NUMT WITH NUMT + 1
  SELECT 1
 MOVE
ENDWHILE
CLOSE ALL
```

Here we are again TI-Base users. In this months tutorial I intend to back track, back paddle, and change my mind on a lot of things. Last month I said I almost had the manual wrapped up and I could stop writing large tutorials. I will attempt to cut the tutorial size, but I am discovering things that people either don't understand or don't even realize that TIB can do. I will attempt to remember that every item we cover is probably brand new to you, the reader. I started to fall into that trap where the writer (me), thinks that what he is saying should be completely clear to everyone. So, I'll slow down and try to explain things more clearly.

The Command Files (CFs) on this page answers a question I received and cover some new points in the manual. The question was, "I completely set up a data base and typed in 100 names and addresses. I then realized I needed one more field and one field that was C)haracter should have been N)umeric." I will attempt to cover this problem and a multitude of other things at the same time, because they all work together. So please try to bear with me for a while. Let's work with TNAMES because we already have it typed in. Next, I'm going to switch the wrong field problem to, "a N)umeric field that should have been C)haracter" (FEL). So, let's say you just typed in TNAMES and you have entered 100 names. We only have 5 names in TNAMES but the CFs (MOVED1 and MOVED2) won't care if there are 5, 100 or 999 names in the database. "Now!", when you CREATEd TNAMES you typed in the information listed below. As you can see the first 10 items are C)haracter type fields and the last item is a N)umeric type field. "Look it over."

arrows to move, enter to advance

FIELD	DESCRIPTOR	TYPE	WIDTH	DEC
1	LN	C	15	
2	FN	C	15	
3	MI	C	2	
4	SA	C	25	
5	CT	C	20	
6	ST	C	2	
7	ZP	C	5	
8	PH	C	12	
9	XP	C	5	
10	GP	C	5	
11	ID	N	7	0

[TNAMES STRUCTURE]

Now, after entering all those names I decided that I should have put in another field. The field I want should be before the first field in this DB (before LN). I want it to be a number or N)umeric field, and hold a number up to 999 with no decimal places. Since this is a number for each name and address record, I'd like the first record to start with 1 instead of TIBs setup which is zero (0), and I'd like the computer to put the numbers in for me. Next I decided I wanted the last field to be a C)haracter field instead of a N)umeric field, as it is now. If you use MODIFY STRUCTURE as described in the manual, adding a field will destroy the data and the names will be lost. So we'll do it another way. Remember, this is a tutorial and this demonstrates programming techniques. The idea of adding a field or changing another doesn't have to be logical.

Continued Next Page.

Here's one quick reminder. "I keep several copies of my databases on different disks. If one of these new CFs I'm testing wipes out the database, I want to have a backup." "So!" with all this in mind, I decided to CREATE a new database, leave it empty and transfer what I wanted from the old DB (TNAMES), into the new one. I typed CREATE NEWNAMES. When TIB *gave me the structure entry screen, I typed in everything you* see below.

arrows to move, enter to advance

FIELD	DESCRIPTOR	TYPE	WIDTH	DEC
1	NM	N	4	0
2	LN	C	15	
3	FN	C	15	
4	MI	C	2	
5	SA	C	25	
6	CT	C	20	
7	ST	C	2	
8	ZP	C	5	
9	PH	C	12	
10	XP	C	5	
11	GP	C	5	
12	ID	C	7	

[NEWNAMES STRUCTURE]

Compare NEWNAMES structure to TNAMES structure. You will see that there are now 12 fields instead of 11. Notice that the first field is now NM, a N)umeric field, the size is 4 and 0 decimal places. The rest of the fields match TNAMES except ID which I have changed to a C)haracter field with a length of 7. When I entered all the information above and I was on the last 7 in ID, I pressed FCTN 8 to save and end the creation screen. When TIB asked if I wanted to enter data now, I answered N)o. At that point I had created NEWNAMES and it was completely empty. NEWNAMES is the DB I really need, so all I have to do is move all the data from TNAMES over to it and I'll be happy.

I whipped up MOVED which I later turned into MOVED1 and MOVED2 (FEL). I still prefer FunnelWeb to produce my CFs, but the TIB way is to type MODIFY COMMAND MOVED1 <E>. TIB will then start the procedure of producing the CF named MOVED1 and place you in the EDITOR screen. Type in all the lines you see down to and including the first RETURN. At that point press FCTN 8 to SAVE/END and TIB will finish making MOVED1 for you. You may have to press FCTN 9 to break out of the editor at this point. When you get back to the DP start over, and with MODIFY COMMAND MOVED2 <E>, type the second CF as you see it. I'll start with MOVED1 and go through it. Remember that * in the first column means comment line and TIB will not execute that line when it reads the *. So you are probably looking at * SET TALK OFF and scratching your head. Normally I set talk off to keep the screen clear. In this case it made me nervous because I new that TIB was doing some real thrashing on two databases and it concerned me. Seeing all the lines go by on the screen doesn't give you much more control, but at least you don't feel

[illegible] which lines exceed [illegible] for screen [illegible] /32

stuff starts. I'm going through this again. I hope I [illegible] bore the people who already understand the aspect of SELECT. TIB has 5 areas. A different DB can be opened in each area. These DBs will remain open and you can work on all of them, but not all at once. Lets say that each area is a cardboard box. You have 5 boxes. You must do any major work on only one box at a time, however, you can do minor work on the other 4 by reaching over into those boxes and picking items out. If you use the command SELECT, you can change the box that you wish to do major work on. If you are unsure of yourself, you should not only SELECT the important work area, you should also tell TIB exactly where things can be found by using the (x.) directive, where x is one of the area numbers (1-5) (FEL). Therefore, SELECT 2 means take box number 2 in your hands. USE NEWNAMES means place all the stuff called NEWNAMES into whatever box you are holding. In this case it is box 2. TOP means make sure that when we look into this box later the first thing we see is the first record in NEWNAMES. With NEWNAMES this is not important because it is empty, but with TNAMES it could be important. NOTE: TIB does not associate the name NEWNAMES with box 2. You must remember what you have placed in which box. SELECT 1 means put box 2 down and pick up box number 1. USE TNAMES and TOP is the same as above but using TNAMES this time. LOCAL NUMT 4 0, is the variable I will use to feed numbers into the field named NM. REPLACE NUMT WITH 1, puts the number 1 into NUMT. I previously said I would like to start numbering with 1. The next line is DO DSK2.MOVED2. This line runs the CF named MOVED2 which is similar to a sub-program and is located on drive 2. I mention drive 2 because you could change the 2 to any drive you wish. If you have this CF on drive 3, make it DSK3. etc. When this line is executed TIB runs MOVED2 and begins to do all the real work. When TIB hits the statement WHILE .NOT. (EOF) we are working with box number 1. That is because it was selected last and therefore is still the current selection. It is also the box where we are keeping TNAMES. If we selected 2, where NEWNAMES is, the file is empty, so we would get an EOF signal and the WHILE would not execute. In our case it does execute, so we go through all the statements between WHILE and ENDWHILE. I immediately SELECT 2. This is necessary because I want to APPEND BLANK. To TIB this means, append one complete record (which in this case is all 12 fields) onto the end of the DB which is in box 2 (which in this case is NEWNAMES). Since there is now some real space in NEWNAMES that we can fill with data, we will do so. REPLACE 2.NM WITH NUMT, takes the 1 which we previously placed in the variable NUMT and copies it into the field named NM in box 2. The 2. is to tell TIB box 2. It is not really necessary because we are in box 2 from the previous SELECTion. However, it helps me understand what is going on when I read over old CFs a few weeks after I'm done with them and I can't remember what they were for in the first place. REPLACE 2.LN WITH 1.LN tells TIB to copy the last name from box 1 into the last name field in box 2. TIB works only with the box numbers, but for our understanding, we are saying take the last name we have in TNAMES and copy it into the blank last name field we have created in the new DB NEWNAMES. Notice I use the term COPY and not MOVE.

Continued Next Page.

The next 10 REPLACE commands are the same as the one I just described. There is however, a difference in what is happening to the field in REPLACE 2.ID WITH 1.ID. Take a look at ID on the structure screens on the previous pages. You should notice that ID in TNAMES is a N)umeric field and it is a C)haracter field in NEWNAMES. This is one way we can change a field type. This change is not important at this time, but I received a question on the matter so I thought others might be having this problem. You can also convert C)haracter fields to N)umeric fields in the same manner. If that is the case, you must remove all characters from every field first. In other words the field may contain numbers only, at the time of conversion. You can also leave a particular field blank and use EDIT to type in data at a later time. "OK, the last REPLACE." REPLACE NUMT WITH NUMT + 1 is an accumulator (remember from last month?). We are telling TIB to take whatever number is in the variable NUMT, add 1 to it, and place the new total back into NUMT. So the next time we REPLACE 2.NM WITH NUMT the result will be 2, 3, 4 and so on. The next line (SELECT 1) is important. We must reSELECT number 1 (TNAMES) before the MOVE directive which is in the following line. In NEWNAMES we are at the EOF and have no place to move to. Also, when we hit the ENDWHILE and loop back to the WHILE .NOT. (EOF) statement we must already be in the full database for the same reason. We will continue to jump back and forth, add new space to NEWNAMES and move data from TNAMES to NEWNAMES until we hit the End Of File (EOF) in box number 1 (which is TNAMES). "Sounds easy right? Well it is for the CF." At the EOF TIB jumps out of the loop CLOSEs ALL the open DBs and RETURNs to the CF named MOVED1. In MOVED1 it simply turns ON all the stuff we turned OFF previously and RETURNs you to the DP. FYI: First, I am covering the business of SELECTing a slot over again because if you wish to really use TI-BASE you must fully understand the basics. If TIB can handle 17 fields in a database and it can open 5 databases at the same time (slots 1-5), then you have the potential of actively working with 85 fields at the same time. We have just worked with 23 fields at the same time. Think of how complicated a situation it could be with 85. This is why you must take the time to fully understand the basics of this language. Next, I still prefer to use FunnelWeb to write and edit my CFs. I realized that this will not be convenient for you under certain conditions, for example, if you have TIB running and you would like to change the name of the DB you will use in slot number 1. If the CF is to big to load with MODIFY COMMAND, you must leave TIB, load FunnelWeb, make the correction and then reload TIB. So, from now on I will try to keep the CF segments small enough to be modified without leaving TIB. I still recommend that you use some means to produce D/V 80 type CFs. Last for now, I have changed my mind about creating large menu-type systems at this time. You may recall my mentioning this idea last month. I will stay with smaller and I hope more easily understood utility type CFs for a while. Several people have told me that they are already lost. So I'll slow down a little and try to accommodate everyone, if possible.

"OK, back to work." While working on this tutorial and writing MOVED1 and MOVED2 I definitely did not get things right the first time. This created a related problem that covers some new items in that old manual. When I ran MOVED1 it filled NEWNAMES with junk, I literally mean junk. Since APPEND means stick more stuff on the end, the second time there was twice as much junk in NEWNAMES. What I needed was another CF that would clean out NEWNAMES. So I whipped up the CF named CLEARD.

```
*                              10/28/88
* Command File CLEARD
* Save as CLEARD/C
*   Clear Data from NEWNAMES
CLEAR
CLOSE ALL
* SET TALK OFF
SET RECNUM OFF
SET HEADING OFF
USE NEWNAMES
SORT OFF
TOP
WHILE .NOT. (EOF)
 DELETE RECORD
 MOVE
ENDWHILE
 PACK
* Second time through.
TOP
WHILE .NOT. (EOF)
 DELETE RECORD
 MOVE
ENDWHILE
 PACK
* That should do it.
CLOSE ALL
SET RECNUM ON
SET HEADING ON
SET TALK ON
RETURN
```

```
+--------------------------+
| A SPECIAL NOTE FROM MARTY |
|                          |
|  I am presently testing  |
|   TI-Base Version 2.0.   |
|                          |
|  The improvements look   |
|  very very impressive.   |
+--------------------------+
```

This CF opens or USEs NEWNAMES, unSORTs the DB and starts at the TOP or first record. The WHILE loop loops until it hits the EOF, and while it is looping, TIB is DELETEing records. In this application DELETE RECORD actually means mark the record TIB is presently looking at for later removal. This is for 1 record only. Therefore, we MOVE to each record, one at a time, and mark them all. When we hit the EOF, the WHILE kicks out and we execute PACK. PACK is a program segment of TIB and it resides on the TIB program disk. It permanently removes the records which have been marked for deletion. For some reason, unknown to me, I kept winding up with a record still left in NEWNAMES. Not always the same record but a record. The easiest way to handle this was to rerun the loop. This brings NEWNAMES up empty every time. You can check this by typing USE NEWNAMES at the DP and then DISPLAY ALL. You will get a database empty message. Well, I'm going to break off here. I still have enough material for hundreds of tutorials, unfortunately it's all in my head. Remember that I have a tutorial disk available and you can join the NorthCoast Users Group, see tutolial 3 for details. And send those questions to me, I need to know what you need to know. Good luck. Marty.

Continued Next Month.

TIPS FROM THE TIGERCUB

#57

Tigercub Software
156 Collingwood Ave.
Columbus OH 43213

I am still offering over 120 original and unique entertainment, educational and utility programs at just $1.00 each, or on collection disks at $5.00 per disk.

The contents of the first 52 issues of this newsletter are available as ready-to-run programs on 5 Tips Disks at $10 each.

And my three Nuts & Bolts Disk, $15 each, each contain over 100 subprograms for you to merge into your own programs to do all kinds of wonderful things.

My catalog is available for $1, deductable from your first order (specify TIGERCUB catalog).

!!!!!!!!!!!!!!!!!!!!!!!!!!!!

TI-PD LIBRARY

I have selected public domain programs, by category, to fill over 200 disks, as full as possible if I had enough programs of the category, with all the Basic-only programs converted to XBasic, with an E/A loader provided for assembly programs if possible, instructions added and any obvious bugs corrected, and with an autoloader by full program name on each disk. These are available as a copying service for just $1.50 postpaid in U.S. and Canada. No fairware will be offered without the author's permission. Send SASE for list or $1, refundable for 9-page catalog listing all titles and authors. Be sure to specify TI-PD catalog.

!!!!!!!!!!!!!!!!!!!!!!!!!!!!

I like little programs that load quickly and do just what I want to do at the moment. And one of the things I wanted to do quickly was to find phone numbers. So, I used FUNLWEB to create a little file -

SMITH,JOHN (999) 111-2222
BUSH, GEO. (000) 123-1234
GHADDAFI, O. (666)66-6666

and all my other frequently called numbers. I SAVEd it as DSK1.PHONELIST and wrote this little routine to use it.

```
100 CALL CLEAR
110 OPEN #1:"DSK1.PHONELIST"
,INPUT
120 DISPLAY AT(12,1):"LAST N
AME?" :: ACCEPT AT(14,1):N$
130 LINPUT #1:M$ :: IF POS(M
$,N$,1)<>0 THEN DISPLAY AT(1
6,1):M$ :: RESTORE #1 :: GOT
O 120
140 IF EOF(1)<>1 THEN 130
150 DISPLAY AT(16,1):"NAME N
OT FOUND" :: RESTORE #1 :: G
OTO 120
```

Now actually, that was all I needed, (even though it did take several seconds to find a name at the end of the file), and it was easy enough to load the file into FUNLWEB when it needed updating. But, programmers are never satisfied, so I decided to write a self-contained program -

```
100 CALL CLEAR
200 DATA "ALDA, ALAN 888-999
9"
201 !@P-
300 DATA "BUSH, GEORGE 111-1
111"
400 DATA "PRESLEY, ELVIS 000
-0000"
499 !@P+
500 DISPLAY AT(12,1):"LAST N
AME?" :: ACCEPT AT(14,1):N$
600 READ M$ :: IF POS(M$,N$,
1)<>0 THEN DISPLAY AT(16,1):
M$ :: RESTORE 200 :: GOTO 50
0
700 ON ERROR 800 :: GOTO 600
800 DISPLAY AT(...
OF SOUND :: RES...
GOTO 500
```

That funny thing in line 201 turns off the prescan and speeds up initialization. This routine is no faster than the last, but can be updated by editing the program itself. It is limited to about 500 records due to the least-known and greatest weakness of the TI, that string storage is limited to console memory.

But, computer users are paranoid about speed, so I decided to put my data into a pre-loaded array with self incrementing subscript numbers, and find the data by a binary search.

```
100 !QUICKFINDER by Jim Pete
rson
200 DIM D$(50):: GOTO 300 ::
 D$(),X :: !@P-
300 X=X+1 :: D$(X)="ALDA, AL
AN (999) 666-1234"
400 X=X+1 :: D$(X)="BUSH, GE
ORGE (111) 111-1111"
500 X=X+1 :: D$(X)="GHADDAFI
, OMAR (999) 456-1234567"
600 X=X+1 :: D$(X)="KHOMEINI
, AYATOLLAH  (666) 666-6666"
700 !@P+
800 INPUT "NAME? ":M$
900 IF M$>D$(X)THEN PRINT "N
OT FOUND":"CLOSEST IS":D$(X)
:: GOTO 800
1000 IF M$<D$(1)THEN PRINT "
NOT FOUND":"CLOSEST IS":D$(1
):: GOTO 800
1100 H=X :: S=INT(X/2)
1200 S$=D$(S):: IF POS(S$,M$
,1)=1 THEN 1700
1300 S$=D$(S+1):: IF POS(S$,
M$,1)=1 THEN S=S+1 :: GOTO 1
700
1400 IF S$>M$ THEN H=S :: S=
INT(H/2):: GOTO 1600
1500 S=S+INT((H-S)/2)
1600 IF S=S2 THEN 1800 ELSE
S2=S :: GOTO 1200
1700 PRINT D$(S):: GOTO 800
1800 PRINT "NOT FOUND":"CLOS
EST ARE"
1900 IF D$(S2)>M$ THEN PRINT
 D$(S2-1):D$(S2+1):: GOTO 80
:: GOTO 800
```

Note that in this case the records must be in alphabetical sequence. New records can be inserted in intermediate line numbers, in alphabetic sequence, always preceded by X=X+1 :: D$(X)= . Obsolete records can be deleted, and records can be corrected in place if the correction does not change the alphabetic sequence.

This idea did not work out as well as I hoped. The maximum number of records is less than 300, for the reason mentioned above, and this leaves so little free memory that even a binary search is slow. However, for a smaller file this is perhaps the best method.

For a large file, the best method is certainly a fixed sequential disk file, accessed by a binary search routine. But, that requires other routines to delete, add or change records, and had best be the subject of another Tips.

There is apparently a mistaken belief that sprites cannot be used together with my BXB routine. Not so - you can use all 28 of them! However, you cannot change their color with CALL COLOR(#,N). The only other limitations of BXB that I can think of, are that a single CALL COLOR cannot be used for multiple character sets and a single CALL CHAR can only reidentify one character. CALL CHARPAT cannot return the hex code of an ASCII above 143 because those ASCII's were not supposed to be available in Extended Basic.

I have used BXB on hundreds of Basic-only programs and have had only

two rare problems. If the program contains multiple line feed colons ::::::, the computer may rearrange them into pairs of double colons :: :: and lock up. Or, if the colons are before the text, as in PRINT :"something" you may get a puzzling error message.

Also on rare occasions you might get an error message indicating the subprogram was called from a line containing a CALL CHAR, if the programmer had inadvertently put more than 16 characters in the hex code. Basic just ignores any extra characters, and XBasic uses them to reidentify the following ASCII, but BXB crashes.

From the TIMES newsletter from England, here is an extremely useful bit of assembly which should be assembled as ALPHA/O and placed on the disk of every joystick program, or imbedded in it with ALSAVE.

```
       DEF   ALPHA
* save old R12
ALPHA  MOV   R12,@>FFFC
* 9900 CRU base=0
       CLR   R12
* signal alphalock key line
       SBZ   21
* check alphalock other side
       TB    7
* jump if state=on
       JNE   STATE
*  state=off
       SETO  @>FFFE
* as off skip next line
       JMP   JUMPA
*  state=on
STATE  CLR   @>FFFE
* stop sending to alpha key
JUMPA  SBO   21
* restore R12
       MOV   @>FFFC,R12
* standard XB return now
* clear error for basic
       SB    @>837C,@>837C
* return to calling program
       B     @>0070
       END   ALPHA
```

Now, put this in the first lines of the joystick program -

```
1 ! by M. Gikow, Andover
    MA  August 1988
2 ! used with ALPHA/O,
    will detect whether
    Alpha Lock is up (A=
    255) or down (A=0)
3 CALL CLEAR :: CALL INIT ::
 CALL LOAD("DSK1.ALPHA/O")
4 CALL LINK("ALPHA"):: CALL
PEEK(-1,A):: IF A=0 THEN DIS
PLAY AT(12,1):"RELEASE ALPHA
LOCK" :: GOTO 4 ELSE CALL CL
EAR
```

I published this one in the C.O.N.N.I. newsletter. Barry Traver picked it up and put it in the TI Forum in Computer Shopper, but their typesetter garbled it, so here is how it was supposed to be -

According to the TI-Writer Reference Guide, page 77, when you select the PrintF command, then type C and space once and then the device name, any control characters with ASCII less than 32 are removed before the file is printed.

With Funlweb, at least, this is not quite true. A carriage return character, ASCII 13, or a line feed character, ASCII 10, at the end of a line is actually not deleted but is changed to the space bar character, ASCII 32. This can be proved by running this little routine -

```
100 OPEN #1:"DSK1.(filename)
",INPUT
110 LINPUT #1:M$ :: PRINT M$
(LEN(M$)):: IF LEN(M$)>0 THEN
 PRINT ASC(SEG$(M$,LEN(M$),1
))
120 CALL KEY(0,K,S):: IF S=0
 THEN 120 ELSE 110
```

Therefore, when a file is Filled/Adjusted and the line feed characters are stripped with the C option, the lines are one character longer than they appear to be. An apparently blank line also contains ASCII 32.

Since these characters are blank, they normally do no harm. However, they can create problems when records are read into programs for multiple column printing or concatenation of strings. In these cases, this routine can be used to strip out any ASCII below 33 at the ends of records.

```
100 DATA INPUT,OUTPUT
110 FOR J=1 TO 2 :: READ J$
:: DISPLAY AT(12,1)ERASE ALL
:J$&" FILENAME?":"DSK" :: AC
CEPT AT(13,4):F$(J):: OPEN #
J:"DSK"&F$(J),UPDATE :: NEXT
 J
120 LINPUT #1:M$
130 IF ASC(SEG$(M$,LEN(M$),1
))<33 THEN M$=SEG$(M$,1,LEN(
M$)-1):: IF LEN(M$)>0 THEN 1
30
140 PRINT #2:M$ :: IF EOF(1)
<>1 THEN 120 :: CLOSE #1 ::
CLOSE #2
```

Attention all newsletter editors! If you are going to print my Tips (or anything else that contains program listings!) through the Formatter, PLEASE first replace and transliterate the ampersand, asterisk, period, carat and "@" sign!

Print this one through the Formatter and see why -

```
100 A=A$264 :: @=1
110 PRINT "1 . . . 2 . . . 3
. . .4 . . . 5 . . . 6 . . .
7 . . . 8 . . . 9 . . . 0"
120 M$=M$&A$&B$&C$ :: K=K^3
```

Here's how you do it. Load the above in the Editor, position the cursor at the beginning of the 1st line, hit FCTN 9, type RS and Enter, then /&/)/ and Enter. At the prompt, type A. Now get the cursor back to the beginning, repeat the above with /$/!/, and then /./\/ and /^/~/ and /@/(/ and the file should now look like this -

```
100 A=A!264 :: (=1
110 PRINT "1 \ \ \ 2 \ \ \ 3
 \ \ \ 4 \ \ \ 5 \ \ \ 6 \ \
 \ 7 \ \ \ 8 \ \ \ 9 \
\ \ 0"
120 M$=M$)A$)B$)C$ :: K=K~3
```

Now use FCTN 8 to open 5 lines at the top and add this transliteration -

```
.TL 92:46
.TL 123:64
.TL 124:42
.TL 125:38
.TL 126:94
```

Save the result, go to the Formatter and print it.

If my multi-column Printall program (Tips from the Tigercub #45) won't run on your Epson-compatible printer, try changing line 250 to -

```
250 ACCEPT AT(12,3)VALIDATE(
"123")SIZE(1):P :: IF P=2 TH
EN PRINT #1:CHR$(27);CHR$(77
)ELSE IF P=3 THEN PRINT #1:C
HR$(15)
```

You might also need to change the 136 in line 280 to 132.

If your printer offers the elite condensed option, you might want to add -

:" (4) ELITE CONDENSED" to line 240, change the VALIDATE string in 250 to "1234", add ELSE IF P=4 THEN PRINT #1:CHR$(27);CHR$(77);CHR$(15) to the revised line 250 and add +(P=4)$160 to the first statement in line 280.

Memory almost full,

Jim Peterson

*IMPACT

BY JACK SUGHRUE
Box 459
EAST DOUGLAS, MA 01516

(ED. NOTE: THANKS TO EVERETT WADE FOR TYPING THIS ARTICLE TO DISK WHILE LEARNING TO USE TI-WRITER.)

THE SOFTWARE BIGGIES

GENIAL COMPUTERWARE (Box 183, GRAFTON, MA 01519) IS EMERGING AS A TI SOFTWARE DEVELOPER TO CHALLENGE LONG-TIME LEADER IN THIS FIELD. ASGARD SOFTWARE (Box 10306, ROCKVILLE, MD 20850). BOTH COMPANIES' FREE CATALOGS MAKE A 99ER'S MOUTH WATER.

GENIAL'S 15 PROGRAMS (BY AUTHORS PETER HODDIE, PAUL CHARLTON, WARREN AGEE, MIKE DODD, JOHN JOHNSON, AND WAYNE STITH) ARE PRIMARILY UTILITY: MACFLIX ($15) LETS YOU VIEW, PRINT, AND SAVE GRAPHICS CREATED ON THE MACINTOSH; PICTURE TRANSFER ($30) PERMITS VIEWING DIFFERENT GRAPHIC FILES, CREATING SLIDE SHOWS, COMBINING MULTIPLE IMAGES, AND CONVERTING AMONG FORMATS (GIF,RLE,MYART,GRAPHX, TI-ARTIST) FOR THE GENEVE; TRIAD ($20) COMBINES THE FEATURES OF A TERMINAL EMULATOR, 40-COLUMN TEXT EDITOR , AND DISK MANAGER IN ONE PROGRAM; HYPERCOPY ($20) IS CALLED BY GENIAL "THE FINAL WORD IN DISK COPIERS" AND CAN COPY A SSSD IN LESS THAN 35 SECONDS, PROVIDE A SKEWING TECHNIQUE FOR FASTER DISK READS, FORMAT, PROVIDE MULTIPLE COPYING FACILITIES, AND MORE; GRAPHICS EXPANDER ($10) NOT ONLY CONVERTS BETWEEN TI-ARTIST AND CSGD FORMATS BUT CAN STRETCH, SHRINK, MIRROR AND ROTATE GRAPHICS ALL IN FAST ASSEMBLY; GRAMPACKER ($10) CUSTOMIZES GRAM EMULATING DEVICES IN SIGNIFICANT AND VERY USEFUL WAYS; XBASHER ($10) IS FASTER AND BETTER THAN JACK SUGHRUE'S SMALLIFYING PROGRAM CONTAINED WITHIN HIS PLUS! DISK AND CAN COMPRESS UP TO 1/3 OF AN XB PROGRAM; XB:BUG ($15) DEBUGS, MODIFIES, SEARCHES, DISPLAYS AS IT PROVIDES A FINE XB TOOL FOR THE PROGRAMMER; REMIND ME! ($15) FUNCTIONS AS A FUN AND FAST SCHEDULE PLANNER WITH ALL KINDS OF BUILT-INS; BROWSE ($10) AIDS IN THE MANAGEMENT OF TEST FILES BY PERMITTING VIEWING, PRINTING, COMBINING, AND BROWSING; PC TRANSFER'S ($25) FAST AND EFFICIENT WAY OF MOVING DATA BETWEEN YOUR TI (AND/OR GENEVE) AND AN MS-DOS MACHINE MAKE THIS AN EXTREMELY VALUABLE TOOL FOR THOSE 99ERS WHO WORK WITH IBM; GENIAL FONT PACKS ($10 EACH) PROVIDE A COLLECTION OF 19 DIFFERENT FONTS FOR USE WITH TI-ARTIST ALONG WITH SOME ADDITIONAL GRAPHICS PROGRAMS; AND FIRSTBASE ($49.95) A FULL-FEATURED DATABASE PROGRAM EXPECTED TO BE TH ONLY REAL COMPETITION TO THE POWERFUL TI-BASE ($24.95 - INSCEBOT, P.O. Box 291610, PT. ORANGE, FL 32029, WILL HAVE A VARIETY OF EXCEPTIONALLY FINE DATABASE FEATURES FOR THE TI OR GENEVE.

ASGARD'S CATALOG OF 57 SOFTWARE PACKAGES CONTAINS A LARGER VARIETY OF MATERIALS FOR THE TI/GENEVE USER: GAMES, GRAPHICS, UTILITIES PRODUCTION TOOLS. IN ADDITION TO HODDIE, AGEE, AND CHARLTON, THE AUTHOR/ARTISTS WHO CREATE ASGARD SOFTWARE INCLUDE KEN GILLILAND, DONN GRANROS, HARRY WILHELM, TOM WYNNE, CHRIS BOBBITT, ED JOHNSON, ROBERT COFFEY, TOM BENTLEY, JOHN BEHNKE, JIM REISS, MICKEY SCHMITT, PAUL SCHEIDMANTLE, HOWARD UMAN, TOM WIBLE, TRAVIS WATFORD, AND CHARLES EARL.

GAMES: BALLON WARS ($4.95) AN ARCADE STRATEGY GAME WITH 20 SCREENS OF DANGEROUS MANNED BALLON FLYING; COLUMN ATTACK! ($9.95) AN 11-LEVEL FAST ARCADE GAME DEMANDS PERFECT LASER CONTROL TO DEFEAT THE INSANE FLUGELINS; DOOM GAMES I II ($7.95 EACH) INCLUDE A PILE OF BIZARRE EPICS FOR THE TUNNELS OF DOOM ADDICTS; THE GAME PACK ($5.95) PROVIDES TWO DISTINCT

ARCADE GAMES ON ONE DISK (HAUNTED MINE II AND MISSLE WARS; HIGH GRAVITY ($9.95) IS AN ADDICTIVE SPACE SIMULATION GAME THAT MUST BE PLAYED TO BE APPRECIATED (AND MY PERSONAL FAVORITE); VOLCANO FORTRESS ($7.95) IS A COLLECTION OF FIVE ADDITIONAL TOD GREAT GAMES; LEGENDS ($22.95) IS CONSIDERED BY MICROPENDIUM ,COMPUTER SHOPPER AND MANY NEWSLETTERS TO BE THE BEST GRAPHICS ADVENTURE GAME EVER FOR THE TI; LEGENDS II: THE SEQUEL ($17.95) FEATURES SO MANY NEW, EXCITING THINGS IT IS ALREADY CONSIDERED BY MANY TO BE BETTER THAN ITS PREDECESSOR; OLD DARK CAVES: THE LOWER CAVERNS ($17.95) BY THE SAME AUTHOR NOT ONLY CONTINUES WITH THE EXTRAORDINARY GRAPHICS OF THE LEGENDS SERIES BUT CONTAINS A 50-LEVEL DUNGEON; OLIVER'S TWIST ($9.95) WILL SATISFY THE CRAVINGS OF ADVENTURE MODULE OWNERS WITH THIS VERY UNUSUAL ADVENTURE.

GRAPHICS PROGRAMS FROM ASGARD THAT ARE $7.95 EACH INCLUDE TWO SETS OF ARTISTS BORDERS, FIVE OF ARTIST FONTS, AND NINE OF ARTIST INSTANCES .THE VARIETY OF THESE TI-ARTIST COLLECTIONS IS INCREDIBLE. THERE IS ALSO ARTIST ENLARGER ($9.95) WHICH CAN ENLARGE, SQUEEZE, STRETCH, OR REDUCE SINGLY ON IN MULTIPLE PASSES ANY PICTURES OR FONTS; FONTWRITER II ($22.95) PROVIDES A COMPANION/ENVIRONMENT FOR TI-ARTIST THAT WILL LET YOU USE SUCCESSFULLY USE GRAPHICS WITH ANY VERSION OF TI-WRITER; GRAPHX COMPANION SERIES ($24.95) CONTAINS ALL FOUR PACKAGES OF THIS POPULAR SERIES OF HUNDREDS OF PICTURES, CLIPART, BORDERS, FILLS, AND MORE; DISKS OF DINOSAURS ($12.95) IS A DELIGHTFUL AND UNIQUE GRAPHIC PACKAGE OF DINOSAURS AND ANIMATION; GRAPHX SLIDESHOW ($9.95) ALLOWS VIEWING GRAPHX OR RLE PIX IN EXTRAORDINARY WAYS; MY-ART COLORING BOOK ($9.95) FOR THE GENEVE IS A COMPANION TO THE MY-ART PROGRAM.

ALTHOUGH ASGARD HAS ALWAYS BEEN FAMOUS FOR SUCH PRODUCTIVITY TOOLS AS RECIPE WRITER (AND THE ELECTONIC GOURMET COMPANIONS), SCHEDULE MANAGER, STAMP MANAGER, AND THE FREEWHEELING C-DATABASE TOTAL FILER, THE COMPANY HAS RELEASED A NEW PILE OF UNIQUE ADDITIONS. TYPEWRITER (DISK $19.95, MODULE $24.95, MODULE WITH BUILT IN PRINTER PORT $39.95) IS JUST WHAT IT SAYS IT IS - A FULL-FEATURED ELECTRONIC TYPEWRITER THAT IS INCREDIBLY EASY TO USE; CALENDAR MAKER 99 ($19.95) AND CALENDAR MAKER UTILITIES ($12.95) WILL SATISFY EVEN THE MOST JADED CALENDAR USER WITH USER-FRIENDLY GRAPHIC/TEST PICTURE-PERFECT CALENDARS FROM ANY MONTH OR ANY YEAR FROM 1600 TO 2400; CASSETTE LABELER ($9.95) SIMPLY AND QUICKLY PRINTS DETAILED CASSETTE BOX INSERTS FOR YOUR COMPUTER OR AUDIO CASSETTES; FORM MAKER 99 ($24.95) NOT ONLY CREATES VERY COMPLICATED BUSINESS FORMS BUT ALMOST ANY KIND OF ANYTHING THAT CAN BE DESIGNED FOR HOME, SCHOOL, BUSINESS, PTO, THE KIDS, OR ANYTHING ELSE; AND PRESS ($59.95) ALREADY DESCRIBED AS THE BEST WORD PROCESSOR FOR THE TI IS COMPARED FAVORABLY TO THE MASSIVE PROCESSORS FOR THE IBM AND OTHERS.

ASGARD'S UTILITIES INCLUDE BATCH-IT! ($19.95) WHICH PERMITS ALL KINDS OF SOPHISTICATED PROGRAMMING TECHNIQUES WITH A MINIMAL AMOUNT OF EFFORT; EZ-KEYS PLUS ($14.95) CONSIDERED THE ULTIMATE XB PROGRAMMER'S ENVIROMENT HAS JUST AS MANY USES FOR NON-PROGRAMMERS; BEYOND VIDEO CHESS ($9.95) LETS YOU- AT LAST!- SAVE AND LOAD CHESS GAMES TO DISK, PRINT SCREEN OR LISTING OF MOVES, CONTROL THE PIECES WITH A JOYSTICK, USE THE BOARD FOR TWO PLAYERS, AND MORE; MUSIC SYNTHESIZER ($9.95) LETS A NOVICE CREATE MUSIC BY DROPPING THE NOTES ONTO A SCREEN PAGE; PR-EDITOR ($19.95), A MULTI-FEATURED, SUPERB TEXT EDITOR, IS A PROGRAMMER'S ULTIMATE TOOL, NO MATTER WHAT LANGUAGE YOU WRITE IN; RAM*BOOT ($9.95) AUTOMATICALLY BOOTS SETUPS FOR MYARC'S 128 AND 512K CARDS; TOD EDITOR ($19.95) IS THE ONLY UTILITY FOR CREATING OR CHANGING TOD GAMES; QUICK-RUN ($9.95) MAY BE DESTINED FOR THE MOST-USED XB UTILITY FOR THE TI ONCE PEOPLE BEGIN TO USE IT AS IT IS THE FASTEST WAY TO OPERATE XB PROGRAMS IN EXISTENCE.

IT IS WELL WORTH EVERY TI OWNER'S TIME AND QUARTERS TO SEND OFF FOR THESE TEMPTING, DESCRIPTIVE CATALOGS FROM ASGARD AND GENIAL.

UNDERSTANDING - CREATING - AND USING - CASSETTE FILES
PART VI

TO "OPEN" UP A CASSETTE FILE... FOLLOW THESE STEPS...

01	02	03	04	05	06
LINE NUMBER	NEED SPACE	OPEN	NEED SPACE	FILE SIGN	FILE NUMBER
ANY NUMBER				#	1 TO 255

07	08	09	10	11	12
NEED COLON	NEED QUOTE	DEVICE FILE NAME CS1 OR CS2	NEED QUOTE	NEED COMMA	OPEN MODE INPUT OR OUTPUT
:	"	CS1	"	,	- CHOICE -

13	14	15	16
NEED COMMA	FILE ORGANIZATION	NEED COMMA	FILE TYPE FORMAT
	SEQUENTIAL		DISPLAY FORMAT - PRINTABLE ASCII - INTERNAL FORMAT - MACHINE LANGUAGE -
	SEQUENTIAL		INTERNAL FORMAT - PREFERRED OPTION -

(ED. note: Thanks to Mickey and the West Penn UG for these articles)

17	18	19	20	DEFAULTS
NEED COMMA ----------	RECORD TYPE ---------- FIXED LENGTH 1 TO 192 POSITIONS	NEED COMMA ----------	FILE LIFE ---------- PERMANENT	SEQUENTIAL DISPLAY FIXED 64
	FIXED		PERMANENT	PERMANENT

HOW TO RECONFIGURE FUNNELWEB 4.10
(IDIOT-PROOF (?) PROCEDURE)
by John Owen, JUG UG TX

Everyone told me how easy it is to to use the "reconfigure" feature of Funnelweb 4.10. I tried it and couldn't make it work. The docs assumed I know something I didn't. So, at our last JUG meeting (Oct. 1988) we worked thru the procedure and after several mis-fires, came up with the following "cookbook" procedure to change printer call-out from RS232 to PIO (or vice versa).

1. Make a copy of FUNNELWEB 4.10. Leave off the write-protect tab and place this new copy on Drive #1.
2. Auto-load FW 4.10 up to the first menu (Selection 1-9 & -I).
3. Select Option "I" (Configure). (It can also be reached by selecting the USER LIST from the 'Editor' menu.) DSK1.CF & CG will load and display "CONFIGURATION" and the prompts: (?) HELP, (c-C) BACK, & (F-7) DIR.
4. Hit any key. This brings up the first window: SYSINFO, QUIT, INSTALL).
5. HIT "S" (SYSINFO) and get the 2nd window: LOAD, EDIT, SAVE.
6. HIT "L" (LOAD).
7. Hit (Enter). (Loads SYSCON from Drive #1).
8. Hit "E" (EDIT). This will display the 3rd window: LOADING, DEVICES, COLORS, MENU, XB LIST, & UL LIST.
9. Hit "D"(DEVICES). This will display the 4th window: EDIT PRINTER, FMTR PRINTER, OBJECT FILE, WORK FILE, 7 PROGRAM.
10. Hit "E" (EDIT PRINTER). The following instruction window will appear: ENTER FILE/DEVICE.
11. Type in: PIO
12. Hit (Enter).

If the Formatter printer is to be changed, the easiest way is to repeat steps 10, 11 & 12 as follows before going any further.
10a. Hit "F" (FMTR PRINTER)
11A. Type in : PIO.LF
12a. Hit (Enter)

13. Hit FCTN-9 (BACK) or CTL-C.
14. Hit FCTN-9 or CTL-C again.
15. Hit "S" (SAVE)
16. Hit (Enter) to save the change in DSK1.SYSCON.
17. Hit FCTN-9 or CTL-C to get back to the top of the menu.
18. Hit "I" (INSTALL). The 6th window gives two choices.
19. Hit "L" (LOAD-XB/XBII).
20. (Enter) SOURCE program (DSK1.LOAD)
21. (Enter) TARGET program (DSK1.LOAD)
22. Hit FCTN-9 or CTL-C
23. Hit Q (QUIT).

To test the changes, it is necessary return to the TI color screen and reload FUNNELWEB from scratch. While this has only been tested on FW 4.10, it should be applicable to all 4.xx updates of FUNNELWEB.

TEXT-TO-SPEECH
BY IRWIN HOTT

I have written about Text-To-Speech in some previous articles, but at that time it was not widely available. With the release of SINGINGTI by Terry Atkinson, this has changed. Texas Instruments has given permission for the Text-To-Speech files to be freely distributed as long as the SINGINGTI package is complete. If you do not have SINGINGTI it is currently on the "oldies-but-goodies" board on TIABS at (614)442-1852. It has also been on Genial Traveler, the C.O.N.N.I. disk-of-the-month and the Spirit of 99 TIBBS.

Be sure to read the docs that come with SINGINGTI. They are very well done.

Text-To-Speech is a set of assembly routines which are called from Extended Basic. The end result of accessing the routines is almost identical to using speech in Basic with the TEII module. You have unlimited speech capability. However with Text-To-Speech you are not opening a file as in Basic.

Hardware Needed:
1 disk drive/controller
32k memory
TI speech Synthesizer
Extended Basic

Text-To-Speech may not work if you have a Myarc 128 or 512k card, or the Foundation 128K card. A modification to the Myarc 512K card that works (although it adds a considerable amount of distortion to the speech) is to connect a 1N4148 diode from pin 4 of the edge connector, to pin 2 of the TMS4500 IC. The + side of the diode goes to the IC. Using a 1N914 may result in less distortion.

The files we will be concerned about here are: SETUP, SPEAK, XLAT and DATABASE.

Copy them from the SINGINGTI disk. You may wish to use ALSAVE or SYSTEX to move the files into a "fast loading" LOAD program. If youload the speech files directly it will take about a minute for them to load. Use the following to load them.:

```
10 CALL INIT::CALL LOAD("DSK
1.SETUP","DSK1.SPEAK","DSK1.
XLAT")
20 CALL LINK("SETUP","DSK1.D
ATABASE")
```

Once the call loads in line 10 are performed, they do not have to be performed again unless you do a CALL INIT. This is the reason I prefer to use a LOAD program with ALSAVE so once the speech is loaded, I can move from program to program without having to worry about executing the call loads again.

The Call LINK must be performed each time you use "OLD" or "RUN" to load a program. You may "RUN 30" if the program has been run before.

Text-To-Speech does take a considerable amount of memory. The DATABASE file shares space with your XB program. The size of an XB program that can be run with the speech loaded is around 49 sectors.

If you are planning to use lower case letters in your program, you must have a CALL KEY (3,K,S) early in your program. However this will only work for lower case letters input from the keyboard. Lower case words are spoken letter by letter otherwise. If you are reading TI-Writer files from disk or something of the sort, you must use an XB or assembly routine to change the [illegible] ones. The speech [illegible] not say many [illegible]. I have added DATA statements to the basic speech program that I use so that when I spell words I hear all of the punctuation etc. The program listed here is a much simplified version of the one that I use.

This assumes that the CALL LOADS have already been performed in a LOAD program.

```
1 ON ERROR 2 :: CALL LINK("S
ETUP","DSK1.DATABASE"):: GOT
O 3
2 CALL SAY("ERROR"):: RUN "D
SK1.LOAD"
3 ON ERROR STOP :: CALL CLEA
R :: _P=43 :: _S=128 :: GOTO
 30
20 CALL LINK("XLAT",_SP$,_PH
$):: CALL LINK("SPEAK",_PH$,
_P,_S):: _SP$,_PH$="" :: RET
URN
30 ! Start your program here
```

Line 1 does the CALL LINK that links the DATABASE file. If speech has not been loaded the program will try to run a LOAD program on drive 1 from line 2. Otherwise it goes to linc 3.

Line 3 resets the ON ERROR routine, clears the screen, sets the pitch and slope and goes to line 30 to start program execution.

Line 20 is the line that actually does the speech.

Try the following:

```
30 _SP$="HELLO, THIS IS A TE
ST OF THE SPEECH ON MY T I99
/4 A COMPUTER." :: GOSUB 20
```

Or try:

```
30 _SP$="I CAN COUNT FROM 1
TO TEN" :: GOSUB 20 :: FOR J
=1 TO 10 :: _SP$=STR$(J) ::
GOSUB 20 :: NEXT J
```

I use variables with the _ so that I do not have many problems when I add speech to an existing program. [illegible] are not using ON ERROR that will work very well. However it is extremely difficult to use ON ERROR with user written subprograms. You may occasionally get a "SPEECH STRING TOO LONG" error. That will cause your program to crash unless you use a CALL ERR statement to handle it. Here are the lines that I use:

```
3 ON ERROR 4 :: CALL CLEAR ::
 _P=43 :: _S=128 :: GOTO 30
4 CALL ERR(_C,_T,_L,_L):: CA
LL SOUND(75,220,6):: ON ERRO
R 4 :: IF _C=54 OR _C=56 THE
N 10
9 _SP$="ERROR IN LINE "&STR$
(_L)&";TYPE "&STR$(_T)&";COD
E "&STR$(_C):: PRINT _SP$ ::
 GOSUB 20 :: STOP
10 _LN=1 :: _SQ$=_SP$ :: FOR
 _SG=_LN TO _LN+10 :: _SP$=S
EG$(_SQ$,_LN,10):: IF _SP$="
" THEN RETURN NEXT
11 DISPLAY BEEP :: FOR _D=1
TO 15 :: CALL KEY(0,_E,_F)::
 IF _F<>0 THEN RETURN NEXT
12 NEXT _D :: GOSUB 20 :: _L
N=_LN+10 :: NEXT _SG :: RETU
RN NEXT
```

Line 3 resets the ON ERROR routine.

Line 4 does the CALL ERR. If the returned code is 54 or 56 the error goes to line 10 where it is broken down into 10 character segments. At the end of each tenth character you may press a key to exit from the loop. This is particularly handy if you must listen to 80 asterisks. If the error is other than 54 or 56 the program goes to line 9 where the error codes are printed and spoken. The program then stops.

I hope this gives you an idea of how Text-To-Speech works. It can be a lot of fun to play with. You may have to use some of your

creative spelling ideas to find the proper pronounciation of words. CYCLES must be spelled CICLES. You may choose to put spaces in the middle of some words. Have fun experimenting with it. Feel free to call me at 614-263-5319 or look me up at one of the meetings if you have any questions.

FLY CATCHING FROG

From the ALOha 99/4A newsletter, reprinted from ROM (May 1985) and TOPICS - LA 99ERS (Mar 1989)

by NEWT ARMSTRONG

The original intent of the article was as a Basic programming tutorial. He and Scott, a grandson, decided to create a program that featured a "fly-chasing frog". It uses arrow keys to control the frog (the fly moves randomly). I left all the explanations in so the listing will still be valuable as a tutorial. Remove them to run in Basic. (See if you can tell how to determine that the fly is caught).

[Chick De Martin]

```
100 REM FLY CATCHING FROG
105 REM BY NEWT ARMSTRONG
110 CALL CHAR(35,"2810387C6C
"!---FLY
120 CALL CHAR(38,"3C3CFFFFFF
FF7E3C")!---FROG
130 CALL CLEAR
140 RANDOMIZE
150 X=12
160 Y=12
170 CALL HCHAR(X,Y,38) !---
---frog on screen
180 FOR T=1 TO 10 !limit fly
to 10 moves a
190 R=INT(RND*24)+1 !---Row
 limit 24 to 1 for fly--
200 C=INT(RND*32)+1 !---Col
 limit 32 to 1 for Frog--
210 CALL HCHAR(R,C,35) !put
 fly on the screen
220 FOR I=1 TO RNT(RND*75)+2
0 !Random timer for fly..21
counts MIN, 96 MAX---
230 CALL KEY(3,K,S) !-CHECK
FOR FROG MOVE COMMAND---
240 IF (K>7)*(K<12)THEN 300
 !Fall through if no command
250 NEXT I
260 CALL HCHAR(R,C,32) ! ---
remove fly from screen
270 NEXT T
280 PRINT TAB(11);"FLY WON";
;
290 GOTO 510
300 CALL HCHAR(Y,X,32) ! ---
remove frog from screen
310 ON K-7 GOTO 320,360,400,
440
320 IF X>0 THEN 470
340 X=31
350 GOTO 470
360 X=X+1 !---move right
370 IF X<32 THEN 470
380 X=1
390 GOTO 470
400 Y=Y+1 !---move down
410 IF Y<25 THEN 470
420 Y=1
430 GOTO 470
440 IF Y=Y-1 !---move up
450 IF Y>0 THEN 470
460 Y=24
470 CALL GCHAR(Y,X,F)
480 CALL HCHAR(Y,X,38)
490 IF F=35 THEN 500 ELSE 25
0 !If fly got caught fall th
rough
500 PRINT TAB(11);GOT THEM";
 !
510 INPUT "   WANT TO GO AGA
IN? Y,N ":Q$
520 IF (Q$="Y")+(Q$="Y")THEN
 130
530 END

!UUUUUUUUUUUUUU
```

VERIFY A FORMATTED DISK?
(continued from page 6)

In short, when using DM1000, if more than 2 sectors come up used after formatting, a bad sector(s) was found on the disk. When using the Disk Manager 2 cartridge, if more than 0 is found used after formatting, a bad sector(s) was found.

Thus it is advisable to verify a disk when formatting because if the disk was not verified and later on when using the disk a bad sector is attempted to be written to, a write error may occur or even worst, data may be lost from a bad sector in which data is written to. Since disks are so cheap now days, if I find a bad sector on a disk I usually throw that disk away as one sector could mean that other sectors are weak and could eventually cause data to be lost. Note that initializing the disk only takes a short time, the verify process is what takes so long. That is why the option to verify or not to verify was added into the DM1000 program.

One last note, Disk Manager 2 will always verify the disk after formatting, DM1000 allows you the option of not verifying if you are 100% sure the disk is good. Note though, that if errors are received on several disks, the program may not necessarily be a bad disk but the drive may need cleaning or a problem may exist with the drive itself.

BEST WISHES TO MARY MONTAG

We want to wish Mary Montag a continued speedy recovery after her two week stay in the hospital from a heart attack and breathing problem. She was and continues to be in the thoughts and prayers of all who knew of this.

Keep up the good progress, Mary!

MEMBERSHIP RENEWAL

PAY YOUR DUES NOW!!!

THIS IS YOUR LAST ISSUE
UNLESS YOU RENEW NOW!!!!

CLEANERS-SOLVENTS

AT A RECENT C.O.N.N.I. MEETING THERE WAS A DISCUSSION ABOUT USING WD 40 TO BRIGHTEN PRINTER RIBBONS AND I KNEW THAT I HAD READ AN ARTICLE ABOUT USING THIS METHOD IN ONE OF OUR USER GROUP EXCHANGE NEWSLETTERS. I HAVE ALSO SEEN SIMILAR ARTICLES IN OTHER NEWSLETTERS. I AM PASSING THIS ALONG FOR YOUR INFORMATION.

(THIS ARTICLE WAS TAKEN FROM THE HOCUS NEWSLETTER OF WI. JAN 1989 AND UNFORTUNATELY I FAILED TO WRITE DOWN THE AUTHOR'S NAME. PLEASE ACCEPT MY APOLOGIES.)

WD40 IS AN EXCELLENT SOLVENT, BUT A LOUSY LUBRICANT AS IT ATTRACTS DIRT AND SOMETIMES EATS AT PLASTIC SO SHOULD ONLY BE USED TO CLEAN UP GUNK ON METAL. NEVER TRY USING IT TO REVITALIZE USED PRINTER RIBBONS. IT MAY GUM UP YOUR PRINTHEAD PINS.

DENATURED ALCOHOL IS A GOOD CLEANER, HOWEVER REGULAR ISOPROPOL ALCOHOL IS NOT RECOMMENDED, IT LEAVES A RESIDUE. TO CLEAN PRINTHEADS, INSERT A 4 LAYER LINT-FREE COTTON CLOTH IN PLACE OF THE RIBBON. OBTAIN AN AEROSOL CAN OF COLOR TV CLEANER (RADIO SHACK #64-2320) OR EQUIVALENT. MAKE SURE THE LABEL STATES THAT IT CONTAINS SILICONE, WILL NOT HARM PLASTIC AND HAS A PLASTIC TUBE TO PLUG INTO THE SPRAY NOZZLE. NOW GENTLY SPRAY THE CLOTH NEXT TO THE PIN GUIDE, TURN ON THE PRINTER AND PRINT OUT A PARAGRAPH. MOVE THE CLOTH TO A CLEAN SPOT, SPRAY ANOTHER SHOT OF FLUID AND DO ANOTHER PRINT OUT. REPEAT AS NECESSARY.

A TECHNICAL NOTE ON ORIGINAL T.I. DRIVES

by Michael Martinko
Lima Ohio User Group

My disk system presently is composed of corcomp's disk drive controller, and TI's original SS/DD disk drive. Over the past year I have been noticing more and more disk errors, particularly in initializing new disks in a double density format. In fact they had become so predominant that I could no longer initialize in DD. In observing the problem there appeared a pattern to the maddness, i.e., the bad sectors were in multiples of 18. Mr. Randy Belisle of Belisle Interactive Systems here in Lima has proven to be a great source of computer technical information. He suggested that the TI drives are probably divided into 18 sectors, and that the drives are running slow, hence not leaving enough room for the last sector on each rotation. He also suggested that many drives are belt driven and that over the years the belt may stretch, slowing the operating speed of the drives.

The procedure for examining the drive was simple. After removing the drive from the expansion box and unpluging the connecting wires, the metal housing is removed by staightening the metal tab that protrudes into the drive and sliding off the cover. Please note that if you have previously replaced the shunt that was originally installed with dip switches to determine which drive number your drive will respond to, it will be necessary to first remove the dip switches before the cover can be removed. You will find a series of dots on a white disk on one side of the drive. Using a flourscent light on these dots will show if the drive is slow, fast, or within tolerable range. Merely plug the wires into the drive, proceed to initialize a disk, and shine the light on the drive. Mine was running slow. Noticing that the belt was smooth on the incide and textured on the out I simple reversed the belt. Testing the drive proved my suspecions. The drive functioned perfectly. The cost was $00.00. I will however order a new belt from TI, not knowing how long this one will last! But at least I have bought enough time, maybe years, before I will need it. Thank you Randy for your advise. I hope others who are having similar problems will find help in this article.

DONE

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13 MAY 1989
10 JUN 1989
08 JUL 1989
12 AUG 1989
09 SEP 1989
14 OCT 1989
11 NOV 1989
09 DEC 1989
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