

BLOODBANK - continued from previous page

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300 FOR I=1 TO 4
310 ON I GOSUB 400,500,600,700
320 FOR K=1 TO 57
330 CALL SOUND(1*(A(K),B(K),0,C(K),0,D(K),0)
340 NEXT K
350 NEXT I
360 CALL CLEAR
370 END
400 GOSUB 800
405 PRINT ":::::The God of Abraham praise,":;"who reigns enthroned abo
ve!"
410 PRINT "Ancient or Everlasting Days,":;"and God of Loves!"
415 PRINT "Jenovan, great I AM! by":;"earth and heaven confessed;"
420 PRINT "I bow and bless the":;"sacred name forever blest.":;"
425 RETURN
500 GOSUB 800
505 PRINT ":::::The great I AM has sworn!":;"I on this oath depend."
510 PRINT "I shall, on eagle wings":;"upborne, to heaven ascend."
515 PRINT "I shall behold God's face!":;"I shall God's power adore,"
520 PRINT "and sing the wonders":;"of God's grace forevermore.":;"
525 RETURN
600 GOSUB 800
605 PRINT ":::::The heavenly land I see,":;"with peace and plenty bles
s!"
610 PRINT "The land of sacred liberty,":;"and endless rest."
615 PRINT "There milk and honey flow,":;"and oil and wine abound,"
620 PRINT "and trees of life forever":;"grow with mercy crowned.":;"
625 RETURN
700 GOSUB 800
705 PRINT ":::::The God who reigns on high":;"the great archangels sin
g,"
710 PRINT "and ""Holy, holy, holy!""":;"Cry, ""Almighty King!"
715 PRINT "Who was, and is, the same,":;"and evermore shall be:"
720 PRINT "Jenovan, Lord, the great":;"I AM, we worship thee!""":;"
725 RETURN
800 CALL CLEAR
810 PRINT "THE GOD OF ABRAHAM PRAISE"
820 RETURN
1000 DATA 20,262,208,175,20,349,262,206,20,392,262,165,20,415,262,175
1010 DATA 20,466,349,139,60,523,330,196,20,415,311,131,10,466,349,175
1020 DATA 10,466,349,196,20,523,349,220,20,554,349,233,20,622,311,196
1030 DATA 60,523,311,208,20,392,262,165,20,415,262,175,20,466,311,196
1040 DATA 20,523,311,208,20,554,349,208,20,622,311,208,20,392,277,233
1050 DATA 20,415,262,175,20,554,349,208,40,523,311,208,20,466,311,196
1060 DATA 20,466,277,196,60,415,262,208,20,415,311,262,208,20,523,311,208
1070 DATA 20,523,349,253,20,523,349,208,20,523,311,208,60,466,311,196
1080 DATA 10,415,262,233,10,392,262,233,10,349,262,208,10,392,262,208
1090 DATA 10,415,349,139,10,466,349,196,20,523,311,208,20,349,277,196
1100 DATA 60,330,262,175,10,262,165,131,10,262,165,233,20,349,262,175
1110 DATA 20,349,262,165,20,415,262,175,20,466,311,196,20,523,311,208
1120 DATA 10,466,349,139,10,523,349,220,20,554,349,233,10,523,392,277
1130 DATA 10,466,349,277,40,415,349,262,20,392,330,262,20,392,330,233
1140 DATA 60,349,208,175

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Reprinted from Mid-South 99 Tibbits newsletter of April 1993

JOHN PHILLIPS

-----By Bill Gaskill

I would venture a guess that most people who have owned a TI-99 for more than a couple of years have run across the name John Phillips before. He is a near legend in the TI-99/4A cartridge and assembly language programming community and claim authorship, co-authorship or significant involvement in over a dozen cartridge programs produced for the 99/4A, not to mention numerous articles written about the inner workings of the 4A's architecture.

Phillips will be 32 years old this year (1993) but he was only 21 when he was hired by Texas Instruments in 1982 right after graduating from Illinois State University. He started his career with TI in Dallas doing CUBHL programming for business applications but it took him only 6 months to get a requested transfer to Lubbock where the "real" action was. John had purchased a 99/4 during his senior year in college and was already familiar with the Home Computer's architecture and he had wanted to program video games since purchasing his first cartridge, which was Munchman. Phillips didn't know TMS9900 assembly language but it didn't take him long to learn it.

His first project at Lubbock was Moonmine, followed by Hopper, which he co-authored with Michael Archuleta. Hopper was followed by Word Radar, which he wrote in 2 weeks, for Developmental Learning materials (DLM), the firm started by Bill Maxwell and Jerry Chaffin.

After completing Word Radar TI sent Phillips to Japan where he met with several companies who were being recruited to write software for the 99/4A. Following his return from Japan he became involved in almost every piece of software that was slated for production or that was actually produced for the 99/4A. When TI announced the end of the Home Computer Division Phillips was offered several incentives to stay at TI but turned them all down because none involved work with the 99/4A. Instead, he and fellow employee Michael Archuleta went to work for DLM, which had continued to work on products for the TI-99/4A even though it was no longer being produced.

In December 1983 John Phillips announced to the TI Community that he was available to any User Group for seminars, demonstrations and question and answer sessions related to the TI-99/4A. He would travel to virtually any location if the User Group would pay round trip airfare from Dallas, Texas plus lodging? While he could only make himself available on weekends, it was a pretty generous offer.

Both Phillips and Archuleta eventually left DLM (probably because the work there dried up too) and started their own firm in February 1984 called Video Magic. Video Magic also came to an end in too short a time, I suspect because it was becoming painfully obvious that one could not make a living trying to write software for the 99/4A.

At Texas Instruments Michael Archuleta was responsible for the 99/4H technical Hotline and for 99/4A software quality assurance. Phillips was a third-party software development consultant and programmer in the education/entertainment section of the Consumer Products Division. Both men would get together again in 1986 to collaborate on the 4H-FLYER game cartridge that was commissioned by Triton Products. To date, that is the last time we've heard from the John Phillips/Michael Archuleta team.

Archuleta and Phillips were involved in, or responsible for such 11-YY favorites as:

ANGLER DANGLER - Phillips worked on this project as the debugger of the final code, but the project never reached completion before the bailout so Angler Dangler was never officially released. It does exist in BRAM file format however, so it probably was not too far from being a real product when someone at TI made the decision to pull the plug. If you look at the October 23, 1983 IUG price list you will see Angler Dangler listed as being available.

BEYOND PARSEC - This cartridge, which Bill Moseid's DataBiotics firm released for the 99/4A during the third quarter of 1988, started life in early 1984 as one of two game cartridges John Phillips was writing for CorComp's new CCI-99/64 (aka Phoenix) computer. The other game was Star Wars. Both efforts came to a screaming halt however, when TI objected to the use of the Parsec name, and George Lucas' company apparently objected to the use of the trademarked Star Wars name. The Star Wars code must have actually been finished at the time though, because I have the game on disk as a GPL file. It was ultimately renamed Star Trap and released in cartridge form by Excitec in 1985 and then by DataBiotics during the third quarter of 1988.

BEYOND SPACE - This is a John Phillips creation that was completed in May 1984, but was not released until the first quarter of 1985 when Excitec/Sunware marketed it. It was picked up by Unisource Electronics for their catalog/encyclopedia but pretty much floundered and then just disappeared. It has never resurfaced since both Unisource and Sunware went out of business in 1986.

The game involved two players with each having a ship of equal firing power. The area in space where the two ships confront each other is littered with asteroids which may be moved by firing the ship's laser. The object of the game was to push asteroids into your opponent's space ship to crush and destroy it. The only review I've ever seen written on the program claimed that its speed was too fast to play the game very long, so that may be why it has slipped into oblivion?

BURGERTIME - Phillips provided the final debugging for Burgertime.

D STATION - This John Phillips creation has the distinction of being the only program ever released by the International 99/4 User Group on the Komox cartridge. You may recall that during the fourth quarter of 1983, Charles LaFara promised "a library" of programs from the IUG on the Komox LCPC (Edge Connector Programmable Cartridge). D Station was just the first, but it also turned out to be the last.

When the IUG library failed Excitec (aka Sunware) picked up the program and marketed it for a short time in 1985. Triton finally introduced D Station in their Fall 1988 catalog along with a brand new D Station II game, also written by John Phillips.

D STATION II - See D Station.

FACEMAKER - Phillips collaborated with Intertsoft's Jerry Spacek on this project. Spacek you may recall wrote Defend the Cities, which was the first commercial Mini-Memory assembly language game ever written. In the facemaker project Spacek translated Spinnaker's source code to IMS590 assembly language and Phillips ported it to cartridge format.

HOPPER - Michael Archuleta and John Phillips co-wrote Hopper, which was the only cartridge developed entirely on the TI-99/4A Home Computer, using the Editor/Assembler cartridge for all of the programming. All of the other 11-YY cartridge software programs were developed on a TI Mini, not the 99/4 or 4A.

JAWBREAKER II - Phillips converted the original Sierra On-Line source code to the TI-99/4A code.

MINI MEMORY'S LINE-BY-LINE ASSEMBLER - Phillips claims responsibility for its development, but I am not sure exactly what that means.

RUUNLINE - Programmed by John Phillips from a design by Bob Hendren. You may remember that Hendren was also the project engineer behind Parsec and the person who recruited Audrey Anderson to do the voice for the Parsec game.

PETER PAN'S SPACE ODYSSEY - Phillips and Archuleta collaborated on this program while employed at ULM. It was never officially released but it is available as a BRAM file that can be run from P-Gram, Bramulator or the Bram Cracker.

SLYMIUS - Slymius was written by James R. Von Ehr II. The cartridge conversion was accomplished by John Phillips.

STAR TRAP - See Beyond Parsec.

SUPER DEMON ATTACK - Phillips worked on this project, but I have no information on the specific contributions he made to its completion other than possible debugging of the final code. I do know that he actually worked on Demon Attack, not Super Demon Attack, but they are probably the same project with the actual marketed product just having a slightly different name.

THE GREAT WORD RACE - John Phillips authored.

TREASURE ISLAND - Phillips provided the final debugging for this game cartridge, which had apparently become stalled by a bug that no one could find.

WORD KIDNAP - John Phillips authored.

2014
February 1993

~~~~~ TI-101 ~~~~~  
OUR 4/A UNIVERSITY

by Jack Suhrue  
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#1 CORPLS

#### Historical Perspective

First, Class, if you'd look at the screen. This overhead shows the brain. Yes, Ms. Bronte, the human brain. This is the corpus calosum, that wonderful band of billions of nerve fibers connecting the hemispheres of the brain. Forty years ago that band was surgically severed to contain grand mal seizures in epileptic patients. That was the beginning of a profound revolution in education that is quietly (though, at times, quite noisily) continuing through today.

Through the massive research done since that fateful slice, we, as a society, have learned more in the past quarter century about how people learn than we knew about the subject in all the tens of centuries humans have considered the process. This educational revolution was not without its proponents. John Dewey was one. Today there are many great teachers out there operating under the umbrellas of "Process Learning," "Open Methodologies," "Whole-Brain Teaching," "Open Classrooms," "Science/Logic Approach," and piles of other names, including "Whole Language." The last is probably having the most profound influence on the real education in the English-speaking world as any philosophical approach since Horace Mann "mandated" public education in America so long ago. (So long ago that we take free, public education for all as a given, as an inalienable right.)

but there is a problem, Class.

(Isn't there always?)

When the Germans first devised an efficient way of organizing a mass education in the 19th Century, they decided to make a step-by-step system of completing a given body of work at a given chronological year of a child's life. Thus, 6-year-olds go through a first grade (and an artificially-created, adult-generated curriculum). After completing this predetermined set of tasks, the child turns seven and, if lucky, moves into the second grade where another set of artificial goals awaits him (no girls, of course).

Aren't you glad America has no sexist or racist bias these days? The fact that 7-year-olds are not developmentally on the exact step at any time (any more than all the 47-year-olds are) made no difference to the people operating this 19th Century system. In order to protect the system, an achievement hierarchy was developed, which has come down to us, unfortunately, even to today in too many schools. It is a system that never worked because it created an invisible - though profound - class system. The system created a society of elitists, of average wicks and janes, or losers. The basal reader system (unfortunately still in place in most American schools) requires that the classroom be divided into three groups: the good readers, the average readers, the poor readers (sometimes called bluebirds, robins, and Snowy Egrets or

Red-crested Flamingos or whatever). But you know and I know that those groups, begun in kindergarten and carried all through the elementary school, created what are perceived as the smart snobs, the straddling middle class, and the dumb (and bad) kids. By the time official tracking takes place in junior high (middle school) the system is firmly in place. You'll never guess which group has the greatest number of dropouts or which group has the greatest number of kids who go on to advanced degrees (followed by the best jobs). These determinations for the most part are made in the primary grades in elementary school.

The same 19th-Century system also created a hierarchy of adults. Prior to the institutionalization of education the teacher was the most important adult in the learning process. After the system overtook the world, administrators became the most important part of the system. This is usually followed by the operational staff. (Go into ANY school and see it that institution operates around the things that secretaries and custodians require before all else or whether the teachers get top priority. surprise!)

Anyway, Class, in this topsy-turvy setup, highly-paid administrators make the decisions. These decisions (from administrators operating in an entirely separate building from a school, believe it or not) are then handed down to other administrators who have offices and secretaries. The decisions are then handed down to administrators who are in schools (principals, which means, by the way "first or highest in rank and importance"). In secondary schools these decisions are usually then handed down to department heads. Then - possibly - the teachers are "accountable," even though they have been excluded from the decision making. Doesn't this "accountability without authority" have a bit of the ring of "taxation without representation" about it?

Generally speaking, administrators - who have the most opportunity and time to learn about all the masses of research on how children learn - know the least. They are divorced from the youngsters and from the realities of day-to-day education. They don't realize, for example, that the clientele has changed. That the students today are not made the same way, intellectually and emotionally and socially, that street violence, fanatic consumerism, drugs, and so on were not a part of our growing up, or our everyday consciousness and reality. That when I was growing up the attention span of youngsters in ELEMENTARY SCHOOL was estimated to be a little over an hour; that seven years ago for students in K-12 it was 22 minutes; that last year for that same group it was 10.8 minutes.

And education is a big - a humongous! - business. Publishers determine the curriculum in America and sell their goods to administrators who hoist these materials upon the trained classroom professionals. This is a multi-billion dollar business and one that stands out any attempt at teacher input for better ways of doing things in the classroom. Such changes may cause these influential profiteers to lose money; influential bureaucrats to lose power.

Millions of Americans sense (even if they don't have statistics at hand) that something is drastically wrong with schools that still use 19th-Century methods and materials to teach 21st-Century life skills and that still puts profit and political power (inside and outside the

schools) ahead of the education of our children. These parents and other friends of public education are afraid for America, for the Earth, for all our children.

Some parents (former Bluebirds) have the lucky financial fortune to put their children into expensive private schools. Others have sought to find some escape and protection from the outside world by placing their youngsters in religious schools where they hope their own values will be inculcated. Others, who have the trained academic and intellectual background (like Barry Traver) teach their children at home. The vast majority of us parents are, however, just working class stiffs who want and expect public education to do its job by our kids.

But, wait a minute, my young scholars! Aren't we the same society that put a man on the moon just because Jack Kennedy set us that national goal? Didn't we (not England, not Chile, not Russia, not China, not Iraq) send those Voyager spacecraft out into the wilderness of our solar system? Aren't we the country with the most Nobel winners?

But those achievements all stemmed from a society that prized education. Weren't these and most of the other masterful achievements of our nation developed during a high level of caring for our youngsters (our future), and of developing a liberal climate of risk-taking and experimentation?

What has happened since Nixon's Presidency to change all this? In spite of the lip service given to education by our recent Presidents, the state of the Union, educationally, has regressed catastrophically following the Kennedy/Johnson Era. And, because federal and state programs to assist and enhance the education of our nation's greatest resource - it's children - has virtually dried up and property taxes are the primary source of funding education, teacher bashing has become a national pastime. Blaming the teachers (the lower paid members of the staff who are not allowed to make important educational decisions nor even to give input in most cases) is like blaming the production line worker for the stupid concepts American car manufacturers have been promulgating. As a matter of fact, it is an interesting solution on the part of the rich conservatives to save American business (and, thus, America) by laying off the workers, as if they in some way were to blame for the decision-makers' gross and blatant stupidity.

That, of course, is another story, Class.

There is a revolution happening in American education, and it will prove to be the saving of our nation. This revolution has many names and takes many forms, but it is a commonality: holism. It's an idea whose time is long overdue, and your TI has its place in this scheme of things. We'll begin to look at those next time in TI-101.

Meanwhile, Class, for your homework I'd like you to type in any program from any source on your TI. NO, it doesn't have to be an educational program, but it must be a minimum of 20 lines and work when you bring it to class next time.

Liao!

The above reprinted from the VABT NEWS newsletter of March 1993

QUICK ADDRESS by Bill Gaskill

December 1992

Have you ever wished for an easy way to keep track of all the hardware and software you've purchased for your computer over the years? Well don't despair, because you can create such a system in TI-Writer or any of its clones without much work. Then, using the extended Basic program that follows this article, you'll be able to access the data in your inventory without ever loading it. Here's how.

Set up a table in the TI-Writer editor like the one shown below, being VERY, VERY close attention to the column positioning of the item, NUMBER, DATE, RETAIL, PAID and VENDOR fields. The numbers in the very first row of the first table shown below are included only for this illustration, as a column guide during setup. You should not include them in the file that you eventually save to disk.

The underline characters after ADVENTURE MINT BOOK must be part of the file because the extended Basic program uses them as an end-of-file marker. All entries you make in the file MUST also be in between the dashes at the top of the file and the underline characters at the end of the file just as the records are in the illustration. In other words, the underlines must always occupy the last record in the file.

When you are done setting the file up in your TI-Writer editor, set the tabs so you'll be able to move quickly from field-to-field during data entry. Each tab would of course be set to the left-most character in the field. For example, the tab for NUMBER would be set at column 36, the tab for DATE would be set at column 45 and so on.

| ITEM                       | NUMBER   | DATE  | RETAIL | PAID | VENDOR  |
|----------------------------|----------|-------|--------|------|---------|
| APHLET-ING                 | PHM 3030 | 06/92 | 39.85  | 4.95 | TEXCOMP |
| ABC'S OF ASSEMBLY LANGUAGE |          | 07/84 | 10.95  | 0.00 | TEXCOMP |
| AL CIRCUIT ANALYSIS        | PHI 6044 | 03/92 | 3.95   | 3.95 | TM DIRE |
| AL CIRCUIT ANALYSIS        | PHI 6044 | 03/92 | 3.95   | 3.95 | TM DIRE |
| ADVENTURE MINT BOOK        |          | 02/92 | .95    | .95  | TEXCOMP |

When you are done with the file setup it should look like the one shown below.

| ITEM  | NUMBER | DATE  | RETAIL | PAID  | VENDOR |
|-------|--------|-------|--------|-------|--------|
| ----- | -----  | ----- | -----  | ----- | -----  |

If it does, then save the file to a disk in DSK1 using INVENTORY as the file name. Make sure to use the SF function so the tab stops are saved with the file. That way you'll still have them for the next time you enter data.

When you do begin data entry, make sure to put zeros in the RETAIL and PAID fields where you don't have a RETAIL price or an amount that you PAID for the item. If you leave any entry blank in RETAIL or PAID the

extended basic program will error out and fail to produce the desired results.

Sorting data in your INVENTORY file will have to be done with T1-Sort or J. Peter Hoddie's Sort Experiment, or your favorite sort utility. Modifying and deleting records is of course done quickly and easily right in the T1-writer editor.

The extended basic program, which I have named QuikAccess, will let you total and display the RETAIL costs and purchase (PAID) costs in the entire file. You can also selectively search for and print records from the file using Product Name (ITEM data in other words), purchase DATE or VENDOR name fields. Likewise, you may print the entire contents of the file by selecting Product Name search, and then pressing <ENTER> at the "Enter data to find" prompt without typing in any data to look for.

All three search options (menu choices 3, 4 and 5) include a "purchase total" at the end of the printout. If you don't have a printer you can erase the printer name in the Setup Printer option and QuikAccess will print everything to the screen.

Lastly, the default Esc and Page Eject codes under Set up Printer are the codes for Epson and Epson compatible printers. If they don't work for you, then simply substitute the ones that do for your brand of printer.

When you key in this program, omit the carets (the ^ symbols) when doing the keying. They only exist in the listing to show how many spaces exist between words.

```

1 :SAVE DSK1,QUIKACCESS
100 IMAGE *****
110 CALL SCREEN(0): FOR C=0 TO 14 : CALL COLOR(C,16,5): NEXT C
120 A=2 : LN=1 : EC=27 : PE=12 : PR="PI0" : CALL CHAR(126,"FFF")
130 ON WARNING NEXT : ON BREAK NEXT : ON ERROR 480
140 DISPLAY AT(1,10)ERASE ALL:"QuikAccess":;RPT$( "",28)
150 DISPLAY AT(4,1):"1 - Retail price total":;"2 - Purchase price total"
160 DISPLAY AT(8,1):"3 - Product name search":;"4 - Purchase date search"
170 DISPLAY AT(12,1):"5 - Vendor name search":;"Fctn 7 - Set up printer"
:;RPT$( "",28):"Fctn 9 to Quit":;RPT$( "",28)
180 CALL KEY(O,K,S): IF K=1 THEN 270 ELSE IF K=15 THEN END ELSE IF K<49
OR K>53 THEN 180
190 OPEN #1:"DSK1,INVENTORY",INPUT ,DISPLAY ,VARIABLE
200 IF PR="" THEN 210 ELSE OPEN #A:PR$,OUTPUT
210 ON K=48 GOTO 220,230,240,250,260,270
220 A=2 : Y=6 : GOSUB 300 : DISPLAY AT(17,1):"Total retail^^^^": : D
ISPLAY AT(17,18):USING 100ID : GOTO 460
230 A=0 : Y=6 : GOSUB 300 : DISPLAY AT(17,1):"Total purchases $": : D
ISPLAY AT(17,18):USING 100ID : GOTO 460
240 C=" " : X=1 : Y=35 : GOSUB 360 : GOTO 460
250 C=" " : X=45 : Y=3 : GOSUB 360 : GOTO 460
260 C=" " : X=68 : Y=15 : GOSUB 360 : GOTO 460
270 DISPLAY AT(20,1):"Esc Code:"EC:"Page Eject:"PE:;PR : ACCEPT AT(2
0,17)SIZE(-2)VALIDATE(NUMERIC):EC

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280 ACCEPT AT(20,26)SIZE(-2)VALIDATE(NUMERIC):PE : ACCEPT AT(22,1)SIZE(-
28):PR$
290 IF PR="" THEN A=0 : GOTO 140 ELSE A=2 : GOTO 140
300 C,D,K=0
310 LINPUT #1:A$ : B$=SEG$(A$,X,Y): IF SEG$(B$,1,1)="R" OR SEG$(B$,1,1)
="P" OR SEG$(B$,1,1)="-" OR SEG$(B$,1,1)="_" THEN 330
320 C=VAL(B$): D=D+C : K=K+1 : DISPLAY AT(22,1):"Record:":R
330 CALL KEY(O,K,S): IF K=15 THEN 350
340 IF SEG$(B$,1,1)="_" THEN 350 ELSE 310
350 RETURN
360 DISPLAY AT(22,1):"Enter data to find:": : ACCEPT AT(24,1):C$ : DISPL
AY AT(17,1):"Press Fctn 9 to add:"
370 DISPLAY AT(22,1):"Correct? (Y/N)": : CALL KEY(O,K,S): IF K=89 THEN 3
80 ELSE IF K=8 THEN 360 ELSE IF K=15 THEN 480 ELSE 370
380 C,D=0 : GOSUB 490
390 LINPUT #1:A$ : B$=SEG$(A$,X,Y): IF SEG$(A$,60,1)="_" THEN 440
400 IF SEG$(A$,60,1)="-" OR SEG$(A$,60,1)="_" THEN 4
50
410 IF C=SEG$(B$,1,LEN(C*)) THEN PRINT #A:A$ : D$=SEG$(A$,60,6): C=VAL(
D$): D=D+C : LN=LN+1
420 IF LN>28 THEN PRINT #A:CHR$(EC)&CHR$(PE): LN=1 : GOSUB 490
430 CALL KEY(O,K,S): IF K=15 THEN 440 ELSE 390
440 PRINT #A,USING "*****Purchase total is *****.##":L
450 RETURN
460 CLOSE #1 : IF A=0 THEN CLOSE #A
470 DISPLAY AT(24,1):"PRESS<ENTER> TO CONTINUE." : CALL KEY(O,K,S): IF
K=15 THEN 470 : GOTO 140
480 RUN
490 PRINT #A:"ITEM"~~~~~"NUMBER"~~~~~"DATE"~~~~~"RETAIL"
PHI0"~~~~~"VENDOR"
500 PRINT #A:"-----"
510 RETURN

```

Reprinted from Mid-South 99 Tidbits

(This Z-LINK is called TINYCAT. This is a quick little routine that will list the disk's name, how many sectors are left on the disk and the names of ALL files on the disk. It won't tell you the type of file, but all you wanted to know was what was on the disk anyway. If you need to know more, let the big boys, like DM1000, provide that information.

```

100 CALL CLEAR : INPUT "DRIV NAME?(Dskn):":ID$ : INPUT "<O>-SCREEN OR
<I>-PRINTER?":D : OPEN #1:"PI0" : CALL CLEAR : OPEN #2:D$&".",INPUT
,RELATIVE,INTERNAL : INPUT #2:P$,W,X,Y : PRINT #D:P$ ("STR$(Y)"); SEC
TORLEFT) : ; ;

```

```

110 INPUT #2:P$,Z,Z,Z : IF P$="" THEN PRINT #D : CLOSE #1 : CLOSE #2 :
: END : ELSE PRINT #D:P$, : PRINT #D : ; ; GOTO 110 : !TINYCAT (C)1990 G.
W. BRANDBER

```

Just answer the screen questions, and TINYCAT will do the rest.