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1/2 Page= \$ 8/Issue; \$ 75/12 Iss.  
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COMING EVENTS IN APRIL AND MAY

TUESDAY, APRIL 16, 7 P.M., Clayton  
Hall, Univ. of Del.: Delmarva Power  
Home Computer Power Protection '85  
Information on surges, losses,  
and like bogeys with discussion of  
special equipment. Chance to win a  
\$1600 backup system. No admission  
fee; call 302-454-4305 for info.

SATURDAY, APRIL 20-21, 10-5, Tren-  
ton State College Computer Fair. A  
popular event with the Jersey User  
Groups; maybe meet MYARC people.

SUNDAY, MAY 5, 10-4, Clayton Hall,  
Univ. of Del.: 3rd Annual Computer  
Fair. Suggestions for special DVUG  
displays appreciated; our booth is  
always a popular place to be.

AYE FOR ONE, AND ONE FOR AYE?

A Letter to the Editor of FAMI-  
LY COMPUTING (April, 1985) told us  
that For-Next loops using letters  
I (FOR I=1 TO 9::NEXT I), J and K  
as variables occurred so frequent-  
ly because Fortran, one of the old-  
est high-level computer languages,  
assigned integer values to those  
variable names, and the convention  
continued into contemporary pro-  
gramming style. This DATA BUS Ed-  
itor especially prefers avoiding  
that variable for better clarity.

TI offers users better variable  
name options, the 99/4A does not  
slash its zeroes, and not everyone  
has like printers. This newsletter  
runs from a NEC-8023A-C (i.e., the  
C.I.TOH Prowriter), whose 0 is dis-  
tinct from the number 0, and whose  
I is definitely not a 1. That is  
not as clear on other's equipment,  
so we prefer more discernable var-  
iables and will substitute them on  
listings in this newsletter where  
opportunity permits.

Jim Peterson offered one way of  
checking these problems on listing  
your lines, in his "TIPS FROM THE  
TIGERCUB #8". Assuming you start  
with 100 CALL CLEAR, then make the  
next line 110, he suggests:

Here is a handy debugging rou-  
tine. Right after the first CALL  
CLEAR, put in these temporary  
lines:

```
101 FOR @=1 TO 4  
102 CALL COLOR(@,16,1)  
103 NEXT @  
104 GOTO 104
```

Then type LIST. As soon as the  
first lines have scrolled to the  
top of the screen, stop the List  
with FCTN 4. Type RUN. All the  
numbers and punctuation will turn  
white. Check for I's instead of  
1's and O's instead of 0's and  
vice versa, equal number of open-  
ing and closing parentheses, mis-  
placed commas, etc. Then BREAK  
with FCTN 4, LIST (the last line  
on the screen) and hyphen, ENTER,  
stop it again, etc.

[Especially for CALL CHARs-Ed.]

### WORD PROCESSING THOUGHTS AND TIPS

Several items of interest to TI word processing users have come to our attention including this TIBBS download from HUG(Houston) printed by the Daytona Beach 99'ers. (See February's story on Dom DiStefano)

~~~~~  
WORD PROCESSING USING EDITOR/ASSEMBLER by PHIL BENNIS, New Horizons Computer Club:

By now, most of you have already discovered that the E/A module can be used to play some great arcade-style games. But did you also know that the very same E/A module can be used as a very capable word processing program? ...

1) Insert the E/A module and E/A Masterdisk #A. This disk has to be in Drive #1 to work.

2) Select the option for E/A.

3) At E/A Menu screen select #1 (EDIT).

4) On next screen select #2(EDIT). The EDIT program will load. Your next screen will show: "EOF (VERSION 1.2)".

5) Press Function 8 (INSERT LINE) to move this header down one line.

6) Press Function S(LEFT ARROW) once to display line numbers at left of your screen. These will be needed later if you want to move a line or entire paragraph.

7) If you plan to submit your article to this newsletter, try to keep your line length to only 34 characters. You can go all the way over to 74 characters for use in other applications.

8) Type in your letter using the above instructions. You may use the Function arrow keys anytime you need to make corrections or to move the cursor anywhere you want.

9) To save your letter, press Function 9 (BACK) twice to return to the EDITOR screen.

10) Press Option 3 (SAVE) and you will be asked if you want to save your program in the VAR 80 FORMAT (Y/N). Type Y (Yes).

11) Next you'll be asked for a "FILE NAME". Type DSK.\_\_\_\_\_ and your program will be saved to Disk. It is a good idea to save your program from time to time as you write it to keep from losing it accidentally.

12) To return to your program if you want to continue entering your program, just press option 2 (EDIT) and you are back at the beginning of the program.

13) Move the cursor to where you left off by using Function X (DOWN ARROW). This should be enough to get you started. Have fun and enjoy the mysteries of this marvelous machine of ours.

Happy Computing. PHIL BENNIS

~~~~~  
Those of you who already have TI-WRITER will recognize the great word processing features which you are used to, when you try the E/A. (E/A was until recently considerably cheaper than TI-WRITER.)

TI has provided us some public domain updates to TI-WRITER, which include true lower-case letters. These are in DVUG's Software Library, for any member wishing them.

If you've already obtained that updated disk, you may wish to take the next step and get a convenient Loader program to run TI-WRITER in XBasic, WITHOUT the cartridge. We are seeing many such assembly language programs, for a variety of cartridge programs, that are a boon to wear-and-tear problems, especially for TI software no longer to be found, needing replacement.

Some TI-WRITER uploads are in the commercial markets; others can be found as FREWARE on COMPUSERVE or TIBBS across the country. One is Tom Knight's, with a Loader and Writer program, but which requires the lower-case update to run (as I learned, downloads and \$ later, in explaining why all I could see was a bunch of Control characters! Now you know, too.) The one feature of the TK-LOADER/WRITER not accessed is the S(how) D(irectory) call, so be sure to save your current file.



# 10th Annual TRENTON COMPUTER FESTIVAL

**April 20, 1985**  
Saturday 10 a.m. to 6 p.m.  
**April 21, 1985**  
Sunday 10 a.m. to 4 p.m.

**TRENTON STATE COLLEGE  
TRENTON, NJ**

- Attendance last year exceeded 15,000
- The original Personal Computer Show now celebrating its tenth anniversary
- Huge outdoor Flea Market—software/hardware accessories, surplus computer gear, more than five acres of bargains
- Triple the exhibition space—new location in the ISC Recreation Center—all exhibits, lectures and promotions conveniently located in one part of the campus
- Forums, talks and seminars, Saturday. Meet the leading experts and attend sessions on software/hardware applications: business applications, educational computing (special sessions for parents and teachers), robotics, music, graphics, ham radio, new languages, etc.

### Admission/Registration

General admission, covering both days and all events except banquet \$7  
Students/senior citizens \$3  
Sunday only—\$5.00 general admission  
Children under 12 accompanied by an adult will be admitted free on Sunday.

Flea Market spot for the entire weekend (includes 1 admission ticket) \$15

**Saturday Evening Banquet**—Register in advance by sending check for \$12.00 per person to TCF '85, Trenton State College, Hillwood Lakes CN 550, Trenton, NJ 08625.

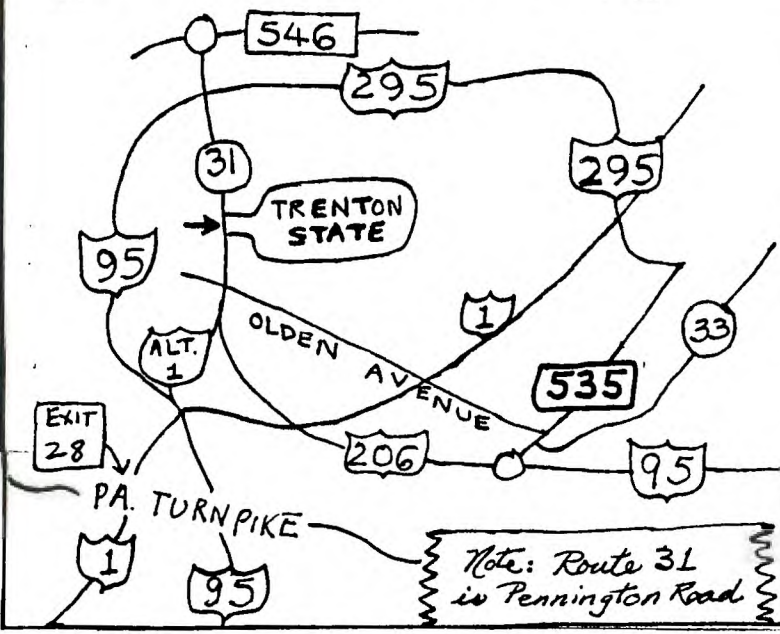
No festival pre-registration is necessary. Registration will be at door only.

### Sponsored by:

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RESOURCE LISTING FOR TEXAS INSTRUMENTS-99/4A HOME COMPUTERS

(These listings are provided as a convenience by the Editor, and do not constitute an endorsement by the Delaware Valley Users Group. They are provided to help some of our members realize the variety of resources available to them as TI users in 1985.)

DATA BASE MANAGEMENT SOFTWARE (Suggested retail prices)  
-----

ACORN 99, Oak Tree Systems, 3922 Valentine Road, Whitmore Lake, MI 48189 (313)426-3480: \$69.95. XBasic, 32K, Disk required. 14 categories, up to 57 data items, 254 characters. Flexible for user-written programs, also various preprogrammed functions to define, create, update, search and print report.

ARCHIVA 300/600, Amnion Stoneware, 116 Carl Street, San Francisco, CA 94117: \$24.95. While I don't have information available directly, West Coast sources think it's worth checking. The author is Guy-Stefan Romano, who can be reached from 9-4 Pacific time Monday through Saturday at (415)753-5581. Dr. Romano has a national reputation for providing excellent technical advice on all kinds of TI matters, as a personal interest, whether or not you own Amnion products. Try that number if interested.

DATA BASE 99, Quality 99 Software, 1884 Columbia Road #500, Washington, DC 20009 (202)667-3574: \$39.95. XBasic, 32K, Disk required. 28 fields, 28 char./field up to 245 characters. Sorts on any field; prints any field in very flexible output. Stores 350 SS Disk records, 700 on DS Disk.

DATA BASE MANAGEMENT, Navarone Industries, 510 Lawrence Expressway #800, Sunnyvale, CA 94086 (408)985-2932: \$69.95. Cartridge and Disk, 32K. Set up, entry, sort and report routines; 25 fields, 28 char./field up to 255 char., 3200 records. We hear a much-needed revised manual is being prepared.

DATA BASE X (Version 2.0 Update), Western Ware, Box 53042, Lubbock, TX 79453: \$29.95. XBasic, 32K, Disk. 10 categories each record, 1000 records per file, 5 files per disk. (Multiply X2 for DS Disk.) Sorts up to 3 categories at once(?), various math functions, variety of report options.

This is a paperback book for ADVANCED programmers:

DATA AND FILE MANAGEMENT FOR THE TI-99/4A, by Grillo, Robertson and Zbyszynski, Wm. C. Brown Publishers, Dubuque, IA, 1984. ISBN 0-697-00245-4: \$15.95. XBasic, 32K, Disk. From an earlier CREATIVE COMPUTING series, particularized for the TI. Chapters on Pointers, Sorting, Strings, Linear and Linked Lists, Sequential Access Files, Direct Access Files, Trees, and Inverted Files. College-level.

E-FILES ELECTRONIC CARD FILE, VMC Software, P.O. Box 326, Cambria Hts., NY 11411: \$21.95. XBasic, 32K, Disk. Picture-driven menu; 200 records per file, 3 files per disk, is a variation, such as COMPUTE!'s Guide to Extended Basic Home Applications book, ISBN 0-942386-41-8, P.O. Box 5406, Greensboro, NC 27403 (800)334-0868, \$12.95 (plus \$2 shipping and handling), for lesser inexpensive aid in this field.

HOURS:

MON. 11 - 4  
TUE.  
thru 10 - 9  
FRI.  
SAT. 10 - 5:30

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## 28-COLUMN CONVERTER FOR TEXT FOR SCREEN OR LISTINGS, by Jim Peterson

This is the routine mentioned in last month's column on page 6. Program Catalog #5 is \$1 from TIGERCUB SOFTWARE, 156 Collingwood Ave., Columbus, OHio 43213. TIPS FROM THE TIGERCUB reprinted here with author's consent.

If you are typing this listing in TI-Formatter mode, note carefully:

DATA elements to be typed in line 320, separated by commas, will cause problems in the TI-WRITER Formatter mode. If you don't want to revert to FILL and ADJUST, delete the second statement in line 300. Also, in that mode, the asterisk in this program should be transliterated because of a quirk of TI-WRITER Formatter which changes A\*256 into A6. Otherwise, type

```
100 DISPLAY AT(1,4)ERASE ALL
:"28-COLUMN CONVERTER" :: DI
SPLAY AT(3,12):"by Jim Peter
son"
```

```
110 DISPLAY AT(5,1):" To con
vert a program, saved":"with
LIST ""DSK1.FILENAME""","i
nto 28-column format which":
"can be merged into the text
"
```

```
120 DISPLAY AT(9,1):"buffer
of TI-Writer."
```

```
130 DISPLAY AT(11,1):" Optio
nally with transliter-":"ate
d @, &, %, ^ and . for":"pri
nting from formatter":"mode.
"
```

```
140 DISPLAY AT(16,1):" Progr
am should be RES in":"steps
of 10 starting at 100":"befo
re LISTING to disk."
```

```
150 DISPLAY AT(20,1):" Do yo
u want to print the":"file f
rom the":" (E)ditor?":" (F)o
rmatter?"
```

```
160 ACCEPT AT(24,1)VALIDATE(
"EF")BEEP:Q$
```

```
170 LN=100 :: CALL CLEAR ::
INPUT "What is the FILENAME?
DSK1.":FN$ :: FN$="DS
```

```
K1."&FN$ :: PRINT : :
```

```
180 INPUT "What is the new F
ILENAME? DSK1.":PN$ :: PN$
="DSK1."&PN$ :: OPEN #1:FN$,
DISPLAY ,VARIABLE 80,INPUT :
: OPEN #2:PN$,DISPLAY ,VARIA
BLE 80,OUTPUT
```

```
190 IF Q$="E" THEN 200 :: PR
INT #2:".TL 126:94;" :: PRIN
T #2:".TL 123:64;" :: PRINT
#2:".TL 125:38;" :: PRINT #2
:".TL 124:42;" :: PRINT #2:"
.TL 92:46;" :: PRINT #2:".NF
"
```

```
200 IF EOF(1)=1 THEN 300 ::
```

```
LINPUT #1:A$
```

```
210 IF LEN(A$)<80 THEN LN=LN
+10 :: GOTO 260
```

```
220 LINPUT #1:B$ :: IF POS(B
$,STR$(LN),1)=1 THEN FLAG=1
```

```
:: LN=LN+10 :: GOTO 260
```

```
230 A$=A$&B$ :: IF LEN(A$)<1
60 THEN LN=LN+10 :: GOTO 260
```

```
240 LINPUT #1:B$ :: IF POS(B
$,STR$(LN),1)=1 THEN FLAG=1
```

```
:: LN=LN+10 :: GOTO 260
```

```
250 A$=A$&B$ :: LN=LN+10
```

```
260 S=1
```

```
270 L$=SEG$(A$,S,28):: IF Q$
="E" THEN 280 :: GOSUB 320
```

```
280 IF L$<>" THEN 290 :: IF
FLAG=1 THEN FLAG=0 :: A$=B$
```

```
:: GOTO 210 :: ELSE GOTO 20
0
```

```
290 PRINT #2:L$ :: S=S+28 ::
GOTO 270
```

```
300 IF Q$="E" THEN 310 :: PR
INT #2:".FI:AD;"
```

```
310 CLOSE #1 :: CLOSE #2 ::
END
```

```
320 DATA @,{,&,},^,~,%,!,.,\
```

[Ed. note- see above instructions, regarding Line 190 and 320.]

```
330 RESTORE 320 :: FOR W=1 T
O 5 :: READ CH$,R$
```

```
340 X=POS(L$,CH$,1):: IF X=0
THEN 360
```

```
350 L$=SEG$(L$,1,X/1)&R$&SEG
$(L$,X+1,LEN(L$)):: GOTO 340
```

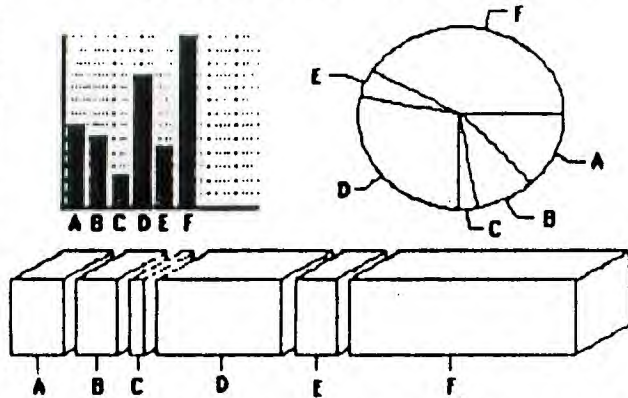
```
360 NEXT W :: RETURN
```

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The latter is an XBasic program which creates very large signs for clubs, parties, social events, or other unique occasions through use of your printer. Imagine sending a forty-foot birthday card to your friend! The Editor & DVUG extend our appreciation to this software resource for an interesting offer.

big, Better, BEST, OR, HOW TO GAIN MEMORY BY INCREASING PROGRAM SIZE!  
(Requires XBasic, 32K, Disk Drive)

This was downloaded in February from our very own TIBBS. It's yet another example of how we can help each other between meetings. The problem here was switching memory areas, not an "oversized" program.

RE: PROGRAM PROBLEMS

From JIMI JONES - WILMINGTON, DE  
To ALL

HI EVERYONE, I'M TRYING TO GET A PROGRAM TO RUN ON POWERUP USING THAT FEATURE OF EXTENDED BASIC, WHEN I SELECT E.B. THE DISK ACTIVATES AND I GET AN I/O ERROR MESSAGE. THE TITLE OF THE PROGRAM IS LOAD. [If you have a disk program called "DSK1.LOAD", it is automatically run when XBasic is selected from the Main Title Screen. That feature is often employed to bring up main menus on XBasic disks.-Ed] IF I TYPE IN THE "CALL FILES(1)" STATEMENT, IT WILL LOAD, AND APPEAR TO BE O.K. THE SIZE OF THE PROGRAM ACCORDING TO THE DISK MANAGER IS 50 [sectors]. IS THERE ANY WAY OF INCORPORATING A STATEMENT WITHIN THE PROGRAM (OR OTHERWISE) TO FIX THIS PROBLEM? I MAY BE ASKING TOO MUCH I REALIZE. THIS PROGRAM WAS ORIGINALLY ON CASSETTE, AND I HAD THAT PROBLEM THERE TOO. ANY HELP YOU CAN GIVE WILL BE GREATLY APPRECIATED. THANKS MUCH! \*\*JIMI\*\*

RE: PROGRAM PROBLEMS

From BARRY BOLAND - NEWARK, DE  
To JIMI JONES

JIMI, this may sound dumb, BUT it works! What you want to do is ADD SOME SIZE to your program, to make it trip over into the I/V 254 format which uses the extra 32K [Expansion] memory .. what I did was take my disk catalog program, re-number it (say RES 30000,1), save that in MERGE format and then MERGE it in with the program you want to fix...then SAVE that back to the disk ...it should now work with the LOAD name as you want, just leave an END statement before the extra program.



## PROTECTION &amp; UNPROTECTION PROBLEMS

There are several reasons which prompt users to protect copies of disks and files (programs). Avoidance of accidental erasure is one of the most common and likely the first; then, security from others.

If you use tape and if you have Extended Basic, usually the first serious progression in the system, the XBasic manual may suggest the SAVE CS1.MYPROG,PROTECTED command. I say, suggest, because tape users are not used to naming programs in normal use. You could also get it to work by saying SAVE CS1,PROTECTED. You have to read carefully to see the reference at all since examples shown all relate to Disks.

Of course, you won't find that feature under PROTECT, it's referenced under discussion of the SAVE command. Most manuals are not tutorial but rather reference manual listings; not the most helpful.

A disadvantage of that use will be the inability to "UNSAVE" or to remove the protection, which might be desired to LIST or revise that program at some future point. When you acquire Expanded 32K Memory, you can then use the commands CALL INIT::CALL LOAD(-31931,0) to override the protection, and then subsequently CALL LOAD(-31931,128) to restore it. [It was not so unusual several years ago to acquire a 32K Exp(ansion)Mem(ory) in the P-Box, or in an original sidebar add-on, before getting a disk drive, too, since Logo also required 48K.]

That feature, to say nothing of the memory locations, is not often found among tape users since there are usually other lesser problems of more frequent annoyance for the tape user; but it would be nice if someone explained how to undo some of the magic spells you create. At the time of the manual writing, it was a secret as to which POKEd (or in TI terms, LOAded) location held the key to many TI features. It is still that way for many items, but less so these days.

There are at least four different memory locations which can be tapped to provide the same result, but it's considered somewhat treasonous to acknowledge them in public, since that serves as copyright protection of sorts. Since those early days, use of Control codes, other Assembly Language devices, or flight to cartridges to avoid picking off secrets have become more in vogue. Most of these techniques have been slowly deciphered by, to use a loaded word, "hackers". Yes, sometimes for the sake of outright thievery. Several users felt the temptation was born from preposterous program costs so they issued their own versions, as "Freeware" offerings. The desirability of that relative to program initiative under profit motive can be debated another time here.

The protection just discussed was not quite as easy to deal with (to use or remove) as Disk Manager cartridges or software, which had a similar effect but which required less arcane knowledge. Our Philadelphia TI BBS friends at 215-927-6432 offered this suggestion in Fall, 1984 to protect your disk from being copied by the Disk Manager (such as by some unthoughtful individual at a User Group demo):

When you initialize a disk prior to saving any files on it, you are prompted for certain characteristics for the disk. When you are prompted for SINGLE-SIDED, enter <FCTN X> 10 times. You will then get the symbol <> at the top of your screen. After this, proceed as normal. One other word on this. You can NOT remove this priority protection without the aid of DISK FIXER [or DISKO or another akin program] or by re-initializing the disk.

[So there's one protection substituted for another. We think it only fair that users have a method of undoing inadvertant errors they perpetrate upon themselves. This Philly item was carried by several other newsletters, as well. - Ed.]

