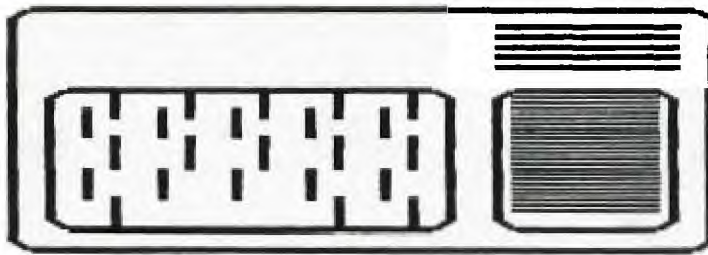


THANKSGIVING IS COMING: REMEMBER YOUR FREEMWARE AUTHORS!



THE
DATA
BUS

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( ( ( ( ( (
( Issue : )
( VOL. 3 )
( NO. 10 )
( - - - )
( NOV. )
( 1985 )
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THE DELAWARE VALLEY USERS GROUP
P.O. BOX 6240 STANTON BRANCH, WILMINGTON DE 19804
DEDICATED TO THE TI HOME COMPUTING FAMILY
MEETS 4TH THURS. EACH MONTH/6:30-9:30 P.M./CHRISTIANA MALL COMMUNITY ROOM
N.J.CHAPTER 3D MON. EA. MO./6:45-9:00 P.M./AT DEPTFORD MUNICIPAL BUILDING

```
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
[
[ GUEST PRESENTATION IN DECEMBER:
[
[ FRANK MINCHELLA
[ Senior Account Representative
[ 3M COMPANY
[ Data Recording Products Division
[
[ Color Slide Presentation -
[ "Care and Handling of Diskettes"
[
[ 7:30 P.M., Thursday, December 12
[ Christiana Meeting
[
[ DON'T MISS THIS CHRISTMAS SEASON
[ SPECIAL DURING OUR DVUG MEETING:
[ You'll go away with more than
[ a smile on your face next month !
[
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
```

After several months with new product information, we have a DATA BUS issue of mostly programming items. The variety of member needs we serve makes it difficult to choose among the breadth of interests available. However, within our club and nationally as well, according to a Fall Consumer Reports survey, 7 of 8 computer users find word processing the greatest common activity. "Multiprint" (page 7) should offer some assistance to those most interested in a Printer SIG.

Beginner programmers are encouraged to consult our library listings for help although future issues will include more basic (XBasic) topics - this need is an outstanding one among other User Groups, too. Closet TI computer owners are still coming out, and others trade off as they upgrade. Once again DVUG needs beginning programming classes (See pages 2-3).

The format of these pages changes as tools available change - graphics, techniques for printing, sources of articles and the like. It's amazing how easy it is to fill 10 pages monthly, but never know how it'll look. Five months ago, we only ran pica text, one or two columns.

Thanx for your support, but what do YOU want to see in YOUR newsletter? -Ed.

```
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
[
[ WELCOME ANEW:
[
[ From New Jersey -
[ John Carter, Tony DiFebbo, and
[ Frontier Electric (Joe Simiriglio).
[
[ RENEWALS:
[
[ From Delaware -
[ Chuck Faust, Alan Frank, Richard
[ Jabkowski, John Webb, and Warren
[ Whiteside.
[
[ WELCOME BACK TO DVUG:
[
[ From Delaware - Ralph De Prisco
[
[ From Pennsylvania - Dan Farrow IV
[
[
[
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
```

INSIDE THIS ISSUE OF THE DATA BUS:

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Other Programming Tips10

MEMBERS UPGRADING, INCREASING

DVUG EXECUTIVE COMMITTEE MEMBERS IN 1985

PRESIDENT DAN LOUNSBERRY (NJ)
VICE PRESIDENT TOM AUGUST (DE)
SECRETARY LYNN ACQUARD (DE)
TREASURER TOM KLEIN (PA)
SGT. AT ARMS BILL ACQUARD (DE)
NJ CHAPTER CHR. ERROL LANSBERRY

Delaware TIBBS South Jersey TI BBS
(302) 322-3999 (609) 435-7301
Between 6-9 p.m., you may also contact:
TOM KLEIN Pa. (215) 494-1372
JACK SHATTUCK Del. (302) 764-8619
CAROL ROSOWSKI N.J. (609) 228-2445

A Delaware Valley Users Group membership includes monthly newsletter, library and software privileges, plus other special benefits. Annual membership rates are: Family or Individual \$15; Students-\$5; Newsletter only (beyond 75 miles) - \$10

PLEASE TRANSMIT YOUR NEWSLETTER COPY TO:
The Data Bus Editor -- Jack E. Shattuck,
2 Colony Boulevard, Apt. 101, Wilmington,
DElaware 19802 Telephone:(302)764-8619
NEWSLETTER COPY WILL NOT BE ACCEPTED FOR
AN ISSUE AFTER THE 2ND THURS. EACH MONTH

An article appearing in The Data Bus may be reproduced for publication by another TI User Group, as long as acknowledgment is given to the sources as indicated. We encourage exchange newsletters; mail to either the Editor or to DVUG's mail box, shown on Page One, our business address.

DVUG ADVERTISING RATES FOR THE DATA BUS:
1/4 page = \$ 5/issue, or \$ 45/12 issues
1/2 page = \$ 8/issue, or \$ 75/12 issues
Full page = \$15/issue, or \$125/12 issues

Delaware Valley Users Group meetings are held in the Community Room of the Christiana Mall on Rte. 7, Exit 4-S off I-95. Entranceway is between J.C.Penney and Liberty Travel inside the Mall.

N.J. meetings are held at Deptford's Municipal Bldg., Cooper Ave. and Delsea Drive (Rtes. 534 & 47), in Gloucester County. Park in rear of the building.

Meetings are open to the public.

Three months of updating an equipment listing for DVUG have confirmed earlier statistics. With one-half of membership responding, a fair analysis can be drawn - at least among those who attended DVUG meetings in the past three months.

Three of our respondents still retain TI-99/4's, not manufactured after 1981; they are among slightly fewer than three dozen families (of our current 118) with us for 3 straight years. Other findings:

43% of families have more than one TI and there are 1.88 users per household. Silver consoles outrank Beige versions, almost 4:1. Favorite choice for screen display: Color TV (55%), B&W (25%), then composite monitor (13%), monochrome (4%) and RGB (2%).

Not all equipment owned need be used. 95% own tape recorders and joysticks, but 92% now have expansion systems - the predominant amount with TI's Peripheral Expansion Box, but 7% CorComp's MES. The mostly newer members are those 8% having consoles only.

Among disk users, 50% have one drive, 33% use 2; 1 in 6 has 3 or more (likely due to multiple systems owned). Single-sided drives are in a 2:1 majority.

92% use XBasic; 90% word processing - 17% of those have other than TI-Writer, usually Intelpro's Companion.

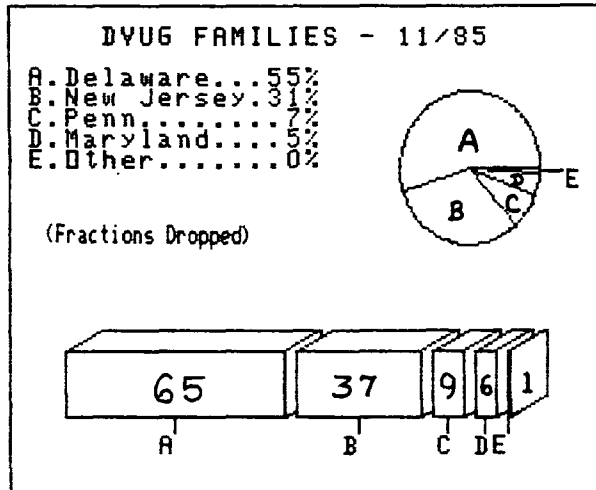
Multiple ownership provided a bit of statistical confusion. Virtually every expanded system owner has a printer.

On the other hand, only 84% report an expanded 32K memory or RS232 ownership. Only one 128K card was reported three months ago; at least 4 others have now. 300-Baud modem users top 1200-Baud ones, 5:2, among DVUG's 69% telecommunicators. 30% of modem owners access CompuServe.

76% own TI's Editor/Assembler; 53% have TI-Multiplan; 45% Mini-Memory; 40% Logo, and an equal percentage, Forth; 11% with Pascal.

Those experimenting in these language areas are encouraged to offer Data Bus readers the chance to share with you, by submitting a short program, or passing along one you gather from another BBS. We expect to begin offering selective Forth screens to readers shortly.

MORE FOR 1986:



Congrats to DVUG member Charles Bower of Smyrna, who will be heading the Kent County Users Group for the coming year. Rich De Cowsky, whom we mentioned in the last DATA BUS as contact person, changed employment and has relocated as well.

That group has persisted although the great bulk of its involved members still are using tape and consoles without an expansion system. Yet many have printer support using Axiom's Parallax interface as an alternative to an RS232 card. The first goal which Charles has in mind is to bring his lower Delmarva friends into the larger DVUG, to share not only DATA BUS and library benefits, but other resources while contributing as well.

For more info, contact Kent County's secretary Kay Quillen, active recruiter and group publicizer, at (302)492-8189.

October's DVUG meeting saw extended discussion over directions to expand the TIBBS sytem we've used since April, 1984. With sufficient cash in hand, and some recovery of costs expected with a raffle for the 300 Baud modem we've been using, purchase of a 1200 Baud modem received approval (and was subsequently bought), as an initial step in that process.

Transmission at 120 cps - 1200 Baud - would be 4 times the 300 Baud rate, thus speeding download time for many, yet not hindering slower users. Other speed-up capabilities, such as by 10MB hard disk, will be considered as a future option.

Some other prospective uses for treasury savings, such as obtaining more public domain software, having a spring TI Fest for the Mid Atlantic states, or hedging against future meeting rental cost, were raised as reasons for restraint for now.

Through Werner Tollefsbol's courtesy, DVUG's Software Library was committed to paper, with copies distributed to those attending Delaware and Jersey meetings. Programs for \$1 each or \$5 per filled disk can be ordered from Chuck Lightfoot at meetings or by calling him, (302)328-6745, or by leaving a message on TIBBS.

To translate the listing code, the 3-character number indicates as follows:

FIRST CHARACTER - LANGUAGE

- 1:Basic 2:XBasic 3:Edit./Assemb.
- 4:Speech Syn. 5:Logo 7:Text (D/V80)

SECOND CHARACTER - SUBJECT

- A:Bus./Prof. B:Educ. C:Games
- D:Prog.Util. E:Home Util. F:Music

THIRD CHARACTER indicates the number of the disk in that DVUG Library series.

Any member not present who desires a listing can call Secretary Lynn Acquard. While there is no charge to members, the enclosure of a couple of stamps would be helpful. Future issues of the DATA BUS will list updates to that catalog. Lynn can be reached at (302)368-0609.

Barry Boland was appointed to chair a Nominating Committee for officers in the upcoming year, DVUG's 4th since we moved to Christiana Mall (hence the Volume:No. identification on DATA BUS issues). With Errol Lansberry, Don Lenderman, Ed McBride and Paul Wells, this group will provide for a slate, and ballots to be distributed to all members. Additional nominees can be named from the floor. An election will be held at January, 1986's meeting, for installation in February. PLEASE CHECK YOUR MEMBERSHIP EXPIRATION DATE ON YOUR NEWSLETTER LABEL - You must be in good standing to vote!

 + EXTRA HARDWARE AT MEETINGS IS ALWAYS +
 + APPRECIATED. CONTACT EQUIPMENT CHR. +
 + Don Heritage or Jack Smedley +
 + (609)848-0091 (609)428-4166 +
 + for Christiana for Deptford +
 + OR JUST BRING SOME DOWN! +
 +-----+

TIPS FROM THE TIGERCUB

#27

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TIGERCUB SOFTWARE
156 Collingwood Ave.
Columbus, OH 43213

Distributed by Tigercub Software to TI-99/4A Users Groups for promotional purposes and in exchange for their newsletters. May be reprinted by non-profit users groups, with credit to Tigercub Software.

The entire contents of Tips from the Tigercub Nos. 1 through 14, with more added, are available as a full disk of 50 programs, routines and files for just \$15.00 postpaid.

>>>>>NOW AVAILABLE<<<<<<<<

Tips from the Tigercub VOLUME 2 The entire contents of Tips Nos. 15 through 24, with 64 routines and files, also \$15.00 postpaid.

Or both for \$27 postpaid.

>>>>ALSO NOW AVAILABLE<<<<<<<<

New Catalog #6, for \$1 which is deductible from your first order. Describes 140 original programs for only \$3 each (plus \$1.50 per order for cassette or disk, package and postage).

If you have my previous catalog, the following are now available in Extended Basic versions - Fast Addition Practice, Submarine Hunt, Rithmatik, Mawaland (also now available in Basic with Speech), Long Division Cryptograms, Miss Spell, Scramblation, Bargraffer, Squinch, Dry Gulch, Name That Tune, Screw, Midnight Trail, Nimbo, Kindertimes, Optical Illusion, Bazoo, Synonymy, Speeder Reader, Changeroo, Glunk, Fraction Math, Three Buckets Puzzle, Roman Numbers, Match A

Patch, kindermimus, I & E Spelling, Casting Out Nines, Haunted Graveyard, Spalling Teecher, Homonymy, Antonymy, Old -Timer Puzzle, Ten Thousand Sights, Mechanical Aptitude Test, Junior Speeder Reader, and Bars and Balls.

Due to reduced prices for disks and mailers, the PPM charge is now \$1.50 for either disk or cassette - BUT PLEASE BE SURE TO SPECIFY WHICH!

And my best seller - NUTS & BOLTS, a full disk of 100 (yes, I said 100) utility subprograms in MERGE format, ready for you to merge into your own programs. 13 type fonts, 14 text display routines, 9 wipes, 8 pauses, 3 programming aids, 9 data saving and reading routines, 5 graphics routines; 4 time and date, 6 music, 12 sorts and shuffles, 2 printer aids, 4 key and joystick, 4 math, 2 protection and 7 miscellaneous, plus a tutorial on subprograms. With documentation, example of using each subprogram. All for only \$19.95 postpaid.

I have been receiving several requests to publicize freeware which is sometimes good but sometimes of doubtful usefulness, quality, originality or even legality! And "Freeware! Send \$10 and initialized disk" is not freeware, it's somebody trying to get a free ad! So - no more freeware mentions! I am also not going to mention commercial products - after all, I'm publishing this at my own expense to promote my own software! However, I do owe a mention to Larry Hughes of Quality 99 Software, because in Tips #22 I recommended that disks with fractured files should

not be copied with a quick copier. Larry informed that his trademarked QUICK-COPYer is the only program of its kind on the market that does un-fracture files. He sent along a copy to prove it, and it does just that. A very useful feature!

Now, here is the new, and final, version of the Tigercub Menu Loader.

```
100 'by A. Kludge/M. Gordon/
T. Boisseau/J. Peterson/etc.
Version #5, 9/85
110 CALL PEEK(8198,A):: IF A
<>170 THEN CALL INIT
120 OPTION BASE 1 :: DIM P6$
(127),V(127,3):: CALL LOAD(-
31806,16):: ON ERROR 130 ::
GOTO 160
130 DISPLAY AT(12,9)ERASE AL
L:"I/O ERROR" :: RUN 100
140 @,@@,A,A$,B,C,D$,FLAG,I,
J,K,KD,KK,M,M$,N$,NN,P,P$,P6
$( ),PP,PP$,Q$,S,ST,T$( ),TT,V
T,V( ),M$,X,X$,Y,K2,S2
150 CALL LINK :: CALL PEEK ::
CALL KEY :: CALL SCREEN ::
CALL COLOR :: CALL CLEAR ::
CALL VCHAR :: CALL SOUND ::
!@P-
160 CALL CLEAR :: CALL LOAD(
8196,63,240):: CALL LOAD(163
76,67,85,82,83,79,82,48,8)
170 CALL LOAD(12288,129,195,
126,165,129,153,102,60)
180 CALL LOAD(12296,2,0,3,24
0,2,1,48,0,2,2,0,8,4,32,32,3
6,4,91):: CALL LINK("CURSOR"
)
190 CALL CLEAR :: FOR S=1 TO
14 :: CALL COLOR(S,7,16)::
NEXT S :: CALL COLOR(0,2,16)
200 T$(1)="d/f" :: T$(2)="d/
v" :: T$(3)="i/f" :: T$(4)="
i/v" :: T$(5)="pro" :: ON WA
RNING NEXT
210 IMAGE ###
220 IMAGE ### Quit
230 IMAGE ### Delete
240 IMAGE ### Print
250 IMAGE ### Rescan
260 CALL SCREEN(5):: CALL VC
HAR(1,31,1,96):: DISPLAY AT(
1,4):"TIGERCUB MENU LOADER"
270 ' IF YOU HAVE MORE THAN
ONE DISK DRIVE, DELETE THE
```

IN LINE 280 AND THE FIRST STATEMENT IN 290

```
280 ! DISPLAY AT(12,6):"DISK
? (1-3):" :: ACCEPT AT(12,19
)SIZE(-1)VALIDATE("123"):D$
:: D$="DSK"&D$&".
290 D$="DSK1." :: OPEN #1:D$
,INPUT,RELATIVE,INTERNAL ::
INPUT #1:M$,A,J,K :: DISPLA
Y AT(1,2)SIZE(27):SEG$(D$,1,
4)&" - Diskname="&M$;
300 DISPLAY AT(2,2):"Availab
le=";K;"Used=";J-K:" Prog Fi
lename Size Type": "----
-----" :: I,V
T=0 :: TT=J-K
310 FOR X=1 TO 127 :: IF X/2
0<>INT(X/20)THEN 340
320 DISPLAY AT(24,1):"Choice
? Enter for more 0" :: ACCEP
T AT(24,24)VALIDATE(DIGIT)SI
ZE(-3):K :: IF K=0 THEN 330
:: IF K>0 AND K<NN+1 THEN 60
0 ELSE 320
330 X=1
340 I=I+1 :: IF I>127 THEN K
=X :: GOTO 510
350 INPUT #1:P$,A,J,B :: MN=
NN+1
360 IF LEN(P$)=0 THEN 430
370 DISPLAY AT(X+4,1):USING
210:MN :: DISPLAY AT(X+4,5):
P$ :: P6$(NN)=P$ :: DISPLAY
AT(X+4,16):USING 210:J :: DI
SPLAY AT(X+4,20):T$(ABS(A):
380 V(NN,1)=A :: V(NN,2)=ABS
(B):: V(NN,3)=J
390 X$=" "&STR$(E):: DISPLA
Y AT(X+4,24):SEG$(X$,LEN(X$)
-2,3):: VT=VT+J
400 IF A>0 THEN 410 :: DISFL
AY AT(X+4,28):"Y"
410 CALL KEY(0,KK,ST):: IF S
T=0 THEN 420 :: FLAG=1 :: 60
TO 430
420 NEXT X
430 DISPLAY AT(X+4,1):USING
220:MN :: DISPLAY AT(X+5,1):
USING 230:MN+1
440 IF VT=TT OR FLAG=1 THEN
460 :: DISPLAY AT(2,25)SIZE(
4):VT
450 FOR @=1 TO 10 :: DISFLA
Y AT(2,25)SIZE(1):CHR$(30)::
DISPLAY AT(2,25)SIZE(1):" "
:: CALL SOUND(-99,110,0,-4,0
):: NEXT @
460 IF FLAG=1 THEN 470 :: DI
SPLAY AT(X+4,13):USING 240:MN
+2 :: DISPLAY AT(X+5,13):US
```



```

100 IN6 250:NN+3
470 DISPLAY AT(X+6,1):" C
hoice?" :: ACCEPT AT(X+6,16)
SIZE(-3)VALIDATE(DIGIT):K
480 IF FLAG=1 THEN 500
490 IF K=NN+2 THEN 840 ELSE
IF K=NN+3 THEN CLOSE #1 :: N
M=0 :: GOTO 190
500 IF K<NN AND K>NN+1 THE
N 590
510 IF K=NN THEN CALL CLEAR
:: CLOSE #1 :: END
520 DISPLAY AT(X+5,12)SIZE(1
2):" #?" :: ACCEPT AT(X+5,15
)SIZE(2)VALIDATE(DIGIT):KD :
: IF KD<1 OR KD>NN THEN 520
530 IF V(KD,1)>0 THEN 550
540 FOR J=1 TO 10 :: DISPLAY
AT(11,1):" *:" PROTECTED -
CANNOT DELETE:" * :: DISPL
AY AT(12,1):" * " :: NEXT J ::
GOTO 570
550 DISPLAY AT(X+6,1)SIZE(27
)BEEP:" Verify - Delete ";P6
$(KD);"? " :: DISPLAY AT(X+6,
28)SIZE(1):"Y" :: ACCEPT AT(
X+6,28)SIZE(-1)VALIDATE("YN"
):Q$ :: IF Q$<>"Y" THEN 570
560 DELETE D$&P6$(KD)
570 CLOSE #1
580 CALL VCHAR(1,3,32,672)::
NN=0 :: X=0 :: FLAG=0 :: 60
TO 260
590 IF K<1 OR K>127 OR LEN(P
6$(K))=0 THEN 430
600 IF ABS(V(K,1))=5 OR ABS(
V(K,1))=4 AND V(K,2)=254 THE
N 640
610 DISPLAY AT(12,1)ERASE AL
L:"Print to ? S:"(P)rinte
r?:"(S)creen?" :: ACCEPT AT
(12,12)SIZE(-1)VALIDATE("PS"
):Q$ :: IF Q$="S" THEN PP=0
:: GOTO 630
620 DISPLAY AT(12,1)ERASE AL
L:"PRINTER? P10" :: ACCEPT A
T(12,10)SIZE(-18):P$ :: OPEN
#3:P$ :: PP=3
630 CALL CLEAR :: CALL SCREE
N(16):: ON ABS(V(K,1))GOTO 6
80,690,750,760
640 CLOSE #1 :: IF SEG$(P6$(
K),LEN(P6$(K)),1)="*" THEN D
ISPLAY AT(12,1)ERASE ALL:"RE
TURN TO BASIC AND LOAD BY:"
TYPING OLD ";D$&P6$(K):: STO
P
650 CALL PEEK(-31952,A,B)::
CALL PEEK(A#256+B-65534,A,B)
:: C=A#256+B-65534 :: A$=D$&

```

```

P6$(K):: CALL LOAD(C,LEN(A$)
)
660 FOR I=1 TO LEN(A$):: CAL
L LOAD(C+I,ASC(SEG$(A$,I,1))
):: NEXT I :: CALL LOAD(C+I,
0)
670 CALL VCHAR(1,3,32,672)::
CALL SCREEN(8):: FOR S=0 TO
14 :: CALL COLOR(S,2,1):: N
EXT S :: DISPLAY AT(12,2):"L
OADING ";A$ :: GOTO 900
680 OPEN #2:D$&P6$(K),INPUT
,FIXED :: GOTO 700
690 OPEN #2:D$&P6$(K),INPUT
700 LINPUT #2:M$ :: PRINT #P
P:M$ :: IF EOF(2)THEN 730
710 CALL KEY(0,K,S):: IF S=0
THEN 700
720 CALL KEY(0,K2,S2):: IF S
2<1 THEN 720 ELSE 700
730 CLOSE #1 :: CLOSE #2 ::
PRINT " >>>press any key<<
" :: IF Q$="P" THEN CLOSE #
3
740 CALL KEY(0,K,ST):: IF ST
<1 THEN 740 ELSE 580
750 OPEN #2:D$&P6$(K),INPUT
,INTERNAL,FIXED :: J=0 :: 60
TO 770
760 OPEN #2:D$&P6$(K),INPUT
,INTERNAL :: J=0
770 IF EOF(2)=1 THEN 730 ::
J=J+1 :: INPUT #2:M$ :: IF L
EN(M$)=0 THEN 790
780 PRINT #PP:M$ :: GOTO 820
790 FOR Y=1 TO 8 :: @@=ASC(S
EG$(M$,Y,1)): IF @@<32 OR @
@>127 THEN 810
800 NEXT Y :: GOTO 780
810 RESTORE #2 :: FOR X=1 TO
J-1 :: INPUT #2:M$ :: NEXT
X :: INPUT #2:M :: PRINT #PP
:M
820 CALL KEY(0,K,S):: IF S=0
THEN 770
830 CALL KEY(0,K2,S2):: IF S
2<1 THEN 830 ELSE 770
840 DISPLAY AT(24,1):"PRINTE
R NAME? P10" :: ACCEPT AT(24
,15)SIZE(-14):PP$ :: OPEN #2
:PP$ :: PRINT #2:SEG$(D$,1,4
)&" - Diskname= "&N$
850 PRINT #2:RPT$("*",28):"A
vailable";358-VT;"Used=";VT
:RPT$("*",28)
860 PRINT #2:"FILENAME SIZE
TYPE":RPT$("_",28)
870 FOR P=1 TO NN-1 :: PRINT
#2:P6$(P);TAB(15);V(P,3);TA
B(20):T$(ABS(V(P,1)));TAB(25

```

```

);V(P,2):: NEXT P :: CLOSE #
2
880 DISPLAY AT(12,3)ERASE AL
L:"(P) to print again:" (R
) to rescan:" (Q) to quit"
890 ACCEPT AT(15,4)VALIDATE(
"PQR")SIZE(-1)BEEP:Q$ :: IF
Q$="P" THEN 840 :: CLOSE #1
:: NN=0 :: IF Q$="R" THEN 19
0 ELSE END
900 RUN "DSKX.1234567890"

This version turns off
the Quit key, restarts
itself rather than crashing
on an I/O error, and has
pre-scan for faster
start-up. It displays disk
name, sectors available and
sectors presumably used - it
also totals up actual
sectors used and sounds a
warning if any sectors are
not accounted for.

It lists up to 127
programs and files by
number, filename, number of
sectors, program or file
type, file record length,
and write-protection. It
will stop for menu selection
on any keypress or at the
end of each screen,
continuing on Enter. It
will load and run any
program that can run from
Extended Basic, displaying
its filename while loading.
If the filename ends in an
asterisk, it will warn you
to return to Basic. It will
delete any unprotected
program or file, after first
requiring verification by
filename, or will inform you
if the file is protected.
It will read any readable
file, including internal
numeric, and list it to
screen or printer. It will
dump a catalog of the disk
to your printer, and it will
offer the option of quitting
or rescanning the disk or
another disk. And it's
free, I don't even want a
freeware donation - but I
would appreciate if you
would take a look at my
catalog and see if,

```

somewhere among those 140 programs, there might be something you would be willing to pay \$3 for? The Menu Loader is included as a bonus on every disk I sell!

```

100 CALL CLEAR :: RANDOMIZE
:: DISPLAY AT(3,4):"TIGERCUB
MATH PUZZLE"
110 DISPLAY AT(6,1):"Insert
+, -, * (multiply) OR / (div
ide) between the digits
to equal the total": "Type
0 to give up"
120 DISPLAY AT(12,1):"Level
1 or 2?" :: ACCEPT AT(12,15)
VALIDATE("12"):L$
130 T,X=INT(9#RND+1):: M$=ST
R$(X):: Z$=M$&" "
140 FOR J=1 TO 4 :: Y(J)=INT
(9#RND+1):: Z=INT(4#RND+1)::
ON Z 60SUB 240,250,260,270
:: Z$=Z&STR$(Y(J))&" " :: N
EXT J
150 IF L$="1" AND T<>INT(T)T
HEN 130 :: Z$=Z$&"="&STR$(T)
160 DISPLAY AT(12,1):Z$ :: D
ISPLAY AT(18,1):" " :: DISPL
AY AT(20,1):" " :: DISPLAY A
T(22,1):" "
170 P=2 :: FOR J=1 TO 4 :: A
CCEPT AT(12,P)VALIDATE("Q+*=
/")SIZE(1):S$
180 IF S$="Q" THEN 200 ELSE
IF S$="+" THEN X=X+Y(J)ELSE
IF S$="-" THEN X=X-Y(J)ELSE
IF S$="*" THEN X=X*Y(J)ELSE
X=X/Y(J)
190 P=P+2 :: NEXT J :: IF X=
T THEN 230 :: DISPLAY AT(18,
1):"WRONG!"
200 DISPLAY AT(20,1):"ANSWER
IS ";M$
210 DISPLAY AT(22,1):"PRESS
ANY KEY"
220 CALL KEY(0,K,ST):: IF ST
<1 THEN 220 :: GOTO 130
230 DISPLAY AT(18,1):"RIGHT!
" :: GOTO 210
240 M$=M$&"+"&STR$(Y(J)): T
=T+Y(J):: RETURN
250 M$=M$&"-"&STR$(Y(J)): T
=T-Y(J):: RETURN
260 M$=M$&"*"&STR$(Y(J)): T
=T*Y(J):: RETURN
270 M$=M$&"/"&STR$(Y(J)): T
=T/Y(J):: RETURN

```

Enjoy!

Jim Peterson

MULTI COLUMN PRINTING and VARIABLE LENGTH LISTING by George F. Steffan

For the past several months I have used two programs to list programs in our newsletter 28 characters wide as they appear on the screen and three columns wide so they do not waste space. I received a request for the method and, at the same time, I saw a program to list programs on a wide printer. So I adapted my programs to be more versatile instead of single purpose.

VARYLIST will take a program listing and convert it to whatever line length you desire. There is one bug: if the listed line is an exact multiple of 80 characters in length, the next line will be appended to it. I can think of no simple solution to this and it is an infrequent occurrence, so it remains in the program. This program works on a program LISTed to disk. If your desired length is 80 or less, the disk file will be opened as VARIABLE 80 so that it may be edited with TI Writer. If you wish to list to a wide printer, the file will be opened with the correct length.

MULTIPRINT will take a text file and output it to the printer in multiple columns so that it may be read in normal newspaper fashion, one column after another. You determine the number of columns, but you must inform the program of the length of the input text and the length of the output device. This program has no provisions to enable the output text to be edited. Editing must be done before using it.

Before using MULTIPRINT you should prepare your text file. You should first use VARYLIST or the Formatter of TI Writer to create a file text of the desired width. Then examine the file and delete any unneeded blank lines. Make sure that the number of lines is an exact multiple of the number of columns you will be using. Insert blank lines to reach this number. You may put these blank lines any place in the text, but they should be placed so as to form pleasing column breaks. If you have used the text formatter to print the file, you should use the Replace String command to change all Line Feeds (Control U, Shift J, Control U), Carriage Returns (Control U, Shift M, Control U) and New Page (Control U, Shift L, Control U) to spaces. Because the text is reformatted after these changes, be sure you are not in Word Wrap Mode when you do this. If you make the first line of your text longer than the line length you plan to tell the printer, it will print across the page as on this article. In this case, you must be sure that the first two lines of succeeding columns are blank. Then save the text file or print it to disk and run MULTIPRINT. The program is designed to accept 300 lines of text, enough for five columns of 60 lines each. If the number is increased too much, the computer will run out of memory.

The programs are listed herewith, each giving an example of itself. Both programs are available in the club library.

```
100 REM VARYLIST - Geo. F. Steffan, LA 99ers Computer Group, Oct. 1985
110 REM THIS PROGRAM WILL CONVERT ANY PROGRAM LISTED TO DISK INTO A LISTING OF ANY WIDTH YOU DESIRE
120 REM IT MAY BE A 28 COLUMN LISTING SIMULATING A SCREEN LIST
130 REM IF LISTED TO DISK AND OUTPUT WIDTH IS 80 OR LESS, OUTPUT MAY BE EDITED WITH TI WRITER
140 REM IF A NUMBERED LINE IS EXACTLY 80, 160, OR 240 BYTES WHEN LISTED, THIS PROGRAM WILL COMBINE IT WITH
THE FOLLOWING LINE
150 DATA 3,DSK,WDS,RD
160 CALL CLEAR :: PRINT TAB(11);"VARYLIST"
170 PRINT :: INPUT "NAME OF INPUT PROGRAM LIST? ":IP%
180 PRINT :: INPUT "NAME OF OUTPUT FILE? ":OF% :: IF OF%=IP% THEN PRINT "INPUT AND OUTPUT NAMES
MUST BE DIFFERENT!" :: GOTO 170
190 PRINT :: INPUT "WIDTH OF OUTPUT FILE? ":OW :: ODW=OW :: IF OW>79 THEN 220
200 READ N :: FOR I=1 TO N :: READ DN% :: IF SEG$(OF%,1,LEN(DN%))=DN% THEN ODW,I=80
210 NEXT I
220 OPEN #1:IP%,DISPLAY ,VARIABLE 80,INPUT :: OPEN #2:OF%,DISPLAY ,VARIABLE ODW,OUTPUT
230 FOR I=0 TO 9999 :: L1$=""
240 IF EOF(1)THEN I=I+10000 :: GOTO 250 ELSE LINPUT #1:L2% :: IF LEN(L2%)=0 THEN GOTO 240 ELSE L1%=L1%&L2
% :: IF LEN(L2%)=80 THEN GOTO 240
250 FOR O=1 TO LEN(L1%)STEP OW :: PRINT #2:SEG$(L1%,O,OW) :: J=J+1 :: NEXT O :: NEXT I
260 CLOSE #1 :: CLOSE #2 :: PRINT :I-10000;"NUMBERED LINES":J;"OUTPUT LINES" :: END
```

100 REM MULTIPRINT - Geo. F.
Steffen, LA 99ers Computer
Group, Oct. 1985

110 REM TI EXTENDED BASIC AN
D MEMORY EXPANSION
120 REM WILL PRINT MULTIPLE
COLUMNS OF ANY TEXT FILE
130 DIM L\$(300):: CALL CLEAR
:: PRINT TAB(10);"MULTIPRIN
T"
140 PRINT :: LINPUT "NAME OF
INPUT FILE? ":IF\$:
: INPUT "LENGTH OF INPUT LIN
ES? ":LL

150 PRINT :: LINPUT "NAME OF
PRINTER? ":P\$::
INPUT "PRINTER LINE LENGTH?
":PL
160 PRINT "COLUMN SEPARATIO
NS WILL BE CALCULATED." ::
INPUT "LEFT AND RIGHT MARGIN
SIZE? ":M :: INPUT "NUMBER
OF COLUMNS? ":C
170 IF (2*(M+C-1)+C*LL)>PL T
HEN PRINT "WILL NOT FIT" ::
GOTO 160
180 OPEN #1:IF\$,INPUT ,DISPL
AY ,VARIABLE :: FOR I=1 TO 3
00 :: IF EOF(I)THEN 210
190 LINPUT #1:L\$(I):: IF ASC

(L\$(I))>127 THEN L\$(I)="" ::
GOTO 210 ! DISREGARD TAB SE
TINGS
200 NEXT I
210 CLOSE #1 :: S=INT((PL-(C
*LL+2*M))/(C-1))+LL :: M=M+1
:: OPEN #2:P\$,DISPLAY ,VARI
ABLE PL+1,OUTPUT
220 N=INT((I/I)/C):: FOR I=1
TO N :: FOR J=0 TO C-1 :: P
RINT #2:TAB(J*X+M);L\$(I+J*X)
;: IF I=1 AND LEN(L\$(I))>LL
THEN J=C
230 NEXT J :: NEXT I :: CLOS
E #2 :: END
240 STOP

PRODUCT TIPS AND NEWS

From the Jacksonville AR Users Group:
Insert these lines before using CALL
JOY(JS,J,STATUS) in your program. Press
either #1 or #2 joystick, as you prefer,
and your choice will control the action.

```
100 CALL KEY(1,J1,STATUS)
110 CALL KEY(2,J2,STATUS)
120 IF J1+J2 <> 17 THEN 100
130 JS=INT((J1/18+J2/9)+1)
```

Some DVUG members have been trying to
use recent expansion products and found
some adaptations needed. The standalone
Clock from CorComp, when used with their
Micro Expansion System and TI's Speech
Synthesizer in a chain, will not work in
the configuration CorComp suggests, i.e.
Console, Speech, MES and Clock, without
garbling the Speech. Switch positions
of the Clock and MES box, and it's okay.
The load interrupt switch works fine,
according to Tony DiFebbo, who uses it
for screen dumps.

CorComp disk controller users calling
speech from TI Basic, via the Terminal
Emulator II cartridge, need to remember
one extra step if Navarone's Cartridge
Expander ("Widget") is in use. Instead
of pushing "2 TI BASIC" from the initial
menu screen, hit the Space Bar first,
then choose TI Basic, with the Widget at
the TE II position.

PLATO users with Myarc's 128K RamDisk
will need to copy the PLATO disk, via a
disk copier such as MassCopy, then load

the PLATO program into RamDisk memory to
run from there. The memory allocation
has problems otherwise, advises Larry
Wittenberg.

PRINTOUT FOR HOUSEHOLD BUDGET MANAGEMENT

John Phillips, in the August National
Ninety-Niner, describes "HBMPRINT", from
Bob Lawson of 16223 Mill Point Drive,
Houston, TX 77059. A Freeware offering
for any contribution up to \$10 - and an
initialized disk would be helpful - this
long-needed product provides a hard-copy
of Household Budget Management files.

Written in TI-Forth using 32K and the
E/A module, it autoloads via E/A Option
3. With many convenient printing format
options and menu guides, it also allows
printing to disk; you can then edit data
in D/V80 display via TI-Writer or E/A.

C LANGUAGE PROGRAMMING FOR YOUR TI

Small c compiler and documentation is
available from Clint Pully, 38 Townsend
Ave., Burlington, Ontario, Canada L7T 1Y6
for \$20, a disk, and mailing costs - NOT
U.S. stamps, which are unacceptable for
Stateside mail leaving Canada. Steve
Lawless suggests a book on C would be of
help to the user also, e.g., "Learning
tiny c" by Guthery, \$14.95 TAB paperback
available at Walden Books, ISBN 0-8306-
1895-3. Use the ISBN identifier to place
an order at any bookstore.

HERE IS ANOTHER EXAMPLE OF THE "MULTIPRINT" PROGRAM, USING 38-CHARACTER COLUMNS, THREE PER PAGE. THE MORE COLUMNS YOU USE, THE NARROWER THE WIDTH NEEDED FOR EASIER READABILITY.

TRIVIA, TRIVIA, AND MORE TRIVIA -
A Review of Three Trivia Software
Games For The TI-99/4A Computer,
By Tom Klein

All three of the programs in this review are data-based, i.e., the program must be loaded into memory, and then the questions and answers loaded into the program. "Trivia Data Base" and "Trivia 99'er" are in Extended Basic, while "H.C.M. Quizmake/Quiztake" can be used in either console or Extended Basic.

Each program has its own unique qualities, and all, though varying in versatility, could be used in an educational setting. The size of the file which each program creates also varies, but the number of files you could make is limited only by your time and knowledge of trivia! Let's look at them in more detail:

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

TRIVIA DATA BASE
by
Hunter and Gundle

This program package is marketed by Sams Inc. of Indianapolis, Indiana, and sells for \$12.95.

The package is made up of a booklet, and a cassette in a heavy plastic folder. The booklet provides an extensive look at the "data-based" program, and uses the Trivia Game as an example. The cassette contains a "cassette version" and "disk version" of the Trivia Game, and the Trivia Data-Base programs.

The Data Base program allows the addition of questions, and the display and editing of questions. Questions are limited to three lines, while answers may only contain two words.

The Trivia Game program takes approximately three minutes to

execute, and almost seven minutes to scramble the questions! It assigns arbitrary values to game questions, not necessarily weighting the more difficult ones.

This game can be fun, although limited with respect to educational value. The start-up time is rather excessive, and watch for misspelling, because if one letter of a word is wrong, the answer will be considered wrong!

TRIVIA 99'ER
by
Robert Wessler

This software game is being marketed under the freeware approach. It may be obtained from various members of our club, or myself, at any meeting. If you decide to keep it, it is asked that you send \$5.00 to the author, whose address is at the end of the program.

The game opens with a menu from which you can choose: trivia, filemaker, revisefile, or printfile.

If you choose "trivia" from the menu, your computer will load the game itself. It will randomly give you a choice of three categories from a total of six. The six are: science nature, sports leisure, history, geography, entertainment, and art literature. Select from one of the three categories, and a question will appear on the screen. You then press any key, and the answer is then displayed. (Now here is where your honesty comes in.) The computer then asks correct? Y or N. You are then scored accordingly.

The "filemaker" portion of this offering allows you to create your own categories, questions, and answers. Ample room is allotted for both questions and answers (five lines each).

"Revisefile" allows the changing

of questions and answers within a file.

"Printfile" sends your file to the printer.

H.C.M. QUIZTAKE/QUIZMAKE
by
William Balthrop

This program is available from Emerald Valley Publishing Co., P.O. Box 70288, Eugene, OR. 97401. (Request printed issue, or "ON DISK", VOL.4, #5 - \$5.95, plus \$1 shipping/handling.)

Of the three programs in this review, I find this one most suited to educational applications.

After loading "Quiztake" the menu gives you three choices: take, load, or study. Naturally, you must load a file into the program, then you can continue to either take, or study the test. If you select "take", a menu is presented giving a choice of word clues (multiple choice), letter clues (number of letters in a word), or no clues (blind answers) in one or two tries. The score is kept at the top of the screen, displaying, "% right, % wrong, % spelling". Select "study", and both the questions and answers are displayed.

In "Quizmake", which creates the files, a menu of: edit, load, save, print, or change parameter, is presented. The "edit" mode first asks for the parameters you wish to incorporate in your file. These are: sequential or random questions, clue percentage, and time for response. Questions may be up to two full lines, and answers, one line.

This is an extremely flexible program, for both teachers and trivia buffs alike.

Especially, teachers may find the "Quizprint" program (H.C.M. VOL.5, #1) valuable in its ability to format the file for a printed test.

DELAWARE VALLEY USERS GROUP: NOV. 1985

CHANGING COLORS IN DISK MANAGER 1000, as taken from CompuServe by Daytona 99'ers: by Terry Atkinson, Dartmouth,NS, Canada.

Some people, like myself, absolutely detest the white-on-blue color scheme used by all of TI's utilities, and now Bruce Caron has chosen to use those colors in his much-raved-about DM1000.

Moreover, some hobbyists are using monochrome monitors, and this color does not show up sharply on the monitor, resulting in eye strain and fatigue. Black/white TV's (Yes, there are still some people using them!) will produce the same results. Other people may just want a change. TI recognized this need by providing for change options on the TI-Writer and Multiplan. Again, the options provided are not necessarily the choice of the user!

Hence, I have taken the trouble to find the appropriate bytes to change in DM1000 so that you can select your own preferred color combination. The fix will require a disk-fixer. Both the Navarone Disk-Fixer and Disko will do, and I have included instructions for both in this article. This fix applies to DM1000 Version 2, and may not apply to other versions.

PREPARATION: APPLIES TO BOTH DISK FIXERS

1. Initialize a diskette or use a disk with no programs on it.
2. Copy MGR2 over to that disk. This is so that the next steps will match-up with your disk.
3. Choose your color scheme in hex. The colors found in the E/A manual are applicable. I will reproduce them here.

COLOR	HEX	COLOR	HEX
Transparent	0	Medium Red	8
Black	1	Light Red	9
Medium Green	2	Dark Yellow	A
Light Green	3	Light Yellow	B
Dark Blue	4	Dark Green	C
Light Blue	5	Magenta	D

Dark Red	6	Gray	E
Cyan	7	White	F

Say you wish to have magenta characters on a white background. The combination would be DF. Keep this combination in mind. I will use it as an example.

4. Boot-up your diskfixer.
5. Follow the applicable instructions below, depending on which diskfixer you are using.

USING NAVARONE DISK-FIXER

1. Read in Sector 22. This is done by the command: R 22,1< (< means: hit Enter Key.)
2. Alter the word at 008E. Accomplished by entering the command: A 008E<
3. You will see the values 008E=07F4 pop up on your screen. It's the F4 you should be concerned about. Looking at the chart above, F4 means white characters on a dark blue background. It is this byte you must change, leaving the 07 (VDP Reg 7) intact. To change this byte means re-writing the word, so enter: 07DF<

Note that the DF is to use magenta chars on white background. You may replace the DF with colors of your own choosing.

3. All that remains to be done is to write the sector back to disk. This is done by the command: W 22,1<

VOILA! Change completed.

USING DISKO (TI IN-HOUSE DISKFIXER)

1. Read in Sector 22. Accomplished by selecting Sector Editor from the menu, Drive 1, Sector 22.
2. Remain in Hex notation, and locate the 11th line from the top, which reads 020007F4 etc. It is the F4 in which you are interested.

3. Move the cursor using Fctn X,S,D,E to position it over the F in F4.

4. Type in DF (which replaces the F4, and only the F4).

5. Hit Fctn 8 and answer Yes to the prompt. This re-writes Sector 22 back to disk.

6. VOILA! Change completed.

POST-CHANGE CHECK

Now that the change is complete, copy the remaining files over to the disk. (MGR/LOAD, MGR/LOADER, MGR1) or (LOAD, LOADER, MGR1) depending on the source of the program. Time for the big test. Boot DM1000. Have the colors been changed correctly? If not, start again. Right from the beginning. Remember that you can replace your own color combo in place of my example. After all, that's what this article is all about! Once you are happy with your selection, replace your working copy with the changed copy. Remember to keep the original intact for posterity.

One word of warning. Do not select the same background color as foreground. Your text will be invisible!

CONCLUSION

[Terry suggests writing to him if you lack a disk fixer or gumption. The DVUG can provide you assistance. - Ed.]

...Some time ago, I wrote two articles on changing the color scheme in both the TI-Writer and E/A. (I really hate that white-on-blue!) If you would like those articles, write to me at the address below. For TI-Writer, you have the ability to change all color options selectable by CTRL 3. Good luck. ...

Terry Atkinson, 28 Savona Ct., Dartmouth, NS B2H 4R1 Canada. Phone 902-434-1346 (Voice) or 902-434-3121 Dartmouth TIBBS. Source ID: T16450, CIS ID 75376,1277. [This is a very informative TIBBS - Ed.]

DELAWARE VALLEY USERS GROUP: NOV. 1985

MISCELLANEOUS CLOSING TIPS AND HELPFUL SUGGESTIONS ...

SIMPLE GROUND RULES FOR LOADING NEW PROGRAMS, Bruce Carson, ROM Newsletter:

I. Catalog the Disk

II. Look at TITLES, and if name is:

UTIL1 - Use Editor/Assembler Option 5 or TI-Writer Option 3. Ignore File Name request, and just press Enter. The program will autoload (from Drive #1 only), and this is the fastest loader available on TI-99/4A.

LOAD - Use Extended Basic (autoload).

xxxxDOCS (OR) xxxxINS or HELP - Documentation or Instructions, usually prints through TI-Writer.

III. Look at PROGRAM TYPES:

DIS/FIX - Editor/Assembler #3, DSK1. NAME, Enter.

DIS/VAR - TI-Writer.

PROGRAM - Extended Basic (OR) Basic (OR) Editor/Assembler #5 (OR) TI-Writer #3 (Try them in that order).

INT/FIX - This is usually a file loaded from an Extended Basic program.

Here's another ROM Newsletter (in Orange County, CA) tip, from Jim Smedlow:

You have probably used a prompt with the INPUT command like:

INPUT "INPUT NAME";N\$

The limitations here are frustrating. You can't use a string variable; if you want to leave a blank line then you must use a lot of spaces; etc., etc.

Sometimes I use a PRINT statement for the prompt and then follow with INPUT. By accident, I discovered that INPUT respects any trailing print separator on the preceding PRINT command:

PRINT A\$;TAB(20);
INPUT B\$

The INPUT ? will appear at the 20th column.

Jim Peterson graciously expedited an exchange of mail with him to make minor fixes on his Tigercub Load (page 4). You may wish to revise some spacing in lines 300, 370, 390, and 860 of the listing.

In line 870, to include Protection information in the printed catalog, you can add this change following V(P,2) .. before the ending NEXT P::CLOSE #2. Make the double colon a semi-colon, then add text to read: V(P,2);TAB(28);CHR\$(89XABS(V(P,1)<0)):NEXT P::CLOSE #2

Also note that the printed catalog is set for a SS/SD disk (the '358' found in Line 850); however, the SCREEN catalog that runs before the print catalog WILL correctly show available sectors, double or single S/D, as your case may be.

```
T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T
T
T DELAWARE VALLEY USERS' GROUP
T P.O.BOX 6240
T STANTON BRANCH
T WILMINGTON, DE 19804
T -----
T Subscription
T expires with
T date on label
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T 0000 EDMONTON '99'ER ONLINE
T P.O. BOX 11983
T EDMONTON - ALB. CANADA T5J 3L1
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T
T Mtgs. Dec.12-Christiana; Dec.16-Deptford; Happy Holidays!
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FIRST CLASS MAIL



Wilmington, DE
NOV 1985