

DUUG EXECUTIVE COMMITTEE MEMBERS IN 1987

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SHORE CHAPTER CHR	HARVEY ADAMS

NORMAL MEETING SCHEDULES

CHRISTIANA GROUP	4th Thursday	6:30 - 9:30
DELMARVA CHAPTER	2nd Monday	7:00 - 9:00
SOUTH JERSEY CHAPTER	3rd Monday	6:45 - 9:00
SHORE CHAPTER	1st Thursday	7:30 - 9:00

MEETINGS PLACES

CHRISTIANA GROUP: Delaware's Christiana Mall on Rte. 7 at I-95, Exit 4-S. We meet in the Community Room. Enter between J.C. Penney and Liberty Travel, inside the Mall.

DELMARVA CHAPTER: Kent County Courthouse, Basement Conference Rm. #25, The Green and State St., Dover, DE Use The Green side entrance.

SOUTH JERSEY CHAPTER: Deptford Municipal Building, Cooper Ave. and Delsea Drive (Rtes. 534 & 47), in Gloucester County, N.J. Enter and park at rear of building.

SHORE CHAPTER: Scullville Firehouse #1, County Rte. 559 (on left, between mile markers 4 and 3), in Atlantic County, N.J. Ignore Station #2 on right, en route.

DUUG BULLETIN BOARD SYSTEMS (BBS)

Northern Delaware: (302) 322-3999 24 Hrs. 300/1200 Baud
 Southern Delaware: (302) 674-1449 24 Hrs. 300 Baud

S.W. New Jersey: (609) 429-7792 300/1200 Baud
 Weekdays: Mon. - Thurs., 3:00 p.m.-7:00 a.m., Each Day
 Weekends: Fri. 3:00 p.m. - Mon. 7:00 a.m. Continuously

For general DUUG information, you can contact these members:

TOM KLEIN	Pennsylvania	(215) 494-1372
JIM FOLZ	Northern Delaware	(302) 995-6848
JIM ENGLAND	Southern Delaware	(302) 674-9256
BUTCH FISHER	S.W. New Jersey	(609) 783-8276
GUY LEWIS	S.E. New Jersey	(609) 927-5681

DELAWARE VALLEY USERS GROUP membership includes library and software privileges, monthly DATA BUS newsletter, plus other special benefits. Annual membership rate, either family or individual, is \$15; students \$10; Newsletter only (for those beyond 75 miles) \$10.

Articles appearing in THE DATA BUS may be reproduced on BBS, or by other User Group newsletters, as long as DUUG source is acknowledged. We encourage exchange newsletters; mail to the DUUG Mail Address shown on Page One of this newsletter.

COMMERCIAL ADVERTISING RATES FOR PUBLICATION IN THE DATA BUS

1/4 Page = \$ 5 per issue, or \$45, repeat copy, for 12 issues
 1/2 Page = \$ 8 per issue, or \$75, repeat copy, for 12 issues
 Full Page= \$15 per issue, or \$125 repeat copy, for 12 issues

THE DATA BUS goes to over 120 DUUG families & 65 User Groups

Paid-up DUUG members may place a short notice of their used computer equipment for sale in THE DATA BUS without charge, subject to approval by the Editor and Executive Committee.

TRANSMIT YOUR NEWSLETTER COPY TO THE DATA BUS EDITOR: Jack Shattuck, (302) 764-8619, or write using DUUG's Mail Address on Page One of this newsletter. COPY DEADLINE is the 2nd THURSDAY OF EACH MONTH; delivery prior to the 4th Thursday.

An annual index for the previous volume year is published in the February issue. Back copies of THE DATA BUS are \$1 each, available by writing the Editor c/o DUUG. Recent articles and volume subject index are available on disk as well.

*** NOTES FROM THE EDITOR ***

As happened in earlier years (1983 and 1984), once more we had to come up short one issue around this time of year, with a single publication for October and November in 1987; (Vol. 5, No. 9). However, all DUUG members and subscribers still will receive 12 issues of our newsletter, prior to the renewal date, which is noted on your mailing label.

Jim Folz, having served for 15 months as THE DATA BUS's fourth Editor, has had to yield to other pressures as we all do from time to time. His work for Du Pont takes him on the road quite extensively, he has some hardware development in mind, and his family would like to see him occasionally too.

As of this point, Jack Shattuck has resumed his service as THE DATA BUS Editor for present — as this issue's front page TI- 99/4A graphic may have alerted some of our older members. While it may be desirable to maintain a consistent appearance in format, we also are concerned with continuing our appearance altogether, so some stylistic considerations will take a back seat temporarily.

These new editorial duties mean that the Basic/XBasic Programming column will be open for another contributor to undertake. Additional input from DUUG members always would be appreciated by the Editor, in any area.

There are several ways to get information from those of us in DUUG. One of the most significant steps which we took back in the Spring of 1984 was start-up of the DUUG Bulletin Board, using the TIBBS operating program originated by Ralph Fowler in Atlanta, Georgia. Our ability to maintain DUUG's BBS phone number since then has been invaluable, especially when we had to change SYSOPs two years ago. Continuity has been important to our members and friends alike.

We're still using (302) 322-3999 as our BBS, but we're no longer running TIBBS software, and we have another SYSOP coming aboard (clothed in anonymity, in the traditional DUUG respect for privacy). Our deepest appreciation goes to JOHN L. KELLEY of New Castle, and to his family, for the gift of his wonderful service these past two years of improvements. John will continue active on the DUUG TIBBS Committee.

Without members volunteering, there is no DUUG.

MID-LINE REM STATEMENTS

from Northwest Ohio 99'er News (Vol. 5:2, February, 1987)

The following program will demonstrate a most amazing thing that is one of the many features that exist in TI Extended Basic, even if TI put them in accidentally or not. Ed Bittner [of the West Penn 99'ers] also dug this out of an old newsletter, but at the time I type this I cannot give credit to the author or the newsletter. Please forgive me. [DVUG Ed. note - Chick De Marti, LA 99ers TOPICS.]

```
100 CALL CLEAR :: PRINT "HER
E I GO" :::
110 GOSUB 200 DELAY_ROUTINE
:: PRINT "HELLO ! I'M
BACK"
120 END
200 FOR D=1 TO 400 :: NEXT D
210 RETURN
```

If you don't do a lot of programming, you may not see the subtle beauty of what is demonstrated here. The line 110 tells the computer to go to a subroutine at line 200 in the program, after which it will return to the next command, or line statement, which will be... Well, you may think that "Delay_routine" was a typo on my part. It wasn't. You are able to insert remarks in Gosub and Goto statements which are part of multi-statement lines OTHER THAN AT THE END OF THE LINE!

This feature, although demonstrated by this short program, could be even more highly appreciated, in a 5-row Extended Basic line, to directly point to what you are going to do when you get there, type of thing.

The only stipulation is that the type of (REM) string is continuous (no spaces). That is why the "-" exists. Try it, this may put a new TI weapon in your already great TI programming arsenal.

CHANGES IN DISK MANAGER 1000, VERSION 3.8

Disk Manager 1000's latest changes were shown during October and November DVUG meetings. They're only two in number, but most helpful.

The initial DM 1000 menu for Version 3.8 shows two letters on the right-hand side of the screen to indicate whether you're running with a CC (CorComp), MY (Myarc) or TI (guess what) disk controller. DM1000 (and TI's Disk Mgr) can use all three controllers but still initializes 16 sec./track vs. 18 for CorComp or Myarc (1200 vs. 1440 for DSDD).

A second change demonstrated was the use of a temporary

"T" command in the protection column, to use as well as the P(rotected) or U(nprotected) display. That will allow you to alter the name of a protected file by changing the "P" to a "T" at the same time you change the filename. DM1000 then will unprotect the file, rename it, and reprotect it in a single sequence, without the user having to go back a second time to do so.

Actually, that change was already available in Version 3.5. But did you see that in documentation anywhere? Well, that's why we have Bulletin Boards, meetings, and newsletters to spread the word ...

It was announced that RAPID COPY cannot copy accurately a disk that had been formatted with a version of Disk Manager 1000 prior to Version 3.5 (i.e., only if you'd used DM1000 V.3.5 or 3.8 or some other manager to format it, could you copy it - a good reason to keep your utilities up to date).

On the other hand, an experiment showed that DM1000, V.3.8, could be used very successfully to copy the CorComp Mgr (using the default Sector Copy routine on DM1000 when copying a disk), whereas previously it was thought that RAPIDCOPY was necessary to do that, since the CC Mgr looked for a specific sector to run.

DM1000, V.3.8, is in the club library.

NEWS NOTES FROM MICROpendium: DVUG AUTHORS, NEW PRODUCT INFO

Congratulations to Norm Sellers, whose delightful Music Preprocessor Fairwaire program drew straight A's in all five categories (Performance, Ease of Use, Documentation, Value, and the Final Grade) by a reviewer in the November issue of MICROpendium.

That issue also includes a complete version of CATCAT, written by the editor of DVUG's DATA BUS, in case you became confused by separate printings in THE DATA BUS in our Vol. 5 Issues numbers 7 and 9. Subscription to the monthly MICROpendium, which covers TI (and Geneve) exclusively, is \$25.25 until the new year, and worth every bit, regardless of your level of program, hardware, or language expertise. Address is P.O. Box 1343, Round Rock, TX 78680.

MICROpendium also maintains a listing of Fairware (User Supported Software, they call it) that is updated quarterly, and can be ordered for \$2. Current listings approximate 12 pages in length.

Another MICROpendium note regards Tigercub Software.

(Continued on page 4)

NEWS NOTES FROM MICROpendium (continued from page 3)

The Tigercub reduced each of his 130 programs to \$1 each and only \$1.50 handling per each order (not program). A minimum of \$10 is acceptable, and you can get them on tape while his supply of blank cassettes last. His 18 Full Disk collection sets are reduced to \$5 each. Four Tips-from-the-Tigercub disks are \$10 each; three Nuts & Bolts disks are \$15 each.

His address is Tigercub Software, 156 Collingwood Ave., Columbus, OH 43213.

Among newer products discussed were several items that deal with converting files from the TI to IBM and even vice-versa. The older known product was the Canadian PC PEP, but it needed linkage between both computers. CorComp has a TI/IBM file conversion cartridge, but it works only if you have a CorComp controller. Now, however, comes a new PC Transfer program, using either Myarc or CC controller, from Mike Dodd and issued for only \$25 from Genial Computerware, Box 183, Grafton, MA 01519. All copies brought to November's Chicago TI Faire were gobbled up eagerly, and seem to work great. An added feature is formatting compatibility for IBM, as well.

That allows members whose office work is predominantly word processing to have one more reason to procrastinate over the addition/switch to IBM, about which our DVUG User Group, and many others, will have more to say in the future.

Meanwhile our European counterparts, who'd authored the BA-Writer, are reported close to accomplishing an actual conversion of BASIC programs, not just text files, between a TI and IBM.

TICOFF '88 IS ANNOUNCED FOR MARCH 26TH AT ROSELLE PARK, N.J.

Speaking of IBM formats, the north central New Jersey town of Roselle Park (near Elizabeth) is hosting the third annual TI Computer Owners' Fun Fest (TICOFF), which has been able to bring \$4,000 to the high school scholarship fund, if marginal benefit to TI owners. Aimed at IBM/clones as well, the event is being called the East Coast Computer Show.

Attendees can offer any unwanted computer equipment for sale, with a 10% sales cut going to the scholarship fund of the sponsoring Roselle Park H.S. Several DVUG owners who are no longer using cartridges and were looking for flea market opportunities to sell them used might be interested.

Admission is \$5, with early payees (sending check and a return SASE) earning a free public domain disk of either IBM or TI software. Specify choice when registering with TICOFF, 185 West Webster Ave., Roselle Park, NJ 07284. For further info, call (201)241-4550 or 241-8982.

BASIC/XBASIC Programming Techniques

by Jack E. Shattuck

Phone: (302)764-8619

SPRITES AND SOUNDS ...

This month's demo program, "PHONETONE", takes an input of 7 characters of a telephone number, reads them one by one, and plays the appropriate touchtones while you see the number dialed on the screen. Depending on your monitor sound and telephone, holding your receiver nearby while "PHONETONE" is running can actually call the number.

This is a simple demo program, so no actual modem software is included to actually dial the number directly.

The program was created in sections, then assembled into a whole. First, a spritemaker program (I use Tom Freeman's Fairware EASYSprite) was used to develop the relevant telephone "buttons" from magnified sprites (Lines 420-530). While sprites are initializing, a brief summary program statement (Line 130) appears on screen; it distracts the user from the delay.

In order to read the entered telephone number, I used a GCHAR statement for each place in the phone number string. Although GCHAR routines can be slow, when you're reading selected row and column locations, as opposed to a full screen scan, it's no problem. A for-next loop moves it along nicely. (Lines 240, 280 and 320.)

This was intended to be a follow-up to the last DATA BUS issue's discussion of strings, by dividing the number into two segments separated by the hyphen. However, it would have needed extra memory to read the first three, and subsequently the last four, digits around the hyphen, so the hyphen was added only afterwards for information (in Line 750).

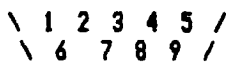
You'll note a slight difference in routines for numerical vs. alphabetical dialing. Since no "0" or "2" appears on the telephone dial, attempts to use them generate an error message (Lines 280,300; note Line 110). Otherwise, the built-in validation routine in XBasic's Accept At procedure screens out improper entries.

When the alphabetical or numerical input is read, the sprite telephone pad changes color (blinks) and plays the tone for each number pushed (lines 650-740). A slight delay was added (Lines 250, 410) to more closely simulate the dialing sequence of a human with big hands poking in the number, rather than the computer zipping along, as in the title screen subroutine (Lines 610-640), for instance.

You'll find PHONETONE on the following page, as well as in DVUG's library.

[Ed. note: The following article, which appears to be from CompuServe, appeared in the September, 1987 (Vol. 5, No. 7), issue of the Madarea (Madison, Wisc. area) 99er News.]

JOYSTICK PORT PINOUT



 Name: LIGHTPEN

Description: This file shows how to build a low cost lightpen and even has an XB program for it!

99/4A LIGHT PEN

At one time I felt that a light pen for the 4A was 1) not possible on the TI and 2) even if it was possible, it would be overpriced. Well I was wrong on both counts.

Thru the help of a local "hacker", we now have a working light pen. This pen is very 'simple' both in parts and construction. So let's get started.

CONSTRUCTION

First off you will need the following:

- ONE - 9 pin D-plug (joystick plug)
- TWO - lengths (your choice) of 2 conductor wire
- TWO - CDS photocells
- TWO - junk Flair pen w/cap
 (or anything big enough to hold the CDS cells)

Now that you have the above, let's get to the fun part. First off gut the pens out and cut off the end that the tip was in, and then punch out the end of the cap. Feed the wire thru the bottom of the pen out the tip. Solder the two wires to the leads of the CDS cell, and place the cell into the cap and put it on the old pen body. Tape the wire around the pen to help prevent it from pulling out by accident.

Grab the D-plug and hard wire the leads (pin layout is below) for pen #1 to pin #7 and #9 (this would be the right direction with CALL JOYST), with pen #2 solder it to pins #2 and #5 (CALL JOYST left direction). If you have not figured it out, you can add up to four more pens using the other moves of the joystick routine. Wrap tape around the plug to protect the wiring.

Now if you have not yet converted the included program get with it, so you can test your new light pens. As you can tell the program name is "DOT" and you just touch the dots on the screen with your pen. Depending upon your TV/monitor, you may need to adjust the contrast/brightness.

One more thing before you get too busy with the pens I have to give credit to Edwin McFall of Aberdeen, Wash. Thru his work this is possible. Hopefully he will be joining us here soon. If you have any questions direct them to me: Garry Noel ID# 75166,324

PIN USE

- 1 NOT USED
- 2 COMMON LINE JOYST #2
- 3 UP
- 4 FIRE
- 5 LEFT
- 6 NOT USED
- 7 COMMON LINE JOYST #1
- 8 DOWN
- 9 RIGHT

```

100 :-----:
110 :
120 : 0000 000 00000 :
130 : 0 0 0 0 0 :
140 : 0 0 0 0 0 :
150 : 0 0 0 0 0 :
160 : 0 0 0 0 0 :
170 : 0 0 0 0 0 :
180 : 0000 000 0 :
190 :
200 :-----:

210 REM by: Edwin McFall.
220 REM 2805 W. 6th
230 REM ABERDEEN WA.
240 REM 98520
250 REM TI 99/4A VER. 1.1
260 REM REQUIRES LIGHTPEN
270 REM AND EXTENDED BASIC
280 REM
290 REM
300 CALL CLEAR :: CALL SCREE
N(2)
310 FOR X=1 TO 10 :: CALL CO
LOR(X,5-11*(X)8),1):: NEXT X
320 RANDOMIZE
330 FOR X=0 TO 2
340 CALL CHAR(96+8*X,"3C7EFF
FFFFFFE3C")
350 CALL COLOR(9+X,1,1)
360 NEXT X
370 PRINT " `hp`hp `hp`
`hp`hp `hp` `hp`
h `p`h `hp` h `hp`"
380 PRINT " `hp` h `hp`
h `p`h `hp` h `hp`
h `p`h `hp` `hp`
`p`h"
390 PRINT " `hp`hp `hp`
`p`h": : : :
400 PRINT : : "`hp`hp`hp`hp`h
p`hp`hp`hp`hp`p BY: EDWI
N MCFALL hh TOUCH DOT T
O CONTINUE. p`ph`ph`ph`ph`p
h`ph`ph`ph`ph`"
410 CALL JOYST(1,X,Y):: IF X
(>0 OR Y(>0 THEN 400
420 FOR C=1 TO 3
430 CALL COLOR(9,7-4*(C=1)-8
*(C=2),1)
440 CALL COLOR(10,7-4*(C=2)-
8*(C=3),1)
450 CALL COLOR(11,7-4*(C=3)-
8*(C=1),1)
460 NEXT C
470 GOTO 410
480 CALL SOUND(100,440,0)::
CALL CLEAR :: SC=0
490 DISPLAY A(12,9):"EASY
HARD"
500 DISPLAY AT(16,7):"SELECT
DIFFICULTY" :: DISPLAY AT(1
8,1):"EASY=LARGE DOTS, HARD=
SMALL."
510 CALL HCHAR(12,9,112):: C
ALL HCHAR(12,19,104)
520 CALL COLOR(11,16,16,10,2
,2)
530 FOR I=1 TO 10
540 CALL JOYST(1,X,Y):: IF X
=4 THEN CALL MAGNIFY(2):: GO
TO 610
550 NEXT I
560 CALL COLOR(11,2,2,10,16,
16)
570 FOR I=1 TO 10
580 CALL JOYST(1,X,Y):: IF X
=4 THEN CALL MAGNIFY(1):: GO
TO 610
590 NEXT I
600 GOTO 520
  
```

3.5-INCH DISKETTE FOR TI-99/4A

John F. Willforth, from West Penn 99'ers Club, October, 1987

Ralph Jones ... from Morrow Bay, CA, writes that after investigating the use of 3.5" Toshiba floppy drives on the TI system ... "here is the info on the 3.5" drive conversion for the TI-99/4A available from ALPHA SCIENTIFIC, described by Mr. Leo D. Ross of 7710 40th Ave. E., Tacoma, WA 98443."

"The drive is 1/2 ht., fits right into the PEB, comes in two packages, the drive and the mounting hardware, all that is needed is a screw driver. It is double sided and can be formatted by the TI disk controller as a single (90K), or as a double sided (180K) unit. CorComp or Myarc controllers will format to DSDD (360K)."

"I had two of the 3.5" drives installed in the PEB, but found it awkward to use them in the vertical position, so I moved them out to an external box. Now I have a 5.25" inch drive and two RAM Disks in the PEB, the 3.5" units are in the external drive box."

"I number the drives #1 = 3.5", #2 = 5.25", #3 = 3.5", #4 = RAM Disk #2, and RAM Disk #1 can be assigned any drive number between 1 and 6." (Ed. note: This has since been enhanced with newer versions of DM1000 and the new MENU from John Johnson.) "When assigned a number where there is a drive, such as #1, the 3.5" drive becomes a transparent unit (all commands to drive #1 are answered by the RAM Disk #1)."

"I am very satisfied with their use. Two of the major advantages are, mechanically superior drive, and a much greater storage capacity."

Thanks to Ralph for this info., and to Mr. Ross for taking the time to write about his experience with the 3.5" drive. I should also tell you that the 3.5" unit we speak of here is "PLUG COMPATIBLE" with the controllers mentioned above, meaning that you plug them into the same connectors that that standard 1/2 and full height drives used. Here again is the address of the supplier:

ALPHA SCIENTIFIC, P.O. Box 626, Chesterfield, Mo. 63006
Phone (314)878-7117 (Central Time) Saturday 10 a.m. - 2 p.m.

CONVERTING TI'S MULTIPLAN FILES FOR USE ON ANOTHER COMPUTER,
by Gary Matthews, APCUG CALL, Atlanta, Georgia, April, 1986 as
reprinted in NEWJUG NORTH TIDINGS, November, 1986.

Multiplan spreadsheets can be saved to disk in three basic ways:

1) The standard way, which is how you save it to disk and then bring it back in for normal usage.

2) As a PRINT file which is an ASCII text format which looks like your usual spreadsheet, but has no formulas associated with it.

3) As a SYMBOLIC format, an ASCII representation of the spreadsheet that does have the formulas and cell formatting intact.

The purpose of the symbolic format is to allow the spreadsheet to be converted to universal form that is usable by Multiplan no matter what machine is running it. Restated, that means a Multiplan spreadsheet that was created with a TI-99/4A could be used by an Apple running Multiplan, or an IBM, or in this case by Digital Equipment Corporation's Rainbow computer.

First the spreadsheet is created (on a TI). Then the spreadsheet is saved to disk in "symbolic" format. Next that "symbolic" file is transferred to another machine using some communications program (Fast Term for example) that allows the transferring of ASCII files. The other machine is using a communications program that will capture and put to disk the ASCII file it receives. Now the other machine can run Multiplan and load the file it received in "symbolic" format. All the formulas are intact. The spreadsheet is a duplicate of the one originally on the TI.

All this is great except for one thing.

It doesn't work.

The TI Multiplan "symbolic" format which is supposed to be ASCII isn't. Doing a directory of a "symbolic" file shows it to be INTERNAL/128. If it were ASCII, it would be DISPLAY/128.

Guy Stephan Romano, who mans the Amnion Helpline, (415) 753-1455 owns both a TI-99/4A as well as a Rainbow computer. He found he could not transfer his TI Multiplan files to his Rainbow. The standard way to do this with "symbolic" files did not work. He discovered the reason was because of the information covered five sentences ago, and he found a way to fix it.

NOTE: This is easier to do if the file is copied to an empty disk so your file will be the only one on it. Using a sector editor program (like DISKO), find the 2nd to the last byte of the first line of the file. In HEX, you can see it is an 02. Change it to 00. This will cause the file type to be converted from INT/128 to DIS/128. Now the "symbolic" file format will BE a true ASCII file and it can be successfully transferred to another type of computer and loaded into Multiplan.

Thanks to Guy for sharing this information.

