

THE WEST PENN USERS GROUP

NOVEMBER 1985

NO. 2

The WEST PENN USERS GROUP

Does that sound good to you? Well, unless someone has a very good reason, that's our new name!! The name was suggested by Kenneth Farr, and I like it.

We also have a new home, which I hope can be our permanent home. The place where we will meet in November, and hopefully from then on, is the YMCA of IRWIN, at their facilities in the Irwin Nike Site. For a map, look at the back of this newsletter. I would like to thank Janice Trayers, for all the work she has put into finding a place for us to meet. THANK YOU JAN!

Two weeks ago, Shirley Bush, Jan Trayers, Ken Farr, Ken Raabler, and I met at the Norwin Diner, to go over the new by-laws, dues, and a few misc. items. We used other clubs by-laws as examples, and modified them as needed, and I believe we came up with a pretty good, basic set of rules. To those of you who have already attended meetings, I'm enclosing a copy for you to study, so that you can think about them before the next meeting.

We have set the dues for a family at \$15 per year, with no additional charge for S.I.G.'s. We also decided that based on the experiences with other libraries, the cassette and disk programs will be provided at a minimal fee, for let's say 6 to 10 programs on a cassette, or diskette, @ \$5 per copy. This will give a person, a good personal library at low cost, and eliminate the very heavy load on a librarian. Of course these programs must be public domain, and as such could be copied freely between any of the members of the club, and their friends as well.

I must also thank Albert (BUD) Burnside, President of the Irwin ATARI club for his assistance in a couple of things. Bud gave me many ideas as well as support for our cause. He also printed out a listing of 138 new potential members for our club, and with the sampling I've already taken, I feel that we have a very large base of users out there that have just been waiting for The West Penn Users Group. Yes the response has been very good. I got this listing on the suggestion of Tom Hare, but could not print it out since it was on an ATARI disk. This is where Bud came to our rescue. I've also talked with Jim Mathers who founded the Westmoreland Computer Club (Commodore), which meets at the M.C.C.C. Jim also gave many useful suggestions, as well as answered many questions that you have brought up. From the conversations I have had with the prospective new members and with the two men just mentioned, I feel that even if we start slowly, we are heading in the right direction, and will be successful!

Jan Trayers has volunteered to be the acting treasurer, until the election is held. Bob Sadusky and Eric Zeno have offered to work on the disk library, and Rob Ekl is working on the cassette library. Please give them your support by providing them with programs which are public domain, and which you have tested for bugs, and it would also be helpful if you can provide such useful information as what the program does, hardware requirements, and as much as possible on its operation.

The library is very important, and it will take time to implement it. Please be patient.

We are about to begin a hardware S.I.G., at my home. The intent of this group will be to teach a little about the computer internally. We will look at the CPU, the buses, the VDP, the PEB and also at adding to, modifying of, and anything that strikes our fancy. It is, however, recommended that anyone participating in this S.I.G. have an extra console at their disposal, until we get their's back together again. We are intending to begin by adding 32K of internal RAM to the CPU, so that those who need more memory can have it at a very low cost, and not need the PEB, or the BOXCAR type external standalone memories. We could also work on diskette drives, and printers. The area is large, and I think that it should be interesting.

We have received bad news in that John Andrasko has been asked to extend his hours at work, and will not be able to continue as the instructor of the Extended Basic S.I.G.. We will need another instructor, so if anyone has a good knowledge of ExBasic, and feels the urge to teach, please give me a call. In the mean time I will be conducting the class unless you who attend get a last minute reprieve from a volunteer.

Over all, I have never been involved with anything that takes so much of my time, but already I can see the rewards, I don't want to keep it all to myself, soooo jump in the water's fine!

WRITE or CALL: JOHN F. WILLFORTH

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THE NEXT MEETING: NOVEMBER 18, 1985 at 7:00 P.M. AT THE NIKE SITE.
(for directions call me evenings or weekends)
(and use the map attached to this newsletter)

By the way, Chuck Strink has asked me to tell you that in the November Basic class, he will be discussing a method of locking your programs, so that anyone without the key will have a hard time running them. Huumm now I'm curious.

It is very important that since we are having the meetings at 7:00 on weekdays, and at least for the time being there is much to do in the business portion of our meeting, we START ON TIME. If you cannot be there at 7:00, come anyway, we will start without you, but "better late than never". If you would like to buy things such as diskettes, cassettes, and paper in bulk to save money, let me know Monday evening. Also, I've seen cassette cables, keyboards, R-F modulators, power supplies, and even chips for the T.I. at very low prices.

By Eric Kepes

by Charles Strink

One of the most often asked questions I get is, "What item should I buy next?"

My answer depends on what you plan on doing with the computer. If you plan on doing anything at all with it, you should have an Extended Basic cartridge. Even if you do not have a disk drive and are using a cassette, Xbasic is a must.

Do you like to play games? If so, your next purchase should be a set of controllers.

If you plan on doing a lot of programming or require a faster mode of input and output for your files then a disk drive is your next move. A word of caution here, once you use a disk drive a few times, you will never go back to cassette.

Some people would put a printer as a must before a disk drive. That is something you will have to decide. I found I needed the printer only after I started building large programs and needed a printed listing to keep from getting lost.

In conclusion I guess our shopping list would look like this;

1. Cassette Recorder
2. Extended Basic Module
3. Controllers
4. Disk Drive
5. RS232 Card
6. Printer
7. 32K Memory Card
8. Telephone Modem
9. What ever else strikes our fancy and fits into the budget.

Until later, Happy Computing !

TI WRITER TIP

By Tom Hare

For those of you that have chosen to load up TI WRITER from Extended Basic with QS-WRITER by QUALITY 99 SOFTWARE and have the 99/4A AUTO SPELL-CHECKER by DRAGONSLAYER ASC. There is a bug in QS-WRITER, in that when the DRAGONSLAYER spell checker is loaded from the utility option there is not any control of lower case letters, regardless if your alpha lock key is up or down. That could cause some problems in editing misspelled words in your document. The fix is if you have the Editor/Assembler Command Module, you choose option 5 RUN PROGRAM FILE and when prompted for FILE NAME?, enter DSK1.UTIL1. Then you have upper and lower case letters.

Have you ever seen an I.B.M. PC or an APPLE MacINTOSH suddenly cover up what you were reading with a window, that told you there was an error while reading a disk? I bet you thought, "THAT'S NEAT!", but can I do it on my T.I.? Well, you can, using the following subroutines, you'll be able to make all the windows you want.

To make a window, use the command: CALL WINDOW(starting row, starting column, number of rows to window, number of columns to window, address in memory expansion where the old information goes, single dimension string array containing what will be displayed). NOW WAIT A MINUTE!! What's this about a memory expansion? I don't have a memory expansion, you say. Well, I also programmed a way to use windows without the memory expansion, but you do need Extended Basic for both of these sets of subroutines. This month I will show you windowing with the memory expansion, and next month, windowing without it.

Type in the routines at the end of this article. To use them, just type: CALL WINDOW(R,C,nR,nC,A,X\$()) where :

R = ROW

C = COLUMN

nR = NUMBER OF ROWS

nC = NUMBER OF COLUMNS

A = ADDRESS

X\$() = STRING ARRAY WHERE DATA IS STORED

To use the RECALL subroutine (which clears the window and restores the old text), type CALL RECALL(R,C,nR,nC,A), where the arguments are the same as with CALL WINDOW.

The address should be between 8200-16,383. If you plan to use machine language routines with these subroutines, only the area from 9984-16,184 is available, unless the machine language routine(s) occupy some of this area. It is suggested that you either use the windowing routines or use machine language routines, but not both at the same time.

```
00001 OPTION BASE 1 :: DIM X$(24), Z$(24) :: CALL INIT
..... 100 CALL CLEAR :: DISPLAY AT (5,12) "HELLO THIS IS A
TEST": "": "": "": "THIS AREA WILL BE WINDOWED": "OVER AND
THEN RESTORED"
..... 110 X$(1) = "YOU PRESSED THE WRONG KEY"
..... 120 X$(2) = "A DARK DAY FOR PROGRAMMING"
..... 130 X$(3) = "LOAD PROGRAM AGAIN"
..... 140 X$(4) = "A MESSY SITUATION"
..... 150 CALL WINDOW(10,2,4,28,8200,X$( ))
..... 160 FOR DELAY=1 TO 2000 :: NEXT DELAY
..... 170 CALL RECALL(10,2,4,28,8200)
..... 180 GOTO 180
20000 SUB WINDOW(R,C,RL,CL,ADD,Z$( ))
20005 Z=0 :: FOR X=R TO R+RL-1 :: FOR Y=C TO C+CL-1 :: CALL
GCHAR(X,Y,CH) :: CALL LOAD(ADD+Z,CH) :: Z=Z+1 :: NEXT Y :: NEXT X
20010 FOR X=R TO R+RL-1 :: DISPLAY AT(X,C-2)SIZE(CL): Z$(X-R+1)
:: NEXT X
20015 SUBEND
20020 SUB RECALL(R,C,RL,CL,ADD)
20025 Z=0 :: FOR X=R TO R+RL-1 :: FOR Y=C TO C+CL-1 :: CALL
PEEK(ADD+Z,CH) :: CALL HCHAR(X,Y,CH) :: Z=Z+1 :: NEXT Y :: NEXT X
20030 SUBEND
```

..... REPRESENT SAMPLE PROGRAM THAT YOU WOULD USE WITHIN YOUR PROGRAM. USE IT ONLY AS A TUTORIAL.

Randy Holcomb

For you Pascal fans: Listing disassembly was produced by a preliminary version of Andy's read a TI DISPLAY/VARIABLE 80 file into a Pascal program. The program was written by Mike King and can also be found in the 99/4A Topics section in the TI Information Network on Delphi. Also in the wings is a Pascal-based 9900/GPL Disassembler written by Andy Cooper of Downing, PA. For those of you who have "The Innermost Secrets of the TI 99/4A" book the listing of the RS232 breaking.

```
PROGRAM DV80PASC;

CONST
  LOW=8;
  HIGH=1;

VAR
  LOHI, IDRIVE: INTEGER;
  ANS: CHAR;
  NEWFILE: TEXT;
  CLUSTERARRAY: PACKED ARRAY [1..88] OF CHAR;
  INBLOCK: PACKED ARRAY [1..512] OF CHAR;
  BASNAME: STRING[18];
  PASNAME: STRING[28];

FUNCTION FINDFILE(SRCHNAME: STRING): INTEGER;
VAR
  I, SECTOR: INTEGER;
  FOUND: BOOLEAN;
  BECHNAME: STRING;
BEGIN
  FINDFILE:=0;
  SECTOR:=1;
  FOUND:=FALSE;
  BECHNAME:='';
  WHILE (SECTOR<17) AND NOT(FOUND) DO
  BEGIN
    UNITREAD(IDRIVE, INBLOCK, 512, SECTOR);
    FOR I:=1 TO 18 DO SECHNAME[I]:=INBLOCK[I];
    IF SECHNAME=SRCHNAME THEN
      BEGIN
        FOUND:=TRUE;
        IF (ORD(INBLOCK[13])=128) OR (ORD(INBLOCK[13])=136)
          THEN FINDFILE:=29 ELSE FINDFILE:=1;
        END
      ELSE FOR I:=257 TO 266 DO SECHNAME[I-256]:=INBLOCK[I];
      IF (SECHNAME=SRCHNAME) AND NOT(FOUND) THEN
        BEGIN
          FOUND:=TRUE;
          IF (ORD(INBLOCK[269])=128) OR (ORD(INBLOCK[269])=136)
            THEN FINDFILE:=285 ELSE FINDFILE:=1;
          END;
          SECTOR:=SECTOR+1;
        END;
      END;
  END;

PROCEDURE XLATE(SECSEG1: INTEGER);
VAR
  I, X: INTEGER;
  TMLINE: STRING;
BEGIN
  IF SECSEG1=0 THEN X:=1 ELSE X:=257;
  REPEAT
    TMLINE:='';
    FOR I:=ORD(INBLOCK[X]) DOWNTO 1 DO
      BEGIN
        TMLINE:=CONCAT(' ', TMLINE);
        TMLINE[1]:=INBLOCK[X+I];
      END;
    X:=X+1+ORD(INBLOCK[X]);
    WRITELN(NEWFILE, TMLINE);
  UNTIL (INBLOCK[X]=CHR(255));
END;

PROCEDURE COPYFILE(SECSEG1, SECSEG2: INTEGER);
VAR
  STARTRHIGH, ENDL0W: BOOLEAN;
  SECTOR: INTEGER;
BEGIN
  STARTRHIGH:=FALSE;
  ENDL0W:=FALSE;
  IF ODD(SECSEG1) THEN STARTRHIGH:=TRUE;
  IF NOT(ODD(SECSEG2)) THEN ENDL0W:=TRUE;
  SECSEG1:=SECSEG1 DIV 2;
  SECSEG2:=SECSEG2 DIV 2;
```

```
FOR SECTOR:=SECSEG1 TO SECSEG2 DO
  BEGIN
    UNITREAD(IDRIVE, INBLOCK, 512, SECTOR);
    IF ((SECTOR=SECSEG1) AND STARTRHIGH) THEN XLATE(HIGH) ELSE
      IF ((SECTOR=SECSEG2) AND ENDL0W) THEN XLATE(LOW) ELSE
        BEGIN
          XLATE(LOW);
          XLATE(HIGH);
        END;
    END;
  END;

PROCEDURE CLUSTERGEN;
VAR
  SS, ES, L, H, OFFSET, OLDOFFSET, INDEX1, INDEX2, HEXNUM: INTEGER;
BEGIN
  INDEX:=8;
  INDEX2:=1;
  REPEAT
    HEXNUM:=ORD(INBLOCK[1+INDEX+LOHI]);
    L:=HEXNUM;
    IF L>=128 THEN L:=L-128;
    IF L>=64 THEN L:=L-64;
    IF L>=32 THEN L:=L-32;
    IF L>=16 THEN L:=L-16;
    H:=HEXNUM-L;
    SS:=ORD(INBLOCK[INDEX+LOHI])+(256*L);
    OFFSET:=(ORD(INBLOCK[INDEX+LOHI+2])*16)+(H DIV 16);
    IF INDEX=8 THEN ES:=SS+OFFSET
      ELSE ES:=SS+(OFFSET-OLDOFFSET)-1;
    OLDOFFSET:=OFFSET;
    CLUSTERARRAY[INDEX2]:=CHR(SS);
    CLUSTERARRAY[INDEX2+1]:=CHR(ES);
    INDEX:=INDEX+3;
    INDEX2:=INDEX2+2;
  UNTIL ORD(INBLOCK[INDEX+LOHI])=0;
  CLUSTERARRAY[INDEX2]:=CHR(0);
END;

PROCEDURE XFERFILE;
VAR
  X: INTEGER;
BEGIN
  WRITELN;
  WRITELN('Transferring ', IDRIVE:1, ' ', BASNAME, ' TO ', PASNAME);
  CLUSTERGEN;
  X:=1;
  WHILE ORD(CLUSTERARRAY[X])>0 DO
    BEGIN
      REWRITE(NEWFILE, PASNAME);
      COPYFILE(ORD(CLUSTERARRAY[X]), ORD(CLUSTERARRAY[X+1]));
      CLOSE(NEWFILE, LOCK);
      X:=X+2;
    END;
  END;

PROCEDURE INIT;
BEGIN
  PAGE(OUTPUT);
  WRITELN(' D/V88 file to Pascal');
  WRITELN(' Transfer Program. ');
  WRITELN(' Rev. 1');
  WRITELN(' by ');
  WRITELN(' Mike King ');
  WRITELN; WRITELN;
  REPEAT
    WRITE('Enter source drive #(4,5,8) ');
    READLN(IDRIVE);
  UNTIL (IDRIVE=4) OR (IDRIVE=5) OR (IDRIVE=8);
  REPEAT
    WRITE('Source program name? ');
    READLN(BASNAME);
  UNTIL (LENGTH(BASNAME)>8) AND (LENGTH(BASNAME)<11);
  WHILE LENGTH(BASNAME)<18 DO BASNAME:=CONCAT(BASNAME, ' ');
  WRITELN;
  REPEAT
    WRITELN('Any legal PASCAL pathname is allowed. ');
    WRITE('Output program name? ');
    READLN(PASNAME);
  UNTIL LENGTH(PASNAME)>8;
  END;

BEGIN
  REPEAT
    REPEAT
      INIT;
      WRITELN;
      WRITE('Are these correct? (Y/N) ');
      READLN(ANS);
      UNTIL (ANS='Y') OR (ANS='y');
    PAGE(OUTPUT);
    LOHI:=FINDFILE(BASNAME);
    IF LOHI>1 THEN XFERFILE;
    ELSE IF LOHI=8 THEN WRITELN('FILE NOT FOUND');
    ELSE IF LOHI=1 THEN WRITELN('FILE MUST BE D/V 88');
    WRITELN; WRITELN;
    WRITE(' Exit? (Y/N) ');
    READLN(ANS);
    UNTIL (ANS='Y') OR (ANS='y');
  PAGE(OUTPUT);
END;
```

John Willforth

Here is a program that will run in either Basic or Exbasic and will at least appear to give you more than 16 colors. The program is from the Cin-Day Users Group of Cincinnati, OH.

```

100 REM COLOR BOMANZA BY ED YORK
110 REM CIN-DAY USERS GROUP
120 REM TI BASIC
130 CALL CLEAR
140 FOR A=40 TO 136 STEP 8
150 CALL CHAR(A,"55AA55AA55AA55AA")
160 NEXT A
170 FOR B=2 TO 14
180 CALL COLOR(B,1,1)
190 CALL VCHAR(1,2*B,24+8*B,22)
200 CALL VCHAR(1,2*B+1,24+8*B,22)
210 NEXT B
220 FOR C=2 TO 14
230 CALL SCREEN(INT(16*8RND)+1)
240 FOR D=2 TO 14
250 CALL COLOR(D,D,C)
260 NEXT D
270 CALL KEY(0,E,F)
280 IF F<1 THEN 270
290 NEXT C
300 GOTO 220

```

Have you ever tried to use the phrases in your speech synthesizer, using Extended Basic, and found that it spells the phrase out? Well the documentation that comes with the device does not tell you that the software is looking for single words, not multi-word phrases. To identify a phrase for the computer, just type a "*" immediately before the first word, and immediately after the last word.

```

100 CALL SAY("GOOD WORK", BUT WHAT WAS THAT #SUSPOSED TO#
BE , I SAID #HANDHELD UNIT# NOT JOYSTICK , REMEMBER I AM A #TEXAS
INSTRUMENTS# HOME COMPUTER ")

```

PEB POWER SUPPLY REGULATOR FAILURE by Dan Davenport

If your old regulator fails on the power supply card in your PEB, then Dan suggests that you replace it with a Sylvania ECB9933 regulator. These are rated at 5 amps, and will be more than adequate for the job.

PEEK AND POKE ON THE T.I.99/4 AND 4A by John Willforth

The TI 99/4 and 4A, are capable, with extended basic, mini-memory, the editor assembler, and several other T.I. cartridges as well as the Corecomp Disk controller, to read CPU ram, and to write to it. On an Atari, a Commodore, and many other machines, this is called peeking and poking. On the 99/4 these are sub-routines in machine code which are CALLED. CALL PEEK(8192,X1,X2,X3,X4), returns the values in 8192 thru 8195, and puts these values in the numeric-variable list which provide the pockets for these values, in this case X1 thru X4. Printing these variables will show you the contents. CALL PEEK reads memory.

CALL LOAD has more to it than just "poking" a value into memory, and it is a good thing for those of us who use the 99/4 that it does. CALL LOAD("DSK1.LOAD") loads an assembly language program into memory expansion for later execution by a CALL LINK statement. More than one program can be loaded at a time just by putting a " " between the programs.

CALL LOAD(-31931,0) pokes 0's into expansion memory address -31931, which is the address I told you about last month that would unprotect an Extended Basic program which was already resident in the machine.

The CALL PEEK and CALL LOAD must both be preceded by a CALL INIT to load necessary utilities and tables into the Memory Exp. Unit and clear any previously loaded programs.

The CALL LINK subprogram must be used by the BASIC or EIBASIC program to pass control to the assembly language program in the Memory Expansion.

This is just to help clarify a few things for those who have not gotten too deeply into this area, and were wondering what these CALLS were about.

A new computer will be unveiled this month at the Triton College in Chicago. The computer which I've heard will sell for between \$300. and \$700. will come with 128k, expandible to over half a meg. of memory, will run all T.I. Peripherals (TEXAS INST.), and optionally, I.B.M. PC software. I've heard that speech will be internal, and that the graphics will be enhanced.

Some people from the Pittsburgh Users Group are planning to attend the one day show. As soon as I receive any more on it, I will let you know. By the way MYARC is the manufacturer.

I bought both the EXPLORER, and ADVANCED DIAGNOSTICS from MILLER'S GRAPHICS, and can say that unless you really want to get into the machine's internal operation, you should NOT buy the EXPLORER, but if you do, from the little I've used it, this could be the best investment you can make. Explorer is a program that emulates the TMS 9900 microprocessor, and the environment in which it operates, exclusively in software. With it you can watch your program run (a bit slower than normal, or in the single instruction execution mode) or you can watch what's going on in the CPU's 3 registers, the VDP'S address and status information, the GROM address and status, ALL 16 workspace registers, the 8 VDP registers status's, the memory pointer (and whether it is in ROM, RAM, GROM, GRAM, VDP RAM, THE ADDRESS, and if it is STATIC or DYNAMIC RAM !!), up to three memory windows (in HEX or ASCII), plus the EXPLORER disassembles the next instruction.

ALL of the above is on one screen (and in one sentence), but there is much more: NUMBER CONVERTER (hex, decimal, and binary), so that alone will save you from buying that Programmer's Calculator, and in turn pay for this GREAT tool, and learning aid. You can also do mathematical operations (+, -, *, /), as well as rational operations (AND, OR, XOR, NOT), on the three number bases mentioned. The EXPLORER also gives you access to the CRU (Communications Register Unit), which in turn gives you access to the eyes and ears of your computer, since this is your peripheral interface to: disks, cassettes, modem, printer(s), P-code card, etc.

The EXPLORER will work with Basic, Extended Basic, Assembly, and most cartridges. The EXPLORER manual has the most complete maps of memory, outside of TEXAS INSTRUMENTS own archives. If you do serious programming, you do need this. Next month I'll talk about the ADVANCED DIAGNOSTICS, which I believe should be in everyone's toolbox.

I use a CORECOMP RS232 card and have not had any trouble with the serial or parallel port, but I've only used two different printers. Ther are problems with the MYARC RS232 card, however, the PIO port to an Okidata Microline 80, won't work. The Smith-Corona L-1000 on the PIO port will not work either. Some signals required by these two printers are inverted, and must be corrected (reinverted), if that makes sense, in order to work. If you bought a printer, or are about to buy one, you had better check the RS232 card you are using, and the printer's logic levels to be sure they are compatible. Any one who is selling a printer should be willing to help you verify this before you take it home and have to return it, (remember the law allows you three days in any case). You could also call me and I'll give you any assistance I can.

Would you like a "Quick and Dirty Word Processor"? Well, here is one from Del Gittinger, president of the MARION AREA 99ers in MARION, OH. The program will dump to the printer after every 24 lines of text. Each line is entered individually, and once a line is entered, you cannot correct it. You can take a look at this program, and I just know that some one out there will have a way to correct an entered line, by our November meeting!

```

100 CALL CLEAR ! EXTENDED BASIC
110 DIM TEXT$(24)
120 CALL SCREEN(12)
130 CALL VCHAR(1,2,62,24)
140 CALL VCHAR(1,31,62,24)
150 FOR I=1 TO 24
160 ACCEPT AT(X,1)BEEP SIZE(28): TEXT$(X)
170 NEXT X
180 OPEN #1:"RS232.9A=9600" ! OR "PIO"
190 PRINT #1:CHR$(15)
200 FOR X=1 TO 24
210 PRINT #1:TEXT$(X)
220 NEXT X
230 CLOSE #1
240 GOTO 100

```

by Jerry Coffey

This program will translate text files from UCSD Pascal format to T.I. DISPLAY VARIABLE 80 format, for use with T.I. WRITER or any program or utility which uses this file structure. The program is FREEMWARE by Jerry Coffey 9119 Tetterton Ave. Vienna, VA. (703)938-1217. XB refinements by Andy Cooper.

```

00001 CALL INIT :: CALL LOAD(-31804,255,48)
00070 OPTION BASE 1
00080 DIM A$(128)
00090 GOTO 350 :: IN$,OUT$,Y$,P$,RC$ :: I,K,NO,D :: CALL LINK
:: CALL CLEAR :: CALL SCREEN :: !@P-
00350 CALL CLEAR :: CALL SCREEN(11)
00360 DISPLAY AT(2,7):"Pascal Text File": "          Translat
or"
00370 DISPLAY AT(6,14):"by:"          Jerry Coffey          [
74716,3525], T15237"
00380 DISPLAY AT(9,11):"-----"          XB Mods b
y Andy Cooper          A/L routines by Andy Dessoiff Fastloa
d by Todd Kaplan
00400 IN$="1." :: OUT$="DSK1."
00410 DISPLAY AT(15,7):"Input File Name:"          DSK"&IN$: "
      "must be D/F 128 Image          of a pascal text file"
00420 ACCEPT AT(16,10)SIZE(-12)BEEP:IN$
00430 DISPLAY AT(21,7):"Output File Name:"          "&OUT$: "
      "will be D/V80"
00440 ACCEPT AT(22,7)SIZE(-21)BEEP:OUT$
00450 DISPLAY AT(24,5):"Is Screen Correct? Y"
00460 ACCEPT AT(24,24)SIZE(-1)BEEP:Y$ :: IF Y$(">") THEN 420
00470 OPEN #1:"DSK"&IN$:INPUT ,FIXED 128
00480 OPEN #2:OUT$:OUTPUT
00490 DISPLAY AT(24,4):"Discarding 'ZERO PAGE'"
00500 FOR I=1 TO 8 :: INPUT #1:P$ :: NEXT I
00510 K=0 :: DISPLAY AT(24,1):"Translating Record No.:"
00520 IF EOF(1)<>0 THEN 580
00530 LINPUT #1:P$ :: K=K+1 :: DISPLAY AT(24,25):STR$(K)
00540 CALL LINK("PSCAM",RC$,P$,NO,A$(I))
00550 IF RC$(">") THEN 570
00560 FOR I=1 TO NO :: PRINT #2:A$(I):: NEXT I :: GOTO 520
00570 PRINT "Error Code: "&RC$ :: GOTO 590
00580 PRINT "      >>>>Translation Complete<<<<"
00590 CLOSE #1 :: CLOSE #2
00600 FOR D=1 TO 500 :: NEXT D
00610 DISPLAY AT(24,2):"Translate another file? N"
00620 ACCEPT AT(24,26)SIZE(-1)BEEP:Y$ :: IF Y$="Y" THEN 350
00630 STOP
    
```

Note: Before you start entering any of the program, I feel you should know how to enter more than 5 lines of Extended Basic programming on a single line number.

Practice by entering line no. 380 just as it is printed here, including exactly as many characters (including the spaces), as you count evident. When you get to the 6th (>) at the end of the 5th line, you will get a "BEEP" sound. type (>), which will cover the 6th (>), and press ENTER.

Press the REDD key (FCTN/8), and the line will be displayed again with the cursor over the <3> in the line no. If you have time, change this number and then LIST the program, you will see 2 lines of program, which are exactly the same, except for their line numbers! Think of the possibilities, such as moving a large line without having to retype it, or duplicating many lines that are similar.

But, we are at this point, to do something else, and that is to get more than 5 lines on LINE 380. Press (FCTN/D), to move the cursor over the last character you were able to type, (the >), on line 5. Now type (<-) and continue with 22 more and the (<) to end the line, and press ENTER.

There you have it, a little lesson on editing with EXTENDED BASIC. You may find that you could have just entered another DISPLAY AT in a new line, 385 for example, but then you would not have picked this tip up then would you?

Note by John Willforth

BATTERY

Listed below is a short program, for picking 6 random numbers. The problem with random number generators is that they often pick duplicate numbers. This program does away with this problem. Lines 150-170 stores numbers 1-40 in B\$ array, lines 220-240 is a normal random number generator, line 250 checks to see if the number chosen is a null string in B\$ array, line 270 replaces a chosen random number with a null string in B\$ array. No two numbers selected are the same in a set of 6 numbers.

By Tom Hare

```

100 REM RANDOM NUMBER GENERATOR FOR 6
    NUMBERS 1 TO 40
110 DIM B$(40)
120 CALL SCREEN(12)
130 CALL CLEAR
140 RESTORE 180
150 FOR A=1 TO 40
160 READ B$(A)
170 NEXT A
180 DATA 1,2,3,4,5,6,7,8,9,10
190 DATA 11,12,13,14,15,16,17,18,19,20
200 DATA 21,22,23,24,25,26,27,28,29,30
210 DATA 31,32,33,34,35,36,37,38,39,40
220 RANDMIZE
230 FOR I=1 TO 6
240 R=INT(RND*40)+1
250 IF B$(R)=" " THEN 240
260 PRINT R;" ";
270 B$(R)=" "
280 NEXT I
290 PRINT
300 PRINT "PRESS ENTER FOR ANOTHER SET
    FCTN <CLEAR> TO STOP"
310 PRINT
320 CALL KEY(0,X,STATUS)
330 IF X=13 THEN 140
340 IF STATUS=0 THEN 320
    
```

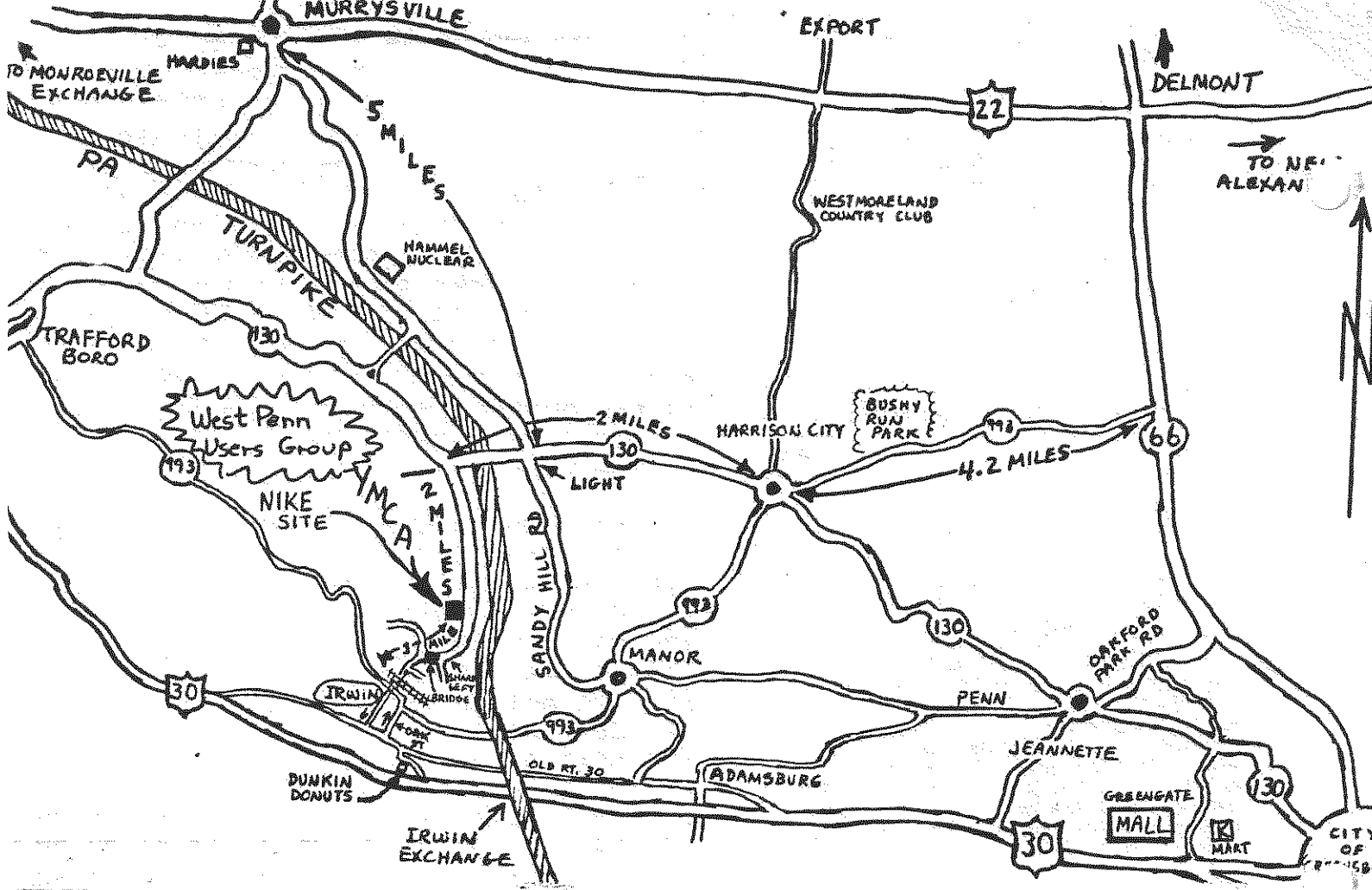
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