

THE OFFICIAL NEWSLETTER OF THE
WEST PENN COMPUTER CLUB
TI-33/4A
JUNE 1986 NO. 9

FOR THE RECORD

by Ed Bittner
Recording Secretary

The West Penn Users Group is alive and well! At the May meeting president Scott Coleman opened with a brief discussion of last months meeting and announced that we will continue our monthly meetings throughout the summer (alive). Following was the ,in the black, treasurers report by Jan Trayers (well), and Chuck Strink announced that the Basic Class is ready to move into Ext. Basic (both alive and well)! Cassette sales have not yet peaked as reported by the librarian Clyde Colledge but diskette sales have been brisk (at 10 for 8 dollars, DSDD),how could you resist supporting your club.

Some of the seemingly perennials bloomed again such as the possibility of a new meeting place, the inconsistency of the publication of Home Computer Magazine/Journal (better known as Old UNfaithful), the need for more club members to submit articles for the newsletter and who is the most promising and most UNcommitting, Myarc or Corcomp for hardware advancement.

Clyde is diligently working to reduce the volume of the library, some 3000 programs, many of which are duplicates or updated versions of others with name changes. He should have a directory soon. Scott Coleman discussed the UNScrewing (secretary's note - I think the UN is UNappropriate) of the P.E. Box so as to make the fan blow in instead of out for quieter operation.

Two programs, the Popeye game and Chuck Strinks - The United Federation of Planets were demoed and three raffle prizes were awarded in a \$1.00 raffle. Classes in Basic (Chuck Strink) and assembler (Gene Kelly) were conducted immediately following the main meeting. John Willforth assisted Gene with a hardware modification of an archaic TV set by the insertion of an anti-zapper device (a coat hanger) into the rear of the set. We were not sure that it improved the output of the set but John now has a glowing personality.

UNrigorously submitted,

Scoops Bittner

P.S. Following a suggestion by the president, I will bring one case of cold pop (soda) to be sold for \$.50/can. Proceeds will, of course, go to the club. I will also bring one large quiet fan for the main meeting to be used also for the assembler class, it really gets cooking in there!.

To the Editor
from Ed Bittner

John, I have typed in several programs which you recently republished from other newsletters. Included are the Dis/Vars 80 to Merge conversion program as well as the one which is a titler for VCR tapes. I will bring several copies on disk of these programs to the meeting in June. I have also included on the disk my own version of Hangman written entirely in Basic.

Ed

TREASURER'S REPORT
by JAN TRAYERS

BALANCE IN THE TREASURY BEFORE MAY MEETING.....	453.91
PAID OUT:	
RENT FOR MEETING ROOMS.....	10.00
POSTAGE (NEWSLETTERS 2 MNTHS).....	<u>36.98</u>
	46.98
RECEIVED:	
NEW MEMBERSHIP.....	15.00
DISK SALES	17.00
RAFFLE.....	<u>20.00</u>
	52.00
BALANCE AS OF JUNE 4th 1986,	458.93

MEETING SCHEDULE FOR THE SUMMER

JUNE, JULY, AND AUGUST MEETINGS WILL BE HELD AT THE NORWIN Y.M.C.A., AT THE OLD NIKE SITE, IN THE AREA OF NORTH IRWIN. ALL OF THESE MEETINGS SHOULD START AT 7:00 P.M. IT IS POSSIBLE THAT WE WILL HAVE DISK SALES, LIBRARY FUNCTIONS, AND EVEN A SWAP OR SALE PERIOD IN THE TIME FRAME OF 6:30 to 7:00. I THINK THAT WITH OUR TIGHT SCHEDULE FROM 7:00 to 9:45, THIS WOULD BE THE ONLY AVAILABLE TIME FOR THIS DESIREABLE FUNCTION OF THE CLUB. ALL THIS OF COURSE DEPENDS ON WEATHER SOME ONE CAN GET HOME FROM WORK, AND TO THE YMCA BEFORE 6:30.

JUNE 16-----JULY 21-----AUGUST 18-----AD INFINITUM !!!!!

Now I've got to tell you who are in need of a PEB, that a bare bones, 3 slot unit without a case, but complete in every other way, is available from the CAPTAIN'S WHEEL, J. JON GOULD, 17295 CHIPPENDALE AV., FARMINGTON, MN 55024 (612) 460-6348.

I put one of these units together in a couple of hours, being very cautious and pessimistic. I plugged the unit into my console (which has 32K of internal memory) and pushed a PASCAL card and a TI Disk Controller card into this very strange unit. The cards were just standing there floping about losely (no enclosure), and turned on the power. It fired up. I'm not going to spend too much space here, but if one of the ones that I ordered the next day, arrive before the meeting, you'll see it there. GAZOOKS, no firehose, no fan, and even with two ½ height drives, and it's own internal p/s, it can't weigh more than 12 pounds. OH YEH, the price.....\$35.00. By the way, Jon has other items that might interest you, a 32K memory unit, with switch selectable (optional) 8K blocks, up to 24K of additional memory. Price \$49.00. Interested???????

Well if you are, you had better call or write (if your the patient sort), but Jon tells me that when the circuit cards for the 3 slot expansion are gone, there will be no more. WHAT! He does hint that there is something better coming. But why take the chance, order yours TODAY.

We wish to give credit to the PUGET SOUND 99'ERS who printed this All Purpose Handy Dandy Reference sheet in their APRIL 85 Newsletter.

COLOR CODES		PATTERN IDENTIFIER CONVERSION TABLE				ERROR CODES	
COLOR	VALUE	1	2	3	4	FIRST	COMMAND OR STATEMENT
TRANSPARENT	1	0	0	0	0	0	OPEN
BLACK	2	0	0	0	1	1	CLOSE
MED. GREEN	3	0	0	1	0	2	INPUT
LT. GREEN	4	0	0	1	1	3	PRINT
DARK BLUE	5	0	1	0	0	4	RESTORE
LT. BLUE	6	0	1	0	1	5	OLD
DK. RED	7	0	1	1	0	6	SAVE
CYAN	8	0	1	1	1	7	DELETE
MED. RED	9	1	0	0	0	8	EOF
LT. RED	10	1	0	0	1		SECOND TYPE OF ERROR
DK. YELLOW	11	1	0	1	0	0	DRIVE NOT FOUND
LT. YELLOW	12	1	0	1	1	1	DEVICE or FILE WRITE PROTECTED
DK. GREEN	13	1	1	0	0	2	BAD OPEN ATTRIBUTE
MAGENTA	14	1	1	0	1	3	ILLEGAL OPERATION
GRAY	15	1	1	1	0	4	OUT OF SPACE
WHITE	16	1	1	1	1	5	ATTEMPT TO READ PAST END OF FILE
						6	DEVICE ERROR or HARDWARE ERROR
						7	FILE ERROR - File or disk does not exist

ASCII CODES											
CODE	CODE	CODE	CODE	CODE	CODE	CODE	CODE	CODE	CODE	CODE	CODE
38	46	54	62	70	78	86	94	102	110	118	126
39	47	55	63	71	79	87	95	103	111	119	127
40	48	56	64	72	80	88	96	104	112	120	128
41	49	57	65	73	81	89	97	105	113	121	129
42	50	58	66	74	82	90	98	106	114	122	130
43	51	59	67	75	83	91	99	107	115	123	131
44	52	60	68	76	84	92	100	108	116	124	132
45	53	61	69	77	85	93	101	109	117	125	133
46	54	62	70	78	86	94	102	110	118	126	134
47	55	63	71	79	87	95	103	111	119	127	135

CHARACTER SETS		CALL KEY VALUE OF KEYSTROKES		JOYSTICK RETURN VALUES	
SET	ASCII CODES	CODE	KEYSTROKE		
0	38-31	1	FCTN 7	(0,4)	UP
1	32-39	2	FCTN 4	(-4,4)	
2	40-47	3	FCTN 1	(4,4)	
3	48-55	4	FCTN 2		
4	56-63	5	FCTN 8	(-4,0)	LEFT
5	64-71	6	FCTN 6	(4,0)	RIGHT
6	72-79	7	FCTN 3	(-4,-4)	
7	80-87	8	FCTN 5	(4,-4)	
8	88-95	9	FCTN D	(0,-4)	DOWN
9	96-103	10	FCTN X		
10	104-111	11	FCTN E		
11	112-119	12	FCTN 6		
12	120-127	13	ENTER		
13	128-131	14	FCTN 5		
14	132-143	15	FCTN 9		
15	144-151/BASIC				
16	152-159/ONLY				

CONTROL CODES		EXTENDED BASIC STATEMENTS			
ASC	PRESS	COMMENTS	ACCEPT	DISTANCE KEY	ON WARNING SCREEN
1	CTRL A	START OF HEADING	CHAR	END	LET
2	CTRL B	START OF TEXT	CHARPAT	ERR	LINK
3	CTRL C	END OF TEXT	FOR	LINK	OPTION BASE
4	CTRL D	END OF TRANS.	CLEAR	INPUT	PATTERN
5	CTRL E	INQUIRY	GOSUB	LOAD	PEEK
6	CTRL F	ACKNOWLEDGE	COINC	LOCATE	POSITION
7	CTRL G	BELL	GOTO	MAGNIFY	PRINT
8	CTRL H	BACKSPACE	COLOR	HCHAR	MOTION
9	CTRL I	HORIZ. TAB	DATA	IF THEN	NEXT
10	SHFT/ENTR	LINE FEED	DEF	IMAGE	ON BREAK REM
11	CTRL K	VERTICAL TAB	DELSPRITE	INIT	ON ERROR RESTORE
12	CTRL L	FORM FEED	DIM	INPUT	ON GOSUB RETURN
13	ENTER	CARRIAGE RETURN	DISPLAY	JOYST	ON GOTO SAY
14	CTRL N	SHIFT OUT			
15	CTRL O	SHIFT IN			
16	CTRL P	DATA LINK ESCAPE			
17	CTRL Q	DEVICE CONTROL 1			
18	CTRL R	DEVICE CONTROL 2			
19	CTRL S	DEVICE CONTROL 3			
20	CTRL T	DEVICE CONTROL 4			
21	CTRL U	NEG. ACKNOWLEDGE			
22	CTRL V	SYNCHRONOUS IDLE			
23	CTRL W	END OF TRANSMIS.			
24	CTRL X	CANCEL			
25	CTRL Y	END OF MEDIUM			
26	CTRL Z	SUBSTITUTE			
27	CTRL .	ESCAPE			
28	CTRL /	FILE SEPARATOR			
29	CTRL ^	GROUP SEPARATOR			
30	CTRL @	RECORD SEPARATOR			
31	CTRL 0	UNIT SEPARATOR			
127	SHIFT V	DELETE CHARACTER			

ADDRESS	PARAMETERS	DESCRIPTION
-32748	POKE 0-255	RATE of FLASH of CURSOR
-31788	POKE 192	DISABLE SPRITE action
-31804	PEEK X,Y	Returns to Title Screen
-31806	POKE X,Y	
-31806	POKE 16	DISABLE GUIT KEY(Fctn =)
-31806	POKE 32	DISABLES SOUND
-31806	POKE 64	DISABLES AUTOSPRITE MOTION
-31868	POKE 4	Goes to Console BASIC after 'NEW' is typed
-31868	POKE 8	Runs DSki.LOAD
-31878	POKE 8-26	Highest # SPRITE in motion
-31888	POKE 63,255	Disables Disks,NEW fr.mem
-31931	POKE 8/128	Unprotects/Protects program
-31962	POKE *2	Returns to TITLE SCREEN
-31962	POKE *5	Runs DSki.LOAD
-31952	PEEK A,E,C,D	Recovers program with LOAY
-28672	PEEK A	*6=Speech Syn. *8=No Speec

CORCOMP'S DSDD Card adds some additional commands to the TOOL SHED of the TI-BASIC programmer. These added commands enable the programmer to do:

- PAGE FLIPPING
- WINDOWING
- ACCESS TO VDP WRITE ONLY REGS.
- PEEK AND POKE COMMANDS IN BASIC

Included here are a few of these programs that will demonstrate these features. NOTE: These are all written in BASIC, not XBASIC!

```

100 REM *****
110 REM *
120 REM * BLOCK MOVE *
130 REM *
140 REM *****
150 REM
160 REM     REQUIRES
170 REM     CORCOMP CARD
180 REM
190 CALL CLEAR
200 B$=" "
210 P$=" ++++ "
220 F=1
230 T=550
240 S=33
250 GOSUB 420
260 F=X1
270 T=F-15
280 S=-1
290 GOSUB 420
300 F=X1
310 T=F-500
320 S=-33
330 GOSUB 420
340 F=X1+33
350 T=F-19
360 S=-1
370 GOSUB 420
380 GOTO 220
390 REM
400 REM *BLOCK ROUTINE*
410 REM
420 FOR X=F TO T STEP S
430 X1=X
440 X2=X+33
450 X3=X+66
460 X4=X+99
470 X5=X+132
480 X6=X+197
490 CALL VPOKE (X1,96,B$;X2,96,P$;X3,96,P$;X4,96,P$;X5,96,P$;X6,96,B$)
500 NEXT X
510 RETURN
    
```

```

100 REM *****
110 REM *
120 REM * PAGE DEMO *
130 REM *
140 REM *****
150 REM
160 REM     REQUIRES
170 REM     CORCOMP CARD
180 REM
190 CALL CLEAR
200 FOR X=40960 TO 41728 STEP 32
210 CALL MPOKE (X,96,"AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA")
220 NEXT X
230 CALL SOUND (150,1000,0)
240 CALL CLEAR
250 PRINT "PRESS ANY KEY!"
260 CALL KEY (0,K,S)
270 IF S=0 THEN 260
280 CALL MOVEM (3,40960,0,768)
290 CALL SOUND (150,1000,0)
300 CALL KEY (0,K,S)
310 IF S=0 THEN 300
320 CALL CLEAR
330 GOTO 230
    
```



THE ONLY WAY THAT WE HERE IN THE WEST PENN 99'ERS CAN HELP THOSE OUT THERE WHO CAN'T FIND THEMSELVES WITH THEIR TI-99, IS FOR YOU TO ASK ! WE CAN NOT READ YOUR MIND. YOU HAVE THE NAMES OF ALL OF THE OFFICERS AND THEIR PHONE #'S. I'VE NOT HEARD OF ANY ONE BEING REFUSED ASSISTANCE. WE ALSO DO NEED YOUR INPUT TO IMPROVE.

```

100 REM *****
110 REM *
120 REM * 40 COL DISPLAY *
130 REM *
140 REM *****
150 REM
160 REM     REQUIRES
170 REM     CORCOMP CARD
180 REM
190 REM * SET 40 & CLEAR *
200 REM
210 CL$=""
220 CL$=CL$&CL$&CL$
230 CALL WRTRG (7,31)
240 CALL WRTRG (1,240)
250 FOR X=0 TO 3
260 VDPA=X*240+1
270 CALL VPOKE (VDPA,96,CL$)
280 NEXT X
290 REM
300 REM * PRINT LINES *
310 REM
320 FOR X=0 TO 23
330 VDPA=(X*40)
340 M$=STR$(X+1)
350 CALL VPOKE (VDPA,96,M$)
360 VDPA=(X*40)+5
370 M$=".....1.....2.....3.....4"
380 CALL VPOKE (VDPA,96,M$)
390 NEXT X
400 GOTO 400
    
```

```

100 REM *****
110 REM *
120 REM * "SPRITE" DEMO *
130 REM *
140 REM *****
150 REM
160 REM     REQUIRES
170 REM     CORCOMP CARD
180 REM
190 CALL WRTRG (7,31)
200 CALL WRTRG (1,240)
210 CALL MPOKE (33748,96,240)
220 FOR X=1 TO 97
230 CALL VPOKE (X,96,"->")
240 NEXT X
250 CALL SOUND (150,1000,0)
260 CALL KEY (0,K,S)
270 IF KEY=0 THEN 260
280 GOTO 220
    
```

GETTING THE MOST FROM YOUR CASSETTE SYSTEM
BY MICKEY SCHMITT
NUMBER 2
LOADING AND SAVING PROGRAMS

WHILE LOADING AND SAVING PROGRAMS WITH THE USE OF A CASSETTE RECORDER IS NOT A DIFFICULT PROCESS IN ITSELF - READING AND UNDERSTANDING THE INSTRUCTIONS FOR THE VERY FIRST TIME CAN BE QUITE CONFUSING. WITH THAT THOUGHT IN MIND I HAVE TRIED TO KEEP THE INSTRUCTIONS AS SIMPLE AS POSSIBLE.

INSTRUCTIONS FOR LOADING PROGRAMS:

1. TYPE: OLD CS1
2. THEN: PRESS ENTER
3. FOLLOW THE DIRECTIONS AS THEY APPEAR ON YOUR MONITOR OR TV SCREEN:

- 3.1 * REWIND CASSETTE TAPE CS1
THEN PRESS ENTER
- 3.2 * PRESS CASSETTE PLAY CS1
THEN PRESS ENTER
- 3.3 COMPUTER DISPLAYS MESSAGE:
* READING
- 3.4 COMPUTER DISPLAYS MESSAGE:
* DATA OK
- 3.5 * PRESS CASSETTE STOP CS1
THEN PRESS ENTER

4. WAIT FOR THE FLASHING CURSOR TO APPEAR IN THE LOWER LEFT-HAND CORNER OF YOUR MONITOR OR TV SCREEN

5. TYPE: RUN
6. THEN: PRESS ENTER

INSTRUCTIONS FOR SAVING PROGRAMS:

1. TYPE: SAVE CS1
2. THEN: PRESS ENTER
3. FOLLOW THE DIRECTIONS AS THEY APPEAR ON YOUR MONITOR OR TV SCREEN:

- 3.1 * REWIND CASSETTE TAPE CS1
THEN PRESS ENTER
- 3.2 * PRESS CASSETTE RECORD CS1
THEN PRESS ENTER
- 3.3 COMPUTER DISPLAYS MESSAGE:
* RECORDING
- 3.4 * PRESS CASSETTE STOP CS1
THEN PRESS ENTER

4. YOUR PROGRAM IS NOW SAVED - BUT YOU SHOULD GET INTO THE HABIT OF CHECKING ALL YOUR PROGRAMS TO BE SURE THAT THEY WERE SAVED WITHOUT ERROR.

5. CONTINUE TO FOLLOW THE DIRECTIONS AS THEY APPEAR ON YOUR MONITOR OR TV SCREEN:

- 5.1 COMPUTER DISPLAYS MESSAGE:
* CHECK TAPE (Y OR N)?
- 5.2 TYPE: Y
- 5.3 THEN: PRESS ENTER
- 5.4 * REWIND CASSETTE TAPE CS1
THEN PRESS ENTER
- 5.5 * PRESS CASSETTE PLAY CS1
THEN PRESS ENTER
- 5.6 COMPUTER DISPLAYS MESSAGE:
* CHECKING
- 5.7 COMPUTER DISPLAYS MESSAGE:
* DATA OK

6. YOUR PROGRAM IS NOW SAVED - SAFELY AND WITHOUT ERROR.

THAT'S ALL THERE IS TO IT! NEXT MONTH'S TOPIC WILL BE KEEPING YOUR CASSETTE TAPES AND PROGRAMS ORGANIZED. IF YOU NEED ANY HELP UNDERSTANDING HOW TO LOAD AND SAVE PROGRAMS - JUST GIVE ME A CALL (412-335-0163) AND I'LL TRY TO HELP.

MICKEY SCHMITT

ERROR CODE LISTING

REPRINTED FROM FEBRUARY, 1986 ISSUE OF HOCUS NEWSLETTER

EXTENDED BASIC ERROR CODES	EDITOR/ASSEMBLER ERROR CODES	XB ERROR EQUATES	EXECUTION ERRORS
10 Numeric overflow	ERRNO >0200	2	0-7 Standard I/O
14 Syntax Error	ERRSYN >0300	3	08 Memory Full
16 Illegal after Sbrtn	ERRIBS >0400	4	09 Incorrect State
19 Name too long	ERRNQS >0500	5	0A Illegal Tag
20 Unrecognized Char	ERRNTL >0600	6	0B Checksum Error
24 \$/# Mismatch	ERRSNM >0700	7	0C Dup. Definition
28 Improperly used name	ERROBE >0800	8	0D Unresolved Ref.
36 Image error	ERRMUV >0900	9	0E Incorrect Statement
39 Memory Full	ERRIM >0A00	10	0F Program not found
40 Stack Overflow	ERRMEM >0B00	11	10 Incorrect Statement
43 Next without For	ERRSD >0C00	12	11 Bad Name
44 FOR-NEXT Nesting	ERRNWF >0D00	13	12 Can't Continue
47 Must be in Sbrtn	ERRFNN >0E00	14	13 Bad Value
48 Recursive Sbrtn CALL	ERRSNS >0F00	15	14 Number too big
49 Missing SUBEND	ERRRSC >1000	16	15 String/Number
51 RETURN without GOSUB	ERRMS >1100	17	16 Bad Argument
54 String Truncated	ERRRWG >1200	18	17 Bad Subscript
56 Speech \$ too long	ERRST >1300	19	18 Name Conflict
57 Bad Subscript	ERRRBS >1400	20	19 Can't do that
60 Line not found	ERRSSL >1500	21	1A Bad Line Number
61 Bad Line #	ERRLNF >1600	22	1B FOR NEXT Error
62 Line too long	ERRBLN >1700	23	1C I/O Error
67 Can't CONTINUE	ERRLTL >1800	24	1D File Error
69 Command Illegal in Prgrm	ERRCC >1900	25	1E Input Error
70 Only legal in prgrm	ERRCIP >1A00	26	1F Data Error
74 Bad Argument	ERRDLP >1B00	27	20 Line too long
78 No Program Present	ERRBA >1C00	28	21 Memory Full
79 Bad Value	ERRNPP >1D00	29	22 Unknown Error Code
80 Nil	ERRBV >1E00	30	
81 Incorrect Argument List	ERRIAL >1F00	31	
82 Nil	ERRINP >2000	32	
83 Input Error	ERRDAT >2100	33	
84 Data Error	ERRFE >2200	34	
97 Protection Violation	ERRIO >2400	36	
109 File Error	ERRSNF >2500	37	
130 I/O Error	ERRPV >2700	39	
135 Sbrtn not found	ERRINV >2800	40	
	WRNNO >2900	41	
	WRNST >2A00	42	
	WRNPP >2B00	43	
	WRNINP >2C00	44	
	WRNIO >2D00	45	

TI BASIC ERROR CODES PERTAINING TO DISK SYSTEM

#:	FIRST #	SECOND #
0:	OPEN	Can't find specified Disk Drive
1:	CLOSE	Disk or program is Write Protected
2:	INPUT	Bad Open Attribute
3:	PRINT	Illegal Operation
4:	RESTORE	Disk full or too many files opened
5:	OLD	Attempt to read past EOF
6:	SAVE	Device Error
7:	DELETE	File Error
9:	EOF	

TI WRITER ERROR CODES

0	- Indicates Disk Controller not on; OR: Diskette not Initialized
6	- No Disk in Drive; OR: Is upside down; OR: Drive is not turned on
7	- No Disk in Drive
00	- Illegal use of LoadF, PrintF; OR:
02	- No file in Diskette with Filename used
04	- Disk is full
06	- PrintF Command in progress was interrupted; OR: Disk Door was opened while Red Light was on
07	- Invalid Filename (I.E. Name too long or using invalid characters)
15	- Invalid Disk Drive Number, or Device

DISK MANAGER ERROR CODES

#:	FIRST #	SECOND #
1:	OTHER	Rec not found
2:	SEEK/STEP	Cyclic Redundancy
3:	INPUT	Lost Data
4:	PRINT	Write protect
5:	NIL	Write fault
6:	NIL	No Disk Drive
7:	NIL	Invalid input
8:	NIL	
9:	Special Error Code for Comprehensive Test	

I/O ERRORS

#	FIRST #	SECOND #
1:	OPEN	Device not found
2:	CLOSE	Write Protected
3:	PRINT	Invalid I/O Command
4:	RESTORE	Out of space
5:	OLD	EOF
6:	SAVE	Device Error
7:	DELETE	File/Data Mismatch

INSTALABEL

There are many times when I need to make multiple copies of a mailing label. For example, I had to make a bunch of return address labels. Another time there was a mistake in a magic book that I published and I had to put an error notice on the front page. Whatever reason you have, this simple program will do the trick. After you input the information a number will appear on the screen counting the labels as they're made. Every time a label is made a beep will sound. I did this because if I leave the room, the beeps will tell me when they're done. If you don't like the beep just turn down your volume.

Bruce Kalver

```

100 CALL CLEAR
110 INPUT "NAME:";N$
120 INPUT "ADDRESS:";A$
130 INPUT "CITY STATE, ZIP:";C$
140 INPUT "NUMBER OF LABELS:";L
150 OPEN #1:"PIO"
160 FOR X=1 TO L
170 DISPLAY AT(10,4)BEEP:USING "00";X
180 PRINT #1:N$
190 PRINT #1:A$
200 PRINT #1:C$
210 FOR Y=1 TO 3
220 PRINT #1:" "
230 NEXT Y
240 NEXT X
250 PRINT "FINISHED"
260 PRINT
    
```

**DO NOT BEND
FLOPPY DISK ENCLOSED
DO NOT XRAY**

```

100 ! *****
110 ! *
120 ! * DON'T LABELS *
130 ! * BY: Ron Rutledge *
140 ! * Central Iowa UG *
150 ! *
160 ! *****
170 !
180 ESC$=CHR$(27) !
ESCAPE CODE
190 EMP$=ESC$&"E" !
EMPHASIZED PRINT
200 NOR$=ESC$&"W"&CHR$(0) !
NORMAL PRINT
210 ENL$=ESC$&"W"&CHR$(1) !
ENLARGED PRINT
220 UDN$=ESC$&"~"&CHR$(1) !
TURN UNDERLINE ON
230 UOF$=ESC$&"~"&CHR$(0) !
TURN UNDERLINE OFF
240 OPEN #1:"PIO"
250 PRINT #1:EMP$&ENL$&UDN$&
"DO NOT BEND"
260 PRINT #1:NOR$&" FLOPPY D
ISK ENCLOSED"
270 PRINT #1:ENL$&UOF$&"DO N
OT XRAY"
280 PRINT #1: : :
290 CALL KEY(0,R,S) ! A
RE YOU PRESSING A KEY?
300 IF S=0 THEN 250 !
IF NOT THEN PRINT ANOTHER
310 CLOSE #1
320 END
    
```

TK-WRITER REVISION JACKSON COUNTY 99ers VIA ATLANTA 99/4A U.G.

This a modification to the LOAD program that will cut down the wait when switching from the EDITOR to the FORMATTER. This wait is caused by the assembly language program being loaded back into the computer when the load program is rebooted. This assembly language program, however, is still present in memory if you haven't done something like turn off the computer or run some other program. You can convert the LOAD program by replacing line 100 and adding lines 102, 104, and 108 as shown below. Line 100 checks to see if the assembly program is in memory. If not, it jumps to 108 and loads the program. If it is in memory, the REF/DEF table and last free address are loaded, and you can access the assembly code as usual. In plain talk, it will save a whole bunch of time.

```

100 CALL CLEAR :: CALL INIT :: CALL PEEK(-2043,A,B):: IF A<>84 OR B<>75 THEN 108
102 CALL LOAD(16360,85,84,73,76, 73,84,250,212,70,79,82,77,65,84,2
50,132,69,58,73,84,79,82,250,22)
104 CALL LOAD(8196,63,232):: GOTO 110
108 CALL LOAD("DSK1.WRITER")
    
```

Basic Basics
by
Charles Strink
West Penn Users Group

```

60 FOR A=1 TO 28
70 CALL SPRITE(8A,96,INT(A/3)+3,
92,124,A*INT(RND*4.5)-2.25
+A/2*SGN(RND-.5),A*INT(
RND*4.5)-2.25+A/2*SGN(RND-.5))
80 NEXT A
90 NEXT I
100 GOTO 40::END
    
```

Line 60 loops thru to use 28 sprites and line 70 calls the sprite in the shape of our redefined character, then sets it into motion in a different direction and speed each time it loops thru.

This month it is time for some Sprite fun, but to enjoy the following program you must have Extended Basic. Sorry, but there are no sprites available in basic. First the program I like to call;
-----BUTTERFLIES-----

```

10 CALL CLEAR
20 CALL CHAR(96,"000B081C7F1C0B
08")
30 RANDOMIZE
40 FOR I=2 TO 16
50 CALL SCREEN(I)
    
```

Now, just what does all this do? Lines 10 and 20 clear the screen and redefine character 96.

Line 30 makes sure each sprite direction of travel and speed is truly random.

Lines 40 and 50 cause the screen color to loop thru all 15 colors.

Line 70 starts the whole process over again.

This program shows just how much action and color can be packed into a few short lines when it is run on the 99/4A WONDER MACHINE.

Until next time.....
.....Happy Computing

10 VERY GOOD LABEL PRINTER FOR VARIOUS TYPES OF LABELS.
 20 BESIDES THE FUNCTIONAL USES, THERE IS MUCH TO BE LEARNED FROM THIS PROGRAM.
 30 THIS PROGRAM WAS TAKEN FROM THE MAY 1986 ISSUE OF THE R. O. M. NEWSLETTER.

```

100 LABEL
110 Version XB:3.0
120 By Jim Swedlow
130 22 Mar 86
140 Based on a program by Phil Barnes
150 GOTO 180 :: IN$=SS$;DS$;PI$ :: DIM Y$(4),A$(5) :: C$,D$ :: DIM F$(144),T$(144)
160 B,J,D,E$,I,C,$ :: CALL KEY
170 DATA "FIRST CLASS", "MAGNETIC MEDIA",DO NOT BEND & DO NOT X-RAY,
DO NOT EXPOSE TO MAGNETISM,
180 DATA "Your Name,Street,Address,"City, CA ZIPCD"
190 @=1 :: CALL CLEAR :: FOR J=0 TO 14 :: CALL COLOR(J,16,@) :: NEXT J :: CALL SC
REEN(5) :: LOOP
200 DS$=CHR$(27) ESCAPE
210 DS$=E$;"6"
220 C$=CHR$(15) CONDENSED
230 D$=CHR$(14) DBL WIDTH
240 P1$=CHR$(16) FICA
250 IN$=E$;"@"
260 ES$=E$;"&CHR$(12)"
270 P1$=P1$&C$&D$ :: DS$=DS$&C$ :: Y$(@)="DF" :: Y$(2)="DV" :: Y$(3)="F" :: Y$(4)="V" :: D$="DSK1" :: C$=""
280 OPEN #1:"PI0" :: DISPLAY AT(3,9) LABEL 3.0 :: "Check the position of the labels before printing."
290 DISPLAY AT(20,@)BEEP: <A>address: <D>disk: <M>arning"
300 GOSUB 550 :: IF I>4 THEN 300 ELSE B=@ :: GOTO 330
310 DISPLAY AT(10,@) :: "Labels/Disk: ;B:" Comm
ent: ;TAB(6);C$ :
320 GOSUB 540
330 ON I GOTO 470,500,310,470,340,600
340 ACCEPT AT(12,20)SIZE(-2)VALIDATE(DIGIT)BEEP:E$ :: IF E$="" THEN 340 ELSE B=@
AL(E$) :: IF B=0 THEN 340
350 ACCEPT AT(13,20)SIZE(-@)VALIDATE("12")BEEP:E$ :: IF E$="" THEN 350 ELSE D$="
DSK"&E$
360 ACCEPT AT(15,@)SIZE(-25)BEEP:C$ :: GOTO 320
370 ON ERROR 580 :: C=0 :: DISPLAY AT(10,@) :: "Initializing" ::
OPEN #2:DISK,"INPUT_RELATIVE.INTERNAL
380 INPUT #2:F$(C),I,I,I :: T$(C)="FREE "&STR$(I)
390 DISPLAY AT(22,@)F$(C) :: ;T$(C) :: IF C=127 THEN 420 ELSE INPUT #2:F$(C+@),
I,J,J
400 IF F$(C+@)="" THEN IF C>5 THEN 420 ELSE C=C+@ :: GOTO 390
410 I=ABS(I) :: C=C+@ :: IF I=5 THEN T$(C)="Prog" :: GOTO 390 ELSE T$(C)=Y$(I)&ST
R$(J) :: GOTO 390
420 CLOSE #2 :: D=@ :: E$=""
430 PRINT #2:DS$:F$(0);E$;T$(0);SS$:
440 FOR I=J+@ TO J+@ :: PRINT #2:F$(1);TAB(12);T$(1);TAB(18);F$(1+@);TAB(29);T$(
1+@);TAB(35);F$(1+2@);TAB(46);T$(1+2@) :: NEXT I
450 J=J+2+@-@ (J=10) :: IF C=J THEN D=10 :: PRINT #2: : : : GOTO 440 ELSE PRINT #
2:IN$
460 NEXT B :: B=B-@ :: FOR I=@ TO C :: T$(I),F$(I)="" :: NEXT I :: GOTO 320
470 IF I=4 THEN RESTORE ELSE RESTORE 170
480 FOR C=@ TO 5 :: READ A$(C) :: NEXT C :: D=10 :: GOSUB 570
490 GOSUB 540 :: ON I GOTO 470,500,310,470,530,510,600
500 FOR C=@ TO 5 :: A$(C)="" :: NEXT C :: D=@ :: GOSUB 570
510 FOR C=@ TO 5 :: ACCEPT AT(C+@,2)SIZE(-28)BEEP:A$(C) :: NEXT C
520 ACCEPT AT(16,19)SIZE(-2)VALIDATE(DIGIT)BEEP:E$ :: IF E$="" THEN 520 ELSE D=@
AL(E$) :: IF D THEN 490 ELSE 520
530 DISPLAY AT(20,@) "Printing" :: FOR I=@ TO D :: FOR C=@ TO 5 :: PRINT #2:P1$;
A$(C) :: NEXT C :: PRINT #2:IN$ :: PRINT #2:CHR$(27)&CHR$(10) :: NEXT I
535 RESTORE 490
540 DISPLAY AT(20,@)BEEP: <A>address <P>rint labels: <C>ustom <M>odify default
t": <D>isk <Q>uit: <M>arning"
550 CALL KEY(C,I,C) :: IF C=@ THEN 550 ELSE IF I=13 OR I=32 THEN I=80
560 I=POS("ADAMPND",CHR$(I)) @ :: IF I THEN CALL KEY(C,C,C) :: IF B THEN DISPLAY A
T(20,@) :: : : : RETURN ELSE RETURN ELSE 550
570 FOR C=@ TO 5 :: DISPLAY AT(C+@,2) > ;F$(C) :: NEXT C :: DISPLAY AT(15,@) :: "
How many labels: ;D :: RETURN
580 DISPLAY AT(10,@)BEEP:D$ :: Could not be accessed" :: ON ERROR 590 :: CLOSE #2
590 ON ERROR STOP :: RETURN 320
600 CLEAR :: CLOSE #2 :: END

```

10 THE FOLLOWING PROGRAM WAS TAKEN FROM THE CEDAR VALLEY 99'ERS USER GROUP AND WAS MODIFIED BY JOHN WILLFORTH FOR MORE DISK DRIVES AND FOR SCREEN COLOR CHANGES DEPENDING ON DENSITY OF THE DRIVE.

```

100 DISK LABEL MAKER
110 BY TERRY MAXFIELD
120 11/25/85
130 THIS PROGRAM WILL MAKE A LABEL FOR YOUR DISKS WITH THE DISKNAME AND IF THE DISK IS SSSD OR DSSD
170 L$=CHR$(10):LINE FEED CHARACTER
180 CALL CLEAR
190 DISPLAY AT(3,1) "MATCH DRIVE IS DISK":
200 DISPLAY AT(5,1) "IN? (1-6) I"
210 ACCEPT AT(5,1)VALIDATE("123456")SIZE(-1):A
220 OPEN #1:"DISK"&STR$(A) ". " INPUT ,RELATIVE ,INTERNAL
230 INPUT #1:A$,J,K
240 IF J+K>358 THEN P$="DSSD"
250 IF J+K=358 THEN P$="SSSD"
260 IF J+K<718 THEN P$="DSSDD"
270 IF P$="SSSD" THEN CALL SCREEN(4) ELSE IF P$="DSSD" THEN CALL SCREEN(6) ELSE CA
LL SCREEN(10)
280 OPEN #2:"PI0",OUTPUT ENTER PRINTER CHARACTERISTICS WITHIN THE QUOTES
290 CALL CLEAR
300 DISPLAY AT(4,1) "DISKNAME: ";A$
310 DISPLAY AT(6,7):P$
320 PRINT #2:"DISKNAME:";L$;CHR$(14);CHR$(27)&CHR$(71);A$;L$;TAB(17);P$;L$;L$
;L$ INSERT AS MANY L$ CHARACTERS AS YOU NEED FOR YOUR LABELS
330 CLOSE #1 :: CLOSE #2
340 GOTO 170 : REMOVE THE FIRST "I" IF YOU WANT TO MAKE A LOT OF LA
BELS AND WANT TO REMOVE THE QUERY SEQUENCE BELOW.
350 DISPLAY AT(23,1) "DO YOU WANT ANOTHER LABEL? Y"
360 ACCEPT AT(23,28)VALIDATE("Yn")SIZE(-1):YNS
370 IF YNS="Y" THEN 180 :: IF YNS="N" THEN 380
380 CALL CLEAR :: STOP

```

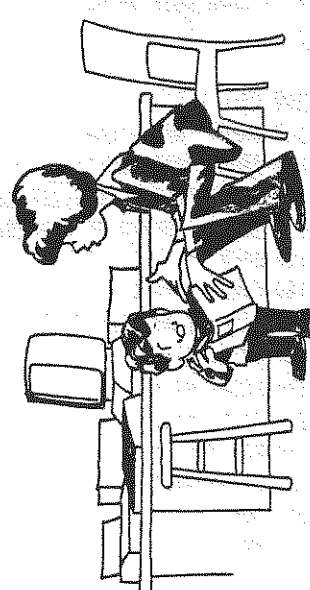
PRINTING FLASHER

10 REM REMOVE REMARKS BEFORE USING. LINE 140 ASSIGNS COLORS TO CHARACTERS.

```

110 CALL SCREEN(5)
120 FOR I=65 TO 90 :: CALL CHARPAT(I,A$) :: CALL CHAR(I+32,A$) :: NEXT I
130 CALL CLEAR
140 FOR I=9 TO 12 :: CALL COLOR(I,5,16) :: NEXT I :: FOR I=5 TO 8 :: CALL COLOR(I
,16,5) :: NEXT I
150 A$="I LOVE YOU"
160 B$="I Love you"
170 DISPLAY AT(11,11):A$ :: FOR I=1 TO 50 :: NEXT I :: DISPLAY AT(11,11):B$ :: F
OR I=1 TO 50 :: NEXT I :: GOTO 170
180 END

```



"It's a boob, Kevin. It has words and pictures in it...you know...like on your computer."

Single-board nuclear reactor supplies standby power for 12 years

Now available on a full-length plug-in card for IBM PC or compatible computers, the QBX-1 add-on nuclear-reactor card provides backup power for as long as 12 years. When the card senses a power failure, explosive bolts eject moderator and control rods from the reactor's interior within 20 μ sec, bringing the reactor to its fully rated output of 20 kW in less than a millisecond. Over its 12-year active life, the reactor's power decreases by 25% to 15 kW.

Integral heat fins provide convection cooling of the reactor's 500W power dissipation while the reactor remains in its standby condition. If your computer's fans can't furnish 400 ft³/sec of forced air for cooling, consider buying the manufacturer's heavy-water cooling jacket and stainless-steel pump module, which fit conveniently under a desk or workbench. Latches on each side of the reactor module let you quickly exchange the radioactive core,

should you need to replace it. An optional circular viewing port of lead glass lets you check the reactor's internal mechanical assemblies.

To protect users from undue radiation, each reactor includes a shielding kit comprising five self-stick lead plates and 20 radiation-monitoring film badges. The lead plates mount inside your computer's enclosure and reduce the gamma rays that cause soft errors to floppy-disk and RAM data. For further protection, consider buying the manufacturer's 200-ft extension cords for keyboards and monitors.

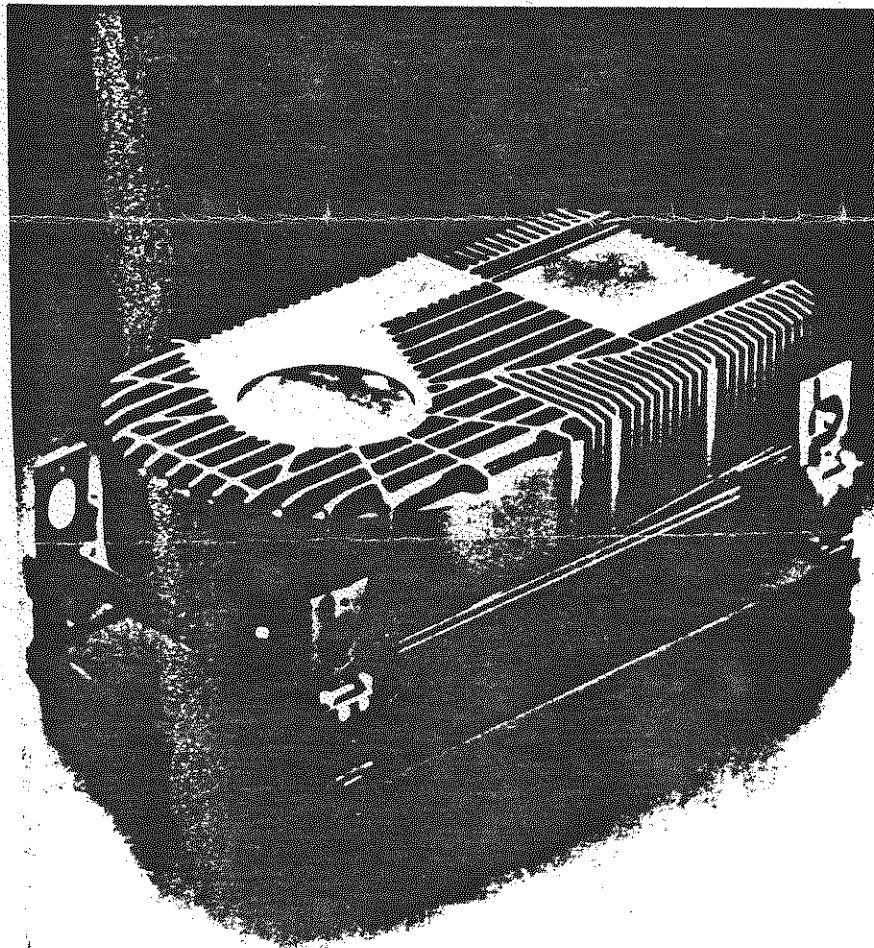
Because the reactor can supply more than enough power for your computer, you can sell excess power to your local utility company. An add-on phasing and metering kit (PMK-1) lets you connect your reactor to the local power grid. Each PMK-1 includes standard power-sale contracts and Rural Electrification Board rules and regulations.

Although not required in all localities, each reactor card package includes a standard 23-volume site-evacuation plan. The plan includes blank forms for you to fill in the name and address of your reactor site and then mail to the Nuclear Regulatory Commission. As an option, the manufacturer supplies the plan on 12 MS-DOS-compatible disks in Wordstar format. User-friendly templates let you type in information so that your word processor can create a complete, printed document.

Reactor prices start at \$2.3 million (1). Delivery, seven years ARO.

—Regus Patoff

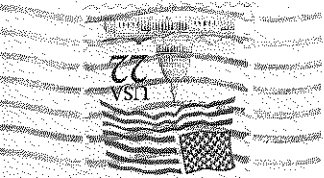
Luminescent Electronic Products Inc, Box U-235, Trinity Site, NM 43210. INQUIRE DIRECT



Nuclear reactor supplies CPU power during power failure or other power emergencies. The reactor also glows in the dark (as will you), which makes it easy to find your computer.

I wanted to do a product review this month, but because of time restraints, was unable to do so, so when I received this review from BOB SADUSKY, I jumped on it.

MICKY SCHMITT
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% John F. Willforth
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DS