

San Jose PC Club Newsletter

Document Number SJPCN01

March 1, 1982

Bonnie Lamb

F98/142
San Jose
8 + 276-3653
VM(SJEVM1/LAMB)

CONTENTS

1.0 IBM SAN JOSE PC NEWSLETTER 1

1.1 Welcome to the IBM PC Club! 1

1.2 Congratulations and Thanks 1

1.3 Our Past 2

1.4 PC February Meeting 2

1.5 A Note From Stan 4

1.6 SIGS 5

 1.6.1 Photo-typesetter SIG 5

 1.6.2 Visicalc SIG 5

1.7 PC DOCUMENTATION LIBRARY 6

1.8 IBM PC Club Program Library 6

1.9 Recommended Reading 7

1.10 BASIC Problems 8

1.11 Conversion from TRS-80 9

1.12 Block Characters in BASIC 10

1.13 Flippy Floppies 12

1.14 Install Notes 13

1.15 Help Wanted/Help Offered (HW/HO) 13

1.16 PC Newsletter Articles 15

1.17 Interest Survey 16

1.0 IBM SAN JOSE PC NEWSLETTER

1.1 WELCOME TO THE IBM PC CLUB!

This is the premiere edition of the PC Club's newsletter. This edition is a bit lengthy. It includes

- info about past meetings
- club information available to you
- member-contributed articles
- an interest survey, so we can try to tailor our meetings and articles to your needs

We'd like to hear about your experiences, problems, and questions relating to the Personal Computer. If you have something to share with us, give us a call and/or jot it down and mail it to the editor.

The newsletter has been sent to official members of the club: those who filled out a membership form and paid an initial dues of \$1.00 at the February meeting. Members are eligible for discount group buys of non-competitive equipment for PCs, are notified of club activities, and receive the newsletter. Membership forms will be available at each club meeting.

PC Club meets on the second Tuesday of each month in the cafeteria at STL. An advisory committee, which meets on the first Tuesday of every month, is open on an on-going basis to volunteers who want to have a part in the administrative activities and in discussions about the club's direction.

Make note:

| <u>Date</u> | <u>Event</u> | <u>Location</u> |
|-----------------|----------------------------|-----------------|
| March 9, 5 p.m. | PC Club Meeting | STL Cafeteria |
| April 6, 5 p.m. | Advisory Committee Meeting | K210 at STL |

1.2 CONGRATULATIONS AND THANKS

.. to our PC Club Officers, who have offered their energy and time to us in 1982:

- President Stan Rosenfeld

IBM PC Club

- Vice President Hal Hanesworth
- Treasurer/Secretary Paul Conrad

.. and to our advisory committee for their behind-the-scenes work.

1.3 OUR PAST

From November to January, we dealt with numerous topics at club meetings. For your reference, below are some of the topics and presenters.

| <u>Topic</u> | <u>Person</u> |
|-------------------------------|------------------|
| DOS/BASIC Summary | Chuck Fenton |
| Furniture | Charles Goldfarb |
| GOSUB Friction Feed | Bob Vollmer |
| Group Buys | Gary Haas |
| Modems | Chuck Tribolet |
| On-going News from Boca Raton | Stan Rosenfeld |
| PASCAL MT | Chuck Hartman |
| PASCAL Performance | John Clark |
| Phototypesetting | Henry Bender |
| Printers/OKIDATA | Charlie Davies |
| RGB Monitors | Gary Haas |
| SRA Author Program | Paul Conrad |
| Standard Bus | Bob Wells |
| TECMAR Hardware | Charles Goldfarb |
| Voluntary Education | Stan Rosenfeld |
| 10-Meg 8" Floppies | Tom Conrad |
| 64K Card | Roger Simpson |

Our sincere apologies for those topics and presenters that we missed. Record-keeping for early club meetings was haphazard.

1.4 PC FEBRUARY MEETING

Membership forms were available for the first time at the PC February meeting: 254 people signed up. Available handouts:

- SIG notices for Visicalc and Phototypesetting (see below)
- information on PC Club's Documentation Library (see below)

- information on PC Club's Program Library (see below)
- index to articles in the IBM-internal PC Newsletter
- schematic drawing of Microcube PC furniture
- Autumn Revolution '81 Newsletter, BASIC/DOS reference card, and club application form

Stan Rosenfeld's news from Boca Raton: "The software logjam is broken!" PC systems will be more available and delivery schedules should be more in line with ship dates.

Money matters: all IBM Clubs must be non-profit. A one-dollar membership fee is collected to cover operating costs and diskettes for the club's program library. Special projects (e.g. club bulletin board) and equipment purchases can be financed by additional contributions.

New magazines: PC and Personal Computer Age received good reviews.

Light pens: John Mace has used a SYMTEK light pen with the PC. Resolution is at the pixel level; (x, y) coordinates are returned to a program through raster scan. The light pen operates with either RGB or black&white monitors, isn't too fussy about voltage (+5 to 15V), and has 1% ripple. SYMTEK retails the item for \$150, and may discount for a group buy if members are interested.

More on light pens:

- Someone mentioned that Atari produces a light pen that can operate with the PC, but Computerland informed us that, due to production difficulties, Atari no longer makes that item.
- Resolution is what makes the difference between cheapie light pens and more expensive models. A \$29 light pen may only give character resolution.

Printers(1): representatives from Western Micro described their wares and left manufacturers' fact sheets at the meeting.

Printers(2): Richard Mendoza described printers with GRAF-TRAX without F/T. See Richard for further details.

System boards(1): Roger Miller has configured a 512K PC with 192K and 256K memory boards. Roger has technical details and retail prices available.

System boards(2): Gary Haas has investigated 192K and 256K boards which are produced locally. He will be happy to give you details on prices and technical attributes.

Group buy from RGB Display Corporation: No further details are available until mid-March.

1.5 A NOTE FROM STAN

Dear Bonnie, here is some input for your newsletter:

From Stan Rosenfeld or "What's the president of the San Jose PC club doing in Boca Raton, Florida?"

First of all, a round of applause for Bonnie Lamb! Thank you Bonnie. We all know that an editor's job is not easy. Rewarding, yes. Easy, no!

I have high hopes for the club; we certainly don't lack for enthusiasm. And yet it seems that we're not able to please "all the people all the time." We have started special interest groups (VisiCalc and photo composing are already well underway) and this may be the only way to go: a general meeting for the purpose of broad based information "retrieval" and SIGS for your special interests. We've tried to make our general meetings as balanced as possible between lecture, informal discussion, and hands on.

I would like very much to see more families come. Perhaps as we get more (some!) home and fun programs that will come to pass.

Oh, what am I doing in Boca ?? Well it's a long story...seriously though, I'm giving Boca some help in smoothing out some wrinkles. Incidentally, you might be interested in how this note has gone from me to you. Here goes. First it was written on a PC using Jim Wyllie's ED editor. Then it was uploaded (sent from a small machine to a larger machine, for those of you new to this stuff) from the PC to VM using the IBM communications package. Next I signed on to VM (using the PC of course) using a program I'm testing for a friend. Once on VM it's business as usual, just WAFT a little VMSG to Bonnie and it's all done (translation: sent this note to Bonnie using the corporation's network facilities. What Bonnie will do with it when she gets it is another story! Now if Bonnie had her PC I could have sent this msg directly to her using the IBM comm package, without all that expensive hardware (and software) in between!

Well, enough. May the provider of good shipment schedules smile on you all and before long you'll be having a ball!

Stan Rosenfeld, Boca Raton, Florida, 2/21/82 10:31 PM

1.6 SIGS

1.6.1 Photo-typesetter SIG

Purpose: Discuss PC to phototypesetter configurations and experiences.

Contact:

Henry Bender
3-2957 (STL)
225-3039 (Home)

Next meeting: Tuesday, March 16, 5 p.m. in K210, STL Cafeteria.

1.6.2 Visicalc SIG

Purpose: Education and exchange of techniques and experiences; provide ideas on how to link Visicalc with other applications.

Contact:

Lee Leth
3-4272 (STL)

Next meeting: Tuesday, March 23, 5 p.m. in K210, STL Cafeteria

Last meeting: The February 23 meeting had 14 attendees. Future meetings will be divided into three half-hour segments:

- 1) Education on a major Visicalc subject
- 2) Presentation of one specific application requirement
- 3) Free-form Q & A

1.7 PC DOCUMENTATION LIBRARY

Four volumes are available at every club meeting. Read them and take as many notes as you like, but see Lu Spriggs for copy permission. Listed below is a breakdown of available documentation categories.

Volume 1: Club News

Meeting Agendas
Briefing Charts
Handouts
Club Organization
Group Buy Info
SIG Info

Volume 2: Public Press

Reprints - view foils
PC News Magazine
News Clippings
Authors' Guide (from BYTE)
Computer TV Programs

Volume 3: IBM Internal Documents

PC Q&A by Dick Dievendorff
Eckhardt and Rosenfeld Newsletter - On The Job Computing
Art Appel's "PC by Example"

Volume 4: Hardware, Software, Media, Supplies, Miscellaneous

1.8 IBM PC CLUB PROGRAM LIBRARY

Objectives:

- Maintain an annotated directory of programs, attachments, software, and products applicable to IBM Personal Computers and of interest to club members.
- Provide a library of PUBLIC DOMAIN programs for interchange among club members.

Proposed subject categories for programs:

Graphics, music, and demos
Games and entertainment
Educational programs/courseware
Household and personal finance
General business applications

Math and scientific programs
Spread-sheet templates and aids
Utilities - SORT, EDIT, XMIT/REC
Macros, subroutines, OS mods

It is the member's responsibility to determine if his/her contribution is in the public domain. Machine-readable documentation is strongly recommended for contributed programs. Experience with other clubs has shown that this requirement leads to less user frustration. Contact PC Club Librarian Dennis Day at 3-3999 (STL) for more details.

1.9 RECOMMENDED READING

For novice home-computer users: "Don't! (Or How to Care for Your Computer)" an excerpt by Rodney Zaks in Feb-Mar issue of PC magazine.

For Visicalc users, Lu Spriggs has put together this bibliography:

1. Software Arts Technical Notes (S.A.T.N.), Vol.1, No.1. Calculating Withholding Taxes; Inventory Item Versus Price Lookup Tables.
2. Desktop Computing, Feb. 1982. 'Visulating': checkfile to categorize by expense categories for income tax support; Federal Tax Forms 1040 A,B,C, Page 1, Page 2.
3. Softalk, Feb. 1982. 'Ventures With Visicalc': Individual Retirement Account projections.
4. TRS-80 Micro Computer News Letter, Jan. 1982. 'Decision Making': calculation of mortgage payment principal and interest amount with cumulative equity, P & I.
5. Nibble, Vol. 2 No. 8, 1981. 'Visi-Corner': describes new features added to Visicalc with (new) version 3.0.

Be Aware - - -

Memory boards are not all alike. The chips in IBM memory boards are socketed for easier chip replacement when a new chip is needed. Memory boards from other manufacturers may require unsoldering/soldering for replacement of chips.

1.10 BASIC PROBLEMSMOD Function.

PC BASIC uses the form: $A = X \text{ MOD } Y$.

The emerging ANS BASIC Standard uses $A = \text{MOD}(X,Y)$, where:

The MOD Function is defined as:

$$X - Y * \text{INT}(X/Y)$$

Following are results from the ANS definition and from the PC:

| When | | INT(X/Y) | | Value of MOD | |
|----------|----------|-----------|------------|--------------|------------|
| <u>X</u> | <u>Y</u> | <u>PC</u> | <u>ANS</u> | <u>PC</u> | <u>ANS</u> |
| 5 | 3 | 1 | 1 | 2 | 2 |
| 5 | -3 | -2 | -2 | -2 | -1 |
| -5 | 3 | -2 | -2 | -2 | 1 |
| -5 | -3 | 1 | 1 | 2 | -2 |

While the PC correctly evaluates the INT function for negative numbers, it does not correctly evaluate the MOD function when any of the values is negative.

Initialization.

There is a known problem where initialization of variables does not take place. If one uses:

```
IF A = 0 THEN 100
```

immediately after executing a FOR/NEXT loop, the uninitialized value of A is used, and the comparison fails.

The solution is to initialize your variables before they are used.

Hope that the above will save others some time and effort.

Mel Duke

1.11 CONVERSION FROM TRS-80

Having begun the conversion of a number of programs which I have for my TRS-80, Model I, Level II, perhaps others may like to know about the things that I found.

First of all, the screens are totally different. My TRS-80 is 16 by 64. The PC is 25 by 80. Screen positioning on the TRS-80 is done with a PRINT@ (where all points are addressed from 0 to 1023 as a single number). Screen positioning on the PC is by row (1 to 25) and column (1 to 80). In addition, the graphic characters are different. What all of this means is that I had to re-design most of my programs.

Secondly, there are a number of BASIC language differences. The ones that I have encountered are:

The TRS-80 goes through a FOR/NEXT loop at least once. The PC does not (the PC is ANS Standard).

The TRS-80 lets a user determine the amount of available memory with a MEM function. MEM is a variable name in the PC. You have to use FRE(0) to determine the amount of available memory.

The TRS-80 uses CLEAR to reserve string-space. The PC does not. The PC uses CLEAR to re-initialize the contents of variables.

The TRS-80 uses the percent-sign to delimit a string format when printing (PRINT USING "% %"). The PC uses the back-slash instead of the percent-sign.

The TRS-80 does not require that blanks surround keywords. The PC does. (Note: This one is in the manual. It is also ANS Standard.)

The RND function is very different. In the TRS-80, RND(n) is used to establish a random integer between 1 and n. Not so the PC. RND by itself establishes a random value between 0 and 1. When n is stated and positive, it is ignored. When n is stated and negative, it establishes a new random number seed. When n is stated and zero, the last random number is repeated.

There were a couple of surprises. They were:

The PC converts constants to something that it recognizes. For example, I stated:

```
LET X = 1.
```

The PC changed this to:

```
LET X = 1!
```

with the exclamation-mark showing that it was a short-precision number.

When I tried to establish a large number, such as:

```
LET PI = 3.1415926535
```

it came back:

```
LET PI = 3.1415926535#
```

with the pound-sign showing that it was a long-precision number.

The biggest trouble that I had with the keyboard was with the back-slash key. It is right where my left-pinky goes to find the shift key. I guess that it will take some effort to retrain my typing to move that finger farther to the left.

Mel Duke

1.12 BLOCK CHARACTERS IN BASIC

Lu Spriggs found this program in the March, 1982 issue of Creative Computing. It reads the pattern for a given character from the ROM BIOS and draws it on the screen with block characters. It will run using either the monochrome display or the color adapter. For the color adapter, change line 1310 to shorten the screen to 40 bytes from the 80 there. Line 1030 contains an 'E' to represent BASIC exponentiation. That 'E' should be replaced with the BASIC exponentiation character.

```
10 REM Program to display dot
    matrix characters from ROM
```

```

patterns
20 REM Will Fastie -- 19 Nov 81
50 DEFINT A-Z
60 DOTCHAR=219
70 DOTSIZE=1
80 DOT$=STRING$(DOTSIZE,DOTCHAR)
90 GOSUB 1300
100 DEF SEG=&HF000
110 BASEADR=&HFA6E
120 BYTESPERCHAR=8
130 KEY OFF
200 CLS
210 CHAR$=INKEY$: IF CHAR$=""
    THEN 210
215 IF CHAR$=" " THEN STOP
220 CODE=ASC(CHAR$)
230 IF CODE >= 128 THEN BEEP;
    GOTO 200
240 ADR = BASEADR      (CODE*BYTESPERCHAR)
250 CLS
300 X=8
310 Y=(SCREENWIDTH-(8*DOTSIZE))/2
320 GOSUB 1000
330 GOTO 210
1000 FOR ROW=1 TO 8
1010   ROWVAL=PEEK(ADR+(ROW-1))
1020   FOR COL=1 TO 8
1030     COLMASK=2E(7-(COL-1)) *Ed.Note: substitute *
1040     IF (ROWVAL AND COLMASK) *exponentiation *
        <> 0 THEN GOSUB 1200
1050   NEXT COL
1060 NEXT ROW
1070 LOCATE 1,1
1080 RETURN
1200 REM Locate to bit position
    and display giant pixel!
1210 LOCATE X+(ROW-1),Y+(COL-1)
    *DOTSIZE
1220 PRINT LEFT$(DOT$,DOTSIZE);
1230 RETURN
1300 REM Initialize display
1310 SCREENWIDTH=80 *Ed.Note: color adapter = 40*
1320 RETURN

```

Copyright 1981 by Creative Computing, 39 E. Hanover Ave., Morris Plains, NJ 07950.

Seen in InfoWorld

Prestel, which originated in England, arrived in the USA with an interface to the IBM PC that will display the entire color and graphics formats available. Prestel provides

information services (e.g. weather, shopping info) similar to Source.

1.13 FLIPPY FLOPPIES

A single-sided floppy is certified for use on one side only, although both sides are made of the same material. Many home computer owners take advantage of the uncertified side by using a "doubler" to modify the diskette for writing on both sides. A doubler is a template with a notch on one side and a hole in the center. By tracing the template's notch and hole on the floppy and by using a quarter-inch punch with a builtin hole-catcher to remove those punched sections from the floppy liner and sleeve, you can double your recording area. A commercially produced doubler is available for \$3.50 from

ABS Suppliers

PO Box 8297

Ann Arbor, Michigan 48107

The ABS Doubler comes with instructions and illustrations.

For do-it-yourselfers, Lu Spriggs has offered his doubler template to us as a free alternative. Copies of his template and a procedure for using it will be available at an upcoming PC Club meeting.

Be Aware - - -

Although many users would not give up their doublers, others caution about possible damage to diskette and disk drive, if (a) the doubler is used incorrectly, or (b) the flip side of the floppy is of poor quality.

Editor's recommendation: If you want to make flippy floppies, find an experienced partner to check out your procedures. Also, see Help Wanted below for something else you'll need.

1.14 INSTALL NOTES

We've included this column as a trading spot for stories, warnings, and questions from those who have installed their PCs and want to share their experiences or get answers to their bring-up questions. This month's note is from Dan Whybark. Dan attempted to back up his EASYWRITER disk, but without success. Early shipments of EASYWRITER have a bug (since corrected) that prevented a successful copy. If this happens to you, contact your pickup location for an updated version of EASYWRITER.

1.15 HELP WANTED/HELP OFFERED (HW/HO)

HW: Mark Chance needs documentation from Stan Rosenfeld (who's currently on a business trip) about Stan's double-sided diskette alteration to BIOS. Stan, could you send your reply here?

HO: How's this for fast response? Stan's reply from L. Rosen in Chicago is given on the following page.

HW: Bonnie Lamb needs to print a file from an 8-inch floppy in CP/M format. Contact her at F98/142 San Jose or 6-3653.

IBM PC-DOS 2-Sided Diskette Drive Patch

This letter describes a "patch" to the IBM Personal Computer Disk Operating System (PC-DOS) which will allow two double-sided diskette drives to be addressed as if they were four single-sided diskette drives. Since your IBM Personal Computer will now "appear" to have four drives, the configuration switches must be set to reflect this fact. "Switch-1" should be set so that S-1, S-7 and S-8 are off. Since you already have two drives, this means turning off S-8. See pages 5-27 and 5-29 in the Diskette Drive Option installation manual for further information.

The TWOSIDE command must be executed once each time PC-DOS is initialized. If desired, this may be performed in an AUTOEXEC.BAT file (see page 2-16 in the DOS manual). Drive "A" and drive "B" are exactly as before -- the "front" side of the diskettes in those drives. However, drive "C" and drive "D" are the "back" sides of the diskettes in drives "A" and "B" respectively.

Before using the "back" side of a diskette, it must be initialized by the FORMAT command. Just specify C: or D: (and optionally /S) as described on page 2-34 of the PC-DOS manual. In fact, all commands perform exactly as described in the PC-DOS or BASIC manuals.

IMPORTANT -- The "patch" has no way to detect whether the diskette drives have two heads and unpredictable results will occur if either or both drives are, in fact, single-headed. Also, although the routine has been tested extensively, there may be some programs or commands which will fail while attempting to reference drive "C" or "D" -- possibly destroying data on the diskette. This routine is provided free of charge and you are totally responsible for determining its suitability in any particular operating environment.

Since the TWOSIDE command is only 151 bytes long, it is being distributed as a Disk-BASIC program which you must carefully enter into your IBM Personal Computer. Assuming that the program has been correctly entered (there is a checksum which attempts to detect DATA errors), the BASIC program will create the TWOSIDE.COM file on the system diskette in drive "A".

```
5 FOR I = 1 TO 151 : READ N : C = C + N
10 NEXT : READ N : IF N <> C THEN 35
15 RESTORE : OPEN "R",1,"TWOSIDE.COM",1
20 FIELD 1 , 1 AS N$: FOR I = 1 TO 151
25 READ N : LSET N$ = CHR$(N) : PUT 1
30 NEXT : CLOSE : PRINT "Created" : END
35 PRINT "** ERROR. Verify data." : END
40 DATA 30,51,192,142,216,187,76,0,130
45 DATA 127,3,0,117,29,139,7,46,163,18
50 DATA 0,199,7,56,0,140,79,2,31,190,45
55 DATA 1,191,20,0,185,106,0,243,164
60 DATA 139,215,205,39,31,195,0,0,161
65 DATA 78,0,1,1,2,0,1,2,2,0,1,3,2,0,1
70 DATA 4,2,0,1,5,2,0,1,6,2,0,1,7,2,0,1
75 DATA 8,2,246,194,2,117,5,46,255,46
80 DATA 18,0,82,128,226,253,182,1,130
85 DATA 252,5,116,8,156,46,255,30,18,0
90 DATA 235,37,83,6,30,80,38,138,7,140
95 DATA 203,142,219,142,195,187,24,0,83
100 DATA 136,7,131,195,4,131,251,56,117
105 DATA 246,91,88,156,255,30,18,0,31,7
110 DATA 91,90,202,2,0,11596
```



Information Systems Group
National Accounts Division
One IBM Plaza Ninth Floor
Chicago IL 60611
312 245 7913

T1E 261-7913
-3959

LAURENCE ROBERT
Advisory Systems E
Chicago Midtown

1.16 PC NEWSLETTER ARTICLES

This document is an IBM PC Club newsletter dealing with matters of interest to users of Personal Computers. Articles may be submitted by anyone within IBM as long as they are not

- confidential
- more than two pages in length
- anonymous

Opinions and techniques presented in this newsletter are those of the individual and not IBM or the IBM PC Club. Although we attempt to present accurate information, the writers of the newsletter will not be held responsible for erroneous data or programs. (But we WILL let you know as soon as we know we've goofed.)

Send your articles in machine-readable or reproducible format by the 20th of each month to:

Bonnie Lamb
F98/142
San Jose

VM-ID: LAMB
VM-NODE: SJEVM1

1.17 INTEREST SURVEY

Please take a few minutes to indicate your level of interest in the following areas, using a scale of 0 - 10 (0 = none, 10 = high).

Mark your rating to the left of each item, then tear this sheet from the newsletter and internal-mail it to the address at the bottom.

For any category you choose, if you're interested in some specific aspect of it, note it in the space below.

Or, if we missed your favorite topic, tell us about it.

- | | |
|---------------------------------|-------------------------------|
| Adapters | Information networks |
| BASIC | Macro-assembler language |
| Business/Professional use | Memory boards |
| Care of PC equipment | Modems |
| Communications networks | Music |
| Computer-assisted instruction | Operating systems |
| Computer swap meet | PASCAL |
| Data bases | PC use with non-IBM computers |
| EASYWRITER | Hardware/software Performance |
| Education workshops | Phototypesetting |
| Electronics for I/O attachments | Printer-spooling |
| Floppy disks | RF modulators |
| FORTRAN | RGB monitors |
| Games | Upload/download |
| Graphics | Utilities |
| Ham radio computer activity | VISICALC |
| Home aids and control | Word processing |
| Income tax | |

Other:

Specific area of category _____:

Mail to:

Bonnie Lamb
 F98/142
 San Jose