

**San Jose PC Club Newsletter**

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Edited by Bonnie Lamb

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VM(SJEVM1/LAMB)

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## 1.0 IBM SAN JOSE PC NEWSLETTER

This month's newsletter has

- PC Activity Calendar for April
- a summary of the PC Club meeting in March
- information on where to send PC suggestions
- a report from our group buy coordinator
- a rebuttal to Mel Duke's article on BASIC problems
- a rebuttal to the rebuttal
- a poem
- a heap sort
- an update on VISICALC articles
- a report on the Faire
- PC usage information
- install notes
- help wanted/help offered
- change of address form
- membership application (for your friends)

## 1.1 PC ACTIVITY CALENDAR

<u>DATE</u>	<u>TIME</u>	<u>LOCATION</u>	<u>EVENT</u>
April 12	5 p.m.	STL Cafeteria	PC Club Meeting
April 14	7:30 p.m.	DYSAN Santa Clara	Silicon Valley Computer Club
April 21	5 p.m.	STL K210	Phototypsetting SIG
April 24	10-6 p.m.	Santa Clara County Fairgrounds	Computer Swap Meet
April 27	5 p.m.	STL K210	VISICALC SIG
May 4	5 p.m.	STL K210	PC Advisory Meeting

## 1.2 MARCH PC CLUB MEETING

Stan Rosenfeld returned from his trip to Boca in time to host the March PC Club meeting. Items of interest:

- Guidelines are being written for visits from vendors at club meetings. For the interim, IBMers who have used vendor equipment are welcome to share their experiences and information about the vendor equipment at club meetings.
- Charles Goldfarb is coordinating group buys. What this means is that anyone can arrange a group buy - just let Charles know so that anyone can go to him and know the status of any buy activity. See below for more information on items available to club members.
- Each meeting will have a short educational segment with a more formal two-hour class held on a separate day. A strong show of hands supported this strategy. Stan Rosenfeld gave the club a brief overview of DOS at the March meeting
- NAD are the initials for National Accounts Division. NAD publishes its own newsletter, Personal Computing Notes, which you can find in the PC Club library. Articles in the Notes include
  - communications features of the PC
  - DOS Macro Assembler
  - DOS FORTRAN Compiler
  - UCSD p-system
  - maintenance agreements
  - diagnostics
  - asynchronous interface connector to 3102 serial printer
  - program corrections for Peachtree Software, Inc.
  - VISICALC
  - BASIC
  - IBM robotics
- Speaking of newsletters, we distributed the PC Club's first at the meeting and sent out others by the end of the week. If you didn't get your copy, send us a note (internal mail or VM) and we'll put a newsletter in the mail immediately.
- Speaking of firsts, Dennis Day, our program librarian, had the club's first full (98%) diskette available for purchase or copy. The floppy has 40 files, including a directory. If you want a copy, contact Dennis Day (3-3999), Paul Conrad (3-5019), John Bernauer (6-7186), or go to the library at STL or at Building 14 in San Jose. The PC Club's diskettes are kept at both libraries and can be used during a session on the library's PC. The club is looking for a volunteer to be the Buildings 88, 97, and 98 contact for the diskettes - call Dennis if you work in that area and have access to a PC.
- Speedup (on the club diskette) can reduce time delay by about 50% on every head movement by eliminating head settle delay. Recommendation: use Speedup on COPY and other utility functions.

# IBM PC Club

VISICALC will not work due to an apparent conflict of storage areas. We're looking for a correction to the VISICALC problem.

- Can't wait to get your PC? If it's in a box at Computerland, Computerland will now let you pick it up and set up your own machine. Unofficial information is that the warranty on the PC is valid if you return the assembled machine to Computerland and have them run diagnostics to check it out.
- Epson has a newsletter for owners of Epson printers. Lu Spriggs has information on how to get the newsletter.
- Wally Bass presented a thorough comparison of Epson, NEC, and OKIDATA printers. He also gave us a user's viewpoint of the usefulness of the different levels of diagnostics available with the PC.

Current club membership: 367.

## 1.3 THE PC CLUB ADVISORY COMMITTEE

"Committee" is a loose term for a constantly changing group of people who meet the first Tuesday of each month. Actually, the committee is three committees: the communication, technical, and program library groups. Members may shift from one group to another in any month, depending on what their interests are and on what work needs to be done. We've received permission from these folks to publish their names and locations so that club members know who to get in touch with about club activities. Names of others who have attended previous advisory meetings may not be listed below because we were unable to contact them about this listing. (Keep in mind though that too many disruptions can interfere with their normal working activities.) Where appropriate, specific responsibilities are listed next to the names.

NAME	LOCATION	PHONE
John Bernauer (Program Library)	S.J. Bldg. 14	6-7186
Paul Conrad (Treasurer)	STL C47	3-5019
Bill Davis (Program Library)	M.H. Bldg. 75	3-2005
Dennis Day (Program Librarian)	STL B13	3-3999
Mel Duke (Technical)	STL E30	3-3192
Sandy Fiehmann (Newsletter)	STL H12	3-5313
Charles Goldfarb (Group Buys)	STL H304	3-4178
Hal Hanesworth (Vice President)	STL C23	3-3063
John Hawes (Newsletter)	STL H31	3-4714
Bob Krampetz (Program Library)	STL C38	3-4445
Bonnie Lamb (Newsletter)	S.J. Bldg. 14	6-3653
John Merrill (Newsletter)	L.G. Bldg. 29	9-997-4682
Roland Perry (Program Library)	S.J. 43E	6-3655
Stan Rosenfeld (President)	STL G25	3-3690

Lu Spriggs (Information Librarian)  
Lee Wersal (Program Library)

P.A. 039 8-465-3912  
Bernal-Bldg.96 4-6246

## 1.4 GROUP BUY AND CLUB MEMBER DISCOUNT INFORMATION

The club assists members in the economical ownership and operation of PCs by negotiating group purchases and supplying information on discounts available to club members. Information on possible group buys or discounts should be submitted to the Member Purchase Coordinator, Charles F. Goldfarb, at V03/H304, STL (or preferably to GML at STLVM11).

The club does not evaluate vendors or products. You are solely responsible for evaluating the quality of any offered product, its applicability to your intended purpose, the fairness of the price, and the reliability of the vendor. The club is not a party to any member purchase and will not intercede in any dispute that might arise between a vendor and a member.

See our Information Librarian Lu Spriggs or the PC Club Library for details on any of the items below. We are investigating the possibility of also using the IBM Club discount file as a central information point.

### 1.4.1 Group Buys

A group buy is a purchase of a non-competitive product in which club members pool their orders to obtain a quantity discount. Group buys are conducted by individual volunteers according to guidelines established by IBM.

A volunteer is currently needed to conduct a group buy on high quality joysticks and paddles, if there is any interest. We have identified a manufacturer who is interested in working with us. Someone is needed to follow through.

**RGB Monitors** Group buys are currently being negotiated with two possible vendors. Details will be presented at the next club meeting. Also, Stan Rosenfeld has arranged a club member discount on the Electrohome (see below).

### 1.4.2 Club Member Discounts

A club member discount is a special price extended to club members by a vendor of any PC-related product, including competitive products. Purchases are made individually; there is no collective activity. Information on club member discounts is supplied by individual members and is not verified by the club.

**Furniture** A movable workstation for the PC is available. It is a true desk, at correct typing height, with room for the system unit, keyboard, display, printer, and a work surface. It has a drawer that holds diskette boxes, a bay for seven IBM program manuals (boxed), and a shelf for additional manuals and large ring binders, a modem, and a carton of paper to feed the printer. The workstation can be moved through residential doorways without unhooking the components or removing the printer paper.

A discount is offered to IBM employees for personal use.

**Printers** Epson printers are available at substantial discounts.

**RGB Monitor** A discount price is offered to club members on the Electrohome 1302-2 high-resolution display. The price includes the IBM cable (with intensity) and shipping anywhere in USA.

**Memory** A 192K memory board is available.

**Multipurpose Board** A single board can be obtained containing:

- 64K fully socketed RAM memory -- user-expandable to 256K
- Serial I/O port (communications or serial printer)
- Parallel I/O port (printer)
- Real-time clock/calendar with battery backup

A discount is offered for IBM business use as well as personal use.

**Selectric Interface** A discount is offered on an interface between the PC and the IBM Selectric typewriter.

### 1.4.3 Other Vendors

Discounts are available on 5-1/4" diskettes, Tandon disk drives, and other items.

Submitted by Charles F. Goldfarb (with lots of help from others)

## 2.0 PC SUGGESTIONS

FROM: JOHN BERNAUER

We put two new files on the Yorktown system, HARDWARE SUGGEST and SOFTWARE SUGGEST, and are going to encourage employees to append any suggestions they have for improving the PC.

Wayne will GET the files on a regular basis and pass the suggestions on to the appropriate departments.

Can you put a Query for input into the next Newsletter?

15 PCs sitting on the floor of Computerland waiting for employees to come and get em! Looking good.

JOHN BERNAUER  
SJEVM1(CUTTRAS)  
TIE 276-7186



### 3.0 THE PIT AND THE PPI\*

I wish that I could be  
Making music on my PC . . . .  
Sending tunes thru the PIT -  
Mapping the rhythm bit by bit.  
Forget notes low or high,  
Just send them to the PPI.

But if twiddling bits  
Gives me fits  
A BASIC SOUND will  
PLAY, I've found.

Octave high . . . . octave low . . . .  
Legato . . . . PAUSE . . . . Uh-Oh:  
A pesty beeping sound -  
Duty calls the foreground.  
Foreground, to your duty,  
(Background tunes have beauty.)

---

\* PIT is the Programmable Interval Timer and PPI is the Programmable Peripheral Interface. Channel 2 of the PIT can generate musical tones in a fixed frequency. By toggling bits (on, off) in the PPI, speaker output will be enabled and Channel 2 input will be received.

## 4.0 BASIC

### 4.1 REPLY TO BASIC PROBLEMS (MOD FUNCTION)

After reading the problem description for the MOD Function in the last issue of the San Jose PC Club Newsletter (SJPCN01), I was left feeling somewhat confused. Neither the PC/BASIC nor the ANS BASIC Standard seemed to satisfy the definition of MOD that I was taught way back when. MOD (or MODULO DIVISION) should yield the whole remainder after integer division (DIV). That is:

```

          1      <-- Quotient
Divisor --> 3) 5      <-- Dividend
              3
              ---
              2      <-- Remainder
    
```

Regardless of the sign of either the dividend or the divisor, the absolute value of the Remainder (MOD Result) will not be dependent on the sign. Any way you want to sign it, five divided by three leaves a remainder of two. The only time the MOD Result will be negative is when the dividend is negative.

I can't comment on the ANS BASIC Standard (I don't even know what ANS stands for). But as for the wonderful little PC, I hopped on my machine and tried out the MOD function for all four combinations of signs, and it worked flawlessly. See the chart below:

For  $A = X \text{ MOD } Y$

When		MOD Result for the PC	
X	Y	Previously Reported	What I found
5	3	2	2
5	-3	-2	2
-5	3	-2	-2
-5	-3	2	-2

Doug Dunham  
 Dept. E81/141  
 San Jose, Ca.  
 8-276-7782  
 SJEVM1(DUNHAM)

## 4.2 BASIC REBUTTAL

Fortunately, we received Doug's note (see preceding article) in time for Mel to give us some feedback. Mel's reply:

For your information, ANS refers to the American National Standard.

There exists a Standard FORTRAN, which is referred to as ANSI X3.9-1978.

There exists a Standard PL/I, which is referred to as ANSI X3.53-1976.

There exists a Minimal BASIC Standard, which is referred to as ANSI X3.60-1978. There also exists a Draft of a proposed Standard for BASIC, which is referred to as X3J2/82-06.

The Standard FORTRAN definition of the MOD Function is:

$$a1 - \text{int}(a1/a2) * a2$$

The Standard PL/I definition of the MOD Function is:

$$v = u - w * \text{floor}(u/w)$$

The Proposed BASIC definition of the MOD Function is:

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

This definition has been agreed to by the American BASIC Committee (ANS X3J2), the European BASIC Committee (ECMA TC-21), and the Industrial Real Time Committee (TC-2). These committees represent most of the manufacturers (including IBM), many universities (including Dartmouth where BASIC originated, with Tom Kurtz, one of the inventors of BASIC as Chairman of the ANS BASIC Committee), as well as individual users and user groups throughout the world.

The definition of the MOD function is consistent among BASIC, FORTRAN and PL/I. I am sorry that you do not agree with that definition, but I'm also sure that the Standardization Committees would be willing to listen to arguments to change that definition.

I love my PC, too, but just wish that it gave a correct answer when computing the MOD function. You are correct, however, in that the PC gives correct answers half of the time, rather than a quarter of the time, as I indicated in my article for the PC Newsletter.

Regards,

Mel Duke  
STLVM7/DUKE

## 5.0 PC USAGE

### 5.1 7TH ANNUAL WEST COAST COMPUTER FAIRE

If you missed this year's West Coast Compute Faire, held March 19-21 in San Francisco, you missed a significant happening. If you WERE able to attend, then you're probably still reflecting on what you've seen and heard, reading the (reams of) printed matter you've picked up and ... soaking your feet.

#### Impressions

First, let me tell you that this was my sixth Faire. Therefore, I thought I was adequately prepared for an exciting show this year. My expectations were exceeded many times over. My interests this year naturally revolved around the IBM PC. The PC having been announced on August 12, 1981, and in the hands of customers in October, was in my estimation going to be only marginally represented at this March 1982 event. So I was amazed, astonished, taken aback, delighted, and eventually exhausted by the proliferative presence of the IBM PC at the Faire. The PC was everywhere one looked. And if there wasn't a PC present, there was a sign proclaiming imminent PC support for the (hardware or software) product at the booth.

#### The PC Panel

The PC Panel was held on Saturday morning from 10:00 to 12:45. Rather than a bonafide panel, it was conducted as a series of speakers. It came off quite well in my estimation. The speakers were all very upbeat on the PC. Some highlights:

- Bill Gates, President of Microsoft, related the pleasure it has been to have worked with IBM. He followed with a tutorial on DOS(!). He spoke about DOS 1.1 having been given to IBM, 1.2 was "out" and 2.0 was coming. V1.1 fixes the serial printer interface and diagnostics area. The DOS tutorial foils (just incidentally) showed directory formats we haven't seen before, such as date AND time stamp, as well as CHKDSK display showing "hidden files".

Bill Gates also compared multi user/multi task configurations, with special emphasis on XENIX.

Each speaker had a few minutes to answer questions from the floor. The "quotes" may not be absolute word for word, but very close. Of interest for Bill Gates were:

Q. "When will there be a BASIC compiler?"

Ans. "Soon."

Q. "How will updates to DOS be handled?"

Ans. "DOS is already an inexpensive \$40, so I assume the price for updates will be about \$40."

- Dave Wertman, TECMAR, spoke on his experience with learning about the PC with logic analyzers before the Technical Reference Manual was available. Results were right on the money (with the exception of two lines). For your information, TECMAR now has 26 add ons/add ins for the PC. Dave Wertman asked IBM to support OEM's with an answering service.

Q. "Will TECMAR be producing a higher resolution graphics board?"

Ans. "Probably, but it will be very high resolution, CAD/CAM quality." (Computer Aided Design / Computer Aided Manufacturing)

- Gary Kidall, Digital Research spoke about
  - the advantages of concurrent CPM (multiple tasks)
  - PL/I on the PC (in test)
  - CBASIC on the PC (distributed by DR)
  - having given CPM/86 to IBM (showed IBM package!)
  - relocatable macro assembler (in test)
  - PASCAL MT/+ (Avail. 4/1)
  - 8087 ("will help most DR products")
- Dave Bunnell and Jim Edlin, PC Magazine:
  - So called "Envelope Corner Research" (examining the return names/addresses, of mail received) showed that most subscribers to PC Magazine were business men and businesses. Interesting.
  - They heard that Boca was producing 1000 machines/day! Also heard plants would be operating in N. Y. and France as well.
  - For code enabling print screen, etc. to serial printer, send self addressed stamped envelope to PC Magazine.
- Fred "Chip" Pood from Micro Pro

- Their emphasis is on data portability between their products, i.e., CALCSTAR can talk to WORDSTAR, can talk to DATASTAR, etc.
- INFOSTAR in in test.
- STARBURST, an umbrella program for the others, is in the works.
- WORDSTAR for the PC before May.
- Bob Lindgren from Datamac spoke a little about his current line as well as 6, 12 and 18 MBYTE hard disks on the way.

My disappointment with the session was the lack of foresight/projections on where the PC's future lies. The assembled panel certainly had the background to make such an intelligent prognostication and/or where they think it SHOULD be going. be going.

### The Exhibits

The epitome of difficult decisions regarding using one's time must be the West Coast Computer Faire. One is split between more seminars than one can attend (even if there were no exhibits) and the 650 plus exhibit booths. For me it was a "quality problem".

The hardware and software for the PC can be divided into two very clean categories. The way you find out is to ask the question "Can I purchase your PC widget today?" The categories obviously are: available and

NOT

available. I don't mean to be facetious, there was certainly a lot of hardware and software that could be purchased there at the Faire, but there also was a large amount that would be available "next week, month ...".

What were people talking about?

#### The PC.

Hardware, software, and general presence. One generic hardware classification being talked about/praised a lot was the multipurpose board. There were many such slot-saving boards available - typical was a board which combined 192K RAM, asynchronous communications, game adapter, and 20 year clock.

Other items of special interest:

- 64K RAM chips for \$5!
- Clock calendars (w/leap year adjustment). Software available to automatically respond to DOS DATE requests.

Apparat Inc., 4401 S. Tamarac Pkwy, Denver CO 80237

- Several new high-resolution RGB displays (700 x 525 for instance)

Dealin' Electronics, 735 Loma Verde, Palo Alto CA 94303

- Hardware print-spoolers - 64K byte, buffers 13 minutes of print output (at 80 characters/second)

Apparat(see above)

Quadram Corp, 4357 Park Drive, Norcross GA 30093

- Modem on a card (with async adapter)

Apparat(see above)

- 192K RAM with error correction

Boulder Creek Systems, 4859-c Scotts Valley Dr., Scotts Valley CA 95066

- Keyboard extension cables

Berkely Microcomputer, Berkeley CA

- Solid state "disks" (RAM accessed as disk)

Numerous vendors

- "Seeing ARM" - Digitizer to convert traceable graphics into data -

Berkeley MicroComputer

- Hard disks 5 - 20 Mbytes (5 1/4" - 8")

Numerous vendors

We knew they'd be there, but so many?

- Inkjet color printer

Omnicolor/Quadram, 4357 Park Drive, Norcross GA 30093

- CMOS memory w/battery backup

TECMAR, 23600 Mercantile Rd., Cleveland Ohio 44122

There were many more software offerings for the PC than I had thought there would be. Excluding CPM based programs, following are some of the more interesting PC software products I spotted.

- ISAM/Recovery ISAM



# IBM PC Club

- Johnson Associates Software, P.O. Box 3069, Redding CA 96049
- Data entry (screens) w/extensive error checking
- Johnson Associates Software, P.O. Box 3069, Redding, CA 96049
- Spelling Checker - 88,000 word dictionary
- IUS, 281 Arlington Ave., Berkeley CA 94707
- CAD (Computer added design) w/32 superimposable planes
- Marinchip Systems, 16 St. Jude Road, Mill Valley CA 94941
- Concurrent CP/M-86 (single user, multiple task), e.g., continue programming while you're compiling, etc.
- Digital Research, P.O. Box 579, Pacific Grove CA 93950
- COBOL (ANSI '74 +)
- Micro Focus, 1601 Civic Center Drive, Santa Clara CA 95050
- QUINIX (UNIX-like) operating system
- Quantum Software Systems, Inc., 7219 Shea Court, San Jose CA 95139
- I was impressed!
- Application Generators
- Advanced Operating Systems, 450 St. John Road, Michigan City IN 46360
- Basic Business Software, Inc., P.O. Box 26311, Las Vegas NV 89126
- ULTRA-BASIC Translator (Very high level - use DOS commands, random file data structures eliminating FIELD, LSET, MKI, CVI, etc. functions)
- Basic Business Software, Inc., P.O. Box 26311, Las Vegas NV 89126

Besides these one and two of a kind offerings, there were many word processors, accounting/financial packages, statistical packages, utilities (cross references, etc.), games, data base managers, and spread sheet programs.

Also two books:

Now: "IBM's Personal Computer", DeVoney & Summe, Que Publishing Co. (I've read 3/4 of it...it's a good introduction to the PC)

and soon: "IBM Personal Computer, An Introduction to Programming and Applications", Goldstein & Goldstein, Brady Publishing Co.

In addition to over 100 speakers on subjects ranging from computer controlled video disks to legal aspects of software, there were multiple user group (TRS-80, Apple, etc.) meetings and special interest group (CPM, APL, etc.) meetings.

Tapes and conference proceedings can be obtained from Computer Faire, 333 Swett Road, Woodside CA 94062.

Some years ago, after the first West Coast Computer Faire, it was said that the personal computer was "just a fad!" SOME FAD!!

Stan Rosenfeld

## 5.2 HIGH-QUALITY PRINTER FOR THE IBM PERSONAL COMPUTER

(Ed. note: The following article, included in Computing On the Job PCN8203 the internal newsletter, may be useful in home computing and is reprinted here in case you missed it.)

The attachment of an IBM (Correcting) Selectric II to the IBM PC can provide letter-quality printing capability. However, the speed and mechanism of the Selectric indicate its use as a supplement to the system printer.

ESCON is offering IBM Selectric connection capability at a special price for IBM employees. A brief description of their product follows:

Briefly, this product allows connection of any model IBM Selectric to any computer with a parallel (Centronics compatible) or serial RS232 output port. The IBM PC printer adapter presents such a parallel port; the serial I/O adapter presents a serial port.

The "mechanical assembly" is a custom design electromechanical unit which fits precisely within the typewriter. A ribbon cable is led out from the typewriter case and connects with a box housing the "electronic interface". This, in turn, is cabled to the computer using a cable available from ESCON or one built to their specs.

Mechanical assembly:

- Does not change appearance of Selectric I, II, or Correcting typewriter
- Does not affect manual operation or alter key touch
- No permanent modification - uses existing screw holes
- Typewriter remains eligible for warranty and service (ESCON has a letter on file from IBM to this effect.)
- Six 30 volt solenoids pull bails for character selection; four more pull space, newline, print and shift; typewriter protection on power-up

- Two more solenoids are available for the backspace and tab.  
(Note: use backspace for underlining; tab for speed or columns)

Electronic interface:

- Microprocessor-based control of the solenoids and computer-interface.
- 6802 microprocessor, RAM, 2708 IKEPROM, 6522 VIA IC, 6821 for parallel interface, and 6850 for serial interface, packaged in an aluminum enclosure along with power supply and toggle switch.
- 96 characters are buffered in the RAM.
- Output speed is 12.5 cps; automatic delay on carriage return.

Hewlett-Packard has many of these units in operation as DP printers - they are very happy with the ESCON product but point out that the Selectric requires maintenance to keep it within specs. H-P does their own maintenance. I have a list of manuals used to maintain the IBM Correcting Selectric II.

Delivery: 1 to 2 weeks. Warranty: 90 days complete parts and labor. Within reason, the warranty starts at time of installation not purchase. Special prices apply through July 1982 at least, probably through 1982. The offer is extended to any IBM employee for business or personal use.

Special Prices:

Mechanical and electronic:

- specify IBM Selectric model
- Cable from box to computer
- specify parallel or serial

Backspace and Tab

State tax and shipping (UPS, UPS Blue) are extra.

As a convenience, subassemblies are available:

Backspace or Tab

Electronic interface box only

Mechanical assembly only

(I previously mentioned a bell solenoid - I was mistaken. You can purchase separately a speaker simulated bell; it will be of little use since the IBM PC has its own audio output.)

If you order these items, please identify yourself as an IBM employee to obtain discounts.

Neither I nor IBM suggest that you buy or not buy this unit; neither I or IBM suggest that this unit will work or not work to your satisfaction; neither I nor IBM endorse this unit or company; there are other companies with products to connect the IBM Selectric to the IBM PC; you should select the unit best suited for your application; etc....

As for myself, I have ordered an ESCON unit: Mechanical and electronic, parallel cable, backspace and tab.

For the moment, I will act as the information coordinator for high-quality printing using the IBM Selectric and the IBM PC. Pass on your tricks and experience in this area.

#### IBM Selectric II Maintenance

The following documents can be of use for maintenance and repair of the IBM Correcting Selectric II typewriter

241-5615 (-2 5/75) Service Manual (and Theory of Operation)  
 241-5939 (-1 4/79) Adjustment/Parts Manual  
 241-5103 (-0 10/79) Part No/Price List & Technical Information Index  
 241-5114 (-2 5/80) Combined Service Information (CEM No. 0)

241-5542 (-5 12/79) IBM Tools And Test Equipment Catalog  
 241-5723 (-4 12/79) Tool And Test Equipment Part Number/Price List

I have, and recommend, all these manuals. The first group is necessary; the second group is useful; the third group is rarely needed.

LATEST = 82/01/25 22:35:11 (GMT) PALOALTO CREASY IBM 465-3140

### 5.3 HEAP SORT

Stan Rosenfeld received this heap sort from Jerry Malin who uses it in his mailing label program. Don't key in the program: it should soon be on our club diskette.

```

5 CLEAR 5000
100 CLS '***** SORT PROGRAM *****'
110 DIM N(150),C$(150)
130 PRINT"TYPE C FOR CHARACTER STRING SORT"
140 PRINT"TYPE N FOR NUMBER SORT"
150 INPUT W$
160 N=0;PRINT;PRINT
170 IF W$="N" GOTO 480
180 IF W$<>"C" THEN 130
190 GOSUB 720
200 INPUT S$
210 N=N+1
220 INPUT C$(N)
230 IF C$(N)<>S$ THEN 210
240 N=N-1;PRINT
250 L=INT(N/2)+1
260 N1=N
270 IF L=1 THEN 310
280 L=L-1
290 A$=C$(L)
300 GOTO 350
310 A$=C$(N1)
320 C$(N1)=C$(1)
330 N1=N1-1

```

```

340 IF N1=1 THEN 440
350 J=L
360 I=J
370 J=2*J
380 IF J=N1 THEN 400
390 IF J>N1 THEN 420
392 IF C$(J)>=C$(J+1) THEN 400
396 J=J+1
400 IF A$>=C$(J) THEN 420
410 C$(I)=C$(J)
415 GOTO 360
420 C$(I)=A$
425 GOTO 270
440 C$(1)=A$
450 FOR I=1 TO N
453 LPRINT C$(I)
456 NEXT I
460 GOTO 130
480 GOSUB 720
483 INPUT S
486 PRINT
490 N=N+1
493 INPUT N(N)
496 IF N(N)<>S THEN 490
500 N=N-1
505 PRINT
520 L=INT(N/2)+1
525 N1=N
530 IF L=1 THEN 550
540 L=L-1
543 A=N(L)
546 GOTO 590
550 A=N(N1)
555 N(N1)=N(1)
560 N1=N1-1
570 IF N1=1 THEN 680
590 J=L
600 I=J
605 J=2*J
610 IF J=N1 THEN 640
620 IF J>N1 THEN 660
630 IF N(J)<N(J+1) THEN J=J+1
640 IF A>N(J) THEN 660
650 N(I)=N(J)
655 GOTO 600
660 N(I)=A
665 GOTO 530
680 N(1)=A
690 FOR I=1 TO N
693 LPRINT N(I)
696 NEXT I
700 GOTO 130
720 PRINT"INDICATE A STOP CODE TO INDICATE END OF LIST"
740 RETURN

```

## 5.4 INSTALL NOTES

Don't panic if your first hookup of PC-to-TV for color display behaves strangely. The situation has been reported and resolved, but it deserves repeating. A small trimmer adjustment can correct the problem. See Signal From PC Too High in issue 8103-7 of the Computing On the Job internal newsletter for more details.

Mel Duke reported two problems:

he had some trouble installing the grounding screw on the printer cable

his local Computerland was out of printer paper  
Nevertheless, Mel's PC was up and running in a matter of minutes.

## 5.5 HELP WANTED/ HELP OFFERED

HW: Paul Conrad wants to find a true seed for a random number generator. A timer would be a good source; does anyone know how to reach one in the PC? (Ed. note: Please respond to the Newsletter - we'd like to share the news.)

HW: Dick Zscheile is looking for a volunteer to give a brief talk and/or demonstration on the PC to an elementary school. Call Dick at STL 3-5100.

HW: Dennis Day would like someone to select programs for a club VISICALC diskette. Contact Dennis at STL 3-3999.

HW: Peter Ho wants to make more frequently used commands resident. He also wants an automatic search of disk B for items not found on disk A. Contact Peter on the net WTSCPOK(STPH).

## 6.0 VISICALC

### 6.1 BIBLIOGRAPHY UPDATE

Lu Spriggs has an ongoing bibliography of VISICALC articles for us so that we can save time finding relevant information. Here is this month's update:

- Interface Age, Apr. 1982. 'Commodore Loghook': a general VISICALC tutorial with example worksheets for an advertising agency financial revenue analysis with gross billings, and client commission rates using the LLOOKUP function.
- Desktop Computing, Mar. 1982. 'Visulating': the Boolean function - nested IIF, i.e., 'IF, THEN, ELSE'; rounding of financial calculations using the integer function - IINT.
- Softalk, Apr. 1981. 'Ventures with VISICALC': family finance - income and expense record management.
- Softalk, Sep. 1981. 'Ventures with VISICALC': review of VISICALC data download from remote computer using combination terminal program and file converter.
- The Power of VISICALC, a 90-page book of VISICALC applications exercises, published in 1981 by Management Information Source, Portland, Oregon; contains 7 exercises, each of which gives a specific, detailed application of VISICALC.

### 6.2 DATE STAMP

MEMO TO: PC NEWSLETTER EDITOR  
 D. L. Fernandez  
 Telephone: 3-4969  
 Plant Financial Applications  
 V70/F36, STL  
 Subject: VISICALC

While I was using VISICALC, I discovered a minor problem. If you follow the initialization procedures as described in the manual, when you establish the VISICALC disk as self loading, the date routine is not copied from DOS. Therefore the files that you save are not date stamped. In order to overcome this, the following procedure will work. DOS should be in disk drive A and the VISICALC disk (not write protected) in disk drive B.

TYPE COPY CON:B:AUTOEXEC.BAT (cr)

DATE (cr)

VC80.COM (cr)

(function key 6) (cr)

COPY DATE.COM B: DATE.COM (cr)

This will put the date routine on the VISICALC disk and therefore date stamp your files.

Submitted by D.L. Fernandez



## 7.0 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 or internal use only
- 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

CHANGE OF ADDRESS

To: John Hawes  
IBM Santa Teresa Lab  
V82 / H31  
555 Bailey Ave.  
P. O. Box 50020  
San Jose, Calif. 95150

VM(STLVM11/H941222

Fold to this line ----- staple and

My NEW mailing address is below:

Node \_\_\_\_\_ VM or MVS

Userid \_\_\_\_\_

Name \_\_\_\_\_

Addr \_\_\_\_\_

Addr \_\_\_\_\_

Addr \_\_\_\_\_

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IBM PC Club

Membership Application

We've received many calls from folks who want to join the PC Club. To make it easier everyone, here's an application form that you can give to someone who wants one. Simply fill it out and mail \$3.00 membership fee to Paul Conrad.

MEMBERSHIP APPLICATION

To: Paul Conrad  
IBM Santa Teresa Lab  
M63/C47  
555 Bailey Ave.  
P. O. Box 50020  
San Jose, Calif. 95150

VM(STLVM11/H941222

Node \_\_\_\_\_ VM or MVS

Userid. \_\_\_\_\_

Name

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Serial

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Internal Zip

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Location

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Phone

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Present Computer Type

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Special Club Interests

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Any Comments?

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