

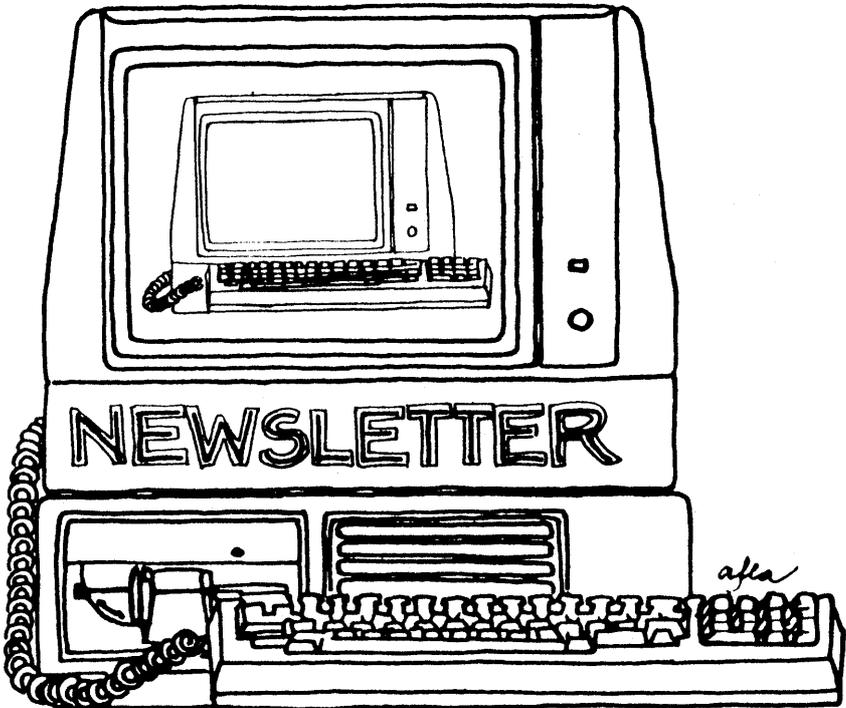
July 11, 1986

Volume 4

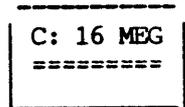
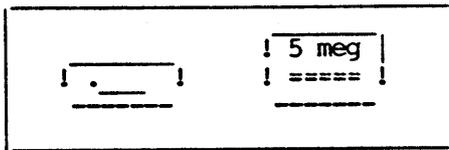
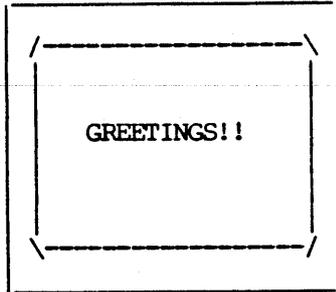
Issue #7

BAY AREA MICRO DECISION USERS ASSOCIATION

BAM DUA



A MUTUAL SUPPORT NETWORK FOR USERS OF
MORROWS' MICRO DECISION COMPUTERS-
P.O. BOX 5152, BERKELEY, CA. 94705
415: 644-2805



Drive:

B:

A:

C:

>>> BAMDUA MBBS
>>> Micro Bulletin Board System (tm)
>>> (MLOGIN 1.2 09/18/85 - (c) 1983 Kim Levitt)
>>> Welcome to The MBBS Bulletin Board
>>> Micro Bulletin Board System (tm)

Sysop: Steven Wartofsky

Phone: (415)-654-3882

Baud rates: 300,1200

Hardware: Morrow MD-5 running CPM+ (CP/M 3.0)

1 Floppy Drive (B), 2 Hard Disks (A:5 meg,C:16 meg)

Software: MBBS,BYE504,KMD14,SFILE26,LD,MAP

Hours: 24 Hrs.

Access: Registration. See Bulletin

Interests: A System of the Bay Area Micro Decision
Users' Association (BAMDUA)

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inside back cover

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NEWSLETTER

If you wish to submit material to the newsletter, please follow these guidelines:

- o Submit material before the 23 of each month
- o Submit hard copy along with a WordStar file on a SSDD or DSDD diskette; left margin, default; right margin, 68 and right justified. (NewWord files are acceptable).
- o Include your name, address and telephone number
Your disk will be returned to you.
- o Send newsletter materials to: Newsletter Editor
BAMDU
P.O Box 5152
Berkeley, CA 94705

If you have questions about newsletter submissions, call me afternoons only on Wednesday or Friday (415-843-8167). If you have other questions about BAMDU, call the BAMDU Office, 415-644-2805. If you need technical help, use your DIRECTORY.

IMPORTANT: If you have something you especially want in the next Newsletter but are unsure you can get it in before the deadline, be sure to call me so that we can make special arrangements. If it doesn't matter to you when it is published, then you do not need to be concerned about the deadline; just send it in when you have it ready!

Please remember that the deadline is important in order to enable me to plan and produce the Newsletter.

If you have tried one (or more) of the utilities available on the library disks, write a review and send it in! If you know the answer (or think you do) to new or recurrent questions in the Notepad or Mailbox departments, write me so that I can make the information available to all.

We reserve the right to edit articles submitted for publication. In keeping with the spirit of "public domain" we grant permission for articles appearing in this Newsletter to be reprinted by other users' groups for the purpose of free dissemination of information as long as proper identification is made of author and source. We cannot guarantee the accuracy of information printed here, but we do assume that all authors take an interest in providing responsible information to the best of their ability.

Thanks. --Georgia Babladelis, Ed.

BAY AREA MICRO DECISION USERS ASSOCIATION
A Morrow computer users' group

Monthly newsletter, Vol. 4, Issue 7 July 1986

BAMDUA, P.O. Box 5152, Berkeley, Ca 94705
(415) 644- 2805

BAMDUA, the Bay Area Micro Decision Users Association, is open to all who are interested in Morrow's Micro Decision computers. Membership fee is currently \$16 per year and includes a subscription to our monthly newsletter. For information, membership application forms, etc., please send a self-addressed stamped envelope to the BAMDUA P.O. Box.

The BAMDUA office is open 8:30-4:30 weekdays; the answering machine or a call-forwarding BAMDUA volunteer will take your messages from 12:30 on. When Greg is in the office, he will answer the phone in the morning.

The main BAMDUA meeting is held the last Tuesday of each month.

+++ Next main BAMDUA meeting: ++++++
+
+ WHEN: Tuesday, September 30, 1986, 7:30 p.m. +
+ WHERE: West Branch, Berkeley Library +
+ 1125 University Avenue, Berkeley +
+ TOPIC: +
+ SPEAKERS: To be announced - call Bamdua office +
+ +
+++++

PLANNING AHEAD: Information about future meetings.

There will be no meeting in July. Your weary president and board members decided to skip the July meeting and put creative energy into planning a meeting in the fall. Watch for it and be sure to attend. We are planning a lively, interesting meeting for September!!

LOCAL MORROW USER'S MEETINGS:

MUG/MARIN (Marin Users' Group) meets on the fourth Thursday of each month at 7:30 p.m. The address is P.O. Box 925, Mill Valley, Ca. 94942. For information, contact Susan Miller (415)383-6276 or Jim Kelly (415)472-1499. The group describes itself as a small but stimulating group which tries to diversify information for both novices and pros alike.

Stanford Morrow Users' Group, (S.M.U.G.) meets on the 2nd Wednesday of the month at 7:30 PM on the Stanford campus: Polya Hall (also known as Turing Auditorium), room 111. Info: Ed Gallaher (408) 749-9285 (H)

The CP/M Users of Santa Cruz County (formerly SCMDUG) will meet on the second Tuesday of the month at 7 p.m. at the Branciforte Brach of the Public Library, 230 Gault St., Santa Cruz. Our meeting place is wheelchair accessible and some of us are CPR knowledgeable. We can make arrangements for special problems, including transportaion. This group is open to all users of Morrow, Kaypro, Osbourne, Televideo and other CP/M computers. There will be an open forum for questions, a software demonstration, and public domain software for sale. Diskettes will also be sold. Members may bring their computers to the meeting. Written inquiries should be sent to 376 Lucinda St., Scotts Valley, CA 95066. For information call 408/438-0662 or 408/423-1462.

PETMUG (Petaluma Users' Group) meets on the 4th Thursday of each month at Advanced Information Management, 245 North McDowell Blvd. (in Petaluma Plaza), Petaluma, CA. For info. contact: Don Waite, 707/763-6891 or Dick Hoffman, 707/762-8286 or mailing address: P.O. Box 948, Petaluma, CA. 94953.

CLASSES:

Until now, we have offered classes on MODEM7, INTERMEDIATE CP/M, a NOVICE EMERGENCY CLINIC for beginners, PERSONAL PEARL for beginners, PUBLIC DOMAIN SOFTWARE, QUEST ACCOUNTANT PROGRAM, and an ADVANCED CP/M and SYSTEMS class. Now it appears that there is not enough interest in them to continue offering these classes. However, if interest grows in the future, these classes will be made available again. Classes will then be scheduled when enough participants sign up for them. For information, call BAMDUA (415) 644-2805.

FLASH!! Lee McKusick is willing to start a Pascal Class. If you are interested in having a Pascal Class, please call the BAMDUA office (415/644-2805) and let Greg Smith know so he can start a list.

BAMDUA OFFICERS

President	Sypko Andreae
Vice president	Peter Campbell
Newsletter Editor	Georgia Babladelis
Secretary	George Borys
Librarian	Gene Korte
Treasurer	Wesley Johnson
SBBS Sysop	Steven Wartofsky
Meeting programmer	Ilbert Butler
At Large	Stan Naparst
At large	Frank Oechsli

FROM THE PRESIDENT'S DISK

by Sypko Andreae

You may have read in the paper--or picked it up from our BBS-- that George Morrow lived up to his statement that he had probably another two shots in him: He just started a new company with partner Daryll Ticehurst of QUEST fame. It is called Intelligent Access and makes a disk controller board for IBM PC's so their disk drives won't operate soooooo slowly. Designing boards and producing them is what George did before he got into producing nearly 40,000 Micro Decisions, and it may just be what he does best. Let's wish him luck and hope he is happy in IBM land.

In the mean time the MORROW company has come to the end of the line. All its assets were liquidated on June 24, 1986 during a public auction. The Union Bank of Los Angeles who had taken control after Morrow went bankrupt (Chapter 11) several months ago still had to recover nearly five million dollars. People in the know estimated that the auction might bring in two million dollars, more likely less. Who would come to buy the remnants of what once was a flourishing company? Where would it all go? It seemed worth to go and take a look so I went, and even took my checkbook with me because you never know.

Anything went under the hammer, tool boxes, soldering irons, test equipment, Tektronics scopes, old Pivot's (model I only; there were no PIVOT II's in sight), about 60 MD3's with or without MT-70 terminals in lots of 1 or 4 or 8. Lots of stuff.

The MD5's, with or without MT-70 terminal, fetched amazingly high prices. At first they sold for about \$550 with terminal, then, as the hours passed a true MD5 frenzy set in and the price went up and up until the last lot of MD5's -- without terminal -- sold for \$750 each! Hottip: You can make an MD5 for less money yourself by picking up the parts from Silicon Valley Surplus (SVS) in Oakland. I checked with Brian Whittaker, owner of SVS, who told me with pride that he got most of the spare parts and could supply Morrow users for a long time to come.

And what about complete Morrow computers? Look for those little cheap ads soon to appear in classified ad sections all over the Bay Area and beyond. The prices will be double the price at the auction and it will still be utterly reasonable for what you get. Years ago George Morrow lamented that personal computer prices were far too high and should be around what you would pay for a TV set. That time has come now, be it a little earlier than he expected.

Morrow's doors were closed for ever a few days after the auction. The Coldwell Banker "Available" sign went up. The eleven remaining Morrow employees were terminated. Now it is just us, some 30,000 Morrow users with the Morrow Owners' Review and a group of Morrow Users Groups to support them, with a little help of SVS and a group of former Morrow dealers. Why switch to BIG BLUE when you got something good that will run for many years to come?

NOTES FROM THE BERKELEY MEETING

by Georgia Babladelis

Aesop's Fables, Mixed Metaphors, etc.

If you weren't at our last meeting on Tuesday, June 24, you missed a good one! A panel of experts came prepared to give us their diagnosis of and prognosis for CP/M. Seated from left to right at the "discussion table" were: Ken Fowler, Nancy Mulvaney, Dick Ezzard, Irv Hoff, and Wayne Masters. The room was full of people "buzzing" with excitement. Rick Charnes, whose efforts made this meeting possible, introduced the speakers.

Each panelist spoke briefly, giving a personal overview and perspective. Too difficult to capture here were the various personal anecdotes, mixing personal history with that of computer developments, that were interlaced with comments about CP/M. What follows next is my personal interpretation of all that was said:

The patient (CP/M) is not sick but it appears to be dying. Symptoms include general malaise, limited dexterity, and a short memory span. Yet, its pulse is strong, heartbeat is regular, and its performance is robust. It works well and does everything you ask of it that it can do. If what you want it to do is what it can do, you have a perfect loving relationship and it will be a healthy, robust companion. If you tax its physical flexibility and its memory, whether you need to or not, just to show up its deficiencies, it will fail you and you may experience feelings of depression and of not quite measuring up. Unfair comparisons are particularly devastating. It's like saying: "why can't you be like the computer next door? It helps its owner to image surgical procedures!" And your computer would like to respond: "who needs it? all you do is write books!"

It was fun playing with the "new kid" and learning all kinds of new things, and teaching it a few tricks too! But, the "kid" seems to have something wrong with its central nervous system that has placed a limit on its growth and development. Maybe growth hormone will help, but that takes time, meanwhile some "new kids" moved in and they look big and powerful -- although sometimes a bit slow!

Change, stimulation, and new possibilities are what the user is looking for -- as well as efficiency and reliability. It is not only a matter of being able to do what you need to do and to do it well, but also it is a matter of being able to do what you do not need to do and perhaps even come to want to do it, which attracts users to ever new, and sometimes even improved, ways of doing things. Users experienced such a quantum leap in proficiency, efficiency, and stimulation with their first (CP/M) computers that maybe they want to experience the thrill of that excitement again. Perhaps they have reached a point that some psychologists call "adaptation level." At any rate, users want more, whether they need it or not.

However, it is interesting to note that CP/M users may be fickle, but callous they are not! Protestations of undying love and devotion could be heard loud and clear and many users described humane ways in which the heart-breaking transition could occur; e.g, placements in "foster homes" and adoption agencies were discussed as alternatives to abandonment. Perhaps lurking in the memories of users are stories of "the little engine that could" or even the unexpected outcome of the famous race between the "tortoise and the hare." Ah, parting is such sweet sorrow...

The old gray (morrow) is still what it used to be -- and that's the trouble.

(P.S. There is no moral to this story)

FROM THE MAILBOX

Dear Friends:

Bill Boyd really missed the boat in his article, "Modifying MODEM7 Communications Settings on Floppy Disk Morrows" (BAMDU A Newsletter, April, page 16). Nothing that he wrote is wrong, but he showed how to go from Point A to Point B by way of Point Z. As a result, the poor befuddled novice who doesn't know what to make of hexadecimal notation will be even more confused than ever.

Why is hexadecimal notation used at all? It is certainly not to create a high priesthood of those who can use it comfortably, who thereby exclude from their august company those of us who tend to think of "numbers" as synonymous with "decimal notation."

Binary notation, limited to the digits 0 and 1, is used exclusively in computers because electrical circuits that can be either "on" or "off" are simpler and cheaper than more complex circuits that have 10 or some other number of reliable and readily identifiable stable states. Such circuits would be required in a computer based on decimal notation or some number base other than 10 or 2. (Such computers are theoretically possible, although as far as I know none has ever been built, because nobody has had a good reason to build one.)

The drawback to binary notation is that numbers of only moderate size are represented by long strings of 0s and 1s, which are difficult for people to read and to copy down accurately. Thus the number 1986, which most of us write down quickly and without thinking several times a day, is 11111000010 in binary. But the task of converting from binary to decimal and back, although straightforward, is relatively complex -- as Mr. Boyd clearly demonstrates in his article. This cumbersome arithmetic is not required when converting between binary and hexadecimal.

Hexadecimal notation is used instead of binary because it is easier to write and understand than binary. It is used instead of decimal notation because it can be converted to and from binary by inspection, whereas decimal requires the long and complex arithmetic process described by Mr. Boyd.

In his examples, Mr. Boyd shows how 01001111 in binary is equivalent to 4FH in hexadecimal; and similarly, 01111011 is 7BH and 11001011 is CBH. These are converted by inspection in this way:

Divide the binary representation of any length into groups of four, and replace the group with the corresponding hexadecimal digit; or, conversely, write the group of four bits corresponding to each hexadecimal digit and run the successive groups together. Thus:

01001111	01111011	11001011
0100 1111	0111 1011	1100 1011
4	F	7 B
		C B

The example of 1986, converted (with inconvenience) into binary as 11111000010, is thus converted (easily) into hexadecimal:

011111000010		
0111	1100	0010
7	C	2

The extra 0 is placed in front of the binary number to make the number of bits divisible by 4; it is convenient but not otherwise important.

As I write this, I have a Bach cantata playing on my stereo. It occurs to me that BACH is a perfectly good hexadecimal number; it even has the suffix H to indicate its base (as if the BAC weren't enough!). What are its equivalent representations in binary and decimal?

Hexadecimal: B A C
 1011 1010 1100
 Binary: 1011101011100
 1 0 1 1 1 0 1 0 1 1 0 0
 2048 + 0 + 512 + 256 + 128 + 0 + 32 + 0 + 8 + 4 + 0 + 0
 = 2988 (decimal)

Or, to convert directly from hexadecimal to decimal:

B	A	C
= (11 x 256)	+ (10 x 16)	+ 12
= 2816	+ 160	+ 12
= 2988		

I hope readers of the BAMDUA Newsletter who were left high and dry by this part of Mr. Boyd's article now have the matter of binary/hexadecimal conversion clearly in mind.

Cordially, Wallace B. Riley

PASS THE NOTEPAD

Q: I need a switch that has 4 positions and will handle 6 leads. Know where I can get it? Bill Strouse, 408/292-8807; modem408/947-8038.

A: Silicon Valley Surplus.

A: Ask for 2 gaugable rotary switch at Al Lashers Electronics on University Ave. in Berkeley.

A: In San Jose, try W-W Electronics; Anchor Electronics.

Q: Re: IMP-MD3.Com to support XModem and KMD RBBS. My MD2 doesn't "echo" characters back correctly in terminal mode. Any ideas? David W. Snell, 415/885-4339; 822-8857; 322-5443.

Q: (1) What is the status and availability of Quest information? The Jan/Feb MOR had a reference to non-supported Quest. Is this still available? (2) Also, why can't BAMDUA return calls on a specific question (such as this) with a quick answer? Joe Stafford, 415/341-2076.

A: (1) Now sold and supported by James River Group. Call MOR office for address and phone number. (2) It does when Greg is there.

Q: (1) How do you patch NewWord (1.19 and/or 2.05) to get continuous underlining? (2) What recommendations for an inexpensive dot-matrix printer that will run programs like FontStar and PrintMaster? Barbara Wyant, 415/276-9059.

A: (1) Control PC.

A: (2) As mentioned in the reviews, I use the Gemini-10X with great success on both programs. (Ed.).

Q: I need information on an MD1 with a Rev. 1.1 board; 1.3 ROM and operates with CP/M 2.2. I would like to obtain a copy of the BIOS and 1.3 ROM code. Bob Langstroth, 408/227-1485 or 578-6328 (w/h).

A: Upgrades of ROM available from MOR

A: Better yet, junk the board and install an MD3 board and get a parallel port.

A: MD2 CBIOS (early version) is not available since Morrow decided it was obsolete. Ditto on 1.3 ROM code. ROM 3.1 source code is available from MOR.

A: I have partially de-compiled the 1.3 ROM. Ron Jacolis, 415/724-6015.

A: Silicon Valley Surplus has Rev 2, MD# boards and ROM 3.1.

Q: Who would like to work on an IBM-PC to Morrow disk translator program? I want to work in Turbo Pascal. Do you have a modem, on BAMDUA BBS? First need: get a good description of the IBM

disk and how to talk to the NEC-765 chip. Reply to Lee McKusick on BAMDUA BBS, 415/654-3882.

A: Lee, contact me, Paul Glanville, Chabot Science Center Computer Group. I have the program you are asking for. 7:30 - midnight Fri. & Sat., 4917 Mountain Blvd., Oakland, CA 94619, 415/531-1580 or 531-5906.

Q: Am interested in knowing more about this (reference to above), price, availability, etc. Leave message on BAMDUA BBS. Chris Winter.

A: Program is called PCPIP and is in the public domain; will copy for free, including 'C' source code. -- Paul.

Q: I'm looking for suggestions for a small business accounting package (CP/M). Suggestions? Good/bad points?

A: Any spread sheet program, with appropriate file construction and templates, will do accounting for a small business. I use Perfect Calc and about 6 different types of templates. Bob Athey

A: Also, SuperCalc has several templates available for small business uses; Checks & Balances (a check book program) appears to be easily adaptable for small business accounting (call them, they are very helpful; see BAMDUA Newsletter for info); track down Users Guide -- several small business accounting packages were reviewed some time ago.

A: I can help you set up a Personal Pearl data base for this. Good: modifiable, expandable, etc. Bad: can be awkward if not planned out correctly. Bruce Gowens, at MOR.

Q: I want to save (^KD) on WordStar, but I do not want to get the automatic filename.BAK. How do I do it?

A: There is a patch, but I don't know where.

A: Use NewWord; the patch may be installed from the configuration menu. Call me, Stan, 415/525-2086.

Q: I would like to give you a formatted floppy disk and ask someone to put the Touch Type program on it. Thanks.

A: Is "Touch Type" public domain?

(Ed.'s note: We do not tolerate solicitations for copies of programs not in the public domain. In the future, make it clear that you are asking for a public domain program and do identify yourself; otherwise, we reserve the right not to print (or circulate) your request).

Q: What is the best data base CP/M program available for MD2? No junk or Personal Pearl Please. Real work only. David Snell, 415/885-4339; 822-5442; 822-8857.

A: So, what do you mean by "best"? One person's meat is another one's poison. Bruce loves Pearl; I love dBase II (ed.).

SPECIAL DEALS

***If you are interested in any of the following, contact me directly and include SASE (GB, Editor, 1064 Sterling Ave., Berkeley, CA 94708). Do not combined your order with member renewal or with any items listed as available from Bamdua, p. 31. ***

1. DATAPLOTTER

DATAPLOTTER: this unique program allows you to plot and print your data in a variety of ways without screen graphics. A review and cost information can be found in the BAMDUA NEWSLETTER, V.3, #6, JUNE 1965, p. 12-18. See also highly favorable review by Bruce Gale in Profiles, April 1985, p. 72.

STATUS REPORT: We qualify for the group discount of 20%.

2. PSYCHOSTAT-3

A powerful statistical program for CP/M (also other versions available). See description of the program in the May 1986 issue of the Newsletter. Retail for \$99; a group order of 5 or more brings the cost to \$50 per copy! This sounds like a terrific program.

All the special deals which follow this note include information about the appropriate person and/or address to contact.

3. OUT-THINK

OUT-THINK is a "compleat" outline processing program made by KamaSoft specifically for outlining. It allows you to see the "forest" and/or the "trees." It is available at a special introductory price of \$49.95 directly from the company. See review in the Newsletter, V.4, #4, April 1986, p. 10.

4. REACHOUT

REACHOUT, a menu-driven telecommunications program that works with any modem, including the CTS MM-300 Modem System. A special version of ReachOut is available for all Micro-Decision computers. The price is \$125.00 (\$65.00 for the MM-300 version), plus 6% tax in California, shipping by UPS to a day time address included. Full end-user telephone support is provided by the manufacturer. Send \$132.50 (includes tax and shipping) to Applied Computer Techniques, 21 Cottonwood Drive, San Rafael, CA 94901; 415/459-3212. ReachOut is reviewed in Morrow Owners' Review #2 & #3.

5. EC-CATALOG

This is a fast, easy to use, powerful catalog program which vies successfully with more expensive ones. It is available to BAMDUA members directly from its creator for \$10 (includes manual). See the review in the May 1986 issue of the Newsletter. To order, write Phil Hess, 917 N. 10th St., Lafayette, Indiana, 47904. (NB: Feedback from some members who have ordered it agrees with my enthusiastic review of it).

6. CHECKS & BALANCES

This program was described in the May 1986 issue of the Newsletter and was demonstrated at our May 27 meeting. You may order it by mail from the company. The program retails for \$74.95 and is available to BAMDUA members for \$59.95 plus tax and shipping charges: \$59.95 + \$3.60 + \$1.75 = \$65.30. Hope you got to the meeting to see how it works! A friend in the Los Angeles area has written me to say how terrific he thinks it is.

7. FONTSTAR

FONTSTAR was reviewed in the June 1986 issue of the Newsletter. This program allows you to choose from 16 fonts plus an equal number of additional fonts, mostly international characters. Fonts can be mixed on the same page or line. The program produces very attractive print in nearly letter quality on your dot matrix printer. It can be ordered directly from the company for only \$45. Tell them you are a BAMDUA member.

8. BRADFORD

BRADFORD is a public domain program which permits you to print in a choice of several fonts on the same page or line in near letter quality print. It produces very attractive print out and is cheap! You can figure out much, but not all, of the commands without the manual and with the help of other "print buffs" but the author of the program will send you the manual for only \$15. It is well worth the price for facilitating your use of this program. It was reviewed in the June 1986 issue of the Newsletter.

9. TURBO PASCAL --See "What's Available" on page 31.

Get informed - Join BAMDUA

Free Filer and Electra-Find

Both of these programs have been reviewed in earlier editions of this newsletter. Both have come forth with improvements and revisions. This piece is to evaluate those revisions. Both programs had been criticised in the past for not allowing sufficiently flexible Boolean (or logical) selection of records. Due in part to suggestions made in this newsletter and in MOR, both Electra.Find (EF) and Free Filer (FF) have been updated to allow better complex selection of records. This is the major improvement for both programs and this review will be limited to discussing these Boolean selection improvements.

As a reminder, both programs allow one to search through one or more text files for character strings and output those strings, plus their "context" (surrounding text) to your screen, to a printer or into a file. The ability to do this kind of retrieval can allow you to do a number of useful and interesting things (see original reviews). Both programs in their original forms allowed a limited facility to search for logical combinations of characteristics. For example, you might look for birds and bees to recover all paragraphs (or whatever the "context" happened to be) that mentioned both birds and bees, or you might look for birds or bees to look for paragraphs where either birds or bees or both occurred. Both programs have now extended the possibilities to do complex searches with "AND", "OR" and "NOT".

Let's say at the outset that neither program has implemented a standard Boolean logic. We all have learned in school something about AND, OR and NOT as mathematical operators; certainly anyone with a rudimentary knowledge of BASIC should know about these operators. AND and OR are binary operators (have two arguments) while NOT is a unary argument with one argument. The expression [X AND Y] is true if both the X and Y arguments are true; the expression [X OR Y] is true if either argument (or both) is true; the expression [NOT Z] is true if the single argument Z is false and is false if the argument is true. EF has created two novel binary operators, [ANDNOT] and [ORNOT] while FF has created an equally novel binary operator [BUTNOT]. Thus, though the improvements to the programs add considerably to their power, the user must be wary.

To do complex Boolean searches with EF, one must first create a text file containing the search strings. Each element of the search list must begin on a new line. Every line after the first must begin with an operator which may be implied. If there is no operator given, [OR] is implied. [AND] is symbolized as "&" while [NOT] is symbolized as "!". Since [NOT] does not exist as an independent operator, [ORNOT] and [ANDNOT] are symbolized as "!" and "&!", respectively. Thus "birds and bees and not flowers" would be

written:

```
birds
&bees
&!flowers
```

Most of the time one can predict the results one will get. But if the Boolean expressions get at all complex, it would be wise to test out the expression with a test file deliberately designed to show explicitly how the chosen selections would work.

Free Filer allows entry of search strings in a menu system. The user supplies strings in a very definite structure in response to queries to the terminal. You would enter

a: one or more strings in a first set, all the strings being connected by [AND] or [OR];

b: one or more strings in a second set, similarly connected by [AND] or [OR]; and

c: (provided there is an entry under b:) an operator joining the items under a: and the items under b: -- the operator can be [AND], [OR] or [BUTNOT].

For the example given for EF, you would reply for a: "birds", "bees", connected by "AND"; for b: "flowers" (with no connector since there is only one item in the list) and c: connected by "BUTNOT". i.e., (birds AND bees) BUTNOT (flowers). As was said of EF, you can usually predict the results of simple searches with FF but one would be prudent to test out any very complex searches with a test file constructed to show exactly how a given set of search strings will operate.

Both of these programs were judged to be very useful in their original reviews. The improvements in Boolean selections add considerably to both programs. One can only wonder why the authors didn't implement a standard Boolean syntax rather than inventing their own constructs. Let's hope that they will both come up with revisions with standard Boolean logic in the future. In the meantime, if you were originally inclined to buy them, you should be even more so with these improvements.

Addresses: Telion Software, PO Box 1464, La Mirada, CA 90637-1464.
O'Neill Software, PO Box 26111, San Francisco, CA 94126.

PRODUCT REVIEW: MacInker

by Ryo Imamura

Product: MacInker
Company: Computer Friends
6415 SW Canyon Court
Portland, Oregon 97221
(503) 297-2321
Price: About \$70 (depends on model no.)

With the high price of printer ribbons, especially Morrow printer ribbons, I am sure that many of you have considered reinking your used ribbons. It is with that exact thought in mind that I purchased a MacInker through the mail from Computer Friends. I figured that I would save the cost of the MacInker by reinking 10 ribbon cartridges for my Morrow MP100 printer.

Upon its arrival, I was pleased to see that the MacInker is a relatively simple contraption--two spools upon which you mount the cartridge and a small motor which pulls the ribbon around an ink-soaked pad. I had no reason to suspect then that my experience with the MacInker would leave me feeling confused, stupid, clumsy, frustrated, and angry in that order.

First of all, I found the directions to be sparse and inadequate. The amount of ink to pour into the pad is left to your experimentation, and always seemed to be either too much or too little. Being cautious at first, I didn't use enough ink to wet the ribbon. After adding a little more, the ribbon became soaked with ink and stuck to the pad. The cartridge mechanism for the cloth ribbon was too weak to pull the wet ribbon around the pad, so I ended up donning rubber gloves and manually pulling every inch of the ribbon around the pad. What a mess!

After letting the cartridges sit for a couple of days so that the ink would be evenly distributed on the ribbon, I tried using it on my printer. The print was blotchy and much too dark in places to be readable. Following the enclosed directions, I donned my rubber gloves again and blotted each inch of the ribbons with paper towels. The print was still blotchy and not of a good enough quality to use even for drafts. And the black ink was on everything--my hands, my face, my clothes, the carpet, etc.. My garbage can was filled with ink-smearing paper towels and newspaper. And my poor wife and children were ready to move out of the house.

Finally I called Computer Friends to voice my displeasure about their product and request a refund. The company representative reacted with surprise at my unhappiness stating that they had received hundreds of letters from past purchasers of MacInker absolutely raving about their product. Obviously I was a klutz and just needed to try a little harder to use their product successfully. He convinced me to exchange the Morrow model for one that reinked the ribbons for my Gemini 10X printer.

After paying a restocking fee, shipping costs, and long-distance phone charges, I geared myself up for new adventures with the Gemini printer version of MacInker. However, before I could get around to trying out the new MacInker, my home was burglarized and my Gemini printer was lost. My letter to Computer Friends explaining that I wanted a refund for my unused MacInker was never answered. Was I going to allow it to end there? No way.

Seeing the MacInker advertisement in the Computer Shopper, I wrote a letter of complaint to the periodical. They sympathized with my position and forwarded a copy of my letter to Computer Friends. Shortly thereafter, I received an angry letter from Computer Friends labeling my letter of complaint to be "venomous" and clarifying their position of not being responsible for taking back my unused MacInker. Of course they sent more copies of fan letters praising their product.

My letter to them again has gone unanswered, and I am feeling frustrated and angry. I am writing this article describing my experience with MacInker in hopes that you fellow BAMDUA members will be spared the same experience. Rather than reinking your ribbons, I recommend that you have American Ink Products in San Francisco do it for you at a nominal cost.



Renew your membership in BAMDUA



CP/M and MS-DOS COMPARED:

User Areas vs. Subdirectories

by Phil Hess

Introduction

While most of us are contentedly putting up with CP/M's little oddities, there are millions of people out there, caught up in the swirl of microcomputer history, who are struggling with another operating system, called MS-DOS. MS-DOS is an acronym for Microsoft Disk Operating System, although IBM calls its version PC-DOS. Most MS-DOS users simply call it DOS ("doss"), just as most users of IBM systems, without stopping to think, refer to their computers as "PC's", even though all microcomputers are "PC's".

And while these MS-DOS users don't concern us much in our day-to-day computing, nevertheless many of us will eventually join their ranks, either because we will use a computer at work which runs MS-DOS, or else we'll buy a second computer (such as Morrow Pivot) which runs MS-DOS, or we'll install a 16-bit co-processor in our Micro Decisions to run MS-DOS part-time.

For one reason or another, many of us will find ourselves learning a second operating system, whether we want to or not. And while we're at an advantage over a lot of users since we already know one operating system, there are some differences between CP/M and MS-DOS which are bound to be confusing. The purpose of this article then is to point out a few of those differences, while revealing a few things about CP/M as well. This should help pave the way for those of us forced by circumstance or history to learn more than one operating system.

(I don't want to sound as though we're all going to be making this move any day now. Hardly. Our Micro Decisions still run swell, and Morrow users' groups offer great help and support... I certainly have no intention of getting rid of mine. But it's in the cards that a lot of us are going to be learning MS-DOS.)

CP/M user areas

Disk user areas are a feature of CP/M which you don't need to know much about if you're using floppy disks. Knowing about them won't provide you with any more disk space. You normally need to use only user area 0, which is the "logged-in" user area when you power up your system and, unless you change it, is still the logged-in user area when you power your system down. However, other user areas, numbered 1 through 15, exist on the disk. Or rather, the potential for other user areas exists. (You can log into one of these other user areas by entering USER followed by a number between 1 and 15, then enter DIR to see if there are any files in the user area -- there probably won't be -- then enter USER 0 to get back to where you started.)

When I first read about user areas in the CP/M 2.2 manual, I couldn't figure out what they were all about. In my literal-minded way I assumed that these were areas of the disk reserved for or available to other users, even though I could see that only one user -- normally me -- would ever be using this computer.

Actually, user areas are not separate or even potentially separate areas on the disk. Rather, they're just another way of further specifying a file. In addition to a file name and extension, a user number is stored in the directory for every file on the disk. However, CP/M only "sees" the files with the logged-in user number. When you enter DIR, CP/M displays only the names of those files on the disk with the logged-in user area's number. With floppy-based systems, this number is normally 0 for every file on the disk. This means that when you power up into user area 0, you can display the names of all files on the disk, list any file, delete any file, and so on. This is because unless you have used programs written specifically to access other user areas, all the files on your disks were created in user area 0.

So, unless you specify otherwise, all files are created "in" the logged-in user area (normally 0) and you don't need to worry any more about user areas. The potential for putting files in other areas exists, but you probably have no need for it.

However, as soon as you begin to think about a CP/M system with a fixed disk such as Morrow's MD-5 or MD-11, you **have** to begin thinking about user areas. This is because with a large-capacity fixed disk, there needs to be some way of organizing the files on the disk, not only for the sake of operating system efficiency but for your own efficiency as well. Listing the directory in alphabetical order helps some, as does listing a few files at a time instead of listing the entire directory, but at some point -- maybe 50 files, maybe 100 files, whatever your breaking point -- there get to be so many files in the directory that you no longer can keep track of what's going on.

This is where user areas come in handy. You can put a bunch of little-used files in a little-used user area, put a few more files in another user area to keep them logically together, and maybe keep the bulk of your programs in user area 0 so that they're ready to go when you power up into user area 0. Whatever system works best for you is best.

This is also where having CP/M 3.0 comes in handy because of its additional features aimed specifically at managing more than one user area. For one thing, it's easier to copy files from one user area to another with the CP/M 3.0 PIP command. With CP/M 2.2, you first had to follow the cryptic instructions at the bottom of page 22 of the manual before you could even use PIP to put files in a user area other than user area 0.

Some quite understandable confusion is possible when using more than one user area. For one thing, more than one file with the same

name can now exist on the same disk. This is possible because even though two files on a disk may have the same name and extension, their user numbers will be different. CP/M can tell the files apart and know which goes where by the user numbers stored with the file names in the directory.

There are several ways of thinking about user areas. You can think of the user areas as different disks named A0, A1, A2, through A15, for example, but sixteen disks that are always available on-line, with disk A0 being the logged-in disk when you power up. Or you can think of them as sixteen pigeon holes, each of which can be empty or can contain any number of files, with user area 0 having a special significance. Or you can simply think of them as user areas, sixteen "logical" (as opposed to physical) areas on the disk that share the same fixed amount of disk space. Whatever is easiest for you to conceptualise. Just as long as you're comfortable with user areas and understand their usefulness.

Here's one possible way to think about user areas:

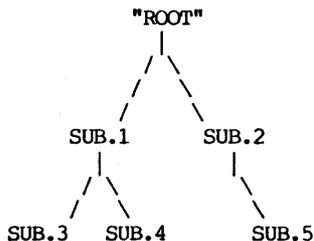
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

The sixteen user areas are all on the same "level" and all are "equal" in the sense that you can be logged into any user area and access files in the same way from any other user area (with the exception of user area 0 with CP/M 3.0, which we'll discuss shortly).

MS-DOS subdirectories

Similarly, MS-DOS has the ability to divide the directory into named "subdirectories" in order to manage the potentially large number of files on a fixed disk. Or rather, the main or "root" directory can contain one or more subdirectories in addition to files, and each of these subdirectories can also contain files and more subdirectories. This is what is called a tree-structured file directory, although it's kind of an upside-down tree.

Here's a diagram of a possible directory structure, excluding the files which would normally be present in each of the five subdirectories:



With MS-DOS, each subdirectory can have a name, including an extension, just like a file. In fact, these subdirectories are actually special files that you create and name yourself as needed using a special set of commands. Only one subdirectory is considered "current" at any time. Initially, after booting the system, the root directory is the current directory. Like CP/M, this root directory remains the current directory unless you make one of the subdirectories the current directory (analogous to logging into a different user area).

With CP/M, storing a user **number** with each file name in the directory doesn't take up much directory space on the disk, in fact only one byte per directory entry. However, when each subdirectory has a **name**, the entire subdirectory name would have to be stored with each file name. In fact, with a tree-structured directory, the entire "path" of how to get to a file from the root directory would have to be stored in the directory for each file. (With CP/M, this "path" is simple: it consists of the file's user area number.) In the above example, a file named FILE.1 in subdirectory SUB.3 would have to be stored with its path from the root directory as follows:

SUB.1\SUB.3\FILE.1

(The backslash is used to separate subdirectory names when specifying the path to a file.)

This could quickly take up a lot of disk space. But fixed disks have a lot of space, right? Well, yes, they do, but as with CP/M, the amount of space on an MS-DOS disk set aside for the directory is set in advance during formatting. This disk space is called the "directory tracks" and is normally a part of the disk you never have to worry about. It's already been subtracted from the disk's total capacity during formatting.

Structural differences

With CP/M 2.2 on a Morrow MD2, 4 kilobytes of disk space were reserved during formatting for the file directory, leaving 186K for the files. This 4K is enough room to store directory information for up to 128 files on each disk, which is more than enough for a disk of that size.

With CP/M 2.2 on an MD3, the directory takes up 6K of disk space, leaving 384K for up to 192 files. And on the MD5, 64K of the 5,436K capacity of the fixed disk is reserved for the fixed disk's directory. This 64K directory allows for the possibility of 2048 directory entries, which with CP/M 3.0 consist not only of file names, but file date and time information, file passwords, and a disk label.

With MS-DOS 2.0, the root directory is limited to 112 files with a double-sided floppy disk. This directory takes up 3.5K, leaving 354K for files on a non-system disk. But since one or more of these files can be a subdirectory, the number of files that can

be stored on a disk is practically unlimited.

What this means is that with MS-DOS, if you want to put more than the maximum number of files allowed on a disk, or if you want to create subdirectories, you have to give up some of the disk space reserved for files to store the additional directory information.

In practice, little of this is apparent to most of us, and it really doesn't matter how the operating system does it -- you'll probably never run out of directory space on a disk. Rather, you'll almost always run out of file space first.

Operational differences

Beyond the differences in directory storage dictated by the use of a named, tree-structured directory (MS-DOS) as opposed to a numbered, single-level directory (CP/M), there are the more important differences (to us) of how to specify a file.

If you stay in user area 0 with CP/M and if you stick to the root directory with MS-DOS, you won't notice many differences. With CP/M, for example, you copy a file using PIP:

```
PIP FILE.2=FILE.1
```

With MS-DOS, you would use the COPY command to create the file:

```
COPY FILE.1 FILE.2
```

This is not a very important difference. All you have to remember is the name of the copy command, the order of the file names, and whether to separate them with an equal sign or a space. The rules for naming files are the same and basic commands like ERA, REN and DIR do about the same thing in MS-DOS as they do in CP/M.

The complications arise when you begin to organize your files. Actually, with CP/M it's still pretty simple since the user areas are numbered and they're all on the same "level". For example, to copy a file from user area 2 to the logged-in user area, you still use PIP (assume disk A is logged-in):

```
PIP A:=FILE.1[G2]
```

With MS-DOS, things also stay pretty simple if you're copying files to the root directory. For example, suppose the current subdirectory is SUB.2 and you want to copy a file named FILE.1 back to the root directory (refer to the previous diagram):

```
COPY FILE.1 \
```

Like CP/M, you don't need to specify the destination file's name if it will stay the same. The backslash indicates the root directory.

Everything becomes more complicated, though, when you want to copy a file to a subdirectory. For example, the following is required to copy a file to the SUB.4 subdirectory if SUB.2 is the current subdirectory:

```
COPY FILE.1 \SUB.1\SUB.4
```

The first backslash indicates that the path to our destination starts in the root directory, descends into the SUB.1 subdirectory, and finally ends in the SUB.4 subdirectory.

It can get pretty tricky remembering all the levels of the subdirectories and where the backslash goes. In my experience, as soon as most people begin asking (innocently) about subdirectories and get the low-down on "root" and "backslash" and "path", **their eyes glaze over**. As a result, I would not recommend anyone to venture below the first level of subdirectories when first organizing files on a disk. Stay in the root directory at first, where hopefully you've put all the necessary DOS programs, and put files in first-level subdirectories only to get them out of the way. Then, later, you might attempt to work from within a subdirectory or create even lower-level subdirectories.

Subtle differences

This brings up another difference between CP/M and MS-DOS. With CP/M 2.2, the various user areas are normally pretty well closed off from one another except via PIP. In general, programs cannot access files in other user areas unless, like NewWord, they have been specifically written to do so. With CP/M 3.0, this is also true with the exception that programs and files in user area 0 which have been designated as system (SYS) files can be accessed for read-only purposes from all user areas.

For example, with CP/M 3.0, you could put all three WordStar program files in user area 0 and assign them the system status using the SET command. Then, when you're logged into another user area and type WS, CP/M first looks in that user area for WS.COM. If it can't find it there, CP/M looks for a system file named WS.COM in user area 0. Similarly, when WS.COM calls WSMGS.OVR and WSOVLY1.OVR, CP/M will locate these files in user area 0 if they're not in the logged-in user area. With CP/M 3.0, you might say that there's an alternate "path" that the operating system can take in locating a file to run or read if it can't find it in the logged-in user area. In this case, the path always leads to user area 0.

In MS-DOS, you can define your own "paths" using a special command called PATH. Thereafter, whenever you try to run a program which isn't in the current subdirectory, MS-DOS looks back along the path for the program. This can be handy, but it can also become complicated and confusing. Not only do you have to take care of setting up the path yourself, but with some programs the path doesn't do you much good.

For example, say we put the three WordStar files in the root directory and then set up a path leading back to the root so that we can work in a subdirectory where some of our document files are located. For example, if we enter WS, and SUB.1 is the current subdirectory, MS-DOS successfully locates WS.COM in the root directory and runs it. But after that the program is on its own. As soon as WordStar tries to access one of the overlay files (WSMSG5.OVR or WSOVLY1.OVR), it runs into problems and issues a file-not-found error message. This is because MS-DOS doesn't help programs out the way CP/M 3.0 does. MS-DOS only helps out in locating files at the command level, not at the program level.

Eventually these problems will be solved as more and more programs are written with subdirectories in mind; the programs will be able to search out overlay or data files themselves. But for now, much of the available software isn't "smart" enough to do that; many existing programs simply assume that all files are in the current subdirectory.

Summary

Let me summarize some of this discussion with a table which lists a few of the characteristics of these two operating systems:

<u>Characteristic</u>	<u>CP/M</u>	<u>MS-DOS</u>
Directory structure	Single-level	Multi-level
Type of directory organization	Numbered user areas	Named sub-directories
File access	"Path" to user 0 (CP/M 3.0)	User-defined paths
Maximum number of files per disk	Based on disk capacity	Limited only by disk space

At first glance, it might appear as though MS-DOS would be the operating system of choice with regard to directory structure. It certainly has the features. However, in my experience, MS-DOS is often more difficult to work with, a factor which must also be considered.

When I first began working with CP/M user areas, I thought I would have difficulty remembering which user area contained which files. There were no "names" associated with the user areas, only numbers, and not even numbers I could assign myself.

In practice, though, I found that with a fixed disk, the files in a particular user area rarely changed much from day to day, and

so certain user area numbers soon came to mean as much to me as any name I might have come up with. Plus, user numbers required only a few keystrokes to enter.

In contrast, even though I use PC-DOS nearly every day, I still make numerous errors in entering the subdirectory names, copying files from one subdirectory to another, or even remembering which subdirectory is the current one.

Part of the problem with named subdirectories is that subdirectory names are often used in the same way as file names. For example, with the earlier example, suppose that SUB.2 is the current subdirectory and you want to copy a file named FILE.1 to subdirectory SUB.1, but mistype the command as follows:

```
COPY FILE.1 \STUB.1
```

Instead of creating a file named FILE.1 in the SUB.1 subdirectory, you have created a file named STUB.1 in the root directory. DOS simply did what it was told and you proceed without knowing that you have made a big mistake. When you do discover your error, confusion results. This sort of mistake would be hard to make in CP/M.

In summary, then, while the tree-structured, flexible directory of MS-DOS is often hailed as an "advance," in practice it often proves to be a source of confusion and frustration to users at all levels of experience. In contrast, while CP/M's directory structure is limited and inflexible, it is also easy to understand and, perhaps more importantly, easy to use.

(Ed.'s Note: I have found that user areas are quite a boon in a number of respects. On the MD3, using DSDD drives, we have room for over 300K for files, as you know. Sometimes it is convenient to have all the files that go with one program in a user area separate from the files that go with another program if both programs are on the same disk. Also, if you want an alternative to creating a library but do want a set of files placed together and separate from another set of files, using different user areas for the two groups is an ideal and simple solution. Of course, Newsweep can look into any area you tell it to! Even more of a boon is the use of user areas with quad density drives. In that case, well over 700K of space is available for files thus one disk can contain a good many of the programs and utilities you like to use repeatedly. I have placed my favorite utilities in one area, separate from programs for writing, which in turn are separate from special print formatting programs. Well, you get the idea -- it is very handy!).

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Thanks to all of you for your ideas and articles -- and a special thanks to Phil Hess for his splendid series of articles on upgrading the Morrow MD2; as you have seen in the last couple of issues, he has contributed still another series explaining things like compilers, interpreters, user areas, etc. And there is more ahead! See you next September. -- Georgia Babladelis, Editor

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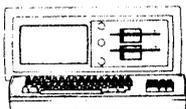
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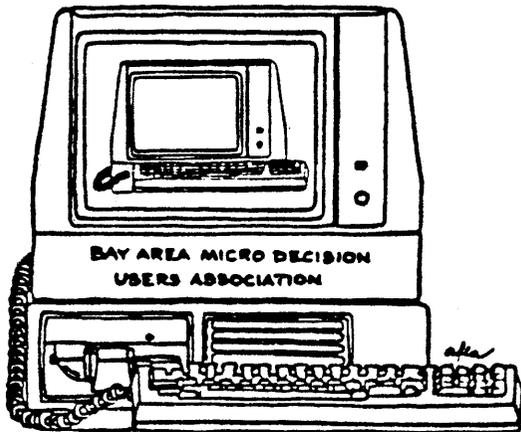
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