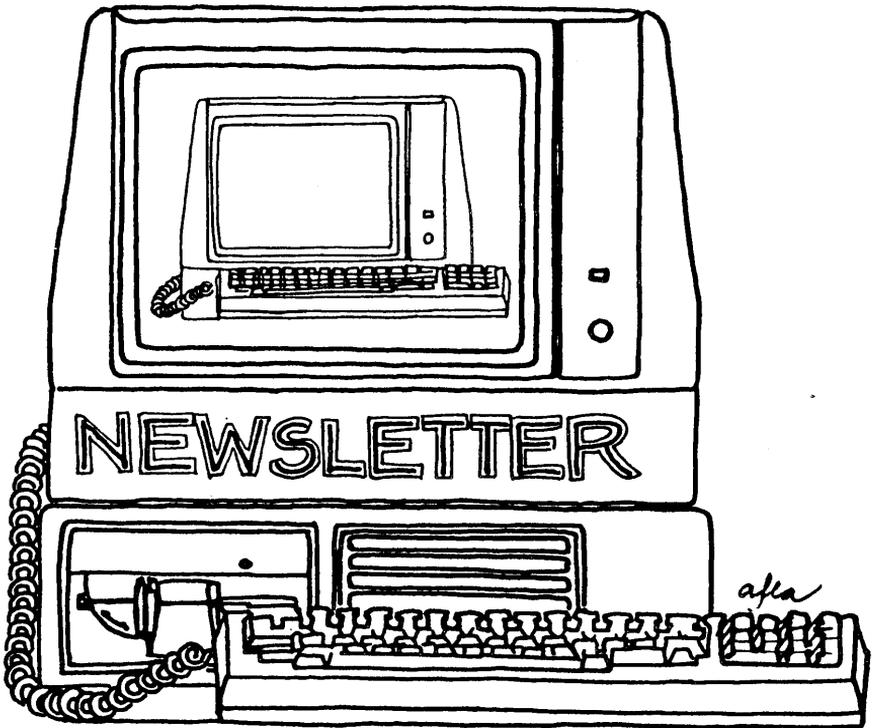


---

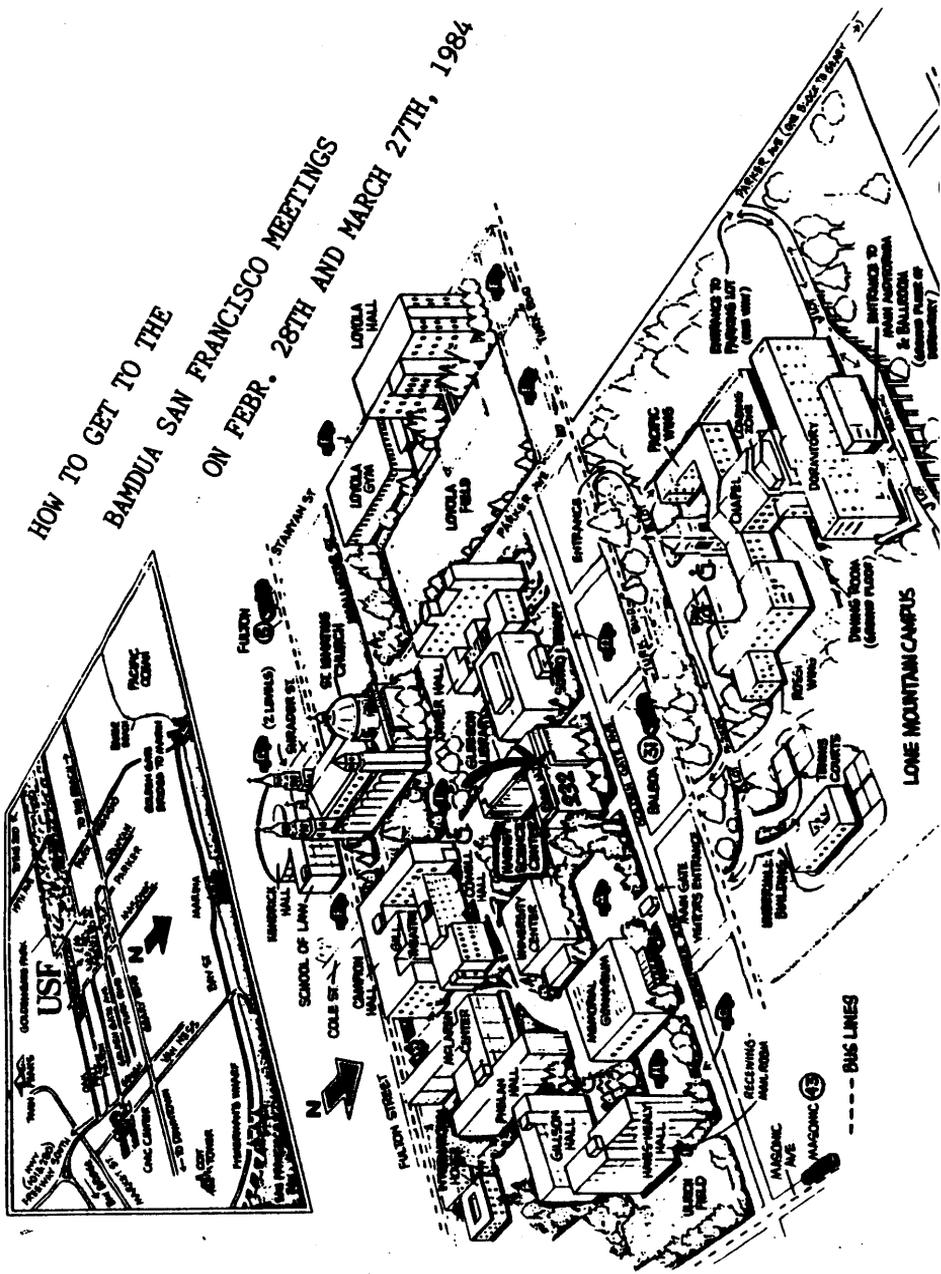
**BAY AREA MICRO DECISION USERS ASSOCIATION**

# BAM DUA



A MUTUAL SUPPORT NETWORK FOR USERS OF  
MORROWS' MICRO DECISION COMPUTERS -  
P.O. BOX 5152, BERKELEY, CA. 94705  
415 : 658-0152

HOW TO GET TO THE  
 BANDUA SAN FRANCISCO MEETINGS  
 ON FEBR. 28TH AND MARCH 27TH, 1984



LONE MOUNTAIN CAMPUS

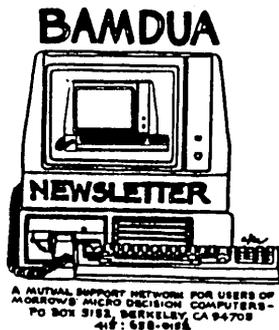
--- BUS LINES

42

RECEIVING HALL ROOM

TABLE OF CONTENTS FOR THE MARCH 1984 ISSUE

MEETINGS	p.2
FROM THE PRESIDENT'S DISK	p.4
MINUTES OF FEBRUARY 29, 1984	p.8
DAN'S SAN FRANCISCO SCOOP	p.10
FROM THE BERKELEY BOWL	p.12
ONCE UPON A MORROW	p.13
FROM THE MAILBOX	p.14
PASS THE NOTEPAD	p.18
COMPUTER BURNOUT	p.24
NEWORD vs. WORDSTAR	p.26
MEET THE DISK DRIVES IN YOUR MORROW	p.31
I'VE GOT MY MODEM WORKING	p.33
UTILITIES IN REVIEW	p.36
BAMDUA OFFICERS	p.38
SHORT STOPS	p.39
ALL THAT'S CLASSIFIED	p.40
MUCHAS GRACIAS	p.40





South Bay, Wednesday April 11th, 7:30 (?) PM  
Stanford campus: Polya Hall, room 111.  
Info: Ed Gallaher (415) 493-5000 ext 5990 (B),  
or (408) 749-9285 (H)

CLASSES:

MODEM7 etcetera, Thursday, March 29th, 8-10 PM  
Instructor Sypko Andreae. Hands-on training and demo's.  
72 Plaza Drive, Berkeley (near Claremont Hotel)  
Mail \$10 to BAMDUA to reserve a space in class.  
Info call BAMDUA (415) 658-0152

Novice Emergency Clinic, Wednesday April 4th, 8-10 PM  
Instructor Sypko Andreae. To get you flying with your machine.  
Hopefully in San Francisco, location to be announced.  
Mail \$10 to BAMDUA to reserve a space in class.  
Info call BAMDUA (415) 658-0152

MISCELLANEOUS GET-TOGETHERS:

Newsletter Mailing Work Party, Wedn. April 11th, 8 - 9:30 PM.  
Stuffing envelopes, Zipcode sorting, cake, coffee and klatsch.  
72 Plaza Drive, Berkeley (near Claremont Hotel).

**! COMPUTER CONVENTION !**

**Announcement to Morrow Users  
and Morrow "Orphans"**

**A NEW MORROW DEALER  
IN SAN FRANCISCO**

**Full Service and Support for  
all your Morrow needs.**

**COMPUTER CONVENTION  
650 Mission street  
(near New Montgomery)  
SAN FRANCISCO, CA 94105  
(415) 543-9014**

**Store hours: M-F 9 - 6  
SAT 10 - 5**

**Victor Jong, Sales Manager.**

# FROM THE PRESIDENT'S DISK

by Sypko Andreae, BAMDUA President

Well, folks, there is all kinds of new and exciting stuff happening and I just hope I can fit it all in the three pages allotted to me by our dedicated editor, Lenore Weiss. She is trying hard to keep the page count down to 32. This issue will clearly show if she made it this time.

## Communications of all sorts.

BAMDUA is a communication and service organization with educational and social overtones. Our communications tools are this newsletter, the meetings, the "roving notepads" at the meetings and in the newsletter, the library, the answering machine, the special classes and clinics, and so on.

But we still need more and better. Many people call the BAMDUA phone for help and then wind up chatting with Dana whose expertise lies not in computers at all. After hanging up our caller- members feel great, but don't have any answers to their technical questions. However, there is help and there will soon be more.

First: Make sure you have the preliminary version of the "Micro Decision Questions and Answers book". It is written by Dave Block, Micro Decision Product Manager at Morrow. The questions were distilled from the 100+ letters Dave receives daily, making it impossible for him to answer them all individually. So this is the next best thing.

Once you have a copy of this Q & A book, please give Dave Block some feedback. He really wants it. True, he receives over a 100 fan letters a day, but if you write "Q&A FEEDBACK" on your envelope you will be sure to get his attention!. He is at Morrow, 600 McCormick, San Leandro, CA 94577. Dave will also write a Q & A column in the MORROW OWNERS' REVIEW, the new national users' newsletter coming out in April.

Second: If you are willing to pay for it, call one of several hotlines that are now available for the purpose of handling technical questions. Here are the numbers:

ICCA (Independent Computer Consultants Association)  
(415) 932-8855 Referral call is free; you pay for contracted services after your referral works out.

MICRO SUPPORT

(415) 331-5034 \$15 minimum, \$1 per minute; instant help on the phone. This consultants team has many former Morrow people among them, so they should know their stuff.

MORROW ! Not yet but soon plans to have a hotline for which you also have to pay by the minute. In the planning stages. We'll keep you posted. We get the impression the charge is to enable them to hire extra people to create this service, to compliment support wherever it cannot be provided by dealers.

Third: Join a class, clinic or discussion group. Classes and clinics cost \$10 and are sometimes announced in the newsletter. They happen when there are about 5 people who want it. Call 658-0152. Discussion groups may spontaneously arise from note pad communications. It seems there is one happening around Personal Pearl, a subject of much discussion indeed. Check the BBBS for news on discussion groups. What's BBBS? Read on.

Out with the most exciting news: BAMDUA will soon have its own Computerized Bulletin Board System (CBBS). We'll call it BBBS for "BAMDUA Bulletin Board System". It will be run from a MD-3 with a modem of the Hayes class. The plan is to use it for Computerized Notepad and for electronic mail among members. You can also post Classifieds disguised as bulletins. Oh, we'll have so much fun! Who would ever want to come to a meeting anymore after we are all computerized (just kidding).

By the way, BAMDUA member Russ Davis just acquired the sources for MODEM7 and plans to program "smarts" in this, the 987th version of MODEM7, that will probably be called BAMDM7 or something. Back to our BBBS.

One problem with a CBBS is that it becomes quickly overloaded, if everybody can just log on. Most CBBS's work well when they have no more than 400 participants. To keep the 5000 computerized kids and pirates off our back our system will be "pass-warded".

To join as a CBBS participant you pay a small yearly fee, to defray the cost of a good modem and phone line. This \$5 fee will be "synchronized" with your membership renewal date. If you come up for renewal, say, 4 months from now and you join BAMDUA's CBBS today, then you would pay (today)  $\$5 + 4 \times \$0.50 = \$7$ . Get it?

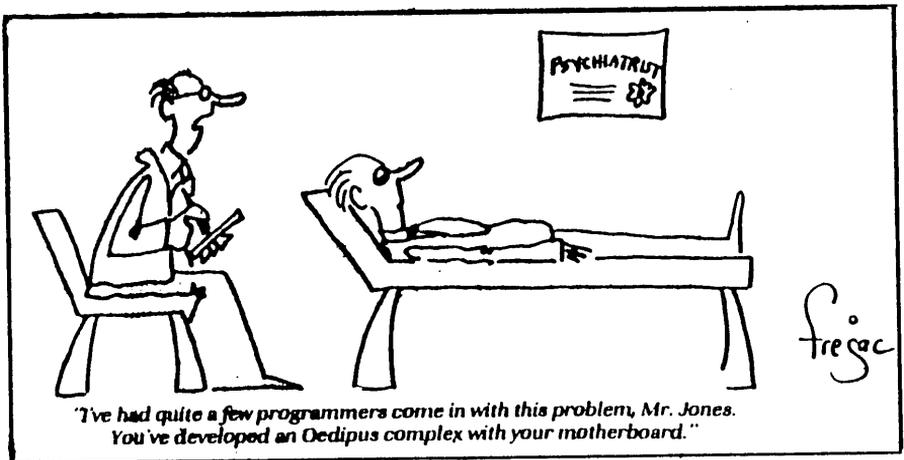
Example: Alexander Bright reads his mailing sticker where it says "EXP JUN 1984". He decides in April to join the BBBS (BAMDUA Bulletin Board System). He quickly mails a check for \$6.50. One evening he receives a call: A voice whispers a secret code number and hangs up. Immediately Alexander has his modem dial the BBBS number, logs on with his favoured secret password and BINGO! He has just become part of the BBBS network! The BBBS phone number will be, uh, confidential ... Inquire within.

During the coming meetings the birth of BBBS will be announced. Then only will we accept your money and work you in the BAMDUA net. Wouldn't the BBBS be real handy to announce why the newsletter is late again?

The newsletter: Better late than never.

The last newsletter was very late as most of you know. Bulkmail is the culprit. Some people got the newsletter in two days, others in two weeks! We will put a date in the newsletter that shows when it was mailed. If it takes longer than a week to get to you then please let us know. We will move the publication date up in April. You should have the newsletter at least a week before the main meeting.

The newsletter needs more volunteer help in production (Saturday, April 7th) and on mailing night (Wednesday April 11th). Especially when you know about bulkmail sorting you will be most welcome.



Elsewhere in the country other nice Morrow user's newsletters are emerging: CMDUG, Connecticut; MUG Washington (D.C.); MUG.1, Minnesota; Morrow Owner's Digest from Arcadia near L.A.; Stan Ahalt's Micro Decision Newsletter, South Carolina. Those are the best ones. There are more. Some dealers also put little newsletters out. It is the fashion of the times. Still we estimate that only 7% of all Morrow owners are hooked up with a club or newsletter. The other 93% are all alone ...

The MORROW OWNERS' REVIEW is the "official" national Morrow users' newsletter. It is coming along nicely and will be out in the first week of April. It is estimated that only 35% of the Morrow owners and users will receive one of the 10,000 copies that are going to be mailed out. We simply don't know where the other 65% are! If you are a member of a Morrow users' group you will get one for sure, if not two.

If you have a stack of newsletters it is hard to find where certain articles are. One of our dedicated members, Norwood Jackson, is working on an index of all articles. He uses an interesting form: It will be a MBASIC program, kind of a "help" facility, which, after it comes out on one of the Library volumes, will be updated by you yourself. You want a nice index? You put a tiny bit of maintenance work in.

Other things that's good to know.

Members who don't have Dave Block's Preliminary Question and answer book yet can get it in the mail. Mail a \$1 check to BAMDUA.

Morrow invites BAMDUA members to come visit the Morrow factory. Some afternoon in first week of April, exact time to be announced. Maximum 20 people. To apply write BAMDUA. P.O. Box 5152, Berkeley, CA 94705. No phone applications. Now you can see for yourselves how they roll 80 MD-11's off the assembly line each day.

The NETWORK list has not worked so well. It needs to be enhanced with more specific information. We need your help. If you want to be in the upcoming BANDUA Membership Directory, fill out the little form elsewhere in this newsletter as completely as you wish. The directory will be printed as a mini-newsletter and sold for \$1 to members only.

BAMDUA had a very productive and spirited Board meeting on Tuesday March 6th. There we also learned that the State has denied us tax-exemption. That is normal procedure. After a bunch of no's you may wind up with a "yes". They said we were not enough of a social club. Alright, we'll instigate some more social frolicking, parties and such, to foster that club feeling. Shall we change our name from Association to Club? BAMDUC. Sounds real tasty to me.

Just in closing: It is wonderful to run this amazingly active "club". It takes me uncounted oodles of time, and sometimes the stress is enormous, but the joys and satisfaction are there too. There is never a dull moment. And there is always something new and exciting to try out. It is my great and true pleasure to serve you all as your president.

\*\*\*\*

# MINUTES OF FEBRUARY 29, 1984

(Held at the Science Life Building of the University of San Francisco. Approximately 130 members in attendance)

## HOUSEKEEPING AGENDA ITEMS

1. Late Newsletter -- Sypko Andreae, President of BAMDUA, explained why many members had received the newsletter late. "We had an argument with the post office about how our bulk mail should be sorted, and lost twice." Apologies to all. Our new bulk mail status requires a bit more attention than licking and stamping envelopes. Next time, we stand the wiser!
2. On UNIFORM -- we have sold all copies of the program. If you still want one, speak with your dealer to see if they can order you a copy. The address of MicroSolutions is : 125 S. Fourth Street, DeKalb, IL 60115.
3. Local Meetings -- Since we have tremendously grown in size, we'll be holding a smaller local meeting each month in addition to the larger one attended by speakers. Smaller meetings will allow more exchange between members as well as a chance to continue our "special interest groups." Watch the newsletter for listings of these meetings in addition to our mini-seminars. (There's an article in this newsletter about the recently held MODEM class.)
4. Delayed Response Time -- Again, our rapid growth is slowing down response time to your telephone messages. Be patient. Want to volunteer your assistance? Let us know.
5. Treasure(r) Hunt -- We're still out looking for a Treasurer. According to Sypko, "We know we're in the black, but we just don't know how much money we can spend." Also, the Newsletter is looking for people to review the public domain utilities. We can pay in free library disks.

## GUEST SPEAKERS

6. Lee Parks, Trainer and Technical Support Person from MicroPro International (WORDSTAR software manufacturer). Lee described how WORDSTAR evolved from WORDMASTER, developed in 1978, to the first WORDSTAR version. Rob Barnaby and Seymour Rubenstein wrote the code. She said the current WORDSTAR update (3.3) is on 8" CP/M, A-1 format and costs \$85.00. But Morrow is no longer dealing

with WORDSTAR (there's a NEWWORD kid on the block). So...WORDSTAR 3.3 will not be technically supported once you manage to download the 8" to our Morrow 5 1/4" format.

7. Bob Dilsworth, President of Morrow -- Bob explained why Morrow is no longer dealing with MicroPro. In the world of bundled software arrangements, there's two ways, he said, to negotiate. This is either by a royalty arrangement or by fixed fee. Fixed fee is a one-time and only payment. Bob said it's well-known in the industry that Morrow is one of the few companies that doesn't pay a royalty to CP/M. This was negotiated many light-years ago when "George Morrow's wife bought it from Gary Kildall's wife." (Kildall was the original CP/M designer.) The WORDSTAR deal, he said, was fixed to a certain Rev(ision) level. Now there's 3.3. But to continue giving Morrow owners the best deal, Morrow went to other software pastures.

Again, there was discussion about the support game. Members wanting more end-user support. Bob in his court explaining why Morrow must work via the dealers. (There aren't enough Morrow folks to go around.) He did mention there's a support program in the works where we can call a phone number to get help. The cost will be about \$1 a minute. Bob mentioned Morrow is adding approximately 30 dealers per month in the U.S.; currently there are about 32,000 MicroDecisions bought and paid for.

Generally, Bob mentioned that the microcomputer industry is a new babe on the scene. "We're learning how to cope with our problems much faster than any industry that came before us -- compressed in a 10th the time." Xerox was given the maintenance contract for the Morrows since they have "more service centers locally," and an "extensive network" to move around parts.

Finally on the MD-11 (hard disk). Bob mentioned only 200 of these beauts have been shipped. They've been working out the bugs based upon feedback. For instance: There had been a power supply problem, plus there was some conflict between CP/M 3.0 and some of the software (Condor), and the actual machine. It's now been "fixed." Morrow's three month behind in orders.

8. David Block, MicroDecision Project Manager at Morrow and formerly Chief Engineer of the MicroDecision line of computers. Dave announced a new San Francisco Morrow dealer who has sworn to support "A.I.D.S. orphans." They are called Computer Convention and located at 650 Mission Street near New Montgomery and 3rd.

David, taking time out from jeans and work shirt and modemishly dressed for business, explained that he has

written a new bulletin board program which will be available separately to dealers and users. Both groups will be able to get their questions answered via this resource. Watch the newsletter for further details.

The ROM 2.3 chip has been succeeded by the ROM 2.5 in the MD-3. There was a problem where people were sporadically getting a DRIVE NOT READY message. It is called the "sleepy drive" syndrome. See Sytko Andreae's article on disk drives in this issue. If you have this problem go to your dealer and have the ROM updated.

The growling noise in your disk drives is due to the stepping of the read/write head. This is controlled by the stepping motor rate setter. A slower rate (12) makes a louder grinding noise while a faster rate (6) is more sprightly. The step time rate is a measure of how fast the read/write head is "seeking" (i.e. moving to the desired track). Due to different hardware requirements for the different disk drives, Morrow had been setting the step time to 12 Msec. They are now setting it at 6 Msec.

A member asked if we are supposed to clean our disk drive heads. While David confessed to being the type who never cleans his heads, or backups his disks, the answer was "Yes." Periodically, your heads need a "tune-up." A head cleaner kit costs in the vicinity of \$35.00.

-- Lenore Weiss

\*\*\*\*\*

## DAN'S SAN FRANCISCO SCOOP

By Dan Robinson

Where are all those SF members who said they wanted more meetings in SF? I'm willing to try whatever format you like (especially if you're willing to help organize it) within the limits of my one-bedroom, one-workroom apartment, on about any evening but Tuesday or Wednesday. We are still having small informal meetings on the 1st and 3rd Thursdays at 1880 Pine, #401 (near Octavia). You'll be able to exchange questions and even a few answers.

Also, I have a fair amount of unscheduled time and am willing to help anyone who knows less than I do, if such people exist, on the phone or at my home, concerning CP/M, utilities, WS, Assembly Language etc. My phone number is 776-6705.

\*\*\*\*\*

# COMPARE!

**SPIN-TRONICS = LOW prices + LOW overhead and GREAT VALUES**

\*\*\*\*\* **BLANK DISKS** \*\*\*\*\*      \*\*\*\*\* **PRINTERS** \*\*\*\*\*

Generic	SS/DD	19.95
Generic	DS/DD	29.95
<b>Verbatim.</b>	SS/DD	24.95
	DS/DD	38.95
 <b>Dysan</b>	SS/DD	34.95
	DS/DD	44.95

Disk Envelopes	1.95
Flip File	19.95

Buy any three boxes and get a FREE disk storage box. (Holds 75 disks)

Additional discount on case purchases.

\*\*\*\*\* **MODEMS** \*\*\*\*\*

RS-232 Direct Cn.	79.95
Hayes Smartmodem	225.95
Hayes Compatible 300/1200 Baud Smartmodem	

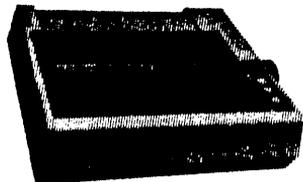
Most include Source subscription.

Gemini 10x	289.95
Tally Spirit 80	349.95
Epson RX-80	375.95
Prowriter I	389.95
Okidata 92	499.95
Epson FX-80	579.95

### LETTER QUALITY

LTR-1	299.95
SMC TP-I	379.95
Gemini Powerwrit.	499.95
Brother DX-15	489.95
Brother DX-25	825.95
Daisywriter	1195.95
Starwriter F-10	1349.95

We stock ribbons for: Gemini, Epson, Diablo, NEC, C. Itoh, Okidata, Qume, TEC, and more.



# SPIN-TRONICS



2490 Chenning Way Suite 400 at Telegraph, Berkeley  
(415) 843-2748 • **MODEM LINE (415) 843-2748**

CASH PRICES ONLY - ADD 3% FOR MASTERCARD AND VISA  
•FINANCING• Validated Free Parking with Purchase



## FROM THE BERKELEY BOWL

by Lenore Weiss

Here was a tasty potpourri of suggestions from the local Berkeley meeting. The gathering was held February 21 at the West Branch Public Library, and chaired by Jeff Weissman. There were approximately 32 people in attendance. Computer profile: 15 folks were MD3 owners; 17 had MD2's.

- O Suggestion to hold a forum involving dealers, users, BAMDUA members and spokespeople from Morrow. The idea was for BAMDUA to serve as a link between the various communities.
- O More work needs to be done on our Network List which occasionally appears in the newsletter. This list is designed as a network of folks who are available for troubleshooting. But what if we could organize the mammoth group by software expertise, and have one person in charge of each group? People could direct their questions to one person who would field the inquiry to the party most-likely-to-have-the-answer.

We need volunteers to make these ideas work! Any takers? Direct your energy to Jeff Weissman at 482-3891 or to our local BAMDUA number, 658-0152.



*"But it was so friendly in the store!"*

# ONCE UPON A MORROW

By Joe Heim

The following was submitted by Joe Heim, modem winner at our January 31st ONCE UPON A MORROW event. Many thanks to all, again, who made the evening such a resounding success.

Once upon a 'morrow dreary, while I pondered, weak and weary,  
Over many a quaint and curious brochure of computer lore--  
While I plodded, nearly napping, suddenly there came a tapping--  
As of someone gently rapping--rapping at my chamber door.  
"Tis the postperson," I muttered, "tapping at my chamber door--  
Only this and nothing more."

Ah, distinctly I remember, it was just in last September,  
And each separate letter plainly brought a SALE! into my door.  
Eagerly I saw the Morrow;--plainly now a loan to borrow  
From my bank, surcease of sorrow, least I lose the Morrow; for  
Now 'twas time an MD-3 to get, to keep, to cherish, to adore--  
To be mine for evermore.

And the programs, though uncertain (sitting by my bedroom curtain),  
Thrilled me--filled me with fantastic terrors never felt before;  
So that now, to still the beating of my heart, I stood repeating  
"I can learn this software at the console, by my chamber door.  
I can learn!" I stood entreating, "Learn it by my bedroom door,  
This one, that one, and much more."

Presently my soul grew stronger; hesitating then no longer,  
WordStar, Basic, Personal Pearl, Logic Calc I did explore.  
As the future I was mapping, BAMDUA scheduled George's rapping.  
So off I went, faintly tapping, to Berkeley's Schwimley 'sylum.  
George Morrow's sure our future's bright, and I am too. We'll  
show'em!

And, SURPRISE! I won the modem!

With an apology to Edgar Allen Poe, and sincere appreciation to George Morrow, Robert Krumm, and the volunteers at BAMDUA, I would like to thank you all for the fine program you presented on January 31. I am finding that my membership in BAMDUA enables me to find help, when I need it, with this often times frustrating avocation. Although it seems that everyone else is miles ahead of me, I intend to catch up someday.

\*\*\*\*\*

# FROM THE MAILBOX

\*\*\*\*\*  
\* BAMDUA \*  
\* P.O. Box 5152 \*  
\* Berkeley, CA 94705 \*  
\*\*\*\*\*

## Notes on PERSONAL PEARL, Creating Envelopes, Warranties, and More

There was a question about how to get PERSONAL PEARL to stop between pages when printing out a report. The answer turns out to be quite simple, although no mention is made in any of the documentation. (I found out by harrassing my dealer who then called the manufacturer.) At "Optional Step 2" of the Produce Reports routine, there is a blank after "File Name For Report." This is normally left blank for output to the printer. However, filling this blank with "PAUSE" sends the output to the printer with pauses between pages. Apparently, there is no way to get the program to pause when printing out a form or report layout.

I have followed the continuing discussion of how to get WordStar to print envelopes. It seems most people have come up with a similar idea. My solution is, I think, slightly easier. I keep a file called "E" (for envelope) on all my working disks. It contains my return address along with all the dot comands I need to produce an envelope layout. It looks like this:

```
.mt0  
.po2  
David Schnapf  
376 Hill Street  
San Francisco, CA 94114  
.po32  
.op
```

...address here

I use the following steps:

1. Create a block from the address you are sending to.
2. After you finish your letter, do a .pa command, and go to the next line.
3. CTRL KR to read the "E" file into the letter you are sending.
4. CTRL QC to get to the bottom of the file.
5. CTRL KC to copy the address.
6. Save and print.

The "E" file can be used along if you simple want to address an envelope. Actually, I keep another file, "E2," for mailing labels.

One word of caution. When yo read the "E" file into the letter, WordStar will tell you to set your .MT command at the file beginning for a correct page break display. This information can be safely ignored. The .MT command will work just fine and the page break display is irrelevant.

I have discovered and corrected problems in the Yahtzee and Startrek games on BAMDUA's library disks. Interested people can give me a call at (415) 285-4258. I have tried many of the other games and would be interested in sharing experiences. Documentation for Startrek can be found in a book called BASIC COMPUTER GAMES, edited by David Ahl.

Finally, I was horrified by Mr. Mintz story (Vol. 2, #1; page 25) about the defective power switch and Morrow's response.

Although I do not specialize in this area of law, I am an attorney and I'd like to make a few points about warranties. First, do not believe what you read. You have many more rights than those expressly indicated in the warranty. The people at Morrow have candidly admitted to me that much of their warranty and disclaimers are invalid. Under the Uniform Commercial Code, retail goods come with "implied warranties." In many cases, the courts have invalidated attempts to disclaim those implied warranties. For example, a power switch failure is probably covered by the implied warranty of merchantability even after the 90-day express warranty period.

Likewise, in many cases representations made to you by sales people can form the basis of a warranty and will supercede any written material. If a salesman tells you a machine or a program will function in a certain way, or can be used for a particular purpose, you may have a right of action if it doesn't.

I think people who have a grievance should not give up simply because of what it written in the warranty or what they are told by Morrow. Raise hell, go to a lawyer, go to small claims court. Morrow has a legal and moral responsibility to the consumer. I think BAMDUA can play an important role in seeing that Morrow lives up to this responsibility.

David Schnapf

#### Hints on Initializing Your Disk; Automating George Woo's Lost File Method

CONGRATULATIONS! The evening with George Morrow was a notable success - impressive as much as anything as an example of how newly acquainted "volunteers" can organize and pull off a difficult public event. You're all super and we owe you more than

the warm 'hand' you received at the end of the evening!

For future events of this sort please tally my vote for more 'write-in' questions which can be screened and sequenced to some extent. The time is so short and valuable that it's sad to allow too much to be used in an American Roulette of random questions from the floor.

**AGAIN-** congratulations, and **THANK YOU ALL** for a fine evening.

P.S. - I've come up with a better version of the SUBMIT program for initializing new disks. The earlier one foolishly performed FINDBAD on the A: drive... This one is better :

```
FINDBAD $1 .....(The $1 reserves a space for the first
                    input you enter after "SUBMIT -NEWDISK"
FORMAT B D .....(Those with MD1's & MD2's use "S" in
PIP B:=A:PIP>COM[VR]   place of the "D" to indicate single
PIP B:=A:STAT.COM[VR] density rather than double...)
PIP B:=A:D.COM[VR]
PIP B:=A:DJ.COM[VR].....(This is my renamed "XDDIR.COM")
PIP B:=A:SWEEP.COM[VR]
PIP B:=A:AUTO.COM[VR]
D SET
AUTO DJ
SYSGEN.....(When it gets here it asks for input)
```

This program, which I call -NEWDISK.SUB, should be on a system disk along with SUBMIT.COM and XSUB.COM, not to mention all of the programs you include to be "pipped" across to the new disk.

It's run by entering **"SUBMIT -NEWDISK B: (ret)**

Another useful one I'd like to share allows automation of the functions George Woo taught us several meetings ago... I have it on all my WordStar disks now, labeled -RECOVWS.SUB.

It's run by entering **SUBMIT -RECOVWS (ret)**

- at which point the Morrow digs in and captures your "lost" WordStar file in the WS memory buffer, and copies it onto the disk in B: drive under the name -SAVEDWS.TXT

This is what it looks like:

```
XSUB.....(As I understand (?) it this allows for the
DDT          subsequent entry of the "D7849", etc. as
D7849        'commands' within DDT. Without the XSUB
M7849,BAFF,100 the program sticks after DDT...)
GO.....(NOTE that this is "G" "ZERO", NOT TWO LETTERS!)
SAVE 31 B:-SAVEDWS.TXT
DJ B:
```

Chuck Quibell, Santa Rosa, CA

# HOW TO CONTROL YOUR MORROW DESIGNS - AT ONLY \$3. PER COMMAND.

## A Remarkable Program For CP/M Users.

Of course, CP/M is a wonderful operating system. That's why so much serious business software has been created for it. BUT, CP/M is not easy to work with. That's why you need to take the **POWER!** trip.

**POWER!** is a super-power-packed, user-friendly program that lets you take immediate and complete control of CP/M. And at a cost of only \$3. per command, it's the software buy of the year.

### Over 55 Housekeeping Utilities.

**POWER!** is over 55 prompted, user-friendly CP/M utility programs all rolled into one 15k package. It takes care of all of these frustrations and more:

—**BDOS errors?** **POWER!** ends BDOS errors and gives you a way out.

—**Accidentally erased a file?** If you accidentally erase a program or disk file, **POWER!** restores the erased files

—**Can't remember file names?** **POWER!** assigns a number to each file on your disk. So, to copy files from disk to disk, you don't have to fiddle with PIP anymore. You just pick the file from a numbered menu and **POWER!** copies it for you. No more typing errors! **POWER!** also marks original files and their copies for you; and you can compare files to find identical copies regardless of name.

—**Loss data on a glitched disk?** If a glitched disk makes it impossible to call up a long word processing text, **POWER!** can fix the glitch. This means you may have to retype only a couple of sentences instead of losing 20 pages of text.

—**Trouble with "bargain" disks?** **POWER!**'s disk testing function gathers any bad sectors of the disk into a special file so that CP/M thinks those parts of the disk are already used and never attempts to write to them. The rest of the disk is then safe to use.

—**CP/M scrolls too fast through text files?** **POWER!** spools through files for you.

page by page, file by file, or line by line with instant halt by touching the space bar.

—**Need to reorganize files?** **POWER!** sorts and formats the directory in 4 different ways. And you can easily copy or move files from user area to user area. **POWER!** creates 32 user areas instead of CP/M's 16.

—**Need to change memory?** **POWER!** searches, displays and lets you change memory wherever you want. You can even automatically run software anywhere in memory. And you can inter-mix your search with as many wild card jokers as you need to find, for instance, all occurrences of "Sam Jones" and "Sid James" just by typing "S7J??" And **POWER!** also lets you read or write to any sector or track very simply.

—**Changing disks?** You can forget the ubiquitous Control C to change disks. **POWER!** can do it for you automatically.

And **POWER!** doesn't require a system disk in any drive, so Drive A is open for use, when **POWER!** is in control of CP/M.

—**Afraid of HEX numbers?** **POWER!** automatically converts Hex to Decimal, Binary or ASCII.

### Special Password Protection, Too.

**POWER!** now includes a special program that lets you lock sensitive files, so that only you can access them. Without the secret **PASSWORD** which you can create and change at will, no prying eyes will ever know your secret file even exists. A great way to protect financial or scientific data from unauthorized eyes. Just this single program alone would be worth the price of **POWER!**, but there are over 55 more just as valuable programs in this power-packed package.

**At \$169., It's A Bargain.**

Space doesn't permit describing all

the wonderful ways

**POWER!** can put you in complete control of your CP/M micro. But see for yourself. There's a Money Back Guarantee. At the low price of \$169., each powerful command costs you less than \$3. A true bargain!

### POWER! is Better Than Ever!

Eventhough "InfoWorld", "Microsystems" and "Interface Age" call **POWER!** great, we have improved **POWER!**—including a completely rewritten 120-page easy-to-read documentation. (Previous purchasers of **POWER!** may exchange their original disk for an updated version with the new commands and a brand new manual— for only \$35.)

### Take The POWER! Trip Today!

**POWER!** will operate in any standard CP/M or MP/M system, including CP/M-86, IBM PC, Apple (Z80 card), Osborne, Kaypro, HP, TeleVideo, TRS-80 conversions, S100's including NorthStar, Vector, Morrow, CompuPro, etc. Up and running immediately, no configuration necessary—for hard disks and floppies.

At only \$3. per command, you can afford to **Take the POWER! Trip.** Call or send in your order today.

### NOW AVAILABLE FOR MS-DOS, TOO.

**ONLY \$169. Money Back Guarantee.** Charge & COD Orders Welcome.

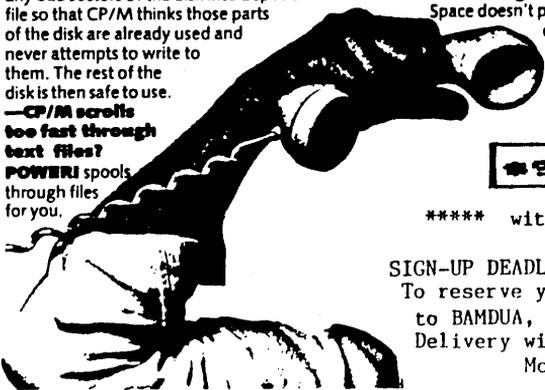
**TOLL FREE (800) 428-7824 Ext. 96AK**  
**IN CA: (800) 428-7824 Ext. 96AK**  
**DEALERS AND OEM'S (415) 567-1634 Ext. 96AK**

## InfoWorld Software Report Card

### Power

	Poor	Fair	Good	Excellent
Performance	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Documentation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ease of Use	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Error Handling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

© 1982 by Populer Computing, Inc. A subsidiary of Civi Communications Inc., Framingham, MA. Reprinted from InfoWorld. \*CP/M is a Registered Trademark of Digital Research, Inc.



## SPECIAL DEAL FOR BAMDUA MEMBERS

**\$95 tax included**

\*\*\*\* with COMPUTING! phone support \*\*\*\*

**SIGN-UP DEADLINE : 30 APRIL 1984 at NOON sharp!**  
 To reserve your copy of **POWER!** send a \$95 check to BAMDUA, P.O. Box 5152, Berkeley, CA 94705. Delivery within 2 weeks of sign-up deadline. Morrow Single Sided format.

## PASS THE NOTEPAD

The following are the Pass the Notepad entries from our February (San Francisco) meeting. Unless otherwise indicated, all phone numbers are in the 415 area code.

The questions about PERSONAL PEARL are reaching a new level of confoundment. At our last meeting, mutual PEARL sufferers decided to form a help network. Below, you will find those phone numbers in the hope that anyone with questions can also join the party. Please keep the newsletter apprised of your findings. If you discover a miraculous solution, write up the information, and send it in!

### PERSONAL PEARL

1. Q: Is there a possibility of having a small seminar on PERSONAL PEARL? **Pat Curry, 223-6112.**

A: I'd like to talk. Charley Tart, 526-2591 or 524-1540.  
Diane Hanger, (408) 245-6482  
Me too. Pat Rapier, 223-7567 (home) or 486-5967.  
Bill Denholm, 964-5039. 964-5039.  
Andrys Basten, 523-9245  
Rich Guzy, 791-7402 (home).  
Dan Robinson, 776-6705.  
Bob Sokol, 621-6713  
Numael Hernandez, 526-2591  
Ken Krone, 325-3614  
Bonnie Draheim, 752-2384.  
Doris Treisan, 526-5639  
Sandra Rider, 548-0589 or (408) 245-6482.  
R. Stapp, 276-8219

And all other PERSONAL PEARLers. You know who you are!

### WORDSTAR

2. Q: How can I stop the three-line scrolling of the printer at the beginning of a report. .MT hasn't stopped it.  
**D. Wayne Smith, 451-8336.**

A: .MTO will do it.

3. Q: How can one use WORDSTAR without MailMerge simply to make multiple copies of a document? **P.M. Rapier, 223-7567.**

A: Possibly block out the entire document with CTRL KB and KK. Then do CTRL KC to copy the block as many times as you need. Makes for a long file, but might do the job. (.PA might be necessary between pages.) Then print as usual.  
George Post, 548-0589

4. Q: I have custom installed WORDSTAR to get 10, 12, or 17 cpi. But how can I combine these with double-width and/or italics so I have several combinations? (I "borrowed".the WORDSTAR printer ribbon command for one of the custom installations.) **Russell Curtis, 851-8962.**
- A: Getting these "combinations" is printer dependent. Sypko Andreae, 658-0152.
5. Q: Is it possible to use PERSONAL PEARL plus WORDSTAR to do mailing lists -- in other words, substitute PP for MAILMERGE? **Bonnie Draheim, 752-2384.**
- A: Yes, call me. R. Mastromauro, 538-7626.
6. Q: Morrow will upgrade the WORDSTAR package to NEWWORD for \$100. Is the upgrade worth the price? **Asok Nigam, (408)238-4610.**
- A: You're getting a WORDSTAR look-a-like which contains a MAILMERGE feature. NEWWORD was favorably written up in the Spring 1984 issue of the "Whole Earth Software Review," along with the following grain of salt. "The program is definitely spiffier than its cousin and less expensive. However, keep in mind that it is new, relatively untried and untested." Lenore, 261-7492
7. Q: Is there a way to by-pass or delete the BACKUP function? It causes problems unless I frequently do a CTRL KD, delete the filename .BAK and then reenter my document to continue. **Patricia Voss, (209) 957-1010.**
- A: BACKUP is an automatic feature of WORDSTAR. But why are you running into problems? If you're using an MD-2, perhaps you might want to consider getting an MD-3, assuming that not enough disk space is the real issue. Lenore, 261-7492.
8. Q: I'm interested in changing the INSTALL commands on WORDSTAR for top and bottom margin. Suggestions? Does anyone know of a company selling covers for computers/terminals/printers? **Dan Brower. 527-4253.**
- A: Part 1: Easy with customization. Call me. Roberta, 239-1778. Also see December and January newsletter issues (Woo's and Brooks' articles).  
Part 2: Call Jeff Weissman at 482-3891. He had some nice ones made in Richmond.
9. Q: Can I access files on more than one disk at the same time while running WS or LOGICALC? Anybody know of any online communications networks for chatting?  
**Bob Sokol, 621-6713.**

A: Part 1: While in a document, CTRL KL will change your logged drive. Part 2: Yes, the SOURCE. CHAT and PARTI (Participate). Lenore, 261-7492.

10. Q: I'm editing a file, say, that has a budget proposal on page 3. I want to print page 3 while editing and continue editing with the hard copy of the budget at my side. I don't want to CTRL KD and then print the file, or to CTRL KB/CTRL KK the budget and move it to another temporary file; print it and re-open my letter file. Is there a way? **Jeff Weissman, 482-3891.**

A: If I understand you correctly, no. You can't print and edit the same file in WORDSTAR no matter what page you're on. Lenore, 261-7492.

11. Q: Does anyone know how to get the UNSPOOL program from WORDSTAR files properly without first 'pipping' with the ["Z"] parameter to "strip the high order bit?" Otherwise, the printout comes up with final letters of each word in some wild non-ASCII symbol. **Chuck Quibell, 564-2303.**

A: To "launder" a WS file from 8th bit stuff, why not "Print to a file" with the P command. Another option is to use a "filter program." Many abound. This strips WS files clean of the sticking-up 8th bit whenever they occur. **Sypko Andreae, 658-0152.**

#### QUEST

12. Q: Does anyone have a payroll package that can handle 50 or 80 employees, using PEARL and BASIC and/or assembler? **Harvey Friedman, (no number).**

A: Ask QUEST. They can be reached at 479-0600 in San Rafael. May only be for MD-11. Sypko.

13. Q: I'm looking for help to put my bookkeeping system on QUEST. I need to get disbursement information. Is QUEST the right software to use for cash disbursements? I don't really need all the receivables or other frills from QUEST. Any suggestions? **Kathy Kagawa, 647-6355.**

14. Q: I manage several different and distinct accounts. How can I run more than one on QUEST? **Alan Kornfeld, 434-2855.**

#### DBASE

15. Q: I would like to talk to anyone running DBASE II on an MD3. **Jim Brenden, 654-8473**

A: I run DBASE II on an MD2. Marc, 552-5549.

## GAMES

16. Q: If anyone knows how to get the pirate's chest in ADVENTURE, I'll trade you information on how to use the pillow and the clam. **Chuck Burwell, 826-3991.**
- A: There is an article from MICROCOMPUTING (I have it) which shows how to navigate both mazes, including the chest. Will trade. R. French, 556-5600.
17. Q: How do you access the documentation for the games on disk number 4? **Sandy Darlington, 540-7010.**
- A: I've found most .DOC files can be read with WORDSTAR (unsigned).

## MODEMS

18. Q: I just bought an ANCHOR SIGNALMAN MARK XII Modem that I want to use on my serial port (MD3). Is it a problem to change the jumper wires myself, or is it best left to a dealer? Is anyone available in San Francisco or around Stanford who could help introduce me to the world of telecommunications (1-2 hours)? **Ken Krone, 325-3614.**
- A: Part 1: Don't fuss with the jumper settings for 2nd serial port. Use a null modem. For Null modem advice call Richard Whitehurst or Sypko Andreae. Null modems can be purchased from INMAC, San Jose. Their number is (408) 737-7777. Ask for an EIA Line Link, #308 Z 9; \$20 charge on the plastic, next day delivery. Then you wire it up yourself. Easy once you know how. Part 2: Try SMUG (Stanford Morrow Users Group). Their number is (408) 749-9285. Ask for Ed Gallaher.
19. Q: I need documentation for a BAMDUA modem program (or someone to explain how to use it). **David, 841-3366.**
- A: I can help with some modems. Bob Sokol, 621-6713.

## OTHER

20. Q: Problem with INDEX on BAMDUA public domain disk. I use AUTO to set up automatic disk loading. For my WORDSTAR, I use AUTO S GL D. This does three things: load S(SMARTKEY), GL (the SMARTKEY definition file), and D (a Directory on SMARTKEY disk). But AUTO S GL INDEX doesn't work. Another index - Super Directory SD does run when typed in this AUTO file. **David Chaika, 531-6541.**

- A: I believe what's happening is the INDEX program you refer to was written for a different version of WORDSTAR and does not run with the 3.0 most of us have. Oh, well. Lenore, 261-7492.
21. Q: I just purchased an upgrade to MD3 from MD2, and because my dealer didn't say anything about transferring data in one diskette (MD2) format to MD3 format, I formatted all my software disks to SYSGEN MD3 and now I can not use my old MD2 software. Is there any way to correct this situation so that I can do a transfer of data? **Bob Spotorno, 586-6280.**
- A: You can still save all your files as follows: Put MD3 SYSGENed but otherwise empty disk into A. Now with your old MD2 disks with precious files in B:. Then PIP your files from B: to A:. Better still, use SWEEP! See December newsletter, #8, page 19. Sypko Andreae, 658-0152.
22. Q: PRINT CHR \$ (7) won't ring the bell on my terminal. What's wrong? **Richard Anderson, 658-8679.**
- A: Type "SETUP" KEY at upper left of keyboard; then ENABLE bell. (See terminal documentation for details.) Anon.
23. Q: I just got an Okidata 92 and would love to speak to others who have it. **Sherry Spitzer, 665-4368.**
- A: Call Sypko Andreae, 658-0152.
24. Q: Should the disk drives be periodically cleaned, and if so, how? **Robert Solovay, 654-3047.**
- A: Advice varies from every 50 hours of use to every 500!. Depends on type of floppies you use. Call a disk manufacturer, like Shugart, and see what they say. Sypko Andreae, 658-0152.
25. Q: I would like a fancy calculator program that acts like a flexible calculator with a lot of math and stat functions. Does anybody know of anything? **Jonathan Raz, 841-4347.**
- A: Try using LOGICALC. To use the calculator, type in your arithmetic expression on the edit line. Follow the expression with a ?. See page 8 of your LOGICALC manual for further instructions. Lenore, 261-7492.
26. Q: Any way to dump what's on the screen to the printer with one or two keystrokes? IBM PC has a key so dedicated. That way, you don't have to create a file, save it, print it, re-open it -- no matter what you're in -- WS, PP, CP/M, etc. **Jeff Weissman, 482-3891.**

Would also like to know. Bob Sokol, 621-6713  
and Carl Naegele 666-6433. Bill Densholm, 964-5089.

A: SMARTKEY can assemble such a file, maybe only a screen  
dump. David Chaika, 531-6541.  
By plugging printer into the auxiliary port of terminal  
you can do a screen print via the print key. This works  
for ADM terminal. I am pretty sure you can do this on  
the FREEDOM. You may want a switch box to select the  
terminal or computer to access the printer (Anon).

\*\*\*\*\*



"I'm firmly convinced that behind every great man is  
a great computer."

# COMPUTER BURNOUT

by Lenore Weiss

My first computer nervous breakdown consisted of several non-stop weeks of gazing into the phosphorescent terminal. Yes, I had reached the point well-known to many computer users. I was getting my jollies mainlining on the terminal. I had become a computer junkie and I didn't know when to quit.

Woebegone and befuddled, I spoke with friends who've handled the compulsion factor in various creative ways. My research has led me to this finding: additional outlets seems to be the key, that is, of the non-electronic type.

One writer has two spinning wheels sitting next to her machine, along with a basket of hand dyed yarn. Whenever she's about to reach the burn-out factor, she retires like Penelope to wait for the answer to emerge from her weaving.

Another friend has all her "coffee table" books strategically located next to the computer. Whenever she starts to see double, manuals aside, she turns for inspiration to Picasso, and to the lithographs of Elizabeth Catlett.

Perhaps the instructions we receive with our computers should enclose a Surgeon General's warning: "Only to be set up near a window where you can preferably see at least one tree."

## Mending My Ways With Burpee

I've found succor in my Burpee Seed Catalogue. Realizing that I needed another equally consuming pursuit, I spent an entire afternoon reading descriptions of seeds. I've planned a spring garden which includes flowers, many flowers -- Gloriosa Daisies, Chinese Lanterns, First Lady Marigolds. Not a disk drive amongst them. The names have none of the old familiar computer smack. And then there are added benefits; I get to go outside.

I thought I had gotten my habit under control, balancing it with something I could really get my hands on. I congratulated myself on new plans about transporting horse manure from a nearby Oakland stable, (oh, I could smell the turds steaming from the soil), and building a wooden trellis to support a forthcoming Romano bean crop. But something happened.

## A Simple CHAT

One quiet evening, I was logged onto the SOURCE, "America's Information Utility," trying my hand at CHAT mode. This allows you to talk with another person who's similarly bent over his terminal in the throes of information retrieval. I had several manuals spread out before me.

Like any religious convert, I went down each line of instruction trying to exactly understand what I was about to receive. After typing CHAT, I saw a list of identification numbers on my screen. I typed one number, pressed the RETURN KEY, and waited for the results. I waited some more...

Presuming that this individual had fiendishly decided to leave the terminal at the exact moment when I had called across the electronic abyss, I selected another ID number and tried again. Still no answer; I had knocked on the door but no one was home. Well, before I left CHAT to turn to another page in my manual, I tried once again. It wasn't working and I didn't know why.

### Stuck Between Capricorn and Aquarius

Now I was reading Stella Somebody's horoscope projections. They kept scrolling over and over again on the screen and I couldn't get them to stop. At the height of my despair, between the horoscope for Capricorn and Aquarius, a message suddenly blinked on the screen. It was one of my would-be CHAT companions.

I wildly thumbed back to the place in the manual to find out what to do. I felt like a little girl at at my first birthday party, and I was absolutely tongue-tied. I could feel the sweat rolling down the back of my neck. It was too late. Several paragraphs down, the manual advised without acknowledging my panic, I needed to jot down the ID number of my respondent so I could echo back. But the relentless horoscope had pushed that number from the screen.

Since fate had willed that my CHAT partner and I would never meet, I returned to the business of getting out of that horrid horoscope file. Once I did, I received another message. Another CHAT partner had called. This time I was prepared. I calmly typed, CHAT, the ID number, and pressed the BREAK key.

But no one had told me that my modem software program doesn't understand this key, and will only recognize some other combination I have yet to discover.

I felt the old burn-out syndrome pulsating down to my hands. I threw my entire assortment of manuals onto the floor and reached for the off switch, turning a deaf ear to the computer's pitiless beep, "I'm dying; I'm dying; I'm dying."

I haven't read any computer manual for several weeks. I'm bored with books that just have instructions and contain virtually no ideas. Finally, I've resolved that if I want to get good on the computer, I need to get equally good at other things. So despite the rain, you can see me dressed in my raincoat and galoshes, working the soil.

It's my way of going cold turkey...until my next computer fix.

\*\*\*\*\*

# NEWORD VS. WORDSTAR

## The Challenge of the Underdog

John Vanderwood, Editor/Publisher at Morrow

Those of us who know WordStar invariably love it, and are loath to adopt an unproven upstart imitator. But as someone who has acquired an intimate familiarity with both programs, I can assure you that the "unabashed top dog" of wordprocessing has a worthy competitor in NewWord.

There will of course be relative benefits in both WordStar and NewWord. This article will try to make a dispassionate comparison, and see which of the early criticisms of NewWord are justified. (See "Preliminary Review of NewWord" in February '84 BAMDUA Newsletter).

### Obvious Benefits of NewWord

The utter compatibility of NewWord commands and files with those of WordStar is not really a plus; it just means you can make an effortless transition. It also means that the wealth of third-party WordStar training manuals and accessory programs (like Random House Proofreader and WordIndex) are there for NewWord as well.

Above all else, NewWord's built-in merge printing may alone be worth the cost of the program. Writers can chain long documents across several files, even across disks; lawyers can assemble custom legal forms from scattered "boilerplate" files; commercial users can print reams of personalized form letters, envelopes, and mailing labels.

The dot commands that govern merge printing are identical to those in WordStar, with the exception of the obscure .IJ command. The result is that with NewWord, controlling the format of merge-printed text becomes a bit more complicated. (The discussion of advanced merge print details is the only weak part of an otherwise excellent NewWord User's Guide.)

Next on my list of definite NewWord advantages is the menu-driven installation program. Suppose you're ready to change the default help level. With Wordstar, you have to slog through the labyrinthine manual to discover that ITHelp: is the location to patch, after descending through layers of cryptic and irrelevant installation screens. You'll probably end up just using <ctrl>JJ every time you start WordStar.

With NewWord, all such details (margins, insert mode, and justification on/off, to name a few) are established with familiar and foolproof menus. Prompts and help messages make this NWINSTAL.COM program far less daunting than WordStar's equivalent INSTWS.COM. You will be more likely to take the obvious but hitherto frightening step of customizing your wordprocessor for your needs, and even creating several versions of NW.COM for various types of tasks.

Another minor but sometimes invaluable feature of NewWord is UNDO, or <ctrl>U. WordStar has a similar bail-out command that usually requires an extra ESC keystroke. Unlike WordStar, NewWord's <ctrl>U has the wonderful ability to "unerase" your last erasure: character, word, line, or block. So when you hit <ctrl>Y instead of <ctrl>T, don't groan; just do a <ctrl>U. (The buffer that holds erasures is only 100 characters long as shipped, so you wouldn't be able to unerase all of a large block. However, the size of this buffer is one of the things you can change with NWINSTAL.)

Now for a laundry list of miscellaneous NewWord niceties:

- o **Find a page** - You know how to find a certain page in Wordstar: try to locate some unique words on the page in question and search for them. NewWords uses <ctrl>QP to search for a page by its number.
- o **Embedded rulers** - NewWord's .RR command is not available in WordStar. You can read a modified ruler line (the one that marks margins and tabs) into your text with <ctrl>OO, and then overtype its first three characters with .RR. Now, whenever the cursor passes this dot command while you're working on the document, the current ruler line changes to the one depicted in the command. Normally you'd do this at the beginning of files that have unique margins or tabs. You can embed several .RR commands in a document at points where its margins or tabs change, if you like.

The .RR command more than compensates for the fact that NewWord, in contrast to WordStar, returns to the default ruler when you save a document.

- o **Speed** - NewStar tells me that NewWord is significantly faster when scrolling through a document and saving it. I can't attest to this; no one to my knowledge has done reliable comparisons. But it's certainly no slower than WordStar.
- o When creating a new document, NewWord stops to ask "Cannot find it. Create a new one (Y?N)?" At first, this may seem like a bother. But think: how many times have you mistyped a file name in WordStar, only to have to immediately type <ctrl>KQ, and then twiddle your thumbs while the abandon command processes?
- o **Improved printer drivers** - NewWord's printer drivers exercise many more of the advanced features available in dot matrix printers, like alternate character widths and microspacing. You

can also use more than one printer with NewWord without two different installations of the program, since one of your print-time options is selecting a non-default printer driver.

- o **Superior menus, help messages, and documentation** - For novices, the non-technicality of NewWord's online help is definitely an advantage. Its menus are "cleaner" to the eye. And while WordStar's 3.3 manual is far better than the 3.0 manual familiar to Morrow users, NewWord's is still a cut above.
- o **Handling of user numbers** - This is an issue with the MD-11 or other CP/M 3.0 systems only. WordStar has no provision for logging into various user areas or copying files among user areas. NewWord does have this capability. But that's a technical matter, so lets move on.
- o **Novice version of NewWord** - The novice version is a separately-priced option that may be useful to people with absolutely no wordprocessing experience. For the sake of simplicity, many features like block operations are not included, so it will be outgrown quickly.

#### Definite Advantages of WordStar

There aren't too many, but here they are:

- o **Column mode** - I've never used it, but others tell me that it's so cumbersome as to be almost useless.
- o **Dimming of marked blocks** - NewWord simply puts markers (<B> and <K>) at block ends, which is not nearly as nice. This is being changed, however; see below.
- o **Backspace backspaces** - WordStar filters the <ctrl>H of a Backspace stroke to be a <ctrl>S, or cursor-left. NewWord does not. Thus a Backspace under NewWord acts like a Delete.
- o **Print straight from memory** - WordStar's <ctrl>KP command (print document as is from memory without saving) is completely absent from NewWord. NewStar simply decided that it wasn't used enough to justify implementing it.
- o **Return and Insert Mode** - With WordStar, the action of the Return key depends on whether insert is on or off. With insert off, you can step down the screen with Returns. In NewWord, Return always acts as if insert is on. Therefore, if you try to step down the screen, all you do is insert a bunch of blank lines.
- o **Numbered in-text markers** - These are place markers used frequently by programmers so they can conveniently scroll around source listings (<ctrl>K1 to place it, <ctrl>Q1 to find it). Regular folks don't use them much, especially when you consider that they're not saved with the document.

## Matters of Taste

Some differences between NewWord and WordStar are judgment calls. The changes were made intentionally by NewStar, Inc., so I'll try to present their rationale.

- o **<ctrl>N, or Insert blank line** - NewStar Inc. opted to change the meaning of <ctrl>N from Insert a Hard Carriage Return to Clear a Hard Carriage Return. Now, I really miss WordStar's <ctrl>N. Any time I want to insert a blank line, I have to go to the end of the line above and press Return.

On the other hand, you know what a chore it is to clear hard carriage returns in WordStar. If you entered text with word wrap off, and then later decide you'd like to change its margins or justification, you've got your work cut out for you. Not so with NewWord. Flip a coin.

- o **Use of bright and dim** - WordStar dims its menus, and highlights your text (except for marked blocks). NewWord dims everything except keystrokes in the menus. Now there's a reason for this: AN UPCOMING RELEASE OF NEWWORD WILL UNDERLINE AND BOLD ONSCREEN INSTEAD OF DISPLAYING <CTRL>B AND <CTRL>S. Blocks will be marked with reverse video. Since bold will be highlighted, the rest must be half-intensity for contrast.

Of course, your terminal must be capable of displaying these attributes. Morrow's MDT-60 and MT-70 will work, as will the MD-3p portable Micro Decision. MDT-50 and 20 will not. Stay tuned - upgrades will be available for those with the current NewWord and WordStar.

- o **Return to defaults after <ctrl>KD** - NewWord has been criticised for returning to the default settings for justify, insert, margins, and help level after saving a document with <ctrl>KD. Now, this would be a hassle if it happened after <ctrl>KS, where you'd be working on the same document.

NewStar's line of thinking is this: Most of your documents will use the default values for these items. If most use other values, you should change the defaults with NWINSTALL, the installation program. If you're working on an unusual document and you've changed margins, etc., you're likely to be done with it after a <ctrl>KD. You'll be moving on to another document that probably does use the default values. With WordStar, you'd have to reboot to get the default settings back. In short, if you're changing margins, help level, or anything else too frequently, you should change the default settings with NWINSTALL.

See also "Embedded rulers" above.

- o **What constitutes a word** - A picky matter, perhaps. Well, if you wanted to correct hickory-dickory-duck with WordStar, you'd have

to use repeated <ctr>S's to move into the phrase, since a <ctrl>F moves you past it. Not true with NewWord. Also, if you wanted to erase just "hickory," you'd need to use seven <ctrl>G's, because <ctrl>T would erase the whole phrase. Again, NewWord sees the dashes as word-borders.

Now the down side: When you erase a word (<ctrl>T) under NewWord, it eats up the spaces between it and the next word. So you end up going "CONTROL- T- SPACE" a lot.

- o **Cursor placement after <ctr>KS** - WordStar leaves your cursor at the beginning of the file, with a message to enter <ctr>QP if you want to go back to where you were. Any other keystroke, even a stray one during the save, disables the option. NewWord takes you back to where you were regardless. I agree with Mr. Tannenbaum's mixed feelings about this. In any case, the difference is not significant.

### Conclusion

This article has challenged or conceded all of Mitchell Tannenbaum's criticisms of NewWord in the February '84 BAMDUA Newsletter, except one: refreshing the directory display after switching diskettes. The NewWord Opening Menu command for this is L, to log onto a new disk. You must do this whenever you change disks, so I don't know how it escaped his attention.

In the opinion of this professional writer, NewWord is undistinguishable from WordStar in all important areas. Where the two programs are not exactly identical, NewWord has more marks in its favor than does WordStar. Regarding the ease of changing the installation options and the quality of the documentation, online and manual, it is quite superior. And with merge printing included, it is an exceptional value at \$249.

**(NB: Owners of WordStar.** Morrow has contacted dealers with the information that an upgrade from WordStar to NewWord is available for customers for a special price of \$100. The customer must make the upgrade trade through a dealer. Only ORIGINAL WordStar distribution diskettes will be accepted and your dealer might require full payment at the time of the order. Editor.)

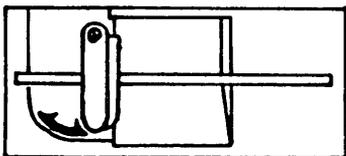
-----

BETTER LATE THAN NEVER DEPARTMENT: Your BAMDUA newsletter is mailed on the 15th of March, 1984. We save lots of money by mailing it BULK RATE. This may cause problems. If your copy arrives later than March 23rd we would like to hear about it. Give BAMDUA a call or drop a note.

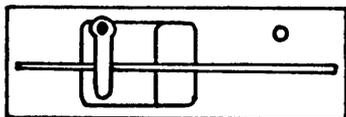
-----

# MEET THE DISK DRIVES IN YOUR MORROW

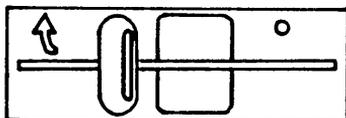
by Sytko Andreae



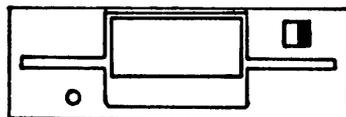
SHUGART SA200



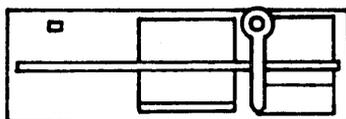
SHUGART SA455



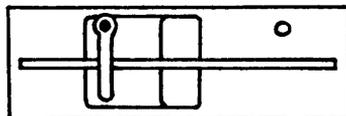
QUME QT142



TOSHIBA DDF-30



TEC/NSA F5503



MATSUSHITA JA551

Ever wonder what the names of the disk drives in your Morrow are and who makes them? One day you may have to face your dealer or his technician with a drive problem. If you start blubbering about what's wrong with your disk unit he may lend you an ear, but if you say: "Listen, I have a Toshiba drive with the "sleepy drive" syndrome ..." he may really pay attention: Hmmm, a customer who knows of which he/she speaks ...

May I introduce you to your disk drives? All floppy-drives on the Micro Decisions are Double Density (DD). If you have an MD-2 you most likely have SHUGART SA200 single sided (SS) drives. They have a door handle and a red arrow to show you the way. Put SS and DD together and you will understand why the floppies you buy for these drives are called "SSDD, soft-sectored".

If you have an MD-3 you will have any one of four makes of double sided (DS) drives shown in the picture alongside. You feed them with "DSDD, soft-sectored" floppies. True, you could use SSDD floppies in a DSDD drive, but then you take a cut in reliability.

Notice that the MD-3 drives only take up half the space of the MD-2 drives. In the MD-2 two whole 3 1/2 " high slots are taken up by the A (left) and B (right) drive, while in the MD-3 only the left slot is occupied by drive A (bottom) and B (top). Now you know how to tell an MD-2 from an MD-3 just by the looks of it. You'd be surprised how many users don't know the difference, or even care to know.

The SHUGART SA455 drive is nearly identical with the MATSUSHITA JA551 drive at the bottom of the picture. The TOSHIBA DDF-30 is the only one with a little springloaded door and drive lock switch. If you move that switch to the left you cannot open the door anymore, so your toddler is inhibited from removing your precious data or program disk and consuming it whole. The TOSHIBA drive is not shipped anymore with MD-3's. If you got your MD-3 recently you may have the TEC/NSA F5503 drive.

Why has Morrow sent all those different drives in the field? Well, it is a matter of wheels and deals, delivery times, etc. But fear not: All these drives adhere to the same standards of writing and reading disks and you may never know the difference.

### The "Sleepy drive" syndrome.

Recently users reported a problem with some of these MD-3 drives. Suppose your drive had been sitting still for some time, while you were carefully re-phrasing your WordStar lines on the screen. Now you do something that calls the disk into action. Very rarely but most annoyingly the drive may never get up to speed. It may try to go and putter a bit with its red light glowing, but nothing else happens. Finally CP/M runs out of patience and proclaims "Disk error: drive B not ready", right in the middle of your carefully honed WordStar phrases.

You just witnessed the "sleepy drive" syndrome, caused by stickiness of the head. No, no, not your head. Relax. Contrary to what many users thought when they witnessed this: **This is not your fault.**

What happened? Let's take a look inside the drive. As long as the drive is not spinning the read/write head is actually touching the disk surface. Wouldn't that scratch the disk? Not really, because when everything goes alright at the time the disk starts spinning, the head actually "takes off" like a little airplane. When the drive is up to speed it flies low -- very low -- over the disk surface.

Pilots among you may recall what "ground effect" is. The head actually flies in "groundeffect", barely, but not quite, touching the disk. Close enough to pick up the magnetic field changes that bits and bytes are made up of, but not so close that it scratches the floppy surface. When the drive stops spinning, the head more or less gracefully "lands" back on the disk surface again, and slides to a stop.

This is what happened when the drive failed to come up to speed: The read/write head was sticking to the disk surface like two panes of glass. The little airplane was unable to take off. Sea planes (float planes) have the same problem on a mirror-flat lake. A well known trick of bush pilots in such a situation is to taxi around the lake to destroy the glossy mirror and then take off in their own waves.

## Wake-up cure for sleepy drives.

One nightmarish aspect of this problem was that it occurred so rarely. If something fails all the time at least you can repeat the circumstances and study it. Not so in this case. Nevertheless the Morrow engineers figured out that certain very flat heads, positioned over certain tracks on certain floppies had a propensity for sticking, enough to occasionally balk an attempt of the drive motor to overcome the resistance:

"Putter..putter...put.....put.....put." Silence.

Unlike the bush pilots the Morrow engineers could not very well create waves. Instead they solved the problem by jiggling the head back and forth at the time the drive was asked to start spinning. That did the trick. A nice "work-around" as this kind of solution is called: It does not really solve the problem but it gets around further hang-ups. And that's really all you need.

So blame yourself no further for having done something to bring the wrath of CP/M diagnostic messages upon you. Ask your dealer for replacement of your ROM with ROM Rev. 2.5. It will faithfully do its little head-jiggle and keep you out of further trouble.

\*\*\*\*

# I'VE GOT MY MODEM WORKING

By Richard Anderson

Toward the end of February Sytko conducted a modem class at his lovely house nestled in the Berkeley hills by the Claremont Hotel. From the wooden shoes on the front porch to the rather equipped computer room the experience was a joy, and a thoroughly instructive one at that.

There were six of us, from dog paddling novices to somewhat practiced former beginners. The writers were keyed on electronic manuscript submissions. The student and the professor wanted to develop slicker access to their university mainframes. Our photographer was looking to get at Photonet. And everyone was interested in the full range of modem possibilities.

## The Setup

Sytko had a MD2 and a MD3 set up with a Racal-Vadic and a Signalman modem, and two phones. He makes do with a mere two telephone lines, though I fail to comprehend how he gets by without, say, a half dozen to handle all that traffic. He started us off with a bit of modem theory and a general discussion of Modem7,

backed up by a handout for later perusal. Then we were tossed into the deep end of the pool.

We took turns in the hot seat before the two terminals and wrote messages back and forth. You have to hit the return and the line feed after each line. Then when you've completed your remarks you indicate it's your partner's turn by tossing in three or more line feeds, which is like saying "over" in a CB conversation. There was some hilarious overlap and cross-communication until we got those conventions smooth.

### The Control "E" Scenario

Learning how easy the commands ^E and RET allow toggling back and forth between the Modem7 menu and online status lent a certain sense of control over the business, plus the security of having a means of recovering from atrocities. One person has to be in TERMINAL mode and the other in ECHO for the typed words to appear on each screen. The TERMINAL terminal can have a filename declared, such as B:CONVERSE.TXT, and by toggling ^Y selectively capture all or part of the conversation. We CONTROL-Eeed back to our menus to flip flop these modes and practice both procedures. In order to actually save the captured chatter to disc it is necessary to issue the WRT command, though if you forget this item and attempt a fatal premature departure Modem7 is sufficiently avuncular to remind you.

With this little experience and Sytko's instructions it became a simple matter to send files back and forth between the machines. We even worked up to sending batches of files at a crack. Visually, that is a highly satisfying process. First a list of the files appears and then 128 byte blocks begin streaming through the modems with corresponding announcements on both screens. Computers are not beyond error. The checksums to determine the accuracy of transmission would occasionally not match and that block would then be resent. Certain obstinate blocks took several tries to cross the phone lines without casualties.

### CBBS, Here We Come!

Our final activity was dialing onto a CBBS. Even though we had become such veterans that when Sytko told us what to enter we could do it without thinking, there was still an innocent joy at seeing the modem's Carrier Detect light blink on, announcing the connection. We fiddled around with the possibilities and procedures of the bulletin board scene and observed that 1200 baud is a rapid and elegant Maserati of a baud rate, compared to plodding along at a mere 300.

My Signalman XII manual and the Modem7 documentation now make abundant sense after this experience, which was surely worth the \$10. This report was beamed in to Lenore via modem.



- ★ Open 7 Days
- ★ Pick Up and Delivery
- ★ High Quality Duplication

2425 Channing Way, Berkeley, Ca. 94704

20 SELF SERVICE MACHINES  
NO WAITING  
NO CHANGE NEEDED  
HELPFULL STAFF

DUPLICATING  
BINDING  
PRINTING  
PAPER SALES\*  
OFFICE SUPPLIES\*  
TYPING & WORD PROCESSING  
COMPUTER PAPER\*  
ENVELOPES\*

(415) 843-6000



\* TOLL FREE NUMBER: (800) 221-CLEO Ask for Dale or Debbie

ORDER 100 COPIES OR MORE  
ON OUR NEW MODEL 1645 SELF SERVICE COPIER  
and  
RECEIVE THE FIRST 50 COPIES FREE  
OFFER EXPIRES MARCH 30, 1984

# UTILITIES IN REVIEW

## HOW TO USE SD-44

(On Library Disk Number 5)

By Sytko Andreae and Lenore Weiss

On your BAMDUA library disk volume 5, you will find SD-44.COM and its documentation SD-44.DOC. SD stands for "Super Directory" program. It provides the same function as DIR from CP/M (or XDIR and DIR22 from the public domain) but does a much better job.

SD-44 is particularly helpful in creating a printed listing of all the files on a disk. You can insert this listing into the sleeve (or paste it on the front) of your disk as a reference. This way, when you pick up that old floppy two months down the road, you'll know what it contains without inserting it into the drive. In fact, you may want to do this for all your library disk copies!

The four-page documentation is somewhat arcane, although better than most public domain documentation. A good way to print it out is to use PIP:

```
A>PIP LST:=B:SD-44.DOC[P60N]
```

This will keep the printout from running off the page end. The 60 in P60N limits the page print to 60 lines. The N in P60N numbers the lines for you and supplies a much needed left margin.

The main problem with SD-44.DOC is that it assumes you have all the previous documentation available, and of course that ain't the case. This article's intent is merely to get you going on the most useful features of SD.

### Getting a Listing on Your Terminal

Now, say you want to get a (terminal) listing of all your files on the B: drive. Here's what to do. Place disk number 5 in your A: drive. Or better still, PIP the SD-44 file from your library copy onto your WS system disk (drive A:) By the way, if you get an error message while PIPing, it might mean you don't have enough space on your A: disk.

Exit to CP/M. Now type:

```
A>SD-44 B:
```

This is what appeared on my screen when I tried this with the current newsletter disk.

```
BURNOUT . 6k          NOTEPAD . 14k
FILLER . 4k
MAILBOX . 8k          etc.
MODEM . 4k
```

--> Drive B, user 0 contains 102 in 19 files with 84k free.

To accomplish the same feat with drive A type:

A>SD-44 or A>SD-44 A:

If you only want to reference a particular file, say on drive B:, type:

A>SD-44 B:NOTEPAD

This is what I saw when I tried it:

```
NOTEPAD . 14k
```

--> Drive B, user 0 contains 14k in 1 files with 84k free.

Apart from SD-44's ungrammatical construction, everything else is perfect!

### Getting a Printed Listing

O.K. Now you want to create a printed directory which you can insert into the sleeve of your disk. Here's what to do. My challenge. I want to create a printed listing of all the newsletter files (on my B: drive) so I can bring it to the production meeting. This way, we'll better know our space requirements. I type the following:

A>SD-44 B: \$P

That's all there is to it! The same listing which appeared on the terminal screen, was now in my hands.

### Creating An SD-44 Directory File

Spurred on by my accomplishments, I now have a plan. I want to take a stack of those newsletter disks which have been accumulating on my desk, and create a directory for each one. Now, I could just individually print each directory as I inserted and removed the disks. But there is another and perhaps better way. SD-44 allows me to create a Directory File. I can create a directory of all my files in one fell swoop, and then print the mess when I'm finished. This is what I did. I began to insert each disk. But this time,

instead of sending the output to the printer with the "\$P" command, I did thusly:

**A>SD-44 B: \$F**

This creates a SD.DIR file on the DEFAULT drive. (In my case, Drive A:.) If SD.DIR already exists, the output will be added to the file. Great. I won't write over the previous directory. When I'm through creating my one giant SD.DIR file, I simply printed it via WordStar.

### Other Things

You don't have to individually use the "\$P" and "\$F" instructions. You can use them together on the same line. In fact, once you get through the SD-44 documentation, you'll learn that SD-44 can handle up to eight instructions at one time. For instance:

**A>SD-44 B: \$PF**

You can also specify a user area directory search which is particularly helpful if you happen to be a hard disk owner. To do this you would indicate:

**A3>SD-44 B: \$u5PF**

This command tells SD-44 to give me a listing of all the files in user area 5 (sigh, if I only had a hard disk!) and also to print the directory, as well as to create an SD.DIR file on my DEFAULT drive.

Well, have fun with this one. It's a handy utility.

\*\*\*\*\*

BAMDUA OFFICERS	
President	Sypko Andreae
Vice President	Mitch Tannenbaum
Newsletter Editor	Lenore Weiss
Librarian	Mitch Winzenread
Advertising Director	Debra Novitz
At Large	Jeff Weissman
At Large	Lily Pond
At Large	Charles Tart

## SHORT STOPS

\*\* Off the record, if you want to keep your original WORDPATC.COM, copy the disk before you use it to enhance WS. It erases itself.

Anonymous

\*\* According to Gregg Stratton, who writes a column about personal computers that appears regularly in the San Francisco Chronicle: "In my opinion, the Morrow computer is a great value. For a reasonable price, you get a good, complete system; I've never heard any complaints about the Morrow computer." -- from "The Computer Consultant," February 22, 1984.

\*\* At our last BAMDUA meeting, David Block, Project Manager at Morrow, was exceedingly glum that he has only received two letters in response to his Micro Decision Questions and Answers book. Put a few letters in the poor guy's mailbox! Write him at 600 McCormick Street, San Leandro, CA 94577.

\*\* To all those attempting to seduce their printers into proportional spacing, there's a manual called Proportional Spacing on WORDSTAR which is available from Writing Consultants, 11 Creek Bend Drive, Fairport, N.Y. 14450. It tells you how to get a number of things like proportional spacing and two-column text with NEC, Diablo and Qume letter-quality printers. A friend of mine writes: "The instructions do work but it is definitely not simple, involving the use of INSTALL to feed new hex codes in for all of the ASCII characters, and changing the hex code so as to disable bidirectional printing as controlled by the printer (though the bidirectional printing keeps us, controlled by the software), and there are other things that have to be learned about short lines, which don't always justify right, and lines of caps, which tend to compress too much. But the moment when the first page came rolling out in actual proportional printing was nevertheless like the discovery of the sources of the Nile..." The manual is \$20.00.

\*\* TURN YOUR RADIO ON: Some of the words spoken by Bob Krumm on our January 31st event will be aired on KQED FM 88.5. Tony Czaikofsky recorded it, William Rodarmor edited it for his part in the program SILICON VALLEY, Labor Relations in the High Technology industry. Monday March 26th at 7:00 PM.

\*\* Sorry to dash your expectations, but the Members Directory information form will be printed in the next issue, not this one.

\*\*\*\*\*

# ALL THAT'S CLASSIFIED

BAMDUA members can advertise in the newsletter for free! To place a notice (no more than 6 lines), send your information to the newsletter. Please write "CLASSIFIED" on the envelope. Thanks.

\*\*\*\*\*

Looking to buy used MD3 computer only (do not need a terminal).  
Say about 25% less than current discount price?  
Terry Dill, (408) 287-2961.

\*\*\*\*\*

Call DUTCH TREAT (415) 654-3798 for special deals on some goodies:  
ANCHOR AUTOMATION: SIGNALMAN VII Modem (300) \$105  
(no software) SIGNALMAN XII Modem (1200/300) \$290  
Terminals: QUME 102A (Amber!) \$539, Wyse 50 (call), Freedom 100 \$460  
OKIDATA 92 Matrix printer, serial or parallel, +/- tractorfeed (call).  
Friendly and patient introductions to all this complex stuff.

\*\*\*\*\*

## MUCHAS GRACIAS

Many KUDO's to LIBRARY COPY CAPTAINS and their teams. The captain's names are: Frank Oechsli, Hoover Liddell, Gene Korte, Mike Hallet, Dorothy Mehrten and Dan Robinson. Great work, teams!

Many thanks to all Newsletter Production Crew members who gave up their weekend to put this issue "to bed."

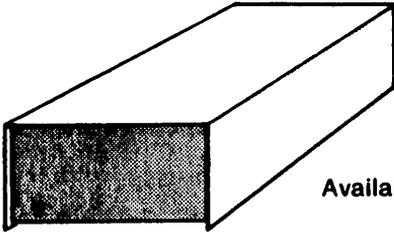
This includes, Sypko Andreae, Georgia Babladelis, Pete Campbell, and Dana Gaskin.

-- Lenore Weiss

\*\*\*\*\*

# OUR WIZARD PROCLAIMS...

*"Increase thy memory with  
our Hard Disk Subsystem."*



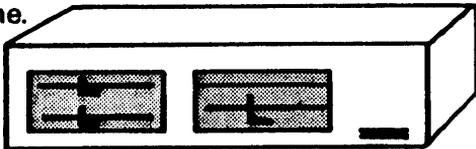
10mb...\$1995.00  
20mb...\$2795.00

Available for all Micro-Decision Models

## EXORCISE YOUR "DISK FULL" DEMONS with our High-Capacity Drive Kits

Our Dual 800K drive kits will make your Micro-Decision a serious business machine with an additional 1600K storage on line.

Call for more  
information...



**\$895.00**

## A POTION FOR YOUR POCKETBOOK!

Eurotech "White Label" Diskettes



Qty.  
10 ...\$2.20 ea.  
100 ... 1.95 ea.  
1000... 1.75 ea.  
1 Year Warranty

Includes Jacket and Write Protect  
Tab

## DOWNLOADING & DUPLICATION

☆ Our Alchemist can transform your 8" disk to 5" Morrow format. \$15.00 per destination disk.

☆ Need Multiple Copies?...We can solve your duplication problems. Many formats available; Call for pricing.

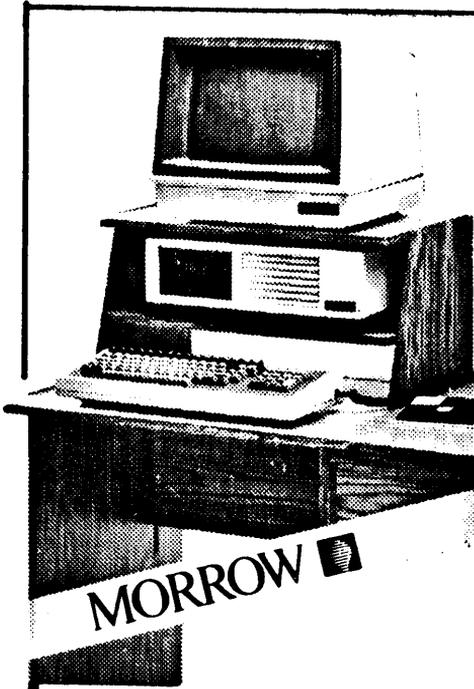
☆ CP/MUG Software available for Morrow Owners, Pre-configured versions of MODEM 7.

**FROM THE WIZARDS AT:**

*eurotech*

117 CORAL  
SANTA CRUZ, CA  
95060

**(408) 423-8334**



**MORROW** 

**MORROW MD-3**

With: Std. Software\* ---\$1999  
 Plus: Letter Quality Printer  
 for \$495 with  
**FREE CABLE & TRACTOR**  
 Smart Checkbook  
 or  
 Supercalc

**MORROW MD-11**

(10.8 Meg Winchester!!!)  
 With: Std. software\* ---\$2995  
 Plus: Letter Quality Printer  
 for \$495 with  
**FREE CABLE & TRACTOR**  
 or  
 Supercalc 2  
 or  
 Computer Desk  
 or  
 Smart Checkbook &  
 Hypertyper

**PRINTER SPECIALS**

TTX-1014 Letter Quality: 12 cps  
 Tractor/Friction feed  
 Works with all Morrows!!  
 with **FREE CABLE** -----\$550

MP-100 Letter Quality: 12 cps  
 with **FREE CABLE & TRACTOR**  
 -----\$595

(with serial interface--\$645)

For Morrow MP-100/200/300:

Print Wheels

(10, 12 & 15 pitch) -----\$ 19

Multi-Strike Ribbons -----\$ 9

Tractors -----\$110

**SOFTWARE SPECIALS**

NewWord Upgrade\*\* -----\$100

Supercalc -----\$100

Supercalc 2 -----\$200

Smart Checkbook -----\$100

\* Word processor and CP/M  
 fully installed for  
 your printer. Plus 3 hrs.  
 "hands-on" instruction & un-  
 limited telephone support.

\*\*Must trade-in WordStar  
 distribution disk.

**WORLD  
 BUSINESS  
 CENTER**

**CALL (415) 941-3269 TODAY**

12186 Winton Way  
 Los Altos Hills, CA 94022