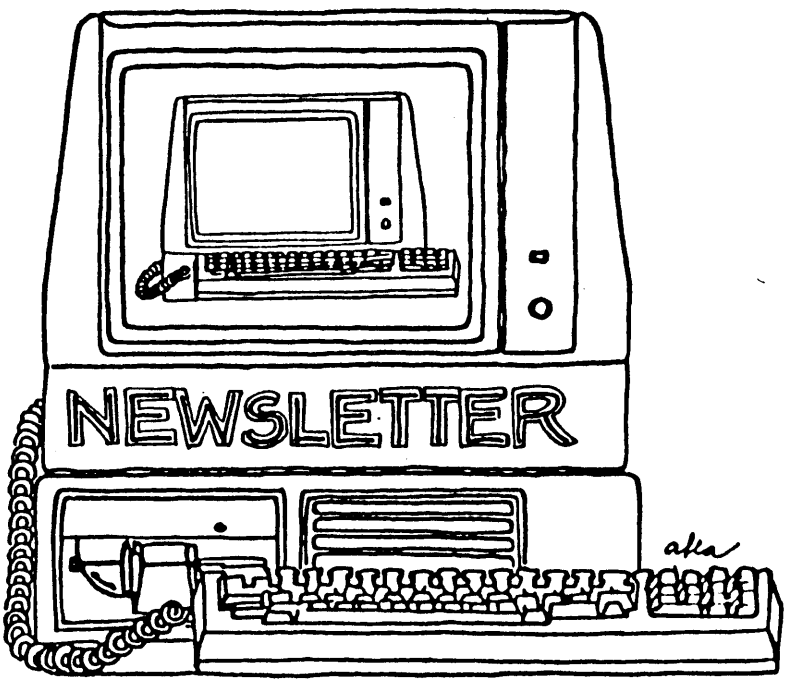
June 5, 1985 Volume 3 Issue #6

BAY AREA MICRO DECISION USERS ASSOCIATION

BAMDUA



A MUTUAL SUPPORT NETWORK FOR USERS OF MORROWS' MICRO DECISION COMPUTERS-

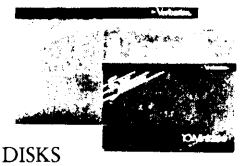
P.O. BOX 5152, BERKELEY, CA.94705
415 : 644-2805

BAMDUA Readers Save

DYSAN
SS/DD..... $19.95
DS/DD..... $29.95

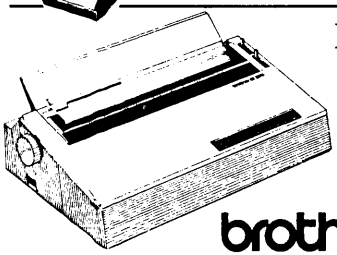
DATALIFE
SS/DD..... $14.95
DS/DD..... $24.95

Flip File
$12.95

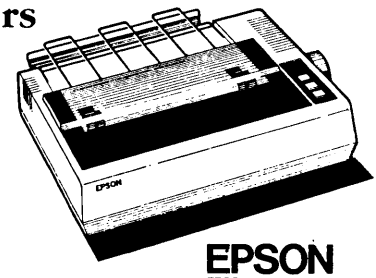


8" DISKS
Dysan/Maxell $25.00

Printers



HR 15-XL..... $339.00
HR 25..... $549.00
Okidata 92 ... $369.00
Juki..... $299.00



EPSON
EPSON AMERICA, INC.

LX-80..... $249.00
FX-80..... $375.00

Modems: 300 Baud Modem $69.00 300/1200 Baud Modem $249.00

- Recycle your used ribbon cartridges and save $1 on new ribbons. (few exceptions)
- Thinking of trading in your old system? Talk to us about trade-ins on IBM and other name brands.

For sale prices, show this ad at time of purchase (photocopies not honored).

*Home of **SOUND TOOLS** Computer Music Service*

All prices include 3% Cash Discount • All items subject to stock on hand

CALL
(415) 843-2743
Ask about
FINANCING • LEASING
Available

SPIN-TRONICS
THE COMPUTER STORE OF BERKELEY

Open Mon - Sat
10am - 6pm

VALIDATED
FREE PARKING
with purchase

2490 Channing Way, Suite 219 at Telegraph • Berkeley
VISA and MASTERCARD Accepted • Add 10% for open accounts

TABLE OF CONTENTS

Table of Contents	1
Bamdua Officers	2
Newsletter	2
Meetings	3
From the President's Disk	5
Notes from the Berkeley Meeting	6
Pass the Notepad	7
Special Deals	9
Software Review: DataPlotter	12
Left Margins by Dot Command	19
Modem Talk - The Bamdua BBS	22
Classifieds	25
Order Blank for Library Disks	26
Items Available	27
Order Blank for Newsletter Issues	28
Thanks	28

Advertisors:

Spintronics	inside front cover
Digital Deli	5
Morrow Owners Review	8
Westwind Computers	10, 11
World Business Center	inside back cover

This Newsletter is printed by Bacchus Press, 1715 University Ave., Berkeley, CA. 94703, (415)843-8130.

BAMDUA OFFICERS

President	Sypko Andreae
Vice President	Mitch Tannenbaum
Newsletter Editor	Georgia Babladelis
Librarian	Eugene Korte
Treasurer	Dave Rosner
Advertising Manager	Geoffrey Lee
At Large	Jeff Weissman
At Large	Peter Campbell
At Large	Stan Naparst
Bamdua Staff	Dana Gaskin

NEWSLETTER

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

- Submit material before the last Saturday of the month
- Submit hard copy along with a WordStar file on a SSDD diskette; left margin, default; right margin, 68 and right justified. (NewWord files are acceptable).
- Include your name, address and telephone number
- Send newsletter materials to: Newsletter Editor
  BAMDUA
  P.O Box 5152
  Berkeley, CA 94705

Your disk (and "gift" for articles published) will be returned to you.

If you have questions about newsletter submissions, call me afternoons only on Wednesday or Friday (415-843-8167). If you have other questions about BAMDUA, call the BAMDUA 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. Please remember that the deadline is important in order to enable me to plan and produce the Newsletter.

If you intend your article for the BAMDUA NEWSLETTER, then be sure to address it to: Editor, Newsletter (per above instructions). Some people have said that they submitted an article to the Newsletter, but it did not get to me. I saw it published in MOR, so the writer either mis-directed it or mis-remembered where he sent it. Thanks. --Georgia Babladelis, Ed.

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

Monthly newsletter, Vol. 3, Issue 6 June 1985

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 will take your messages from 12:30 on. When Dana is in the office, she 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, June 25, 1985 7:30 p.m.                      +
+   WHERE:   West Branch, Berkeley Library                         +
+            1125 University Avenue, Berkeley                      +
+   GUEST:   (none)                                                +
+   TOPIC:   Special interest group discussions                    +
+                                                                  +
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
```

PLANNING AHEAD: Information about next month's meeting.

WHEN: Tuesday, July 30, 1985, 7:30 p.m.
WHERE (etc.): To be announced

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)

SCMDUG (Santa Cruz Micro Decision user's Group) is now meeting the first Thursday of the month at P.C. Land, 245M Mount Herman Road, Scotts Valley, 7-9 p.m. Info: Marianne Russell, Sect'y, 425-2061, office; 438-0662, home.

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:

Classes are scheduled as soon as enough participants sign up for them (a maximum of 5-6 people, except for Personal Pearl: max=14). Mail $10 to BAMDUA to reserve a space in class. For information, call BAMDUA (415) 644-2805.

MODEM7 etcetera.

Intermediate CP/M class,

Novice Emergency Clinic,
A class especially to get over beginners frustrations.

Personal Pearl Class,
This is the third PP class taught by Rick Rowe, formerly of Morrow. Half the participants must bring an MD3 and a working CP/M diskette.

Public Domain Software.

QUEST ACCOUNTANT program.

Advanced CP/M and Systems class.

TOUR OF MORROW: If there is enough interest, a fourth tour will be scheduled. Call or write the BAMDUA office to get on the list.

ANNOUNCEMENTS: June 22 - San Jose, CA: Computer Swap America offers another of its one day personal computing bargain shows at the Santa Clara County Fairgrounds. New and used computer hardware and software, components, accessories and more are available from sellers in an informal indoor setting. Open from 10 AM to 6 PM. General admission is $5. For more information call (415)366-9162 or write Computer Swap America, PO Box 620107, Woodside, CA 94062.

EXPLANATION: Last time we printed an update on the help call list. This is not a list of people who have offered to help with problems. It is an update of the DIRECTORY, which lists people and what equipment they have. It is helpful to know if someone else has what you have and, possibly, to exchange information.

FROM THE PRESIDENT'S DISK

By Sypko Andreae

This short note reaches you from deep in the redwoods. We are here with many men together, deeply engaged on work to beautiful and too significant to describe -- and all without a telephone, without power, and, needless to say, without computers. I am far away from you, but I am thinking about you. While you are involved in your daily pursuits, perhaps using your computer, I have the privilege of looking at our busy efforts as computer users from a distance, to ponder why we need BAMDUA with its newsletter, why we need the MORROW OWNERS' REVIEW, and how we wound up in this business in the first place.

I was wondering how I was going to get this note to you and even considered carrier pigeons. Then someone loaned me a postcard.

Even though I can't be with you this month, I'll be back later, and I look forward to writing to you about more thoughts from the redwoods. These are huge, wise trees and they have a lot to say to us puny computer users.

(Sypko is attending a men's workshop in Mendocino County.)

DIGITAL DELI COMPUTER STORE
80 W. EL CAMINO REAL
MOUNTAIN VIEW, CA 94040
415 961-2670

MORROW COMPUTER SPECIALS

Demo Diablo 630 Printer w/tractor	$1000.00
*Demo MD3 w/complete software	$900.00
*Demo MD2 w/complete software	$700.00
Demo MP100 Printer	$300.00
FX80 Printer	$399.00
used MDT20	$250.00
refurbished MD11 w/an MDT70 terminal	$1795.00
SmartKey II software	$29.95

All the above equipment is under warranty

* w/o terminal

NOTES FROM THE MEETING - BERKELEY

by Peter Campbell

OF BREATHING AND BREAKFAST

Some of Jeff Berner's random thoughts

Jeff Berner is an author who bought a TRS 80 5 years ago, and a Macintosh in January. He could still entertain an audience of MORROW owners. The following are some excerpts from his presentation to the BAMDUA members at the April 30 meeting.

"Our brains work like RAM - remember what you had for breakfast? Were it not for Random Access, you would have to trace your whole history from the time you were born, to your breakfast this morning. Breathing, on the other hand, is controlled by your ROM - you don't have to think about it at all."

"If aircraft industry technology had increased as fast as computer technology, a Boeing 747 would circle the earth in five hours, on 5 gallons of fuel."

"Advances allow us to do ten times the work in the same time, or the same work in 1/10th the time. Employers don't see it this way, and think work output should match the new technology."

"I decided to write computer manuals after trying to decifer the ScripSit manual that came with my TRS 80. I found there was a real market for this type of book, because manuals are not written by real people. I was a Beta tester for a $6,000 machine."

"Data is just a bunch of Bits and Bytes until you ask questions of it, then it becomes information."

"People who resist computing the most are those who are already experts in their own field."

"Users groups are for networking, and problem solving. If it works, don't fix it. If it doesn't work, network!"

"Until 8 years ago only big business and governments had computers."

"The future of manual writing is going towards on screen tutors."

"Even though computers are wonderful for indexing, most manual writers have not figured out how to do it."

"The KayPro is big and ugly because market research showed this to be what many people expected."

"Don't worry about the industry passing you by. The Morrow is a good machine that does the job. There is no point to change until you really do need something bigger and more powerful."

"Now that we have computers, we don't have to be computers."

And so went the evening. What does all this mean? Probably nothing.

*****

PASS THE NOTEPAD

Q: I have been trying to get a Radio Shack TRS 100 to communicate with my MD2. N.W. Uissar (Morrow Owner's Review, v.1, no. 3, p. 27) described a method for getting the two to communicate that is based on a program called MORMODEM. Where can MORMODEM be obtained? I would like to talk with anyone who has successfully linked a TRS 100 to an MD2. Can another modem program (MODEM 7?) be used? Bill Clemens, 415/525-3387.

A: Wes Johnson, 415/444-0568; Warner Brown, 415/469-7564.
A: Fairly simple. Can use PIP. There is a NEC8201A/RS Mod 100 users group. Meets first Thursday, Room 208C, College of Alameda, at 7:30. Frank Oechsli, 415/527-6089.

Q: On an MD3/MT60, My Smartkey/Fixkey adds a letter after the < when I try to code function keys. It reads like this <A...for F2. How can I fix this. Bud, 415/567-9868.

Q: Is Morrow going to preserve its honor by supplying Smartkey with MDs in a version that WORKS with MDs? Also, I need info on properly installing BYE on MDs. Dan Robinson.

Q: Is Stewart Brand's NET up and running? Bob Twip.

A: Yes, for about a month now.

Q: Does anyone have a keyboard/terminal manual for the MD-3P showing escape sequences, etc.? Or does the MDT60 manual cover this terminal? Andrys Basten, 415/548-2249.

Q: Where can I download or copy MEX (Newsletter #10, 11/84) communications program?

A: Check BAMDUA Library Volume 24 and 25.
A: I beleive MEX is on Computer Languages BBS; why not upload it (again) to the Morrow BBS when you have it.

Q: I have MD3, Promodem 1200, Epson printer with parallel cable. I can't get the MDMXX progrms to run the printer with a control C. Any help? T. Rowmar, 415/524-7297.

A: Yes. Pete Campbell, 415/525-7464.
A: The version you have may not have the Ctrl-P feature enabled. Gene Korte, 415/525-8944.

Q: Has anyone added floppy drives to MD3 (Rev. 1 board)? John, 415/526-7406.

Q: My Daisywriter printer went down today. Anyone know where I can get it serviced in the East Bay? Call anytime. Stan Naparst, 415/525-2086.

Q: Has anyone installed ZCPR? I've tried but can't get through the 4 step tutorial. Wil Chandler, 415/893-7692.

A: It's been a while, but call. Dan Robinson, 415/776-6705.

A: I have installed ZCPR (BAMDUA.012) on my MD3, an MD2, and modified it to install on a hard disk addon to my MD3. Give me a call. Gene Korte, 415/525-8944.

Q: I have an Okidata M92 (serial) running on an MD3. I have continual problems with extra line feeds between pages when printing from WordStar, Turbo-Pascal, etc. Robert Bushwell, 415/841-3243.

A: Make sure that the printer switches are set correctly. Gene Korte, 415/525-8944.
A: I just installed the serial board in an M92; call me. It's almost certainly an incorrectly set DIP switch. Steve Torrence, 415/6442-6322, days.

Q: Has anybody had trouble with PIP C: = b:file? Usually CP/M says "Your 1ft drive is being reassigned" but mine now says "Error on disk drive C - dive not ready." What do you do? Dorothy Stroup, 415/841-9758.

*****

SUBSCRIBE? Yes, indeed!

Greetings BAMDUA Members! Have you subscribed to the Morrow Owners' Review yet? If you send in your $18.00 for a years subscription today you won't miss the June '85 issue! ($32.00/2 yrs.) Just send your name and address along with your check to Morrow Owners' Review, Attn: Subscriptions, P.O. Box 5487, Berkeley, CA 94705. MORE MOR!

SPECIAL DEALS

1. CHECKS & BALANCES

CHECKS & BALANCES is being made available to our members at a 15% discount. It retails at $74 (plus CA tax and shipping); members can have it for $71 (plus CA tax and shipping). Send your check or money order to VALCON, 1260 Westwood St., Redwood City, CA 94061. Specify your machine type and disk format.

I am not familiar with the program. It is described as "an excellent home budget management program that not only balances your checkbook but keeps track of all kinds of expenses and prints detailed reports for you and your tax preparer."

Some of the features listed are: (1) Unlimited categories and checkbooks. Up to 4,000 entries possible on a 390K disk. (2) Ready to run. No need for Basic or any other program. Compiled in PL/I to run fast. (3) More powerful and easier to use than programs costing much more. (4) Disburse entries to five or more categories simply by filling in the blanks. No complicated procedure as with other programs. (5) Prints out all items flagged as tax deductible at year's end for easy tax preparation.

CHECKS & BALANCES offers an extensive set of printed reports. It can print many types of checks. Using the included Rolodex, all entries or a selected set may be printed as labels, rolodex cards or 3 x 5 cards. It is available for CP/M, MS-DOS AND IBM PC.

---

2. UNIFORM

An upgrade of UNIFORM (version 3) is available for hard disks. Persons alreading owning UNIFORM may turn in their distribution disks plus $18 and get the upgrade. Persons wanting to purchase UNIFORM may benefit from a group purchase. The retail price is $69.95 but if we have 10 or more purchasers, we can get a rate of $44 (plus taxes and handling, of course); if we can get 25 or more purchasers, the price is even better: $39.75. UNIFORM was reviewed in Morrow Owners Review, V.2(2), April 1985, p. 23 by Tim Evans. Take a look. If you like the idea, call me to make arrangements.

Gene Korte
415/525-8944

3. GRAPHICS SOFTWARE - UPDATE

In the last issue we announced a forthcoming arrangement with Lark Software to make DATAPLOTTER available to our members at a 20% discount. I promised you a review of it soon. The review is in this issue. Read it and let me know if you are interested!

Trantor Hard Disk SUMMER SALE!

11 Meg	SAVE $100!	Only **$1195.**
23 Meg	SAVE $200!	Only **$1595.**
35 Meg	SAVE $300!	Only **$2095.**
47 Meg	SAVE $400!	Only **$2595.**

We've Got Your NUMBER!

Complete with

- Bios
- Format
- DiskMgr
- Arkive
- Configuration
- Head Positioning
- 6 Month Warranty
- And . . .

Now includes
MENUPAC
Create your own Menu-linked applications as easy as using WordStar!
FREE with every Trantor

SuperCalc2

from Sorcim/IUS, the world's best electronic spreadsheet, is included FREE with all Trantor Hard Disks.

Extremely fast and powerful, SuperCalc2 is THE big step up in spreadsheet capability.

And, if you're wondering about learning "one more program," SuperCalc2's simple command language is so easy to learn you'll be building your own super spreadsheets right away.

WestWind

1640 65th Street Emeryville, CA 94608 (415) 652-3222
Telex 756329 (DRIVE C UD), WU EASYLINK 62533500

Great Summer Sale

Introducing the Trantor Hard Disk from WestWind.

Save on

You pay for the hard disk. We pay for the software.

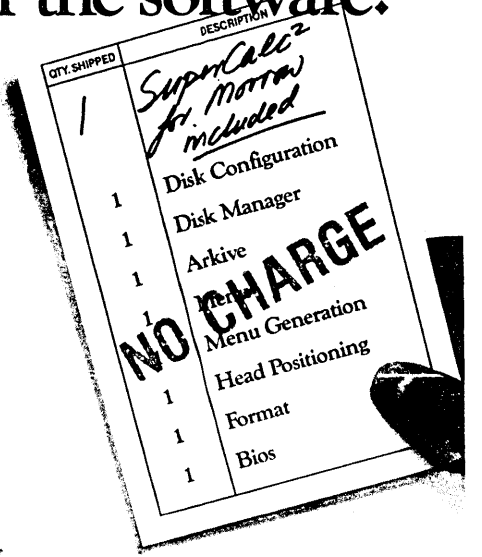
WESTWIND COMPUTER
1690 65th STREET
EMERYVILLE, CA 94608

To order your Trantor Hard Disk fill out the order blank below.

MORROW

MD1 ☐ MD5 ☐
MD2 ☐ MD11 ☐
MD3 ☑

Formatted capacity.	Price
11 Meg Hard Disk	$1295 ☑
23 Meg Hard Disk	$1795 ☐
35 Meg Hard Disk	$2395 ☐
47 Meg Hard Disk	$2995 ☐
5 Meg Removable Cartridge Add-on	$1295 ☑



WestWind includes all of the software you'll ever need FREE with every Trantor hard disk. This powerful and easy to use software will give your system the ability to get going and keep going, fast.

It's how real capability and convenience get built in.

Here's what's included –

Configuration to create many logical drives with different block sizes – up to 40% more storage.

Arkive for quick & easy backup.

DiskMgr to make sure your good data stays good.

Menu for single-keystroke program selection.

MenuGen to make your own menus.

Head Position for safe travel.

SuperCalc² from Sorcim/IUS, the world's best spreadsheet, is also included FREE of charge.

SuperCalc² loads fast, runs fast and it's easy to learn. It's hi-speed data sort, consolidation and flexible cell manipulation matched with the speed and power of our Trantor is an unbeatable combination.

Add our 5 Meg Removable Cartridge System for quick backup and more on-line capacity. Or use our Web to let up to 4 MDs share our hard disk and 3 printers at once!

To order call toll-free: (800) 526-6500 *(in CA (800) 831-3144)*. For information write WestWind Computer, 1690 65th Street, Emeryville, California 94608. Or call (415) 652-3222.

WestWind
C O M P U T E R

Prices and specifications subject to change without notice.
Trademarks: WestWind – Trantor, DiskMgr, Arkive, Web/ Sorcim/IUS – SuperCalc²/ Morrow Designs Inc. – Morrow, MD.

SOFTWARE REVIEW: DATAPLOTTER

by Georgia Babladelis

DataPlotter is a program that enables you to plot your data in a variety of ways. **DataPlotter** is sold by Lark Software, Inc., 131 N. Leverett Road, Leverett, MA 01054. The complete package costs $99. The complete package consists of two separate packages: (1) Line graphs and scatterplots only; or (2) Bar graphs and pie charts only. Either of the separate packages can be purchased for $69. Members of BAMDUA may purchase the total package for $79 if we do a group purchase. The minimum number of purchasers necessary to constitute a group is 4. A number of people have already indicated their interest following my initial announcement about this software.

The big question is, does it work? The satisfying answer is, it sure does! It is a well-planned program, with a manual that is easy to follow, and it produces beautiful graphs and pies. In short, this is superb program accompanied by an exceptionally clear manual. The graphs and/or pies produced with it are so good that they can be considered to be publication quality for many publications. The price is reasonable. It is an outstanding buy.

For most of us (Morrow owners, that is), it comes as good news that the program is independent of screen graphics. **DataPlotter** does not create graphs on the screen; it is not a "screen dump" program. Instead, you answer a series of questions which allows you to design your own graph with your own parameters. You are engaged in an interaction with the main program; as the questions appear on your screen, you respond with the pertinent information. The examples provided in the manual are so clear and so specific, that you will have no trouble understanding how to enter answers in a way that will result in the graph or pie that you want.

DataPlotter plots data from a text file. That makes life very easy indeed since it means that your data can be entered using WordStar (or NewWord, or whatever). And for those of you who have data files created by dBase II or by SuperCalc you will be relieved to know that **DataPlotter** works with those files too. It was an unexpected boon, to me, to be informed (in the manual) that my columns of data can occur in a variety of ways (e.g., horizontal, vertical) and don't have to be aligned! On my first trial, I used the non-document mode of WordStar and entered my data in two columns. No column labels are needed when the data is entered and, as I said above, my columns were not "neat." I was glad that I did not have to align numbers so that it had to look like this:

```
1 100          Instead, it could look like this:      1 100
2  90                                                  2  90
3  75                                                  3 75
```

Let us suppose that as a person interested in technology, you decided to invest in "high tech" stocks. You had a favorite you wanted to buy, called My Tech Stock but you worried about picking your own stocks so you hedged your bets by also buying into a high tech mutual fund called My Tech Fund. Not only did you keep track of the performance of your investments, but also you compared their performance to the general performance of the stock market. Using the non-document mode in WordStar, enter your data for the four quarters of the year for the three comparisons (My Stock, My Fund, Market Index) in three columns. For example:

```
1 70 40 25          or: 1  2  3  4
2 60 30 15              70 60 65 75
3 65 35 10              40 30 35 45
4 75 45 15              25 15 10 15
```

(This data is fictitious, as are the names of the companies. An attempt has been made to line the numbers up for ease in reading; it is not necessary)

The first column of entries represents values or labels for my "x" axis and the other entries represent values (in this case, percent change) for my "y" axis. Rather than call my x-axis by names, such as "January" or "First" or whatever, one may use numbers which can later be assigned any labels you wish. When the data is plotted, I will decide to label my x-axis according to "quarters" of the year. Next, you must save the file and then use DataPlotter to plot it for you. In Figure 1 is an example of a line graph of the investments we are comparing.

That flexibility in use of labels applies to both the x and the y coordinates. Moreover, there are numerous opportunities to include additional labels, either on the graph itself and/or as a title for the graph. The program even provides a nice type font for your main title, which makes it look rather impressive.

You can plot one function or several functions (as I have done in this example). You may place labels anywhere you wish on the graph or have your labels spill over the margin of the graph if you like that. You have a choice of which graphic symbols to use to represent each function (e.g., circles, diamonds, squares, etc.), a choice that varies each of the symbol choices in three ways (e.g., empty or filled or thick), and a choice that enables you to vary the size of the symbol used (large, medium, small are obvious examples, but would you believe "enormous"?). You may chose if you want regular lines or dotted lines to connect your symbols. And, of course, you may chose the size of the graph itself (its length and width), limited only by the limitations of your printer in handling different sizes of paper.

In figure 1 below you will see empty circles, filled circles, and filled diamonds, connected by dotted lines, and the labels placed within the graph borders.

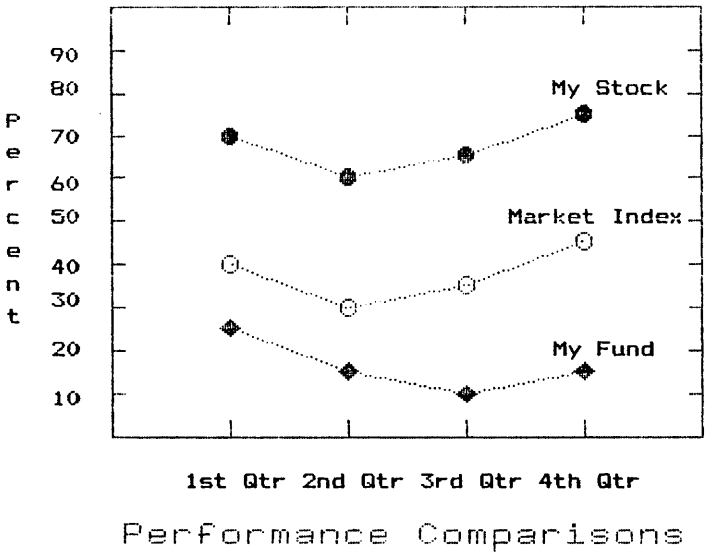


Figure 1: Example of Line Graph

You may prefer to plot your data in a bar graph rather than as a line graph. No problem. Using a command to do just that, you interactively respond to the questions asked. In this example, where we are plotting our data as bars, you may use the same data file you have already created. All that is changed is the visual presentation of the data that you have chosen. There are a number of distinctive fillings available for bar graphs. You have the option to select each filling for each bar, leave each bar clear, or let the program assign fillings to bars. In addition, you can elect to have a legend which explains what each type of bar stands for. And as in line graphs, you may have ungrouped bars (analagous to single function line graphs) or grouped bars (analagous to multiple function line graphs). Since our data represents multiple functions, our bar graph will present grouped bars, as in the example in our figure 2. (See Figure 2).

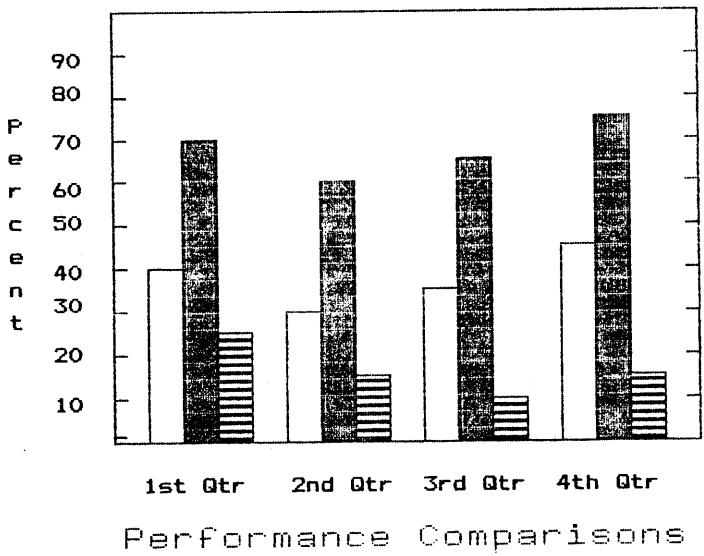


Figure 2: Example of Bar Graph

Your original data file can be used repeatedly for any number of different plots you desire. Suppose you want a giant size graph or a tiny graph or different symbols in different sizes. No problem. The first time you prepare the plot, store the answers in an answer file. That saves you from repeatedly having to enter information. Instead, you merely edit the answer file for any change you wish to make. You can use the answer file repeatedly.

These are the types of graphs you can produce: (1) single function line graphs; (2) multiple function line graphs; (3) scatterplots; (4) mixed graphs (e.g., connected points and unconnected points); (5) ungrouped bar graphs (analogous to single function line graphs; (6) grouped bar graphs (analagous to multiple function line graphs); (7) pie charts which can be told to show the percentage consumed by each slice, or the actual amount (e.g., in thousands of dollars), or just what each slice is, with no figures; you can even "pull out" out a slice for dramatic effect. (See Figure 3 for an example of a pie chart).

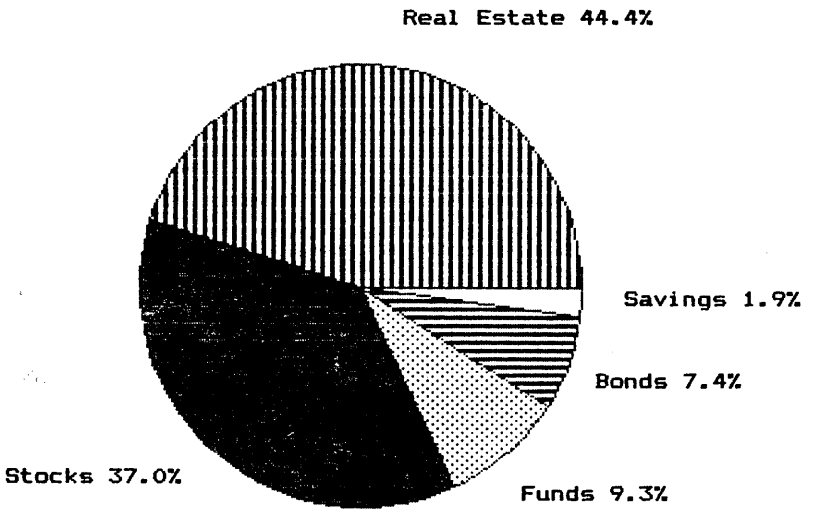


Figure 3: Example of Pie Chart

There is more. Included with **DataPlotter** is a program called TRANSF which allows you to (1) modify existing data files; e.g., when one wants to multiply by a constant; (2) select columns from a column data file to use in some other file; e.g., one column of data in a file is to be used as part of some larger file; (3) convert column data to freeform data in order to add some special data points to a graph. TRANSF, too, can be used interactively by typing in your answers to questions or the program can take your answers from an answer file.

The PLOT program reads the plot files you have created, translates them into commands for your printer, and prints the graph. PLOT has double density options built into the program for certain printers and instructions for getting print in double density for printers not listed as having the built in option. My Gemini 10X was among those with the built in double density printing feature. There is a bit of a wait for the graph to actually start printing and a message on your screen prepares you for that wait so you won't think that something has gone wrong. For almost all of my trial graphs I waited between 45 seconds to a minute for the print to start and another 4-5 minutes for the total graph to be printed. The waiting period compares favorably with other graphics programs I have read about. At first I was so entranced with watching it produce a beautiful graph that I didn't notice the time. Later, when I became blasé I did other small tasks.

RECAP: With **DataPlotter** you can have an unlimited number of functions on one graph, an unlimited number of labels placed anywhere on the page, hundreds of data points permitted in each function, discontinuous functions permitted, uneven spacing of points permitted along either axis, a choice of graph dimensions from tiny to full page, a choice of automatic or manual scaling, a choice of words and/or numbers as lables on axis divisions, rotatable characters for sideways y-axis label, a wide variety of symbols for points on line graphs, a wide variety of sizes of symbols, attractive fillings for bar graphs and pie charts, and a TRANSF program which allows you to manipulate data files which may have been created for other purposes.

There is an appendix providing a trouble shooting guide which I found very useful. On the program disk are included two sample graphs that you can try out right away to see if your printer is performing properly. If not, check the simple, clear guide to locate the nature of your problem and then use your printer manual to make any adjustment that is required. I had a problem when I printed out the sample graphs and located the problem not in my printer but in my converter/buffer which links the serial port of my computer to the parallel port of my printer.

The manual is clearly written and very helpful. I learned to use DataPlotter very quickly. I did read through the manual first, to get an idea of things. Then I made a working disk, and followed through the examples in the manual, substituting my own data. I have used it to plot the results of research and to make graphs

which accompany research articles for publication. All in all, it is a versatile program, surprisingly simple to use, and it produces a visual "treat."

I found only two things to quibble about: (1) Although you can have your data disk on drive B, the plot that is made of your data goes on your program disk in drive A, so you must be sure to have enough room on it for however many plots you plan to make; (2) it was impossible to correct an error in an entry during interactive answering of questions once "return" was entered so it behooves you to get into the habit of making an "answer" file which is easy to edit.

If you are interested in participating in a group purchase of **DataPlotter**, provide the following information on a separate sheet of paper or on the form below; enclose your check, and send it to me:

Georgia Babladelis
1064 Sterling Avenue
Berkeley, CA 94708

I will wait until July 10 to send in the orders in order to accrue enough orders to qualify for our 20% group discount. Then, depending on demand, I am willing to do a second order some time later.

THIS IS THE INFORMATION THAT I MUST HAVE:

Name:_____ Telephone:_____

Address:_____

City, State, Zip:_____

OPERATING SYSTEM: (circle one) CP/M 80, CP/M 2.2, CP/M 3, OR MP/M 80 with at least 48K of memory per user; PC-DOS OR MS-DOS with at last 128K; CP/M 86 with at least 128K.

PRINTER: Give model and number, e.g., Epson RX80, Okidata 92, Star Gemini 15X, etc.

DISK FORMAT: I assume everyone will want 5-1/4" CP/M Soft Sector, but if not, specify what you do want.

ENCLOSE CHECK MADE OUT TO LARK SOFTWARE FOR $79 + $3 SHIPPING =$82. YOUR PROGRAM WILL BE MAILED DIRECTLY TO YOU. If two or more of you want your programs mailed to me to be picked up at next BAMDUA meeting (in Berkeley) or by arrangement at my home, you can save on the shipping cost by pooling it. Check here if you wish to do that:___

LEFT MARGIN BY DOT COMMAND

by Edward E. Combs

At the start it would be well to define the terms that will be used here for which a clear understanding is desirable. In typing, there are two commonly known sizes of type called "Pica" and "Elite", terms seldom used in the computer field. Instead, Pica is known to provide 10 characters per inch abbreviated as 10 cpi also called 10 pitch, while Elite provides 12 cpi called 12 pitch. The numbers 10 and 12 are standard designators which appear on print wheels and thimbles used in printers for obvious reasons.

The term "page offset" is also important in this discussion and is defined as the width of the left hand margin of the printed page, usually measured in inches but more practically measured in numbers of character spaces between the left hand edge of the paper and the left hand side of the text. For example, a left margin of 1/2 inch would be equivalent to a page offset of 5 characters when the type size is 10 cpi (since 5/10 = 0.5 inches), or equivalent to a page offset of 6 characters for a type size of 12 cpi (6/12 = 0.5 inches).

The page offset dot command (abbreviated as .POn, where n represents a whole number from 0 on up) provides a convenient means of on-screen alteration of the location of the left hand margin of printed text, in steps that are in increments of the width of one character. Specifically, when using a character pitch of 10, the page offset dot command will change the left hand margin on paper in increments of 1/10th inch, similarly, when using 12 pitch the page offset command will change the left hand margin in increments of 1/12 inch.

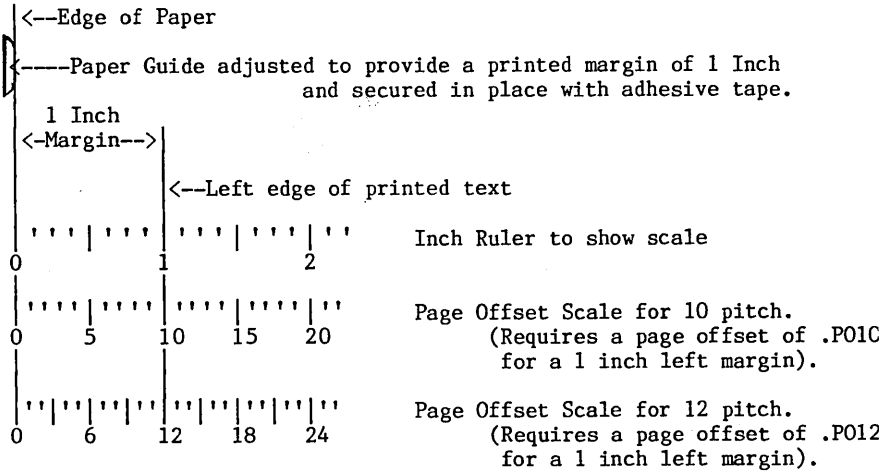
To make the application of the page offset dot command as direct as possible, the left hand side of the printed text should be at the left edge of the paper for .POzero. Then there will be a direct correlation between a margin measured in inches with one measured in numbers of characters, making visualization of margin requirements easier. For example, if the desired value of left margin is 1 inch, which is quite common practice, and a character pitch of 10 is to be used the desired margin would be obtained with a page offset of .PO10, while for a character pitch of 12 it would be obtained with .PO12. This alignment of the zero of the page offset dot command with the left edge of the paper is obtained by appropriate adjustment of the paper guide on the printer in the manner to be described.

First, a line of printing 6 1\2 inches long is prepared on-screen, which would be either 65 characters for 10 pitch (6.5 x 10), or 78 characters for 12 pitch (6.5 x 12). The first and last letters of this line should be an upper case M to easily locate its extremities. The line is printed on standard 8 1/2 inch width paper and the paper guide on the printer adjusted until it is centered on the page, in which case both left and right hand margins will be exactly equal and 1 inch wide.

This adjustment will usually take several print-outs before the paper guide is properly located, after which the paper guide should be secured with a suitable adhesive tape.

The following diagram shows the relationships between a left margin of 1 inch and 2 pitches with corresponding page offsets.

Diagram showing the relationships between margin, pitch and page offset



After the paper guide has been properly positioned there will be one other housekeeping chore to do, namely to set the default value of page offset to correspond to the default character pitch. The default value installed by the manufacturer is usually 8. This may be changed to either 10 or 12, corresponding to the desired default pitch of 10 or 12, respectively, to obtain a default 1 inch margin, by re-installing Newword in the manner described in the Newword User's Guide. When this has been done the new arrangement is ready to go.

In subsequent formatting, any width of left margin may be selected by simply measuring it in terms of equivalent numbers of characters of the pitch being used instead of inches and using this number as the page offset value. This measurement may be conveniently made by using a "Typists's Rule" which is graduated in inches, Pica and Elite spacings, obtainable from a stationery or office equipment store. A typical ruler is identified as Westcott No. R-552, manufactured by the Acme United Corporation of Bridgeport, Connecticut, and costs under $2.00.

The use of the page offset dot command is particularly convenient when the width of the left hand margin on the printed

page must be changed frequently to accommodate different print-out requirements. Two out of many possible examples will be given to show its typical application. In the following examples the assumed default values for the computer and printer will be 12 pitch, page offset .PO12 and a right margin of 78 which produces a line length of 78 characters that will center on the printed page.

Example one. For a particular job the width of text is to be reduced from its normal or default value (78 characters or 6 1/2 inches wide) to a width of 68 characters or 5 2/3 inches wide by typing in the dot command .RM68 at the top of the screen. If there are a number of pages involved that are to be numbered then the centering of the page number would require the dot command .PC34 (68/2) to be typed on the line immediately below the previous dot command. To keep the text centered on the printed page, the page offset must be increased by one half the difference in widths of the text (78 - 68 = 10 and 10/2 = 5) or 5 characters, so the new page offset will be .PO12 + 5 = .PO17 which is also typed on a separate line at the top of the screen. With these steps the printed text will be of the desired width and centered on the page.

Example two. A letter is to be prepared on 8 1/2 x 11 inch letter head paper using the default values of .PO12 and a line length of 78 characters. The date of preparation (31 March 1985 used in this example) is typed against the left hand margin on the appropriate line under the letter heading, for which the on-screen status line shows how many characters or columns long it is (13 for this example). The date is then is preceded with a page offset dot command selected to place it on the right hand side of the letter against the right margin. This avoids repetitive use of the space bar or tab key. The required page offset is equal to the default page offset plus the length of line minus the length of the date (.PO12 + 78 - 13 = 77) to get a new value of .PO77. Right after the date has been typed it is followed by typing the dot command .PO12 to restore the default offset for the remainder of the letter.

The name and address of the party to whom the letter is addressed will start at the top of the screen and on the printed letter. However that same name and address will usually be required on an envelope starting at about its center (No. 10 size imprinted with a return name and address for this example). This shift in position is most conveniently set up on-screen in two steps. First, the name and address at the top of the letter is blocked out with ^KB and ^KK commands as it is typed on-screen, then at the end of the letter it is copied to a separate (last) page with the block copy command ^KC. However before executing the ^KC command, two dot commands (.MTn and .POn) are first entered at the top of this last on-screen page on separate lines, the values for which are determined in the following manner.

The envelope is measured with the Typist's Rule and found to be approximately 25 lines high (at 6 lines per inch) and 113 characters long (12 cpi). To start the name and address about half way down and in the center of the envelope would require a top margin of

(25/2 = 12.5) 13 lines or .MT13 and a page offset of (113/2 = 56.5) 57 characters or .PO57. Finally a page break is inserted after the name and address with .PA dot command. At print out, the address will begin at the approximate center of the envelope as the last page of the file.

If any of the above procedures become repetitive each set of them can be placed in separate files which may be called into play when needed with the block insert command ^KR.

With the paper guide on the printer set up as described above use of the TYPE or ^P command in CP/M will cause the print-out to start right at the edge of the paper. To avoid this, the paper should be inserted with its left edge located a suitable margin width to the left of the paper guide.

*****

MODEM TALK - THE BAMDUA SBBS

by Georgia Babladelis

Not long ago Sypko handed me a disk and said that it was full of messages taken off the RBBS. He thought I might like to peruse it and see if there was a "story" there. That disk turned out to be a very packed (squeezed files) double sided double density disk. So, first I had to get it transferred to a couple of single sided disks; then, using additional disks, unsqueeze the files. Of course all of you know by now that everything is easier with NSWP-- that is, Newsweep. Practically any version is a boon, but our latest is version 207. Anyway, it makes all these chores quite easy.

What struck me as I was reading through the messages was the air of excitement generated by all the participants. I found myself caught up in their messages -- asking questions and offering answers or help, giving suggestions, offering public domain software, and just plain chatting of sorts.

I thought all of you might like to get a "feel" for it and perhaps run out and get a modem, if you don't already have one. I can't, of course, repeat all of the messages here, nor do I want to. What I did was select some representative ones from early days and later days of the system's operation whose content was of general interest. Although I did not do a tally, it was my impression that 80-90% of the messages had to do with questions regarding problems with one sort of modem or another and getting help working out bugs. So I left those out. Lest that daunt you about plunging in yourself, rest assured there are plenty of helpful folks out there who will help you; perhaps the archival messages will be available so that you can read about past problems and solutions!

Anyway, plug in your modem and "download" the following:

(The following messages are in their original form)

Message # 555 left on =->
By =->PETER CAMPBELL
To =->All
Subject =->ribbons

4/23, 10pm American Ink Products in SF has been refilling our multi strike ribbons for MP100-300. Yesterday, my secretary called them, as our order, mailed 12 days before, had not come back. Thanks to US Post Office, the empties had not yet arrived. (All of what-12 miles from Berkeley to SF). Any way, they did show up later in the day. The refilled cartridges arrived in my office today via UPS. They do a good job, and the price of a refill is half or less that of a new one. They used to advertise in the newsletter, but haven't of late. If you try them and like their service, tell them you saw it here. Their phone number is (415) 982-0161. Address- 527 Howard St., SF 94105.

Message # 585 left on =->
By =->TED SILVEIRA
To =->All
Subject =->VDO25

I've just uploaded VDO25.LBR. VDO25 is a nifty little text editor that acts like WordStar in the non-document mode. It has a healthy subset of the WordStar commands, including all the really important ones. It works only with files that will fit in memory (about 50K or so) but it's small (7-8K) and fast (you get from one end of a 50K file to the other IMMEDIATELY). Give it a look. Especially nice for programmers, but also handy for notes, dBase CMD files, and disks where you haven't got room for WordStar.
850504--0845

Message # 401 left on =->
By =->TED SILVEIRA
To =->All
Subject =->MDSET.OBJ

I've just uploaded a program called MDSET for Revision 1 Morrow MD owners. This program works like SETBAUD to change the speed of the Rev. 1's printer/modem port, only MDSET lets you set the speed to 19,200 baud as well as 1200 and 300 baud. The 19,200 is very handy if you have a printer with a big buffer--WordStar can dump a file for printing in a flash. MDSET is much like Stan Young's MDBITS, only it's much smaller (<2K as opposed to 10K) because it was done in assembly language instead of Turbo Pascal. (I had to do it--my WordStar disk is so crowded that MDBITS wouldn't fit!)

Hope some of you find it useful.

Message # 476 left on =->
By =->Charley Tart
To =->All
Subject =->Big Files

[4/1, 6PM+]
This months BYTE has a clever trick for working with a bigger Wordstar file than you usually can. Let's say you want to edit BIGFILE and it's already 200k. There's no room for a backup file, much less the working file WS needs. But, if you copy just BIGFILE to a new disk and put the WS com files on that disk, put it in A, then put a blank but formatted disk in drive B, you can now open the file with the command BIGFILE B: This will have the working file appear on drive B instead of A, so you room to work. Curiously, when you finally save BIGFILE will appear on drive B and BIGFILE.BAK on drive A. I've tried it: it works.
Thanks to Nick Burkitt in Byte.

Message # 479 left on =->
By =->PAUL BARTHOLOMEW
To =->All
Subject =->LC to SC

I have uploaded the file "LC2SC.LBR" on A0:. It includes a program to convert LogiCalc files to SuperCalc files. It doesn't do a complete conversion, you must use Sorcim's SDI.COM program to turn the converted file into a SuperCalc (.CAL) file. SDI.COM is included with SuperCalc. Paul Bartholomew - 815-235-1352

Message # 493 left on =->
By =->STEVEN WARTOFSKY
To =->All
Subject =->CONTINUE

Here's a useful hint: on any CP/M disk, use the SAVE command (not listed, it's a resident utility like ERA, TYPE, etc.) and type "SAVE 0 CONTIN.COM" from the A> prompt. Now, say you tried to PIP a file from A to B drive and forgot to Control-C first, and the command aborted. You'll get back into pip by typing CONTIN. For some reason, CONTIN re-executes the last command you entered. And it takes *no* disk space! Certainly the tiniest and cheapest utility around.

Message # 501 left on =->
By =->SYPKO ANDREAE
To =->All
Subject =->MISC SYSOP
850414-1200 (4/14/85) FROM SYSOP >>[Please date your messages]
- **** THIS IS THE 501st MESSAGE ON THE BAMDUA RBBS ***
- This BBS program was put on the air on DEC 20, 1984.
- We get 800 cals per months and have over 200 users.
- >>> THANK YOU UPLOADERS! <<<

ALL THAT'S CLASSIFIED

==========

ATTORNEY seeking other lawyers to share/explore MD3 applications to law offices. Contact Alan Kornfeld, 538 Green Street, San Francisco, CA 94133; 415/434-2855.

==========

Doing your own thesis/dissertation? Consultation in APA, Turabian, Campbell formats; proofreading, editing. 10% dicount to BAMDUA members. Nancy Schluntz, Wordsmith & Copycrafter, 415/537-9172.

==========

C. Itoh F-10 40 CPS serial printer, $899; LQ Sheet feeder for F-10 printer, $395; Qume QVT-102 terminal, $438; Xerox 820 DS, $898; Morrow MP-100 Printer, $308; TI 855 dual mode printer w/tractor & serial and parallel cables, $698; Morrow MDT-60 video terminal, $298; Morrow MD-2 (new), $798; Liberty 100 video terminal, $318; Liberty 100 owner's manual, $5; maintenance manual, $25. All like new; most in original packing. H. Whitaker, 7603 Firestone Bl., Downey, CA 90241, 213/566-3556.

==========

FORGET THE PEARL! Order customized database programs. Menu driven: Enter, Correct, Delete, Search, Sort, Print. ADDRESS AND PHONE BOOK, ALBUM LIST, RECORD LIST, NOTE PAD, and more. Guaranteed. Send for Catalog. KCS SOFTWARE, 927 Mears Court, Stanford, CA 94305, 415/493-7210.

==========

COMPUTER TUTOR: I make house calls. Individual tutoring specialist especially for beginners. Programmer, Debugger, Systems Analyst. Roger Barker 415/397-8291. San Francisco, Berkeley, Oakland, Walnut Creek, Danville.

==========

FOR SALE: MD11 with DSDD floppy and hard disk. Wyse 50 terminal and modem. All standard software including dBaseII and games. Less than one year old and like new. G.R. Gouger, 707/575-9119.

==========

FOR SALE: MD3, dual drives, #50 terminal/keyboard. All original software - Mint - 18 months old - never repaired - used very little: $995 or B/O. MP200 Printer with cable: $350 or B/O. D. Wayne Smith, 415/451-8336.

==========

FOR SALE: Package deal: MD3 with MDT20 terminal, MP100 printer and software: WordStar, Correct-It, LogiCalc, Personal Pearl, 3 separate programming languages and CP/M 2.2 operating system. Manuals included. $750 firm. Call eves., Marie, 415/424-1738 (Palo Alto).

==========

FOR SALE: MD2 + software. Call Linda (707)575-7212 or 544-0142.

==========

WANTED TO BUY: Used dot-matrix printer with tractor for MD3. Prefer perfect condition and reasonable price! Call Pamella, 415/861-4048.

==========

WANTED: Used MD3 for $575 with terminal, $450 without terminal. Or a used MD2 for $450 with terminal, $375 without terminal. D. Steve Harris, 415/972-1582 (office) or 415/752-6819 (home).

ORDER BLANK FOR BAMDUA LIBRARY VOLUMES

DATE:_____ YOUR PHONE:_____

YOUR NAME:_____

ADDRESS:_____

_____ ZIP _____

PLEASE SEND ME THE FOLLOWING BAMDUA LIBRARY VOLUMES AT $8.00 PER FLOPPY. I HAVE JOINED BAMDUA AS A MEMBER.

(Note: See Newsletter V.2, #8, Sept. 1984 for summary of library disks (1-14) available to date; see subsequent Newsletters for later library volumes (15-30).

Below, you may circle your choice of library volume and under each choice, enter the # of disks you want, if more than one.

CIRCLE CHOICE: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

(quantity): - - - - - - - - - -- -- -- -- -- -- -- -- -- -- --

CIRCLE CHOICE: 22 23 24 25 26 27 28 29 30

(quantity): -- -- -- -- -- -- -- -- --

Total # of disks _____

@ $8.00 each = _____

Check enclosed for $_____

Please enclose a check for exact amount. Mailing and packaging is included. Make check out to BAMDUA. BAMDUA, P.O. BOX 5152 BERKELEY, CA 94705

==========

WHAT'S AVAILABLE

The public domain software library contains 30 volumes. They are available at meetings for $5.00 each, or through the mail for $8.00 each. Write a check to BAMDUA, Box 5152, Berkeley, CA 94705.

Back issues of BAMDUA Newsletter cost $1.00 for issues 1-3, and $2.00 for each issue after that. They are also available at BAMDUA meetings or through the mail. The price is the same either way. Make your check out to BAMDUA.

Dave Block's Preliminary Question and Answer Book can be purchased by sending a check for $1.00 to BAMDUA, above address.

A cassette tape of the "Once Upon a Morrow" meeting held in January is available. It costs $6. Order now!

Interested in back issues of M.O.R.? Please order Volume 1, issues 1 -> 5, or Volume 2, issues 1 -> 3 through Morrow Owners' Review, P.O. Box 5487, Berkeley, CA 94705 at $3.00 each. A one year subscription to MOR is $18.00 ($32.00 for 2 years).

A directory of approximately 300 BAMDUA members available for $3.50 Get your copy now so you will be able to know who to call when you need help or want to exchange information. Make your check out to BAMDUA.

SPECIAL DEALS: As of March 15, the arrangements for special deals has been cancelled. We are working on providing alternatives, such as making arrangements for special deals with the distributor so that BAMDUA members can deal with them directly. The following deal is such an arrangement: (See "special deals" for others).

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, which is 40% off the price of the standard version ($199.00). Full end-user telephone support is provided by the manufacturer. Send $132.50 (includes tax and shipping by U.P.S. to a daytime address) to Applied Computer Techniques, 21 Cottonwood Drive, San Rafael, CA 94901; 459-3212. ReachOut is reviewed in Morrow Owners' Review #2 & #3.

ORDER BLANK FOR BAMDUA NEWSLETTER BACK ISSUES

DATE:_____ YOUR PHONE:_____

YOUR NAME:_____

ADDRESS:_____

_____ ZIP _____

PLEASE SEND ME THE FOLLOWING BACK ISSUES OF THE BAMDUA NEWSLETTER, VOLUME 1,2,or 3. I AM A MEMBER OF BAMDUA. (Volumes 1, issues 1+2+3 together cost $1.- . Issues #4, 5, etc. through the present Volume 3, #6 are $2.00 each.)

ISSUE #	PRICE		COST
1983 Volume 1 (1+2+3)	1.00		_____
(4-8) each	2.00	CIRCLE CHOICES: 4 5 6 7 8	_____
1984 Volume 2 (1-11, no Aug. issue). each	2.00	CIRCLE CHOICES: 1 2 3 4 5 6 7 8 9 10 11	_____
1985 Volume 3 Each issue	2.00	CIRCLE CHOICES: 1 2 3 4 5 6	_____

Summary:

1st 3 issues: $_____

#issues @ 2.00 ___ = $_____

Total cost: $_____

TOTAL ENCLOSED: $------

Please enclose check for exact amount. Packaging and mailing is included. Make checks out to: BAMDUA

Mail to: BAMDUA
P.O. BOX 5152
BERKELEY, CA 94705

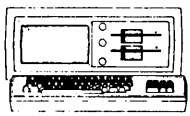
==========

MANY THANKS

My thanks to all the members who contribute ideas and articles to the Newsletter. Keep it up!

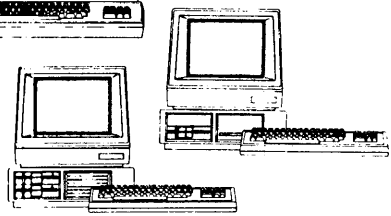
---Georgia Babladelis, Editor

MD-3P



MD-5/11

MD-3



MORROW MD-3P (NO Quest) $1195
MORROW MD-3 with term'l $1495
MORROW MD-5 with term'l $1895
(5.4 Meg Winchester!!!)
MORROW MD-11 with term'l $2395
(10.8 Meg Winchester!!!)
Includes: NewWord, CorrectIt, Supercalc, Personal Pearl, MBasic, Quest, CP/M and $50 discount on MP-100 or MP-200 special prices

EXT'L HARD DISK EXPANSION FOR MD 5/11/16/34 -Complete

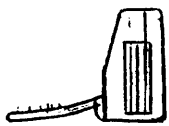
MA11 (11Mb)	----	$ 765
MA16 (16.4Mb)	----	865

LOCAL AREA NETWORK

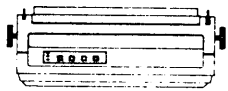
Adevco/Morrow	----	$ 350

For MD-3/3P/5/11/16/32
Specify which. Complete plus $45 for installation in unit.

MORROW PIVOT PORTABLE (IBM-PC Compatible !!!)
-With: Dual Drives, **NEW HIGH VISIBILITY DISPLAY**, MS-DOS, NewWord & Battery.
256K RAM $1,895
640K RAM $2,695



MP-200



MP-100

LETTER QUALITY PRINTER SPECIALS

MP-200: 18 cps with **FREE TRACTOR**	-----$595
MP-100: 15 cps with **FREE TRACTOR**	----$395
For Morrow MP-100/200/300:	
Tractors	----$125
Multi-Strike Ribbons	----$ 7
Print Wheels	----$ 18
Choice: Symbol, ASCII, ORATOR, Courier 10 & 12, Script & Mini Gothic 15	

BUFFER/SWITCH SPECIALS

64K Print Buffer	----$199
Parallel Switch	---- $99
Serial Switch	----$ 89
(cables $28 @)	

MODEM SPECIAL

Prometheus ProModem 1200/300 baud	----$329
Morrow Modem w Software	-$149
Anchor MKXII	----$269

SOFTWARE SPECIALS

NewWord ver 2.06	----$ 90
ver 1.32	----$ 50
Supercalc I	----$ 75
Turbo Tutor	----$ 29
Turbo Tool Box	----$ 39
Turbo Pascal ver.3.0	----$ 49
Multiform (like Uniform)	-$ 65
ReachOut-Auto Answer for 1200 baud modems	---$149
SmartKeys II	----$ 49
Hyper Typer(Typing Tutor)	$ 27
Proportional Star	----$ 69

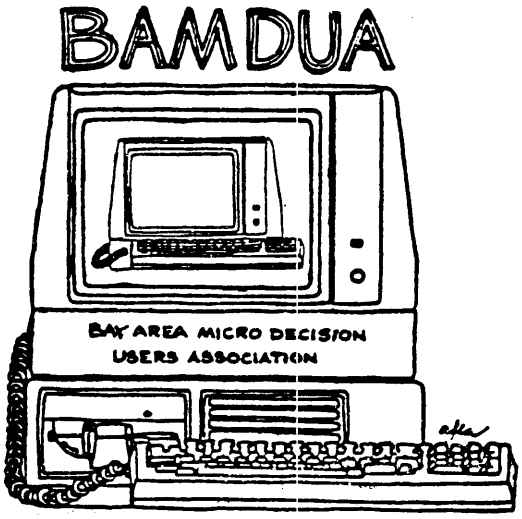
WORLD BUSINESS CENTER

12186 WINTON WAY, LOS ALTOS, CA 94022

CALL 415/941-3269 TODAY

BAY AREA MICRO DECISION USERS ASSOCIATION
P.O. BOX 5152, BERKELEY, CA 94705

NON PROFIT ORG.
U.S. POSTAGE
PAID
BERKELEY, CA
PERMIT NO. 280



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