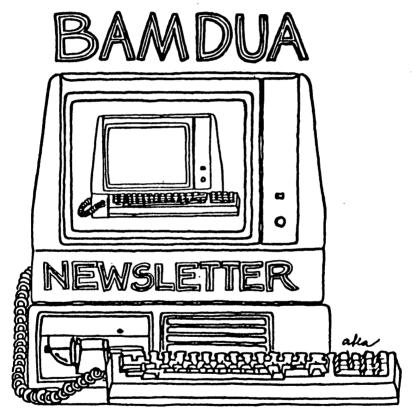
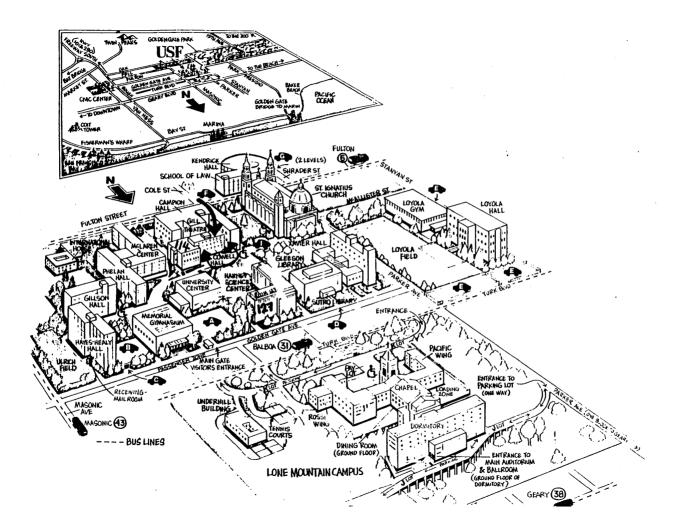
# BAY AREA MICRO DECISION USERS ASSOCIATION



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



# TABLE OF CONTENTS

	Page
Table of Contents	1
Meetings	2
Newsletter	4
From the Mailbox	4
Library News	5
From the President's Disk	8
Candidates	10
From the San Francisco Meeting: Trick or Treat	11
Pass the Notepad	13
Utilities in Review: Mex	15
Review of Grafiks 2.4	20
Voting Information	24
What's Available	24
Classifieds	26
Bamdua Officers	27
Mailorders	27-28
Muchas Gracias	28
Ad	(inside cover)
Ballot	(back cover)

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

Monthly newsletter, Vol. 2, issue 10, November 1984

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

	Next mai	n BAMDUA meeting: +++++++++++++++++++++++++++++++	+++
+			+
+		* ANNUAL MEETING *	+
+			+
+	WHEN:	Tuesday, November 27, 1984, 7:30	+
+	WHERE:	West Branch of the Berkeley Public Library	
+		1125 University Ave., Berkeley	+
+	GUEST:	Barry Berghorn, V.P. Marketing at Morrow, Inc.	·
+		and possibly Miriam Liskin from Computer Currents	
+++	+++++++	++++++++++++++++++++++++++++++++++++++	

### LOCAL MORROW USER'S MEETINGS:

Marin Users' Group meets on the fourth Thursday of each month at Computer House, 722 B Street, San Rafael (corner of Second), from 7:30 -10:00 p.m. It describes itself as a small but stimulating group which tries to diversify information for both novices and pros alike. Info: Susan Miller, 383-6276.

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, 438-0662 or the store at 438-5971.

#### CLASSES:

Classes are scheduled as the need arises. The following classes are open to be scheduled as soon as there are enough participants signed up for them. Classes are kept to a maximum of 5 or 6 participants, except the Personal Pearl class (max 14).

Mail \$10 to BAMDUA to reserve a space in class. Info 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, the third PP class taught by Rick Rowe of Morrow. Half the participants need to a MD3 and two empty floppies.

Public Domain Software.

ReachOut Modem program.

QUEST ACCOUNTANT program.

Advanced CP/M and Systems class.

#### MISCELLANEOUS GET-TOGETHERS:

Personal Pearl users who want contact with others in their range of expertise, get in touch with Sandra Rider (548-0589) she is the person organizing these groups.

TOUR OF MORROW, third one, by Ed Niehaus. Sometime in November.

Meet at MORROW, 600 McCormick, San Leandro. No charge and well worth it. As soon as we have enough people signed up we will schedule this one. Call.

\*\*\*\*

HELPFUL HINT! Roberta Caravelli discovered that weird noises on her B drive on her MD11 did not augur expensive repairs. Instead she found that all that noise was caused by a bad diskette -- not damaged or defective drives at all! The hint is: if you hear weird noises, check that diskette first.

\*\*\*\*

### **NEWSLETTER**

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

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

If you have questions about newsletter submissions, call me afternoons only on Wednesday or Friday (415-843-8167). If you have other questions, call the BAMDUA Office, 415-644-2805. Thanks.

If you have tried one (or more) of the utilities available on the library disks, why don't you write a review of it (them)? Describe what it is for (perhaps use an example) and how to run it. Readers write us that they find such reviews very helpful. If you have made something work for you, TELL A FRIEND!

\*\*\*\*

--Georgia

### FROM THE MAILBOX

Rick Charnes of San Francisco wrote to report that he tried the MDM730 program on BAMDUA Library Disk #16 and it "works great!" He said also "The October newsletter is very nice. Thanks for all the work you're doing."

\*\*\*\*

### LIBRARY NEWS

Our librarian for the public domain volumes, Gene Korte, has put together four more excellent volumes you will want to add to your library! They are:

#### VOLUME 18 OF THE BAMDUA LIBRARY -BAMDUA.018

This disk contains two versions of a public domain spelling checker and a program to allow CPM to print a file while executing another program. The source code files are included for those of you who wish to modify the program or are curious as to how the task is accomplished.

In addition there are 3 programs for filtering and checking WordStar files (PURETEXT, PW2WS, CHECKWS).

Name		Size	Description
-BAMDUA	018		You are reading it now.
CHECKWS	COM	6k	Counts characters, words, lines, etc in WS file.
DICT	DIC	56k	Dictionary for SPELL programs.
SPELLM20	COM	6k	Spelling checker
SPELLM20	DOC	20k	< Read me!
SPELLM20	MQC		Squeezed source code for spelling checker.
SPELLM21	COM	6k	Updated version of the spelling checker?
PURETEXT	COM		Produces normal ASCII Text tile from WS file
PW2WS	COM	8k	Turns hard RETURNS into soft RETURNS for Ws formatting (^B).
UNSPOL30	ASM	18k	Source code for spooling program
UNSPOL30	COM	2k	
UNSPOL30	DOC	10k	< Read me!

#### VOLUME 19 OF THE BAMDUA LIBRARY -BAMDUA.019

This library disk contains utility programs. Some are useful for word processing, some apply more to program development, and one is useful if you would like to more fully understand how the computer performs its magic!

NAME		Size	Description
-BAMDUA	.019	2k	You're reading it now
APPEND	. AQM	2k	Squeezed source code file
APPEND	.COM	2k	Appends one file to another one
APPEND	.DOC	2k	< Read me!
BITMAP	.ASM		Source code file
BITMAP	.COM	2k	Similar to ALLOC.COM on another BAMDUA volume.
CRCK4	.ASM		Source code file
CRCK4	.COM	2k	Generates a Cyclic Redundancy Check value for

```
files
```

```
DDTF
       .AQM 12k -- Squeezed source code file
DDTF
        .COM
             2k -- Allows DDT to search for arbituary length strings
DDTF
        .DOC
             6k -- <-- Read me!
DIRR
       .COM 4k -- One more sorted directory utility!
DIRR
        .DOC 4k -- <-- Read me!
       .AQM 16k -- Squeezed source code file
EM2
EM2
        .COM 4k -- Want to know how computers work? Here's how!
EM2
       •DOC
               6k -- <-- Read me! (8080A instruction set emulator)
ERAA
        .COM
               2k -- Erase an ambiguous set of files WITH
                    confirmation!
              2k -- <-- Read me!
ERAA
        .DOC
FILTER11.AQM 4k -- Squeezed source code file
FILTER11.COM 2k -- Remove control codes except CR, NL, and TAB! FILTER11.DOC 2k -- <-- Read me!
        .AOM 8k -- Squeezed source code file
IF
IF
        .COM 2k -- Conditional for use in SUBMIT files!
IFSKIP
        .DOC 18k -- <-- Read me! Documentation for IF and SKIP.
LINES
        .COM 2k -- Counts number of lines and characters in a file
LINES
        .DOC 2k -- <-- Read me!
LIST
        .COM 2k -- Start printing a large file in the middle!!!
        .DOC 2k -- <-- Read me!
LIST
MDBITS .COM 10k -- MD2 Rev.1 printer/modem port can be set to
                    19200 Bd
MDBITS .PAS 2k -- Pascal source code so you can see how it is
                    done
SKIP
       .AQM 4k -- Squeezed source code file
        .COM 2k -- Conditional for use in SUBMIT files!
SKIP
SUBGEN10.DOC 14k -- <-- Read me!
SUBGEN12.AQM 14k -- Squeezed source code file
SUBGEN12.COM 2k -- Generate SUBMIT file without using an editor!
```

#### -BAMDUA.020 VOLUME 20 OF THE BAMDUA LIBRARY

This volume contains the first part of the "Small-C" library. The rest of the routines can be found on -BAMDUA.021. Also included on this volume is a program that allows you to use the computer as a calculator -- with one very useful difference: it shows the results in hexadecimal as well as decimal!

Name		Size	Description
-BAMDUA @ C C C C1 C1 C2 C3	.COM .DOC .DEF	6k 6k 6k	You're reading it now Turns your computer into a fancy calculator! < Read me! Global definations for "Small-C" < READ ME! (if you want to use "Small-C"!!)

```
C4
        .C
              6k
C5
        .C
              8k
        .C 4k
.C 14k
C6
C7
C8
        .c
              8k
        •C
C9
               4k
CC
        .SUB 2k -- Use to compile 'C' programs .SUB 2k -- Use to link 'C' programs
CL
LINK
       .COM 14k -- Linker for "Small- C" (Rename to 'CLINK.COM'?)
STDLIB .ASM 26k -- Source code file
STDLIB .TXT 4k
```

#### -BAMDUA.021 VOLUME 21 OF THE BAMDUA LIBRARY

Name Size Description

This volume contains the rest of the files needed for the "small-c" implementation. It also contains some extremely useful utility functions.

It also has MD19200 which will set your MD2 Rev. 1 Printer/modem serial port to 19200. With AUTO MD19200 you get this done automatically each time you boot up the the machine.

Tranc	D126	Descripcion
-BAMDUA .021	2k	You're reading it now
ASSEMBLE.COM	22k	"Small-C" assembler
FUNCTION.ASM	4k	Source code file
FUNCTION.CRL	2k	
MD19200 .COM	8k	MD2 Rev. 1 pr/mod ser. port to 19200 Baud.
MD19200 .PAS	2k	Pascal source code.
RPN .COM		Reverse Polish Notation expression evaluator
RPN .CQ		Squeezed C source code file
RPN .DOC		< Read me!
RUNTIME .ASM		Source code file
RUNTIME .TXT		
		Source code file
		Displays text file one screen at a time
SHOW .DOC	-	< Read me!
STDLIB20.AQM		Squeezed source code file
STDLIB20.DOC		Updated version of STDLIB for "Small-C"
STDLIB20.TXT		O server sede file
SUBMIT .C		C source code file
SUPERDIR.COM SUPERDIR.HLP		Another DIR program with some nice features
SUPERSUB.ASM		<pre>&lt; Read me! Documentation for above file </pre>
SUPERSUB.COM		Source code file
SUPERSUB.DOC		Replacement for CPM's SUBMIT.COM < Read me!
SUPRSUB2.COM		Newer version of SUPERSUB.COM
TIME .ASM		Intermediate code form TIME.C
TIME .C		C source code file
WAIT .COM		Use in SUBMIT files to allow diskette changes
WAIT .DOC		<pre>cose in submit files to allow diskette changes </pre>
••••	211	TOUGHT.

### Annual meeting.

On November 27, a Tuesday evening, we will hold the last meeting of BAMDUA for this year. We have a full program with two guests (see meeting announcement) and the annual meeting with elections.

The annual meeting will not take up much time as we intend to take care of our business quickly. The main part is elections of new directors of the BAMDUA Board. We have a slate of nominations and ballots will be passed out during the meeting. For those of you who cannot attend the meeting and do want to vote a ballot included in this newsletter; it should be mailed back to the BAMDUA office before the end of November. Results of the election will be announced in the December newsletter. For information on the rules under which we vote see the article by Mitch Tannenbaum on page 24.

Following this article is a list of the nominees with some additional information about them and their qualifications. You will notice there are quite a few incumbents this time. Great for continuity. On the other hand it shows that the willingness among the membership to participate in the running of BAMDUA is not very impressive. Perhaps it is because their computers take up all their spare time. What have we wrought? PC's may turn out to be even worse than TV. And BAMDUA just helps that along. Oh, well....

After the new board members are elected they decide among themselves how the different functions are going to be filled. This means that most board members wind up as officers such as President, Editor and so forth. The officers in turn recruit volunteers in to help them do their job. All functions are nicely supported by the BAMDUA office with our half-time staff consisting of Dana Gaskin.

Let me take this opportunity to tell you that Dana loves her job-nearly all the time. It gets a little hectic in our new little office sometimes. People call a lot and there is a heap of business going on each day. That is what happens when you deal with 865 members. The new office, by the way, is working out just fine. Oh, and before I forget: Many members--especially the ones from far away--have wondered what the BAMDUA staff looks like. Well, just wait for the December issue of the Morrow Owners' Review. front cover you will see a picture of the whole MOR staff, which includes the BAMDUA staff. That will take care of your curiosity we hope!

#### Miscellaneous news.

MEA CULPA...MEA CULPA! I caused a dissastrous typo in my article on WordStar Emergency Tricks in the October BAMDUA issue. It is on page 23 where it explains the DDT patch to make WordStar log on to drive B: automatically. Get out your red ballpoints and correct as indicated below. THIS IS THE CORRECT VERSION:

```
A>DDT B:WS.COM
                           DDT VERS. 2.2
                           NEXT PC
                           3F00 0100
                                             [3F zero zero ...]
                           -A02A4
                                        {A-zero-2A4}
                           02A4 JMP 0340
                           02A7 -
                           -A0340
                           340 MVI C,0E {zero-E}
                           342 MVI E,01
                           344 CALL 0005 {zero-zero-zero-5}
CORRECT THIS LINE ===>
                           347 RET
                           348 -
-G0
THEN ADD THIS LINE ===>
                                         [G-zero]
                           ASSAVE 63 B:WS.COM
```

In October I printed 347  $\underline{\cdot}$  followed on the next line by  $\underline{-G0}$ . If you did follow those faulty instructions meticulously—just like I asked you to do-you will just get a B> prompt when you run WordStar, a very dissappointing result. I just hope that you were equally meticulous in making a backup copy of your WordStar working disk, so that now you can try it again... Sorry, folks; I knew some day it would happen, even to me...MEA CULPA as they sang in the middle ages.

```
+ THE BAMDUA DIRECTORY IS OUT. GET A COPY WHILE THEY LAST. + =
   This is a listing of about one third of the membership with =
   little sublists to help you find BAMDUA members in your
   neighbourhood, those with the same equipment as you have
   or people how know a little bit more than you do about
   all the major software packages we are using. There are
   no less than 117 people you can call about WordStar alone!
   LIMITED EDITION - FOR MEMBERS ONLY - $3.50 IN THE MAIL
```

\*

#### SPECIAL DEALS: \_\_\_\_\_

BAMDUA members can benefit from many special deals in commercial software and hardware arranged for BAMDUA by an entity called DUTCH TREAT COMPUTER SERVICES. Currently available are:

ProModem 1200 \$325
Computer chairs (semi-kneeling type, good for your back). ask
(about \$60)
E-System RS232 port switch box \$ 50
E-System Parallel port switch box \$ 70
Ribbon cables RS232 many configurations and lengths\$ 15
and up
or we tell you how to make cables yourself and where you get parts.
Multistrike Ribbons for MP-200 printer (Silver Reed)\$ 7 Calif. residents ad sales tax to above amounts.
For software deals see the previous or current BAMDUA newsletter

under "What is available."

\*

#### CANDIDATES

Sypko Andreae City: Berkeley Age: Occupation: Publisher of Morrow Owners' Review Incumbent

Georgia Babladelis, Ph.D. City: Berkelev Age: 53 Occupation: Professor of Psychology & Research Consultant Incumbent.

Comment: Author of textbooks and research articles and founding editor of research journal for American Psychological Association.

Peter Campbell City: Albany Age: Occupation: Realtor

Comment: Vote for me because I use a Morrow computer and I promise to represent the Morrow users and not the IBM users if I'm elected to the Board of Directors.

Eugene Korte City: El Cerrito 34 Occupation: Independent Software Engineer Incumbent

Stan Naparst City: Berkeley Age: 54

Occupation: Lawyer

Comment: I'm interested in making sure we have a vital ongoing group to help people with their computer problems.

Dave Rosner City: Woodside Age: 42 Occupation: Consultant

Incumbent.

Mitch Tannenbaum City: San Francisco Age: 43 Occupation: Attorney

Incumbent

Jeff Weissman City: Oakland Age: 35

Occupation: Photographer

Incumbent.

## NOTES FROM THE SAN FRANCISCO MEETING

### TRICK OR TREAT?

by Peter Campbell

It was the night before Halloween, and the audience was about to get some goodies from our guests, Howard Fulmer and John Zellerbach. Howard, Director of Engineering at Morrow, is familiar to regular meeting goers. John, a programmer and engineer at Morrow, is not as well known to us. He is very knowledgeable about the MD11.

The evening's format was that of a question and answer session. In keeping with tradition, the persons in attendance tried to trick the quests with tough questions. Nothing but treats was given in return.

The first question had to do with power surge protectors. They are probably a good idea especially if your wiring is old, or you are in an area of 'dirty' power, such as near heavy electrical equipment.

Morrow network. The system is now in Beta test around the country. It seems to work OK for very simple tasks such as PIPing files. But it does not work right for more complex tasks. Apparently there is a Network software problem that needs to be worked on. Shipments are at least three weeks or more away.

How about a hard disk add on for the MD3? There are a number available, but the prices are dropping rather rapidly. It might be a good idea to hold off until next year.

Back up systems. There still is no cheap way to back up a hard disk except with floppies. Streamer tapes are becoming available, but they are not totally reliable. Consequently they are totally useless, and not even cheap yet.

One person was being tricked by his MD5. He kept getting a "disk error" on drive A, the hard disk. Should anyone else encounter this problem, the best course of action is to try to save all files on floppies using NSWP or PIP, then try re-formatting hard disk. Be sure to save all files first, as they will be lost in the process. Then re-load the hard disk from the Distribution disks all over again. If this doesn't work, see your dealer. This incident points out the importance of backing up your work. Those of us who use the hard disk machines tend to take the reliability of the machines for granted. But when something happens, it can really sting. ALWAYS back up important work with out delay. Then if something like this happens, there will be no tears if the disk has to be formatted. Follow this same rule with floppy based machines as well. According to Murphy's law, nothing will go wrong until you fail to back up that important file.

A member was having trouble getting FanciFont to work on his MD11. Some early MD11's were shipped with CP/M that suppressed the eighth bit through the parallel port. This causes a problem with some software that is dependent on that bit, such as FanciFont. new version of the CP/M Plus file CPM.SYS is available which corrects this problem. It should be available now from Morrow. you need this revision, see your dealer.

There was the usual question of high density disks. Morrow's DSDD disks are 400K. With 10K for CP/M, and 6K for the Directory, that leaves 384K for data on MD3. Higher density drives are available, but may not be compatible with out a modified ROM. lower cost Hard Disks coming available, it may be advisable to just go that route.

Howard Fulmer talked about the residence of CP/M. BIOS, BDOS & CCP reside in top 10-12 K of RAM. The BIOS is hardware dependent; i.e., it is specific to Morrow, Kaypro, Osborne, etc. BDOS & CCP are the same on all CP/M systems. BIOS is why software is not always interchangeable between machines. CCP is what talks to us. It gives us the A>, DIR, etc. This dialogue is of course only used in CP/M. When running software such as NewWord, the program over writes the CCP section as it is not needed. When you exit a program, the CCP is restored by the program. Of course, if you don't exit properly, your system may crash or otherwise lock up, as CCP is then not there to talk to you.

In response to a question about the availability of MD16s and MD34s, we were told that the 16's are being shipped now, and that the 34's will be on the way very soon.

Some Hard Disk users were concerned about what would happen if their machines were turned off without parking the drive. manual is full of warnings against such a practice, but does not tell the consequences. (For those of you who are not familiar with hard disk machines, "parking" refers to placing the read-write heads over a portion of the disk where they will not touch when the disk stops turning. The heads actually ride a cushion of air above the disk surface while it spins. When it stops turning, the cushion disappears. The parking space is provided to prevent damage to either the head or the magnetic media on the disk.) If you forget to park the heads, turn the power on again, then Park & turn the machine off again. There will probably be no damage as long as the machine is stationary. But if you move the machine around with out parking, the disk can be damaged because the heads are in contact with the fragile magnetic coating. Don't take chances--always park before turning off the power.

Delete & backspace—in WordStar they erase the previous character, but in CP/M 2.2 they don't. You end up with something that looks like this iht. (Actually, the left arrow works with the Freedom 50 terminal.) A patch is available from Morrow to make them the same in CP/M as they are in WordStar. When Sypko gets it from Morrow he will publish it in his column. It is installed with DDT.

Future of CP/M. Still very viable. Morrow will continue to support it as long as people buy the machines, and they can make money. They will get more into 16 bit if their market warrants, but for word processing, 8 is fine and people buy lots of them. (One IBM owner I know commented to me that my Morrow is much faster than her IBM for word processing.)

Brand X diskettes. If they format OK, will probably work fine. Surface smoothness is important, as a rough surface will cause early head wear. Look at them to see if both sides are burnished. Both sides are manufactured the same way, but only one is tested for single sided disks. SSDD can be used, but there are some risks. You should weigh the risks versus the benefits of using SSDD on a DSDD machine.

MCP8086 co-processor board. Shipping, but not 100% "IBM compatible." Much MS/DOS software will work, but not all. The system uses a CP/M file to contain an MS/DOS virtual disk. The MS/DOS works inside of the CP/M system.

Pivots are now shipped with 80  $\times$  16 screen. Soon they will have an 80  $\times$  24 display. See the last issue for a brief discussion of future ICD display developments.

PASS THE NOTEPAD

\*\*\*\*

#### COMMUNICATIONS

- $\underline{\text{Q:}}$  Has anyone used KAMAS or any other information processor? I'd like to get on but I'd like to know more about it before I buy. Stan, 525-2086.
- $\underline{\text{Q:}}$  Does anyone use UNICOMM commuications software? Don Roszel, 849-0612.
- Q: When is BAMDUA BBS going to get Metal Message System -- or something that works? Dan Robinal.

A: Coming!

#### PRINTING

Does anyone know of 12 pitch and 15 pitch print wheels for a MP200 (Transtar) which will give the control (^) and the greater than (>) and the less than (<) characters? What I get is "cents" character instead of control character and two editing abbreviations instead of the relational indicators. Roberta, 239-1778.

#### FUNCTION KEYS

- How do I get the "Smart Key" program for function keys. with a level 3 terminal? Peter Hahn.
- A: You buy it! or else try Quickey.

  Check with your dealer first. Mine (Computer Convention) included it in the package deal although they received it after I bought the computer.

#### PASCAL

- I have an MD3 with MT70 terminal and I want to install Turbo Pascal. The terminal isnot listed in TINST. Does anyone know which terminal is compatible? Arnt Grun, 527-2719.
  - A: Try ADM31 or give me a call. Gene Korte, 525-8944.
- Q: Does anyone have experience using MT+ Pascal with the MD11? I'm getting very strange output when I try to write a file, though I can read one all right. Jo Taafe, 768-8579; 585-6506.

#### OTHER

- Is anybody using Nevada Cobol and if so, how do you like it? Bill Denholm, 964-5039.
- $\underline{Q}$ : Has anyone used "Compute Is it useful? Phyllis, 386-7970. Has anyone used "ComputerChef" - saw it advertised in MOR.
- Anybody using a hard disk system: what method do you use for backing up your system without the "sweep" program? Bob Spoforno, 586-6280.
- In the October issue of BAMDUA on page 23 there is a patch for WordStar 3.0. I tried installing this patch and the result of several tries yielded a boot from drive A to drive B and WordStar is nowhere to be found. Has anybody else come across this problem and if so, what did you do to correct it? Also, is there a patch for WordStar 3.3 of similar design? Robert Spoforno, 586-6280.
  - A: See announcement of correction, this issue.

\*\*\*\*

# UTILITIES IN REVIEW: MEX

Review and Discussion by Dee Pourciau

MEX is "yet another modem program", but with a difference! In its simplest form and usage it differs little from MDM740. It does all that MDM740 does - perhaps a little better depending upon your personal tastes. On the positive side it is a little faster and on the negative side it is a bit more complex. If all you want is the basics, to be used for occasional down loading and message exchange, the two programs are very much on a par. However, if want a challenge, then MEX is for you!

MEX was developed and placed in the public domain by Ronald Fowler of Fort Atkinson, WI. It is a very comprehensive communications program which allows the user to tailor the operation of the program to one's tastes. The program has the capability of reading and responding to command files which can simplify operation enormously when set up properly. For instance I have mine setup to log on to the B: drive (I keep the program and many utilities on the A: drive and use the B: drive to hold downloaded files, messages, etc.), provide a directory of the B: drive with space remaining, print a message reminding me to set up a "capture" file (no longer necessary as I'll explain later), set my Hayes modem to 18 sec. wait to receive the called modem carrier, and, with the latest version, set up a "capture" file and enable capture. All of this without doing anything other than calling up the program in the normal manner.

The usual procedure for up- or down-loading files may also be automated. In my case instead of going through the "Xmodem S filename.typ and R filename.typ" to down load a file I type "get filename.typ" and MEX does the rest. The same with downloading one file from a library. Instead of typing "Xmodem L libraryname filename.typ" followed by "R filename.typ" I type "Getlib libraryname filename.typ" and MEX takes over. Saves a few keystrokes, improves accuracy, and is fun to watch. I'll show you how its done below.

#### First a summary of the features:

\* The PHONE command allows phone numbers to be entered into the phone number library or removed from the library. The phone numbers are called using mnemonics - up to 12 characters long. MEX does not any information other than the phone number and its corresponding call mnemonic to appear in the library. Thus it differs from MDM740 in that a number is called in MDM740 by entering its corresponding letter or numeral, and the entry can contain a name or descriptor corresponding to the number. One may still use one letter representations for the phone number in MEX, and I do this for frequently called numbers. The baud rate corresponding to a particular number may also be set when the phone number is entered into the library. I find this particularly handy because I usually use 1200 baud for local communications, but I most often use 300 baud for Compuserve because you spend so much time waiting around. However, if you wish to download a file from Compuserve and you know exactly how to get it, 1200 baud is probably more economical so I also have CIS12 in my library which calls the same number but at 1200 baud.

- \* The KEY command enables creation and editing of multiple character key strings allowing two keystrokes to sendout a string of characters. The length of all strings may total up to 400 bytes. I use the strings for Compuserve log in host computer, ID #, and password, and for certain RBBS commands such as DIR \*.\* \$UOADIN which I can never type right the first time.
- \* The LOAD and SAVE commands allow phone and keystring libraries to be saved to or loaded from disk.
- \* The READ command acts very much like the CPM submit. It allows the automation mentioned above.
- \* The SENDOUT command allows strings to be sent out usually under the command of a READ file.
- \* The STAT command provides for the modification of many options which enable tailoring the program to the users requirements.
- \* The HELP command provides access to a large HELP file which is available from within the program.
- \* The CLONE command provides the means for saving any changes made to the phone or keystring libraries and to the options provided by the STAT command. When CLONE is called (filename required) a copy of the program under that filename is saved on disk with phone and keystring libraries and STAT options as set at that time. Thus it is possible to have several versions of MEX available for different purposes, and also to modify the program easily at any time.

This is getting a bit wordy and the MEX documentation covers all this in detail, so I'll go on to describing how I've a used the READ and SENDOUT commands to automate initialization and file up and downloading and a few other little things.

First the initialization: If the STAT variable INITFILE is set to ON the first thing MEX does when called is to look for a file labeled INI.MEX. In my case the file looks like this:

STAT SEARCH 2
ALT A0:
STAT REPLY 0
SENDOUT "ATS7=18^M"
STAT REPLY 8
B:
DIR

#### TYPE A:DEE.NTE TERMA SESSION.LOG

Let's take these one at a time.

STAT SEARCH 2  $\,$  sets up a file search procedure which causes MEX to first look for a requested file on the currently logged drive and if not found the alternate drive is searched.

ALT AO: - defines the alternate drive as A:

STAT REPLY 0 - defines the length of time in seconds MEX will wait for a reply after completing the SENDOUT message. In this case since the SENDOUT message is to the modem no reply wait is necessary.

SENDOUT "ATS7=18^M" - Sends the message in quotes which causes the Hayes modem to reset the number 7 register to 18 seconds from the default value of 30 seconds. This saves a lot of time in auto redial. (^M is a carriage return.)

STAT REPLY 8 - Resets the reply wait time to the normal 8 seconds.

B: - Sets drive B: as the default drive.

DIR - Calls up the B: directory and displays the space available on B:. This can save you from trying to download a 50K file when there is only 10K of space available.

TYPE A:DEE.NTE - Prints the file DEE.NTE which provides a reminder to set up a "capture file" to provide a log of the session. If you would just as soon set up a capture file at every session this can be eliminated by the following line.

TERMA SESSION.LOG - Sets up a capture file named SESSION.LOG in the APPEND mode and initiates copying into the file.

Neat?

The GET file used in the procedure mentioned above looks like this:

WRT STAT WIECHO ON SENDOUT "XMODEM S [1]" STAT WIECHO OFF TYPE A:CAPON.NTE R B: [1] TA SESSION.LOG

WRT - closes the file SESSION.LOG which has to be done before a download or it is lost.

STAT WIECHO ON - causes MEX to wait for the receiving computer to echo the transmitted character before transmitting the next character. MEX's character transmission rate is too fast for some systems. Setting wait for echo on ensures proper receipt by the remote system.

"XMODEM S {1}" - sends out the string XMODEM SENDOUT filename.typ, filename.typ having been included on the command line as GET filename.typ.

STAT WIECHO OFF - turns wait for echo off.

TYPE A:CAPON.NTE - prints the file CAPON.NTE which reminds me to turn the previously closed capture file back on. This is not necessary if the TA command below is included.

R B:{1} - tells MEX to get ready to receive the file requested by the SENDOUT command above on the B: drive

TA SESSION.LOG - reopens the file SESSION.LOG and causes the information to follow to be appended to the existing SESSION.LOG file.

The file used to download a file from within a library is similar, but allows for the library and file definitions as follows:

WRT STAT WIECHO ON SENDOUT "XMODEM L {1} {2}" STAT WIFCHO OFF TYPE A:CAPON.NTE R B: [2] TA SESSION.LOG

As you can see it is the same as the file described above except for the SENDOUT and R lines. The library name is substituted by MEX for the {1} above and the file name for the {2} above.

I also have a file O.MEX which sends ATMO to the modem to shut the speaker down when repeat dialing, a file NSY.MEX which turns the speaker back on by sending ATM1, a SLOW.MEX which sets the wait for carrier to its default value of 30 seconds, and a FST.MEX which sets it back to the 18 seconds mentioned above.

In order for all of the above procedures to work the STAT variables below have to be set as shown.

EXTEND ON SILENT ON INITFILE ON TRIGGER "Ctl @" (This is "null" set by typing STAT ESC "") The program is distributed with the ESC character set to "Ctl J" which is line feed. I find it more convenient to use "Ctl I" or tab. The method of changing the ESC character is described in the documentation.

MEX is accompanied by the normal compliment of overlays including ones for several varieties of modem. The procedure for incorporating the overlays is very well explained in the documentation. One very import caution - I found the Micro Decision overlay MXO-MD10.ASM (or AQM) not to work with my MD-3 Rev. 1. The CONOUT address, found toward the end of the overlay, had to be modified from 0F38AH to 0F20CH which is the proper address for CONOUT on the MD-3 Rev. 1. The address may be different on other models and revisions. It may be determined by running CPMADR.COM which gives a list of the addresses used by your computer. Also there is an MD2 vs. MD3 option, found early in the listing. In order to get the overlay to work with my MD3 I had to set the option to MD2. Somebody may have been a little confused when the overlay was written. In any case after making these changes the program runs beautifully.

MEX with its documentation and help files, and the associated modem and computer overlays takes up well over 100k of space. It is available on many RCPM systems in the area and so will probably not be included in the BAMDUA library. MDM740, which is in the library, may be used to download MEX from your friendly neighborhood RCPM. (MDM740 does not seem to object to this.) The latest version of MEX is 1.11. Do not - repeat do not try to use version 1.10 - it does not work - at least on my MD3 it doesn't work. I spent several frustrating hours trying. Version 1.0 works and can be used if 1.11 is not available. The program is very completely documented, but I find the documentation a bit hard to understand at times. The development of the program and the documentation represents a fantastic amount of work on the part of Ron Fowler, and all of us who use the program owe him a very big vote of thanks.

I have not by any means covered all the ramifications of MEX. In the first place I don't yet understand all of them and in the second I'm sure Georgia wouldn't allow me the space if I did. However, the program is well documented and supported and you will find various files on the RCPM's, usually in the same area as the primary program, which contain helpful hints from others about to make the most of MEX. I'll be glad to help if I can with any questions you may have. Feel free to call me at (415)851-2988.

\*\*\*\*

REMINDER: Read about the candidates on page 10; check out the voting rules on page 24. Vote at the November meeting or mail in your ballot, which is on the back of this Newsletter.

\*\*\*\*

### **REVIEW:** GRAFIKS 2.4

by James L. Galvin, Ph.D. CSA Business Services, S.F.

Program: Grafiks 2.4 (\$125 retail, discounts available).

Supplier: Robonics, 936 Hermosa Ave., Hermosa Beach, CA 90254

Phone (213) 316-7740.

Requirements: MD-2 or MD-3 (64K CP/M), dot matrix printer.

The CP/M graphics packages such as Grafiks 2.4 are print oriented. They are designed to take advantage of the bit mapped graphics capabilities of the do matrix printers that we typically buy with the Morrow (and they will not work with daisy wheel printers). If you want hard copy high resolution graphics to include with your reports or for other document purposes, one of these graphics packages may be right for you.

#### Price and Installation

My order brought me one single sided diskette and a 66 page The manual presents straightforward installation instructions. I had specified MD3 with the MDT60 terminal in my order so it was partially configured already but the process looks very simple. The documentation for getting started is complete but makes no attempt to be user proof or to take care of the absolute computer novice. For example, you are directed to use SETUP or CONFIG to specify the correct interface for the printer. This is unnecessary if the printer is already installed.

#### Documentation

The first 32 pages are organized to be followed sequentially as a walk-through tutorial for the first-time user. The remainder of the document is organized as a reference section for printer setup, editing commands, graphic characters, and interfaces for inputting data from other programs. But there is no reference section for the basic graph commands. Instead you have to reread the tutorial to review any of the graphing techniques.

### Tailoring for Your Printer

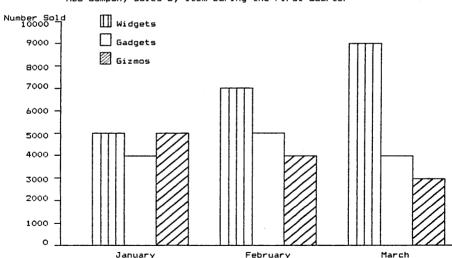
The program is menu driven and easy to start. The documentation directs you to set the printer characteristics before creating The "S" option from the main menu brings up a printer any graphs. menu and reveals that Grafiks supports Epson FX, MX with Graftrax, Gemini X Series, C.Itoh 8510A, NEC 8023, Okidata with Okigraph, and IDS Prism 80, 132. The program adjusts for the aspect ratio of your printer so that you will get round rather than squashed or stretched pie charts.

#### Creating Graphs

"C" from the main menu starts the creating of graphs. The graph creation menus allow you to specify the various options, including data source, graph size, graph type (bar, line, or pie), and number of observations and other characteristics of the type selected.

The tutorial takes you through the bar chart option first. Unfortunately, the documentation has two errors at this point, one critical. The minor error is that the example has two few observations for the sample chart. The more serious problem is that the shading patterns do not occur in the order documented. In fact, there is a conflict between the shading pattern order shown on page 10 and the example on page 11. This is important for any bar chart in which you want to create an explanatory graphic key in the edit mode. If you follow the order in the documentation, your key will be wrong. Note that you cannot change the order of the shading pattern—this is program supplied. The absence of such control is a limitation.

Once you select all the options for your graph (and enter the data if you are doing key board entry), the program creates the graph. It takes a while—time to go pour another cup of coffee. The bar chart showing ABC Company sales for the first quarter took about 45 seconds to create after I had selected all the options and entered the nine data points.



ABC Company Sales by Item During the First Quarter

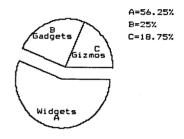
#### Working with a created graph

Once the graph is created you can view it; edit it to add labels, keys, titles and notes, overlay it on another graph; read it back in from memory if you have been working with a second graph; delete it; or print it. You cannot adjust the size of the graph after it is created—the size choice is made during the create cycle and as is the choice of location on the page. The graphs can be sized for frame that is either 80 characters or 132 characters in width and full page or half page in height. Half-page graphs can be placed either at the bottom or the top of the page. With a pie

chart you get a little more control over the actual size of the graphs--you select the radius (and location of the center point).

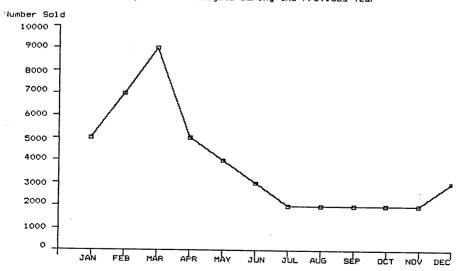
Both. the bar and line charts print a standard XY axis. You can modify the scale of the bars or the line by setting the ranges on each axis. You also control the grouping and stacking of bars and the order in which line graphs are drawn. This latter feature lets you use

ABC Company Sales Units for the Month of March by Item



Grafiks to draw anything that can be created by connecting the dots. The program will supply the months of the year on the horizontal axis.

ABC Company Sales of Widgets During the Previous Year



#### Printing the Graph

Hit "P" from the main menu and you are ready to print. printer will take much longer to do a page of graphic work than a page of text. It is doing a lot more work, particularly with bar charts. The bar chart shown above took over two minutes to print. The other two graphs took less than two minutes.

You can run Grafiks 2.4 as a program from Wordstar, which allows you to insert graphs throughout the text of your report. The simplest way, of course, is to allocate a blank page in your report for each graph and print the report and the graphs separately. can also place half-page graphs at the top or the bottom of a page containing text. However, the process is not quick. Also, on my Gemini 10X, program slightly reduced the line height on the printer, which increased the resolution but threw off Wordstar's page length computation. I had to turn the printer off and on to get the standard setting-this is also the recommended way to interrupt the printing of a graph, hardly an elegant solution. After just completing a day long workshop on Framework, one of the new integrated software packages, the Wordstar-Grafiks interface seems cumbersome by comparison but it will work if you want to use it.

### Other Interfaces

For simple charts, keyboard data entry is easy and quick. For more complex problems, Grafiks has a formula option and it can also take data from a variety of other programs (CBASIC, MBASIC, dBase II, Wordstar, Personal Pearl, Perfect Filer, Supercalc, Perfect Calc, Logicalc, Microplan, Calcstar, and Reportstar are all discussed). I have used the Supercalc interface and it works as docu-The Grafiks documentation supplies a Supercalc "execute" mented. command for speeding up the process. The interfaces generally involve outputting to disk an ASCII file that contains a start flag, the data and an end flag. Such a file can in turn be read by Grafiks.

#### Conclusion

While I have noted some problems with the program, its documentation, and its ease of use, the product it puts out is worth the effort. The editor gives you a lot of flexibility in placing labels and other notation and the driver will get the most out of your printer. For me the payoff came when Grafiks output was accepted as camera-ready copy to accompany an article of mine in a typeset journal. This was exactly what I wanted and the Grafiks package produced. If you are willing to put up with the processes involved, the program does generate useful output.

(Ed.'s note: With Jim's permission I have edited his fine article so that we can fit it in this issue).

\*\*\*\*

#### 1984 ANNUAL ELECTION OF DIRECTORS

#### by Mitch Tannenbaum

We have reached the end of the first full year of our legal "non-profit", and now tax-exempt, existence. The law requires that we annually elect directors. The business and affairs of BAMDUA are managed by the directors. In previous issues and at the monthly meetings we have requested nominations for the nine positions available. Those nominated are listed on the back cover of this issue (and a brief synopsis of each individual is provided in this issue). Here are the rules for voting at the FIRST ANNUAL ELECTION OF DIRECTORS at the next monthly meeting to be held as noted on page 2 of this issue.

- 1. Each paid up member is entitled to one vote for or against each director, either in person at the meeting or via the mail as noted in 2 below. Printed ballots will be distributed at the meeting.
- 2. In the event you are unable to attend the meeting in person we have printed a ballot on the outside back cover of this issue of the Newsletter. Mail it, or a legible photocopy, to reach us on or before the date of the meeting, November 27, 1984. Ballots received after that date will not be counted. Please do not mail a ballot and vote again at the meeting.
- 3. To preserve anonymity we will separate the mailing label portion of the ballot before they are counted. However, any ballot received without the mailing label will not be counted.

Thank you for your continued support and we hope that the forthcoming year will be even more exciting than the last with regard to your entry into the world of microcomputing.

## WHAT'S AVAILABLE

\*\*\*\*

The public domain software library contains 21 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 the BAMDUA Newsletter cost \$1.00 for Vol. 1, 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.

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!

To receive issues 1, 2, or 3 of M.O.R., send a check for \$2.00 each to M.O.R., P.O. Box 5487, Berkeley, Ca 94705. You will be added to our database to receive future issues.

#### SOFTWARE DEALS

EUREKA is a disk cataloger that also can look inside files. The price is \$35 (includes tax and shipping). See review, Oct. issue.

SuperCalc 2, at \$130.00 (20% discount) is still available for those who missed out on the first deal. A \$45 deposit is required.

To get NewWord for the first time, send \$85 (\$80 + tax) to BAMDUA. You do not need to send in your original WordStar disk.

To get your NW update (2.05), send in your original NW disk + \$25 (includes tax) to BAMDUA.

GRAFIKS 2.4 is obtainable for around \$90 (includes tax and shipping). A deposit of \$45 will reserve a copy for you. The balance is payable on arrival. (See review, this issue!)

MULTIFORM , a file transfer program, is still available for \$43. We got a small deadline extension on this one.

MINI-LEDGER, an accounting program, is available for \$85 (half the list price + tax and shipping). See issue #8 of the Users Guide for a review of it. It's menu-driven and there may be demo disks available if some of the members want to try it out. The deadline is October 15, 1984. A \$45 deposit is required.

REACHOUT, a telecommunications program (reviewed in MOR #2, #3 can be bought for \$131.56 (includes tax and shipping). This program works for modems other than the Morrow MM300.

\*\*\*\*

November 1984

### ALL THAT'S CLASSIFIED

ALTER WORDSTAR 3.0 DEFAULTS. Easy-to-use, menu-driven program changes standard help level, margins, omit page nos., paper length, justification, etc. Customize over 25 features (change back as desired). Write for info, or send \$20+\$5 s/h to THE CUSTOMIZER, P.O. BOX 7339, Berkeley, CA 94707. \_\_\_\_\_\_ \_\_\_\_\_\_ have a home-based word processing business and am interested in meeting and networking with others in smilar situations. Please give me a call at (415) 452-4114...Madeleine Keyes. I have 2 new SHUGART SA 455 1/2 Ht. double sided drives, same as used in MD3s. You can convert an MD-1 or MD-2 to an MD-3. First \$310 takes them both. also I have 4 used Tandon TM-100-2 DSDD drives, same as used in IBM PC, good shape, \$135 each. Morrow MP-100 printer, like new \$310. H. Whitaker, 7603 P.O. Box 460, 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. SOFTWARE SOLUTIONS, 927 Mears Court, Stanford, CA 94305, (415) 493-7210. \_\_\_\_\_\_ \_\_\_\_\_\_ DBASE II programming. Solve your database management problems. Negotiable rates. Marc Norton (415)552-5549. \_\_\_\_\_\_ \_\_\_\_\_\_ WANTED: Used MD2, computer only (no terminal). Will pay \$600. Please call Rick Charnes, (415)821-4345. \_\_\_\_\_\_ 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: MD3 with all software, MDT20 terminal, 20-30 free disks, Shugart drives. Latest revisions. \$1195, b/o. Rob, (415)932-6308. FOR SALE: Diskettes DS/DD 3M's & ECHO Brand. Call Lionel at (415) 589-3088 (eves.) \_\_\_\_\_\_

#### BAMDUA OFFICERS

President Sypko Andreae Vice President Mitch Tannenbaum Georgia Babladelis Newsletter Editor Eugene Korte Librarian Dave Rosner Treasurer Advertising Director (vacant) Jeff Weissman At Large Andrys Basten At Large Charles Tart At Large

### ORDER BLANK FOR BAMDUA LIBRARY VOLUMES

DATE:		_ YOUR PHO	NE:
YOUR NAME	:		
ADDRESS:_			
			ZIP
			BAMDUA LIBRARY VOLUMES AT INED BAMDUA AS A MEMBER.
VOLUME #	QUANTITY	PRICE	
		\$	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
		\$	
TOTAL ENC	LOSED:	\$	=======================================

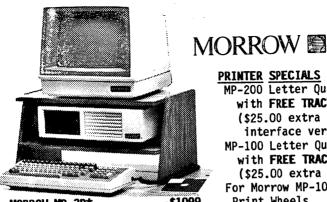
### ORDER BLANK FOR BAMDUA NEWSLETTER BACK ISSUES

DATE:		YOUR PHONE	
YOUR NAME:			
ADDRESS:			
			ZIP
NEWSLETTER, (Volumes 1,	VOLUME issues 1	1 and/or $2$ .	BACK ISSUES OF THE BAMDUA I AM A MEMBER OF BAMDUA Cost \$1 Issues #4, 5, Deach.)
ISSUE #	PRICE	COST	•
Volume 1 (1+2+3)     (AUG '83)     (SEP '83)     (OCT '83)     (NOV '83) Volume 2     (JAN '84)     (FEB '84)     (MAR '84)     (APR '84)     (JUL '84)     (JUL '84)     (no August     (SEP '84)	2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00		Please enclose a check for exact amount. Mailing and packaging is included. Make check out to BAMDUA.
(OCT '84) (NOV '84) 	2.00 2.00	\$ \$ 	BAMDUA, P.O. BOX 5152 BERKELEY, CA 94705
	-	· <del></del>	

### **MUCHAS GRACIAS**

Many thanks to all the members who contribute articles and ideas to the Newsletter. Thanks to Sypko Andreae and Dana Gaskin for pitching in to "put it all together." Special thanks too to Gene Korte for putting together our Library volumes and to all the people who work to produce the copies. And the office staff does especially want to thank Don Roszel for being a gracious and capable volunteer.

-- Georgia Babladelis



\$1099 MORROW MD-3P\* With: Std. Software PLUS: Smart CheckBook & options for: the MP-100 printer at \$300 or the MP-200 printer at \$500 ---- \$1595 MORROW MD-3E\* With: NewWord & CorrectIt PLUS: SuperCalc, Smart Check-Book & options for: the Morrow Modem with software at \$149 & MP-100 printer at \$395

-----\$1799 MORROW MD-3\* With: Std. Software

PLUS: MP-200 Printer, Smart Checkbook & option for the Morrow Modem with software at \$149

MORROW MD-5E\* ----\$1995

(5.4 Meg Winchester!!!) With: NewWord, CorrectIt, CP/M 3.0 & Backfield PLUS: Supercalc & options

for: Morrow modem with software at \$149,MP-100 printer at \$395 & rest of MD-11 software package at \$295

---\$2995 MORROW MD-11\*

(10.8 Meg Winchester!!!) With: Std. software

PLUS: MP-100 Printer, Smart CheckBook & option for the Morrow Modem with software at \$149

PRINTER SPECIALS

MP-200 Letter Quality: 17 cps with FREE TRACTOR ----\$695 (\$25.00 extra for serial interface version) MP-100 Letter Quality: 12 cps with FREE TRACTOR ---\$595 (\$25.00 extra for serial) For Morrow MP-100/200/300: Print Wheels (10, 12 & 15 pitch) ----\$ 18 Multi-Strike Ribbons ----\$ 9 Tractors ---\$120

MODEM SPECIAL

U.S. Robotics Password 1200/ 300 baud modem with autoanswer & auto-dial ReachOut ----\$499 software

SOFTWARE SPECIALS

NewWord	8 85
Supercalc	\$ 95
Supercalc 2	\$175
Smart Checkbook	\$ 75
Turbo Pascal	\$ 46
Grafiks 2.0	\$100
Uniform	\$ 65
ReachOut-Auto Answer	for
1200 baud modems	Ca11
ReachOut-Auto Answer	for
upgrade for MM300	prices
SmartKey II	\$ 65
(For MDT-50 & 100 to	erminals)

\*With "hands-on" instruction & unlimited telephone support.

## WORLD



**BUSINESS** CENTER

CALL 415/941-3269 TODAY

12186 WINTON WAY, LOS ALTOS

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

### 1984 BALLOT ANNUAL ELECTION OF BAMDUA DIRECTORS

	FOR	AGAINST	
Sypko Andreae			
Georgia Babladelis			
Peter Campbell			
Eugene Korte	<u></u>		
Stan Naparst		<u> </u>	
Dave Rosner			
Mitch Tannenbaum			
Jeff Weissman			

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