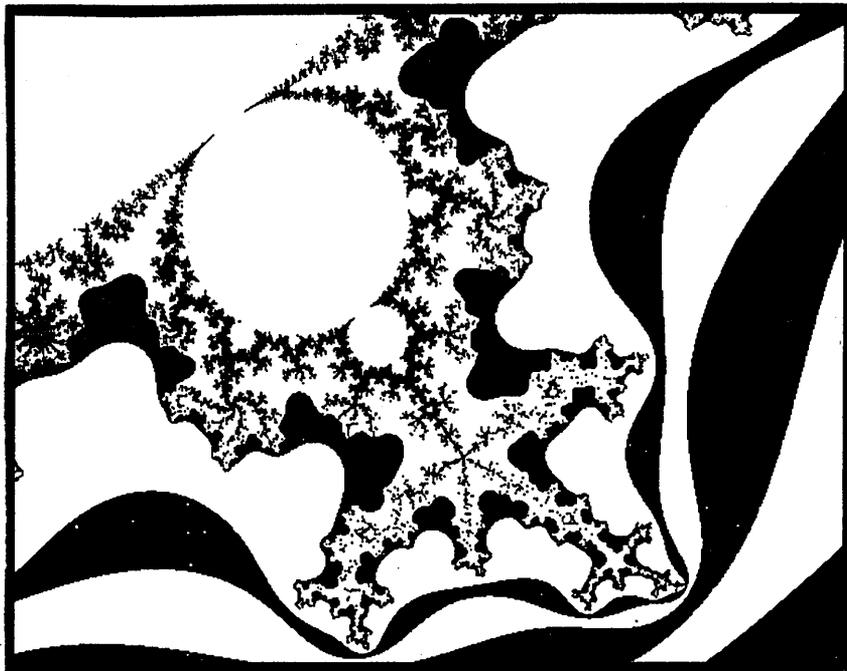


BAMDUA BAKUP News

Bay Area Micro Decision Users Association • Bay Area Kaypro Users and Programmers



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BAMDUA-BAKUP News is published bi-monthly by the **Bay Area Micro Decision Users Association** in cooperation with the **Bay Area Kaypro Users and Programmers**. A subscription comes with membership in either organization. BAMDUA and BAKUP also hold general membership meetings together which are open to the public.

BAMDUA, the Bay Area Micro Decision Users Association, is open to all who are interested in Morrow's Micro Decision computers. BAMDUA maintains a library of public domain programs and operates a bulletin board. Membership fee is currently \$16 per year. For information, please send a self-addressed stamped envelope to: BAMDUA, P.O. Box 5152, Berkeley, CA 94705. Also see membership application and library order form in this newsletter.

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Members at Large:	Sypko Andraea, Frank Oechsli, Lee McKusick

BAMDUA PBBS/RCPM

MicroBulletinBoard System (tm)	Sysop: Steven Wartofsky
Phone:	(415) 654-3882
Access:	Registration (See Bulletin on line). 24 hrs.
Bauds:	300, 1200, 2400
Hardware:	Morrow MD-5 running CPM+ (CP/M 3.0) 1 Floppy Drive (B), 2 Hard Disks: (A-5 meg; C-16 meg)
Software:	PBBS, BYE510, KMD21, SFILE26, LD, MAP

BAKUP, Bay Area Kaypro Users and Programmers, memberships are \$17.50 per year. BAKUP maintains a public domain library and operates a bulletin board. For information write to BAKUP, P.O. Box 20181, Oakland, CA 94620. Also see the membership application form and library information in this newsletter.

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Newsletter Editors	Frederick Winyard, Dennis Becker
Program Coordinator	Dave Bortin

BAKUP RBBS

Phone:	(415) 849-9389	Sysop: Woody McPheeters
Bauds:	300, 1200	
Software:	PICS (Pascal Integrated Communications System)	
Access:	See bulletin on line. Free to members of BAKUP.	

Well, finally, here is the first joint issue of the BAMDDUA and BAKUP newsletters. It will be (is) a little rough and it will take time to smooth out those jagged edges, but in a few months we'll have everything kosher.

Actually, from the BAKUP side of the house this is just a part of the continuing evolution of the newsletter since Fred and I replaced Nancy Mulvaney as editor about a year ago. We first had to establish our working pattern, then worked on some of the changes we envisioned when we agreed to take editorial reins, and finally began work on combining two separate newsletters.

To BAKUP readers it has been a year of constant changes. First came some changes in "look." Then came an unintentional (and later confirmed) switch to a bimonthly publication. Finally, in preparation for the merger of the two newsletters BAKUP adopted the BAMDDUA format (which we considered more cost-effective).

Since Georgia has been the BAMDDUA editor for about four years there hasn't been as much turmoil (I presume) with that side of the house. I suspect that BAMDDUA readers will see this issue as slightly more disjointed than you are used to (after all, there are now three editors who have to develop a new working pattern), and maybe a bit different visually. It will be interesting to hear your feedback. But for BAMDDUA and BAKUP readers alike this issue starts what we hope will be a larger, better, more useful newsletter.

Finally, I want to pass on information that may be news to BAMDDUA readers, but old-hat to BAKUP readers: this newsletter is ultimately a product of YOUR endeavors. We need your ideas and feedback, yes, but your submissions in the form of reviews, articles, tips, etc., are just as valuable. To remind BAKUP readers: a major reason why BAKUP News shifted to a bimonthly schedule (prior to the merger) was because BAKUP members were not submitting enough material to fill the pages. And the truth of the matter is that Fred and I (and now Georgia) do not have enough time to fill these pages with our own writings on a volunteer basis. So - won't you send in that item you've been meaning to write for so long now? Thanx!

GENERAL MEMBERSHIP MEETINGS — EVERYONE WELCOME

BAKUP and BAMDDUA members meet together on the third Tuesday of each month at 7 p.m. at the Albany Senior Center, 846 Masonic Ave., Albany. Take I-80 to "Albany Exit. Go east on Solano Ave. to Masonic, turn left. These meetings are a good place to ask questions, buy or trade equipment or programs, etc. Non-members are welcome.

Remember the **Morrow Owners' Review**? Of course, you do. Besides, some 200 of you are MOR subscribers who choose to receive this new BAMDUA/BAKUP joint venture newsletter as fulfillment for their remaining MOR subscription. I serve as associate editor and my function is to channel the old MOR energy in the direction of this newsletter. That means that I keep the relations with former MOR columnists and article writers warm, tickle some former MOR advertisers in doing a little more for less, and do my bit to spread some news of interest especially to old MOR subscribers.

By the way, if you are receiving this copy as fulfillment for your MOR subscription you should know that MOR is mailing you this copy (extra service: first class!), so all correspondence about fulfillment should go to MOR, PO Box 5487, Berkeley, CA 94705; or call the MOR BBS 415/654-3798 and leave message for SYSOP (that's me).

Mike Allen and Bill Steele have promised to write some more of their wonderful columns for this newsletter, starting with next issue. We plan to also have their columns printed in the MOR-Atlanta newsletter. Maybe Rick Charnes can be charmed into writing his ZCPR3 column for us again, if he ever comes back from Canada.

When you read this the fulfillment options will have mostly been, eh, fulfilled. Faithful MOR readers will recall the seven options offered, but you had to respond before January 1st, 1988, or else your choice would default to option (1): Forgive MOR the remainder of your subscription. Well, some 620 people actually responded, 5% of which did forgive MOR their subscription. Surprisingly only one third opted for the BAMDUA/BAKUP newsletter; another third wanted FLOBs, 12% wanted the MOR-Atlanta newsletter, 9% MicroCornucopia, and 7% wanted MOR back issues.

Gone are the dreams of thousands of former MOR subscribers flocking to the BAMDUA/BAKUP newsletter and eventually becoming members. What will they do all by themselves? The third who wanted FLOBs caused MOR to have to produce another 1000 diskettes with software, which have been produced with the help of a

WHAT'S IN A NAME?

The name of this publication, prominently posted on the front cover, is only temporary pending final selection by the Board(s) of Directors.

Before choosing a permanent name the Board(s) wanted input from you, the members. Have an idea? Great! Send it in for consideration - you won't "win" anything but who knows - you might be naming a future Pulitzer-prize winning publication!

few hired hands at 20 FLOBs an hour. A few back issues had to be reprinted, which turned out to be quite costly. MicroCornucopia magazine has warmly welcomed its new subscribers (at no cost to MOR) and will mail them copies till their old MOR subscription runs out, unless they renew with Micro-C. By the way, none of the "Big Magazines" came through with a fulfillment offer. If you opted for the latter you are getting this newsletter in stead.

MOR Mailorder intends to stay in business as long as there is a demand worthy of attention, no matter how small. MOR has no phone anymore; mail to PO Box 5487, Berkeley, CA 94750, or use the MOR BBS 415/654-3798. MOR Mailorder has been doing a mildly thriving business selling its MOR Products. If you are not a former MOR subscriber and would like to know what MOR has for sale send a SASE (with a 39 cent stamp on it) and you will receive a complete directory of 78 FLOBs and a MOR Product price list, showing items such as Morrow maintenance and software manuals, ZCPR3 Morrow adapted software, SuperCalc 2, MDHD Revival kit, ROM Upgrade kits, the MACK computer clock for Morrows, and lots more.

Many people have sent MOR touching and sad letters about MOR's demise as a magazine. Ah, yes, it was sad in a way, and also inevitable. MOR closed its office on October 23, 1987, after the "Final Edition" was produced, the staff was gently laid off for ever -- they have all found good jobs now -- and the MOR Mailorder department was moved to my home, in a little room, now renamed the "inner office." Greg Smith came by a month later and watched the tiny room, densely packed with shelves of MOR Products, boxes of FLOBs and shipping materials. After a silent minute he said: "How can it possibly all fit?" It is a bit like a one-man submarine, indeed.

The MOR and BAMDUA BBS are also living in that little room and keep it cozily warm in winter. I wonder what it will be like come summer. The BBSs are humming away, responding to distant calls, some from as far away as Yugoslavia, Germany, Switzerland and Australia. Did you know that was possible? First I thought they were fakes; jokes, you know. But they all turned out to be real people. How is that for a far flung global village? Come check in and chat with these real long distance callers; they don't call very often, they say it is expensive...

Talk to you later, folks, either here or on the MOR BBS.

GROUP RATE ON CHECKS & BALANCES

If three or more registered users of Checks & Balances wish to purchase the update now available we can get a 25% discount of the \$30 upgrade cost by ordering as a group. If you wish to participate please call BAKUP editor Dennis Becker at 415 825-3868.

This is a review of the Dots-Perfect upgrade for the Epson MX-80 printer. I first found the MX-80 when I was shopping for a printer for one of my clients in 1982. The discount price of \$650 seemed like a real bargain at the time, although today you can find the MX-80 at swap meets for a little over \$100.

The real virtue of the MX-80 is its rugged construction: it is hard to break it, and a lot of old MX-80 printers are still around. Incidentally, this is the same printer that IBM originally sold to accompany the PC.

The Upgrade: Dot-matrix printers are generally controlled by an internal microprocessor, whose program is stored in a separate ROM chip. Improvements to a printer can be accomplished by changing the program. There are 3 main features to be found in the Dots-Perfect upgrade to the internal program of the MX-80 printer: First, the Near Letter Quality (NLQ) and the enhanced modes. Second, you can select the setting of the printer's features from the front panel by pressing the right combination of the ON-LINE, LINE-FEED, and FORM-FEED buttons. Third, the IBM Graphics character set is included for those of you who use PC's.

The Dots-Perfect upgrade for the Epson MX-80 consists of a tiny plug-board containing a ROM chip, and a manual of instructions.

Documentation: The documentation is a 20-page pamphlet. There are detailed instructions for installation, beginning with removing the cover. The text is accompanied by 6 photographs and 2 line-drawings. You can tell from these pictures exactly what to do. There also is a chart of DIP-switch settings to configure the printer, operating instructions, sample selections of the Dots-Perfect features from the front panel, answers to common questions, and a chart of the software control codes for the modified printer.

Installation: Installation is simple. First you remove the cover from the printer. Then remove three existing ROM chips, and plug the Dots-Perfect board into the socket previously occupied by ROM 3B. Next you connect one wire with a spring-connector. On some printers, you also have to cut a jumper on the circuit board of the printer, but on my own printer this was not necessary. You must also set some DIP switches to configure the printer.

Now you test. If it works, replace the cover and put on the

sticker with the instructions for using the front-panel controls. Otherwise, you need to check your work again, following the trouble-shooting guide in the manual.

10 cpi NLQ Enhanced
 #0[\]^`{|}~
 !"#%&'()*+,-./0123456789:;<=>?@
 ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`
 abcdefghijklmnopqrstuvwxyz{|}~

Operation: If you are a programmer, you can control the upgraded printer via software codes. The other way is to use the front panel controls. When the printer is on-line, press FF to select NLQ mode, press LF for draft mode. With the printer off-line, you press a combo of the LF and FF buttons to turn features on and off: these include condensed, double-wide, emphasized, double-strike, italics, underline, slash-zero, 1/2" left margin, perf-skip, and 8 lines per inch. I almost forgot FINE PRINT, which is handy if you want to print signs for your model railroad, or if you are a lawyer for the devil (see the print samples).

Related Products: Dots-Perfect upgrades are available for other Epson and Oki printers.

Evaluation: If you have an old MX-80, this will improve it. However, don't buy an MX-80 in order to buy Dots-Perfect. If you need a cheap printer, buy a brand-new Panasonic 1091L, which will cost only little more and give you more features.

Purchasing Dots-Perfect: I bought mine for \$69 mail-order from Central Computer Products from their ad in Profiles.

Manufacturer: Dresselhaus Computer Products, 8560 Vineyard Ave, Suite 405, Rancho Cucamonga, CA 91730; (714) 945-5600.

```
17 cpi NLQ
##@[\]^_{|}~
!"$%&'()*+,-./0123456789:;<=>?@
ABCDEFGHIJKLMNQPQRSTUVWXYZ[\]^_`
abcdefghijklmnopqrstuvwxyz{|}~
```

```
17 cpi FINE Draft
##@[\]^_{|}~
!"$%&'()*+,-./0123456789:;<=>?@
ABCDEFGHIJKLMNQPQRSTUVWXYZ[\]^_`
abcdefghijklmnopqrstuvwxyz{|}~
```

```
10 cpi Draft
##@[\]^_{|}~
!"$%&'()*+,-./0123456789:;<=>?@
ABCDEFGHIJKLMNQPQRSTUVWXYZ[\]^_`
abcdefghijklmnopqrstuvwxyz{|}~
```

TRADEMARKS: The following frequently used registered trademarks are acknowledged, and we apologize for any we have overlooked: CHECKS & BALANCES-CDE Software; CONIX-Computer Helper Industries, Inc.; CP/M, DDT, ASM, STAT, PIP, RMAC-Digital Research; dBASE II/III-Ashton-Tate; ELECTRA-FIND-O'Neil Software; HANDY-MAN-High Tech Research; KAYPRO-Kaypro Corporation; MS-DOS-Microsoft; MTBASIC-Softaid, Inc.; PERFECT WRITER/FILER/CALC-Perfect Software; REMBRANDT-Spectre Technologies, Inc.; T/MAKER-T/Maker Company; THE WORD PLUS-Oasis Systems; TURBOGEN-Plu*Perfect Systems; TURBO PASCAL-Borland International; TURBOROM-Advent; WORDSTAR, DATASTAR, REPORTSTAR, NEWWORD-MicroPro International; XTRAKEY-Xpert Software; Z-SYSTEM, ZCPR, ZRDOS-Echelon, Inc.; Z-80, Z280-Zilog

EZLIST
c/o ARROW CONNECTION
P.O. BOX 899
POLLOCK PINES, CA 95726
\$39.95
(Discount price available)

EZlist is a list management program. It can be used for mailing lists, customer lists, prospect lists, membership lists, even lists of birthdays and anniversaries. With EZlist it is possible to perform a number of operations on your data.

EZlist is an easy program to operate, being completely menu driven. The opening menu lets you choose what operation you want to perform on your list. Here is an explanation of your choices.

1 Create a new file

A disk is like a file cabinet because it holds many files. You can put anything you want into a file, and you can name the file anything you want. Your new file will be a new list that you type and store on disk. As you type in your list, you may do minor editing. A time-saving feature is the repeat key which the program will tell you about. What if you goof and type the wrong information under the wrong field? There's an easy way to move it down to the next field without re-typing it.

2 Add to an old file

If you started a list yesterday, and want to add to it today, select this option. When you start, the program shows you the last set of data so that you know where you left off. From there on the program works like "Create a new file."

3 Edit an old file

This option lets you make changes to your data anywhere in the list. It lets you move back and forth in the list, it helps you find things, and it has an automatic find and replace function.

4 Change fields on an old file

You can arrange a list simply by rearranging field names. For example, if you decide you want LASTNAME before FIRSTNAME, then one little change will automatically change the entire file. You can even delete or add fields for total flexibility.

5 Sort a file (alphabetically, by zip code, etc.)

You can sort a list by name, by zip code, or by anything you want. Alphabetical sorting ignores upper and lower case letters. "Mc" and "Mac" sort properly so that "McPherson" is sorted alongside "MacPherson."

6 Find duplicates in a sorted file

You can find and purge duplicates or near duplicates. This saves postage for your mailing list.

7 Merge two or more sorted files

You can merge two or more lists together to make one big list.

8 Import a word processing file into the list

You can import a previously created list into this program. It doesn't matter whether your previous list is a word processing list, a data base list, or a mailmerge list. This saves you from having to retype your list.

9 Split city, state, zip into three fields

This option is useful if your previously created list had city, state, and zip on one line, and now you want to sort by zip code. The zip code has to be in a field all by itself before the computer can sort by it. This option automatically separates city, state and zip (US or Canadian) into three fields.

N Select every Nth record

This allows you to take a random sampling of your list. You may select every 5th name, every 6th name, or whatever number you choose.

L Select part of a file within certain limits

This is one of the most exciting parts of the program. Out of a nationwide list, you may select all addresses in California. To get fancier, you may select all addresses in California EXCEPT those who live in Los Angeles or San Francisco. You can specify an almost endless variety of conditions.

SUMMARY

This program is ideal for maintenance of your mailing lists, where computations are not required. There is an adequate amount of flexibility for most applications, and data can be exported to other programs, such as WordStar, for use by MailMerge, etc. It is nice to see new programs such as this being written for CP/M. Mr. Al Beechick has offered a \$5.00 discount through March 1, 1988 to members of the User Group. This program is well worth considering as an alternative to dBASE or Personal Pearl.

Some Bugs Have Programs

"There is very little difference, in principle, between a two-state binary informaton technology like ours, and a four-state information technology like that of the living cell.

... The whole translation from strictly sequential DNA ROM to precisely invariant three-dimensional protein shape is a remarkable feat of digital information technology."

Richard Dawkins

The Blind Watchmaker

W.W. Norton & Company, 1987

I've mentioned the MacInker before -- it's a small device that reinks fabric ribbons for printers. One drawback of the MacInker has been that you needed another MacInker for each ribbon type that you had. For people or offices with more than one printer this meant that the MacInker was not as economical as it might be and you had more MacInkers to store -- often meaning you couldn't find the right MacInker when you needed it. Well, Computer Friends has done it -- they've created a Universal MacInker. Well, actually, there are TWO Universal MacInkers -- one for cartridge ribbons and one for open spool types.

The Universal MacInker consists of a base with a motor, two holes into which to screw ribbon drivers, and a bunch of holes in which to position the ink holder and a ribbon positioner. The ribbon type Universal MacInker sells for \$68.50 with one driver -- each additional driver costs \$8.50. The spool type Universal MacInker sells for \$66.95.

I've been using a MacInker for about two years. In the summer of 1984 I bought four ribbons for my Transtar 130. One of them got chewed up when I left it on the MacInker overnight and the gear mechanism failed. I'm still using the other three. Each one has been reinked eight or nine times. When I reink the ribbons, I get darker print than I got when the ribbons were new. I'll concede that sometimes I don't realize how light the ribbon has gotten, but my intent is to change the ribbon long before it gets to the point that I would throw out a ribbon if I couldn't reink it.

Reinking ribbons is not something for a "clean room." You're going to get a bit of ink on your fingers. It cleans off readily with WD-40 or waterless hand cleaner. On the other hand, using the MacInker is not "messy" -- you don't need to worry about getting ink all over, it's just that you can't avoid getting a bit on your fingers, no matter how careful you are. Keep a few paper towels around, and work on a few sheets of old newspaper, and you won't have any problems.

A 2 ounce bottle of ink costs \$3 -- but they come in a box of 4 and the minimum order is \$12! You might want to order an extra one when you order your MacInker. A bottle of ink lasts a long time. I don't have a count, but I'm sure that it's not far wrong when Computer Friends says it costs about 5 or 6 cents for the ink to reink a ribbon.



For those who don't use many ribbons, or who don't want to spend the \$60+ that a MacInker costs, there is another inexpensive method that works well for some ribbon types. Two purveyors sell a pressurized spray can of ink. RE-INK-IT comes in a 5 ounce spray can from RE-INK-IT, Lynchville

Park, Chatel Ave., Goffstown, NH 30345. I paid \$8 for the can. EBONIZE comes in a 3 ounce spray can from UPWEGO Computer Supply, Inc., 120 West Madison Street, Chicago, IL 60602. I paid \$14.95 plus tax.

Reinking ribbons with a spray can is, in a word, MESSY. You had best have a bunch of newspapers spread around. You have to pry open the top of the ribbon cartridge. This works well with some types, such as Epson, which have metal cartridges which you can easily open. With these you can also replace the ribbon in the cartridge. Once the cartridge is open, you spray the ink on the ribbon, trying to get it evenly all over the ribbon without getting too much on the newspaper or the carpet. Then you have to close the cartridge, a process that isn't so easy with some ribbons.

If the ribbon pops out, it's often not too hard to get it back in. Make sure the gear mechanism is in place properly. The best way seems to be to let it all hang out, put in a strip that goes through the cartridge, and close it up. Then get out a hand drill -- electric ones go too fast -- and put in a screwdriver bit that will fit in the bottom of the cartridge where the printer turns the ribbon. Most of the cartridges have either a star shaped driver that takes a Phillips head screwdriver bit nicely, or a straight slot that takes a straight screwdriver bit. Stick the cartridge in a vise, or have someone hold it, while you turn the drill and wind the ribbon into the cartridge. You can use a plain screwdriver, or the knob on top of the cartridge, too, but it's quite slow.

RE-INK-IT says that reinking a ribbon costs about 20 cents. Figure a bit more with EBONIZE, but in either event, it's a lot cheaper than new ribbons. You'll have to decide whether the extra mess with the spray cans balances against the initial expenses of a MacInker.

Other methods of revitalizing ribbons aren't recommended. You should be sure to use an ink specially formulated for computer printers, especially if you use a dot matrix printer. Spraying WD-40 in the cartridge can gum up the head on a dot matrix printer, and doesn't replenish the supply of ink in any event, simply allows you to use a bit more of what's already there.

(Ed. note: I purchased an inker in January 1988 for my Epson printer from PBM Industries, 360 N. Andreason, PO Box 2839, Escondido, CA 92025. The cost there was \$39.95, plus \$3 for shipping and handling.)

[A continuation from the November 1987 issue of BAKUP News.]

First, let me say: Thank you! The upgrades article generated more feedback than everything else we've done, combined, in the last year. I suspect we would have heard from more of you if I hadn't changed my telephone number unexpectedly. (The new number is 415 825-3868.)

Second, there are no corrections to report from Part I. I'm sure there are corrections that could be made, but nobody reported them!

With that said let's start with some of the requests for recommendations received since Part I was published (these are all telephone conversations, distilled here to save space):

Situation #1: "I have a Kaypro II with SSSD drives. I'm happy with the machine except for one problem: I'm writing a very big book and most chapters are bigger than one disk will hold."

Recommendation #1: This situation helps to explain why I prefer to dispense advice right in the recipient's work area, with his/her actual system. Frankly, I cannot believe that a "chapter" can be 180 k (I doubt, even, that a word processor will handle a file that large); I'm almost certain you must be putting all the program files - and other files! - on the same disk holding the chapter file(s).

But you assure me the situation is as described. The obvious solution, then, is to increase the capacity of the disks, which means replacing the disk drives. The two SSSD drives could probably be replaced with quad drives, a replacement boot ROM capable of recognizing the new drives, and labor for about \$250. I'm sure you are sufficiently non-technical enough that labor would have to come from an outside source. In fact, I sense you are so non-techy that even arranging for the upgrades would be uncomfortable. So as an alternative to replacing the drives I suggest you consider buying a used Kaypro 10 (there's one in this issue going for \$400). Not only would you get a faster machine, with considerably more disk space, but a Kaypro 10 is amenable to other upgrades, if you should find them desirable in the future.

Situation #2: "I'm perfectly happy with my system but sense I'm not getting the most out of it, and that my work is too inefficient - my 'keyboard speed' is too slow."

Recommendation #2: You seem to have a good grasp of your machine and its potential, and you seem well grounded in the basics. My recommendation is: join the Bootstrappers to improve your overall computer literacy, and get a good key redefinition program. These programs do wonders for eliminating repetitive

keystrokes!

Here is a warning for you, however, and others in similar situations: as you improve your personal performance don't be surprised if you find an increasing need to soup up the machine!

Situation #3: "I'm familiar with MS-DOS and its associated software, hardware, etc. But I don't need bells and whistles and 14 megabyte spreadsheets; in fact, my extensive CP/M software library is quite adequate and I never seem to find a project I can't do with it. Besides, I have untold hours of experience with CP/M and numerous data disks in that format. I have a Kaypro 4-84 with one DSDD drive and a quad drive. Is there some way to soup up the machine to perform near AT standards?"

Recommendation #3: Good question. The new Z280 chip is roughly equivalent to the Intel 80286 in performance and capability. (If anybody wants to quibble I'll merely fall back on the operant "roughly" - so save your time!) The capabilities of the Zedux board are still unknown to me, but the Ultraboard would satisfy your needs. The basic board with one meg of RAM plus the battery-backup for the RAM will cost about \$650 (check with High Tech). Then each additional meg of RAM will cost about \$100. With, say, five megs of RAM (put application programs and often used files in RAM; and data mainly on disks) you'd have one spiffy machine.

You can speed up your machine in other ways not involving Ultraboard, such as a hard disk and/or RAMdisk, but these routes do nothing about improving CPU speed and performance. Furthermore, by going the Ultraboard route you can load the board with enough RAM chips to give yourself a permanently powered RAMdisk that the Z280 can directly access and, in the process, probably eliminate the need for a hard disk.

The catch here is cost. The basic board with backup and four additional megs of RAM will cost about \$1100. What kind of DOS system you can buy for the same money, and the capabilities of that system, would depend on your shopping ability. So I presume your need/desire for high performance, and your willingness to stick with CP/M software, is worth \$1100 to you!

Situation #4: "I already have the HTR K-20 with all its little goodies. I'm dedicated to CP/M -- there's no way I'd exceed its capabilities for many years. But what you call "overall speed" is very important to me. What do I do?"

Recommendation #4: You're in the same position I am, essentially. In your case the basic Ultraboard should do fine. You'll get the increased performance of the Z280 plus some additional RAM; you already have the speed/storage capacity of a hard disk.

If you want even greater "overall speed" heed the advice in Recommendation #3 above - add more RAM to the Ultraboard and buy the optional batter-backup. Like that user, you will then be using the additional RAM for your application programs and

current data files, and your hard disk will become primarily a storage medium for seldom-used files and backup files. (Although, I still keep backups on floppies, too.)

Products/Solutions and Vendors/Resources

In this section, finally, you will find some notes about various products/solutions and where you can obtain them. Vendor names, addresses and phone numbers are at the end.

COMPUTER LITERACY: I included computer literacy with "personality factors" in Part I. As you may recall, most of the personality factors may require therapeutic intervention if you are unable to figure them out yourself.

But computer literacy is a much easier "upgrade" to tackle, and usually much cheaper. By virtue of your membership in BAKUP you've taken a step towards improving your knowledge base. There are other resources listed in this publication in the "BAKUP Experts" column. Additionally, if you want to become proficient in a particular program (such as dBase) you can find user groups with that focus; look in MicroTimes and Computer Currents for current listings of user groups. Then there are community college classes, private tutoring, etc., etc. There are so many avenues that the best advice I can give is -- seek and ye shall find!

SOFTWARE: Most commercial software programs can be purchased through Central Computer Products, Spite Software or the publishers themselves (Spectre Technologies, Xpert Software, CDE Software, etc.).

It is far beyond the scope of this article to give recommendations on individual application programs. So if the "upgrade" you need is simply a better checkbook program you'll have to do more research (back issues, other publications, etc.). But in terms of system performance the best software I can recommend is some key redefinition program. The two most popular ones are SmartKey (from Central) and XtraKey (from Xpert). Some users have had trouble getting SmartKey to work with Handyman, so if you think you may ever buy Handyman then shop carefully for your key redefinition program. (Earlier versions of XtraKey are also incompatible, but Xpert very rapidly patched their program. Newer versions, of course, are already compatible.)

Echelon sells the commercial version of ZCPR3, along with a host of supporting programs and services. ZCPR, along with ZRDOS, is a complete replacement for CP/M, while maintaining 100% compatibility with CP/M programs. There are at least a couple of other CP/M replacement operating systems on the market, but no others have the prominence of ZCPR nor the kind of "industry recognition" as ZCPR. For example, WordStar 4 includes one or two enhancements that recognize ZCPR. The point is, ZCPR

might be the best replacement operating system because of the likelihood it will be supported by other vendors in the CP/M market.

Is ZCPR a good upgrade? A lot of people think ZCPR is more valuable on a hard disk machine, and that the space it requires makes it too impractical for disk-based machines. I disagree; ZCPR and ZRDOS is very useful even on a disk-based machine, although you may have to employ it in its minimum configuration.

Echelon also sells Backgrounder II, which is extremely useful on hard-disk machines.

Lots of "upgrades" can be found in public domain software. Major sources are your own BAKUP library (of course) and Micro Cornucopia and the International Software Library. (The BAKUP library also has O'Neil Software's Electra-Find program, which is an excellent all-purpose text finder.)

FIRMWARE: At least four companies make replacement boot ROM's: Advent, Micro-Cornucopia, Highland MicroKit and Emerald Micro-ware.

I frankly don't know much about Emerald Microware or their products; I don't even know anyone who does. (Any reader with personal experience is encouraged to write.) Highland appears to have had a reputation problem a few years ago, which may have been resolved (if it ever existed), but they have no telephone number(s) for customer orders or support. Personally I don't buy from a vendor I can't call for support.

That leaves Advent and Micro-Cornucopia, the two major suppliers of replacement ROM's. I've had both ROM's on two different machines and found them to be very satisfactory. However, it appears that most vendors actively involved in the CP/M upgrade market favor the Advent Turbo-ROM, so that may be your best bet. (Be prepared, however -- if you have "older" software you may need an upgraded version or a patch to make it run with the Turbo-ROM. I never had that problem with the Micro-C ROM, but I now have many more application programs than at that time.)

Do you need a replacement ROM? Well, it does many neat things, including adding a bit of speed, but unless you're going to tinker with your disk drives you may not need it.

In my opinion some kind of "Sidekick" capability is a big improvement. But whether you get the software versions, Presto (from Spectre) or Write-Hand-Man (from Central), or the firmware version, Handyman (from High Tech), is a personal decision. There are big differences, so compare carefully!

Our last stop in firmware land is the Zedux board and Ultraboard. Once again I can't say much about the Zedux board, but the Ultraboard (from High Tech Research) will literally elevate your machine to a whole new plateau. The Ultraboard is now scheduled for release in April or May. For what it does its price tag is cheap, but high enough to cause you to make certain CP/M will satisfy your needs for at least a few years.

HARDWARE: The major suppliers of hardware and/or hardware-related service seem to be WestWind Computers, Advent, and High Tech Research. (Central Computer has a supply of peripherals, such as modems and printer buffers.)

WestWind and Advent supply parts (hard disks, RAMdisks, speedup kits, etc.), but High Tech will supply them and install them (which means when the computer is in transit and while it is being modified you are without it). The alternative is to install them yourself, or to locate a local dealer who is capable and willing (see the issue of BAKUP News listing local dealers).

There are pros and cons to both approaches, of course, and simple hardware mods surely don't require technical expertise. But a good rule of thumb is to call High Tech for a quote, against which you can compare the alternatives, then decide.

VENDORS

This is a partial list of vendors who supply upgrade products and services. Generally, if the vendor's name was mentioned in this article then s/he is listed below. However, no attempt has been made to list the publishers of application software.

Sources for software which effects system performance (i.e., operating systems, key redefinition programs, etc.) are listed.

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issue for details)

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Editor's Note: This was written some time ago. Many of the ideas expressed are still current, and deserve repetition, particularly if you are contemplating retirement of your CP/M system.)

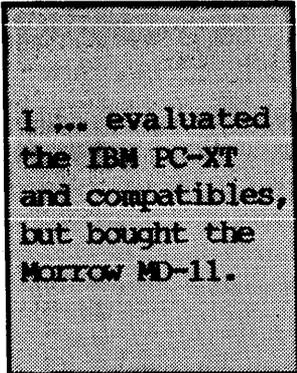
My business as a freelance commercial photographer consists of producing photographs for annual reports and other corporate publications as well as a small amount of advertising. My work is all done on location.

As my business has grown over the years, I have had increasingly less time for the office chores that are a necessary part of running a small business. In 1983, after extensive research, I bought a Morrow MD-2 and a NEC 3510 printer. The MD-2 is an 8-bit, CP/M based system with two single-sided 190K disk drives and a terminal. Bundled with the computer were WordStar (since replaced by NewWord), an excellent spelling checker called Correct-It, Personal Pearl (a first-rate database program), Logicalc (a terrible spreadsheet program which Morrow has since replaced with SuperCalc2), Basic, and several other utility programs.

One of the strong features of the Morrow system that first attracted my attention is that all of the programs are accessible from a menu-driven program that comes on the screen when the computer is first turned on. Since becoming familiar with CPM, I no longer use this Morrow Pilot Menu, but it made the initial learning period almost effortless.

After a year of using the MD-2 with 190K floppy disks, I became impatient with constantly switching floppies and waiting for the programs to load. I researched the hard disk market and closely evaluated the IBM PC-XT and compatibles, but bought the Morrow MD-11. It has an 11MB hard disk, 128K of RAM, uses CPM 3.0, and includes NewWord (virtually identical to WordStar), Correct-It, Personal Pearl, SuperCalc2, Quest Bookkeeper, a handy hard disk backup program, and several useful utilities.

While there are clearly compelling reasons to own an MS-DOS computer, I decided that for my purposes, CPM 3.0 which addresses 128K of RAM was more than sufficient. The maximum size of a spreadsheet is more limited with the smaller memory, but is ample for my uses. I could design larger forms with the database system, but I have not found the current limitation to be a problem. The database would sort faster with a 16-bit processor, but the size of my data files doesn't necessitate faster sorting. In addition, while cost was not high on my list of priorities, the Morrow system, with software, is by far and away the best value available in of-



I ... evaluated
the IBM PC-XT
and compatibles,
but bought the
Morrow MD-11.

office computing.

My use of the computer includes word processing, database management, bookkeeping, and financial management. There is no question that had I not gotten the computer, I would have had to hire a secretary and/or a bookkeeper. As it is, I am able to do all of my office work myself, without feeling that it is in any way a burden.

My use of WordStar includes sending clients letters of agreement or contracts to confirm assignments. I have a contract which I modify to suit the particular job. I prefer that my clients get what they think is a personal letter, instead of a contract on a printed form. I use MailMerge to do promotional mailings, which can easily be "personalized." In addition, I use WordStar to prepare forms such as consignment memos when I deliver photographs, and for filling out the Federal Express airbill.

If word processing makes a typewriter look old fashioned, then a database system makes all previous methods of tracking information look positively archaic. The most dramatic improvement in my business efficiency has been a result of using Personal Pearl, the database management system. My Rolodex for keeping track of suppliers has been replaced by a database I have named WWW (Who*What*Where). In addition to fields for name, address, etc., I have a general area field and a specific area field which are indexed. For example, I can scroll the data for labs which make duplicate slides by typing "DUPE" in the specific area field, or I can locate my insurance agent or banker by typing "MONEY" in the general area field. There are also several 80-character wide fields in which I can make notes.

My old notebook for keeping track of clients has been replaced by a Pearl file called CLIENT. In addition to the usual information, I have a field for type of business (corporation, ad agency, etc.) and for relationship (current client, potential client, wonderful client, terrible client, etc.). As with WWW, there are several lines for entering notes such as price quotes, who referred them to me, etc. I use the CLIENT database to generate the data file from which WordStar produces my promotional mailings.

My other main use of the computer is for bookkeeping. The Quest Bookkeeper which comes with the MD-11 seems to be a very good program, but I don't use it. Instead, before I bought the MD-11, I designed my own system using a combination of Personal Pearl and Multiplan, the spreadsheet program I bought to replace Logicalc when I owned the MD-2.

As with my aversion to sending pre-printed contracts to my clients, I don't like to send invoice forms either. Instead, I like the invoice to look as though I typed it personally. While I could use a database for this purpose, I have found Multiplan to be perfectly suited for the job.

The first part of my invoice spreadsheet is a data entry form in which I enter statistics about the job such as the

invoice number, the date, the client's name and address, purchase order number, a description of the job, the sales tax status (taxable, resale, etc.), and a note about the quality of the job. Next, there is a data entry form for my time and materials. (A separate part of the sheet tracks the cost of the materials and calculates the mark-up.) The next part of the form consists of a list of items for travel expenses, shipping, telephone, etc., with space to enter the corresponding dollar amounts. The invoice itself is calculated from the data entry part of the sheet, and only includes items for which there is a charge. In other words, if the amount for "airfare" on the entry form is \$0.00, then that item will not appear on the invoice.

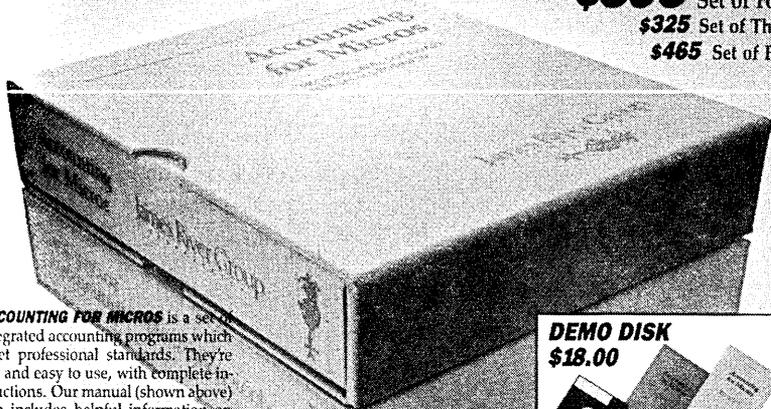
There is a line at the bottom of the invoice form which summarizes the job statistics and separates the charges for fees, sales tax, materials, reimbursable expenses, and so forth. Using Multiplan's (incredible!) External Copy command, I transfer the summary line to another spreadsheet which is a ledger of accounts receivable. When the invoice is paid, the summary line is moved to the accounts paid area of the ledger sheet. All of the information about my income necessary for sales tax and income tax purposes is automatically gathered by this system. In addition, the statistics about my business--how many days I work, the fees, expenses, type of work, etc.--can be analyzed and sorted in any number of useful ways. I can see, for example, which clients generate the most business over the course of a year, what percentage of my work is advertising versus annual reports, which type of work yields the highest fees, and so forth.

While the Multiplan invoice and ledger system generates invoices and tracks statistics about the business, I use a Personal Pearl form which I've named MM (Money Manager) to track all expenses and to manage checking, cash and credit card accounts. The form has fields for: check # (0 for non-check entries), account number (including cash, checking, money market, VISA, etc.), date, amount, company or name, memo, category (materials, airfare, etc.), and tax status (business deductible, business income, personal income, etc.). The same form handles both my business and personal accounts. In addition to tracking all cash and credit card expenses, the system prints my checks and provides all the reports necessary for preparing income tax returns. Since Pearl is menu driven, and the hard disk is lightning fast, the system is easy to use and wonderfully efficient. In the year and a half that I've been using MM, my checkbook has never failed to balance!

A source of great satisfaction I get out of owning a Morrow computer are the two responses I get when people ask what kind of computer I have. Sometimes, I get a blank, quizzical look and they say, "What's that?" More and more, however, particularly from people in Silicon Valley who really know their stuff, I get a strong, knowing, nod of approval. Both responses make me feel that I've got the perfect computer for my needs!

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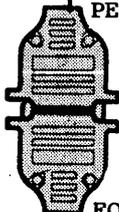
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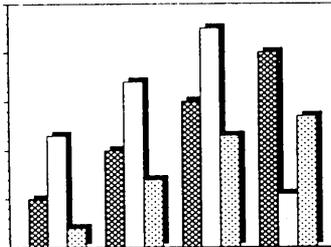
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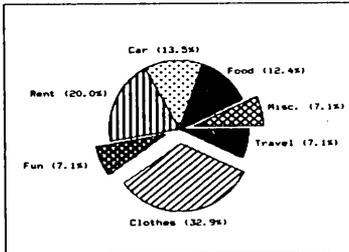
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■ **Beginner's Questions**

Bob Athey/526-3541
George Van Sickle/682-3188

■ **CP/M Beginners' Group**

Anne Folsom/843-8454

■ **CP/M**

Ken Fowler/222-0830
Stew Pugh/527-7272

■ **MS-DOS**

Ted de Castro/581-8882

■ **BS'ers (CP/M & MS-DOS)**

George Van Sickle/682-3188

■ **MBasic**

Bob Bruner/528-1065*

■ **Turbo Pascal**

Frederick Winyard/639-7716

■ **WordStar**

John Buck/268-9541
Stan Naparst/525-2086
Chris Peeples/655-4438*
(10a.m.-11p.m.)

■ **New Word**

Bob Athey/526-3541

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Jeanne van Oosten/547-4792

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HELP IS AVAILABLE

The following people have kindly offered their help to BANDUA members:

George Borys: CP/M operating system; hardware-related problems. Call between 7-11 p.m., 415-582-7615.

Peter Campbell: General questions, including NewWord and dBase. Call during day or after 7 (up to 10) p.m., 415-527-3387.

Rick Charnes: General questions, also specific ones about modem communications, ZCPR, Word Processing. Call in the mornings up to 11 a.m., or evenings and weekends, 415-826-9448.

Gene Korte: General questions, and ZCPR. Call 7-10 p.m. or weekends, 415-525-8944.

Lee McKusick: Turbo Pascal. Call a.m. only, 415-849-9053.

Stan Naparst: WordStar. Call 415-525-2086 (may leave msg.).

Frank Oechsli: General questions. Call evenings, 415-527-6089.

Ilbert Butler: SCUGI (Stray CP/M User-Gatherer Info) and non-Morrow computer users; help on hardware, merging print-int, transfer of files between CP/M and other, etc. Call 415-526-8655 until midnight; leave message: 524-8084.

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Grammatical Man

Jeremy Campbell, 1982

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CP/M Plus Guides \$30
MBASIC User's Guide \$8
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10/10/85