

December 12, 1985

Volume 3

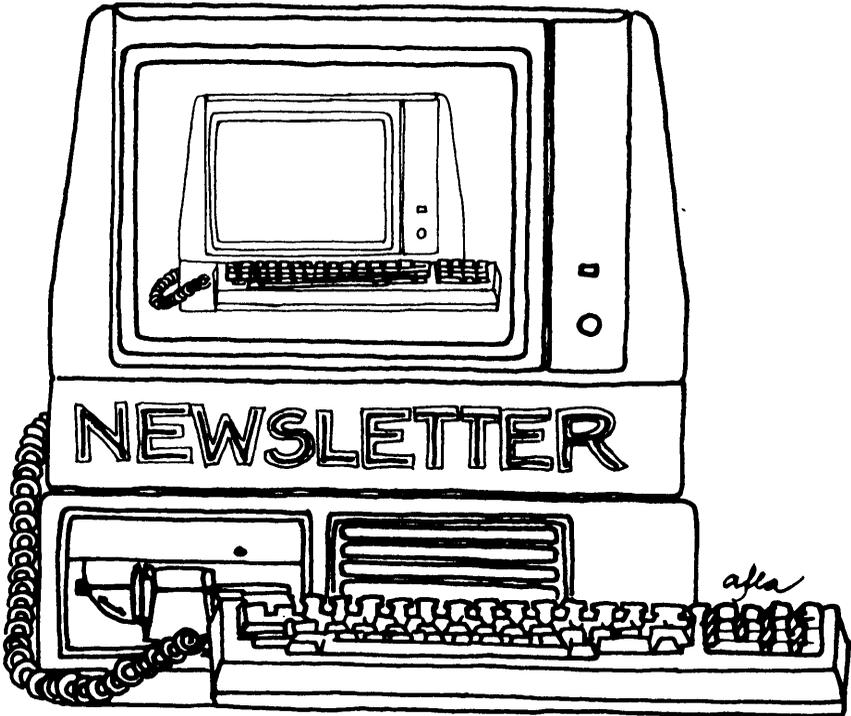
Issue #11

**BAY AREA MICRO DECISION USERS ASSOCIATION**

Happy Holidays



**BAM DUA**



A MUTUAL SUPPORT NETWORK FOR USERS OF  
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## Advertisors:

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# NEWSLETTER

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

- o Submit material before the 23 of each month
- o Submit hard copy along with a WordStar file on a SSDD or DSDD diskette; left margin, default; right margin, 68 and right justified. (NewWord files are acceptable).
- o Include your name, address and telephone number  
Your disk will be returned to you.
- o Send newsletter materials to: Newsletter Editor  
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 about BAMDUA, call the BAMDUA Office, 415-644-2805. If you need technical help, use your DIRECTORY.

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

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

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

We reserve the right to edit articles submitted for publication. In keeping with the spirit of "public domain" we grant permission for articles appearing in this Newsletter to be reprinted by other users' groups for the purpose of free dissemination of information as long as proper identification is made of author and source.

Thanks. --Georgia Babladelis, Ed.

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

Monthly newsletter, Vol. 3, Issue 11 December 1985

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

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

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

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

+++ Next main BAMDUA meeting: ++++++  
+  
+ WHEN: Tuesday, January 28, 1986, 7:30 p.m. +  
+  
+ WHERE: West Branch, Berkeley Library +  
+ 1125 University Avenue, Berkeley +  
+ GUEST: Jon Gordon, former chief of Berkeley Computer +  
+ Service +  
+ TOPIC: Demonstration of computer repairs +  
+  
+++++

PLEASE NOTE: There will be no BAMDUA meeting on December 31.

LOCAL MORROW USER'S MEETINGS:

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

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

SCMDUG (Santa Cruz Micro Decision User's Group) meets on the first Thursday of the month. There is always a demonstration of some mutual interest. New meeting place is the Dominican Hospital Education Center. Call for information: Marianne Russell, Sect., 408-438-0662; or Daniel Payne, Pres., 408-476-0203. The new mailing address is: SCMDUG, c/o Marianne Russell, 376 Lucinda St., Scotts Valley, CA 95066.

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

CLASSES:

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

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\*\*\*ANNOUNCEMENTS\*\*\*

ATTENTION MEETING LOVERS

Hello BAMDUA members! I want to set up a pool of people who would like to alternate doing sales at the monthly BAMDUA meetings. This takes one person to be responsible for the sales table with the option to ask someone from the audience to help you with it. If 5 or 10 people respond to this notice, each one will end up doing it only once or twice a year. Please call and talk to me or leave a message on the machine if you are interested and I will call you back promptly. Your response is much appreciated.

--Dana Gaskin

-----  
DVORAK DEVELOPMENTS (Sic), P.O. Box 717, Arcata, CA 95521, predicts the new wave in word processing productivity lies in conversion to the Dvorak Keyboard. They now have a newsletter that reports on ergonomic layout and the efforts of businesses converting to it. It is published quarterly and costs \$12/year. The Fall issue is a special promotional edition and features an overview of the many products available which support the keyboard. BAMDUA readers may get a free copy of this issue by sending a 6x9" self-addressed envelope with \$0.39 postage. If you mention BAMDUA in your request, you will also get a special informational brochure describing how to convert computers to Dvorak.

# FROM THE PRESIDENT'S DISK

by Sypko Andreae

Now that Morrow has cancelled all their Micro Decision dealerships, you can't buy MD machines in computer stores anymore. However, there are still quite a few people who want to buy these splendid machines. The MOR/BAMDUA office receives an increasing number of calls from potential buyers. People still want to buy Micro Decisions for reasons varying from a strong recommendation by a Morrow owning friend to the need to get yet another machine of the same kind for the office. Of course we all know about the MD's reputation for reliability. Apparently there are others that do too.

What is the second hand market like? So far there seems to be a slightly larger demand than supply. The strongest demand is for MD3's, and they go for \$650 to \$800 including the terminal, of which the MDT 20 (Lear Siegler) is the least popular. Some MD2's have gone for as little as \$400. There is also a steady demand for hard-disk machines with prices ranging from \$1000 to \$1500 for MD11's.

You can find these machines through user group newsletters, free papers like the Bay Area Computer Currents, and the national tabloid Computer Shopper. Even the local papers carry classified ads from private parties who have sadly succumbed to IBM or who have given up on trying to get a micro computer under control.

And then there is Silicon Valley Surplus, SVS for short. They were in business as Morrow's sole scrap contractor during the summer, but closed down. SVS is open for business again in a new location: 4401 Oakport, Oakland, CA 94601. Brian Whitacker is in charge and his phone number is (415) 261-4662. Currently the business hours are Tue -> Fri 2-6, Sat 12-4, but this may change. Take High Street exit off the Nimitz freeway. See my article on SVS in the Morrow Owners' Review, Vol. 2, #4, August/September 1985, page 26 for more information.

What else is new? Well, since the last meeting--which was our legal annual meeting--we have a new Board of Directors, most of them doubling as officers. Most members of the Board are incumbents, but we have four new directors/officers this time: A warm welcome to George Borys, Wesley Johnson, Ilbert Butler and Frank Oechsli. And thanks for your past efforts to those of you who stepped down: Mitch Tannenbaum and Jeff Weissman and David Rosner.

Lastly: The MOR/BAMDUA office has moved. PO Box addresses and phone numbers are still the same. The old lease was up and we had to move. The new space is much better suited for our needs. As you can see, new beginnings all over. We are going to skip the December meeting, but don't miss the January 28 meeting in Berkeley, where former chief technician of Berkeley Computer, Jon Gordon, will hold forth on what to do when your computer gets sick. Bring your box if you want to learn how to take it apart and how to put it back together again. A good exercise in gaining confidence for the day you need it. See you there.

**FOR YOUR EYES ONLY**

**Code Name: "Rambo"  
Real Name:  
"Turbo Lightning™"**

User Groups find out Borland's secrets first, because you were the first to buy Borland products — and we'll never forget that. So we're telling you about Turbo Lightning before anyone else knows. (There isn't room here for the whole story, but you can read a fuller account in the COMDEX issue of PC Magazine).

We've had an astonishing product, code-named 'Rambo' under secret development for several months. Based on electronic versions of the Random House® Dictionary and the Random House Thesaurus, our new Turbo Lightning is the most amazing on-line information system since your brain.

It checks your spelling — as you type — and while you're running another program. More than that, it offers instant access to synonyms — and is intelligent enough to learn from you. In fact, the more you use Turbo Lightning, the smarter it gets.

Turbo Lightning is the 'engine' that powers what is also being announced on this page, the Turbo Lightning Library™. Soon-to-be-released volumes will include extended thesauruses, specialized dictionaries and other forms of electronic information.

Public announcement of Turbo Lightning will quickly follow this private announcement and we'll be shipping by November 15.

**Reflex™  
comes in  
from the cold.**

Some of you already know how good Reflex is. You know that it looks at data and numbers in a whole new way. A way that turns a 1-2-3 into a graphic 4-5-6 because it shows you relationships and interrelationships that were hidden in data inside 1-2-3®, dBASE®, PFS File® or any of that crowd.

With Reflex, when you look, you see. It offers you five different 'Views.' 'Form View' to build your database; 'List View' to list data in tabular form; 'Graph View' for instant graphics; 'Cross-Tab View' for instant cross-referenced relationships and 'Report View' that imports data from Reflex, 1-2-3, dBASE and PFS File than prints it in the format you want. On top of that, 'Report View' is a better report generator than 1-2-3 ever had — and at \$99.95 for all five 'views,' Reflex is also the cheapest. (When we acquired Analytica Corporation, original developers of Reflex, we changed the name to "Reflex: The Analyst" and cut the price from \$495.00 to \$99.95). A very impressive product and we think, the greatest analytical tool since the couch.

So let's talk. 800-line Ordering Service: 800-255-8008 (outside CA), 800-742-1133 (inside CA), 6a.m. to 9p.m. Mon/Fri; 8a.m. to 5p.m. weekends; the former "Ma Bell" (408) 438-8400, ask for the Sales Department; MCI MAIL: BORLAND; CompuServe: GO BOR; Telex: 172373. And if you insist on the quill, 4585 Scotts Valley Drive, Scotts Valley, CA 95066. And thanks for your continuing support.



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## FROM THE MAILBOX

Dear Bamdua,

In the BAMDUA library volume #29, the program to keep track of auto miles and the accompanying article were written by a Morrow freak expressly for the BAMDUA Newsletter. As the author, I have no affiliation with Osborne, so BAMDUA may take full credit.

-- Frank Pearson

(Editor's note: Readers please see Bamdua Newsletter, V.3, #3, March 1985, p. 8).

-----

Dear Newsletter,

Arrow keys made to work with Smartkey and NewWord on the MDT-60 and MD 3 introduce extraneous characters when held down to repeat. This is a common problem. There are two interrupt handler patches for this in the June 1983 Microsystems (for the Zenith/Heath Z-19 and WordStar); for one of the the author notes "The programs ... should be adaptable to other editors and terminals." There is maybe one for the Osborne in the Spring '84 Microcomputing. I'd be glad to send copies of the Microsystems articles to anyone who would be willing to help by reworking them for my system.

-- Gordon Northrup, 413/298-3194  
RR 1, Box 698; Lee, MA 01238

-----

Georgia:

Your Nov. 8 Newsletter is a whacker's dream! (A "whacker" is a would-be hacker, like me)...I think I can add a couple of points... (on Victor Chan's article on adding double sided drives to the MD2).

I put in two Qume half-height drives...I didn't take out the tray (Victor calls it a cage) supporting the drives but merely slid the new drives in from the front and mounted the two 1/2 height drives (strapped together with metal brackets) in place of the original 2/3 height Shugart. I did have a little problem with the ribbon cable after I unglued it from the chips on the motherboard... As for the modifications to CP/M to support the double sided drives, I originally tried to follow Derek Beatty's instructions from the Feb. issue of MOR, but found it hopeless since he never explained WHY he did certain things and I couldn't easily translate his instructions (which applied to putting in quad density drives) to my problem (which merely involed double sided drives). With Victor's clear explanations, I look forward to mucking about with the CP/M DPB and MTAB tables... One other addition to Victor's piece. The version of FORMAT that came with my MD2 did not FORMAT double sided drives. Since we have an MD3 at work, I used the FORMAT that came with that system. Worked fine!

--Frank Oechsli

# PASS THE NOTEPAD

Q: Has anyone had trouble using SmartKey II with an MD3? I can define only 2 characters; anything more produces garbage, both on the screen and when printed in a NewWord file. (1) Suggestions? (2) I just got a new copy from my dealer, in case it was a bad disk, but am still having the same problem. I also tried increasing the size of the definition table because sometimes I get a DEFINITION TABLE OVERFLOW. That didn't work either. I have ROM Rev. 3.1, CP/M 2.2. Suggestions? Mary Ann Campbell, 415/652-3771.

Q: Is Eureka! all that significantly different from the BAMDUA Library public domain, NCAT.COM? Also, how has UNIFORM been upgraded? Is it worth upgrading? C. Quibell, 707/664-2303.

A: For a Eureka!/NewCat comparison, read the Sept. Newsletter

Q: Explain in simple terms what UNIFORM can and cannot do between IBM-PC's and MD3.

A: UNIFORM allows an MD3 to read and write TXT files on an IBM-PC format; also, you can format disks to MSDOS format.

A: If you get the version for the IBM-PC you can read, write and format CP/M disks on the IBM-PC computer.

Q: I have almost perfected my WordStar and proportional spacing system but the interword spacing remains too wide and I have not been able to modify it through the BAMDUA Newsletter and MOR articles. Am I missing something? David Chaika, 415/556-7712.

A: Try .UJ OFF. Jim, 408/243-5567.

A: Or try modifying your line height (.LH) until it works.

Q: How do you determine the number of 256 byte blocks a program occupies when you need to save it after a patch? Michael Kellog, 528-2060.

A: 100H is 256 bytes, so count up how many 0100's the file occupies (or just subtract 100H from the last program address) and that's how many blocks you have. Just remember to convert from hexadecimal to base 10. Alternatively, install ZCPR and use the HEX option when you save.

Q: Does anyone know if one can alter disk formats with the CP/M DFB and MTAB tables? That is, could one set up drive "C", for example, to operate with, say, Kaypro II format? Frank Oechsli, 415/527-6089 (eves.).

\*\*\*\*\*

# SPECIAL DEALS

## 1. EUREKA!

EUREKA is a well-regarded and well-reviewed catalog program. See the last three issues of our Newsletter for a review of the program and specific information about group rates. EUREKA! was reviewed in BAMDUA Newsletter, V.3,#8, Sept. 1985, p.14. (See also review in MOR, V.2, #4, Aug/Sept 1985, p. 45)

STATUS REPORT: We qualify for the 30% group discount rate! So, if you are interested, write me ASAP.

## 2. ELECTRA-FIND

ELECTRA-FIND is a powerful program for finding and extracting information from your files on single or multiple disks. With a coupon, it is available to BAMDUA members at \$20 off the regular price of \$65. Write me (include SASE) for coupon. Coupon offer expires Dec. 31, 1985. ELECTRA-FIND was reviewed in BAMDUA Newsletter, V.3, #8, Sept. 1985, p. 11 and #9, Oct. 1985 for update review. A comparison of Electra-Find and Free-Filer appears in this issue.

STATUS REPORT: Very popular. More coupons now available.

## 3. TYPEWRITER

TYPEWRITER: Produced by MicroCost, this software allows you to use your computer and printer system as though you had a typewriter, plus many more features. It was reviewed in the BAMDUA NEWSLETTER, V. 3, # 9. Check that issue for details of offer also.

STATUS REPORT: This is in popular demand. We qualify for the 50% discount! If interested, write ASAP and include SASE.

## 4. SHADOWPRINT

SHADOWPRINT software by Common Sense Systems Associates permits you to "spool" files into an invisible queue that automatically sends them to the printer while you continue with your work, perhaps editing or creating other files. Version 3.2 is now available. A review of the program and details of the discount offer can be found in V.3, # 9, October 1985. An update review appears in this issue. (See also update review in MOR, V.2, #5).

STATUS REPORT: Still open to qualify for group discount.

## 5. DATAPLOTTER

DATAPLOTTER: this unique program allows you to plot and print your data in a variety of ways without screen graphics. A review and cost information can be found in the BAMDUA NEWSLETTER, V.3, #6,

JUNE 1965, p. 12-18. See also highly favorable review by Bruce Gale in Profiles, April 1985, p. 72.

STATUS REPORT: We qualify for the group discount of 20%. If you want this program, send SASE to me to receive order form.

#### 6. POOR PERSON'S SPOOLER

SPOOLER, made by Poor Person Software in Palo Alto, prints spooled disk files and simultaneously captures printer output from programs. It does not interfere with running programs. Compatible with Write-Hand-Man. See review and details for group discount rates in last issue, BAMDUA Newsletter, V. 3, #9, Oct. 1985.

STATUS REPORT: Still open to qualify for group discount.

#### 7. WRITE-HAND-MAN

WRITE-HAND-MAN, made by Poor Person Software, can be considered the "sidekick" for CP/M. You can make notes, look up telephone numbers or files on disk, and perform calculator functions by opening up a "window" while you are running your program; when you leave Write-Hand-Man, you return to your application program. See the Newsletter, V.3, #9, Oct. 1985 for a review of the program and details of the special group purchase rates.

STATUS REPORT: We qualify for the 20% group discount! If interested, send me a check for \$42.56 made to Poor Person Software.

#### 8. FREE-FILER

FREE-FILER is a powerful and speedy free form information retrieval system. It allows you to retrieve information much the same as does a data base system but without the need for preliminary formats. It also has a sort program. See the review in this issue of the Newsletter, V.3, #11, Dec. 1985. (See also the review in MOR, V.2, #5, Oct/Nov 1985).

Group purchase discounts: 1-3 orders, 15%; 3-5 orders, 30%; 6-10 orders, 35%; 11-50 orders, 40%; 51-100, 45%. If interested, follow instructions given below; SASE is important!

#### 9. MAGIC SERIES

MAGIC SERIES combines 3 programs: MAGIC PRINT, MAGIC BIND and MAGIC INDEX. This amazing program permits you to achieve true proportionally spaced print in camera ready type set appearance, plus providing simple dot commands for printing multiple columns. Also included is the ability to do footnotes, indices, and automatic renumber of chapters, etc. See the review in this issue of the NEWSLETTER, V. 3, #11, Dec. 1985.

Special group rates for Bamdua members: A 4-package minimum order is necessary to qualify for a 20% discount. More than that

gets us a 30% discount, as follows:

	20%	30%
Magic Print	\$156	\$136
(with) Magic Bind	\$200	\$175
(& with) Magic Index	\$236	\$206

Each order must add \$3 per package for airfreight. If interested, follow instructions below. SASE is important!

10. MASTERCOM

MASTERCOM is produced by Software Store of Marquette, Michigan. This is a full feature, easy to use smart terminal and file transfer utility that is available for most popular computers with CP/M-80 or PC-DOS compatible operating systems. MasterCom retails for \$49 but is available to our members at a discount for group purchases: 50% discount for 4 units; 60% for 25 units; and 70% for 50 units. These are real savings! This software was described more fully in BAMDUA Newsletter, V.3, #8, Sept. 1985, p. 19.

Since we did not get a Bamdua volunteer to coordinate this deal for our members and were in danger of losing it, I decided to add this to my list also. If interested, contact me; follow instructions below. Do not forget SASE.

11. ADM20 UPGRADE KIT

Of special interest to owners of the ADM-20 (MDT-20) terminal, this upgrade kit has been favorably reviewed and praised by all who have tried it. This Kit makes the function and cursor keys operate in the way in which they were intended, plus other features. See the article by Phil Hess in this issue of the Newsletter for details of installation and features of the product.

Special group offer for BAMDUA members: Two or more orders will qualify us for a 15% discount so that each kit will cost just #34 and each RS-232 cable just \$12 (instead of \$40 and \$14 respectively). Prices include shipping and handling. This offer expires Dec. 31, 1985 (I am trying to get an extension, but cannot promise you anything). If you have an MDT-20, you should act fast. Follow the instructions below. Remember to include SASE.

-----  
\*\*\*IMPORTANT NOTE\*\*\*

\*\*THESE ARE YOUR INSTRUCTIONS FOR ORDERING SPECIAL DEAL ITEMS\*\*

All the special deals listed above this note can be acquired by contacting me and including information about your system, printer, etc. Give your name and address and telephone number; enclose a SASE. Contact: Georgia Babladelis, Editor, 1064 Sterling Avenue, Berkeley, CA. 94708. Do not contact Sypko, Dana, or "BamdUA office" and do not combine your request for a special item with your renewal of membership or other inquiries. If you are interested in one or

more SPECIALS you must contact me! Otherwise, your inquiry can take long time in reaching me, thus you run the risk of not getting included in a group discount. Do include a SASE! I am not Midas!

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

-----

## 12. PROPORTIONAL STAR

PROPORTIONAL STAR, created by Writing Consultants, is the software version of their popular book detailing how to patch WS in order to accomplish proportional printing. The patches are now available on disk with simple instructions for installing for your system and version of WS. See review, last issue of the Newsletter. A 20% discount on the \$75 price is available to persons who mention they are BAMDUA members and ask for the discount when ordering directly from the company.

## 13. CHECKS & BALANCES

CHECKS & BALANCES is being made available to our members at a 15% discount. It retails at \$74 (plus CA tax and shipping); members can have it for \$71 (plus CA tax and shipping). Send your check or money order to VALCON, 1260 Westwood St., Redwood City, CA 94061. Specify your machine type and disk format. (See BAMDUA Newsletter, June, 1985, V.3, #6, p. 9 for a description of the program).

## 14. REACHOUT

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

## 15. MAILERS

Members may combine their orders to a total quantity of 1,000 or more mailers (for floppies) for a special price of \$.45 each and BULLDOG will pay the shipping and handling charges on a single order shipped to one address. (BULLDOG CONTAINER CO., Glen Haven Rd., Soquel, CA. 95073.) Interested members place your order with David Newton, 297 Addison St., SF, CA 94131, 415/334-8005. He will coordinate the order. Include SASE! so he can get back to you.

\*\*\*\*\*

# SOFTWARE REVIEWS

by Georgia Babladelis

## SOFTWARE REVIEW: MAGIC SERIES

Software: Magic Series, v. 2.11, WordStar Version  
Format: Wide range of formats, including CP/M  
Requirements: 48K, text editor, Diablo or compatible printer  
or NEC Spinwriter (90K for MS-DOS)  
(HP Laser printer version now available)  
Recommended: PS printwheel  
Company: Computer Editype Systems (CES)  
509 Cathedral Parkway, #10A  
New York, N.Y. 10025  
List price: Total package, \$295. (See special deals for members)

**MagicSeries** consists of three programs: **MagicPrint**, **MagicBind** and **MagicIndex**. Taken all together, this package provides print formatting, file merging, and the making of indices -- all of which can be printed out in proportionally spaced print with fast, bidirectional printing. That is the most succinct statement that can be made about this program and one that does not do it justice. After trying out the programs in this series, I have concluded that it is well named; that it is, indeed, a **MAGIC** series! Its creator, Ben O. (for *Optimyste*) Jone, is to be congratulated.

**MagicPrint** provides basic print formatting functions, including proportional spacing, footnoting, column printing and multiple-line heading and footing. **MagicBind** is a file merging program that not only does all the usual functions of any merge program but also provides automatic numbering or renumbering of chapters, paragraphs and articles, data verification and print-time record selection. It incorporates the full print formatting capabilities of **MagicPrint**. **MagicIndex** compiles, sorts and prints indices and tables of contents in proportional spacing. It includes all the features of **MagicBind**.

In **MagicPrint**, one has a choice of four modes of printing: true proportional spacing (giving appropriate width to the different characters), justified and unjustified; non-proportional spacing (giving equal width to all characters), justified and unjustified. You can justify partial lines as well. There are too many features to describe well, but let me mention a few so that you will get a clear idea of what is available.

In addition to the expected ability to set page length, character spacing, even/odd placing of page numbers etc., this program allows you to handle odd-size paper, to "backline" (i.e., back up so that you can align partial lines horizontally or to achieve justified column printing). Simple commands allow you to format any page (or part of a page) in any manner you choose and to return to your default settings automatically. For example, a page

may have a combination of features, such as multiple columns and full-across printing and graphics with no difficulty. Another plus is that soft hyphenation is honored during printing. Moreover, a feature called "kerning" allows you to set pitch locally so that different letters in the same word may be placed closer together as in some foreign phrases in common usage. You may use multiple lines in headings and footings, arrange your pages with outdenting and indenting and underlining may be solid or broken. Different levels of headings are possible. You may use as many as 15 footnotes per page (but there is no limit on the length of individual footnotes). There are many more print formatting capabilities. All of these print formats can be set in your text, using your own word processing program, as long as you follow the conventions for MagicPrint.

These features, and many more available in MagicPrint, are notable for their application to an emerging activity called "desktop publishing." The interest in desktop publishing is large and growing and a new publication addresses it. In the premier issue of Desktop Publishing, a number of software programs (excluding MagicPrint) for page makeup were reviewed favorably. MagicPrint not only compares most favorably to the best of them, but also has features lacking in most of those programs; e.g., kerning. MagicPrint provides many typesetting capabilities as well as true proportional spacing. Not only is it competitive in price to the others, but also is the only one I am aware of that runs on CP/M.

Computer EditType Systems provides MagicSeries for standard (ASCII-generating) word processing programs (which they list for your information) and a WordStar version (which I am assured works the same on NewWord). I have the WordStar version. In this revision (v.2.11), the commands have been made uniform which has necessitated some departure from WordStar commands. On the whole, an experienced WordStar user will have no trouble mastering these commands but be forewarned that you must pay attention and you must spend some time learning the commands and practicing them. Although the program is "magic" there is nothing magical about the learning process. However, some investment of time and effort early on will be amply rewarded by the product. Most WordStar commands (such as boldface, super and sub scripts, etc.) remain the same; the main changes occur in dot commands and learning a new set of "symbols" to accompany the dot commands. The symbols or letters for each command are logical and a little practice will make you facile. For example, the symbol used for backlining is "b". The dot commands, however, are different from WordStar. Whereas in WordStar you used one dot to initiate a command and two or more dots to indicate non-printable matter or comments, the reverse is true in MagicPrint. In MagicPrint it is the one dot commands that are ignored in printing and the two dot commands that format your printing. That means that although you can go ahead and print out files already entered in WordStar, you must re-format them to make them compatible with MagicPrint and to get the maximum use out of the formats available in MagicPrint. Otherwise, many of your old commands will be ignored, such as the page break command.

There are many features that have been updated in this revision of the program but one in particular is so spectacular that it requires special mention: NOW you can set up multiple columns (2, 3, or 4) of text on a page with the mere insertion of a dot command! Yes, let me repeat that: you can achieve multiple columns printed out by using a dot command. The symbol for columns is "k" and so one uses two dots and specifies how many columns are wanted and with how much space between them. If you want three columns with 5 spaces between each one, enter `..k3 5`. The program actually makes all the calculations for page length, number of lines in each column, etc. (Of course, you must have a printer that is capable of backspacing; Diablo-compatibles all are).

As mentioned above, the formatting commands are placed in the text you create with your word processing program. Additionally, formatting commands can be given at the time of print out. At the time the program comes up on your screen you are asked if you have additional formatting commands to give. For example, you might decide at that point to see what your text looks like in 2 columns! Also, now, you can interrupt printing and call up formatting and make whatever adjustments you wish. This is a very flexible program and you can produce print outs with spaces (called windows) for pictures or any other ideas that you have. To parrot a phrase from the manual, the possibilities are limited only by your imagination and good taste!

There is complete flexibility provided for titling and page numbering. Single or multiple lines are possible and the various formatting commands can be used to place those items or give other print effects. Footnotes are easy to do and can be a part of the main text when there is no need for a different format or they can be placed in a separate paragraph and given special formatting commands. I tried doing several footnotes with a document that ran several pages and found it easy to do and that the program handled the placing of footnotes on the page very nicely.

My tests of **MagicBind** were less extensive than those for **MagicPrint**. I tried a few form letters, labels, and automatic numbering and renumbering of some paragraphs from an already existing file. Everything worked fine. I would have liked to do more extensive tests on a book manuscript in order to apply the program to lengthier and more complex demands, but alas, the demand on my time right now could not be accommodated. **MagicBind** also can do print time insertion of formatting commands, automatically produce footnotes, verify the accuracy of your data, and provide you with the type of mailing labels you specify. If my "short" trials are any indication of the program's versatility, it will be "magic" for all you writers out there.

I did spend more time testing the index and table of contents functions in **MagicIndex**. For those tests, I used files of past issues of the **BAMDUA Newsletter**, which lend themselves nicely to this application. I was delighted with the outcome. I must confess it took me a little while to figure out how to enter the commands

for doing an index and for doing a title. Probably those are clear and simple to others, but when the manual told me to use a control Ai, for example, I did just that and nothing happened! Of course, it tells you in the manual how to do it, but I didn't "see" it at first. Once I saw "it", I couldn't help but see it all the time! As most WordStar users already know, the correct procedure is to enter control PA, then remove your finger from control and enter i (or whatever). On the screen at the place in your text where you have done this (e.g., before and after a word marked for entry into the index), you will see those characters displayed as ^Ai before and after the word. Despite my pleasure at the ease of making an index and a table of contents, I did not master how to produce multiple levels, or sub-entries, of index entries. That is something for me to practice in the future.

There are many features in this program, also. For example, the index can be sorted alphabetically, or reverse index can be used (last name, first name); index entries can be made "as is" (as the word or phrase appears in the text) or with "see also" and other additions. Entries in the index are sorted for duplication. A writer can opt to edit the index, if desired. It is a truly remarkable program. My experience with other programs is limited to DocuMate, which I like, but MagicIndex is superior to it without doubt.

The commands for creating a table of contents are relatively quick to learn. The manual entry system is used when one is making a particular table of contents; otherwise, there is available the automatic numbering system where certain symbols are used to designate chapter and section numbers; when this is used, the entries for a table of contents are extracted automatically. If you add new chapters, or modify the contents so that page numbering changes, renumbering of pages and entries in the table of contents is automatic.

This is a rich and complex series of programs so it is not easy to tell you about all of its capabilities. The overview above should give you a very good idea of them, though. Moreover, the manual is well written and well organized. Every aspect is clearly described, instructions are clear, and examples are provided. I could have used a well constructed tutorial, but that is like asking for icing on your cake! Demonstrations of the various features are provided in "demo" programs on the program disk. There is a good section on the sorts of problems one might encounter and what to do. There is an excellent discussion about installing the program for your printer and clear instructions for ascertaining whether or not installation is necessary and if so, how to do it. I tried out the installation procedure after making some changes on my system that required an installation. It was easy. There are instructions for modifying the program. Furthermore, the writing in the manual reveals a sense of humor.

This is an expensive program if your use of it is to print an occasional but beautiful thank you letter to Aunt Minnie or Uncle Joe. However, if you have bigger projects in mind, such as producing typeset text, then you will find the cost is probably retrieved from one typesetting job. As I have mentioned above, it is certainly competitive in price and features with other programs built to perform the same functions, and it outstrips programs limited to helping writers produce text complete with index and table of contents. Compared to the latter, it has the additional virtue of permitting many more formatting commands than is usually true of other programs and of producing a final product printed in proportional spacing -- a truly impressive look! A professional writer will find it an amply rewarding program. As is the case for all rich programs, the user must invest time in learning and practicing its commands in order to reap its benefits. Once this is done, then probably all one will need to do is to refer to the tables provided in the manual which summarize the various commands. Not only do I think this is an excellent program for professional writers, but also I find myself about to make the rash suggestion that anyone who uses multiple columns very much should not spend another day without this program!

What is the cost? MagicPrint, \$195; MagicPrint and MagicBind, \$250; MagicPrint and MagicBind and MagicIndex, \$295. Discounts are available for Bamdua members. Please see special deals section.

(Late note: CES has informed me of new features added in its LaserJet version. In addition to some exceptionally fine features specific to laser jet printers (e.g., font selection, line drawing, etc.), other new features include a typewriter mode, tabbing function, and the capacity to print odd or even numbered pages separately to facilitate two-side printing. Those latter features will be incorporated into the daisywheel version in a future release. I hope to have the opportunity to review the new features in the daisywheel version when it is available and let you know about them. If I ever manage to get a LaserJet printer, I will certainly let you know about the version for it).

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HAPPY HOLIDAYS  
HAPPY HOLIDAYS



(Printed with MagicPrint)

## SOFTWARE REVIEW: FREE-FILER

Software: Free Filer, v.4.0  
Format: CP/M and MS-Dos available  
List Price: \$49.95 (see Special Deals for Bamdua members)  
Company: Telion Software  
P.O. Box 1464  
La Mirada, CA 90637  
(213/946-1015)

**FREE FILER** is a free-form information retrieval system. It allows you to retrieve information much the same as does a database program but without the need for setting up preliminary database formats. You can, therefore, retrieve information easily and speedily from your text files, such as correspondence, manuscripts, and annotated bibliographies. This is a superb program; it is easy to use and it runs with impressive speed!

**FREE FILER** is designed to locate "card file" entries by key words. It is a powerful, relational information retrieval system which means you can combine key words to be found. This makes it quite versatile. For example, you might want to search your research file notes for references to a certain area of research (e.g., changes in I.Q.) performed by a particular methodology (e.g., longitudinal studies); or, using the example from the manual: if you wanted to find all the books by C.S. Lewis that are also fiction, you could search for "Lewis" and "Fiction." You may also combine words with "OR" and "NOT" to search for all the books that are either fiction OR poetry or to find the books that do not contain either the words "poetry" or "fiction." You cannot, however, mix search commands; e.g., you cannot combine AND, OR, NOT. More about this later.

**FREE FILER** can search one file or many files; you may use wild card file names or specify only those files with a certain extension. You may display the directory of your disk in four alphabetized columns and use the cursor to tag the specific files you want searched. A configuration program is included which allows you to configure your program to work on any text files as well as on files created especially for use with **FREE FILER**. Since **FREE FILER** does most of its work in RAM, it is very fast! And it is a small program, using only 34K of disk space. A sorting feature is available so that alphabetical sorting is possible. Sorting is handled by a separate program (using 22K disk space) rather than as a part of **FREE FILER** so that the speed of **FREE FILER** will not be affected. For CP/M systems with 64K RAM, up to 600 sort strings are allowed.

Card file entry, refers to a block of information; key words are the words by which that information is retrieved. So you do not need to set up a retrieval format (ala database format) with possible key words that you might one day want to use to retrieve material. Instead, you simply enter your text, in this case perhaps some entry that describes the particular contents of a book in your library (e.g., as in an annotated bibliography). Some time later when you want the book that had a particular feature in it and all you can remember is some phrase or word that stayed in your memory, just search for that key word or phrase. You do not need to have anticipated that you would someday want those words in order to have put them in some special notation in the first place.

Configuring FREE FILER is a snap. The directions are simple and clear. You have a number of well-explained choices to make. For example, depending on your use of the program, you must choose what boundary markers to use. The term, boundary markers, refers to that which sets off a block of information. For text files not particularly set up for use with FREE FILER in mind, (which probably includes any text files you have, such as correspondence, manuscripts, etc.) it is likely you will choose the double carriage return as a boundary marker. Why? Because your text has been entered in typical paragraph form, probably. That means you can run FREE FILER on almost any existing text file and the blocks of information for your output data file will be paragraphs. If you do not want whole paragraphs of context, then you may configure for "periods" thus getting a sentence of context. Thus, you have some flexibility in the amount of context you want included in your search. To make more specific choices, however, (e.g., phrases) you will need to use some other boundary markers to set off what you want selected in your search. In practice, that usually means entering the text and putting in markers. Most people will probably be quite satisfied with a sentence of context if, indeed, they do not want the entire paragraph.

You can write the results of your search to disk for later perusal; you can do this selectively, as you go along with each search result, or you can ask for the "auto write" mode, which will automatically write to disk every entry in your file corresponding to your key word. You have the choice of sending your output to the printer from FREE FILER, or viewing it with the type command in CP/M, or viewing and editing and printing it from WordStar.

You may choose to configure FREE FILER to re-execute before it terminates, and you may run it off WordStar. If you wish to use the sort command, then you will have needed to specify some delimiter. That refers to a character used to fence in the word or words that are to be sorted alphabetically. There is a wide choice of delimiters.

When FREE FILER is invoked, you get a list of all the choices you made in the initial configuration. At that time you are asked if there is anything you want to change. It is very easy to make a change. Suppose you had configured for selective writing to disk

but now you are about to search a long file and do not want to take the time to say "yes" or "no" to each entry. You simply change that choice to "auto write." Presto, all entries will go to disk. Although these changes tailored for a particular search are easy to make, they are temporary. If you wish some change to be permanent, you must re-configure.

**FREE FILER** does allow you to search for multiple key words arranged relationally very easily. Once you have told it what file or files to search, it will ask you for key word #1; then for key word #2, etc. It will allow you to combine up to 15 key words. The key word may be a string of words; the string may be up to 40 letters long. The default setting is for "AND" searches, which are frequently used because such designation narrows down what you are searching for. **FREE FILER** does "AND" searches very fast. However, you may link your key words with "OR" or "NOT" by changing the default configuration when **FILER** is first invoked. At present, you cannot combine relationships. For example, you cannot search for X and Y but not Z, etc. This may be seen as a weakness in the program, but it certainly is not an insurmountable one. By changing the relationship among key words and running more than one search, you can get the result you want had you been able to combine relationships in the first place. Since **FREE-FILER** works very fast, this procedure is not burdensome.

I found **FREE FILER** easy to use and very fast. When I first installed it, I chose the installation for the MT20/ADM31 terminal, which I have always used. I also followed instructions and installed my arrow keys for use later to select files for searching from a directory listing. Although the program ran well, the screen was dotted with some stray garbage and my arrow keys did not perform the selection process at all. That is, I could place the cursor at the file specified, but it jumped to "home" when I entered that file for search purposes. As a consequence, I could not use **FREE FILER** to search a file chosen in that manner, although all other uses of it were available. I re-installed for a "plain" terminal and got rid of all the garbage, but still could not use the arrow keys for file search selection. I talked to Alan Gomes, president of Telion Software, and he suggested installing for the WordStar cursor moves rather than the arrow keys. I did that and everything worked perfectly.

In addition to searching a number of text files, I decided to try out **FREE FILER** in a practical application that was facing me. As you know, we now have several "special deals" for our members and as you can imagine, the orders are pouring in with each person wanting some different combination of things and having different equipment needs. **FREE FILER** to the rescue! I simply made a list in a WordStar file of software orders from members. I listed people by name, address, telephone number, what software items they requested, which version of each item, etc. All this was entered in completely free-form, text manner, each "block" of information (that is, each person's data) separated by a double carriage return-- just the way one would ordinarily do it.

It was simple to use FREE FILER to check on the status of orders. If I wanted to know who and how many wanted program X, I searched for "X"; if I wanted to know who and how many wanted X and Y, I entered those key words; etc. Using FREE FILER's "Auto Write" I made new files for orders for each software program. Then came the day I had to update my files. More orders came in. I just added them onto the master list of orders and asked FREE FILER to search for orders of software X (or whatever) and write it to my order file for that program. FREE FILER told me that a file by that name already exists; do I want a new file name, overwrite the existing file, or append to the existing file. Naturally, I chose to append, but you can see that it is a protective feature for the user.

The mechanics of appending information to one's output data file are simple, but there are some things to be noted. If you select "auto write" when you plan to append, your entire output data file will be appended; since it already exists except for the file or files you are actually appending, you end up with "double" the list. The logical choice is to chose "manual write" which has the drawback of listing each entry in the data file for you to act on. That is, all those names already in the file are presented to you and you must tell the program not to append those but to keep searching the master order file; when you come to the new names -- those you have recently added -- then you tell it to write them to disk. This struck me as a tiresome procedure. Although the solution should have been obvious immediately, I plead fatigue! When I mentioned the problem to Alan Gomes, he kindly suggested I use the "and" feature and search for the software and date of the entry; that way, only the recent data will be appended. Was my face red!

In summary, FREE FILER is a versatile and speedy program for information retrieval from ordinary text files and files created for use with it. It is easy to install and easy to use. Moreover, an additional program, SORT, is included which allows you to do alphabetical sorting. The manual is clearly written and the examples are fun to read, revealing Alan Gomes' scholarly pursuits. Alan Gomes is friendly and helpful. For another favorable review of this program, please see the review by William Steele in Morrow Owners' Review, v.2, #5, Oct/Nov 1985, p. 37. For outstanding discounts to BAMDUA members, see SPECIAL DEALS.

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## COMPARISON OF FREE-FILER AND ELECTRA-FIND

Some readers have written to ask for a comparison of Free-Filer and Electra-Find. The best advice I can give is to re-read the reviews of each, in case some specific feature becomes apparent to you which is important to your own uses and which might not get noted in an over-all comparison.

	<u>ELECTRA-FIND</u>	<u>FREE-FILER</u>
System Requirements	64K, CP/M 2.2 (others available for both )	64K, CP/M 2.2
Disk space	40K	36K
Accessed by command or program	Yes	Yes
Pre-indexing or special format required	No	No
Capacity to retrieve, extract, view, append, write to disk, or print material	Yes	Yes
Can choose amount retrieved without special formatting (e.g., sentence, word, paragraph, phrase, etc.)	Yes	Yes (Limited; see review)
Limited to key word(s), string (i.e., cannot search for symbols, punctuation marks, etc.)	No	No
Search one or many files	Yes	Yes
Can do alphabetical sort	No	Yes
Can do boolean search	Yes	Yes
Prerequisites for boolean search	Predetermined Searchlist	Default/change menu command
Ease of install/use/manual	Excellent	Excellent
Speed of search on 82 text files)		
simple	4'37"	3'13"
boolean (and)	6'	3'4"
boolean (or)	6'8"	7'30"
Cost(discount?)	\$65(Yes)	\$49.95(Yes)

Overall, these are two excellent programs. Both tell you which file is being searched, and both allow file choice from the directory; both allow files to be appended, viewed, written, and printed. Filer names the file, informs you how many matches (with your key word) have been found, tells you when the search is completed and where you can find your output data. You have a choice of selectively or automatically writing your output file, but not a choice of simply viewing it without writing it. If you choose auto-write, the process is fast but you do not see any products of the search as it works; if you choose selective writing to output

file, each "finding" is displayed for you to make a decision about writing or not writing it to your file. Its boolean default is AND, which is very fast and outstrips the comparable boolean relationship in Electra-Find. Electra-Find tells you how many files are to be searched, which file is being searched, and if any "find" is made, it tells you in which file and on what line; it tells you, also, how many files remain to be searched; all this is displayed on the screen as you search (which may account for some of the differences in speed noted). You have a choice of writing or not writing an output file, but not of selectively writing it. Compared to Filer, Electra-Find has more search options (e.g., phonetic search, inexact number, and exclusion search), the ability to filter the input/output and search for material containing any one of a number of synonyms and it has on-screen helpful advice available to the user who wants it. Its boolean default is OR, and it performs that search faster than Filer does a comparable search. I found it much easier to use Free-Filer to do repeated searches to accomplish relational combinations than to set up a special searchlist, which would have to be changed each time one wanted a different search. In Filer, such a change is simple to make; since the program is fast, the repeated searches required turned out to be no problem (to me).

Both programs are powerful and speedy. Both programs are easy to use. Both men who created these programs are helpful, friendly, and responsive.

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## SOFTWARE REVIEW: UPDATE- SHADOWPRINT

Program: ShadowPrint, version 3.2  
System requirements: CP/M, version 2.0 or higher  
Company: Common Sense Systems Associates  
P.O. Box 563  
Winchester, MA 01890  
(617) 861-7333  
Price: \$49.95 (see special deals for BAMDUA members)

A number of phone calls from members asking about the difference between ShadowPrint and Poor Person Spooler made it clear to me that I had not been as clear in my review (V.3, #9, Oct. 1985) as I thought I had been. The questions revolve around why ShadowPrint uses more disk space and memory than does Spooler, if they are essentially alike. The answer is that they are not alike in many respects. As far as being able to continue work on your computer while some file or files are printing, both programs do a splendid job, both are easy to use, and both are easy to install.

ShadowPrint has more powerful capabilities as well. Although some of my previous comments will be repeated here, I will try to keep those brief.

In its basic mode of operation (i.e., availability of computer while printing is in progress), ShadowPrint is transparent to the user. In essence, "shadow" files are created while you keep on working and those files disappear after they are printed out. In the meanwhile, they take up space on the disk, and so provision must be made for that. Beyond that basic mode of operation (as though that were not enough!) advanced features are available:

The user can control the queue of files that is created. You can display the queue and find out its status at any time. It is simple to suspend or resume printing of files in the queue, cancel the printing of a current file, without affecting other files in the queue, and even to "zap" the entire queue. Moreover, the user can change the sequence in which the files are printed by manipulating the queue.

The user can prompt for files and list those that are to be put into the queue for printing. That means that various wild card specifications can be made; e.g., if you wish to place all your files on the B: drive with the extension ".let" in the queue, just enter the usual CP/M wild card symbol (B:\*.let). If you want to, you can check the contents of your queue at any time and you can check its status (i.e., which files have printed, which are in process, which have been cancelled, etc.). Up to 200 items can be queued for printing as long as you have enough disk space to hold the queued files. As soon as printing is completed, the spool file is automatically deleted.

Additionally, the user can specify print format options. For example, at the time you invoke the print command (SPRINT) you can specify the disk drive, user number, filename, filetype as usual but also you have options to specify: that a header is to be printed at the top of each page, tab options, maximum number of lines to a page, and which page to begin printing on! This latter option is useful if only some portion is to be printed for a variety of reasons.

If you are performing any of the above by using the print command on existing files which you want printed out (that is, using SPRINT as a "stand-alone" print function in a non-spooled mode) then there is no need for extra disk space for spool files, obviously.

Both automatic and manual spooling operations are possible. In the automatic mode, print output is automatically spooled in a ShadowPrint managed file, and automatically printed and the spool file deleted when printing is completed. Spooling can be manual as well. In this mode, the printer output is directed to a spool file that you explicitly open and close when you are ready to print. No printing will occur until you close the file, thus you can pool files or whatever. These files are not automatically deleted after

printing, so the user must take responsibility for them.

The CCP that ShadowPrint installs is practically the same as the CCP that normally executes under CP/M 2.2. In addition, this CCP, in its command form, shows which drive you are logged on and the user number (e.g., A3>). Also, this CCP provides a default command search if a command is not present on the disk/area you are currently logged on. The default search is on drive A, user 0; this can be changed. Finally, a clean, bug-free SUBMIT utility is available so that you can transmit input characters to programs that ask for user input. This XSUB facility requires no extra memory beyond that already used by ShadowPrint when activated, whereas the standard CP/M XSUB utility steals an extra 2K bytes for itself.

A number of modifications can be made by reconfiguring. The user may chose to spool files on drive B rather than A, for example. You may even change the command string, if you do not like the one in use or it does not work with your terminal. Beyond all the expectable changes one can make, however, is the availability of doing some fine "tuning" for your own way of working; e.g., performance parameters are tunable to suit your preference for favoring background application (e.g., printing) or foreground application (e.g., your work at the terminal) as well as being tunable to your typing skill and speed!

Many of these features were mentioned in the previous review, but apparently they got lost in the shuffle of the discussion about installing ShadowPrint on your disk. In that review I mentioned that I had trouble using the keyboard commands while in an application program. With help from CSSA, that was solved as well as the mystery of the "strange" file. That was no stranger at all! It was information in the queue telling me that I had not made any print format specification in the file that was printed.

The reader is referred also to an updated review of ShadowPrint by Mike Allen in Morrow Owners' Review, Vol. 2, #5, Oct/Nov 1985, p. 19.

An updated, more extensive comparison chart might show:

	<u>ShadowPrint</u>	<u>Spooler</u>
Stand alone print function (i.e. no need for spool files; can substitute for print command)	Yes	Yes
Activation/deactivation from command or program level	Yes	Yes
Ability to capture both printer and console I/O to disk file (useful for saving a terminal session, or from spreadsheet or modem; for programmers especially).	Yes	No

	<u>ShadowPrint</u>	<u>Spooler</u>
Extends CP/M features	Yes (enhanced XSUB and user # facility)	No
Tunable performance parameters	Yes	No
Can close file anytime and send to printer	Yes	Yes
Display and modify print queue	Yes	No
Manipulate printing (e.g., suspend, resume, cancel)	Yes	Yes
Set up print formatting options	Yes ( page length, page header, tabs)	No
Can print subset of large files (e.g., specific pages)	Yes	No
Run other programs while printing	Yes	Yes
Can make additional copies automatically	No	Yes
Need to exit program in use to work	No	No
Spool files on disk of choice	Yes	Yes
Memory used/disk space used	5.5K/24K	4K/8K
Slows down operation of program in use	Tunable	Yes
Cost/special rates for BAMDUA members	\$49.95/ Yes	\$49.95/ Yes

Once again, all one can say is to be sure to read about the specific features of each to see what might be of importance to you. These are two very good and very inexpensive software solutions to demands on your system. Beyond that, ShadowPrint offers a number of powerful enhancements, not the least of which is the manipulation of files to be printed that is possible. This feature alone provides an interactive mode with operations simply not available in a (hardware) printer buffer. Add to that the fact that an easy to follow configuration program allows fine tuning of key performance parameters to suit yourself (e.g., print burst size and persistence, printer-to-console character ratio, etc.), generous diagnostic messages, and full documentation, and you have a powerful program capable of meeting your growing needs beyond "mere" (?) spooling.

\*\*\*\*\*

# REINVENTING YOUR MORROW MICRO DECISION PART II: UPGRADING YOUR MT20 TERMINAL

by Phil Hess

In Part I we showed how to speed up your terminal and reduce the amount of time it takes to display characters on the screen. This effectively speeds up the computer too, as it spends less time waiting on the terminal to finish. Reducing the time that the computer has to wait for information to be displayed by a relatively slow terminal increases the amount of time the computer can spend waiting on the slowest component of the system: you.

One way you can speed up your performance is by assigning frequently-typed commands to the special function keys found on most keyboards. There are 17 special function keys on the Morrow MDT-20 (actually the Lear-Siegler ADM-20) keyboard. However, unlike most terminals, the function keys on the MDT-20 keyboard don't work.

Fortunately, there's a solution, in the form of two tiny ROM (read-only memory) chips that you use to replace two similar chips inside the MDT-20 terminal. Simply by installing these chips you not only turn on the function keys, but you add 37 displayable graphic characters, an easier setup mode and a setup program, and several other useful features.

These two chips are available as part of an ADM-20 upgrade kit from the following source:

Software Techniques  
3537 West Charleston Avenue  
Glendale, Arizona 85308

The cost is \$40.00 postpaid, plus \$14.00 for an optional 8-wire terminal cable that'll allow you to "type ahead" on your system. When ordering, be sure to include the serial number found on the back side of your terminal. Upgrading terminals with serial numbers greater than 25110000 adds a screen saver function which automatically blanks the screen after about ten minutes of inactivity. To restore the screen after it blanks out like this, simply press any key.

The upgrade kit comes with 12 pages of documentation which is, in general, complete, although a bit confusing in places. Also included is a disk containing the setup program, a simple graphics demonstration program, and a program which automatically patches a portion of your CP/M operating system called the BIOS (Basic Input/Output System). With the proper cable and the upgraded ROM chips, this patch allows you to type ahead with many programs. (Note that a new cable is required only for this type-ahead function; all other upgrade features work fine with your existing cable.)

## Installation

The installation of the two chips is fairly easy and requires only a Phillips-head screwdriver for opening the terminal and a small flat-head screwdriver for prying the two old chips out of their sockets. Simply follow the steps in the documentation, being careful when pulling the plastic terminal shell away from the CRT (cathode ray tube) and when reinstalling it, as the CRT is supported in part by this plastic shell. Also, make sure your terminal has sat unplugged for **at least 24 hours** before opening it to allow the CRT to discharge its dangerous voltage.

The documentation suggests prying up on both ends of the old chips at once. However, I found it difficult to get under both ends because of tight space, especially with the chip closest to the front of the terminal, and so pried very gently on only one end, scooting the screwdriver blade further in as the chip came free to avoid bending the pins.

Once the terminal is reassembled, use the new setup mode to make the changes described in the documentation, then try out WordStar or NewWord with the new function and arrow keys.

### New cable?

I did not order the optional 8-wire RS-232 cable, thinking I would modify my existing cable or build my own. According to the documentation, only 6 wires are needed for the type-ahead function to work, as long as they're the right 6 wires, namely wires connected to pins 1, 2, 3, 4, 6 and 7 on the 25-pin adapter at each end of the cable. Disassembling my cable revealed 6 wires, but connected to pins 1, 2, 3, 5, 7 and 20, so I switched 5 (a red wire) to 4 and 20 (a yellow wire) to 6. Once connected, everything ran fine, indicating that pins 5 and 20 were not needed.

Once the ROM chips have been installed and you have the proper cable, follow the instructions for patching the BIOS, then try out the type-ahead function with some of your programs. For example, with WordStar, you can begin entering commands or typing the name of the file you want to edit even before the program is done loading and initializing. Previously, if you typed characters prior to the file name prompt, these characters were lost.

There are a few places where the type-ahead function doesn't work, usually involving CP/M commands and MBASIC programs which allow CTRL-C to interrupt execution. Turbo Pascal works nicely with the type-ahead function, allowing you to enter the name of the program you want to edit while Turbo is loading. Similarly, Turbo Pascal programs compiled with the CTRL-C interrupt turned off will also allow you to start entering characters while they're loading or executing.

## Graphics characters

The new graphics characters also work quite well. ESC-f selects the first of two graphics modes (table 2 in the documentation) and can be sent to the terminal from a program or entered at the keyboard. When in this graphics mode, many of the normal letters display as graphic shapes. For example, 'a' displays as a solid block.

ESC-g selects the other graphics mode (table 4 in the documentation), in which all but eight of the normal characters are restored and most of the graphics characters can still be displayed by sending special ASCII codes. With this mode, normal letters and graphics characters can both be displayed simultaneously on the screen.

ESC-h restores the entire screen to normal text mode (table 3 in the documentation), converting any graphics characters on the screen to their normal text equivalents.

## Defining the function keys

TSETUP, the setup program included with the upgrade kit, is quite simple to use and allows you to define any of the function keys to a single character or two-character escape sequence. I used this program to cancel the automatic WordStar function key definitions and entered and saved my own (many of which, such as the arrow key definitions, were the same as the WordStar definitions). One of the things which always bothered me about the ADM-20 keyboard was the presence of the BREAK key so close to the DELETE and BACKSPACE keys. With the upgrade kit's WordStar key definitions, the BREAK key has been redefined as CTRL-K. This didn't seem like a much better choice to me, so I redefined the BREAK key as DELETE (ASCII code 127). Now I have two DELETE keys side by side, which are much easier to hit than just one normal-size DELETE key.

Alternatively, you could define DELETE and/or BREAK as a backspace, which would be useful with CP/M, where DELETE only echoes the deleted character rather than erasing it like BACKSPACE does.

## Using the terminal's auxiliary port

One thing about the ADM-20 upgrade kit which really intrigued me were the dozens of additional escape sequences supported. Included are all the codes for programming the function keys yourself, as well as codes for selecting screen attributes and graphics modes, sounding the beep, locking the keyboard, changing the cursor, and so on. Also, there are codes for controlling the auxiliary serial port on the back of the terminal and for dumping the screen.

The appendix lists several Turbo Pascal programs which utilize these extra escape codes and perform the following functions:

**DMPTOPRN** -- This program transmits the contents of the screen to the printer port.

**DMPTOFIL** -- This program transmits the contents of the screen to a file you specify in the command line. For example, if you enter **DMPTOFIL SCREEN.DMP** the 24 lines displayed on the screen will be stored in file **SCREEN.DMP**, which can then be edited or printed.

**DMPTOAX** -- If a serial printer is connected to the auxiliary port on the back of the terminal rather than to the printer port on the back of the computer, this program will transmit the contents of the screen to the printer. Note that the terminal's auxiliary port has to be configured to match the printer's baud rate, parity, etc. Use the terminal's setup mode to do this.

**LST** -- This program can be used to print data and document files to the printer, to the screen, or to the terminal's auxiliary port. The syntax is as follows:

**LST filename.ext option**

Examples:

**LST LETTER.DOC**

**LST LETTER.DOC P**

(List file **LETTER.DOC** to the printer.)

**LST LETTER.DOC S**

(List **LETTER.DOC** to the screen.)

**LST LETTER.DOC A**

(List **LETTER.DOC** to the ADM-20 terminal's auxiliary port.)

**LST** will prompt for the filename and option if the command line is not included, as follows:

File to list?

Output to Printer port, Screen, Aux. terminal port (P/S/A)?

To exit to CP/M, simply press the RETURN key in response to either prompt. To interrupt the program, press CTRL-C. To temporarily stop a listing, press CTRL-S, then press any key when ready to resume.

**LST** starts a new page every 60 lines or whenever a page break command (.pa, ^L) is encountered. Parity bits are automatically removed from all characters and any tabs are expanded to spaces. All other dot commands and unprintable characters are removed too.

The importance of **LST** to revision 1 Micro Decision owners should not be underestimated, as it effectively frees up the computer's printer/modem port, allowing a modem or some other serial input or output device to be connected to the printer/modem port and still do some limited printing without switching between devices. Of course, WordStar and NewWord and other programs which print to the printer port will not be able to print to the auxiliary terminal port, but a WordStar file can be printed to the auxiliary port using **LST**, or WordStar can be used to print a document to a disk file and this

file then printed to the auxiliary port using LST. (Except for the A option, LST also works with other systems and terminals.)

Because the CP/M command line is used, programs DMPTOFIL and LST require Turbo Pascal version 3.0. The other programs can be compiled with any version of Turbo Pascal. If you do not have Turbo 3.0 or don't have any Turbo, have someone else compile the programs for you, or send me a disk in a disk mailer along with return postage and I'll send you both the source and the compiled files of these programs as well as any previous or subsequent programs appearing in these articles. Or, send me \$5.00 and I'll send you a disk with the programs. My address is:

Phil Hess  
917 N. 10th Street  
Lafayette, Indiana 47904

### A minor problem

I've observed only one quirk in the operation of the terminal since installing the upgrade and it seems as much a problem with a particular program as with the terminal. The public domain SD.COM program (also known as D.COM) works fine unless there are files which you have set to R/O (read-only) status so as to prevent accidental deletion. These file names are displayed in the directory listing produced by SD with an extra character, e.g., WS.UCOM if WS.COM is R/O. This did not seem to be the way the program should operate.

The problem may have something to do with the way CP/M indicates whether a file is read-only or read-write in the directory. It does this by setting the parity bit in the first character of the file extension. Perhaps SD is trying to display this character without stripping off that bit, making for a messy display on the MDT-20. I solved this by patching D.COM using the DDT program supplied with CP/M, as follows (your responses are underlined):

```
A>DDT D.COM
NEXT PC
0900 0100
-S071F
071F 55 00 (Substitute null for U)
0720 CD .
-G0
```

```
A>SAVE 8 D.COM
```

I have only verified this patch with version 4.4 of SD. To determine the version number, enter D100 in response to the DDT "-" prompt.

### Conclusion

The ADM-20 upgrade kit from Software Techniques is an excellent product and corrects nearly all the shortcomings of the Morrow MDT-

20 terminal, as well as adding some nifty features not found in other terminals. At \$40, this kit adds untold functionality to a system that might have been growing a little old. This is a product I would assume all owners of early Micro Decisions with the MDT-20 terminal would want to have. As with the serial port speed-up in Part I, check with your dealer if you're reluctant to open up the terminal yourself. This is a very simple installation and shouldn't cost much to have done.

(EDITOR'S NOTE: PLEASE SEE SPECIAL DEALS FOR BAMDUA MEMBERS).

### **Addendum to Part I -- ZCPR and SD notes**

In addition to the features discussed in Part I, ZCPR also has at least one other nifty advantage over CPM's CCP that you might never discover unless you print and read the ZCPR manual. This feature is the built-in GO command, which regular CP/M lacks. With GO, you can instantly re-execute the last-executed program without the system needing to load it into memory from the disk.

For example, suppose you exit from a program and decide you weren't done after all. Simply enter GO and you're right back into the program without any disk activity. This is especially useful with big programs which take a long time to load from the disk.

Similarly, SD.COM (the public domain "super-directory" program, also known as D.COM) has some options you might never discover without reading the documentation (if you have it). Among these options are the ability to direct the listing to a disk file named SD.DIR or to the printer, display files in other user areas or all user areas, or to search both disks for files to include in the directory listing.

For example, to see if you have files in any of the other user areas on a disk, simply enter SD \*.\* \$A while in CP/M.

Note that SD runs fine on CP/M 3.0 systems such as the Morrow MD5 and MD11, except for the amount of space left on the disk, which is figured differently under CP/M 3.0. Simply ignore this erroneous value or run SD in the CP/M 2.2 compatibility mode. SD makes a nice fast directory listing, somewhere between the unadorned DIR listing and the tabular CP/M 3.0 DIR[FULL] listing.

-----

(Editor's Note: This second part, in a series by Paul Hess, is reprinted here by courtesy of CP/Morrow Computer Group Newsletter, Sacramento, CA. Also available is an appendix of programs for the upgraded MDT-20's auxillary port, but space does not permit the reprinting of them this time; I will try to get those to you in the next issue, if possible --but as soon as possible, at any rate).

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\*\*\*\*\*

### PLANNING FOR FUTURE BAMDUA MEETINGS

BAMDUA would like to put on programs which are useful to the members such as how to operate your modem, what are some really basic public domain utilities and how to use them, etc.

We would also like to hear about programs you would like to see presented, provided you are willing to work on them. If you can provide any of these, or would like to volunteer, please call I.I. Butler, 415-863-5953 (24-hr. answering), leave your name, full address with zip, phone number, and what you can provide, or information where to obtain it. This is a preliminary announcement aimed at eliciting your interest. More information and ideas will appear in future Newsletters.

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See V.2, #8, Sept. 1984 and V.3, #8, Sept. 1985 for summaries of past Tables of Contents for Newsletters.

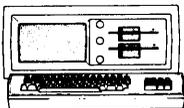
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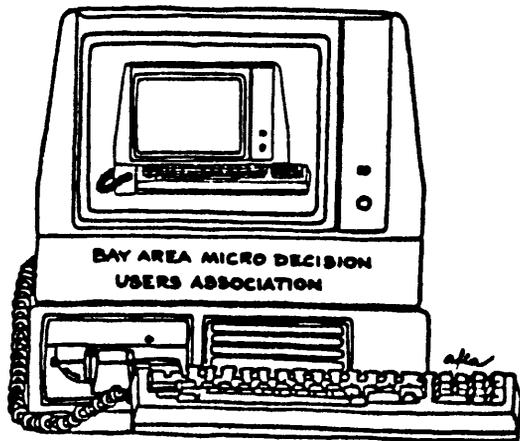
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