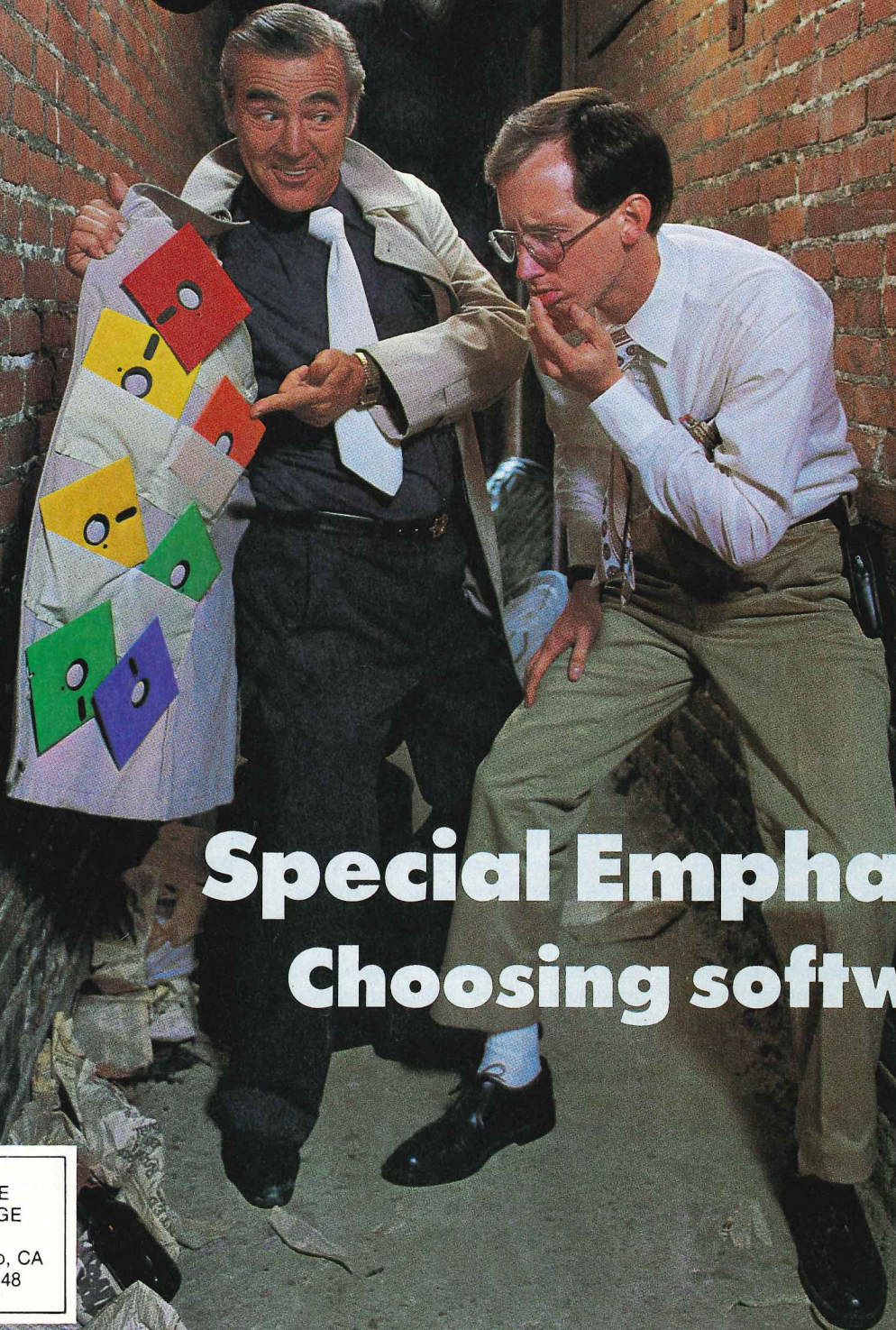


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PROFILES

The Magazine for Kaypro Users
March/April 1984



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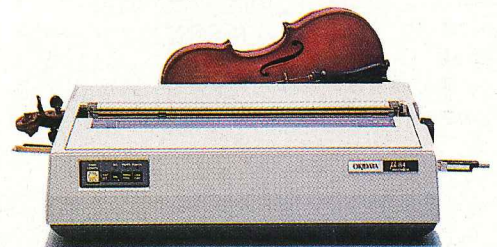
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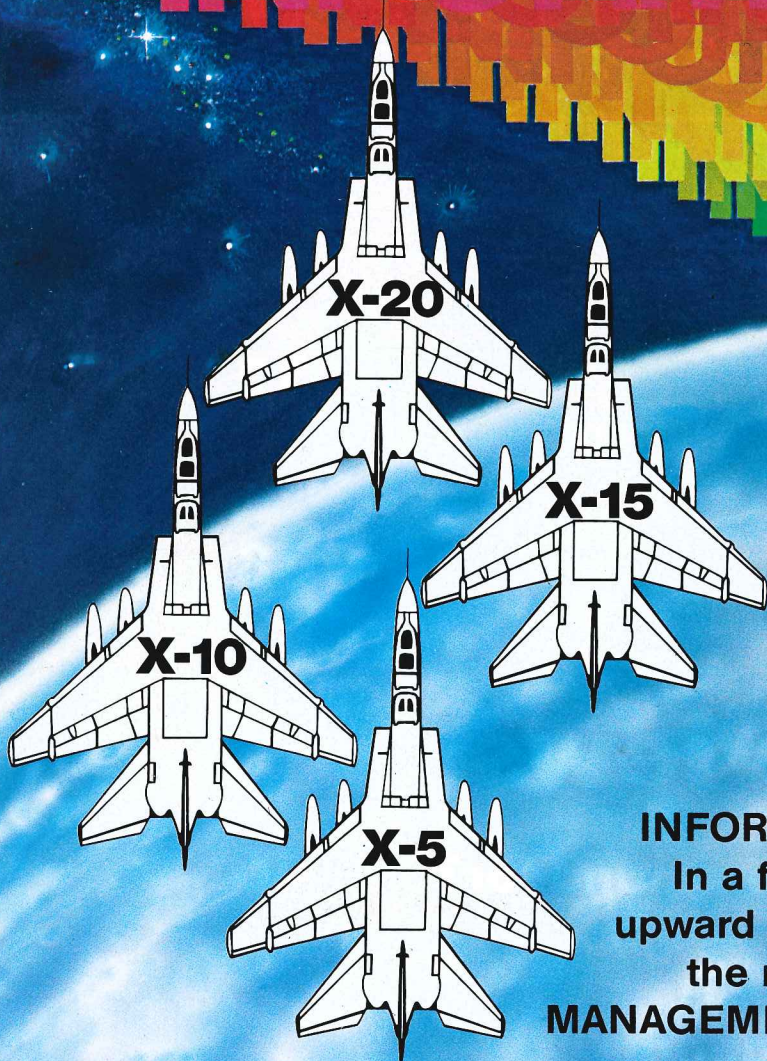


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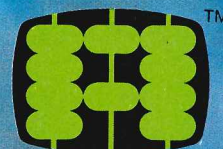
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PROFILES

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PROFILES is published bi-monthly by Kaypro Corporation, Solana Beach, CA.

Registered owners of Kaypro computers, within the United States, are entitled to a six-issue complimentary subscription. If owners are not receiving the magazine, they should send their name, address, and the serial number of their machines to the address below.

Subscriptions within the United States and Canada are available for \$12.00 per year to people who are not registered Kaypro owners.

Subscription orders and change of address notifications should be mailed to *PROFILES* Circulation, P.O. Box N, Del Mar, CA 92014. Checks must be made payable to Kaypro Corporation.

For Canadian and international subscriptions, send all inquiries to: Kaypro International, P.O. Box N, Del Mar, CA 92014.

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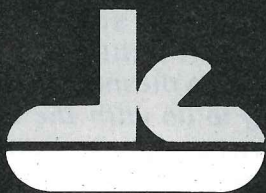
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we've responded again. Datasolvers is pleased to announce our internal modem expansion with the introduction of the **DS1200SMT**. This modem is a **300/1200 baud, Hayes compatible** modem that is installed internally without any soldering, drilling or Kaypro modification. And, the modem comes complete with a 90 day warranty, all needed cables, and software at a price of only \$427.50.

More and more in today's computer world you have need of a modem. The ways of communicating are unlike ever before; don't miss out! Get a modem that is quality made, and one that makes sense; a DS300AD or DS1200SMT. Check your local Kaypro dealer for details, or call us at the number listed below.

A note from the Editor

Subscriptions: the fantasy

Subscribing to *PROFILES* is easy.

Judging from the phone calls we get every day, it should be a simple matter: The potential subscriber simply calls the editorial offices and one of our many trained and courteous operators takes the information over the phone, updates the master database for future issues, and dispatches a courier to deliver the previous issues missed. What could be simpler?

Well, we aren't there yet. You see, unlike the fantasy situation, we don't have a dozen operators answering the phone, and we don't have a master database on the premises. What we do have is an outside data service, an occasionally overworked Assistant Publisher, and some plans for the future.

In an attempt to make your life and ours more productive, not to mention more enjoyable, *PROFILES* will soon be changing over to an outside subscription service. The main effects of this conversion will be that new subscriptions to *PROFILES* will be handled more efficiently, and the mail address for subscriptions will change. In the meantime . . .

How to subscribe

Subscriptions to *PROFILES* are available to everyone who purchases a Kaypro computer, or already owns one. The cost of six issues is included in the price of your computer when bought in the United States.

For those in the United States, the situation is fairly straightforward: send in your warranty card. We have counted heavily on the return of warranty cards

to establish our mailing list. Developing the list has turned out to be trickier than we had anticipated—roughly a third of our users aren't getting the magazine because *something* went wrong. If you've sent in your card, you should be receiving the magazine.

When things go wrong

If you've sent in your card and aren't receiving the magazine, please call or write to our Editorial Offices. (Our subscription number is 619-481-4353) Remember to check the back of your machine for the serial number—we need that number to credit your account.

Address changes can also be handled at that number, but remember that calling into our offices will *not* register your warranty. You still have to send in your warranty card.

Magazine time

Contrary to what some dealers and users believe, we do not have psychic subscription agents scattered throughout the world. There is no earthly way for us to know which copy of the magazine was packed with your computer. (It will probably take about two months for you to get your first issue of *PROFILES*.) To repeat: *your subscription doesn't start until you get your first issue in the mail, and it has nothing to do with the complimentary issue packed with your machine.*

Back issues

The requests for back issues have been overwhelming. Indeed, we are now SOLD OUT of

the first three issues. No amount of wheedling, pleading or voodoo is going to conjure up extra copies of the first three issues. Next issue we will detail a new project that will make the material in those issues available to all. Hang in there.

International subscriptions

Those who bought their Kaypros outside of the United States (including Canada) can now get subscriptions through Kaypro International. Please send your name, complete address and serial number of your Kaypro to:

Kaypro International
P.O.Box N
Del Mar, CA 92014

The International office will contact you and your local dealer to establish shipping charges.

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Letters

While Kaypro Corporation finances this magazine, it does not necessarily endorse or even agree with the editorial content. Unless there is a specific note to the contrary, all opinions in this magazine are the opinions of the staff and/or the individual writers involved. In the case of the Letters column, the guilty party is usually Tyler Sperry.

Everyone likes us

I would like to thank *PROFILES* with producing the most fabulous magazine. I read it cover to cover every time it hits the mailbox. I also hold it #1 over my other magazine subscriptions such as *Success*. Just like comparing my Kaypro II to my 1977 Corvette—ALL CLASS ACTS!!!

Tony Kenmir
Lynnwood, Washington

Just received my January/February issue of *PROFILES*. This is a very good magazine and addresses my needs extremely well. I purchased a Kaypro 10 a little over two months ago and fell in love with it.

I have replaced the MASMENU

with a little menu system called MENU PLUS from Overbreaker Ind., a very fine menu system. I can access any user area and all of my utility programs with one key stroke and with one more I can enter any program on the 10. Much easier and less messy than a mouse on your desk. Now if only I had an accelerator on the 10 and received *PROFILES* weekly.

Wade A. Hansen
St. George, Utah

Alas, it will take more than one accelerator to make PROFILES go any faster than bimonthly.

First I'd like to say that the January/February issue of *PROFILES* is the best yet. Even after a year of Kaypro use, I learned several very useful things about Filer and Writer.

Joanna Daneman
Secretary, St. Louis KUG
St. Louis, Missouri

I completely share the enthusiasm other readers have shown for your magazine. Every issue gets added to my reference shelf.

I was particularly grateful for information regarding formatting of long chapters, prefaces paginated with roman numerals, etc. As a professional writer now working on a 900-page book, I figured I'd solve those problems when I got there. Your timing couldn't have been better. That info alone saved me weeks of aggravation.

Robert Glass
Los Angeles, California

... almost

I am a happy owner of a Kaypro II but am disenchanted with your magazine. To continue with the laurels first, I have never regretted my decision to purchase the Kaypro, despite second-guessing my decision many times in the past year. The Kaypro caught my attention just in time to sweep me from the jaws of a sales contract to purchase an, uh, you know, an Os. . . . The Kaypro was and still is the best value in microcomputers. (And what an achievement that is over a year's time in this business!)

Your magazine, however, tells me little more about the use of
(continued on page 12)

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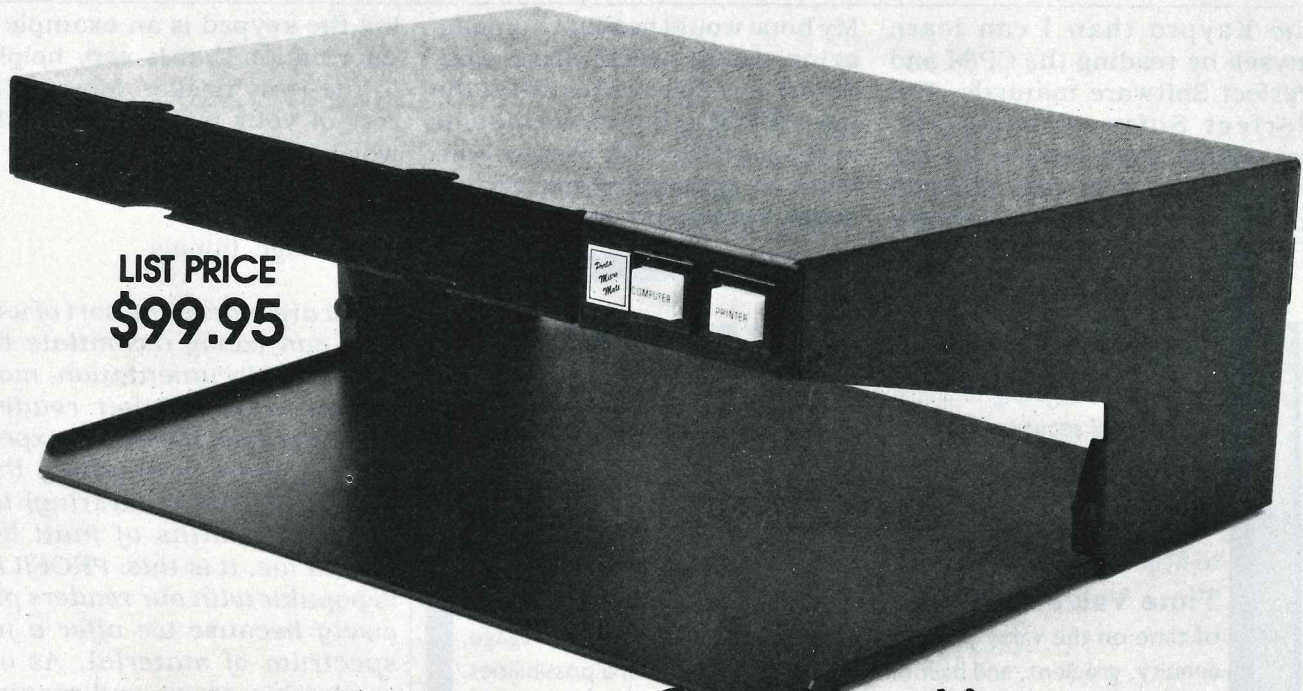
For more information and the name of your nearest dealer, call toll-free: **800-447-4700**. In Illinois, **800-322-4400**.

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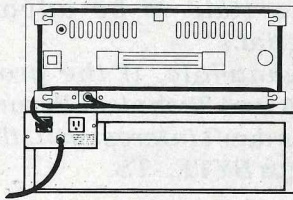
Porta-Micro Mate

It's **KAYPRO** Compatible



Every KAYPRO calls the Porta-Micro Mate Home!!

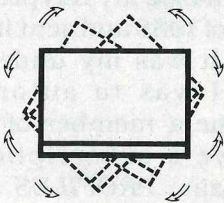
We've Added Surge Protection



Never again will you fear the on/off power surges your computer experiences. With the new transient surge protection circuit, power glitches that cause disk data loss are eliminated. The Porta-Micro Mate still features lighted front panel power switches for computer and printer, as well as rear mounted individually switched sockets (no more contortions to reach hidden controls). It still has convenient storage space for your most often used disks.



New Optional Swivel Base & Added Stability



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You can't see it, but we've beefed up the side panels to provide greater stability (Future portable computers like the KayPro 10 will be heavier since they have hard disk drives built-in).



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LETTERS

(continued)

the Kaypro than I can learn myself by reading the CP/M and Perfect Software manuals. The Perfect Software manuals, especially, were written for the true novice (I'm just slightly ahead of that neophyte stage).

My hope would be that your magazine would reveal some wonderful new discoveries about the use of CP/M or how to avoid some of the pit-falls of the Perfect Software in accomplishing certain tasks. Your article on reconfigur-

ing the keypad is an example of information that is very helpful to the early hacker. Most of the rest of your material is hardly worth reading.

Bill Wright
Park Ridge, Illinois

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If you are indeed the sort of user who can easily assimilate the standard documentation, more power to you! Other readers have not had the same experience. If there is anything that reading (if not answering) the last few months of mail has taught me, it is this: PROFILES is popular with our readers precisely because we offer a full spectrum of material. As our readership grows and matures we will be adding more advanced material, but not at the cost of crowding out the articles aimed at the beginner. (By the way, I do not consider the CONFIG article to be advanced material.)

Meanwhile, if the growing Q & A and Technical Forum columns don't interest you, there's always BYTE. -TS

Misunderstanding

I purchased my Kaypro II back in June of 1983 and sent in my KUG card. It was my understanding that I was to automatically become a member of KUG and receive a subscription to the magazine PROFILES and to be part of the other benefits of membership as well. To date, I have received nothing.

Apparently independently I did, sometime later, receive an offer from KUG to become a

(continued on page 86)

Attention, Kaypro users.

There's a new magazine for you, and if you own a Kaypro computer it won't cost you a penny.

PROFILES, the Magazine for Kaypro Users, features a wide range of articles designed to help you make better use of your new Kaypro computer. We answer questions, provide assistance, help you explore new avenues . . . whether you're just a beginner or a real Kaypro wizard. And we attempt to do so with clear writing, professional design, and, above all, a sense of humor about the personal computer experience.

The best thing about *PROFILES* is the price. If you've purchased a Kaypro computer, the cost of a six-issue subscription was included in the purchase price. All it takes is a legible, complete end-user warranty card in our files, and you're on the mailing list. If you haven't received our premiere issue in the mail, please fill out the form below and send it in. Note: we must have accurate serial numbers and zip codes for subscriptions to go through, so please be thorough. If you don't have the luck to own a Kaypro, you can still subscribe (use the lower form). Or you can pick up a copy at any authorized Kaypro dealer.

Yes, I own a Kaypro.

I'd really like to receive the next six issues of *PROFILES*, free of charge, but I never sent in my warranty card, or I've moved. Anyway, I'm not now receiving the magazine, and I want it.

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(LAST) (FIRST) (M.I.)

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Kaypro model: _____ Date purchased: _____

Serial number: _____ *ADDRESSES OUTSIDE OF U.S.A. AND CANADA
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No, I don't own a Kaypro.

But I'd like to receive *PROFILES*. I've enclosed a check or money order made out to Kaypro Corporation for \$12.00 for the next six issues.

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Writing for *PROFILES*

To answer the two most common questions: yes, we do accept submissions from freelance writers and yes, we do pay money.

We like single page queries giving us a good definition of your subject and slant, as well as a sense of your writing style. If we like the idea, we'll try to call you within three weeks to discuss the idea IF you include your daytime phone number.

We'll look at full length manuscripts. Our favorite way to receive these is with one copy on paper and a copy on Kaypro formatted diskettes, written with WordStar. We can do without the diskette and/or WordStar, but the hard copy should be in standard manuscript format (double spaced, etc.) Your name,

address and daytime phone number should be included, along with an SASE if you want your material returned

If you're interested in doing reviews, send us your area of expertise and a writing sample. Don't contact companies directly for software or hardware. We'll tell you exactly how to obtain what's necessary when the review is assigned.

PROFILES usually pays sometime after acceptance, but before publication. Our pay scale is competitive. Fees will be negotiated on an individual basis. We buy First World Serial Rights.

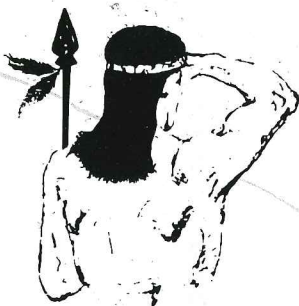
We will pay extra for usable photos and/or art work, but talk to us before going to a lot of trouble and expense.

We are interested in articles, side bars, cartoons, etc. aimed at the novice, the expert, and the person in between. Spend some time with recent issues to get a sense of what we want.

Material should be sent to:

PROFILES Magazine
Attn: Submissions Editor
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PROFILES Magazine will not be responsible for any unsolicited material, either on paper or diskette. Nor will we return any material not accompanied by an SASE.



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| S — Check Spelling | R — Rename a file |
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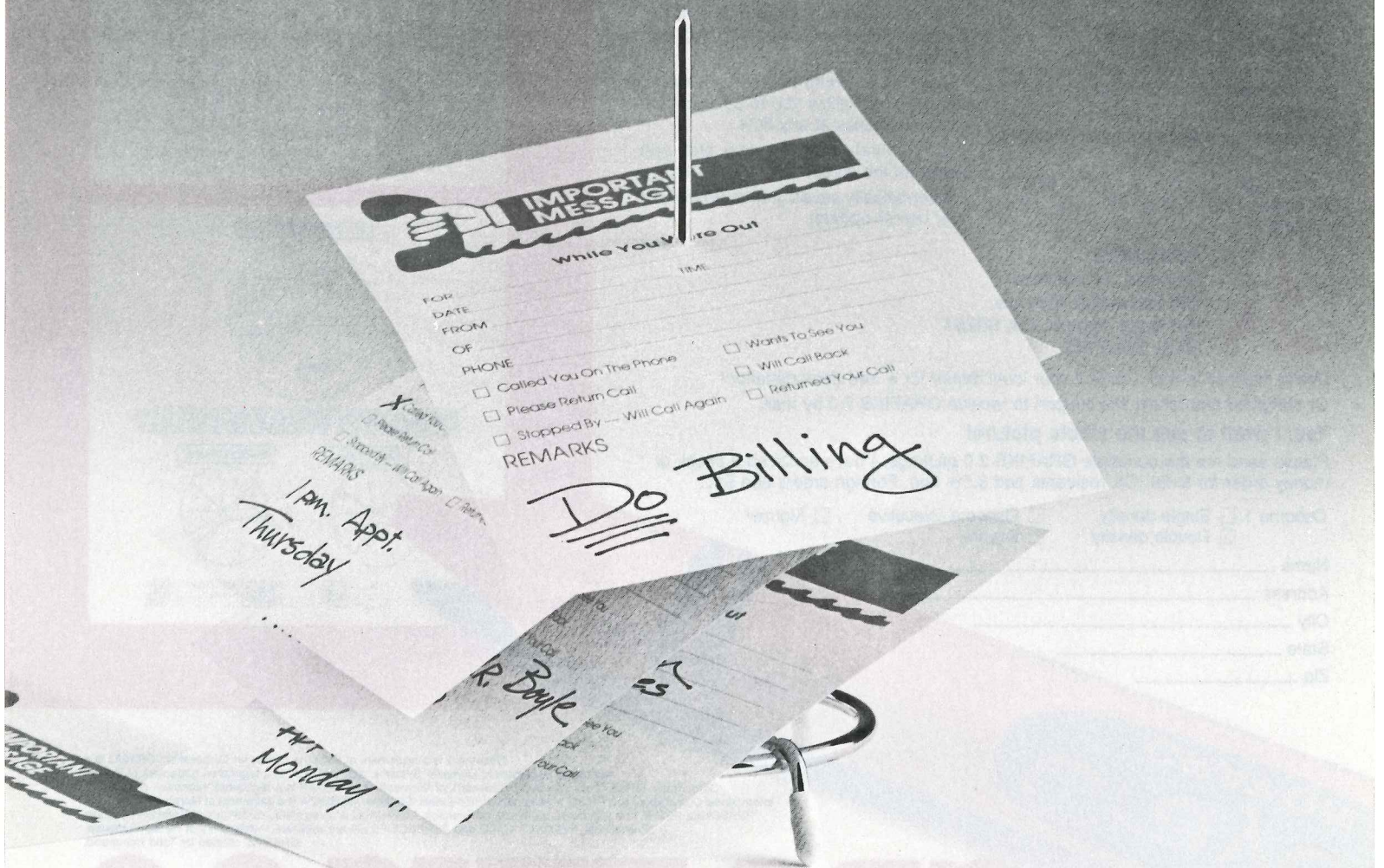
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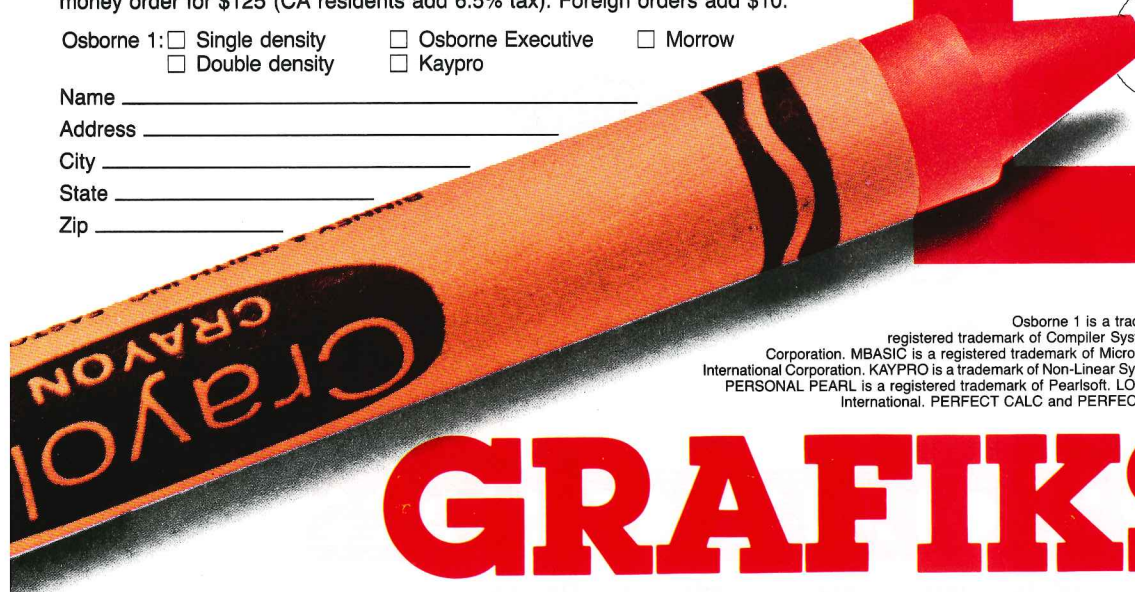
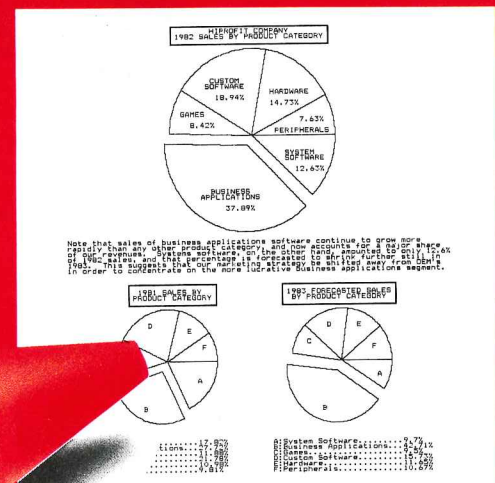
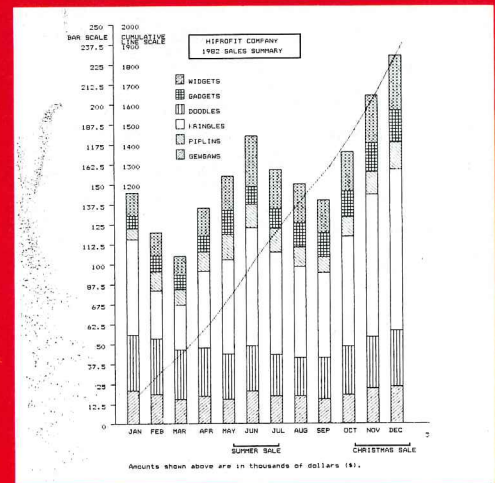
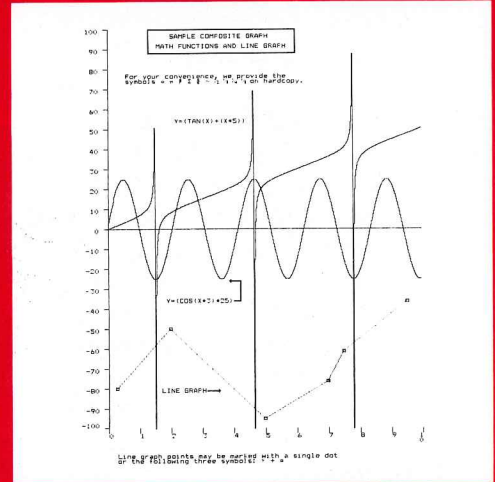
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Q & A

Return of Q & A

Do we get mail! Not only mail about subscriptions—see “A note from the editor”—or about back issues—numbers 1, 2 and 3 are sold out—but letters with questions. There are questions for us, some of which we can answer, questions our readers may know the answer to, and questions that are beyond our expertise. The questions that can be handled quickly and simply are answered here; the more involved questions often develop into dialogues with our readers and that's the business of the Technical Forum column further on.

If you have a question that you think other readers would be interested in, please do send it. Remember, though, that the reply to your problem may take two or three months before appearing here—if it does. The sheer volume of mail means that we have to pick the questions that have the widest appeal. We also reserve the right to do some excerpting and editing.

Personal replies

While the mail we receive is valuable to us in both planning our future issues and sorting out problems, there is a limit to the amount of time we can spend each day on correspondence. Due to the fact that all the staff members have full-time jobs in putting out the next issue of the magazine, personal replies are

virtually impossible. If you have a question or problem that you **MUST** have an immediate answer to, then you should contact Kaypro Technical Support yourself. Don't be shy about calling them; we do it all the time. The number is (619) 481-3920.

Of questionable value

What gives? I tried assembling Mark Gardner's WSGET.ASM program (PROFILES #4, Jan/Feb '84) and I keep getting a “value” error in the SECTOR LOOP part of the code. I've checked and my program matches the listing exactly.

From several readers

When the ASM assembler reaches that section of code it decrements an internal variable already set to zero. Apparently, the problem lies in the result: a 16-bit counter rolls over to OFFFFH. Since the destination of the MVI instruction is only an 8-bit register, ASM claims foul: It expects OFFH, not OFFFFH.

All of which is academic. The problem wasn't mentioned last issue because when I took the program for a “test drive,” a quick examination of the error message disclosed the code actually generated was correct. Hacker arrogance led me to assume that anyone else messing about with ASM would follow the same chain of

reasoning. I was wrong; sorry about that. —TS

A question for our readers

Has anyone come up with a method for installing an internal fan on the Kaypro 2?

Gil Contreas
Tucson, Arizona

Undoubtedly someone has, and will let us know. We'll pass the word.

Teacher's pet confusion

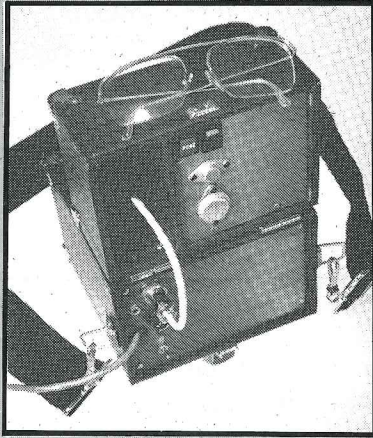
I've created a Perfect Calc form to keep student records . . . but I have a problem. Lesson plans are my bugaboo. Once my schedule is put on paper I know a snow day, or assembly, or some such, will pop up and mess up the whole thing. What I need is a calendar program which will allow me to schedule different classes during the day, as well as different classes for each day, and be able to “bump” individual lesson plans, or an entire day's schedule, forward. Perhaps some of your readers could help.

David Kennedy
Waynesboro, Pennsylvania

Perhaps some of them can. Anyone got any tested ideas? We'll share them, too.

(continued)

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Q & A (continued)

Regarding S-BASIC

When using the S-BASIC program I found I could not accurately determine the square root of a number greater than 10,000 or less than 0.00001 using the SQR() function. Similarly the LOG() function was not accurate above a certain value. Is the error in my version of S-BASIC software, or is it a limitation of this program?

Leonard Pinchuk, Ph.D.
Miami, Florida

So far, good ol' 5.4b is the only version of S-BASIC that has been released by Kaypro. (Earlier versions were released through Topaz Programming before it was bought by Kaypro Corporation.)

One of the biggest disappointments for users of other BASICs moving to S-BASIC is lack of accuracy in some of the intrinsic math functions. Some of our readers have written in with their own math routines and next issue's Technical Forum should have some examples. I am aware of no immediate plans for a revision, sorry to say.
—TS

A bit about .BAK

Is there a command that prevents WordStar from creating unwanted .BAK files?

Manuel Lorenzo
Hialeah, Florida

No, and you probably don't want to automatically eliminate their creation. The .BAK files provide protection in case you do permanent damage to the file you're working on, or, in a flurry of housekeeping, delete a file by mistake. You can recover by using ^KO from

within a file, or ^O from the Opening Menu. When presented with the second question, "Name of file to copy to?" simply omit the .BAK filetype.
—AWB

WINSTALL won't

How do you run the WordStar Install program? When I answer WS to the prompt which asks me which product I want to install, all I get is a "Version mismatch in INS file." There is nothing I can find in either the user's manual or the WordStar manual to help me with this. I use WordStar extensively and would like to be able to change its defaults to get rid of the menus, change the justification setting, etc.

Richard E. Freeman
Park Forest, Illinois

Running WINSTALL, the installation program for WordStar 3.3, is usually no problem. The first step is to make sure you have these 6 files on your working disk: WS.COM, WS.INS, WINSTALL.COM, WSMGS.OVR, WSOVLY1.OVR and PRINT.TEST. If you're missing any, try making another working copy from your master disk, checking your copy procedure in the user's manual. If that doesn't solve the problem, contact your dealer, or give Kaypro Tech Support a call.

By the way, the reason there is no WSU.COM, as described in the WordStar Installation manual (in the back of your WordStar Reference Guide) is because all Kaypro's WordStar master disks are already installed to run on the Kaypro. This means you answer WS.COM to the prompt "File to install is:" even the first time you run WINSTALL, instead of

WSU.COM. —AWB

A BBS of your own?

Several readers asked for more information on the BYE program mentioned in a previous issue. This public domain software is designed for those who want to set up their own Bulletin Board System. BBS's, RCP/M's and users' groups are likely places to find it.

Wet or dry?

I have been told not to use dry or wet disk cleaners with the Kaypro. Is this also your advice, and if so, for what reason?

Rosanne DeBats
Silver Spring, Maryland

As long as you're using a good brand of disk cleaner, there's no reason why you shouldn't use either wet or dry.

And what, you ask, is a good brand? Stick with names you recognize or your dealer recommends.

Recently I heard a talk on disk drives. The speaker did not recommend the use of head cleaning but did recommend that the disk drives be aligned every 600 hours or every 6 months, whichever comes first. Do you agree?

The speaker stated that the charge for aligning disk drives is about \$40 each. Is this a reasonable amount?

William H. Brown
Laguna Hills, California

It certainly won't hurt to have your disk drives aligned every 6 months. Unfortunately, computer components aren't yet as predictable or visible as the wear on the tires on your car.

Practical experience indicates most user's don't worry about alignment unless they have a problem. Generally speaking, disk drive alignment is one of the first tests run on a computer when there appear to be problems reading and/or writing to a disk.

As to cost, \$40-50 per hour, with an hour minimum seems to be an average for technical bench time. The fees vary from area to area, and usually can be determined in advance with a phone call.

A Perfect mess with Calc

My Perfect Calc disk has a messed up ARECMULT program that doesn't function properly. It even has some formulas in it labeled APAYMULT. Can you please tell me what gives and how I can get it corrected?

Harold E. Driver
Waxhaw, North Carolina

It appears you're talking about two programs on your Perfect Calc Lessons Disk. We know of no particular problem with those files. The first thing to try is to make a new working copy from your master. If that doesn't change the situation, talk to your dealer, and get in touch with Kaypro Software Tech Support.

Comments noted

There is an annoying misprint (in the early Kaypro 2 User's Guide). The system port is listed as ICH instead of ICH.

Ed Gelerinter, Ph.D., B.E.E.
Akron, Ohio

You're right, and it's been corrected in subsequent manuals.

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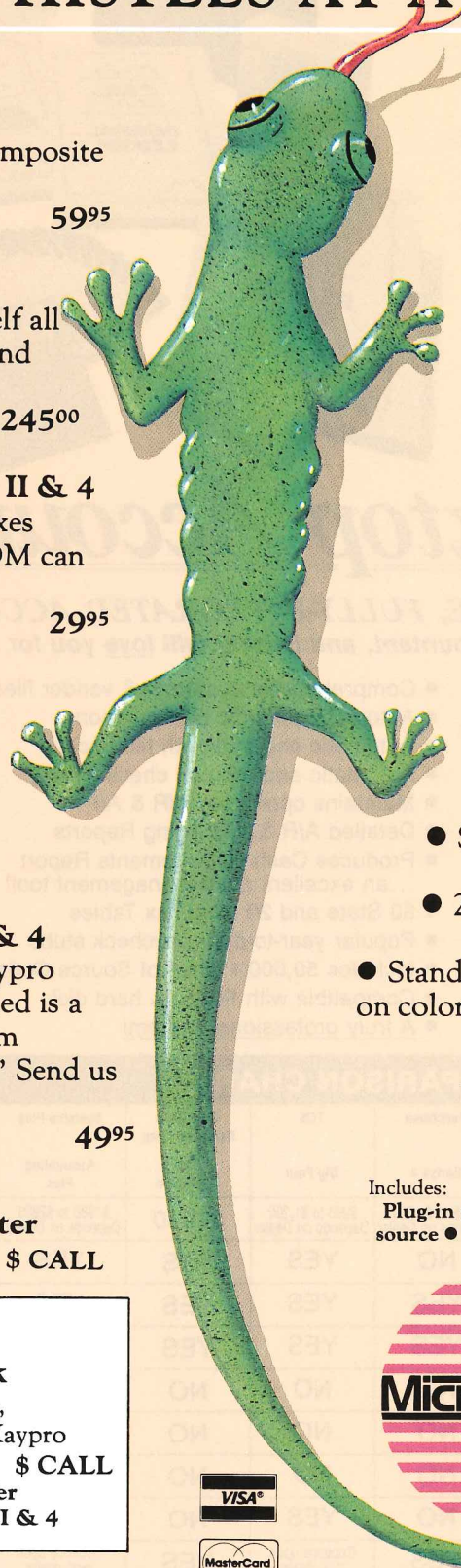
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The Cottage Computerist

A good code is nothing to sniff at

by David Thompson

Apology: I regret that the following column has not received its share of leavening. It's not that I can't rise to the occasion, it's that this subject is, in many ways, much more important than the such peripheral stuff as fame and money.

For instance, a major north-west phone company has software that is so incredibly patched that it will never again be changed; they just live in fear that someday the whole system will crash. Permanently. Meanwhile, bugs in the software that controls the U.S. missile system have reportedly almost sent the U.S. into war with Russia. In fact, the largest purchaser of software in the world is the U.S. government and yet 60% of the programs the government purchases are so flawed and tangled that they are never used. End of apology.

Anyone who reads *Micro Cornucopia* will tell you that I have a strong bias for well organized programs, the kind of programs encouraged by Pascal. In fact, when someone asks me to recommend a good way to learn to program in S-BASIC or C, or even regular BASIC, I suggest that they take a beginning Pascal class at their local college or pick up a Pascal book.

What I'm really telling my readers is that they need to learn how to organize their code (and their whole thinking process) so that they will be able to understand their code later (often much later.) With this under-

standing, they will be able to make changes without destroying the original program.

You see, if you intend to write programs for commercial applications then you are going to spend a good deal of time supporting those programs. In fact, the initial cost of the program is often less than 10% of the 5-year cost of the program. The other 90% of the cost is maintenance.

Don't get me wrong, the program may be correct when you delivered it, but customer needs change rapidly. So even if you spent a good deal of time with the client working through exactly what he wants, once he sees the program working he's going to come back with "Why can't it also do . . .?" (You do the same thing with your own programs. Right?)

Constructive criticism

Building a house is very much like building a program. The customer is always adding rooms and altering the color scheme (that's the customers' job.) And, of course, the builder is always finding that construction isn't quite as simple as the plans first indicated. (That's the builder's job.)

Let's say that the builder has finished a classic ranch style home but the customer now wants the utility room off the kitchen rather than off the master bedroom.

The builder might tear out the present utility room and move it to the new location, but since the walls of the utility room help

support the three adjoining rooms it's probably better to leave the utility room where it is (at least better than having the house fall down) and build a second utility room off the kitchen.

But what if the customer now wants to move the living room or wants an enclosed courtyard in the center of the house? What I'm saying is that there are some real problems when you try to rearrange standard houses.

Building a program

In a very real sense, programs are like houses. When clients ask you to write a program you probably won't begin by scattering building materials around your computer, but you *are* involved in building something.

If you are writing standard BASIC code, you are building a standard house. All the rooms are interconnected ("spaghetti coded") with GOTO's. You'll find that you can't move or modify part of the program without affecting the rooms around it. You might not even be able to identify all the routines a piece of code is supporting.

So you add another routine rather than chance modifying the old one. This adding-on is called patching.

So, when the customer requests a change it's often easiest and safest to patch in a little new code. Soon the program is more patches than program and the system is spending more time hopping from here to there than it is processing. You wind up with so many added rooms in

a program that you can no longer find the original house and that the whole mess has begun to feel like a marshmallow.

If your customer requests a major revision to this marshmallow, you should immediately pick up a one-way ticket to a small south sea island that has no phone service and no mail.

Seriously, one of the reasons that there is so much turnover of programmers in Silicon Valley is that there are so many programs that have been patched beyond recognition. People are often changing jobs just to get away from programs that are difficult—or impossible—to maintain. (But, of course, those same people run the risk of being stuck with marshmallows at their new jobs. A gooey prospect at best.)

Planning ahead

If you were a smart builder, you'd know ahead of time that the house might need to be rearranged from time to time. So, you'd build each part of the house as a complete room. Each room would be made up of sim-

ple components, walls, a floor, ceiling, roof, windows, door, and heater for a standard room. The kitchen would need plumbing and appliance components and the utility room would need plumbing and washing components.

You could then connect together the separate rooms in whatever order the customer chose. If the customer wanted one of the rooms moved or changed, the process would be simple and would have little impact on the rest of the house. Plus, the design of each room would be available when you began another home. You'd only have to redesign the rooms and components that were unique to the new house.

Of BASIC and Pascal

Dartmouth BASIC (the basis for MicroSoft BASIC) encourages you to interconnect everything and it codes the inter connections as line numbers.

Pascal, on the other hand, encourages you to write modules (separate rooms.) You can test

these modules as you go and then connect them together to form the whole program.

If you need to change something in an input portion of the code, it'll be easy to find the code and it'll be easy to see how that code interacts with the rest of the program. You see, if you designed the program correctly, you can make a change to one portion without bringing the walls down around you. That way the program stays current rather than growing, one patch at a time.

Let's take a look at three versions of the same routine. The first version is written in MicroSoft BASIC. The second version is written in Pascal. The third is an outline written in English.

Well, the Pascal code probably doesn't look much more intelligible than the BASIC. In fact, it may take longer to actually enter the Pascal version. However, the best way to design a program is to outline it in English first. (See Figure 3.)

If the outline looks a lot like
(continued)

MBASIC version

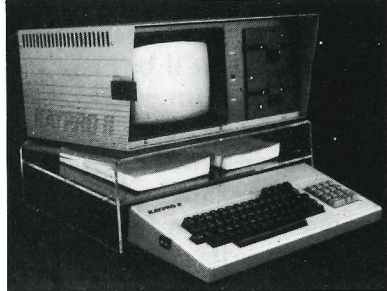
```
50 REM BASIC PROGRAM TO DIVIDE UP THE UNITED STATES
100 INPUT "ENTER THE FIRST DIGIT OF YOUR ZIP CODE (BETWEEN 0 AND 9)",Z
110 IF Z > 9 OR Z < 0 THEN 150
120 IF Z < 4 THEN Z = 1 ELSE IF Z < 7 THEN Z = 2 ELSE Z = 3
130 ON Z GOSUB 200, 360, 800

150 PRINT "INCORRECT ENTRY, YOU WILL BE MODIFIED FOR THIS":GOTO 100

200 REM THIS IS THE BEGINNING OF THE EAST COAST SUBROUTINE
...
350 RETURN
360 REM THIS IS THE BEGINNING OF THE CENTRAL SUBROUTINE
...
790 RETURN
800 REM THIS IS THE BEGINNING OF THE WEST COAST SUBROUTINE
...
990 RETURN
```

*Figure 1. Zip code program in Microsoft BASIC.
(Lines beginning with REM are comment lines.)*

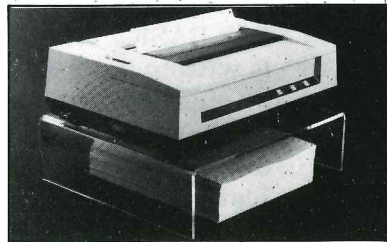
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Pascal version

```
{ Pascal program to divide up the United States }
program divide(input,output);
var
  zip_digit : integer;
  good_value : boolean;

procedure east_section(zip_digit : integer);
begin
  ...
end;

procedure central_section(zip_digit : integer);
begin
  ...
end;

procedure westcoast_section(zip_digit : integer);
begin
  ...
end;

(main)
begin
repeat
  good_value:=true;
  write('ENTER THE FIRST DIGIT OF YOUR ZIP CODE [BETWEEN 0 AND 9]');
  readln(zip_digit);
  if(zip_digit > 9) or (zip_digit < 0) then good_value:=false;
  if not good_value then
    writeln('INCORRECT ENTRY, YOU WILL BE MODIFIED FOR THIS');
until good_value:=true;

case zip_digit of
  0,1,2,3 : east_section(zip_digit);
  4,5,6 : central_section(zip_digit);
  7,8,9 : westcoast_section(zip_digit);
end;

end.
```

*Figure 2. The same program written in Pascal.
(Comments are enclosed in curly brackets.)*

Pascal, it's probably because Pascal can be written to look a lot like an outline. In other words, once you have written the program in outline form, you can practically code it line for line in Pascal.

Also, as both the Pascal and the BASIC programs get more complex, you'll find that Pascal with its local variables, its functions and its procedures grows in size, but not in complexity. The main program remains a simple caller of functions, and though you have more functions (or procedures), each function remains simple. Thus, Pascal helps you keep the complexity of each part down to a dull roar.

So it's easier to create a program in an organized language like Pascal, but the real payoff

comes later when someone else has to modify part of the code. Since reading good Pascal is like reading an outline, it should be easy to see what is happening. Then the code can be edited without fear that the whole program will come crashing down.

Turbo Pascal

It's no fun learning a language that you don't have on your Kaypro but fear not. At \$49.95 Turbo Pascal is more than filling the breach left by JRT Systems. In fact, John Jones (*Micro Cornucopia's* Pascal columnist), is so excited about Turbo Pascal that his latest column reads like an elixir salesman's testimonial.

Turbo Pascal is a real compiler (as opposed to JRT's P-code interpreter) and it's a full-blown

version of Pascal. The compiler works quickly and the code it generates is faster than Pascal MT (which retails for about 10 times as much.) And so far, no one I've talked to has found any bugs. Even the Turbo Pascal manual is first rate.

(I have to be a little careful about my enthusiasm or the Turbo Pascal folks will be overwhelmed, but you should know that I haven't taken my JRT disk out of its sleeve since Turbo arrived.)

The editor has assured me that a future issue of *PROFILES* will have a full review of Turbo Pascal. (Borland International has already started advertising in several computer magazines.) Until then, happy programming. □

English version

```
get first digit of zipcode
is it a correct entry?
if not: yell foul and get another entry

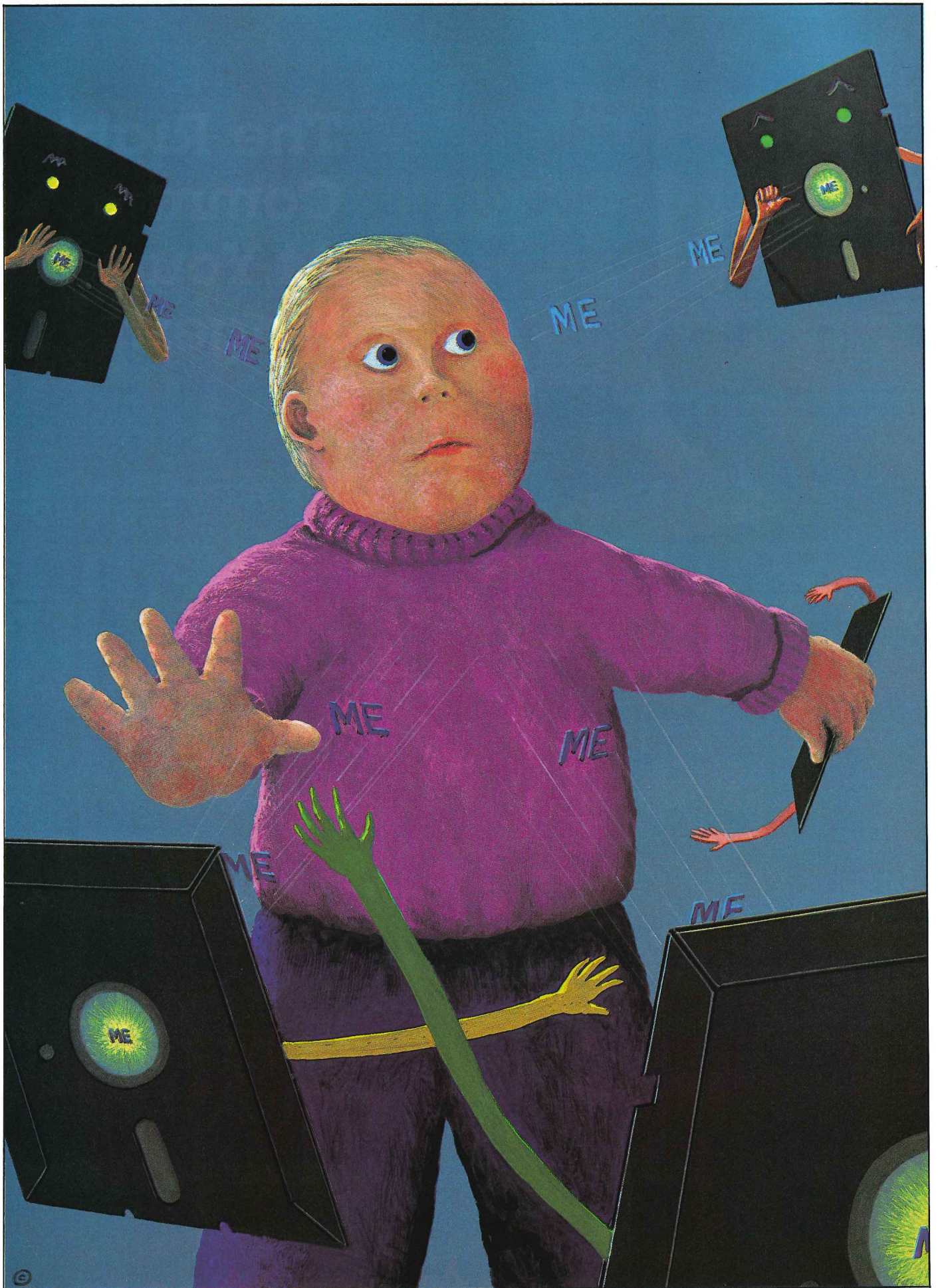
otherwise:
  if eastern part of the U.S. (0 - 3)
    select the eastern routine

  if central part of the U.S. (4 - 6)
    select the central routine

  if west coast part of the U.S. (7 - 9)
    select the west coast routine

end
```

Figure 3. Program written in pseudo-code.



Choosing a first language

Your first computer language might not be your last . . .

by Nils Pittenger

You were probably relieved when you discovered you wouldn't have to learn a computer language to run your Kaypro. Knowledge of programming has little to do with putting a computer to good use.

However, with the mastery of such programs as WordStar and your favorite spreadsheet often comes the desire to make the machine you've married perform exactly as you command.

The decision to learn how to program kicks off the search for your first computer language. A glance at most computer magazines, or a gentle plea for direction from members of users' groups, will inundate you with recommendations about the virtues of this or that language for beginners. It's enough to make you want to lie down until the temptation to program passes.

But temptation lingers, if for no other reason than it seems a shame not to use the languages bundled with your Kaypro.

Programming is the goal

But wait, before you grab the language reference guide that came with your computer, ask your-

self this: What am I trying to learn?

Programming is a discipline, a craft, and sometimes an art. Elegant and efficient programs are a result of elegant and efficient thinking. Clear, logical program listings are the hallmark of the good programmer and good programming requires learning a different thinking technique.

The ability to understand and write programs is not dependent upon using any particular computer language. The language chosen is important only in relationship to the task at hand.

For the beginner, the task is to learn about programming, rather than to master a specific language. If, after experimenting with programming, you discover you like the process, you will probably begin to collect languages based on your own needs and desires.

Since learning to program is the goal, you should be looking for a language that is (1) interactive, (2) fast, (3) standard, and, all things being equal, (4) inexpensive. That is, in the best of all possible worlds, the ideal first language would give you instant

feedback about your programming efforts, work rapidly on almost any machine, and cost you little or nothing.

Interpretive or . . .

Today we have interactive programming in the form of interpretive languages. Interpretive languages are those allowing you to enter a line of instructions that is immediately decoded so the computer can understand it. At least decoding is attempted. Some errors cause immediate rejection of your instruction effort; others won't show up until you run the program. However, you can run as little as one line at a time, so you have what amounts to immediate feedback. Furthermore, when there is an error, you receive at least cryptic information about what's wrong, pointing you toward the necessary correction. You get either the satisfaction of success, or the notification of the problem, at the precise place where the problem occurs.

Sounds like the ideal, doesn't it? But interpretive languages
(continued)

LANGUAGE

(continued)

create their own difficulties. Because each instruction is interpreted as it is encountered, completed programs tend to be slow when run.

Compiled

There are several different brands of BASIC available for the Kaypro, and they differ quite a bit.

Compiled languages offer an alternative to the cycle mentioned above. By converting each line of a program into binary code only once ("compiling" your program), they avoid the slowness of interpreters. Application programs that require speed are usually generated with compilers.

Compilers tend, however, to be frustrating for the beginning programmer because the process of *creating* the program is now slowed down. You write your program using an editor like WordStar or CP/M's ED, then run it through the compiler. If you've made a mistake at the beginning of your program, you usually won't know about it until the compiler quits in disgust. The longer the program, the longer it takes to compile, and the longer you wait for either an error report or the runnable program. The wise beginner writes compiled programs in small, easily-debugged modules, and knits them together only after each unit works.

There are fast compilers and there are slow compilers, but as a rule interpreters make better learning tools.

Programming for the masses

We also said our imaginary ideal programming language should be "standard". Standard, in this instance, means *popular*—a language recognized and used by many people, on a variety of machines. A popular language offers the advantage of having lots of books and knowledgeable users available to you.

The third criterium is that the language be inexpensive. It's possible to spend hundreds of dollars acquiring a single programming language. This may make sense for a dedicated hacker, but it can be an expensive way to discover you don't like programming at all. And there's no need to spend all that extra money because the less expensive languages will teach you the same principles of programming as the costly ones.

Besides, every Kaypro comes with at least one language.

Assembly language

Although few recognize it as such, the 8080 Assembler included with every Kaypro is a programming tool as powerful as any BASIC. Because assembly language—often simply called "assembler"—puts you just one small step above the binary codes your Kaypro understands, tight and efficient programs are quite common. But while assembly language is a logical choice for "hacking," it is probably not your best option as a learning language.

Indeed, as you might expect, the control you gain using assembler exacts a price. Along

with the control comes the responsibility of accounting for each and every action of the computer if your program is to work. Each operation requires its own line of instruction, which means you're going to do a lot of writing. For example, it might take ten lines (or more) of assembly language to achieve the same result as one line of BASIC.

The verdict for 8080 assembly language: Workable as a first language (with a tutorial book like Waite & Lefore's *Soul of CP/M*), but not your best bet.

M-BASIC

Just about everyone knowing anything about computers has heard of BASIC, although few are aware it was developed for educational purposes at Dartmouth College and has the full name of Beginner's All-purpose Symbolic Instruction Code. It is generally thought of as the easiest programming language to learn. M-BASIC, MicroSoft's version, which comes packaged with most Kaypro's, has a well-deserved reputation as a good implementation.

M-BASIC is an interpretive language. You, the programmer, get almost instant feed back about each instruction as you write it. Although the M-BASIC reference manual furnished with the Kaypro is confusing for beginners, the language is extremely popular, making it easy to locate tutorial books letting you begin at the beginning. (e.g., *Basic and the Personal Computer* by Dwyer & Critchfield.)

The main problem with using M-BASIC as a first language is that it doesn't enforce modular design, but rather permits and even fosters spontaneous, disorganized programs—what Dave Thompson calls “spaghetti code.”

M-BASIC does allow re-structuring so that GOTO's may be reduced or eliminated altogether, which can lead to maintainable and even elegant code. But because the language is so forgiving, it's easy to pick up sloppy programming habits.

S-BASIC

In the Kaypro world there's lots of talk about S-BASIC, the Structured BASIC, currently bundled with Kaypro 4's and 10's.

A structured programming language demands more attention to planning. In a structured language, each procedure must be started and ended as a unit; because of this the programmer is forced to logically think a program through in advance.

The beginner to computer languages could learn a great deal about programming from S-BASIC, except for the documentation. The existing manual assumes the S-BASIC user already knows how to program, and is familiar with some sort of BASIC—it's an almost impossible challenge for the uninitiated.

Pascal

Leaving the world of languages bundled with Kaypro computers, we come to the much talked about Pascal.

Pascal was designed as a teaching language that would make mistakes in program design harder to make. Because of its structured nature, the various versions of Pascal tend to teach good programming craft. Pascal also lends itself well to classroom situations, and there are several implementations that sell for less than \$100. It is a widely-used, and well-documented language. (The standard beginner's text is called, oddly enough, *Programming in Pascal* by Grogono.)

A conclusion?

Well maybe. It probably isn't bad advice to suggest M-BASIC for those who want to learn a programming language by themselves, and Pascal for those who choose to learn a language in a classroom. But this kind of quick answer is often worth exactly what you pay for it. There is no “perfect” first language. □

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*TEAC 55B diskette drives
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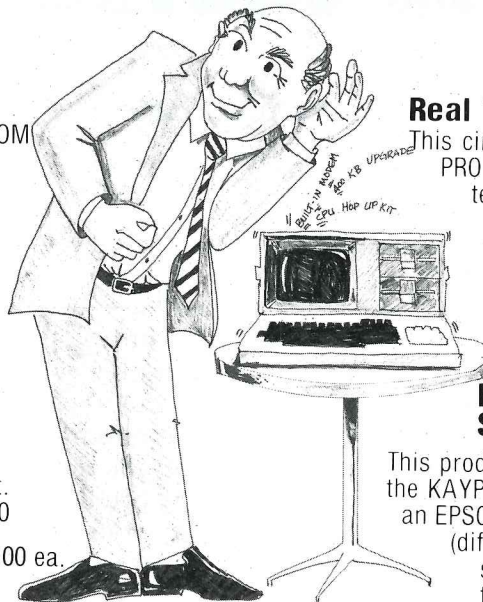
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Perfect Filer— a second course

Making custom data bases palatable

by Anne Wayman-Blick

Although Perfect Filer comes with two pre-designed data bases that file by individual's names and by the names of organizations, many people find they want to keep track of other sorts of information. It is possible to use Filer to create a customized data base containing exactly the information you want and to design the way the contents of your data base will be printed. This feature allows you to produce all sorts of forms and specialized lists.

There are two elements involved with designing your own data base—the Data Record and the List Format. The Data Record defines the information your data base contains, as well as providing the screen where you will enter your records. The List Format determines how the information will be printed on paper.

Starting out

The first step in creating a Data Record is to spend some time with pencil and paper, deciding exactly what information you want to store, and the way you want your screen to look.

Let's assume you have a collection of rare books, and rather than continually take them out

of storage each time you want to determine exactly what you have, you want to keep track of them with your computer. After some thinking about your project, you decide you want the following information, displayed on your screen like this:

Author: _____
Title: _____
Copyright date: / ___ / ___ / ___
Edition: _____
Date purchased: / ___ / ___ / ___
Amt. paid: \$ _____

Put your working copy of Perfect Filer in drive A, and a formatted, blank diskette in drive B. (This example assumes you're using either a Kaypro 2 or 4. If you're using a Kaypro 10, the procedures are the same, except you may choose to keep your data base on drive A. Remember, however, you can only have one data base per diskette or user area.) At the CP/M prompt, type CREATE and press return. Answer B to the question about which drive contains your data base. From the Data Base Generation menu, choose Create New Data Base; press X. You will be asked to name your data base. When you're choosing the name, keep in mind that, over time, you

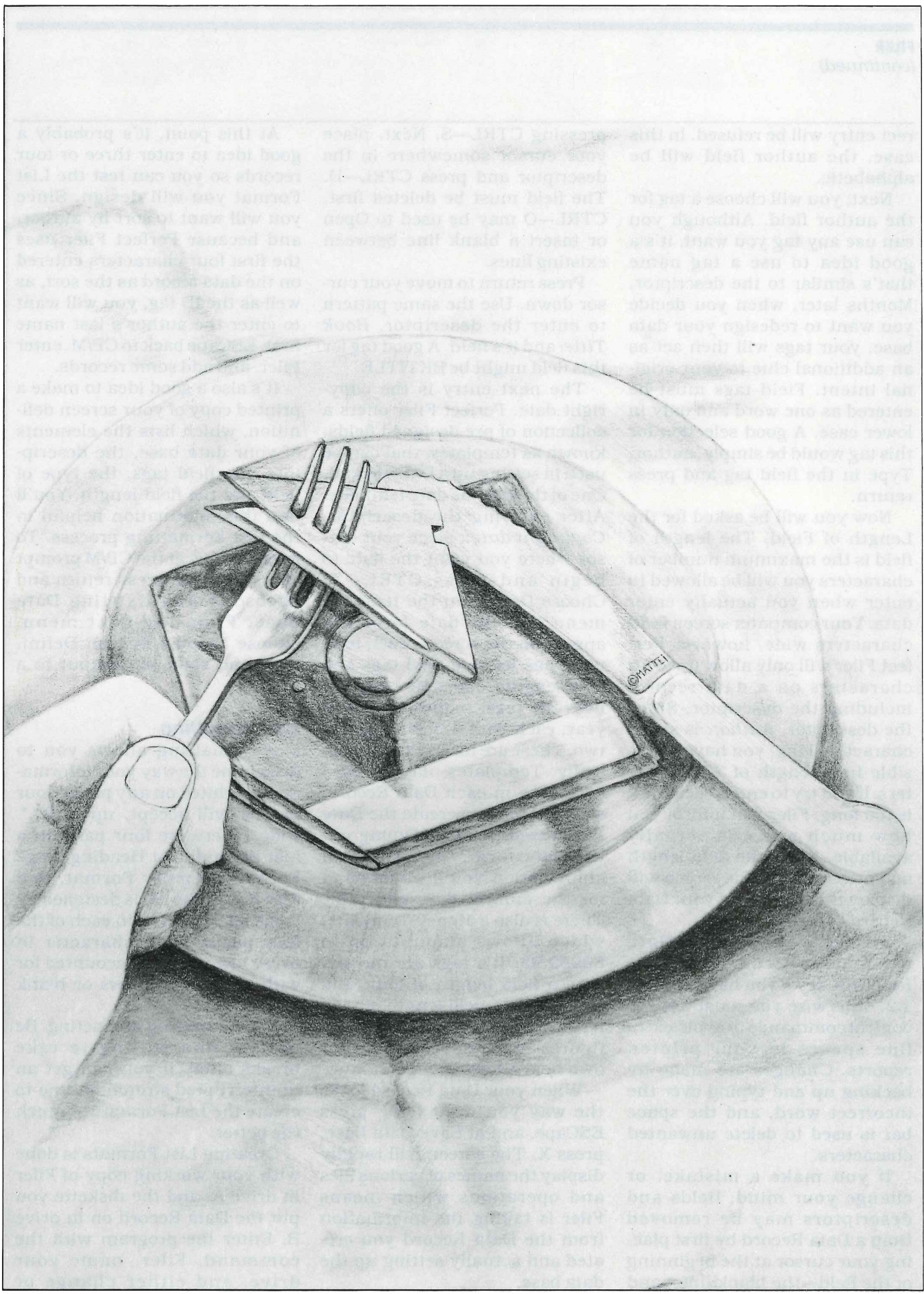
are likely to have more than one data base. Each name should be simple and descriptive. In this example, we'll use the name, OLD BOOKS.

Descriptors and fields

The words on your screen are known as data descriptors; the blank line after the descriptor is called a field. Each field must have its own name or tag. Perfect Filer uses the field tags to keep track of the information you record.

After you have typed in the name of the data base and pressed return, Perfect Filer will present you with a blank screen; the cursor will be blinking in the upper left corner. Simply type in your first descriptor, *Author:* and press CTRL—I to Insert the descriptor in the data base.

The Select Field Type menu will appear. Perfect Filer allows the use of four field types: alphabetic, alphanumeric, numeric and status. Status allows you to indicate, with an X, a choice, such as active or inactive. Although the simplest approach is to use alphanumeric in all cases, being more specific will pay off in the long run. If, for instance, you create a numeric field and later try to enter a letter from the alphabet in that field, your incor-
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FILER

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rect entry will be refused. In this case, the author field will be alphabetic.

Next, you will choose a tag for the author field. Although you can use any tag you want, it's a good idea to use a tag name that's similar to the descriptor. Months later, when you decide you want to redesign your data base, your tags will then act as an additional clue to your original intent. Field tags must be entered as one word and only in lower case. A good selection for this tag would be simply, author. Type in the field tag and press return.

Now you will be asked for the Length of Field. The length of field is the maximum number of characters you will be allowed to enter when you actually enter data. Your computer screen is 80 characters wide, however Perfect Filer will only allow up to 79 characters on a data record, including the descriptor. Since the descriptor, *Author:* is seven characters long, you have a possible field length of 72 characters. If you try to enter a field that is too long, Filer will inform you how much space is actually available. Enter the field length and press return. The screen will display the first line of your Data Record.

To move around the Data Record you may use the RETURN key if you have Version 1.2, otherwise you must use the control commands to avoid extra line spaces in your printed reports. Changes are made by backing up and typing over the incorrect word, and the space bar is used to delete unwanted characters.

If you make a mistake, or change your mind, fields and descriptors may be removed from a Data Record by first placing your cursor at the beginning of the field—the blank line—and

pressing CTRL—S. Next, place your cursor somewhere in the descriptor and press CTRL—D. The field must be deleted first. CTRL—O may be used to Open or insert a blank line between existing lines.

Press return to move your cursor down. Use the same pattern to enter the descriptor, *Book Title:* and its field. A good tag for this field might be BKTITLE.

The next entry is the copyright date. Perfect Filer offers a collection of pre-designed fields, known as templates, that can be used in setting up a Data Record. One of these is the date template. After entering the descriptor, *Copyright date:*, place your cursor where you want the date to begin and press CTRL—T. Choose Date from the template menu and the date form will appear on the screen. Each template has its own field tags and field lengths. The date template uses the tags, month, day, and year, each with a field length of two. These are inserted automatically. Templates may be used only once in each Data Record, so you'll have to create the *Date Purchased:* field by typing out the date form, and using an abbreviation you'll understand for the month, day, and year. There is also a Money Template, which allows amounts up to \$9999.99. Its tags are money, with a field length of four, and cents, with a field length of two. If you need to record larger dollar figures, you may create your own field allowing any amount.

When your Data Record looks the way you want it to, press ESCape, and at Save Data Base, press X. The screen will rapidly display the names of various files and operations which means Filer is taking the information from the Data Record you created and actually setting up the data base.

At this point, it's probably a good idea to enter three or four records so you can test the List Format you will design. Since you will want to sort by author, and because Perfect Filer uses the first four characters entered on the data record as the sort, as well as the ID tag, you will want to enter the author's last name first. ESCape back to CP/M, enter Filer, and add some records.

It's also a good idea to make a printed copy of your screen definition, which lists the elements of your data base, the descriptors, the field tags, the type of field and the field length. You'll find this information helpful in the List Formatting process. To make a copy, at the CP/M prompt type CREATE, press return and choose Modify Existing Data Base. From the next menu, choose Display Screen Definition, and send the output to a printer.

List formatting

List formatting allows you to determine the way your information is printed on any paper your printer will accept, up to 8½" wide. There are four parts in a List Format: List Heading, Page Format, Member Format, and Sort Keys. The list is designed by creating fields within each of the four parts. Each character in every line must be accounted for with either characters or blank spaces.

List formatting is exacting. Be patient and willing to take breaks often. If you can get an uninterrupted stretch of time to create the List Format, so much the better.

Creating List Formats is done with your working copy of Filer in drive A, and the diskette you put the Data Record on in drive B. Enter the program with the command, Filer, name your drive, and either change or

accept the date.

From the menu, first choose Define List Format which will bring up the List Format Definition Menu. Next choose Add a List Format. Type in the name of your list. Eventually, you may have several List Formats for a single data base, so make the purpose of your list clear in its name. We choose BOOKS BY AUTHOR for this example.

The first element of the List Format is the List Heading Format Block, which is the title that appears at the start of your list. Choose Define List Heading Format Block, then, from the next menu, choose Add A List Format Field, and finally from the third menu, choose Specify Field Contents. In this case, the contents of the field will be a string. A string is simply a line of characters you want to appear on your list that is NOT in your data base. When you enter the format description, you are titling your list. In this case use, BOOKS FILED BY AUTHOR. Press ESCape; you will be returned to the former menu. Choose Specify Field Characteristics, which lets you underline, if your printer allows it, and, in most cases, set the field length. When you see, "Enter field length:", type 80. On the List Format, Perfect Filer will allow you to use up to 80 characters. Now you must decide where in the field the contents will appear. Since this is a title, let's choose Centered. You have just told Perfect Filer to print the string, BOOKS FILED BY AUTHOR, underline it, and put it in the center of the 80-character field # 1.

ESCape back to the List Member Format Block Definition menu and following the same pattern, enter two returns. Nothing happens on the screen, but when you print your list, there will be a double space between

the heading and the rest of the list.

Again, ESCape back, this time to the menu with your list name in the upper left corner and choose Define Page Format. The Page Format is the information you want at the top of each page, such as page numbers and column headings. Follow the same

pattern you used entering the List Heading fields, keeping in mind you're limited to 80 characters across the page.

To get a line under your headings, enter a string by typing the underline key 79 times—your line will wrap on the screen, but on paper it will run the width of
(continued)

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— Pro-Files July-August '83

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Most people who buy a dot matrix printer get a bunch of features they can't even use, unless they can write their own programs. The Printer Optimizer makes controlling a smart printer as easy as using a remote control TV set.



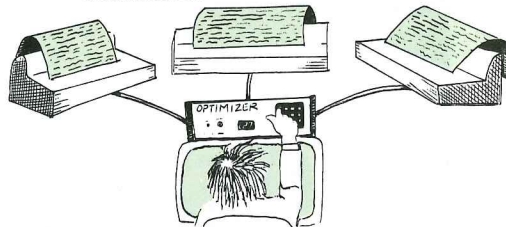
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Even better, it can do the controlling automatically based on the data coming through it. The user can make up his own commands to access every trick the printer is capable of, plus some of our tricks as well . . .

and my (PRINTER becomes... and my **PRINTER** because it turns on bold & italics

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FILER

(continued)

the page.

Page Format is also where you define the page length. An 8½" by 11" page is usually 66 lines long, but check your printer manual for details. Normally there are six lines per inch (again, check your printer manual) so a bottom margin of ten lines will give you about an inch and a half of white space at the end of each page.

Define Member Format is next. Member, in this case, refers to the information in your data base, such as the author's names, the book titles, the copyright dates, etc. In the Member Format, you will use the term, logical field, instead of string. Specifying a logical field tells Filer to use the information from a field. To get information from the correct field, the field tag must be used. This is where you will find the printed definition of your screen helpful.

Sort Keys are entered in much the same fashion. Again field tag

names are used. In this case, you'll want to sort by author.

The payoff

When you've completed your List Format, ESCape back to the menu with the name of your List Format and choose Save List Format Description. To check your entries, choose Display List Format, and send the output to your printer.

To print your list, choose Generate List/Report. The screen will display Standard List and BOOKS BY AUTHOR. Standard List will only print the last name of your authors, so choose the list you've created. We've not included any subsets, so the next choice will be ALL MEMBERS. Send the output to the printer. Don't be surprised if the first few times you print your list, you get strange results. Go over the printout with the following troubleshooting guide in mind. It seems to work better if you try to correct only one error at a time.


Print your list again to see what progress you've made. Whatever else happens, *don't panic*. Keep plugging away, and you'll get it right.

Troubleshooting your list

The most likely causes of errors in your list are:

- ▶ Improper tags
- ▶ Confusion between templates and fields.
- ▶ Failure to account for all 80 characters in a field.

Once you've successfully created your first List Format, you will find designing data bases and creating forms and special lists much easier. By designing Printer Forms, you can also cause portions of your custom data base to be merged with form letters or to print mailing labels. □





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KayPro Disk K1 Modem software

This disk is absolutely priceless if you will be using a modem to communicate with bulletin boards, other micros or mainframes.

MODEMPAT.COM: Menu selection of baud rate, bits/character, stop bits, & parity for serial port.

MODEM7.COM: Very popular MODEM 7 configured for KayPro.

MODEM7+.COM: This is MODEM7 & MODEMPAT combined - you can communicate with anything!

KMDM795.COM: Super-version of MODEM7 set up for KayPro.

TERM.MAC: Commented disassembly of the TERM program you get with your KayPro so you can configure it for any interface.

SQ/USQ.COM: Programs to squeeze and unsqueeze files for faster transfer.

KayPro Disk K2 Utilities

Really oodles of spiffy little (and big) programs to help you get full use of your KayPro.

ZESOURCE.COM: A true Zilog format disassembler for 8080 and Z80 object(.COM) files. Now you can turn .COM files into .MAC files.

UNERA.COM: Simply enter "UNERA" followed by the name of the file you just erased and presto, the erased file is back! A lifesaver.

FINDBD54.COM: Checks an entire disk, reports bad sectors, and then creates a special file containing those sectors. You save a bundle on disks.

CAT2: This a group of programs which create and maintain a single directory of all the programs you have on all your disks. Even keeps track of which programs are backed up and which aren't.

UNSPPOOL.COM: Use your KayPro II and print files at the same time. Doesn't slow down system response!

DUMPX, DU-77, COMPARE, SUPERSUB, FORMFEED, DIR-DUMP, . . . and all have documentation on disk.

KayPro Disk K3 Games

PACMAN.COM: Despite the KayPro's lack of graphics, this one looks and plays amazingly like the real thing! Keep it hidden.

ZCHESS.COM: Chess with a 1-6 level look ahead.

OTHELLO.COM: You learn it in minutes, master it in years.

BIO.COM: Generates custom graphic biorhythm.

MM.COM: Master Mind.

WUMPUS.COM: Classic wumpus hunting.

KayPro Disk K4 Adventure

This disk contains one 191K game, Adventure. **ADV.COM:** This is the latest, greatest, most cussed adventure ever devised by half-mortals. This is the 550-point version so the cave is greatly expanded and the creatures are much smarter.

KayPro Disk K5 MX-80 Graphics

A complete MX-80 graphics package including example files.

KayPro Disk K6 Word Processing Utilities

A powerful line oriented text editor that looks like Unix's EX, plus a scad of text utilities written in C which handles pretty printing, shortening a file, multiple space output, add tabs, remove trailing whitespace, and more. Also includes **ROFF.COM** a very neat text formatter.

KayPro Disk K7 Small C Version 2 Compiler

This is a greatly extended version of Ron Cain's Small C compiler. Version 2 has more expressions and larger library, true subset of Unix C. Disk contains compiler, documentation, and library — everything you need.

KAYPRO USERS DISKS for KayPro II, 4 and 10

\$12⁰⁰ each



The following are full disks of software assembled specifically for the KayPro. Each program has a .DOC (documentation) file and many come with source.

KayPro Disk K8 Small C Version 2 Source

This disk contains the source (written in Small C) of the Small C version 2 compiler. Get K8 if you want to try extending the compiler. (You must have K7.)

KayPro Disk K9 ZCPR

ZCPR: The big news on this disk is the self-installing version ZCPR available only from Micro C. Once you have ZCPR in your CP/M, you'll never go back to straight CP/M! For instance, ZCPR searches drive A for any program not found on drive B, so, even an empty disk in drive B appears to contain every program on A. It's great for text editors, compilers, etc. Plus many more new features to make CP/M easier to live with. In fact, Digital Research incorporated many features of ZCPR into CP/M 3.0. Works on KayPro II and 4.

PASSWORD: Lets you encrypt and decrypt your precious files. Includes source.

EX14: a super replacement for SUBMIT. Plus many more: **TREK, FIX, FIND, SNOOPY, ALIENS** and **DIF2**.

KayPro Disk K10 Assemblers

We've received a lot of requests for a Z80 assembler. So Dana put in some long hours getting the Crowe Z80 assembler to run on the KayPro (and every other Z80 machine).

CROWECPM: This is a first class Z80 assembler. We use this assembler daily (and we included its source). Takes standard Zilog mnemonics.

LASM: This is a more powerful version of the ASM assembler you received with the KayPro. This will link multiple programs together at assembly time.

PRINTPRN: This program makes it easy to print the listing files generated by the Crowe assembler.

KayPro Disk K11 Library & Checkbook Programs

CHECKS: This has been a very popular group of programs. Categorizes checks so you can keep track which are tax deductible and which get charged to which projects. Includes source and excellent example check files. Very powerful.

LIBR: This is a complete set of library routines which let you group files into a single file called a library. Then CP/M sees them as a single program, but with the library routines, you can list them out separately, run them separately, or divide them up again. Almost like a unix environment. **DISPLAY, VLIST, PGLST:** Additional screen and print utilities.

KayPro Disk K12 FORTH

Yep, this is FORTH, one of the most unique, most extendable languages known, and for a paltry \$12.00. This disk contains not just one FORTH, but two, along with an editor, decompiler and 8080 assembler! The editor even uses the cursor control keys.

FORTH: This is true fig-FORTH. **KFORTH:** A very nicely extended version of fig-FORTH.

PLUS, all the rest of the FORTH goodies. (Forth Heaven!)

KayPro Disk K13 Source of fig-FORTH

All this disk contains is the 40K ASM source of fig-FORTH with the hooks in place for the KayPro. This disk is for FORTH hackers who just can't leave anything alone. (Look, you probably have faults, too.) The source of FORTH is here because there isn't room on K12. This is the only disk that isn't stuffed.

KayPro Disk K14 Smartmodem Programs

This is the disk for you if you have a Smartmodem compatible modem. With this disk you can communicate with anything but a recalcitrant spouse. Handles goodies like autodial along with multiple directories.

SMODEMK: Smartmodem program set up for the KayPro (and source).

XMODEM: Lets you remotely control your KayPro from a distant computer.

KAYTERM: This is the information you need to run or write modem software on the KayPro.

KayPro Disk K15 Hard Disk Utilities

This disk is for the KayPro 10 or any KayPro with a Winchester drive. With these routines you can not only backup files (with printed directories of the backup disks), you can also break up large files. The backed-up files are not encoded (as they are with KayPro's backup routine) so you can access them on any system.

KayPro Disk K16 Pascal Compiler

This is a real Pascal compiler. It supports only a subset of the language (no records, pointers, booleans, reals or complex) but it generates a real .COM file. Everything is on this disk: the compiler, its source, example programs and documentation.

KayPro Disk K17 Z80 Tools

This is for those of you who are into Z80 assembly language.

XLATE.COM: A very good 8080 to Z80 translation routine.

DASM.COM: An easier to use version of ZZSOURCE (the Z80 disassembler). This full disk includes source and documentation for both routines.

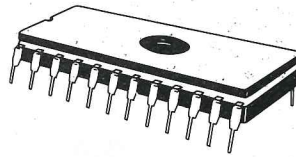
KayPro Disk K18 System Diagnostics

Just as we finished editing the routines on this disk, we received a copy of KayPro's diagnostic disk. The memory test, drive exercise, and drive alignment routines on this disk are more powerful than KayPro's versions. (Plus, it's only \$12!) Setup for KayPro II and 4.

KayPro Disk K19 Prowriter Graphics

This is a complete Prowriter graphics package written by the same Micro C subscriber who wrote the MX-80 graphics package. Plot points, lines, circles, boxes, and more. Examples, documentation, and more.

We have something special for your Kaypro!



Pro-8 ROM Package

The PRO-8 package from Micro Cornucopia upgrades your KayPro 4 to a KayPro 8 with 784K bytes (96 directory entries) per Tandon 100-4 (or equivalent) quad-density drive. Plus, you can select your own cursor character (and change it at will).

The package includes the new PRO-8 monitor ROM, a disk of formatters and copiers, and printed instructions. (We even tell you how to turn your KayPro II into a KayPro 4.) All you add is one or two double-sided double-density (390K), or double-sided quad-density (784K) drives. You get over 1.5 Megabytes on a two-drive quad-density system!

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All this for only **\$49⁹⁵!**

Watch Micro Cornucopia for more KayPro compatibles.

Call or write for information on the other KayPro II and 4 ROMS from Micro Cornucopia.



Micro Cornucopia Magazine

Want to speed up your KayPro? Want to find out what's going on under the KayPro's hood? Want to know who's selling good products and providing good support (and who isn't)? Want to find really inexpensive software? Then you're in the right place.

Micro Cornucopia (Micro C) is the friendly journal for those of you who want to stay abreast of the latest information on KayPros and other single board systems, or want to upgrade your KayPro yourself without paying an arm and a leg. We have regular columns on Pascal, C, S-BASIC, FORTH as well as the popular "On Your Own" feature for those of you who plan to make the KayPro your ticket to independence.

You can get all this and more when you order the special \$2.00 sample copy. In fact, you'll even find out how to turn a KayPro II into a KayPro 4 (or KayPro 8).

Edited and published by David Thompson

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SPECIAL OFFER!

KayPro II Schematic Package
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KayPro II Schematic Package

This is a complete schematic of the KayPro, logically laid out on a single 24" x 36" sheet — no more searching to see where a signal goes or comes from. Even the unused gates are shown.

It's drawn in positive logic, lines are labeled, and we've tossed in hours and hours of careful checking for accuracy. Then we added a **Theory of Operation** that's keyed to the schematic.

\$20⁰⁰

Micro Cornucopia

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What was the command for . . . ?

A review of software that may hold the key to easier computing

by Susan Hyman

Last issue saw the reprinting of the most popular article from the premier issue of *PROFILES*, "Reconfiguring your Numeric Keypad" by Ezra Shapiro. The article explained how you can use the CONFIG utility program to change your numeric and cursor keys into a set of dedicated function keys.

CONFIG may be the only key definition program you will ever need. It's handy, easy-to-use, and comes free with all KAYPRO computers. Before buying any commercial keypad software, you should try CONFIG first.

CONFIG's flaw, however, is that it can only be used to assign single-character functions, like CTRL-T, to keys. On the Kaypro 10 and on the newer Kaypro 4's, CONFIG can handle up to four characters per keystroke. This allows, for example, making the ENTER key generate functions such as the CTRL-K, S, CTRL-Q, P sequence so familiar to Word-Star users.

While CONFIG is quite adequate for such uses, you may need greater flexibility than

that. If you're a legal secretary, you may be tired of typing the same long passages of legal text. Or novelists may hate typing their main character's name over and over again. For these and other cases, we've provided this list of commercial programs that may be able to help. They generally don't cost much, and are worth examining if you spend too much time on redundant typing, or often issue lengthy commands to your machine (as in computer programming.)

We reviewed four of these products in the July/August '83 issue. Since then, the family of keypad software has grown to six, and the products have been updated or completely changed.

First, a brief overview of what these programs do. Usually, they allow you to either assign your own definitions to keys, or use the ones they supply. Some limit the size of the strings (the information you assign to a key), while others allow strings to be as long as your computer's disk storage capacity permits. You can store the strings into text files, which you call up as needed. The key definitions will

remain in effect until the system is reset or cold booted.

With some programs, you can reconfigure only the numeric keypad and cursor keys. The more complex programs permit redefining of the entire keyboard. With the use of a special shift key in some programs, you can use the same keyboard keys for different functions. With this feature, "A" can be either a regular text letter and a function key, or two different function keys. Other programs permit string definition "on-the-fly" while you're in the middle of another program.

Here are some other common features of the various programs: (1) string pause, which causes a string definition to stop for keyboard input, so you can enter variables such as the date in a letter; (2) batch processing, which allows you to implement several commands at once—for example, you can load the keypad software, look at the directory of a drive, and run your word processor with the touch of one key; and (3) customization, which allows you to change the way the program works.

Several of the programs pro-

vide key definitions for specific software.

For a quick look at the features, see the chart that follows these reviews.

SmartKey II

This popular program is a new version of the old SmartKey we reviewed in the July/August issue. It has a host of new features; unfortunately, your old SmartKey definition files won't work with it.

SmartKey II users can create large definition files—up to 3,750 characters—and assign them to any key on the board. It has a SuperShift key which doubles the number of keys you can define. You can write fill-in-the-blank definitions, which causes strings to stop for keyboard input.

This program is easy to use—setting up a string takes only a few keystrokes and can be done from any program you happen to be in.

The SKPATCH file can be used to customize SmartKey II effortlessly. It's helpful to be able to change the SuperShift and setup key (the key that enables you to define other keys), to ones that you don't use often.

SmartKey II has a compiler that takes word-processed files and turns them into SmartKey definitions. This feature is invaluable if you want to assign long-winded text to a special key and don't want to start over again if you make a typing mistake. SmartKey II does have some limited string editing capabilities of its own.

Loading several programs automatically (batch-processing) is possible with SmartKey II; you can use the CP/M utility SUBMIT.

SmartKey II works on the

II. It allows you to program the whole keyboard, and has an XShift key, which works exactly like SmartKey's SuperShift. You can use your word processor to create long string definitions, and can program them to pause for keyboard input. It also has its own limited text editor, XEdit, and a program called XConfig, to customize XtraKey to your needs.

XtraKey's string length is limited only by available disk storage. It has a built-in screen dump that sends output to your printer directly from inside the

Some programs allow key definitions of almost unlimited size.

Kaypro 2, 4 and 10, and cost \$60. For printer specifications, add another \$30.

FBN/Heritage Software, 2130 S. Vermont, Los Angeles, CA 90007 (213) 737-7252.

XtraKey

A recent addition to the key program field, XtraKey has many of the same qualities as SmartKey

program.

XtraKey comes with custom key definitions for WordStar, Perfect Writer, Perfect Calc, MBasic, and dBase II.

Currently available for only the Kaypro 2 and 4 (Kaypro 10 version coming soon). The cost is \$39.95.

Xpert Software, 8865 Pollard
(continued)

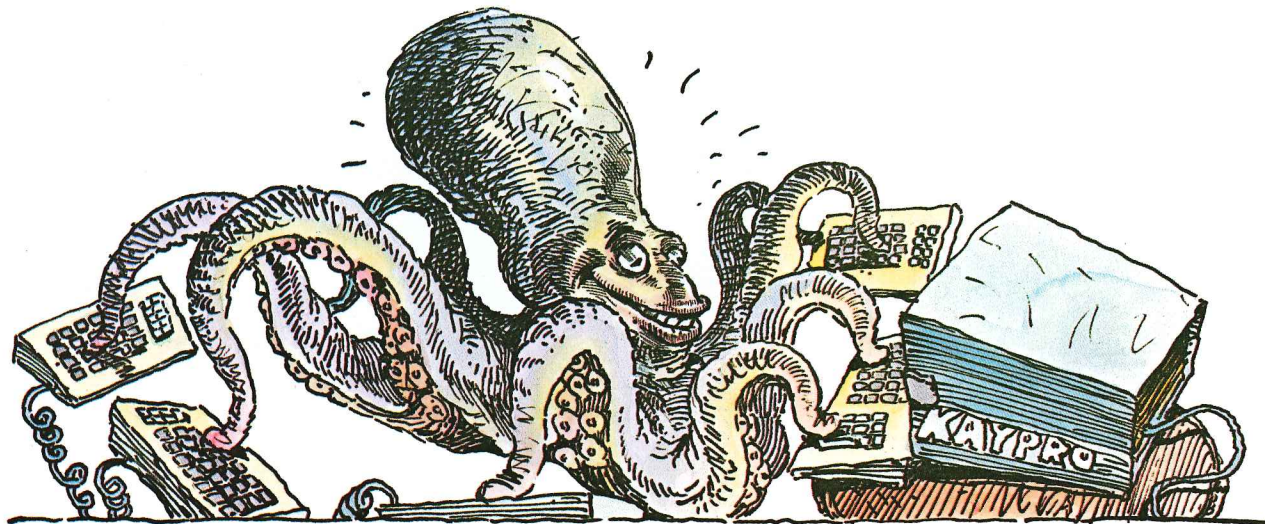


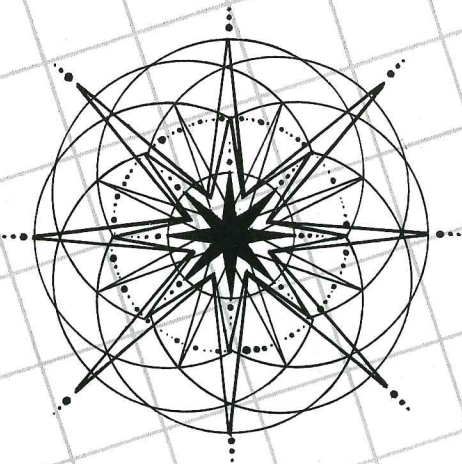
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- Selects its descriptions from a rich store of information that includes over 300 illustrative quotations. The interactive programs completely fill one disk
- Self Search does not simply tell you what you may already know about yourself — it evaluates, interpolates, and draws inferences based on subtle patterns implicit in your answers as a whole
- It turns your Kaypro computer into a source of practical philosophic insights that are an invaluable aid for self-understanding, self growth and improved relationships with others



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Telephone Training and Support

"A true story"

I don't think I'm different than most first time computer owners, I mean I had problems getting my masters duplicated and it got worse from that point on. There I sat pouring over the manuals and not really understanding what I was doing. Sure I finally got my duplicates, but if this was an indication of things to come I knew that I was in trouble. My demonstration at the dealer seemed so simple and here I sat with a machine I really felt I couldn't operate. For the next few weeks I poured over the manuals and even bought a few more "Made Simple" books at my dealer. With a B.A. in Business and several computer courses in college I really couldn't believe that I wasn't getting the hang of this computer business. I spent close to \$2,500 in computer, printer, cables, disks, paper and books. If I don't do something fast I am going to have a very expensive paper weight.

It became apparent to me that I needed help—education. . .support. . .someone to answer my questions. My dealer tried to help, it was difficult to get my questions answered when he was busy answering five other customer questions. I could see that I wasn't alone in needing help with my computer. Maybe the help would be available at the manufacturer.

A call to my manufacturer wasn't much better. Granted I got my questions answered, but I was put on hold, transferred, disconnected and repeated my problems over and over. I thought that maybe my problems would be handled until I got my long distance phone bill to the manufacturer. There must be a better way to get help.

I remember seeing an ad for Micro Computer Training Corp. which gave training over the phone toll free by use of 800 phone numbers. I placed the call and spoke with David Stevens the Training Director. David explained the basic theory of the service. It was quite simple. For a modest subscription fee I had the access to people who would answer all my questions regarding my computer and it's software. I could use the service as often as I wanted seven days a week 12 hours a day. It sounded good but I was armed with many questions.

"David, why do you think you can do a better job training me to use my computer than my dealer or the manufacturer?" Without hesitation David answered. "The manufacturer is best at manufacturing, the dealer at selling, and Micro Computer Training at training you

to use your computer to it's maximum efficiency. It's specialization! We also are able to help you with other programs not supplied with your computer. We receive hundreds of programs from software companies that either want us to have the program and documentation on file with us to help you, or want us to know about it to recommend it to you. We also have experience to help you with specific applications." "What about the cost?", I asked.

Short Term Plan

David responded by telling me that there are three different plans to choose from. First of all they have a six month plan that offers toll-free support on the machine and all of its software for a six month period, they called it their "Short Term Plan" and the registration fee was a one time charge of \$198.00 and covered all my software, printer and modem.

One Time Plan

Then he explained his next plan which was termed as his "One Time Plan". This plan offered an unlimited term of membership for the entire family or office as long as we own any machine that Micro Computer Training Corporation covered up to 10 people and five machines. Also, his "One Time Plan" offered software updates as they became available and access to a library of thousands of "FREE" programs through the mail from a catalog they distributed periodically. He explained that this free software was primarily utilitarian in nature but included such things as complete accounting packages, modem software, public domain selections and specialized Kaypro software that has been created by Micro Computer Training Corp., and other Kaypro owners across the nation. David further explained that this package offered a one time registration fee of \$298.00 and the only possible extra charges was for floppy disks that he would send software on at the rate of \$4.00 per disk or I could send my disks to Micro Computer and they would transfer the free software for no charge at all.

At this point, I was ready to sign up over the phone but, I still had some concerns about the longevity of Micro Computer Training Corporation. What would prevent you from going out of business? David replied by saying, "there are no guarantees beyond his contractual commitments and the fact he has been in this type of business for several years?"

David further explained "that in ac-


tuality it is not a question whether or not I am going to need training assistance but rather where I am going to get it, how accessible is the help going to be and what is it going to cost". By this point of the conversation I was convinced that Micro Computer Training Corporation was the way to go.

The Executive Plan

One last consideration; David asked me to consider his third and final plan option, "The Executive Plan". This was described to me as the same as the "One Time Plan" plus access to hundreds of free programs for my Kaypro by telephone through the use of a Modem which I new little about. Further the plan included a year membership to a closed "BBS" or what is called a bulletin board system where I could transfer the free software by telephone or send David files or programs that I was having trouble with and his trainers would help solve the problem and send the file back to me by telephone. Just one problem, I didn't have a modem nor did I even know how to use it! Then came the clincher, David said, "no problem Roger, just subscribe to my Executive Plan and I will send a complete 300 baud auto-answer modem with software and cables absolutely FREE and my staff will teach you how to use it". This is the plan I wanted but with little hope that I could afford the plan with the price of modems etc. "Hold on Roger the Executive Plan is only \$398.00 one time charge including the modem" and the "BBS" service for a full year. Ok Dave, that's the plan for me, sign me up!

Last of all David told me that all the above plans came with a 30 day "no hassle" money back guarantee if the service did not perform as described verbally or in writing. When you consider the cost of your computer investment, Micro Computer's training services are an invaluable addition to my Kaypro computer.

Signed



Roger H. Zint
San Diego, Cal.

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KEY DEFINITION SOFTWARE COMPARISON

Product Name	SmartKey II	XtraKey	MagiKey	Wordpad	KeyPro-43	The Backgrounder
Price	\$60	\$39.95	\$100	\$39	\$45	\$32
FEATURES:						
Maximum string size	3,750 characters	only limit is available disk storage	only limit is available disk storage	15 characters	all strings predefined	2,294 characters
Definable keys	entire keyboard	entire keyboard	entire keyboard	keypad & cursor	keypad & cursor	entire keyboard
Special shift key	yes	yes	yes	yes	yes	yes
Key definition "on-the-fly"	yes	yes	yes	yes	no	yes
Limited keystring editing	yes	yes	yes	yes	no	yes
Custom key definition sets for specific software	none	WordStar Perfect Writer Perfect Calc MBASIC dBase II	WordStar SuperCalc MBASIC	Wordstar Perfect Writer	Perfect Writer	Wordstar Perfect Writer
Keystring pause	yes	yes	yes	no	no	no
Can use word-processed files as definition files	yes	yes	no	no	no	no
Keystring nesting	no	no	yes	no	no	yes
Keystrings can prompt for definition of another key	no	no	yes	no	no	yes
Built-in batch processing	no	yes	yes	no	no	no
Customization (patching) made readily available	yes	yes	yes	no	no	yes
Installation required	no	no	yes	no	yes	no
Manual	excellent	good	fair	fair	good	good
Kaypro machines on which it works	2, 4, 10	2, 4	2, 4, 10	2, 4, 10	2	2, 4, 10

Ave., San Diego, CA 92123 (619) 268-0112.

MagiKey

Another recent release, this program has some features not available in the above software.

Like the other programs, MagiKey has virtually unlimited string length, keystring pause, key definition "on-the-fly," a special shift key, and limited string editing capabilities.

that expands the number of alterable keys to 35.

What's been added is programming on-the-fly (limited to 14-character definitions), and a print option. They've also included special custom key definitions for WordStar and Perfect Writer.

Wordpad works on the Kaypro 2, 4, and 10. It costs \$39.

Wordtech Systems, P.O. Box 1747, Orinda, CA 94563 (415)

commands, which you may alter.

PluPerfect Writer and The Backgrounder work on the Kaypro 2 and 4, The Backgrounder also works on the 10. They each cost \$32.

PluPerfect Systems, Box 1494, Idyllwild, CA 92349 (714) 659-4432

Key-Pro 43

Designed for Perfect Writer users, KeyPro 43 assigns forty-three of Perfect Writer's most commonly-used commands to the cursor and numeric keypad keys. The program comes with color-coded key overlays that tell which commands are given to a key.

For Kaypro 2 users. Must have recent version of Perfect Writer (1.20) and CPM (2.2) to work. Price is \$45.

Key-Pro, 135 Antrim St., Cambridge, MA 02139 (617) 576-3065

We've received some correspondence about a company called P.U.C.K., Perfectly Usable Computer Kits, who sold a key definition program called K-Key. We mentioned them in our previous software evaluation, but weren't able to get in touch with them when doing the research for this article. It appears that several of our readers, having read the paragraph in our first issue, have since had the same problem. (You now know as much as we do concerning K-Key. We apologize for any inconvenience this situation may have caused.) □

*With a special shift
key, one key can have
two definitions.*

What's different about this program is some of its other options. With MagiKey, you can nest previously defined key definitions within new strings so that they appear within the new string automatically. You can also have a string designed to prompt you for a definition of another key. Another specialty of MagiKey is its built-in batch processing capability, which will handle any file.

MagiKey is for more advanced users; the manual is a bit tricky for a novice to understand.

MagiKey works on the Kaypro 2, 4 and 10 and costs \$100.

PRO microSystems, 16609 Sagewood Lane, Poway, CA 92064 (619) 693-1022

Wordpad

This program has been updated since we first mentioned it in July. It still enables you to program only the cursor and keypad keys, accepting strings up to 15 characters. The keypad hyphen can be used as a special shift key

254-0900

The Backgrounder

This program, which also includes an enhanced version of CP/M, lets you assign up to 2,294 characters to any key. Like MagiKey, you can define keys while in another program, use a previous definition within a new definition, have the string prompt for definition of a new letter, and print files from the screen. The Backgrounder also has batch-processing capabilities and custom definition files for WordStar and Perfect Writer.

The enhanced CP/M that comes with The Backgrounder will suspend any program and operate CP/M in the background mode, access a help file while running a program, and add special utilities.

Another program, PluPerfect Writer, from the same company, lets you define 18 commands to the cursor and numeric keypad keys and comes with a pre-defined file of Perfect Writer

Consumer education gets playful

Games test your lifestyle against your ecological awareness

by Terian Tyre

Judging by the boomtown atmosphere of such industries as vitamin supplements, aerobics, organic foods, and running shoes, Americans are attempting to get into shape. It's a serious effort to recapture some of the vigor lost with modern living. The first step, however, is education.

The old adage about not being able to judge a book by its cover now applies to food. Edibles, these days, aren't always what they appear. As a matter of fact, they're usually both less and more than they appear—less nutritious, and more adulterated. With the increased complexity, nutrition has evolved into a lucrative business itself.

Nutribytes is an educational software package aimed right at the heart of the problem—public ignorance of what's really in food. It tackles not only the nutritional aspects, but also the economics and politics involved. It's this editorial slant that makes the information particularly interesting.

The package includes one diskette with four programs on it.

One is a nutrition quiz-game, two are food additives quiz-games, and the other is a self-rating eating/shopping analysis that offers personalized advice on what needs improvement in your daily food habits.

All of the quiz programs either add or subtract points from your total score. A zero to x-number scoring system is divided into 5 categories ranging from totally ignorant to genius. A high score isn't the point, however, it's the information being absorbed that's important.

Individualized advice

My favorite is *Chef Penny-pincher's Quiz*. It's introductory screen asks "Do you get the biggest nutritional bang for your buck? Rate your skill as a consumer and an eater." This is the most personalized of the four programs because it actually rates your shopping skills and eating habits and gives suggestions for improving the value of your diet dollar.

The quiz asks you what it terms potentially embarrassing questions dealing with what you buy and eat. For example, it gives you a negative score for

eating processed meats (hot dogs, bacon, sausage) because of all the fat, sodium nitrate, and additives. It states "these processed meats are industry's way of disposing leftover, fatty junk." On the other hand, if you answer "0" to the query about how many packaged convenience foods you have in the cupboard, it praises you and says you deserve a medal!

At the end of the quiz, it remembers all your answers and, based on those, offers advice. This takes chart form with the headings "Eat/Drink More: and Eat/Drink Less:" plus additional comments on how to save more money.

For fun, I plugged in answers according to both my best and worst weeks. The difference was noticeable. During my worst weeks, I was spending money in six unnecessary ways—eating lunch out, too many packaged foods, too many processed meats, and not enough grains, beans, and fresh greens in my diet. In addition, it advised me to grow a vegetable garden and find a food co-op. Using a simple spreadsheet and using one-year old figures (from when I was fol-

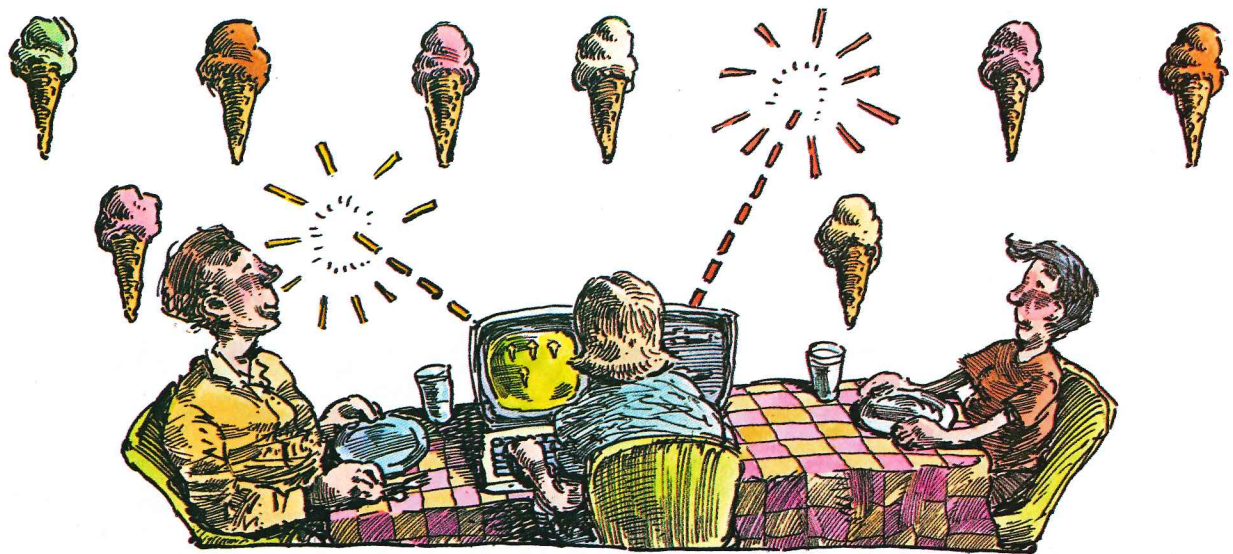


ILLUSTRATION BY EVERETT PECK

lowing a better diet), I figured to save \$30 a week on food costs, using the Chef's suggestions, not including the health benefits. It is this kind of information which forces people to pause and think about what they get for their nutritional buck.

Focus on nutrition

The nutritional quiz covers fairly common ground with facts and sources concerning nutrition but also forges beyond that. It also talks about the economics, and even politics, of nutrition—aspects not normally covered in health class.

It challenges you, for example, to guess the yearly Kool-Aid advertising budget. (The answer is \$22 million.) Its response goes like this: "Let's put Kool-Aid's ad budget in perspective. About how much is your weekly salary or allowance. (Make up a number if nosy people are watching you play.)" Type in the amount, say \$175, and it comes back with a boggling statistic. "The \$22 million advertising budget represents exactly 1257142857142 weeks of your income!! or exactly 2417582417582 years of your income! Can you think of

any better uses for \$22 million?!" Of course you can!

This quiz also examines diet-related health costs and suggests ways to avoid such health problems. The very first question reveals that \$6 billion a year is spent on tooth decay and sugar is the major culprit. There's even some good news for liver-haters. (It could provide some great ammunition for a lot of kids.)

industry tricks like the modern equivalent to the butcher's thumb—boosting the weight of turkeys and hot dogs up to 10% with added water.

An advocate role appears in a question concerning FDA testing methods. It turns out the government *doesn't* test for toxic interaction with other additives, allergic reactions or effects on behavior.

I figure to save \$30 a week on food costs, using the Chef's suggestions.

Food additives

Has your curiosity ever been aroused by what's in Tang? We know it was created for astronauts, but just exactly what is it? The additive quiz can tell you not just its contents but also what each substance does. This quiz focuses on what's both chemically and naturally added to our food.

There are questions on diseases related to additives, what particular additives do, banned substances, etc. It also tips off

This particular program uses the most humor. When asked why stomach cancer is decreasing in the U.S., one of the choices is "a) Cool Whip coats the stomach with an indestructible shell." This quiz is the most demanding too; it won't let you exit until you promise to eat more peas!

How Washington Works asks you such questions as who wrote Senator Orrin Hatch's bill to weaken safety regulations in food industry. The answer
(continued)

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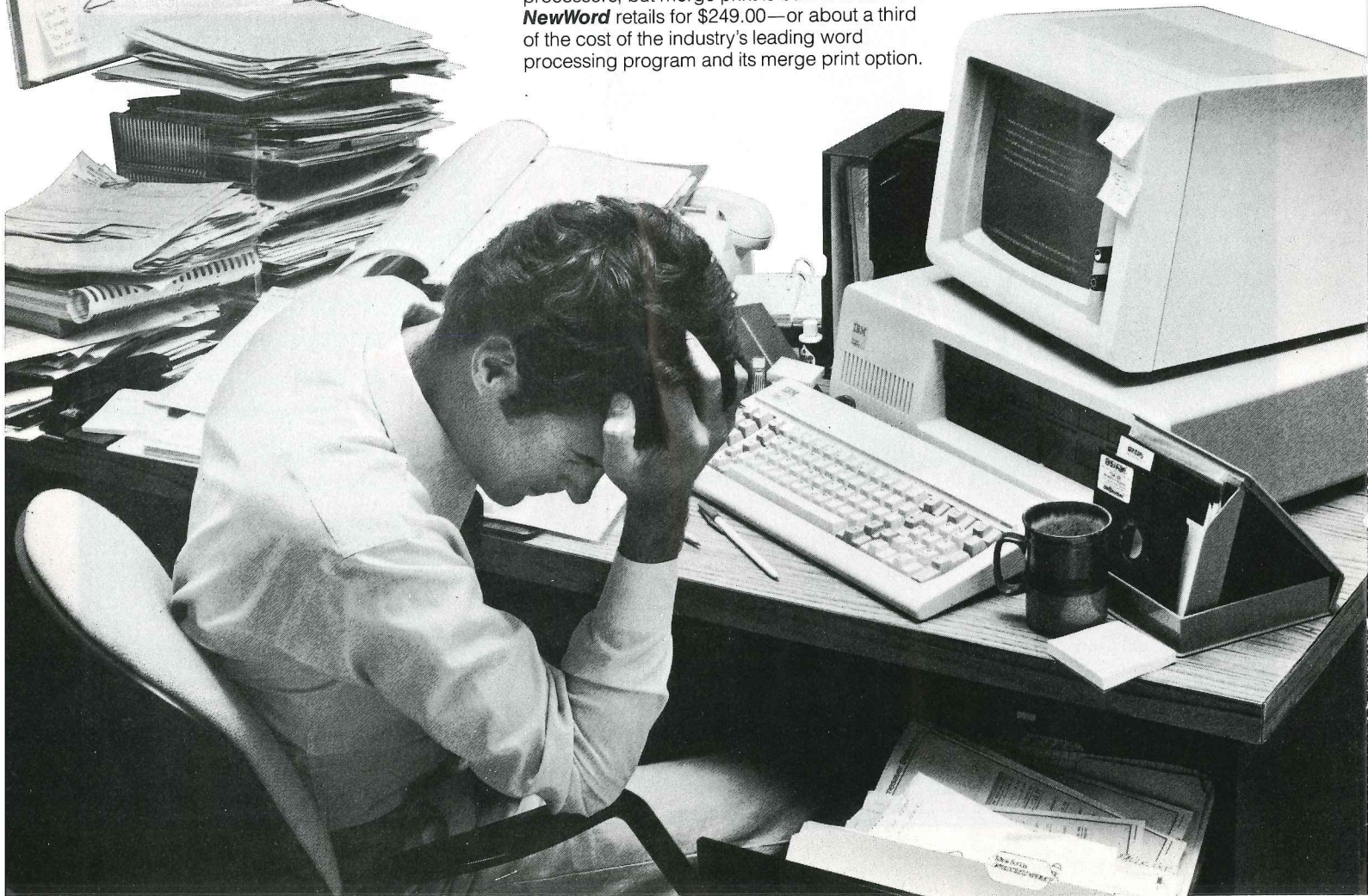
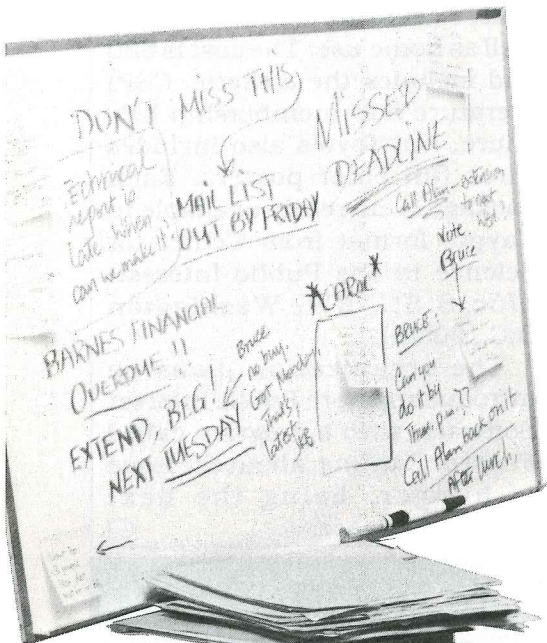
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NewWord's versatility includes **merge print**, which allows you to produce customized form letters and reports by combining standard and individualized text. Information stored on one disk or file can be transferred automatically to another, perhaps merged with financial reports and graphics. Using *NewWord*, you can merge mailing lists into form letters and print mailing labels.

You'd expect such an advanced feature only on the most expensive word processors, but merge print is built in *NewWord*.

NewWord retails for \$249.00—or about a third of the cost of the industry's leading word processing program and its merge print option.



are over for efficiency

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NewWord makes paperwork easy

Editing is easy and straightforward with **NewWord**. Single keystrokes perform primary functions, such as to insert, delete and move characters, words and sentences. **NewWord** obeys your instructions instantly, making corrections and revisions easy—like using the convenient "unerase" command when you change your mind. Or finding a specific page in the document.

Using **NewWord**, even large blocks of text are moved and repositioned easily, and just as quickly copied or deleted. With the Search-and-Replace function, words and phrases such as mis-spelling and titles can be changed throughout the document with a single command.

As you write, **NewWord** automatically arranges text to your preferred format. When you edit, **NewWord** reformats your document. You see on the screen exactly what you'll get on paper—including print options like boldfacing, underlining, etc.

You'll be pleased by how much less effort it takes to produce perfect, professional-looking documents—even for a first time user!

NewWord sets new performance standards

The best performance features of the most popular word processors have been refined, enhanced and improved in **NewWord**.

NewWord executes much faster because there are no overlays except the printer driver. System operations no longer slow down on your personal computer. Processing is uncomplicated, and rapid.

"Save and resume" command doesn't move the cursor to the beginning of the file, eliminating another frustration typical of the other program. "Living" ruler

lines automatically change margins and tab stops for you as you move around the document.

In non-document mode, indentation is automatic at your command and the file can invoke a specific tab size—examples of features that are useful with structured programming languages.

These are just some of **NewWord's** powers. Yet it's easier to use than the most sophisticated program available.

NewWord is simple to learn, easy to use

Select from a multiple choice "MENU" of functions, and interactive onscreen prompts lead you every step of the way. If you have a problem, **NewWord's** extensive "HELP" screens assist you—in plain English.

There are no complicated codes and command sequences to learn or memorize. Menus make **NewWord** the effortless, versatile writing tool you've been looking for.

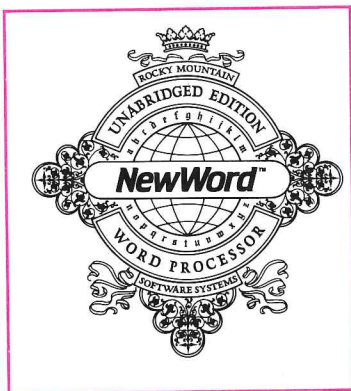
When you get **NewWord**, you can count on getting to work right away. An installation guide sets you up in minutes. A tutorial starts you right into producing documents. And the

NewWord Encyclopedia serves for handy reference.

Discover the NewWord in word processing

NewWord helps you improve paperwork efficiency, serving your every business/personal word processing need.

Discover how easy it is to take powerful and versatile word processing for granted. Your productivity will convince you. Discover **NewWord**.



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- obtain shipping address for your trade-in software. (Send with your check, plus \$4.50 for shipping via UPS Surface. California residents add 6% or 6½% sales tax.)

This introductory offer expires **January 31, 1984**. Offer is limited to nationally advertised word processing software programs operable on user's presently owned computer. **NewWord** is available without trade-in for \$249.00



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Get me back to dBASE by Friday!

*How does Ashton-Tate's latest program
compare with their old favorite?*

by Gordon Lewis

Consider the plight of the novice wanting the "ideal" database management program. You know the package—powerful, sophisticated, flexible, yet easy to use. The prospective buyer talks to various micro mentors, scours back issues of a half-dozen computer magazines, buys two or three pricey computer books and carefully weighs the statements of an equal number of software salespeople. They all point in the same direction—dBASE II from Ashton-Tate.

This presents a problem. One of the first things newcomers discover about dBASE II is that it's not only programmable, it has its own programming language. Alas, programming is a dirty word to most beginning computer users. "I want to *buy* a program, not *write* one!" is the common sentiment.

The second thing the tyro discovers is that dBASE II is command-driven. Instead of a menu listing the program's available options, dBASE II displays an almost blank screen with a single period in the upper left cor-

ner. It's much like taking a seat at an unfamiliar restaurant and having the waiter immediately walk up and ask, "What would you like?" before you've opened the menu.

The third, most obvious reality about dBASE II is its cost. dBASE II carries a suggested list price of \$700. Despite the fact that you should have no problem buying a copy for less than \$500, that's still almost a third the cost of the Kaypro 2—a steep investment if you're not sure you can make it pay off.

For all their success with selling dBASE II, the intrepid marketers at Ashton-Tate were well aware that a substantial number of their potential customers would rather cross Death Valley with nothing more than a bag of salted popcorn than learn to write a program. An equally substantial number would be willing to learn but couldn't afford the tuition. And let's not forget those who simply don't *need* the power and flexibility of dBASE II. "Why should these good people be forced to buy some other brand of database management software due to such unfortunate circumstances?" reasoned

Ashton-Tate.

Indeed. To fill this vacancy in their product line, Ashton-Tate introduced "*Friday!*", a heavily advertised menu-driven file handling system for \$295. They claim it's easy to learn, easy to use, yet able to handle a wide variety of database management applications.

The name *Friday!* was derived from the name of Robinson Crusoe's faithful manservant—the idea being that this "*Friday!*" is the ideal office assistant. Perhaps the exclamation point implies one need only shout and help will come running. Or it might be the sense of relief one feels when using it, as in "Thank God it's Friday!" Your guess is as good as mine, but if nothing else, Ashton-Tate can never be accused of lack of creativity in naming their software.

Like father, like son

The most interesting fact about *Friday!*, aside from its name, is that it is entirely written in dBASE II. This not only confirms the power of dBASE II but provides us with an obvious standard for judging and comparing *Friday!*. What similarities does it

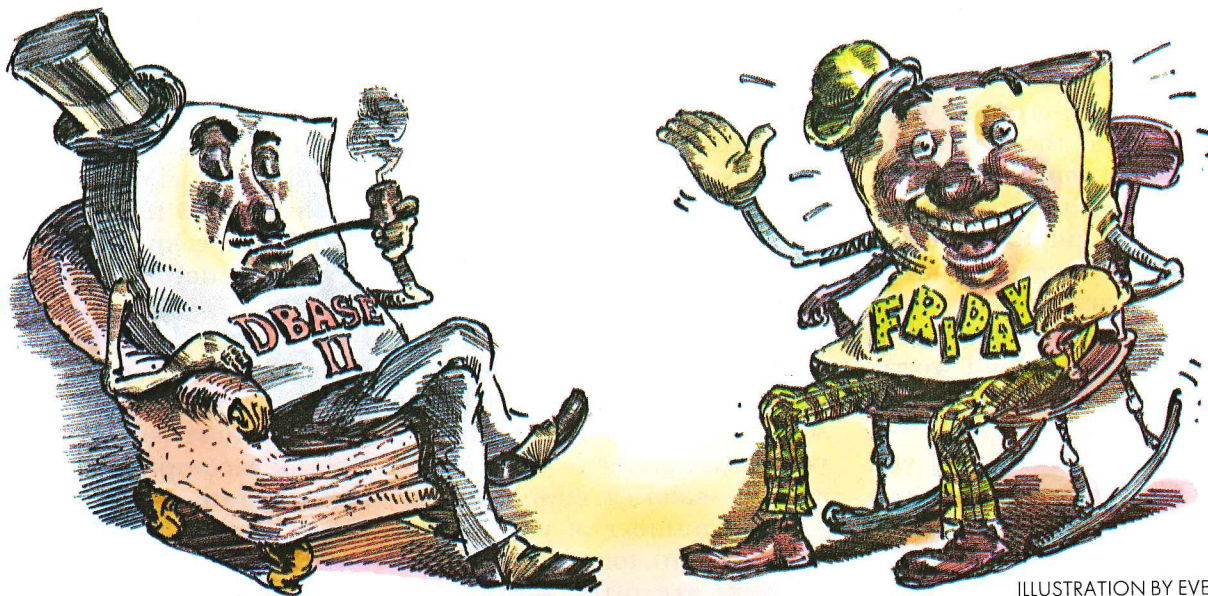
have to dBASE II? What are its limitations? How does it rate as an implementation of dBASE II?

The concepts of both programs, that is, the logical structures used to store and retrieve data—are identical. Both work with *files* which are comprised of *records*. Records are discrete

field with one of three *field types*. dBASE II calls these types Character, Numeric or Logical fields. *Friday!* calls them Anything, Math, or Yes/No fields. The field types are the same; the *Friday!* terms were chosen to sound more “user friendly.” Character or Anything fields can contain

acters per field, *Friday!* limits you to a maximum of 32 characters per field—enough for most uses, but not so much that inexperienced users can create problems for themselves.

Both dBASE II and *Friday!* allow a maximum of 32 fields per record (or a maximum of 1000



groupings of related types of information. A personnel file might contain records consisting of the names, addresses, telephone numbers, salaries and dates of hire of each employee. Each item within the record is stored within a *field*, with each record having the same fields.

The graphic equivalent of this structure is a chart comprised of rows and columns. Each column is a field. If there are five fields, the chart would have five columns. Every row is a record; a chart with 25 rows is the same as a file with 25 records.

Both *Friday!* and dBASE II require the names for data fields be no longer than 10 characters, start with a letter, and contain letters, digits or a colon. Spaces, or other forms of punctuation aren't allowed.

You must also identify each

anything that won't be used in any mathematical operations. Numeric or math fields must contain only numbers you would like to add, subtract, multiply, or divide. Logical, or Yes/No fields are for true/false conditions, such as whether or not a particular item in an inventory list should be reordered if supplies run low.

Both programs finally require that you specify a maximum length for each field. This requires some forethought on your part. If your field lengths are too short, you won't be able to fit all your data into them. This can lead to time-consuming, and often risky, changes to your database record structure. On the other hand, if your fields are too long, you waste valuable disk space. While dBASE II allows a maximum of 254 char-

acters—whichever is greater) and 65,535 records per file. These capacities are adequate for all but the largest and most complex database management applications.

All the above requirements and specifications may seem complicated and intimidating, but in actual practice, setting up a database structure takes no more than a minute or two.

Meandering menus

As mentioned earlier, the user interface between the two programs is as different as night and day. Every aspect of *Friday!* is menu driven. It begins with a Main Menu listing four general options: Enter Data, Retrieve Data, Other Activities, and Leave. “Other Activities” includes such options as sorting, (continued)

computing on selected fields, and copying or combining files.

Friday! branches out from the Main Menu, becoming more task-specific as it branches. Every subsequent menu allows you the option of either returning to the previous menu or to the Main Menu itself. Each menu displays a status line at the top of the screen. The status line displays the name of the file in use, the name of the current activity, the date (if you entered one when prompted), and the number of the on-screen prompt.

Friday! uses more than 100 on-screen prompts to guide you through the necessary steps involved in each activity. If by chance you don't understand a particular prompt, don't worry. Each prompt is fully explained at the end of *Friday!*'s glossy red vinyl user's manual. Better yet, if any of your options has serious consequences, such as not saving a file before exiting to CP/M, *Friday!* will respond by asking "Are you sure?" Like any good office assistant, *Friday!* does its best to keep the boss's posterior well-covered.

Not only is *Friday!* well documented, it's also well structured: you can stumble through most program activities without reading the manual, simply by referring to the on-screen menus and prompts. This isn't the best way to learn to use *Friday!*, but it does point out that *Friday!* isn't a particularly difficult program to master. This is important if you're an occasional user. You won't have to re-learn the program from scratch after a few weeks of inactivity.

Office politics

Friday! has a number of features making it more than a run-of-the-mill file manager. It is clearly designed for the office environ-

ment. For example, office managers will be happy to know that *Friday!* allows them to create a master password for access to all files, as well as individual passwords for each file stored on the data diskettes. Anyone (except someone familiar with programming in dBASE II) who doesn't enter the correct passwords will be unable to open the protected files. For added security, *Friday!* allows you to change passwords as often as you like.

Friday! takes its security emphasis another step further by allowing you to create custom screen layouts for data entry and retrieval. Anyone using a custom layout will have access only to those fields specified in that particular layout. Again, this prevents unauthorized personnel from seeing information you would prefer to keep confidential—salaries, commissions, and the number of your Swiss bank account, for example.

There are often situations where the numerical data in one or more fields is dependent upon performing mathematical operations on some other numerical field. *Friday!* will perform basic mathematical functions, such as addition, subtraction, multiplication and division, alone and in combination, and will automatically store the results to whatever numerical field you specify.

Compatibility

Considering its origins, it's hardly surprising that *Friday!* files can be used by dBASE II and vice versa. This compatibility has benefits for users of both programs. dBASE II users can use *Friday!* to build screen layouts and report formats, a job that would otherwise require programming. *Friday!* users have the security of knowing their

existing files will be fully compatible if and when they should need the power of dBASE II. They can even continue to use *Friday!* for data entry in combination with specialized dBASE II applications programs.

One final *Friday!* feature worth mentioning is its ability to read from and write to standard ASCII text files. If you use a word processor with the same capability, you can use it to edit and enhance *Friday!*'s printouts. Reading from text files is tricky, but not overwhelmingly difficult for those having some knowledge of the physical structure of data files.

I've got good news and . . .

Now for the bad news, *Friday!* has two major drawbacks: The first and most serious is its size. *Friday!* is comprised of 31 separate program modules and five other essential files which together take up 126k of disk space. That's a lot of space, particularly when you consider dBASE II, a much more powerful program, takes less than 100k. The reason for this disparity is that dBASE II is a bare bones applications *development* program, written in assembly language, whereas *Friday!* is a fully developed *application*, written in dBASE II. *Friday!*'s menus, prompts, system commands and simplified screen formatting require lots of dBASE code.

Unfortunately, *Friday!*'s size also makes it slow. Almost any option you choose causes the program to put you on hold for several seconds while it does a disk search and displays the next menu or prompt. Some operations—particularly sorts of long files—can take several minutes. dBASE II is also known for being slow at sorting files, but it offers a faster alternative

through indexing. With *Friday!* you have no choice except to be a patient master.

You should judge for yourself whether *Friday!*'s strengths override its weaknesses. The best way to do this is to compare it to similar file managers currently available for the Kaypro, such as DataStar from MicroPro, Personal Pearl from Pearlsoft, and Perfect Filer by Perfect Software. Or perhaps you should take a closer look at dBASE II.

A meaningful relationship

One major capability of dBASE II is its relational data base structure. *Friday!* is a basic file management program. Each file is discrete; only one file can be in use at any given time, operations done on one file have no affect on another, and there is no way to link fields between files.

By comparison, dBASE II was specifically designed so its relational database management system could monitor and manipulate any data in any data base at almost any time. The user can change what data is to be used, how it should be used, and how it should be presented, without making any changes or duplications to the databases themselves. This increases the total amount of usable information by several orders of magnitude because the data itself can be used in so many more ways.

As mentioned before, dBASE II is a command-driven program. Instead of being guided, dBASE II requires you to know where you're going. With dBASE II, you interact to a much greater degree with the program, the data it contains, and the computer itself. Once you become familiar with dBASE II's commands, you feel less like you are using a program and more like you are using your computer and the

data stored in it.

Instead of a menu, you're presented with a "." prompt — which is about as understated as you can get. If however you're having visions of looking from screen to manual to screen and back again, *ad infinitum*, things aren't quite as bad as they seem. The current version of dBASE II, Revision 2.4, is furnished with help prompts. If you can't quite remember how to phrase the command for locating a particular file, you can simply type "HELP LOCATE" and dBASE II will display a brief explanation of what to do. Of course, you still have to have some idea of what sort of help you need.

dBASE II has 36 commands, 20 of which are used most often. These commands fall into six general categories: creating files, adding data, editing data, displaying data, file manipulation, and memory variable manipulation. There are also three conditional statements for controlling program loops: DO WHILE, IF-ELSE, and DO CASE.

Sophisticated operations such as creating data entry screens, custom report formats, and mailing labels require a series of commands, otherwise known as programs, which you can conveniently save and reuse at will. By tying together a series of small programs you can create a large program—*Friday!*, for example.

dBASE II has a number of features which make it one of the easier languages to learn and use. It's a very high level language; that is, the commands are in English and mean what you would intuitively expect them to mean. The command syntax is also English-like; using it quickly becomes second nature.

dBASE II is a structured language. There are no GO TO's

requiring you to jump back and forth from line to line as there are in unstructured languages such as BASIC. Instead, you're required to write programs from beginning to end in a sequential and linear fashion. If you instruct the program to start a loop (DO WHILE) you must end the loop (END DO) before moving on to the next step. The resulting programs are much easier to understand, particularly if they are long and complex.

dBASE II has both the advantages and drawbacks of being an interpreted language. An interpreted language is translated command by command into machine code—the actual code the Kaypro's microprocessor understands. Since each program instruction can be translated immediately after being written, you're able to develop and debug your programs interactively. You can see the result of an instruction immediately after hitting the Return key. If your syntax or punctuation is wrong, the program will usually specify the error and give you the opportunity to correct it. While this method of translation is efficient and convenient for writing and debugging, interpreted programs slow down the microprocessor since it must translate the program every time it runs.

WordStar users will find they have yet another use for their favorite word processor. dBASE II includes a program editor with the same cursor-control keys as WordStar. Better yet, you can use WordStar itself, in the non-document mode, to create and edit command files. If you own a Kaypro 4 or 10 you can even store both dBASE II and WordStar on the same system disk so that you can switch between programs without having to switch disks.

(continued)

Running with it

Let's say you do decide to buy dBASE II and you later develop an inventory management system for worm farms. Or a color slide filing system for your stock photography business. Or an artist booking and account program for your rock and roll nightclub—whatever. There's a good chance someone else needs just such a program and would be willing to pay you money for it. You, on the other hand, probably can't afford the expense of trying to find such people.

Ashton-Tate has a solution—the dBASE II RunTime program and Applications Marketing Referral System. Ashton-

Tate can convert your program from its original readable, and modifiable, state into a run-only program. They publish a catalog, known as the Applications Junction, which is a listing of more than one-hundred such converted programs, what they do, and how much they cost. Potential buyers will be able to buy your dBASE II program without having to buy the full, \$700 dBASE II applications development program itself. *Friday!* is a dBASE II Run Time program which is providing sizable royalties for its author.

In the final analysis, your decision about which program to use

will be based as much on your own ambition as the ambition of your data base management application. *Friday!* does everything it's claimed to do, and if you look closely, you'll see that the ads don't claim it's one of the fastest programs on the market. You get what you pay for, but there may be better values for your money.

On the other hand, if you find *Friday!*'s capabilities don't match your needs, and you need power more than friendliness, and you *like* giving orders, dBASE II is a better choice.

It's all a matter of how you like to spend your weekends. □

Chart the waters of accounting software

The right package can be your port in a storm

Research by Kit Nelson

Software packages that offer to automate your bookkeeping process are legion. Developing a set of criteria for the selection process, tailored for your specific needs, will increase your odds of finding a package that works for you at a cost you're willing to pay.

An easy first step

The most logical first step is to take a new look at the bookkeeping system you're using right now. How are you currently generating reports and financial

statements? How often do you want such reports? Are you writing checks every day? What's your system for accounts receivable; how long does it take you to collect? What about your payables? How complicated is your payroll system? Are you using job costing? How do you get all this information into your general ledger? And finally, how well is your present system working for you? You need to understand what you have, before you can decide what you want.

Develop a wish list

As you're looking over your pres-

ent system, you will undoubtedly discover all sorts of things you'd like changed. Make a wish list, pretending, for the moment, that cost is no object. Be sure to include the systems you find are working well for you now; there's no point in changing a successful procedure if you can avoid it.

Include your bookkeeper in the list making process. It's often surprising how much information the person who's actually using a system on a daily basis can provide. Your accountant is likely to have good suggestions too.

Once you feel you understand



ILLUSTRATION BY EVERETT PECK

your current system, and have a good idea of what you want a computerized system to do for you, break your list into the categories of accounting you need. General Ledger, will, of course, be the minimum. Additional modules like accounts payable, accounts receivable, inventory, and payroll will depend on your needs, as well as the amount of money you're willing to invest.

Give some serious thought to how interactive—read also expensive—you need your computerized accounting system to be. If you want to be able to print up-to-date invoices, subtract from your inventory, and post to your general ledger without changing disks or files, expect to pay for it.

Word processing can help you choose

Next, prioritize your wish list.

your mind, and print multiple copies of your final list to your hearts content.)

Include, either on your list, or in your head, an understanding of the computer you will be using. Obviously, the Kaypro 2 with 191k on each diskette will not be able to use some of the larger programs the Kaypro 10, with 10 megabytes of hard disk storage, can implement.

Make a list for each module you intend to purchase. Such a form might look like Figure 1 on page 67.

Now you're in a position to begin evaluating actual software packages. Simply check off the features of each program you look at. (By the way, don't be surprised if your list changes after you've done some shopping. Exposure to a variety of programs tends to give you new ideas about what you want.)

contain actual sample reports, which will give you a clearer idea of what the system is capable of producing. Some software manufacturers also offer demonstration disks for a small fee.

Talk to other business people at user's groups, and anywhere else you can find them. If you belong to a trade organization, you may discover they have some specific recommendations.

Once you've located three or four packages that you feel might work well for you, contact your dealer. Retail computer and software stores may have interactive demonstrations, or, if you're lucky, fully implemented systems available for you to try.

Try before you buy

If at all possible, avoid purchasing a program without trying it first—there is often a large difference between the written description and actual performance.

Sometimes it's possible to purchase copies of the documentation without buying the whole package. This may provide a way to evaluate the program if testing is impossible. Often, the company will either refund your money if you return the books in good shape, or deduct the cost of the manuals from the total price of the software when you purchase.

(continued on page 67)

Take a new look at the system you're using now.

Those features which you will absolutely not do without go at the top, under their proper module, while the "nice if I can get them free or cheap" bells and whistles go at the bottom. (Setting up such a list is an ideal spot to use your favorite word processing software. You change

Advertising gives you a head start

Magazine ads are a good place to start your search. Careful reading will often give you a good idea of which packages to eliminate. Keep an eye out for companies that offer free information. Such packets usually

"The Perfect Manual is the most excellent documentation and user guide I've seen for the general first time user. Its common sense is appreciated."

Ann Arbor, Mich.

"No Kaypro should be purchased without this manual. It saves months of experimentation."

Vestal, N.Y.

"Excellent! Should be a part of every Kaypro II, sold as a package. Answers questions that most dealers can't answer."

Grayling, MI.

OVER 30,000 KAYPRO USERS AGREE...
These manuals are like having your own tutor!

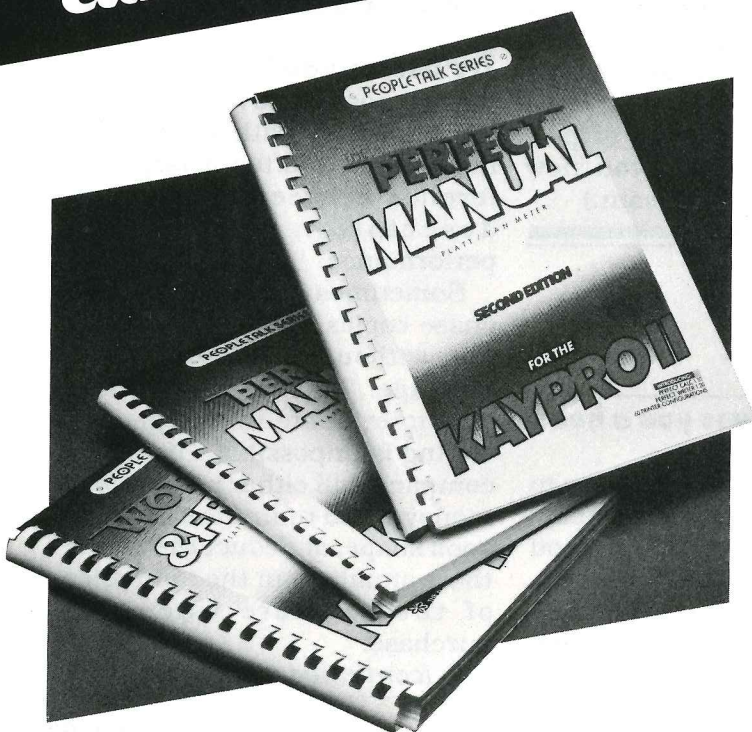
- **STEP-BY-STEP:** Logical explanations to build confidence and proficiency.
- **CLEAR:** Written in direct, informal, learner-friendly style.
- **COMPREHENSIVE:** Each book digests thousands of pages of "techni-speak" into a condensed plain-language learning guide.
- **BEAUTIFULLY ORGANIZED:** An easy reference to answers for virtually any question that may arise.
- **EXPERT:** Written by an experienced team of writers and professional trainers, **FROM THE USER'S POINT OF VIEW.**
- **SYSTEMATIC:** Combines expert technical writing with systematic learning theory.

SEE YOUR KAYPRO DEALER TODAY!
When ordering, specify:

- The Perfect Manual for Kaypro II
- The Perfect Manual for Kaypro 4
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To order direct, SEND \$21.95 PER BOOK + \$2.00 handling (in U.S.) to

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AN INVITATION TO JOIN KUG

KUG, The International Kaypro Users' Group, cordially invites you to join the many thousands of members who share in mutual Kaypro computer excitement.

The Kaypro Users' Group was established at the same time the Kaypro computer was being introduced. That was back in the autumn of 1982. Since then we have both grown and matured. **KUG** now has members in all 50 states and countries half-way around the globe. Although **KUG** is an entirely independent organization, we rely on the information that is passed on to our members from the Kaypro Corporation. That information, as well as information from members and **KUG** staff, is presented in our bi-monthly "**KUGRAM®**" newsletter.

The articles and programs in **KUGRAM®** are aimed at the first time user and the "pro." We have received welcoming comments from both. Our article (tutorial) on CP/M, titled **CP/M STUFF**, is regarded as a fine learning experience in working with the Kaypro operating system. Other columns include **BOX 100** (letters from members), **CHAPTERS** (new chapters from around the world), **IN RESPONSE** (answers to many of the questions we receive), **VENDORS** (suppliers of Kaypro compatible products) and **REVIEWS** of software and hardware for the Kaypro.

KUG also operates its own Bulletin Board system. You can meet and communicate with other **KUGGERS** through this electronic medium. The **KUG** library has an excellent public domain modem program. In fact our disk library has many other categories such as **GAMES** (Adventure, Pac-Man,

Eliza and more), **UTILITIES** (programs to make your file handling easier), **HELPS** (helpful hints on **MBASIC**, **CP/M**, and other languages) plus others that are constantly being added and updated.

Other services include free information on starting your own local **KUG** chapter (just send a self-addressed stamped envelope to Chapters, Box 100, Malverne, NY 11565), printer configurations for the Kaypro, software and hardware update information and much more.

To learn more about your Kaypro Users' Group and receive your membership application, send in the attached reply card. If the card is missing, just fill out the coupon below and mail to:

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PLEASE SEND **Kug** INFORMATION AND APPLICATION TO:

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ADDRESS _____

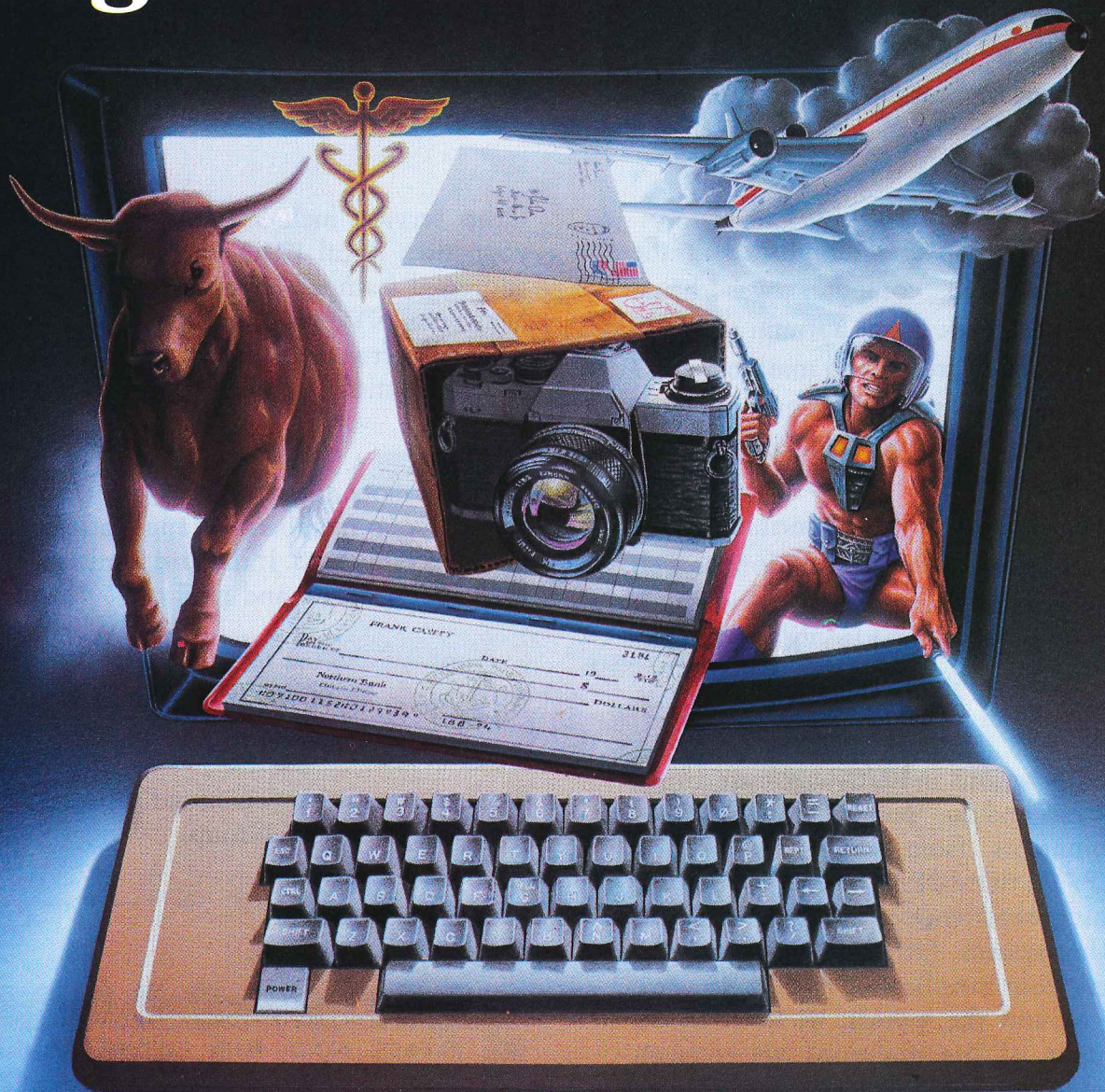
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ACCOUNTING
(continued)

Accounting is a vital, complicated, and often procrastinated part of your business. The right accounting system on your Kaypro can go a long way toward helping you get the financial information you need to continue your success. The time, effort and cost of finding the system that works for you is well spent.

The following packages systems perform many of the accounting functions needed by small businesses. The list is not definitive by any means; it is intended only as a brief sampling. If you've never looked at accounting software, these summaries will give you some notion of what you can expect.

VANDATA BUSINESS SOFTWARE
17544 Midvale Ave. N. #107
Seattle, WA 98133
(206) 542-7611
\$295.00 + manuals

Needs CBASIC2, version 2.37, available from Vandata for \$99.00 with order.

Standard business package, which is on 10 diskettes, includes the following reports and financial statements:

From the General Ledger

1. GL update with audit trail.
2. Trial, monthly, and quarterly Income Statements and Balance Sheets.
3. GL accounts with descriptions as well as amounts.
4. Cash Journal transactions report.

5. Special report made up of user specified accounts.
6. GL posting error report.
7. File maintenance report.

From Accounts Receivable

1. Transaction report.
2. Update report.
3. Open item report.

4. Closed item report.
5. Aging analysis.
6. Unbilled items report.
7. Accounts Receivable statements.
8. Customer activity and customer list report.

From Accounts Payable
(continued on page 70)

ACCOUNTING NEEDS CHECKLIST

Name of my company: Village Green Publications
Machine: Kaypro 2 with 2 drives, 199K each, CP/M, 64K

Program name:

Source:

Price:

	yes	no
1. Balance sheet	<input type="checkbox"/>	<input type="checkbox"/>
2. Income statement	<input type="checkbox"/>	<input type="checkbox"/>
3. Chart of accounts	<input type="checkbox"/>	<input type="checkbox"/>
4. A/R report	<input type="checkbox"/>	<input type="checkbox"/>
5. A/P report	<input type="checkbox"/>	<input type="checkbox"/>
6. Daily A/R	<input type="checkbox"/>	<input type="checkbox"/>
7. Customer reports	<input type="checkbox"/>	<input type="checkbox"/>
8. Interactive	<input type="checkbox"/>	<input type="checkbox"/>
9. Addition features	<input type="checkbox"/>	<input type="checkbox"/>
10. Comments	<input type="checkbox"/>	<input type="checkbox"/>

MAXIMIZE YOUR KAYPRO-FORMANCE

12ft KEYBOARD CABLE

This 12ft KEYBOARD CABLE is manufactured specifically to replace the 6ft cable supplied with your Kaypro computer. It allows additional flexibility in placing the keyboard and computer. Although longer, it may be stored in the same manner as the original.

Telephone handset cables (or other cables that look similar to the computer keyboard cable) are not intended for use with computers and generally do not function properly.

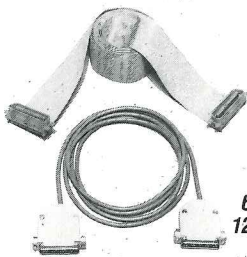
Advent's replacement cable is designed to the exacting electrical and physical requirements for use with computer keyboards such as the Kaypro, Otrona, and other portable computers.

This 12ft KEYBOARD CABLE is warranted to function properly and to be free from defects in material and workmanship for a period of 90 days from date of purchase. Money cheerfully refunded if not completely satisfied.

12ft KEYBOARD CABLE . . . \$12.95

PRINTER CABLES

High quality RS-232 and Centronics cables designed to work with your particular printer and the Kaypro computer. No additional jumpers or other modifications required. Simply plug it in and start printing. Available in two lengths for your added convenience. Each cable is fully tested and guaranteed. Available for all Kaypro computers.



Available for:	Comerex
Gemini	Panasonic
Epson	BMC
Brother	Prowriter
OKIDATA	
Silver Reed	
RS-232	Centronics
Serial	Parallel
6 ft - \$17.95	6 ft - \$19.95
12 ft - \$22.95	10 ft - \$24.95

GENERAL PURPOSE MODEM CABLES

High quality RS-232 cables configured for most modems used with the Kaypro computer. Please specify Kaypro II, 4 or 10 when ordering.

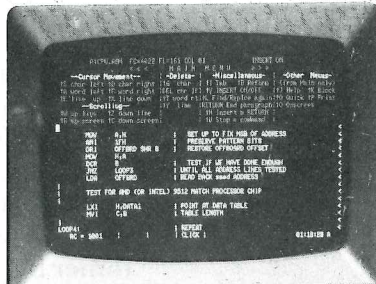
2 ft - \$11.95 4 ft - \$14.95

ANTI-GLARE SCREEN

Designed to reduce eyestrain by increasing contrast and reducing glare, the ANTI-GLARE SCREEN will make working with your Kaypro less tiresome and more enjoyable.

Made from high strength polycarbonate coated with a glass hard scratch resistant material, it is available in either SMOKE or GREEN. While both screens reduce glare equally, the GREEN screen provides greater contrast.

Contoured to fit exactly, the ANTI-GLARE SCREEN



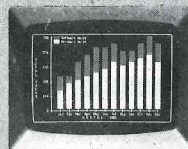
You can now have true graphics capabilities for your Kaypro II or 4. In addition, you'll have many of the video attributes that make working with your Kaypro more enjoyable. ProGRAPHICS emulates the popular teletext 925/950 terminal while retaining full compatibility with existing software. Installation requires only a screwdriver and a pair of pliers. No soldering or other modifications are required.

Here are just some of ProGRAPHICS' capabilities;

- 25 x 80 display
- 8 x 10 character matrix with full character descenders
- non-scrolling 25th status line showing:
 - user input information, OR
 - current cursor position
 - user programmable relative time clock
 - screen attribute on/off status indicator
 - graphics mode enable/disable indicator
 - key click on/off indicator

ProGRAPHICS BOARD

- both thin line and block graphics (160 x 50 resolution)
- user selectable character and screen attribute including:
 - reverse video
 - half intensity
 - normal
- real software selectable cursor, including your choice of:
 - block
 - underline
 - blinking (fast or slow)
 - non-blinking
 - invisible



In addition, ProGRAPHICS gives you;

- an overlay program allowing Wordstar to use the new video attributes, and other features, making it much easier and faster to use.
- built in adaptor that allows you to connect an external composite video monitor.
- the ability for your Kaypro to display video data many times faster than stock allowing it to work properly well beyond 1200 baud for telecommunications.
- fast snow free scrolling.

ProGRAPHICS \$299.00

Installation requires no soldering, de-soldering or wiring. In addition, installation in no way alters or damages any part of your computer. Removing the cover from your Kaypro, removing one IC from its socket and plugging in the adaptor and video cable is all that is involved. Of course, complete illustrated instructions are included which make installation very easy, even for the most nontechnical user.

ADAPTOR \$69.95

5 MHz TURBOBOARD

The TURBOBOARD provides the ability for your Kaypro II or 4 to compute at 5MHz—twice the speed of a standard Kaypro. The most obvious improvements will be seen during operations performed mainly in memory or on the CRT. Some of the programs that will run faster are word processors, spread sheet programs, and assemblers/compilers, etc.

Setting your Kaypro to operate at normal (2.5MHz) or double speed (5MHz) is accomplished by a switch easily accessible on the back of your computer. The switch setting can be changed at any time without affecting the operation of the computer.

Installation of the TURBOBOARD requires only minimal technical ability and no soldering is required.

TURBOBOARD \$99.95

KAYPRO COVERS

Beautiful yet rugged, these covers not only enhance the appearance of your computer, they also protect it. Made from durable weather-resistant Sunbrella, they protect your computer from both scratches and the elements. Complete with two side pockets for carrying your manuals and diskettes. An inexpensive way to keep your computer looking new longer.



KAYPRO COVER \$34.95

PRINTER CARRYING CASES

Make your printer as portable as your Kaypro with a custom fitted carrying case. Each case has an inside and outside pocket to carry paper, cables, or other necessities. Carrying straps loop under the printer providing full support. Makes carrying your printer both easier and safer.

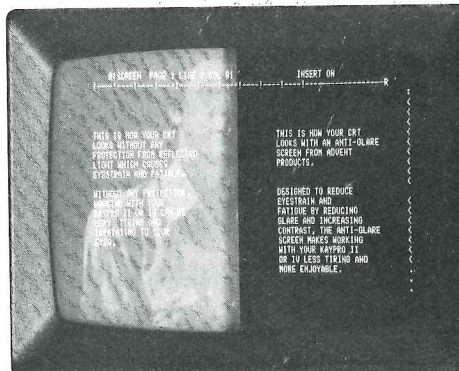
Available for: Gemini OKIDATA Panasonic
Epson Silver Reed BMC
Brother Comerex Prowriter

PRINTER CARRYING CASE \$42.95 each

UNIFORM

Allows your Kaypro to read and write 45 different computer formats, including CP/M-80, CP/M-86, MS-DOS, PC-DOS, CDOS, LDOS, and TRSDOS.

UNIFORM \$44.95 each



Unretouched photo.

offers an undistorted view of the entire CRT. Installation requires no disassembly or tools and takes less than 3 minutes. It attaches directly to the CRT and is secured by small strips of transparent adhesive across the top and bottom of the screen. We even include a treated wipe to clean your CRT before attachment.

ANTI-GLARE SCREEN \$24.95.

Please remember to specify color when ordering.

EXTERNAL MONITOR ADAPTOR

The EXTERNAL MONITOR ADAPTOR provides the ability for the Kaypro II or 4 to drive an external video monitor. No matter what the size or manufacturer of the monitor. The EXTERNAL MONITOR ADAPTOR will even work with large screen projection TVs that are equipped with a composite video jack.

All items warranted for 90 days. Money cheerfully refunded if not completely satisfied.

ADVENT PRODUCTS

Call Advent Products, Inc. (714) 997-0800
965 N. Main St., Orange, CA 92667

VISA and MasterCard are welcome. Please add \$1.50 for C.O.D. UPS surface freight paid on all orders. California residents please add 6% sales tax. Dealer inquiries welcome.

Kaypro is a registered trademark of Kaypro Corporation. WORDSTAR is a registered trademark of MicroPro International Corp. MS-DOS is a registered trademark of Microsoft. PC-DOS is a registered trademark of IBM Corp. TRSDOS is a registered trademark of Tandy Corp. CP/M is a registered trademark of Digital Research.

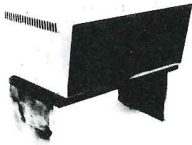
WHY PAY MORE?

Before you bought your Kaypro, you investigated the marketplace very carefully. You squeezed a few Apples, you rolled your eyes at an IBM or two. You giggled at the man with the TRS. Then you bought the best computer package around.

You're no different when it comes to picking up those little extras that make owning a Kaypro more comfortable, more productive.

The Cedarwinds Computer Corporation now offers Kaypro extras at prices that make sense. Especially to the kind of person who would buy a Kaypro in the first place.

\$29.95 K-Glider™ Computer Stand



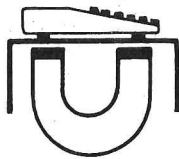
Finally your computer screen is as flexible as your keyboard. This beautifully finished red oak solid wood stand glides anywhere on your desk top on felt-covered legs. The screen is presented at perfect height and angle. The Scandinavian design is clean and functional, the finish a hand-rubbed light stain. The computer fits neatly into slots, can't slide off.

\$13.95 K-Holder™



Aren't you just a little tired of chasing those books and papers you propped up so cleverly between your keyboard and computer? Isn't it entertaining the way they topple onto your keyboard, then your lap, then the floor? Put an end to such nonsense forever. Same no-fuss solid red oak wood design and handsome hand-rubbed finish as the K-Glider. Felt pads on bottom protect desk surfaces.

\$4.95 K-Mounts™

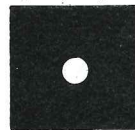


So simple, so inexpensive, yet you'll be truly amazed at how rock-solid, how wonderfully *luxurious* these specially-designed two-ply rubber and sponge footer pads make your keyboard. If you spend much time at your keyboard, these little items are probably the least expensive, most *wonderful* thing you could do for yourself. Replaces the hard rubber knobs already on your keyboard in a matter of seconds.

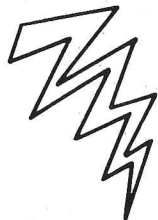
\$13.95 K-Disk™



Jam-packed with the most incredibly *useful* public domain programs around. SUPERDIR.COM is like CPM's DIR, except you're given the length of all files on disk plus the space remaining. You'll never use DIR or STAT again! BIGSWP.COM allows you to create a swap file as large as you like for handling very long files with Perfect Writer. FIXDISK.COM allows you to find and block off bad sectors on gimpy disks, makes them useable again. COMEBACK.COM allows you to unerase the file you just accidentally sent to never-never land. PASSWORD.COM lets you lock up command files. Many, many more. This is the best software bargain around!



\$69.95 K-Streak™ Speed-up kit



You won't believe the difference in the working speed of your Kaypro II or IV after installing the K-STREAK™. Increase the computers clock speed from 2.5 mhz to 5 mhz. Everything that happens in RAM is twice as fast: scrolling, calculating, everything! You'll wonder how you ever got along in the old slow days! Simple installation takes seconds.

\$12.95 K-Safe™



Protect your computer from the underground market by having your name and telephone number boot up on the screen every time the machine is turned on. Installs instantly and becomes part of the computer's circuitry. Invaluable protection.

VISA*

CALL NOW 904/224-9261



ORDER FORM

Name _____
 Address _____
 City _____ State _____ Zip _____
 Please Send: _____ \$ _____
 _____ \$ _____
 _____ \$ _____
 _____ Total Enclosed _____

Cedarwinds Computer Corporation
 503 East Georgia Street
 P.O. Box 10651
 Tallahassee, FL 32301
 904/224-9261

*Kaypro is a trademark of Non-Linear Systems, Inc.

Dealer's inquiry welcome.

NEVER AGAIN!

Datasolvers is pleased to introduce you to our modem distributorship lines. We think you will find the Anchor Automation Signalman modems and the U.S. Robotic modems both capable and exceptionally priced. Indeed "Never Before" have we offered modems at such low prices! We think you'll agree. Take a look:

	Your Cost!
300-1200 Baud SIGNALMAN MARK XII Hayes (tm) Compatible smart-modem Retail \$399.00	\$339.00
300 Baud SIGNALMAN MARK X Hayes (tm) Compatible smart-modem Retail \$169.00	\$159.00
300 Baud SIGNALMAN MARK VII auto-dial/auto-answer Retail \$159.00	\$ 99.95
SIGNALMAN VOLKSMODEM 300 baud, answer / originate Retail \$79.95	\$ 69.95
U.S. Robotics "PASSWORD" Retail \$449.00	\$399.00

KAYPRO DISC SPEED / HEAD CLEANING PROGRAM

It seems that drive speed adjustment and portable computers go hand-in-hand. So, why do a 40 minute disassembly of your Kaypro (or pay your favorite technician to do it) to adjust the drive speed, when you can do it in five minutes with this program. By simply viewing a graphic and numeric display on the screen you can check drive speed tolerances. Correction on a maladjusted drive can be made quickly by simply removing the Kaypro cover and turning the drive adjustment pot on the back of the drive. If you use this program once, you'll recover costs in terms of time spent or technician costs.

Plus, for more efficient head cleaning with head cleaning diskettes, use the cleaning program portion of this disk. The heads of your Kaypro will move from inside to outside tracks for total cleaning. Both of these come on one diskette for only **\$40.00!**

**CALL NOW: (316) 264-5068
(316) 264-5589**



datasolvers, INC.
440 MAPLE • WICHITA, KANSAS 67213

TERMS: C.O.D. acceptable. Personal checks required two weeks for clearance. Visa and MasterCard accepted, add 3%. Add 3% shipping and handling charge. Kansas residents add 3% sales tax. All orders returned or refused are subject to a 10% restocking charge. Prices subject to change without notice.

ACCOUNTING

(continued)

1. Transaction report.
2. Update report.
3. Check register and check writer.
4. Ledger open item and ledger closed item listing.
5. Vendor activity and vendor list report.

From Payroll

1. Transaction and transaction error reports.
2. Summary report.
3. Deduction register and deduction error reports.
4. Journal report.
5. Check register.
6. Check writer.
7. History report.
8. Insurance report.
9. Job posting and job costing reports.
10. Employee activity.
11. Reorganization report.
12. Prints federal W-2, 941-A and quarterly tax summary.

ROCKY MOUNTAIN SOFTWARE SYSTEMS

1280-C Newell Ave. #147-E
Walnut Creek, CA 94596
(415) 680-8378

\$395.00-includes manuals. Free information kit.

You may buy individual modules for \$195.00 each. Documentation includes cassette tape to guide you through installation. Also included is a free newsletter subscription, and telephone support.

Standard business package, which is on 6 diskettes, includes the following reports and financial statements:

From the General Ledger

1. Daily and monthly transactions report.
2. Trial balance.

3. Balance sheet, and income statement, with or without prior year's totals.
4. Income statement by department, with or without prior year's totals.
5. Ability to print individual account information.
6. Chart of accounts with options including listing all information, any dollar information, and/or all but previous year's information.

From Accounts Receivable

1. Customer account, activity, and statements, with or without printed forms.
2. Invoices, with or without printed forms.
3. Transactions report.
4. Summary and detailed aging report.

From Accounts Payable

1. Vendor file, activity and account reports.
2. Open voucher report.
3. Aged payables report.
4. Cash requirements report.
5. Check register.
6. Transaction register.
7. Gen'l Ledger transfer report.
8. Check printing.

From Payroll

1. Employee list and file.
2. Monthly and quarterly payroll summaries.
3. State and Federal tax table and listing.
4. Check register.
5. Checks with stubs.
6. W-2 forms and 941-A reports.

JAMES RIVER GROUP, INC.

125 N. First St.
Minneapolis, MN 55401
(612) 339-2521

\$125.00/module, \$325.00/any 3
(continued on page 74)



DID YOU MISS IT?

If you missed IT, here is another chance . . .

In the September/October issue of PRO/FILES, BCN inserted a FREE telecommunications software disk. This disk went to thousands of Kaypro owners, but if you missed IT, now you can receive your own FREE BCN disk.

The BCN disk provides you with quick and easy access to many of the databases and on-line services which offer almost everything from financial and travel information to medical and engineering data. For example, skiing enthusiasts can find out skiing conditions throughout the country and business types can see the financial reports. Or, would you rather find out when the next record by your favorite recording star will be released?

It's all there for you, all you need is a BCN disk, your Kaypro and a modem. We'll give you the BCN disk for FREE and if you need a modem, we'll sell you a Signalman Mark VII for \$99.95 (plus \$3.00 for shipping and handling), regularly a \$159.95 value.

The BCN disk also provides you with easy point-to-point communications with other BCN users as well as on-line utilities. To receive your FREE BCN disk, simply call the BCN Customer Service Bureau. It's open 24 hours a day for your convenience.

Get IT now by calling BCN at:

(800) 446-6255

in Wyoming
(800) 442-0982

BCN

BUSINESS
COMPUTER
NETWORK

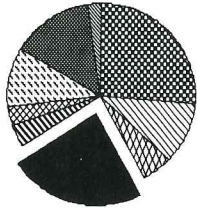
Technical Research Park
1000 College View Dr.
Riverton, Wyoming 82501

Coming in February
BCN System Software for IBM
PC owners. Watch for the
BCN National Bulletin
Board for Kaypro
users.

REPORTMAKER:™

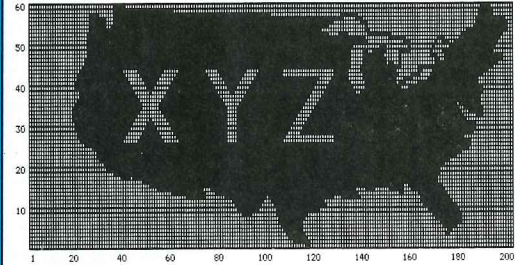
BEYOND BUSINESS

1982 Sales by Products (thousands of dollars)



- microcomputers	60.23 (26.3%)
- printers	24.24 (10.6%)
- monitors	12.38 (5.4%)
- business software	53.92 (23.6%)
- hard disks	8.89 (3.9%)
- entertainment software	7.92 (3.5%)
- science software	24.24 (10.6%)
- services	32.22 (14.1%)
- education software	5.43 (2.4%)

TOTAL: 228.59 (100%)



COMPANY XYZ INC.
1000 Blvd. Seaside, Seaside, OR, 97138
Tel: (503) 222-3333

CANADIANA INC.
100 Avenue Clearsky, Overhill, Canada, AB8 888 Tel: (416) 888-9999

1982 ANNUAL REPORT

The year 1982 presented special challenges for our company's main business, selling of software and microcomputers, which is currently in the midst of the most competitive period we can recall.

We succeeded however to have a very good year and our sales have more than doubled over the 1981 figures. As you can notice, software with business applications represented almost one fourth of our total sales.

1982 Sales by products (thousands of dollars)

- microcomputers	60.23 (26.3%)
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TOTAL: 228.59 (100%)

It is important to observe that the service activity accounted for as much as 14 percent of the total business during that year. Since the beginning of operations, quality service to customers was one of our main objectives. To meet their needs, we placed great emphasis on developing talented and competent staff equal to the best found anywhere in the industry.

CANADIANA INC.
1000 Avenue Clearsky, Overhill, Canada, AB8 888 Tel: (416) 888-9999

It is especially satisfying to report that during the year of 1982 the profits almost tripled in comparison to the year we started our operations.

Profits by Category of Software (\$ 000)

As we have previously noted, the sales of software in 1982 accounted for a big part of total revenues, as illustrated.

PERCENTAGE OF REVENUES BY CATEGORY

COMPANY XYZ INC.
100 Blvd. Seaside, Seaside, OR, 97138 Tel: (503) 222-3333

MEMO
January 22, 1983

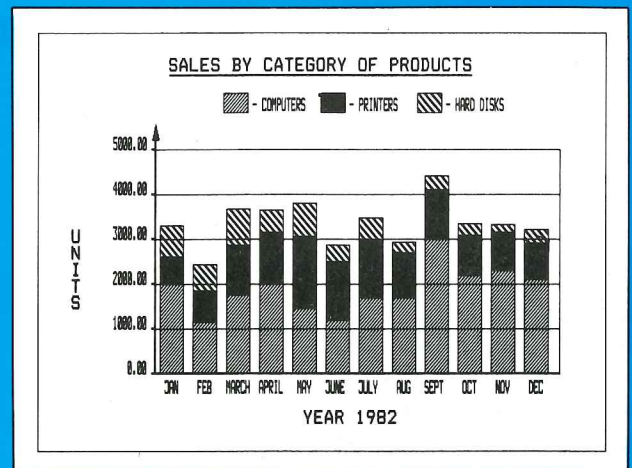
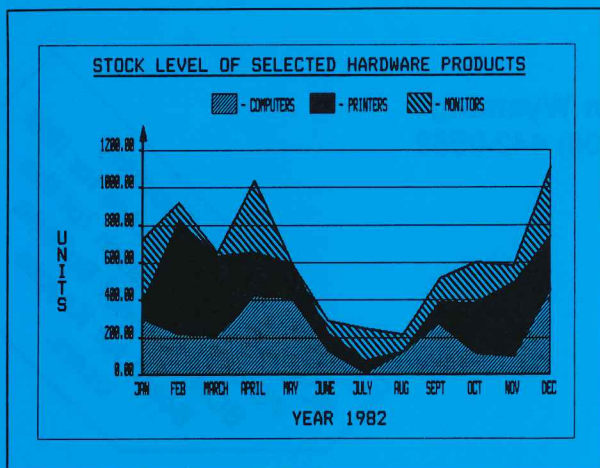
FROM: Esther Falardeau, Vice-President, Division of Marketing
TO: Genevieve Hebert, President

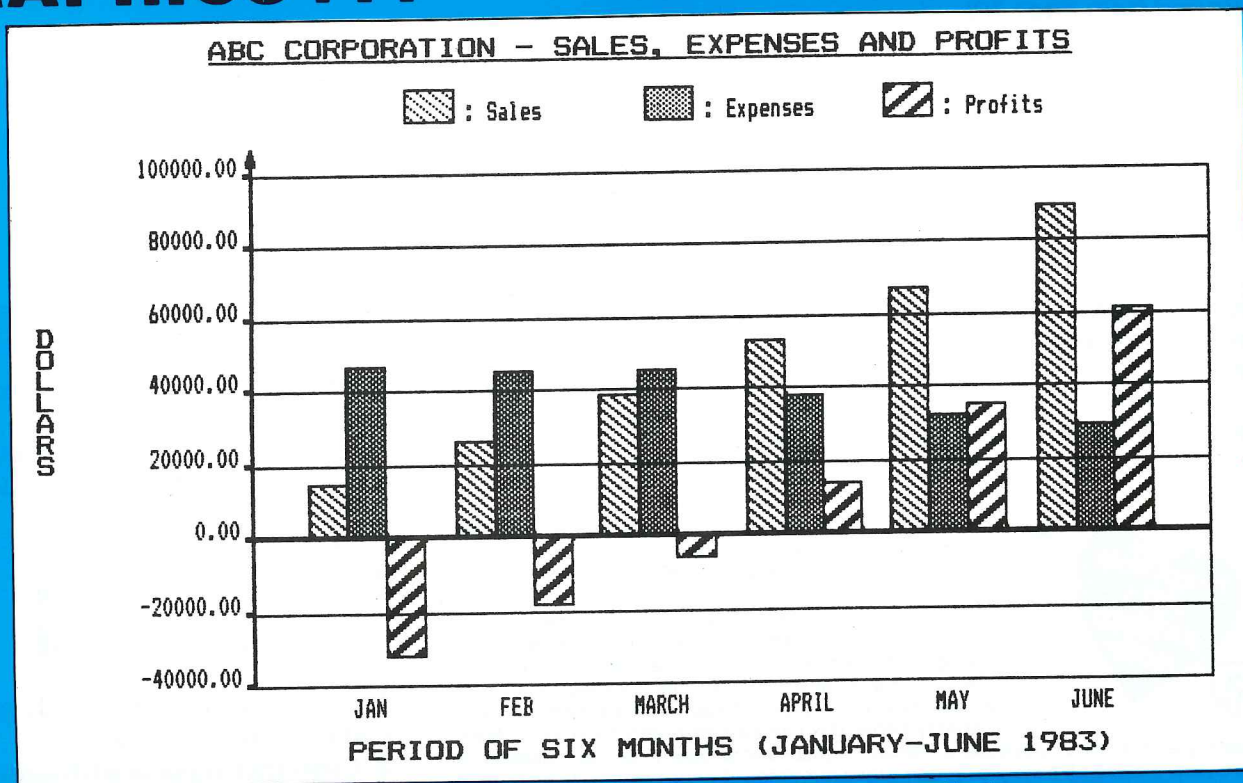
Dear Genevieve:

As you can see, the software sales increased dramatically during the last year, while the sales of hardware components correspond to those of previous years.

SALES BY CATEGORY (\$ 000)

This change results from our well defined sale strategy for software with business applications. We have developed a growing share of an identifiable markets. We have developed a growing best with the products and services corporations whose needs mesh with the needs of that part of market. And we can say that in 1982, XYZ's strategy has been to develop products and approaches which differ, often substantially, from the stereotypes. The conditions affecting the marketplace further emphasized the





Actual size of Reportmaker's bar graph as inserted into text. Printed on a dot-matrix printer as all other graphics shown.

In many ways, Reportmaker represents a major breakthrough in the business graphics software market. Not only it lets you create very easily and quickly an impressive variety of graphics, but it offers you much more than any other business graphics software for much less money.

REPORTMAKER + WORDSTAR = GREAT REPORTS

Reportmaker is an integrated software that allows you to create authentic reports by directly inserting the graphics into text created with Wordstar word processor. In communications, reports with graphics combined into text are much more readable and impressive. It gives you a particular edge in transmitting effectively with strong impact the content of your report. **And remember, no software other than Reportmaker gives you that opportunity.**

HEADINGS

Another Reportmaker's innovation: it allows you to create great headings on page tops. You can very easily design or conceive your corporate and any other logo in high resolution on the screen, then add the name and address. And the "design grid" will make your logo creation a child's play.

PRESENTATION GRAPHICS

Reportmaker can also produce a full page presentation graphics. Why spend your money on a plotter when with Reportmaker you can obtain on your dot-matrix printer the same presentation quality, if not better. And if you have access to the right copier, you can obtain high quality and inexpensive black and white transparencies.

POWERFUL AND FLEXIBLE

With Reportmaker you can present your data in a wide variety of formats: pie charts, bar graphs, line graphs, and area graphs, whichever configuration best suits your application. You can insert them into text, print over a full page or have up to two graphics per page.

Reportmaker offers you also a great versatility. You want to explode a slice or slices in your pie chart? Prefer side-to-side bars instead of stacked or need to add a line curve to your bar graph? Wish a solid area instead of cumulative? With Reportmaker you've got it all and more.

And you have all the flexibility you need. With Reportmaker, graphs are easy to create, recreate and create again. In seconds. Once you've chosen your chart format and entered your data, you can print it immediately to see if the graphic presentation is the most effective. You just hit a key and Reportmaker will print your data in another bar, line or area format, instantly, so you can experiment until graph format is perfect.

Computers and printers supported:

DEC Rainbow LA 50 & 100 printers
(128 K RAM, 2 disk drives)

Osborne I Epson MX with Grafrax Plus/FX
Kaypro II & IV Star Gemini
Apple II & IIe with CP/M Okidata 92, 93
SoftCard (64K RAM, 80 column) Apple printer
Available on IBM PC in December **PLEASE INQUIRE**
Very soon available on other printers and CP/M computers

TRADEMARKS:

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USER-FRIENDLY

Reportmaker is an interactive menu-driven program that allows you to get professional results within minutes, even if you've never used a computer before. You just have to select a chart format, enter data by filling in the blanks, choose options and let Reportmaker do the rest. The program will automatically scale axes and titles, and create in seconds a beautiful, high quality graph or chart.

Although Reportmaker is essentially self-documenting, a complete print documentation, clearly written and abundantly illustrated, is provided altogether with demonstration files.

But the best of all, the retail price of Reportmaker, version 2.0, is just \$130. You probably have already everything you need to use it, so if you want high quality graphics and much more, send us \$130 and we'll send you a copy of Reportmaker to use free for 20 days. If it's not everything we said it was, send it back and we'll return your money, no questions asked.

But we are persuaded that you will keep it, as did all our customers. Yes. All.

(If you prefer, see Reportmaker in action at your computer dealer now. And if they don't have it, ask them to contact KREPEC Software INC.)



Our Customers about Reportmaker:

"I received two weeks ago the Reportmaker and sincerely I am very impressed. Your company did a great job and your product is beautiful." Dr. Pier Luigi Caldari, Puerto Rico.

"The quality is first class and I want you to know how pleased I am with the program." Battle Vaughan, Florida.

"This program is tops. Very good." Sam L. Brent, Alabama.

"Great piece of software. More than advertised." Alex Mlawsky, California.



KREPEC Software Inc. 5460 Royalmount, Suite 208,
Montreal, Quebec, Canada, H4P 1H8 Tel: (514) 735-4749

Please send me Reportmaker at \$130 including postage and handling. I understand I may return it within 20 days of receipt for a full refund if not completely satisfied.

Brand of computer: _____ Brand of printer: _____
Disk density: single double

Check or Money Order Mastercard Visa Corporate Purchase Order

Card No.: _____ Exp. Date: _____

Name: _____

Firm: _____

Address: _____

City: _____ State: _____ Zip: _____

Tel: () _____ Signature: _____

OR CALL (514) 735-4749 (9 AM - 5 PM Eastern Time)

All orders are shipped within 24 hours. No C.O.D. Call collect.



KREPEC Software Inc.,
5460 Royalmount, Suite 208, Montreal,
Que., Canada H4P 1H8 Tel.: (514) 735-4749

ACCOUNTING

(continued from page 70)

modules, \$395.00 for all 4. Payroll available in about 3 months.

A demo disk for General Ledger

is available for \$18.00.

Each module includes the following reports and financial statements:

From General Ledger

1. Balance sheet and income statement.
2. Summary of last 12 months, year-to-date and forecast for next 12 months.
3. Journal entry report.
4. Chart of accounts.

From Accounts Receivable

1. Journal report with daily and end-of-month closing.
2. Customer reports with aging.
3. Statements.
4. Invoices.
5. Mailing list.

From Accounts Payable

1. Vendor report.
2. Journal report.
3. End-of-month report.
4. Chart of accounts.
5. Invoice, check register and check entry menu.
6. Check printing.
7. Mailing list.

From Inventory

1. Internal price report.
2. Customer price list.
3. Stock report.
4. Inventory value report.



A comprehensive manual and three floppy disks will enable you to discover the pleasure of

* ELIMINATING FORMAT ERRORS ON PERFECT WRITER®

Perfect Writer® is a powerful system, which normally must be formatted. Formatting a word processing file is analagous to compiling a structured program. It takes time to format a file, and it is normal to expect an error or two before you can produce your finished output. As you probably know, this can be particularly frustrating. Most

formatting errors occur because a "fence" is placed improperly, or not included. In some cases, leaving off a simple "j" can cause hundreds of pages of copy to be printed incorrectly "IT'S A BREEZE®" will automatically code your documents. Mistakes of this nature will become a rarity, not an everyday occurrence. 'OR IF YOU PREFER A "SCREEN ORIENTED SYSTEM," IT'S A BREEZE® will: Force your copy to appear on the screen exactly as it will appear when it is printed. If you use this option (you can use either or both of the options whenever you want) PERFECT WRITER® will function very similarly to the well known WORDSTAR®. You'll be able to print out documents exactly as they appear on your screen — this will save you time and money, as it makes PERFECT WRITER® ideal for designing and printing out brief business letters.

- * Eliminate many disk write errors.
- * Use your numeric keypad as intelligent function keys which will immediately:
 - Take you to the beginning and/or ending of a line;
 - Whisk you to the beginning or end of your file;
 - Delete the previous word;
 - Delete to the end of a line;
 - Search and Query Replace;
 - Scroll down the screen;
 - Find a file;
 - Save a file;
 - Delete the next word;
 - Delete an entire line;
 - Scroll up the screen;
 - Delete an entire sentence.

But that's just the beginning!

Many of the other keys have been mnemonically redefined. (That means you'll intuitively understand which key to hit for a given situation.) Using IT'S A BREEZE® you'll be able to:

- * Preview the exact form which your output will take without formatting it. You'll even know where page breaks will occur.
- * Produce a special "proof version" of your output which will enable you to rapidly edit simple and/or complex documents.
- * Produce title pages, using large block letters, just like the users of the largest mainframes produce.
- * Graph you statistical data (on an Epson MX-80® or Gemini® printer.)
- * Print one file from CP/M® while you are working on another file.
- * Automatically display an alphabetically organized directory of each of your data disks, along with a read out of the length of the file, and the amount of space left on your data diskette.
- * Quickly move the beginning and/or end of a sentence. Delete the balance of a sentence.
- * Rapidly reform paragraphs.
- * Set or change right or left margins any time you want. (Normal PERFECT WRITER® forces you to select a uniform margin.)

Very simply put, IT'S A BREEZE® will enable you to do two to three times as much work in the same amount of time, or if you're already working too many hours, you'll be able to get out of the office early for a change.

Complete documentation is included.

Order From: SPECIAL PROJECT RESEARCHERS, INC., P.O. BOX 384-I, DEVON, PA 19333, Your Investment: \$175.00. (215) 964-9534

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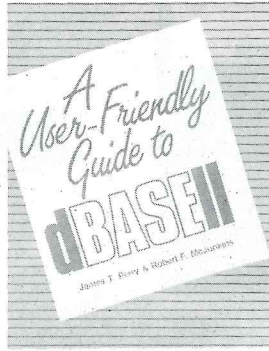
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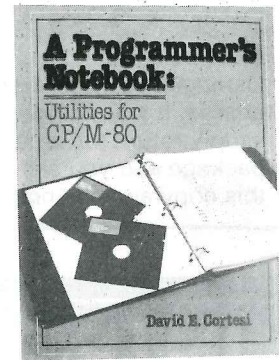
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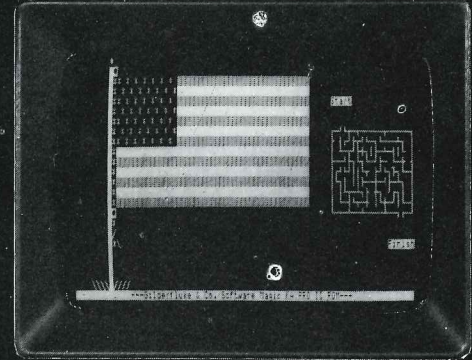
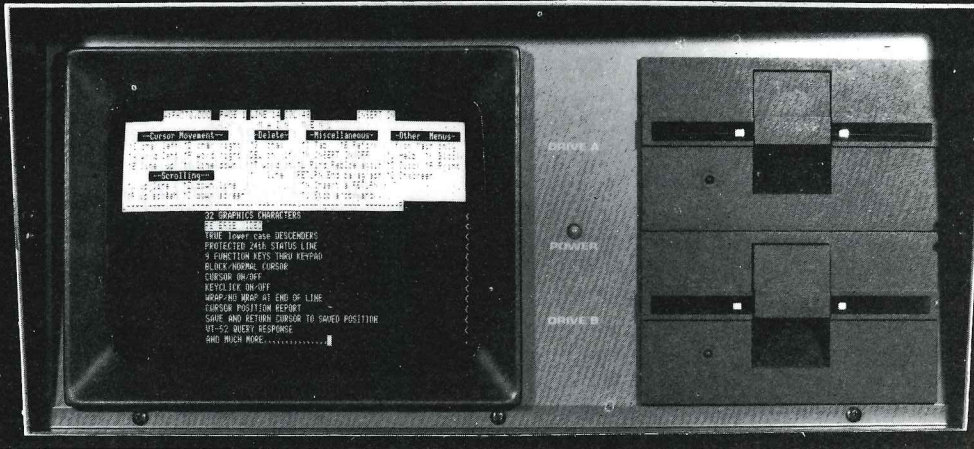
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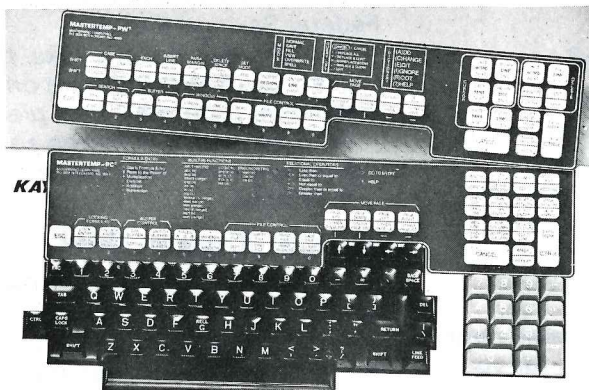
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Technical forum

Conducted by Tyler Sperry.

I have a confession to make: I have never used Perfect Filer. I have no plans to use it in the future. I don't know if it is the "hacker friendliness" of the program or the Filer manual or what. Anytime I seriously consider examining the program, some subconscious survival instinct takes over and I find myself doing something useful instead. Like playing Adventure.

So when the mail began to come in concerning Anne Wayman-Blick's article on Perfect Filer, I immediately looked for a victim, er, *collaborator* to help me with the newest truckload of questions. As fate would have it, I had to look no further than the new masthead to find someone able to research Perfect riddles: Anne Wayman-Blick herself.

So from time to time I will be hauling Anne into this column to help me out of some Perfect entanglement. Now, I have no intention of letting go of this Forum; after all, the world doesn't revolve around Perfect software alone! However, I have to admit I relate better to questions and topics related to hardware than your average applications program. I find it much more fun to stare at a photograph of the Zilog Z-80 CPU (see left) than to contemplate the twists and turns of the Filer documentation. There will be time enough for hardware in future issues. Until then, here's Anne with her

distillation of the stack of Filer mail:

I keep a mailing list of nearly 3000 subscribers on one disk on a Kaypro 4. This involves moving the Sort File, but is not difficult.

*Michael Holmes
New Bedford, Massachusetts*

I don't like to admit it, but he and several others making the same sort of statement led me to call Perfect Software. I discovered that although 1201 is the largest number allowable when changing the "Expected data base Size", that number has no relationship to the size of the database. Instead, according to Perfect, it somehow addresses the speed of the program. I was unable to determine what this might mean, nor could several technical types enlighten me. Perfect assures me that as many as 10,000 data records are allowed per database on a Kaypro 10, roughly 1,000 on the disk the Kaypro 2 uses and close to 1,800 on a Kaypro 4 disk.

(The size of the table does have something to do with the size of the data base, but it does not limit it. It is a common characteristic of so-called "hash" tables that they deal best when in a one-to-one relationship with the data base and are prime in number. Knowing

about hash tables is quite useful if you are going to be writing your own compiler or data base system; why the average user of Filer should know or care about prime numbers is beyond me. —TS)

Many more alert users wrote to inform me they had had no problem using the RETURN key on the data record. This, it turns out, is also correct, providing you're using Version 1.2. Both the RETURN and the CURSOR, or arrow keys will cause problems if used on the data record produced by Version 1.0.

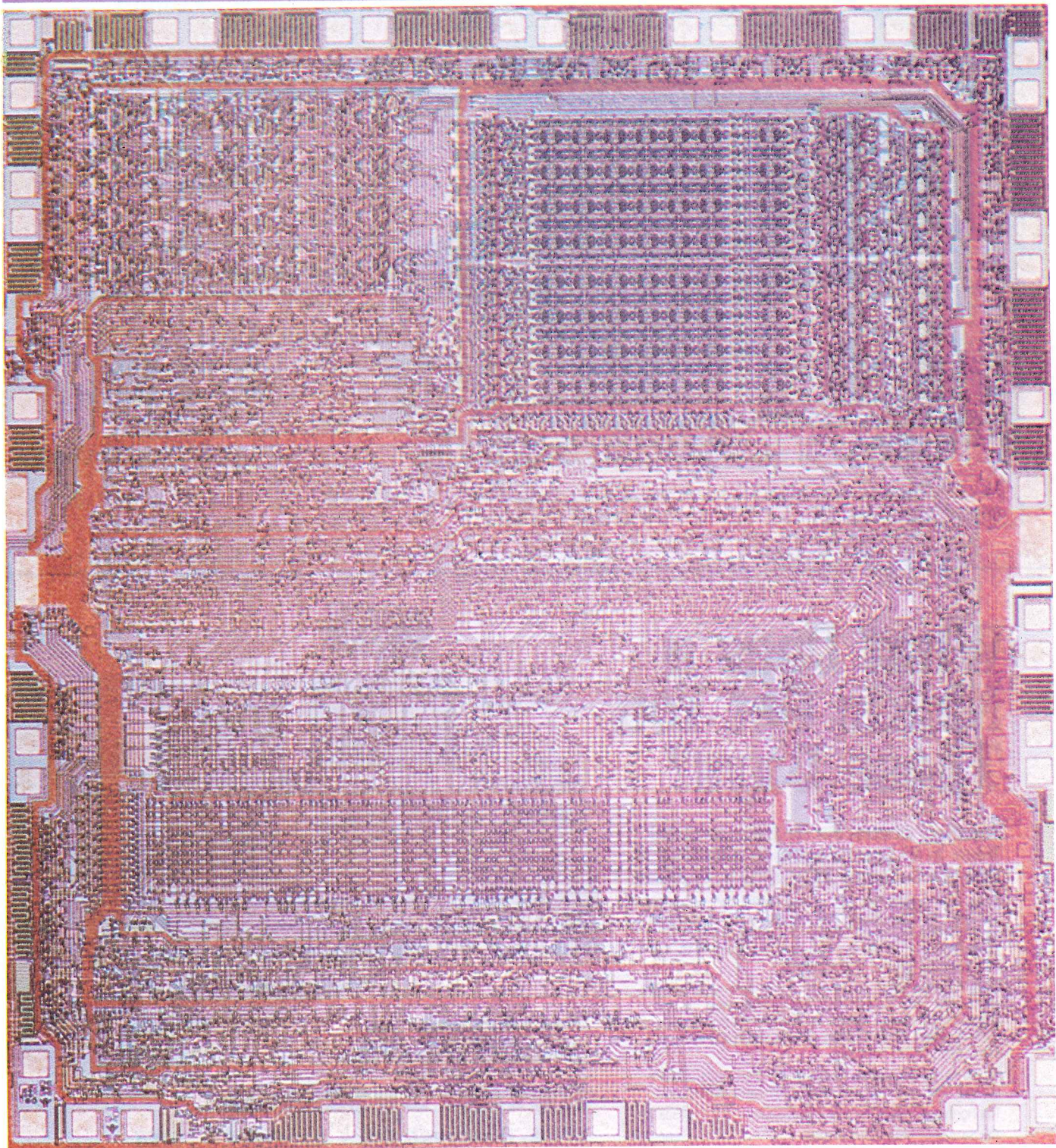
To my great delight, and the salvation of my deservedly bruised ego, several letters arrived complementing me on the article, and assuming my now questionable expertise, asked additional questions.

For instance, Corinne M. Snow, who lives in New York wants to know,

Is it possible to create a mailing list with the "Generate Mail" program, in which the names of the members will be preceded by their titles?

Yes, it is, by creating what I've come to call a Master Form using either Perfect Writer or Word-Star. The process is the same as creating a form letter. If you work through the Form Letter

(continued)



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FORUM

(continued)

Form Tutorial, p. 43 of the 1983 edition of the Perfect Filer manual, you will get a sense of what needs to be done, keeping in mind the size of your labels, of course. You will also need to create Printer Form. The easiest way to do this, in my opinion, is to make a copy of LABEL.TXT, and use WordStar to edit it to your specifications. The Printer Form Tutorial, p. 138, should be of some help.

William L. Hartnett, of Chicago asked this:

Is it possible to write a pause into the last formats? That is, could the lists be so structured that after a "member" element is displayed it would pause, and then resume at the pressing of a keystroke?

He explains that some of the staff at a small educational facility serving about one hundred-fifty handicapped pupils need only to view data on the screen, but since their data record uses all 70 fields, the lists go by at an unreadable rate. As he points out, the standard CTRL-S can be awkward to use.

Such a change is not possible in the list format—I suppose it could be done in the program if you had the source code. Another, and certainly easier approach, is to use CONFIG to reprogram the ENTER key on the number pad so a single keystroke results in a CTRL-S command. This should be easier to use. If you need the ENTER key, pick another key your staff will feel comfortable with.

Bellevue, Washington's Charles Dugan made the following, correct, observation:

You can put more than one data base on a single disk by utilizing the USER function of

the STAT program. Simply place a data base on different USER levels of the same disk.

This works best when using a Kaypro 10, but is possible with tiny data bases even on floppies, if you have a need for such a thing.

Attorney L. Marshall Smith, of Honolulu questioned my statement you could not change the name of your data base on disk—you can't unless you're willing to go into SET SYSTEMS PARAMETERS, where, as he points out, you can rename the data base disk files.

You must always use lower case letters when specifying your "Tags," . . . for lower case letters are the only thing Filer understands . . .

This accurate comment came from Tony Kenmir in Lynnwood, Washington. He continues: *I do have trouble, however, when I "Generate List/Report" . . . it prints out one page heading and then begins printing out a total of 435 members without regard to page. I have specified the page size at 66 lines and made sure the printer is on 66 lines. Quite mind-boggling!! I find I need all those coffee breaks and long walks to calm my nerves.*

Pour yourself yet another cup, Tony, and make sure that in addition to the paper size, you have also called for a bottom margin of some sort. Generally printers recognize 6 lines per inch, so a bottom margin of 10 would result in about an inch and a half of white space at the bottom of each page. By the way, Filer has three predesigned format fields: Date of Report, Subset Name, and Page Number. These may be inserted in exist-

ing data bases through the "List Heading Format Block Definition" and choosing "Insert a List Format field," and following the instructions on the screen.

I must say I am impressed with the expertise and determination of the Kaypro users!

Perfect page breaks

S.T. Mallon's letter in our last issue kicked off a spate of suggestions about how to get a peek at Perfect Writer page breaks without having to go through printing rough drafts. Not only was David Garfinkel willing to share his workable solution, but he echoes our sentiments about the virtues of WordStar as well.

I have some advice for S.T. Mallon, who wonders how to get a look at page breaks with Perfect Writer before printing out his file—IF he's sure he wants to stay with Perfect Writer.

There's a fairly obscure way, built right into the program—and it's very easy to do. Let's say you have a text file called WRITTEN.MSS that you are ready to print. From the Perfect Writer main menu, select "F" for "Format a file." After you specify B:WRITTEN.MSS as the file you wish to format, you are presented with the formatting menu.

From here begins our obscure voyage. Chose option "D" for "Format a different device type." You will be asked "What device do you wish to format this for?" And you respond by typing in: "FILE," and then hitting the carriage return. Hit "G" to start formatting and in a few minutes you will be back at the main menu.

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"Give the user easy access to every useful capability of his printer."

Some Printerizations (notably Epson and Gemini) require HexPrintR to access some of the printer's less frequently used options. Call or write (specifying your printer) for details.

HexPrintR changes the WordStar printer control character ^R into a "Hex-Printer" function.

For example:

^R 10, 15, 20 ^R

in a file printed by WordStar with HexPrintR installed into it would send the same thing to the printer as the BASIC program statement:

LPRINT CHR\$(10); CHR\$(15); CHR\$(20);

HexPrintR is available in a variety of disk formats.

PRINTERIZERS ARE AVAILABLE FOR:

- Epson FX printer
- Epson w/Graftrax 80
- MX80-111 / MX100-111 / Any w/Graftrax Plus
- MX100 w/o Graftrax
- MX80 w/o Graftrax
- Gemini 10X or 15X
- IDS Prism / Microprism
- Okidata 82A / 83A
- Okidata 92 / 93 or 84 Step 2
- Brother HR-1 or Comrex CR-1
- C. Itoh Prowriter I or II
- NEC PC-8023A
- Other DMP-85 printer


In the following diskette formats:

- Kaypro
- Osborne
- Printerizer: **\$35.00**
- with HexPrintR: **\$55.00**
- HexPrintR only: **\$39.00**

ORDERING INFORMATION:

Prices include U.S. or Canadian First Class mail delivery. California residents add 6% sales tax. Overseas orders pay in US funds adding \$4 shipping. Payment may be by money order, check, Visa or Mastercard. UPS COD add \$4, 2nd Day UPS COD add \$6. Please include phone number with order. Both Printerizers and HexPrintR work with versions 2.26, 3.0 and 3.3 of WordStar under CP/M and CP/M Plus.

Trademarks: HexPrintR and Printerizer, C I Software; Prowriter, C. Itoh Electronics; WordStar, MicroPro Corporation; Graphtrax, Epson America.


C.I. SOFTWARE & COMPUTER PRODUCTS
1380 Garnet Ave. E149, San Diego, CA 92109 619/483-6384

FORUM

(continued)

most FIN files, this one can be opened from the main menu with E, to edit as if it were an .MSS file. And you can move back and forth to look at it.

It is, in effect, a printed copy of your text which has been printed to disk instead of printed on paper. The page breaks will be evident by the blank areas (where top and bottom margins occur) between lengths of straight text.

Not too bad, huh? Only seven extra steps. Personally, I think solving Perfect Writer problems is a little contradictory, somewhat like building yourself an elaborate maze to get out your front door, and then finding shortcuts through the maze.

I would say, S.T., if you really want to stay with Perfect Writer, I wish you strength. I notice you say in your letter you "began a few weeks ago to flirt with WordStar." My only other advice to you is, for the sake of saving seven steps every time you want to take a peek, learn to love WordStar. After the initial hurdle, you'll be much happier, if your experience is anything like mine was.

Now I find I can actually concentrate on what I'm writing, and not so much on jumping through algorithmic hoops.

David Garfinkel
Chicago, Illinois

As we much prefer writing to jumping through hoops, we say Amen.

Another alert reader pointed out that we still haven't got the problem of page numbering solved, at least to his satisfaction.

The January Technical forum is just the kind of thing that makes PROFILES so timely

and helpful. Keep it up.

One question: Did someone nod? On p.67 the "method that works" for producing page numbering without hyphens... enclosing "page" in fences (instead of preceding "page" with a comma and following it with a period) gets the desired result.

R.J. Huneger
Astoria, Oregon

Spelling bee

I made an entry (with the simple absent-minded press of the A key!) in my Perfect Speller dictionary that is misspelled. How can I delete it?

Donna Wilshire
Plainfield, New Jersey

Our suggestion is not to bother. Perfect Speller works by having a small dictionary of the roots of words, then using algorithms to determine the correctness of a word. Thus it's possible to enter a string of characters such as "noseable" and have it pass the Perfect Spelling test of correctness!

On the other hand, Wayne Holder's spelling checker, *The Word Plus*, works from a dictionary that contains complete, and actual words. The Word Plus also allows you to view the words in question in context, as well as providing an automatic look-up feature. As if that weren't enough, the documentation is complete and easy to use. Since it also came with your 10, well, need we say more? □

FLOWCHARTER

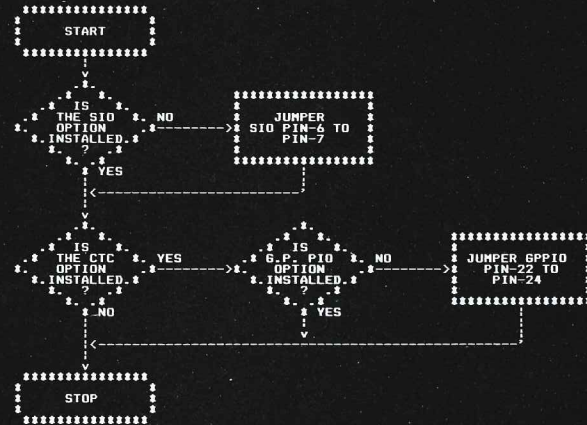
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★ CONSULTANTS
★ PROGRAMMERS
★ YOU

```
/* Flowchart showing which Big-Board I pins to
jumper depending on the installed I/O options */
```

```
T      START;
D      IS SIO OPTION INSTALLED ?;
IF     NO GOTO C; ELSE YES;
ZA:   D      IS CTC OPTION INSTALLED ?;
IF     YES GOTO D; ELSE NO;
XB:   T      STOP;
      SKIP  1C;
XC:   P      JUMPER SIO PIN-6 TO PIN-7;
      GOTO  A XB ET;
XD:   D      IS G.P. PIO OPTION INSTALLED ?;
IF     NO GOTO E;
IF     YES GOTO B XB ET;
      SKIP  2C;
ZE:   P      JUMPER GPPID PIN-22 TO PIN-24;
      GOTO  B XB ET;
      END;
```



Two years in the making! Doing what they thought couldn't be done on a micro! EasyFlow is a high-level language for producing neat, accurate flowcharts. You describe the flowchart using a simple command language; EasyFlow then produces a complete flowchart.

Not just for programmers! EasyFlow is for everyone needing flow type charts: engineers, executives, systems analysts, draftsmen, office managers, bankers, service people, technical writers, you name it - anyone who needs to be able to explain things in clear and understandable manner.

People have been using flow charts for a long time, for both programming and other uses. The problem is producing them: if you do them quickly by hand, they look awful; if you take your time they look better, but they take forever and are impossible to update or revise without starting over. Really good looking flowcharts require a typesetter, a draftsman and a lot of patience. With EasyFlow you can produce excellent flowcharts quickly, and then modify, correct and update them with very little effort.

EasyFlow is a lot like a high-level language; it accepts source statements, processes them and outputs an object file, but the object file is a flowchart instead of a program. To produce a flowchart you create a source file (using ED or whatever) that describes the flowchart. EasyFlow reads the source file, builds the flowchart in memory and then outputs it. The flowchart is normally output to disk, but it can be redirected to the console, punch or printer.

The EasyFlow command language has facilities for describing what shapes are to go where, what text is to go inside the shapes (centered in the shape automatically by EasyFlow), and the lines that are to connect the shapes. Input to EasyFlow is free-format in much the same manner as C programs, and each statement is terminated with a semicolon. Comments are indicated by "*" and "/"; comments can be nested, allowing you to "comment out" an entire section of source, even if it contains other comments.

The example above shows both the source text describing a simple flowchart and the actual flowchart produced. This particular flowchart explains how to setup the interrupt daisy chain jumpers on a Big-Board-I, for all possible combination of installed options. This IS explained in the BB-I documentation, but the flowchart makes it a lot more clear.

EasyFlow works with just about any printer; some are better than others for producing flowcharts, but even a teletype can produce useful flowcharts. A "full sized" flowchart is five shapes wide, eleven shapes high, and requires a printer capable of printing at least 132 columns wide. Printers capable of 80 columns can print flowcharts three shapes wide. A "full sized" flowchart printed at ten characters per inch and eight lines per inch is thirteen inches wide and twenty inches high; reducing such a flowchart by 50% yields a standard-page sized chart. The example chart shown here was a full-sized chart that was reduced. Special printer programs are available for printers such as the MX80, MX100 and u92 which allow flowcharts to be produced on standard 8.5" x 11" paper directly.

EasyFlow comes equipped with twenty standard flowcharting shapes. User defined shapes can be easily added to cover just about any application. - It is as simple as editing the EasyFlow configuration file which defines the shapes.

In addition to user definable shapes, EasyFlow allows user selected line drawing characters. The characters for "horizontal line", "vertical line", "upper left corner" and so on are user selectable. You can make your own choice and even take advantage of printers that have special line drawing characters available.

EasyFlow is written in Z80 assembly language and is fast and efficient. A rather large flowchart typically takes about ten seconds of computing time; the example chart shown here is very small, and took less than three seconds. Execution time will vary depending on CPU speed and the type of disk drive, but in any case it is quite fast. Since the source programs tend to be small (one hundred lines of source gets you a very full flowchart), and since EasyFlow needs only a single pass, disk I/O time tends to be modest. EasyFlow was developed on a 2.5MHz system with floppies, and it produces charts at a very respectable speed.

In addition to producing great flowcharts from perfect instructions, EasyFlow also produces meaningful error messages from imperfect instructions. A typical EasyFlow error message is:

```
046  INVALID EXIT-DIRECTION FOUND WHILE PROCESSING CELL B2.
      IF NO GOTO BAFFY XV ET
      ?
```

The first line is an english-language error report that outlines, as clearly as is possible in one line, what the problem is and where we were in the flowchart when the problem was detected. The second line is the source text that EasyFlow was processing at the time. The third line (the question-mark) points to the exact word that was being processed. Every EasyFlow error message has a number (046 in this case) so that you can quickly look up a detailed explanation of an error in the Error Description Appendix of the manual. This explains, in detail, what the error is, why it might have occurred, and how to go about correcting it.

The EasyFlow manual is complete, and is designed for both novices and experienced users. For the novice it explains (in the correct order, starting from the beginning of the manual) how to install EasyFlow on your system, how to back up the distribution diskette, and how to produce your first flowchart using one of the included demo charts. This is followed by a tutorial that explains the use of EasyFlow through the use of examples. The source text of all the examples in the manual is included on the EasyFlow distribution diskette, giving you a starting point for experimentation. For more experienced users there is a detailed syntax and operation description of all the EasyFlow commands, a chapter on configuring EasyFlow to produce the best charts with your particular printer, the error appendix and a chapter on defining your own shapes.

EasyFlow runs on Z80 CP/M machines that have a TPA of 38K or more. EasyFlow is available on SSSD 8" diskettes and KayPro format 5" diskettes. Other five inch formats: call.

\$49.95 (\$59.95 in Canada; Ontario residents add 7% PST).

Send check or money order today to:

HavenTree Software Limited
R.R. #1, Seeley's Bay, Ontario, Canada
K0H 2N0 (613) 542-7270

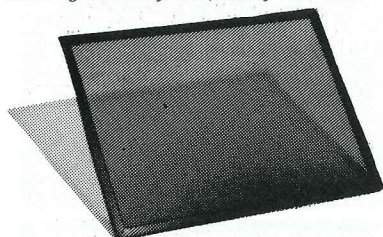


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LETTERS

(continued from page 12)

member by sending it twelve dollars.

James L. Wheaton
Falls Church, Virginia

Let us clear up some of the confusion regarding the National KUG. There are KUGs, you see, and there are KUGs. While Kaypro has in the past distributed a National KUG card (similar to the advertisement in this issue,) the practice was stopped soon after local users started organizing their own groups. To the best of our knowledge there is currently no connection between the National KUG people and Kaypro, other than the same sort of relationship local KUGs share with Cliff Odendhal.

On no account should you confuse the return of a KUG membership request with the registration of your warranty card. The warranty card is what registers your machine and puts you on the subscription list for PROFILES.

Keeping score

Our family bought a Kaypro II about a year ago and all members have been using it for writing school and college essays, articles, income tax, games and just for fun. We are very pleased with its capabilities.

My younger daughter is an enthusiastic gymnast. As a "gymnastic mother," I soon became acquainted with the time-consuming and tiring process of scoring at girls' gymnastic meets.

We set to work and produced a program which can be used for scoring at Y.M.C.A. and United States Gymnastic Association meets. We have used it and found it to be flexible and time-saving. If any Kaypro owner is interested, we will be glad to send information. Please write to:

Bernadette Mullins
342 W. Washington Street
Macomb, IL 61455

Patricia Mullins
Macomb, Illinois

Cover story

It was nice to see *Barron's* on the table with the Kaypro on the cover of the November/December *PROFILES*. The coincidence that may interest you is that the issue of *Barron's* shows a cover story on competition among airlines which I wrote—on my Kaypro!

I'm a fan of Kaypro, Perfect Writer, and *PROFILES*. Thanks.

Thomas G. Donlan
Washington Editor
Barron's Magazine

The last word

Transmogrification?
Espiegleious!

James L. Oval, Sr.
Danville, Illinois

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New products

Recent releases that don't fool around

The following new product listings are not reviews, and should not be considered as tested endorsements. We have looked at some of the products, but we do not necessarily have hands-on experience with them.

Proportional spacing on Wordstar. Users can now print in proportional spacing directly from Wordstar, a capability not previously available. A book, *Proportional Spacing on Wordstar*, tells all the details on how to enable this feature, plus how to print two or more justified columns on a page and how to underline spaces between words. The method gives text the professional quality of books and magazines, is easier to read, and allows more words on a page, without appearing cluttered.

The techniques will work on all versions of Wordstar, driving most daisywheel printers. The book was written for the non-technical person and is available for \$20 from local computer and bookstores, or postpaid directly from Writing Consultants, 11 Creek Bend Drive, Fairport, NY 14450 (716) 377-0130 or toll free: (800) 227-3800 ext. 7018.

Pascal 80 CP/M. This popular interactive version of Pascal, which is used to teach Pascal in many colleges and high schools, is now available in a CP/M version for your Kaypro.

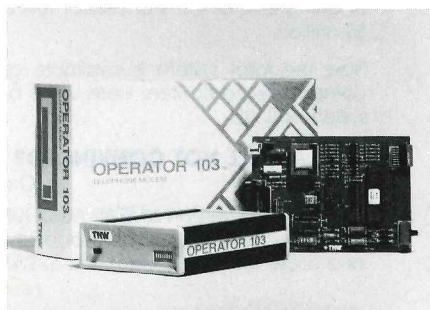
Pascal 80 is a version of Standard Pascal and writes ASCII

source, p-code and .com files, with compilation from memory or disk. An include function allows reuse of library procedures. Variant records, with operator and and page commands are not implemented. Mark and release are used instead of dispose with pointer variables, which are enhanced to be addressable as in the C language.

Pascal 80 CP/M costs \$79 and requires CP/M 80 version 2.2 or 3.0. (Please specify Kaypro format.)

New Classics Software, 239 Fox Hill Rd., Denville, NJ 07834 (201) 625-8838.

Low cost modem. OPERATOR 103 is an easy to use "smart" auto-dial/auto-answer modem that costs only \$189.



OPERATOR 103 provides normal and fast speed pulse dialing, and runs at 300, 200, 150, and 110 baud. Commands are easy to remember such as "dial," "answer," and "hangup," and are invoked by typing only the first letter of the command.

The modem comes with detailed instruction manual, power supply, and modular telephone cord. It is covered by a full two-year warranty.

TNW Corporation, 3444 Hancock St., San Diego, CA 92110 (619) 296-2115. Request product brochure from Marketing Department.

Statistics package. SL-MICRO, the statistical language for microcomputers, is an easy to use statistical and questionnaire analysis package which can process large data files of up to 32,600 cases, with 200 variables.

SL-MICRO has variable and value labels, long variable names, missing values, and English error messages. Data transformations can be used to produce new variables or select a subset of data for processing. A free-to-fixed field conversion utility makes it compatible with data base packages. The printout generated will fit on 80-column printers.

The package runs on Kaypro 2, 4 and 10 and costs \$250.

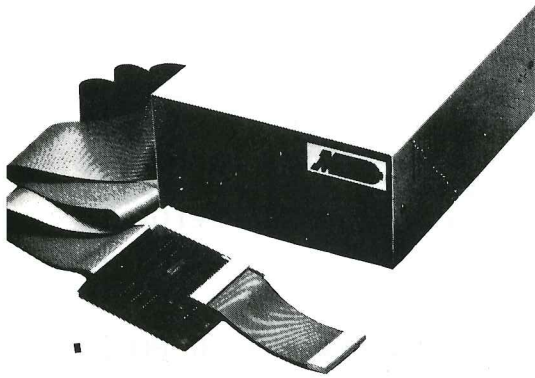
Questionnaire Service Company, Box 23056, Lansing, MI 48909 (517) 641-4428.

Modem newsletter. Modem Notes, a publication about modems, databases, and the telecommunications market, had its premiere issue in January. This informative newsletter provides search tips, applications, and sources of free information about the many online databases available to personal computer users.

The publication tells you how to access indexes to thousands of periodicals, like librarians do in major research centers. With a lit-

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- Larger systems available:

MD-20 with 22.5 mb formatted	\$2895
MD-44 with 45 mb formatted	\$3995
- Streaming tape backup units available which will back up 20 mb in less than 5 minutes and will interface with any SASI/SCSI compatible hard disk:

20 mb streamer	\$1795
45/60 mb streamer	\$1995.
- Backup on floppy disks is simple with the special software provided.
- Will interface with IBM-PC, most IBM compatibles, any Z-80 computer (KPRO, CCS, Apple [CP/M], Osborne, Zenith/Heath, Northstar, Godbout, Xerox, Z-80/S100, ALSPA, Super Brain, TRS-80 Mod II, Cromemco, Morrow, and many more).
- Double density modification will be available allowing you later to increase the capability of an MD-10 to about 20 mb, and MD-20 to 40, etc.
- IBM interface includes clock with time/date stamping on files.
- Full **One-Year Warranty** on parts and labor.

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Check out InfoWorld's Rave review of Power (Nov. 8/82)

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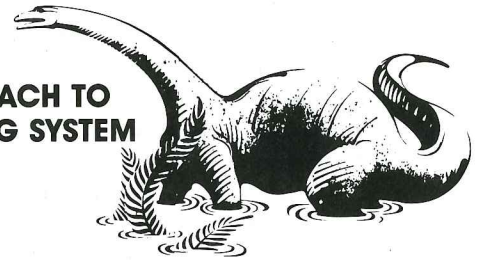
POWER! automatically numbers disk files. Just pick file number to Copy, Erase, Reclaim, Rename, Type, etc.

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NEW PRODUCTS

(continued)

tle help, you can find patents or book reviews, scan microcomputer literature indexes, access online encyclopedias, find financial information on companies, and monitor industry trends, for example. Modern Notes will also give tips on saving money online, ideas on search strategies and reviews of new databases.

Subscriptions to the monthly publication cost \$24/year.

Modern Notes, P.O. Box 408472, Chicago, IL 60640 (312) 764-7407.

Mobile work station. This dual-level work station includes an adjustable monitor shelf, a chrome base with optional locking casters, a laminated work surface and a black or sand finish.



It is available in two sizes which retail for \$191.20 and \$222.00.

Royal Seating Corp., P.O. Box 753, Cameron, TX 76520 (817) 697-6421.

Telecommunications software. SOFTCOM is an intelligent terminal program and transfer utility for use with a Kaypro and modem. It is menu-driven and allows you to time-share with a host system, as well as upload and download software.

SOFTCOM can transfer at speeds up to 9600 baud in full or half duplex, and supports XON-XOFF protocol. SOFTCOM also permits unattended transfers between two CP/M computers.

The price is \$150. The Software Store, 706 Chippewa Square, Marquette, MI 49855 (906) 228-7622.

Portfolio analyzer. The Investment Matrix software package will analyze portfolios that contain tax-advantageous investments, real estate, bonds, and stock. It consists of an investment database manager, a portfolio manager, and a portfolio analyzer.

Based on the information entered into the database, Investment Matrix projects tax cash flows for the portfolio as a whole, and calculates the portfolio's internal rate of return and net present value. In addition, it highlights the interaction between different investments in terms of required investment, cash distributions, and other investment variables for each year in the planning horizon.

The package costs \$399 and comes with a user's guide. A demo disk with the user's guide is available for \$50.

Financiometrics Inc., P.O. Box 1788, Lafayette, CA 94549 (415) 376-9455.

Native code compiler. This compiler lets you have the best of two worlds: the interactive Forth development environment with direct access to all ports and memory addresses, and high execution speeds typical of code generated by an experienced assembly language programmer.

The Native Code Compiler is easy to use. It can be loaded as a transient utility, or made a permanent part of your executable Forth

system with the SAVE command. After you decide which words are most suitable for replacement of threaded code with native code, you simply substitute "COMPILE" for the normal ":" operator. The Native Code Compiler takes care of the rest.

Available for \$100, the Native Code Compiler was specially created for Laboratory Microsystems' Forth implementations, and is not portable to Forth systems sold by other vendors.

Laboratory Microsystems Inc., 4147 Beethoven St., Los Angeles, CA 90066 (213) 306-7412.

Oak computer table. Beauty and function are combined in this workstation made from solid kiln-dried American oak. The desk has two levels, with the upper shelf providing eye level viewing of the CRT. Surfaces are smooth-sanded and all edges are beveled.



The desk comes ready to assemble with a special Allen wrench and simple instructions. The price is \$149.50.

Adco Systems Corporation, 8375 Leesburg Pike, Suite 397, Vienna, VA 22180 (703) 281-5508.

Multi-function modem. The Icebox 1, an intelligent 300/1200 baud full-duplex modem, has

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PROGRAM MAP produces alphabetical lists of a program's variables, commands & functions, line numbers referenced and constants. It is fast and easy to use and runs directly under CP/M.

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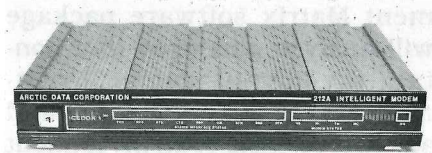
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NEW PRODUCTS

(continued)

host-peripheral switching capabilities which eliminates the need to manually unplug one device to use another, such as if you use a serial printer with a modem. It has memory for 52 thirty-two character/digit phone numbers or logon messages, which a user can automatically dial. The unit will also distinguish between a busy signal, human voice, or modem answer tone.



When connected, the modem will automatically adjust its baud rate to accommodate that of the receiving modem and transmit a 32-character logon message. It costs \$970.

Arctic Data Corporation, 1839 1st Ave., Prince George, B.C. CAN-ADA V2L 2Y8 (604) 562-5240.

Programs that organize .REL-format library files. REL/M is a package of programs for maintaining user-generated relocatable object-code libraries that use the popular .REL file format. Compilers and assemblers that generate code in this format include many of those marketed by Microsoft and Digital Research. .REL/M is useful for modular program development in such languages.

One program in the package, LX, may be used to generate compact alphabetized cross-reference listings of module names, procedures called, and externals used. The other program, LS, resequences the modules in a .REL library if required, so that linking can be accomplished in a single pass.

The cost for both programs in \$129; separately, LX is \$59 and LS

is \$89.

COMPU-DRAW Software House, 1227 Goler House, Rochester, NY 14620 (716) 454-3188 SOURCEMAIL: STO751

CRT cleaning mist. Data Vu cleaning mist safely removes surface contaminants like fingerprint smudges, dust and smoke particles from CRTs, micrographic equipment and optical components.

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Eye Communication Systems, Inc., 117 Hill St., Hartland, WI 53029 (414) 367-3080.

Surge suppressor/power outlet expander. ELECTRA-GUARD System 6, a solid state clamping device, is equipped with a 6-foot power cord to provide extended reach from wall outlet to electronic equipment, along with an on/off switch. It expands a standard two-outlet plug to provide six outlets and has a response time of less than 5 nanoseconds (billionths of a second) to over-

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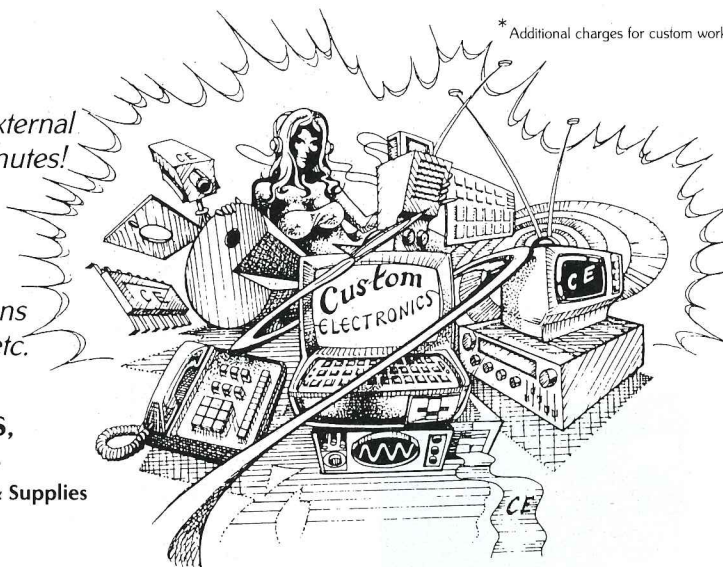
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- ★ Built-in directory listing.
- ★ Change disks and automatic warm-boot.
- ★ Eliminates PW editor bugs—7 in v1.03; 6 in v1.20.
- ★★ Change user number (v1.20).
- ★★ Display page number (v1.20).

CP/M 2.2E

Enhancements for the CP/M operating system

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- ★★ Public files accessible from all user numbers.
- ★ Program re-execution.
- ★ Type-ahead keyboard.
- ★ Super-fast full-disk copy—just 56 seconds to format, copy & verify.
- ★ 6 user-group utilities included.

Perfect Writer, Wordstar and CP/M are registered trademarks of Perfect Software, MicroPro, and Digital Research, respectively.

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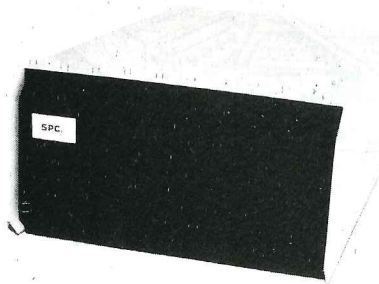
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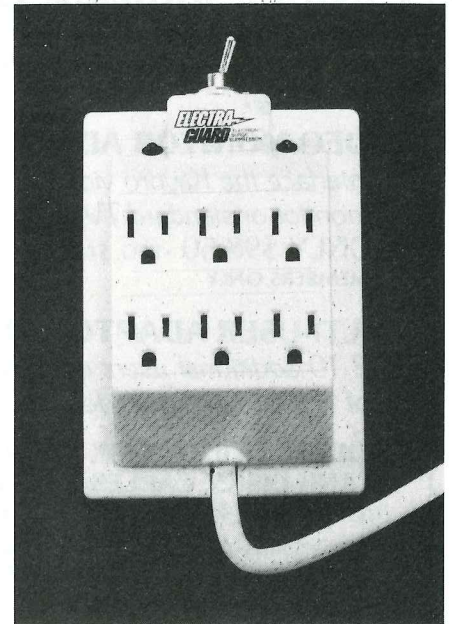


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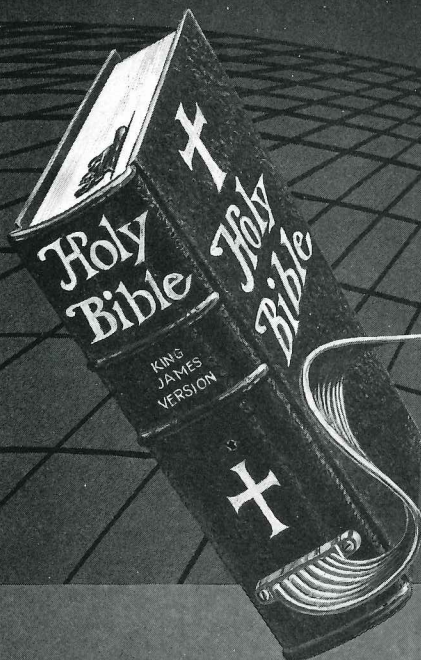
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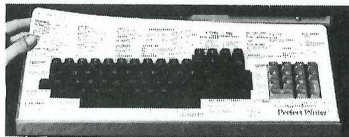
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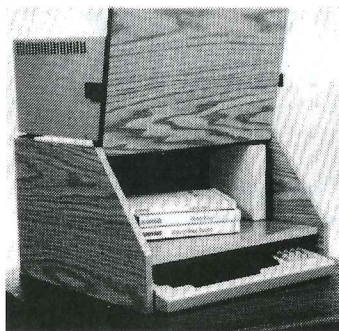
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SYSTAT, Inc., 1127 Asbury Ave., Evanston, IL 60202 (312) 864-5670.

Mini printer stand. Two new stands that elevate printers with 9½" and 15" paper capabilities have been introduced. The WSPS-1 and WSPS-2 are made with solid steel construction and include a baked enamel finish in putty beige.

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Amber Visions, 878 Jackman St., Suite 192, El Cajon, CA 92020. □

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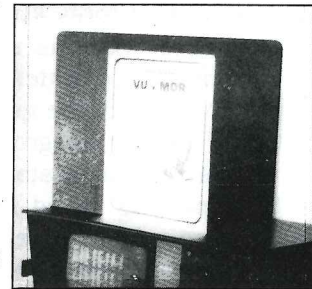
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If you are a new computer owner, a users' group may be the ideal place to learn about your machine, and the applications that are important to you. It is this emphasis on specific applications that makes users' groups such unique forums for training. Chances are good that you'll meet someone who is already using their computer to perform tasks similar to your own needs. They will probably have already gone through many of the bugs and can short-cut you to your computing goals.

While many KUGs (Kaypro Users' Groups) run training sessions, invite speakers to meetings, and publish newsletters, the single most important aspect of users' groups is the exchange of knowledge in a relaxed, social atmosphere.

Most computer stores know of the existence of various users' groups and many computer magazines publish lists of the groups' addresses. If there's no group in your area, you can easily start one yourself by placing an ad in the classifieds of your local paper, and listing a place and time of an organizational meeting. When you have had a few meetings and are sure of about twenty-five regular members, send a contact person's name, address, and phone number to the address below.

Recognition and data base

entry will entitle you to Infomail, Promomail, and coordination of speakers and training aids from Kaypro's home office.

Kaypro users' groups have no official relationship with Kaypro Corporation. Therefore, we can take no responsibility for the accuracy of the information in the list below, nor for the activities of the groups themselves. For further information, you can contact the group in the list nearest you or write to:

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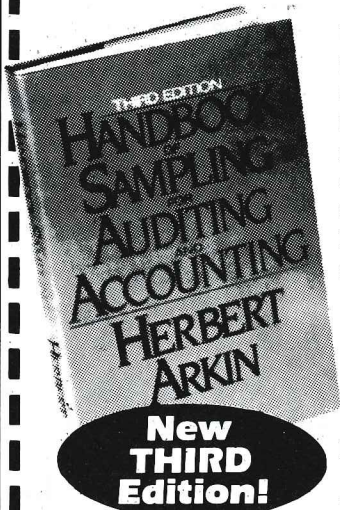
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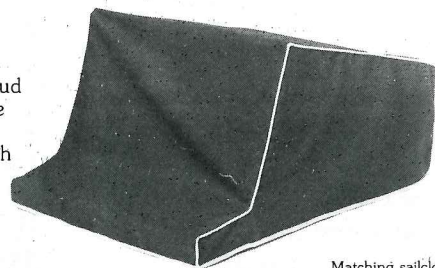


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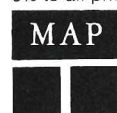
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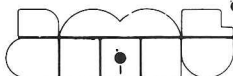
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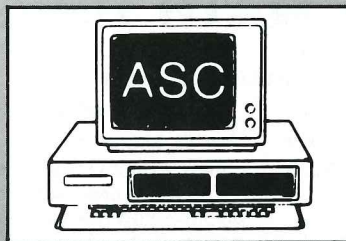
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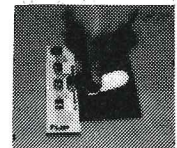
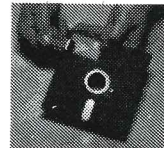
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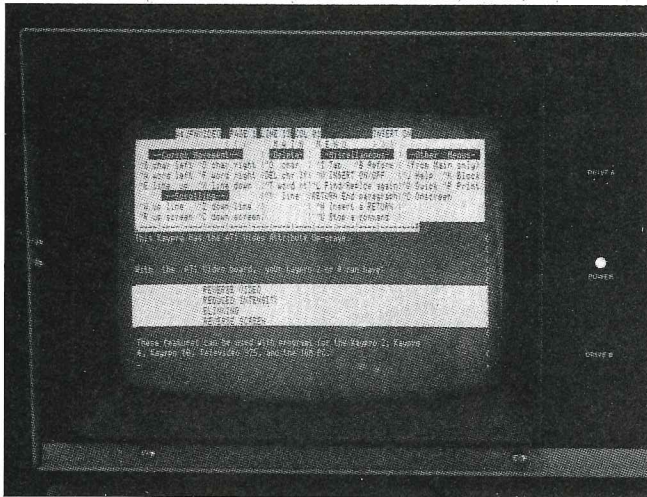
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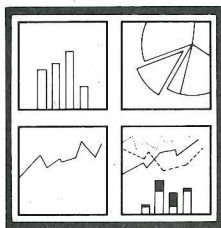
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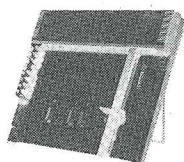
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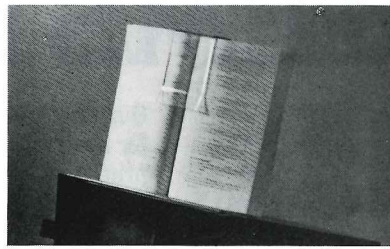
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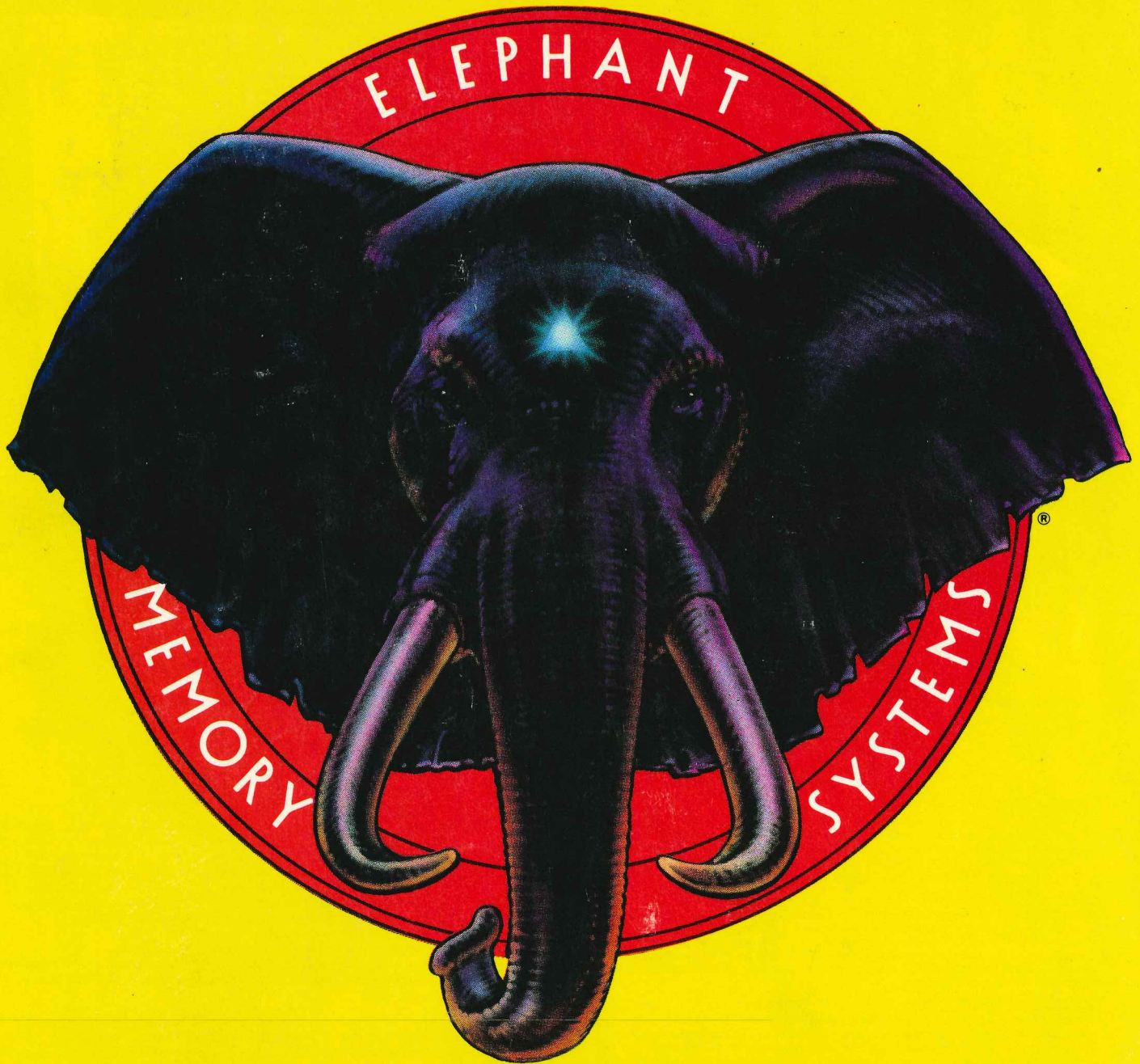
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