

#### MEETING NEWS By Jean Nance

**WELCOME** to new members Hubert T. Albachten, Bruce E. Bechtol, Arlen B. Blodgett, George R. Frainey, Judy Livernois, John Marker, James E. Robinson, Marshall D. Sawdey, Ray Studinarz, Mary E. Thomas, Michael C. Todd, Walter C. Warman, and Donald Watson. Their addresses and bios are in the March membership list sent with this issue. Also Paul Berry and Carolyn and Ronald Snyder.

THE MARCH MEMBERSHIP LIST, with names and bios of all 1993 members who joined through late February, is provided by Brian Vaughan. We appreciate all the work Brian does to see that this list is accurate and up-to-date. Keep it until the September membership list arrives. I am sometimes asked for names of members who own certain hardware or use certain programs. That information is on your list. The list is also available on disk from Jim Green; see the Information section. If your word processor allows "search", you can more easily find information in those files.

**INFORMATION**. The back pages of the membership list contain the "Information" section. Included are lists of ham radio enthusiasts, "Resource" persons, and Q-Link members, information about the group, about the MaiLink on Disk, and about software available at reduced prices.

**MEMBERSHIP**: The letter I send out to those who inquire about the group tries to make it clear that we are a Commodore User Group: membership is not merely a subscription to a newsletter. Additional SUBSCRIBERS are of no financial advantage, since costs for each member are barely covered by their dues. **MEMBERS** are those who are willing to participate in the group by corresponding with others, writing material for the MaiLink, or otherwise helping out. We don't need more subscribers, we are always happy to see new members.

Do recommend our group to others, but I beg you, don't tell prospective members to send money to me or to Ferol Austen. Some prospective members send checks with their letter of inquiry, often for an incorrect amount. This causes us extra correspondence to return the check and explain about dues, application, etc. Tell friends to write to me. I'll send them information about the group, about current dues, and an application blank.

Members sometimes want to give a gift membership. Please don't send a request with a check and a name and address. Be sure the person wants to join and understands that this is not just a gift subscription to a newsletter. Then write to me and I'll let you know how to handle the matter.

**NOTICE:** Sometime ago Andrew Schwartz sent me a chain letter, involving sending programs on disk to those on the chain. I told him I disapproved of the idea and hoped he wouldn't send such letters to members of our group. I have been told that Andrew is continuing this practice. I feel this scheme is an improper use of our group and our membership list. I am sure that the members who participate do not realize that the project was started against my advice. I'm grateful to those who have refused to participate and I hope the whole thing dies a speedy natural death

1



#### From John Foster

It seems that it was just yesterday that I joined "Meeting 64/128 Users Through the Mail". Actually, it was November of 1990. I can remember reading through my first newsletter and being overwhelmed by what all the editors must go through in putting out a newsletter of this caliber.

Two years later and I have just completed my first stint as editor. It wouldn't be possible if it weren't for the excellent articles and questions that you, the members, submit. I was especially encouraged by the submission of some items by our newer members. No club or group is any better than the sum of its members.

I must confess that I could hardly wait to get home from work and check to see what mail had arrived. I found that if I took care of converting and formatting the articles upon their arrival, the process never became a burden. Once everything was compiled, I sent the disk off to my good friend, Dennis Page who fed all of the articles into geoPUBLISH and printed out the master copy. Next it was off to Jean Nance for final approval and she affixed the labels provided by Brian Vaughan.

I use a Ramlink which has 4 1/2 meg of memory. I have several native mode partitions set up from which I run Geos. Ramlink is the only way to operate Geos in my estimation. I used the Text Grabber 128 utility to convert the PETASCII files to Geowrite. Then it was just a matter of deleting a few extra spaces between paragraphs that some word processors created.

I would highly encourage any of you that have never edited "The Mailink" to consider doing so. You could co-edit as Dennis and I have. At any rate, GET INVOLVED!

I would like to thank Dennis Page, Jean Nance, and Brian Vaughan for all of their help in getting this newsletter out to its members.

Ferol Austen will be the May editor. She requests any lengthy articles be sent to her on disk. The Write Stuff or Speedscript are her word processors of choice so try to make your disk submissions compatible to these. Ferol would like all submissions to arrive to her by April 23, 199 Her address is:

P.O. Box 337, Moody, Maine 04054-0337.

#### ADDRESSES for MEETING 64/128 USERS THROUGH THE MAIL

Organization business and membership... Jean Nance, president, 1576B County Rd 2350 E, St. Joseph, IL 61873.

Dues and donations... Ferol Austen, treasurer. P.O. Box 337, Moody, ME 04054-0337.

Membership addresses and biographies; corrections and changes... Brian Vaughan, 2101 Shoreline Dr. 352, Alameda, CA 94501.

#### COMMODORE MAILINK

Commodore MaiLink is published every other month by Meeting 64/128 Users Through the Mail. Commodore (R) and the Commodore logo are both trademarks of Commodore Business Machines, Inc. All references to the foregoing should be so noted Copyright 1993 by Meeting 64/128 Users Through the Mail All rights reserved Permission given to reprint material if credit is given to "Meeting 64/128 Users Through the Mail." The names "Meeting 64/128 Users Through the Mail" and "The Commodore MaiLink" are also copyrighted Any and all opinions expressed in thi publication are the views of the authors and in no way necessarily reflect the viewpoints, attitudes, or policies of Meeting 64/128 Users group unless so stated or indicated Neither Commodore MaiLink nor Meeting 64/128 Users Through the Mail advocates or condones the piracy of copyrighted software. All programs published are with the permission of the author or are, to the best of our knowledge, in the public domain. Software offered for sale is said by the seller to be either public domain or, if commercial, is the original disk with the original documentation.

All manuscripts, or any material for review or publication should be sent to the editor of the next issue (see "Editor's Desk"). Commodore MaiLink reserves the right to edit submissions.

#### COMMERCIAL

Overweight? Diet friendship club by mail! Make many friends and lose weight together. Includes newletter. If interested, please send a large SASE to **Judy Kerns**.

#### MACH 128 CARTRIDGE AND APROSPAND EXPANDER By Charlie Duncan

In the November Mailink was a note about cartridges from Alf Jonassen to Charlotte Mangum. I have owned a Mach 128 cartridge and an Aprospand expander for 4 or 5 years to go with my C128. I am very happy with it. I understand the Mach 128 is no longer manufactured, worse luck.

The Mach 128 has 2 switches, one to reset the computer and the other to switch between 64 and 128 modes. The computer will power up in either mode depending upon which way the mode switch is set. If it is used with a C64, it will power up in normal 64 mode if set for 128 and in 64 mode with Mach 128 engaged if set for 64. I have just installed JiffyDos and find that having to hold down the C= key at power up to go to 64 mode is irksome. It is much handier just to set the switch on Mach 128 and turn the machine on.

Mach 128 is a fast loader for 128 and has many other features. Send disk commands, load Basic or ML programs, open and close printer channel for upper case/lower case or uppercase/graphics, disable 1541 rattle, screen dump, convert and display hexadecimal- decimalbinary numbers, format a disk on 1541 in 10 seconds, toggle the 128 cursor keys and numeric keyboard--each of these with only 2 keypresses.

It seems to be compatible with most programs. I found with my Swiftcalc that I couldn't disable the calculation feature (using C= f5) with Mach 128 enabled. Every time I entered a number, the program recalculated the whole spreadsheet. Without Mach 128 those keys would eliminate the calculations until I wished them to be done. The only other problems of incompatibility were with some games but it was a minor thing to disable the cartridge. I have had no problem at all with the Mach 128 using it in the Aprospand expander. In fact, I love it because the expander has a handy reset switch set just behind the computer where it plugs in. That switch is much easier to use than the one on the cartridge. I did have trouble with the Timeworks Partner 128 cartridge when plugged into the expander, but I hardly used it at all so I just put it away. Each of the 4 expansion slots has its own on/off switch so disabling Mach 128 is done by pushing the switch off.

I haven't tried the expander with the 1750 REU. I built my own computer desk when I first bought the machine. I used all the space very efficiently: so efficiently, in fact, that the space directly behind my keyboard is only 5.5 inches high Plenty for all the wires and works with the expander and Mach 128. I didn't, however, count on acquiring a 6 inch REU to be fixed atop a 1.25 inch expander.



#### No Commodore In PC World By John Foster

I received the following information from a member of Q-Link. It seems to clear up the rumor of PC World Magazine carrying a Commodore section in the future.

A call was placed to the Assistant Administrator of Circulation for PC World. He stated emphatically and categorically that there would be no Commodore section in PC World and that there were no future plans for one.

I felt like this information might help some of our members that were Run subscribers in deciding whether or not to seek a refund instead of a subscription to PC World. You can call (800) 234-3498 for a refund of your remaining Run subscription. Outside the U.S. call (303) 447-9330.

# PROGRAMMERS' BASIC TOOLKIT By Keith Keller

This is an OLD commercial extension to BASIC 2.0 on the 64. If you see a copy at a price of \$10 or less, here is why you might want to pick it up.

Documentation is a zillion times better than Simons' BASIC was. The main manual is a SPIRAL BOUND book about the same size as the SB manual. You get a warranty card, some advertising fluff and a fold out "quick reference guide." It lists most, but not all, commands. The program itself loads really fast on a 1541: uses the old "Vorpal Utility Kit." It's a memory hog: PRINT FRE(0) gives you 13309 at boot up. In the back of the manual are memory maps of what the 64 looks like under Toolkit BASIC (abbreviated to TKB from here on). Also included are the formats of the SEQ data files created by the included (stand alone) sprite and character set editors.

Using redefined characters appears to be really easy. There are commands to load or save redefined character sets to disk and other routines that usually take technical knowledge of the 64. Execution speed was not tested, because I don't understand how to redefine them either way. Some existing games that use custom characters and are 100% BASIC will work. Others won't because they overwrite TKB code itself or depend on the 64's default memory map.

Working with hires graphics in TKB is about on par with the commands in the Super Expander cartridge and BASIC 7.0 on the 128. One BIG advantage that TKB has over the Super Expander and BASIC 7.0 is the ability to scale the screen to larger coordinates than today's best \$30,000 workstations. Page 91 of the manual says the maximum scale range is 10,000 in both the x and y axis. If you're into astronomy and want to (reasonably) display distances between celestial objects, TKB is what you want.

Sprite control in TKB is as powerful as that of the Super Expander cartridge or BASIC 7.0, but methods for animating sprites and command names are slightly different. It's arguable that the TKB method is better, but at the expense of compatibility and execution speed. Sound control is what you wish BASIC 2.0 had built in. You can program interrupt driven sound (and sprites) like BASIC 7.0 and the Super Expander, but again kiss compatibility with the two previous products, goodbye.

In general programming, you can forget about poking certain locations to change the screen and border colors. In TKB, you can say "BORDER <number>" and the usual poke to 53280 will be done for you. Same thing with 53281. Sending commands to the disk drive, viewing the directory within a program and reading the error channel are again done similar to Simons' BASIC. IF - THEN - ELSE is supported, but there's no begin or bend like BASIC 7. Computed GOTOs are supported, but not GOSUBS. FIND "whatever" and RENUMBER is there, as is easily reading either joystick port and paddles. No support for other devices, though The function keys can be redefined and best of all, any set of definitions can be loaded and saved to disk! Error trapping is done in the style of Applesoft's "ON ERROR GOTO." You can say ON ERROR GOTO <line number>, and turn error trapping off and on at will. The variables ER and LI become reserved system variables, lik ST, TI and TI\$. RESTORE <line number> 🗁 there. The only sore spot about it, is the absence of a mass line delete command. A recent Commodore Mailink disk has a small utility in machine language that works just fine with TKB. If you don't have any Commodore Mailink disks, you want a utility small enough to reside at 679 or 828. The 4K of memory starting at 49152 is used by TKB itself.

There's no BSAVE type command, nor is it really necessary. There are commands to save your hires or multicolor screens, your sprites, your text screen, all to disk. Loading them back is just as easy.

A feature unfamiliar to those only exposed to BASIC, is the ability to name a routine you would normally access with GOSUB, along with passing variables. COMAL language nuts like the author recognize the power of this feature, but bemoan the lack of memory for it. Newer languages on Amiga, DOS and Mac machines all

(Continued on next page)

#### PROGRAMMERS' BASIC TOOLKIT (Continued)

have this. It would be a powerful springboard if one plans to ever upgrade to a "better" machine.

I just thought of another application where TKB's scale command would be incredibly useful. If you're a Mandelbrot picture nut, an idea is to generate a picture as a series of numbers and color info, and write these items to a disk file. You don't have the memory for a picture generator in TKB. In TKB, one would read these numbers back and simultaneously plot them in different scales. You likewise don't have the memory to read these items back into an array. If you're only interested in two color pictures, this would be neat. Imagine being able to see normally distant forms of the set on the screen at once.

Included with this issue's corresponding disk is a demo program in TKB that was converted from the Amiga. 128 owners can do the same thing that this program does, in BASIC 7. If you've never fooled with a Commodore Mailink disk, this issue is a definite "must-see."

# RESCUE FROZEN DISKS BY Charles Sokol

In response to the September Mailink article describing a problem with floppy disks that could neither have their directories read nor could they be formatted, it sounds as though these disks might be "frozen" (disks that will not rotate inside the disk jacket).

The way to check this is to place two fingers inside the center hub, spread the fingers outward so they are pressing against the outer circumference of the hub: then with your other hand, push against a corner of the disk jacket to try to rotate the jacket while keeping the disk inside stationary. If the jacket will not rotate, you have a frozen disk.

Does this mean that you cannot retrieve the contents of the disk? The answer is no.

If you look at the back side of the disk jacket, you will see three flaps along three of the four disk edges that either are welded or glued to the disk jacket. With your fingernails, or some non-magnetic thin rigid object, pry loose the top flap (the flap that is opposite the disk edge without a flap). Then try to rotate the disk. This will usually free the disk so you can copy its contents onto another disk. In rare instances, you have to open the other two flaps to free the disk, but usually it requires only opening the top flap.

Be careful not to bend the flap out too far or you may have trouble getting the disk back out of the drive. If the flap is bent too far to assure that you will be able to get the disk back out of the drive, you should tear the tab off, in which case you might want to put a piece or two of adhesive tape over the edge of the disk jacket where you removed the tab. Otherwise, when you remove the disk, it is possible that the disk jacket will come out but the magnetic disk, itself, will remain in the disk drive. GOOD LUCK!

### THE WRITE STUFF TIP By Jean Nance

The manual for Version 2 of The Write Stuff (BB Speller), mentions that the file translator feature of TWS V1, is missing. Other features are missing, which aren't mentioned in the manual. With V1, you can use the keyboard graphics on the left front of the keys, those accessed with the Commodore logo key. These are not available in V2, probably because the C= key is used for some special features of V2. Another missing feature on V2 is the very useful alphabetical sort feature. At times, I am asked why one needs to buy V1 in order to buy V2. These are two of the reasons you need both versions.



5

#### ON SQUEEZING, SQUASHING, PACKING, CRUNCHING, ARCING AND OTHER SUCH THINGS! By Jim Russ

O.K.! So you got this modem for Christmas, your birthday or some other such occasion. Some of us even bought one for ourselves. And now you signed up for Q-Link or one of the other big networks or maybe you only called the guy down the block who you heard had this nice little C-64 board. You just down-loaded your first program but when you tried to run it nothing happened! Did you do something wrong? Try again. Maybe you need ",8,1" after the program name. No! That's not it either! Now what?? Look again at the program title. Does it look a little strange? Does its title end with ".arc" or maybe ".lnx" or some other cryptic ending? If so, you will need one of the many versions of Data Compression Utilities which abound in the telecommunications world

If you do much down-loading from bulletin boards you will find that quite a few programs have been "squeezed, compressed, crunched, packed" or some other such term by one or more data compression utilities. You will need to return these files to their natural state before you can use them. There are several reasons why files are treated in this manor. One is to save disk space. Another is to save file transfer time. While the cost of disks have come down, the cost of file transfer time is increasing. Two ways to reduce it are: (1) use faster file transfer rates (1200 bps VS 300 bps) and (2) shorten the file size. The latter is quite nicely done by some of the many public domain compression programs.

There are two basic types of data compression programs: those which do what the name implies, ie - make files smaller, and those which combine many files into one. The latter is quite useful in keeping related files together so that when downloaded one has "all" the necessary files required. There is nothing more annoying than to download a long file and then finding that another file is also needed. It may just be a "docs" file which explains how to get the most out of the program, but it could be a short MLX routine needed by the main program to work. All this is solved if the files have been joined into a library.

The differences between the various da()compression programs is the degree to which they accomplish their task. The basic idea of all these utilities is to exploit the redundancy in the file. If a file were made up of the acronym "DE-BUG" repeated 500 times, it could be compressed by replacing it with a file that says: BE-BUG - 500 times. A huge savings! This is an over simplification, but the idea is the same. The replacement code that is used can be generated in many ways. Some programs like ARC use more than one technic. The basis for SQUEEZING, is Huffman coding. This method operates on each character or byte (a code of eight bits) in the file. Eight bits let us have up to 256 different characters. Most files don't use all of these and a few are used much more often than others. SQUEEZING replaces each character with a code which depends on the frequency of its occurrence. The more frequent a character the smaller the number of bits assigned to it in order to save the most space. Of course a directory or key needs to be included at the beginning of the SQUEEZED file for decoding it. This is the reason that small get larger when SQUEEZED. The files translation table adds to the length of the file. Another compression method may not add to the length of the file. ARC determines which method (squeezing, crunching, etc.) saves the most space and uses that method.

Some of the other fine compression programs available are: Library, Lynx, and SDA. The latter has become quite popular as it does not require the user to have a copy of the compression utility. It decompresses itself!



# RAMLINK AND THE 64

By Maurice Jones

As a brand-new owner of a 4 Meg Ramlink, I read Francis Redmond's January article with interest and am glad to say that I was able to copy Print Shop to Ramlink without problem. I had previously backed up my PS by making a copy with Maverick parameters. I created a 1541 emulation mode partition and then used MCOPY to copy the backup copy to the Ramlink. I was surprised to have it work because I had previously tried to copy the backup disk with Maverick but had no luck. I later erased this partition and repeated the whole process, giving me even more confidence that it will work for others.

I do not intend this as a review or an endorsement of Ramlink, but would like to share my early experiences. I installed the Ramlink in a C64C, my Commodore of choice. The jumper was not difficult to install, since the diagrams and written instructions were quite good. Although I had some doubts because of the difficulty of partitioning the 1581, CMD supplies a program called RAM-TOOLS which makes creating partitions simple. I did manage to prove that the program is not fool proof by TWICE hitting RUN/STOP while looking at the message, "PLEASE BE PATIENT ..." I copied PS as explained above, copied one partition to another, and then tried MCOPY with two disk drives and found it very easy to use. It may become my primary disk copier. FCOPY, the file copier supplied, is equally impressive. I used this program to copy programs to Native Mode partitions, and encountered no serious problems, other than a number of DRIVE NOT READY MESSAGES caused by my impatience detailed above. It turns out that this message may indicate that a partition has not been properly formatted.

I bought this device because I wanted a new toy. I cannot say that I needed more speed or even that this will make me more productive. I sure can't explain why I bought an add-on that costs three times what my computer cost, but I believe that I am going to like it a lot. Now, can anyone tell me whether or not I now have a C4064C?

# JIFI

JIFFYDOS ADVICE By Charles S. Duncan

A while ago I ordered JiffyDos with an extra chip for my 2nd drive from Run Magazine. I didn't receive the 2nd chip or a book of directions to use the JiffyDos. After writing to them a couple of times, I did get the chip for my other drive. No directions, however. Now their company is called <u>Techmedia Special Products</u> at 80 Elm Street, Peterborough, N.H.

I would recommend that our members be careful about ordering anything from them. In addition, don't order any CMD products from this company. CMD warranties are no good in this situation. In the JiffyDos User's manual are two statements:

1. "...providing the buyer:"

"1. Purchased the unit directly from Creative Micro Designs, Inc."

2. "This offer is only valid with units purchased directly from CMD."

By the way, I had written to Loadstar about something and asked if they could send me a copy of the directions for JiffyDos, since I knew they used it in their computers. Amazingly, Jeff Jones sent me a complete manual, explaining that he had two of them. Loadstar is a great disk magazine and the people there are truly kind, generous, and very knowledgeable friends. I have bought the disks from #24 and only now, after becoming a member of <u>Meeting 64/128 Users</u> Through The Mail, do I find that I could have been subscribing at 30% off. I should have joined with you long ago.

**Editor's Note:** I posted a question on Q-Link as to who was liable for the warranty of CMD products purchased through Techmedia Special Products and received a reply from a Q-Link member. They stated that products purchased from Techmedia come from CMD, thus CMD will warranty these products. I would suggest calling CMD at 1-413-525-0023 to verify the above.

7

#### CMD's FD-4000 DISK DRIVE By Kenneth Jewell

I have had my CMD FD-4000 disk drive for about two months now and must say I am very pleased with it. It is about 1/4 the size of a 1571, is quieter, faster, more versatile, and has a much greater storage capability. I have not had sufficient time to try out all of the direct access commands yet, but so far, what I have tried, have all worked.

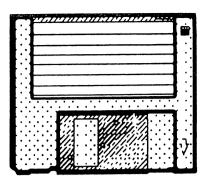
The documentation is put up in a nice loose-leaf binder, and it seems to contain the pertinent information. However, the nitty-gritty how-to-do-it is all in the late sections or in the Appendices.

I have tried out a few programs for the CMD Hard Drives and RamLinks and they work with the FD-4000. So far it has obeyed my commands with one exception. It refuses to save a drawing made by the Abacus Cad-Pak program. Strangely, it copied the program from a copy-protected disk and it runs fine, but even when the program is loaded from the 1571 and a drawing is made... it will not save it. It does not show a disk error, but the screen prints "NO SPACE AVAILABLE" even though the directory says there is 6400 blocks available on a freshly formatted disk. I can copy the drawing programs from the 1571 however.

The greatest feature is the swap button. Although it is switch set as device 10, one press of the swap button and it becomes device 8, and the 1571 which was device 8 is now device 10.

A couple of years ago, I bought GEOS 2.0, but never used it. At that time, I did not have an 80 column monitor and didn't like the idea of switching disks back and forth I can get all of GEOS on one FD-4000 disk, so in the near future, I may learn to use GEOS.





#### ANSWERS TO READER'S QUESTIONS

To Harold Hodges about the C64/128 "Audio In" pin: I read somewhere recently that the pin was supposed to let you digitize sound from an external audio source such as a tape recorder. However, there is no memory location where you can read the input level. This is a shame, because then it would indeed be possible to digitize sound. Actually, while you can hook up any "line level" audio source (CD player, tape recorder, amplifier "line out"), what you can do with it is not quite as compelling. Quite simply, you can merely route the sound through the "Audio Out" pin of the computer. The SID chip has three filters which works exactly the same way with the external input sound as they do with the SID chip's own three voices. Whether or not the audio input is fed through the filters is controlled by bit 3 of memory location 54296 (\$d418). It's a mere novelty feature, as the quality of the sound throughout is quite terrible. Alf H. Jonassen

To Mike Harrison about NewTools2: NewTools2 is part of "DweezilDisk 1", a product of Quincy Softworks, 9479 E. Whitmore Ave., CA 95326-9745. It is available for \$17.95: overseas customers add 15%. David B. Ferguson, a very bright GEOS programmer who, along with his dog Dweezil, IS Quincy Softworks, offers very fast and friendly service. Please support the independent programmers who work night and day to provide you with great Commodore software. Alf H. Jonassen

#### C-128 FREEWARE By Jim Russ

Two interesting programs I received recently for the C-128 are freeware. Freeware in case your don't know by now is not "free". Few things in life are nowadays. This does not mean that you have to pay for the programs. If you are one of those who just like to collect programs and like me you like to pass them on to others, then you have paid your fee. This is, after all, what the authors want. The idea behind freeware is that it is freely given in the hope that if you find it useful you will reward and support the authors in the hope that they will continue to supply low cost quality programs. It remains to be seen if, in fact, this philosophy works.

If the two programs I received are any indication of the quality of programs you can expect, then one-half of the ingredients is present. These are certainly quality programs. I hope that if you use these programs, you will supply the other half, the contribution. The authors ask that you send what you think they are worth Doc files are included on both disks.

Rull-v-dex by John Sheek is pretty much what the name implies. It is a data base program based on the idea of the old rotary card file used by many offices to keep names and addresses handy. The author has expanded on this concept to provide additional functions such as the ability to print mailing labels from all or any number of the cards. If that's not handy enough, how about dialing the phone number, using a 1670 or other Hayes compatible modem, of the "card" shown on the screen. Or you can dial a number directly from the key board. You say that's not handy enough! How about printing out mailing labels as a reminder to send out those birthday, anniversary, or Christmas cards a week in advance!

Using the fast search of the computer will find the phrase you are looking for in the field you specify and display it on the screen. Once there you can edit, print the contents of the card or just a mailing label, delete the card or dial the phone number on that card. One of the handy features of the program is a default file for city, state and zipcode fields. These are entered for each new card added. If they are not the right ones, just type in the correct one when you come to these fields. Any extra letters in the field are automatically deleted when you hit return.

About the only fault I found with this program is the inability to delete a single letter to correct a spelling or typing error. Pressing the delete key deletes the entire entry forcing you to start over. Changing this function to a double key stroke would over come this fault.

Commutare 128 Disk Catalying System by Ralph Decker and Bill Ewing. Again, the name says it all. This program is better then some I have purchased for \$25 to \$30. Let me say right now that I have yet to find the ideal C-128 or C-64 cataloging program. Some have come close, but all have fallen short of my ideal. This one will read 1571 GCR formatted disks but not CP/M It has a feature to toggle between 1571 and 1541 mode so that you can read flippies or single sided disk with data recorded on both sides. It supports the use of two drives so that cataloging can be done on drive # 9 while data is stored on drive # 8. It has a built in Disk Utility Menu which will let you do almost everything that is a valid command to your disk. Of course it reads the disk and allows you to select some or all of the programs for cataloging. You can view & print files, read the disk directory or delete a program. Sounds like a lot, but I wish there were more! Both these programs are worth having. Send me a disk if you can not find them and I'll make you copies.



# TIPS FOR THE VIDEOBYTE USER BY: Jim Caldwell

Here are some tips to keep in mind when using the VideoByte Digitizer Cartridge (some of these may work with other digitizer cartridges also).

During the WINTER months, as it is now, you will find that VIDEOBYTE doesn't seem to perform as it should. The pictures may appear to be awfully DARK, even if you're using the VIDEO AMPLIFIER control they suggest you purchase from Radio Shack. This is because the chips in VIDEOBYTE that convert the video information so the C-64/128 can use the info, are TEMPERATURE SENSITIVE. As the cartridge gets colder (even if your room feels warm to you) the pictures will get darker.

The BEST way to overcome this problem of VIDEOBYTE being cold, is to take a DESK lamp that uses an bulb INCANDESCENT 40 60 watt ٥ľ (NOT-FLOURESCENT). Place it a few inches (about 3 to 4) away from the cartridge, much like you might have seen in restaurants where they keep food warm. Turn on the lamp and hook up your VIDEOBYTE to something like your VCR or something that will give it a constant picture. Run the software using the (A)DJUST feature. It should only take about 5 to 15 minutes to warm it up enough As it warms up, the picture will get LIGHTER and you will see more details and the contrast will improve in the picture (such as BETTER GREY levels). Now try adjusting the external VIDEO AMPLIFIER (if you have one, it would go between video byte and the VCR) to get the best results. Since the results of this can vary (because of different room temperatures) you'll have to fool around with this until you get what you like.

If you use a VCR to capture pictures from, and it has a SHARPNESS control on it, set that to the EXTREME position. The sharper the picture is, the better the VIDEOBYTE picture will be. If you're not using a VIDEO AMPLIFIER to control the video brightness, you should get one or you might even consider getting a VIDEO TITLELER or VIDEO MIXER (such as one from an electronics outlet or Mail Order). With that, you can control the brightness as well as the COLOR TINT (which can make a HUGE DIFFERENCE). Even some of the cheap one will make the pictures sharper and give you some graphics and LETTERS as well as the ability to connect two VCR'S together (or a spare computer and VCR) letting you merge TWO pictures together.

You may also find that with VIDEOBYTE you can sometimes get a better picture with the (A)DJUST feature over using the (C)apture feature. Just press 'A' at the main menu, when

you see the picture you like the best. HOLD DOWN 'M' until you get back to the MAIN MENU.

ALSO you will find that VIDEOBYTE (the Version III upgrade) offers TWO (2) video screens you can work with by pressing 'X' to e(x)change or swap screens. If you capture pictures

with both, (even if they are identical) you may find that one appears to be TALLER than the other picture, maybe giving it more of the details you would like to have. Just remember when you use the second screen, it may appear to have strange colors at first. You should VIEW it first and press '+' or '-' (for light or dark) to clear the ODD colors and set up the basic MONOCHROME screen. After you capture the picture you can then get the colors you want.

If you have the original VIDEO BYTE V2.0 1989 disk that came with a lot of the VIDEOBYTE II cartridges, you won't have the E(X)CHANGE feature. You should write to the SOFT GROUP and they will send you the NON-GEOS VIDEO BYTE III 1990 software upgrade disk. This will give you 4 NEW features that you won't have with V2.0, one of which also includes the ability to print your pictures. It probably wouldn't hurt if you sent them a couple dollars to cover their postage to send the disk to you.



#### ? QUESTIONS ?

From EMIL KALAR: I purchased the Panasonic printer buffer chip from La Paz Electronics, Int'l. (See Mailink 1/93). This chip will fit most Panasonic dot matrix printers, but only instructions for the unfortunately, KX-P1124 are given. If anyone knows how to open the shell of the KX-P1180 printer to install this chip, please write to me. I do need help! EDITORS NOTE: I have this same printer and I installed the buffer chip. There are 2 slots, one located on each side of the front leg pads of the printer. Insert a long bladed screwdriver into each slot and probe around until you release the plastic clip that holds the top half to the bottom half. If I recall, you have to push up and turn to release this. You will also need to remove the platten knob by sliding it off the end of the platten shaft. Then it is just a matter of finding the unused socket and inserting the chip. If anyone else can shed more light on this subject, please send Emil a note.

From **Tom Coleman**: I have Geos 2.0 and Fun Graphics Machine and have been told that I should use an REU (Ram Expansion Unit) to get the most out of these two programs. I have no idea how an REU connects or how to use one. I would like more information before making a purchase. I am a beginner in computing. EDITORS NOTE: A good source to start with is

the Geos 2.0 manual. (Pages 77 thru 83)

From **Donald A Squire**: Does anyone know who produces 64 Doctor and if it is still available?

From Alf H. Jonassen: Does anybody know what has happened with the Magazine Twin Cities 128? The last issue I received was No. 32.

From Judy Kern: I use "The Write Stuff" word processor to produce a newsletter, but would like recommendations as to other word processors that might be better for the purpose. I would also like advice on programs for producing note paper and memo sheets, with graphics. From **Robert W**. **Ritchey**: I got, on trade, a VIC 1525 printer. It isn't getting any operating current to the printer head. The carriage travels and returns and feeds a line, but no printhead action. I would like to get a schematic or other information for this printer. The members may write to me or call me at (618) 283-3360 after 4:00 P.M

From **Rex Whetzel**: I am having trouble making back up copies of some software programs. (ROCK 'N ROLL TRIVIA in particular) After corresponding with Software Support International's tech line, they suggested that it sounded like I would have to defeat a fat track protection scheme. If anyone has had success copying fat tracks I would appreciate your reply. One last note: SSI told me via the phone that they will no longer be doing parameter work for the Commodore 64, (one more nail in the 64 coffin).

From **Greg Hoover**: I have been hearing a lot about the bugs in Super Snapshot and would like to hear from other members concerning problems they've run into.

From **Cliff Erickson**: Would anybody know of a program to use or how to put headings, titles, etc. on video programs? I would like to be able to put titles, dates, persons involved, etc. on video already take. Can this be done? Can it be done where the credits roll down the screen like a movie with the movie in the background?

EDITOR'S NOTE: Tenex (800-776-6781) sells "Home Video Producer" by Epyx which will do most of the things that Cliff asks for. At \$19.95, it is reasonably priced. The only requirement is to have a VCR or Video Camera near your computer. Any other information from readers should be sent to Cliff.

#### PRESS PLAY ON TAPE By Jim Russ

There it was on the screen where it shouldn't be. That darn message "Press play on tape". This was about the forth or fifth time in a row it was displayed. It wasn't there until I'd tightened the last screw on the new case. Did I mention that's what this is all about? I saw this ad for a case just like the ones used on the new C-64C. I have looked with envy at the new style case on the "old" 64. It's so... much nicer looking than the old case. However, I could hardly justify spending the cost of a new computer just for looks. But a new case??? That much I could spring for. The cost for my new "Slimline C64 Replacement Case" was \$20 from this individual. If you can find one your cost may be different. Or you may find an actual new style case!

The installation instructions were quite straight forward. Remove a few screws to open the old case, disconnect a few unpluggable wires, remove a few more screws from the chassis and a few more from the keyboard. The hardest part was removing the L.E.D. Power Indicator from the old case. This takes a bit of prying and pulling. But I got it out without breaking it

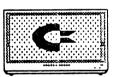
Now comes the easy part. Or so I thought! Just put it all back in the new case. This didn't take me any more time then the five or six minutes it took to remove it from the old case. I plugged in the power source and turned it on to check it out. There was the familiar C64 screen. Great! Now all I had to do was close up the case and I was in business. I put in the screws holding the case together. Set down my "new" computer, turned the power on and sat back to admire my work. There it was!!! Press Play On Tape! What's this? That shouldn't be there!

Well back to the drawing board. Out with the screws, open the case, plug in the power and turn it on. It checks out OK! What's going on? Why when I put the case together does it say "Press Play On Tape"? There's got to be a reason. What else did I disturb while making the change from one case to the other? Of course! The RF shield.

There is a foil covered paper shield over the top of the printed circuit board to prevent emission

of RF (radio frequency) waves. RF can interfere with radio and TV's placed too close to the computer. Thus the RF shield. The shield is grounded to the chassis of the computer by " copper strip. When changing from one case to W other it was necessary to lift up the shield by freeing the grounding strap in order to reach the front screws. While I replaced the shield when installing the board in the new case, the contact was not a firm one. Pressing down on a corner of the shield near the strap, made or broke the contact. This was the cause of "Press Play On Tape". As I was not able to firmly fasten the grounding strap, I chose to eliminate it. And the Shield. No more "Press Play On Tape"!!! So far it has not caused any TV or radio interference that I can determine. But for this unexpected problem which was not covered in the instructions, the whole job can be done in less than fifteen minutes.

It sure looks great! The case is a good match for Commodore's, lacking only its logo. If you should obtain one, I hope this keeps you from seeing "Press Play On Tape"!



# ADDRESS CHANGES & CORRECTIONS

Vincent Grifo's house number should be changed to #3614.

**Gerald McDonald's** address should be: 4009 Frieda Klamath Falls, OR 97603.

# BUY - SELL - TRADE

Hubert Albachten (new member listed in this issue) has: Super Graphix Jr (\$25), Slik Stik joystick (\$3), Cartridge Expander (\$12), Epyx Fastload (\$12), and Epyx Vorpal Utility Kit (\$10). Also the following items that are all new: M-1 Mouse (\$20) and Commodore C-16 (\$15). Phone: 707-539-0943

John Foster has: The following books for the Vic: Stimulating Simulations, Vic Graphics, Vic Games, Vic Revealed, and Mastering the Vic-20. Books for Basic: Simon's Basic, Fifty Basic Exercises, and Basic for Beginners. The following manuals: (no software) PaperClip, Cal-Kit, Vizastar Information Processor (Spreadsheet, Database, and Graphics). Will take \$10 for everything and you pay the shipping.

Alf H. Jonassen has informed this editor that he is changing systems and has a "Bonanza" of Commodore books, equipment, and software for sale. He is selling them at "Flea Market" prices. \$15 (US) for the first item and then \$5 for each additional item. Shipping and handling is free world wide.

Editor's Note: With all due respect to Alf, his list was so extensive that I couldn't include it in this issue of "The Mailink". I would suggest that you send Alf an envelope with your mailing label affixed along with \$2 to cover return postage and copying costs for the list. If any member of our group would like to perform a service to Alf and our group, why not write him and offer to photocopy and mail out his list in this country?

WROTT 10 3/15/93

Ignatius H. Encoyand has available at no cost, back issues of the following magazines: Commodore, Run, Compute's Gazette, and Commodore Ahoy. Ignatius will pay the shipping costs. This is quite a deal for someone!

Keith Keller wants a listing of the fastest known algorithm for converting PETASCII to TRUE ASCII and back. Also wanted are those old "Gary's Kitchen Gamemaker" sports and science fiction library disks. Send asking price.

Reiner Richter has the following games for sale. Prices include postage. <u>Total Eclipse</u> \$12, \* <u>The Three Stooges</u> \$15, <u>Predator</u> \$15, \* <u>Rocket</u> <u>Ranger</u> \$15.

\* These games will only work on North American computers (ie. NTSC). Due to heavy bank charges for foreign checks, U.S. members send checks to Reiner but made out to Jean Nance. Jean will hold money toward Reiner's 1994 dues.

**Charlotte Mangum** has the following for sale: JiffyDos 6.01 chip, switch, and manual for 128D-1571. \$43 which includes shipping. Home phone - (804) 566-4771

**Rex Whetzel**: If anyone has the following for sale, please write me.

- 1. SHOTGUN ONE
- 2. SUPERSNAP SHOT V5
- 3. ACTION REPLAY V6
- 4. FAST HACKEM

Only interested if manual accompanies.

Joey Ashby has the following for sale: C-128D computer with JiffyDos - \$215 1571 disk drive with JiffyDos - \$95 1571 disk drive (noisy stepper motor) - \$60 Partner 128 cartridge - \$10 Assorted software including Superbase 64, Financial Planner 64 and many games. Phone (302) 368-0153.

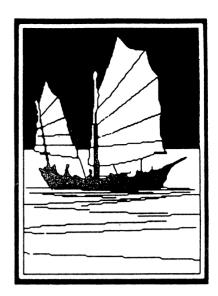
**David L. Drew** wants: Mavis Beacon Teaches Typing for the 64. Will buy outright or trade for programs that I have. I have dozens of commercial programs.

**David L. Drew** has the following for sale: 128D with Magnavox monitor (has RGB and composite which allows both 40 and 80 columns), and an Okidata 120 printer. The computer and monitor are in excellent condition. The printer is in very good condition but has "quite a lot of miles on it". I would sell all three for \$275.00 and will include quite a bit of PD and shareware software.

# REUSING DISKS PREVIOUSLY FORMATTED ON OTHER DISK SYSTEMS By Charles Sokol

So you found a bargain. You bought some used floppy disks of software for IBM, Apple or Atari. Or you have a number of disks that you used with a disk drive that you didn't realize was out of alignment. Now you are going to reformat them to use them on your Commodore 64 or 128. If you use such disks on more than one disk drive. or if the alignment on your disk drive changes a little, you may find that after you reformat them on a particular disk drive, you may not be able to read them on some other disk drives or, if your drive alignment changes, you may find that these reformatted disks are much more sensitive to small changes in alignment than other disks. The reason is as follows: on all disk systems, there is a blank (unformatted) space between tracks, so that if the disk is read on another disk drive that has a slightly different alignment, the disk drive will read part of each track and part of the blank space (random signals) between tracks. All that will happen as a result is that the signal will be a little weaker than normal, since the disk drive is not reading the full track width This is usually not a problem since the signals are interpreted digitally. However, IBM Apple and Atari use different track arrangements (the tracks are placed at different locations on the disk). Therefore, when you reformat IBM, Apple or Atari disks on your Commodore disk drive, the space between tracks (where the disk drive does not format the disk) may contain remnants of a disk track from the other system. Now when the disk is read from another Commodore disk drive with a slightly different alignment, instead of reading part of each track and part of the space between tracks, the disk drive will read part of the Commodore track and part of the residual IBM/Apple/Atari track, resulting in a mixed signal which is not meaningful.

How do you avoid this problem? If you are going to reuse disks that are either formatted on another disk system, or have been formatted on a misaligned Commodore disk drive, you must bulk



erase the disks first. This is the only way to erase the entire disk, including the spaces between tracks. Find a friend who has a magnetic bulk tape eraser. It can be a bulk tape eraser designed for use with reel to reel tapes, cassettes, or video tapes. You can usually bulk erase 3-4 disks at a time, depending upon the particular type of bulk tape eraser. Place 3 to 4 disks (in their sleeves) on top of each other, with the disks about two feet from the bulk tape eraser: turn on the bulk tape eraser: slowly bring the disks to the tape eraser; rotate the disks 360 degrees on the bulk tape eraser; slowly remove the disks until they are again two feet from the bulk tape eraser and then turn the tape eraser off. You will now have totally blank disks that can be reformatted on any type of computer system that can utilize that type of disk.

Incidentally, those of you also in the IBM world can encounter the same problem by formatting a DSDD disk on a double density (370K) disk drive. Writing to the disk with that drive, then writing to the disk on a high density (1.4 meg) disk drive, and then trying to read the disk again on a double density disk drive.

If club members have this problem, but they do not have access to a bulk tape eraser, I am willing to bulk erase the disks for them. All they will have to do is pay postage both ways.

### Old Software Never Dies... It Just Kind of Hangs Around By David L. Drew

The past few years I have added to my computer systems and each time I bought more hardware, software was usually part of the deal. Because the hardware was the same price with or without the software. I took it even if there were some programs that I didn't think I could use. Much of the software I do use; but much I don't. I tried advertising in "The Mailink" and then the Evansville newspaper. I am still waiting for the FIRST call or letter. And I just couldn't bring myself to reformat the disk and throw out the documentation. What a terrible waste! (Didn't your parents always tell you that people in China don't have enough software?) So there it was, gathering dust, taking up space, getting in the way, and just plain being a bother. "Doesn't anybody want this great stuff?" I asked.

"Yes!!!" was the reply (well sort of). I discovered three companies that buy used software. I have contacted all three and will give a brief run down of what I found out about each one. Please note: "Your gas mileage... er I mean, experience, may vary from the numbers shown here." So contact the company for their latest policy.

1. Software Support International. This one you have probably heard of. When I sent my list, I found out that they have a fairly simple system that divides all used software into 3 categories. They will give you \$5.00 for the program, \$2.50, or nothing (if they don't want it). The amount you get is for credit only: they will deduct the credit from your next order for anything in their catalog. I have not sold any software to SSI for two reasons. First, some programs just seemed to be worth more than \$5.00, such as GEOS 2.0. Second, whenever I tried to buy used software, the program that I wanted was always gone.

2. Centsible Software. They will pay cash or give you a credit (the credit is always for a higher amount). If you have used software that you purchased from them they will give you 50% cash or 75% credit of the current selling price (50% credit for titles under \$7.00). I was pleased with the offer this company made for the software that I traded in. I think the 75% credit is a very good deal too as it means you won't get "stuck" with software that you decide you don't like. I got Falcon for my Amiga and it worked fine with the 1.3 OS but not with the 2.04 (I upgraded soon after I got the program). I sent it back and got most of what I had paid for it. This company has mostly software but does have some used hardware items. I have been satisfied with their service.

3. Bare Bones Software. This company also gives a cash price and a credit for software that you want to sell. If you get something you don't like you can trade it in within 30 days for 80% of the used price. This company also has some new software, and new and used hardware. I was pleased to do business with this company also.

I have found the prices offered range from \$1.00 (eg. Outrun) to \$15.00 for GEOS 64 2.0. If the company doesn't make an offer it means that they don't want it at that time. However, they might buy it later on. The first time I offered Cribbage none of the companies wanted it. A few months later, Centsible gave me \$3.00 (more than I, a non-cribbage fan, would have paid for it!).

So, if you have some software just hanging around, you may want to give one of these companies a try. You can get something out of it and someone else gets to use the programs you trade in. Seems like a "win-win" proposition to me.

Companies cited in this article:

Bare Bones Software 940 4th Avenue Suite 222 Huntington, WV 25701 1-800-638-1123

Centsible Software PO Box 930 St. Joseph, MI 49085 616-428-9096

Software Support International 2700 NE Anderson Road, Suite A-10 Vancouver, WA 98661 800-356-1179

### USING CARTRIDGE BOARDS WITH THE C64 OR C-128 By Charles Sokol

In a recent issue of Commodore MaiLink, there was a question regarding the use of cartridge boards with the C-64 or 128. Cartridge boards have slots for 4 or 5 cartridges. The Cardco board has 5 slots and I believe that the Aprotek board has 4 slots. Both of these have on/off switches for each slot so you can select which cartridge will be active. If two or more cartridges use different memory areas, it is possible to have more than one cartridge active at the same time. Both of these units also have a reset switch You

can set all cartridge slots to "off" which allows a C-128 to boot in the 128 mode. There is only one problem that I know of regarding the use



of cartridge boards, high speed and memory bank switching cartridges may not work fully or at all. Some examples of such cartridges are Final Cartridge (all versions), Super Snapshot (all versions), and RAM cartridges. In some cases, such cartridges will work properly, or at least some of its functions will work properly if the cartridge is placed in the slot closest to the computer. This minimizes the extra signal delay time between the cartridge and computer, caused



by the increased electrical path through the cartridge board. In some cases with high speed or bank switched

cartridges, they not only require being in the slot nearest the computer; they also require that you turn the computer on (if it is already on, you have to turn it off: wait ten seconds and then turn it back on); they will not work by pressing the reset switch (but at least you won't have the wear and tear on the computer's cartridge port and the cartridges themselves by having to constantly insert and remove cartridges). The Cardco board is difficult to find, but it is more flexible than the Aprotek board. Only the Cardco off only certain to turn allows board communication lines to the cartridge, which allows you to make RAM images of the cartridge code, which then allows you to make copies of the cartridge code on disk or tape (except for bank switch cartridges). I believe that the Cardco board was discontinued about 4 or 5 years ago. (I am trying to repair my Cardco board. Does anyone know how to diagnose and repair these?) The Aprotek board has also been discontinued, but Software Support and Tenex still have them in stock.

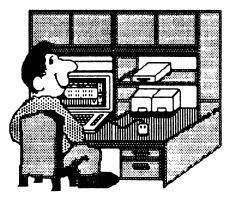
**Co-Editor's Note**: I have an Aprotek 4 slot cartridge expander and have been able to use my Warpspeed cartridge and my 1750 Clone REU on it by just using the on/off switches on the expander. I have tried to use my BBG Ram 2 meg REU on it but it wouldn't work. Anyone have any ideas as to what to do to make the BBG Ram work with the expander?

#### ENVELOPE FOR GREETING CARDS Hugh MicMenamin

With the ability to generate cards that are similar to Printshop, the need for mailing envelopes is necessary. This program, ENVELOPE FOR PS, can be entered and will print an outline of an envelope that is the correct size for the french folded 8 1/2 by 11 sheet that makes up the greeting card.

```
10 print"[CLR][CTRLn][CTRL2]Print Shop Envelope by Hugh
McMenamin": open4,4,7:cmd4
20 c$(1)="C":c$(2)="U":c$(3)="T":c$(4)=" ":f$(1)="f":f$(2)="o":f$(3)="1"
30 m$=chr$(221):t$=chr$(163):u$=chr$(164):f$(4)="d":d$="C U
T": q=16: qosub170
40 forx=0to19:printu$;:next:printd$;:forx=0to19:printu$;:next:print
50
fory=1to6:q=15-y:gosub170:print",";:q=43+2¥y:gosub170:print",":next:q=8
60 gosub170:gosub180:print"..":q=4:gosub170:print". - :";:gosub140
70 print": - .":q=8:gosub160:forz=1to4:print" ";c$(z);m$" ";f$(z);"
:";
80 gosub140:print": ";f$(z);" "m$;c$(z):next:q=10:gosub160:q=33:gosub170
90 print" - .:";:gosub180:print":. - ":gosub150:fory=1to3:forz=0to7
100 print" ";:next:printc$(y);m$;:gosub140:printm$;c$(y):next:gosub150
110 fory=0to1:q=9+y:gosub170:print",";:q=56-2*y:gosub170:print","
120 next:q=12:gosub170:forx=0to23:printt$;:next:printd$;
130 forx=0to23:printt$;:next:print#4:close4:end
140 q=57:gosub170:return
150 fory=0to8:q=8:gosub170:printm$;:gosub140:printm$:next:return
160 fory=0toq:q=3:gosub170:printm$"
                                       :";:gosub140:print":
"m$:next:return
170 forx=0tog:print" ";:next:return
180 forx=0to57:pr%nt",";:next:return
190 n$="0:envelope for ps":open15,8,15,"s"+n$:close15:saven$,8
```

After the envelope has been printed, cut on the indicated lines and then fold on the dotted lines. Any glue may be used, but I have found that Glue Stick by Dennison (found in K-Mart) works well with the least mess and inconvenience.



#### A FEW WORDS FROM THE CO-EDITOR By Dennis Page

I didn't think that there would be enough room for me to write anything for this issue but I was wrong. That's why my column is at the end instead of where you would normally see it.

I would like to first say thanks to John Foster for making my job easier by editing, spell-checking, and converting all of the files for this issue to Geos format.

As with the last issue, I have really enjoyed putting this issue together. I used Geos and GeoPublish to layout the issue.

While I'm on the subject of Geos, I would like to let all the Geos users out there know about a new publication for you. It's called geoVISION International. It is a bi-monthly magazine with articles, reviews, and news about Geos. So far there have only been 2 issues, but it seems to be a very good magazine. The newest issue has reviews of several Desktop alternatives as well as the New Users, The Art Gallery, and Telecommunications columns. The address is: geoVISION International 816 S.E. Polk Street Camas, Washington 98607-2240. If you write to them for information be sure to include a SASE.

I used a 2°meg BBG Ram to work within as I worked on this issue of Mailink. This little unit from Performance Peripherals Inc. (PPI) is really nice. It allows you to work within 5 different 1571 RAM disks. It is battery backed and has it's own



power supply so the information that you have in it is never lost when you power down the computer. One fault I have with it is that you can't copy files between the RAM disks directly. You have to first copy to a real disk and then switch to the RAM disk that you want to copy the file to and then copy the file from the real disk to the newly selected RAM disk. I talked to PPI about this and they are currently working on a program that will copy directly between RAM disks. Okay, enough about my new toy!

The graphic at the top of this column (a picture of me) was scanned by Paul McAleer with a Handy Scanner. Most of the other graphics used in this issue came from various P.D. sources.

Thanks to all members who sent in articles for this issue. There were some articles that didn't make it in last issue that did make it this time. Keep them coming. After all they are what makes the Mailink so great.

