# -Commodore Mailink

#### NEWSLETTER OF — MEETING 64/128 USERS THROUGH THE MAIL

FRANCIS REDMOND, PRESIDENT

JULY 1995

#### MEETING NEWS

FRANK REDMOND

Greetings to all new members. whose bios are listed in this issue plus you olde members that are listed in the membership list. We welcome you all.

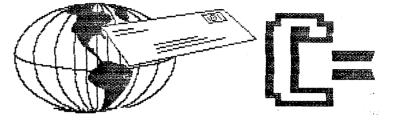
We have just completed the first year of yours truly as president of this magnificent organization of erudite and intelligent persons. I hope I have managed to maintain the same quality of service and assistance that our former president, Jean Nance established. Jean has now retired from active management of the club but will continue to act as Editor in Chief. She is Lord High Mogul Over all other editors and will continue assigning editors. Even though she is retired we will still continue to seek her advice and knowledge as I continue to try to maintain the same service that Jean established and you'all expect.

As noted in the May Newsletter, Tom Adams will be taking over as Vice President in her stead. We feel fortunate that Tom accepted the position. He already has the responsibility of distributing the newsletter and membership roster promptly and accurately. We believe that he will do an excellent job in his new capacity and still maintain promptness in issuing the newsletter.

Roger Long of the Tri-City Commodore Computer Club has compiled Issue #4 of the Commodore Products source list. He sent me a copy along with a disk (5.25") containing the same data. The list is about 20 pages and contains dealers, software and hardware suppliers of Commodore parts and equipment as well as magazines and other sources of information. Roger has stated that he will send copies of the list and/or disk to anyone for \$1.00. He requests you inform him of any other sources he may have missed. His address is: 320 Northeast C St., Apt. A, College Place, WA 99324.

Roger has kindly agreed to furnish the list and/or disk but I don't know what He may get several requests, since he has contacted 🎘 his turn around time may be. several user groups. If you have trouble getting service from Roger, Jim Green has offered to make and send copies of the disk for \$1.50. Or, I will make Xerox copies of the printouts for anyone who wants them, only I can't do it for a buck. I have to go to town (25 mile round trip) to get the copies made commercially and then send  $\frac{1}{2}$ them out. So if you want them from me it will cost you \$1.50. Any difference between my out of pocket cost and what you send will be donated to the club. Iam sure that Joe Powell is hoping that everyone will contact me and I'll do it cheaper Sorry Joe, Jim hasn't volunteered to send you any excess if he has than \$1.50. anv.

I have also received a brochure from "Paxtron Corporation". This was not included in Roger's list. They advertise that they specialize in Commodore and



Amiga parts and chips. Their phone number is 1-800-595-5534 for U.S. and Canada. Their address is 28 Grove Street, Spring Valley, N.Y. 10977.

I know this presidential message sounds more like an like an advertisement than a sermon. But of late, sources for Commodore equipment are getting harder and harder to find and I feel like information for new and/or replacement equipment is more important than a lot of empty words from me. I should add that there are several new suppliers getting in the business and some of them may be a bit underfinanced, (read Roger Long's disclaimer) Just make sure that you do a bit of checking before sending anyone a lot of money.

A report has come out that Escom (whoever they are) now owns the rights to CBM and stated they will continue the 64 line for Eastern Europe and perhaps China. Hopefully this will mean that replacements, parts and perhaps even software will continue to be available.

One more thing; a few members have requested that we include telephone numbers in their bios. We had considered this previously and been rather reluctant. However, I have received several telephone calls with no problem. If you have a listed number, there is no problem for anyone to secure it. So, anyone who wishes to list their telephone number, fax number or E-mail address in their bio is welcome to do so. No numbers other than mailing addresses will be listed in the bios unless specifically requested. Incidentally, my number is 1-903-549-2719. This should save you an information call if you wish to contact me.

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

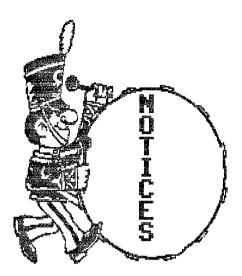
Drganization business and membership... Francis Redmond, president. Rt 7, Box 7614, Palestine, TX 75801.
Newsletter printing and distribution... Tom Adams, vice-president. 34427 39th St., Brentwood, MD 20722-1022.
Dues and donations... Joseph Y. Powell, treasurer. 5366 Fieldwood, Houston, TX 77056.
Membership addresses and biographies; corrections and changes... Brian Vaughan, 2101
Shoreline Dr. 352, Alameda, CA 94501
Newsletter... Jean Nance, managing editor. 1576B County Rd 2350 E, St. Joseph, IL 61873-9743.

#### 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 1995 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 this publication are the views of the authors and in no way necessarily reflect the viewpoints, attitudes, or policies of 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 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

-2-



SEPTEMBER MEMBERSHIP LIST COMING UP! Don't forget - the next issue of The Commodore MaiLink will have the membership list mailed with it. Read over your "bio" in the March membership list. If you would like any changes, notify BRIAN VAUGHAN right away. Also notify Brian if you would like your name marked as a "Friendly Correspondent" in the list. In addition, if you would like your telephone number, FAX number, or INTERNET and/or FIDO telecommunication address included in your bio, please send that information to Brian.

PLEASE: Don't wait until you see the membership list in September and <u>then</u> decide you would like additions or changes! Bio changes will not be published until March, except for address changes or corrections.

SEPTEMBER "INFORMATION" SECTION ALSO COMING UP! The "Information " section has the listing of "Resource" people, who agree to help others with particular problems or topics. It has other information about the group, including details on user group special prices. If you would like to volunteer as a "Resource", notify TOM ADAMS as soon as possible.

MAILINK MISSING? TOM ADAMS generally gets the newsletter in the mail between the 10th and the 16th of the month of issue. If you don't have your MaiLink by the 25th of the month, please notify Tom and he will send you a replacement. A certain number of copies do get lost in the mail, sorry to say.

CONGRATULATIONS to Bob and Leonora Raagas Hunter on the birth of Robert Nicanor Hunter on May 5th. Some of us have seen a picture of little Robert, and he looks bright-eyed, bushy haired, and ready to start computing soon.



### JEAN NANCE

Bob Hunter, 1 Brown's Heights, Grand Falls-Windsor, NF, A2B 1E1, CANADA, will be the editor of the September Commodore MaiLink. Please send submissions to him to arrive by August 15th, remembering that mail from the U.S. to Canada may take as much as 10 days.

Help Bob by submitting anything over about a paragraph on disk. Preferred formats are Geos or Pet ASCII sequential, although Bob can probably handle files from most word processors.

This issue was done using The Write Stuff 128, in the "Illustrator II" version of which Hugh McMenamin is the author. This uses graphics in Fun Graphics Machine "clip-art" format. The print-out was on a Star NX-1001 printer. Pages 8, 9, and 10 were provided by Roger Detaille, in hard copy, to be inserted into the master copy.

Thanks to our new vice-president, Tom Adams, who takes charge of getting each issue photocopied and mailed out. Thanks also to Brian Vaughan who provides the mailing labels for the MaiLink.



A LETTER TO THE EDITOR

To the Editor,

Mea culpa, mea culpa. I must apologize for a hideous omission in the May MaiLink. Fully half of the article "What's In a Name?" by Roger Detaille is missing! I managed to turn the GEOS cut-and-paste environment into cut-and-forgetabout-it. I did manage to catch the error before the text files were forwarded to Jim Green, so the May "MaiLink On Disk" has the complete article. My apologies again, to both Roger and the readers. I'd also like to apologize for forgetting to use a spellchecker. Most errors in spelling were caught, but several still slipped through.

Gary Noakes

### WHAT'S IN A NAME?

Roger Detaille

I am sure that every programmer has, at one time or another, wound up with one of these files. All you see in the directory is a comma. By their very nature, these files are practically impossible to load or to erase. If you use a comma as a filename to load or erase such a file, you get a syntax error. How do you handle such files, or better yet, how do you avoid getting them in the first place?

If you want to create one deliberately, use the following lines:

5000 input"filename";f\$ 5010 open2.8,2,"0:"+f\$+",s,w" 5020 for z=1 to 20 : print#2,sqr(z) : next z 5030 close2

Now, when you run this little ditty, don't enter a filename, but hit RETURN instead. You wind up with a comma file. Impossible to load and impossible to scratch. Why? F\$ doesn't contain anything, so the program looks for the first character it does find. Where? Look at ",s,w" in line 5010. The first character in quotes is a comma, so it uses that one instead. Funny thing, though, you may have more than one on the same disk without encountering a syntax error. Now, things don't look so funny anymore.

Suppose, you wound up with one of these pesky files; how can we get it back. It is rather simple: Load"\$0:?",8 and list it. You will be shown all files that have only one character as a filename. If you have other files with only one character, rename them immediately as a temporary measure. Use the DOS Rename command. After you have renamed them, use the same command again to list all the remaining onecharacter files. Only comma files should show up now. Scratching them is easy:

open1,8,15,"s0:?":close1 and press return.

All those files should be gone by now. But what if you want to reclaim some of these files? Usually, these files have been saved as SEQ files, and therefore are impossible to load. I love digging into programs, so to read one of these files, we use the following little program:

10 open2,8,2,"0:?,s,r" 20 get#2,a\$ 25 ss=st 30 printa\$; 40 ifss=0then20 50 close2

This will read in the file and display it on screen. To resave the file, we have to expand this little program, so it will open a write file, and as it reads in the file, it will write it back to the second file. Give it a name that means something, like Nervesaver. Add the following lines:

15 open3,8,3,"0:nervesaver,s,w" 35 print#3,a\$; 45 close3

In case of a PRG file, it is rather simple: LOAD"0:?",8 and hit RETURN. Once loaded, resave the file and give it a name.

How do we avoid these critters? First, there should be a trap in the first program, following line 5000. If only the RETURN key is pressed, without a filename, then the program should ask for an input again. Sometimes you may overlook this little trap and, as a result, wind up with a comma file.

Another way, of reclaiming them, is to use a sector editor, go to the offending filename and give it another one-character name and resave the sector back to disk. Or better yet, since filenames less than 16 characters are padded with shifted spaces, fill in a meaningful name, and save the sector back to disk. In this manner you may save all of your files in case you have more than one of those files on the same disk.

As always, when working with a problem disk, make a copy of it and work on there, This way, if you make a mistake, you don't screw up your original disk. That's all there is to it. Simple, right?

#### SORTING LISTS WITH A WORD PRODESSOR Part I

#### Bob Hunter

٥

Recently as I was browsing through old issues of B-BUG, the Busy-Bee User Group newsletter, I noticed that they contained many articles on using The Write Stuff to sort lists. "I wonder if Pocket Writer can sort lists as well as TWS can," I thought. Naturally I investigated, and to my surprise I discovered that it could do so even more easily than TWS could.

To illustrate how TWS and PW sort lists, I'll use the following table of great novels:

Don Quixote	Cervantes, Miguel de	1615
Tom Jones	Fielding, Henry	1749
Moby Dick	Melville, Herman	1851
War and Peace	Tolstoy, Leo	1869
The Brothers Karamazov	Dostoevsky, Feodor	1880

#### Sorting by the First Column

Let's start by using TWS to arrange the rows in the table alphabetically by the novels' titles:

1. Eat the table by putting the cursor on the first row of the table, tapping CTRL and "e" (for "eat"), and pressing "p" (for "paragraph") five times and RETURN. (See pages 10 and 18 or 19 of the TWS manual for more on eating text.)

2. Restore and sort the table by tapping CTRL and SHIFT-R (SHIFT and "r" at the same time; "r" stands for "restore").

3. You'll be asked to choose between an ascending (A-Z) or descending (Z-A) order. Put the cursor on "A-Z" and press RETURN.

4. You'll be asked to choose what column (1-10) you want to sort on. Put the cursor on "1" and press RETURN.

Don Quixote	Cervantes, Miguel de	1615
Moby Dick	Melville, Herman	1851
The Brothers Karamazov	Dostoevsky, Feodor	1880
Tom Jones	Fielding, Henry	1749
War and Peace	Tolstoy, Leo	1869

To perform the same sort with PW, the following steps would be used:

1. Define the table as a block by (a) putting the cursor on the "D" in the upper left corner of the table and pressing CTRL and "r" (for "range") at the same time and (b) putting the cursor on the "9" in the lower right corner of the table and pressing CTRL and "b" (for "block") at the same time.

2. Put the cursor anywhere in the first column of characters in the table and press CTRL and "s" (for "sort") at the same time. (If you wanted to sort in descending order, you'd press CTRL and SHIFT-S at the same time.)

#### Sorting by Another Column

So far the two word processors have performed equally well. However, let's now try using them to arrange the rows alphabetically by their authors' names. Again we'll start with TWS. Step 1--okay. Step 2--okay. Step 3--okay. Step 4--Oh! Oh! What column do I want to sort on? According to the "Sorting Columns" tutorial with version 1 of TWS, "Columns are separated by one or more spaces." Thus the authors' name is in the third column in three entries but is in the fourth column in the other column. What am I going to do?

I'll make the titles the first column, the authors' names the second column, and the date of publication the third column. I can do this by pressing SHIFT and the spacebar wherever a space occurs within a title or an authors' name, a SHIFT-SPACE between two characters linking them. Then when I reach Step 4 in sorting, I can put the cursor on "2" (for the second column, now the authors' names) and press RETURN.

Don Quixote	Cervantes, Miguel de	1615
The Brothers Karamazov	Dostoevsky, Feodor	1880
Tom Jones	Fielding, Henry	1749
Moby Dick	Melville, Herman	1851
War and Peace	Tolstoy, Leo	1869

The task is simpler with PW. Perform the two steps given above making one change in the second step---put the cursor on the column which contains the first character in the authors' names instead of on the first column of characters in the table.

#### Rearranging the Columns

Next, let's switch the first two columns, starting again with TWS:

1. Eat "Cervantes, Miguel de" by tapping CTRL and "e" and pressing "w" (for word) three times if you're using the original table or once if you're using the table just above, the three words being linked by SHIFT-SPACE's in it.

2. Put the cursor on "D" in "Don Quixote" and restore "Cervantes de Miguel" by tapping CTRL and "r".

3. Repeat steps 1 and 2 for each of the other rows in the table, pressing "w" only two times instead of three if you're using the original table.

Cervantes, Miguel de	Don Quixote	1615
Fielding, Henry	Tom Jones	1749
Melville, Herman	Moby Dick	1851
Tolstoy, Leo	War and Peace	1869
Dostoevsky, Feodor	The Brothers Karamazov	1880

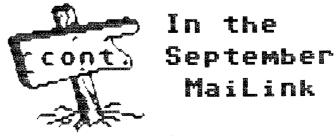
The table just above shows what I got when I started with the original table. To make the same switch of columns in PW, the following steps would be used:

1. Define the second column as a block by (a) putting the cursor on the "C" in "Cervantes, Miguel de" and pressing CTRL and "r" at the same time and (b) putting the cursor on the last space in front of "1880" and pressing CTRL and "b" at the same time.

2. Put the cursor on the "D" in "Don Quixote" and press CTRL and "m" (for "move") at the same time.

I hope that you're as impressed as I am by the sorting capabilities of both The Write Stuff and Pocket Writer. I also hope that you'll find some practical uses for those sorting capabilities.

-7-



## geoInformer

### ROGER DETAILL

Using geoPublish for your Desktop Publishing needs can be made as simple or as complicated as you want it to be. You can get by using just a few files on your work disk. The minimum number of files are the following: geoPublish, a printer driver, a text written in geoWrite format as well as the fonts used. To add a graphic, just add a photoscrap. And add one of the mega/supra fonts for a title. This leaves very little room for anything else. Use two drives if you can or an REU, as it speeds up geoPublish. With a 1581 you can add the desktop. With only one drive there is not enough room to include the desktop or else you have no more room for your document In this case be prepared for a lot of disk swapping to get back to the desktop

To start off, you have to have an idea about the layout of your project Make some sketches and then use these to guide you through the initial setup. geoPublish does not permit you to write your text as you go along. You must write your text using geoWrite. Use only indentation and no other formatting. Don't make page breaks or you will have a lot of empty spaces in your document

texts. These guide lines will appear on every page of your document. Anything else you create here, will also appear on every page. I created a border to appear on every page. At the bottom, or any other spot you may prefer, enter the words PAGE and/or DATE in capital letters. Use a small font for this, and choose a style. Whenever these two words are encountered, the page number or date will be printed instead. The date will be the one you set when booting GEOS. If you want the title to appear on every page, this is the time to do so.

To make your guide lines, move your pointer into the space below the top ruler, or to the right of the vertical ruler. It will change to a triangle. Put it where you want your guides to appear and click the mouse button. A dotted line will be drawn. Continue to place your guides, vertical and horizontal until you are satisfied that they will be all the guides you need. For the purpose of this article I chose to divide the page in two.

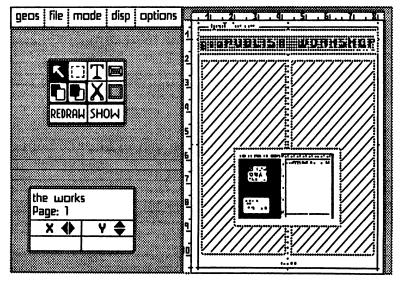
The title was made in geoPaint and then imported

85

a

bitmap However, by selecting Page Graphics mode, the title may be using entered megafont In this mode, it won't appear on every page. Use the area select tool, the dotted box in the toolbox, and define an area at the top for your title. Next, go back to the pointer and click on the area thus defined Next choose the T from the toolbox to enter text A dialog box opens

After you made your work disk, launch geoPublish. You will be greeted by a screen divided into two parts : the work area on the right, which is blank, and on the left side, the menus, the X and Y measurements box, the page and mode indicator and the toolbox. Most of the tools used are new and seem to be just



so many hieroglyphs gleaned from an old Egyptian tomb

As a starter, make sure you have the pointer tool activated, the arrow at the top left corner of the toolbox. Next, from the MODE menu, choose MasterPages. Here you create guide lines to help you line up objects or

with a blinking cursor. Enter your title and when done, click on ATTR at the bottom of the dialog box. You will be presented with a multiple choice dialog box. First, select a font by clicking on the arrows at either side of the font name. Choose a megafont or a font that doesn't exceed 4096 bytes. This eliminates all fonts that come in several segments. Next choose a point size by

# geoInformer

clicking on the arrows. You may choose a size of up to 192 points, even if your font has only 30 points. Select a style as well. This much enlargement results in the jaggies. Therefore, use the Smoothing feature.

This may not always result in a very good title, that's why I convert the Publish page into geoPaint with the Paint Pages driver and smooth out all the wrinkles. Then copy the title into a photoscrap and paste it back into the geoPublish page. You may also use any of the various styles GEOS has to offer as well as a pattern to write your title with. Just click on the arrows to advance the patterns and select the one you want Your title may be positioned up, down or across the page. When you are satisfied with your choice, click on OK and the title will be place where you want it However, it may not always be where you wanted it to be. Click on the move buttons of the outline and dropit where you want it If the box is not large enough, click on the lower right button and enlarge it

To check on your work, use the Zoom feature in the Dispmenu A small box opens up and you select the area of the page you wish to inspect Move it over the title area. You will be able to see only a small area at a time. Therefore, move your pointer to the right edge of the screen to move the viewing area to another section. When you are satisfied with your handywork (or not, depending), return to the work area by selecting Preview from the Disp menu. You'll be returned to your work screen. If you didn't like what you did, you simply do it over again. Put the cursor into the title area and click the button. Next , select the scissors from the toolbox and your handywork will be eliminated and you're ready to start again. This is what geoPublish is all about simplifying Desktop Publishing.

Next, from the mode Menu, select Page Layout Define the areas that will contain your text I chose two columns for this article. Make both columns the same width. Select the Snap feature from the Options menu. This enables your cursor to jump to the guide lines. Define the areas and make sure you select Set Gutters from the Options menu This will set the white space between the columns. Once your text areas have been defined, use the pointer to click in the first area. Next click on T in the toolbox. From the ensuing dialog box select the text you want The area will fill with broken lines. Click in the second area and it ,too, fill will with broken lines. Now, click on SHOW in the toolbox and the text will be rippled in place. Now the areas fill with diagonal lines, indicating that the text is in place. It may be verified by using the Zoom feature

again. This time, your text will show. Get back to the work area with the Preview option.

Although we placed our text, we will place a photoscrap on top of it Don't worry, all will fall into place. With the Area Select tool, the dotted outline, define an area to import your photoscrap. Once defined, use the pointer tool to click in the area, and then select the tool that looks like a small geoPaint icon. You will get the same choices as in geoPaint as to the placement of the photoscrap. In case of the scrap being too small in the area, reduce the area with the bottom right button. If the scrap is to large for the area, move the area around, then enlarge it and place the scrap again. As simple as that

Now your text area will be shown in broken lines again. Select REDRAW, and after that, SHOW and your text will be rippled again, and, miraculously, flows around your graphic area. With the Zoom feature, all this can be verified and if there is anything you don't like, you simply cutit out and start all over. It can't be simpler. After you have placed a photoscrap on the page, it is no longer needed and can be deleted from your disk. It is required only when placing it, or when moving and/or manipulating it

If your text is larger, then you need a second page, accessed through the Next Page item in the Options menu. You will be informed that there is no next page, and if you want to create it Answer yes and the next empty page will be shown. The placement of text and photoscraps (from a photoalbum) are placed in the same manner as the first page. You can create a newsletter up to 16 pages long. Text does not have to be in one block. you can break it up on page one, fill a second area with another text, and then continue on the next page, or three pages further on. geoPublish remembers where it left off.

The funny numbers on the left side of the screen are coordinates and help you place your areas and lining up objects. See where the sketch of your flyer comes in? Mark the numbers on paper, they can be your best friends. Since geoPublish is disk-intensive, it is best to work with an REU. Don't forget to save to a physical disk from time to time, say every twenty minutes or so. That way you don't lose too much in case of a power outage. Of course, if your REU is backed up by a battery, you don't have this problem. Just make an update once in a while.

When you print your document, you get a similar dialog box as in geoWrite with a few more options:

# geoInformer

Contents will print out the contents of your newsletter, and this is the one to select The other two options, Master and Layout, will only print the Masterpage or the Page Layout Printing is slow, especially when you use a multi-pass printer driver, even slower when using one of the interpolating drivers, like the ones found on the Perfect Print system or the Epôpin3Pass driver. The resulting printout is excellent geoPublish is simple: Select areas, fill with text or graphics and print it There is more to it than this, but this is about as simple as it can get and gives you a good start.

This is a Special Text sample. Notice how it attracts the eye.

The Special Text is entered in Page Graphics mode. Select the Area Select tool and define an area. Use the pointer to click in the area selected and then click on T for text Enter your text, choose a font, a size, a style or any other attribute you may want and click on OK. The text will be placed It may not wind up where you specified, but you can place it anywhere by moving its outline. Shorten or enlarge the area by clicking on the bottom right button and dragging it to the desired spot

The various items may be turned off or on for a faster display. If you are in the Editor mode, you don't need to redraw graphics, so the graphics may be turned off in the menus. The same goes for thetoolbox when editing text Any item in the menus with an asterisk beside it is turned on. Click on an item to make it inactive.

The ratchet is a special tool. It moves your cursor in pre-determined amounts. These can be set when you click on this menu item. The set gutters item is useful when you place text. Turn it on and it will set the white space between text areas.

When placing graphics, don't enlarge them too much, or else they will be jagged. Keep them in the same proportion as the original graphic. Else they will be distorted. The graphics tools are available in the Page Graphics and Master Page mode. From their attribute box you can choose patterns, thickness of lines, rounded or square ends. A very important tool is the transparent feature. This can give you some very stunning effects. Anything can be placed in front of, or behind another graphic, or text.

Some of those unfamiliar tools may need some explanation. In the second row are the splines, very unfamilar. The first is a closed one, the second an open spline. When you click on the first one, put some dots in the workspace. When you reached the last one, click twice, and all those dots will be connected with arcs. In case of the closed spline, the last point will be connected to the first one. The open spline will not connect the last point to the first one, leaving a wiggle line. The two drawing tools in the third row are to draw connected lines and trapezoid shapes. The tool that looks like a Falling Rocks Traffic Sign, are the attributes. Click on any area already filled and you and click on this tool. The attributes dialog box opens up and you may choose a different style for text or make a graphic look different Anything is possible with geoPublish.

There is an item in the file menu called Library. This is like a photo album, and stores your Master Pages and Page Layouts in albums. This way you can retrieve them for a futur newsletter. geoPublish has already some albums on its disk. These are for various printers with different dpi (dots per inch), There are albums for 60, 72 and 80 dpi. Choose the one that fits your printer. The 60 and 72 dpi albums are mainly for direct-connect printers such as the MPS 801 and its cousins, while 72 dpi are for some of the direct connect Star printers.

When you want to redo an area because of a design error, or you don't like it, you don't have to use the scissor icon to get rid of it. There is a tool called an eraser and it looks like a filled square, next to the scissors. Point to the area you want to empty, and click on this tool. It trashes only the content while preserving the area. Using the scissors will trash the area also.

To place some headline UP or DOWN, make the area long and narrow and select one of these two. If you select UP, the text will begin at the bottom, going up and faces to the right If you choose DOWN, it will start at the top and faces left If you want some headline anywhere in your document, make a narrow area and use ACROSS for the text If the box is narrow enough, the letters will line up one under the other.

I could go on and on describing all the virtues of geoPublish but it would mean hogging a lot of space and leave little room for anything else. If you have Publish questions, drop me a line.

HAPPY PUBLISHING!

#### Gary Noakes.

I'd like to correct a common misconception about analog and digital input devices ("Is There Really a Better Computer?" in the May issue). Commodore-compatible joysticks, the Wico and Atari trackballs, and the Commodore 1350 mouse (the "rolling joystick") are all analog devices. The 1351 mouse and Creative Micro Designs' SmartMouse and SmartTrack are true digital devices. There may have been another digital input device available to Commodore users; in the mid-80s, MicroFlyte manufactured a digital joystick for IBM and Apple, intended for use with SubLogic's Flight Simulator. I seem to remember that a Commodore model was also available for a short time, but since there was no compatible software at the time and the price would have been close to quadruple that of an analog joystick, I assume it was short-lived.

A digital device is defined as having two possible states: off and on. Computer manufacturers, including Commodore, further confuse the issue by using binary notation (0 and 1) on their power switches. While true in theory, under this definition, a simple wall-mounted light switch becomes a digital device, which is not only silly, it denigrates the concept of real digital control. On the other hand, all input devices actually begin as analog (relying on physical movement to produce input: up, down, etc.). How that analog input is processed determines the type of device it is.

A true digital input device uses a chip (an analog-to-digital converter) to convert the analog directional changes (even minute changes), speed variations and distance into digital pulses before being passed on to the central processing unit. Some digital devices can actually measure the pressure exerted and, through programming, convert that information into additional data (such as a darker or wider line in a drawing program, or slower or faster speed in a flight simulator or car racing game). This is referred to as proportional input because the amount of information the computer acts upon is directly related to the amount of movement In other computers, this digital circuitry is usually from the input device. mounted on a circuit board (variously called a game or mouse card) installed inside In Commodore-compatible devices, the digital circuitry is located the computer. (Don't assume that if the device does contain some inside the input device itself. integrated circuits that the device is digital; checking the chip designations will reveal that they are usually comparator and flip-flop chips, not analog-to-digital converters.)

Analog devices are usually limited in the directional changes they can detect, are not sensitive to speed and pressure variations, and only marginally sensitive to distance. Anyone who has used a Commodore 1350 (analog) mouse and then switched to a 1351 (digital) mouse in GEOS has immediately seen the difference between analog and digital performance, in terms of pointer speed, direction and precision of movement. Programs which allow you to "go faster," like car racing games or flight simulators, are really only changing a software parameter (since you are already moving "forward," moving the joystick again increases the apparent "speed.")

The input device's "auto-repeating circuitry," whether analog or digital, mentioned in the article is achieved through a software loop, not through hardware:

100 j=56321:rem substitute 56320 to read port 2

...

...

- 110 d=notpeek(j)and15:printchr\$(19);
- 120 ifd=Othena\$="no direction"
- 130 ifd=1thena\$="up
- 140 ifd=2thena\$="down
- 150 ifd=4thena\$="left
- 160 ifd=5thena\$="up + left "
- 170 ifd=6thena\$="down + left "
- 180 ifd=8thena\$="right
- 190 ifd=9thena\$="up + right

200 ifd=10thena\$="down + right"
210 if(peek(j)and16)/16=0thenb\$="down"
220 if(peek(j)and16)/16=1thenb\$="up "
230 rem d=3 and d=7 are impossible directions
240 rem like up + down and left + right
250 print"joystick is reading "a\$
260 print"fire button is "b\$
270 goto110

This demo program will work with a joystick or 1350 mouse in either 64 or 128 mode. Reading the input from a 1351 or CMD device is more complex and requires machine language programming.

Finally, analog Commodore input devices usually consist of nothing more than primitive leaf switches or slightly more sophisticated micro switches for directional movement, and a pushbutton or bubble switch to fire (with the exception of trackballs and the 1350 mouse, which use the abovementioned comparator and flip-flop chips to track and translate movement). Anyone with some soldering experience and a screwdriver can build a simple analog joystick simulator for about \$8.00 worth of Radio Shack parts.

Which leads me to my final point: never, ever plug an input device into your computer unless 1) you know for certain that it's Commodore compatible or 2) you are an experienced electronics technician and have personally built or modified the device in question. You can smoke a CIA chip or worse, and toast the input device in question, as Donald Squire did.

#### UNINTERRUPTABLE POWER SUPPLIES

#### George Hoke

Uninterruptable Power Supplies, normally referred to as a UPS, have been around for at least 20 years. They were bulky, very heavy and very expensive. This made them totally impractical for single computer users. New technology and increased production volume have brought size, weight and cost down. A UPS is now a shoe-box sized unit. It contains a surge protector, noise filters, a power inverter, a rechargeable battery, a battery charger and alarm circuits. It is connected between the wall outlet and the computer equipment. A power failure causes this unit to switch ON in a few thousandths of a second and keeps the equipment operating normally until work-in-progress can be SAVED and the equipment turned OFF.

My UPS has both a warning light and a "beeper". These come DN when there is a power mishap. There are two power outlets available. I have all of my system plugged into one outlet via a switch box. The RamLink power supply is connected to the other outlet. I have a few minutes to SAVE work to disk if there is a power failure. I shut the system down when this is done. The RamLink continues to have power for many hours. The unit automatically switches back to "standby" when power is restored and the battery starts to recharge.

My unit cost over \$300.00 when I bought it about 3 years ago. That situation has changed dramatically in the past year. Suitable UPS units are now available for around \$100.00. This makes them available for the serious user. MEI/Micro center (1-800-634-3478) has a suitable unit for \$88.00, California Digital (1-800-421- 5041) advertises a "Kensington 330 VA" for \$79.00 in the June '95 issue of BYTE magazine. American Power Conversion (1-800-800-4APC) has a unit for \$119.00. I have an older unit from this latter company and it has proved to be very reliable.

#### ELECTRONIC EQUIPMENT PROTECTION

#### George Hoke

There are three main situations that can damage modern electronic equipment. They are heat, static electricity and power line surges. The following gives a brief description of what may happen and lists some solutions.

Constant heat can weaken semiconductors. My C-64 has failed twice and in each case the problem has been caused by the power supply. Commodore power supplies are totally enclosed in a plastic case with no vents. They run warm to the touch. This heat buildup seems to cause them to fail. Be aware that turning OFF your computer DOES NOT TURN OFF THE POWER SUPPLY. The transformer inside the supply is still connected to 110 volts so it continues to generate heat. The best solution is to disconnect the power cord.

Static electricity can be a real killer if you live in a dry climate or if forced air heating is used in the wintertime. This voltage can damage computer equipment. Touching ground will drain off any charge you may have picked up.

Power line surges are probably the most devastating. Power surges do not always come from electrical storms. My surge protector blew a few years ago on a bright sunny day. Someone had driven into a power pole a few blocks away. The safest solution is to unplug your equipment from the wall outlet when you are not computing. (Jean Nance, i Sep '94 MAILINK and Ken Jewell in Jan '95 MAILINK.) A GOOD surge protector is a must. A friend's computer and his TV/VCR survived a direct lightening strike on a tree a few hundred feet away. The surge protectors both blew but his equipment survived. He was very lucky. Many cheap surge protectors will give you no indication that they are blown. Power will still be available at the protector output - you just won't have any surge protection. A good unit has a warning light or a buzzer or both.

I have a "pizza box" unit that sits under my monitor. This unit has six power outlets and a power cord on the back. The power cord plugs into the wall outlet and each piece of equipment plugs into the outlets. The front Panel has a lighted MASTER power switch which disconnects everything. There are lighted, separate switches for each rear outlet. I have my computer, monitor, printer and two disk drives plugged into this unit. I can turn ON each piece of equipment without fumbling around for their power switches. This box has a built-in surge protector with an indicator light to show that the protector is working. Touching the metal case drains off any static electricity. This one unit solves all the normal protection problems. The switch box costs about \$20.00. Highly recommended. MEI/Micro Center (1-800-634-3478) is a good source for the above equipment. I find them reliable. The power switch box is their #631895. Their surge protector #611822 is suitable for your TV/VCR, etc.

#### TIP - COPYING WITH JIFFDOS

#### Charles S. Duncan

With JiffyDos installed, copying files is easy. You type  $\underline{@#8}$  + RETURN to set Drive 8 as the source drive. Type  $\underline{@X9}$  + RETURN to set Drive 9 as destination drive. To copy, use  $\underline{*"filename"filetype}$  + RETURN. I have two 1571 drives as #8 and #9 and an FD2000 as Drive #10. I discovered that, if I type  $\underline{@#9}$  when I first power up, my computer will use Drive 9 as the main drive and I can load or boot my programs from any disk in that drive. If I type  $\underline{@#10}$ , I can load programs from my FD2000. This seems to continue until I turn the computer off or change the drive again. I have to be careful about <u>saving</u> anything though, because the computer seems not to remember the main drive number and tries to save to drive 8 (and does so, if there is a disk in it - so be warned!) I find it handier, though, than changing the drives all around just for loading games and utilities which don't need disk access while they are running.

#### CMD FD-4000 DRIVE REVIEW

#### Brian Vaughan

\$

With this drive which utilizes 3.5 inch disks, you have the ability to read & write 1581 disks. It will format Double Density (DD) disks to 800K, High Density (HD) disks to 1.6 Megs. and Extended Density (ED) disks to 3.2 Megs. Like other CMD devices, you can create partitions to emulate any C= drive, or create Native Mode partitions of any size which can also support sub-directories. This drive comes with Jiffy-DOS and operates faster than a 1541 or 1571 drive with JD. If you currently own any other CMD storage device such as RAMLink (RL), the learning curve for using the FD-4000 is virtually zero since it utilizes almost all of the same operating commands used by RL.

I had only one problem with this unit. The SWAP button for changing device numbers did not work properly. I traced the problem to a conflict on the serial buss caused by my Xetec Sr. printer interface. With 5v power applied from the casette port to the interface, the SWAP button did not work and would take the drive offline. By unplugging the 5v line and powering-up the FD again, the SWAP button worked fine. My drives consist of two 1541s as #8 & #9, RL as #10, and the FD as #11. Page 2 of the manual says to call CMD on their toll line for tech support between 10 AM & 5 PM Eastern. I wasted a call at 10 AM Eastern to be told that tech advice could only be obtained after 1 PM Eastern.

I called back later, but "Mark" was not of much help. He said that my two 1541 drives when turned off were putting a load on the serial buss which was affecting the FD's SWAP button. He was only partially right. If I turned on either 1541 drive with power to the interface, the SWAP button worked fine. But if I took both 1541s off the buss and hooked the serial connector from the powered interface directly to the FD, the SWAP button failed again. It was unreasonable to have to turn on a 1541 drive just to use the FD, so I installed a switch on the interface's 5v line coming out of the casette port. With the switch off, the SWAP button works fine. If I then need to print, I turn the switch on, and then turn it off after printing is completed.

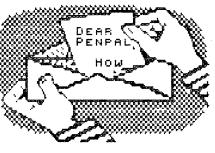
A box of 10 each ED disks costs \$29. The same box of HD disks costs about \$7 locally. The HD disks are rated for formatting on the FD at 1.6 Megs., but these disks will format to 3.2 Megs. and seem to work fine. If their reliability could be proven over time, it would represent a major savings in the cost of operating the drive. Members who go this route should advise the editor of a future CML of their results so that this information can be shared.

I only use about 60% of the 4.5 Megs. of memory contained in my RL. I had its contents backed-up on the front & back of eight 5.25 inch 1541 disks. I had no problem backing up the contents of all my RL partitions on just one 3.2 Meg. ED 3.5 inch disk. Of course, I realized after doing so that should my FD ever fail, I had no backup at all since no other drive can read the 3.2 Meg. disks except the FD-4000! Owners of the FD-2000 should have somewhat similar concerns.

#### HEARTWARMING NEWS FROM THE WILD BLUE YONDER.

Thomas Powell sent a clipping with some heartwarming news from the world of science. Ann Sprague, a University of Arizona research astronomer, had studied the planet Mercury for more than 10 years, with earthbound telescopes. Recently, she was able to study Mercury with NASA's Kuiper Airborne Observatory. This is a telescope mounted in an aged Kuiper C-141 jet, flying at 41,000 feet.

According to the article, "A Commodore 64, an old computer made originally for electronic games, controls and fine-tunes data collection. 'It works', says Fred Witteborn, the scientist who directed instruments connected to the telescope." In spite of the "antique" computer in an "antique" plane, whose insulation barely protected against the -34 degree temperature outside, the project was a success. "It's beautiful! Wonderful!" said Sprague.



#### FEEDBACK

ANOTHER GENEALOGY PROGRAM. "As to Esther Olson's question about genealogy programs for the C-64, one not mentioned is "Jenny II". I noticed that the Computer Bargain Store, had a copy for \$10. Address: 3366 South 2300 East, Salt Lake City, UT, 84109. Phone 801-466-8084."

#### DONALD AYERS

ANSWERS. "After reading the May '95 newsletter, I see we have a crowning jewel in our group. I am referring to Gary Noakes. He is giving some of the most lucid answers to perplexing questions that I have seen in any Commodore publication since the early days of RUN magazine. Thanks Gary, from us old timers as well and especially for the newcomers to Commodore stuff."

#### JOE (aka KILROY) FENN

Editor's note: Gary has agreed to be our "Answer Man". See details in the "Questions" column.

MORE P.O. WEIRDNESS. "Regarding postal rates. there are two service windows at our P.O. in Mt. Vernon, OH, and it will cost me 10 cents more to mail a 5 1/4 inch disk at the right window, so - I always pick the left window. Heavy letters and cards also cost more to mail at the right window. The clerks say,"We have to go by what the scales say". I suppose if they had to have their scales checked we would get another 3 cent rise in postage."

#### KENNETH JEWELL

"MULTIPLAN" BACKUP PROBLEM: Esther Olson asked about backing up "Microsoft Multiplan" in the May MaiLink. Gary Noakes replied that "Multiplan" is indeed difficult to back up, and as far as he knows it is impossible to copy it to a 1581 disk. I have developed a procedure for putting Multiplan 1.07 on a 3.5 inch disk. Yes, the version previously loaded by Vorpal procedures CAN be installed on a 3.5 inch disk, easily. It is knowing how that is hard to come by, as I just created the technique. Since the technique is not widely applicable, rather than describe a procedure few members need, I will offer a backup of the core program to anyone who sends in \$2, a mailer, and a 3.5 inch disk. To avoid accusations of piracy, I'll have to leave off any support files. Those will have to be tranferred from the original.

#### DONALD AYERS.

DOUBLE DIRECTORY. "Gary Noakes offers a two column directory in the May '95 MaiLink, in response to a request by Donald Squires. However, there is a two column multidisk directory program for the 128: "dbldirscan". It is a January 1988 offering from TPUG (Toronto Pet Users Group). The program does not employ the direct mode techniques by which the 128 owner can call up two directories. If one wants a file of the two directories, on can scroll through. Or, why not employ Paperclip's ability to load a directory into the word processor on the 64. Since TPUG is sluggish about filling orders, I can make "dbldirscan" available to members who send a stamped self-addressed mailer and disk. If they prefer to send \$3, no disk or mailer, I'll add some additional 128 utilities."

#### DONALD AYERS.

Editor's note: It is also possible to load a directory into the word processor with The Write Stuff, either version.

TROJAN HORSE: "I would caution GEOS users that the program TROJAN HORSE, mentioned by Roger Detaille in his excellent article "Un-Installing GEOS," is intended only for use with 1581 boot disks made with Maverick. It works by modifying the secondary-protection code in DESKTOP 2.0. This protection is designed to occasionally pop up, look around and erase any boot files it finds if they are found DESKTOP 1.3 also has a habit to be on anything other than a 5-1/4" disk. Nasty. of erasing the boot files, but only if files are moved around on the desk. I've never seen a work-around for this other than to avoid moving files for any reason other than copying them to the border for transfer to another disk. If the files are replaced on the desk in the same order, things seem to be okay, but if they go back on the desk out of order, the boot files may disappear. Also nasty. For this reason I deleted DESKTOP 1.3 and went back to using 1.2 until I upgraded to 2.0." GARY NOAKES



FOR SALE: COMPUTE!'s 128 Programmer's Guide, The Official GEOS Programmer's Reference Guide, GeoBasic, GeoProgrammer. I also still have some of the items listed in the March MaiLink. Price, including shipping, is \$10 for each of the first two items you buy and \$5 for each item over two.

#### **BOB HUNTER**

FOR SALE- Magazines. Shipping included. I don't want to split bundles. <u>Compute's Gazette</u>, Vol.1 ('83) #s 1, 2. Vol.2 ('84) #s7-12. \$25 <u>Compute's Gazette</u> Vol.3 ('85) #s 1,2, and 5 - 12 . \$25 <u>Compute's Gazette</u>. Vol.4 ('86) #s 1-7. Vol.7, ('89), #5. \$20. <u>RUN</u>. Mar-Dec 1990, All 6 issues of 1991. Special issue with chart, 1985. \$15. Phone 217-469-2556

#### JEAN NANCE

WANTED: At the second annual Sid-Fest in Columbus, Ohio, a classical number arranged for 18 voices was performed on 6 C-64s. I would very much like a tape casette of that performance. Can anyone send me a copy, or suggest where I could find one. FRED KNERR FOR SALE

Magazines: RUN, Ahoy!, Compute's Gazette, DieHard.

Two working VIC-20s, complete with manual and some accessories.

Mysterious black box. I suspect it is for connecting multiple C-64s to a single printer, or maybe single monitor?

Dead C-64, dead 300 baud modem for parts. Various joysticks, Omintronix deluxe RS-232 interface, may work but no guarantees.

Incredible Music Keyboard. Fits over C-64 keyboard to play like a piano, with software annd 2 music books.

Please send SSAE for a list and more details.

#### GREGG HOOVER

HARVE HARRIS TAX PROGRAM. "I have decided to do the Harv Harris Tax program handling for "Meeting 64/128 Users Through the Mail" again this year. (See "Tax Programs" by Joe Powell in the May '95 issue). Don't forget, you must place your order with me direct, no later than Nov. 1st, 1995. Send no money. I will bill you about two weeks after Thanksgiving. Our Joe Powell has already placed his order. (He was first in line last year, also).

#### JOE (aka KILROY) FENN

INFORMATION AND UPDATES ON SOME COMMODORE RESOURCES. "Skyles Electric Works has a new address: P.O. Box 1984, Cupertino, CA 45015-1984. Phone: 408-739-1240. Kasara Micro Systems is now at: 7 White Oak Circle, Bluffton, SC, 29910. Their phone remains 800-248-2983. Skyles and Kasara charge about \$25 for a 1772WD for the 1581, about \$15 for installing it. Jameco Electronics, (1355 Shoreway Rd., Bemont CA, 94002, (phone 415-592-8097.) has 1770 chips for the fifth the price. But, if tried, go for a brand different from the one in the drive. Ideally you want a 1772 but they don't have those."

From the May 1995 "Grassroots". "Grassroots" has a complete and frequently updated file of Commodore resources, as well as text material on topics of interest. \$2 for the disk, from DONALD AYERS.

THE WRITE STUFF USER GROUP PRICES. FRED KNERR offers "The Write Stuff" word processor and associated programs at a very special user group price. Our group gets these prices because our members have purchased so many of these programs over the years. See the last page of your March "Information" section for details and prices. Compare with the prices CMD is asking (page 28 of the latest Commodore World).



İ

GARY NOAKES has volunteered to be our "Answer Man". Starting in September, this column will be a "Questions and Answers" column. Gary says, "All questions should be submitted directly to me, on disk if at all possible, to keep down retyping and guarantee legibility of the original. I will answer the questions that I can, in the order that I receive them. Any I can't answer will be placed at the beginning of the column with a request for help from the membership. No personal replies will be possible, sorry, I just don't have the time."

To make this work, Gary will need to have the questions at least two weeks before the editor's deadline. Any questions he gets after that will be sent on to the editor unanswered, but will appear in the column if time allows. For the September issue, with a deadline of August 15th, Gary should receive questions by July 31st.

Pocket Writer documents are supposed to be able to include graphics by means of the External File feature described on page 37 of the Reference Guide. I've tried including graphic files prepared with Graphics Integrator's PaperClip File Creator utility or with Fun Graphics Machine's Print to Disk utility. However, I haven't been able to do so although I've been able to include the same graphic files in The Write Stuff documents using TWS's external file command. I'd appreciate anyone who's managed to include graphics in Pocket Writer documents, other than by cut and paste, to explain to me how he or she has done so.

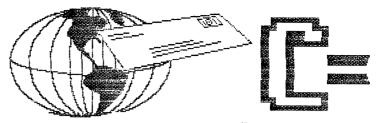
#### BOB HUNTER

Just for curiosity, how can Chinese use the C-64/C-128 keyboards when their alphabet requires more keys than a piano? How do they use a computer, anyway? DONALD AYERS

### NINE YEARS OF MEETING 64/128 USERS THROUGH THE MAIL

٩

1000 - 1995



Jean Nance

The May 1986 "Compute's Gazette" had "The 64 User Group of America" in their list of user groups. The president was Kirby Herazy. Members corresponded with Kirby and he encouraged them to write to other members. There were no regular mailings, no newsletter, and no dues. The following year the name was changed to "Meeting 64/128 Users Through the Mail."

In June 1987 Kirby asked me to take over as president. A membership list with "bios" was sent to members, and in September a small newsletter was started. Donations covered the cost. Dues of \$5 were instituted for 1988, Elly Carey became Treasurer: Brian Vaughan took over membership records; and Bill Robinson became editor of "The Commodore MaiLink", in hardcopy and disk versions. Since 1990, we have had a series of guest editors for the hardcopy MaiLink. Jim Green produces and distributes the disk edition, Tom Adams gets the newsletter photocopied and distributed. In July, 1994, Frank Redmond became president and I became vicepresident. In July 1995, Tom Adams took over as vice-president. Joe Powell is our treasurer and Brian Vaughan continues to maintain membership records. I supervise the newsletter.

Membership for the last several years has run between approximately 200 and 300, rising through each year, but dropping in January when some choose not to rejoin. Present membership is about 265.



ANN BROWN, 73859 32nd St., Covert, MI 49043. Ann is a school bus driver. Hobbies: Campfire Girl leader, camping, crafts, singing, and anything to do with the betterment of children. System: C-64, 1541 disk drive, Epson Homewriter 10 printer, and a 1702 monitor. Interests: Newsletters with different fonts & graphics. She would like to communicate with penpals and just plain experiment with the computer.

INGEBURG E. HAIMES, 12915 97th Ave. NW, Gig Harbor, WA 98329-7024 "Inga" is a housewife. Hobbies: Oil painting, knitting, spinning wheel, crochet, painting ceramics, fishing, and hiking. System: C-64C & C-128, 1541 & 1571 disk drives, Star NX-1000C & C=803 printers, and a Magnavox RGB monitor. Interests: "Everything".

KENNETH JESKE, 2904 Old Hearne Rd., Bryan, TX 77803-0841 Kenneth was formerly employed at Moore Business Forms. Hobbies: Fishing, camping, gardening, antique cars, motorcycles, and collecting antique pocket watches. System: C-64 & two C-128s, 1571, Blue Chip & two 1541 disk drives, datasette, Star NX-10 & Okidata 10 printers, Magnavox 80-column amber monitor, and a modem. Interests: Word processing, educational software, some games, and writing programs.

SCDTT MERRILL, 22776 Madrid Dr., Lake Forest, CA 92630-4625 Scott is a merchandise Rep. for Disneyland. Hobbies: Professional magician. System: C-128, FD-4000, two 1571 & 1541, and three 1581 disk drives, RAMLink, KX-P1124 printer, 1084 monitor, modem, and a HandyScanner. Interests: GEDS, space-type simulations, and business applications using 80-column mode.

CONDOLENCES Our condolences to new member Charles Schafer upon the very unexpected death of his wife, Eleanor. The information wasn't in his bio, but "Charlie" is a long time member of "Northern Virginia Commodores" user group. He has served in several offices, and is presently treasurer.

#### ADDRESS CHANGES

Bruce Burch, 7001 Foster Ln., Wichita, KS 67206

Eloise Carey, 1463 12th St., Baywood Park, CA 93402

Louis Johnson, 170 Shadowbrook Ct., Folsom, CA 95630

Frank Rush, Change street address to: 211 S. 5th St. - #1

Charles Schafer - Change his house number to 7014

Luke Baars - Delete the 'mark' to the left of his name in the March bios.

#### CONTENTS

1	Electronic Equipment Protection	13
2	Copying With JiffyDos	13
3	FD-4000 Disk Drive	14
4	Heartwarming News	14
4	Feedback	15
6	Buy/Sell/Trade	16
8	Questions	18
11	9 Years of Meeting 64/128 Users	19
12		19
	3 4 4 6 8 11	<ul> <li>3 FD-4000 Disk Drive</li> <li>4 Heartwarming News</li> <li>4 Feedback</li> <li>6 Buy/Sell/Trade</li> <li>8 Questions</li> <li>11 9 Years of Meeting 64/128 Users</li> </ul>