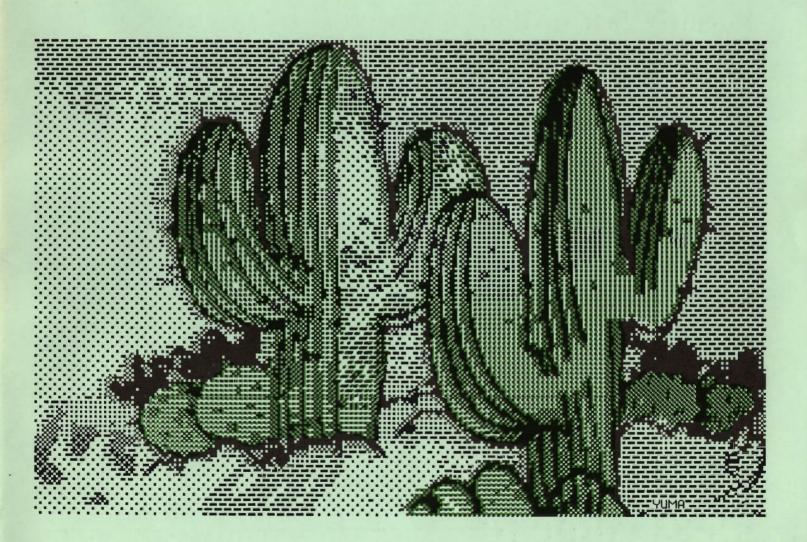
Econopid Issue Number 17





Revamp your resume Electrify your letters Boost your brochures Intensify your Invitations Enhance your essays Add flavor to your flyers Neater newsletters **Stronger Sales Literature** Amplify your assets **Polished pronouns Marvelous manuscripts Resounding reports Fabulous** fonts **Terrific term papers** laser printing will make your ideas come to life!

Laser printing is the process by which ideas become recognized more easily; more readily accepted. This is ultimately the goal of anything that is printed ~ to stand apart and be read. To come to life!

LaserDirect is the leader in GEOS laser printed documents. We're here to help you obtain the laser printed results that you were expecting, not what you received. That's why we spend more money than anyone else on customer service, Informational Brochures, Monthly Informational Updates, Error Reports and a "Help Line." We want you to know as much as you can, or as much as you care to know, about creating GEOS laser printed documents.

The reason is simple. The more you know, the better results you'll obtain. Your flyer will be read, your resume will stand apart, your newsletter will be responded to. By getting your audience to *read* your words, you stand a greater chance of getting them to *act upon* your message. You're happy, we're happy, and all because you realized the potential of making your message stand apart.

Laser print it! It will make your ideas come to life! It doesn't cost much to keep your ideas from dying on the vine.

For more information on how laser printing can make your ideas come to life, you are strongly urged to mail us your request for our most recent Laser Printers' Kit.

POB 20913 Milwaukee, WI. 53220-0913 414-543-9923 Q-Link= Laser Skip

ORI GEOV The definitive magazine about GEOS

Table of Contents

Printed by: TELEGRAPHICS Santa Barbara, CA	
Roger Ledbetter Publisher	
Susan Lamb Editor	
GEOWORLD is not affiliated with Berkeley Softworks, LaserDirect, Qlink, or Commodore Computers	
Articles may be submitted by mailing on GEOS disk to: GEOWORLD 38 Santa Ynez St. Santa Barbara, CA 93103	
Subscription 12 issues \$20 1 issue \$2.50 Canada \$30 - Over Seas \$50	
If mention has been omitted in any article, let it be known that GEOS, geoWrite, geoPaint, geoPublish, geoLaser, geoPubLaser, Text Grabber & Graphics Grabber are Trademarks of Berkeley Softworks.	
Copyright 1988 GEOWORLD MAGAZINE No part of this publication may be reproduced by any means without the written permission of the Publisher.	

Issue Number 17

2	Red Storm Rising Susan Puhn-Lamb
4	geoChart finally arrives! Timothy A. Bereman
6	A Technique for Laying Text Over Graphics Terry R. Mills
10	Antigrav Toolkit Notebook Randy Winchester
13	GEOS Gems Peter T. Hughes
14	Inside GEOS W.C. Coleman
18	Making Charts for Overhead Projection Mike Hughes
20	geoWrite vs Write Stuff vs geoPublish Marshall Kragen
22	Confessions of a GEOS Fanatic John Tackett
24	Mystic Jims Shareware
This month	s cover: "Cactus" by Susan Lamb. Digitized with
Comp	outer Eyes and enlarged using geoPublish.

Red Storm Rising

There is a Red Storm Rising in the GEOS world. It is the young programmer known as "Red Storm" on Q-Link. Joe Buckley has created many programs that have greatly enhanced the use of GEOS in desktop publishing for many of us.

I wonder how I could accomplish so much of my work were it not for Paint View, Thumbnail, Wrong is Write, Alarm Flash, Album Reverter, and GraphicStorm, to name a few. Joe is working on more new programs, and still working out the kinks of those already released.

Thankfully, he is not content to let a finished proggram rest on it's laurels, but continues to add features or improve them. He is fast and willing to take suggestions.

example One is Graphic Storm II, which will be available in the future. It is with this program that I was able to create the large photo scraps on the GEOWORLD disk #1. It is such a simple procedure compared with all the many graphic converters I've tried out in the past.



By Susan Puhn-Lamb

The main advantage to converting in the GEOS environment is working on a RAM disk which eliminates the lengthy waiting time. I usually convert a disk-full of *Computereyes* graphics at a time which would be painfully slow on my old 1541.

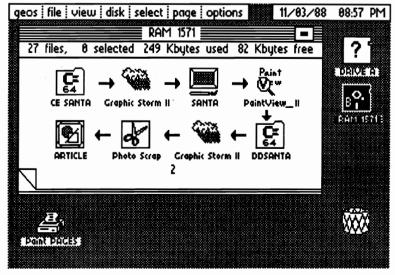
First I transfer all the sequential C-Eyes files to the RAM disk. Using Graphic Storm II, I choose "Convert" and "Standard bitmap". I then choose "geoPaint" for purposes of touching up the art. Computereyes images of line art always need fine tuning in pixel edit to make suitable graphics.

Because Computereyes uses the whole screen, the geoPaint page created is larger than a drawing window as shown in figure one. I always create artwork, whether by Computereyes, Doodle or other graphics program, as far to the top and left side of the screen as possible. This is so the bitmap box can be re-sized in geoPublish when the art doesn't fill the full-screen photo scrap.

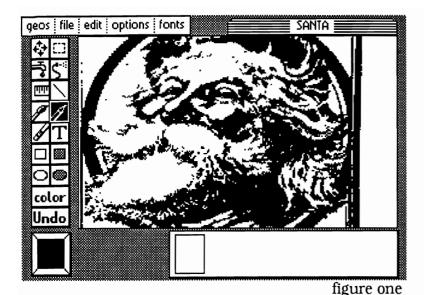
After the artwork is the way I want it, I use the Red Storm program, PaintView II to change the geoPaint page to a sequential Doodle file. It is not necessary to have the Doodle program with this technique. PaintView II will show the image to be saved, which is done by pressing "s". The file is saved with the DD prefix automatically added. Figure two shows the screen from within PaintView II.

Back in Graphic Storm, I choose "Doodle" and "photo scrap". I use the Photo Manager to store the large scrap before making another, which would overwrite the existing one. The over-sized scraps can be viewed in sections in the photo manager before importing to geoPublish. The viewing window only shows a portion at a time - figure four.

> At this writing. Joe is working on a program that will further simplify the creation of the large photo scraps. For the desktop publishers that like to use important graphics in their documents. Red Storm is coming up with the necessary programs to accomplish what seemed impossible.



(BIED WY NRILID



 File
 Convert
 Album

 Standard
 bitmap
 standard
 geoPaint
 C=G

 Print
 Shop
 - A
 C=A
 photo
 scrap
 C=S

 Print
 Shop
 - B
 C=P
 Newsroom
 C=N
 C=D
 Copyright
 C
 C

 Graphic
 Storm
 II
 Copyright
 C)
 1988,
 Storm
 Systems

figure three

The photo manager will hold scraps of any size and display them in sections (right). I'm hoping that some day someone (maybe Red Storm) will figure out a way to create a full geoPaint page photo scrap.

The finished art clip, ready for your geoPub document!



For this example, I created an art clip to be used in a Christmas newsletter. I first made a Computereyes image from an antique engraving, and converted it to geoPaint for touch-up in pixel edit.

Since I don't like the GEOS Computereyes program, the files are all created in sequential format and must be converted.



figure two

PaintView II allows you to save any fullscreen portion of a geoPaint page to Doodle format (above).

Many format choices are available with Graphic Storm II, producing either a geoPaint page or photo scrap (left). Future enhancements will include KoalaPaint conversions.

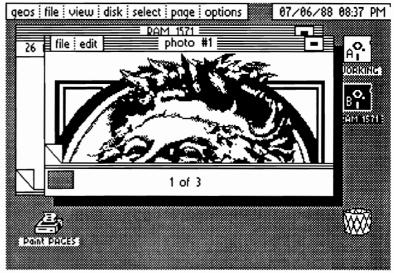


figure four

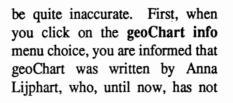
GEOWORLD will announce when and where to obtain Red Storm's programs as they become available. We will continue to include upgrades of his current programs and any new public domain ones on GEOWORLD disks.

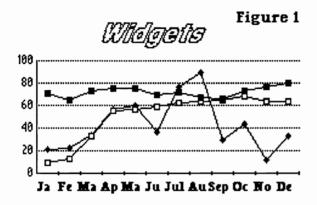
For questions or comments, send to: 1764 Avenue B, Yuma, AZ 85364. Send E-Mail to YumaLamb on Q-Link.



geoChart finally arrives! by Timothy A. Bereman

The program that everyone was waiting on for months on end is finally here. No matter how long the wait seemed, geoChart is well worth it. The program





displays capabilities never before found in any GEOS application. Part of that can be attributed to the fact that geoChart is 60K bytes in length! To give you a better feel for such size, that's two-thirds the size of geoPublish, which is to date the largest Berkeley application available for use.

This writer remembers that there was speculation among Q-Link users that geoChart had been written long ago and would not be offered to the public until there was a sufficient number of geoCalc programs in the marketplace, as geoCalc was supposedly the only method of producing data to be charted. Both of these rumors appear to been found as an author of any BSW program. And not only can you chart data from geoCalc, you can also chart data produced in geoWrite and geoFile.

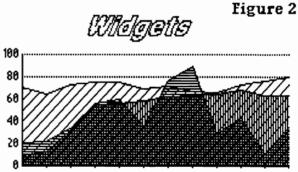
The operation of geoChart is very much like any other application program. You can enter the

program by clicking on its icon or on the icon of a file created by geoChart. You are given the usual option of opening an existing file,

creating a new file or returning to the deskTop. Upon opening a file, a demo-style chart, in column form. is drawn that can be modified as you wish. The data to be charted must be in the form of a Text Scrap. Selecting the paste option will overwrite the

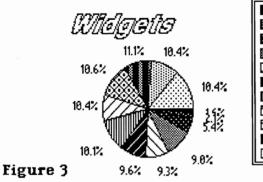
demo-info with your specific data. You then find yourself in the **data mode** of geoChart. Here you select just how much of the data you want to chart. Suppose you have three series of data; you can choose to chart perhaps series one and two only. The option is all yours. After you have made the selection you select **chart mode**. The screen then quickly displays your data in column style.

geoChart gives you the familiar menu choices along the top of the screen. The file choice allows you to close, update, recover, rename, print and quit the file. The edit option allows operations never seen before. Selecting copy allows you to export your chart to other applications in the form of a photo scrap. However, the scrap will be sized to fit the particular program. Three choices are available; to full screen, for



Jan Feb Ma Ap Ma Jun Jul Au Sep Oct No Dec

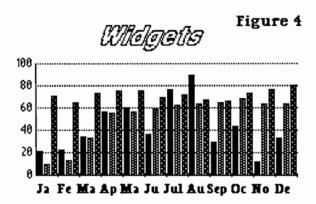
use only in a geoPublish document, to geoWrite or to geoPaint. The reason for the sizing variations is because the



editing window in geoPaint is not as large as the editing area in geoWrite, nor as large as the full size area represented in geoPublish. Selecting paste from the edit menu imports the data into geoChart. as mentioned earlier. Change range allows you to change the number scale used in any chart. The change marker option allows you to select either a particular marker or pattern to be used. For example, if the chart type is point or line, change marker provides the means to select from an empty or filled diamond or square. If the chart type is area, you are prompted to select the pattern to be used for each series in the chart. The change text option is equally as powerful. Here, you can alter the text messages that are located in a variety of different areas around the perimeter of the charting window. You can select the font type and point size; you can select the font style, including the usual bold. outline, underline, *italics* and reverse styles; you can choose whether the actual text should or

Jan Feb Ma Apr Ma Jun Jul Au Sep Oct Ho should not show; and you can edit the actual text message. Change grid allows the choice of three different line styles used in the chart; solid, dotted or no lines. And change format is that same option found in geoCalc, wherein you can

select how the numbers should be displayed, such as with trailing decimal places, with dollar signs, in



percentages or even exponential.

The **chart** menu option is where you select the type of chart you

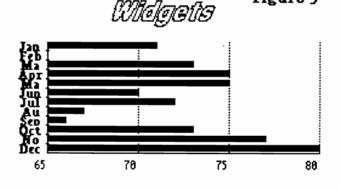
desire. There are eight distinct chart types with one in provided two different forms. You can select from area. bar, column, pie, point, line, scatter (in either point or line form) and unibar. The area chart allows the area beneath the line to be drawn

transparent or opaque. Figure 2 displays such a chart. The pie and unibar chart options can only display one series of data at a time. Figure 3 displays year two of widget sales in pie chart form, figure 1 shows data in line chart form, figure 4 displays the same information as a column chart and figure 5 is a bar chart representing data in year three.

As you have probably determined by now, geoChart should satisfy every need that would most likely be encountered in wanting to chart

data. Furthermore, geoChart contains features that are sorely other BSW needed in applications. Can you imagine the versatility of font and style selection, a pasting feature and format choices in geoFile? We can only hope that Berkeley Softworks finds time and desire to introduce some of these powerful features into older applications, long since written before the advent of Nevertheless. geoChart. geoChart will certainly please those with charting needs for business and home.

Figure 5





By Terry R. Mills

As described so well by James Hastings-Trew in the February GEOWORLD, very interesting effects can be achieved by combining graphics and text using the PAINT OVERLAY DRIVER. After experimenting with the driver, I was able to achieve a slightly different effect that I'd like to share with others. This technique allows you to superimpose letters onto a graphic in a reverse image of the graphic itself.

To achieve this effect, create a disk containing GEOPAINT, GEOWRITE, the PHOTO MANAGER, the PAINT OVERLAY DRIVER, the DESKTOP, the font(s) you would like your text to appear in and your GEOPAINT drawing or graphic. I find that I can move all of these files onto my 1764 REU acting as a 1541 RAM disk with no problem, although at various stages of the procedure I need to delete certain GEOPAINT or GEOWRITE files to free up space for later files.

The step-by-step procedure for creating the graphics accompanying this article follows.

1. In GEOPAINT, create your text and save the entire drawing window as a photo scrap. You can select the entire drawing window as an edit region by clicking on the edit icon once and then double-clicking on it. A dotted line should form around the drawing window. Save the window as a photo scrap by selecting copy from the edit menu. This scrap corresponds to figure 1a.

2. In the PHOTO MANAGER, create a photo album to store the various photo scraps you will be creating. As the PHOTO MANAGER is a desk accessory, you can select it from the geos menu without leaving GEOPAINT. Save the photo scrap created in step 1 by selecting paste from the PHOTO MANAGER's edit menu.

3. Return to GEOPAINT and again select the entire drawing window as an edit region. Move the pointer to the status box, which displays the edit mode options, and click on invert. Save the window as a photo scrap. This scrap corresponds to figure 2b.

4. In the PHOTO MANAGER, add the new

photo scrap to your photo album. It should now contain your original text and an inverted version of the text.

5. In GEOPAINT, open the file containing the drawing you want to use or create one now. Select the drawing window as an edit region and save it as a photo scrap. This scrap corresponds to figure 1b.

6. In the PHOTO MANAGER, add this new scrap to your photo album.

7. In GEOPAINT, invert your graphic and save it as a photo scrap. This scrap corresponds to figure 2a.

8. In the PHOTO MANAGER, add this new scrap to your photo album.

9. Select the PAINT OVERLAY DRIVER as the active printer and then create a GEOWRITE file.

10. In the PHOTO MANAGER, copy the original text (your version of figure 1a) from the photo album to the photo scrap.

11. Return to your GEOWRITE file and paste the photo scrap into the top center of the page. You can use either the edit menu or the keyboard shortcut, C=W. Force a page break by selecting this from the page menu or use the keyboard shortcut, C=L.

12. In the PHOTO MANAGER, copy the inverted drawing (your version of figure 2a) from the photo album to the photo scrap.

13. Return to your GEOWRITE file and paste the photo scrap into the top center of the second page.

14. Print your document using the PAINT OVERLAY DRIVER. This creates a GEOPAINT file called OVERLAY on your disk. Quit GEOWRITE and rename this file to OVERLAY 1.

15. Create a new GEOWRITE file.

16. In the PHOTO MANAGER, copy the original drawing (your version of figure 1b) from the photo album to the photo scrap.

17. Return to your GEOWRITE file and paste the photo scrap into the top center of the page. Force a page break.

18. In the PHOTO MANAGER, copy the inverted

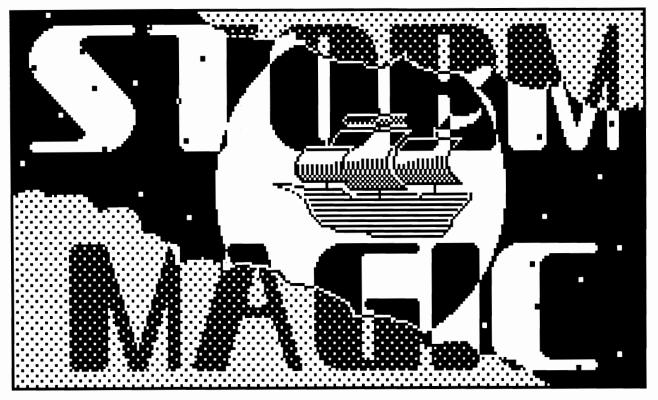


Figure 5

text (your version of figure 2b) from the photo album to the photo scrap.

19. Return to your GEOWRITE file and paste the photo scrap into the top center of the second page.

20. Print your document using the PAINT OVERLAY DRIVER. Quit GEOWRITE and rename the newly created GEOPAINT file called OVERLAY to OVERLAY 2.

21. Open the file OVERLAY 1. Move the drawing window over to the center so that the overlaid images of figures 1a and 2a fill the drawing window. This screen corresponds to figure 3a. Select the drawing window as an edit region, invert the image, and save it as a photo scrap. This scrap corresponds to figure 4a.

22. In the PHOTO MANAGER, add this new scrap to your photo album.

23. Close OVERLAY 1 and open OVERLAY 2. Again move the drawing window so that the overlaid images, this time of figures 1b and 2b, fill the drawing window. This screen corresponds to figure 3b. Select the drawing window as an edit region, invert the image, and save it as a photo scrap. This scrap corresponds to figure 4b.

24. In the PHOTO MANAGER, add this new scrap to your photo album

25. Create a new GEOWRITE file.

26. In the PHOTO MANAGER, copy the inverted overlaid image from the first overlay file (your version of

figure 4a) from the photo album to the photo scrap.

27. Return to your GEOWRITE file and paste the photo scrap into the top center of the page. Force a page break.

28. In the PHOTO MANAGER, copy the inverted overlaid image from the second overlay file (your version of figure 4b) from the photo album to the photo scrap.

29. Return to your GEOWRITE file and paste the photo scrap into the top center of the second page.

30. Print your document using the PAINT OVERLAY DRIVER. Quit GEOWRITE and rename the newly created GEOPAINT file called OVERLAY to OVERLAY 3.

31. Open the file OVERLAY 3. Move the drawing window over to the center so that the overlaid images of figures 4a and 4b fill the drawing window. Select the drawing window as an edit region and save it as a photo scrap. This scrap corresponds to figure 5.

32. In the PHOTO MANAGER, add this new scrap to your photo album.

33. You can now use your new graphic of text superimposed over a drawing in GEOPAINT, GEOWRITE, or GEOPUBLISH, where you can also enlarge it as in figure 5.

Experiment with different fonts and their placement relative to your graphics to see what kinds of effects you can achieve. And HAPPY GEOSing!





Figure 1a

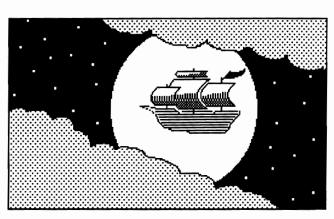


Figure 1b

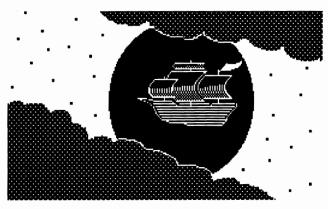


Figure 2a



Figure 2b

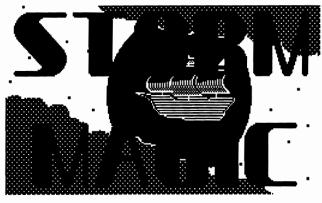






Figure 3b

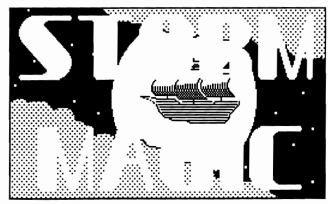


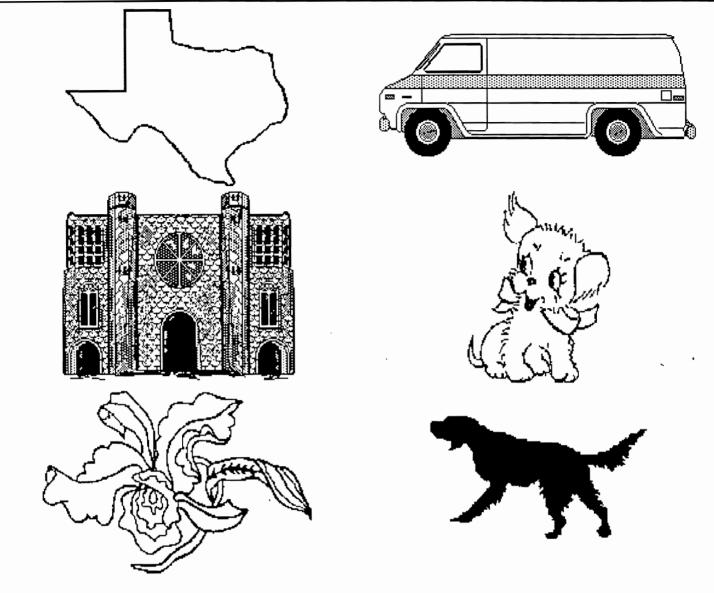
Figure 4a





Figure 4b

(BIRD WYSIRILID)



All 50 States, some Methods of Transportation, Buildings, Art for Children, Plant Life, Animals And more. In 7 Photo Albums. For GEOS 2.0 users.

\$9.95 includes postage

TT grafix 326 Clothier Spring Road R.D. #5 Malvern, PA 19355-9657



⁽FIHO WYSTRILID)



Regular readers of GEOWORLD probably remember the article *Accessing Laser Printers*, which appeared in this column (March 1988). That article details what I now fondly refer to as the *Antigrav* method of sending GEOS laser printer output over a modem to a laser printer or a computer connected to a laser printer. For those of you fortunate enough to have access to a laser printer that isn't connected to a Commodore running GEOS, the Antigrav method is a real convenience. It might also be the fastest way to get your GEOS work to a local laser printing service that doesn't use Commodore equipment. At the very least, it eliminates the need to move your Commodore system to another location just to do some printing.

Brian Dougherty, Berkeley Softwork's CEO, doesn't agree one hundred percent. In an interview with GeoSync columnist D. Roderick Eamon, (COMPUTER SHOPPER, September 1988) Mr. Dougherty admits that while the methods are definitely workable, are both unwieldy and inelegant.

What exactly does that mean? First of all, geoLaser and geoPublaser were never intended to output PostScript files to anything other than a PostScript laser printer. However, it's hardly coincidental that a computer's RS-232 port (the Commodore 64/128 requires an interface) which connects to a laser printer also connects to most modems. That PostScript programs are files consisting only of printable ASCII characters is also not unintentional. Since the pieces fit together so nicely, why blast it?

Continuing with the GeoSync interview, our CEO adds that BSW's new **geoTerminal** program will handle PostScript program file transfers with greater ease.

That's probably true. BSW's new geoTerminal program might very well be excellent, include a decent manual, support PostScript file transfers, and be reasonably bug free! As the GEOS world continues to turn, I haven't heard anything more about geoTerminal. So, if you need to transfer PostScript files now, don't hold your breath waiting for a chance to stand in line for geoTerminal. Just reread Accessing Laser Printers, and get your files laser printed right away using software and hardware you probably already own.

Unwieldy?

Not too unwieldy, really. The Antigrav method is really just a few more steps than laser printing with a direct Commodore to laser printer hookup.

Almost every modem user has probably transferred files. The only thing unusual about the Antigrav method is that after setting up a file transfer with another computer, you have to exit the terminal program and run geoLaser, geoPublaser, or print a document with the LaserWriter printer driver selected. When that step is finished, it's a decent idea to run the terminal program again and do whatever is necessary to finish up the transfer and log out.

Since I wrote that article way back in March, Bill Coleman has finished his **geoTerm** (on the **GEOS Power Pack** from **RUN**). Although Bill's program doesn't deal with PostScript, since it runs under GEOS it doesn't require booting GEOS before running geoLaser. With the 1750 REU, I can switch between geoTerm and geoLaser in about four seconds.

I've happily laser printed many GEOS documents over the last year and a half using the Antigrav method. It's one of those "computer things" that seem so difficult at first, then, with a little practice becomes routine.

Here comes the part I don't care to mention. The inelegant part.

File Transfer Protocols: Powerful Concepts

If this were a perfect world, the Antigrav method would work perfectly every time. Unfortunately, this is not always the case. It used to be mildly distressing to me to find that a file I had transferred wouldn't print. Sometimes it would print, but be messed up in some way. Noise on the phone lines sometimes hits a byte or two along the way, resulting in garbage on the receiving end.

The Antigrav method uses what is known as ASCII protocol. It is more like a "dump some characters on the line and hope" protocol. geoLaser sends characters to the modem, and if they don't get to their destination, then too bad.

Typical file transfers, such as those done with XMODEM or Punter, use some form of error checking protocol. An error checking protocol sends a file in small parts. Both the sending and receiving computers do calculations on the part just sent, then compare results. If the results on both ends don't match, that part of the data gets resent until both ends agree.

There are some powerful concepts involved in error checking protocols. Although the Antigrav method doesn't do any error checking, some of these concepts can still be applied, but you'll be responsible for doing it yourself.

Essentially, all error checking methods rely on probability. Even with XMODEM or Punter, it is still possible to get bad data that





Tastefully Executed Error Checking

will fool the protocol to accept it. Common sense probability says that chances are the protocol won't accept bad data.

The Elegant Solution for Inelegance

First lesson: break the file into small parts. If you want to transmit a nine page geoWrite file, do it one page at a time, as nine separate transfers. This requires a little more work, and the receiving computer will have nine files instead of just one. If just one byte gets garbled, you'll still end up with eight good pages. You'll have to resend only the bad page.

Department of Redundancy Department

Suppose the phone lines act up a little more than you hope they would. You might want to be reasonably sure that everything you send makes it without errors. The simplest solution is to send the file the file twice. Assuming the phone lines aren't always perniciously against you, one of the copies is bound to be alright. It's because the probability is slightly in your favor.

There are, however, even more elegant solutions. The next two methods, although similar to the previous one, tip the odds even more in your favor.

Do-It-Yourself Error Checking: Method #1

One method I often use is to send the file twice. Following the transfer, I compare the sizes of the two files. If they are both the same number of bytes in length, it's a good indication that I didn't loose or gain any bytes during the transfer. Both files are probably alright. If the sizes don't match, I send another copy of the file and again compare sizes until two copies do match.

To use this method, you'll need some way of checking file sizes. On many of the systems to which you might send a PostScript file, a directory listing of the files will display file sizes in bytes. Failing that, you might be able to remotely run a program that will provide file size information. If there is someone attending the machine you are uploading to, they might be able to tell you the file sizes.

Do-It-Yourself Error Checking: Method #2

The next method provides even greater accuracy. It is almost identical to the previous method, except that instead of comparing the sizes of two files, the two copies are compared byte for byte. Utilities to compare two files often have names like COMPARE or DIFF. Again, as in the previous method, the goal is to get two copies of the file which agree with each other.

A major benefit of using a file compare utility is that even if one of the files is bad, often it can be determined which copy is bad. For example, suppose the compare utility reports the following:

Line 335 in file GEOTEST1.PS : showpage

Line 335 in file GEOTEST2.PS : sho@pa#e

The word showpage is a common PostScript operator. It's pretty obvious which file has the error. In the rare case that both files have errors, if the errors are glaring enough, some quick editing might straighten out the least of the two damaged files. The more familiar you become with PostScript, the easier it will be to fix such problems.

Now chance can be replaced with certainty. Use the Antigrav method. There's no longer any reason to feel you've done something inelegant. Please excuse me now while I catch up on some laser printing!

I would like to include your GEOS hints & tips and bug reports in future columns. If you have any brief GEOS tricks, bugs, helpful hints, or whatever, please send them to me. In future columns, I plan on reviewing new GEOS software. I feel that many excellent new programs need more exposure. The major Commodore publications pay little attention to software from independent developers and the public domain. If you are a GEOS programmer I'm interested in hearing from you. I'd enjoy reviewing your work. If you're not a programmer, I'd still like to hear from you. Tell me about the programs you use, or what you would like to see available.

Randy Winchester P.O. Box 1074 Cambridge, MA 02142

In exchange for material submitted on disk, I'll return a disk of some of the best public domain GEOS software.

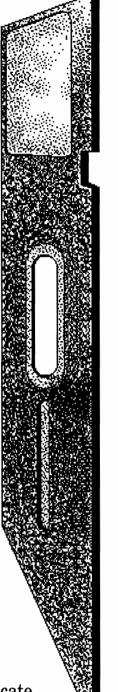


GEOWORLD Disk #2 is almost here!

Our first GEOS disk has been sent to all who ordered it with only a few mishaps. Some bugs have been found and will be corrected. Many of you received a faulty copy of the file, "whales" which became corrupted during disk copying.

Others of you had trouble printing the doc. files. I forgot to note that your printer driver must be on the disk and the printer turned on. I will leave a little more room on future disks to accomodate your driver.

Disk #1 is still available. Be sure to indicate which number you want.



Disk #2 is almost finished and will be shipped before the next issue of GEOWORLD is out. In addition to more useful utilities, we want to address a need for good, readable text from a dot matrix printer.

The disk will include many small-point fonts that are designed to approximate your printer's NLQ mode. For best results, they can be used with a double-density or quad-density printer driver to fill in between the dots. This disk will be a big help for those interested in selfpublishing newsletters.

Since printer drivers don't take up much space, we'll include as many as we can find. Hopefully, we can cover almost everyone's printer.

Disk #2 will also have new clip art for your collection. Newsletter clips are designed for 2, 3, and 4 column formats.

features include Other albums of icons to use with your icon editor. The scraps are without designed paste to having to move the edit box. Albums will be provided with sets of patterns to use with "Set Pattern" that will give you shading screens for more professional shading of vour geoPaint pictures.

ORDER DISK #2 TODAY!

Send \$10.00 check or money order with your request to: 38 Santa Ynez Street Santa Barbara, CA 93103

For more information contact GEOWORLD or YumaLamb on Q-Link.



GEOS - Invaluable Utilities for GEOS By Peter T. Hughes Graphic Converters

Graphic Storm

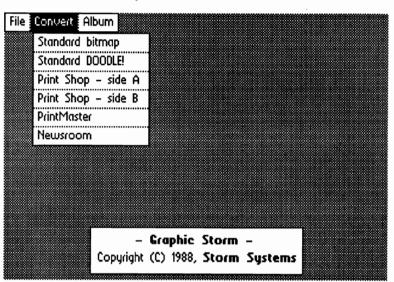
Graphic Storm by Joe Buckley is an application that will let one convert different graphics formats into a GEOS format. It will convert standard monochrome bitmap screens and Doodle! color high-resolution screens into compressed geoPaint files. It will also convert Print Shop side A and B and PrintMaster graphics and Newsroom photos into Photo Albums. This program is great for converting full 320 x 200 pixel Computereyes digitized images into geoPaint. In geoPaint the Computereyes and some other high-resolution pictures must be inverted to appear black on white. This program works very fast with GEOS TurboDisk and the RAM expander as a RAM Disk. Graphic Storm can create albums and load all desk accessories. Photo Managers can be used within the program to view graphics that are in Photo Albums.

Grafix-Link

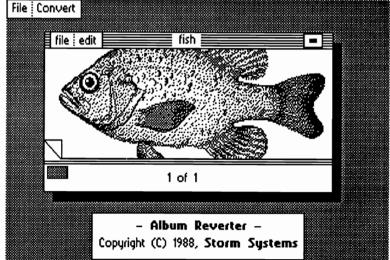
Grafix-Link from Solutions Unlimited is a great high resolution graphic conversion program. This program does not run under GEOS. It runs from the standard start-up mode of the 64 computer. Therefore loading and saving of files is not very fast. It can convert almost any high-resolution format to and from any other. This program can view any high-resolution graphic or picture including the top half - 640 x 400 pixel area - of a geoPaint file. Grafix-Link supports geoPaint, Billboard, Billboard ID - 4 Doodle! sized area files, Doodle, Flexidraw, Computereyes, Print Shop Screen Magic, Print Shop 2 and 3 block graphics, Print Master and Newsroom Photos. You cannot save any large graphics in Print Shop or PrintMaster format. Grafix-Link is available by itself or on Icon Factory 2. This program is great for GEOS users who want to import graphics into geoPaint.

Album Reverter

Album Reverter by Joe Buckley is a small, but useful program that will downgrade GEOS 2.0 Photo Albums to GEOS 1.3 Photo Albums. GEOS 2.0 Photo Albums are good in that pages can be individually named and pages can be searched and selected from a directory. But if one wanted to give his Photo Albums to someone who does not have GEOS 2.0, that person would not be able to open them. Also if one wanted to use ScraPeek to view the new Photo Albums or use PhotoPrint to print on his printer the graphics in the albums, he could not. These utilities will only recognize 1.3 Photo Albums. Album Reverter is a simple utility, but it can come in handy if you accidently upgrade a Photo Album and you did not have a copy of it. I recommend keeping copies of upgraded Photo Albums that had nice names put on each page so you do not have to do it









Inside Geos

A programmer's eye view into the world of Geos

By Master Blaster

Hello again, welcome back to another month of Geos programming. As usual I've been keeping myself rather busy. For the last couple of months I've been working on geoTerm V2.0. It's coming along quite nicely. One of the options that I included in it I would like to share with you this month. Let me explain:

I recently purchased Geos V2.0 and noticed that the new DeskTop would support three drives but that only the first two were available to an application. So the thought struck me that it would be nice to be able to access the third drive from within my terminal.

After some experimentation I found out that this is not only possible but quite easy to do. So this month I'm going to discuss how to access the third drive and present the routines necessary to accomplish this and still remain compatable with the earlier versions of Geos.

Disk Drives and the DeskTop

One of the first things that you will notice when you run Geos V2.0 (besides the fact that they still use that damn stipple pattern for a background) is that the new DeskTop supports three drives. The third drive has not been fully implemented however, it must be swapped with one of the other two drives in order to access it.

When you click on drive C's icon it will ghost just like a file's icon. You then place the ghost over one of the other drive icons and click again. The two drives will then switch places. The reason for this is quite simple when you think about it - none of BSw's applications are set up to access more then two drives

While it would be quite possible to have all three drives active at once (actually all versions from V1.3 up have the variables in memory to support up to *four* drives) if the user opened a file on the third drive one of the other two drives would need to be de-activated to ensure that the applications "...I thought that it would be nice to be able to access the third drive from within my terminal."

would never see more then two at any one time. This would create numerous problems (which drive would you de-activate, etc.) so BSw opted to simply keep the third drive available from the DeskTop but inactive. Not a bad compromise actually.

The first thing I needed to find out is whether or not the DeskTop was using the normal variables for the third drive, i.e. the third entry in the driveType and turboFlag arrays, etc. Some detective work with geoDebugger proved that this was in fact the case. If the DeskTop had used internal variables instead of the ones provided by the Kernal then the third drive would have been exteremly difficult if not impossible to access.

What the DeskTop does is keep all of the variables for the three drives in their normal places but it keeps numDrives equal to two (figure 1 lists all of the Geos disk variables and what they are used for in case you need to refresh your memory). When the user selects the third drive and swaps it with one of the other two the DeskTop simply swaps the variables for each drive around and then opens the 'new' drive. When an application is loaded the variables for the third drive are still there but since numDrives equals (at most) two the application won't know they are there.

One thing to keep in mind is that a file is never really open in the normal sense. The Turbo-DOS simply reads or writes

the sectors that the computer tells it to. The responsibility for keeping track of what files/disks are open is up to the application and the Kernal. When a disk is opened the Kernal will read in it's BAM, set the variable indicating if the disk is a Geos disk, and update the disk name buffer for that drive. That's all it does. So technically there is no limit to the number of files/drives you can have open at one time.

As a practical matter there is of course a limit, usually caused by the memory available and the desire to remain compatable with all of the versions of Geos.

Since the DeskTop maintains the proper variables, accessing the third drive is simply a matter of checking if the parameters for the third drive are valid (i.e. driveType is non-zero) and if so increment numDrives.

As with most things worth having there is one small catch: there isn't room in the 64 for more then one device driver at a time. The DeskTop will swap in the appropriate drivers when you switch drives but from within an application this is not possible (well at least not really feasible because you would have to peel the drivers out of Configure)

If you are running with an REU the Kernal will store all the drivers in it (at \$8300-\$B8FF in Bank 0) and swap in the proper one whenever the application calls SetDevice. This is done from within SetDevice and is completely transparent to the application.

On the other hand if there is no REU then the DeskTop will manipulate numDrives as necessay to ensure that all the drives are the same type. For instance if you are running two 1541's (or a 1541 and a 1541 RAM Disk) then the DeskTop will leave numDrives equal to two but if you are running a 1541 and a 1581 then numDrives will be changed to one to prevent the application from trying to access the other drive, it won't even know it's there. This has



created a bit of confusion with quite a few people because they can't figure out why they lose the DRIVE icon when they go to geoWrite or geoPaint. They think they have several drives online but the application only sees one.

This presents a small problem to implementing the third drive. Let's say that the user was running 1541's on drives 'A' and 'B' and a 1581 on drive 'C'. If the application sets numDrive to 3 and an REU is not connected then the system will crash when the 1581 is opened because there is no driver for it and the 1541 driver won't work. This is easy enough to work around but it must be kept in mind.

Initializing Drive 'C'

OK, now that we have some background information on what needs to be done let's take a look at the routines we need. Figure 2 lists my initialization routine called InitDRVVars. This routine should be called during the application's initialization. It will massage numDrives as necessary and load the application variables *boot_Drive* and *work_Drive*.

boot_Drive is used to hold the device number of the drive that was used to boot the application. I prefer all my applications to always exit back to the drive from which they where booted. Once this value is set it should not be modified. During your exit routine load the accumulator with boot_Drive and call SetDevice to open the original device.

work_Drive is used to hold the device number of the drive that is currently opened. It will be changed whenever the drive is swapped.

Initially InitDRVVars will set boot_Drive and work_Drive to the current drive (i.e. the drive the application was booted from). It will then check numDrives to see if it is equal to one. If so there is no need to check for the third drive so it will bypass this check. It will also bypass this check if the Kernal version is less then V2.0 since the third drive was not supported before that version.

If numDrive equals two (note that the check is for two not 'greater then one' so that if future versions of the Kernal fully support three drives this routine will still work) then InitDRVVars will check driveType+2. This is the drive type for drive 'C'. If it is zero then there is no third drive available and the

diskBikBuf	== \$8000	general disk block buffer
fileHeader	== \$8100	block used to holda Geos file's header block.
curDirHead	== \$8200	block contains directory header info.
fileTrScTab	\$8300	;buffer used to hold track and sector chain for a file
dirEntryBuf	== \$8400	holds a files directory entry.
DrACurDkNm	== \$841E	name of disk in drive A.
DrBCurDkNm	== \$8430	name of disk in drive B.
dataFileName	== \$ 8442	Name of data file.
dataDiskName	== \$8453	;Disk that data file is on (passed by the DeskTop).
PrntFilename	== \$8465	:Name of current printer driver.
PrntDiskName	== \$8476	;Disk that current printer driver is on.
curDrive	== \$8489	currently active disk drive (8-11).
diskOpenFig	== \$848A	;indicates if a disk is open.
isGEOS	== \$848B	indicates if disk is a Geos disk.
interleave	== \$848C	sector interleave used by BikAlloc.
numDrives	== \$848D	, # of drives running on system.
driveType	== \$848E	Disk Drive types: 1 byte for each drive.
		;0 = no drive 1 = 1541 2 = 1571
		;3 = 1581 4 = network drive
		bit 7set indicates RAM Drive
		bit 6set indicates shadowed drive
lurboFlags	== \$8492	:Turbo state flags.
this area valid fo	or Geos V1.3	
sysRamFlg:	== \$88C3	;In this article we will only be concerned with bit 6.
		this bit is set then the REU holds device drivers.
curType:	== \$88C6	copy of diskType for thecurrent drive.
DrCCurDkNm:	== \$88DC	Name of disk in drive C.
DrDCurDkNm:	== \$88EE	;Name of disk in drive D. (not yet implemented).
dir2Head:	== \$8900	used with the 1571 to hold sector #2 of the BAM.
This is valid for t	Geos V2.0 oi	nly
dir3Head:	== \$8A00	used with the 1581 to hold sector #3 of the BAM.

Figure 1 - Disk Drive Variables/Buffers

routine will exit.

If the type is non-zero then a drive is there so it will check if drive 'C' is the same type as drive 'A'. If not it will check for device drivers in a REU. Only after these tests are passed will it increment numDrives to three. Finally NewDisk will be called to ensure that work_Drive is initialized properly. You could change this to a call to OpenDisk if you want to but itisn't really necessary.

If you wish you can put in a call to SetDevice and check for drive errors as an added precaution. I have not found this to be necessary but it probably wouldn't hurt. Just remember to call SetDevice again with the value in work_Drive after you are through or else change work_Drive so you don't confuse the drive swapping routines.

Swapping Drives

Up until now applications could switch drives by simply EOR'ing curDrive with one and calling SetDevice. This would cause the device number to toggle between 8 and 9. This is one of the main reasons that they won't work properly with three drives. Now that we do have three drives things become a bit more complicated.

Instead of manipulating the drive numbers directly an application should call the routine SwapDrive (see figure 3). This



current drive and exit. Note that the drives are selected in increasing order, i.e. 8-9-10-8 or 8-9-8.

It is a good idea to re-open the current drive whenever you need to access it in case the user has switched disks. If you don't do this you will need to check the disk name in memory with the one in the disk header to ensure that the disk is the same (you will need to call GetDirHead). This will prevent copying the wrong BAM to a disk and thereby destroying it

If you are only reading the drive then this is not strictly necessary because as we learned before the Turbo-Dos doesn't care what disk is in the drive but it is not a good habit to get into. It is real easy to add a routine that writes to the disk and forget that the disk may not be opened properly. In virtually all cases it is easiest to simply call OpenDisk. It only takes a second to open the disk; the user won't even realize that this is happening.

SwapDrive uses the routine NextDrive to choose the next available device number. The application should never need to call this routine directly. Although there may be times when you need to see what drive is up next. In this case just remember to save work Drive somewhere and then restore it after the call to NextDrive.

Because the functioning of this routine is rather trivial I won't go into details about how NextDrive functions, the comments included in the figure should be enough to understand it.

If your application needs to know which drive is active it can check either work_Drive or curDrive. If you wish to simply re-open the current drive without actually switching to another drive simply load the accumulater with work Drive and call OpenDisk. Don't forget to check for disk errors.

In your exit routine you should include a small routine to check if numDrives is equal to three and if so then decrement it. I don't really think that this is necessary but it is a good idea to restore the system to the same state you found it in. The will help to prevent incompatability problems with future versions of Geos.

Using the New Routines

Once you get the routines typed in simply keep them in the same file and link it into your applications. The device swapping is

InitDRVVa	ırs - Initia	alizes and	stores di	ive numbe	er(s). Call
	this rout	ine during	your app	lication's l	nitialization.
	Will cha	nge numC	rives to 3	i if possibl	0.
	Pass:	nothing			
	Ret:	boot_Driv	/e - devic	e applic. t	pooted from
		work_Dri	ve - cure	ntly opene	d drive
*******	*******	********	********	********	********

InitDRVVars:

	MoveB	curDevice,boot E)rive		
	sta	work_Drive	indicates current drive		
	lda	numDrives			
	qma	#2			
	bne	20\$	branch if one drive		
	kda	version	:ensure version > 2.0		
	cmp	#\$20			
	bcc	20\$	no - leave alone		
	kda	driveType+2	check for third drive		
	beq	20\$;no so leave alone		
	and	#%1111	clear REU bits		
	sta	max	temporary		
	kda	driveType	drive A		
	and	#%1111	clear REU bits		
	cmp	max	;drive A = driveC?		
	beq	10\$	yep, it's OK to add it		
	kda	sysRAMFig	no, so check for REU		
	and	#%0100000	;device driver bit		
	beq	20\$;no REU or drivers in it		
10\$:					
	;you can	ou can put in a call to SetDevice here			
	inc	numDrives	;will now equal 3		
20\$:					
	jmp	NewDisk	initialize boot drive		
.ramsect					
boot_Drive:		.block 1	drv applic, booted on		
work_Drive:		.block 1	currently opened drive		
.psect					

Figure 2 - Initialization

routine will find the next drive and open it. If there is a disk error then the routine DiskError is called to display an error box and give the user a chance to fix the problem

DiskError was presented in this column in GeoWorld Volume 2 Issue 4 Number 13. If you don't have a copy of that issue just substitute your own error handling routine. Make sure that the routine does nothing except put up a dialog box telling the user there was an error and when finished return to the caller (in the case SwapDisk).

Note that if there is a disk error then SwapDrive will continue searching for a valid drive. For example if drive 'B' is active when SwapDrive is called and there is a disk error on drive 'C' (the first drive it will check) then after the error handler returns the SwapDrive will loop back and check drive 'A'. This can be changed so that it simply re-opens the original drive if that is desired.

SwapDrive correctly handles single drives of course, if numDrives equals one then the routine will simply re-open the

rather transparent to the application so there really isn't a whole lot of set-up or special planning required. Simply call InitDRVVars during the initialization and then make a call to SwapDrives whenever you wish to switch to a different drive. Don't forget to restore numDrives when your application exits.

Since SwapDrives opens the new drive and does all the error checking (it will not return to the caller until a drive is opened without errors) there really isn't much else an application will need to do. After a call to SwapDrives the new drive will be opened and ready to go.

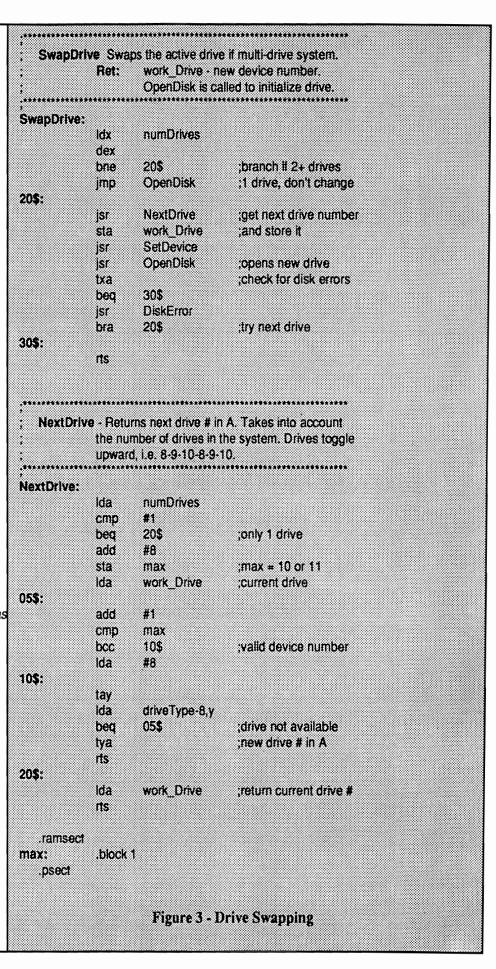
Some Final Thoughts

Hopefully these routines will help you to incorperate three drive support into all of your Geos applications. As more and more people purchase additional drives and REU's this feature will become increasingly useful.

With any luck BSw will begin to fully support three drives as new versions of it's applications are released. Only time will tell I guess so keep your fingers crossed.

Well it seems like I've run out of room for this month. As always if you have any problems, questions or suggestions about this or any of my articles, or have a question about Geos in general, please don't hesitate to leave me EMail on Genie (my address is WC.COLEMAN) or send me regular mail via GeoWorld. Happy 'puting.

Master Blaster (aka William Coleman) has written numerous public domain and commercial Geos programs. He is a Sysop in the Commodore section of the GE Information network (GENIE) and lives in Green Cove Springs, FL with his wife and two children (and yes his kids are turning into computer potatoes too)!.



(BIEC) WYNRLID

Making Charts for Overhead Projectors with GEOPUBLISH.

When I first purchased my Commodore 64 four years ago, I did so with the hopes of one day, being able to utilize it in my work as a minister. It worked great for my general word processing needs, but I soon realized I should be able to do more than type letters and outlines. I felt I should be able to make charts for overhead projector use. It has been said that 80% of what we learn is through visual

By Mike Hughes

good but again they were lacking in size and thickness. Along comes geoPublish and my need has been met!

GeoPublish works great for a multitude of my needs. It allows me to help with the publication of a religious magazine that has a circulation of 2,000+ readers. But moreimportantly, it allows me to make overhead transparencies.

The first thing I do is to load GEOS and geoPublish. I

It has been said that 80% of what we learn is through visual Stimuli.

stimuli, or that which is through our sight. So with this thought in mind I considered it a priority to do Charts for my work.

The first try was using programs like Print Shop and PrintMaster. They worked O.K., but the fonts available were not large enough.

Roughly a year after I purchased my C-64, Berkeley Softworks came out with GEOS. I thought this may be the answer. I bought the program and the fonts were use aC-128 and a 1764 that I have upgraded to 512K of memory. I also use and recommend the 1351 mouse.

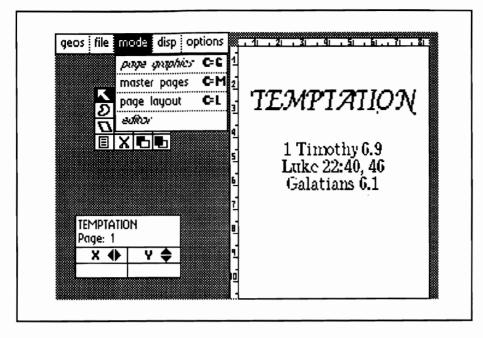
When you first load geo-Publish and select "create" a new file, click on "drive" in the menu. This will allow you to make your file in the REU. If I am printing them on my printer I use Fonts that I know will give me fat letters like; Mega Roma, Mega Cal, & Oxford. Usually you will only be able to use 2 if you use a 1541. Now, with everything set, let's go through a typical session:

GeoPublish first opens defaulted in Page Graphics, which is the mode all charts are made in. Go to the toolbox and select the T for text. Next move on the page where you wish the first line to appear. Most of my charts are to be shown in a large auditorm so after you type in the text, select the attributes. In the attribute box, you will be able to select the font you want and the point size. In my large auditorium, Ι always use point sizes greater than 36 point and always select bold and smooth. After you finish selecting, click on OK. You should now be able to see the text print out on the screen.

If you wish to center the line of text, go to the tool box, select the pointer and then move to the line of text, clicking to highlight it. On the lower right corner of the box around the text will be a small box. Click on it and extend out as far as you wish the area to extend for centering. Now go to the attributes selection, third row last column on the toolbox, and click. Go to the justification box and click until it says "center". Note: I usually start my text on a left margin of 1/2inch and extend out to 8 inches.

continued next page





This process is repeated for each and every line that you wish to write for a chart.

There are two ways you can get your print-outs for making the transparencies. First, you can print them out on your printer. When doing this I use the Cal and Oxford fonts. Or, if you want a truly professional look, use a laser printing service like *Laser Direct*. Of course when using the laser service you must use the laser fonts. Good Fonts for that are LW-Cal, LW-Roma, LW-Cowell and LW-Galey.

When you finish printing your charts there are several ways to get from the paper to the acetate transparencies that most overhead projectors use. One way, if you have a copy machine available, is to buy transparency film for plain paper copiers. Let me caution you to be careful if your copy machine generates a lot of heat. Buy the heavier film! There's another way to work for those who do not have access to an expensive plainpaper copier. Machines called Thermal Copiers can be bought at garage sales and from businesses selling used office These machines equipment. allow you to run your copy and film through a heat process to make the transparency. These usually machines can be purchased for under \$50.00.

This is the method I use and they work great. This takes a special type of film labeled for Thermal Copiers. The film is usually cheaper than the film for the plain paper copiers. Again, some of these machines generate more heat than others. Both of these films are available where they will print black on clear, rainbow, (which is assorted colors on clear), and colored film that has black print.

Overhead transparencies are useful in many other areas besides church work. Teachers use them in classrooms, where one could get by with smaller point sizes, getting more information on a page. Businesses can use them for sales presentations. By using GeoChart, you could import pie charts, bar graphs and other charts or graphs to illustrate your figures.

I would love to hear from anyone using GeoPublish to make charts. I recently did a lesson where I needed a Venn Diagram, 3 circles with parts of each one touching the other. GeoPublish worked nicely. I sent it off to Skip at *Laser Direct* and got a professional looking chart. If you would like to correspond here is my address:

> Mike Hughes P.O. Box 2481 Corinth, MS. 38834 Phone: (601) 287-6413

Editor's Note:

Avery, the big label manufacturer, has come out with heat-resistant plastic sheets you can feed through a laser printer. These are specifically designed to produce overhead projector transparencies.

Because laser printers and office copying machines produce printed copy in the same way, either one can be used with the sheets.

For another way to make color transparencies, you might try transparent color inks and felt pens. You could set your type in an outline style and color the letters along with simple line artwork on the transparency. Office supply, or school supply stores may carry some of these items, as well as art supply stores.

--Susan Lamb



GEOWRITE 2.1 VERSUS THE WRITE STUFF VERSUS GEOPUBLISH

There is little doubt that I find GEOS to be a superb operating system and indispensable for the serious use of the Commodore 64 and 128 computers, indeed elevating them to the level of the larger, more sophisticated computers. Following the publication of my previous article in GEOWORLD, Paul Hughes Q-Link). (Svsop PH on recommended that I try out The Write Stuff, a new C-128 word processor released by Busy Bee Software.

Experimenting with the program has led me to see, (now that GEOS 2.0 is a reality for the C-64 and will soon be available for the C-128), that Berkeley owes us a new generation of Geowrite, which I would call Geowrite 3.0. I, (and I suspect BSW as well), had pushed to the back of my mind the many things which the old workhorse word processor just cannot do which word processors like the The Write Stuff can do. Indeed, such capabilities have. I am sure been available from programs like Paper Clip, but I've never used that program. Yet The Write Stuff demonstrates that advanced word processing capabilities are available from a program costing around \$24.00.

In order to better understand this, I would like to examine some of the capabilities of *The Write Stuff*

to demonstrate just what speed and improvements are available from it. One of the features is the nicest availability of "macros". In order to comprehend these. you should note that in this paragraph alone I have typed the word "the" five times. Using macros, you would only type ":" and "the" would All commagically appear. mon words have defined macros and if you are going to repetitiously use terms, you can define your own macros. If at any time I wanted a real colon I, of course, would turn off the macros. This is an infectious advantage if you are doing a lot of typing.

Another feature is soft hyphenation. I virtually never use right-justification with my newsletter or other things I do with GeoPublish or GeoWrite because the programs are just too clumsy in dealing with this. If you attempt to do it, you will find that the program, as most word processors, seeks to make any justification by spacing between the last two words on the line. What this frequently means is that you have a blank space running down the right portion of your It becomes greatly copy. exaggerated when the word wrap must take to the next line a long word leaving a truly gaping hole to fill. The Write Stuff has a remedy for



Time for a new GeoWrite By Marshall Kragen

this that should now be incorporated into GeoWrite. That remedy is to allow for the soft hyphenation. What it does is allow the program, subject to your override, to seek out the various places a word may be hyphenated. You then select your hyphenation choice and word wrap hyphenates at that point so some lines will be justified without spacing. This then remedies the ragged look.

Another feature that could be incorporated, (already available in *The Write Stuff*), is an automatic outline generator. Outlining is a helpful writing tool and one which computers can easily assist with. It is expeditious to be able to organize and sort out your thoughts on something you are writing, then at the same sitting, expand to the fully completed document.

If you like all of these features and therefore want to take advantage of them by using *The Write Stuff* and then converting to GeoWrite, this may be easily done by using the *Text Grabber*, *Generic Type I* to convert to GEOS format. The only thing lost is the soft hyphenation and I see this as one of the best features.

All said and done, there are still tremendous advantages to GeoWrite 2.1.

continued next page



First of all, it is a WYSIWYG word processor, meaning that the screen displays what your final copy is going to look like, and this is in 80 column mode so you are looking at the full page width. The Write Stuff however, is not and, quite the opposite, displays format commands throughout the typing process. This means that as you are looking at the screen vou see a disconcerting jumble of letters and signs in the middle of your copy. This prevents you from getting a clear idea of what you have produced until you print out a copy.

Another fundamental difference is that you are limited in The Write Stuff as to the number of different fonts available as well as the various means of printing those out. GEOS gives you a vast number available in total and even in one document. Of course, those doing much desktop publishing know the most dangerous mistake that can be made is to mix too many fonts. But some leeway is important and The Write Stuff does not provide this. Neither does it have a way to incorporate graphics into your text, a very powerful attribute of GeoWrite.

Also lacking, at least for the time being is a spell checker which GeoWrite does make available. The Write Stuff does promise this for the future, however, as well as a thesaurus, which would put it way ahead of GEOS.

Even with these two pending features, I would have to still say that I favor GeoWrite for most applications, especially since I am constantly working in the GEOS environment. It is easier doing everything in GEOS and not moving in or out. If I wasn't so hooked on GEOS. I would seriously weigh these advantages and disadvantages. I think each 118 would come out of differently on which best meets our needs.

Interestingly enough, the manual of The Write Stuff attempts to address some of these situations in another way. At the end of the manual, it urges that if desktop publishing is going to be done, it not be done with Geo-Publish, but instead with The Write Stuff. Why? Because, it is claimed, GEOS fonts do not print out with definition. Nothing could be further from Print definition the truth. arises not from the program, but from the printer's capabilities and from the driver used with that printer. If one wants to assure good quality all that is needed is a quad density driver allowing for multiple striking in order to assure good quality. Instead the manual suggests that clip art be purchased or printed out with a graphics program and then both text and graphics pasted onto the page. Nothing could be more painful, especially when it is considered that GeoPublish will do such a professional job of co-mingling the two properly, and aligning all on the page with only a few moves of the mouse.

It is this that makes

GeoWrite my ultimate choice. If it is not used from the beginning, several steps may be necessary to finally get to geoPublish, which is where I always want to be. You will have to compose the document with The Write Stuff. convert it with Text Grabber, then use Wrongiswrite to change the No, what is needed format. instead is for BSW to reap the profits from the market that demands a better Geo- Write. The time for a new generation is clearly here.

If you have any comments or questions send E-Mail to *Marshall* on Q-Link.

Editor's Note: For many of us, GEOS has become addictive with it's easy icon file-handling, WYSIWYG applications and excellent graphic capabilities. Although I own many outstanding word processors and graphics programs, I dread dragging out the manuals to re-learn all the commands.

GEOS, and geoPublish in particular, has me spoiled to where I only want to use prorams that are easily converted to GEOS format.

GEOWORLD will assist those trying to produce betterlooking geoWrite & geoPublish documents with a dot matrix printer. GEOWORLD Disk #2 will feature as many small-size fonts and density print drivers as we can find. The right combination will give print-outs of "near-letter-quality", yet still allow for font styles such as bold and italic.

While waiting for a new geoWrite, maybe someone will create an outlining program?



Let me again repeat myself, "I am a GEOS fanatic!!" If it is available for GEOS, I either have it or it's on order. When I bought my 64 way back when, (I paid \$595 for mine, little did I know...), there was very little in the way of good word processing programs. drawing or feverishly bought all the productivity programs that came out, only to be disappointed in them.

Then one day, in one of the many magazines that I subscribed to, I saw an advertisement for something called *GEOS*. Wow, I thought, a word processor and drawing program on the same disk! I also have to admit, being a former student at U.C. Berkeley, that the name of the company intrigued me.

So I sent a check for it and patiently awaited my new toy. When it arrived and I tried it, I could hardly contain my excitment. My 64 was a completely different machine. It was at that point I became hooked.

At the next meeting of my users group I gave a brief demonstration as to the capabilities of GEOS. The response was fantastic. I probably helped BSW sell at least a dozen packages. (Too bad I didn't get a commission By -- John Tackett

for it all.) I wasted no time in using geoWrite and geoPaint. My resumes were printed using geoWrite and, with the graphics of geoPaint, I was able to create some fantastic newsletters for my company.

As BSW released more GEOS add-on products, my library began to grow. I was using geoFile to catalog my comic book collection. I started using geoDex as an address book for all my business contacts.

I also became a subscriber to Q-LINK and was surprised to find a GEOS section. Great, now I can get more GEOS goodies and meet other GEOS users to share info with. Slowly my personal GEOS library grew. I purchased anything related to the world of GEOS. But the best was still to come.

By now my library had grown to over 25 disk (This including work disks and storage disks.) Through Q-LINK, I was able to learn about MYSTIC JIM'S shareware disk program. I was also introduced to a great new magazine devoted to GEOS. (In case you haven't figured it out yet, you're reading it).

But for me the crowning achievement for BSW was the release of GEOPUBLISH. I had been using geoWrite to publish my store newsletter and was becoming quite good at cutting and pasting printouts and graphics together. But now with geoPublish, I could do true desktop publishing on my 64. During this time, not only did my GEOS library grow, but so did my system as I added another 1541 and the 1764 REU.

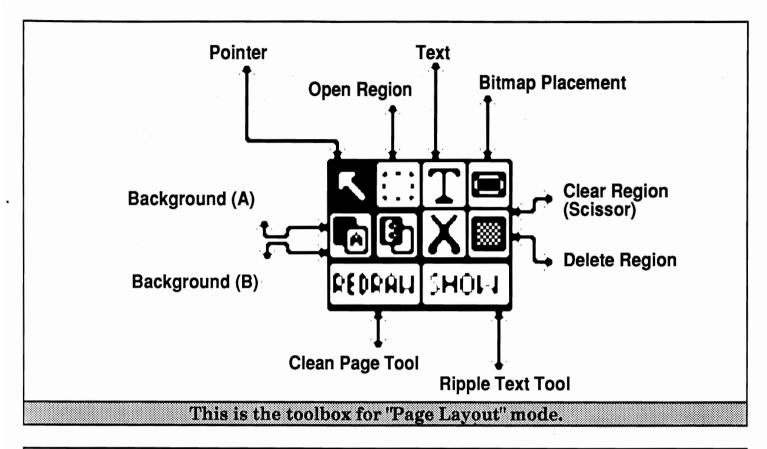
Well, by now I have become the sysop of the GEOS section of my users group BBS. I have also become the GEOS guru of my users group. My GEOS library has grown to over 80 disks, packed full of GEOS-related items and there is no sign of slowing down.

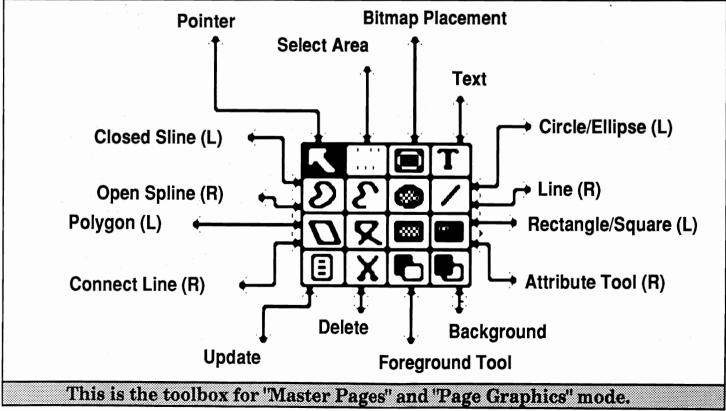
What lies in the future for me? Well 2.0 has arrived and again my 64 will never be the same. My 1581 is on its way and dare I say it. . . I am in a position to add a laser printer to my system. It has been about 6 years since I bought my 64 and with GEOS I hope to have it another 6 years and beyond. Thanks to BSW and all the others, too numerous to name, who have made GEOS so great.

If you too are a GEOS fanatic I would love to hear from you. Just leave me some E-mail on Q-link, my name is JohnT27.

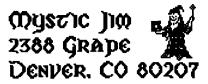


GEOPUBLISH TOOLBOX





(RIEO WYSIRILID)



We're finally getting going on programming again; there's a lot to do, but some important stuff is ready for distribution:

GEOHACKER 2.0 is ready. It'll be on the HACK'N GEOS Disk, and on the BBS by Dec. 1. It now does GEOS 2.0, including all of new applications included with it, and it "uninstalls" all GEOS so you can try again after the installation screws up. It also edits serials numbers so you can match up all of your stuff. The present version has one glitch: the "Trojan horse" in the new Desktop hasn't yet been eliminated, but we're working on that. By the way, that TH is a real bitch, trashing bootfiles at the strangest times. However, with a bit of care, you can get around it; we've included instructions for that in GEOHACKER.

Speaking of 2.0, we STILL haven't received our upgrade copy from BSW's "wish" Fulfillment Center, after four months of trying. I have to admit that BSW has been trying as hard as we have, but the jinx is obviously in. For anyone else who has been having problems like this, remember that BSW has a big job to do, since GEOS is growing in value, quality and popularity so fast. These upgrade offers are a fantastic deal, and the folks at BSW will do their best to make them work for you.

GEOTRONIX is done. Whew!, there's a lot of stuff there, and it'll be a big job grinding out the disks and printing, but we'll get 'em out as fast as we can: thanks for you patience- we think it'll be worth the wait.

We continue to be unable to supply 128 video RAM upgrade kits because of the Japanese chip "embargo". It may be as much as a year before these chips are available again.

We have, however, been able to obtain some Tim's Timer Real Time Clock chips. These clocks are now available as a port#2 plug-in (with pass-through), and for internal installation in both the 64 and 128; the internal versions now require no soldering. These clocks are great with GEOS 2.0; the correct time and date are always automatically displayed on boot-up, with no setting. We're looking forward to GEOS128-2.0, with the same feature!

We've been getting lots of foreign orders, from Japan to Australia, and we're really thrilled about that, but the postage is killing us. We regret that we're going to have to charge extra for non-USA postage from now on. and we can't give GEOWORLD subscriptions with foreign memberships:

1) Foreign memberships will still be \$50, but without GEOWORLD, the difference going for postage.

2) Additional disks cost \$3 for foreign members.

3) Inquire about rates for other foreign orders.

Check out this month's (November) issue of COMPUTE's Gazette for the GEOS column authored for the first time by yours truly. It's about a couple of BASIC programs that do the same things as programs found on one of our disks: converting Commodore custom character sets to GEOS fonts, and editing the new font IDs. If you're one of those font fanatics (like us), you know how important it is to have unique IDs for all of your fonts; the font ID editor found in the Gazette allows 1023 unique IDs, not just the 255 provided by GEOFont.

We're designing a MYSTIC JIM T-shirt! 'Hope to have an announcement next month, but here's who's on it:



Dest.



The message below was posted on Quantum Link November 30, 1988 by the Berkeley Softworks.

Please note that due to ever increasing demands for Customer Support, we have been forced to modify our service offerings.

In an effort to improve the quality and timeliness of our service, we will focus our efforts exclusively on Quantumlink. As a result, we will discontinue direct telephone support. We regret any inconvenience this may cause. We believe this change allows us to best serve the greatest number of people.

If you have a question regarding product fulfillment, please call (415) 644-1372 and leave a recorded message. A member of our Customer Service Staff will get back to you within 3-5 working days. This is NOT a technical support line.

At press time (late November) BSW announced that they will no longer provide telephone support for GEOS users. We have previously reported that in fact BSW had increased their staff to answer phones but apparently the Executives at BSW feel that the effort wasn't helping GEOS users.

There remains a big question of what about the People who do not have access to Quantum Link? BSW will still respond to questions via mail but for timely help it will be almost worthless. Q Link has always been the best source for help, even without BSW's participation there is a core of dedicated users who have provided much of the help that is available.

There is no doubt that BSW's telephone support lines never really offered much help. They were almost always busy and when You could get through, it was very hard to get answers to complex problems. From what I have been told, BSW just couldn't keep up with the calls and received too many complaints.

GEOS is really a new breath of life for the Commodore 64/128. With such a great product as GEOS and its applications getting support is vital if it is to survive. GEOWORLD has been dedicated to helping in this area and We will continue to do so.



Issue Number 2,3,4,6,7,8,9 \$2.00 each postpaid Issue Number 10,11,12,13,14,15,16 \$2.50 each postpaid

Send check or money order to:

GEOWORLD 38 Santa Ynez St. Santa Barbara, CA 93103

12 Issues - \$20.00 Canada \$30.00 - Overseas Airmail \$50.00 send check or Money order to: GEOWORLD 38 Santa Ynez St. Santa Barbara, CA 93103

Subscribe to GEOWORLD!



Re	enewal	

Name

Address

City, State, Zip Code

