

geoWorld

March, 1988

Volume 2 issue 3



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Ad & Article Copy Deadlines are the 1st of the previous month that you wish the material to appear.

As the world GEOS by...

Roger Ledbetter

Welcome to the March issue of GEOWORLD! It has been one year since the first issue has been published, for those of You who were not with us then that issue was sent free to anyone who asked for it. At that time none of the Commodore magazines had a monthly column about GEOS and the only way to get information about the "Official operating system" was to access Qlink. It has been a learning experience for all of us, including BSW, but much of the success for GEOS has come from the Users Themselves.

For those of You interested in a printing/ publishing service I would like to offer My help. Telegraphics is a complete service that can print Laser produced GEOS created newsletters, brochures, price list catalogs, envelopes etc. A complete mailing service is available at very reasonable cost as well. This is a perfect opportunity for People interested in using GEOS for publishing any large quantities for mailing. You supply the GEOS files and mailing list on a data base, Telegraphics will do the rest. There are several ways to use this service. Modem transfer can be arranged (a bbs is planned), mail the disk to us, or better yet upload to Laser Direct for expert laser printing preparation and proofing. Please contact Me through GEOWORLD for more information or if You have special requirements.

Seven additional fonts supported by the laserwriter plus are now available for GEOS. They have the names of LW Shattuck, Galey, Cowell, Piedmont, Haviland, Bacon and Giannini. See the font sample chart in this issue. Apple GEOS is a 2.0 version of the system, BSW is "looking into" development of the 2.0 for Commodore but no release date has been set. 2.0 will have enhanced use of the RAM expansion as well as support for the 1581 drive.

The last two cover designs has given GEOWORLD a new look, thanks to the help of James Hastings. Looking at the material that has been submitted over the past few months I can see that the content is becoming even more informative. It is My hope that GEOWORLD will continue to become bigger and better with each issue through the efforts of the People that contribute to this publication. The future of GEOS looks bright indeed. Until next month....

User help

SUBJ: BeckerBASIC

FROM: GeoRon

I got it. Here's a short review of it. BeckerBASIC operates as an Application file. BASIC programs created with it are 'application data' files. These application files (programs) can access 'data files' and can create SEQ files.

Becker exist in three separate modules: an Editor, a Tester, and a Runtime Module. The Editor is used when enter your programs, and it can run(test) programs, that don't use HI-RES commands. The Tester can run a program in memory, load a program from disk, load the Editor, or load the deskTop. The Runtime Module MUST be used when a Becker BASIC program is used. Becker BASIC is an interpreter, so it must be in the computer at the same time as a program written in Becker.

BeckerBASIC, itself, has no drop down menus, Hi-Res display, or any of the other GEOS Hi-Res displays. Instead it uses a 40-Column TEXT screen the same as BASIC 2.0. This was done for memory considerations. Using Hi-Res would have cost about 8K. It has 273 commands, structured programming (do/while loops, if/else/ endif/ restore "line Number", etc.)

Command for sprites; disk access(50 commnds); Hi-Res (windows,ect.);sound; editing (renumber, autonum, etc); Error catching; etc. You can even 'rename' commands.

BeckerBASIC is in the computer at the same time as GEOS, but still leaves almost 16K for programs. Has programs for creating dialog boxes, windows, and sprites.

Loading the Tester module from the Editor takes about 9 seconds. Note that you CAN'T use desk accessories while in

BeckerBASIC. BeckerBASIC is a structured BASIC, which operates under the GEOS operating system. It can be used to write non-graphic text based programs. Or Hi-Res, menu based programs. These Hi-Res menu programs are actual text themselves, but have commands to access files containing sprites and the menu displays. (Similar to C=128 BASIC 7.0's sprite files.) Programs that have have these Hi-Res displays look exactly like non-Becker based GEOS programs.

To me, BeckerBASIC files are the similar, if not the same as, Commodore BASIC programs: they can be listed, need to use the "RUN" command, and need to use an interface to the Operating System. "Regular" GEOS programs, meaning the ones created with assemblers and monitors, are similar to Commodore machine language programs; they can start running the second they finish loading, don't need to use any interface, (such as BASIC 2, or BASIC 7.0), and run un-listable.

SUBJ: 512expansion

FROM: KeithL6

I had my 1764 expanded to 512k and when I double click configuration, it has 512, but when I click the 1764, it says I have 169k left. Is there anyway to change this?

SUBJ: It's a RAM disk...

FROM: LarryEric

That means it's trying to duplicate another disk drive: a 1541 in C64 mode, either a 1541 or a 1571 in C128 mode. The REU will only give you access to enough memory to duplicate the drive selected. C128 users do receive the full benefit of the extra RAM when using an REU as a RAM disk.

A programmer's eye view into the world of Geos

By Master Blaster

This month we will continue with our discussion of Geos

disk routines. Last time we discussed what the Turbo DOS is and how it is used. We also covered the various ways of inputting data into the computer. This month we will begin looking into how to save data onto the disk. We will start at the highest level routines and work downward toward the more primitive. Next we will discuss some of the BAM manipulation routines that are used to allocate and de-allocate disk sectors.

The highest level save routine is called SaveFile (\$C1ED). This routine will save any type of Geos file. To use it you must have an image of a header block stored in the computer then simply load R9 with it's address and call the routine. You must also pass a directory page in R10L. SaveFile will start at this page when trying to find an empty directory entry. All of the information needed to save the file (filetype, start and end address, etc.) is contained within the header with the notable exception of the filename. The first two bytes of the header image (which would normally be the track and sector link) must point to a null terminated filename. If a file with that name already exists an error will be returned unless you delete the old file first. SaveFile will replace the first two bytes with valid links after the header image has been saved to the disk.

The header block itself can be either stored within your application (data files usually have the same header block so you can compile the header with the program) or it can be built up from scratch. Certain fields do not need to be used (the text area for instance) but a zero should still be inserted as the first character so that the DeskTop or other utility programs do not try to print garbage. A good idea is to initialize the entire 256 bytes to zero and then write in the information required.

SaveFile can also create empty VLIR files but since these files will be discussed

in depth in a future issue, we will defer the discussion until then.

If you need more control over the data that is saved you can use WriteFile (\$C1F9). This routine will simply write data to the disk at the sectors you specify. It will not allocate blocks nor verify what has been written. It can come in handy for custom file formats, etc.). It is also handy if you have made numerous changes to a data file but have not changed it's length - just write the new file right over the top of the old one.

To use WriteFile simply pass a pointer to the data to be saved in R7 and a pointer to a table of track and sector links to save the file to in R6. Usually FileTrScTab (\$8300) is used for this purpose but it is not a requirement. Note that WriteFile will place the normal track and sector links at the beginning of each block so if you require a custom disk format (random files, etc.) you will need to use a lower level routine. The track and sector link table can be built up with BlkAlloc or NxtBlkAlloc which we will be discussing in a moment.

PutBlock (\$C1E7) is the opposite of the GetBlock routine we looked at last time. It will write a single block to the disk. All 256 bytes are the applications responsibility, this routine will not insert track and sector links. Using this routine is simple: load R1 with the track and sector of the block and R4 with a pointer to the 256 byte buffer to be saved (usually it will be DiskBlkBuf (\$8000)).

PutBlock is useful when you need to modify a single block of a file or for appending additional sectors to a file. Just remember that the track and sector links must be set up prior to saving the block.

Allocating Disk Space

As you have probably noticed some of the lower level routines assume that the sector to be written has already been

allocated. Geos provides several routines that will allocate single blocks or even entire chains. There is also a routine to de-allocate a block and one to find the status of a particular block. We will examine each one in turn.

The first routine we will look at, BlkAlloc (\$C1FC), will allocate an entire chain of blocks. To use it simply load R2 with the number of bytes to allocate space for, R6 with the address of the table to store the track and sector pointers of the blocks allocated (usually FileTrScTab) and CurDirHead (\$8200) with the disk's header (you can use GetDirHead). The interleave is also taken into account but that is preset and should not need to be changed (but you can if you need to).

BlkAlloc will return the number of sectors allocated in R2, the track and sector of the last block allocated in R3 (track in R3L), and then number of valid bytes that are in the last sector in R8L. The table that was passed to it will be filled with a list of the track and sectors of all the blocks that were allocated. The BAM is updated but it is not written back to the disk so you will need to call PutDirHead to re-write the disk header. Of course as always the X register will contain any errors that occurred or zero if everything went OK.

Note that nothing is actually written to the sectors themselves, they are only allocated in the BAM. What you do with them after that is up to you!

NxtBlkAlloc (\$C24D) is similar to BlkAlloc except that the track and sector to begin searching for free blocks is passed in R3. All of the other parameters passed and returned remain exactly the same. This routine allows you to append to a file and have the appended portion situated as close as possible to the original file on the disk. Nothing slows down the drive more than having to drag the head all over the place.

One point I should mention here, neither of the chain-allocating routines can

allocate space for more the 32,258 bytes (127 sectors). This should not, however, be a problem because there isn't room to load in a file that big anyway. If you need to use really large files you should use VLIR files.

The next routine we will look at is called SetNextFree (\$C292). This routine will allocate a single block on the disk. You must pass the track and sector to start searching in R3 (R3L is the track). Again, CurDirHead must be read into the computer. SetNextFree will begin scanning from the sector you pass to it looking for a free block to allocate. If you pass it track 18, it will not leave that track. Any other track will cause it to continue searching until it finds a free block or gets to the end of the disk (skipping over track 18).

The interleave (\$848C) is used when searching the disk. This number is how far apart to place the sectors. For instance with an interleave of 8 and the last block at sector 1, the next block will go at sector 9. Normally you will not need to change this value but if you do make sure you do not set it below 8. If successive sectors are too close together the Turbo isn't finished processing the first block before the disk gets to the next one so it has to wait for disk to spin all the way around again causing a considerable loss in through-put.

If a free sector is found it will be allocated and the track and sector will be returned in R3. The BAM (i.e. CurDirHead)

is not written back to the disk, you will have to do that yourself. As usual any error codes will be returned in the X register; most notably insufficient_space (3).

Now that we know how to allocate blocks, how do we go about de-allocating them? There is one routine to do this: FreeBlock (\$C2B9). Actually there are others which we will get to next time but all of them are higher level routines that require a filename. Using FreeBlock is quite straightforward, pass the track and sector in R6 and make sure that CurDirHead is in the computer.

Please note that this routine will only work for V1.3 Kernal's and above. DO NOT use it with V1.2. The jump table entry in V1.2 is NOP'ed (instead of RTS'ed) out so if you call this routine it will fall through to ChangeDiskDevice - not at all what you had in mind. If you are using V1.2 use the internal routine at \$9844. Figure 1 is a code fragment on how to free a block taking the various different versions into account.

The last routine we will look at this month is FindBAMBit (\$C2AD). This routine will test a particular track and sector to see if it has been allocated. There are also several other pieces of information but these are only available with a 1541 driver.

To use this routine simply load R6 with the track and sector of the block you wish to test. If the zero flag is set (BNE will branch), then the block has been

allocated. The following information is also returned by the 1541 device driver only. If the drive is not a 1541 (as indicated by \$848E, see last month's IG) then do not count on this info to be valid:

The X register will contain the offset into the BAM to the byte which contains the bit for the sector you requested.

R7H contains the offset into the BAM to the byte which contains the total number of blocks free on the requested track (not the entire disk).

R8H contains the bit mask that that was used to isolate the bit within the byte in question. For instance, if the requested sectors bit is #5 the byte in R8H will be %00100000 = \$20.

The accumulator will contain the bit for the requested sector with all of the other bits cleared to zero, i.e. A=(A AND R8H).

This routine should not need to be used very much because Geos has plenty of routines that will automatically allocate sectors for you without you needing to check whether a block is allocated or not. But it still is nice to know it's there if you have a need for it.

UNTIL NEXT TIME...

Well I'm afraid I have just about run out of room for this month. In this issue we have covered the Geos disk file/block output routines and the routines that are used to manipulate the BAM.

Next month we will be discussing the various DOS utility routines that are used to scratch files, rename files, etc. We will also take a look at the lowest level disk routines. The following month we will be covering VLIR files. There will also be some subroutines and ML scraps to help you makes sense out of all of this. I hope to see you there.

About the Author:

Bill Coleman (a.k.a. Master Blaster) has written numerous PD utility programs for Geos, as well as several commercial Geos endeavors. He is a Co-Sysop on the C=RoundTable of the GE Information Network (Genie). He can be reached by sending E-Mail to: WC.COLEMAN

```

ASSUME THE BLOCK TO FREE IS PASSED IN R6
AND GETDIRHEAD HAS BEEN CALLED

FREEBLK:
    LDA $00F, VERSION BYTE
    CMP #632, IS IT V1.3?
    BCS 100, YES, DO NORMAL FREEBLOCK
    JSR $9844, INTERNAL FREEBLOCK
    JMP 200

100:
    JSR FREEBLOCK

200:
    CPX #0, WAS THERE AN ERROR?
    BEQ 300, NOPE, WE'RE DONE!
    JMP DO_ERROR, APPL'S ERROR HANDLER

300:
    JSR PUTDIRHEAD, RE-WRITE DISK HEADER
    RTS

```

FIG. 1 - FreeBlock example

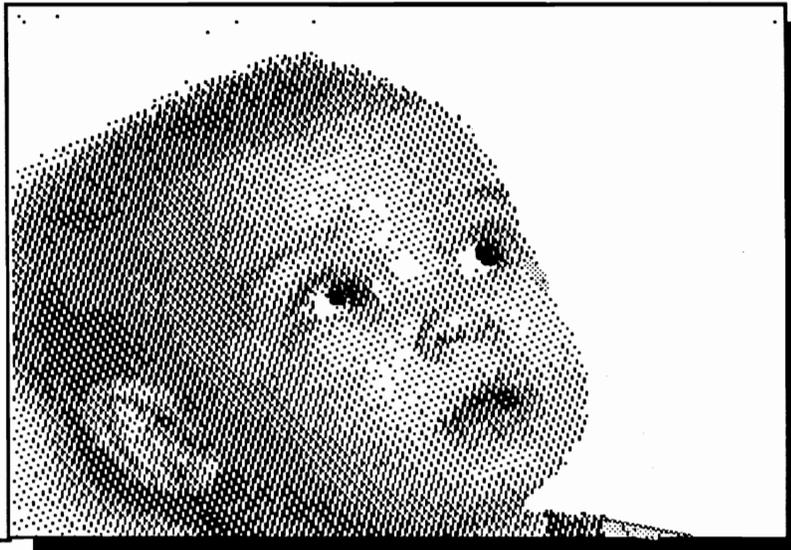
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Antigrav Toolkit Notebook

by Randy Winchester

Accessing Laser Printers



One feature sets GEOS apart from all other software for Commodore computers. It's the ability to produce high quality output on a laser printer. This month we take a look inside geoLaser and explore some hidden features not mentioned in the user's manual. There might even be a laser printer in your future...

Top Secret Communications

A lot of people aren't going to believe this. There is telecommunications software on the Writer's Workshop disk. Not only that, but this same GEOS application can write programs. It requires no knowledge of programming to use. The programs it produces are complete, fully executable programs written in a secret high level language. The chances are, even if you have Writer's Workshop, you've never even used this program.

The application is geoLaser, and the reason most people haven't given it a try is because they don't have a laser printer to toy around with. Not many hobbyists can afford a computer peripheral that costs almost as much as a new car. Even if you have a laser printer on hand, keep reading. There are quite a few tricks you can coax out of a laser printer aside from working with GEOS. If you're like most people, you probably don't have a laser printer at home. That's perfectly alright. Not having a laser printer is what prompted me to do these experiments.

So what of the secret language? This mystery language is called PostScript, which is the language

GEOS uses to communicate with laser printers. A laser printer such as the Apple LaserWriter is an intelligent peripheral in much the same way as a Commodore disk drive. It has its own RAM memory, microprocessor (a 68000, same as the Amiga!), and operating system. In some ways it makes sense to think of the LaserWriter as a specialized computer than merely a printer. It even has a built-in PostScript language interpreter.

PostScript was developed by Adobe Systems as a page description language. Its purpose is to define text and graphics objects and place them on a conceptual page located in memory. When the word is given, these graphics are painted onto a physical page on a sheet of paper.

When geoLaser is used with a laser printer, it reads a geoWrite file and translates it into a PostScript program. This PostScript program is transmitted to the laser printer, where the PostScript interpreter translates it into text and graphics. When the page definition is complete, the text and graphics get painted onto a page of paper.

geoLaser isn't the only GEOS program that can output PostScript programs. The LaserWriter printer driver also produces PostScript, and can be used with geoPaint and other GEOS applications.

Connecting to a Laser Printer

Imagine for a minute a situation in which you have a laser printer and a Commodore computer in the same room. They have to be connected in order to use them together. The LaserWriter has two communications ports, of which one is a female RS-232 jack. An RS-232 interface is required to connect the LaserWriter with the Commodore user port. The user port is the same port used for modems. One RS-232 interface which is known to work

with the Commodore and LaserWriter is the Omnitronix Deluxe RS-232 Interface. Make sure that the power is turned off on all equipment, then plug the interface into the computer, and the RS-232 connector to the LaserWriter. Set the baud rate switch on the printer to 1200 and turn on the power for the equipment.

Start GEOS running on the computer and insert a disk with a geoWrite document and the geoLaser application. Double click on the geoLaser icon. The first dialog box will ask you to choose a baud rate. Select 1200 and click on the OK box. Then a dialog box will ask you to select a file. Pick one and click on the Open box.

If everything goes well, you'll see the familiar **Printing... Cancel** box and the screen border colors will flash. In a minute or so, you'll have a high quality printed copy of your document.

Sneaking In the Side Door

What if you can't get a Commodore and a laser printer together in the same room? Even if you can find a laser printer that's a big possibility, since most laser printer owners are a bit reluctant to connect to a computer that costs ten times less than their printer. There are a couple of ways in which you can get your documents printed on a laser printer you might have access to, yet can't directly connect to. This might be a laser printer at your school or job, or one in the possession of a business, such as a copying or printing shop.

One method which has been used is to connect a 1200 baud modem to the LaserWriter. If the modem can be set to auto answer, you can call it from your



computer. In the case of a Hayes command set modem which needs to have auto answer switched on, first connect the modem to a computer or terminal and issue the auto answer command (ATS0=1). Turn the computer or terminal off, but leave the modem power on. Disconnect the modem from the computer, and connect it to the LaserWriter. Turn the LaserWriter's power on.

If you run a terminal program on your Commodore computer, you can dial up and connect to the modem attached to the LaserWriter. Once a connection is established, boot GEOS and run geoLaser or print using the LaserWriter printer driver. The output from GEOS will go to the LaserWriter, and your pages will be waiting for you.

The second method opens up even more possibilities, and is the focus of the remainder of this article. In this method, PostScript files are created and saved on disk. These files can be saved by almost any computer in almost any imaginable disk format. They can be sent directly to a computer connected to a LaserWriter.

If you have access to two computers with modems (one computer must be a Commodore) and terminal software, you can transfer files between them. You will need software on the receiving computer that has either a capture buffer, or can receive an incoming text file and save it to disk (sometimes referred to as session logging). A BBS (bulletin board system) program for the remote system is ideal. If you will be sending to a Unix machine or other large system, use a text editor, such as Emacs. Practically any terminal software will be fine for the Commodore end as long as it doesn't disconnect the modem

from the phone line when you try to exit. Pick a favorite.

Run terminal software on both computers. You will either have to control the remote system via software over the phone lines BBS style, or have someone stationed at the remote computer who can control it for you. When the computers are connected, you will need to open the capture buffer or text file on the receiving computer. When this has been done, boot GEOS on the Commodore.

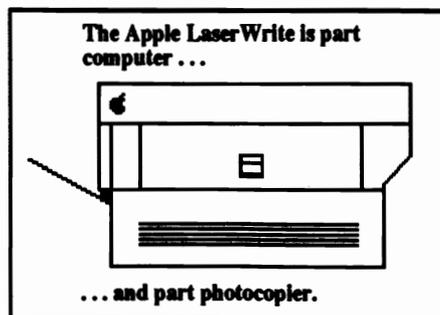
From GEOS, you again have the option of using geoLaser or the LaserWriter printer driver to transmit the PostScript program. Select a GEOS document, print it, then quit to the deskTop. Restart the terminal software. If you have terminal software on a GEOS disk, you can get it running quickly by double clicking on it.

Close the text file or capture buffer on the receiving computer. If you use the capture buffer method, make sure to save the buffer to disk. The file will be a PostScript program, created by GEOS.

Keep in mind that this method of transferring files is what some computer hackers would call "a grody hack." Unlike many transfers, such as those done with XMODEM or Punter, there is no check for or correction of errors on the incoming PostScript program. If you have the two computers in the same room or connected over clean telephone lines, you probably won't have any problems. If you're using noisy phone lines, you might have to try sending the file several times before you get one that works.

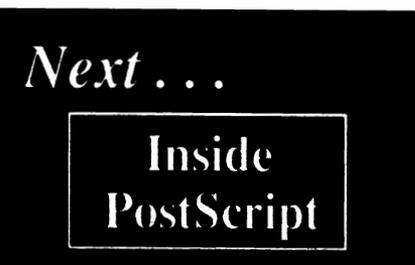
Printing PostScript Programs

Now that you have a PostScript file stored on a machine connected to a LaserWriter, you'll need to be able to print



it. The procedures for doing this with different types of computers is beyond the scope of this short article. It should be similar to the method of connecting a Commodore to a LaserWriter, or might entail running terminal software in order to talk with the laser printer. If you use a networked computer, such as a Unix system, some editing needs to be done on the file before it can be printed. Insert a line at the beginning which reads: `%!postscript.` This tells the laser printer that the incoming file is to be interpreted as a PostScript program instead of being printed as text.

GEOS has even more untapped and undiscovered capabilities. Generating PostScript files and accessing remote laser printers from GEOS applications are just a few of many things that you can do that probably weren't intended by GEOS's creators. It's nice to know that these hidden features exist, and can be easy and convenient to use. You can't argue with the results!



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.

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.

GEOPAINT AND GEOPUBLISH

A Comparison of Bit-Mapped & Object Oriented Graphics

by Bob Thomas

GeoPublish comes with a set of graphics tools to enrich desktop published documents. The graphics package in GeoPublish is very different than GeoPaint. Indeed, the basic concepts of creating and handling the graphic images are different. GeoPaint is a bit-mapped graphics package and GeoPublish uses object oriented graphics. The differences to the user are quickly realized through the on-screen manipulation of images and the graphics tools each package incorporates. But the *real* difference between the graphics concepts becomes apparent when the file is laser printed. GeoPublish's object-oriented graphics take full advantage of the LaserWriter's 300 Dots-Per-Inch capabilities!

GeoPaint's Bit-Mapped-Graphics

GeoPaint files contain the pixels you see on the screen. That is, as you draw or paint on the screen, the pixels "turned-on" by the painting are stored in memory and written to disk basically as you see them on the screen. A print out on a 80 Dpi printer is the same resolution as on your monitor's screen. This is known as WYSIWYG (What You See Is What You Get). Printing out the file on a laser printer cannot improve the resolution of the file. It produces darker graphics and better contrast, but diagonal lines and curves still have the 80 Dpi "stair-step" quality. Additionally because the paint file only contains what pixels are on and off, whatever is on the screen (lines, curves, fills, and/or text) can only be manipulated as a complete image. If you cut out a graphic and relocate it you relocate everything in the selected area: foreground and background. In figure 1a, the circle was copied and it took part of the lines in the background with it.

GeoPublish's Object-Oriented Graphics

Each of GeoPublish's graphics tools produces a separate object that is stored as a definition. Basically, instead of storing a line as pixels, GeoPublish would store a line in terms of its beginning and end points and its width. Each time you create a graphic element in GeoPublish, you create another piece of data defining that element. If you were to place a circle over your line, you would, in effect be adding data to the GeoPublish file for the center of the circle, its radius and line width. Since each element is stored separately, graphic items can be moved in relation to each other and the circle could be moved independantly of the line (figure 1b). Additionally, GeoPublish algorithms allow the lines to be drawn on the monitor screen at 80 Dpi (in zoom mode), on a 80 Dpi printer at 80 Dpi, or on the LaserWriter at 300 Dpi (through geoPubLaser). Both reorientation of the graphic elements and device independent resolution are possible because the graphics are stored as definitions not pixels. This is known as WYSIWYE (What You See Is What You Expect) graphics.

Comparison Sheet

In order to compare the outputs of the two graphic packages I created a number of graphic images in GeoPaint, copied them into the photo manager, and imported them into GeoPublish without scaling or smoothing them. I then redrew each image with the GeoPublish graphics. Figures two through four are the results of this effort. Finally, in figure 5, I included graphics that can only be accomplished by one or the other program. The remainder of this article is an image

by image comparison of the packages.

Details

Figure 2a is a single photo scrap. The dark cricle was made by drawing a circle and using the fill tool. The "arrow" was drawn as three lines. Figure 2b is four seperate graphics elements, each sized closely to the GeoPaint images. For the dark circle I used the black pattern attribute. Figure 3a is a single photo scrap. I drew a grid using GeoPaint's line function then filled each section with the next pattern. When printed on the dot matrix printer, figure 3b looks identical to figure 3a. It has blocks with each of the patterns. However, GeoPubLaser doesn't support all patterns. More importantly, however, Figure 3b was created in a very different manner than 3a. Each box is a seperate rectangle with a different pattern choosen as the attribute.

I used the form of a "business" graph in figures 4a and 4b for examples of text, lines and dots. Again, on a dot matrix printer they look very similar. When laser printed however, GeoPublish's device independence is evident. I know which one I would rather use in an important presentation.

Finally there are a few things you can do with one program and not the other. Figures 5a and 5b are some of the visible differences. However, more of the differences are in the on-screen handling of images.

Figure 5a - GeoPaint

Some of the things GeoPaint can do but GeoPublish cannot. GeoPaint can do fills of complex shapes, freehand drawings, spray painting, and allows use of various paint brush shapes and sizes. It also supports color and allows copies of window sized images to be put into photo scraps in the photo manager.

Figure 5b - GeoPublish

With GeoPublish you can manipulate graphics in many ways not possible with GeoPaint. You can make curves and ellipses, resize graphics, re-edit text, change fonts, and move or delete items without affecting other items. You can also create graphics in the full page "preview" mode. Most importantly, however, you can laser print your graphics at 300 Dpi!

Conclusion

For the most part you can do your graphics in either GeoPaint or GeoPublish. Each package has features not found on the other one. I favor GeoPublish's graphics for the resolution available through GeoPubLaser. Considering GeoPublish's graphics is only one portion of a text oriented publishing package, BSW wrote one *very good* graphics program

Paint

Publish

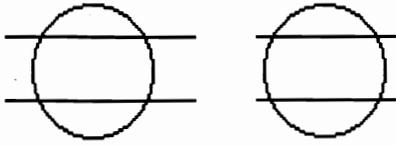


Figure 1a

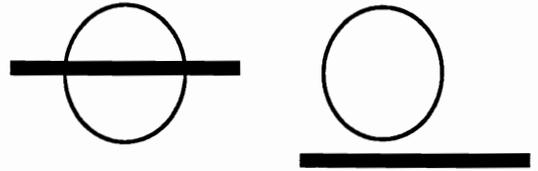


Figure 1b

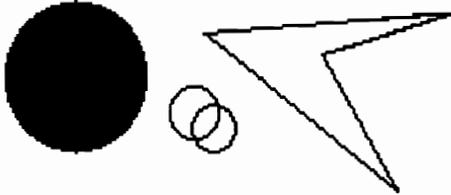


Figure 2a

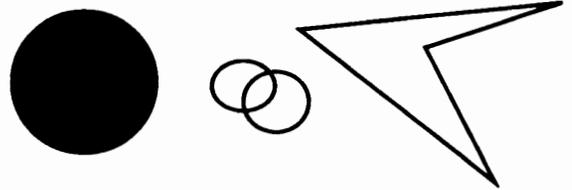


Figure 2b

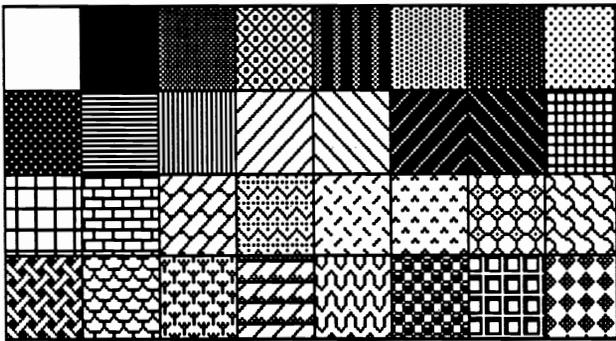


Figure 3a

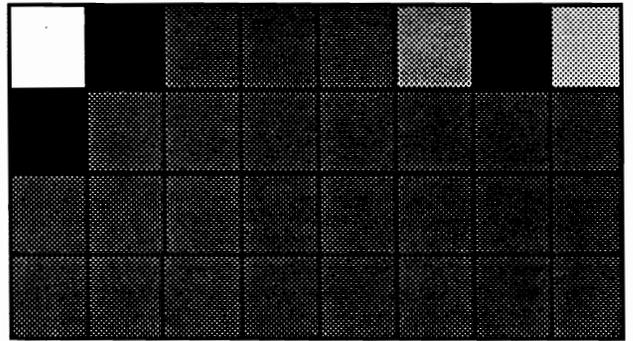


Figure 3b

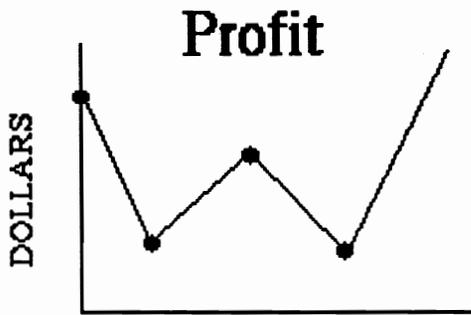


Figure 4a

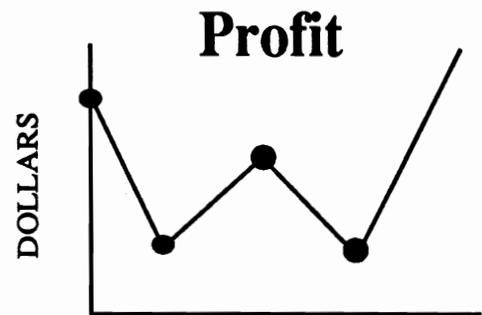


Figure 4b



Figure 5a



Figure 5b

Put these **geoDisk II** icons to work for you!

Can't open ?



Disk Repair

A fix for sick disks

Safety first!



Disk Guard

Keeps GEOS disks safe

Clowning around . . .



bigTop 128

Just for fun!

Which fonts did he use?



Font Finder

For geoWrite documents

Now you can easily cut and paste icons.



Icons -> Album

Saves icons in
a Photo Album



4X Icons

Save expanded (this size)
icons in a Photo Album

Oops!



TrashPicker

Find lost treasures
in the wastebasket

Get your disks in order.



geoinfo

Prints a directory with
all GEOS information

geoDisk II is now available. A 15 page laser printed manual includes a comprehensive list of available GEOS fonts. geoDisk II is only \$12.95. Also available: Randy's geoDisk, featuring SEQ->Text Scrap V2.0, the ultimate text conversion tool. Randy's geoDisk is only \$15. Get both geoDisks for \$22.50 and save.

Overseas orders please include \$3 for shipping. To order, send check or money orders to:



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Win over \$45,000 in Cash and Prizes!!

Berkeley Softworks announces two exciting contests worth over \$45,000 in cash and prizes. The **GEOS Desktop Publishing Contest** and the **GEOS Programming Contest** promise to bring much excitement and suspense to **GEOS** users around the country.

The **GEOS Desktop Publishing Contest** has four major categories: Best Flyer (any one page advertisement, handbill, or data sheet), Best Newsletter (two or more pages, including newsletters, brochures, and reports), Best Poster (one page, enlarged at least 200%), and Best Open Design (anything goes, no page limitations).

Each category has two divisions, dot matrix and laser printer, except for the poster category which is laser printer only. Each division will have first, second, and third place winners, meaning that there will be 21 winners for this contest. Prizes include such items as: \$1,000 cash, a complete library of Berkeley Softworks products, a subscription to *RUN Magazine*, Commodore hardware (1351 mouse and 1750 or 1764 RAM Expansion Unit), pages of laser printed output from *LaserDirect*, and subscriptions to Q-Link.

Entries are due by June 30, 1988, and winners will be announced by September, 1988. See the latest issue of *RUN Magazine* for full details and rules.

The **GEOS Programming Contest** offers people the chance to show-off their talents at creating **GEOS** programs. Similar to the Desktop Publishing Contest, this contest is also divided into four categories: Entertainment (includes entertainment and games, such as a chess or trivia game), Education (for education and instruction, such as a flash card game or world geography program), Productivity

(designs for improving personal productivity, such as an outline processor or scientific calculator), and Open Programming (for anything not covered by the other categories, such as disk utilities and telecommunications programs).

Each category has two divisions, one for applications and one for desk accessories. Each division will have first, second, and third place winners -- meaning a total of 24 winners in the contest. Prizes for the programming contest include such items as: \$1,000 cash, a complete library of Berkeley Softworks products, a subscription to *Compute!'s Gazette Magazine*, Commodore hardware (1351 mouse and 1750 or 1764 RAM Expansion Unit), and subscriptions to Q-Link.

Winners may receive money not only from Berkeley Softworks, but also from other people. Entries may be put into a shareware library on Q-Link where thousands of **GEOS** owners would pay the author money when they download his program.

Entries are due by August 31, 1988 and winners will be announced in October, 1988. See the latest issue of *Compute!'s Gazette Magazine* for full rules and regulations.

So get down to designing your best layout and writing your most professional **GEOS** program. Who knows? Other **GEOS** users may be writing you checks, or you may see your artwork on the pages of *RUN Magazine*!

Note: All registered **GEOS** owners should be receiving their copy of the next **GEOS NEWS** sometime in the month of April. Please pay special attention to the free **GEOS T-Shirt** offer and low prices for the Commodore 1351 mouse and 1750 and 1764 RAM Expansion Units on page 7.

GEO PUBLISH GRAPHICS

By Susan Lamb

newsletter

March, 1988

The Paint Drivers With GeoPublish

It has come to my attention that a number of people are under the impression that the paint drivers do not work with geoPublish. Fortunately, for my projects, they do. Turning a geoPublish page into a geoPaint one lets you use all the individual tools of each program. If you are having trouble getting the drivers to work, you might try these two suggestions.

1. **Give it time.** Depending on the amount of information on the page, creating the geoPaint page may take a long time. There is no sound if you are working on a RAM disk and it sometimes seems like a lock-up. The arrow will flicker once in a while, which indicates the process is still working.

2. **Give it space.** Before you start, make sure there is plenty of space on the real disk or RAM disk. For example, a geoWrite page of only 3K can produce a geoPaint page of 37K. Obviously, multi-page documents with a large amount of type will really eat up disk space.

Experimenting with the programs will let you estimate how much room to allow for.

GeoWrite Workshop Paint Drivers

Last month I touched on how the paint drivers can aid in using large, two-file fonts. GeoWrite allows you to alternate between the files within a line, whereas a geoPaint text box can only access one file at a time. Once a headline is *set* to your satisfaction, and one of the paint drivers is selected, a geoPaint document will be created. The headline may then be edited with all the geoPaint tools and pixel edit, or imported as-is to geoPublish in a photo scrap.

When using *paint PAGES*, the document created is named *PAGE 1*. If your geoWrite document has more pages, *PAGE 2*, and so on will appear on the desktop. Before starting this procedure, make sure you have plenty of free space on the real disk or RAM disk as geoPaint pages use much more memory than geoWrite pages.

Creating with the *paint PAGES* driver is like producing photo scraps in that the new one replaces the old. To save a page you've made, rename the file before using the driver again. It is not necessary to have geoPaint on the disk to use the driver, but you must have geoWrite (or geoPublish) there. For speed & space, the best way to do this procedure is with a 1571 RAM disk.

Paint OVERLAY can be used several ways. A good example is to print the three-page document, "CAKE". The driver will combine all three pages into one geoPaint page. It is apparent that this would be an easy way to produce a simple newsletter. (*Paint PAGES* creates three geoPaint pages from this document.) The geoPaint file created is named *OVERLAY*. Another procedure is used for creating flyers, menus or certificates. You can name a full page border "OVERLAY" and then use the driver with a geoWrite page. The copy will combine, transparently, with the artwork. It will take some figuring with margins to fit the copy properly, but it's still a simple procedure.

I will continue to experiment with these drivers, as I find them valuable graphics tools. Receiving them with *geoWrite Workshop 128*, took the sting out of the cost of this upgrade.

WARNING:

Since a geoPublish page is a little longer than a geoPaint one, be careful when you use the paint drivers. The bottom 1/2 inch or so on your geoPublish page will be cut off, so allow for the difference ahead of time.



**ENTER
THE GEOS
DESKTOP
PUBLISHING CONTEST!**

I will be happy to assist you with your entries. Although I am still new using this program I might be able to help with simple problems or direct you to someone who has answers to the more technical questions.

CORRECTION:

It has been brought to my attention by J. Hastings and Paul Hughes that my prior assertion of the 128 photo manager not working in geoPublish is wrong. My mistake was due to the frustrating incompatibility of my 64 programs with my GEOS 128. All my programs are compatible now and a full page created in geoPaint can be moved to geoPublish in five photo scraps. You still must use geoPaint 128 in 80 columns to create the full-page-wide scraps to store in an album. From within geoPublish, you may use either 64 or 128 photo manager to create the bitmaps. Thanks, guys.

JUSTIFICATION

This is the feature of geoWrite 2.0 and 2.1 that gives GEOS desktop publishing projects a professional appearance. The ability to have neat, evenly spaced columns allows an aspiring publisher to create documents to rival those done on a system costing thousands. Most books, newspapers and magazines use full justification with an indentation for paragraphs.

Columns can also be set right- or left-flush with one jagged side. If the difference in line lengths isn't too great, these column will also have a pleasing effect. To try out the "look" of columns while in *editor mode*, highlight the whole page, click on your choice of *LEFT*, *CENTER*, *RIGHT*, or *FULL*, and then view the effect in zoom mode or from a printout. To maintain continuity, it's a good idea to be consistent and use the same column justification throughout your publication.

...to be continued

When doing a simple newsletter, it's best to avoid so many continued stories. It's too easy to lose the reader when they must constantly go from page to page to finish several different articles.

In recent years, newspapers have started using a *catchword* at the bottom of the column to be continued and again at the top of the continuation.

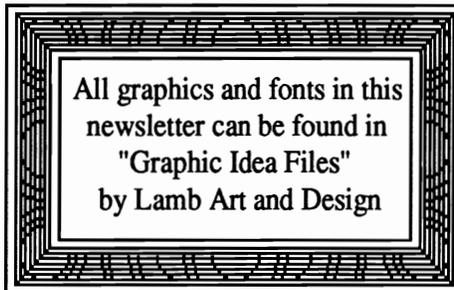
Break the story at the end of a paragraph, putting page number and catchword at the bottom.

See CATCHWORD, page 3



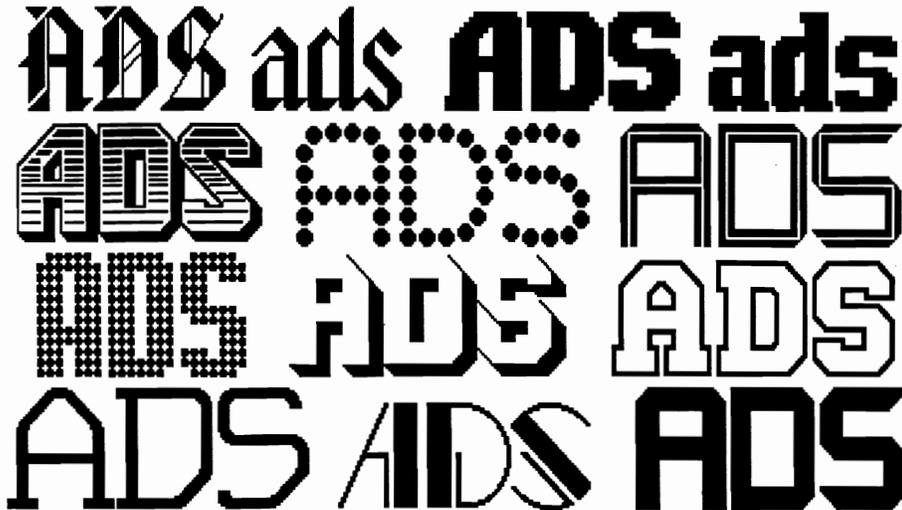
No, I don't really spell the word "experimenting" as I did in last month's column. I hope it's obvious to all, that I consider "experiment-ting" unacceptable. Like many of you, I do my writing late at night when I'm not too alert. This glaring error illustrates the importance of proofreading. When desktop publishers produce documents without benefit of an editor, proofreader or secretary, they must be extra careful to read the copy several times.

It is preferable to have someone else proofread the printout because often your mind will skip over the same mistake every time you read it. Once the piece is printed and sent out with mistakes, you feel so dumb knowing everyone else thinks you're so dumb. Be careful



headline font disk

PICTURED ARE SOME OF THE FONTS ON HEADLINE FONTS ONE
SEND YOUR NAME AND ADDRESS FOR A COMPLETE SAMPLE SHEET



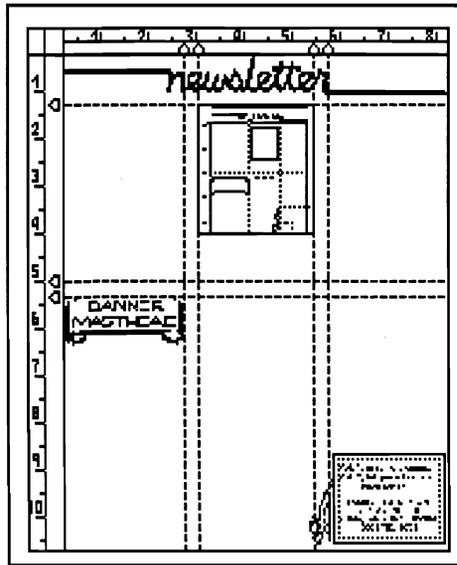
Using Headline Fonts

I didn't want to release a disk of my large two-file fonts until I was satisfied they could be used without too much trouble. The byte-size of large fonts make it necessary to break them into two or more files. Most people using geoPublish will probably purchase geoWrite Workshop and therefore have the paint drivers. *Paint PAGES* driver provides a quick and easy way to set a headline and convert it to geoPaint.

Headline Fonts, Volume One is a two-sided disk of no-nonsense fonts for desktop publishing. Send \$17.50 to: Lamb Art & Design, 1764 Ave. B, Yuma, AZ 85364 (602) 782-3053

Set Gutters to Zero

When I first start a page, I set the four gutters to 0. That way I have more control of where the copy will end up since I set the type within and around graphics. I put the graphics on the master page in order to see them in *page layout mode*. I define my text regions using the lines I pre-set in *master page mode*. After selecting all the regions on the page, I import a geoWrite file and ripple the text. At this point, the copy blocks may have too much or not enough text in each. Using the editor, I add or delete lines accordingly. Each geoWrite page in the text editor will show if you have too much copy or not enough to fill the text region.



The drawing above shows how the *master page* for this page looks. All the graphics will show in *page layout*.



For some reason there is a confusion of these terms, even in some of the more professional books and magazines. These are newspaper publishing terms that are also applicable to magazines and newsletters.

I think one reason for the mix-up is that *masthead* sounds like it should be the headline of a document and *banner* sounds like something you wave.

My dictionary defines banner: "In journalism, a headline extending across a newspaper page". Masthead is defined: "That part of a newspaper or magazine listing ownership, publishers, editors, etc.".

The banner is usually across the top of the front page, and the masthead is usually on the second or third page in a liner box. In GEOWORLD the banner is on the front cover, and masthead runs vertically, next to the table of contents.

CATCHWORD

Continued from page 2

It is important to have the catchword boldly displayed as to quickly grab the reader's eye.

Many newspapers or newsletters have a short sub-title after the catchword. There is a risk, anyway, of losing the reader half-way through a continued article without making it even more difficult to find the rest of it.

This information may seem elementary, but I have seen many newsletters where there is no set system and the result can cause confusion.

All pages of "GeoPublish Graphics" columns are created with geoPublish and appear in GEOWORLD without benefit of paste-up. For more information, write to Lamb Art & Design or E-mail "YumaLamb" on Q-Link.

>>>>PRESS RELEASE<<<<

Graphic Idea Files is a graphic clip art collection I have created for use with GEOS applications. Volume One is a two-sided disk packed full of graphic elements designed to enhance and break-up text. Volume Two has both sides filled with full page borders for making quick signs, flyers, menus certificates, or advertisements.

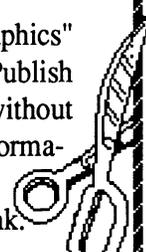
These graphics are designed for professional desktop publishing with a Commodore/GEOS system. The graphics are similar to the type I use most often in my commercial art work. Rather than little pictures of things, these are design devices you can tailor to your individual needs. When faced with a blank screen and pages of typewritten copy, these files can give you ideas that spark creativity.

Each side of each disk is packed full of graphics and will have to be spread over several work disks before opening. The graphics are close together, so should be isolated before clipping. Erase any art surrounding the graphic you want, cut or copy to a photo scrap, then select *recover* to return to the original page.

I am now working on two new volumes that will have graphics of specific subjects such as holidays, sports, church, school, business, art, crafts, and many others. I will offer custom disks with just the files you need for your particular projects.

Vol. 1, graphic elements
Vol. 2, full page borders
each for 17.50

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YUMA, ARIZONA 85364
(602) 782-3053



Jump Table - Alphabetic

Master Blaster

AllocateBlock	\$9048	FirstInit	\$C271	OpenRecordFile	\$C274
AppendRecord	\$C289	FollowChain	\$C205	Panic	\$C2C2
BitmapClip	\$C2AA	FrameRectangle	\$C127	PointRecord	\$C280
BitmapUp	\$C142	FreezeProcess	\$C112	PosSprite	\$C1CF
BitOtherClip	\$C2C5	FreeBlk	\$C2B9	PreviousRecord	\$C27D
BldGDirEntry	\$C1F3	FreeFile	\$C226	PromptOff	\$C29E
BlkAlloc	\$C1FC	Get1stDirEntry	\$9930	PromptOn	\$C29B
BlockProcess	\$C10C	GetBlock	\$C1E4	PurgeTurbo	\$C235
BootGEOS	\$C000	GetCharWidth	\$C1C9	PutBlock	\$C1E7
BBMult	\$C160	GetDirHead	\$C247	PutChar	\$C145
BMult	\$C163	GetFile	\$C208	PutDecimal	\$C184
CalcBlksFree	\$C1DB	GetFreeDirBlk	\$C1F6	PutDirHead	\$C24A
CallRoutine	\$C1D8	GetFHdrInfo	\$C229	PutString	\$C148
ChangeDiskDevice	\$C2BC	GetNextChar	\$C2A7	ReadBlock	\$C21A
ChkDkGEOS	\$C1DE	GetNxtDirEntry	\$9033	ReadByte	\$C2B6
ClearMouseMode	\$C19C	GetPtrCurDkNm	\$C298	ReadFile	\$C1FF
ClearRam	\$C178	GetRandom	\$C187	ReadLink	\$904B
CloseRecordFile	\$C277	GetRealSize	\$C1B1	ReadRecord	\$C28C
CmpFString	\$C26E	GetRealString	\$C1BA	RecoverAllMenus	\$C157
CmpString	\$C26B	GetScanLine	\$C13C	RecoverLine	\$C11E
CopyFString	\$C268	GetSerialNumber	\$C196	RecoverMenu	\$C154
CopyString	\$C265	GotoFirstMenu	\$C1BD	RecoverRectangle	\$C12D
CRC	\$C20E	GraphicString	\$C136	Rectangle	\$C124
Dabs	\$C16F	HorizontalLine	\$C118	RenameFile	\$C259
Ddec	\$C175	i_BitmapUp	\$C1AB	ResetHandle	\$C003
Ddiv16	\$C169	i_FillRam	\$C1B4	RestartProcess	\$C106
DeleteFile	\$C238	i_FrameRectangle	\$C1A2	ReDoMenu	\$C193
DeleteRecord	\$C283	i_GraphicString	\$C1A8	RstrAppl	\$C23E
DisableSprite	\$C1D5	i_ImprintRecangle	\$C253	RstrFrmDialog	\$C2BF
Dnegate	\$C172	i_MoveData	\$C1B7	SaveFile	\$C1ED
DoneWithIO	\$C25F	i_PutString	\$C1AE	SetDevice	\$C2B0
DoDlgBox	\$C256	i_RecoverRectangle	\$C1A5	SetGDirEntry	\$C1F0
Dolcons	\$C15A	i_Rectangle	\$C19F	SetGEOSDisk	\$C1EA
DoInlineReturn	\$C2A4	ImprintRectangle	\$C250	SetNextFree	\$C292
DoMenu	\$C151	InitForIO	\$C25C	SetPattern	\$C139
DoPreviousMenu	\$C190	InitProcess	\$C103	Sleep	\$C199
DoRAMOp	\$C2D4	InitRam	\$C181	SmallPutChar	\$C202
DrawLine	\$C130	InitTextPrompt	\$C1C0	StartAppl	\$C22F
DrawPoint	\$C133	InsertRecord	\$C286	StartMouseMode	\$C14E
DrawSprite	\$C1C6	InteruptMain	\$C100	StashRam	\$C2C8
DMult	\$C166	InvertLine	\$C11B	SwapRam	\$C2CE
DSdiv	\$C16C	InvertRectangle	\$C12A	TestPoint	\$C13F
DShiftLeft	\$C15D	IsMseInRegion	\$C2B3	ToBasic	\$C241
DShiftRight	\$C262	LdApplic	\$C21D	UnblockProcess	\$C10F
EnableProcess	\$C109	LdDeskAcc	\$C217	UnfreezeProcess	\$C115
EnableSprite	\$C1D2	LdFile	\$C211	UpdateRecordFile	\$C295
EnterDeskTop	\$C22C	LoadCharSet	\$C1CC	UseSystemFont	\$C14B
EnterTurbo	\$C214	MainLoop	\$C1C3	VerifyRam	\$C2D1
ExitTurbo	\$C232	MouseOff	\$C18D	VerticalLine	\$C211
FastDelFile	\$C244	MouseUp	\$C18A	VerWriteBlock	\$C223
FetchRam	\$C2CB	MoveData	\$C17E	WriteBlock	\$C220
FillRam	\$C17B	NewDisk	\$C1E1	WriteFile	\$C1F9
FindBAMBit	\$C2AD	NextRecord	\$C27A	WriteRecord	\$C28F
FindFile	\$C20B	NxtBlkAlloc	\$C24D		
FindFTypes	\$C23B	OpenDisk	\$C2A1		

Jump Table - Numeric

Master Blaster

Get1stDirEntry	\$9030	ReDoMenu	\$C193	DeleteFile	\$C238
GetNxtDirEntry	\$9033	GetSerialNumber	\$C196	FindFTypes	\$C23B
AllocateBlock	\$9048	Sleep	\$C199	RstrAppl	\$C23E
ReadLink	\$904B	ClearMouseMode	\$C19C	ToBasic	\$C241
BootGEOS	\$C000	i_Rectangle	\$C19F	FastDelFile	\$C244
ResetHandle	\$C003	i_FrameRectangle	\$C1A2	GetDirHead	\$C247
InteruptMain	\$C100	i_RecoverRectangle	\$C1A5	PutDirHead	\$C24A
InitProcess	\$C103	i_GraphicString	\$C1A8	NxtBlkAlloc	\$C24D
RestartProcess	\$C106	i_BitmapUp	\$C1AB	ImprintRectangle	\$C250
EnableProcess	\$C109	i_PutString	\$C1AE	i_ImprintRecangle	\$C253
BlockProcess	\$C10C	GetRealSize	\$C1B1	DoDlgBox	\$C256
UnblockProcess	\$C10F	i_FillRam	\$C1B4	RenameFile	\$C259
FreezeProcess	\$C112	i_MoveData	\$C1B7	InitForIO	\$C25C
UnfreezeProcess	\$C115	GetRealString	\$C1BD	DoneWithIO	\$C25F
HorizontalLine	\$C118	GotoFirstMenu	\$C1BD	DShiftRight	\$C262
InvertLine	\$C11B	InitTextPrompt	\$C1C0	CopyString	\$C265
RecoverLine	\$C11E	MainLoop	\$C1C3	CopyFString	\$C268
VerticalLine	\$C121	DrawSprite	\$C1C6	CmpString	\$C26B
Rectangle	\$C124	GetCharWidth	\$C1C9	CmpFString	\$C26E
FrameRectangle	\$C127	LoadCharSet	\$C1CC	FirstInit	\$C271
InvertRectangle	\$C12A	PosSprite	\$C1CF	OpenRecordFile	\$C274
RecoverRectangle	\$C12D	EnableSprite	\$C1D2	CloseRecordFile	\$C277
DrawLine	\$C130	DisableSprite	\$C1D5	NextRecord	\$C27A
DrawPoint	\$C133	CallRoutine	\$C1D8	PreviousRecord	\$C27D
GraphicString	\$C136	CalcBlksFree	\$C1DB	PointRecord	\$C280
SetPattern	\$C139	ChkDkGEOS	\$C1DE	DeleteRecord	\$C283
GetScanLine	\$C13C	NewDisk	\$C1E1	InsertRecord	\$C286
TestPoint	\$C13F	GetBlock	\$C1E4	AppendRecord	\$C289
BitmapUp	\$C142	PutBlock	\$C1E7	ReadRecord	\$C28C
PutChar	\$C145	SetGEOSDisk	\$C1EA	WriteRecord	\$C28F
PutString	\$C148	SaveFile	\$C1ED	SetNextFree	\$C292
UseSystemFont	\$C14B	SetGDirEntry	\$C1F0	UpdateRecordFile	\$C295
StartMouseMode	\$C14E	BldGDirEntry	\$C1F3	GetPtrCurDkNm	\$C298
DoMenu	\$C151	GetFreeDirBlk	\$C1F6	PromptOn	\$C29B
RecoverMenu	\$C154	WriteFile	\$C1F9	PromptOff	\$C29E
RecoverAllMenus	\$C157	BlkAlloc	\$C1FC	OpenDisk	\$C2A1
Dolcons	\$C15A	ReadFile	\$C1FF	DolnlineReturn	\$C2A4
DShiftLeft	\$C15D	SmallPutChar	\$C202	GetNextChar	\$C2A7
BBMult	\$C160	FollowChain	\$C205	BitmapClip	\$C2AA
BMult	\$C163	GetFile	\$C208	FindBAMBit	\$C2AD
DMult	\$C166	FindFile	\$C20B	SetDevice	\$C2B0
Ddiv16	\$C169	CRC	\$C20E	IsMselnRegion	\$C2B3
DSdiv	\$C16C	LdFile	\$C211	ReadByte	\$C2B6
Dabs	\$C16F	EnterTurbo	\$C214	FreeBlk	\$C2B9
Dnegate	\$C172	LdDeskAcc	\$C217	ChangeDiskDevice	\$C2BC
Ddec	\$C175	ReadBlock	\$C21A	RstrFrmDialog	\$C2BF
ClearRam	\$C178	LdApplc	\$C21D	Panic	\$C2C2
FillRam	\$C17B	WriteBlock	\$C220	BitOtherClip	\$C2C5
MoveData	\$C17E	VerWriteBlock	\$C223	StashRam	\$C2C8
InitRam	\$C181	FreeFile	\$C226	FetchRam	\$C2CB
PutDecimal	\$C184	GetFHdrInfo	\$C229	SwapRam	\$C2CE
GetRandom	\$C187	EnterDeskTop	\$C22C	VerifyRam	\$C2D1
MouseUp	\$C18A	StartAppl	\$C22F	DoRAMOp	\$C2D4
MouseOFF	\$C18D	ExitTurbo	\$C232		
DoPreviousMenu	\$C190	PurgeTurbo	\$C235		

Mystic Jim
2388 Grape
Denver CO
80207



Wow! It feels like we've been buried in an avalanche of orders, requests and phone calls. It feels good to be able to help so many GEOS users. We never expected such a response.

We were very conservative in our estimates of requests, and, because of that, our time-table for the development of our newest stuff was quite optimistic. So, we're behind schedule on program development and filling orders. We apologize to anyone who may have been inconvenienced, and we're grateful for your patience.

Since filling orders is the most important aspect of our work, we're reducing development of new programs and shareware disks until we're completely caught up with filling current orders and are able to fill new orders as soon as they come.

There are only two of us who do all of the work from copying disks to making Real Time Clocks, to answering the phone: if it weren't for Judy (Mrs. Mystic), we probably wouldn't exist.

We've had serious problems obtaining parts and supplies from suppliers. For instance, our supplier of Real Time Clock parts has "mislaidd" our orders twice, and delivery of our new disk copier system is currently two weeks overdue. These are things that we should have anticipated, but we're learning, and hoping to avoid problems like these in the future. (We've changed suppliers of RTC chips and blank disks, and are "expecting" enough of these to last for months.)

Our BBS sysop will be back on line within a week, so any problems there will be fixed soon.

Our first satellite BBS, run by Bill McKibbon, is up and running in Canada: the number is (705) 533-2126.

Many of the calls we receive are cries for help from folks with problems involving "installation" of new programs, especially GEOS 128. The instructions for "installing" GEOS 128 don't give a clue to what you're actually doing as you follow the prompts for "installation", and it's sooo easy to make a fatal mistake from which there is no recovery. Most of these folks have tried to get help from BSW without success, so we end up doing much of BSW's customer service; we're glad to do this, as that's what we're here for. This isn't meant to be a criticism of Berkeley SoftWorks; our experiences have made us very sympathetic with their

difficulties in keeping up with a fast-growing business. Hey, that growth is because GEOS is such a great program, and THEY developed GEOS (bless their little hearts).

So, there's one program for which we haven't curtailed development: GEOHACKER 2.0. This totally new version will do all the things the old one does, but with extensive error-checking to prevent failures, seeks the program to be hacked no matter where it is on the disk, and has a new feature: dis-installation, which returns an "installed" disk to it's "virgin" state, giving the user another chance.

For those of you who aren't familiar with what we do:

We write, develop and collect GEOS-related programs, and offer as shareware. That means that you only contribute whatever you think the programs are worth to you, having tried them. On first request, we send you two introductory disks; if you find them useful you may request others on the same basis. Contributions are used for expenses, with the remainder going to those who write our non-public-domain programs.

We operate a full-time, 300/1200 BAUD BBS.

We market proprietary programming and hardware, including our Tim's Timer Real Time Clock.

The best way to get our stuff is to join our shareware group; for \$50.00 plus \$20/year renewal you get:

- 1) Thirteen disk-sides full of programs.
- 2) GEOWORLD; a six-issue subscription.
- 3) Access to our BBS.
- 4) Discounts on commercial software and hardware.
- 5) New disks as they become available, on request. The first three requests are free, with a \$1 handling fee for subsequent disks.

To request two introductory disks, at no charge; write to Mystic Jim, 2388 Grape, Denver CO 80207; or call (303) 321-3223. Make checks to Mystic Jim. For Canadian orders, please pay in American dollars by Postal Money Order (our bank goes crazy 'bout Canadian funds). We send much of our stuff by UPS, for which we need a street address, as UPS doesn't deliver to a Post Office box. Foreign orders please add \$3 extra postage. (none of this applies to the introductory disks, for which there's no charge of any kind.

We look forward to hearing from you, and we really enjoy reading your letters, which is the best part of this business. Best.



Mystic Jim's Shareware Update

March, 1988 Volume 2, Number 3

* NEW LAST MONTH

Hack'n GEOS.
 Howard's Fonts.
 BASIC-8 Utility disk.
 Fontastic.
 Clip Art: About 15 disk sides
 Accessories B-(Intro disk, side3)
 GEOPUBLASER Laserprint upgrade for
 GEOPublish

**COMING SOON:

GEOGames:
 Solitaire, Puzzle and more.
 GEOGRAPHICS

More great conversions, utilities for
 Mac. and others: INTERCEPTOR: Convert
 any GEOS filetype to GEOPAINT.
 DISK#1 New Program Updates.

If you've received disks 4,6 and "R" after
 Sept 1, you have all of our programs.
 Programs added after Sept. 1 will be on
 disk#1 and on the BBS for downloading.

DISK#2: INTRODUCTORY DISK

This is the first disk we send to new
 friends on their first request. If they like
 this disk, they can request others, or join
 our shareware group.

Bootstraps 1.2, 1.3U, 1.3D
 (bootdisk makers) (7)

Input drivers: More than a dozen
 Accessories More than a dozen

GRAPHICS.
 Imagecon. (7)

Piconvert: Doodle-GEOS (x)
 Computer Eyes: for GEOS
 GEOPaint Help Files (7)
 Mac Attack

DISK#3 FONTS

Balloon 24pt, Banner 36pt.,Dvorak10pt
 Esperanto6,10,12,14,18,24pt
 Greek 12pt. IBM 10pt., Fill-48 48pt.
 MegaBanner 280pt.
 Mystic 18pt. Oxford 12,24pt.
 Paintbrush 36pt. Zapf 14pt.
 Andrea's Calligraphy, Star Trek 48pt.
 Howard'sFonts(members only)
 Sixteen professional-quality fonts,
 designed by Howard Fernald.

B SIDE: About 24 new fonts, including
 PD versions of TT Grafix best. We highly
 recommend TTG's excellent font packages.

DISK#4 Programming Tools
 (members only)
 Convert,ml.: ML to GEOS (5)

GEOSstart. (1)
 DISPMEM:display memory. (15)
 GEOThreader. Single Step Sim.
 GEOLinker: header linker. (2)
 GEOSplitter: header splitter (2)
 Disk Editors 64 and 128
 Micromon 64
 Spelunker:display memory.(10)
 Techman Updates: fixes OGPRG
 Alex Boyce's Tech Manual!!

GEOHACKER: Strips copy- protection from
 ALL GEOS versions and add-on programs, and
 edits serial#: EVEN GEOS128!, GEOCalc,
 GEOPublish, new GEOFile, GEOPROGRAMMER.
 GEOSpell (version 1.7) (7)

DISK# 5: Terms and utilities for Mystic Jim's
 BBS (members only)

DISK#6: Graphics Converters
 PS-GEOS: all Print Shops(7)
 PS/NewsRoom/PrintMaster
 Imagecon: hi-res/multi-GEOS(7)

Piconvert: Doodle-GEOS
 MacGEOPaint, Mac Attack
 GEOVERT:Converts GEOS<->hires/multi-back

DISK #7: Printer Drivers
 (of interest to user groups)

All GEOS printer drivers, including laserwriters,
 GEOCable, and Mill's double /quad drivers.
 (added more this month)

RANDY'S ROUNDUP: A disk full of Randy
 Winchester's best stuff

TIM'S TIMER: Operating system and utilities
 for Tim Corcoran's Real Time Clock for
 Commodore64, Commodore128, GEOS, time and
 date.

New internal plug-in version for the 128.
 Now GEOS128 compatible!!

Auto-Read : Reads RTC at boot.
 RTC-Write: Set time and date.
 Show Time 1.2 Display time
 Show Time All: for 1.0, 1.2, 1.3

Reminder: reminds of special times or dates.
 Never forget another anniversary. BASIC
 Time./display

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 for the C128 80 Column display. We're
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BASICWrite Text Editor: Plus new print
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 drivers, new applications.

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 (Requires BASIC 8 from PATECH)

If you own a C128, new MUST have BASIC-8
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 request)

HACK'N GEOS(members only, on request)
 Discompare: Compare two disks to find what
 "installation" really does., and more.

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 hex, ASCII or decimal entry.

GEOS-Mon: Jump to monitor from any
 point in program. (micromon for GEOS)
and MUCH MORE!

FONSTASTIC: (Members only, on request)
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Programmers: semi-alphabetic
 1. Alex Boyce 2. Bill Coleman

3. Art Dahm. 4. Jeff Fox
 5 Don Mosedale

6. Randy Winchester
 7. Mystic Jim 8. Bruce Moore

9. Ben Taylor 10.Tony Reynolds
 11. Terry Mullett 12. Mitch Romm

13. Tim Corcoran 14.Terry Mills
 15. Lynn Kerby. 17.Andrea Needham

16. James Hastings-Trew
 17. Howard Fernald 18. Lou Wallace

To order disks, membership, hardware, or for more
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Examples

LW_Giannini
(Apple Avant Garde)

l-10-point
abcdefghijklmnopqrstuvw
ABCDEFGHIJKLMNQRST
1234567890
!"#\$%&'()0+-@*^[]=<>?;:,

l-12-point
abcdefghijklmnopqrs
ABCDEFGHIJKLMN
1234567890
!"#\$%&'()0+-@*^[]=<>

l-14-point
abcdefghijklmnop
ABCDEFGHIJKLMN
1234567890
!"#\$%&'()0+-@*^[]=

l-18-point
abcdefghijklmnop
ABCDEFGHIJK
1234567890
!"#\$%&'()0+-@

l-24-point
abcdefghij
ABCDEF
1234567890
!"#\$%&'()0

LW_Bacon
(Apple Bookman)

l-10-point
abcdefghijklmnopqrstuv
ABCDEFGHIJKLMNQRST
1234567890
!"#\$%&'()0+-@*^[]=<>?;:,./

l-12-point
abcdefghijklmnopqrs
ABCDEFGHIJKLMNO
1234567890
!"#\$%&'()0+-@*^[]=<

l-14-point
abcdefghijklmnop
ABCDEFGHIJKL
1234567890
!"#\$%&'()0+-@*^[]=

l-18-point
abcdefghijklmnop
ABCDEFGH
1234567890
!"#\$%&'()0+-@*

l-24-point
abcdefghij
ABCDEF
12345678
!"#\$%&'()0

LW_Haviland
(Apple Helvetica Narrow)

l-10-point
abcdefghijklmnopqrstuvwxy
ABCDEFGHIJKLMNQRSTUWV
1234567890
!"#\$%&'()0+-@*^[]=<>?;:,/~{|

l-12-point
abcdefghijklmnopqrstuvwxy
ABCDEFGHIJKLMNQRST
1234567890
!"#\$%&'()0+-@*^[]=<>?;:/~|

l-14-point
abcdefghijklmnopqrstuvwx
ABCDEFGHIJKLMN
1234567890
!"#\$%&'()0+-@*^[]=<>?;:/

l-18-point
abcdefghijklmnopq
ABCDEFGHIJKLM
1234567890
!"#\$%&'()0+-@*^[]=

l-24-point
abcdefghijklmnop
ABCDEFGHIJ
1234567890
!"#\$%&'()0+-

LW_Piedmont
(Apple Schoolbook)

l-10-point
abcdefghijklmnopqrstuvwxy
ABCDEFGHIJKLMN
1234567890
!"#\$%&'()0+-@*^[]=<>?;:,

l-12-point
abcdefghijklmnopqrstu
ABCDEFGHIJKLMNO
1234567890
!"#\$%&'()0+-@*^[]=<>?;

l-14-point
abcdefghijklmnopqr
ABCDEFGHIJKL
1234567890
!"#\$%&'()0+-@*^[]=

l-18-point
abcdefghijklmnop
ABCDEFGHIJ
1234567890
!"#\$%&'()0+-@*

l-24-point
abcdefghijk
ABCDEF
1234567890
!"#\$%&'()0

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A WISH LIST FOR PROGRAMMERS--PART II

by Terry Brazeal

In a previous column (January, 1988), I said that a major virtue of GEOS is that it is an open system, inviting additions and improvements from programmers outside the Berkeley Softworks stable. Since GEOWORLD appears to be written primarily by and for programmers, I think this point deserves some emphasis.

There are a great many Commodore users out here who want and need good productivity software for the machine but who can not program for themselves. (I am one of these users.) At the same time, there is clearly a large number of talented, energetic programmers who can make the Commodore machines do pretty much anything they want..

GEOS provides a common ground on which these two groups can meet.. Programmers can practice their craft and demonstrate their skills--and perhaps make a little money--within a framework which provides maximum exposure for their work. Users can assemble a unified system which will accomplish their goals at a reasonable cost in money and learning time.

However, for this mutual payoff to work out, it is vital that programmers and users talk to each other and listen to each other. So far, it appears to me that the programmers are largely talking to each other. The effect of this is that they very often write programs for each other. Thus, for example, Master Blaster has applied his considerable talents to the production of GEOICON II and GEOHEADER--two programs of value entirely to other programmers. Now there's nothing wrong with this--it's to everybody's benefit to make it easier to program in GEOS. But it only achieves its maximum value if at some point these tools are used to develop programs for users--people who can't write programs for themselves but who depend on the talents and creativity of the programming fraternity.

It is my hope that these columns can serve that process in a small way--providing a place where users with needs can be heard by programmers with skills. If I can help programmers to learn the needs of users--not just other programmers--the power of GEOS can grow exponentially.

To this end, here is another short list of user-generated ideas for GEOS programmers. As before, these ideas are offered with no strings to any programmer, except for the request that if you can do the job you make the results available cheaply and easily to other GEOS users.

Some ideas, then, are:

- for *geoWrite*--an outline processor. This is a feature other word processors offer which many writers find priceless.
- for *geoCalc*--an "if-then" capability for conditional calculations. It amazes me that anyone would release a spreadsheet in 1987 without this feature.
- for *geoPaint*--the ability to proportionately enlarge or shrink sections of drawings. Apparently this ability is already present in *geoPublish* (I haven't got that yet) but it is needed on a free-standing basis. Ideally it could be set to work on the x-dimension only, the y-dimension only, or both.
- geoGraph*--a new package dedicated to producing specified types of graphs. Ideally, it should intake data from a *geoCalc* file. It should be capable of producing:
 - * line graphs * bar graphs * histograms * Venn diagrams * pie graphs * proportional picturesThe output would be a *geoPaint* file that could then be modified with shading, colors, etc. It should be possible to make graphs up to full-page size for business presentations.
- for *geoCalc*--sort capability on any field, or multiple fields. Again, an indispensable feature for a serious spreadsheet..
- geoStat*--a multi-featured statistical analysis program. This would take data from a *geoCalc* file and could perform such statistical analyses as:
 - * standard deviation * linear regression * non-linear regression to some specified curve forms * multiple regression
 - * ANOVA * correlations * factor analysisAny of you who have worked with SAS or SPSS know the kind of thing I'm talking about here. Again, *geoCalc*'s lack of statistical functions offers a big opportunity to a programmer.
- for *geoPaint*--libraries of standard figures--architectural, electronic, geographical (map symbols), etc., which could be precisely placed in a picture. The enlarge/shrink function discussed above would make these extremely useful and greatly increase the value of *geoPaint* as a CAD-tool..

Well, that should keep everybody busy for the next week or two. Again I invite other needy users to submit ideas--I'm TERRYB3 on Q-Link and i.d.71410,332 on CompuServe. Just remember, you're waiving commercial rights to the idea in return for a chance to see your idea become reality. Let's help build up the user/programmer interface, and thus build up GEOS.

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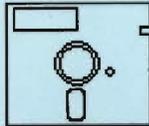
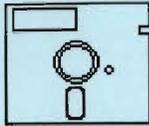
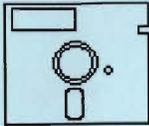
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