GEOWORLD

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BSW at the Winter Consumer Electronics Show

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GEOWORLD

The definative magazine about GEOS

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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 ...

Hello Everyone, welcome to issue #1 volume #2 of GEOWORLD. I have just returned from the Winter Consumer Electronics Show in Las Vegas. BSW had a two level display booth where GEOS applications for the 64 and 128 were being demonstrated as well as the premier of Apple GEOS for the IIe, IIc, and the IIgs.

Apple GEOS is very much like the version for the Commodore but has some new features that makes it operate faster. The desktop, which is the biggest diference, can now configure up to 4 drive devices including hard drives and a ram disk that can be expanded up to 3.5 mega bytes! This can be done because GEOS uses the same file format as PRO DOS which is the most recent operating system by Apple. The directories are set up in levels and the subdirectories can be set up so that You can have common accessories together, change from one application to another without going to the desktop. The printer icon is now on the lower left side of the display to prevent accidental dumps to the wastebasket. BSW says they that they are not abandoning the Commodore and plan to improve on the products they have as well as bringing out new ones. Application data files will be compatable with both systems, so we should see even more fonts and clip art when the Apple GEOS catches on.

Spinnaker Software has a new GEOS word processor called **Word Publisher,** It is a speedy program that lets You enter text as straight ASCII with format codes. It has a view and preview mode, spell checker, and the ability to overlay graphics. The price will be $39.95 and We will have a review of it in an upcoming issue.

Some interesting GEOgame programs have appeared in the public domain. **Solo Poker** by Smart Axe. You draw the cards (2 color) and try to get the best combinations of poker hands by placing them onto a matrix grid.Solo Poker will keep automatic score of the winning combinations.

GEOWORLD depends on articles by GEOS users to continue its success. Anyone is invited to submit material, even a single page can contain alot of useful information for Our readers. You will get a 1 year subscription or $10 per page that is published and extra copies of the issue that Your article appears. Do Everyone a favor and share Your experience with GEOSWORLD.

For those of You looking for some GEOtricks here are a few to try. While testing programs using GEOS 128 I have sometimes have the system lockup or crash. If You have desktop 1.4 stored in the ram expansion unit, just push the reset button. Your system will bring up the desktop along with everything that was in memory. This makes it easy to start over and find out what You did to make the program die. GEOpublish is my favorite application and I'm always finding out new features that it has. Here is one You might not know about. For precise movement of Your pointer using the X-Y indicators, use the cursor keys for fine adjustment. You can adjust the coordinants in 1/72nd or 1/80th of an inch increments! If You ever have a need to create a text file for GEOpublish but don't want to go to GEOwrite use the **editor** mode. Have a small text file on your disk that can be renamed,place it into a region, then enter the editor. Delete the text by clicking the **select page** option and **cut** it with the edit. You will now be ready to enter text . Its is sort of a poor mans GEOwrite 2.1 for the 64.

Last month Skip discussed the issue of Customer support by BSW. This is a very hot subject and We have had many letters both pro and con. Publishing these letters won't help anyone. If You have a problem that can't be solved, let us know. We will be happy to offer help.

Thats all I have room for this month. Keep the letters coming in I enjoy hearing from You. Until next month...

Roger Ledbetter

2 cents worth A Letter from the Editor

Well, I asked for it and I got it! While the response to last months Customer Service issue hasn't been overwhelming, the letters I have received have been articulate and very well thought through. Thanks! There has been some concern from many readers that this "challenge" of improving the Customer Service problem will continue to be a monthly complaint forum. On the contrary. This month you will no doubt read a response from BSW regarding this matter, and that will be the end of it. What's past is past. The point was to bring to light some *constructive* recommendations from all of us. The goal of this magazine has always been to publish GEOS related information that would be accurate *and* beneficial to the readers. It would not serve anyones' best interests to continually rehash the "gripes."

While I will continually forward your responses to Berkeley, I'm considering this topic (atleast from this forum) - closed. I'm going to retire my outspoken Jackie Gleason "Blabber Mouth."

You'll notice that this months issue is packed with more articles than ever before. Much of this increase in submissions can be attributed to the hard work of Roger our publisher. He's been doing an excellent job of reminding, begging, coercing and whatever other tricks he has pulled to get regular contributors. Now that you're starting to snuggle into your easy chair - you're getting real comfortable - WAIT! We still need your submissions. We still need your input, your contributions, your tips & tricks, almost anything related to the world of GEOS. As long as it is constructive, is beneficial and relates to GEOS, there's a good chance it will be printed. Let's here from you!

If you're a Q-Link user, you can upload your submissions to the Laser Print GEOS Documents area. (This is a free upload!) If you don't use Q-Link, feel free to forward a file on disk to Roger or myself. We do want to hear from you!

GEOWORLD

BSW at the Winter CES

through Computer Eyes

Although these pictures are not very detailed, it does show what limits Computer Eyes has with GEOS. The color photographs were digitized using 8 scans and the Computer Eyes driver for GEOS and were printed using the Epson FX 80 driver for 72 dpi.

Inside GEOS

INSIDE GEOS #9 MASTER BLASTER

Hello again! This month we are going to do something a little bit different. The following is the most complete list of BSW Reference Guide errata that I have been able to compile. Here and there I've also thrown in a few of my own comments:

PAGE 18 - ResetHandle

This is the Geos Cold Start Vector. Once the kernal is loaded in a call to this routine will start things going. Unfortunatly this routine calls a subroutine that checksums memory to see if GeosBoot is resident and then uses this value to set the IRQ vector. Supposedly this will prevent a user from loading in the Kernal using another (presumedly unprotected) booter. For those who are interested the proper IRQ vector is $E2DC. The offending (offensive?) routine is located (in Kernal V1.2) at $DBAE.

PAGE 29 - Menus

The reference to i_DoMenu is not correct. Currently there is no inline form of DoMenu. (Note: there may be one in the 128 version - I haven't checked that one yet)!

PAGE 30 - Menu Figure 2

All of the entries whos comment has the word 'pointer' in it are word length (two bytes) not single bytes. This is all of them except for the two SUB_MENU entries.

PAGE 36 - DoMenu

Again, there is no inline form of this routine.

MENUS IN GENERAL

There are also two other jump table Menu routines that are not mentioned anywhere in the book at all:

RecoverMenu ($C154) - This routine erases the current submenu from the screen. Period. It will not reactive the previous menu.

RecoverAllMenus ($C157) - This routine calls RecoverMenu repeatedly until you get back to the main menu. The main difference between this routine and GotoFirstMenu is that this routine will not re-draw the first menu nor reposition the mouse. But it's also faster.

PAGES 49-52 - PRGToGEOS

I'm not even going to attempt to list all the errors here. Do yourself a favor and tear these pages out of the book!

PAGE 96 - BitOtherClip

Third line: BitOtherClip allows the caller to specify an input routine to return the next compacted byte in R0.

PAGE 101 - GraphicString Commands

This is not a complete list! See page 395 for a list of all the commands.

PAGE 107 - Control Codes

Outline on is CHR$(26). Plaintext is CHR$(27). Also CHR$ codes from 0 to 7 will crash the system if you attempt to print them!!! You must be careful to parse all strings that could possibly have these values embedded in them.

PAGE 112 - GetString

There is no such thing as a MaxCharFault Vector. All GetString will do is call StringFault Vector. One note about this routine: there has been alot of confusion about how to use GetString. It is driven by the interrupts so you should JMP to it after you have all the variables set up. When the user hits Return control will be passed back to the application at the address contained in KeyVector. Remember that the user will be able to use the menu/icons at this time. If you don't want this to happen then constrain the mouse.

PAGE 117 - OurGetString

This routine won't work right for a number of reasons.

PAGE 162 - UpdateMouseVels

The opcode blt is actually BCC. The opcode bge is actually BCS.

PAGE 219 - Position Command

Third line of the paragraph should read: The first data byte is the x position in bytes, 0-39.

PAGE 222 - Dialog Box Commands

DBGetString - RegNumber should be the address of the zero page variable not it's number, i.e. for R5 RegNumber would contain $0C not 5.

DBGetFiles - the code for this command is 16 not 15. Also the maximum number of files that this command can support is 15 not 16 (15*17=255).

DBGrphStr - This one is command #15. See page 405 for a description.

PAGES 244-245, 259, 284 - LoadOpt Flag

Change all references to Bit 1 to Bit 7.

PAGE 261 - GetFile Synopsis

GetFile can load any GEOS filetype with the notable exception of fonts. If you try to load a font with this routine it won't do anything at all (unfortunatly it won't return an error either).

PAGE 297 - FreeBlock

The address mentioned in the last line as 'to be supplied' (sic) is $9844. Remember this only applies to version 1.2.

PAGE 300 - BldGDirEntry

One thing that is not metioned here is that you must also pass the size of the file (in CBM blocks) in R2. This indirectly effects SetGDirEntry since it will call this routine.

PAGE 308 - PurgeTurbo

This routine marks the turbo code for the indicated drive as no longer resident in the drive. The next time you try to open the drive the Turbo code will be have to be resent to the drive. There is also another routine which will only turn it off (it is still resident) - ExitTurbo ($C232). The parameters are the same as for PurgeTurbo.

PAGE 317 - VLIR Files

Three routines are mentioned but not listed anywhere. They are:

AppendRecord - No parameters. This routine will mark the next available record (usedRecords+1) as empty and increment the total records (usedRecords = $8497).

InsertRecord - No parameters. Inserts a new (empty) record just after the current record.

DeleteRecord - No parameters. Deletes the current record and frees up all sectors the record used.

PAGES 347, 372 - GetDimensions

There is one feature here that is not mentioned anywhere except in the source code for the drivers: the accumulator will be zero if the driver can do ASCII printing and $FF if it can only do graphics. Keep this in mind if you ever write a printer driver.

PAGE 392 - Selection_Delay

This is the delay in 1/60 ths of a second.

PAGE 398 - Geos Filetypes

Note that System_Boot, Temporary, and Auto-exec are only valid in Kernal V1.3 and up.

PAGE 420 - Drawing Modes

This table is a mess! It should read:

Bit 7 - UNDERLINE	Bit 3 - **OUTLINE**
Bit 6 - **BOLDFACE**	Bit 2 - unused
Bit 5 - REVERSE	Bit 1 - unused
Bit 4 - *ITALICS*	Bit 0 - unused

PAGE 423 - Disk Buffers

FileTrScTab is at $8300 not $8400. DirEntryBuf is at $8400 not $8500.

PAGE 425 - Vectors

ApplicationMain should read $849B. Also note that MouseVector is at $84A1, it's indented so it's easy to miss.

PAGE 431 - CallRoutine

The proper address for this routine is $C1D8.

PAGE 432 - Other Routines

The proper address of DoneWithIO is $C25F. The proper address of CopyString is $C265.

OTHER ODDS AND ENDS

MENUS - Do not define menus/submenus with a right margin greater then 255. All sorts of strange things will occur. I haven't had a chance to track this bug down yet but it is definatly there.

ICONS - The maximum number of icons that can be defined at one time is 32 (numbers 0-31). This reason for this is quite simple. The icon table that you pass to DoIcons is not moved, only a pointer to it is saved (in $3F-$40 to be exact). To find a given icons position in the table use the following formula - icon# * 8 + 4. Ok, let's plug in an icon # of 32 (remember this is actually the 33rd icon): 32 * 8 + 4 = 260. Since the value is greater then 255 the icon manager can't index into the table properly.

DB ICONS - There are four icons that are listed as 'future expansion' (commands #7-10). Do not ever call these icons! The system will crash if you attempt to use them (no Panic box, it will just lock up). This can be a bear to track down if you don't realize what these commands will do.

TABLES - All of the routines that require tables (DoIcons, DoMenus, InitProcess) will reset to the new table everytime they are called. Any options that where active from a previous call to the routine will be lost unless they are also contained in the new table. Technically speaking (I've never tried it) you could disable menus by pointing to a table that contains only a zero. Of course you would still have to erase the old menu from the screen.

Well that's about it for this time. For those of you who don't know it yet I am no longer available on Q-Link. I am now one of the Sysops (hmmm...Geo*Op!) on the Commodore RoundTable of Genie. If you want to contact me there my mailing address is WC.COLEMAN. If you have never been on Genie you should give it a try; it's one of the best (and cheapest) networks around. If you have any questions or comments you can also reach me at this address:

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A Wishlist for Programmers

Terry Brazeal

One of the most praiseworthy decisions of Berkeley Softworks in its development of GEOS was the commitment to making GEOS an "open" system. By providing technical information and now the new GeoProgrammer package, BSW has, in effect, tapped a vast reservoir of creativity and initiative among its users. The response of such "outside" programmers as Randy Winchester and Mystic Jim has already expanded the range and power of GEOS. In turn, this expansion has benefited BSW by more firmly establishing GEOS as the operating system for the C-64.

To see the value of this, consider the package of programs provided by Timeworks, Inc. With their "Partner" (TM) cartridge and their word processing, database, spreadsheet, and publishing packages, they provide most of the important features offered by GEOS, and in some cases significant improvements--Word Writer 3(TM) is certainly superior to GeoWrite 1.3, for example, and the convenience of a cartridge versus the GEOS boot-up is undeniable. But where is the broad array of add-on programs to augment the system, which free-lance programmers have already provided for GEOS? The "closed" nature of the Timeworks system limits it to the capacities of Timeworks in-house programmers, and thus condemns the system to a stunted future.

The open GEOS structure offers the opportunity of a lifetime for folks like me--non-programmers, or those whose knowledge is limited to a few lines of simple BASIC. Suddenly there is a large body of programming expertise, eager not only to write new programs, but to integrate them into a system which is easy for us "patzers" to use and enjoy.

Thus I offer here the first edition of my wish list for GEOS programmers--a collection of additional programs, features, and services which would be valuable additions to GEOS. I offer the list to any would-be programmers without restrictions--I have not copyrighted any of these ideas, and I absolutely waive any legal claim on any of them. They're yours for the taking. My only request is that if and when you develop some of these ideas you make them available cheaply and easily to your fellow GEOS users.

On to the list, then (in no particular order):

-For geoFile: support for additional fonts. This might take the form of a freestanding program which would only print geoFiles, but would allow any specified font--ideally, different fonts for different fields of the file.

-For geoPaint: some way to make circles larger than the size of the monitor screen, and some way to draw non-vertical, non-horizontal lines from one fixed point to another point far away from the origin--off the edge of the monitor screen.

-For geoWrite: a printer driver for daisy wheel printers. I know, I know, laser printers are better anyway, but the time and expense aren't justifiable for something like a business letter, while many of us have daisy wheels at home or at work. The driver could require restrictions on the text--all copy in plain BSW, no graphics, etc.-- and still be very useful.

-For geoFile: a multi-level sorter, capable of sorting a file on a hierarchy of several fields--field 1 within field 2 within field 3, etc. Three or four levels would probably be sufficient. This capability is essential for any sophisticated data manipulation.

-For the REU: a configuration permitting use of two disk drives and a RAM disk or shadow disk. This would make it much easier to move large files around.

-For geoFile again (guess what I've been using) -- a quick, easy way to get to the top of the file. If you need to do a search, especially on a field other than the sort field, it's tough to find the top of a large file.

-For geoPaint: availability of some different line styles -- dashes, dots, long-and-shorts, etc. This is vital for line graphs with more than one item, and useful for other types of drawing.

-For geoFile: file-splitting capability - the ability to spin off separate files based on search characteristics. This would allow analysis of separate subsegments of the file.

Well, I'm only partway through my list, but that should keep even an ambitious programmer busy for a while. I'll save the rest for a future issue. In the meantime, I invite other nonprogrammers to develop their own wish lists. Submit them in an article like this, or E-Mail them to me--I'm TERRYB3 on Q-Link--and I'll consider incorporating them in a future article. (If you do that, however, be aware that you, like me, are waiving any claim to the idea. The objective is not to make money, but to improve the state of GEOS.).

To potential programmers, let me restate my vast ignorance on this subject. Some of these ideas may be very simple, some of them very difficult, and some of them flatly impossible. I have no way of knowing. All I know for sure is that these would be valuable features for your fellow GEOS users, and will serve to strengthen the position of GEOS as the indispensible OS for the C-64.

User Help

GEOWRITE WORKSHOP 128 OBSERVATIONS

By John Ottini

1.Proper procedure for installing GEOWRITE WORKSHOP 128.

To properly install GWW 128 your 1571 disk drive must be in 1541 mode (if you don't change modes an error message will occur)... follow these steps and you should have no problem.

a) Boot GEOS 128 system disk.
b) Double click the 'Configure 128' file to open
c) Re-designate disk drive 'A' as 1541 (not 1571)
d) Close the file and also the system disk
e) Open the GEOWRITE WORKSHOP 128 disk
f) Now follow the installation procedure as outlined in your manual.

2. Printer Resolution Problems ?

The 'Workshop' is setup for document dimensions based on a print resolution of 80 dots/inch.....what does this mean? This means. . if you have a printer capable of only 60 dots/inch you will lose a good portion of your printed document(righthand side).The solution is to ignore the last 2 inches of your ruler when setting margins,tabs,etc.....if you set anything to the right of the '6 inch' position on the ruler your letter will look alright on the screen but it will be 'cropped' when printed.So remember to set all tab and margins to the left of the 6 inch position....and your hardcopy will be perfect.

3. Using the 1571 drive to its full potential.

The 1571 disk drive allows you to use 'doublesided' diskettes which increases your storage capacity .. tremendously (make sure you take advantage of this). They are especially useful when working with GEOWRITE WORKSHOP 128....for example... I can store all of the following on one DD/diskette : Geowrite 2.1...Geomerge....Text Grabber....Geolaser.... 5 Fonts..... Desktop 1.4.....Preference Mgr....Notepad...Clock... Calculato.....and still have over 150k leftover to store my documents.

4. The Importance of 'Desktop 1.4'

It is a good idea to save Desktop 1.4 on each of the 'Application disks' (unless you have a RAM expander) which you produce using Geowrite Workshop 128 .... this will save you some disk swapping when you exit an application ..... Desktop 1.4 will re-load automatically rather than 'you' having to physically re-insert the GEOS 128 system disk.

SUBJ: Two Disk Drive Info?
FROM: Basil F
I'd like people to list advantages of using a 2 disk drive system for GEOS. How much time is saved? I am thinking of buying another drive and need pros and cons!

SUBJ: Disk Space!
FROM: Assassin64
The fact that you can make a booting master disk customized to your needs! On the first side of my boot master (Not the original) I have my system files. Desktop, preferance manager, Print and input Drivers, Icon editor, And various other desktop accessories. On the second side I have Desktop, GEOwrite 2.0, GEOpaint 1.3, Fonts, Pattern editor! and other things I use on my work files! On the second drive I put work disk! This keeps me from having to switch disk between work and also saves space on my work disk because I don't need any files besides my work!

SUBJ: 2nd Drive
FROM: Joe Banker
I've used two drives, and (just tonight) used the 1764 Ram expander. The 1764 can operate just like a 2nd drive only;

1. You have to load the entire disk at once into this "invisible" 2nd drive. (No big deal only takes a minute.)
2. It's the fastest drive you'll ever use. Everything is already in memory. Meanwhile, GEOS is set up as a 2 drive system, only one of the drives is suped-up.
3. On the Ram drive, duplication or scratching of files is instantaneous. This is great for customizing work disks in the Ram drive, and then dumping this new disk to a blank disk in the real drive.

The fact that all files on your work disk, once loaded into the RAM drive, are immediately accessed,

Continued on page 16 . . .

HOW TO REPAIR THE NEW TEXT GRABBER

For those of you who have purchased GeoPublish you have probably noticed that the new version of Text Grabber that came with it doesn't work. No matter what form you select it will tell you that it can't load it in. The problem is simple - the forms are stored on the disk with filetype #3 (C-64 data file). When you select a form Text Grabber will try to load it in with GetFile. Unfortunatly GetFile will not load in C-64 type files (Not_Geos, Basic, Assembly, and Data). The fix is relatively easy.

First change all the forms to type #7 (application data). Just change the directory entry (offset #22) and it's header block (offset #69) from chr$(3) to chr$(7). Do this to each of the forms. Next we need to change one byte in Text Grabber itself so it will look for type 7's instead of 3's. The file is a VLIR but it only has a single record. Chain to the 24th sector of this record. Go to offset 121. You should find a chr$(3), change this to a chr$(7). If you don't find it check one sector backward and forward in case you miscounted. That's all there is to it! *W.C. Coleman*

Editor note: After checking with BSW, this program is working as intended for the vast majority of GEOS users. If you find that you're experiencing problems contact BSW.

Become a GEOS Super User

James Hastings-Trew

Hi, I'd like to introduce myself. My name is James Hastings-Trew, and I have been using GEOS extensively ever since it first appeared. You may recognize my name from the popular MacGeoPaint utility that has been featured in this magazine. I have used GEOS to produce a newsletter for the Saskatoon Commodore Users Group for the past two years, and over that time period I have come across many little tricks and tips that make my time on the computer more productive and more fun. I'd like to share some of these things with you in this series of articles.

For this installment of the series I want to go over how to set up your GEOS system, and make some recommendations about hardware that you may want to add to your basic computer setup in order to maximize your GEOS enjoyment. In some ways this article will merely repeat what is already contained in your GEOS manual, but I hope that my explanations will minimize the mysteries of the 'whys' even if you already know the 'hows'.

To start with, the only thing you should ever do with your GEOS boot disk is to actually load in GEOS with it! The first time you start GEOS up, you should customize the system to your liking - use the preference manager to set up your screen colours, alter your mouse pointer to whatever shape strikes your fancy, and enter the correct time and date. Be sure to use the CHANGE, and then SAVE functions of the pereference manager if you change any of the screen colours. Once you have done that, set up the system to use the correct printer driver for your printer. To do this find the FIRST icon for a printer driver. Usually this will be on the first 'page' of the desk note pad. If this is not the printer driver you usually use, just move it to the border under the disk note pad. Then find the printer driver for YOUR printer. Move it to the border as well. Now, place YOUR printer driver in the spot where the first driver was. You can do anything you like with the other printer driver - either dump it into the trash can or put it back on the disk. Now, do the same thing for your input driver. If you are using a mouse instead of the joystick, then follow the same procedure for moving the input drivers around that you just followed for moving the printer drivers around.

Why do you have to go through all this trouble? When GEOS first loads, it looks down through the disk directory for a printer driver. The very first one it finds, it assumes is YOUR printer driver, and it internally assigns that driver to do all of GEOS's printing work. Whenever you go to print something, GEOS will look on the disk for that driver. The same thing happens when GEOS wants to load the input driver. It searches down through the directory, and grabs the first one it finds.

Once you have set up your boot disk the way you want it, take it out of the drive and put a write protect tab on it. There is now one last thing to do with your boot disk, and that is to make several copies of it. The GEOS system comes with two copiers for this purpose - BACKUP and DISK COPY. The two programs are similar but not identical. Here is what the differences are, and which one you should use in which situation:

BACKUP makes an exact copy of the entire diskette, from track 1 to track 35. Everything is copied exactly the way it is on the original. Herein lies the problem with this program: To make a GEOS work disk you need several files that are on your GEOS boot disk. The simplest way to make a work disk is to copy the entire boot disk, and simply delete all of the files that you don't want. Since DeskTop 1.3, GEOS boot and application disks have been software protected from accidental erasure or formatting - that is, GEOS itself will not let you delete a file from a 'system' or 'master' disk. These disks are 'flagged' by a byte in track 18, sector 0. If you use BACKUP to create a work disk, this flag byte will be copied as well, and you will find it very difficult to delete files from the disk. To solve this problem, Berkeley Softworks included DISK COPY with the release of DeskTop 1.3. DISK COPY will make an exact copy of the entire diskette, from track 1 to track 35, EXCEPT that it will not pass along the 'flag' byte in track 18 sector 0 that identifies the disk as a boot or master disk.

Now, many experienced Commodore users will not want to use either DISK COPY or BACKUP; they may find that they are simply too slow for the job, and they may want to use a commercial copying program, such as Fast Hack'Em or Kracker Jax. These users will experience the same troubles as people making work disks with BACKUP. (If you are experienced with a sector editor, you could change a fast copy of your boot disk into a work disk by modifying track 18, sector 0. On a normal GEOS disk, you will see the text GEOS FORMAT 1.0. On a system disk you will see this text: GEOS FORMAT 1.0B, and on a master disk you will see GEOS FORMAT 1.0M. Simply change the 'B' or 'M' characters to CHR$(0).)

You may want to customize your GEOS boot disk in other ways. The Shareware disks that Mystic Jim supplies have many interesting boot disk goodies that you will find useful. One of them is Auto Preferences, which when installed on your boot disk ahead of your input driver, will force the preferences manager to load. This will remind you to do the all important task of updating the time and date. There are other types of auto booting utilities, such as a wristwatch program, and a permanent clock display. Mystic Jim's Shareware disks are a good thing to look into.

One modification that I made to my boot disk may be of help to you too. My printer interface requires that I type in OPEN 4,4,25:PRINT#4 to place it in transparent mode before I load up GEOS. I automated this by writing a simple little program that performs this initialization for me, and then boots GEOS up. Here is the program: 10 OPEN 4,4,25 : PRINT#4 : CLOSE4 : LOAD "GEOS",8,1

I saved that to my GEOS boot disk, and then booted up GEOS. I moved the FIRST file on the disk, GEOS, and I placed my printer initializer in it's place. Now, here is where you may find a problem - the deskTop 1.3 will not allow a system file (like GEOS) to be placed on the disk border of the system disk. To perform this particular modification I actually used an old GEOS 1.2 to modify my GEOS 1.3 disk. This way, I avoided the idiot proofing that BSW built into GEOS 1.3. Now when I boot up GEOS, my printer is always intitalized properly. If you do not have an old GEOS 1.2 disk around, there is one other solution to this modification process: use a sector editor to remove the boot disk flag from the GEOS 1.3 BAM (track 18, sector 0, byte 189) as mentioned above, and place a write protect tab on the disk. This is to prevent GEOS from reflagging the disk as the boot disk when it loads in. Now, boot up GEOS, and when the desktop appears, remove the disk from the drive, remove the write protect tab, and replace the disk in the drive. You will now be able to move the GEOS file around and place your special initialization file in it's place. A word of warning: NEVER move GEOS BOOT, or GEOS KERNAL - they have to be the second and third files in the directory, or GEOS will not load. This is because the primitive fast loader in GEOS BOOT which loads in the KERNAL depends on the KERNAL being in that spot - it does not actually look for the file on the disk.

Now, you want to make a backup of your GEOS boot disk, and a couple of work disks. Let's consider what you want on your work disks. First of all, I recommend making a work disk for geoWrite and another one for geoPaint. You need to make a copy of your boot disk with DISK COPY, and delete GEOS, GEOS BOOT, GEOS KERNAL, all of the printer drivers except the one you use, all of the input drivers except the one you use. I recommend that you leave PREFERENCE MANAGER on the disk, and whatever desk accessories that you might find useful. Personally, I almost never use NOTEPAD, so I delete that one right away. CALCULATOR is useful, and depending on your situation you may want to keep ALARM CLOCK. I usually delete that one as well. You will find that while PHOTO MANAGER is useful with geoWrite, TEXT MANAGER is not used as often, and almost never used with geoPaint. It depends on the types of things you are writing and doing. Now, make a copy of this disk using DISK COPY; from one of them delete geoWrite and from the other one delete geoPaint. You may find that some of these files are protected and resist deletion. To change this, highlight the file's icon by clicking once on it, pull down the FILE menu, and select INFO. On the info window, you will see a little box marked Write Protect. If it is filled in black, simply click once on it to clear it, and then click on the close gadget in the upper right hand corner of the INFO window. You may now delete that file.

Now you have work disks that contain the following files: DeskTop, geoWrite or geoPaint, your printer driver, your desk accessories, and the five system fonts. After experimenting you should decide which fonts you really use the most, and delete the others, or you may move fonts from the FONTPACK onto your work disk. For most purposes, these are the fonts I have found to be most useful: Durant, Roma, Dwinelle, California, and Ormand. If you have the new geoSpell package, you also can create new fonts, and if you have a Qlink account you can download additional user created fonts. I also have found Dingbats and Garnet to be very useful, but that's because I made them!

The point here is to make sure your work disks are customized to YOUR liking before you begin. Once you have a good system set up, you will find that you can work more quickly and more productively. Keep your array of desk accessories to a minimum, and if you find that there is something on your work disks that you don't use, get rid of it - it's taking up valuable work space. Keep your selection of fonts to a good minimum. Remember you are not going to be writing a ransom note, so try to use a selection of good solid fonts. It is an easy matter to copy a font onto your work disk for any special purpose.

Why be so frugal with your work disk? Well, with the Desktop, your application program, and whatever desk accessories and fonts you want to use included on your disk, you may find that you will only have 50K or so of disk space in which to work. Keeping only what you actually need on the work disk will maximize your work area, and minimize the hassle of making sure there is enough room to work with.

Here is a tip for reducing the amount of disks you'll need for GEOS: format a blank diskette, and call it something like GEOWRITE ARCHIVE or GEOPAINT ARCHIVE. Once you have completed a project and printed it out, copy the file onto the appropriate archive disk, and delete the file from your work disk. This way, you always keep your work disk clean of clutter, and you can keep your documents filed away where you can always find them if you need to edit them later. Since these archive disks do not contain any system files, you can fill them up very efficiently and completely. Some GEOS users just make a new work disk whenever one gets full - the amount of disks they have is staggering, and they can never find a file when they want it. Keeping yourself to a good archive system will drastically reduce your disk clutter.

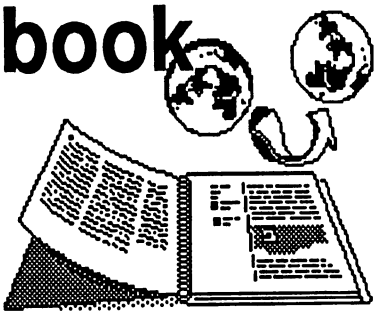
If you really want to save on storage space, you can try a shareware program called ARC to store your unused geoWrite or geoPaint files in a compressed form. To use ARC on a GEOS data file, you first would need to use the BSW program called CONVERT to change the file from a GEOS file to a Commodore sequential file. Then you can use ARC to compress the files down for storage, and you can even use ARC to print out a list of the contents of each of your archive disks for easy finding and retrieval of old files. I use this system with my newsletter articles, and you will be surprised how many geoWrite documents can be squeezed onto one disk! An ARC'd file can be as much as 70% smaller than the original, but you will find that text will compress more readily than graphics. To use an old file, you then would use ARC to uncompress the file, and then use CONVERT to convert it back into the original file.

Continued on page 17 . . .

Antigrav Toolkit Notebook

By Randy Winchester

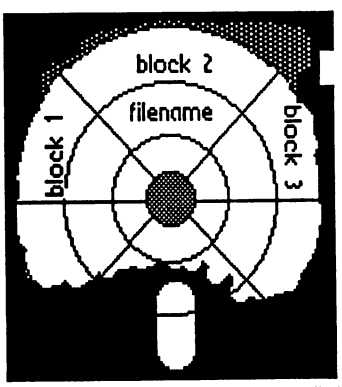
File Transfers with GEOS Files



GEOS files are a new type of construction - much different than other types of files that existed prior to GEOS. Special handling is required to prepare GEOS files before shipping them off along the phone lines. The tools to prepare GEOS files are well developed, making file transfers highly reliable.

One of the first things I tried to do with GEOS was to write some utilities that would work with it. I finally settled on a project - read a standard SEQuential text file and output a GEOS Text Scrap. Then I would be able to take files I created with SpeedScript, convert them to Text Scraps, then paste them into geoWrite or geoPaint documents. I had a lot of good information on SEQuential files, but no information on Text Scraps. Examining GEOS disks with a disk editing utility revealed a lot of information about GEOS files.[1]

The directory entry for a GEOS file has more data than a standard file entry. The GEOS entry has been expanded to provide room for time, date, and file structure data, and a pointer to a block called the file header. The file header contains, among other things, the file's icon that you see while using the deskTop.

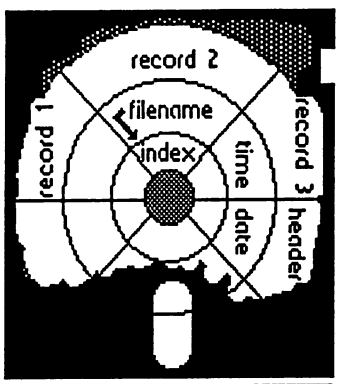


Normal Commodore DOS files are linked sequentially - each block following another

So, after a week or so of hacking, I had a program ready.[2] I wanted to upload this program to a local BBS, but before I tried, I was already aware I had some problems to solve first.

GEOS File Structure

Before GEOS, uploading and downloading a file was a clearly defined process. You got the telecommunications software ready on the sending and receiving ends.[3] You told the receiving end to expect a file named "OLDFILE" and you ready your software to start sending "OLDFILE." Commodore DOS finds "OLDFILE" in the directory and sends the file.



Simplified diagram of a VLIR file.
Commodore DOS can find only the index.

Take a look at the simplified diagram of the structure of a GEOS VLIR file. VLIR stands for Variable Length Indexed Record. It consists of multiple segments, called records, which can be of any length. One block is called an index. The index is a table of pointers to the records. There is also the info block and the time/date data following the directory entry. The only part of this file Commodore DOS is able to locate from the directory entry is the index block. If you use the same telecommunications software to send this file, you're in for a big disappointment. It'll only transmit one block, the index block.

GEOS CONVERT

A simple solution I devised was to write a short program that would convert disk blocks to BASIC DATA statements.[4] Searching through the disk, I made notes to include the blocks containing the directory entry (which would also include the time, date, and structure data, and the pointer to the file header), the file header, the program, and if a VLIR file, the index and all of the records. I then fed this data to the utility to produce the DATA statements. The resulting DATA statements were then appended to a companion program that would write everything back where it should be on another disk. This approach produced a file which could safely be uploaded and downloaded as a BASIC program and reproduce a complicated GEOS file on the receiving end. The disadvantages were that the process wasn't automatic enough, and that DATA statements can require more than twice as much storage as raw disk blocks.

These days, the utility of choice is CONVERT.[5] It runs in the GEOS environment as an application. It converts GEOS files into SEQuential files by changing the pointers so that the directory entry points to the file header, the file header points to the index block, the index block points to the first record, first record to the second record, etc. The time/date/structure data from the directory gets written to the file, and the file type gets changed to SEQ. When converting a SEQuential file back to GEOS, time/date/structure data gets written to the directory entry, the file gets it's pointers changed back to what they should be, and the original file type is restored. Since CONVERT doesn't actually create a whole new file, it operates very fast.

ARC and SDA

Don't start thinking that CONVERT is the last word. While it does what it is supposed to do, there is a problem with the files it creates that will sometimes cause difficulties. The glitch is in the way some telecommunications software handles SEQuential files. Usually executable code is stored in PRoGram files using bytes that are eight bits long. SEQuential files are typically used for text files. Since only seven of the eight bits in a byte are needed to represent the entire ASCII character set, the eighth bit sometimes gets altered. If you transmit executable code in a SEQuential file and your software assumes that it is text and does something funny to the eighth bit, the receiver gets a mutilated file.

The solution is to change the SEQuential file into a PRoGram file for it's trip over the phone lines, then change it back to SEQuential on the receiving end. Although this is a trivial operation, it is one more step. Using ARC can make it worth your while in more ways than one.[6]

ARC is short for ARChiver. It does some very nice things other than change SEQ files to PRG. ARC can combine multiple files into a single file. Say you have 3 files - an application, a data file, and a documentation file. ARC will read these files and output a single file which contains the three original files. ARC also compresses the output file. With some files I've ARCed, the output file was only half the size of the input file. A real benefit of using ARC is that you'll spend less time uploading files. And you'll also spend less time downloading files that other people have ARCed.
A recent development in the ARC world is the Self-Dissolving ARChive, or SDA. It creates an ARC file that doesn't require ARC to dissolve. Just LOAD and RUN any file with .SDA at the end of it's file name, and the original files get written back to disk in their original form.
How nice!

SUMMARY

One of the tradeoffs of user-friendly systems is usually added complexity at some level. With GEOS, that complexity shows up in the file structure. Until a user-friendly GEOS terminal program is available to handle user-nasty files, we'll have to rely on good utilities and a little knowledge of how things work.

I would like to include your GEOS hints & tips and bug reports in future columns. If you have any brief GEOS tricks or bugs that you've discovered, please send it to me.

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

In exchange for material submitted on disk, I'll return a disk of public domainGEOS software.

1. I use the public domain DISK PATCH V2.0 by Kevin Pickell, L. Phillips, and J. May.

2. SEQ->Text Scrap. Versions 1.0 - 1.3 are freely available to the public. Versions 2.0 and higher are a commercial product.

3. Recommended terminal software: 64 mode - the public domain CBTERM by CHRISDOS. 128 mode - ULTRATERM, shareware by Steve Boerner.

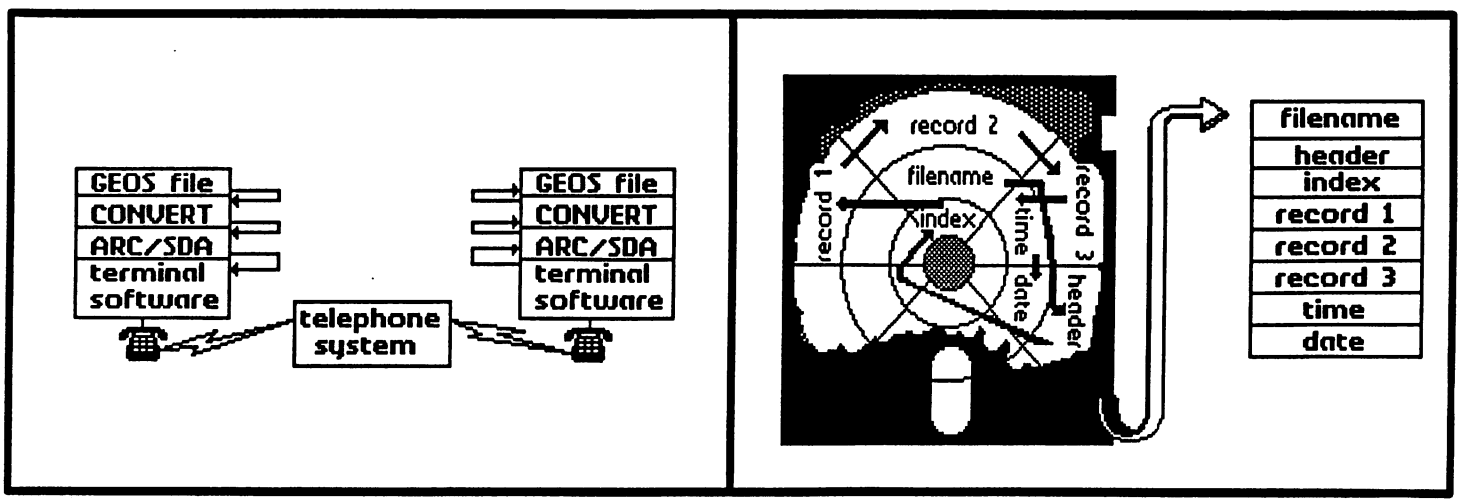
4. SECTORS->DATA, DATA->SECTORS, public domain. A related utility, SECTORDUMP, creates a formatted file suitable for printing.

5. CONVERT by T Bone 22. Version 1.4 is current. Freely available to the public.

6. ARC is available for both 64 and 128 modes. It is a shareware program by Chris Smeets.

Next Month...

Accessing Laser Printers



Mystic Jim
2388 Grape
Denver, CO 80207

Well, the Christmas crunch is over, but things haven't slowed down a bit: we're busier than ever, and struggling to keep up. Christmas was really nice, because so many of you sent us cards and greetings. We'd like to thank everyone personally, but we can't, so we'll take this opportunity to let you all know how much we appreciate your kindness and continuing support. You make all of this time and effort more than worthwhile.

We're coming out with lots of new shareware and commercial stuff that we think you'll like:

Fontastic: Font Grabber. Turns C64 character sets into 10pt. GEOS Fonts.
Font IDX: Edit GEOS font ID numbers.
More than 60 new 10pt. GEOS fonts. ($9.95, or $4.95 for members)

Howard's Fonts: Sixteen really great fonts by Howard Fernald. (shareware, membes only). Howard will also be doing some new fonts in the future.

ParaPrint Cable: We're offering this because so many of you have stated that they can't find BSW's version. Ours works just like their's, but at half the price, and we HAVE 'em. Drivers for almost 50 common printers are available.

GEOTRONIX: Even novices can create perfect circuit boards with .01 accuracy, even double-sided. ($19.95, $14.95 for members) We learned a lot about producing custom circuit boards at low cost while designing the double-sided boards for our Real Time Clocks. It's almost impossible with standard practices to index two sides of a board so they match, but very easy with GEOS- we were even able to run three leads between .1in. pins. GEOTRONIX has patterns for all common components, overlay grids, supply lists: everything you need to make positive-photoetch circuits except the boards and chemicals. Step-by-step instructions take you through the process of designing, printing, and etching your own circuits. You'll never go back to pasting up circuits by hand.

Interceptor: Bring any GEOS print file (GEOPublish, GEOWrite, GEOFile, GEOCalc, etc, etc.) into GEOPaint for color, pixel edit, etc. You need this to make the finishing touches on your printouts.

Master Blaster's programming utilities: GEOHeader, GEOIcon II, GEOSort directory sorter, GEOSmon ML monitor. Side B is Hack'n GEOS with Discompare GEOSMod. Dozens of supporting programs. ($24.95, $17.95 for members.) Members may also request Hack'n GEOS alone.

Many of you have noticed and commented about Master Blaster's absense from Q-Link. Bill had for a long time been the recognized expert at Q-Link on the inner workings (and not-workings) of GEOS. Well, his expertise has not been lost, but only moved- to GENIE. He is now the SYSOP for GEOS, including a special "Mystic Jim" board, with all of our shareware and much of our proprietary stuff, available for down-loading by Mystic Jim members only!

There are many reasons to sign up with GENIE; the cost to those who use more than five hours per month is less on GENIE; it's easier to get around there: you don't need a special terminal program, as on Q-Link. Most of all, we expect to offer better technical support for GEOS.

To justify our continued presence on GENIE, we'll have to show strong usage of our board, so please mention our GEOS section as your reason for joining up, and we'll do our best to make you glad you did!

Hey, have a faaantastic new year!
Best.

Mystic Jim's Shareware Update

January 1988. Volume 2, Number 1

* NEW THIS MONTH
Hack'n GEOS.
Howard's Fonts.
BASIC-8 Utility disk.
Fontastic.
Clip Art: About 15 disk sides
Accessories B+
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)

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)
GEOStart. (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. (version 1.6) (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
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

BASIC-8: Diskful of Lou Wallace's latest stuff for the C128 80 Column display. We're developing programs to convert between B8 and GEOS128 and 64

BASICWrite Text Editor: Plus new print drivers, dozens of new utlilities., fonts, print drivers, new applications.
BASIC Calc spreadsheet
(Members only, on request)

(Requires BASIC 8 from PATECH)
Iff you own a C128, new MUST have BASIC-8

CLIP ART
More than seven double-sided disks of Photo Albums. (members only, on request) Printed directory available for $ 4.50

HACK'N GEOS(members only, on request)
Discompare: Compare two disks to find what "installation" really does., and more.
GEOS-Mod: seek, alter code by file, disk, hex, ASCII or decimal entry.
GEOS-Mon: Jump to monitor from any point in program. (micromon for GEOS)
.....and MUCH MORE!

FONTASTIC: (Members only, on request)
Fontgrabber: convert any C-64 character set to a 10 point GEOS font. From disk, data or memory.
FONT IDX: Change font ID number to avoid duplications.
FONTS: More than 5 dozen 10 point fonts-best size for text in GEOPub.

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 information, use mail, or our BBS.
Mystic Jim, 2388 Grape
Denver, CO 80207
(303) 321-3223 BBS- (303) 321-8954

MYSTIC JIM ENCHANTS THE EAGLE

GEOPUBLISH GRAPHICS

BY SUSAN PUHN-LAMB

Last month I transferred the top and bottom of a full-page geoPaint border, drawing the sides in page graphics mode. Transferring the whole page with five geoPaint/128 photo scraps is fairly simple, but time-consuming. After using each photo scrap, you must close geoPublish to transfer the next scrap onto your work disk. This is because geoPublish wont run the 128 photo manager and you may have only one photo scrap on a disk. Position the bitmap cross-hair close to the top of the page and as far to the left as possible. To install the second photo scrap, put the cross-hair one pixel down from the last pixel on the first bitmap. If you miss and the sections don't quite fit together, click on the bitmap and carefully move. Do this in zoom display as even one pixel differences are noticeable. A geoPaint page is slightly shorter than a geoPublish page, so there is room to make adjustments up and down

On this page I transferred a border using GEOS/64 geoPaint. Although it took twelve photo scraps, at least I could use the photo manager and stay in geoPublish. Starting at the top left corner of the border page, I cut the five full windows down the left side, saving each in a photo album. Then I cut the five on the right side, using *cut* rather than *copy* to see where to move the drawing window. When cutting the top and bottom center sections, I put the edit box only around the remaining artwork and not the entire window. It's a good idea to make a copy of the album before you start in case you lose a page through absent-minded cutting like I have.

Place each bitmap on your geoPublish page starting in the upper left and using the last page in the photo album. Since a lot of sections look alike, keep track of the order you put them in the album and cut each one as you use it. It will become easier to put the cross-hair in the proper place with practice. I uploaded this border to Q-Link so you can down-load and experiment with it. You might try moving all twelve bitmaps up or down to see if you can line them up again .Transferring a full page requires moving fifteen photo scraps, the five down the middle being narrower than a full window.

ENLARGING GRAPHICS IN GEOPUBLISH

Most of the art available for GEOS is either the size of a drawing window or smaller. The ability to enlarge them is a feature I always wished for in geoPaint. Now it is available in geoPublish, but does have drawbacks. Some art becomes distorted and the pixel effect is too pronounced with even a little enlarging. Other pieces can be enlarged to fill a whole page and still retain its original look. Smoothing isn't always an answer to the large pixel effect and sometimes worsens the appearance of the art. It is just a process of trying different sizes and proportions on the graphic to get the effect you want.

On the next page, I've used some of the graphics from my *Graphic Idea Files* for a few examples. The book is better unsmoothed even with the large pixel effect because there are many lines close together. Smoothing causes some lines to drop out. The smoothed apple is actually improved with the rounding-out of shapes.

Continued on next page...

This art is shown normal size here

This is the same art stretched horizontally. The copy is typed while in geoPaint and stretches along with the art. This technique may be faster for inserting type in many small areas.

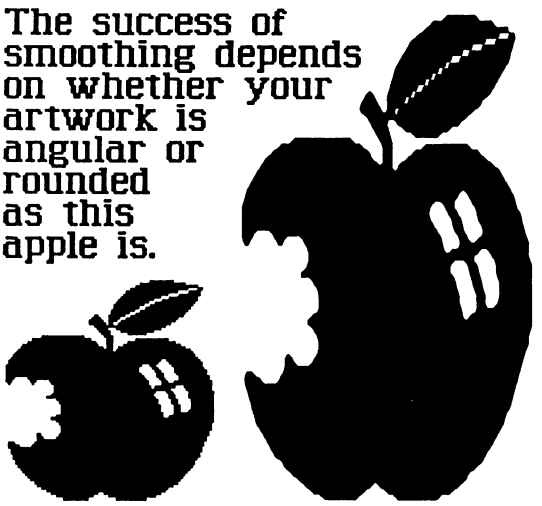
While smoothing the large bear below, (not shown), the dotted screen dropped out completely. In that case, the resulting bear gained a nice effect, looking like a wood-block print. For yet another sample, I eliminated all the screened areas in geoPaint and then enlarged the bear, with smoothing, to full page size. It actually looked better than the original. Every piece of art will react in different ways when enlarged or sized. Problems can be corrected by changing the size, smoothing, or by making adjustments on the graphic in geoPaint.

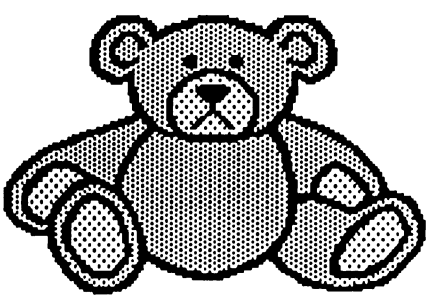
If you want to define copy blocks inside of graphics as I did with this book, you must install the bitmap first. However, when you go to page layout, you can't see the graphics. One solution is to install pieces of graphic art on the master page before setting text regions. This will allow you to see them and define the text regions accordingly. This technique can't be used if you have several pages, as anything on the master page will come out on succeeding pages.

Send questions and ideas to share to *YumaLamb* on Q-Link or mail:

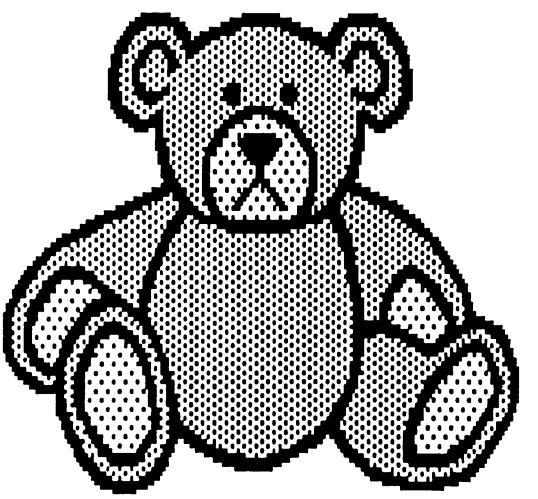
Lamb Art & Design
1764 Avenue B
Yuma, Arizona 85364

The success of smoothing depends on whether your artwork is angular or rounded as this apple is.





This shows what can happen to a pattern when you enlarge art.



Continued from page 7

gives this a big advantage over a real drive.

SUBJ: Two Drives On Geos.
FROM: LouisP2

If you want to get all the Geos Files on to one disk you wind up with about 1k of work space. I purchased Geo-Dex and Writers work shop But there isnt enough room for all of them on one disk especially if you want 8 fonts.

So I was wondering if you could use the fronts of two different disks in each of the drives so they can be treated as one 340K disk? I hope I do But if you dont quite understand me please reply saying you don't.

SUBJ: Try!
FROM: Assassin64
Puting only MAJOR work files on your Work disks! I mean lets face it! How often do you use Icon Editor!!! Or Grafix Grabber! What I do is put my boot files desktop prefeance mngr input an print drivers along with GEOdex Notpad Alarm clock calander convert and a couple of other files on side one of my USEboot disk! This is a booting backup of my GEOS master disk! On the second side I have Desktop, GEOwrite 2.0, GEOpaint, Text Grabber, Alarm, notpad, change input, pattern editor, my default print driver mouse joystick and Lightpen drivers! As well as the fonts I intend to use! This set up lets me use a blank GEOS disk in my other drive for my work files! I then have a "Snatch" Disk wich Has Desktop GEOpaint Computer eyes and Grafix grabber on it! Until GEOS support hard drives like the ICT Data Chief! Your going to have to do extensive swapping!
Hope this helps!

Classifieds

HELP!
Would like to get in touch with individuals that love making fonts for GEOS & GEOPUBLISH. I am a preacher and have some styles I would love to see created for use for making overhead transparencies. Also any suggestions on using the REU with other various Commodore 64 programs would be helpful. Contact: Mike Hughes, Minister. North Cleveland Church of Christ. P.O. Box 146. Cleveland, MS. 38732 Phone: (601) 843-6840.

Here's the missing link that connects the old world with the new . . .

Randy's geoDisk

The old Commodore was a different machine. *Eureka!* Here's GEOS. But what are you going to do when you want to LASER print all of those SEQuential files the old operating system left behind? Now you can painlessly convert them into a form that GEOS can use.

SEQ->Text Scrap V2.0

will automatically convert your SEQuential files into GEOS Text Scrap files using any of the 30 fonts available from GEOS in any of the font styles and point sizes. Text Scraps can be pasted directly into your GEOS documents! The program is entirely menu driven, and includes optional two disk drive operation for faster conversions of either standard ASCII or CBM-ASCII files, on-line help, and draft printing of the file.

Bonus programs include a utility to convert GEOS Notepad files into Text Albums. There are templates for creating your own C64 cheatsheets. Four programming utilities make it easier to manipulate GEOS files. There are also three clipart files if you're feeling artistic. A 16 page LASER printed manual is included.

To order, send $15, check or money order, to:

Randy Winchester

P.O. Box 1074

Cambridge, MA 02142

Now, onto some hardware recommendations. If you have a single drive C64 or C128 system and you are considering getting a second disk drive to use mainly with GEOS, I recommend that you save yourself some money and purchase a 1764 or 1750 RAM Expansion Unit. The advantages are incredible - greatly increased speed and performance of the entire GEOS system. If you own a C64, and you think that a C128 may be in your future, get the 1750 REU. It works on the C64 without modification, but be warned, it could drive your power supply into overdrive and kill it - with possible disasterous side effects for the computer. I currently own a 1571, a 1541, and a 1750 REU. With GEOS running, my 1541 is never even turned on.

If you currently use a joystick with GEOS, you are causing yourself untold frustration and wasting large amounts of time and energy. Buy yourself a mouse - preferably the 1351 mouse, or the geoMouse from Berkeley Softworks when it becomes available. The geoMouse has an advantage in that it contains a clock/calendar chip which the Desktop 1.3 will look at and read when your GEOS is first booted up, eliminating the need for you to set the time and date manually. The 1351 has the advantage of having two buttons - some other art software on the C64 and C128 use both buttons, so the 1351 is the more compatible of the two choices.

If you find that you use GEOS more than any other software on your C64 or C128, and you are using a television set with your computer, I would recommend for the sake of your eyesight to get a good monitor. If you have the money, go for the Commodore 1084. If not, look at a good amber or green monochrome monitor, my personal recommendation being one of the Zenith line - the screen is FLAT, and you will get excellent results in either 40 or 80 column mode on the 128.

Next time I will talk about some of the more interesting uses of geoPaint, and the new PAINT DRIVERS included with geoWrite workshop.

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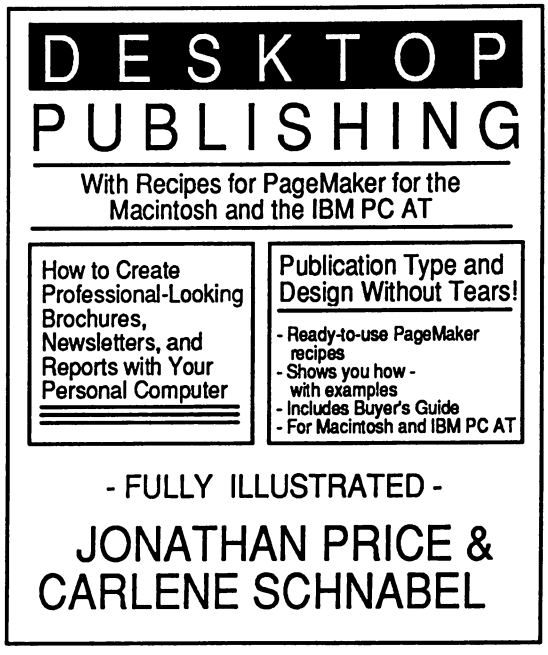
Desktop Publishing for the Masses

By Paul A. Hughes

"Desktop Publishing for the Masses" seems like an overwhelming phrase. When one thinks of Desktop Publishing one imagines big corporations with IBMs or MACs with hard drives, several hundred dollar Pagemaker, Interleaf programs, several thousand dollar Laser printers and Linotronic offset presses to do in-house catalogs, correspondence, reports manuals etc. Even small companies with an AMIGA 2000, a 20 meg hard drive and a Laser Printer running Professional Page seems too much to ask for. When we consider the masses - "us", we have to do the best we can with our low memory machines and low resolution dot-matrix printers and crude, rudimentary programs such as Newsroom, Print Shop and Outrageous Pages. To dream for true Desktop Publishing is too much to hope for.

But that *dream* is now a *reality* with the release of **GEOPUBLISH** from Berkeley Softworks! **GEOPUBLISH** with a C64/128, 1764/1750 RAM Expander and a 1351 mouse gives us the power, versatility and laser quality output of those high prices machines and workstations - very economically. The price over performance is great! We can now produce high quality laser-printed documents up to 16 pages with many of the bells and whistles of Pagemaker. True Desktop Publishing for the masses is now achieved, thanks to the ingenious minds at Berkeley Softworks. But now arises the problem, what do we do with this newly acquired POWER?

Last November, I gave a DESKTOP PUBLISHING Seminar using **GEOPUBLISH** at a New England MARCA Commodore Fair. Before the seminar, I prepared by reading all the past questions and comments that were on the GEOS ARENA GeoPublish message board. I found that many users were overwhelmed by the power and versatility of GeoPublish. Others were puzzled about how to do page layout and design, where to place graphics, how many fonts to use and what typefaces, styles and sizes to get the effects they wanted. Many corportations call in high priced consultants to ask advice on how to spruce up or clean up their reports and manuals. Many users do horrid page layout with too many pictures, too many fonts sizes and styles, it gets crowded and messy and not enough "white space" for the reader to relax his eyes. Many of these terms come easily to people in the business of Publishing. They have had years of experience to make correct judgements and decisions on page layout and design. We, on the other hand, are new to this. We never had to know what an offset press does, what is grey-scaling or half-toning and what makes up the color-separation process. All that has been decided for us by publishers and copy



shops. We try to get advise by reading such publications as **PUBLISH!** or other guides to Personal Publishing. We are even more confused by terms and concepts that are over our heads. What we need is an easy to understand, concise tutorial on just what we need to know, not everything.

Now it brings me to the main focus of this article. After reading through over 30 books on desktop publishing and page layout and design, I happened upon an excellent layman's tutorial on getting into Desktop Publishing with the least amount of pain, aggravation and frustration. Even though this book talks about PageMaker on the MAC and IBM, it is not machine or program specific and can apply to programs on the C=64/128 or the AMIGA. Other Desktop Publishing books talked about what equipment or programs is needed and what makes a Laser Printer work and gets heavily into typography. We need a book that takes us by the hand and shows us how to do useful applications in everyday situations and takes us step by step in instructing us what to do. I believe I have found this treasure chest of information in DESKTOP PUBLISHING: *With Recipes for Pagemaker for the Macintosh and IBM PC AT* by Jonathan Price & Carlene Schnabel from Ballantine Books.

DESKTOP PUBLISHING by Price & Schnabel is a very well written and organized book with a great table of contents, a super index and each chapter is fully illustrated and has a very concise summary at the end of each section. On the cover of the book it states that this book will help you create "Professional-Looking Brochures, Newsletters and Reports with Your Personal Computer. Publication Type and Design Without Tears." "Jonathan Price and Carlene Schnabel show you how to create stunning documents and add graphic impact to your reports. **DESKTOP PUBLISHING** *shows* you - with scores of illustrated examples - how to create professional-looking documents. Attractive, impressive, and effective documents gets your work noticed. Featuring recipes for Pagemaker... that can help you create better-looking publications and solve your document problems . Includes PageMaker tips and desing hints that can increase your productivity." WOW! That sure makes the book sound great and it is! I cannot say how much I recommend this book to anyone who has **GEOPUBLISH** or any Desktop Publishing software for the AMIGA.

The books starts off very general to

get one introduced to the idea and concept of desktop publishing. It tells in a Glimpse of Desktop Publising, why it saves time and money. What's involved. How you can get into it without too much pain. It asks if desktop publishing is for you? It shows the before and after desktop publishing effects. Before one had to do manual mechanical paste up and typesetting. Now one can design a page and rearrange columns, change type faces and add graphics without the mess, extra cost and in less time. They even tell you how and why they designed the book the way they did.

Part Two starts to explore Design by beginning with Type. It explains in very simple language what you really need to know and tips on choosing the right size, font and space. Whether to use all CAPS or Upper Lower Case, With or without serifs, Height and Width: big or small, Weight: Bold, medium or Light, Italics or Roman, Lettering Spacing: Loose or Tight, Alignment: Left, Right or Center, Long or short Lines, Loosely Leaded or Packed Tight. How to set off your headings and emphasize what's important or de-emphasize the minor or incidental. Working with a Grid and developing basic design for your pages. When to stick to a grid and when to violate it for effect. It discusses elements of a page, Page size and orientation, Column layout on the grid, balancing facing pages, unifying the whole publication, and placing art on the grid. How to use pictures to illustrate text, entertain the eye, attract atention or provide variety for your publications. Why, where and how to use Art? How to crop and resize your art and using traditional and electronic pasteup.

Part Three discusses Applying Design and steps you through how to personalize your Memos and Letters and make them easy to read, entertain the eye and demand response. Also it shows how to plan a manual whether it is for reference, a tutorial and how it illustrate it. And my favorite section and one I assume will be most useful to many user group newsletter editors is on Planning a Newsletter. It discusses some things one must take into account and consider such as figuring out who your audience is, what is your budget, how often will you publish it, how will you distribute it, and how will it be reproduced, format and binding, how many words/page, will it have Regular Features, and will you use art? How and where? This is before you begin the design of the newsletter. Then it goes into the step by step procedure of putting together a newsletter such as how to choose type, design a masthead, organize and starting to work on your first issue.

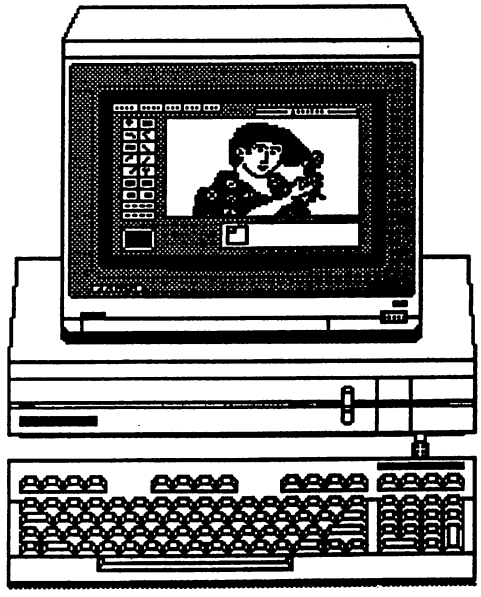
Part Four gives recipes and tips on using PageMaker. It talks about Copyright of clip art and text. It also gives step-by-step instruction for creating your own business card - a hands on tutorial. Also shows how to create a Brochure or turning the brochure into mailer and how to fold it. Making a Newsletter template to create a basic foundation for your newsletter that you will use each time you lay out an issue. It shows how to set up Master Pages, Template Pages, a Dummy and then follows into the actual laying out of a newsletter by placing your first article, and continuing on another page, placing and resizing art and making the article fit the space.

Part Five of the book talks about getting Into Print. Which method is right for you. How to distinguish between levels of quality and cost. It talks about the variables to consider and the variety of output: simple dot-matrix, Near Letter Quality, Letter Quality, The Laser Advantage, tips for best laser output, Typesetting output and using Fonts. Chapter 16 discusses some more complex terms and concepts such as: using photocopying, choosing the Right paper and ink, understanding Offset printing, four-color printing and about trim, folding and binding.

Part Six is a Desktop Publishing System Buyer's Guide. A checklist of features you may want in hardware and software, from computers and printers to scanners and digitizers. Also a very thorough Glossary of Desktop Publishing Terms.

The book is designed in an easy to follow format that one can start from the beginning or jump right into a particular chapter, such as on designing business cards. The book has a large shaded topic and sub-topic bar at the top of each section, so one can thumb through it and easily find the section one is looking for. The bottom half of the page usually graphically illustrates what the authors are discussing and helps reinforce visually their ideas.

DESKTOP PUBLISHING by Jonathan Price and Carlene Schnabel is invaluable for the first time user getting into Desktop Publishing and using **GeoPublish.** A treasure chest of information that one will reread and refer to over and over again.



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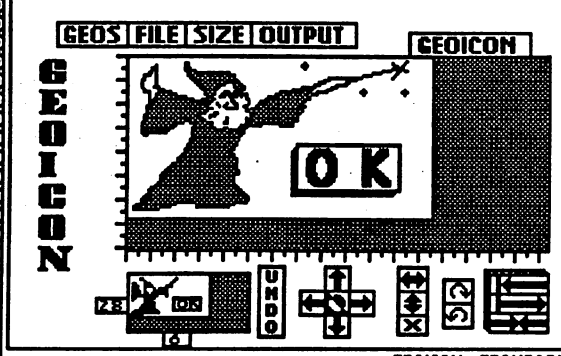

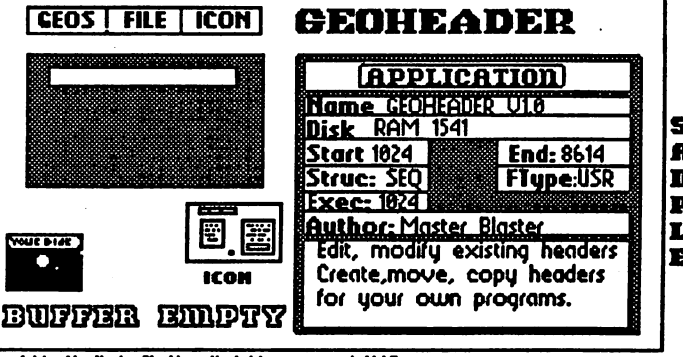

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GeoCalc!!

GeoCalc is a program that performs the tasks required of a full-featured spreadsheet. For those who are unfamiliar with spreadsheets, spreadsheets are useful programs because they perform calculations quickly and allow the user to set up "what if" statements. For example, what would happen to cash reserves if accounts payable went up by 50%? How would equity be affected as equipment is amortized over five years? **GeoCalc** can answer these types of questions.

GeoCalc is divided into 112 columns by 256 rows, allowing plenty of room to perform major tasks. **GeoCalc** contains four different scrolling features for moving around your spreadsheet quickly and easily. Scroll one cell at a time by moving the cursor to the edge of the screen. The scroll box indicator lets you go to a specific section of the spreadsheet. Screen arrows move one screen at a time. And finally, typing a particular cell reference will move the cursor to that cell.

An important feature of spreadsheets is the ability to increase and decrease the width of columns. Column widths in **geoCalc** can be decreased to 4 characters narrow, or increased to take up an entire screen. This feature allows for a column to be widened if a word is too large to fit in the default size of a cell.

GeoCalc allows for 23 different functions to be put into any single spreadsheet. Among these functions are financial, statistical, mathematical, scientific, and trigonometric. By using these functions, the user is given tremendous flexibility to manipulate numbers.

Another impressive feature found in **geoCalc** concerns formatting. Numbers can be formatted in 13 different ways, including monetary ($), scientific (+00), percent (%), and general (0). Data can be displayed to various decimals of accuracy, and different formats may be displayed in the same spreadsheet. Numbers and words can be displayed in **bold**, *italic*, or plain typeset. Numbers and text can also be aligned to the right, left, or in the center in each cell.

One of the most helpful features of **geoCalc** is the split screen display. This allows for column headings to be frozen across the top of the screen, while the remainder of the spreadsheet is scrolled through. (See the picture on the right.)

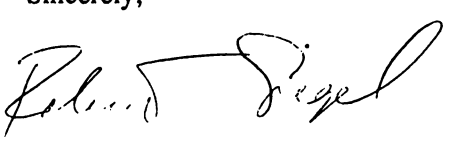
GeoCalc can paste scraps into both **geoWrite** and **geoFile**, thus allowing text, numbers, and data to be interchanged. Similarly, scraps from **geoWrite** and **geoFile** can be pasted into **geoCalc.**

The spreadsheet may be printed in three different ways: *Draft*, *High*, and *Near Letter Quality*. *Draft* gives a fast printout so work can be edited without having to wait a long time between printouts. *High* gives a high quality printout with styles supported. *Near Letter Quality* produces outstanding and professional looking documents on printers that have NLQ capabilities. Printing row and column headings, as well as the grid, are additional print options.

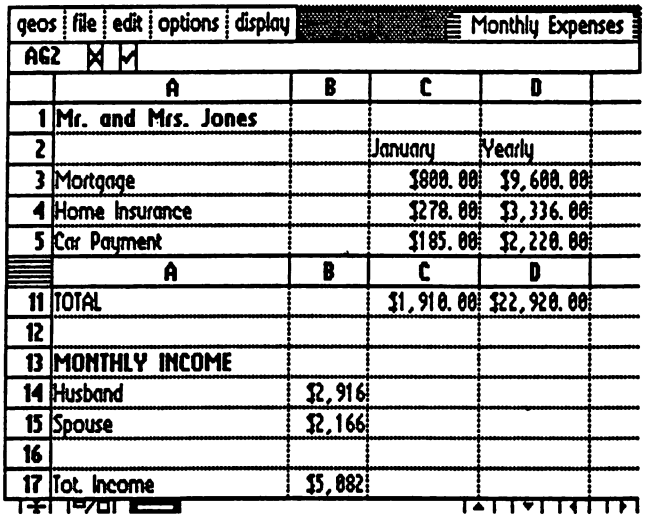
GeoCalc may in fact be the most easy to use spreadsheet on the market. User comments have stressed mostly on how intuitively easy the program is to learn. There are no confusing commands to remember, and no new ideas and concepts to integrate. The program works using the same easy to use graphic interface that you are already familiar with from **GEOS.**

I hope everyone had a happy holiday season, and I'll see you next month in the **GEOWORLD.**

Sincerely,



Robert Siegel
Berkeley Softworks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2 January Yearly
3 Mortgage $800.00 $9,600.00
4 Home Insurance $278.00 $3,336.00
5 Car Payment $185.00 $2,220.00
A B C D
11 TOTAL $1,910.00 $22,920.00
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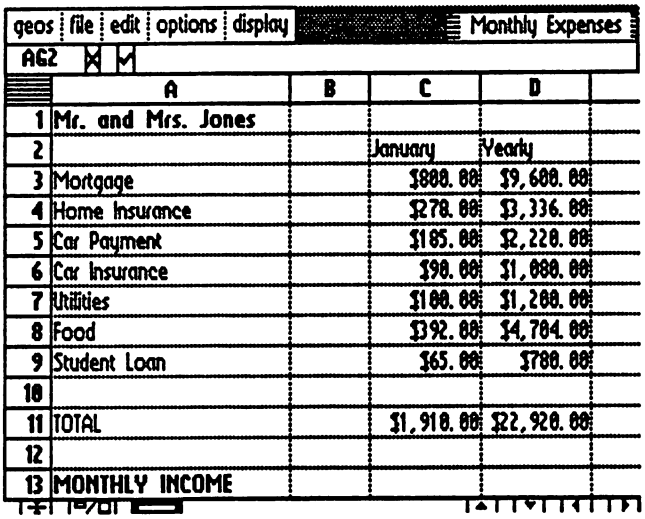
13 MONTHLY INCOME
14 Husband $2,916
15 Spouse $2,166
16
17 Tot. Income $5,082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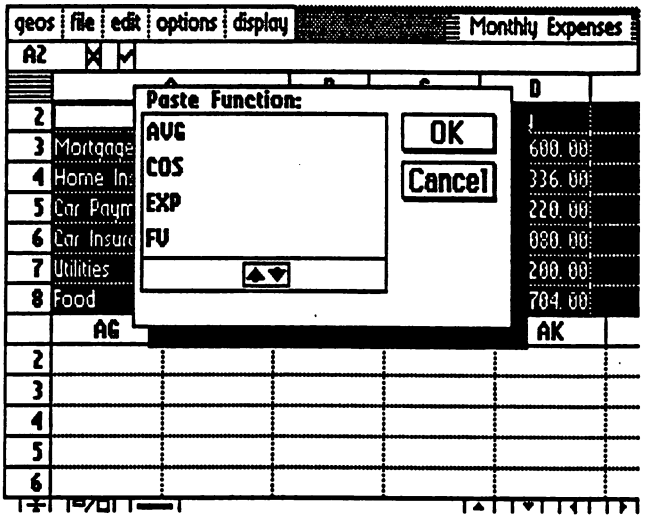
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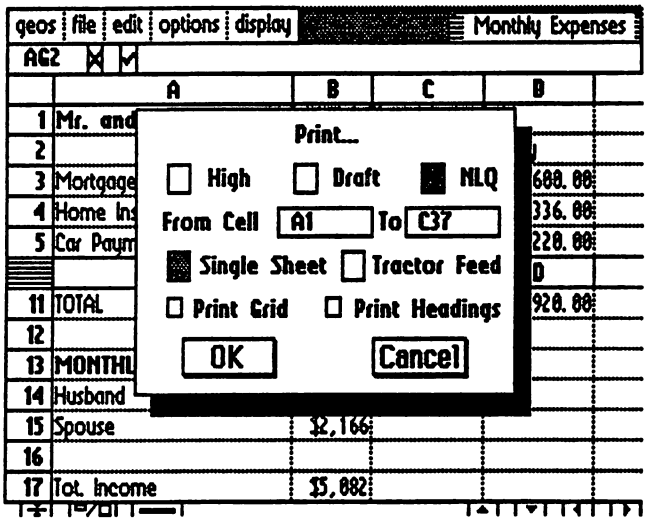
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High Draft NLQ
From Cell A1 To C37
Single Sheet Tractor Feed
Print Grid Print Headings
OK
Cancel
15 Spouse $2,166
17 Tot. Income $5,082

BERKELEY Softworks

Dear Editor:

This is just a quick note in reply to last month's letter regarding customer support. From **Berkeley Softworks'** standpoint, we understand that we have had problems with our customer service, and as will be made apparent in the next **GEOS NEWS**, we are taking steps to correct that problem. We acknowledge that we have to do things better, and we are moving in the right direction.

However, what was touched on last month is slightly different. I think what you were trying to stress was that "company bashing" does not lead to anything productive. Useful comments and suggestions, however, are always welcomed. As you pointed out, **Berkeley Softworks** is a unique situation in that we provide high performance software at a low end price to the user. As noted, some desktop publishing programs retail for almost $800.00, and **geoPublish** is suggested to retail at $69.95. It is hard to provide both quality software and the level of support that many people desire and continue to keep prices as low as we do. Any increased customer service costs have to come out of the consumer's pocket in the end, and this is something we are trying to avoid.

The role of publications like **GEOWORLD** and telecommunications services like **QuantumLink** is to help fill in the gaps when we may not be able to do all that is requested by our customers. Through means such as these, ideas and information can reach people that otherwise might not be accessable through our various customer support venues. While we understand that we must improve efforts in customer support, we hope that other mediums can compliment our own efforts.

We hope to continue to bring highly sophisticated software to users at a reasonable price, and if any of our users have ideas on how we might be able to do this--please tell us. Suggestions never hurt anyone!

Thank you for your time.

Sincerely,

Robert Siegel
Berkeley Softworks

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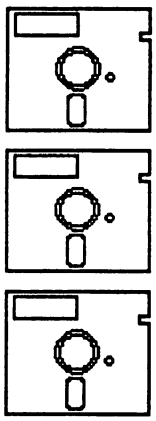

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