

geoVISION
INTERNATIONAL™



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BRINGING THE WORLD TOGETHER WITH GEOS

January 1993
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Premier Issue



Angela Schmidt



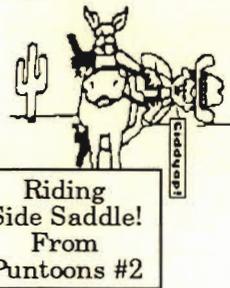
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From Puntoons #1



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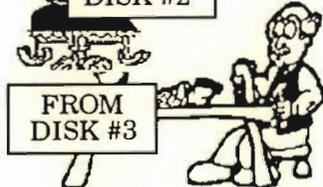
FROM DISK #9



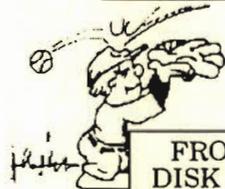
FROM DISK #2



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FROM DISK #3



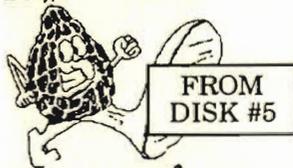
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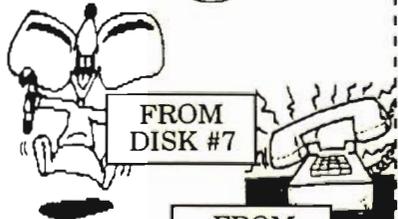
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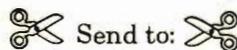
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NEW USERS EDITOR
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See page 12 for rates and more information.

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My Two Cents Worth

What! Another GEOS Magazine?

by Grady E. Brown



You have just opened the door to a new forum for Commodore Users of all kinds. A user group of sorts, (in print) where GEOS users exchange and share their experiences and ideas with others.

Our premise is quite easy to understand. geoVISION International is here to be your all inclusive source of GEOS material. A "Where to find it" magazine, if you will.

The complicated part of rounding up this material and its sources lies on us, saving you time to enjoy GEOS. As it should be. With our great contacts, writers, programmers and editors, we can bring you most everything you want and need. For that last small percentage of material missing, we ask your help. If you're a programmer, why not put us in your budget for display page advertising. Our rates are unbeatable, and are that way so we can be assured of carrying most every source of GEOS products to the readers. Check them out. At least place us on your mailing list for product announcements and press releases. Or better yet, send us your program and we'll give it top priority in the next REVIEWS column.

I hear you all asking, "Why do we need another GEOS magazine and will it stick around"? These are a very valid questions. We'll try and answer them both.

With other Commodore and GEOS specific magazines slowing down or disappearing all together, a void is left. Where do we look for GEOS knowledge? There are many locations, big and small, spread out all over the world. But, where do you find out about these sources? geoVISION International, that's where. And what about the software and hardware houses

that are closing their doors, and user groups changing gears allowing other computers systems in? We will take care of you.

The existence of geoVISION International is to bring all GEOS users and programmers together, spreading the knowledge, experiences, and information of GEOS users worldwide, and to give you the best GEOS support possible. We'll be your link to other users and programmers of the same and better skills.

By subscribing to geoVISION International you can be assured, you'll have a continued source of GEOS information. geoVISION International is for all ages and levels of experience.

geoVISION International is published bi-monthly and is mailed via First Class mail, which has top priority over Bulk Mail that other publications use. This material is so important, we want to be sure it gets to you on a timely basis.

All material in each issue is GEOS. Commodore GEOS. So don't waste time reading about other computers and operating systems just to find one of two tidbits of information on your system.

Each issue contains feature articles on the hottest topics of the day. And great 'How-To' instructions. geoVISION International will give you a continuing dose of regular columns on Programming GEOS; software and hardware Reviews; a Telecommunications column with what's hot (or not) on the 'BIG' networks; The Art Gallery, where we highlight artists and their works; something for the New Users; and a column listing User Groups, BBS's and

Publications with GEOS support.

We'll also include in EVERY issue, a Letters section, where you write in and tell us what's on your mind (a question and answer place). News will have general topic views on what's new and what's coming in the future for GEOS. The Classifieds section is where you can FIND, or SELL GEOS software, books, magazines, or hardware, for FREE. If you're looking for larger space, check out our 1/6th to Full page display advertising, priced just right for everyone.

Each issue of geoVISION International should be in your hands within the first two weeks of each publication month. January, March, May, July, September, and November. We're on a strict publishing schedule, so you can be sure to receive your copy ON TIME and ON A REGULAR basis.

One full year has been put into research, planning and layout of every aspect of geoVISION International before we made any decision to bring this product to you. There was and is a need, so here it is.

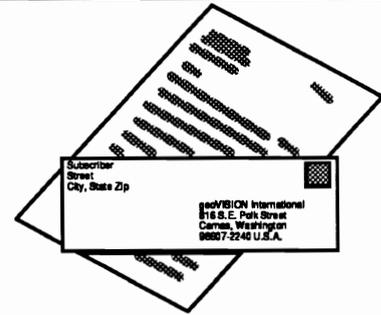
We cannot guarantee we'll be around forever. No one can. But, WE DO PROMISE to follow through with ALL our commitments to EACH AND EVERY subscriber. As long as there's a substantial need, geoVISION International will be here for you. We look forward to being your ultimate source of GEOS material.

Spread the word about us to all your GEOS friends and tell your local user groups about our FREE listings. Write to us with your questions and your suggestions. We want to hear from everyone. Our mail box is always open. Enjoy your new found knowledge and expertise.

Your Words & Thoughts

Questions, Answers, Suggestions & Ideas

by YOU



PC GEOS Coverage?

Are you planning on expanding your coverage to include IBM GEOS? I use GeoWorks PRO most of the time, and am interested in seeing a magazine with info on that topic.

-Dale Beach / Elwell, MI

[EDITOR] Sorry, but geoVISION International is dedicated to 8-bit Commodore computer users of GEOS. We feel it would be best for us to stick with the users that gave GEOS number one sales status, and at this time have no plans of expanding to include PC GEOS.

Best Wishes to geoVISION Int'l

WHOOA! (I bet you'll never guess who's writin' this letter!) There... By chance, did you guess it was the ol' geo-IDIOT himself??? That is, errr, me??? (I'm bettin' you did!) So, yer re-ward is... *tymphany, orchestral flourish... et al...*

A CHECK for the amount of... \$21.00 U.S.! I originally intended on getting my subscription order in to you earlier... Then, only after I heard glowing praise for all yer efforts on the 1st issue, I knew I had to subscribe!!! My best wishes for success go to you and geoVISION International.

-Terry (geo-IDIOT!) Witter

German GEOS Programs

Are you going to include any of the GERMAN GEOS programs on any of your bi-monthly disks, that geoJOURNAL reviewed in issue #10?

-Dave Belter/Rockford, IL

[EDITOR] We hope to include many of the Public Domain and Shareware programs written by those in other countries as they come available. We would like to set up an exchange of software with other countries and would also like to exchange ideas and GEOS uses with everyone

throughout the world. Please be aware that geoVISION International is in no way connected with geoMETRIX or geoJOURNAL.

FREEDOMware

Thanks for supporting independent software developers like me! With your help I can continue to develop new and hopefully useful software for the venerable Commodore 64/128!

-Kent L. Smotherman

[EDITOR] That's what we're here for. To support users with the GEOS information they need, in both how to get the most out of the original GEOS Applications, what additional GEOS programming is out there, and how to best use it too. As our name implies, we

are your VISION into the world of GEOS. We want to inform the users of any and all (old and new) GEOS programming so you can make your own decision as to whether you need it or not. A programmer can't afford not to send us their new stuff or advertise with us, and a user can't afford to not subscribe to geoVISION International.

This area is your forum to ask us questions, make suggestions, or to air your complaints. Let us know what's on your mind by writing to us today, or leave E-Mail to GradyB1 on Q-Link. We want to hear from everyone for whatever reason. Anything you have to say is very important to us. Write to: geoVISION International; Letters Department; 816 S.E. Polk Street; Camas, WA 98607-2240.

PRODUCTION TOOLS

geoVISION International is proudly produced on a Commodore 128 with upgraded ROMS and 64K Video Display Memory, a 512K Commodore 1764 REU, two Commodore 1581 (3 1/2") drives, and one Commodore 1541 (5 1/4") drive. A Panasonic KX-P1091i printer is used for pre-proofing pages. Final proofing is done on an IBM 4019-E laser printer.

TEXT EDITING

All text is submitted either on disk or via modem to us, and converted to GeoWrite 128 v2.1. Text is then proofed and input into GeoPublish v1.0b for further editing.

LAYOUT & DESIGN

geoVISION International's design and layout is done using GeoPublish v1.0b.

TYPOGRAPHY

Every issue uses LW Cal (Helvetica), LW Cowell (Palatino-Roman), LW Zapf (Zapf-Chancery), and LW Shattuck (Zapf-Dingbats), all from GeoWorks, Inc.

OUTPUT

Except for certain ad material, finished pages are printed to disk using a patched version of GeoPubLaser v1.8 and copied to an IBM disk using Big Blue Reader 128 v4.01. The pages are then copied to an IBM 4019-E laser printer through Microsoft DOS v5 for masters. Film of the masters are then created and offset printed by LAZERQUICK Copies #22, 1410 Main Street Vancouver, WA 98663.

Commentary on 1992

CMD Takes Center Stage

by Dale Sidebottom

Shakespeare thought, "The play's the thing..." He felt that life was a stage, and that we were the actors, playing many parts. I hope you got to spend a good deal of your time in 1992 playing the role of a Commodore/Geos (C/G) enthusiast.

Ol' Will could have said, "Each of us is a central processor, computing within Life's universal network, receiving data from divergent sources while running various programs, using both productive and non-productive software." Unfortunately, the "Bard" never used a computer. If he had, we might understand him better than we do.

What if he *had* used *our* computer? What would he write concerning our recent history? Might some of these events merge into a tragedy. After all, we have taken some real hits lately! In the past year and a half, we have seen *GeoWorld*, then *GeoJournal*, and even Ms Lamb's *GeoStore* fade from the horizon.

Most recently, we mourn the loss of *RUN Magazine*. I understand the parent company, Techmedia publishing, Inc., a division of IDG Communications, Inc., has pulled the plug, claiming that there are not enough subscribers to warrant continuation. Details are still hazy, but if *RUN's* run is indeed over, we still want to thank its staff who, for years, have brought the excitement of Commodore into our homes. Thank you all for a job well done, and we wish you godspeed in whatever direction you choose to go.

Remember how Shakespeare wrote, "All's well that ends well!" So let's look and see how 1992 ended. The year 1992 ended very well, thank you, and for several reasons. One of them has to be the publication of this magazine. Its editor

Grady Brown is, at this stage, a proven performer. While it remains to be seen how well *geoVISION International* is accepted, it has the potential to become a powerful voice in our C/G theater.

A second high point has been the continued growth of overseas markets. As free market economies expand in Europe and Asia, so do Commodore sales. Sometimes referred to as "the poor man's PC," it is often the computer of choice among new computer buyers. For this reason, we see some great new products being developed "over there," which eventually make computing a lot better "over here." Two of the best examples are the Perfect Print program and the HandyScanner 64.

Another side of the "European Connection" is the GUC (Geos Users Club), based in Germany. While only about 50% of Commodore users are also Geos users in this country, the large majority of C64/128 users in Europe appear to use Geos extensively. The GUC has approximately 2,400 members representing at least 13 countries. In November, 1992, I received a letter from Lars Heidbrink. He represents a special interest group within the GUC whose purpose is to contact Geos users around the world. He encouraged me to exchange ideas and PD programs with his group. It is another big reason that I look forward to 1993.

By far, the most exciting development I saw in 1992 was the ascendency of Creative Micro Designs (CMD). This was the year that they pushed the HardDrive, mastered the RAMLink, and introduced the new FD drives.

Once upon a time, we depended upon Commodore (CBM) for hardware and Berkeley for software. These companies *still* provide an important level of support. As long as CBM can sell nearly a million units (C64's) a year, due mainly to the demand overseas, that level of support will likely continue. But who do you turn to when you want to "push the envelope?" When you want to expand the limits of your computing world, who do you call? I usually call CMD.

Let me give you a little background. In June of 1988, I helped organize the GeoCORPS, a Special Interest Group within my Commodore user group. When the 1764's and 1750's came out, almost every one of us purchased an REU. It made "geosing" about, a lot easier and more fun! However, like most users, we were far from content. We developed a long wish list. We wanted: (1) more memory, (2) non-volatile memory, (3) ease of use outside Geos, (4) a real time clock, and (5) auto-booting from the REU. Such a long list seemed impossible to satisfy.

Now all these impossible dreams have come true in CMD's RAMLink. You may have heard the old ad expression, "It costs a little more, but it can do so much more!" That is how I would describe RAMLink.

Keep in mind that cost is relative. I purchased my 1764 REU for \$115. I paid \$65 to upgrade it to 512K and again paid \$130 to have the memory enlarged to 1Mb. So the total price I paid for a Commodore REU with 1Mb of memory was \$310! Today you can buy a RAMLink from CMD which includes a power supply, battery back-up, real-time clock, and 2 Mb of memory for less than \$375. The Commodore REU cannot safely carry more than 1 Mb of memory, according to a recent *RUN* article, but the RAMLink is upgradeable to 16 Mb!

CMD began as Fellows, Inc., selling JiffyDos back in 1986. A year later, Mark Fellows got together with Charlie (Charles A. Christianson, Jr.), and together they formed Creative Micro

Designs. They were the co-founders, and the only employees! I figured they chose the name because its abbreviation, CMD, was the Commodore basic term for "command," but they swear it was coincidental.

JiffyDOS was still their only product, but they worked to expand. In 1989, CMD developed hard drives for the Commodore, which they began shipping in 1990. RAMLinks were developed in 1990 and were shipped in 1991. (However, the gateWay program which allows Geos users to make full use of the RAMLink was not properly debugged until Jim Collette worked on it this last summer.) And reading between the lines, one might expect that the FD-2000 and FD-4000 drives were developed in 1991 for sale in 1992. With all this growth, CMD must have hundreds of employees, right? Not! There are just a dozen employees, and only four of these work full-time!

When I asked about the reasons for RAMLink, I was told that the Commodore REUs were compatible with less than 1% of available software. Of course, the GeoRam was only compatible with Geos. Therefore, there was a need for RAM memory that could function like a 1541 drive, reflecting track and sector numbers. For Geos users, it was necessary to construct a new "desktop" program that would allow Geos to be free from the "1541/71/81 syndrome."

So CMD created its own form of DOS (disk operating system) which would allow the emulation of any Commodore disk drive. They also "sweat blood" through ten or more hardware revisions in RAMLink. Jim Collette was hired to debug the "infested" version of gateWay, and gateWay 2.5 was sent out as a free replacement disk. When users could not get RAMLink to work at all, CMD asked them to send in the RAMLink AND their computer, so new compatibility problems could be diagnosed and corrected. The result is that RAMLink is now a fairly flawless product.

It amazed me that they worked too

hard to make their product compatible with everything possible. I learned that their philosophy is to make storage devices with as much speed as possible, but NEVER sacrifice compatibility for speed. CMD targets productivity software, and they support Geos because it is a good platform with a lot of active users.

Next I asked them why they developed the FD-2000 and FD-4000, the 3 1/2 inch drives CMD has begun to market recently. They told me about computer shows in Canada, where 1581-starved Commodore users offered from \$300 to \$500 for a used 1581 drive in their booth. Other countries, like Australia, apparently *never did* receive a shipment of 1581's. In other words, there was a world-wide shortage of Commodore-ready 3 1/2 inch drives.

INCREASINGLY WE FIND OURSELVES TURNING TO CMD TO FULFILL OUR DREAMS.

In addition to this, CMD Hard Drive owners were clamoring for some way to back up their hard drives. All methods were considered, including the obvious choice of a SCSI tape drive. However, these solutions carried price tags that went from \$500 on up. CMD decided to compromise, opting instead for a drive that could back up significant amount of data, and when not backing up the hard drive, could then be used as an additional storage device. It is sort of like having your cake and eating it, too!

Many Commodore users are surprised that ours is the first computer platform to be offered these 3.2 Mb (3 1/2 inch) drives. We once expected to be first with new technology; now we stand amazed! The enhanced disk (ED) drive is still a rarity and hard to find in computer shopper magazines. None of the big three (IBM, Amiga, or MacIntosh) yet produce one for their patrons, although IBM is ready to do so

next year. While an 800K disk costs about seventy-five cents, and a 1.6 Mb disk costs \$1.50, the 3.2 Mb disks still cost about \$10.00 apiece. Hopefully, the big three will begin adapting these drives to their platforms soon, if only to drive down the price of *our* ED disks!

We see that when Commodore stopped producing REU's, CMD developed and marketed one that was even better. And when CBM stopped producing 1581 drives, CMD introduced an improved version. Does anyone see a pattern forming here?

But it does not stop here. Consider that there are six parts necessary for good productivity software. There has to be a word processor, a graphic-arts program, a database program, a spreadsheet, and a desktop publisher, in addition to a disk management system that glues it all together. It is significant that CMD now markets Geos-based software which makes improvement in two of these six areas? In addition to producing hardware, CMD sells gateWay (new desktop) and geoCanvas (art application). In fact, they represents a widening circle of contributors who find it useful to let CMD market products for them.

One important example is the PPI RAMDrive. Peter Fiset, a genius in his own right, is the guiding force behind Performance Peripherals, Inc. (PPI). He and CMD worked together, sharing knowledge, to bring to market a RAMDrive that is 100% compatible with CMD's other products. This required an additional six months effort on Pete's part, but you and I are the immediate beneficiaries. I have trouble with my RAMLink whenever I try to take it to a computer meeting. I lose memory about half the time even with the back-up battery. The PPI RAMDrive is, in my opinion, more stable and more convenient to carry. It also makes working with the SX-64 easier.

In addition to developing new products of its own, and marketing great products from others, CMD helps C/G users in one more way. This publication is

FEATURE

called *geoVISION International* for a reason. We are aware that our best course lies in building upon our *international* strength. This is what CMD is doing also.

They now have at least three dealers in Germany, two in Australia, one in Sweden, and are working toward England, France, Italy, Hungary, and Poland. They have begun to establish a permanent European office in Austria. It is staffed by a commissioned agent working out of his home...not a big office, but an important beginning, none the less.

CMD seems to be the most aggressive company developing new hardware and supporting new software for C/G users. They presently occupy center stage in our theater. If you have not witnessed any of their performances lately, I recommend that you see one soon!

[EDITOR] Dale Sidebottom is a member of LUCKY (Louisville Users of Commodore of Kentucky). He has been president of the GeoCORPS (the geos-SIG) for 5 years and editor of the *LUCKY LINE* Magazine for four. In his spare time, he works for Uncle Sam, delivering your mail.

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CompuServe	C= C
GEnie	C= G
Q-Link	C= Q
Delphi	C= D
Other	C= O

A Comparison of The Major Networks

by Grady E. Brown

Let's assume you already have a modem and know how to use it, as well as have a good terminal program to use. I would like to give you just a little bit of information about each of the networks so you can judge for yourself which one is right for you. There are so many differences, I recommend you call or write each one for more information. I will tell you about the GEOS support and pricing of each service. There are local access telephone numbers for most major cities through various systems. TymNet and SprintNet (Telenet) to mention a couple. They all bill your VISA or MasterCard, or will debit your checking account.

Quantum-Link (Q-Link) is the only Commodore specific network available to us. It requires you to use their proprietary software for access. You'll find an extensive library of GEOS software and message base full of GEOS users and programming experts. E-Mail, the message bases, and Downloading files is considered 'Plus' time. With your \$9.95 monthly fee, you receive one free hour of 'Plus' time. Additional 'Plus' time will be billed to you at \$4.80 an hour. To order your Free Q-Link Starter Kit (If you don't already have one) just call or write to Quantum Computer Services.

GEnie is a service that allows you to use your own terminal software. It covers many computer brands so there is a smaller amount that we Commodore GEOS users can use. They do however, have quite a large GEOS software library. You'll also find many GEOS users and programmers constantly on-line in the message area. In fact, it seems that quite a few Q-Link users have moved over to GEnie or are on both networks. E-Mail considered Basic, but you'll be charged for access to Roundtables (message bases) and downloading files.

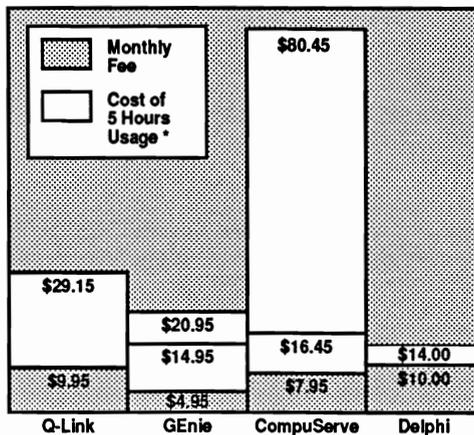
The Monthly fee for * Basic Services is \$4.95. There's an additional Communications surcharge of \$2.00 an hour. Value Services (non-Basic) are an additional \$6.00 per hour. For more information call or write a GEnie Client Service Representative or log right on.

CompuServe is more of a service catering to Big Blue and MACs, but it does contain Commodore and GEOS files in its various libraries and many good message areas. Again, you may use your own terminal software here. The monthly fee includes up to 60 pieces of Electronic Mail (E-Mail). Forums (message bases) and software libraries are included in the extended Services rate. CompuServe has a monthly fee of \$7.95 for basic services and a \$1.70 per hour SprintNet and Tymnet communications surcharge. It is \$12.80 per hour for all extended services. To get started, you'll have to purchase a CompuServe Membership Kit for \$39.95

which includes a \$25.00 usage credit, CompuServe Users Guide and Quick Reference Booklet, and the monthly member magazine.

The fourth, Delphi is another that allows the use of your own terminal software. Everything is included in the basic fees. There are no 'Plus', 'Extended', or non-value * services to worry about. E-Mail, message bases, and downloading files is all free. There are two packages to subscribe to. The 10/4 Plan is \$10.00 a month giving you 4 hours of use. Additional use is \$4.00 per hour. The 20/20 Advantage Plan is \$20.00 per month and includes 20 hours of use. Additional time is only \$1.80 per hour. This plan has a one-time entry fee of \$19.00.

The chart to the left gives you a good idea of the pricing for an about 5 hours per month. I've not mentioned FidoNet or talked about BBS's since there are so many, and they are pretty much all free. There are a few that do charge for access.



* This comparison is based on 5 hours use per month of Q-Link 'Plus' time, GEnie 'Value' Services, CompuServe 'Extended' Services, and Delphi at 1200bps. The lower number is 5 hours of basic free services, while the higher is 5 hours of 'pay' services.

Quantum Computer Services
 8619 Westwood Center Drive
 Vienna, VA 22180
 Info: 1-800-827-5938

GE Information Services, GEnie
 Post Office Box 6405
 Rockville, MD 20849-6403
 Info: 1-800-638-9636

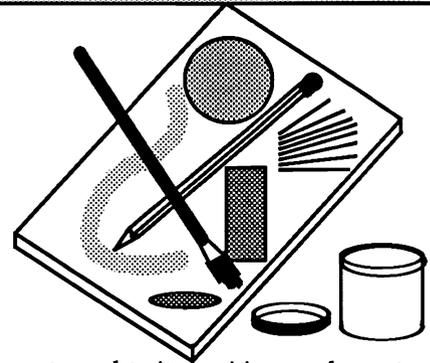
CompuServe Info. Service
 Post Office Box 18161
 Columbus, OH 43272-4630
 Info: 1-800-848-8199

Delphi
 1030 Massachusetts Avenue
 Cambridge, MA 02138
 Info: 1-800-695-4005

The Rembrandts of GEOS

My Beginnings With GeoPaint

by Jane M. Voskamp-Jones



Discovering geoPaint

When I first discovered GEOS in 1988, I knew right away that I wanted to do something with this program. All I needed was a small amount of guidance to get me started in geoPaint, and a reason to do something. This guidance came from our local Commodore User Group. Once I knew the barest details I began finding my own way.

At the time my equipment consisted of my first C64 (1983 vintage), one 1541 disk drive (1985 vintage), a C1525/MPS801 (1983 vintage) printer and GEOS v1.2 System Disk. Don't groan. I know many people who are beginning this way in 1992. I sympathize with them, and I try not to overwhelm them, but to keep their interest and curiosity alive. Back then I didn't know anything other than my desire to create Art with geoPaint, and I couldn't see any limitations in this set up. Ignorance is bliss, and when people tried to tell me I couldn't achieve anything with the equipment that I had, I said 'yeah, just watch me'. They are still watching, and I am enjoying myself with all that GEOS can offer.

One of the first things you learn with GEOS is about work disks. You must set up work disks with different disk names and organize yourself. Funny thing was, every time I added to my system I had to do this again, and again. With v1.2 tedium ad infinitum becomes obvious, but to accomplish anything you must face it.

Prepare geoPaint work disks

After booting GEOS on a single drive system, you click on the file menu from deskTop and select the format option, to

prepare a work disk. The deskTop then prompts you with a dialog box to enter a 'diskname.id' up to 16 characters. At this point remove the system disk and insert the disk you intend to make your work disk, then press RETURN. When the format is complete the blank deskTop of your work disk is displayed. Next reinsert your system disk and click on the disk in the upper right corner of the screen to make it active. Then click once on the deskTop icon to highlight it, then click again to get the ghost icon and drag it to the border area below the deskTop page itself, but avoiding the printer icon and the trashcan icon that also reside there in the bottom right corner of the screen. Also drag the icons of geoPaint, photo manager, at least one font, a printer driver, and an input driver to the border area. This border area is also known as the off-page-directory.

Next, you need to insert your work disk, and open it by clicking on the disk icon. Then you click on deskTop icon in the border area to highlight it, then click again to get the ghost icon and drag the ghost up to the work disk deskTop page, and click again. GEOS then prompts from a dialog box, to insert your system disk and click OK when you have done this. The deskTop program is read from the system disk until you are again prompted from a dialog box, to insert your work disk back into the drive. The deskTop program is then written to your first work disk. Now you must put the system disk back in the drive and click on the drive icon to activate it. You will notice that the deskTop icon is still in the border area. Click on it once to highlight it, then click again to get the ghost icon and then drag the ghost icon back up to the deskTop of the system disk. The deskTop program is then

returned to its position on the system disk. Now you must follow the same process for the other files, until the task is completed and your first geoPaint work disk is ready. Did I mention tedium ;-)

Once you have your first work disk prepared, I recommend **not** doing all that again. The best procedure to follow is to backup this first geoPaint work disk, using something like Fast Hackem (any version), using the fast copy feature. But remember, when you next work with GEOS, promptly rename all the work disks with a **characteristic** name such as GEOS64Paint-1Work. Well anything that makes sense to you and is up to 16 characters in length will be fine.

Tackling geoPaint

That is how I began using geoPaint. A lot of preparation and not much inspiration, yet. My first major task, in May 1989 only one year from first tackling GEOS and geoPaint, was to create a new Flyer and new cover for our User Group's Newsletter. Being an Artist for 15 years prior to this, it was natural for the Group to single me out, even though I had not yet mastered geoPaint or even created anything yet. A very daunting prospect with the range of equipment and skill I had at my disposal. You're probably thinking impossible. I didn't know that either so it never occurred to me. I said ignorance is bliss. Since I only had an MPS-801 printer I was restricted to 60% of the geoPaint page. I needed to figure out exactly where that was before trying to position any graphics or text. It took quite a few tests to establish this border.

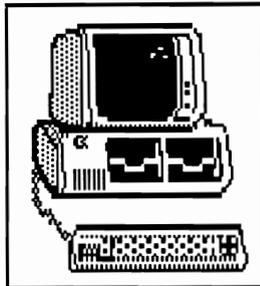
Then with one of my work disks I double clicked on geoPaint and I selected



Create new document at the dialog box. To start with I drew a diagram representing the state of South Australia, in what was the top left

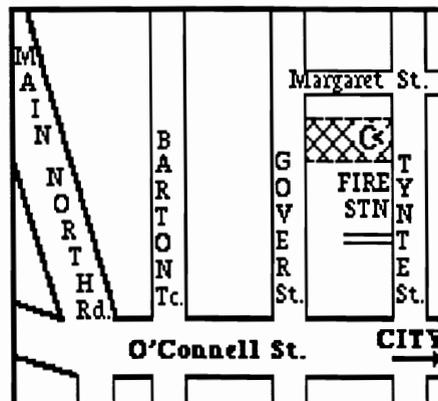
position of the document. Next I wanted to place beneath it a picture of a computer. I did have Printmaster and I had seen the neat graphic of a computer, so with my trusty printer I made a hard copy of that computer picture. Then I painstakingly reproduced that computer picture pixel by pixel %-(using the pixel edit mode of geoPaint available from the options menu. At that point in time it was all I knew. I did not have Graphics Grabber which by now you are all saying I should have used.

Hindsight has always been our greatest asset. All I can say is that I own it now on DeskPak Plus. Since I did not yet understand how to use the edit tool available from the top of the tool menu next to the four arrow move window tool, the computer graphic remained where I had drawn it.



produced a little crosshair pointer. By placing this pointer where I wanted to start with my text I clicked on it once. A dotted box appeared and it increased in size as I moved the other end of the box downwards and to the right. When the size of the area was about what was needed, I clicked again and the box remained where it was and a flashing line cursor appeared in the top left position of this box. I typed what I needed and this appeared in the systems default font called BSW. To change to the font I required, I moved the pointer (which had returned to an arrow) up to the font menu along the top of the screen. After clicking once the menu came down listing the fonts that I had placed on the work disk. I selected the one I needed and a further menu to choose the fonts point size appeared to the right of the first menu. One click and that was that. The text in my boxed area immediately changed to the new font. This continued throughout the document until I had completed all the necessary text for the Flyer.

I also had to draw a map of the location of the Group's meeting hall as the Group had recently moved to a new venue. To do this I learned about using the line tool from the tool menu, to draw the straight lines representing the streets. This seemed easy compared to drawing the computer picture. I also needed to add text for the street names, after all, what good is a map without street names. Another problem, how did I go about adding the street names that had to be typed downwards? I did not really know so I just tried something out.



Add the Text

Next I needed to add some text, so I had already chosen my fonts from those available on the system disk and FontPack, and had them ready on my work disk. Only seven fonts can be accessed at a time so there was no point in having too many on the work disk. Four fonts was the number I chose to use after testing them for suitability. This work disk did not have a great deal of room on it anyway, starting with only 165K but somehow I survived. Although from my vantage point of the present I can not remember how.

Since I was dealing with a forty column screen window I had to use the move tool from the menu and position the page just beyond my computer picture. Adding the text was more simple. Clicking on the T from the tool menu

Using the text tool again I set up a very thin vertical text box and typed the text. Since the text box was thin the letters I typed wrapped immediately to the next line and overcame that worry for me. (I really was learning a lot by this stage, necessity is the mother of invention). When I clicked the pointer the text box disappeared, leaving the text in place and without otherwise marking the diagram of the streets underneath it.

Clever trick that. The document was ready so I clicked on the file menu at the top of the screen, and clicked on quit which closed the file and returned to the deskTop.

Work finished

So essentially, the Flyer was finished. Before going any further, I duplicated the geoPaint file from the deskTop. To do this I clicked on the file once to highlight it, then I selected duplicate from the deskTop file menu. A dialog box prompted me for a new filename, so I simply added the letters bu to the name flyer, so I then had flyer and flyerbu on my work disk. Next I exited GEOS altogether to backup the disk a couple of times with Fast Hackem and put them away.

What did I do for the Group's Newsletter? Well after all that I was not going to reinvent the wheel, so back in GEOS at the deskTop again with my work disk in the drive, I duplicated the Flyer document but renamed it Newsletter. I double clicked on this file to get straight into geoPaint, and after positioning the edit window with the move tool, I used the eraser tool to get rid of the text that made this file the Flyer. Then using the text tool, I typed in the title of the Newsletter and the month of the year and then selected the font for it. Presto, job done. Next after moving the edit window to the bottom of the document I removed the comment about 'more information over the page' that was for the Flyer, and that was it. Time to quit the document from the file menu. When I was again back at the deskTop, I duplicated this file and added

THE ART GALLERY

the letters bu to make it a backup. Then exited GEOS altogether to make new backup disks over the old ones with Fast Hackem.

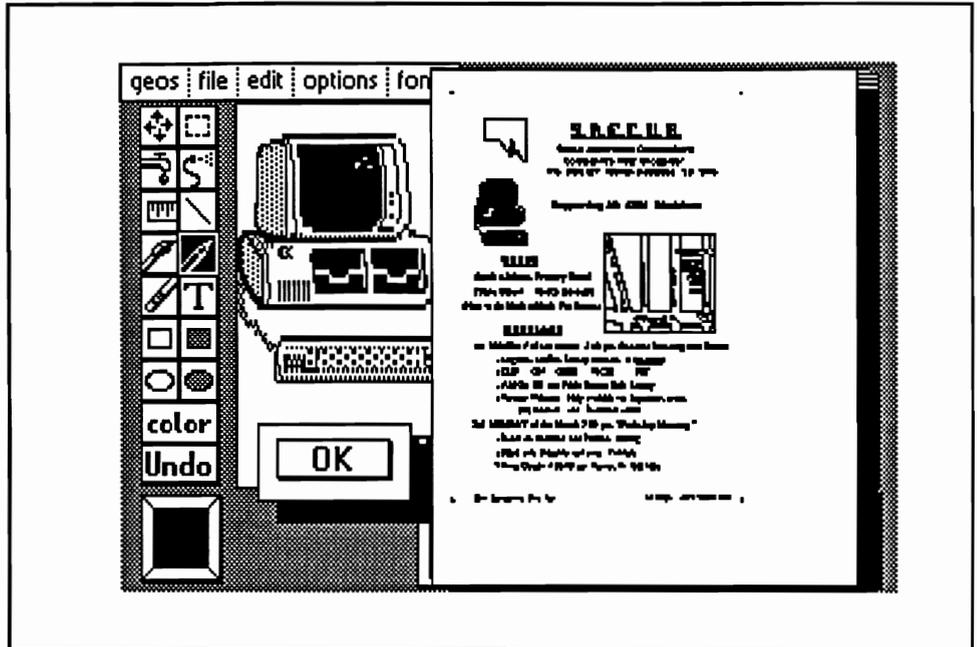
I think in all it took me a week, working about ten hours a day on it. I could get printouts but they did not look so great, naturally. Through our Group, another member with GEOS and a different printer, and using an Epson driver, made better quality printouts which the Group simply reproduced with a photocopier. After this monumental effort I was totally hooked on GEOS and I had to know more. I then bought GEOS64v1.3 and I really liked the extra commands it made available. It was no longer enough. I had to have more.

A far far better thing

Not long after this, in mid June 1989, I bought my first C128D and the adventure into GEOS128v2.0 and 80columns was begun, along with more disk drives. I bought an external 1571 for the C128D, followed soon after by a second 1541 for the C64 and the purchase of GEOS64v2.0 and several other GEOS packages. I enjoy the additional commands and improved operation of v2, especially the multifile feature. In the following years I even bought another C128D. Eventually I bought a HandyScanner64, and then two REU's with 512K, followed later by a 1581. My skills improved and GEOS kept pace with me and my equipment, and I was totally addicted.

What more for GEOS

A vast reservoir of public domain programs was accumulating in my collection with the many improvements the programs brought with them. Naturally, I blame GEOS for all this need for equipment and programs. At least I never have to make work disks the old way ;-) anymore, and the horizons for working are quite a lot broader. Though I do not stay specifically in GEOS, as I need time to write programs as well, it is fair to say that GEOS and I are never far apart.



The important thing to remember with GEOS is that it is not a race. GEOS will be there waiting for your skills and knowledge to grow. All you need is the inspiration and perseverance. I don't need a reason anymore. I just Boot up GEOS via the 1581 and I have all the reasons I need. :-D Now I am a mega user of GEOS, all because of this first effort, and I run my own Graphics Business from home. **And the rest as**

they say, is history.

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[EDITOR] Mrs. Jane M. Jones, an Australian artist of 19 years, has been computing with GEOS since 1988. She owns and operates JMV Grafix.

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New Horizon's Landmark Series

by Ken Nakatsu

Over the years, there has been plenty of third party support for GEOS by independent programmers. It is the continued loyalty of these programmers to their Commodore computers that has kept GEOS going despite the dwindling support received from established software companies in all other facets of the 8 bit market. One such independent software developer is Paul B. Murdaugh of New Horizon which has released a software package called "The Landmark Series".

The Landmark Series contains eight new programs for GEOS 64 and 128 users. Side one contains Dual Top 64, GeoTet, GeoSolitaire, and Checkerboard. Side two contains programs for the 128 which include Dual Top 128, VDC Tet, VDC Solitaire, and Lace II. A 128D or 128 upgraded to 64k of Video Ram is needed to run VDC Tet, VDC Solitaire, and Lace II. Graphics have also been provided on both sides of the diskette for use with Lace II.

DualTop 3.0

DualTop 64 and 128 are alternatives for their respective GEOS 2.0 Desktop counterparts. Like Desktop, Dual Top is a system controller. You will find that they share many of the same functions. Dual Top is simply a different approach to handling the GEOS environment. Some of the advantages DualTop has over Berkley's Desktop include the ability to display the directories of any combination of two drives simultaneously, support for up to four drives (the desktop supports three drives), the ability to support up to ten modules for various new functions (these functions have not yet been developed), and faster all around operation than the Desktop.

Users familiar with Dual Top 2.0 will

find that Dual Top 3.0 has significant improvements over the earlier version. These improvements include much more complete option menus, keyboard shortcuts for all the options, and an improved layout with better displays. All in addition to the four drive and modular support mentioned above. For 128 users with 64k of Video Ram there is an added bonus. DualTop 3.0 can now reside in VDC memory so returning to DualTop from any application is noticeably quicker than 128s without the 64k VDC. Look for my full review of DualTop 3.0 in the next issue of geoVISION.

GeoSolitaire and VDC Solitaire

Both GeoSolitaire and VDC Solitaire are games based on a popular Solitaire card game called "Klondike". For the benefit of those unfamiliar with the game I will explain briefly. Klondike is played by starting with seven columns of cards. The left column has one card, the next column two, (so on and so forth) with each column of cards to the right having one more than the previous column. The top cards of each column are turned face up and the remaining cards (those not in the columns) are kept in the deck. The object is to get all the cards from the columns and the deck into four home piles. To accomplish this you move the up cards either alone or in stacks from one column to the next in an attempt to uncover all of the hidden cards in both the columns and the deck until all the cards are in their home piles. This description isn't complete, but you get the idea. Besides my space is limited.

GeoSolitaire and VDC Solitaire both have an opening screen that allows you to choose from a variety of decks with

different designs (five for GeoSolitaire and four for VDC Solitaire). You can choose a different deck if you want another design, but you must redeal the cards (in other words, start a new game) to get a deck with a different design. Both versions play exactly the same, but there are some differences between them.

GeoSolitaire allows the player to exit back to the opening screen where you may examine the keyboard commands or select a new deck of cards. You may also change your deck from within the game by advancing through them one or more decks at a time until you get the one you are looking for (again you must redeal in order to do so), however, it is nice to be able to choose from a display of all the decks at the opening screen. GeoSolitaire also allows you to quit from the opening screen. VDC Solitaire only lets you change the deck of cards and quit back to GEOS from the game screen. You cannot do either from the opening screen. You'll also find that the cursor in GeoSolitaire is a hand that grabs any card(s) you pick up. A very nice touch.

VDC Solitaire opens with an animated sequence that goes through an entire deck of cards one card at a time. This sequence takes about five seconds. The resolution in the VDC Solitaire is stunning. Unfortunately, you may go blind due to the screen flickering. One way to reduce the flickering is to turn the brightness all the way up followed by turning the contrast down to a point where you are still able to read the cards. The flickering will start to dissipate, but not before the cards are no longer legible. You will have to settle for the best you can get, but there will be an improvement. The best method I found to defeat the flickering altogether was to hook up an amber monochrome composite monitor with an 80 column conversion cable. Once again I turned the brightness all the way up and the contrast down to where I was still able to comfortably read the cards only this time the flickering disappeared before the cards were no longer legible. You don't get any color this way, but the resolution remains quite high. If your monitor has a green screen

button try using it. The only other method that comes to mind is to use a flicker screen in conjunction with the contrast on your color monitor. I don't have one so I do not know how much better it will work. Fortunately, if none of this works for you, GeoSolitaire runs in both GEOS 64 and GEOS 128 in forty column mode. One quirk in both versions of the game is that cards could be brought back into play from the home piles. This is an illegal maneuver the game should not allow.

GeoTet and VDC Tet

GeoTet is the widely known game of Tetris written to run in GEOS. I cannot fathom anyone with a computer not knowing what Tetris is, however, I will explain it anyways. Tetris involves the stacking of falling tiles (each tile is made up of four square blocks in various configurations) into a rectangular box. The player maneuvers the tiles as best as he can to form solid rows of blocks with no blank spaces when they land. Forming a solid row causes the row to disappear. When a row disappears all the blocks above that row shift down creating extra space so more tiles can continue to fall. Failure to eliminate rows of blocks causes the tiles to stack higher and higher until they can no longer fall, thereby ending the game.

Both GeoTet and VDC Tetris allow you to increase the difficulty of the game in any one of three manners. 1.) You can increase the speed at which the tiles fall by changing the level of game play. 2.) You can start off with from one to ten rows of randomly spaced blocks already in the box. 3.) Or you can have advancing rows of randomly spaced blocks that come up from the bottom of the box during the game.

Any combination of the three hardships above can be implemented and each are adjustable to varying degrees. You can also lock or unlock the adjusted difficulty of either the speed of play or the frequency with which the advancing rows advance. So you may have one frozen while the other continues to increase in difficulty, but if your a real masochist you'll let them both increase in difficulty simultaneously.

The point system did not reward either increased difficulty of play or speed dropping tiles and there was no audio (music, sound effects, etc.), however these two excellent versions of Tetris are the most flexibly challenging I have encountered.

As with VDC Solitaire you are faced with screen flickering in VDC Tetris. If the methods given for reducing screen flickering on VDC Solitaire don't work satisfactorily, GeoTet will run in GEOS 64 and GEOS 128 in 40 column mode.

Checkerboard

Like the manual says, "Checkerboard is just a simple computerized checkerboard". No rules, no computer player, no automation whatsoever. It is simply a checkerboard with checkers which may be moved, stacked (up to two high), removed, and rearranged to your liking. The board sets up for a game of checkers, but everything is handled manually. So you need to set up other games like Acy Ducey by rearranging the checkers. Checkerboard is handy if you don't have a real checkerboard, otherwise it holds no significant advantage over playing on the real thing except maybe for picking up after your finished. Checkerboard runs in both GEOS 64 and GEOS 128 in forty column mode.

Lace II

Lace II is a graphic display program for GEOS that lets you view entire GeoPaints in any one of three resolutions (640x400, 640x496, and 640x592 all Interlaced) plus two other formats (I Paint and Basic 8). Both I Paint and Basic 8 were previously unrecognized by GEOS before. I Paint is a 640x400 resolution format that expands the color spectrum of the 128 by overlapping colors and Basic 8 is a 640x200 - 640x500 format that uses enhanced basic commands to enhance the 128's graphic capabilities. Lace II uses a DualTop 2.0 style setup. I found it very straight forward and easy to use. It also has a color correction mode

for geoPaint formats that restores the altered 128 colors to there intended 64 colors. Once again screen flickering is evident in all the display modes except Basic 8 (which isn't Interlaced). Also, in order to get the entire 640x592 resolution GeoPaint on your monitor you may need to shrink the vertical height of your monitor's display.

Documentation

The Landmark Series comes with 29 pages of documentation that is well layed out, easy to understand and quite complete. Unfortunately the quality of the print (not the quality of the copy) is terrible and nullified the otherwise excellent work that went into it. The jaggedy letters look like what I'd expect to see from an early nine pin Commodore printer and I found it quite annoying.

Overview

The Landmark Series truly brings a New Horizon to GEOS. DualTop has really matured as a system controller and it's modular design uncovers new horizons for both the 64 and 128. For the 128's with 64k video there are more new horizons. DualTop 3.0 is the first system controller to my knowledge that uses the 64k Video Ram, and VDC Tetris, VDC Solitaire and Lace II are (to my knowledge) the first GEOS applications that put the video memory to it's intended use. It is a breathe of fresh air to see GEOS programs that use the 64k VDC Ram and I hope we haven't seen the last of it. Screen flickering can be a problem with VDC Solitaire and Tetris, however, GeoSolitaire and GeoTet are two excellent 40 column versions that you can run instead. All four of these games made me feel like I was no longer in the to often colorless and typically GEOS look World of GEOS. Lace II charts new horizons by enabling us to view two formats previously unrecognized by GEOS. All together this is a very nice package of programs worthy of any GEOS collection.

[EDITOR] Ken Nakatsu is our resident reviewer, a local hardware hacker and SYSOP of the BBS Enterprise.

A GEOWRITE TUTORIAL

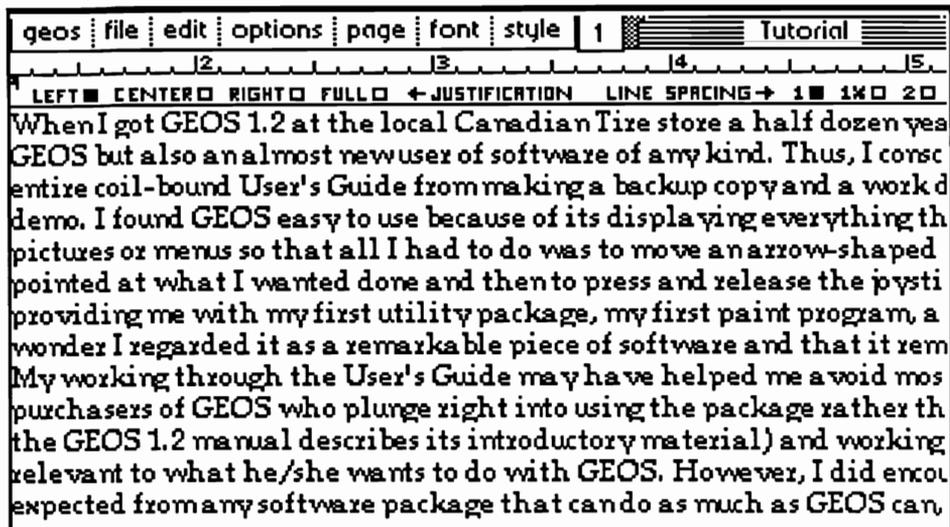
by Bob Hunter

When I got GEOS 1.2 at the local Canadian Tire store a half dozen years ago, I was not only a new user of GEOS but also an almost new user of software of any kind. Thus, I conscientiously worked through the entire coil-bound User's Guide from making a backup copy and a work disk to running the QuantumLink demo. I found GEOS easy to use because of its displaying everything that it could do for me on the screen in pictures or menus so that all I had to do was to move an arrow-shaped pointer with a joystick until it pointed at what I wanted done and then to press and release the joystick button. And I found it useful, its providing me with my first utility package, my first paint program, and my first word processor. No wonder I regarded it as a remarkable piece of software and that it remains a favorite of mine!

My working through the User's Guide may have helped me avoid many of the problems encountered by purchasers of GEOS who plunge right into using the package rather than attending its "training camp" (as the GEOS 1.2 manual describes its introductory material) and working through the parts of the manual relevant to what he/she wants to do with GEOS. However, I did encounter some difficulties, as would be expected from any software package that can do as much as GEOS can, and am continually learning how to use GEOS better. Thus, I welcome the advent of geoVISION both for the help that it should give me and for the opportunity that this column gives me to try to help new users of GEOS.

The rest of this initial column is a tutorial designed to help the new user of GEOS become familiar with geoWrite. In preparing it, I made the following assumptions about you, the new user:

- you are using a Commodore 64 with a single 1541 disk drive



- you are already a user of GEOS and thus are familiar with its features

- you are using the current version of GEOS, GEOS 2.0.

Step 1: Boot GEOS

Turn on the computer, monitor, and disk drive. The blue Commodore 64 screen will appear. Insert the System disk. Type `LOAD "GEOS",8,1` and press `RETURN`. The System deskTop will appear shortly.

Step 2: Make a Work Disk

Method 1 (Format a disk and copy the needed files onto it):

Using your input device, move the pointer to the **disk** menu. Select **disk** by clicking (pressing the input device button) while the pointer is pointing to it. Another menu will appear. Select **format**. A dialog box will ask you to put the disk to format in the drive and enter a name for it. Remove the System disk, put a blank disk in the drive, enter a name for it, and press `RETURN`. After it has been formatted, close it by selecting **disk** and **close** or by holding down the `C=` key and pressing `C` and remove it from the drive.

Put the Applications disk in the drive and open it by selecting **disk** and **open** or by holding down the `C=` key and pressing `O`. Select **deskTop**, **geoWrite**, and the fonts by holding down

the `C=` key and clicking on each file icon so that it is highlighted. Pause and then click on one of the icons again. An outline called a **ghost icon** will become attached to the pointer. Move it to the border and click to deposit the files there. Close and remove the Applications disk, and insert and open the work disk. Drag each file icon that you deposited on the border onto the destination disk's note pad. For each file icon you drag up to the work disk's note pad, you will be asked to swap the source and destination disks back and forth. When a file has been copied, its icon will disappear from the border and appear on the work disk's note pad. When all the files have been copied, close and remove the work disk, insert and reopen the Applications disk, and move the file icons on its border back to its note pad.

Similarly, copy the driver for your printer from the System disk to the work disk.

Method 2 (Copy the Applications disk and delete unneeded files):

Insert the System disk into the disk drive and open it. Open the **DISK COPY** program by double-clicking (pressing the input device button twice in rapid succession) on its file icon or by clicking once on its file icon so that it is highlighted and then selecting **file** and **open**. The screen will turn blue and a message will instruct you to insert the disk to be copied into the disk drive. Remove the System disk from the disk

drive, insert the Applications disk, and press RETURN. Next, you will be instructed to insert the destination disk into the disk drive. Insert a blank disk and press RETURN. Continue to follow the instructions on the screen until the disk copy procedure is complete. When it is finished, you will be given a choice between copying another disk or returning to the deskTop. Press N to return to the deskTop.

Close and remove the System disk, and insert and open the copy of the Applications disk. Select geoPaint and the desk accessories, click on one of them again, and drag the ghost icon to the waste basket and click. Then copy the driver for your printer to the disk from the System disk as in the first method.

Step 3: Open geoWrite

Go to page 1 of the work disk by pressing 1. Double-click on the geoWrite icon, or click once on the geoWrite icon so that it is highlighted and then select **file** and **open**. GeoWrite will display a dialogue box on the screen containing three options: **Create new document**, **Open existing document**, and **Quit to deskTop**. Click on **Create new document**, and a second dialogue box will appear displaying the name of the disk and asking you to enter a new filename. Type in a name for your document and press RETURN.

The screen shown on the previous page will appear, without any text in the **Writing Window** that occupies most of the screen. A **command menu** is in the top left corner of the screen; clicking on one of its options will display a list of more options. To the right of the command menu are a **page indicator** and a **title bar**, and under the command menu and them is a **ruler**. You'll also see the **text cursor**, a small flashing vertical bar that indicates where the next typed character will appear, in the upper left corner of the Writing Window and the **pointer**, which can be moved around the Writing Window with your input device and can be clicked to select the commands you want to activate or to move the text cursor to another position.

Step 4: Create a Document

Move the right margin from 7.2 to 5 by moving the pointer to the right as far as possible, clicking to pick up the M at the end of the ruler, moving the pointer to 5, and clicking to drop the M. Now GEOS doesn't have to switch between the left and right halves of the page, which slows down text entry.

Enter some text by typing it in. The text will appear at the text cursor's present position. Holding down SHIFT when you press a letter will give you a capital, and holding it down when you press a key with two symbols will give you the upper symbol. If you reach the right margin of the page while typing, geoWrite will move the entire word to the beginning of the next line.

To insert in or delete from an existing piece of text, move the input device pointer to where you want to insert or delete text and click. This will move the text cursor to that point; you can also move it there by using the cursor keys. To add text there, type; the existing text will be moved to the right to make room for the new text. To delete text there, press the INST/DEL key until each character that you want deleted is deleted. To delete larger portions of text, highlight the text (point to the first character, hold the input device button and move the pointer to the last character, and release the button) and press INST/DEL.

Step 5: Format, Choose Font

When you have finished entering text, go to the command menu and select **options** and **select page** so that you can change the format and font of a page. (Changes in the format and text font and style of parts of the text can be made by highlighting the part that you want to change instead of selecting **options** and **select page**.)

First, move the right margin back to its original position by clicking on the M, moving the pointer to the right end of the ruler, and clicking to drop the M. Then set where the first line in each paragraph will begin by clicking on the

P marker at left end of the ruler, moving the pointer along the ruler to where you want paragraphs to begin, and clicking to drop the P. Next, set the justification and the line spacing by clicking on one of the justification buttons and one of the line spacing buttons on the ruler. Finally, go to the command menu and select **font** and the typeface and size you want the document to appear in; text was entered in BSW because it can be entered faster.

If the document is longer than a page, you will have to do the same for each page, moving from page to page by selecting **page** and **next page**.

Step 6: Preview and Print

To preview a page, select **file** and **preview**. To print a document, turn on your printer and select **file** and **print**. A dialogue box will appear, displaying several options. If needed, change the printing modes. Then click on OK.

Step 7: Exit geoWrite

When you leave geoWrite, you have the option of moving to another document or going directly to the deskTop. For this tutorial, you will go back to the deskTop. To do so, go to the command menu and select **file** and **quit**. After you get back to the deskTop, look at it. You will see a new icon shaped like sheets of writing paper and having beneath it the name you gave the document. The next time that you want to open the document, you can do so quickly by double-clicking on this file icon.

A Final Word

Future New Users columns will focus on the theme of the issue except when that topic would be of little interest or value to the new user or when it is one that I am unfamiliar with. However, tips and questions from you, the new user, are encouraged, and I'll try to include as much material from you in the column as I can. Your tips and questions can be sent to geoVISION itself or to me at : Bob Hunter, 1 Brown's Heights, Grand Falls-Windsor, NF, Canada A2B 1E1.

Which Language is For You?

by Jim Caldwell

For those of you who are not familiar with the programming languages available for GEOS, there are 4 of them I'm aware of. If anyone knows of more, please let me know and I would be more than happy to pass that information on. The languages go from the very complicated commands, to the very easy to learn and use. One of them is GeoProgrammer, which is available from several sources of Commodore software, as well as directly from GeoWorks. There is also a not very well known system called GeosFORTH, which is something like GeoProgrammer. And, there are also two Basic language programming systems as well. Becker Basic and GeoBasic.

GeoProgrammer is probably the BEST (and in my opinion the hardest) way to create GEOS Application and DeskTop programs for the Commodore 64 GEOS system. And, the 128 with a few modifications. The GeoProgrammer language is a low-level language called Assembler which uses a version of the 6502 OP-CODE. This is about as close to machine language as you can get. Since it's for GEOS, this form of Assembler language allows for use of Dialog Box's, drop down Menu's, and all the great features that you'd expect in GEOS. I myself am trying to learn how to use and program with GeoProgrammer. But, I have to admit, that even though I have somewhat of a grasp of the inner workings of the C-64, I'm afraid after spending more than a decade of programming in Basic language, and not so much in Assembler, or any machine language, even I am having a tough time learning this. Even though the rather extensive manual that comes with GeoProgrammer tells you quite a bit about what the commands are all about, it doesn't teach you how to program in Assembler language. If you get

GeoProgrammer, I'd suggest you get ALL the books you can on programming in 6502 Assembler language. And, any detailed GEOS books that deal with the GEOS memory and the Machine Language routines, while they're still available.

There is another programming language for GEOS that I have to admit I don't know much about yet. It's called GeosForth and is derived from the FORTH programming language. I'll give you the address to write to, to get the system, at the end of the article. I looked at the documentation a little, and from what I do know about it, GeosForth language is something like the Assembler language. The documentation was a bit deep for me, but as I learn more about it I will pass what I learn on to you. The programming system is Shareware, so you may find the system floating around on P/D disks, on such systems as Q-LINK, your local board, or User Groups. It has quite a bit of documentation on disk, but if you don't know how to program in Forth language yet, you will need a book to learn how to program in the Forth language because, all I was able to get from the DOC'S on the disk is the available commands and the GEOS extensions to GeosForth.

Now about the other two systems that are around, There is a Higher and easier language to use to write programs for GEOS, something like what you use with the C-64 and the 128 called BASIC language. There are two programming systems that use Basic Language to write Application programs for GEOS. The one is called GeoBasic that is available from Run Special Products. GeoBasic can

4590	01		\$01
459	48	PHA	
4593	09	ORA#	07
4595	85	STA	\$0
4597	EE	20	D0 INC \$D 20
459A	68	PLA	
459D	85	01	STA \$01
	4A	CC	\$CC4A

run in GEOS 64 and 128. With GeoBasic you can Create some very good GEOS Programs. It offers quite a few features and the programs RUN in GEOS. While GEOS is running, (unlike BeckerBASIC) you can create Stand Alone programs where you don't need GeoBasic present on the disk to run. Plus, you can even IMPORT your C-64 basic programs and with a few modifications, can get them to run with GeoBasic. I do have to warn you though, if you get GeoBasic, it HAS it's share of problems. The system has a few BUG'S in it you have to deal with from Time to Time. There are some FIX's for it floating around on such system as Q-LINK and local Bulletin Board Services, that will take care of some of the problems you will encounter with GeoBasic. But, to say the least, even with it's problems, for it's price it's not a bad programming system if your looking for a SIMPLE way to write a GEOS program. Especially for games, since it is easy to create and use sprites and color, as well as using CLIP ART with GeoBasic.

Then there is what I will be writing about in most of these articles, called BeckerBASIC from ABACUS software. BeckerBASIC is also a BASIC LANGUAGE programming system for GEOS 64, but the KEY WORD here is GEOS 64. Even though it works with ALL versions (so far all 5 I tried it with) of GEOS 64, there is no version for GEOS 128, and Abacus Software (in a note to me) said, "at the moment, there are no plans for a 128 version". But, BeckerBASIC allows you to create your own GEOS LIKE programs with more then 270 commands. These allow you to not only use the Commodore 64 2.0 set of Basic Commands (you can Run most of your C-64 BASIC programs), but it gives you a VAST

extension to the 2.0 basic language. Giving you something like a SUPER BASIC. With the extended basic of BeckerBASIC, you can create and use Drop Down (or sideways) menu's like GEOS, as well as setting up and using DIALOG BOX'S just like NORMAL GEOS application programs. You can even setup some really decent looking GEOS games by using the kind of sprites and HI-RES graphics available with GEOS. Plus you have sound and can use SID MUSIC files as well.

What is important to note about this system, BeckerBASIC operates with GEOS in memory. It has to be there to take advantage of the EXTENDED BASIC language. But, when you enter any of the BeckerBASIC system programs GEOS is not running, even though you can get a program to look and act like a GEOS program. The down side of it is that with Geos not running like that, there are a FEW features of GEOS you don't have access to. But there are some features with BeckerBASIC you don't have with GEOS. Such as, having direct access to 4 (or more) disk drives regardless of which GEOS system you are using as a base of operations when you either write your programs or when they are running them. Even with GEOS 1.2 thru 1.5, which only allows you 2 drives when GEOS is running at the most, even with a Ram Expansion Unit, so it depends on what features you're looking for.

What I plan to do in this series of articles is to show those of you who have BeckerBASIC (or want to get it) the best way to use it and how to take advantage of BeckerBASIC's ability to access the GEOS HI-RES screen over using it's default 40 column screen. And, to use ALL of the GEOS functions related to BeckerBASIC (which it has many) and the BEST way to use the features.

For those of you who don't already have GeoBasic, you can still get it from Run Magazine. - Special Products. They are the ONLY source for GeoBasic. Do not call GeoWorks, Inc. for it, as they have sold it and the rights to RUN.

If you would like to get BeckerBasic you can still get that from Run Magazine - Special Products as well as the above or from Software Support International. You can even get it directly from the source, ABACUS SOFTWARE.

If you would like to get GeoProgrammer, that is available from several Different sources such as Run Magazine -Special Products, or you can get it directly from GeoWorks. You can write directly to them for catalogs and more information about the availability of other Commodore GEOS products too.

When you call these places about the different products, if you shop wisely you may get some decent prices. My suggestion though is, as the Commodore computer market continues to decline, no telling how long these products will still be available, so if you have been waiting to get these items, now is the time to get the software and books. Especially the books on programming in Commodore Basic language or Commodore Assembler.

If you would like to get GeosFORTH and can't find it on the Boards or Q-LINK (or if you live Overseas and don't have access to them) there are a couple places to write to, This version of FORTH for GEOS has been adapted from the figFORTH release-1 6502 definition by Nicholas J. Vrtis.

The original definition was created and supplied by the Forth Interest Group.

These two I'm afraid date back I think to 1989 and considering all the changes that have happened since then, I can't promise anything. So, if you have no luck writing to them since GeosFORTH is distributed as Shareware User Supported software, and you may freely copy and distribute the software, if you send me a BLANK disk, I will be more than happy to send you a copy of what I have. But since they would like a ShareWare contribution though (I

believe it is \$10), I would suggest you write to them first, because I do believe in sending contributions to software authors when I can. Plus, that way they may be able to send you the LATEST upgrade to the system.

Next time I'll get into more detail about the BeckerBasic programming system and what you will need to understand how to use it and how to access the GEOS HI-RES SCREEN and so forth, as well as any NEW GEOS programming tips (related to other languages) I may find out about. I will give a simple program that will give you an idea of what it looks like when you RUN a BeckerBASIC program and it access's the GEOS HI-RES SCREEN. In the meantime, happy programming.

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Nicholas J. Vrtis
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Kentwood, MI 49508

Forth Interest Group
Post Office Box 1105
San Carlos, CA 94070

An Inside Look Into Programming

by Nate Fiedler

GEOS Programming Secrets

This is an attempt at an article for people who are learning to program in GEOS, or for those who wish to learn about programming under GEOS. In this text I will try to explain the virtues of different GEOS applications, and tell you some of the "secrets" that will aid you in programming.

The article is broken up into three sections. The first is about Auto Execute programs, which run during the GEOS boot process. The second covers Desk Accessories, which run from within applications that support them. The third is all about VLIR applications, and if you don't know what VLIR means, you will soon find out. And finally, the last part contains tips on successful programming. Some tips came from other programmers, who gave me their tips to be published here.

Auto-Executes

These files are nothing more than small applications that load up during the boot process of GEOS. Whenever you load GEOS, it loads in the Kernal, then checks the disk for any files of the AUTO_EXEC type. If it finds any, it will load them and run them, just like any other application. These types of programs usually install themselves into the system, such as the BlackOut program, which wedges itself into GEOS memory and waits to blank the screen after a period of inactivity. However, those kinds of wedges are very tricky and difficult to debug.

Auto-execute programs are different from applications because they must not alter the area from \$5000 to \$6000. This is where the special boot code resides while your auto-execute runs. Aside from that, there are two differences that an auto-execute programmer may notice. One

is the firstBoot (\$88c5) flag will equal zero while GEOS is booting. Once the deskTop is loaded, this flag will change to \$ff. This can be used by your program to determine whether it is running during boot-up, or if the user has launched it from the deskTop. This is why you never see the Configure screen while booting up, even though it is loaded and run. The other difference is that the input driver may not be loaded into memory. To fix this, use GetFile to load in the input device using the name at inputDevName (\$88cb). You would only have to load it in if your program was going to interact with the user by using the input device. You could still use the keyboard as a means of interfacing.

One note to those who own an earlier version of GEOS. The auto-execute files are not loaded on versions less than 1.3 of the GEOS Kernal. So, if you check the "version" (\$c00f) of GEOS that your program is running under, and it is less than \$13, then you can assume your program was launched from the deskTop.

Remember, use file type AUTO_EXEC (14) in your programs header block, otherwise GEOS won't load it during bootup. To exit from the auto execute, just call EnterDeskTop.

Desk Accessories

These types of GEOS programs are special because they run while another GEOS application is still in memory. This allows a user to quickly access some simple function without having to exit the application he or she is currently using. The GEOS Kernal is responsible for saving the memory that the DA uses. When the DA is done with it's task, the memory is reloaded and the original application will continue running. The memory used by the DA is determined by

the start and end load addresses in the DA's file header. Your DA must not write data anywhere outside of those two addresses, except for r0 to r15 and the GEOS global variables that are saved by GetFile (see Table 1). If you want to use the geoAssembler .ramsect command, you will have to add the extra space to the DA's end address so that the memory is properly saved, like this:

```
(in program source)
.ramsect
buffer: .block 100
(in header file)
.word TheEnd+100 ;end address
```

The Kernal saves the memory that your DA occupies in a file it calls "Swap File". Note, however, it puts a PLAINTEXT (27) byte as the first character of that name, to avoid similar filenames on one disk. This file gets deleted by the deskTop when the application quits because it has a file type of TEMPORARY (13), and so you will never see it.

There are also other areas saved by the GEOS Kernal and they are saved at dlgBoxRamBuf (\$851f). Table 1 outlines their locations. These areas are also saved when using a Dialog Box. So, if you are using a DB in your DA, then you must save at least the first 378 bytes starting at dlgBoxRamBuf. The next global address in the GEOS Kernal is "savedmoby2" (\$88bb), so you can save all 924 bytes just to be safe. Jim Collette, author of a desk accessory called MiniDesk!, says that he saves the first 432 (\$01b0) bytes at dlgBoxRamBuf.

Two slight limitations to a desk accessory are: 1) it must not affect the first 16 scanlines on the GEOS hires screen, and 2) it cannot draw to the background buffer. The geoProgrammer Manual listing of the Sample Desk Accessory says that the DA must save the foreground screen and color memory, then restore each when it exits. This has since been changed. It is now the responsibility of the application running the DA to save it's own screen and color memory. But, color has to be dealt with in another way. To make a nice looking DA when running from geoPaint, it is a good idea to clear the color memory that your DA uses. Note how Photo Manager clears

the color when run from an application that uses color. There is a color clearing routine in the geoProgrammer Manual under the Sample DA listing.

If your DA uses menus, like Photo Manager, then you must save the "saveFontTab" (\$850c). It is nine bytes long, but it is important to save it because menus and MainLoop destroy this area, and it is not saved by GEOS during DA's. It is probably a good idea to save it even if you don't use menus. Also when using menus, you should save the background buffer, and imprint your screen to it. This will allow your menus to retract properly using the GEOS routine RecoverRectangle.

Speaking of recovering, desk accessories do not exit by calling EnterDeskTop. There is still that memory to be loaded back in. For the DA, there is RstrAppl. Call this when your DA is ready to quit, and the memory will be loaded back in, and control will return to the application.

Applications

Applications are the most common, and the easiest kinds of programs to do under GEOS. They are loaded and executed by the deskTop, they do their thing, and then exit using the EnterDeskTop routine. There are no special things to worry about when programming these, such as with the Desk Accessories and Auto-Execute programs.

geoWrite is an example of an application, as well as geoPaint and geoPublish, but all three of those applications are somehow different than the applications found on networks like Quantum-Link. Most of those applications are small and do small tasks that require little memory from the system. But with ones like geoPublish, which is 99 kilobytes long, there is a much different approach to it's design. Since the entire memory of the Commodore 64 is only 64 kilobytes, geoPublish is going to have to be handled differently so that it can run on the 64.

VLIR, or Variable Length Indexed Record, files are the key to using huge data and application files. The smaller applications, like Icon Editor by Eric E. Del Sesto, which is only 11 kbytes, are usually stored and handled sequentially. That means they are stored on the disk as a continuous stream of blocks, one after the other. VLIR on the otherhand, is stored as records, in which there are sections of the application stored in each record.

geoWrite documents are perfect examples of VLIR files. Each page of a geoWrite data file is a different record. The first 64 records are for the first 64 pages, and the remaining 63 (there are only 127 records in a VLIR file) are used for storing bitmaps, pasted into the

document, which means you can only paste in 63 photo scraps.

So how is an application like geoPublish broken up into records? Simple. There is always a resident module (application's records are called modules), which is always the first record in the VLIR file. This module gets loaded in when the application is launched, and it takes over from there, usually loading in other modules as necessary. It must always be in memory, and it is responsible for the swapping of the other modules, using disk routines like ReadRecord, or ReadFile.

So what is in the other modules? Let's look at geoPaint. One of it's modules has the ellipse, rectangle, and color tools stored in it (I don't know for sure, but it's a good guess). When you click on the rectangle tool, it will load in the module that contains the routines to draw rectangles. If you click on the pencil tool, geoPaint will load another module from disk which contains the routines to do the pencil.

Another way of breaking up geoPaint is by menu item. One module would contain the routines necessary to do the information box and the Desk Accessory handling, or the "geos" sub-menu. Another module would have all the routines to do the cut/copy/pasting of the edit sub-menu.

This way of breaking up the application and using each part as it is necessary makes it possible to create huge programs that run on systems with little memory. When you design your VLIR application, it is best to draw a uni-bar graph of the memory of the computer. Under GEOS you have from \$0400 to \$6000, which gives you about 23 kbytes. So draw a tall rectangle, and label the top and bottom as \$0400 and \$6000 respectively. Now divide that almost in half, giving about 2/5 to the lower section, and 3/5 to the higher memory section. The lower 2/5 will be your resident module, which will always be there when your application runs. The upper 3/5 is for your swap modules, which will do specific tasks.

Now that you know what it looks like, I'll describe how each module is handled. When geoPaint loads and runs,

GEOS Ram (Always resident)			
No. Bytes	Label Address	Hex Address	Description
23	curPattern	\$0022	curPattern to pressFlag
38	appMain	\$849b	appMain to mouse PicData
2	(icon table ptr)	\$003f	used by MainLoop's
Dolcons			
49	(internal)	\$86c0	
227	(internal)	\$86f1	
8	objPinter	\$8ff8	pointers to sprite graphics
C-64 I/O Space (CPU_DATA=IO_IN)			
No. Bytes	Label Address	Hex Address	Description
17	mob0xpos	\$d000	sprite positions
1	mobenble	\$d015	sprite enable bits
1	moby2	\$d017	double sprite size in y
3	mobprior	\$d01b	MOB to background priority
2	mcmclr0	\$d025	multi-color mode
7	mob1clr	\$d028	sprite colors

TABLE 1

it loads a module that does all the initialization, such as setting up the menu, icons, and interrupts; anything that only has to get done once. This module is loaded into the upper 3/5 of the application's memory. Then when it is done, it returns control to the resident module which then loads the file routines module. This module loads in right over top of the initialization module, in the same 3/5 of memory. That module then brings up the create/open/quit dialog box. Once you have loaded in a data file, or created one, geoPaint reads the data into the window, then loads the geoPaint module necessary to work the pencil tool. Now, control is passed to MainLoop, where you can select menu items, and use the different tools in geoPaint.

So that is what more or less happens when a VLIR application is running. But there are some complications in actually programming them. The geoAssembler from the GeoProgrammer package, will only handle 20 VLIR records in your VLIR application. However, 20 is a big number when it comes to GEOS records. But a more difficult problem lies in the way geoAssembler and geoLinker work together. With sequential applications, all the routines and labels of variables are known throughout the entire program. But with VLIRs, each record is considered a different program. The only difference is any swap module (a module other than the resident one) can access any label in the resident module, but the resident module cannot access a label in any of the swap modules. And, none of the swap modules can access each other, even if you loaded two of them into two different memory locations.

How do you access routines in swap modules, you ask? You use jump tables. Look at how the GEOS kernal routines are handled. Use geoDebugger to look at the memory locations from \$c100 to \$c2d7. In this area you will find a lot of JMP \$xxxx (where XXXX is a value from 0 to \$ffff) commands. Each one is a GEOS routine. BitmapUp at \$c142 says something like JMP \$E424, which is the address of the actual routine. That's GEOS 2.0. It you looked at GEOS 1.0, you might find it is not \$E424, but BitmapUp still equals

\$c142. This is how one application can work with various versions of GEOS. The jump table address will always stay the same, while the actual routine might have moved around.

This is how you are going to write your VLIR. Each module will have it's own jump table. The routines in each module may move around as you make changes to it, but the jump table will always be right at the beginning, so you can always access it from the resident module. In the case of geoPaint, we'll say the swap modules are loaded at \$4000 in memory. If the resident module wants to call the routine in the file module to load in a record of the data file, it loads in the file module, then JMP's to \$4000, or \$4003, or \$4006, or whatever it happens to be. All it has to know is which 3 byte jump table position to jump to, and it will always reach the routine in the swap module, no matter where it is.

Open up your geoProgrammer manual and look at the source for the VLIR application. Find the R_DoClose routine in the resident module right after the Icon1Picture bitmap. See how it calls FileIn, which loads the swap module using ReadFile, then jsr's to J_DoClose? J_DoClose equals SWAP_BASE+3. Turn to the SamVlirFile source and look at the label FileMod:. See how JMP DoClose is the second entry after RunDA? JMP RunDA takes up 3 bytes, that's why J_DoClose equals SWAP_BASE+3. To access RunDA, just jsr to SWAP_BASE+0. If you take the SamVlirFile source and rearrange the routines and reassemble it, you will find that the resident module can still access DoClose. That's as long as you don't change the jump table. If you change your jump table, you have to change the call to it in the resident module, such as if DoClose was the third entry, J_DoClose would equal SWAP_BASE+6.

Whew! That's a lot of learning for one day. But, I am not done yet! I have to tell you about using ramsect sections in your programs. When using the .ramsect assembler command directive, you can define it's absolute position in the linker

command file, just like you can define the .psect section. Don't do this. Leave the .ramsect address assignment alone. The linker will put the .ramsect right after the .psect when it doesn't find the .ramsect \$XXXX directive. This is a good thing.

The reason I say this is because if you define the address, you have to know roughly how long the ram section is. If you change the amount of ram used, you then have to change the address. And not only that, but the program section now has an upper limit: the beginning of the .ramsect. Why not avoid this impending ceiling by combining the two sections together by NOT defining the .ramsect address? This will save space, and relieve the worry of upper limits on your program and ram sections.

And another thing about applications. See how geoPaint and geoWrite and almost all of GeoWorks applications allow you to run Desk Accessories? Well, if you use the RunDA code in the SamVLIRFile from the GeoProgrammer's Manual, make sure you clear intBotVector before loading the DA. Why? Because GEOS does not clear intBotVector until after it has loaded the DA, and an interrupt might occur just before it does and the address in intBotVector might be pointing to somewhere within the DA, thus running the wrong code and possibly crashing the system.

Well, I think I have drawn that out enough. Time to move on to programming tips, where you can learn about time-saving and headache-avoiding tricks and techniques for better writing of GEOS programs.

Programming Tips

1. DMA MoveData and sysRAMFlg are used by the GEOS kernal everytime you call MoveData. MoveData uses the REU to store the data that you are moving, then reads it back in at the new location. This is much faster than the machine language loop that it uses when DMA MoveData is disabled, or when there is no REU plugged in. Another thing is, you can't move the area from \$d000 to \$dff, since the DMA MoveData switches

in the C=64 I/O space here. This little phenomenon was discovered by Irv Cobb, who gave me that tip specifically for this article.

2. Source files in geoWrite format are great because you can use all the features of geoWrite when editing your code. But a feature of geoWrite that I don't use is the style attributes. geoAssembler wastes time processing those styles and it makes your code look like someone's amateur newsletter. Another good idea is to leave plenty of space at the bottom of the page when you are starting your program, that way you can easily add more lines to your routines as you perfect them.

3. You can also use Text Manager to keep clips of short routines that you use often. Name each scrap after the routine it contains, and you can use the search feature in the edit menu to quickly find a specific routine.

4. Don't use the .end command in your source. You're likely to forget it is there and add routines after it and they won't be assembled when you run geoAssembler.

5. Don't use local labels of values in the 9000\$ to 9999\$ range. Macros that have internal branches use local labels that start at 9999\$ and go down from there. The best thing is to just keep your local labels less than four digits.

6. Initialize your icons. If you don't have icons in your program, you better do dummy icons or your program will never work. FirstInit doesn't initialize the icon table, and if you don't, MainLoop will crash. To avoid this, either put some icons in your program, or do this:

```
LoadW r0,dummys
```

```
jmp Dolcons
```

```
dummys: .byte 1,0,0,0,0,0,0,1,1,0,0
```

That will make Dolcons happy, and your program will work. The reason it doesn't work too well is because FirstInit doesn't call StartMouseMode, and Dolcons does. However, even if you call StartMouseMode yourself without doing dummys, Dolcons will have incorrect parameters, and if you click anywhere on the screen, you will likely regret it. Note, if you never return to MainLoop, icons will not be a problem.

8. geoAssembler and geoLinker both

replace the files that they create. So, don't name your source and object files by the same name, or your source will neatly disappear from your disk. You could name your source in all capitals and your object file in caps and lowercase, like this:

```
source = FINDFILE
```

```
object = FindFile
```

9. Write notes to yourself. It's tough to remember what every routine in your eight module mega program does if you don't put in comments, especially months later after you've "finished" it.

10. You can only have 10 .rel files per module and only 20 modules in a VLIR program. But, that shouldn't be much of a problem since anything that big would rival Berkeley's products. That information is in the manual somewhere, but I can never find it when I need to know my limits.

11. If you use the APP_VAR area (\$7f40), and you are using a Printer Driver to print documents from your application, then you better save the \$7f40 to \$8000 area (192 bytes), because some printer drivers overwrite this area.

12. It's always a good idea to write short routines because macros will get a "branch out of range" error during assembly if the global region is too large. Routines should be no longer than a geoWrite page. If you have to have long routines, just plug in a global label somewhere in it, and that will make geoAssembler happy.

13. Get a calculator that has decimal, hexadecimal, binary, and octal base conversions. Hexadecimal is used a lot in programming and within geoDebugger.

Aside from those tips, I also want to suggest to serious programmers that you buy a Ram Expansion Unit. Super-Debugger needs an REU to run, and Mini-Debugger is perfectly useless. In fact, I recommend that any serious GEOS user should get an REU. They are expensive, some around \$140, but they are lightning fast! Another important product is the *Hitchhiker's Guide to GEOS*, by GeoWorks, Inc. (Berkeley Softworks). It is \$25 and available directly from GeoWorks. *The Official*

GEOS Programmer's Reference Guide is an irreplaceable book, but can be very difficult to find. It tells exactly how to use dialog boxes and disk routines and some notes on geoWrite data files. It is a little out-dated compared to Hitchhiker's Guide, but the HH doesn't say how to program DB's. There are some people on Quantum-Link that have extra copies of the Official Guide, selling them for reasonable prices.

Well, I hope this helps, and have fun programming, and good luck!

[EDITOR] Nate lives in Mt. Pleasant, Pennsylvania and is 18 years of age. He attends Penn State University and is majoring in Computer Science. He is the great programming mind behind the application called geoCanvas, being marketed through Creative Micro Designs, which will eventually replace geoPaint as the primary GEOS paint program. For help on programming, if he hasn't confused you enough already, send mail to: Nate Fiedler, RD 3 Box 140, Bernville PA, 19506. Nate can also be reached on Quantum-Link under the name NateF.

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This is the latest (and not so latest) news that we have heard regarding software and hardware for GEOS and the Commodore. This information has been gleaned from various networks, BBS's, readers, advertisements, and other publications so the validity of such cannot be fully verified. Please do not base any major decisions on what you read here. If you have heard of something new or would like your product mentioned here, please write in and tell us about it. We will be happy to pass it along to our readers.

Many changes have occurred this last year as evidenced by Dale Sidebottoms' commentary article on page 6, and the notices in the lower right on this page. 1992 was a very busy year.

Most of all, I'll miss the three publications that have left us. As one who has most of the issues from each of the three, I'll keep a tight grip on their info filled pages, and read them over again, quite often.

Creative Micro Designs (CMD) has come out with their **FD Series Disk Drives**. The FD-2000 and FD-4000 are 3 1/2" disk drives with much higher capacity. 1.6 MegaByte and 3.2 MegaByte respectively. Both drives are 1581 compatible and use Double Density 800K and High Density 1.6 MB disks, while the FD-4000 can also use Enhanced Density 3.2 MB disks. These drives like CMD's Hard Drives have a Swap button for changing from drive 8 to drive 9. It's a bit smaller than a Commodore 1581 and can be purchased with an optional Real Time Clock (RTC) module for use with GEOS. Low and High Density disks can be purchased anywhere disks are sold. You'll have a hard time finding Enhanced Density disks, since this is new to the market and they're only available through CMD and through one or two mail order companies. The ED disks are also very expensive. Currently they're around \$9.95 each through CMD. The FD-2000 is \$239.95, FD-4000 is \$319.95, RTC Module \$25.00 additional plus \$8.50 for shipping.

geoCANVAS is a new product by Nate Fiedler that CMD is marketing. It is a powerful new alternative paint program that replaces geoPaint. You must have a minimum of 512K RAM expansion and operate it in 40 column mode using GEOS 64 or 128 v2.0. There are so many new tools at your disposal, you won't know how you got along without it before. You can open up to three documents at a time and move

around each document, making it quite easy to cut and paste scraps from one document to another. It even contains a screen blanker for times when you must leave the computer for some time and forget to turn the monitor off. **geoCANVAS** is \$34.95 plus \$5.00 shipping.

A collection of Jim Collette's best GEOS programs called **Collette Utilities** is now available in one package from CMD. Such great programs as **GEOWIZARD**, **MiniDesk**, **Font Editor**, **Font Changer**, **Select Printer**, **AddAlbumAuto**, **DOS Wedge** and his **Laser Landscape utilities** for postscript laser printers, are available for \$34.95 plus \$5.00 shipping.

Two new versions of existing products are now available from CMD. **Perfect Print LQ** and **gateWay**.

Perfect Print LQ has been enhanced to improve 9-pin output, output formatting, and now has new fonts in the collection. **Perfect Print LQ** is a print enhancement package that gives you the highest possible quality print from your dot matrix printers. It operates with most Epson and IBM compatible 9 and 24 pin printers. However, it doesn't work with laser, Ink Jet, Bubble Jet, RS-232 or Commodore compatible printers. The Complete System containing the main system and font packages 1 and 2 for \$49.95. The Main System includes all drivers, utilities and 7 fonts for \$34.95. Font packages 1 & 2 contain 42 fonts and go for \$29.95. Font package 3 has 17 LQ fonts and 5 border fonts for \$19.95. The Border Font Collection 1 sells for \$19.95. Shipping and Handling is \$5.00.

gateWay v2.5 is a streamlined file management alternative to the DeskTop. It has true three drive support and accesses the full capacity of all the CMD storage devices, REU's and GEORAM. It also has the ability to switch from one

application to another with just a keystroke and the revolutionary new program **Task Switcher**. To get the most out of **gateWay**, a minimum of 512K REU is recommended. **gateWay/64** or **gateWay/128** are \$34.95 each or \$49.95 for them both. Current owners may upgrade by sending \$15.00 and their original disk to CMD. By the way, this new version is the work of Jim Collette, and now supports **geoRAM**, adds a few new features and fixes some bugs, including problems with the clock.

Performance Peripherals, Inc, makers of CMD's **RAMDrive**, have come out with two new products of their own. The **BBG RAM** is a Battery backed-up RAM disk for use with GEOS 2.0 and GEOS 128, 2.0. It comes in 512K, 1 Meg, and 2 Meg models with a battery holder, and a wall mount power adapter so it may be used with AC household power or battery power. **BBG RAM** sells for \$79.00, \$110.00, and \$139.00 respectively, plus \$6.00 shipping and

IN MEMORIAM

geoMETRIX GEOS Users Group and **geoJOURNAL**, it's fine publication, were finally laid to rest, September 1992 after three years of publishing. Although the group and its newsletter are no longer with us, their memories will live on, among us.

RUN Magazine after eight years of fine service to Commodore users worldwide departed us with the distribution of their Nov./Dec. 1992 issue. The legacy **RUN** has left is **TechMedia Publishing**, a division of **IDG Communications**, will continue to market **RUN Special Products**.

GeoWorld, the once only GEOS specific magazine has been with us since 1987 and with the last issue, #26 that was seen in September 1991, has been missing ever since. While rumors abound, no facts have been uncovered to tell us of its fate.

handling. Their other unit is the BBU. A battery back-up Interface Module for Commodore 17xx REU's and GeoWorks GEORAM 512. For the introductory price of \$49.00, plus \$6.00 shipping and handling you get a reset button, indicator light, battery low indicator, AC power supply and DC battery holder, and is GEOS compatible.

The word is now out that Quincy Softworks has been named the authorized distributor of TopDesk, the German programmed DeskTop alternative. It begins like the regular DeskTop with the three disks on the right but when you click on one of the disks, it explodes out into the page with the files listed. You can open additional disks the same way, resize then, and move them anywhere on the screen. This takes on the look of an Amiga workbench. For more information and when it will be available contact David Ferguson of Quincy Softworks.

Dual Top 3.0 and 128 Dual Top 3.0 as well as six other programs is now available through New Horizon Softwares, The Landmark Series. Paul Murdaugh (RedSonia on Q-Link) has gone farther than many dare to think, with these programs. Dual Top now supports four drives, and uses the extra 64K Video RAM (if installed) in a 128, and now comes with the ability to add modules to the system for future expansion. This package includes Tetris for the 128 in 80-column mode (64 & 128). There's Solitaire for both modes in 40 columns, and a 128 80-column version using the 64K VDC. Checkers is only for 40-column mode (64 or 128) and Lace II is a 128 80-column mode (64K VDC required) pictures display program. Now with Lace II you can view GeoPaints, IPaints, and Basic8 pictures in color and while in GEOS. You also receive a 30 page manual and a customer support line. See the review of this package on page 14, and an extensive review of Dual Top 3.0 in the next (March 1993) issue. The Landmark Series sells for \$24.95 plus \$3.00 shipping and handling. Access of the 64K VDC is truly a landmark. Maurice Randall has completed and is

now shipping his long awaited geoSHELL. Here we have another choice to make when it comes to what DeskTop alternative we choose to use. geoSHELL is a command line interface. It is made to replace the DeskTop completely. It does away with the icons and leaves you with just the files names to contend with. This speeds up procedures so much faster since the Kernal isn't having to rewrite the graphic icon information back to screen every time a procedure is done. geoSHELL works with GEOS 64 and 128 v2.0 and will work with all CMD devices. It also can access a fourth drive. Loading Applications is just a couple key letters away and you can program up to 128 hotkey definitions. For more information and pricing contact Maurice Randall. If you're on Q-Link you may E-Mail ARCA 93.

Kent Smotherman (Kent LS on Q-Link) is one of the newest programmers on the scene. He's given us quite a few new programs and games. Lightship is based on the arcade classic LocoMotion. geoStorm is a four directional Tetris type game with pieces coming from all sides of the screen heading toward the center. T.E.L.P. is another game based on the Accolade game Ishido. Yahtzee needs no definition, as everyone has played or seen this game at one time in their life. Palette Play is a variation on the board game Othello or Reversi. geoGammon is another that follows its board game namesake. Triples is a GEOS version of the Aladdin game by the same name. Other programs Kent has written lately are Mouser and Mouser2, ChesSecretary, Bootie, and many more. Kent has programmed in a computer opponent into most of his games, so you can play against the computer or sit back and watch the computer play a game against itself. The entire package of seven games will cost you \$20.00 including shipping. That's less than \$3.00 per game. Kent also says that if you've already purchased his previous collection of three games, just send him the additional \$10.00 and he'll send you the remaining four games.

As you can see there have been many new developments in 1992. From talking with the many programmers, there will be many new and remarkable announcements in 1993. There are individuals talking of connections between the German Users Club and groups or companies here in the States in an exchange of software and information. This would be very beneficial to both our countries.

If you have any new news you'd like mentioned here write us today. We'd be happy to announce it here.

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Lucky: The Louisville Users of Commodore in Kentucky meet monthly at the Community Room of the Jefferson Mall at 7:00 p.m. on the second Tuesday of each month. For GEOS users there is a S.I.G. called geoCORPS which meets approximately once a month. LUCKY produces 'The Lucky Line Magazine' and has a 24 hour 300-2400 baud BBS for paying members. New members are always welcome. For more information on the main group, geoCORPS or their publication contact: LUCKY LINE Magazine; c/o Dale Sidebottom; P.O. box 0972; New Albany, IN 47151-0972.

BBS Enterprise is a FREE Star Trek oriented bulletin board with GEOS message and transfer areas. The SYSOP

is Ken Nakatsu (Captain Kenby). Set your parameters to 8-N-1. (503) 245-8735 2400/1200 baud, running OMNI 128. Commodore and ANSI.

Southern Districts Commodore Users Club, Inc. Meets every 3rd Wednesday of the month at 7:30 pm at the house of the club President, Mr. R. Cloosterman. 1 Birubi Way Morphett Vale, South Australia 5162 AUSTRALIA. They have GEOS demos approximately every second month, and have a good P.D. library. Mail members are most welcome. The group publishes **Dispatch Disk** 11 times a year.

Commodore Network is a monthly publication with a GEOS column. For

more information contact the Publisher/Editor Warren Naismith 9 Wadeson Street Cobram, Victoria 3644 AUSTRALIA.

South Australian Commodore Computers User Group, Inc. Meets the first and third Monday each month at 7:30 pm at the North Adelaide Primary School on Tynte Street in North Adelaide. For more information contact John Wright at P.O. Box 427 North Adelaide, South Australia AUSTRALIA. There is a small group of GEOS enthusiasts who exchange information at each meeting. They produce a semi monthly publication named, **Bits And Bytes Newsletter**.

GE-O2 is a by-mail group only consisting of Australian members of geoCLUB of the United Kingdom. Contact Peter Hunt at 70 Betula Street Doveton, Victoria 3177 AUSTRALIA for more information. He circulates 11 issues a year of **geoNEWS** (U.K.)

The Queens Commodore Users Group meets at the Vietnam Veterans of America Sgt. Edward J. Brown 74-01 Cypress Hills Street Glendale, NY 11385. Or, you can write Jack Donato at QCUG P.O. Box 129 Queens, NY 11417 for more information. They produce a monthly publication called **Queens Bits**.

LOADSTAR MONTHLY: LOADSTAR is a software subscription produced especially for Commodore 64 computers. 3-Months for just \$29.95, or 12 months for \$89.95. Call for foreign prices. SOFTDISK PUBLISHING, P.O. Box 30008, Shreveport, LA 71130-0008. 1-800-831-2694, Ext. 2005 There is also a quarterly edition for the Commodore 128.

COMPUTE: One year (12 issue) subscription for \$9.97. Canada and elsewhere, \$25.94. Single copies are \$2.95 in U.S. Specify Commodore 64/128 magazine edition. COMPUTE, P.O. Box 3244, Harlan, IA 51593-2424. 1-800-727-6937. Ask about their disks too.

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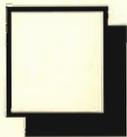
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