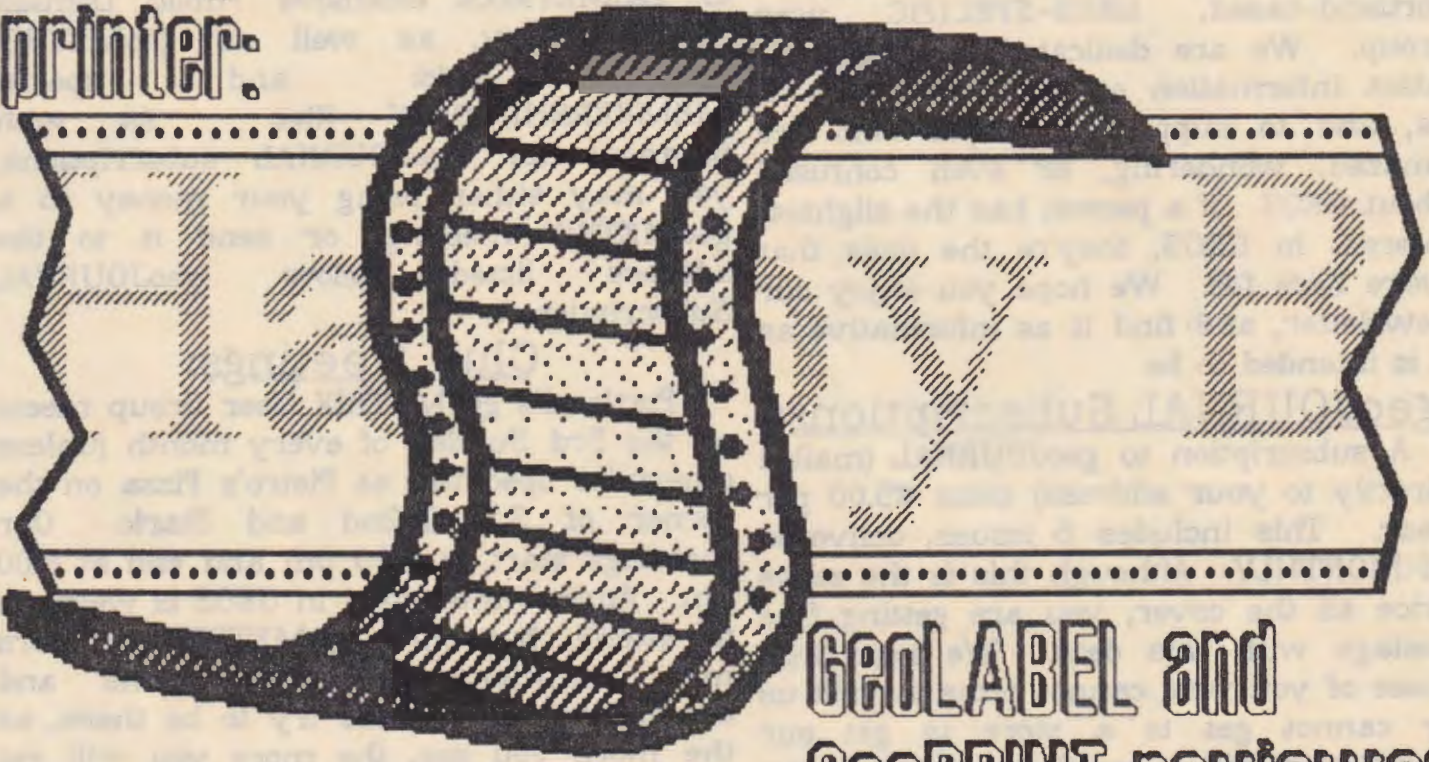


Jan/Feb
1990
Issue 05
50 Cents

The Official Newsletter of geoMETRIX, The Nation's First GEOS-SPECIFIC User Group!

geo


Getting the MOST out of your printer:



GeoLABEL and GeoPRINT reviewed

PLUS:

Making the 64 and 128 Faster
New METRIX MINUTES Column
Great New Products Reviewed
And our Very Own RUMOR COLUMN

 Neither geoMETRIX nor geoJOURNAL are directly affiliated with Berkeley Softworks or Commodore Business Machines.

geoJOURNAL Information

General Info:

geoMETRIX is currently a Portland-based, GEOS-SPECIFIC user group. We are dedicated to giving the latest information on GEOS available to us, and to supporting people who are amazed, wondering, or even confused about GEOS. If a person has the slightest interest in GEOS, they're the ones that we're here for. We hope you enjoy our newsletter, and find it as informative as it is intended to be.

geoJOURNAL Subscriptions:

A subscription to geoJOURNAL (mailed directly to your address) costs \$3.00 per year. This includes 6 issues, delivered BI-MONTHLY. Although this is the same price as the cover, you are getting free postage with this deal. We hope that those of you who cannot come to visit us or cannot get to a store to get our Newsletter will subscribe so that we can still keep in touch with you. You may either bring your payment to a geoMETRIX meeting, or you may send a CHECK OR MONEY ORDER (no cash, please) to: RAINBOW SOFTWARE, 20224 S. Sprague RD., Oregon City, OR 97045-9641

Club Membership:

A full-year's membership in geoMETRIX to any one individual costs \$10.00 per year. This includes 6 issues of geoJOURNAL delivered to your address (every other month), privileges to

participate in ANY demonstration or presentation at a group meeting, and access to geoMETRIX's extensive Public Domain GEOS Library, as well as geoMETRIX contest disks and special MEMBERSHIP-ONLY files. As with payment for geoJOURNAL subscriptions, you may either bring your money to a geoMETRIX meeting, or send it to the address listed below "geoJOURNAL Subscriptions".

Club Meetings:

Portland's geoMETRIX User Group meets on the 3rd Sunday of every month (unless otherwise specified) at Pietro's Pizza on the corner of S.E. 122nd and Stark. Our meetings start at 4:00 pm and end at 8:00 pm. Anyone interested in GEOS is welcome to attend, but only geoMETRIX members may participate in presentations and demonstrations. Please try to be there, as the more you see, the more you will get out of our friendly club!

geoJOURNAL INFO:

geoJOURNAL is created ENTIRELY under the GEOS environment (with the possible exception of some advertisements). Bryce L. Tomlinson is the geoJOURNAL editor. Additional articles are welcome.

Advertisement prices are as follows (omit layout charge for photo-ready ads):

Full-Page: \$6.00 (layout charge add 15.00)

Half-Page: \$3.25 (layout charge add 7.50)

Quarter-Page: \$1.75 (layout charge add 3.75)

Please send in your advertisements by the 1st of the month of press-time. Otherwise, ads may not be printed until the next issue. (Sorry... deadlines... deadlines...)

geoJOURNAL

Highlights

Table Of Contents

Departments:	
Club Information	2
The Editor's Notes	5
Metrix Minutes	6
Letter of the Month	6
The Rumor Column	9
Programming GEOS	
Assembler	10
New Products	15
Featured this Issue:	
GeoLabel Review	12
GeoPrint Review	13
Let's Go Faster	7

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President:
Peter Lerten
GeoJOURNAL Editor:
Bryce L. Tomlinson
Meeting Secretary:
Grady Brown
BBS Sysop:
Ken Nakatsu

GeoJOURNAL is proudly created on a Commodore 128 computer with 2 1581 disk drives, a 1571 disk drive, a 1750 RAM, Super Snapshot V4.0, 1351 Mouse, using GEOS 128 2.0, GeoPUBLISH, GeoPAINT 2.0, GeoWRITE 2.1, Paint Scrap 2.1, Scrap It (By Terry), Import Runner, Macattack II, Graphics Grabber, WrongWrite, as well as many other fine GEOS products. GeoJOURNAL is printed on an EPSON RX-80 with a LaserMatrix printer driver, and a PANASONIC KX-P1124 in LQ-2500 mode, with the kind accompaniment of Pete's Super Graphix Gold interface.

Please, Send any literary contributions to:
geoJOURNAL Editorials, 5227 NE 23rd,
Portland, OR 97211

Upcoming GeoMETRIX Meetings:

March 18th

April 15th

Portland GeoMETRIX Meetings are held on the 3rd Sunday or every month at Pietro's Pizza on SE. 122nd & Stark.

BBS ENTERPRISE
THE OFFICIAL BBS
OF GeoMETRIX!
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24 HOURS COLOR 64

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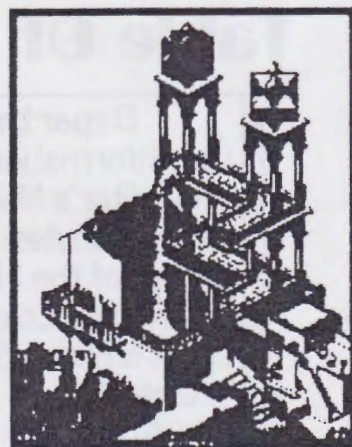
RAINBOW SOFTWARE



At Rainbow Software, we've made an art of collecting MACINTOSH files to convert to GEOS, combing the world for the very best in graphics, clip art, and full-page pictures. Hundreds of geoPAINTs, converted straight from hi-resolution MacPaint files.

From cartoon characters to movie posters to bathing beauties, there's something to suit all types of people of any age.

Here at Rainbow, we realize that finding good pictures can sometimes be tough, so we've saved you that part of the trouble... The next step is up to you.



We've created a catalog of miniaturized duplicates, giving the closest representations of the files without actually handing them to you, so it's easy to choose which pictures you want. Still want more?

As an introductory offer, we will give you a 2-disk sample set of geoPaint files, right along with our catalog, for a special price of just \$5.00.

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Oregon City, OR 97045-9641**



The Editor's Notes

by Bryce L. Tomlinson,
Editor, geoJOURNAL Newsletter

The 1990's are here, and with them come a new bunch of things for us to think about! We've grown so much since we started last year, and we are still getting bigger! Last month we got 5 members BETWEEN MEETINGS, and we are still receiving many new applications in the mail! We are more than "well-known" on Q-Link... In fact, most of the GEOS users there have already seen at least ONE issue of our newsletter.

You've probably noticed that lately we have been running a little behind schedule with the newsletters, and we plan to make it up to you--by bringing you better and better issues of the geoJOURNAL. It just seems that there is so much stuff to write about these days, and so little time to write about it all! Creative Micro Designs has provided us with some juicy new stuff for our Rumor Column (check that out!) and so have many other people! And the new products section is BULGING with new stuff! In fact, it's hard NOT to find new stuff these days!

Be sure to check out the GEOPRINT and GEOLABEL articles featured in this month's geoJOURNAL. Much work has gone into both of these programs, and we have gone to lengths to bring it to YOUR attention. Special thanks must go to Roger Lawhorn, who so lovingly wrote these programs, for sending us demonstration copies of BOTH programs so we could review them and show them off at the meeting.

For those of you interested in buying GeoPRINT and GeoLABEL, Roger has offered our user group a special purchase deal on BOTH of them. GeoPRINT normally sells for \$19.95, and GeoLABEL goes for \$11.50. Mr. Lawhorn has offered to sell BOTH of them to us for \$25.00 if we can buy 15 or more. So if you want to buy BOTH, let us know. Fill out the PLEDGE FORM in the back of this newsletter, and mail it to us. That will let us know that you will buy one when we have 15 or more orders. Once we have those 15 orders pledged, we will let you know, at which point you can send us a CHECK or MONEY order (made payable to RAINBOW SOFTWARE--that way, we can send him ONE CHECK for the full amount). This is the first time we have been offered such a deal, and hopefully, we will be able to take advantage of it! So far,

we have 3 pledges... Now all we need is 12 more!

One of our members, Joe Tom Collins (GeoJoe C on Q-Link) has written an article of particular interest. It has to do with the possibility of 8-10 MHz processing speed for the 128 and 64. We should all have a vested interest in this topic, since the Commodore 64 and 128 happen to be 2 of the slowest computers that are still supported. He urges us to stand up and shout to the people who count, and make our presence and wants KNOWN. Let's DO IT!

Grady Brown has been a contributing member of the geoMETRIX Group ever since he joined. We recently asked him to act as secretary for the user group, and he accepted. We now have a new column for the geoJOURNAL, called "Metrix Minutes". This column will describe the happenings of our meetings for those of you who miss them. He has also written us a letter, and has given us permission to reprint it. It contains some interesting questions, and some interesting facts.

Speaking of meetings, for those of you people who have joined geoMETRIX from other states (or even COUNTRIES), although you obviously cannot attend our meetings, please remember that being a member of geoMETRIX gives you a SAY in where it goes. If you have a suggestion for the user group or newsletter, or submissions to the library, or ANYTHING to contribute to the group, please make it known! This user group is here to fill a need, and we NEED to know what you NEED.

As for our other points of interest, we need to discuss whether or not we would like to allow IBM or APPLE GEOS users to participate in our user group. This would mean carrying IBM/APPLE GEOS files in the library, and having IBM/APPLE GEOS articles in the newsletter, as well as including them in MEETING ACTIVITIES. I propose that we do. So far, COMMODORE and APPLE GEOS files have been interchangeable. It seems more than likely that someone will go to the trouble of making them interchangeable for the IBM if and when GEOS comes out for it. We have never been specific as to whether we were a COMMODORE group. We have always been GEOS. Now is the time for you to tell us what you think, and what direction you want YOUR user group to turn.

We are truly blossoming into a great user group! I'm sure that with the input from you the members, we can even go FURTHER! Until next issue...



We love to hear from you!

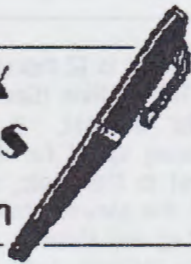
Don't just sit there! WRITE US! Tell us something new you've found out, ask us a question or two--or JUST SAY

"HOWDY!"

Write to:
Letters

c/o geoJOURNAL Editorials
5227 NE 23rd
Portland, OR 97211

Metrix Minutes by Grady Brown



2/18/90:

- > Bryce called the meeting to order at 5:22pm. There were eight members and three guests introduced. A sheet was passed around for everyone to sign in on, asking for their name, telephone number, system, GEOS version, and whether they were a member or visitor.
- > The P.A.G.E. newsletter for the Pittsburgh Area GEOS Enthusiasts was introduced to us as a sister newsletter.
- > Peter showed a poster size printout made from the program GeoPRINT. Sample printed labels were also passed around the room showing the high quality of the GeoLABEL program by Roger Lawhorn. Also, a sample of the documentation of the

program was circulated. Both programs were demonstrated, too. A package deal for both programs has been offered by the author for \$25.00 as a club special for 15 or more. GeoPRINT goes for \$19.50 and GeoLABEL goes for \$11.95. Bryce continued showing us the interconnecting of GeoFILE, GeoMERGE, and GeoLABEL.

> Membership inquiries have been growing fast. We have had about 7-8 new national members join in the past month.

> Our newsletters will be mailed out in envelopes to curtail the mail vegamatic monster.

> The next demo session was of art files that Bryce digitized with Computereyes and an RCA 640 CamCorder. Quite amazing work was shown!



THE NEW C65 IS COMING

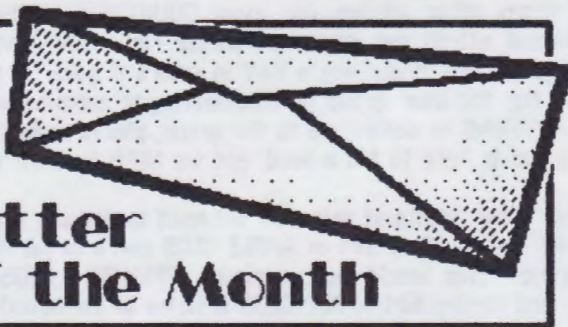
(Reprinted from the Champaign-Urbana Commodore Users Group Inc. newsletter, "The Status Register" November 1989. CUCUG's address is PO Box 716, Champaign, IL 61824-0716)

The rumblings of the newest version of the trusty old 64 with a built-in 1581 disk drive, may soon surface. The machine has been in R&D for months and definitely exists. Now a report from the Fox Valley Pet C.U.G. suggests that this machine may be nearing market. Editor Herb Gross states "A friend of mine who works as a store manager for a chain that sells computer hardware and software asked me if I had heard about the new C64. He said that they received papers for a new batch of C64s called a C64 D with a new inventory number." Keep your eyes open!!!!

The topic of opening the geoMETRIX meetings to include all machines that use GEOS was brought up at the January 21st meeting. Although my first impression is that "Well here we go again. One more 'Commodore' area bites the dust under 'Big Blue'. This has happened so many times to us with the words attached that it must be done for the sake of profit. Without profit we would have nothing to offer the 'Commodore' users". With some time to think about the pros and cons of the matter, I have come to the conclusion that in this situation we (CBMers) and the IBM's and Apples can work together. As long as the systems can convert, transfer, and use each others data files. From what I have been able to share our works. From Artwork to correspondence. In this case, I am all for it. Welcome big (blue) brother.

Another piece of information that I think should be passed on was found on Q-Link. I have heard nothing more of this. What is happening? Is this still going on? Have you heard anything?

Letter of the Month



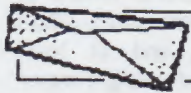
February 01, 1990

Dear fellow Geosites,

Although this is belated, Happy new Year. I would like to put this in writing, that I really appreciate both your efforts to give us a Geos atmosphere to work in, learn in and to meet in. Geos would be just another one of those programs that we bought with much enthusiasm and then some problems crop up and to the shelf to stay goes the software, not to be found again due to all the dust. With your newsletter and your help at meetings, we can all work together to keep that fate from happening to Geos. You have already saved me too many times to mention.

I would like to also say that the very clear evolution of the geoJOURNAL has been very interesting to watch grow. It is maturing quite well. Keep up the good work. It continues to feed my Geos hungry appetite. geoJOURNAL has been mentioned in the December 1989 newsletter of the Pittsburgh Commodore Group. It was brought up in an article by Bill Hunter titled "Newsletters We've Received".

Here is an interesting piece of news. What do you think of this? Found in the December 1989 Bloomington Normal Commodore Users Group (BNCUG) newsletter PEEKS & POKES:



Letter of the Month (Continued...)

SOFTWARE RENTAL LEGISLATION

The Software Publishers Association (SPA) has led a fight on Capitol Hill for software rental legislation. Senator Orrin Hatch (R-UT) has introduced S.198, which is being considered by the Senate Judiciary Committee.

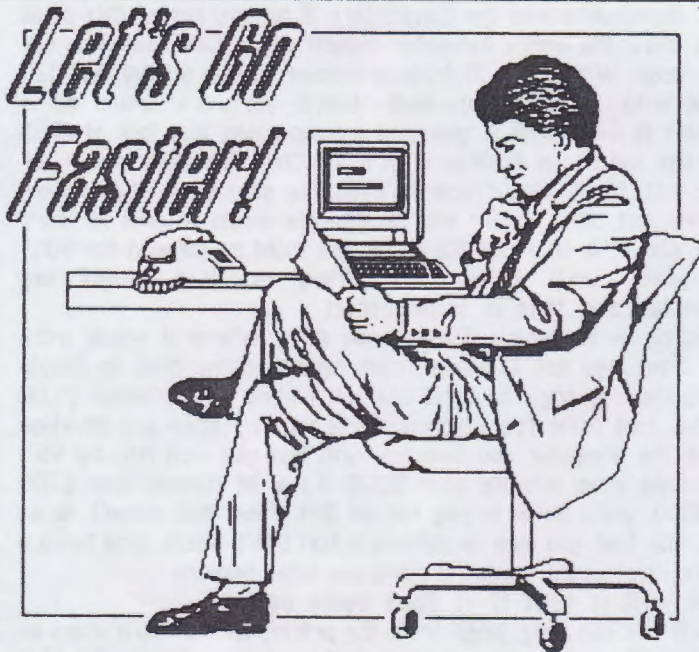
A companion bill will be introduced in the House of Representatives by Representatives Mike Synar (D-OK) and Carlos Moorhead (R-CA). This legislation prohibits the commercial rental or lending of software except with the express permission of the copyright holder. The only

exemption expected will be for non-profit libraries.

SPA President Heidi Roizen and Microsoft President Jon Shirley testified at a Senate Judiciary Committee hearing on April 19th outlining the software industry's concerns about the effect of commercial rentals. SPA expects to have another witness testify before the House Judiciary Committee, perhaps during the summer.

Keep up the great publishing job and again thank you for being there for us.

Sincerely,
Grady Brown



By Joe Tom Collins

This article may be distributed freely and without royalty so long as it is not modified in any way.

The Commodore problem.

Commodore (CBM) computers have had a few draw backs for a long time. Slow disk drives with small storage, limited memory, and slow processing speed have all contributed to the perception that Commodores are "toy" computers or "game machines". However the C=64 and 128 obviously have their strong points as well. The 64's low price has made it the top selling computer of the 1980's and for that matter the top selling computer to date! According to the numbers, even MS-DOS magazines have to admit that the installed base of Commodore computers beats out any individual clone manufacturers sales.

As the 64 pushes towards it's tenth anniversary we've seen a lot of yester years problems with the 64 and 128 start to

fade. Creative Micro Designs (CMD) product, JiffyDOS, as well as other products have speeded up the drive access, Commodore in some of it's brightest decisions, made the 1571 and 1581 disk drives with larger storage capacity and the ability to write MS-DOS format disks, and CMD is now producing a full fledged set of hard disk drives with the SCSI standard used in almost every computer. CMD is also making a RAM expansion unit capable of be expanded to 4 megabytes and compatible with CBM's own 1700, 1764, and 1750 line of RAM expansion units offering 128K, 256K, and 512K respectively. Berkeley Softworks has released their geoRAM with 512K. And there is rumor of RAM units offering as much as 16 megabytes in the not so far distant future.

This brings us to the last big inadequacy of the Commodore 8 bit line. Processor speed. The Commodore can only plod along at 1 to 2 MHz, (A MHz is a term used to describe how many times a microprocessor does it's job in a second), while the super computers of today zip along at speeds from 7 to 33 MHz! But just like any barrier the C=64 and C=128 have run into this one to can be solved.

The problem has already been addressed by companies like Schnedler System who make the Turbo Master CPU, a cartridge for the 64 that basically re-creates the 64 with chips capable of faster speeds, using the computer only for disk access and Video support. However the unit is not 100% compatible with all software, and it takes up the cartridge port so that additional RAM cannot be added. But if your desperate for faster spreadsheets or graphic programs you can get 4.09MHz, or put simply, 4 times the speed from your programs for under \$200.

The Apple Answer

In case you don't know anything about the Apple I'll give you a quick summary.

Commodore and Apple computers are very distant cousins. When Commodore made the PET, and the Vic 20 line of computers they used the same type of processor as Apple used in it's computers, the 6502. The 6502 was so popular that people made dozens of improvements to it bringing about the 6502A, B, and C, which were slightly faster than the original, the 65C02 (used in the Turbo Master and the Apple][e and][c), the 6510 (The heart

Let's Go Faster!

(Continued...)

and soul of the Commodore 64), the 65816 (used in the][GS), and the 8502 (The Commodore 128's engine), not to mention those varieties of the 6502 I forgot and those I never heard about in the first place!

For quite some time there have been speed up boards for the Apple replacing it's 1MHz processor with one of the faster ones. This was easy because all the Apple's except the][c had special expansion slots designed to take boards. Just picture your Commodore with 7 to 8 cartridge ports that all worked together and were protected inside the case! However with a wealth of boards out there for other functions, (SCSI drives, MIDI ports, disk drive controllers), Apple users didn't feel they wanted to "waste" a slot on a processor speed up board.

This was when a small company named Zip Technologies, decided to make a custom processor based on the 65C02 using special cache memory, (memory set aside for speeding things up, like a print buffer), built right onto the chip so that by simply removing the old 65C02 and putting in the Zip Chip Apple users could get much more speed from their system without taking up a slot! This method was also the only way to speed up an Apple][c which like the 64 and 128 has no slots. This was such a great idea that a company named Bytes and Pieces decided to do it too, only faster! Both companies were so successful with their 4 and 5 MHz chips respectively, that both companies decided to make even faster ones. Zip Technology came out with the Zip Chip][with a speed of 8MHz (faster than a stock Amiga 500 or 2000) and Bytes and Pieces came out with the Rocket Chip][at 10 MHz!

To add to it's success Zip also made the Zip Chip GS for the Apple][GS based on the 65816.

Why not us?

Now there is a lot of different support hardware that separates the Commodore and Apple computer lines, but there processors are so close that software producers usually release versions for both computers at the same time because they do not have to start from scratch!

So why don't Commodore users have a turbo processor chip to bring us up to date? When I called the support line of both companies their technicians said it should be possible, but their marketing people said they didn't think there was a market for a turbo processor and that speed was not a big issue with Commodore users. Well, Schnedler System proved that wrong by making the Turbo Master! They then told me that they didn't think Commodore users would be willing to open up their computers to put in a turbo processor. CMD proved that wrong by their success with JiffyDOS in the Commodore market requiring not only the computer to be opened but also the disk drives! Now I can't think why two companies who's sole products are turbo processor chips, would want to exclude as many as 14,000,000 potential customers world wide. The entire Apple][line has only sold about 6,000,000 machines world wide including the Apple][,][+,][e,][c, and the][GS, most of which are in schools who have little use for speed when they're just

using the machines to teach, and who don't have the budget for adequate RAM expansion never mind turbo processors. Where as there are over 10,000,000 owners of Commodore 64's who's computer are at home, where the heart is, and at least 4,000,000 Commodore 128 owners who are most likely former 64 owners who upgraded and expanded their system because they loved their 64 and are dedicated to their 128!

What can I do?

You can write a letter to all the companies involved and all Commodore magazines. There will be a list of who to mail to at the end of this article as well as a set of form letters for downloading on Q-link and GEine. Remember, the magazines make a lot of their money selling advertising space, and a couple of full page advertisements like Zip and Bits and Pieces take out in the Apple magazines would be a welcome site for our Commodore magazines, so they have an interest in helping us. If you are a member of a user group take this article with you to the next meeting and get them to write to the various companies. Pulling Apple developers into the Commodore 8 bit market at this point would show the entire computer industry that Commodore is far from dead. With 8 to 10 MHz processor speed all 64 and 128 productivity software or math based software would be a pleasure to work with. If you need a comparison just look at GEOS on a 128 and on an Apple][e with a Zip Chip! The Apple blows our doors off right now. There is even the possibility that faster modems and other higher end peripherals would be able to work giving our little 64's and 128's new life right on through the 90's! **Oh yeah, well I know a thing or two about my computer and this is impossible!**

Nothing is impossible. Even if you don't believe it would work what have you got to loose from sending some mail to people asking them to try. The total cost of mailing will be under \$5.00 and for that little fee which you will pay in stamps and envelope licking the computer you own now will last you well into the 90's and maybe even into the year 2000. It's a lot cheaper than \$700 to \$1000 you'll have to pay for an IBM clone that doesn't do as much and that you own no software for! Don't waste time being a skeptic, just write the letters and see what happens.

What will it cost if it does come out?

Well one can only judge from the pricing on the Apple chips as to what the Commodore version will cost. The 4 MHz Zip Chip costs \$149 And the 5MHz Rocket Chip is listed at \$189. Through mail order dealers I've seen the 8MHz Zip go for \$179 and the 4MHz go for \$139. Well worth it if you decide to pick up your speed, but only if you have the choice. This product would allow extra RAM, can be made compatible with any 64 system and already has competition from Schnedler!

The future is in your hands, and remember the old adage, "The pen is mightier than the sword." So write those letters!

Editor's Note: On the following page, you will find several addresses to write to in order to get the Commodore voice heard!

Let's Go Faster!

(Continued...)

Company Listings:

Zip Technology, Inc.
C/O: Dick Stivers
5601 West Slauson Ave.
Suite 190
Culver City, Ca, 90230
(213)337-1734

Bits & Pieces Technology, Inc
C/O: Dennis Martin
31332 Via Colinas
Suite 110
Westlake Village, Ca, 91362
(818)706-7932

Twin Cities 128
C/O: Loren Lovhaug
P.O. Box 11578
Minneapolis, Mn, 55411

Run
C/O: Mail RUN
80 Elm St.
Peterborough, NH, 03458

Compute!'s Gazette
C/O: Lance Elko
P.O. Box 5406
Greensboro, NC, 27403

INFO Mail
123 North Linn St., Suite 2A
Iowa City, Ia, 52245
FAX: (319)338-0897
Phone: (319)338-0703

Transactor: Crawford Publishing Inc.
85-10 West Wilmot Street
Richmond Hill, Ontario, L4B 1K7
ISSN# 0838-0163

Further Notation:
See **TURBOFILE** in our PD library, which contains the **FORM LETTERS** from this article for use with **geoMERGE**.

The Rumor Column



This is a collection of the best rumors we've been hearing here at geoJOURNAL. Aren't rumors just SO MUCH FUN?!

DISCLAIMER: This column consists COMPLETELY of unverified RUMORS. And as such, they should not be treated with any amount of seriousness. These rumors may be true, but since they are unverified, they might be completely false. Please do not make any major decisions based on this information, as it might lead to undesirable circumstances.

* A new deskTop alternative is in the works--we'll let you guess who's making it... Supposedly, it will have full 3-drive support, resizable and moveable windows, as well as a CLI (Command Line Interface) mode that will allow such commands as COPY, DIR, TYPE. If all goes well, look for it THIS SUMMER!

* A new disk cataloging program for GEOS is currently being developed. One that will support 158i's, 145i's and 157i's, with up to 4 drive support (A,B,C, and D)! It will have the ability to sort by size, type, date, as well as name (with the added ability to sort by TWO of the methods at once)! Possible additions might be file UNSCRATCHING, fast formatting, and backup features. Others might include compatibility with geoWrite or geoMerge, and a database manager.

* Will geoPUBLISH be outdated? Our sources tell us that a new program is on the drawing board that will include most of the features (if not all) that are in geoPUBLISH, with the added capability to rotate bitmaps and text (on ANY AXIS) with minimal resolution loss, as well as flow text into documents--SIDEWAYS. We'll see...

* Is the C64-GS dead? From what we've been hearing from ALL different angles, it may not be. The 4-mHz, 128k machine might still make its way to the marketplace, despite many negative views on what might happen to Commodore if such a machine does indeed surface. With all its color and sound abilities, we might be in for some real revolutions in the 8-bit world.



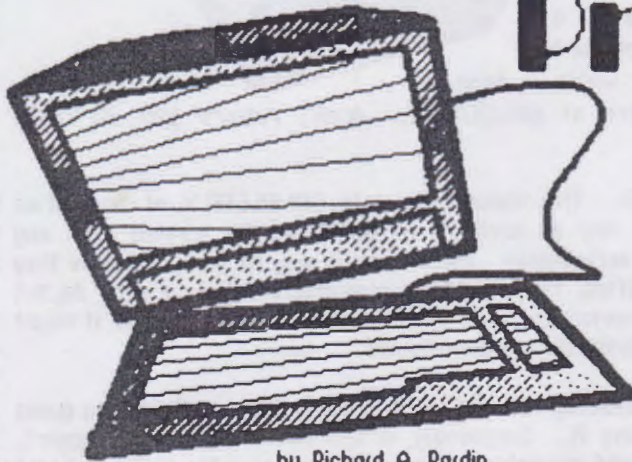


The Rumor Column (Continued...)

striving for sometime in the next year.

* In case you are wondering about geoBASIC, all we have been able to find out is that "It will HOPEFULLY be released by the end of the calendar year 1990". Wonderful... That's what they said about 1989.

* The latest news from CMD (Creative MicroDesigns) says that their HD Series hard drives--said to be compatible with GEOS--have a number of geoPOSSIBILITIES. From what they said in their FORUM DISCUSSION on Q-Link, their HD's will be able to emulate SEVERAL 1581 drives at ONCE in GEOS mode. Using a utility they call "QuickMove" it will enable you to switch back and forth between a number of its partitions. They say that in the future, they plan to make it able to withstand SINGLE partitions of up to 16 MegaBytes--once again, all within GEOS. They also noted that their RAMLINK (still under development) will be completely compatible with GEOS, and will include a DISABLE switch for its RAMDOS feature.



by Richard A. Rardin

Programming GEOS Assembler

what GEOS really is. The second thing to know is what GEOS can do for you, the programmer, to make your life easier. The answers to these questions are very closely tied together, because what GEOS can do for you is directly related to what GEOS is. Therefore, a somewhat simplified definition of GEOS seems in order. The most obvious definition of GEOS comes from the name itself: Graphic Environment Operating System.

"Graphic Environment" is fairly straightforward. It simply means that instead of only being able to display standard letters and characters on the screen, GEOS is able to display text, non standard characters and symbols, and graphic images on the screen. In fact, almost everything you ever see on the screen while using GEOS is a graphic image. GEOS, by default, uses the computer's bit map screen to display all of its information. (There are, of course, some exceptions such as GEODebugger etc.)

The "Operating System" part is where the definition gets a little more complex. A more or less "text book" definition of operating system is: "A group of machine executable functions central to the operation of the computer, providing commonly used and well defined services to the user." The phrase "providing commonly used... services to the user" means that for certain things that are done time and time again, such as drawing a menu, there is a built in routine to do this so that a programmer does not have to write his/her own function to perform the task each time. The term "well defined", for our purposes, will mean that whatever the service is, the things that must be done in advance of using it are documented, the things that it does are documented, and the things that it

INTRODUCTION

The purpose of this issue's "programming GEOS assembler" column is to introduce some very general concepts about GEOS. It is not my attempt to present assembly language from the ground up in this column. There is simply not time (or space) enough to cover the rudiments of assembly language. Therefore I will make some assumptions in writing. I assume that the reader has access to a good GEOS assembler. There are several that I have heard of. I personally use GeoProgrammer from Berkeley, so my coding examples will conform to their standards. I assume that the reader has a basic understanding of assembly language. What LDA or STA do, for example. I will, from time to time, cover some general assembly language concepts. If you do not know assembler, I would recommend reading one of the many good books on Commodore assembly language along with the specific GEOS programming information presented here. Finally, I own a 64 and program under GEOS 64 V2.0, so all of my experience is with a 64. Note also, that for the sake of brevity I will usually use "64" when referring to either a 64 or 128 running GEOS.

THE GEOS OPERATING SYSTEM

The first thing to know when programming under GEOS is

Programming GEOS Assembler (Continued...)

returns are documented. We will see examples later.

"Commonly used services" almost always include: reading and writing files, character input and output (generally a monitor and keyboard) routines, and several other file support routines such as create, delete, copy, etc. As well as general device control routines for things like printers and modems. This is about the extent of the kernel on an 8 bit Commodore computer (Commodore 64/128 etc.) Most operating systems for larger computers (PCs, MACs, and on up to main frames) contain many more functions for things like random number generation, getting and setting the date and time, communicating with other users on the system (multiuser computers and networks), math functions, and the manipulating of processes.

This is where the operating system part of GEOS really makes a giant leap for the 64. It utilizes not only all the functions of the 64's kernel, but also brings many of the functions from large computer operating systems down to the 64. It includes new functions for things like integer math, minor process control, the VLIR (Variable Length Indexed Record) file type, transparent device drivers (input device and printer), menu routines, file manipulation, as well as many very powerful screen graphics routines. Another enhancement the operating system also supports is a special type of executable file introduced on early computers with tight memory constraints called OVERLAYS. The concept of an overlay allows a program that is much larger than available memory to be executed by using it only a piece at a time, and overlaying old pieces not currently needed with another piece from the file on disk. This is one place where the VLIR files come in.

All of these abilities, and many more, are available to the GEOS programmer with a little patience and a little work.

USING THE OPERATING SYSTEM

The operating system itself ("the GEOS kernel" or just "the kernel") doesn't really do anything on its own, programmers and programs they write are required in order to utilize the kernel's new capabilities. Most of the time users think of GEOS as a screen with a trash can in the corner and pictures for all the file names. What they are thinking of is the Desk Top proper. The Desk Top is not GEOS. The Desk Top is just another program written by a programmer that uses the abilities of the GEOS kernel.

As has been stated, the kernel is a series of routines that provide many commonly used services. In order to utilize the abilities of the kernel in your own programs you need to know three things. First, where the routine is, so that you can execute it. Second, what information the routine will need and where the routine expects to find it. Third, what the routine will do, and where it will return results, status codes etc. The book "The Official GEOS Programmer's Reference Guide" by Berkeley Softworks is the most comprehensive and detailed (though not always accurate) source that I have found. As an aside, in that book, Berkeley establishes standard variable and

label names which almost always match the ones used in Geoprogammer, and which I will use in this column.

The following is a sample call to a kernel routine:

```
;This section of code draws a rectangle on the screen
lda#15
star2L;Top of rectangle (r2L=$06)
lda#30
star2H;Bottom (r2H=$07)
lda#0
star3H;The high byte of both left and
star4H;right edges = 0 (r3H=$09, r4H=$0b)
lda#15
star3L;Left edge (r3L=$08)
lda#30
star4L;Right edge (r4L=$0a)
jsrRectangle;Draw the rectangle ($c124)
```

Notice a few things demonstrated in this function call. First, the use of the standard Berkeley labels (r2L-r4, and Rectangle). Second, documentation of the various variables. I cannot stress enough how important it is to document your variables, loops, function calls, etc. when working with an assembler! Modifying a large program several weeks or even just days from the last sitting can become extremely difficult without adequate documentation. Finally, the main point. Before the Rectangle routine is called, each parameter, or each value that the routine is expecting, is stored in memory in the location that the Rectangle routine expects to find it. Then the kernel routine is actually executed.

Just imagine trying to figure out each point in each line that makes up the rectangle, and trying to plot each point on the screen yourself. Not an impossible task, but having a routine in the operating system makes it so much easier.

Having the routine in the kernel also has another, less obvious, benefit to the programmer. Program size is reduced. Each kernel routine called from within a program is one less routine that has to be part of the program. Therefore, it is not stored on disk with the program and it does not take up your programming memory space. As a general rule, therefore, it is a good idea to use the kernel routines whenever possible.

So, we now have a general idea about what GEOS really is, as well as having seen how to call a routine in the GEOS kernel. This second idea is by far the most important aspect of programming under GEOS. Using the kernel routines makes programs written by all third party programmers look and act like "official" Berkeley applications. Also, as stated, using the kernel routines makes programming much easier because many common functions need not be written by the programmer.

**Richard Rardin is the talented
programming mind behind the
educational GEOS game,
GeomATH.**

GeoLABEL Review: All purpose Labeler

by Bryce L. Tomlinson

Ever since the disk drive first came out, and disks became an abundance for most people, users have come to want to LABEL them. This helps to let you know what's on the disk, and keep the cumbersome task of organizing extensive libraries to a low.

But soon people got spoiled... Not only did they want to LABEL their disks, they wanted the LABELS to look good! Whatever the cause of this surge of snottiness, it has become the subject of serious conversation, and some people have come up with some very useful programs to take care of the most fussy disk owner.

Now that GEOS is here, why haven't more people tried to take advantage of its unique ability to manipulate graphics and text to create labels? There are actually a number of reasons. There are certain algorithms used to figure out how much to print before reaching the end of the label. There are also problems with form-feed commands on some printers. And one of the most severe problems is the different dot-per-inch densities of the vast number of printers available. And thus, up until now, nobody has made a full-featured program to do this.

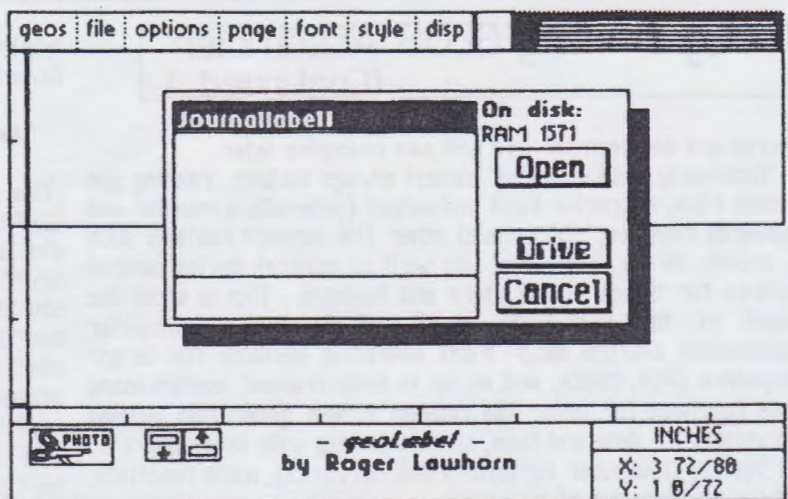
Roger Lawhorn has come up with a real winner here. His program, GeoLABEL, can print almost any size label (under most circumstances, 3.5" x 15/16" is best, though), with ANY GEOS-compatible font, and nearly ANY photo scrap (of course, it has to be able to fit on the label).

First, you start out using geoWRITE or geoFILE. Using geoFILE, you can create a MERGE SCRAP (check your manual for instructions on doing this) which is in geoWRITE format. GeoLABEL reads the WRITE file, and flows the text into the label. Afterward, you can position each line of text anywhere you want. For first name/last name type labels, you can CONNECT two lines of text together! Then all you do is insert a space using the ENTER AFTER/BEFORE TEXT option, and you have evenly spaced names... This process can work for city/state/zip type lines too! Using geoDEX or geoFILE to do your labels can produce poor (by comparison) results, because they don't support evenly spaced names & addresses. i.e.:

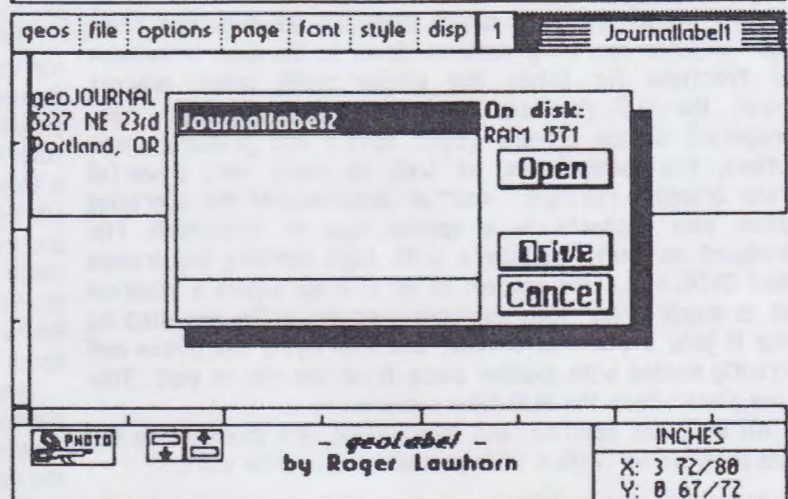
John Doe
1234 NE Nowhere St.
EmptyVille, Alaska 56789

would look like:

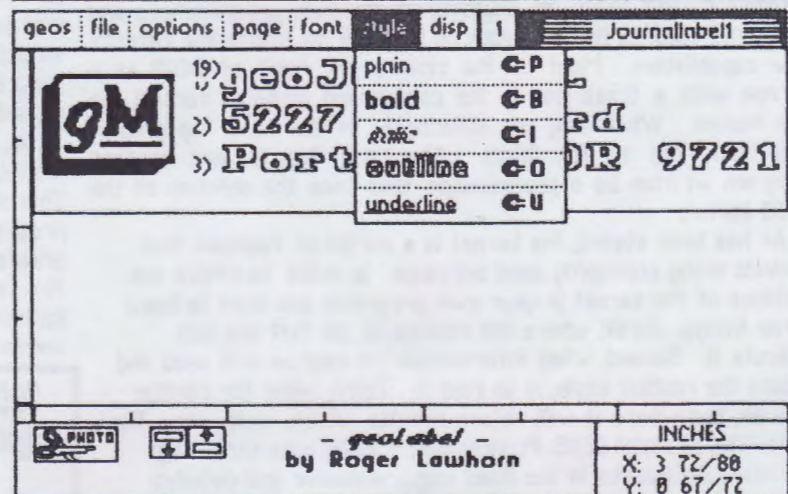
John	Doe	
1234 NE Nowhere St.		
EmptyVille,	Alaska	56789



GeoLABEL allows the user to import text from a geoWRITE file on disk.



You can load and save your setup files that you make with GeoLABEL.



GeoLABEL makes good use of the many fonts available for the GEOS environment.

GeoLABEL Review

(Continued...)

under some circumstances. If you use the same spacing for ALL your labels, they could turn out like the example on page 12... But using geoLABEL, you can have custom spacing for every label, depending entirely on the length of the first and last names, city, state, zip... etc...

Another BIG plus it has over ANY other labeling system is that it is compatible with almost ALL GEOS FONTS--and ALL GEOS TYPESTYLES! This nearly erases all the common boundaries of label-making all by itself, with the vast number of fonts combined with all the combinations of typestyles that GEOS supports. Face it. There isn't one program out for Commodore computers that supports as many fonts and typestyles that GEOS does, and now that can be put to use on how your mailing and disk labels look. WHEW! And you can have each line of text in ANY font, and any style! You can use up to 9 fonts, including GEOS's built-in BSW font--ALL AT ONCE!

Using the PHOTO tool, you can paste almost ANY photo scrap onto the label--ANYWHERE! Instead of having a preset position for the photo scrap, it allows the user to put it ANYWHERE THEY WANT. Using combinations of geoPUBLISH and geoPAINT, you could make yourself a neat logo, and personalize all your disks with a GEOS-COMPATIBLE piece of clip art. And to get you started, geoLABEL comes with an ASTOUNDING assortment of over 300 pieces of print shop-style clip art.... Ready for the PASTING.

The ability to turn things ON and OFF helps out quite a bit. You can turn certain fields of text on and off, turn numbering on and off (so you can see what numbers to type to access different fields) and turning the FRAME (the line around the edge of the label) on and off. You do have to remember, though that WYSIWYG (What-You-See-Is-What-You-Get) still holds very true here. You must remember that if you have some fields highlighted, or if you have numbering on--anything like that-- it will print... JUST like you see it.

In the process of reviewing this program, we did find one big

problem. We couldn't get it to work with the STAR 5G-10 printer. We tried a large number of settings, trying different dimensions on the label, different switch settings on both the printer and interface, to no avail. We will caution you to make SURE that this program will be compatible with your printer BEFORE you buy it. Let me say that it WILL work with ALL Epson FX-80 compatible printers (most are). This includes Epson RX-80's, Panasonic 1080's and 1090's--and all their compatibles, along with a number of other types of printers. The author even uses it on a STAR NX-1000 printer. He supplies new drivers that will NOT form-feed at the end of the label, so you can print one label at a time if you want. The ONLY thing we couldn't get it to do is print on the 5G-10 printer. Supposedly, it will work on a 60-dot-per-inch printer, but we have not tested that out yet. We have urged the author to do some research on which printers will work, and what settings to use on it.

I personally found GeoLabel to be a very intuitive program--although more complex than most other GEOS applications I have. The documentation is a BIG help. It starts out at a tutorial level, and works with the user to a more advanced point. The interesting thing I found out was that, to my surprise, it performs with the look and feel of a TRUE Berkeley Softworks application. Using MANY of the commands that GEOS users are already accustomed to, and the SMART user interface that it supplies, it is truly the product of a professional. Many hours of work obviously went into this program, and the author certainly deserves all--and more-- of the credit he asks for. If this program is right up your alley (like it is for me!), send a check or money order for \$11.95 to:

ROGER LAWHORN
3632 Grey Fox Dr.
New Albany, IN 47150

Note to geoMETRIX Members: Roger Lawhorn is offering you a special on the purchase of geoPRINT and geoLABEL together! Read "The Editor's Notes" on Page 5.



GeoPRINT Review: Graphics Galore!

by Bryce L. Tomlinson

Banners, greeting cards, posters... These are all neat little things that we all loved Print Shop and PrintMaster for at some time in our lives. These programs made it big--and with GOOD reason. They enabled the average user--and even people who didn't really know computers--to make their favorite illustrations come true.

For those of us with GEOS, however, some aspects of making these kinds of items can make life difficult. Like trying to turn parts of a geoPaint file so that they fold right into a greeting card, or even THINKING about printing a banner. Posters can be

accomplished using geoPUBLISH, but what about people who cannot afford to buy it? Or what about the people who have BOUGHT it, but cannot figure out how to USE it? Also, accomplishing HORIZONTAL posters is a difficult task, although not impossible.

We users of GEOS would like to be able to take full advantage of its ability to completely manipulate graphics. To be able to use all the tricky tools that GEOS provides, along with the added ease of a program to aid us along. Or it might even be the novelty of just having a program that performs all this from INSIDE GEOS.

Whatever the means or reason, the ANSWER is here--in the form of geoPRINT. Using this system, you can make GREETING CARDS, VERTICAL (1-page) POSTERS, HORIZONTAL (1-page) POSTERS, BANNERS, and GIANT POSTERS (4 to 8 times the size of a normal geoPAINT PAGE!)

GeoPRINT Review

(Continued..)

On the disk, you get geoPRINT, some extra printer drivers, and the geoPAINT templates that you must use to create your item. When you get it, be SURE to make backups. With this program it is particularly important to back EVERYTHING up--at least one copy! The reason is this: You do most of your work from geoPAINT, using the templates that are supplied for the different jobs. If you modify the ORIGINAL geoPAINT files, they will save that way, and you will have (probably) ruined them. Be SURE to take this advice seriously.

The templates are designed as follows: There are 3 forms, with 2 of each to suit both 60 and 80 dpi printers... Printform A includes the templates for BANNER, VERTICAL POSTER and HORIZONTAL POSTER. There are two lines for the banner, both at the mid-top section of the page. You can use BOTH of these to make your banner, supporting up to 12 pages (when blown up) of banner. Vertical and Horizontal Poster templates are at the bottom of the page. While the Vertical Poster is simply blown up by geoPRINT to FULL-PAGE size, the Horizontal Poster is rotated first, then stretched and blown up to fit a FULL-PAGE (enabling the user to create his/her poster VERTICALLY, then the program turns it sideways AUTOMATICALLY).

Printform B includes the template for GREETING CARDS. On this page, there are four rectangular areas. (Note: 128 users will NOT see the LEFTMOST areas in 80-column mode) These are labeled as the front and back of the card, and the left inside and right inside of the card. Once you have the card drawn up, you print it using the geoPRINT application, which will twist and flip all the sides of the card so that you can simply fold the card once it's printed out.

Now, the LAST function that GeoPRINT has is GIANT POSTER mode. I found this one particularly interesting, since I collect posters. Roger Lawhorn must be as much of a poster freak as I am, because to have enough patience to test this thing means that the rewards made it worth it to him! (These posters take a LONG time to print!) Using this feature, you can print out some really huge posters! Although I've never used the FULL size function, I've gotten some rather large stuff out of the QUARTER size mode. This mode uses a standard FULL-PAGE geoPAINT file, and blows it up 4 to 8 times!

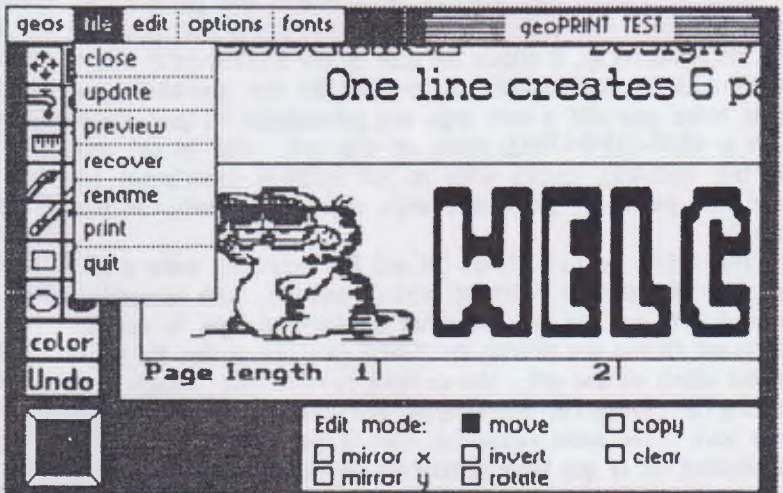
GeoPRINT is also compatible with the PAINT-DRIVERS programs. Although the BANNER and GIANT POSTER mode aren't compatible with it, you can still do CARDS and VERTICAL and HORIZONTAL posters with it.

Although this program is mostly straightforward, there were things that confused me. Lots of clip art comes with the geoLABEL package--which is nice... But there is no included clip art with geoPRINT. Why not? Many people who don't have as much clip art as some would become frustrated trying to acquire some. With the addition of some clip art, geoPRINT would definitely be a much more complete package.

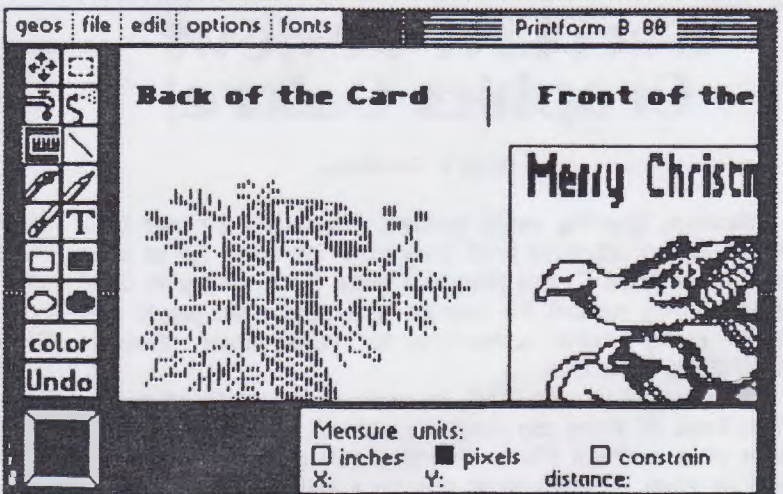
The other thing I was confused about was the process in



With GeoPrint, you can create HORIZONTAL posters as well as VERTICAL posters.



GeoPrint's banner mode allows you to make banners up to 12 pages long.



You can easily make greeting cards using geoPrint's card template.

GeoPRINT Review

(Continued...)

which one determines how MUCH of a giant poster to print. The author describes the process as printing PRINTFORM C, then HOLDING IT UP to the original geoPAINT page you wish to make into a poster. Now that's not too hard to understand, but it is kind of crude. I would think that if such a process were necessary, it could be somehow integrated into the program itself--like overlaying a grid onto a preview of the picture, on SCREEN. Then of course, this is only VERSION 1.1.

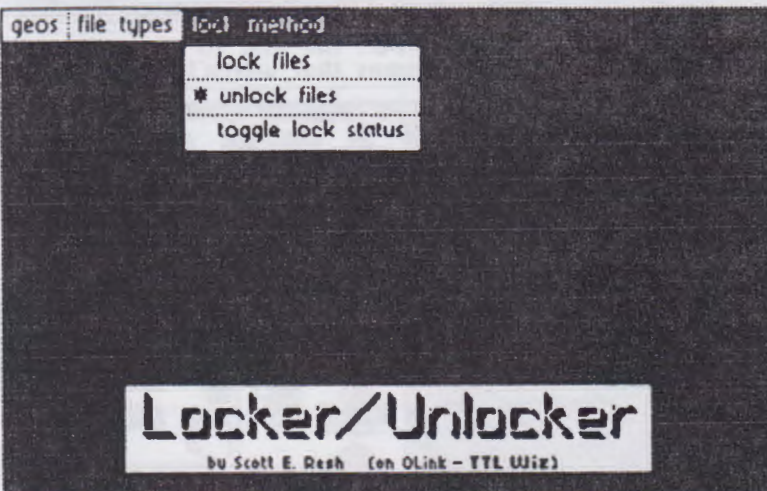
Although the processes used to create these banners and posters can sometimes be tedious, the end product is what you really look at. And geoPRINT comes through on that end. The quality of enlargement used in the print processes is really nice,

and I would be proud to hand out a greeting card made with this program. Where the creating end lacks, the end product just about makes up for it. Although it can use some improvement, this program is truly a breakthrough in GEOS, and deserves the credit thereof.

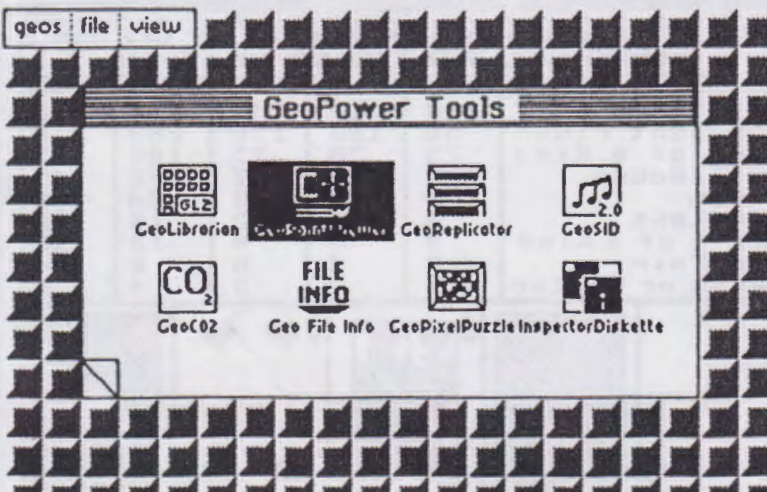
To get your hands on this great bit of programming, send \$19.95 to:

ROGER LAWHORN
3632 Grey Fox Dr.
New Albany, IN 47150

Note to geoMETRIX Members: Roger Lawhorn is offering you a special on the purchase of geoPRINT and geoLABEL together! Read "The Editor's Notes" on Page 5.



Using LOCKER/UNLOCKER, you can easily change the write protect status on any files.



The Presenter demo shows off and tells about the fine features in LOADSTAR'S PowerTools disk.

New Products

Reviews are the expressed opinions of Bryce L. Tomlinson, and do not imply the opinions of geoMetrix or any other persons or parties. Programs are rated on a 1-4 star ("*") basis.

Locker/Unlocker ****

This is a nifty little utility that allows you to change the write protect status on most any program (GEOS or NON-GEOS). It can LOCK or UNLOCK, or just TOGGLE the status of all GEOS files, all NON-GEOS files, or ALL FILES on the disk. This is especially handy for those FONT DISKS you might have laying around with lots of write-protected fonts on them. That way, when you go to delete them from a work disk or the RAM, you won't have to deal with that "THIS FILE IS WRITE PROTECTED AND CAN'T BE DELETED" message.

Available from Q-Link and/or GeoMETRIX.

Presenter **

Presenter is actually a demo of a disk released recently by LOADSTAR MAGAZINE called the "GeoPower Tools" disk. The demo contains much information about the programs on the disk, along with 2 pieces of clip art (shown only on the screen) and a window display of the fonts that come with it. One particularly interesting aspect of this demo is the background display on the intro screen of the demo.

Available from Q-Link and/or GeoMETRIX.

New Products

(Continued...)

Set 40/80 Flag ****

Here's another small but useful utility for 128 users. It enables you to change the 40/80 column flag bit in the header of all GEOS programs. For some programs, this can be a big advantage, allowing you to use it in 80 columns--at the 2 MHz processing speed of the 128 in its native mode. The image will be crisper, and the program will be faster. Although this OBVIOUSLY won't work with ALL programs (in fact, MOST programs won't work with it) it is amazing how useful this ability will prove with the programs that DO work with it.

Available from Q-Link and/or GeoMETRIX.

Scrapit VII ****

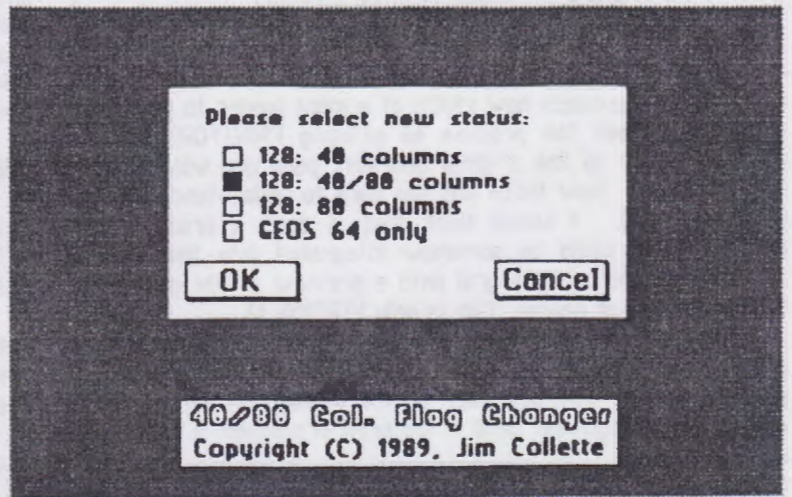
This program runs much like Paint-Scrap 2.1 (see new products section of Issue #4 of geoJOURNAL). Both programs allow the user to clip graphics from a geoPAINT page in PREVIEW mode. This enables you to clip large areas of the document into PHOTO SCRAPS without having to measure the dots vertically or horizontally. There are, however, subtle differences. For instance, Scrapit doesn't use a buffer to clip a scrap from a geoPAINT page. It swaps between the geoPAINT and PHOTO SCRAP files, so it can create a photo scrap of ANY size. Although the PHOTO manager can only utilize graphics up to 32k in size this can still prove useful to those with geoPUBLISH, since its only limit is the space on the disk.

Available from Q-Link and/or GeoMETRIX.

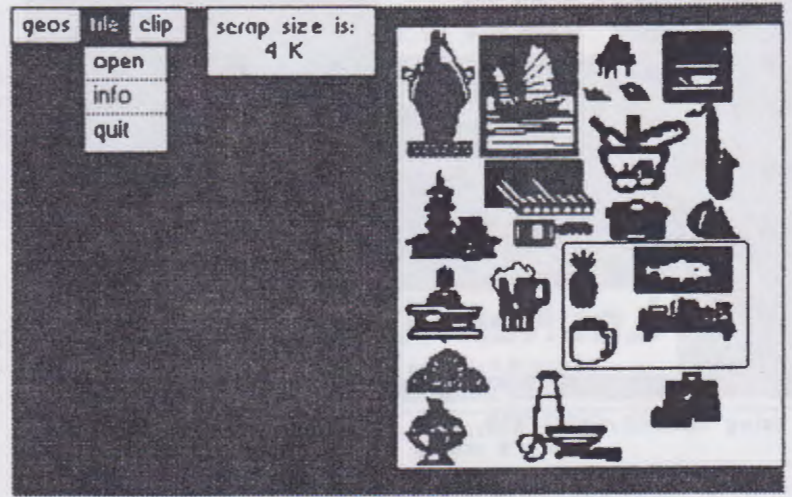
Draw Poker VII ****

Once again, we have a simulation of the popular poker machines that carpet the casinos of Reno and Vegas. This program was reviewed in the last issue of the geoJOURNAL, but we decided to run the new version, too... The main reason is that the author has gone to some trouble to clear up some of the glitches that showed up in the original (1.0) version. The new version is totally compatible with GEOS 128 (in 40-col. mode) and has the bug with the coin slot fixed. Now we users of GEOS 128 can enjoy this program as well. One last note: The author has suspended work on the next version of Draw Poker due to lack of user support. Please--if you use these programs, send the author a shareware contribution. So many of our shareware authors have abandoned that method, so show your support!

Available from Q-Link and/or GeoMETRIX.



40/80 Col. Flag Changer allows the user to make SOME programs work in 80 columns that weren't made to.



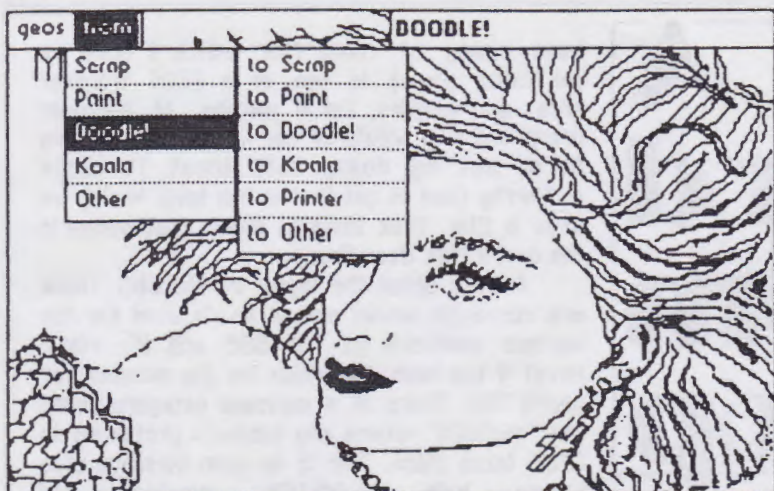
Scrapit 1.1 allows you to make scraps of ANY size from a geoPAINT page, since it doesn't use a buffer.

Royal Flush	250	500	750	1000	4000
Straight Flush	50	100	150	200	250
Four of a Kind	25	50	75	100	125
Full House	9	18	27	36	45
Flush	6	12	18	24	30
Straight	4	8	12	16	20
Three of a Kind	3	6	9	12	15
Two Pair	2	4	6	8	10
Jacks or Better	1	2	3	4	5



(HOLD) (HOLD) (HOLD) (HOLD) (HOLD) DRAW
 [CASH OUT] [DEPOSIT COIN] [BET] [CREDIT] [MAX BET] 0

Draw Poker 1.1 pits you against the odds, allowing you the sensation of an arcade Poker, without getting broke.



ScrapIt! allows conversion between a number of picture formats, with external modules for more formats.

New Products (Continued...)

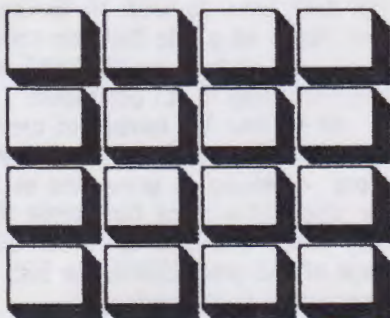
Scrap It! ***

Here is a program that has been a long time coming! It allows the user to convert graphics between a vast number of possible formats... Such as: Koala/GG, Doodle/JJ, PrintShop (Screen Magic), Blazing Paddles, Photo Scrap, and of course, GeoPaint. Note: this program converts BETWEEN these different formats--both TO and FROM them. That means that you have the ability to DITHER a KOALAPAIN picture into a geoPAINT or DOODLE--or any of the other HI-RES editors. Or you can DITHER a HI-RES picture into a KOALA picture. The choices are limitless. Before this program, the only things that could do this were Icon Factory, Graphics Integrator and the like. Now GEOS users can do all this from GEOS--Quite a BREAKTHROUGH.

Available from Q-Link and/or GeoMETRIX.

- Load Word List
- Who's Playing?
- Random Game 1
- Random Game 2
- Do Your Own
- Edit Save
- Add New
- Print List
- Quit Playing

GeoWORDS



My Word Count: 1594

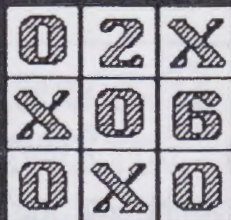
geoWORDS **

Based on the original game of BOGGLE, geoWORDS is a mind-tingling game of mental speed and accuracy. The object of the game is to look at a screen with 16 letters (in a 4x4 square formation) and find as many letter combinations as you can that spell real words. After the timer expires, you and your opponent (one or more--or the computer) compare notes and see who found the most words. The computer has a built-in dictionary, and can find many of the words for you. You may very well find words that the computer won't to start out with, but the DICTIONARY file is in geoWRITE format, and can easily be added to.

Available from Q-Link and/or GeoMETRIX.

GeoWORDS is a highly time-oriented word game based on the ever famous game of BOGGLE.

geos | game



Congratulations. You won!

GeoTacToe 2.1 uses a randomized artificial intelligence method to play against a worthy human opponent.

GeoTacToe V2.1 ***

One more game to add to the list of many that have recently started sprouting up for GEOS. This is the classic game of TIC-TAC-TOE for GEOS users. The object of the game is (as everyone knows) to gain a line of O's vertically, horizontally, or diagonally in a 3x3 grid. This game is made more fun not only by just BEING WITHIN GEOS, but with the nifty font that was used to create the X's and O's, along with the simple-to-use dialog and interface that the programmer presents us with. It even lets you choose whether or not to let the computer go first!

Available from Q-Link and/or GeoMETRIX.

Have a new program? Want us to review it? Send it to us! We'd be happy to!



A Word from the Sysop

by Ken Nakatsu

Our beloved newsletter editor (Bryce L. Tomlinson) has been laboriously spurring me, and other key members of the user group, on to writing about our participation in geoMETRIX. So, after many weeks of evading what has to be my least favorite activity, this immovable object has finally given in to the irripresable force (of our newsletter editor).

My name is Ken Nakatsu and I am the Bulletin Board Operator for the geoMETRIX User Group. I have known Bryce for approximately four years now, but only in the last year have we really become close. It is because of Bryce that I know anything of GEOS at all, and for that I am indeted to him.

The Bulletin Board I run is called, "BBS Enterprise". It is a 24 hour Star Trek Bulletin Board that went online January 1st, 1990. We are currently operating at 300 and 1200 bauds. We will eventually be at 2400 bauds, but difficulties surrounding my 2400 Avatex modem and the software have yet to be resolved.

As a sysop, my basic goal is to run a message and CBM graphic oriented BBS catering to Star Trek Fans. I choose to run the bulletin board on COLOR 64 BBS by Greg Pfountz, because I find it to be the most user friendly graphic oriented bbs software available for the C-64. Also, the local support for Color 64 BBS here in Portland (Oregon) is unmatched by any other BBS software for the C-64 in the area.

My needs concerning the BBS's size are minimal and I would have been happy with a much smaller bulletin board than I am currently running (20 megs) were it not for the fact that I dreaded the thought of the 30 minute reset times that are associated with bulletin boards utilizing Commodore disk drives on this software. Taking the board down to do the maintenance did not appeal to me either, so I decided to get the fastest harddrive available at the time which would allow me to perform maintance without downtime. The Lt. Kernel by Xetec was the answer. It handles the midnight reset in just 5-10 minutes and with a multiplexer, another IEEE interface, and a second keyboard one is able to perform maintance even while a user is online!

Okay, now you know why I bought a Lt. Kernel hard drive, so "What does all this has to do with GEOS?" you ask. Well, being a member of geoMETRIX and a close friend of the editor I decided to ask if the user group would like to have a support board. I

have plenty of room (for which I have no particular plans) to use as a GEOS transfer area, and besides, I'm a member of the user group and this would be my way of contributing to it, **not by doing this least favorite activity** (had to get that in heh heh). Wala!, we have a Star Trek Bulletin Board that supports the geoMETRIX User Group.

A little about the layout of the BBS. There are currently seven active levels used for the various members of the BBS and it's staff. Level 4 has been set asside for the members of geoMETRIX. There is a message category called the "geoDECK" where any subjects pretaining to GEOS takes place. This is an open message area where both geoMETRIX members and

non-geoMETRIX members can read and respond. There are 4 designated GEOS download areas: geoAPPLICATIONS, geoAPPLICATION DATA, geoCLIP ART and geoDESK ACCESSORIES. Only the user group's members have access to these these areas. This is yet another benefit of being a geoMETRIX member. You don't have to wait til the next meeting to be able to get your hands on a file that you need now. Eventually we hope to have some sort of geoTEXT FILE area put together. What form this might take is not yet known.

As of now the number of user group members that call the board is quite small, but as the word gets around, as the user group continues to grow, and as the board builds a reputation for itself as a place for people that are interested in Geos to call, things will pick up. After all, as of the printing of this issue of the geoJOURNAL the BBS will barely be 3 month old, a near infant in bbs history.

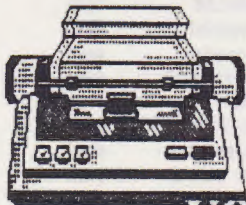
In conclusion, I would like to say that running a BBS has been a challenging experience with many rewards, and without the assistance of two gifted friends with a talent for programming this sysop would have a lot of grey hairs today. I am looking forwards to the journey ahead and I hope that you will find calling the bulletin board as rewarding for you as it has been for me to run it.

gm

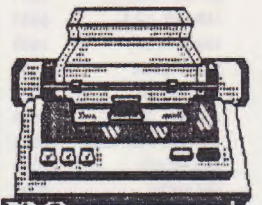
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Stark.

album reverter	0001	quick dater	0003	labeler.doc	0006	bluechip (gc)	0008	raw v1.1	000e	geodex.fix	000h
convert u2.1	0001	geolist2.0	0003	getdirectory.doc	0006	c.itoh 8510 (gc)	0008	mouseup3.0.arc	000e	geocalprint	000h
convert(8a)	0001	geomath	0003	readm1st	0006	epson fx-80 (gc)	0008	128 mouse_jh 1	000e	doc.goadiox	000h
photo print	0001	geohexcol	0003	big clipper.doc	0006	epson jx-80 (gc)	0008	1124-c64 ver.lbr	000e	goodies.dec89	000h
icon editor	0001	albumanimator	0003	ihinfo	0006	epson mx-80 (gc)	0008	star 1m-1000	000e	leisure	000h
convert 3.0	0001	geodex upgrade	0003	rowplayer	0006	gemini 10x (gc)	0008	wormdesk	000e	peter.8x10	000h
pattern edit 2.0	0001	big clipper	0003	paint-scrap.doc	0006	ibm 5152+ (gc)	0008	springboard	000e	pscrap.u2.0.doc	000h
macattack	0001	scrapeek 3.2	0003	mac - 64/eps.doc	0006	oki ml-92/93 (gc)	0008	sb documentation	000e	xmas girl	000h
imagecon	0001	retriever 2.0	0003	lasmatrix table	0006	star nb-15 (gc)	0008	blackout 2	000e	sdump pic	000h
protogeos2	0001	iqbull	0003	lightpen	0007	star nx-10 (gc)	0008	geos.to.bin	000e	bear1.mac	000i
convert 1.4	0001	labeler	0003	comm 1351(a)	0007	star sq-10 (gc)	0008	photo mover 1.0	000e	public	000i
macgeopoint	0001	geodiskedit	0003	koala pad ii	0007	gemini ii	0008	mover 1.0.doc	000e	railroad1	000i
geopointer	0001	untrash	0004	comm 1351	0007	epson dbl.prt	0008	combiner	000e	railroad2	000i
geodump	0001	copy editor	0004	joystick	0007	quad sq1.prtu2	0008	identifontu3.2	000e	santa by jeff	000i
auto pref	0001	quickstart	0004	supersketch	0007	quad dbl.prtu2	0008	bluepencil	000e	websters	000i
textgrab 1.1	0001	stormsystemsdemo	0004	penjoy	0007	c.itoh 8510a	0008	macattack ii.doc	000e	amiga.lady	000i
note printer	0001	geopassword	0004	onypen	0007	nx-1000 rainbow	0008	macattack ii	000e	city girl	000i
piconvert	0001	geodirprint2	0004	inkwell	0007	1526	0008	graphic storm	000e	raquel	000j
pschapx2	0001	paint-scrap	0004	mouse 1351	0007	laserwriter 2.1	0008	getgraphic	000e	bestoflos.arc	000j
geovert	0001	dump	0004	mouse2	0007	mps-1000	0008	album reverter	000e	astro	000j
ps/pm/hr	0001	dump double	0004	joystick2	0007	c.itoh 8510 d.s.	0008	bigclippers3	000e	checkmate	000j
computereyes	0001	geokeyboard	0004	koala pod	0007	c.itoh 8510 q.s.	0008	photo print 2.1	000e	trains/01	000j
change printer	0001	transtext	0004	koala pad2	0007	epson red.	0008	geosidplayer	000f	mega star trek	000j
rboot	0001	form: petascii	0004	kpad ii2	0007	c.itoh red.	0008	128 da auto-boot	000f	mega nazareth 2	000k
psnop/doodle	0001	form: 152	0004	koala pad iii	0007	gemini ds	0008	fontview	000f		
paint drivers	0001	change input	0004	koala pad 1	0007	epson fx-80 ds	0008	photo mover 1.0	000f		
quickview	0001	convert-u2.5da	0004	atari trakball 2	0007	gemini qs	0008	mover 1.0.doc	000f		
blackout	0001	convert-u2.5	0004	joystick port 2	0007	epson fx-80	0008	antigrau info	000f		
icon edit 2.1	0001	row	0004	fx80 4/2	0008	ibm 5152+ ds	0008	font editor 2.2	000f		
convert u2.2	0001	printdrvpatcher	0004	bitshift 10/x	0008	ibm 5152+ qs	0008	fontswap	000f		
geofont	0002	lasmatrix edit 2	0004	dblstrike10/x	0008	imwrtr ii qs	0008	icon edit 2.1	000f		
geos2.0 hacker	0002	lasmatrix 2-sq10	0004	pan draft	0008	mps-1200 ds	0008	icon grabber 1.5	000f		
notes->album	0002	fftb	0004	pan dbl quad	0008	fx80 double	0008	colormasher	000f		
seq2textscrap1.3	0002	unlock	0004	pan dbl	0008	imagewriterqs	0008	dateprint	000f		
geohacker v1.6	0002	picshow	0004	pan quad	0008	mps 1200 qs	0008	unlock v1.1	000f		
multiprint	0002	newsysmod	0004	comm compat	0008	star nx-10 ds	0008	getdirectory	000f		
graphic labels	0002	new system error	0004	mps-803	0008	imwrtr ii ds	0008	geodiskedit28	000f		
eps.label.driver	0002	128 da auto-boot	0004	bluechip m120	0008	star nx-10 qs	0008	noteprint	000f		
hulmeuview	0002	geocalprint	0004	dualshift 10/x	0008	epsonlaser2	0008	40 scrn print	000f		
desk organizer	0002	antigrau info	0004	epson mx-80	0008	sg 00	0008	center 80	000f		
scrapeek 2.2	0002	file crc calc	0004	c.itoh 8510	0008	sg 01	0008	set pattern	000f		
writer's cramp	0002	bin.to.geos	0004	star sq-10/15	0008	sg 10	0008	pattern edit	000f		
icon editor	0002	bin.to.geos.doc	0004	oki ml-92/93	0008	sg 11	0008	set patt.doc	000f		
geodirprint	0002	bin.to.geos.txt	0004	okimate 10	0008	epson lx-80	0008	paintview1.2	000f		
quickview	0002	fontswap	0004	epson jx-80	0008	epson lq-1500	0008	geoview	000f		
wrong is write	0002	rawtogeos	0004	comm. 1526	0008	laserjet par.	0008	scrapeek 3.4	000f		
disk protect v2	0002	geoterm.patch	0004	comm. compat.	0008	laserjet ser.	0008	photo print 2.1	000f		
toolkit	0002	picshow3.3	0004	gemini 10x	0008	toshiba p321	0008	bigclipper3	000f		
ultimate stage	0002	clickmefirst!	0005	hp laserjet	0008	fx80 pointpages	0008	flag	000f		
us scrap	0002	multi print doc	0005	ibm 5152+	0008	ascii only	0008	female	000f		
icon edit	0002	solo docs	0005	imagewriter	0008	stornx100c	0008	geolist2.1.arc	000f		
analog-clock	0002	printerdrivers	0005	imagewriter ii	0008	fx-80c	0008	geoterm.patch	000f		
convert	0003	getdirectory!	0005	oki 120	0008	read dbl drivers	0008	good.nov89.sda	000f		
analogclock	0003	states n cap.doc	0005	mps-.801	0008	epsonlaser 2.1	0008	geoprintdemo.sda	000g		
blackout	0003	l.matrixedit 1	0005	okimate 20	0008	quicksilver 3	0008	gealabel	000g		
geograph	0003	l.matrix edit 2	0005	scribe	0008	quicksilver 5	0009	printit	000g		
geograph sample1	0003	l.matrix edit 3	0005	star nb-15	0008	quicksilver 10	0009	ruler	000g		
geograph sample2	0003	l.matrix edit 4	0005	star ni-10(com)	0008	quicksilver 11	0009	scantastic	000g		
geograph sample3	0003	l.matrix edit 5	0005	star nx-10	0008	quicksilver 13	0009	scantasimodifier	000g		
getdirectory	0003	ult.stage.doc	0005	star nx-10c	0008	quicksilver 14	0009	scrap it	000g		
musicbox	0003	musicbox.doc	0005	mps 1200	0008	quicksilver 16	0009	paint-scrap	000g		
lasermatrix edit	0003	analog clock.doc	0005	oki 120 niq	0008	quicksilver 19	0009	panic button	000g		
lasermatrix sq10	0003	geosliders.doc	0005	olivetti pr2300	0008	quicksilver 20	0009	quik-top	000g		
custom print	0003	productivity.doc	0005	riteman co	0008	quicksilver 21	0009	autoclock	000g		
text print	0003	geograph.doc	0005	fx80 4/1	0008	quicksilver 23	0009	8/pretty.8	000h		
font editor 2.2	0003	font editor docs	0006	imagewriterds	0008	quicksilver 28	0009	bsa clip art 2	000h		
db_editor	0003	big clipper.doc	0006	epson fx-80 qs	0008	quicksilver 29	0009	business 1a	000h		

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- 1200 BAUD Modem 2400 BAUD Modem

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- GeoTerm GeoFile GeoCalc GeoChart DeskPack FontPack
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