EDITOR'S COMMENTS

This months geoNews is dominated mainly by an article written by Maurice Randall of the USA explaining the use of his newest software release " The Wave ". It's basically a communications program that runs under Geos and thought this 'Beta' version is Geos128 only, there are plans to also write a Geos64 system . It's very topical software as it allows the users to 'surf the Internet' the in thing these days it would appear, or at least that's what the media tells us. The write up covers 4 pages which is why the Contents box opposite looks somewhat less crowded than usual. The mammoth series " Looking at Geos" returns next month, the break has been made due to the lack of space caused by this 4 page block buster.

Peter McGuinn of New Zealand lets us into some secrets of a geoPaint artist with his 2 page article on how to place large paint scraps into a geoWrite document. Mark Boyle of Eire gives us a list of C64 books available from CMD making this issue a real international effort.

Until next month........

Happy Geosing

Frank

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In Our 6th Year of Supporting GEOS and it's users

The October Disk Review

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Welcome to the October Review, it seems like ages since I last reviewed any disks - so here goes before I forget how to!!. My thanks to Sharon for doing the last two reviews, where would I be without her!! Our thanks this month go to Peter as usual, to Doreen Horne, to John Brown, to Malcolm Brumaley.

geoCLUB DISK 446 - from JOHN BROWN geoVIEW to look at the following; **ASTRON** - an astronaught; **B1-B** an American bomber; **ASTROID** - Robot miner; **CANADA** - it's flag; **CALENDAR** - a humorous graphic; **CAKESLC** - a pic of a slice of cake!; **BUTRFLY** - scanned pic of a butterfly; **BULL4** - just a bulls head, no it's not a pub sign!

geoCLUB DISK 447
From Doreen Horne comes the following 6 Basic files - **PCX/GEOPAINT V4B - CODE PCX V3 - MENUBOX 9000 - PCX FONT - DOC PCX and 052 PCX**.. Also included on this disk are 3 Games - **PATIENCE - MISSILE DEFENSE - GeoTris**. These games originate from Germany, so sorry all the 'info' is in German. **WAVE DEMO + docs** - as far as I can tell you, this is for 128 users with Modems. A **DESKJET LQ** printer driver (I think) - **MOUSE EDITOR** including **DOCS - DISK REPAIR**, both for the 64 and the 128 - **FONT FINDER** for the 64.

geoCLUB DISK 448
From Malcolm Brumaley comes the following 'Picture' Disk' - **PicShow** to look at the following GG format pics - **GARFIELD - JAWS - MACHINE - WACKY RACES - Q10 PLANE - ART**. In Basic format there's another 17 different pics.

geoCLUB DISK 449
GEOVIEW to look at the following oics - **APPLE 1 & 2 - DANCERS - AIRJRDN - 3 KINGS - ALBERVIL - XC1392** plus - **X-CAT00. 1/4**. There's some really good stuff on this disk.

geoCLUB DISK 450
From Doreen comes this picture disk - **GEOVIEW** for the following pics - Hmm, unfortunately the names won't mean anything e.g. **X.A0000090 1/1 & X.90/C** etc. The X.90/C is a smaller version of the other one - confused?. Buy the disk, I promise you that you won't be disappointed, there's 16 pics in all.

geoCLUB DISK 451
GEOVIEW plus 7 picture files - **BBYJRDN - A7D - EGYPT - EMILY2 - CINDY08 - E2 - WINGER**. Sorry but the only ones I like are A7D & E2, probably because they're both aircraft.

geoCLUB DISK 452
GEOVIEW again, the pics are - **DSA - CORY2 - EA6B - EAGLE - DOOM 03 - DOOM 04 and 05**. The DOOM pics are from the PC game of the same name.

geoCLUB DISK 453
Following on from the previous disk, **GEOVIEW** for - **DOOM 06, 08, 09, 16, 23 - DOVEHORN - DUCKS - DENISE**.

geoCLUB DISK 454
Yet some more of the same **GEOVIEW** for - **DIPLOMA - DIAM80 - DIESEL - DOOM00 - DISCOVRY - BEER - BENTLEY**.

geoCLUB DISK 455

Carrying on, GEOVIEW once more - **BILLSAX** (Bill Clinton) - **BELA02** - **BIGBAY5** - **BIGMUSCL** (I wouldn't dare argue with her!) - **BDAY GIRL**.

geoCLUB DISK 456

To start with, a few more pics - **COOPER** (Gary Cooper, remember him?) - **CORNCOP** (Horn of Plenty) - **CORSAIR** (Aircraft) - **CROSSCON** (skiing) - **CINDY09** (Reminds me of someone I'd love to know) - **CLAIRE15 & 16**. Then there's around 15 different pointers, all made I think by Doreen Horne - Nice One Doreen.

geoCLUB DISK 457

Carrying on - **GEOVIEW** - **CLAIRE 18, 19, 20, 25 & 27** (in various different poses)- **DISDOBO** (I honestly can't put any words to this pic).

geoCLUB DISK 458

The last of the picture disks - **GEOVIEW** - **BIATHLON** (Skiing) - **1040** (an American Tax form - do we really need this?) - **BDYBLDR2** (as it says) - **BIKINI01** (Posing!!) - **BEARS2** (a cute little cuddly) - **CRUX JC** (Crucifixion) - **CUPID 1** (as it says) - **CUBS** - **CUBSALUT** (of the Cub scout variety)

That's it as far as this month's concerned. The price remains at £1.30 per double sided disk, and this still includes the P/P. There's no need for you to run out of Blank Disks, as both Sharon and me have stocks/boxes of new ones for sale. As always, we're still on the lookout for Programmes/Files to put into the Library, so if you've got any, then please pass them on to either Sharon or me. We'll both be back in November, so 'till then it's Bye bye from both of us - Sharon & Terry.

Dear Frank,

Just to say thanks for the piece you did " A Day In September". I was 8 years old at the time and lived in the small Cotswold village of Poulton just a stones throw away from Down Ampney. I remember those days as if it were yesterday, all those aircraft flying overhead, most of them towing those plywood Horsa gliders. Yes Frank, what a memory jerker.

SAC. Watts. T . RAF (Rtd)

Dear Frank,

Your article about Arnhem brought back memories for me of the time in the early 50's when I did my National Service. We were posted for a short time to Germany and went by ferry from Harwich to the Hook of Holland and from there travelled by train to Germany. After the few miles of the train journey one of the Regiment , a regular, had gone missing for some time, I thought he had just gone for a smoke but as his absence continued I went to look for him. I came across him in the corridor, we were passing by Arnhem where he had parachuted during that dramatic offensive, he stood the to attention with his head bowed and tears streaming down his face . I left him to his memories .

Regards
Cpl. Swain I. 22763738 (Rtd.)

Many thanks for sharing your memories with us Terry and Ian. I have always been amazed by the courage men display when faced with dire circumstances and their selfless sacrifice for their friends. All too often brave acts soon forgotten . What touches me most is to see rows of headstones in a war grave cemetery and read the wording, the vast majority are between 19 and 23 years old and great many from foreign lands who stood by our side when our need was greatest. The Lincolnshire village of Scopwick holds the last resting place of a young American airman who died at the age of 17 years , just a boy really, but with the heart and courage of a man.

Dear Frank,

I enjoyed reading September geoNews especialy the article on Flt. Lt. D. Lords heroic deeds, being a member of Didcot A.T.C. I found it very enjoyable. So did our own Flight Lieutenants (one retired) when they read it. Well done.

Danny Tod
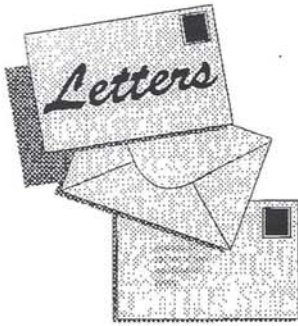
Letters To The EDITOR

Dear Frank,

Having read with interest Dave Elliotts article on Laser Printers, I feel I must warn potential buyers of lasers for use with Geos NOT to buy a GDI printer. This type of printer will only work with 'Windows' and usually not work any other printer, even DOS on a PC.

Regards
Mark Boyle
Ballyconnell, Eire

I guess you could be right about GDI printers not working from within a Geos environment but not so sure about is only working from within 'Windows'. As I understand it they use the computers own processor which should not prevent it working with a DOS program ; but who uses DOS programs these days ?.

Frank

Dear Frank,

Jiffy Dos, How good is it ?, value for money?. Seeing Jiffy Dos advertised in magazines and how fast it loads programs, 100% compatible with Geos, etc. I decided to purchase the dear little chips for my C64, and one for my disk drive at a cost of around £50. Fifty pounds well spent or not, that is the question, well personally as a run of the mill computer user probably not. As far as Geos is concerned it does not seem to make any difference to the performance of Geos as far as I can see, a big disappointment there as Geos is the main reason for keeping my C64 chugging along. Out of Geos I have had no success in loading files into my REU using it as a second drive, so here it has not been very fruitful experience. It does however load other disks at very fast speeds eg. 2.5 minuets normal load to just 40 seconds in Jiffy Dos but I do not think the cost justifies the few benefits. Perhaps some enlightened member could do an article on the benefits of Jiffy Dos especially in Geos and share their knowledge with us .

Yours Sincerely
Sam Brown
Welwyn Garden City

Dear Sam,

Though Jiffy Dos work very well with most software it has no effect on Geos which has it's own built in fast loader, so if you are a Geos only user then I'd try asking for my money back. If the seller actually claims that it enhances Geos loading as it does other software then this

could be said to be a little misleading even if this claim was made in good faith ie the seller thought it effected ALL software. Or, you could always advertise in for sale within these pages

Dear Frank,

Just to let you and anyone else who is interested that Jim Brain of Commodore Trivia fame has changed his address to.....
10710, Bruhn Avenue
    Bennington,
    NE, 68007,
    U.S.A.
E-Mail : J. Bruhn @ IEEE.ORG

Regards
Dave Elliott

Dear Frank,

In response to Doug Seabury's request for back issues of geoNews in the July issue, I have offered to make copies of my issues for him. However, I realise that these are copyright to you and so before sending them off to him I thought I'd better check with you that it is OK.

I have a couple of other questions for you to answer if you can.....
1. How many members do we have now ?.
2. Is it possible to log onto the Internet using a C64/C128 ?

Best wishes
Johnny Marsden

Dear John,

Many thanks for your letter, of which this is a much truncated reproduction. geoNews is copyright to me in name and content although authors do also retain copyright for themselves. I have no objection to anyone re-photocopying odd copies for fellow members but would object to anyone making a business of it. And even more strongly to anyone making copies for NON -Members

1. Our membership now stands at 75 with something a little less than this in Australia. As mentioned elsewhere in this issue we have done quite well to last this long all things considered.
2. To get switched on the the Information Super Highway is very simple using any computer, all you need is a modem and any terminal program. The best I have ever used on the C128 is DesTerm which is shareware I believe. Or, you can always try geoTerm which as it's name indicates runs under Geos and can be found on the PowerPak disks. Or, go to Page 6 and read all about the very latest Terminal software for the C128. Let us know how you get on.

Regards
Frank

Commoodore Books

by Mark P. Boyle

Right now you may be feeling the blues with the lack of reading for all you computer boffins. Computer magazines are rolling over and dying at an ever increasing rate but CMD and a few good bookshops are relaunching the good old commodore related books to lighten up your bathtime. One of the most popular books 'Anatomy of the 1541' is being sold at only $12 by CMD. It is full of technical specs as well as listing to manipulate the 1541 in your applications. This is recommended for everyone, even if you still don't know any ML.

If you are more proficient in ML, then Advanced Machine Language Book by 1st Publishing Ltd is for you. Despite it's name I managed to learn the baginnings of ML from it and the C64 Programmers Rferance guide. This book is packed full of listings yto show you the way. All these listings and ideas are explained fully. This book is genuinely useful with some good ideas here. There is a chapter dedicated to interrupts which relieves the fears of this subject. Other listings back up all the ideas on interrupts and show you how to develope them for your own use. There are other listings for showing user port activity, constant free memory, print spooling (an activity which uses interrupts to continiously print to your printer without halting your application), implimentating new commands as well as much more. This is very useful to all interemediate learners. Thumbs up!

If you are running out of ideas for uses for your commodore then this bookworks wonders. It presents a lot of useful ideas and helps you to get started on tese prjects. Some of these ideas rnage from believable (a car milage and expences programme, an address database, an organiser and a weight loss programme) to downright silly (a freezer organiser) but it is interesting to read anyway. It may inspire you to write some applications for the GeoClub Library.

Your cassette book may not be of much use to GEOS users but it is educational to read. It includes even more listings for tape users but they might even be useful to the average GEOS user. Ther are also easily ported to the disk drive but this book does not cover this area. The highlight to this book is probably an extension to the Commodore Operating System which speeds up tape access and abreviated commands. It would be very useful to anyone who works with tapes but only if you have the guts to type it all in, all 4 pages of it! This book is almost as good as the others but even the commodore world has passed it out. If you only use GEOS avoid it like the plague.

The last of these books is Peeks & Pokes which is a mismatch of programming tips. Some of these are just pokes to prevent listing or braking but others are fully fledged programmes for saving the screen to tape/disk or a database of addressses, or graphing values. It also explains programming high-resolution screens. It does not, however, go into this in detail. Also as all the graphics programmes are in basic they are VERY slow. Others are about manipulating the keyboard (turning off induivudual keys or all keys or even repeating keys). Then there are the basic equivalent of BASIC extensions like renumber or un-new. All in all this is useful only for the basic programmer. Some of the progarmmes here anre only examples and could not be used in programmers unless you have a lot of free time on your hands, which most of us do not!

Here are a full list of books from CMD:

Book	Price
Beginners Guide to the Internet	$ 1 6 . 9 5
Mapping the 64/64C	$12.00
Ideas for use on your C64	$ 1 2 . 0 0
Commodore Tricks & Tips	$12.00
Graphics Books for the C64	$ 1 2 . 0 0
Anatomy books of the 1541	$12.00
Printer books for the C64	$ 1 2 . 0 0
Compiler Design & implimentation	$12.00
Science & Engineering for C64	$ 1 2 . 0 0
BASIC 128 Training Guide	$12.00
C-128 Computer Aided Design	$12.00

If you can't get enough from GeoNews and other magazines then I can thoroughly recomend any of the above books. If you're a programmer then there is plenty to choose from. Contact CMD at

Creative Micro Designes Inc.,
P.O. Box 646,
East longmeadow,
MA 01028-0646 .
U.S.A.

"THE WAVE"

by Maurice Randall

The software is an early development release of what hopes to be a full and complete telecommunications package for the Commodore 128 computer under the GEOS operating system. This particular version is being released to the general public for the purpose of being able to catch a glimpse of what this software will look like when it becomes ready.

The version is not really crippled in any way, although it might appear that way. The features that are not implemented will pop up a dialogue box to inform the user the feature is not supported in this release. This was done this way so that an unfinished function would not crash the machine. So what you are seeing with this software is the actual program as it has developed to this point in time. This will let everyone know that this product really does exist and is in the making.

Another reason for releasing this version is for feedback purposes. The author has many, many ideas for this program, and most likely those ideas will cover just about everything the average user will want in this software. However, there are always those things that someone wants or needs that is passed by. Good ideas always seem to come after a software package gets released. That is sometimes the reason for many upgrades. Ideas submitted at this point in time can possibly be incorporated into the very first commercial release of this software. So if you have wants, or needs, or just plain good ideas, feel free to submit them to the author either through regular mail or EMail. The author may be reached at the following sources:

REGULAR MAIL:

Maurice Randall
P.O. Box 606
Charlotte MI 48813

EMAIL ADDRESSES:
On GEnie: M.RANDALL2
On Delphi: arca93
Internet: arca93@delphi.com
Speed Zone BBS: He's the sysop at (517) 322-2386 (24 hours)

REQUIREMENTS

Computer and Operating System

A Commodore 128 is required along with GEOS 128 V2.0 running in 80 column mode. A 64 version is planned for the future, but no further information is available at this time.

Video Ram

For this software to function, you will need 64K of video ram. This software uses VDC color and absolutely requires that your 128 be equipped with 64K of video ram. The 128D's that were sold in the United States all came equipped this way. But the flat C-128's only had 16K of video ram. Many of these have been upgraded by the user. If you have purchased your C-128 used, it is possible that it might already have been upgraded. If not, then you will need to do so before using this software. An easy way to find out is to just load up The Wave and see what happens. The program will check your video ram and if it is only 16K, you will be presented with a dialogue box informing you so. Those with 64K won't even know the test is being performed, the software will just proceed on it's way. With a 16K machine, you will be allowed to simply cancel out and return to the Desktop. (see the appendix for information on upgrading your 16K video ram to 64K)

Disk Devices

At this point in time, this release will run from any drive that is allowed by the present version of GEOS 128. All current devices have been tested. There is nothing in any routine that would force a specific type of disk device to be used.

When the commercial release is ready, the requirements might be a little stiffer for certain modes of the program. The planned Internet/Web browser module will need a large storage device such as a 1581 at a minimum. For speed, the device should preferably be a RAM1581 of some sort. But for this release it is not necessary since only the ASCII terminal is available in this version. The ASCII terminal does not have any special drive requirements.

Modem Interface

In order to communicate at the speeds that are expected in today's world, we must forget about the old method of using an RS-232 adapter at the user port and move on. The RS-232 adapters require too much attention from the CPU and so the speed is limited. A computer running at only 1 or 2 mhz simply cannot do a good job of handling the communication with the modem as well as other tasks that must be performed at the same time.

This release requires that a SwiftLink cartridge or a compatible interface to the SwiftLink be used. The SwiftLink is manufactured and distributed by Creative Micro Designs. Another interface call the COMM-PORT is manufactured and distributed by Performance Peripherals and will also function with this software. There is absolutely no requirement from the user to inform the software of this. The software contains the necessary SwiftLink driver for GEOS to handle the work of locating where the SwiftLink is addressed in memory as well as all the other needed functions for communicating with the modem that is connected to it.

In the future, other modem drivers will be made available to work with interfaces such as the Hart Cartridge by Hatronics, as well as others.
These interfaces all benefit from having a chip to handle the chore of sending 8 bits of data to the modem for us. The software merely has to hand over one whole byte (8 bits) at a time to the interface and then it can go about taking care of other tasks while the chip in the interface sends those 8 bits to the modem, 1 bit at a time. In a sense, we can say this is a form of multitasking, for true multitasking only comes when there is a custom chip that can perform a function that the main CPU would normally have to do. When the

CPU has to do all the work, it is not multitasking, but rather it is switching between tasks, giving each task a portion of it's time. If we were to use an RS-232 adapter instead of a SwiftLink, the CPU would have to be tied up while those 8 bits are being sent to the modem. Since the high-speed modems work best with a SL to modem speed of 19,200 or 38,400, the SwiftLink becomes mandatory. Since GEOS is also involved here, we can allow other functions to be looked after while a byte is being transferred to the modem. Remember we have the mouse to tend to as well as the keyboard and the screen. You would be very disappointed if things seemed too sluggish.

Even the faster computers such as the 486's and Pentium powered machines rely on a communications chip such as what is contained in the SwiftLink. You will not see any PC being used without the aid of an interface chip of some sort. The plug-in internal modems all come equipped with a chip of this sort right on the board. When you plug an external modem into the serial port of a PC, the serial port is being driven by one of these chips. It is not the CPU that is doing the job. So keep that in mind when you are wondering why an RS-232 adapter is not going to ever be supported by this software. Times for the 64 and 128 user are changing.

Modems

Just about any modem that you can connect to your SwiftLink cartridge will work with this release of The Wave. Several modems have been tested and no problems have been encountered by any of them.
If you seem to fail getting a response out of your modem, it is probably because the modem is not configured properly. But you are probably also having problems with other terminal programs. Playing with some of the AT commands will usually fix the problem. The command that is usually needed by just about any terminal program to be messed with is AT&C0 or AT&C1. Experiment with both of these if your modem doesn't respond.

Display Monitor

Naturally, you will need an 80 column monitor

for this software. Most likely, since you are using GEOS 128, you are already using an 80 column monitor. Preferably, this should be a good quality color monitor such as the 1902 or the 1084. A monochrome monitor can be used, but you won't be able to see the colors. There will also be no guarantee that certain colors will show up as various shades of gray on your monichrome monitor. Your 128 can display 16 different colors and by combining these colors side by side, backgrounds can be made that give the effect of even more colors. Because of this, it is possible that some detail might not be seen on certain monochrome monitors. Some of these monitors will only display 8 shades of gray which causes certain colors to look the same as other colors.

Because of the nature of this software, monochrome monitors will never be supported in this respect.

USING THE SOFTWARE

Loading and running

There is nothing tricky about loading and running this software. The first thing to make sure of is that you have your SwiftLink cartridge plugged in. If you are using a RamLink, make sure the switches are in the correct positions beforehand.
Otherwise, from the Desktop, just double-click on the icon for this program and away you go. If you are using geoSHELL, just type the following...

run WaveDemo

...or alternatively double click on the filename after finding it in the directory listing.

After the program loads, you will wind up at the title screen which will contain several icons. In this release, only one of these icons is functioning. But feel free to click on any of them to see what happens. Presently, you will only get a dialogue box that tells you that particular function does not yet work.

What does the future hold for this software?

The software that you are playing with here is just the beginning. You are seeing a program during it's development. Much of what you see here will be improved upon. The colors, the icons, the features, the layout... all of this will be made better. As a program is developed, it is more or less pieced together a little at a time. The icons you see were very quickly drawn. More thought will be put into how they should look. The coloring on the icons will be improved. Little details like this really make a program shine. The title screen looks kind of dull at this time. The icons there will be improved. The plain background will contain an ocean scene and the icons will be placed in front of it. So for now, you will just have to imagine how it will look. Anyway, if you like this release at all, you will really enjoy the finished product.

A big improvement is in the works for the speed at which text is displayed on the terminal screen. Keep in mind that this is a graphic screen. It takes a lot longer to put text on a graphic screen than it does on a text screen. Each character on a graphics screen is really a little picture that has to be drawn. This slows things down. The data is still coming in just as fast, you can tell by watching the lights on your modem. The lights will stop but the text is still scrolling onto the screen. The routines that are in this release are written in a way so that this will be considerably improved in the final release version. This part was not finished in time for this release. The speed of the text displaying will be increased by at least 100 percent.

How about the Web Browser?

Yup, there will always be the skeptics. However, the 64 and 128 continues to amaze the computing public and continues to hush the skeptics.

Don't ever let anybody tell you that there is anything magical about an IBM compatible PC. It is just a computer. The 64 and 128 are also just computers. They all work with bits. Some can work with more bits at one time than another, but that is not always an advantage. When it comes right down to working with one bit at a time, there is very little advantage to having a 32 bit machine as opposed to an 8 bit

machine. They both have to do a little manipulating to handle those single bits. A 32 bit machine is actually fudging around with 4 bytes to deal with that one bit. An 8 bit machine is only messing with one byte to deal with that single bit. Which seems easier and more efficient? No wonder they need more memory and faster processors!

Can we send and receive faxes with a 64 or 128? Of course we can. We can also have a Web Browser. Wait for the commercial release and see.

How about the capture buffer?

This is a GEOS program right? Ok, so it is only natural to make this program compatible with certain other programs that we commonly use in GEOS. Most good terminal programs incorporate some sort of text editor to allow you to edit the text that comes in or edit the text that you are going to send out. Why don't we just use GeoWrite? Well, that is just what the final release will do. You will be able to designate a GeoWrite file to capture your incoming text into. As each page fills up, another page will be created. When needed, you can load GeoWrite directly from 'The Wave' to edit your buffer since it is nothing but a GeoWrite data file. Before any text is actually dumped to a page, it is stored internally in memory. This buffer can be scrolled back and viewed from the terminal, but not with this release. You will have to wait for the final version for this feature.

You will also be able to load any GeoWrite page into the internal buffer and from there it can be sent out to the modem. This will be handy for composing messages offline and sending them after logging onto a system.

In addition to this, The Wave will make use of text scraps. You will be able to copy any text from the screen to a text scrap. Plus, you will be able to 'paste' a text scrap to the modem. So you will have much flexibility on how you wish to handle your incoming and outgoing messages. Don't be surprised if there becomes a way to handle incoming and outgoing photo scraps too. Those graphics that you find on the Web don't necessarily have to be just gifs or jpegs. The

Wave will support those too, but it would be so much faster and more personalized to have photo scraps on the Web.

What about these other graphical interfaces that online services are going to?

The Wave is designed to allow any type of terminal program to be integrated with it. The main core of the program already has the stuff to handle the bulk of our online communications. The only thing needed for compatibility with special online services is cooperation with the service to provide the needed information that will allow a terminal module to be developed to give The Wave access to it's system.

Everything that is done between the home user and the major online services that require special connect software is really just bits and bytes of information that is passed between the two systems. Those bytes tell the user's computer what to do. If the software understands these controls, then everything works as intended. The whole idea is to make things simple so that the user doesn't have to know any commands to work with the online system. Implementing these services into The Wave will only happen through cooperation with the powers that be.

UPGRADING YOUR SYSTEM

What if I only have 16K of video ram?

To use The Wave, there are no two ways around it, you will absolutely have to upgrade your 128 from it's 16K of video ram to 64K if it hasn't already been done. The Wave makes use of that extra 48K for screen work as well as storing other important data. Besides, we can't have all the colors either without the extra ram. But don't go out and upgrade your machine yet. Maybe it has already been done. Try running The Wave first. If you don't have 64K it will tell you so. If you do have it, then sit back and enjoy.

The easiest way to upgrade your system in the

past was to purchase a special product that was produced and marketed by Software Support International. This product was a simple plug-in unit and required no soldering. The toughest part about it was that you had to have a screwdriver to take your computer apart. Big deal. The bad news is that this may no longer be available. Rumor has it that they have run out of stock finally.

The other alternative is to do the upgrade yourself. It is really quite easy but you need to know how to solder. Next to the 8563 VDC chip are two ram chips. The VDC chip and the two ram chips are normally underneath a small square metal cover. Lifting this cover off will reveal them. With a soldering tip and a solder sucker of some sort (check with Radio Shack), you can remove the old ram chips. In their place you will solder in two empty sockets. Following this, you can easily plug in two 4464 ram chips to give your machine it's 64K of video ram. That's it. Nothing more to do except put the thing back together again.

If you don't want to tackle this project yourself, check the local computer repair centers. Many of them will do it for you. Raymond Day, who is known for the 1750 upgrades will also do it for you. His charge is very reasonable and very quick. Just send him $30 and your 128. He will upgrade it and return it ready to go. All said and done.

CONTACTS

Creative Micro Designs
P.O. Box 646
East Longmeadow, MA 01028
SwiftLink, Hard drives, FD drives, RamLinks, Stereo Sid cartridge, modems, computer repairs and upgrades, other software and hardware, etc.

Performance Peripherals
5 Upper Loudon Road
Loudonville NY 12211

Orders: (800) EASY-WEB

COMM-PORT communications interface, BBGRam, PPI RamDrive, BBU, BBRTC, etc.

Raymond Day
9601 Morton Taylor Rd.
Belleville, MI 48111

64K VDC upgrading, Internal 6551 chip installation, second SID chip installations, 1750 upgrades, other special 64 and 128 modifications, et

Maurice Randall
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Charlotte MI 48813

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Special software including:
The Wave, geoFAX, geoSHELL, Invoice Writer II, etc.

For Disposal

I have the one copy each of....
C64 Programmers Reference Guide
C128 Programmers Reference Guide

These are quite thick especially the C128 book and consequently rather heavy. Both are Free of Charge but postage is required. Anyone interested please telephone Frank for postage costs.
0161-370-6836 after 2000 hrs.

WANTED

Has anyone out there got the SX Sound Expander Disk. I desperately need a copy, mine has developed a 'read error' and will no longer load up. So, can anyone save my Sound Expander from extinction, if so please contact

Sam Brown, 61, Herns Lane , Welwyn Garden City, Herts, AL7 2AG.
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LARGE SCRAP'S INTO GEOWRITE.
By P.McGuinn.

GEOPAINT WINDOW-SIZE SCRAP.

SCREEN CAPTURE SIZE SCRAP.
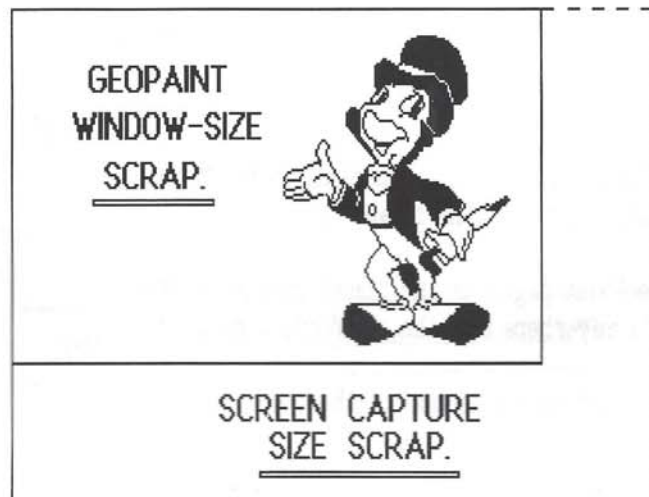
Using large scrap's in geoWrite ? How you may ask, well with the aid of a few other program's that run in the GEOS System.

I have used geoPaint, geoWrite, Paint Page's Driver's, Photo Manager, geoAlbum and Scrap It! to produce this page into geoWrite.

The first problem seem's to be after capturing a scrap with any screen capture program, When you try to place it into geoWrite you get a dialog box telling you that it's too large and at this point most people give up.
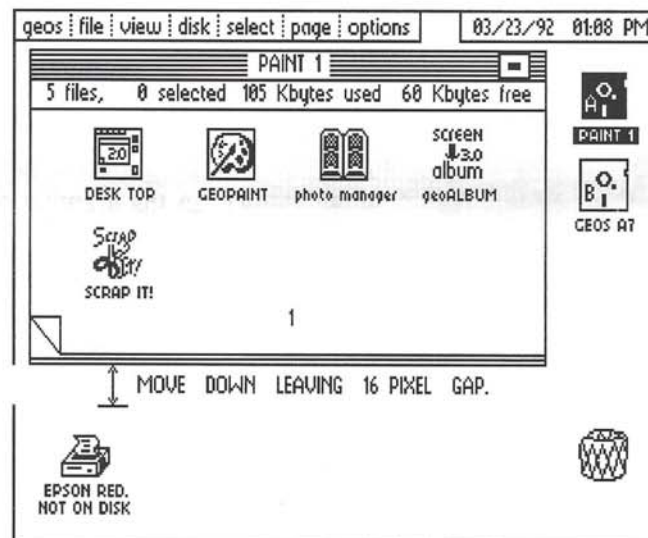
Well it can be done but take's a lot of time to do so. With the drawing's mixed on this page you will see how I have done it, with this method you can even capture a full geoPaint page into geoWrite (for use as a catalogue.)

At this point I would like to say that this method is being done on a C64 in 40 column mode and not on a C128. First of all we have to capture the screen we want, using geoAlbum 3.0 from the desktop screen, under the GEOS menu, choose geoAlbum and save to Paint, next open geoPaint and the file which has the saved screen on.

Next move the drawing window to the right hand side of the picture and mark the bottom right hand corner with a pixel point, update at this point.

Now move down the screen to the bottom of the desktop picture so you can see the pixel point and the bottom of the desktop picture, using the Editing Tool with Color off, place under the pixel point and

MARK POSITION OF DRAWING WINDOW.

capture the area and move down 16 space's (you will see why later in Scrap It!) do this on the left side as well. Should look like the drawing of the desktop on this page.

Now Quit geoPaint and open Scrap It! choose Paint then Scrap and then open your geoPaint file with the desktop on, next choose USER DEFINED WINDOW and capture the first part of the desktop screen. While in Scrap It! open the Photo Manager and Save your scrap to an Album, do the same again to capture the second part of the desktop.

Then Quit Scrap It!; Open geoWrite and Paste the desktop picture into geoWrite in the usual way, updating after placing in the first scrap then placing the second scrap.

This same method can be used in capturing a full geoPaint page file and placed into geoWrite, that mean's you can put Border's, Text and Graphic's anywhere into the geoWrite document.

When capturing a geoPaint file and after saving the first or top section of the geoPaint file into the Photo Album you return to geoPaint and remove it from your geoPaint file and move the next part up into the same position and then capture this section with Scrap It! and save to the Photo Album. Repeat untill you have the whole geoPaint page into the Photo Album then you can Paste the geoPaint file into geoWrite, take's 5 large scrap's to fill the Page.

You can also design Header's and Footer's in the same way, below is an example:

In GeoPaint, design a GeoPaint screen of which you can see on the screen plus moving from the left side to the right (the whole page across) you can use for your design for use in a Header or footer in GeoWrite.
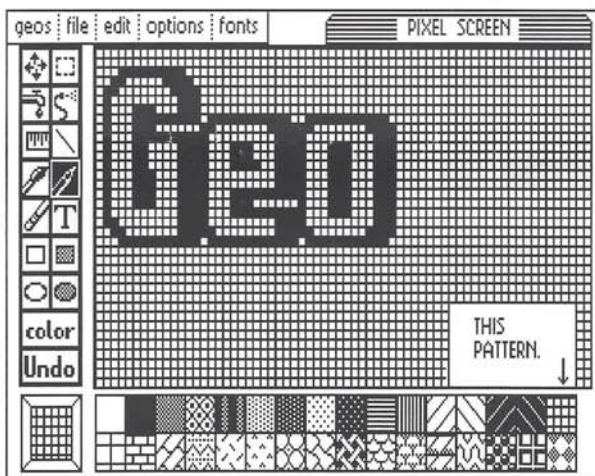
DRAWING METHOD.

First load geoPaint then fill the whole of the geoPaint page with the pattern shown in the drawing on the left, then print it out on a A4 sheet of paper, This is your pattern page for drawing a picture approx one screen high in geoPaint.

Using a pencil on this grid pattern page draw lightly your picture outline, then fill in the square's where the line passes through the square's, after your picture is drawn, open geoPaint in Pixel Edit mode and transfer each square on your grid pattern page back to the geoPaint screen. each square equal's one pixel.